

Table 12.1
Cancer of the Larynx (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2015 With up to Five Joinpoints, 1992-2015 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	2006-15	2011-15
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2015</u>														
All Races	1975-88	0.0	1988-15	-2.4*									-2.4*	-2.4*
White	1975-87	0.1	1987-15	-2.3*									-2.3*	-2.3*
Black	1975-90	1.2*	1990-15	-2.9*									-2.9*	-2.9*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2015</u>														
All Races	1992-15	-2.6*											-2.6*	-2.6*
White	1992-15	-2.4*											-2.4*	-2.4*
Black	1992-15	-3.2*											-3.2*	-3.2*
<u>SEER 9 Observed Incidence^a, 1975-2015</u>														
All Races	1975-88	0.0	1988-15	-2.4*									-2.4*	-2.4*
White	1975-87	0.1	1987-15	-2.3*									-2.3*	-2.3*
Black	1975-90	1.2*	1990-15	-2.9*									-2.9*	-2.9*
<u>SEER 13 Observed Incidence^b, 1992-2015</u>														
All Races	1992-15	-2.7*											-2.7*	-2.7*
White	1992-15	-2.4*											-2.4*	-2.4*
White NH ^{ef}	1992-15	-2.4*											-2.4*	-2.4*
Black	1992-15	-3.3*											-3.3*	-3.3*
Black NH ^{ef}	1992-15	-3.3*											-3.3*	-3.3*
API ^e	1992-15	-3.3*											-3.3*	-3.3*
AI/AN ^{eg}	1992-15	0.1											0.1	0.1
Hispanic ^f	1992-15	-2.0*											-2.0*	-2.0*
<u>U.S. Cancer Mortality^c, 1975-2015</u>														
All Races	1975-94	-0.4*	1994-15	-2.3*									-2.3*	-2.3*
White	1975-94	-0.7*	1994-15	-1.9*									-1.9*	-1.9*
Black	1975-94	1.1*	1994-15	-3.6*									-3.6*	-3.6*
<u>U.S. Cancer Mortality^c, 1992-2015</u>														
All Races	1992-15	-2.2*											-2.2*	-2.2*
White	1992-15	-1.9*											-1.9*	-1.9*
White NH ^{ef}	1992-15	-1.8*											-1.8*	-1.8*
Black	1992-15	-3.4*											-3.4*	-3.4*
Black NH ^{ef}	1992-15	-3.3*											-3.3*	-3.3*
API ^e	1992-15	-1.9*											-1.9*	-1.9*
AI/AN ^{eg}	1992-15	-2.7*											-2.7*	-2.7*
Hispanic ^f	1992-15	-2.6*											-2.6*	-2.6*

Joinpoint Regression Program Version 4.6, February 2018, National Cancer Institute. (<https://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.

Table 12.2
Cancer of the Larynx (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2015 With up to Five Joinpoints, 1992-2015 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	2006-15	2011-15
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2015</u>														
All Races	1975-87	-0.2	1987-15	-2.5*									-2.5*	-2.5*
White	1975-85	0.1	1985-15	-2.4*									-2.4*	-2.4*
Black	1975-90	0.9	1990-15	-2.8*									-2.8*	-2.8*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2015</u>														
All Races	1992-15	-2.7*											-2.7*	-2.7*
White	1992-03	-3.1*	2003-10	-1.1	2010-15	-4.0*							-2.7*	-4.0*
Black	1992-15	-3.2*											-3.2*	-3.2*
<u>SEER 9 Observed Incidence^a, 1975-2015</u>														
All Races	1975-87	-0.2	1987-15	-2.5*									-2.5*	-2.5*
White	1975-85	0.2	1985-15	-2.4*									-2.4*	-2.4*
Black	1975-90	1.0	1990-15	-2.8*									-2.8*	-2.8*
<u>SEER 13 Observed Incidence^b, 1992-2015</u>														
All Races	1992-03	-3.2*	2003-10	-1.5*	2010-15	-4.3*							-3.1*	-4.3*
White	1992-03	-3.1*	2003-12	-1.4*	2012-15	-6.2*							-3.1*	-5.0*
White NH ^{ef}	1992-15	-2.5*											-2.5*	-2.5*
Black	1992-15	-3.3*											-3.3*	-3.3*
Black NH ^{ef}	1992-15	-3.3*											-3.3*	-3.3*
API ^e	1992-15	-3.3*											-3.3*	-3.3*
AI/AN ^{eg}	1992-15	0.8											0.8	0.8
Hispanic ^f	1992-15	-1.9*											-1.9*	-1.9*
<u>U.S. Cancer Mortality^c, 1975-2015</u>														
All Races	1975-94	-0.8*	1994-15	-2.5*									-2.5*	-2.5*
White	1975-93	-1.1*	1993-15	-2.2*									-2.2*	-2.2*
Black	1975-94	1.2*	1994-15	-3.6*									-3.6*	-3.6*
<u>U.S. Cancer Mortality^c, 1992-2015</u>														
All Races	1992-15	-2.5*											-2.5*	-2.5*
White	1992-15	-2.2*											-2.2*	-2.2*
White NH ^{ef}	1992-15	-2.1*											-2.1*	-2.1*
Black	1992-15	-3.4*											-3.4*	-3.4*
Black NH ^{ef}	1992-15	-3.3*											-3.3*	-3.3*
API ^e	1992-15	-1.6*											-1.6*	-1.6*
AI/AN ^{eg}	1992-15	-1.7											-1.7	-1.7
Hispanic ^f	1992-15	-2.7*											-2.7*	-2.7*

Joinpoint Regression Program Version 4.6, February 2018, National Cancer Institute. (<https://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.

Table 12.3
Cancer of the Larynx (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2015 With up to Five Joinpoints, 1992-2015 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	2006-15	2011-15
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2015</u>														
All Races	1975-89	1.8*	1989-15	-2.6*									-2.6*	-2.6*
White	1975-89	1.7*	1989-15	-2.4*									-2.4*	-2.4*
Black	1975-89	4.0*	1989-15	-2.9*									-2.9*	-2.9*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2015</u>														
All Races	1992-15	-3.1*											-3.1*	-3.1*
White	1992-15	-2.9*											-2.9*	-2.9*
Black	1992-15	-3.2*											-3.2*	-3.2*
<u>SEER 9 Observed Incidence^a, 1975-2015</u>														
All Races	1975-89	1.9*	1989-15	-2.6*									-2.6*	-2.6*
White	1975-89	1.7*	1989-15	-2.4*									-2.4*	-2.4*
Black	1975-89	4.0*	1989-15	-3.0*									-3.0*	-3.0*
<u>SEER 13 Observed Incidence^b, 1992-2015</u>														
All Races	1992-15	-3.1*											-3.1*	-3.1*
White	1992-15	-2.9*											-2.9*	-2.9*
White NH ^{ef}	1992-15	-2.6*											-2.6*	-2.6*
Black	1992-15	-3.3*											-3.3*	-3.3*
Black NH ^{ef}	1992-15	-3.2*											-3.2*	-3.2*
API ^e	1992-15	-2.7*											-2.7*	-2.7*
AI/AN ^{eg}	-	-											-	-
Hispanic ^f	1992-15	-3.0*											-3.0*	-3.0*
<u>U.S. Cancer Mortality^c, 1975-2015</u>														
All Races	1975-93	1.4*	1993-15	-2.2*									-2.2*	-2.2*
White	1975-92	1.5*	1992-15	-1.8*									-1.8*	-1.8*
Black	1975-93	2.4*	1993-15	-3.4*									-3.4*	-3.4*
<u>U.S. Cancer Mortality^c, 1992-2015</u>														
All Races	1992-15	-2.2*											-2.2*	-2.2*
White	1992-15	-1.9*											-1.9*	-1.9*
White NH ^{ef}	1992-15	-1.6*											-1.6*	-1.6*
Black	1992-15	-3.3*											-3.3*	-3.3*
Black NH ^{ef}	1992-15	-3.2*											-3.2*	-3.2*
API ^e	1992-15	-3.2*											-3.2*	-3.2*
AI/AN ^{eg}	-	-											-	-
Hispanic ^f	1992-15	-2.8*											-2.8*	-2.8*

Joinpoint Regression Program Version 4.6, February 2018, National Cancer Institute. (<https://surveillance.cancer.gov/joinpoint/>).

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

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

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

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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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b
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Table 12.4
Cancer of the Larynx (Invasive)

Delay-adjusted SEER Incidence^a Rates by Year, Race and Sex

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-1979	5.20	9.82	1.55	5.17	9.82	1.54	7.26	13.67	2.23
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	9.94	1.72	5.42	10.19	1.68	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	9.37	1.63	4.94	9.18	1.70	7.65	15.14	2.08
1987	5.20	9.42	1.92	5.15	9.37	1.89	8.20	15.08	3.12
1988	5.20	9.58	1.87	5.18	9.56	1.86	8.23	15.05	3.21
1989	5.02	8.91	2.00	4.98	8.89	1.92	7.89	14.25	3.28
1990	5.11	9.18	1.92	5.00	8.99	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	8.89	1.72	8.73	15.86	3.40
1993	4.37	8.12	1.48	4.37	8.02	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	4.26	7.55	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	3.87	6.79	1.60	3.73	6.52	1.56	6.67	12.04	2.83
1999	4.19	7.05	1.86	4.12	6.94	1.77	7.19	12.18	3.72
2000	4.06	7.29	1.44	4.05	7.21	1.48	6.26	11.74	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	3.46	6.15	1.28	6.56	11.73	2.75
2003	3.36	6.01	1.22	3.36	5.91	1.28	5.09	9.65	1.83
2004	3.47	6.11	1.37	3.45	6.00	1.38	5.79	10.80	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	1.26	3.42	5.90	1.37	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	1.16	3.23	5.68	1.15	4.39	8.03	1.83
2009	3.11	5.69	0.99	3.19	5.73	1.07	4.24	8.38	1.31
2010	3.20	5.70	1.14	3.17	5.50	1.21	5.07	9.47	1.83
2011	2.96	5.26	1.07	3.01	5.29	1.08	4.25	8.54	1.34
2012	3.02	5.31	1.11	3.07	5.30	1.15	4.73	8.85	1.86
2013	2.86	5.15	0.95	2.93	5.22	0.98	4.14	7.47	1.67
2014	2.77	4.78	1.09	2.86	4.83	1.17	4.08	7.57	1.62
2015	2.64	4.65	0.94	2.68	4.70	0.93	4.50	8.28	1.80

Reference: [Cancer Incidence Rates Adjusted for Reporting Delay](#).

Individual rates for diagnosis years 1975-1979 available in web browser version of [Cancer Statistics Review](#).

