

Table 26.1  
Cancer of the Thyroid (Invasive)

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2017 With up to Five Joinpoints, 2000-2017 With up to Three Joinpoints,  
Both Sexes by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC <sup>d</sup>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2008-17	2013-17
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2017</u>														
All Races	1975-77	6.3	1977-80	-6.5	1980-97	2.4*	1997-09	6.7*	2009-14	1.8*	2014-17	-3.3*	0.6	-2.0*
White	1975-77	7.6	1977-80	-6.7	1980-97	2.7*	1997-09	7.0*	2009-15	1.3*	2015-17	-6.1*	0.3	-2.4
Black	1975-95	0.8	1995-12	6.3*	2012-17	-2.0							1.6	-2.0
<u>SEER 21 Delay-Adjusted Incidence<sup>b</sup>, 2000-2017</u>														
All Races	2000-09	7.5*	2009-15	2.0*	2015-17	-5.1*							1.0*	-1.6*
White	2000-09	7.6*	2009-15	1.7*	2015-17	-5.0*							0.8*	-1.7*
White NH <sup>ef</sup>	2000-09	7.9*	2009-15	1.6*	2015-17	-5.5*							0.6	-2.0*
Black	2000-14	5.9*	2014-17	-6.6*									1.5	-3.6
Black NH <sup>ef</sup>	2000-14	5.8*	2014-17	-6.7*									1.5	-3.7
API <sup>e</sup>	2000-03	2.4	2003-09	7.8*	2009-15	2.4*	2015-17	-3.5					1.6*	-0.6
AI/AN <sup>eg</sup>	2000-02	24.3	2002-06	-1.6	2006-12	8.7*	2012-17	0.3					4.0*	0.3
Hispanic <sup>f</sup>	2000-12	5.9*	2012-17	1.0									3.2*	1.0
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2017</u>														
All Races	1975-88	-2.0*	1988-17	0.7*									0.7*	0.7*
White	1975-88	-2.2*	1988-17	0.7*									0.7*	0.7*
Black	1975-17	0.1											0.1	0.1
<u>U.S. Cancer Mortality<sup>c</sup>, 2000-2017</u>														
All Races	2000-17	0.5*											0.5*	0.5*
White	2000-17	0.5*											0.5*	0.5*
White NH <sup>ef</sup>	2000-17	0.4*											0.4*	0.4*
Black	2000-17	0.2											0.2	0.2
Black NH <sup>ef</sup>	2000-17	0.3											0.3	0.3
API <sup>e</sup>	2000-17	-0.3											-0.3	-0.3
AI/AN <sup>eg</sup>	2000-17	-0.7											-0.7	-0.7
Hispanic <sup>f</sup>	2000-17	0.7*											0.7*	0.7*

Joinpoint Regression Program Version 4.8, April 2020, 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 21 areas (SEER 9 areas, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, Georgia excluding ATL/RG, Idaho, New York and Massachusetts).

<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.

<sup>g</sup> Data for American Indian/Alaska Native are based on the Purchased/Referred Care Delivery Area (PRCDA) counties.

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

- Joinpoint regression line analysis could not be performed on data series.

Table 26.2  
Cancer of the Thyroid (Invasive)

