

Table 8.1  
Cancer of the Esophagus (Invasive)

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2014 With up to Five Joinpoints, 1992-2014 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 <sup>d</sup>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2005-14	2010-14
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2014</u>														
All Races	1975-04	0.6*	2004-14	-1.3*									-1.3*	-1.3*
White	1975-04	1.4*	2004-14	-0.6									-0.6	-0.6
Black	1975-86	1.1	1986-14	-4.5*									-4.5*	-4.5*
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2014</u>														
All Races	1992-14	-0.5*											-0.5*	-0.5*
White	1992-04	1.3*	2004-14	-0.9*									-0.9*	-0.9*
Black	1992-14	-4.5*											-4.5*	-4.5*
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2014</u>														
All Races	1975-04	0.6*	2004-14	-1.4*									-1.4*	-1.4*
White	1975-04	1.4*	2004-14	-0.7									-0.7	-0.7
Black	1975-86	1.1	1986-14	-4.5*									-4.5*	-4.5*
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2014</u>														
All Races	1992-04	0.3	2004-14	-1.6*									-1.6*	-1.6*
White	1992-04	1.3*	2004-14	-1.0*									-1.0*	-1.0*
White NH <sup>ef</sup>	1992-04	1.7*	2004-14	-0.9*									-0.9*	-0.9*
Black	1992-14	-4.6*											-4.6*	-4.6*
Black NH <sup>ef</sup>	1992-14	-4.5*											-4.5*	-4.5*
API <sup>e</sup>	1992-14	-2.1*											-2.1*	-2.1*
AI/AN <sup>eg</sup>	1992-14	-1.6											-1.6	-1.6
Hispanic <sup>f</sup>	1992-14	-1.0*											-1.0*	-1.0*
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2014</u>														
All Races	1975-02	0.7*	2002-14	-0.9*									-0.9*	-0.9*
White	1975-83	0.4*	1983-00	1.7*	2000-05	0.8*	2005-14	-0.6*					-0.6*	-0.6*
Black	1975-82	1.1*	1982-93	-1.6*	1993-14	-4.6*							-4.6*	-4.6*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2014</u>														
All Races	1992-05	0.4*	2005-14	-1.2*									-1.2*	-1.2*
White	1992-04	1.4*	2004-14	-0.5*									-0.5*	-0.5*
White NH <sup>ef</sup>	1992-03	1.8*	2003-14	-0.3*									-0.3*	-0.3*
Black	1992-14	-4.5*											-4.5*	-4.5*
Black NH <sup>ef</sup>	1992-14	-4.4*											-4.4*	-4.4*
API <sup>e</sup>	1992-14	-1.8*											-1.8*	-1.8*
AI/AN <sup>eg</sup>	1992-03	4.2*	2003-14	-1.9									-1.9	-1.9
Hispanic <sup>f</sup>	1992-14	-1.0*											-1.0*	-1.0*

Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute. (<https://surveillance.cancer.gov/joinpoint/>).  
<sup>a</sup> The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
<sup>b</sup> Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).  
<sup>c</sup> Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).  
<sup>d</sup> Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.  
<sup>e</sup> The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.  
<sup>f</sup> 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.  
<sup>g</sup> 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 8.2  
Cancer of the Esophagus (Invasive)

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2014 With up to Five Joinpoints, 1992-2014 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 <sup>d</sup>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2005-14	2010-14
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2014</u>														
All Races	1975-04	0.8*	2004-14	-1.4*									-1.4*	-1.4*
White	1975-04	1.7*	2004-14	-0.8									-0.8	-0.8
Black	1975-86	1.1	1986-14	-4.8*									-4.8*	-4.8*
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2014</u>														
All Races	1992-04	0.4	2004-14	-1.4*									-1.4*	-1.4*
White	1992-04	1.6*	2004-14	-0.9*									-0.9*	-0.9*
Black	1992-14	-4.6*											-4.6*	-4.6*
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2014</u>														
All Races	1975-04	0.8*	2004-14	-1.5*									-1.5*	-1.5*
White	1975-04	1.8*	2004-14	-0.9*									-0.9*	-0.9*
Black	1975-86	1.1	1986-14	-4.8*									-4.8*	-4.8*
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2014</u>														
All Races	1992-04	0.5	2004-14	-1.5*									-1.5*	-1.5*
White	1992-04	1.6*	2004-14	-1.0*									-1.0*	-1.0*
White NH <sup>ef</sup>	1992-04	1.9*	2004-14	-0.9*									-0.9*	-0.9*
Black	1992-14	-4.7*											-4.7*	-4.7*
Black NH <sup>ef</sup>	1992-14	-4.7*											-4.7*	-4.7*
API <sup>e</sup>	1992-14	-2.3*											-2.3*	-2.3*
AI/AN <sup>eg</sup>	1992-14	-2.6											-2.6	-2.6
Hispanic <sup>f</sup>	1992-14	-1.2*											-1.2*	-1.2*
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2014</u>														
All Races	1975-85	0.7*	1985-94	1.2*	1994-05	0.4*	2005-14	-1.1*					-1.1*	-1.1*
White	1975-82	0.3	1982-99	1.9*	1999-05	1.1*	2005-14	-0.6*					-0.6*	-0.6*
Black	1975-84	0.8*	1984-93	-1.9*	1993-14	-4.7*							-4.7*	-4.7*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2014</u>														
All Races	1992-05	0.5*	2005-14	-1.2*									-1.2*	-1.2*
White	1992-05	1.4*	2005-14	-0.7*									-0.7*	-0.7*
White NH <sup>ef</sup>	1992-05	1.6*	2005-14	-0.6*									-0.6*	-0.6*
Black	1992-14	-4.7*											-4.7*	-4.7*
Black NH <sup>ef</sup>	1992-14	-4.6*											-4.6*	-4.6*
API <sup>e</sup>	1992-14	-1.8*											-1.8*	-1.8*
AI/AN <sup>eg</sup>	1992-14	0.3											0.3	0.3
Hispanic <sup>f</sup>	1992-14	-1.0*											-1.0*	-1.0*

Joinpoint Regression Program Version 4.4, January 2017, 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.

a  
b  
c  
d  
e  
f  
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Table 8.3  
Cancer of the Esophagus (Invasive)

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program, 1975-2014 With up to Five Joinpoints, 1992-2014 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 <sup>d</sup>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2005-14	2010-14
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2014</u>														
All Races	1975-04	-0.3	2004-14	-2.0*									-2.0*	-2.0*
White	1975-14	-0.1											-0.1	-0.1
Black	1975-81	8.5*	1981-14	-3.2*									-3.2*	-3.2*
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2014</u>														
All Races	1992-14	-1.3*											-1.3*	-1.3*
White	1992-14	-0.6*											-0.6*	-0.6*
Black	1992-14	-4.1*											-4.1*	-4.1*
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2014</u>														
All Races	1975-04	-0.3	2004-14	-2.1*									-2.1*	-2.1*
White	1975-14	-0.1											-0.1	-0.1
Black	1975-81	8.6*	1981-14	-3.3*									-3.3*	-3.3*
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2014</u>														
All Races	1992-14	-1.3*											-1.3*	-1.3*
White	1992-14	-0.6*											-0.6*	-0.6*
White NH <sup>ef</sup>	1992-14	-0.4*											-0.4*	-0.4*
Black	1992-14	-4.2*											-4.2*	-4.2*
Black NH <sup>ef</sup>	1992-14	-4.2*											-4.2*	-4.2*
API <sup>e</sup>	1992-14	-1.0											-1.0	-1.0
AI/AN <sup>eg</sup>	-	-											-	-
Hispanic <sup>f</sup>	1992-14	-1.1											-1.1	-1.1
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2014</u>														
All Races	1975-01	0.0	2001-14	-1.7*									-1.7*	-1.7*
White	1975-03	0.4*	2003-14	-1.3*									-1.3*	-1.3*
Black	1975-92	-0.2	1992-14	-4.1*									-4.1*	-4.1*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2014</u>														
All Races	1992-01	0.0	2001-14	-1.7*									-1.7*	-1.7*
White	1992-01	0.9*	2001-14	-1.1*									-1.1*	-1.1*
White NH <sup>ef</sup>	1992-01	1.0*	2001-14	-1.0*									-1.0*	-1.0*
Black	1992-14	-4.0*											-4.0*	-4.0*
Black NH <sup>ef</sup>	1992-14	-4.0*											-4.0*	-4.0*
API <sup>e</sup>	1992-14	-1.6*											-1.6*	-1.6*
AI/AN <sup>eg</sup>	1992-14	1.9											1.9	1.9
Hispanic <sup>f</sup>	1992-96	10.2	1996-14	-2.3*									-2.3*	-2.3*

Joinpoint Regression Program Version 4.4, January 2017, 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).

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

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

<sup>c</sup> Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

<sup>d</sup> The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

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

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

Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

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

<sup>g</sup> 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 8.4  
Cancer of the Esophagus (Invasive)

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

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975	4.14	6.79	2.12	3.55	5.64	1.99	10.95	20.07	3.70
1976	4.30	6.88	2.34	3.72	5.94	2.09	10.74	16.89	5.61
1977	4.06	6.57	2.19	3.33	5.26	1.92	12.02	20.89	5.44
1978	4.12	6.95	1.91	3.41	5.66	1.69	13.05	24.41	4.33
1979	4.42	7.43	2.21	3.73	6.22	1.98	12.94	23.04	5.24
1980	4.27	6.87	2.28	3.54	5.75	1.86	12.32	18.79	7.41
1981	4.14	6.46	2.36	3.31	5.17	1.94	13.53	21.28	7.46
1982	4.26	6.81	2.28	3.46	5.46	1.96	13.61	22.72	6.41
1983	4.29	7.42	1.95	3.57	6.11	1.77	12.23	22.22	4.26
1984	4.18	6.66	2.24	3.52	5.60	1.92	12.00	19.85	5.98
1985	4.45	7.43	2.22	3.74	6.26	1.89	12.75	22.22	5.81
1986	4.64	7.49	2.46	3.89	6.23	2.18	14.07	24.02	6.31
1987	4.55	7.53	2.25	3.91	6.40	2.02	11.44	20.13	4.81
1988	4.43	7.32	2.21	3.87	6.31	2.02	11.18	19.49	4.99
1989	4.40	7.30	2.21	3.77	6.20	1.96	10.49	17.29	5.39
1990	4.82	8.25	2.19	4.19	7.24	1.90	12.49	21.33	5.83
1991	4.56	7.45	2.35	4.16	6.75	2.19	10.21	17.78	4.88
1992	4.60	8.01	2.00	4.21	7.38	1.80	10.74	18.35	5.32
1993	4.61	7.66	2.25	4.20	6.91	2.10	10.03	17.50	4.64
1994	4.50	7.70	2.06	4.16	7.16	1.87	9.20	14.68	5.13
1995	4.36	7.08	2.20	4.07	6.63	2.06	8.44	13.78	4.37
1996	4.80	8.12	2.20	4.39	7.47	1.98	9.69	16.36	4.81
1997	4.69	7.78	2.22	4.59	7.73	2.02	7.15	10.96	4.46
1998	4.73	8.18	2.04	4.52	7.92	1.87	7.86	12.65	4.32
1999	4.93	8.40	2.17	4.90	8.40	2.07	7.17	11.52	4.08
2000	4.78	7.99	2.17	4.72	8.02	2.02	7.04	10.58	4.44
2001	4.83	8.48	1.92	4.84	8.43	1.93	6.40	11.59	2.61
2002	4.63	7.95	1.99	4.62	8.09	1.82	6.37	10.04	3.65
2003	4.65	8.05	1.96	4.74	8.23	1.93	6.43	10.20	3.79
2004	5.31	9.00	2.37	5.44	9.28	2.34	6.06	8.90	3.98
2005	4.63	8.11	1.85	4.79	8.47	1.79	5.18	8.56	2.88
2006	4.74	7.97	2.10	4.90	8.26	2.09	5.42	8.79	2.95
2007	4.71	8.10	1.99	4.88	8.42	1.98	5.24	8.37	2.92
2008	4.67	8.19	1.79	4.88	8.58	1.79	4.70	7.93	2.26
2009	4.64	7.82	2.06	4.98	8.52	2.00	4.68	6.71	3.38
2010	4.42	7.67	1.73	4.57	7.96	1.69	4.73	7.54	2.81
2011	4.46	7.73	1.81	4.91	8.55	1.87	3.35	4.81	2.20
2012	4.40	7.57	1.76	4.80	8.24	1.87	3.66	6.27	1.72
2013	4.37	7.48	1.77	4.72	7.99	1.91	4.12	7.05	1.94
2014	4.25	7.27	1.75	4.54	7.76	1.77	3.93	6.08	2.46

Additional information on the model used to delay-adjust SEER Incidence rates can be found at [\(https://surveillance.cancer.gov/delay/\)](https://surveillance.cancer.gov/delay/).

<sup>a</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).  
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
- Delay-adjusted rate is not shown for observed rates based on less than 16 cases for the time interval.