^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

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2015	4.08	7.35	1.45	4.10	7.36	1.47	6.19	11.56	2.26
1975-1979	5.20	9.82	1.55	5.17	9.82	1.54	7.26	13.67	2.23
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	9.94	1.72	5.42	10.19	1.68	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	9.37	1.63	4.94	9.18	1.70	7.65	15.14	2.08
1987	5.20	9.42	1.92	5.15	9.37	1.89	8.20	15.08	3.12
1988	5.20	9.58	1.87	5.18	9.56	1.86	8.23	15.05	3.21
1989	5.02	8.91	2.00	4.98	8.89	1.92	7.89	14.25	3.28
1990	5.11	9.18	1.92	5.00	8.99	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	8.89	1.72	8.73	15.86	3.40
1993	4.37	8.12	1.48	4.37	8.02	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	4.26	7.55	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	3.87	6.79	1.60	3.73	6.52	1.56	6.67	12.04	2.83
1999	4.19	7.05	1.86	4.12	6.94	1.77	7.19	12.18	3.72
2000	4.06	7.29	1.44	4.05	7.21	1.48	6.26	11.74	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	3.46	6.15	1.28	6.56	11.73	2.75
2003	3.36	6.01	1.22	3.36	5.91	1.28	5.09	9.65	1.83
2004	3.47	6.11	1.37	3.45	6.00	1.38	5.79	10.80	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	1.26	3.42	5.90	1.37	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	3.14	5.55	1.15	3.23	5.67	1.15	4.39	8.03	1.83
2009	3.10	5.69	0.99	3.19	5.72	1.07	4.24	8.37	1.30
2010	3.20	5.70	1.14	3.16	5.49	1.20	5.07	9.46	1.82
2011	2.96	5.25	1.07	3.00	5.28	1.07	4.24	8.52	1.33
2012	3.01	5.30	1.11	3.06	5.29	1.14	4.72	8.83	1.85
2013	2.85	5.13	0.95	2.92	5.19	0.98	4.12	7.44	1.66
2014	2.75	4.75	1.09	2.83	4.79	1.15	4.05	7.52	1.61
2015	2.60	4.59	0.93	2.63	4.61	0.91	4.42	8.12	1.77

^a Individual rates for diagnosis years 1975-1979 available in web browser version of [Cancer Statistics Review](#).
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

Year of Death:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2015	1.37	2.56	0.49	1.29	2.38	0.46	2.45	4.86	0.77
1975-1979	1.69	3.38	0.47	1.60	3.22	0.45	2.70	5.34	0.71
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	0.37	0.98	1.75	0.35	1.62	3.14	0.58
2014	0.99	1.80	0.35	0.96	1.71	0.35	1.63	3.31	0.49
2015	0.97	1.72	0.37	0.94	1.64	0.38	1.51	3.02	0.46

^a Individual rates for years of death 1975-1979 available in web browser version of [Cancer Statistics Review](#).
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, 2011-2015									
All ages	3.0	5.2	1.1	3.0	5.3	1.1	4.4	8.3	1.5
Under 65	1.4	2.3	0.6	1.5	2.3	0.6	2.3	3.8	0.9
65 and over	13.4	25.2	4.4	13.7	25.4	4.6	19.0	39.0	5.9
All ages (WHO world std) ^c	2.3	3.9	0.8	2.3	3.9	0.9	3.4	6.3	1.2
Age-Specific Rates, 2011-2015									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-
30-34	0.1	0.1	-	0.1	0.2	-	-	-	-
35-39	0.3	0.4	0.2	0.3	0.4	0.2	-	-	-
40-44	0.8	1.2	0.3	0.8	1.2	0.4	1.2	2.2	-
45-49	2.0	3.0	1.0	2.2	3.2	1.2	2.4	4.2	0.9
50-54	4.4	6.7	2.1	4.4	6.6	2.2	6.9	11.0	3.3
55-59	7.5	12.3	2.9	7.5	12.1	3.0	12.1	20.6	4.8
60-64	10.0	17.2	3.4	10.1	17.2	3.3	16.6	29.4	6.2
65-69	12.7	22.0	4.4	12.9	22.1	4.5	19.5	36.2	6.6
70-74	14.4	25.3	5.2	14.7	25.3	5.5	20.8	40.2	6.6
75-79	15.0	27.9	4.9	15.4	28.2	5.2	20.1	41.7	5.9
80-84	13.6	28.2	3.5	13.7	28.2	3.5	19.3	43.0	6.0
85+	10.3	24.0	3.1	10.5	24.5	3.2	12.0	33.6	-
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2011-2015									
All ages	1.0	1.8	0.4	1.0	1.7	0.4	1.7	3.3	0.5
Under 65	0.4	0.6	0.1	0.4	0.6	0.1	0.7	1.2	0.2
65 and over	5.3	9.8	1.9	5.1	9.3	1.9	8.5	18.1	2.5
All ages (WHO world std) ^c	0.7	1.3	0.3	0.7	1.2	0.3	1.2	2.4	0.4
Age-Specific Rates, 2011-2015									
<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	0.3	-
45-49	0.4	0.7	0.2	0.4	0.7	0.2	0.6	0.8	0.3
50-54	1.2	1.9	0.5	1.1	1.8	0.5	1.8	3.1	0.7
55-59	2.2	3.6	0.8	2.0	3.3	0.8	3.7	6.6	1.3
60-64	3.0	5.2	1.0	2.9	4.8	1.0	5.7	10.5	1.8
65-69	4.1	7.1	1.5	3.9	6.6	1.5	7.6	14.6	2.1
70-74	4.9	8.6	1.9	4.8	8.1	1.9	8.4	16.8	2.4
75-79	5.8	10.3	2.3	5.7	9.8	2.3	9.2	18.5	3.2
80-84	6.4	12.5	2.2	6.2	11.9	2.2	9.4	21.7	2.7
85+	6.3	14.4	2.2	6.2	14.1	2.2	8.5	23.6	2.3

^a SEER 18 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

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

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

- Rates are per 100,000 and are age-adjusted to the world (WHO 2000-2025) standard million.

- 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	66.4	65.4	56.9	57.2	55.8 ^g
1981-1983 ^b	68.1	68.4	66.8	69.5	69.8	68.4	56.5	57.7	50.7 ^g
1984-1986 ^b	65.3	65.9	62.2	67.0	67.6	64.0	53.3	53.7	51.1 ^g
1987-1989 ^b	65.5	66.6	61.1	67.0	68.5	60.7	56.1	54.3	61.3 ^g
1990-1992 ^b	65.8	66.7	62.3	67.7	68.5	64.4	53.7	54.3	51.3 ^g
1993-1995 ^b	63.6	65.2	56.6	65.1	67.0	57.6	53.1	54.5	47.4 ^g
1996-1998 ^b	65.0	66.8	58.7	65.9	68.6	61.1	53.7	56.6	45.0 ^g
1999-2001 ^b	63.3	64.2	59.6	65.2	66.3	60.8	49.8	49.1	52.4 ^g
2002-2004 ^b	61.8	62.0	60.8	64.4	64.2	65.0	50.8	53.6	41.4 ^g
2005-2007 ^b	62.3	62.7	60.6	64.1	64.5	62.3	50.3	49.7	52.5 ^g
2008-2014 ^b	62.4 ^f	63.1 ^f	59.1	64.3	65.0	61.2	51.3	52.5	46.9 ^g
5-Year Period Survival (Percent) ^{cd}									
2014	60.4	60.5	60.0	61.8	61.9	61.3	51.0	50.8	51.9
Stage Distribution (%) 2008-2014 ^{ce}									
All Stages									
Number of cases	16,218	13,121	3,097	12,960	10,491	2,469	2,509	1,982	527
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	55	56	48	57	58	51	45	47	35
Regional	23	21	31	22	20	30	26	23	36
Distant	19	20	18	18	18	17	27	27	26
Unstaged/Unknown	3	4	3	3	4	2	2	2	3
5-Year Relative Survival (Percent), 2008-2014 ^c									
Age at Diagnosis:									
Ages <45	77.1	73.5	85.7	81.5	78.8	87.8	58.0 ^g	52.6 ^g	-
Ages 45-54	61.9	62.1	61.0	63.7	63.4	64.7	53.5	56.1	46.2 ^g
Ages 55-64	61.0	60.9	61.2	62.8	62.7	63.0	51.4	51.5	50.7
Ages 65-74	60.0	61.2	53.7	60.4	61.7	54.1	52.5	53.9	45.0 ^g
Ages 75+	57.8	60.2	47.8	58.4	61.1	47.0	48.0	45.2 ^g	54.9 ^h
Ages <65	62.3	62.1	63.4	64.3	63.9	66.0	52.4	52.9	50.4
Ages 65+	59.1	60.7	51.3	59.6	61.4	51.2	51.2	51.7	47.9 ^g
Stage ^e :									
All Stages	60.9	61.4	58.4	62.1	62.7	59.6	52.0	52.5	50.0
Localized	77.5	78.3	74.1	77.9	78.5	75.2	71.6	72.6	65.4
Regional	45.6	44.5	48.6	46.2	45.4	48.2	42.0	39.3	48.9
Distant	33.5	33.3	34.1	33.8	33.8	33.9	31.2	31.1	31.6
Unstaged/Unknown	54.6	54.6	52.9 ^g	56.8	57.2	52.8 ^g	32.8 ^g	30.8 ^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 2015. [Expected survival rates](#) are derived from the U.S. Annual Life Tables.

^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). Expected survival rates are derived from life tables by socio-economic status, geography and race developed by the SEER program.

Based on follow-up of patients into 2015.

^d Period survival provides a 2014 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 2008-2014 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	2013	2014
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	84.0	85.6	86.8	86.4	88.1	84.1	86.9	85.7	86.9	87.8	84.2	86.0
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	74.6	75.4	78.1	74.5	75.5	76.4	76.9	77.0	72.7	78.4	76.2	
3-year	73.3	74.0	73.6	71.7	74.8	74.2	72.1	70.8	70.7	71.1	70.0	70.0	66.7	68.6	72.6	68.4	70.5	71.3	71.6	70.2	67.4	72.7		
4-year	68.8	70.0	68.8	67.3	69.3	69.7	68.7	67.0	68.5	66.7	66.5	67.0	62.6	64.4	70.0	62.7	65.8	66.8	68.0	65.3	63.9			
5-year	65.5	66.8	65.9	64.5	66.1	65.9	65.4	63.5	63.6	63.3	62.9	62.7	60.3	62.4	65.7	59.5	61.9	64.4	64.0	60.4				
6-year	63.1	63.9	62.5	61.0	63.2	63.7	62.2	59.1	60.5	60.5	60.6	60.1	56.0	59.8	61.3	56.7	59.3	60.9	61.2					
7-year	60.8	61.3	60.1	59.2	59.8	61.4	59.6	55.5	57.2	56.6	57.2	56.3	54.2	57.0	58.3	53.8	55.5	57.9						
8-year	58.8	59.6	57.2	56.4	57.4	58.0	57.0	52.7	54.0	53.0	54.4	52.8	52.0	53.7	54.8	51.3	53.3							
9-year	56.4	57.3	54.6	53.9	54.3	54.1	55.5	50.3	52.1	50.8	52.0	52.2	49.5	51.8	52.0	48.7								
10-year	54.1	55.4	52.2	51.3	51.1	52.0	53.3	48.3	50.3	49.0	50.4	48.7	47.5	50.9	48.7									
11-year	52.7	52.9	50.2	49.3	47.8	49.3	50.9	47.1	47.5	47.7	47.0	45.4	44.7	48.2										
12-year	51.0	50.2	48.1	47.4	46.1	46.7	46.2	45.0	45.0	44.5	45.2	42.1	43.0											
13-year	49.7	48.0	47.0	45.0	44.3	44.7	45.0	43.2	42.1	43.2	43.3	38.9												
14-year	48.0	46.4	44.3	43.1	41.5	41.6	43.1	41.6	40.9	40.5	41.3													
15-year	45.8	44.7	41.9	41.3	39.0	38.9	42.2	39.4	39.1	38.7														
16-year	43.7	42.1	40.3	39.4	38.1	37.5	40.9	38.7	37.0															
17-year	41.5	40.6	38.9	37.5	37.4	35.6	38.3	35.9																
18-year	40.2	38.8	37.4	35.5	36.3	33.9	37.4																	
19-year	38.3	37.3	34.8	33.7	35.7	31.0																		
20-year	36.5	35.5	33.6	31.2	35.2																			

^a Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). [Expected survival rates](#) are derived from the U.S. Annual Life Tables.