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2017 With up to Five Joinpoints, 2000-2017 With up to Three Joinpoints,  
Males by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC <sup>d</sup>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2008-17	2013-17
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2017</u>														
All Races	1975-80	-4.5*	1980-97	1.8*	1997-12	5.4*	2012-17	-0.9					1.9*	-0.9
White	1975-77	10.5	1977-80	-9.0	1980-97	2.5*	1997-12	5.6*	2012-17	-1.1			1.8*	-1.1
Black	1975-17	3.1*											3.1*	3.1*
<u>SEER 21 Delay-Adjusted Incidence<sup>b</sup>, 2000-2017</u>														
All Races	2000-09	7.0*	2009-15	2.5*	2015-17	-3.6							1.6*	-0.6
White	2000-09	7.2*	2009-15	2.3*	2015-17	-3.4							1.5*	-0.6
White NH <sup>ef</sup>	2000-09	7.6*	2009-15	2.3*	2015-17	-3.8							1.5*	-0.8
Black	2000-09	6.6*	2009-17	0.9									1.6	0.9
Black NH <sup>ef</sup>	2000-02	-8.2	2002-05	16.0	2005-15	3.1*	2015-17	-6.8					0.8	-2.0
API <sup>e</sup>	2000-13	6.3*	2013-17	0.1									3.5*	0.1
AI/AN <sup>eg</sup>	2000-17	3.6*											3.6*	3.6*
Hispanic <sup>f</sup>	2000-17	4.0*											4.0*	4.0*
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2017</u>														
All Races	1975-83	-3.0*	1983-17	1.2*									1.2*	1.2*
White	1975-83	-3.0*	1983-17	1.2*									1.2*	1.2*
Black	1975-17	0.5*											0.5*	0.5*
<u>U.S. Cancer Mortality<sup>c</sup>, 2000-2017</u>														
All Races	2000-17	1.0*											1.0*	1.0*
White	2000-17	1.0*											1.0*	1.0*
White NH <sup>ef</sup>	2000-17	1.0*											1.0*	1.0*
Black	2000-17	0.8											0.8	0.8
Black NH <sup>ef</sup>	2000-17	1.0											1.0	1.0
API <sup>e</sup>	2000-17	1.2											1.2	1.2
AI/AN <sup>eg</sup>	-	-											-	-
Hispanic <sup>f</sup>	2000-06	4.6	2006-09	-10.9	2009-17	4.3*							2.5	4.3*

Joinpoint Regression Program Version 4.8, April 2020, 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 21 areas (SEER 9 areas, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, Georgia excluding ATL/RG, Idaho, New York and Massachusetts).

<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.

<sup>g</sup> Data for American Indian/Alaska Native are based on the Purchased/Referred Care Delivery Area (PRCDA) counties.

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

- Joinpoint regression line analysis could not be performed on data series.

Table 26.3  
Cancer of the Thyroid (Invasive)

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2017 With up to Five Joinpoints, 2000-2017 With up to Three Joinpoints,  
Females by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC <sup>d</sup>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2008-17	2013-17
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2017</u>														
All Races	1975-81	-1.8	1981-97	2.6*	1997-09	7.0*	2009-15	1.2	2015-17	-6.1			0.1	-2.5
White	1975-82	-0.9	1982-96	2.8*	1996-09	7.2*	2009-15	1.2	2015-17	-7.1*			-0.1	-3.0
Black	1975-93	0.2	1993-12	6.4*	2012-17	-2.3							1.5	-2.3
<u>SEER 21 Delay-Adjusted Incidence<sup>b</sup>, 2000-2017</u>														
All Races	2000-09	7.6*	2009-15	1.9*	2015-17	-5.6*							0.8*	-1.9*
White	2000-09	7.8*	2009-15	1.6*	2015-17	-5.5*							0.6	-2.0*
White NH <sup>ef</sup>	2000-09	8.0*	2009-15	1.4*	2015-17	-6.1*							0.3	-2.5*
Black	2000-14	6.2*	2014-17	-7.0*									1.6	-3.8
Black NH <sup>ef</sup>	2000-14	6.2*	2014-17	-7.0*									1.6	-3.9
API <sup>e</sup>	2000-10	6.6*	2010-17	0.5									1.8*	0.5
AI/AN <sup>eg</sup>	2000-17	4.8*											4.8*	4.8*
Hispanic <sup>f</sup>	2000-13	5.9*	2013-17	-0.2									3.1*	-0.2
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2017</u>														
All Races	1975-88	-2.5*	1988-17	0.3*									0.3*	0.3*
White	1975-88	-2.8*	1988-17	0.3*									0.3*	0.3*
Black	1975-17	-0.1											-0.1	-0.1
<u>U.S. Cancer Mortality<sup>c</sup>, 2000-2017</u>														
All Races	2000-17	0.2											0.2	0.2
White	2000-17	0.2											0.2	0.2
White NH <sup>ef</sup>	2000-17	0.0											0.0	0.0
Black	2000-17	-0.2											-0.2	-0.2
Black NH <sup>ef</sup>	2000-17	-0.1											-0.1	-0.1
API <sup>e</sup>	2000-17	-1.0											-1.0	-1.0
AI/AN <sup>eg</sup>	2000-17	-2.8											-2.8	-2.8
Hispanic <sup>f</sup>	2000-17	0.7											0.7	0.7