Table 8.5  
Cancer of the Esophagus (Invasive)

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

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2014	4.53	7.66	2.07	4.32	7.36	1.94	7.79	12.92	3.97
1975	4.14	6.79	2.12	3.55	5.64	1.99	10.95	20.07	3.70
1976	4.30	6.88	2.34	3.72	5.94	2.09	10.74	16.89	5.61
1977	4.06	6.57	2.19	3.33	5.26	1.92	12.02	20.89	5.44
1978	4.12	6.95	1.91	3.41	5.66	1.69	13.05	24.41	4.33
1979	4.42	7.43	2.21	3.73	6.22	1.98	12.94	23.04	5.24
1980	4.27	6.87	2.28	3.54	5.75	1.86	12.32	18.79	7.41
1981	4.14	6.46	2.36	3.31	5.17	1.94	13.53	21.28	7.46
1982	4.26	6.81	2.28	3.46	5.46	1.96	13.61	22.72	6.41
1983	4.29	7.42	1.95	3.57	6.11	1.77	12.23	22.22	4.26
1984	4.18	6.66	2.24	3.52	5.60	1.92	12.00	19.85	5.98
1985	4.45	7.43	2.22	3.74	6.26	1.89	12.75	22.22	5.81
1986	4.64	7.49	2.46	3.89	6.23	2.18	14.07	24.02	6.31
1987	4.55	7.53	2.25	3.91	6.40	2.02	11.44	20.13	4.81
1988	4.43	7.32	2.21	3.87	6.31	2.02	11.18	19.49	4.99
1989	4.40	7.30	2.21	3.77	6.20	1.96	10.49	17.29	5.39
1990	4.82	8.25	2.19	4.19	7.24	1.90	12.49	21.33	5.83
1991	4.56	7.45	2.35	4.16	6.75	2.19	10.21	17.78	4.88
1992	4.60	8.01	2.00	4.21	7.38	1.80	10.74	18.35	5.32
1993	4.61	7.66	2.25	4.20	6.91	2.10	10.03	17.50	4.64
1994	4.50	7.70	2.06	4.16	7.16	1.87	9.20	14.68	5.13
1995	4.36	7.08	2.20	4.07	6.63	2.06	8.44	13.78	4.37
1996	4.80	8.12	2.20	4.39	7.47	1.98	9.69	16.36	4.81
1997	4.69	7.78	2.22	4.59	7.73	2.02	7.15	10.96	4.46
1998	4.73	8.18	2.04	4.52	7.92	1.87	7.86	12.65	4.32
1999	4.93	8.40	2.17	4.90	8.40	2.07	7.17	11.52	4.08
2000	4.78	7.99	2.17	4.72	8.02	2.02	7.04	10.58	4.44
2001	4.83	8.48	1.92	4.84	8.43	1.93	6.40	11.59	2.61
2002	4.63	7.95	1.99	4.62	8.09	1.82	6.37	10.04	3.65
2003	4.65	8.05	1.96	4.74	8.23	1.93	6.43	10.20	3.79
2004	5.31	9.00	2.37	5.44	9.28	2.34	6.06	8.90	3.98
2005	4.63	8.11	1.85	4.79	8.47	1.79	5.18	8.56	2.88
2006	4.74	7.96	2.10	4.90	8.26	2.08	5.42	8.78	2.95
2007	4.71	8.09	1.99	4.87	8.42	1.98	5.23	8.36	2.92
2008	4.67	8.18	1.79	4.87	8.57	1.79	4.69	7.90	2.25
2009	4.63	7.80	2.05	4.97	8.51	2.00	4.66	6.68	3.36
2010	4.41	7.66	1.73	4.56	7.95	1.69	4.69	7.51	2.78
2011	4.45	7.71	1.81	4.90	8.53	1.87	3.33	4.79	2.19
2012	4.38	7.54	1.75	4.78	8.20	1.86	3.63	6.23	1.70
2013	4.34	7.43	1.76	4.68	7.93	1.89	4.07	6.96	1.92
2014	4.18	7.15	1.72	4.46	7.62	1.74	3.83	5.94	2.40

<sup>a</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 8.6  
Cancer of the Esophagus (Invasive)

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

Year of Death:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2014	4.14	7.29	1.72	3.90	6.92	1.57	6.90	12.05	3.20
1975	3.69	6.36	1.71	3.11	5.37	1.47	9.70	17.01	4.06
1976	3.74	6.39	1.76	3.11	5.32	1.50	10.18	17.73	4.35
1977	3.70	6.26	1.78	3.07	5.20	1.51	10.08	17.57	4.35
1978	3.79	6.41	1.82	3.17	5.35	1.55	10.03	17.59	4.30
1979	3.76	6.40	1.79	3.12	5.28	1.53	10.32	18.55	4.17
1980	3.85	6.60	1.82	3.17	5.49	1.50	10.60	18.30	4.88
1981	3.82	6.58	1.78	3.16	5.44	1.51	10.45	18.72	4.35
1982	3.84	6.52	1.84	3.17	5.37	1.56	10.49	18.60	4.51
1983	3.85	6.64	1.79	3.22	5.59	1.50	10.21	17.95	4.52
1984	3.93	6.74	1.86	3.28	5.63	1.56	10.60	18.80	4.65
1985	3.86	6.72	1.72	3.26	5.71	1.46	9.93	17.72	4.26
1986	3.94	6.76	1.84	3.34	5.76	1.57	10.19	17.96	4.55
1987	3.97	6.88	1.80	3.41	5.96	1.53	9.67	17.13	4.37
1988	4.05	7.04	1.80	3.47	6.01	1.58	9.95	18.40	3.89
1989	4.11	7.15	1.82	3.56	6.23	1.57	9.75	17.32	4.29
1990	4.10	7.16	1.81	3.58	6.32	1.55	9.35	16.33	4.37
1991	4.13	7.24	1.81	3.64	6.43	1.57	9.23	16.54	4.14
1992	4.17	7.30	1.81	3.74	6.61	1.57	8.65	15.10	4.11
1993	4.19	7.33	1.82	3.75	6.60	1.59	8.99	16.00	4.07
1994	4.27	7.59	1.77	3.87	6.94	1.56	8.57	15.28	3.88
1995	4.26	7.56	1.76	3.92	7.00	1.58	8.04	14.45	3.51
1996	4.31	7.52	1.86	4.01	7.06	1.67	7.77	13.57	3.72
1997	4.25	7.50	1.77	4.00	7.11	1.60	7.26	12.84	3.39
1998	4.36	7.65	1.84	4.13	7.31	1.66	7.11	12.21	3.56
1999	4.35	7.69	1.77	4.19	7.44	1.65	6.54	11.56	3.06
2000	4.39	7.71	1.83	4.27	7.56	1.69	6.44	10.93	3.26
2001	4.43	7.85	1.79	4.30	7.66	1.68	6.41	11.30	3.01
2002	4.41	7.82	1.75	4.35	7.77	1.64	5.89	10.15	2.92
2003	4.38	7.75	1.75	4.34	7.71	1.66	5.68	9.64	2.87
2004	4.36	7.74	1.73	4.35	7.77	1.63	5.36	8.98	2.85
2005	4.44	7.95	1.67	4.48	8.07	1.61	4.99	8.76	2.34
2006	4.41	7.84	1.69	4.47	7.99	1.64	4.77	8.25	2.34
2007	4.27	7.66	1.59	4.35	7.81	1.55	4.66	8.24	2.23
2008	4.22	7.54	1.58	4.31	7.74	1.52	4.46	7.64	2.27
2009	4.18	7.47	1.55	4.30	7.71	1.53	4.05	7.19	1.87
2010	4.26	7.54	1.61	4.40	7.79	1.60	4.19	7.38	1.99
2011	4.15	7.42	1.52	4.33	7.76	1.51	3.79	6.54	1.86
2012	4.10	7.31	1.49	4.28	7.67	1.46	3.73	6.19	1.94
2013	4.02	7.15	1.46	4.22	7.51	1.46	3.48	5.89	1.77
2014	3.99	7.09	1.44	4.21	7.50	1.44	3.32	5.51	1.77

<sup>a</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 8.7  
Cancer of the Esophagus (Invasive)

SEER Incidence<sup>a</sup> and U.S. Death<sup>b</sup> Rates, Age-Adjusted and Age-Specific Rates, by Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER Incidence</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2010-2014									
All ages	4.2	7.3	1.7	4.5	7.7	1.7	4.2	6.9	2.3
Under 65	1.7	2.9	0.6	1.8	3.0	0.6	2.0	3.2	1.0
65 and over	21.6	37.9	9.2	23.1	40.5	9.5	19.5	32.6	10.8
All ages (WHO world std) <sup>c</sup>	3.1	5.3	1.2	3.3	5.6	1.2	3.2	5.2	1.7
Age-Specific Rates, 2010-2014									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	0.1	0.1	-	0.1	0.1	-	-	-	-
30-34	0.1	0.2	-	0.2	0.3	-	-	-	-
35-39	0.4	0.6	0.1	0.4	0.7	0.2	-	-	-
40-44	0.9	1.4	0.4	1.0	1.6	0.3	0.8	1.2	-
45-49	2.3	4.0	0.7	2.5	4.2	0.7	2.3	4.1	-
50-54	4.6	7.6	1.8	4.7	7.8	1.6	6.3	9.0	3.8
55-59	8.2	13.7	3.1	8.4	14.3	2.7	10.7	15.8	6.3
60-64	13.0	22.7	4.1	13.7	23.8	4.1	15.2	26.2	6.2
65-69	17.7	30.6	6.2	18.9	32.7	6.3	16.7	27.1	8.7
70-74	20.8	36.1	8.0	22.3	39.0	7.9	20.3	33.4	10.7
75-79	24.5	42.9	10.2	26.1	45.7	10.6	23.0	40.3	11.7
80-84	25.7	44.9	12.5	27.7	48.0	13.5	20.5	36.9	11.4
85+	22.2	41.0	12.6	23.3	43.4	12.9	16.9	24.9	13.6
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2010-2014									
All ages	4.1	7.3	1.5	4.3	7.6	1.5	3.7	6.3	1.9
Under 65	1.5	2.7	0.5	1.6	2.8	0.4	1.6	2.6	0.8
65 and over	21.7	39.1	8.7	22.7	40.9	8.8	18.1	31.7	9.4
All ages (WHO world std) <sup>c</sup>	2.9	5.2	1.0	3.1	5.4	1.0	2.7	4.6	1.3
Age-Specific Rates, 2010-2014									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	0.1	0.1	0.0	0.1	0.1	-	-	-	-
30-34	0.1	0.2	0.1	0.1	0.2	0.0	-	-	-
35-39	0.3	0.5	0.1	0.3	0.6	0.1	0.1	0.3	-
40-44	0.8	1.4	0.3	0.9	1.6	0.3	0.7	1.0	0.4
45-49	2.0	3.4	0.6	2.1	3.7	0.6	2.0	3.2	1.0
50-54	4.3	7.3	1.3	4.5	7.8	1.2	4.5	6.9	2.4
55-59	7.7	13.5	2.4	7.9	14.0	2.2	8.5	13.5	4.2
60-64	11.8	21.1	3.4	12.2	21.8	3.2	12.6	21.2	5.5
65-69	15.8	28.0	4.9	16.5	29.2	4.9	14.9	26.2	6.2
70-74	20.0	35.3	6.9	21.0	37.2	6.9	17.4	30.2	8.3
75-79	24.1	43.1	9.2	25.2	44.9	9.3	20.5	36.1	10.4
80-84	27.5	49.4	12.4	28.8	51.7	12.7	20.6	34.9	12.9
85+	27.8	52.8	15.3	28.9	55.1	15.7	19.5	35.9	12.9