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	2013	2014
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	84.7	84.1	86.3	86.5	86.7	88.9	84.3	87.6	86.2	87.1	86.7	84.6	87.1
2-year	79.2	79.7	79.4	79.1	81.8	79.2	80.0	76.7	75.9	77.4	75.7	75.0	75.2	75.5	77.1	75.4	75.6	76.9	77.4	77.7	72.6	78.3	77.2	
3-year	73.5	74.5	74.2	72.6	76.5	74.4	74.8	71.6	71.6	71.7	70.9	70.9	68.3	68.7	72.6	69.4	70.2	72.8	71.5	71.0	67.3	72.7		
4-year	69.2	70.6	69.5	68.3	71.5	69.8	71.2	68.3	69.6	67.3	66.7	68.2	63.2	63.8	70.1	64.0	65.8	68.0	67.4	66.1	63.0			
5-year	65.8	67.3	66.7	65.6	68.2	66.5	68.2	65.6	65.3	64.2	63.1	63.5	60.5	62.1	65.2	61.5	61.5	65.5	63.9	62.2				
6-year	63.5	64.5	63.3	62.1	65.4	64.1	65.1	62.2	62.0	61.6	60.8	61.0	56.2	60.3	60.7	58.3	58.9	62.4	61.5					
7-year	61.3	61.8	61.1	60.4	61.9	61.5	62.9	58.7	58.6	58.6	58.7	57.0	54.5	58.5	57.2	55.4	55.7	59.6						
8-year	59.1	60.3	58.3	57.8	59.4	58.1	59.7	55.6	55.4	55.8	56.1	53.9	53.2	55.7	52.9	52.2	53.6							
9-year	56.7	58.0	56.2	55.3	56.6	53.8	57.8	53.0	53.3	54.0	54.4	53.0	50.6	53.7	50.6	49.7								
10-year	54.7	56.3	54.0	52.6	53.7	51.5	55.8	50.8	51.2	51.9	53.0	49.5	49.0	53.6	47.8									
11-year	53.5	53.7	52.2	50.6	50.0	49.0	53.8	50.1	48.5	49.9	49.1	46.5	45.8	50.8										
12-year	52.0	51.0	50.2	48.7	49.1	46.2	48.8	48.6	46.0	47.1	47.4	43.3	43.8											
13-year	50.8	48.8	49.3	46.5	47.3	44.0	47.0	46.5	43.7	46.5	45.6	40.6												
14-year	49.1	47.0	46.9	44.5	44.9	41.9	44.7	45.5	42.3	44.0	43.9													
15-year	47.0	45.2	44.4	42.7	42.0	39.4	44.4	43.4	41.0	41.8														
16-year	44.7	42.9	42.8	40.8	40.8	37.7	43.2	43.1	38.2															
17-year	42.6	41.8	41.4	39.1	40.1	35.5	39.7	40.0																
18-year	41.2	39.8	39.6	37.1	39.8	34.2	39.1																	
19-year	39.1	38.3	36.7	35.1	39.8	31.6																		
20-year	37.6	36.4	35.7	32.5	39.8																			

^a Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). [Expected survival rates](#) are derived from the U.S. Annual Life Tables.

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	2013	2014
Survival Time																								
1-year	86.8	88.1	86.9	85.2	80.1	88.8	76.7	83.1	81.0	85.4	83.2	81.8	83.8	83.5	87.6	85.0	84.8	83.5	83.1	83.5	86.0	91.9	82.0	81.3
2-year	78.6	78.6	77.4	73.6	72.0	79.0	67.1	73.4	70.5	74.3	74.3	73.5	71.8	74.9	81.0	70.4	74.9	73.9	74.5	74.1	73.1	78.5	71.7	
3-year	71.7	71.9	71.2	68.3	67.5	73.4	62.0	68.3	66.9	68.1	66.0	66.1	59.9	68.1	72.5	63.7	72.0	64.0	72.2	66.2	67.7	72.6		
4-year	67.0	67.4	65.7	63.2	60.1	69.4	59.2	62.9	64.8	63.9	65.5	61.8	59.6	65.8	69.6	56.7	65.4	61.8	70.7	61.4	66.9			
5-year	63.8	64.2	62.7	60.0	57.4	63.6	55.4	57.1	58.0	59.7	61.7	59.4	58.5	63.3	67.1	50.2	63.0	59.2	64.4	52.6				
6-year	61.1	61.1	59.4	56.4	53.8	62.3	51.8	49.6	55.2	55.8	59.2	55.8	55.4	57.5	63.8	49.4	60.6	54.9	59.6					
7-year	58.4	59.0	56.2	54.2	51.4	60.0	48.0	45.6	52.5	48.3	50.2	53.2	52.7	51.7	62.3	46.3	54.5	50.8						
8-year	57.1	56.4	52.6	50.8	49.1	57.8	46.7	44.0	49.2	41.7	46.7	48.5	46.8	47.1	61.2	46.3	51.8							
9-year	54.4	54.3	48.3	48.4	45.1	55.0	46.7	41.8	47.7	38.2	41.3	48.5	44.7	45.0	57.1	43.7								
10-year	51.2	51.7	45.3	46.3	40.9	53.0	44.2	40.5	47.0	37.3	38.3	45.3	41.1	40.4	51.7									
11-year	48.4	49.2	42.5	44.3	38.8	50.1	39.8	37.6	43.7	37.3	37.5	41.1	39.9	39.5										
12-year	45.7	46.8	40.0	42.2	34.0	48.4	36.8	34.3	41.4	34.0	35.2	37.0	38.6											
13-year	44.1	44.3	38.1	39.1	32.4	45.9	36.8	33.3	36.5	30.7	32.8	32.3												
14-year	42.7	43.3	34.5	37.3	28.2	40.6	36.3	29.7	36.0	27.1	29.1													
15-year	40.5	42.6	32.8	35.8	27.0	37.3	34.2	27.9	32.5	26.1														
16-year	38.6	38.9	30.9	33.9	27.0	36.9	32.6	26.4	32.4															
17-year	36.1	35.6	29.5	31.4	26.3	35.3	32.4	23.8																
18-year	35.3	34.6	29.1	29.6	22.7	33.2	31.1																	
19-year	34.1	33.1	27.3	28.5	19.2	29.1																		
20-year	31.8	31.7	25.4	26.1	18.5																			

^a Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). [Expected survival rates](#) are derived from the U.S. Annual Life Tables.

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, 2013-2015 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	0.32	0.12	Asian/ Pacific Islander	0	0.00	0.00	0.00	0.13	0.06
	10	0.00	0.00	0.00	0.32	0.12		10	0.00	0.00	0.00	0.13	0.06
	20	0.00	0.00	0.02	0.32	0.12		20	0.00	0.00	0.00	0.13	0.06
	30	0.00	0.02	0.07	0.32	0.12		30	0.00	0.00	0.02	0.13	0.06
	40	0.01	0.07	0.16	0.32	0.12		40	0.00	0.02	0.04	0.13	0.06
	50	0.06	0.15	0.25	0.32	0.12		50	0.01	0.04	0.08	0.13	0.06
	60	0.10	0.21	0.27	0.28	0.11		60	0.03	0.07	0.11	0.12	0.06
	70	0.12	0.19	-	0.20	0.09		70	0.05	0.09	-	0.10	0.05
80	0.09	-	-	0.11	0.06	80	0.05	-	-	0.06	0.04		
White	0	0.00	0.00	0.00	0.32	0.11	American Indian/ Alaska Native ^a	0	0.00	0.00	0.00	0.20	0.08
	10	0.00	0.00	0.00	0.32	0.12		10	0.00	0.00	0.00	0.21	0.08
	20	0.00	0.00	0.02	0.32	0.12		20	0.00	0.00	0.01	0.21	0.08
	30	0.00	0.02	0.07	0.33	0.12		30	0.00	0.01	0.05	0.21	0.09
	40	0.01	0.07	0.16	0.33	0.12		40	0.01	0.05	0.09	0.22	0.09
	50	0.06	0.15	0.25	0.32	0.12		50	0.04	0.08	0.16	0.22	0.09
	60	0.10	0.21	0.27	0.28	0.11		60	0.04	0.12	0.18	0.19	0.08
	70	0.12	0.19	-	0.20	0.09		70	0.09	0.16	-	0.16	0.07
80	0.09	-	-	0.11	0.06	80	0.10	-	-	0.10	0.06		
Black	0	0.00	0.00	0.00	0.42	0.17	Hispanic ^b	0	0.00	0.00	0.00	0.24	0.10
	10	0.00	0.00	0.00	0.43	0.17		10	0.00	0.00	0.00	0.25	0.11
	20	0.00	0.00	0.02	0.43	0.17		20	0.00	0.00	0.01	0.25	0.11
	30	0.00	0.02	0.10	0.44	0.17		30	0.00	0.01	0.04	0.25	0.11
	40	0.02	0.10	0.24	0.44	0.18		40	0.01	0.04	0.10	0.25	0.11
	50	0.09	0.23	0.36	0.44	0.18		50	0.03	0.09	0.17	0.25	0.11
	60	0.16	0.30	0.37	0.39	0.17		60	0.07	0.15	0.21	0.23	0.10
	70	0.18	0.26	-	0.28	0.13		70	0.09	0.16	-	0.18	0.09
80	0.12	-	-	0.15	0.09	80	0.08	-	-	0.10	0.07		