Joinpoint Regression Program Version 4.8, April 2020, 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 21 areas (SEER 9 areas, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, Georgia excluding ATL/RG, Idaho, New York and Massachusetts).

<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.

<sup>g</sup> Data for American Indian/Alaska Native are based on the Purchased/Referred Care Delivery Area (PRCDA) counties.

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

- Joinpoint regression line analysis could not be performed on data series.

Table 26.4  
Cancer of the Thyroid (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
1975-1979	4.93	3.07	6.69	4.82	2.92	6.62	3.27	1.64	4.63
1980	4.33	2.39	6.15	4.29	2.28	6.20	2.37	1.11	3.43
1981	4.42	2.52	6.24	4.39	2.48	6.28	2.39	1.04	3.44
1982	4.63	3.00	6.15	4.53	2.87	6.09	3.29	2.02	4.34
1983	4.72	2.80	6.51	4.74	2.61	6.73	3.02	2.15	3.77
1984	4.85	2.65	6.94	4.74	2.58	6.82	3.02	1.73	4.08
1985	5.13	3.10	7.09	5.10	3.10	7.06	2.86	1.89	3.66
1986	5.32	3.07	7.49	5.25	3.11	7.36	3.35	1.19	5.09
1987	5.04	2.81	7.12	5.03	2.86	7.07	2.82	0.97	4.30
1988	4.93	2.94	6.88	4.89	3.00	6.78	2.53	1.80	3.21
1989	5.37	2.99	7.66	5.46	3.22	7.69	2.63	0.62	4.14
1990	5.50	2.93	7.96	5.56	2.98	8.09	3.76	2.28	4.91
1991	5.49	3.19	7.69	5.70	3.31	8.04	3.22	2.07	4.20
1992	5.88	3.52	8.12	5.88	3.52	8.17	4.23	3.09	5.18
1993	5.65	3.59	7.64	5.73	3.68	7.76	3.38	2.07	4.56
1994	6.09	3.39	8.76	6.23	3.43	9.03	3.75	1.72	5.40
1995	6.23	3.37	9.02	6.42	3.59	9.24	3.08	1.20	4.61
1996	6.54	3.49	9.52	6.73	3.62	9.84	3.88	1.85	5.73
1997	6.79	3.66	9.81	7.08	3.78	10.37	3.98	2.44	5.24
1998	6.99	3.72	10.12	7.20	3.95	10.40	4.00	1.50	6.05
1999	7.34	3.87	10.67	7.56	4.07	10.99	4.59	1.60	7.01
2000	7.62	4.05	11.11	8.06	4.38	11.79	4.60	2.18	6.61
2001	8.31	4.34	12.19	8.68	4.60	12.79	4.93	2.52	6.88
2002	9.24	4.95	13.43	9.76	5.27	14.29	5.49	2.77	7.68
2003	9.68	4.72	14.50	10.38	5.06	15.71	5.30	2.75	7.57
2004	10.15	5.24	14.94	10.82	5.55	16.13	6.37	3.33	8.90
2005	10.98	5.81	15.98	11.95	6.49	17.42	5.92	2.76	8.68
2006	11.34	5.86	16.65	12.17	6.37	18.01	6.64	3.15	9.47
2007	12.42	6.12	18.54	13.28	6.56	20.06	7.26	3.22	10.60
2008	13.25	6.57	19.73	14.25	7.07	21.49	7.13	4.48	9.59
2009	14.49	7.09	21.61	15.57	7.75	23.38	8.64	3.38	13.18
2010	14.00	6.67	21.10	14.86	7.31	22.47	8.71	3.47	13.03
2011	14.83	7.42	22.00	15.78	8.01	23.58	9.17	3.79	13.58
2012	15.03	8.07	21.86	15.92	8.70	23.27	9.67	4.37	14.14
2013	15.23	7.80	22.47	16.45	8.44	24.57	9.18	4.06	13.58
2014	15.20	7.75	22.47	16.33	8.32	24.45	9.72	4.35	14.32
2015	15.17	7.77	22.42	16.34	8.59	24.26	9.01	3.62	13.51
2016	14.65	7.64	21.54	15.56	8.20	23.08	9.03	4.04	13.29
2017	13.83	7.64	19.93	14.58	8.25	21.10	8.76	4.62	12.19