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

<sup>b</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

<sup>c</sup> 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 8.8  
Cancer of the Esophagus (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 <sup>a</sup>	-	-	-	4	4	6	1	0	2
1970-1973 <sup>a</sup>	-	-	-	4	4	4	4	4	3
1975-1977 <sup>b</sup>	5.0	4.0	7.5	5.5	4.8	7.0	3.5	2.0	7.7
1978-1980 <sup>b</sup>	5.0	4.8	5.6	5.3	5.3	5.2	4.3	3.4	6.8
1981-1983 <sup>b</sup>	6.6	6.0	8.2	7.3	6.5	9.0	4.3	3.7	6.5
1984-1986 <sup>b</sup>	9.5	8.4	12.1	10.2	9.0	13.0	8.7	8.2	9.9
1987-1989 <sup>b</sup>	9.4	9.4	9.5	10.5	11.0	9.2	6.6	5.3	10.2
1990-1992 <sup>b</sup>	12.2	11.7	13.4	12.9	12.2	14.8	9.4	9.7	8.4
1993-1995 <sup>b</sup>	12.1	12.2	11.7	13.4	13.6	12.7	7.6	7.8	6.9
1996-1998 <sup>b</sup>	13.4	13.0	14.4	14.1	13.9	14.7	10.2	8.5	13.6
1999-2001 <sup>b</sup>	18.1	17.6	19.5	18.9	18.6	19.7	12.5	10.6	16.3
2002-2006 <sup>b</sup>	18.7	18.7	18.9	19.9	20.0	19.4	13.2	11.3	16.6
2007-2013 <sup>b</sup>	21.0 <sup>f</sup>	20.6 <sup>f</sup>	22.3 <sup>f</sup>	22.3 <sup>f</sup>	22.0 <sup>f</sup>	23.4 <sup>f</sup>	11.7 <sup>f</sup>	10.3 <sup>f</sup>	13.8 <sup>f</sup>
5-Year Period Survival (Percent) <sup>cd</sup>									
2013	19.7	19.2	21.6	20.8	20.4	22.5	11.6	9.3	16.0
Stage Distribution (%) 2007-2013 <sup>ce</sup>									
All Stages									
Number of cases	21,130	16,743	4,387	17,717	14,312	3,405	2,252	1,553	699
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	20	19	22	20	20	22	17	16	20
Regional	31	31	30	31	31	30	32	32	32
Distant	39	40	33	39	40	33	40	42	35
Unstaged	10	9	15	10	9	15	11	10	12
5-Year Relative Survival (Percent), 2007-2013 <sup>c</sup>									
Age at Diagnosis:									
Ages <45	19.0	20.1	9.4 <sup>g</sup>	18.7	20.1	6.3 <sup>g</sup>	15.3 <sup>g</sup>	14.0 <sup>g</sup>	14.1 <sup>h</sup>
Ages 45-54	20.3	19.9	22.2	21.8	21.1	26.4	11.1	11.4	10.4
Ages 55-64	20.7	19.9	25.2	22.3	21.6	27.1	11.8	9.4	18.5
Ages 65-74	22.0	21.5	24.0	22.9	22.5	25.1	13.1	12.2	15.1
Ages 75+	11.8	12.0	11.3	12.0	12.4	11.2	9.6	8.7	9.8
Ages <65	20.5	19.9	23.6	22.0	21.3	25.8	11.7	10.2	15.7
Ages 65+	17.2	17.5	16.5	17.8	18.1	16.6	11.8	11.1	12.8
Stage <sup>e</sup> :									
All Stages	18.8	18.7	19.2	19.7	19.7	19.9	11.8	10.6	14.4
Localized	42.9	45.4	34.2	45.3	47.8	35.9	23.2	23.1	22.8
Regional	23.4	22.9	25.6	24.1	23.6	26.6	16.9	16.4	17.7
Distant	4.6	4.3	6.6	4.9	4.5	6.7	3.1	1.5	6.7
Unstaged	12.4	12.6	11.8	12.0	12.5	10.4	10.4	9.1	13.3

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

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

Based on follow-up of patients into 2014.

<sup>c</sup> SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).

Based on follow-up of patients into 2014.

<sup>d</sup> Period survival provides a 2013 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).

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

<sup>f</sup> The difference between 1975-1977 and 2007-2013 is statistically significant ( $p < .05$ ).

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

<sup>h</sup> 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 8.9  
Cancer of the Esophagus (Invasive)

SEER<sup>a</sup> Relative Survival (Percent)  
By Year of Diagnosis

All Races, Males and Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Survival Time																							
1-year	25.9	29.9	34.9	38.5	40.3	42.0	40.1	40.8	44.2	46.1	46.2	41.9	46.6	48.2	45.6	47.6	49.9	47.7	48.9	49.6	49.2	51.0	52.1
2-year	11.4	14.3	19.0	21.8	22.6	24.3	23.9	23.9	26.8	28.4	29.3	25.9	30.5	30.2	31.2	30.6	32.9	32.2	30.8	33.7	32.1	34.4	
3-year	7.7	10.0	13.5	16.3	16.8	18.6	17.5	18.3	20.7	23.9	23.0	20.9	23.9	25.9	24.2	25.2	27.0	24.5	24.4	27.6	24.6		
4-year	5.9	8.2	10.8	13.7	13.2	15.9	14.3	14.2	18.3	20.6	19.2	17.9	20.1	22.3	21.4	21.9	23.4	21.7	21.4	24.6			
5-year	4.9	7.0	9.5	12.2	11.6	15.0	12.4	12.6	17.3	18.9	17.9	16.8	17.2	20.2	18.9	20.1	21.7	18.7	20.6				
6-year	4.3	6.1	8.5	11.1	10.8	13.8	11.3	11.6	15.8	17.9	15.9	15.3	14.5	19.6	17.4	18.7	19.5	17.9					
7-year	3.8	5.6	7.7	10.2	10.2	12.9	10.7	11.3	14.6	16.7	14.8	14.9	13.3	18.3	15.7	17.8	18.3						
8-year	3.4	4.9	7.0	9.5	9.6	12.0	9.8	9.8	14.1	15.8	13.8	13.6	13.0	17.9	14.6	16.8							
9-year	3.2	4.5	6.4	9.0	8.9	11.4	9.3	9.6	13.4	15.6	13.5	13.1	12.9	16.5	13.7								
10-year	2.9	4.3	6.0	8.3	8.6	10.5	9.2	9.4	12.8	15.1	13.3	13.0	11.9	15.5									
11-year	2.7	3.9	5.4	7.8	7.6	9.6	9.0	9.1	12.6	14.3	12.3	13.0	11.8										
12-year	2.6	3.8	4.9	7.1	7.2	9.2	7.5	8.5	11.8	14.0	11.9	12.4											
13-year	2.4	3.5	4.6	7.0	6.8	9.2	7.0	8.5	10.9	12.2	11.7												
14-year	2.4	3.4	4.3	6.6	5.7	8.9	6.3	8.4	10.2	11.9													
15-year	2.4	3.4	4.2	6.2	5.5	8.6	6.0	7.6	10.1														
16-year	2.3	3.2	3.7	5.8	4.9	7.8	5.8	7.5															
17-year	2.3	3.0	3.2	5.5	4.9	6.9	5.8																
18-year	2.2	2.7	3.1	5.3	4.9	6.9																	
19-year	2.2	2.5	2.9	4.9	3.8																		
20-year	2.1	2.4	2.6	4.8																			

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

Table 8.10  
Cancer of the Esophagus (Invasive)

SEER<sup>a</sup> Relative Survival (Percent)  
By Year of Diagnosis

All Races, Males

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Survival Time																							
1-year	23.9	29.2	34.1	38.9	39.9	43.2	40.6	41.0	43.5	47.5	47.2	43.1	46.3	47.6	46.7	48.5	51.6	48.6	50.2	48.5	48.7	51.5	52.8
2-year	10.0	13.8	18.4	21.6	22.8	24.8	24.7	24.3	26.3	28.7	29.7	26.4	29.9	30.2	31.1	30.9	33.2	32.8	30.9	32.9	31.8	34.1	
3-year	6.8	9.2	13.1	16.4	16.7	18.2	18.3	18.5	20.6	23.6	23.1	21.3	23.2	25.8	24.1	25.9	27.4	24.8	25.0	26.6	23.7		
4-year	5.1	7.3	10.3	13.4	13.0	15.1	15.2	14.2	18.0	19.6	19.4	18.1	19.6	22.4	20.8	22.8	23.6	21.9	21.4	23.5			
5-year	4.2	6.0	9.3	12.0	11.8	13.9	13.0	12.1	17.2	17.3	18.4	16.8	16.8	20.0	18.4	21.0	21.9	18.8	20.7				
6-year	3.7	5.1	8.4	10.8	11.0	12.9	11.8	11.5	16.0	16.4	16.3	15.4	13.9	19.3	17.1	19.4	19.4	17.8					
7-year	3.3	4.5	7.6	10.2	10.7	11.9	11.5	11.2	14.9	15.4	15.4	15.3	12.7	18.3	15.3	18.5	17.9						
8-year	3.0	4.0	6.9	9.3	9.9	11.2	10.3	9.4	14.7	14.6	14.6	13.7	12.2	17.8	14.0	17.3							
9-year	2.8	3.6	6.5	8.8	9.6	10.6	10.0	9.3	14.0	14.3	14.2	13.3	12.2	17.1	13.4								
10-year	2.7	3.4	6.2	7.9	9.2	9.9	9.7	9.3	13.2	14.0	13.9	13.3	11.6	16.0									
11-year	2.5	3.3	5.7	7.5	8.4	8.9	9.5	9.0	13.1	13.1	13.0	13.3	11.6										
12-year	2.4	3.2	5.1	6.8	7.7	8.6	8.4	8.8	12.7	12.8	12.6	12.4											
13-year	2.3	3.0	4.6	6.8	7.1	8.6	7.7	8.8	11.7	10.8	12.6												
14-year	2.2	3.0	4.2	6.6	6.3	8.3	6.9	8.8	10.8	10.5													
15-year	2.2	3.0	4.0	6.1	5.9	8.3	6.3	7.8	10.6														
16-year	2.2	2.8	3.4	5.9	5.3	8.1	6.1	7.8															
17-year	2.2	2.8	2.9	5.5	5.3	7.1	6.0																
18-year	2.2	2.5	2.8	5.3	5.3	7.1																	
19-year	2.1	2.3	2.5	5.1	3.9																		
20-year	2.0	2.2	2.3	5.0																			

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

Table 8.11  
Cancer of the Esophagus (Invasive)

SEER<sup>a</sup> Relative Survival (Percent)  
By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Survival Time																							
1-year	31.2	31.6	37.1	37.3	41.4	38.4	38.8	39.9	46.6	41.6	42.9	38.2	48.0	50.1	41.9	44.9	44.3	44.3	44.4	54.0	51.1	48.9	49.0
2-year	15.1	15.6	20.7	22.4	22.2	22.9	21.6	22.5	28.3	27.4	27.9	24.3	32.4	30.1	31.7	29.5	31.9	30.2	30.5	37.3	33.3	35.4	
3-year	10.0	12.0	14.5	16.2	17.0	19.8	15.1	17.6	21.0	24.6	22.7	19.6	26.3	25.9	24.6	22.6	25.5	23.0	22.7	31.7	28.2		
4-year	7.9	10.5	12.3	14.5	13.7	18.2	11.7	14.3	18.7	23.8	18.6	17.3	21.9	21.9	23.7	18.7	22.5	21.3	21.4	29.1			
5-year	6.5	9.3	10.0	12.9	10.7	18.2	10.6	14.1	17.7	23.8	16.1	16.9	18.8	20.8	20.7	17.0	21.1	18.4	20.0				
6-year	5.9	8.6	8.5	11.8	9.9	16.3	9.8	11.9	15.0	22.7	14.2	14.8	16.6	20.5	18.4	16.3	20.0	17.9					
7-year	5.2	8.3	8.0	10.2	9.0	15.7	8.1	11.7	13.2	20.7	12.3	13.4	15.3	18.0	16.9	15.5	19.4						
8-year	4.4	7.1	7.3	10.0	8.7	14.2	8.1	10.8	11.9	19.6	10.7	13.1	15.3	17.8	16.6	14.9							
9-year	4.0	6.5	6.3	9.5	7.1	13.7	7.4	10.5	10.8	19.3	10.7	12.3	14.7	14.3	14.6								
10-year	3.5	6.5	5.3	9.2	6.6	12.3	7.4	9.5	10.8	18.3	10.7	12.0	12.3	13.4									
11-year	3.3	5.4	4.8	8.8	5.6	11.4	7.4	9.3	10.0	17.6	9.5	12.0	11.0										
12-year	3.1	5.2	4.6	7.9	5.6	11.0	5.2	7.6	8.1	17.3	8.9	12.0											
13-year	2.8	4.7	4.6	7.0	5.6	11.0	4.6	7.6	7.4	16.4	8.2												
14-year	2.8	4.5	4.5	6.4	4.2	10.5	4.6	6.8	7.4	16.0													
15-year	2.8	4.5	4.5	6.1	4.2	8.7	4.6	6.8	7.4														
16-year	2.7	3.8	4.2	5.5	3.7	6.8	4.6	6.4															
17-year	2.4	3.2	3.9	5.4	3.7	6.3	4.6																
18-year	2.2	3.0	3.8	5.2	3.7	6.3																	
19-year	2.2	2.8	3.7	4.5	3.4																		
20-year	2.2	2.8	3.3	4.2																			

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

Table 8.12  
Cancer of the Esophagus (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, 2012-2014 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	0.48	0.48	Asian/ Pacific Islander	0	0.00	0.00	0.00	0.27	0.28
	10	0.00	0.00	0.00	0.49	0.48		10	0.00	0.00	0.00	0.27	0.28
	20	0.00	0.00	0.02	0.49	0.48		20	0.00	0.00	0.01	0.27	0.28
	30	0.00	0.02	0.08	0.49	0.49		30	0.00	0.01	0.03	0.27	0.28
	40	0.02	0.08	0.21	0.50	0.49		40	0.01	0.03	0.09	0.27	0.28
	50	0.06	0.19	0.36	0.49	0.49		50	0.03	0.09	0.17	0.27	0.28
	60	0.14	0.31	0.43	0.46	0.46		60	0.06	0.15	0.22	0.25	0.27
	70	0.19	0.33	-	0.36	0.38		70	0.09	0.17	-	0.20	0.23
80	0.18	-	-	0.22	0.25	80	0.09	-	-	0.13	0.17		
White	0	0.00	0.00	0.00	0.51	0.50	American Indian/ Alaska Native <sup>a</sup>	0	0.00	0.00	0.00	0.35	0.38
	10	0.00	0.00	0.00	0.52	0.51		10	0.00	0.00	0.01	0.35	0.38
	20	0.00	0.00	0.02	0.52	0.51		20	0.00	0.01	0.02	0.36	0.39
	30	0.00	0.02	0.08	0.52	0.51		30	0.00	0.02	0.08	0.36	0.39
	40	0.02	0.08	0.22	0.53	0.52		40	0.02	0.08	0.19	0.36	0.40
	50	0.06	0.20	0.38	0.52	0.51		50	0.06	0.18	0.25	0.36	0.41
	60	0.15	0.33	0.46	0.49	0.48		60	0.12	0.20	0.29	0.32	0.40
	70	0.21	0.35	-	0.38	0.39		70	0.09	0.19	-	0.23	0.37
80	0.19	-	-	0.23	0.26	80	0.14	-	-	0.18	0.29		
Black	0	0.00	0.00	0.00	0.41	0.36	Hispanic <sup>b</sup>	0	0.00	0.00	0.00	0.36	0.30
	10	0.00	0.00	0.00	0.42	0.37		10	0.00	0.00	0.00	0.36	0.31
	20	0.00	0.00	0.02	0.42	0.37		20	0.00	0.00	0.01	0.36	0.31
	30	0.00	0.02	0.09	0.42	0.37		30	0.00	0.01	0.05	0.37	0.31
	40	0.02	0.09	0.22	0.43	0.38		40	0.01	0.05	0.13	0.37	0.31
	50	0.08	0.21	0.34	0.43	0.38		50	0.04	0.12	0.23	0.36	0.31
	60	0.14	0.28	0.36	0.38	0.35		60	0.09	0.20	0.30	0.34	0.30
	70	0.17	0.27	-	0.29	0.28		70	0.13	0.23	-	0.28	0.26
80	0.14	-	-	0.17	0.18	80	0.13	-	-	0.19	0.20		

Devcan 6.7.5, April 2017, 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.