Devcan 6.7.6, April 2018, National Cancer Institute (<https://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, 2013-2015 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	0.52	0.19	Asian/ Pacific Islander	0	0.00	0.00	0.00	0.25	0.11
	10	0.00	0.00	0.00	0.53	0.20		10	0.00	0.00	0.00	0.25	0.11
	20	0.00	0.00	0.02	0.53	0.20		20	0.00	0.00	0.00	0.25	0.11
	30	0.00	0.02	0.11	0.54	0.20		30	0.00	0.00	0.03	0.25	0.11
	40	0.02	0.11	0.26	0.54	0.20		40	0.00	0.03	0.08	0.25	0.11
	50	0.09	0.25	0.42	0.54	0.20		50	0.03	0.08	0.16	0.25	0.12
	60	0.17	0.35	0.46	0.48	0.19		60	0.05	0.14	0.22	0.23	0.11
	70	0.21	0.34	-	0.37	0.16		70	0.10	0.18	-	0.20	0.10
80	0.18	-	-	0.22	0.12	80	0.11	-	-	0.13	0.08		
White	0	0.00	0.00	0.00	0.52	0.19	American Indian/ Alaska Native ^a	0	0.00	0.00	0.00	0.34	0.15
	10	0.00	0.00	0.00	0.53	0.19		10	0.00	0.00	0.00	0.35	0.15
	20	0.00	0.00	0.03	0.53	0.19		20	0.00	0.00	0.02	0.35	0.15
	30	0.00	0.03	0.11	0.53	0.19		30	0.00	0.02	0.08	0.36	0.16
	40	0.02	0.11	0.26	0.54	0.19		40	0.02	0.08	0.14	0.37	0.16
	50	0.09	0.24	0.41	0.53	0.20		50	0.07	0.13	0.26	0.37	0.16
	60	0.17	0.35	0.46	0.48	0.18		60	0.07	0.21	0.32	0.33	0.16
	70	0.21	0.34	-	0.36	0.15		70	0.17	0.30	-	0.30	0.15
80	0.18	-	-	0.21	0.11	80	0.19	-	-	0.19	0.15		
Black	0	0.00	0.00	0.00	0.72	0.29	Hispanic ^b	0	0.00	0.00	0.00	0.45	0.20
	10	0.00	0.00	0.00	0.73	0.30		10	0.00	0.00	0.00	0.45	0.21
	20	0.00	0.00	0.03	0.74	0.30		20	0.00	0.00	0.02	0.45	0.21
	30	0.00	0.03	0.17	0.75	0.31		30	0.00	0.02	0.06	0.46	0.21
	40	0.03	0.17	0.40	0.77	0.32		40	0.01	0.06	0.18	0.46	0.21
	50	0.15	0.39	0.63	0.77	0.32		50	0.05	0.17	0.32	0.46	0.21
	60	0.27	0.53	0.67	0.70	0.32		60	0.12	0.28	0.39	0.43	0.21
	70	0.33	0.50	-	0.54	0.27		70	0.18	0.31	-	0.35	0.19
80	0.26	-	-	0.33	0.19	80	0.16	-	-	0.22	0.15		

Devcan 6.7.6, April 2018, National Cancer Institute (<https://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, 2013-2015 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	0.03	0.02
	10	0.00	0.00	0.00	0.12	0.05		10	0.00	0.00	0.00	0.03	0.02
	20	0.00	0.00	0.01	0.12	0.05		20	0.00	0.00	0.00	0.04	0.02
	30	0.00	0.01	0.03	0.12	0.05		30	0.00	0.00	0.00	0.04	0.02
	40	0.01	0.03	0.06	0.12	0.05		40	0.00	0.00	0.01	0.03	0.02
	50	0.02	0.06	0.10	0.12	0.05		50	0.00	0.01	0.02	0.03	0.02
	60	0.04	0.08	0.10	0.10	0.04		60	0.01	0.02	0.03	0.03	0.02
	70	0.04	0.06	-	0.07	0.03		70	0.01	0.03	-	0.03	0.02
80	0.03	-	-	0.03	0.02	80	0.02	-	-	0.02	0.01		
White	0	0.00	0.00	0.00	0.13	0.05	American Indian/ Alaska Native ^a	0	0.00	0.00	0.00	0.08	0.02
	10	0.00	0.00	0.00	0.13	0.05		10	0.00	0.00	0.00	0.08	0.02
	20	0.00	0.00	0.01	0.13	0.05		20	0.00	0.00	0.00	0.08	0.02
	30	0.00	0.01	0.03	0.13	0.05		30	0.00	0.00	0.02	0.08	0.02
	40	0.01	0.03	0.07	0.13	0.05		40	0.00	0.02	0.04	0.08	0.02
	50	0.03	0.06	0.10	0.12	0.05		50	0.02	0.04	0.06	0.08	0.02
	60	0.04	0.08	0.10	0.10	0.04		60	0.02	0.04	0.07	0.07	0.02
	70	0.04	0.07	-	0.07	0.03		70	0.02	0.05	-	0.05	0.01
80	0.03	-	-	0.03	0.02	80	0.03	-	-	0.03	0.00		
Black	0	0.00	0.00	0.00	0.16	0.06	Hispanic ^b	0	0.00	0.00	0.00	0.06	0.02
	10	0.00	0.00	0.00	0.16	0.06		10	0.00	0.00	0.00	0.07	0.02
	20	0.00	0.00	0.01	0.16	0.06		20	0.00	0.00	0.00	0.07	0.02
	30	0.00	0.01	0.04	0.16	0.06		30	0.00	0.00	0.01	0.06	0.02
	40	0.01	0.04	0.09	0.17	0.06		40	0.00	0.01	0.03	0.06	0.02
	50	0.04	0.09	0.14	0.16	0.06		50	0.01	0.02	0.04	0.06	0.02
	60	0.06	0.11	0.13	0.14	0.06		60	0.02	0.04	0.05	0.06	0.02
	70	0.06	0.08	-	0.09	0.04		70	0.02	0.04	-	0.04	0.02
80	0.04	-	-	0.04	0.03	80	0.02	-	-	0.03	0.01		

Devcan 6.7.6, April 2018, National Cancer Institute (<https://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			SEER 13 Areas ^b			SEER 9 Areas ^b		
	Rate 2011-2015			Trend 2006-2015 ^c			Trend 2006-2015 ^d		
	Rate per 100,000 persons			AAPC (%)			AAPC (%)		
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Races	3.0	5.2	1.1	-2.7*	-3.1*	-3.1*	-2.4*	-2.5*	-2.6*
White	3.0	5.3	1.1	-2.4*	-3.1*	-2.9*	-2.3*	-2.4*	-2.4*
White Hispanic ^e	2.1	4.0	0.5	-2.0*	-1.9*	-3.1*	-	-	-
White Non-Hispanic ^e	3.2	5.5	1.3	-2.4*	-2.5*	-2.6*	-	-	-
Black	4.4	8.3	1.5	-3.3*	-3.3*	-3.3*	-2.9*	-2.8*	-3.0*
Asian/Pacific Islander	1.0	2.0	0.3	-3.3*	-3.3*	-2.7*	-	-	-
Amer Ind/Alaska Nat ^f	1.8	3.3	-	0.1	0.8	-	-	-	-
Hispanic ^e	2.0	3.9	0.5	-2.0*	-1.9*	-3.0*	-	-	-
<u>U.S. Mortality^g</u>									
	Rate 2011-2015			Trend 2006-2015 ^h					
	Rate per 100,000 persons			AAPC (%)					
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females			
All Races	1.0	1.8	0.4	-2.2*	-2.5*	-2.2*			
White	1.0	1.7	0.4	-1.9*	-2.2*	-1.9*			
White Hispanic ^e	0.8	1.6	0.2	-2.6*	-2.7*	-2.7*			
White Non-Hispanic ^e	1.0	1.7	0.4	-1.8*	-2.1*	-1.6*			
Black	1.7	3.3	0.5	-3.4*	-3.4*	-3.3*			
Asian/Pacific Islander	0.4	0.7	0.1	-1.9*	-1.6*	-3.2*			
Amer Ind/Alaska Nat									
Total U.S.	0.6	1.2	0.2	-2.8*	-2.1	-			
CHSDA Counties	0.7	1.4	-	-2.7*	-1.7	-			
Non-CHSDA Counties	0.5	1.0	-	-	-	-			
Hispanic ^e	0.7	1.5	0.1	-2.6*	-2.7*	-2.8*			

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 4.6, February 2018, National Cancer Institute.

- Statistic not shown. Rate based on less than 16 cases for the time interval.
- a Trend based on less than 10 cases for at least one year within the time interval.
- a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
- b The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta.
- b The SEER 13 areas comprise the SEER 9 areas plus San Jose-Monterey, Los Angeles, the Alaska Native Registry, and Rural Georgia.
- b 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 2006-2015 AAPC estimates are based on a Joinpoint analysis with up to 4 Joinpoints over diagnosis years 1992-2015.
- d The 2006-2015 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2015.
- 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 2006-2015 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 2006-2015 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2015.
- * 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, 2011-2015</u>									
California	2.09	3.84	0.65	2.24	4.07	0.70	2.95	5.55	1.01
Greater Bay Area	1.93	3.65	0.52	2.14	4.01	0.57	3.84	7.36	1.27
San Francisco-Oakland	1.95	3.66	0.56	2.13	3.94	0.59	3.78	7.17	1.39
San Jose-Monterey	1.88	3.64	0.44	2.17	4.16	0.52	-	-	-
Los Angeles	1.97	3.72	0.57	2.09	3.95	0.56	2.75	5.02	1.16
Greater California	2.20	3.96	0.73	2.32	4.14	0.79	2.72	5.16	0.72
Connecticut	3.41	6.02	1.26	3.41	5.99	1.27	3.59	6.70	-
Detroit	3.99	6.75	1.76	3.67	6.12	1.59	5.64	10.20	2.52
Georgia	3.78	6.73	1.40	3.71	6.29	1.54	4.33	8.77	1.23
Atlanta	3.07	5.93	0.92	2.97	5.53	0.94	3.54	7.36	1.02
Rural Georgia	5.42	9.78	-	4.44	8.10	-	6.51	11.74	-
Greater Georgia	4.11	7.07	1.65	3.97	6.54	1.77	4.89	9.72	1.38
Hawaii	2.07	3.84	0.51	3.42	6.00	-	-	-	-
Iowa	3.86	6.55	1.50	3.85	6.52	1.52	6.32	12.36	-
Kentucky	5.54	9.18	2.46	5.54	9.12	2.49	6.59	11.98	2.65
Louisiana	5.17	8.95	2.04	4.68	7.71	2.07	6.82	13.29	2.06
New Jersey	3.10	5.52	1.18	3.21	5.71	1.20	3.41	6.07	1.59
New Mexico	2.31	4.06	0.83	2.37	4.14	0.86	-	-	-
Seattle-Puget Sound	2.49	4.42	0.86	2.50	4.43	0.84	4.44	6.70	-
Utah	1.53	2.66	0.55	1.56	2.71	0.56	-	-	-
SEER 9 Areas ^b	2.83	4.99	1.03	2.88	5.02	1.05	4.30	8.06	1.65
SEER 13 Areas ^b	2.59	4.66	0.89	2.68	4.76	0.92	3.96	7.38	1.52
SEER 18 Areas ^b	2.96	5.23	1.09	3.02	5.25	1.13	4.38	8.28	1.54