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

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

<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 26.5  
Cancer of the Thyroid (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
1975-2017	9.03	4.84	13.06	9.24	5.03	13.41	5.74	2.73	8.26
1975-1979	4.93	3.07	6.69	4.82	2.92	6.62	3.27	1.64	4.63
1980	4.33	2.39	6.15	4.29	2.28	6.20	2.37	-	3.43
1981	4.42	2.52	6.24	4.39	2.48	6.28	2.39	-	3.44
1982	4.63	3.00	6.15	4.53	2.87	6.09	3.29	-	4.34
1983	4.72	2.80	6.51	4.74	2.61	6.73	3.02	2.15	3.77
1984	4.85	2.65	6.94	4.74	2.58	6.82	3.02	-	4.08
1985	5.13	3.10	7.09	5.10	3.10	7.06	2.86	-	3.66
1986	5.32	3.07	7.49	5.25	3.11	7.36	3.35	-	5.09
1987	5.04	2.81	7.12	5.03	2.86	7.07	2.82	-	4.30
1988	4.93	2.94	6.88	4.89	3.00	6.78	2.53	-	3.21
1989	5.37	2.99	7.66	5.46	3.22	7.69	2.63	-	4.14
1990	5.50	2.93	7.96	5.56	2.98	8.09	3.76	2.28	4.91
1991	5.49	3.19	7.69	5.70	3.31	8.04	3.22	2.07	4.20
1992	5.88	3.52	8.12	5.88	3.52	8.17	4.23	3.09	5.18
1993	5.65	3.59	7.64	5.73	3.68	7.76	3.38	2.07	4.56
1994	6.09	3.39	8.76	6.23	3.43	9.03	3.75	1.72	5.40
1995	6.23	3.37	9.02	6.42	3.59	9.24	3.08	-	4.61
1996	6.54	3.49	9.52	6.73	3.62	9.84	3.88	1.85	5.73
1997	6.79	3.66	9.81	7.08	3.78	10.37	3.98	2.44	5.24
1998	6.99	3.72	10.12	7.20	3.95	10.40	4.00	1.50	6.05
1999	7.34	3.87	10.67	7.56	4.07	10.99	4.59	1.60	7.01
2000	7.62	4.05	11.11	8.06	4.38	11.79	4.60	2.18	6.61
2001	8.31	4.34	12.19	8.68	4.60	12.79	4.93	2.52	6.88
2002	9.24	4.95	13.43	9.76	5.27	14.29	5.49	2.77	7.68
2003	9.68	4.72	14.50	10.38	5.06	15.71	5.30	2.75	7.57
2004	10.15	5.24	14.94	10.82	5.55	16.13	6.37	3.33	8.90
2005	10.98	5.81	15.98	11.95	6.49	17.42	5.92	2.76	8.68
2006	11.34	5.86	16.65	12.17	6.37	18.01	6.64	3.15	9.47
2007	12.42	6.12	18.54	13.28	6.56	20.06	7.26	3.22	10.60
2008	13.25	6.57	19.73	14.25	7.07	21.49	7.13	4.48	9.59
2009	14.48	7.09	21.59	15.56	7.74	23.35	8.63	3.38	13.15
2010	13.99	6.66	21.07	14.84	7.30	22.43	8.68	3.46	12.99
2011	14.80	7.41	21.96	15.74	7.98	23.52	9.13	3.77	13.52
2012	15.00	8.05	21.81	15.87	8.66	23.19	9.60	4.34	14.03
2013	15.18	7.78	22.40	16.38	8.41	24.47	9.11	4.03	13.46
2014	15.14	7.72	22.39	16.24	8.27	24.32	9.62	4.30	14.16
2015	15.09	7.73	22.30	16.22	8.52	24.08	8.91	3.58	13.36
2016	14.56	7.59	21.40	15.42	8.12	22.87	8.88	3.97	13.07
2017	13.68	7.55	19.72	14.34	8.11	20.75	8.53	4.49	11.87