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

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

- Statistic could not be calculated.

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

Table 8.13  
Cancer of the Esophagus (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, 2012-2014 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	0.76	0.77	Asian/ Pacific Islander	0	0.00	0.00	0.00	0.42	0.42
	10	0.00	0.00	0.01	0.77	0.78		10	0.00	0.00	0.00	0.42	0.43
	20	0.00	0.01	0.03	0.78	0.78		20	0.00	0.00	0.01	0.42	0.43
	30	0.00	0.03	0.13	0.78	0.79		30	0.00	0.01	0.06	0.43	0.43
	40	0.03	0.13	0.34	0.79	0.80		40	0.01	0.06	0.16	0.43	0.43
	50	0.10	0.32	0.59	0.79	0.80		50	0.05	0.15	0.27	0.42	0.43
	60	0.24	0.52	0.70	0.74	0.76		60	0.10	0.24	0.36	0.39	0.40
	70	0.33	0.54	-	0.58	0.62		70	0.14	0.28	-	0.31	0.35
80	0.30	-	-	0.35	0.43	80	0.16	-	-	0.21	0.25		
White	0	0.00	0.00	0.00	0.82	0.81	American Indian/ Alaska Native <sup>a</sup>	0	0.00	0.00	0.00	0.55	0.58
	10	0.00	0.00	0.01	0.83	0.82		10	0.00	0.00	0.01	0.56	0.59
	20	0.00	0.01	0.04	0.83	0.83		20	0.00	0.01	0.04	0.56	0.59
	30	0.01	0.03	0.14	0.84	0.84		30	0.01	0.04	0.14	0.57	0.61
	40	0.03	0.13	0.36	0.84	0.85		40	0.03	0.13	0.29	0.58	0.62
	50	0.11	0.34	0.63	0.84	0.84		50	0.11	0.27	0.36	0.58	0.64
	60	0.25	0.56	0.75	0.79	0.80		60	0.17	0.28	0.45	0.51	0.63
	70	0.36	0.58	-	0.62	0.65		70	0.12	0.32	-	0.40	0.62
80	0.31	-	-	0.37	0.44	80	0.28	-	-	0.40	0.53		
Black	0	0.00	0.00	0.00	0.59	0.53	Hispanic <sup>b</sup>	0	0.00	0.00	0.00	0.57	0.50
	10	0.00	0.00	0.00	0.61	0.54		10	0.00	0.00	0.00	0.58	0.51
	20	0.00	0.00	0.03	0.61	0.54		20	0.00	0.00	0.02	0.58	0.51
	30	0.00	0.03	0.14	0.62	0.55		30	0.00	0.02	0.09	0.59	0.52
	40	0.03	0.14	0.34	0.63	0.57		40	0.02	0.08	0.22	0.59	0.52
	50	0.12	0.32	0.53	0.63	0.57		50	0.07	0.21	0.40	0.59	0.52
	60	0.23	0.46	0.56	0.58	0.53		60	0.15	0.35	0.51	0.55	0.50
	70	0.29	0.42	-	0.44	0.43		70	0.23	0.40	-	0.45	0.44
80	0.20	-	-	0.24	0.28	80	0.23	-	-	0.29	0.34		

Devcan 6.7.5, April 2017, 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.

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

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

- Statistic could not be calculated.

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

Table 8.14  
Cancer of the Esophagus (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, 2012-2014 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	0.22	0.20	Asian/ Pacific Islander	0	0.00	0.00	0.00	0.14	0.16
	10	0.00	0.00	0.00	0.22	0.20		10	0.00	0.00	0.00	0.14	0.16
	20	0.00	0.00	0.01	0.22	0.21		20	0.00	0.00	0.00	0.14	0.16
	30	0.00	0.01	0.03	0.22	0.21		30	0.00	0.00	0.01	0.14	0.16
	40	0.01	0.03	0.07	0.23	0.21		40	0.00	0.01	0.04	0.14	0.16
	50	0.02	0.07	0.14	0.22	0.21		50	0.01	0.04	0.08	0.14	0.16
	60	0.05	0.12	0.19	0.21	0.20		60	0.03	0.07	0.10	0.13	0.15
	70	0.08	0.15	-	0.18	0.18		70	0.05	0.08	-	0.11	0.14
80	0.09	-	-	0.12	0.14	80	0.04	-	-	0.07	0.12		
White	0	0.00	0.00	0.00	0.22	0.20	American Indian/ Alaska Native <sup>a</sup>	0	0.00	0.00	0.00	0.17	0.19
	10	0.00	0.00	0.00	0.23	0.20		10	0.00	0.00	0.00	0.17	0.19
	20	0.00	0.00	0.01	0.23	0.21		20	0.00	0.00	0.00	0.17	0.19
	30	0.00	0.01	0.03	0.23	0.21		30	0.00	0.00	0.02	0.17	0.20
	40	0.01	0.03	0.07	0.23	0.21		40	0.00	0.02	0.09	0.17	0.20
	50	0.02	0.07	0.14	0.23	0.21		50	0.02	0.09	0.15	0.18	0.21
	60	0.05	0.12	0.19	0.21	0.20		60	0.07	0.14	0.16	0.16	0.19
	70	0.08	0.16	-	0.18	0.18		70	0.07	0.10	-	0.10	0.18
80	0.10	-	-	0.13	0.14	80	0.04	-	-	0.04	0.12		
Black	0	0.00	0.00	0.00	0.24	0.22	Hispanic <sup>b</sup>	0	0.00	0.00	0.00	0.17	0.13
	10	0.00	0.00	0.00	0.25	0.22		10	0.00	0.00	0.00	0.17	0.13
	20	0.00	0.00	0.01	0.25	0.22		20	0.00	0.00	0.00	0.17	0.13
	30	0.00	0.01	0.05	0.25	0.22		30	0.00	0.00	0.01	0.17	0.13
	40	0.01	0.05	0.11	0.25	0.22		40	0.00	0.01	0.04	0.17	0.13
	50	0.04	0.11	0.17	0.25	0.22		50	0.01	0.04	0.08	0.17	0.13
	60	0.07	0.14	0.20	0.22	0.21		60	0.03	0.08	0.13	0.16	0.13
	70	0.09	0.16	-	0.18	0.18		70	0.05	0.10	-	0.14	0.12
80	0.10	-	-	0.13	0.13	80	0.07	-	-	0.11	0.10		

Devcan 6.7.5, April 2017, 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.

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

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

- Statistic could not be calculated.

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

Table 8.15  
Cancer of the Esophagus (Invasive)

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

SEER Incidence	SEER 18 Areas <sup>b</sup>			SEER 13 Areas <sup>b</sup>			SEER 9 Areas <sup>b</sup>		
	Rate 2010-2014			Trend 2005-2014 <sup>c</sup>			Trend 2005-2014 <sup>d</sup>		
	Rate per 100,000 persons			AAPC (%)			AAPC (%)		
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Races	4.2	7.3	1.7	-1.6*	-1.5*	-1.3*	-1.4*	-1.5*	-2.1*
White	4.5	7.7	1.7	-1.0*	-1.0*	-0.6*	-0.7	-0.9*	-0.1
White Hispanic <sup>e</sup>	2.9	5.1	1.1	-1.0*	-1.2*	-1.0	-	-	-
White Non-Hispanic <sup>e</sup>	4.7	8.2	1.8	-0.9*	-0.9*	-0.4*	-	-	-
Black	4.2	6.9	2.3	-4.6*	-4.7*	-4.2*	-4.5*	-4.8*	-3.3*
Asian/Pacific Islander	2.0	3.5	0.8	-2.1*	-2.3*	-1.0	-	-	-
Amer Ind/Alaska Nat <sup>f</sup>	3.0	5.1	1.4	-1.6	-2.6	-	-	-	-
Hispanic <sup>e</sup>	2.7	4.8	1.1	-1.0*	-1.2*	-1.1	-	-	-
<u>U.S. Mortality<sup>g</sup></u>									
	Rate 2010-2014			Trend 2005-2014 <sup>h</sup>					
	Rate per 100,000 persons			AAPC (%)					
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females			
All Races	4.1	7.3	1.5	-1.2*	-1.2*	-1.7*			
White	4.3	7.6	1.5	-0.5*	-0.7*	-1.1*			
White Hispanic <sup>e</sup>	2.3	4.2	0.8	-0.9*	-0.9*	-2.3*			
White Non-Hispanic <sup>e</sup>	4.5	8.0	1.6	-0.3*	-0.6*	-1.0*			
Black	3.7	6.3	1.9	-4.5*	-4.7*	-4.0*			
Asian/Pacific Islander	1.7	2.9	0.7	-1.8*	-1.8*	-1.6*			
Amer Ind/Alaska Nat									
Total U.S.	2.5	4.2	1.1	-1.7	0.2	-0.2			
CHSDA Counties	3.4	5.6	1.7	-1.9	0.3	1.9			
Non-CHSDA Counties	1.5	2.7	0.5	-1.7	-1.3	-3.8			
Hispanic <sup>e</sup>	2.2	4.0	0.8	-1.0*	-1.0*	-2.3*			

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.

Trend based on less than 10 cases for at least one year within the time interval.

a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

b The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta.

The SEER 13 areas comprise the SEER 9 areas plus San Jose-Monterey, Los Angeles, the Alaska Native Registry, and Rural Georgia.

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

c The 2005-2014 AAPC estimates are based on a Joinpoint analysis with up to 4 Joinpoints over diagnosis years 1992-2014.

d The 2005-2014 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2014.

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 2005-2014 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 2005-2014 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2014.

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

Table 8.16  
Cancer of the Esophagus (Invasive)  
Age-Adjusted SEER Incidence Rates<sup>a</sup>  
By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER Incidence Rates<sup>a</sup>, 2010-2014</u>									
California	3.69	6.27	1.55	4.08	6.96	1.65	3.33	4.85	2.14
Greater Bay Area	3.69	5.96	1.81	4.28	6.89	2.04	3.97	5.15	2.92
San Francisco-Oakland	3.76	5.93	1.93	4.32	6.83	2.15	4.11	5.23	3.15
San Jose-Monterey	3.58	6.03	1.56	4.20	6.98	1.85	-	-	-
Los Angeles	3.10	5.27	1.38	3.41	5.86	1.41	3.27	5.06	2.03
Greater California	3.96	6.83	1.54	4.28	7.40	1.63	3.13	4.57	1.93
Connecticut	4.70	8.29	1.81	4.81	8.49	1.80	4.41	7.78	2.23
Detroit	4.97	8.60	2.07	5.22	9.03	2.07	4.49	7.56	2.29
Georgia	4.44	7.85	1.66	4.35	7.70	1.46	4.75	8.57	2.15
Atlanta	3.72	6.17	1.87	3.84	6.29	1.83	3.59	6.00	2.04
Rural Georgia	5.83	11.52	-	4.98	9.87	-	7.87	16.70	-
Greater Georgia	4.78	8.56	1.62	4.55	8.19	1.39	5.55	10.11	2.25
Hawaii	3.38	6.01	1.13	5.15	8.19	2.02	-	-	-
Iowa	5.51	9.90	1.79	5.54	9.98	1.78	-	-	-
Kentucky	4.83	8.45	1.76	4.89	8.61	1.70	4.09	6.56	2.22
Louisiana	4.76	8.36	1.80	4.71	8.48	1.51	5.00	8.29	2.56
New Jersey	4.53	7.79	1.96	4.74	8.26	1.90	4.24	6.48	2.69
New Mexico	3.69	6.69	1.11	3.87	6.97	1.19	-	-	-
Seattle-Puget Sound	4.74	7.96	2.02	5.04	8.45	2.12	2.55	3.39	-
Utah	3.30	5.91	0.97	3.37	6.04	0.98	-	-	-
SEER 9 Areas <sup>b</sup>	4.35	7.49	1.75	4.67	8.03	1.81	3.91	6.28	2.19
SEER 13 Areas <sup>b</sup>	4.04	6.94	1.66	4.39	7.54	1.72	3.79	6.09	2.13
SEER 18 Areas <sup>b</sup>	4.21	7.29	1.68	4.46	7.75	1.68	4.23	6.89	2.27