^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, 2011-2015</u>									
California	0.71	1.31	0.23	0.75	1.38	0.25	1.17	2.13	0.50
Greater Bay Area	0.58	1.14	0.15	0.64	1.23	0.19	1.09	1.99	-
San Francisco-Oakland	0.57	1.08	0.18	0.59	1.08	0.21	1.04	1.91	-
San Jose-Monterey	0.62	1.27	-	0.74	1.51	-	-	-	-
Los Angeles	0.66	1.28	0.19	0.66	1.28	0.17	1.25	2.39	0.54
Greater California	0.77	1.38	0.28	0.81	1.46	0.29	1.15	1.96	-
Connecticut	0.80	1.37	0.34	0.74	1.29	0.30	1.44	2.51	-
Detroit	1.29	2.26	0.57	1.03	1.78	0.45	2.43	4.50	1.04
Georgia	0.97	1.76	0.35	0.88	1.51	0.37	1.32	2.74	0.35
Atlanta	0.80	1.45	0.31	0.74	1.25	0.34	1.01	2.05	-
Rural Georgia	-	-	-	-	-	-	-	-	-
Greater Georgia	1.04	1.88	0.38	0.94	1.62	0.39	1.48	3.04	-
Hawaii	0.73	1.40	-	1.26	2.25	-	-	-	-
Iowa	1.06	1.83	0.45	1.08	1.85	0.45	-	-	-
Kentucky	1.48	2.43	0.72	1.45	2.39	0.69	2.17	3.64	-
Louisiana	1.34	2.49	0.44	1.12	1.94	0.45	2.03	4.33	0.43
New Jersey	1.04	1.86	0.42	1.04	1.86	0.41	1.47	2.74	0.66
New Mexico	0.87	1.54	0.31	0.92	1.60	0.35	-	-	-
Seattle-Puget Sound	0.80	1.35	0.34	0.82	1.33	0.39	-	-	-
Utah	0.30	0.49	-	0.31	0.49	-	-	-	-
SEER 9 Areas ^b	0.83	1.45	0.33	0.81	1.39	0.34	1.53	2.87	0.58
SEER 13 Areas ^b	0.78	1.40	0.29	0.77	1.37	0.29	1.47	2.80	0.56
SEER 18 Areas ^b	0.89	1.59	0.34	0.88	1.55	0.35	1.54	2.98	0.55
Total U.S.	1.01	1.81	0.37	0.97	1.71	0.37	1.65	3.30	0.53

^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.

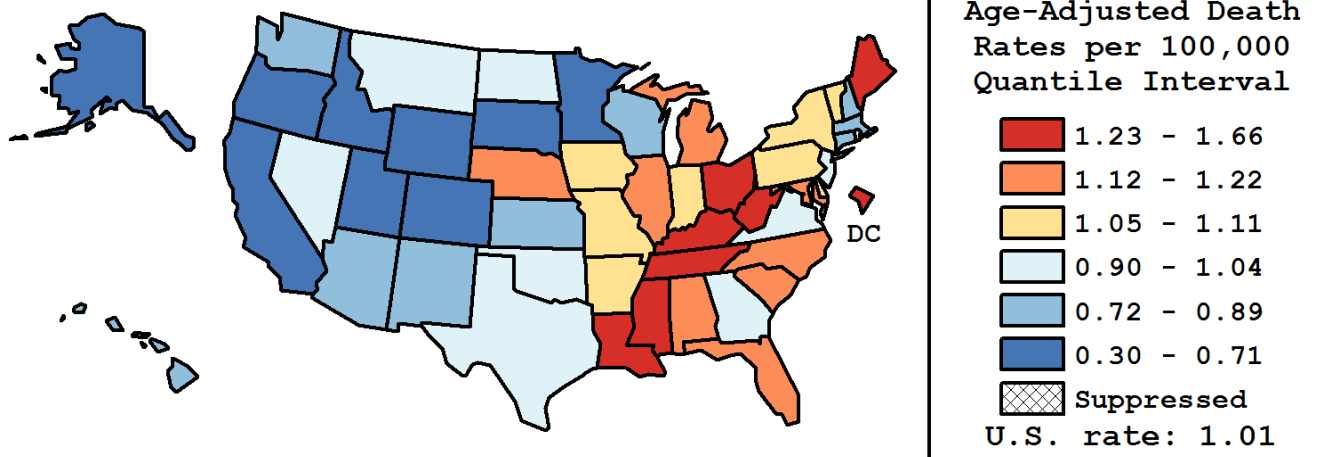
Table 12.18
Cancer of the Larynx (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2011-2015

Males and Females

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	1.01	0.01		
High Five States				
West Virginia	1.66	0.12	01(01,11)	64.19 ^c
D.C.	1.49	0.22	02(01,31)	47.58 ^c
Kentucky	1.48	0.08	03(01,09)	46.41 ^c
Louisiana	1.34	0.07	04(01,20)	32.89 ^c
Tennessee	1.31	0.06	05(02,18)	29.24 ^c
Low Five States				
Colorado	0.67	0.05	47(37,50)	-34.13 ^c
Oregon	0.66	0.05	48(36,50)	-35.06 ^c
Idaho	0.65	0.09	49(28,50)	-35.38 ^c
South Dakota	0.65	0.11	50(24,51)	-35.84 ^c
Utah	0.30	0.05	51(50,51)	-69.89 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	1.19	0.06	11(03,27)	18.08 ^c	Montana	0.90	0.12	32(03,48)	-10.89
Alaska	0.67	0.16	46(03,51)	-33.29 ^c	Nebraska	1.12	0.10	15(05,44)	11.07
Arizona	0.72	0.04	42(34,50)	-29.13 ^c	Nevada	0.90	0.08	33(13,48)	-11.27
Arkansas	1.05	0.08	24(10,41)	3.54	New Hampshire	0.77	0.10	40(11,50)	-23.73 ^c
California	0.71	0.02	43(38,49)	-30.12 ^c	New Jersey	1.04	0.05	25(09,33)	3.26
Colorado	0.67	0.05	47(37,50)	-34.13 ^c	New Mexico	0.87	0.09	36(12,48)	-13.51
Connecticut	0.80	0.06	38(29,50)	-21.17 ^c	New York	1.05	0.03	23(11,30)	3.74
Delaware	1.10	0.14	19(01,43)	8.66	North Carolina	1.14	0.04	14(07,31)	12.53
D.C.	1.49	0.22	02(01,31)	47.58 ^c	North Dakota	0.96	0.15	31(02,50)	-4.52
Florida	1.15	0.03	13(07,23)	13.93	Ohio	1.27	0.04	07(03,17)	25.97 ^c
Georgia	0.97	0.04	30(11,35)	-4.18	Oklahoma	1.04	0.07	26(13,42)	2.69
Hawaii	0.73	0.09	41(32,50)	-27.40 ^c	Oregon	0.66	0.05	48(36,50)	-35.06 ^c
Idaho	0.65	0.09	49(28,50)	-35.38 ^c	Pennsylvania	1.09	0.04	20(10,31)	8.16
Illinois	1.16	0.04	12(08,29)	14.79	Rhode Island	1.01	0.13	29(02,43)	-0.05
Indiana	1.05	0.05	22(06,33)	4.24	South Carolina	1.22	0.07	09(01,19)	20.96 ^c
Iowa	1.06	0.07	21(09,41)	5.34	South Dakota	0.65	0.11	50(24,51)	-35.84 ^c
Kansas	0.85	0.07	37(29,50)	-16.16 ^c	Tennessee	1.31	0.06	05(02,18)	29.24 ^c
Kentucky	1.48	0.08	03(01,09)	46.41 ^c	Texas	1.03	0.03	27(14,33)	2.17
Louisiana	1.34	0.07	04(01,20)	32.89 ^c	Utah	0.30	0.05	51(50,51)	-69.89 ^c
Maine	1.29	0.12	06(01,35)	27.50 ^c	Vermont	1.11	0.17	17(01,47)	10.30
Maryland	1.12	0.06	16(07,34)	10.68	Virginia	1.01	0.05	28(14,38)	-0.03
Massachusetts	0.88	0.05	35(21,41)	-13.19	Washington	0.80	0.05	39(26,46)	-21.23 ^c
Michigan	1.20	0.05	10(04,25)	19.05 ^c	West Virginia	1.66	0.12	01(01,11)	64.19 ^c
Minnesota	0.70	0.05	44(36,50)	-30.28 ^c	Wisconsin	0.89	0.05	34(25,45)	-11.76
Mississippi	1.24	0.09	08(02,29)	22.73 ^c	Wyoming	0.70	0.15	45(04,50)	-30.66 ^c
Missouri	1.11	0.06	18(09,36)	10.18					



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

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

^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.

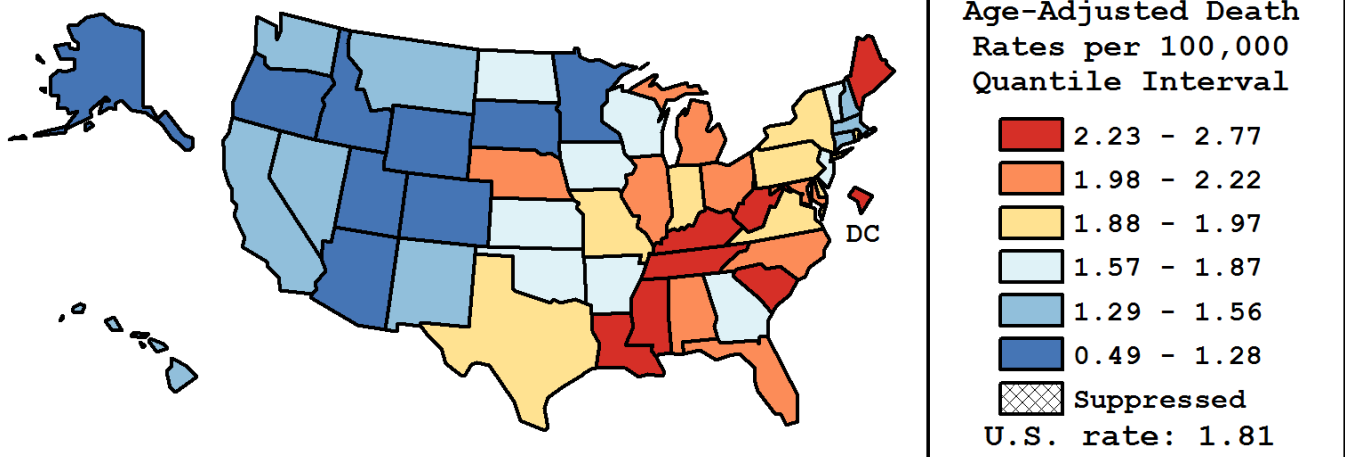
Table 12.19
Cancer of the Larynx (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2011-2015