<sup>a</sup> 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 26.6  
Cancer of the Thyroid (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
1975-2017	0.48	0.45	0.50	0.48	0.46	0.48	0.48	0.35	0.55
1975-1979	0.55	0.44	0.61	0.55	0.45	0.61	0.52	0.38	0.62
1980	0.48	0.38	0.53	0.49	0.40	0.54	0.42	0.29	0.51
1981	0.50	0.42	0.55	0.50	0.43	0.54	0.48	0.26	0.62
1982	0.48	0.37	0.53	0.47	0.37	0.53	0.48	0.38	0.54
1983	0.44	0.34	0.50	0.45	0.35	0.50	0.41	0.28	0.49
1984	0.47	0.38	0.52	0.47	0.39	0.51	0.47	-	0.64
1985	0.45	0.39	0.48	0.44	0.39	0.46	0.49	0.34	0.58
1986	0.46	0.39	0.49	0.45	0.39	0.49	0.48	0.34	0.57
1987	0.45	0.40	0.48	0.45	0.41	0.47	0.48	0.33	0.58
1988	0.44	0.41	0.45	0.44	0.42	0.44	0.44	0.33	0.50
1989	0.44	0.41	0.44	0.43	0.41	0.43	0.51	0.40	0.56
1990	0.44	0.37	0.48	0.44	0.38	0.47	0.45	0.30	0.54
1991	0.43	0.38	0.46	0.42	0.39	0.43	0.50	0.37	0.58
1992	0.46	0.38	0.50	0.46	0.39	0.48	0.41	0.30	0.48
1993	0.46	0.39	0.50	0.46	0.40	0.48	0.46	0.26	0.58
1994	0.42	0.38	0.44	0.42	0.38	0.44	0.37	0.30	0.40
1995	0.44	0.41	0.44	0.44	0.43	0.44	0.40	0.27	0.46
1996	0.45	0.42	0.47	0.45	0.43	0.46	0.44	0.33	0.49
1997	0.46	0.45	0.46	0.45	0.45	0.44	0.49	0.37	0.55
1998	0.44	0.38	0.47	0.43	0.39	0.45	0.43	0.27	0.53
1999	0.45	0.44	0.45	0.45	0.45	0.44	0.44	0.39	0.47
2000	0.48	0.47	0.48	0.47	0.48	0.45	0.51	0.34	0.59
2001	0.48	0.47	0.48	0.47	0.48	0.46	0.51	0.41	0.58
2002	0.48	0.45	0.48	0.48	0.46	0.48	0.48	0.39	0.52
2003	0.45	0.43	0.46	0.46	0.45	0.46	0.38	0.29	0.44
2004	0.48	0.47	0.47	0.48	0.48	0.47	0.45	0.40	0.48
2005	0.48	0.48	0.49	0.48	0.50	0.46	0.51	0.30	0.64
2006	0.49	0.46	0.51	0.50	0.48	0.50	0.47	0.28	0.60
2007	0.50	0.51	0.48	0.48	0.51	0.46	0.50	0.40	0.56
2008	0.52	0.50	0.52	0.52	0.52	0.51	0.46	0.40	0.51
2009	0.52	0.51	0.52	0.51	0.52	0.50	0.57	0.41	0.66
2010	0.51	0.50	0.51	0.50	0.51	0.48	0.49	0.45	0.53
2011	0.51	0.52	0.49	0.51	0.54	0.48	0.44	0.32	0.51
2012	0.48	0.51	0.46	0.48	0.52	0.45	0.49	0.41	0.54
2013	0.52	0.53	0.50	0.51	0.54	0.48	0.52	0.39	0.61
2014	0.50	0.49	0.50	0.50	0.52	0.48	0.56	0.38	0.66
2015	0.51	0.54	0.48	0.50	0.55	0.47	0.49	0.41	0.53
2016	0.54	0.55	0.52	0.54	0.56	0.51	0.48	0.42	0.51
2017	0.49	0.52	0.47	0.49	0.53	0.46	0.44	0.39	0.46