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

<sup>b</sup> The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.  
The SEER 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 8.17  
Cancer of the Esophagus (Invasive)

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

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER Death Rates<sup>a</sup>, 2010-2014</u>									
California	3.34	5.90	1.28	3.75	6.64	1.37	2.83	4.20	1.81
Greater Bay Area	3.13	5.27	1.39	3.66	6.22	1.54	3.26	4.27	2.43
San Francisco-Oakland	3.17	5.25	1.48	3.76	6.29	1.65	3.30	4.13	2.63
San Jose-Monterey	3.04	5.32	1.22	3.47	6.11	1.34	-	-	-
Los Angeles	2.81	4.94	1.15	3.16	5.59	1.23	2.78	4.41	1.68
Greater California	3.66	6.54	1.30	4.00	7.15	1.37	2.73	3.98	1.69
Connecticut	4.00	7.11	1.56	4.10	7.31	1.54	3.62	6.07	2.00
Detroit	4.36	7.90	1.67	4.70	8.52	1.69	3.50	6.04	1.72
Georgia	3.71	6.64	1.36	3.68	6.59	1.23	4.02	7.32	1.78
Atlanta	3.12	5.22	1.57	3.41	5.63	1.62	2.75	4.71	1.53
Rural Georgia	5.54	10.46	-	4.01	6.76	-	8.92	20.54	-
Greater Georgia	3.95	7.19	1.29	3.78	6.92	1.11	4.79	8.65	2.00
Hawaii	2.96	5.37	0.94	4.37	6.87	1.79	-	-	-
Iowa	4.84	8.92	1.48	4.91	9.03	1.51	-	-	-
Kentucky	4.34	7.89	1.38	4.37	7.97	1.35	4.17	7.35	1.78
Louisiana	4.31	7.72	1.54	4.26	7.67	1.38	4.60	8.19	1.95
New Jersey	3.86	6.96	1.49	4.12	7.48	1.49	3.41	5.68	1.87
New Mexico	3.45	6.10	1.21	3.61	6.38	1.24	-	-	-
Seattle-Puget Sound	4.00	6.96	1.56	4.32	7.51	1.65	1.77	-	-
Utah	3.15	5.56	1.05	3.25	5.74	1.06	-	-	-
SEER 9 Areas <sup>b</sup>	3.78	6.67	1.46	4.13	7.28	1.53	3.09	5.03	1.72
SEER 13 Areas <sup>b</sup>	3.55	6.25	1.38	3.92	6.90	1.46	3.10	5.11	1.69
SEER 18 Areas <sup>b</sup>	3.72	6.64	1.38	3.99	7.14	1.41	3.60	6.08	1.80
Total U.S.	4.10	7.30	1.50	4.29	7.65	1.49	3.69	6.26	1.86

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

<sup>b</sup> 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.

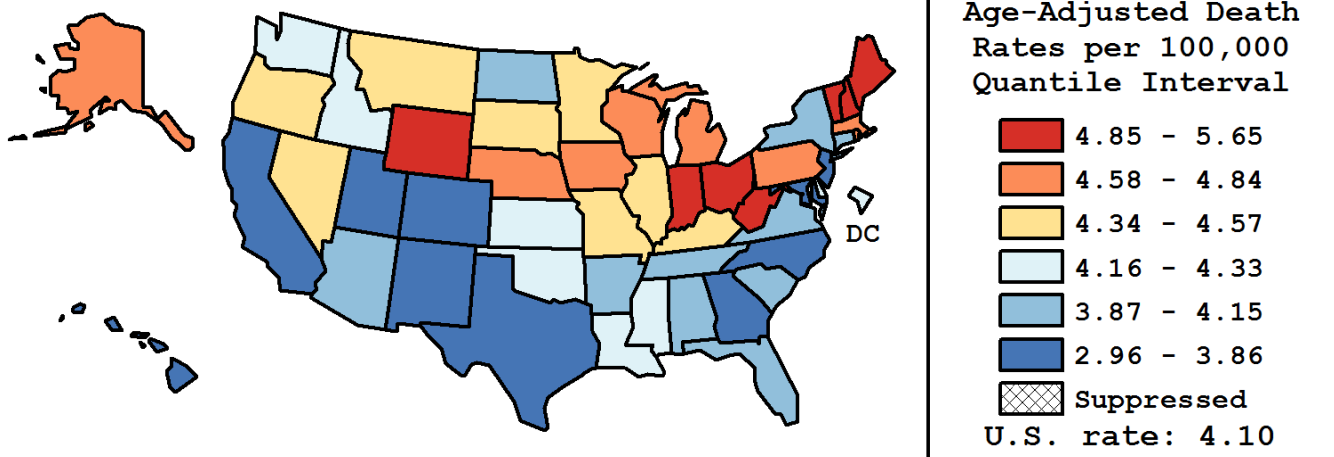
Table 8.18  
Cancer of the Esophagus (Invasive)

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2010-2014

Males and Females

State	Rate	SE	Rank(CI) <sup>d</sup>	PD
TOTAL U.S.	4.10	0.02		
High Five States				
Maine	5.65	0.25	01(01,09)	37.67 <sup>c</sup>
New Hampshire	5.23	0.26	02(01,19)	27.49 <sup>c</sup>
Vermont	5.19	0.37	03(01,33)	26.62 <sup>c</sup>
Wyoming	5.12	0.41	04(01,39)	24.95 <sup>c</sup>
West Virginia	5.08	0.21	05(01,19)	23.88 <sup>c</sup>
Low Five States				
New Mexico	3.45	0.17	47(37,51)	-15.92 <sup>c</sup>
California	3.34	0.04	48(46,51)	-18.49 <sup>c</sup>
Texas	3.29	0.05	49(46,51)	-19.87 <sup>c</sup>
Utah	3.15	0.17	50(46,51)	-23.09 <sup>c</sup>
Hawaii	2.96	0.19	51(47,51)	-27.81 <sup>c</sup>

State	Rate	SE	Rank(CI) <sup>d</sup>	PD	State	Rate	SE	Rank(CI) <sup>d</sup>	PD
Alabama	3.97	0.12	39(23,46)	-3.24	Montana	4.44	0.27	19(02,46)	8.24
Alaska	4.71	0.44	12(01,47)	14.81	Nebraska	4.59	0.21	14(03,37)	11.99
Arizona	4.05	0.10	36(21,45)	-1.26	Nevada	4.37	0.18	22(07,42)	6.46
Arkansas	4.15	0.16	32(14,46)	1.22	New Hampshire	5.23	0.26	02(01,19)	27.49 <sup>c</sup>
California	3.34	0.04	48(46,51)	-18.49 <sup>c</sup>	New Jersey	3.86	0.09	42(31,47)	-5.80
Colorado	3.83	0.12	45(28,47)	-6.72	New Mexico	3.45	0.17	47(37,51)	-15.92 <sup>c</sup>
Connecticut	4.00	0.14	38(20,47)	-2.51	New York	3.91	0.06	40(32,46)	-4.66
Delaware	4.21	0.28	30(05,47)	2.60	North Carolina	3.84	0.08	44(31,47)	-6.30
D.C.	4.21	0.38	29(02,50)	2.72	North Dakota	4.09	0.33	34(04,50)	-0.37
Florida	3.91	0.05	41(32,46)	-4.77	Ohio	5.00	0.09	06(02,13)	22.04 <sup>c</sup>
Georgia	3.71	0.09	46(36,47)	-9.52	Oklahoma	4.33	0.14	24(11,40)	5.49
Hawaii	2.96	0.19	51(47,51)	-27.81 <sup>c</sup>	Oregon	4.50	0.14	17(06,33)	9.85
Idaho	4.22	0.22	28(07,46)	2.96	Pennsylvania	4.77	0.08	11(05,18)	16.40 <sup>c</sup>
Illinois	4.41	0.08	21(13,32)	7.47	Rhode Island	4.58	0.27	15(02,44)	11.79
Indiana	4.93	0.12	07(02,16)	20.17 <sup>c</sup>	South Carolina	4.07	0.12	35(18,46)	-0.81
Iowa	4.84	0.16	08(02,23)	18.10 <sup>c</sup>	South Dakota	4.57	0.30	16(01,46)	11.32
Kansas	4.27	0.16	27(11,44)	4.07	Tennessee	4.15	0.11	33(17,43)	1.09
Kentucky	4.34	0.13	23(11,39)	5.85	Texas	3.29	0.05	49(46,51)	-19.87 <sup>c</sup>
Louisiana	4.31	0.13	25(12,41)	5.14	Utah	3.15	0.17	50(46,51)	-23.09 <sup>c</sup>
Maine	5.65	0.25	01(01,09)	37.67 <sup>c</sup>	Vermont	5.19	0.37	03(01,33)	26.62 <sup>c</sup>
Maryland	3.86	0.11	43(28,47)	-5.84	Virginia	4.05	0.10	37(22,45)	-1.32
Massachusetts	4.70	0.11	13(04,23)	14.66	Washington	4.29	0.11	26(14,39)	4.60
Michigan	4.81	0.09	10(04,18)	17.24 <sup>c</sup>	West Virginia	5.08	0.21	05(01,19)	23.88 <sup>c</sup>
Minnesota	4.44	0.12	18(10,34)	8.31	Wisconsin	4.83	0.12	09(02,20)	17.81 <sup>c</sup>
Mississippi	4.17	0.16	31(13,46)	1.73	Wyoming	5.12	0.41	04(01,39)	24.95 <sup>c</sup>
Missouri	4.44	0.11	20(09,33)	8.16					



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

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

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

<sup>d</sup> 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.

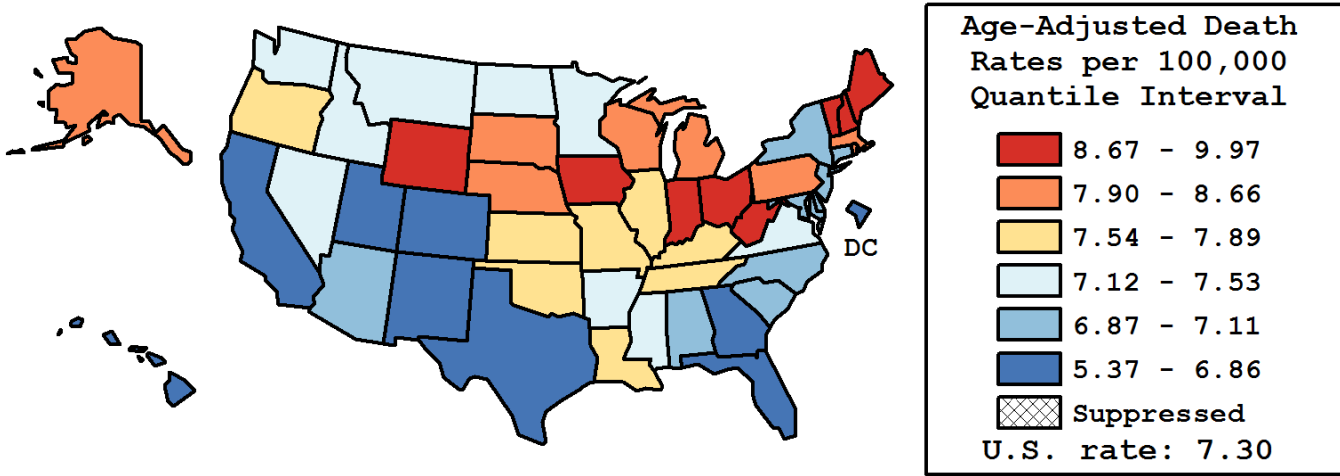
Table 8.19  
Cancer of the Esophagus (Invasive)

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2010-2014

Males

State	Rate	SE	Rank(CI) <sup>d</sup>	PD
TOTAL U.S.	7.30	0.03		
High Five States				
Maine	9.97	0.50	01(01,13)	36.67 <sup>c</sup>
New Hampshire	9.30	0.51	02(01,20)	27.37 <sup>c</sup>
Wyoming	9.20	0.81	03(01,43)	26.09 <sup>c</sup>
Ohio	9.10	0.18	04(01,12)	24.71 <sup>c</sup>
West Virginia	9.08	0.41	05(01,20)	24.45 <sup>c</sup>
Low Five States				
New Mexico	6.10	0.34	47(32,51)	-16.44 <sup>c</sup>
California	5.90	0.08	48(45,51)	-19.17 <sup>c</sup>
Texas	5.90	0.11	49(45,51)	-19.19 <sup>c</sup>
Utah	5.56	0.33	50(44,51)	-23.86 <sup>c</sup>
Hawaii	5.37	0.38	51(45,51)	-26.41 <sup>c</sup>