Males

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	1.81	0.02		
High Five States				
West Virginia	2.77	0.22	01(01,26)	53.37 ^c
D.C.	2.76	0.47	02(01,36)	52.47 ^c
Louisiana	2.49	0.15	03(01,21)	37.52 ^c
Kentucky	2.43	0.15	04(01,15)	34.27 ^c
South Carolina	2.34	0.14	05(01,17)	29.51 ^c
Low Five States				
South Dakota	1.19	0.23	47(15,50)	-33.92 ^c
Alaska	1.17	0.33	48(02,51)	-35.36 ^c
Colorado	1.16	0.10	49(38,50)	-35.78 ^c
Oregon	1.14	0.10	50(34,50)	-37.03 ^c
Utah	0.49	0.09	51(50,51)	-72.66 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	2.22	0.13	09(01,27)	22.70 ^c	Montana	1.54	0.23	35(02,49)	-14.72
Alaska	1.17	0.33	48(02,51)	-35.36 ^c	Nebraska	2.03	0.21	15(04,45)	12.07
Arizona	1.22	0.08	44(36,50)	-32.36 ^c	Nevada	1.56	0.15	34(15,49)	-13.52
Arkansas	1.78	0.15	29(11,46)	-1.33	New Hampshire	1.42	0.21	38(12,50)	-21.36 ^c
California	1.31	0.04	42(35,48)	-27.58 ^c	New Jersey	1.86	0.09	26(08,34)	3.13
Colorado	1.16	0.10	49(38,50)	-35.78 ^c	New Mexico	1.54	0.17	36(09,49)	-14.73
Connecticut	1.37	0.12	41(26,50)	-24.34 ^c	New York	1.91	0.06	22(08,29)	5.76
Delaware	1.89	0.27	24(02,50)	4.76	North Carolina	2.01	0.09	16(07,32)	11.25
D.C.	2.76	0.47	02(01,36)	52.47 ^c	North Dakota	1.61	0.29	31(01,50)	-11.10
Florida	2.08	0.06	13(07,24)	14.81	Ohio	2.17	0.08	10(03,21)	20.30 ^c
Georgia	1.76	0.09	30(09,34)	-2.66	Oklahoma	1.87	0.14	25(10,44)	3.32
Hawaii	1.40	0.19	39(21,50)	-22.61 ^c	Oregon	1.14	0.10	50(34,50)	-37.03 ^c
Idaho	1.20	0.17	46(22,50)	-33.73 ^c	Pennsylvania	1.95	0.07	18(10,32)	7.80
Illinois	2.11	0.08	11(05,27)	16.93 ^c	Rhode Island	1.97	0.27	17(01,47)	9.00
Indiana	1.92	0.11	21(05,32)	6.18	South Carolina	2.34	0.14	05(01,17)	29.51 ^c
Iowa	1.83	0.14	28(09,43)	1.14	South Dakota	1.19	0.23	47(15,50)	-33.92 ^c
Kansas	1.58	0.15	32(26,50)	-12.73	Tennessee	2.32	0.12	07(01,20)	28.49 ^c
Kentucky	2.43	0.15	04(01,15)	34.27 ^c	Texas	1.90	0.06	23(11,30)	5.33
Louisiana	2.49	0.15	03(01,21)	37.52 ^c	Utah	0.49	0.09	51(50,51)	-72.66 ^c
Maine	2.33	0.24	06(01,33)	28.85 ^c	Vermont	1.83	0.33	27(01,49)	1.28
Maryland	2.08	0.12	12(03,32)	14.97	Virginia	1.92	0.10	20(09,35)	6.35
Massachusetts	1.50	0.09	37(21,44)	-17.09 ^c	Washington	1.39	0.09	40(26,47)	-23.29 ^c
Michigan	2.04	0.09	14(05,28)	12.84	West Virginia	2.77	0.22	01(01,26)	53.37 ^c
Minnesota	1.28	0.10	43(33,50)	-29.12 ^c	Wisconsin	1.57	0.10	33(21,46)	-12.92
Mississippi	2.29	0.18	08(01,30)	26.71 ^c	Wyoming	1.21	0.29	45(04,51)	-33.31 ^c
Missouri	1.95	0.11	19(08,36)	7.62					



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

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

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

^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.

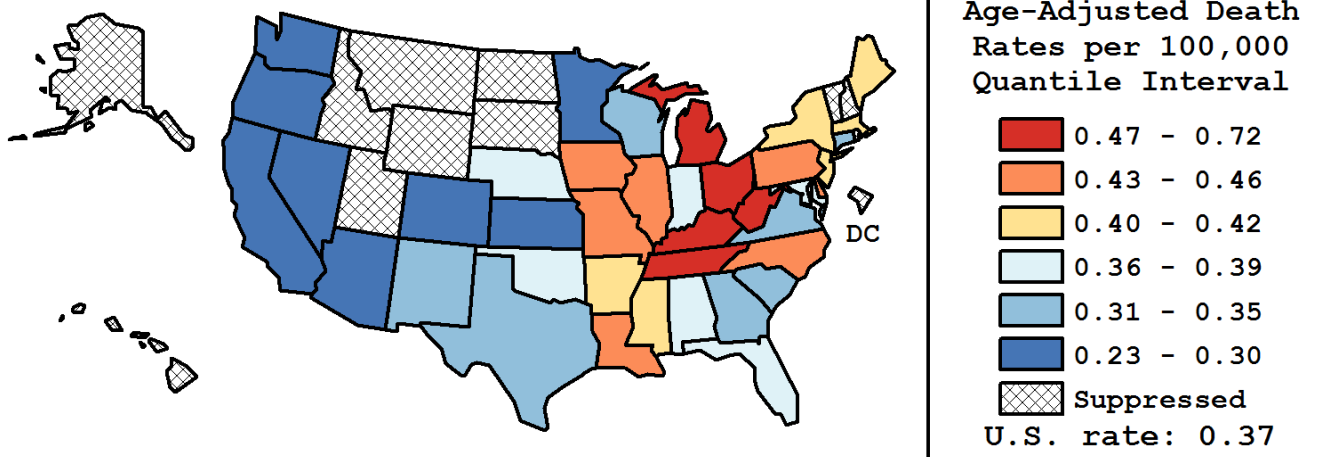
Table 12.20
Cancer of the Larynx (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2011-2015

Females

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	0.37	0.01		
High Five States				
Kentucky	0.72	0.07	01(01,10)	93.66 ^c
West Virginia	0.69	0.10	02(01,11)	85.01 ^c
Ohio	0.56	0.04	03(02,16)	49.47 ^c
Michigan	0.53	0.04	04(03,24)	41.52 ^c
Tennessee	0.48	0.05	05(02,28)	29.38 ^c
Low Five States				
Kansas	0.26	0.05	35(09,41)	-30.78 ^c
Colorado	0.25	0.04	36(10,41)	-34.44 ^c
Minnesota	0.24	0.04	37(26,41)	-34.86 ^c
Oregon	0.24	0.04	38(24,41)	-35.17 ^c
California	0.23	0.01	39(33,41)	-38.15 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	0.39	0.05	20(03,36)	3.63	Montana	-	-	-(-,-)	-
Alaska	-	-	-(-,-)	-	Nebraska	0.38	0.08	21(03,41)	0.44
Arizona	0.29	0.04	34(12,41)	-21.89 ^c	Nevada	0.30	0.06	33(04,41)	-18.49 ^c
Arkansas	0.42	0.07	16(03,40)	11.28	New Hampshire	-	-	-(01,41)	-
California	0.23	0.01	39(33,41)	-38.15 ^c	New Jersey	0.42	0.04	14(03,29)	12.75
Colorado	0.25	0.04	36(10,41)	-34.44 ^c	New Mexico	0.31	0.07	31(04,41)	-17.11 ^c
Connecticut	0.34	0.05	27(12,41)	-9.39	New York	0.40	0.03	18(07,29)	6.49
Delaware	0.46	0.12	07(01,39)	22.70 ^c	North Carolina	0.46	0.04	06(03,28)	24.10 ^c
D.C.	-	-	-(-,-)	-	North Dakota	-	-	-(-,-)	-
Florida	0.37	0.02	23(10,34)	0.04	Ohio	0.56	0.04	03(02,16)	49.47 ^c
Georgia	0.35	0.04	26(06,36)	-6.13	Oklahoma	0.37	0.06	22(08,41)	0.19
Hawaii	-	-	-(-,-)	-	Oregon	0.24	0.04	38(24,41)	-35.17 ^c
Idaho	-	-	-(-,-)	-	Pennsylvania	0.43	0.03	12(04,27)	15.74 ^c
Illinois	0.44	0.03	11(05,33)	16.40 ^c	Rhode Island	-	-	-(01,40)	-
Indiana	0.37	0.04	24(04,36)	-0.53	South Carolina	0.31	0.05	30(04,39)	-15.98 ^c
Iowa	0.45	0.07	08(03,40)	20.84 ^c	South Dakota	-	-	-(-,-)	-
Kansas	0.26	0.05	35(09,41)	-30.78 ^c	Tennessee	0.48	0.05	05(02,28)	29.38 ^c
Kentucky	0.72	0.07	01(01,10)	93.66 ^c	Texas	0.33	0.02	28(17,38)	-12.09
Louisiana	0.44	0.06	10(02,35)	19.01 ^c	Utah	-	-	-(-,-)	-
Maine	0.42	0.09	15(03,41)	12.67	Vermont	-	-	-(-,-)	-
Maryland	0.39	0.05	19(05,38)	4.67	Virginia	0.32	0.04	29(12,40)	-15.25 ^c
Massachusetts	0.40	0.04	17(04,35)	7.90	Washington	0.30	0.04	32(07,40)	-18.48 ^c
Michigan	0.53	0.04	04(03,24)	41.52 ^c	West Virginia	0.69	0.10	02(01,11)	85.01 ^c
Minnesota	0.24	0.04	37(26,41)	-34.86 ^c	Wisconsin	0.35	0.05	25(10,41)	-5.12
Mississippi	0.42	0.07	13(02,38)	13.20	Wyoming	-	-	-(-,-)	-
Missouri	0.45	0.05	09(04,37)	19.48 ^c					



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

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

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

^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, 2015
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 <23 ^e	0 to <40 ^e	>=40 ^g	Complete ^h
<u>Race</u>	<u>Sex</u>										
All Races ^b	Both Sexes	37,526	22,824	14,667	9,823	6,488	3,958	91,327	98,750	1,006	99,756
	Males	30,182	18,329	12,045	7,764	5,174	3,220	73,493	79,299	817	80,116
	Females	7,344	4,495	2,622	2,059	1,314	738	17,834	19,451	189	19,640
White ^b	Both Sexes	31,187	19,581	12,592	8,515	5,607	3,508	77,479	84,074	782	84,856
	Males	25,143	15,857	10,311	6,769	4,463	2,891	62,540	67,750	633	68,383
	Females	6,044	3,724	2,281	1,746	1,144	617	14,939	16,324	149	16,473
Black ^b	Both Sexes	5,117	2,632	1,670	1,045	729	349	11,193	11,813	66	11,879
	Males	3,982	1,988	1,392	755	611	288	8,728	9,199	56	9,255
	Females	1,135	644	278	290	118	61	2,465	2,614	10	2,624
Asian/ Pacific Islander ^c	Both Sexes	639	353	275	+	+	+	1,496	+	+	+
	Males	540	293	235	+	+	+	1,268	+	+	+
	Females	99	60	40	+	+	+	228	+	+	+
Hispanic ^d	Both Sexes	2,279	1,389	781	+	+	+	5,191	+	+	+
	Males	1,998	1,216	649	+	+	+	4,479	+	+	+
	Females	281	173	132	+	+	+	712	+	+	+