<sup>a</sup> 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 26.7  
Cancer of the Thyroid (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, 2013-2017									
All ages	15.7	8.1	23.1	16.4	8.6	24.3	9.5	4.0	14.3
Under 65	14.5	6.6	22.3	15.3	7.1	23.7	8.2	2.9	12.8
65 and over	23.6	18.0	28.3	24.1	19.0	28.5	18.9	11.3	24.1
All ages (WHO world std) <sup>c</sup>	13.9	6.9	20.8	14.6	7.4	22.0	8.2	3.3	12.4
Age-Specific Rates, 2013-2017									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	0.2	0.1	0.2	0.2	0.1	0.3	-	-	-
10-14	1.0	0.5	1.5	1.1	0.6	1.6	0.3	-	-
15-19	3.3	1.1	5.7	3.7	1.1	6.5	1.2	0.6	1.9
20-24	7.3	2.6	12.3	8.3	2.9	14.0	2.1	0.6	3.6
25-29	12.0	4.2	20.0	13.3	4.8	22.3	4.7	1.0	8.4
30-34	17.6	6.5	28.8	18.9	6.9	31.5	7.4	2.1	12.3
35-39	22.2	8.9	35.3	23.5	9.5	38.0	11.4	3.3	18.7
40-44	24.4	10.5	38.0	25.4	11.2	39.8	15.2	4.7	24.3
45-49	26.1	12.0	39.9	27.2	12.7	41.8	15.5	5.3	24.4
50-54	27.5	13.7	40.8	28.6	14.8	42.2	17.4	6.6	26.8
55-59	28.4	15.9	40.2	29.3	16.8	41.4	18.9	9.4	27.0
60-64	27.9	17.7	37.2	28.3	18.6	37.4	20.3	8.8	29.7
65-69	30.2	20.9	38.4	30.8	22.1	38.7	22.7	12.6	30.4
70-74	26.2	19.7	31.7	27.0	21.0	32.1	20.3	11.1	26.7
75-79	23.8	18.9	27.6	24.6	19.7	28.5	18.7	13.0	22.3
80-84	17.8	15.7	19.3	17.5	15.9	18.6	17.0	11.6	20.1
85+	10.4	9.7	10.7	10.1	10.0	10.2	10.3	-	12.4
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2013-2017									
All ages	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.6
Under 65	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2
65 and over	3.0	3.0	3.0	3.0	3.1	2.8	2.9	2.2	3.3
All ages (WHO world std) <sup>c</sup>	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3
Age-Specific Rates, 2013-2017									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	0.0	-	-	0.0	-	-	-	-	-
30-34	0.0	-	0.0	0.0	-	-	-	-	-
35-39	0.0	0.1	0.0	0.0	0.0	0.0	-	-	-
40-44	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-	-
45-49	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.3
50-54	0.4	0.5	0.3	0.4	0.5	0.3	0.3	0.3	0.3
55-59	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.5	0.6
60-64	1.1	1.1	1.0	1.1	1.1	1.0	1.1	1.0	1.2
65-69	1.6	1.7	1.5	1.6	1.8	1.4	1.6	1.3	1.9
70-74	2.1	2.2	2.0	2.1	2.3	2.0	2.1	1.8	2.4
75-79	3.2	3.2	3.2	3.2	3.3	3.1	3.3	2.9	3.6
80-84	4.5	4.4	4.5	4.4	4.5	4.4	3.7	3.0	4.1
85+	5.7	5.6	5.8	5.6	5.7	5.6	5.6	2.5	6.8