State	Rate	SE	Rank(CI) <sup>d</sup>	PD	State	Rate	SE	Rank(CI) <sup>d</sup>	PD
Alabama	7.04	0.24	37(20,47)	-3.52	Montana	7.34	0.50	30(06,48)	0.57
Alaska	8.02	0.87	16(01,50)	9.92	Nebraska	8.46	0.43	14(02,33)	15.92 <sup>c</sup>
Arizona	6.98	0.20	38(24,46)	-4.41	Nevada	7.43	0.34	27(12,46)	1.87
Arkansas	7.46	0.31	26(12,46)	2.19	New Hampshire	9.30	0.51	02(01,20)	27.37 <sup>c</sup>
California	5.90	0.08	48(45,51)	-19.17 <sup>c</sup>	New Jersey	6.96	0.18	39(26,46)	-4.58
Colorado	6.86	0.25	43(23,47)	-5.94	New Mexico	6.10	0.34	47(32,51)	-16.44 <sup>c</sup>
Connecticut	7.11	0.28	35(18,47)	-2.61	New York	6.94	0.12	41(29,46)	-4.87
Delaware	7.05	0.53	36(08,50)	-3.42	North Carolina	6.96	0.17	40(25,46)	-4.58
D.C.	6.41	0.73	46(07,51)	-12.12	North Dakota	7.17	0.64	33(03,51)	-1.73
Florida	6.85	0.11	44(31,46)	-6.13	Ohio	9.10	0.18	04(01,12)	24.71 <sup>c</sup>
Georgia	6.64	0.18	45(31,47)	-8.96	Oklahoma	7.79	0.29	19(09,39)	6.81
Hawaii	5.37	0.38	51(45,51)	-26.41 <sup>c</sup>	Oregon	7.77	0.28	21(10,39)	6.51
Idaho	7.32	0.44	31(10,47)	0.30	Pennsylvania	8.59	0.16	10(04,17)	17.68 <sup>c</sup>
Illinois	7.81	0.16	18(13,31)	7.05	Rhode Island	8.47	0.56	13(01,41)	16.01 <sup>c</sup>
Indiana	8.92	0.24	07(01,16)	22.17 <sup>c</sup>	South Carolina	7.11	0.24	34(18,46)	-2.61
Iowa	8.92	0.33	06(01,19)	22.29 <sup>c</sup>	South Dakota	8.30	0.61	15(01,45)	13.74
Kansas	7.76	0.33	22(07,43)	6.29	Tennessee	7.63	0.22	24(13,39)	4.56
Kentucky	7.89	0.27	17(08,35)	8.17	Texas	5.90	0.11	49(45,51)	-19.19 <sup>c</sup>
Louisiana	7.72	0.27	23(10,39)	5.77	Utah	5.56	0.33	50(44,51)	-23.86 <sup>c</sup>
Maine	9.97	0.50	01(01,13)	36.67 <sup>c</sup>	Vermont	8.85	0.72	08(01,44)	21.28 <sup>c</sup>
Maryland	6.87	0.23	42(25,47)	-5.83	Virginia	7.20	0.20	32(20,45)	-1.35
Massachusetts	8.66	0.23	09(02,18)	18.71 <sup>c</sup>	Washington	7.43	0.21	28(15,42)	1.87
Michigan	8.55	0.18	11(03,19)	17.22 <sup>c</sup>	West Virginia	9.08	0.41	05(01,20)	24.45 <sup>c</sup>
Minnesota	7.53	0.24	25(14,43)	3.17	Wisconsin	8.48	0.24	12(03,21)	16.16 <sup>c</sup>
Mississippi	7.42	0.32	29(12,46)	1.70	Wyoming	9.20	0.81	03(01,43)	26.09 <sup>c</sup>
Missouri	7.78	0.22	20(12,35)	6.66					



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

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

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

<sup>d</sup> 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.

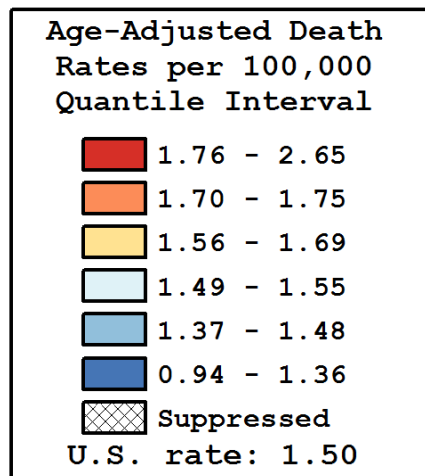
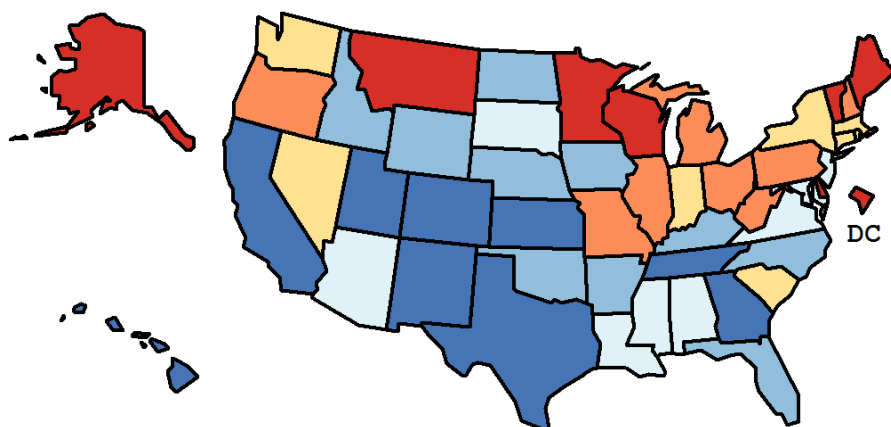
Table 8.20  
Cancer of the Esophagus (Invasive)

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2010-2014

Females

State	Rate	SE	Rank(CI) <sup>d</sup>	PD
TOTAL U.S.	1.50	0.01		
High Five States				
D.C.	2.65	0.40	01(01,24)	76.51 <sup>c</sup>
Vermont	2.14	0.33	02(01,46)	42.56 <sup>c</sup>
Maine	2.02	0.20	03(01,34)	34.38 <sup>c</sup>
Minnesota	1.91	0.11	04(01,23)	26.99 <sup>c</sup>
Delaware	1.84	0.25	05(01,48)	22.20 <sup>c</sup>
Low Five States				
Colorado	1.27	0.10	47(23,51)	-15.78 <sup>c</sup>
New Mexico	1.21	0.14	48(17,51)	-19.72 <sup>c</sup>
Texas	1.14	0.04	49(43,51)	-23.84 <sup>c</sup>
Utah	1.05	0.13	50(32,51)	-30.42 <sup>c</sup>
Hawaii	0.94	0.14	51(37,51)	-37.56 <sup>c</sup>

State	Rate	SE	Rank(CI) <sup>d</sup>	PD	State	Rate	SE	Rank(CI) <sup>d</sup>	PD
Alabama	1.51	0.10	29(07,47)	0.66	Montana	1.81	0.24	06(01,48)	20.71 <sup>c</sup>
Alaska	1.79	0.37	07(01,51)	18.82 <sup>c</sup>	Nebraska	1.45	0.16	35(04,51)	-3.30
Arizona	1.50	0.09	31(10,46)	0.02	Nevada	1.59	0.15	20(03,48)	5.57
Arkansas	1.39	0.12	38(09,50)	-7.26	New Hampshire	1.74	0.20	10(01,47)	16.01 <sup>c</sup>
California	1.28	0.04	46(36,49)	-14.85	New Jersey	1.49	0.07	32(12,45)	-0.81
Colorado	1.27	0.10	47(23,51)	-15.78 <sup>c</sup>	New Mexico	1.21	0.14	48(17,51)	-19.72 <sup>c</sup>
Connecticut	1.56	0.12	24(04,46)	3.74	New York	1.56	0.05	23(13,38)	3.94
Delaware	1.84	0.25	05(01,48)	22.20 <sup>c</sup>	North Carolina	1.37	0.07	42(22,48)	-8.51
D.C.	2.65	0.40	01(01,24)	76.51 <sup>c</sup>	North Dakota	1.44	0.26	36(02,51)	-4.25
Florida	1.44	0.04	37(23,44)	-4.27	Ohio	1.71	0.07	15(04,31)	13.81
Georgia	1.36	0.07	43(22,49)	-9.36	Oklahoma	1.39	0.11	39(12,50)	-7.47
Hawaii	0.94	0.14	51(37,51)	-37.56 <sup>c</sup>	Oregon	1.73	0.12	12(02,39)	15.05 <sup>c</sup>
Idaho	1.48	0.18	33(03,51)	-1.29	Pennsylvania	1.73	0.06	11(04,28)	15.15 <sup>c</sup>
Illinois	1.72	0.07	13(04,29)	14.36	Rhode Island	1.56	0.21	22(02,51)	3.99
Indiana	1.69	0.09	17(04,37)	12.31	South Carolina	1.58	0.10	21(04,45)	5.44
Iowa	1.48	0.12	34(06,49)	-1.59	South Dakota	1.52	0.24	28(02,51)	0.84
Kansas	1.34	0.12	44(13,51)	-10.83	Tennessee	1.31	0.08	45(23,50)	-12.53
Kentucky	1.38	0.10	41(14,50)	-8.13	Texas	1.14	0.04	49(43,51)	-23.84 <sup>c</sup>
Louisiana	1.54	0.11	26(06,47)	2.24	Utah	1.05	0.13	50(32,51)	-30.42 <sup>c</sup>
Maine	2.02	0.20	03(01,34)	34.38 <sup>c</sup>	Vermont	2.14	0.33	02(01,46)	42.56 <sup>c</sup>
Maryland	1.51	0.09	30(08,46)	0.23	Virginia	1.53	0.08	27(09,45)	1.58
Massachusetts	1.63	0.09	19(04,39)	8.81	Washington	1.66	0.09	18(04,39)	10.27
Michigan	1.75	0.07	09(03,28)	16.77 <sup>c</sup>	West Virginia	1.70	0.17	16(02,47)	13.31
Minnesota	1.91	0.11	04(01,23)	26.99 <sup>c</sup>	Wisconsin	1.78	0.10	08(02,31)	18.42 <sup>c</sup>
Mississippi	1.55	0.13	25(04,48)	3.11	Wyoming	1.39	0.28	40(02,51)	-7.59
Missouri	1.71	0.09	14(03,35)	13.92					



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

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

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

<sup>d</sup> 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 8.21  
Cancer of the Esophagus (Invasive)

Estimated United States Cancer Prevalence Counts<sup>a</sup> on January 1, 2014  
By Race/Ethnicity, Sex and Years Since Diagnosis

WARNING: The Prevalence Estimates presented on this page utilize a different tumor selection criteria from previous CSR releases and are NOT directly comparable to estimates from previous CSR releases. Please see the Prevalence Comparison Chapter of this CSR for more information.

Years Since Diagnosis		0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	25 to <30	0 to <22 <sup>a</sup>	0 to <39 <sup>e</sup>	>=39 <sup>g</sup>	Complete <sup>h</sup>
<u>Race</u>	<u>Sex</u>										
All Races <sup>b</sup>	Both Sexes	27,932	9,633	4,730	1,963	784	268	45,005	45,433	114	45,547
	Males	21,866	7,478	3,649	1,531	592	188	35,079	35,402	58	35,460
	Females	6,066	2,155	1,081	432	192	80	9,926	10,031	56	10,087
White <sup>b</sup>	Both Sexes	25,194	8,775	4,319	1,735	659	234	40,657	41,038	89	41,127
	Males	20,014	6,837	3,456	1,386	486	161	32,155	32,438	52	32,490
	Females	5,180	1,938	863	349	173	73	8,502	8,600	37	8,637
Black <sup>b</sup>	Both Sexes	1,966	592	279	170	97	26	3,092	3,130	25	3,155
	Males	1,306	448	111	98	84	26	2,035	2,073	7	2,080
	Females	660	144	168	72	13	0	1,057	1,057	18	1,075
Asian/ Pacific Islander <sup>c</sup>	Both Sexes	507	172	86	40	+	+	825	+	+	+
	Males	354	119	50	26	+	+	566	+	+	+
Hispanic <sup>d</sup>	Both Sexes	1,280	327	130	105	+	+	1,872	+	+	+
	Males	1,020	276	109	89	+	+	1,515	+	+	+
	Females	260	51	21	16	+	+	357	+	+	+