Estimated prevalence percent^a on January 1, 2015, of the SEER^c population diagnosed in the previous 23 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
<u>Race</u>	<u>Sex</u>											
All Races ^c	Both Sexes	0.0234%	-	-	0.0002%	0.0009%	0.0049%	0.0264%	0.0737%	0.1302%	0.1288%	0.0213%
	Males	0.0387%	-	-	0.0003%	0.0011%	0.0067%	0.0408%	0.1264%	0.2423%	0.2882%	0.0390%
	Females	0.0086%	-	-	0.0002%	0.0006%	0.0030%	0.0125%	0.0261%	0.0382%	0.0320%	0.0072%
White ^c	Both Sexes	0.0264%	-	-	0.0003%	0.0010%	0.0055%	0.0286%	0.0781%	0.1386%	0.1355%	0.0227%
	Males	0.0432%	-	-	0.0004%	0.0012%	0.0074%	0.0434%	0.1323%	0.2544%	0.3027%	0.0411%
	Females	0.0096%	-	-	-	0.0007%	0.0036%	0.0140%	0.0274%	0.0408%	0.0325%	0.0077%
Black ^c	Both Sexes	0.0240%	-	-	-	0.0010%	0.0054%	0.0329%	0.1042%	0.1816%	0.1452%	0.0279%
	Males	0.0390%	-	-	-	0.0015%	0.0084%	0.0509%	0.1827%	0.3589%	0.3453%	0.0534%
	Females	0.0102%	-	-	-	-	0.0028%	0.0171%	0.0426%	0.0577%	0.0454%	0.0105%
Asian/ Pacific Islander ^c	Both Sexes	0.0091%	-	-	-	-	0.0009%	0.0083%	0.0272%	0.0507%	0.0769%	0.0087%
	Males	0.0160%	-	-	-	-	0.0014%	0.0157%	0.0507%	0.1009%	0.1686%	0.0174%
	Females	0.0026%	-	-	-	-	-	0.0020%	0.0079%	0.0114%	0.0202%	0.0023%
Hispanic ^d	Both Sexes	0.0096%	-	-	0.0004%	0.0007%	0.0039%	0.0158%	0.0473%	0.0974%	0.1248%	0.0161%
	Males	0.0165%	-	-	-	0.0011%	0.0057%	0.0262%	0.0892%	0.2023%	0.2905%	0.0327%
	Females	0.0027%	-	-	-	-	0.0020%	0.0056%	0.0109%	0.0186%	0.0245%	0.0038%

^a US 2015 cancer prevalence counts are based on 2015 cancer prevalence proportions from the SEER registries and 1/1/2015 US population estimates based on the average of 2014 and 2015 population estimates from the US Bureau of the Census. Prevalence was calculated using the first invasive tumor for each cancer site diagnosed during the previous 40/23 years.

^{b c d} 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: 40 years for 1975-2015 SEER 9 data; 23 years for 1992-2015 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.

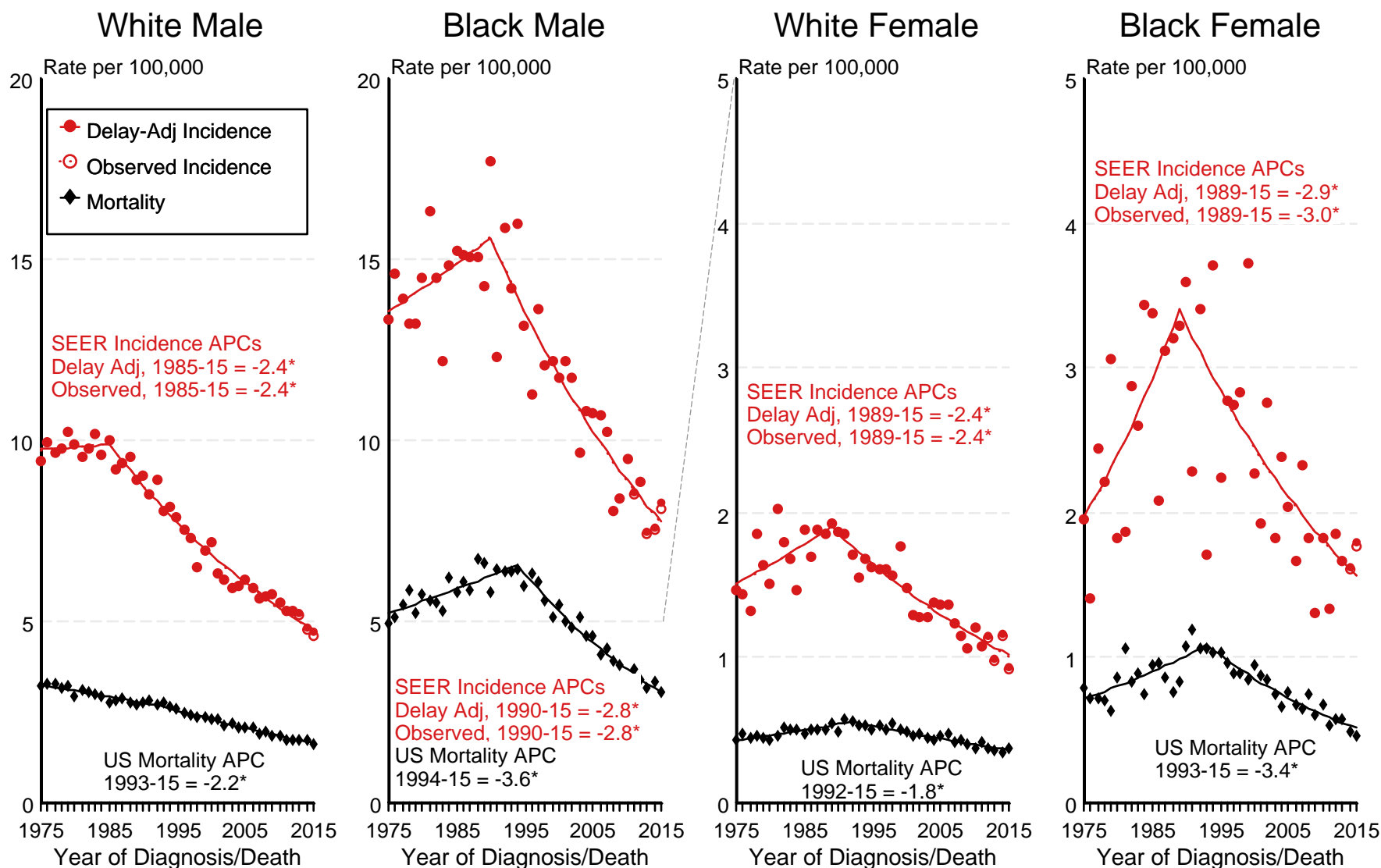
^{g h i} (g) Cases diagnosed more than 40 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000). (h) Complete prevalence is obtained by summing 0 to <40 and >=40. (i) Age-specific completeness index was approximated using empirical data from historical 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 4.6, February 2018, 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.

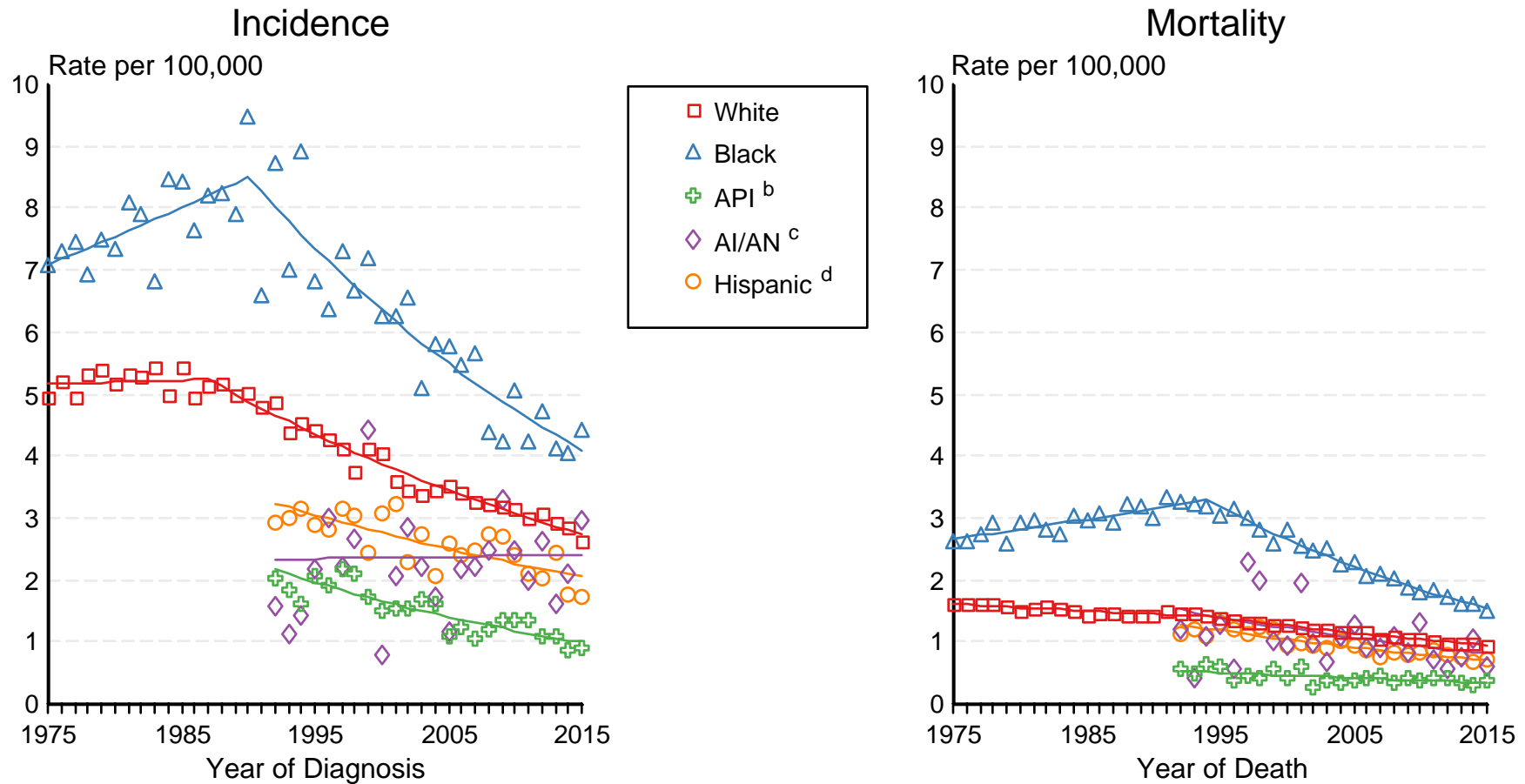
* The APC is significantly different from zero ($p < 0.05$).

Figure 12.2

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

Joinpoint Analyses for Whites and Blacks from 1975-2015

and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2015



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 4.6, February 2018, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2015 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2015 allow a maximum of 4 joinpoints.