<sup>a</sup> SEER 21 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 26.8  
Cancer of the Thyroid (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>	-	-	-	83	75	87	-	-	-
1970-1973 <sup>a</sup>	-	-	-	86	82	87	-	-	-
1975-1977 <sup>b</sup>	92.2	91.0	92.5	91.8	90.6	92.3	89.8	-	91.0
1978-1980 <sup>b</sup>	92.1	87.2	93.6	91.5	87.5	92.7	90.1	68.0 <sup>h</sup>	95.5
1981-1983 <sup>b</sup>	93.6	92.2	93.9	93.1	90.9	93.7	96.4	100.0	93.2
1984-1986 <sup>b</sup>	93.2	89.9	94.3	93.2	89.4	94.4	89.5	86.1 <sup>g</sup>	90.3
1987-1989 <sup>b</sup>	94.4	91.6	95.2	94.1	91.6	95.0	92.3	91.2 <sup>g</sup>	92.3
1990-1992 <sup>b</sup>	94.3	90.5	95.5	94.9	91.6	96.0	85.9	84.5 <sup>g</sup>	86.3
1993-1995 <sup>b</sup>	95.4	91.6	96.7	95.6	91.5	96.9	93.2	87.4 <sup>g</sup>	94.3
1996-1998 <sup>b</sup>	95.6	91.0	96.9	95.9	91.3	97.3	95.1	86.8 <sup>g</sup>	96.5
1999-2001 <sup>b</sup>	96.5	94.2	97.1	96.8	94.8	97.4	92.1	88.4 <sup>g</sup>	92.4
2002-2004 <sup>b</sup>	97.3	93.9	98.3	97.4	94.1	98.3	95.9	93.9	96.0
2005-2009 <sup>b</sup>	98.2	96.4	98.6	98.4	96.8	98.8	97.0	90.2	97.9
2010-2016 <sup>b</sup>	98.6 <sup>f</sup>	96.2 <sup>f</sup>	99.0 <sup>f</sup>	98.8 <sup>f</sup>	96.7 <sup>f</sup>	99.3 <sup>f</sup>	96.7	91.6	97.5 <sup>f</sup>
5-Year Period Survival (Percent) <sup>cd</sup>									
2016	98.4	96.2	99.0	98.6	96.4	99.1	97.0	93.4	97.6
Stage Distribution (%) 2010-2016 <sup>ce</sup>									
All Stages									
Number of cases	78,663	18,363	60,300	62,568	15,130	47,438	5,628	971	4,657
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	67	57	69	67	57	70	79	72	81
Regional	28	34	26	28	35	26	14	18	13
Distant	4	6	3	3	6	3	5	7	4
Unstaged/Unknown	2	2	2	2	2	2	2	3	2
5-Year Relative Survival (Percent), 2010-2016 <sup>c</sup>									
Age at Diagnosis:									
Ages <45	99.7	99.2	99.8	99.8	99.4	99.8	98.9	95.0	99.5
Ages 45-54	98.9	96.7	99.5	98.9	96.7	99.5	99.0	96.6	99.2
Ages 55-64	97.9	95.3	98.9	98.2	95.2	99.3	95.5	94.2	95.5
Ages 65-74	96.7	93.0	97.7	97.1	93.8	97.9	94.6	82.5 <sup>g</sup>	97.1
Ages 75+	87.3	86.0	87.7	89.5	87.9	89.8	79.6	76.1 <sup>h</sup>	78.4
Ages <65	99.1	97.3	99.6	99.1	97.3	99.7	98.3	95.5	98.8
Ages 65+	94.1	91.0	94.9	94.9	92.2	95.4	90.7	81.8	91.9
Stage <sup>e</sup> :									
All Stages	98.3	95.9	98.9	98.5	96.2	99.1	97.2	92.8	97.9
Localized	99.9	99.8	99.9	99.9	99.8	99.9	99.8	99.3	99.9
Regional	98.3	96.5	99.0	98.4	96.6	99.2	94.8	86.6	97.0
Distant	54.9	51.7	57.2	55.1	51.1	58.3	48.2	40.2 <sup>g</sup>	49.8
Unstaged/Unknown	88.5	80.6	91.0	88.4	82.4	90.5	82.7	70.3 <sup>h</sup>	85.5