Estimated prevalence percent<sup>a</sup> on January 1, 2014, of the SEER<sup>c</sup> population diagnosed in the previous 22 years  
By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence	All Ages	0-9	10-19	20-29	Age Specific (Crude)					80+	Age-Adjusted <sup>f</sup>	
					30-39	40-49	50-59	60-69	70-79		All Ages	
<u>Race</u>	<u>Sex</u>											
All Races <sup>c</sup>	Both Sexes	0.0115%	-	-	-	0.0005%	0.0025%	0.0125%	0.0384%	0.0660%	0.0607%	0.0106%
	Males	0.0180%	-	-	-	0.0008%	0.0042%	0.0200%	0.0650%	0.1137%	0.1116%	0.0182%
	Females	0.0052%	-	-	-	0.0002%	0.0008%	0.0053%	0.0145%	0.0269%	0.0301%	0.0044%
White <sup>c</sup>	Both Sexes	0.0137%	-	-	-	0.0006%	0.0030%	0.0140%	0.0436%	0.0749%	0.0665%	0.0120%
	Males	0.0216%	-	-	-	0.0010%	0.0050%	0.0224%	0.0739%	0.1301%	0.1239%	0.0207%
	Females	0.0058%	-	-	-	-	0.0009%	0.0057%	0.0152%	0.0284%	0.0315%	0.0047%
Black <sup>c</sup>	Both Sexes	0.0066%	-	-	-	-	0.0013%	0.0104%	0.0317%	0.0443%	0.0379%	0.0077%
	Males	0.0090%	-	-	-	-	0.0019%	0.0162%	0.0478%	0.0647%	0.0665%	0.0118%
	Females	0.0044%	-	-	-	-	-	0.0052%	0.0192%	0.0301%	0.0237%	0.0048%
Asian/ Pacific Islander <sup>c</sup>	Both Sexes	0.0051%	-	-	-	-	0.0011%	0.0066%	0.0144%	0.0296%	0.0376%	0.0050%
	Males	0.0073%	-	-	-	-	0.0015%	0.0101%	0.0234%	0.0469%	0.0576%	0.0079%
Hispanic <sup>d</sup>	Both Sexes	0.0032%	-	-	-	-	-	0.0035%	0.0071%	0.0160%	0.0253%	0.0029%
	Both Sexes	0.0035%	-	-	-	0.0006%	0.0020%	0.0070%	0.0196%	0.0321%	0.0366%	0.0058%
	Males	0.0056%	-	-	-	0.0011%	0.0033%	0.0119%	0.0337%	0.0629%	0.0680%	0.0105%
	Females	0.0014%	-	-	-	-	-	0.0022%	0.0074%	0.0091%	0.0176%	0.0020%

<sup>a</sup> US 2014 cancer prevalence counts are based on 2014 cancer prevalence proportions from the SEER registries and 1/1/2014 US population estimates based on the average of 2013 and 2014 population estimates from the US Bureau of the Census.  
<sup>b c d</sup> Prevalence was calculated using the first invasive tumor for each cancer site diagnosed during the previous 39/22 years. Statistics based on (b) SEER 9 Areas (c) SEER 13 Areas excluding the Alaska Native Registry  
<sup>e</sup> (d) NHIA for Hispanic for SEER 13 Areas excluding the Alaska Native Registry.  
<sup>f</sup> Maximum limited-duration prevalence: 39 years for 1975-2014 SEER 9 data; 22 years for 1992-2014 SEER 13 data (excluding the Alaska Native Registry) used to calculate prevalence for Hispanics and Asian Pacific Islanders.  
<sup>g h i</sup> Percentages are age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130) by 5-year age groups. (g) Cases diagnosed more than 39 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 <39 and >=39. (i) Age-specific completeness index was approximated using empirical data from historical Connecticut tumor registry.  
- Statistic not shown. Statistic based on fewer than 5 cases estimated alive in SEER for the time interval.  
+ Not available.

Table 8.22

## Cancer of the Esophagus (Invasive)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2010-2014  
Both Sexes by Race

Histology <sup>a</sup>	All Races		White		Black		Asian/Pacific Islander		American Indian/ Alaska Native <sup>b</sup>		Hispanic <sup>c</sup>	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Carcinoma	18,880	99.1%	15,900	99.1%	1,916	99.3%	853	99.3%	85	100.0%	1,458	98.8%
Epidermoid carcinoma <sup>d</sup> (8051-8131)	6,211	32.6%	4,033	25.1%	1,520	78.8%	588	68.5%	32	37.6%	538	36.5%
Squamous cell carcinoma (8070-8078, 8083-8084)	6,193	32.5%	4,025	25.1%	1,511	78.3%	587	68.3%	32	37.6%	538	36.5%
Adenocarcinoma <sup>e</sup>	11,875	62.4%	11,185	69.7%	333	17.3%	230	26.8%	50	58.8%	850	57.6%
Other specific carcinomas <sup>f</sup>	289	1.5%	240	1.5%	25	1.3%	20	2.3%	-	-	25	1.7%
Unspecified, Carcinoma, NOS (8010-8011,8020-8022)	505	2.7%	442	2.8%	38	2.0%	-	-	-	-	45	3.1%
Other specific types <sup>g</sup>	56	0.3%	46	0.3%	-	-	-	-	-	-	-	-
Unspecified (8000-8005)	108	0.6%	95	0.6%	-	-	-	-	-	-	-	-
Total	19,044	100.0%	16,041	100.0%	1,930	100.0%	859	100.0%	85	100.0%	1,475	100.0%

Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).

Percents may not sum to 100 due to rounding.

<sup>a</sup> Excludes Kaposi Sarcoma, mesothelioma, lymphomas, leukemias, myelomas, lymphoreticular, and immunoproliferative diseases.

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

<sup>c</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives.

<sup>d</sup> Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

<sup>e</sup> Epidermoid carcinoma includes squamous, basal, and transitional cell carcinomas.

<sup>f</sup> Adenocarcinoma is defined as histologies 8050, 8140-8147, 8160-8162, 8180-8221, 8250-8507, 8514, 8520-8551, 8560, 8570-8574, 8576, 8940-8941.

<sup>g</sup> Other specific carcinomas is defined as histologies 8012-8015, 8030-8046, 8150-8155, 8170-8175, 8230-8249, 8508, 8510-8513, 8561-8562, 8575, 8580-8671.

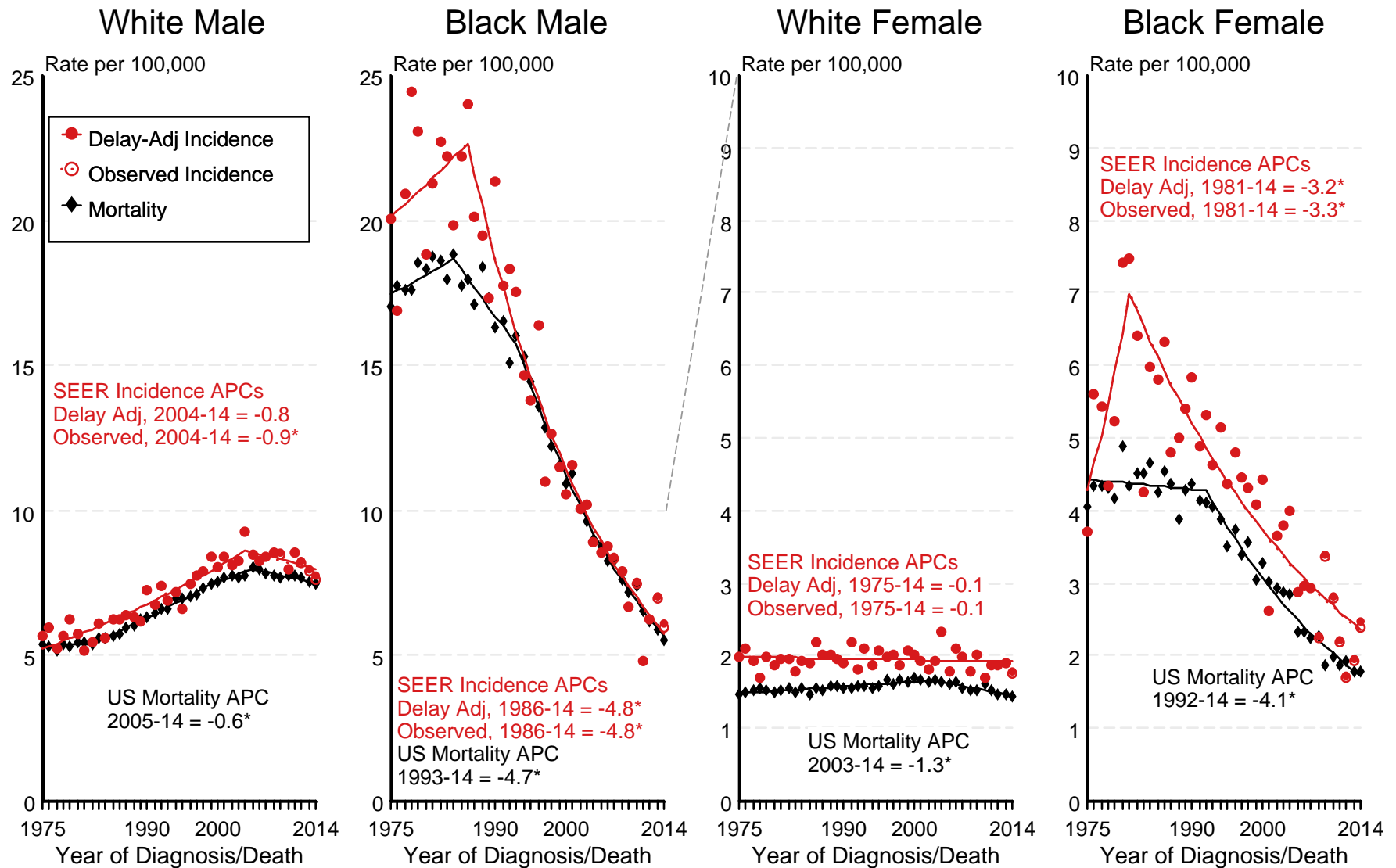
<sup>h</sup> Other specific types includes sarcomas and other soft tissue tumors.

<sup>i</sup> Other specific types is defined as histologies 8680-8713, 8720-8790, 8800-8921, 8930-8936, 8950-9030, 9040-9044, 9060-9110, 9120-9136, 9150-9252, 9260-9365, 9370-9373, 9380-9539, 9540-9582.

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

Figure 8.1

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



Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC).

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

Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.4, January 2017, 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.

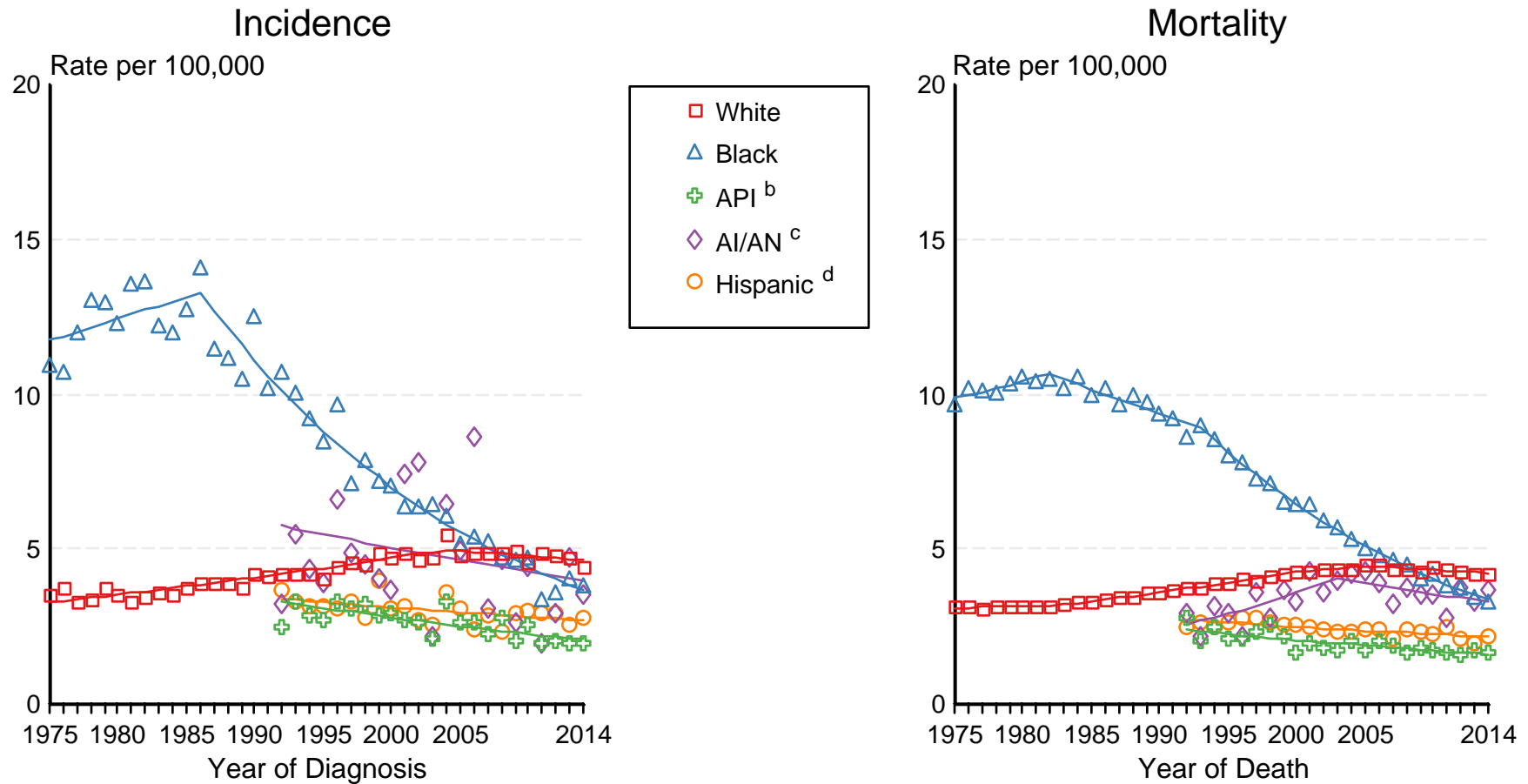
\* The APC is significantly different from zero ( $p < 0.05$ ).