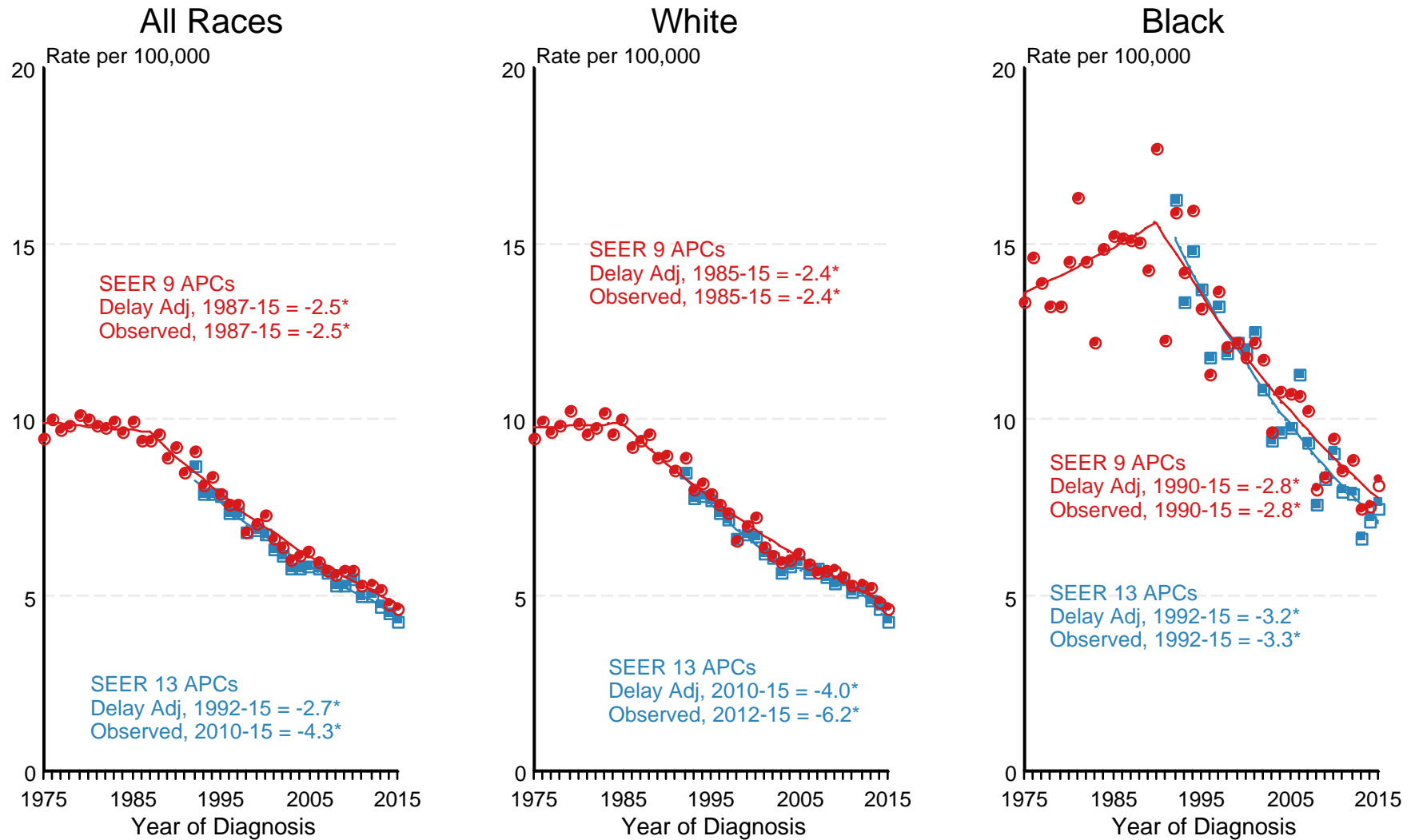
^b API = Asian/Pacific Islander.

^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



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

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).

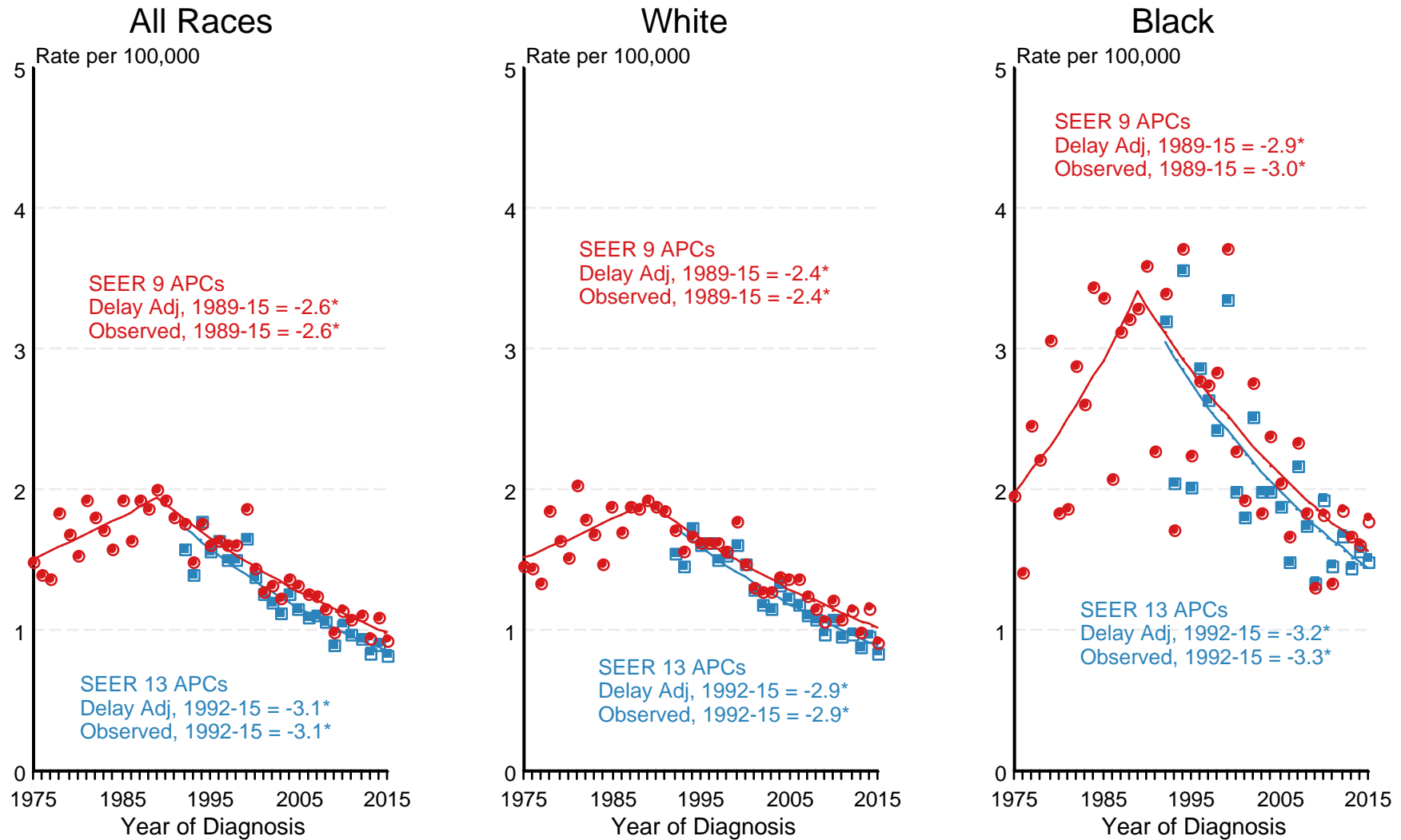
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.6, February 2018, National Cancer Institute.

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



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

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 4.6, February 2018, 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.

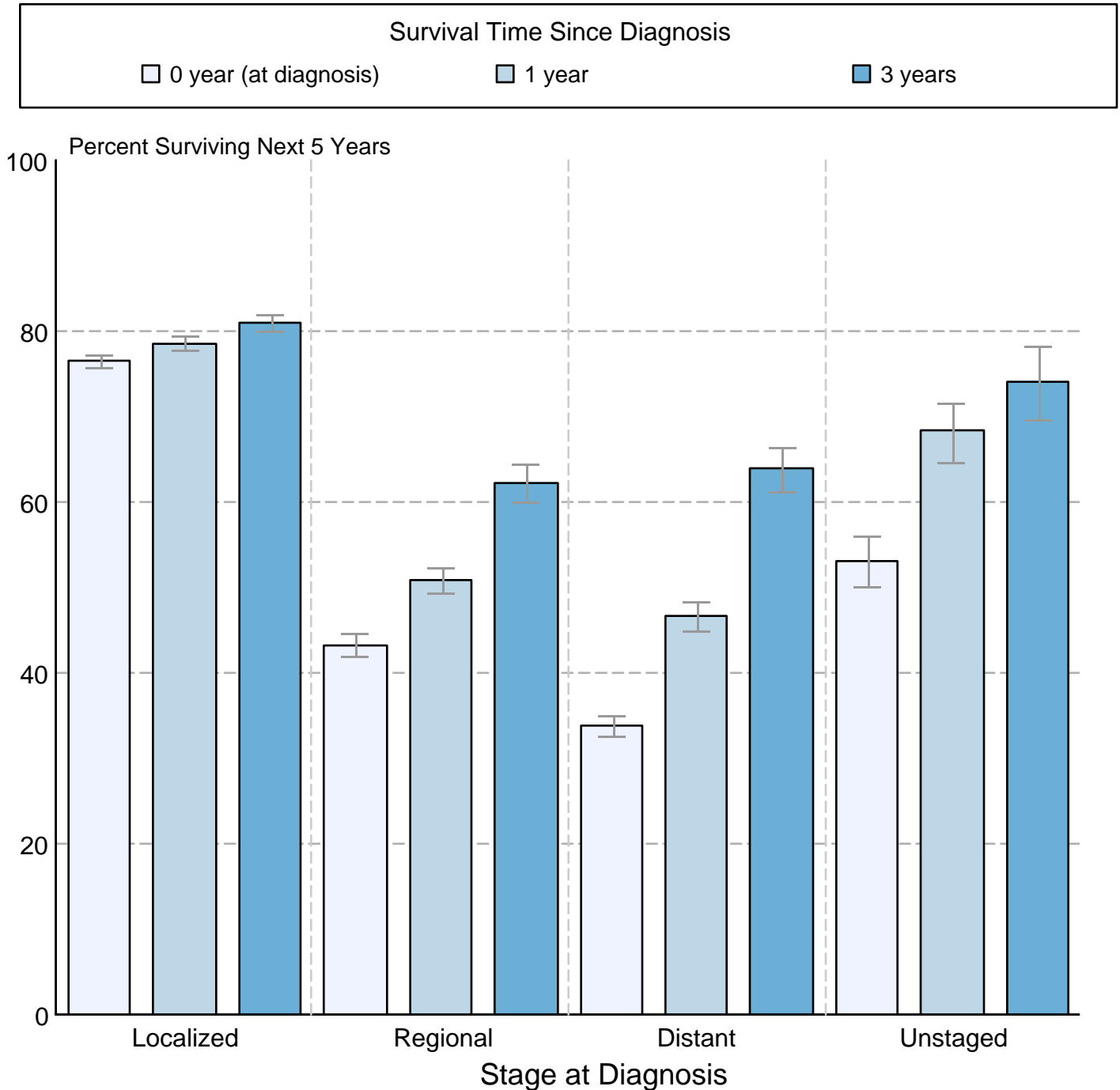
* The APC is significantly different from zero ($p < 0.05$).

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
1998-2014 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.