Figure 8.2

# SEER Incidence and US Death Rates<sup>a</sup> Cancer of the Esophagus, Both Sexes

Joinpoint Analyses for Whites and Blacks from 1975-2014

and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2014



Source: Incidence data for whites and blacks are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta). Incidence data for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics are from the SEER 13 Areas (SEER 9 Areas, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Mortality data are from US Mortality Files, National Center for Health Statistics, CDC.

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

Regression lines are calculated using the Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2014 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2014 allow a maximum of 4 joinpoints.

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

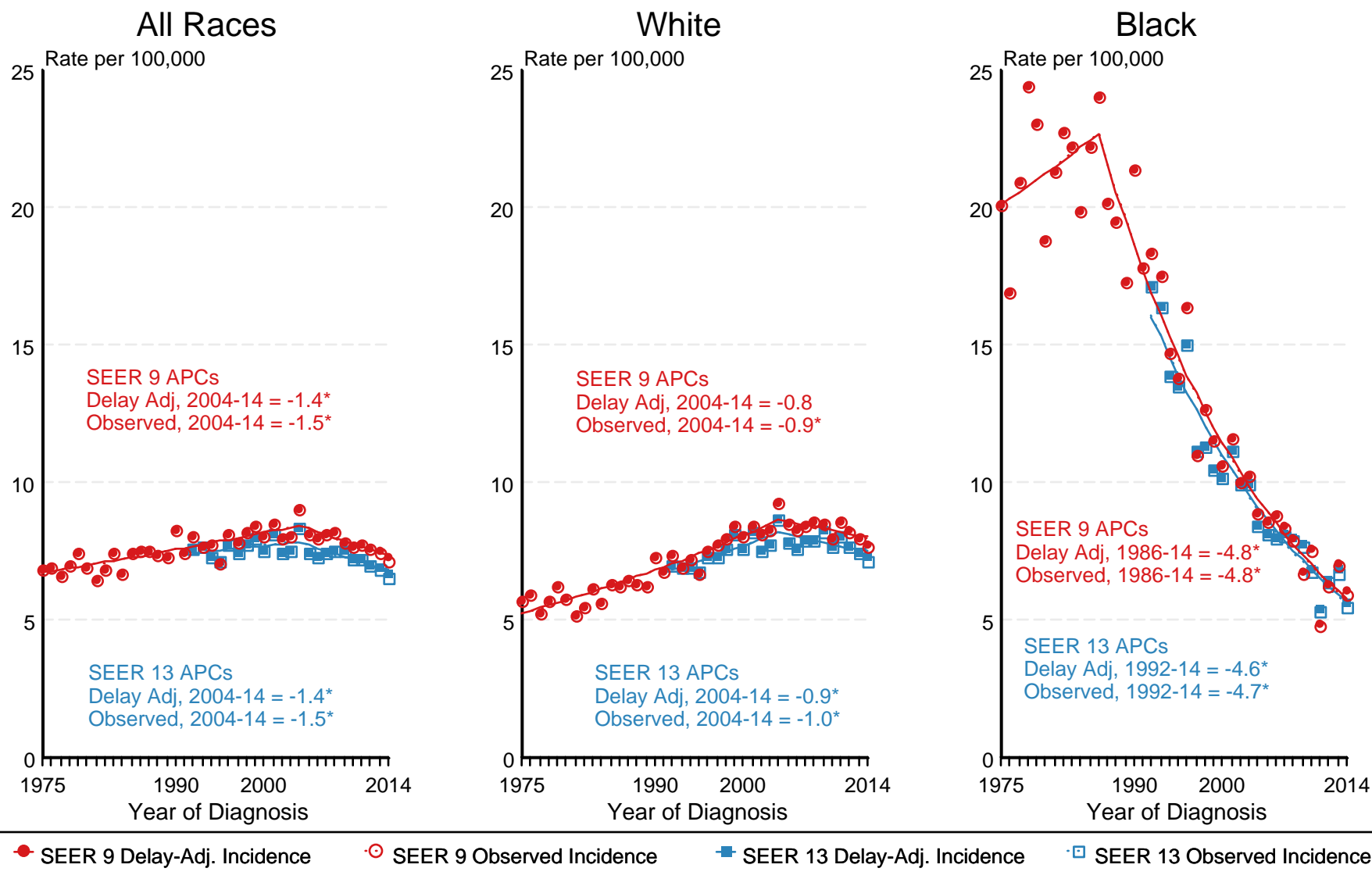
<sup>c</sup> AI/AN = American Indian/Alaska Native. Rates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

<sup>d</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Mortality data for Hispanics exclude cases from New Hampshire and Oklahoma.



Figure 8.3

# SEER Observed Incidence and SEER Delay Adjusted Incidence Rates<sup>a</sup> SEER 9 Areas Compared to SEER 13 Areas Cancer of the Esophagus, Male, by Race



Source: SEER 9 areas and SEER 13 areas.

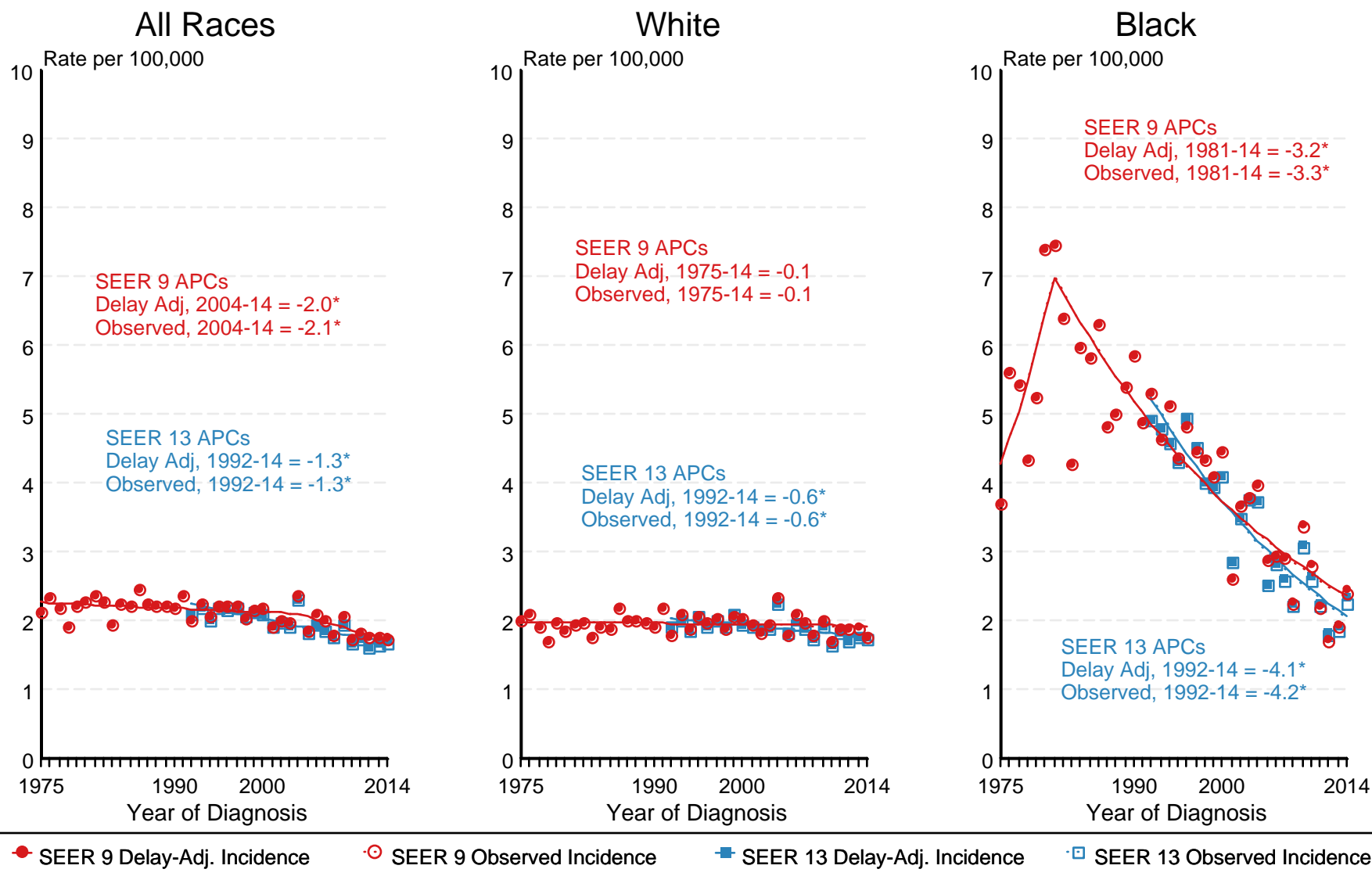
<sup>a</sup> Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.4, January 2017, 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 8.4

# SEER Observed Incidence and SEER Delay Adjusted Incidence Rates<sup>a</sup> SEER 9 Areas Compared to SEER 13 Areas Cancer of the Esophagus, Female, by Race



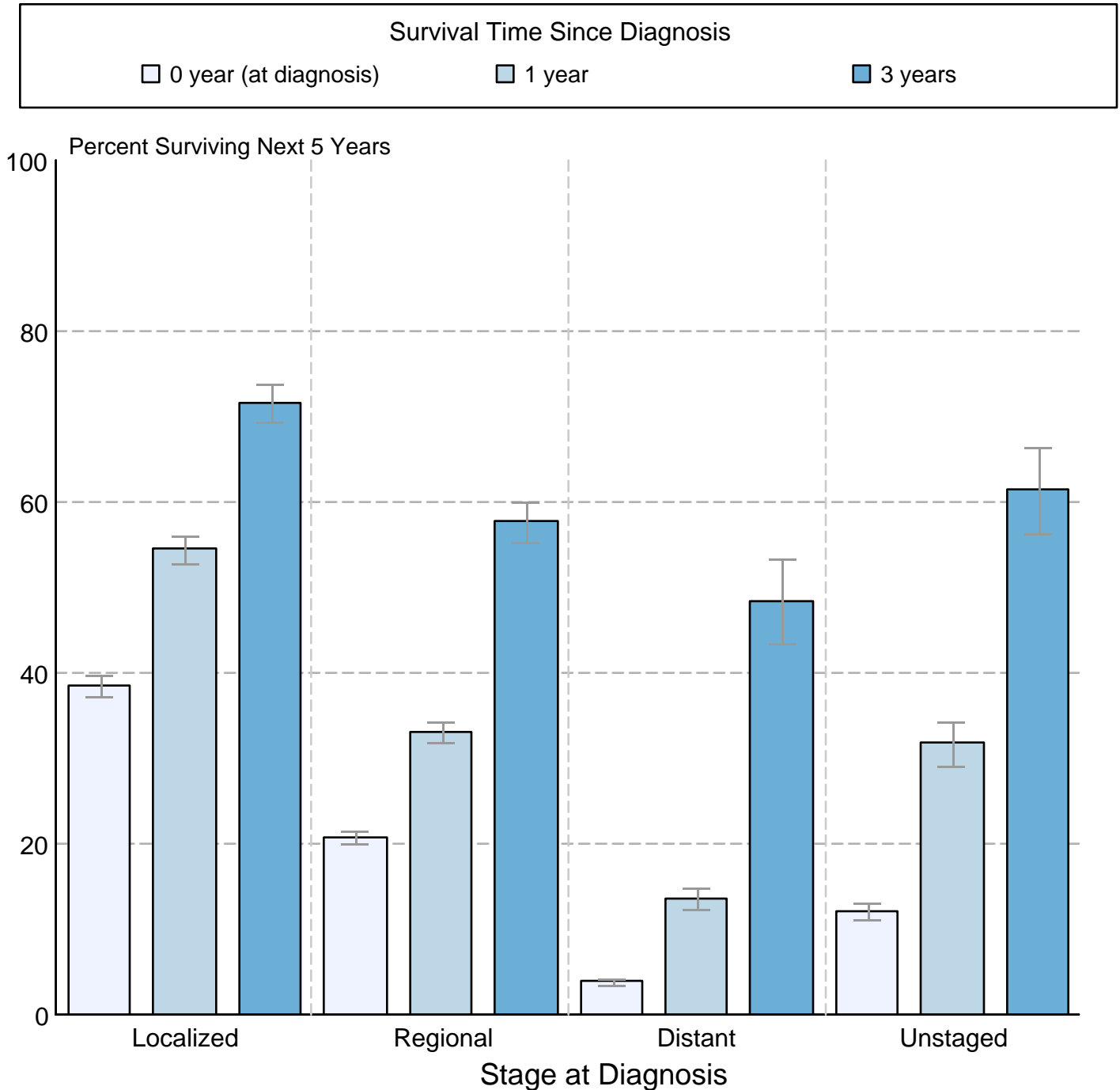
<sup>a</sup> Source: SEER 9 areas and SEER 13 areas.  
Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).  
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute.  
The APC is the Annual 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 8.5

## Cancer of the Esophagus

### 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  
1998-2013 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.