<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 2017. [Expected survival rates](#) are derived from the U.S. Annual Life Tables.<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). Expected survival rates are derived from life tables by socio-economic status, geography and race developed by the SEER program.<sup>d</sup> Based on follow-up of patients into 2017.

Period survival provides a 2016 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 2010-2016 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 26.9  
Cancer of the Thyroid (Invasive)  
SEER<sup>a</sup> Relative Survival (Percent)  
By Year of Diagnosis

All Races, Males and Females

Survival Time	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	2015	2016
1-year	94.9	95.1	96.0	96.2	96.7	96.8	96.4	97.7	97.3	97.6	97.6	97.1	98.0	98.3	97.7	98.4	98.5	98.3	98.8	98.9	98.8	98.8	98.3	98.7	98.8	98.7
2-year	93.5	94.5	95.2	95.7	96.1	96.6	96.2	97.1	97.1	97.0	97.4	97.0	97.9	97.9	97.3	98.3	98.1	98.2	98.7	98.6	98.7	98.5	98.3	98.7	98.7	
3-year	92.9	93.7	94.8	95.3	96.0	96.0	96.2	96.9	97.1	96.9	97.0	97.0	97.7	97.9	97.3	98.2	98.1	98.2	98.7	98.6	98.6	98.4	98.2	98.7		
4-year	92.5	93.4	94.3	95.0	95.9	95.4	95.7	96.3	97.0	96.9	97.0	97.0	97.4	97.7	97.3	98.2	98.0	98.0	98.7	98.4	98.6	98.4	98.2			
5-year	92.0	93.3	94.1	94.6	95.8	95.0	95.3	96.2	96.8	96.3	96.2	97.0	97.3	97.4	97.3	98.2	97.9	97.8	98.7	98.1	98.6	98.4				
6-year	91.7	93.1	93.8	94.3	95.8	94.8	95.2	95.8	96.3	96.3	96.1	96.7	97.0	97.2	97.3	98.2	97.9	97.8	98.7	98.1	98.6					
7-year	91.5	92.7	93.5	94.2	95.6	94.5	95.2	95.8	96.2	96.1	96.1	96.5	96.8	96.9	97.3	98.1	97.9	97.7	98.7	98.1						
8-year	91.1	92.6	93.3	94.1	95.5	94.2	95.1	95.8	96.0	95.9	95.9	96.3	96.7	96.8	97.3	98.0	97.9	97.5	98.7							
9-year	90.7	92.3	93.1	93.9	95.5	93.8	95.0	95.8	95.7	95.9	95.4	96.3	96.7	96.8	97.3	98.0	97.9	97.5								
10-year	90.5	92.0	92.8	93.6	95.2	93.7	95.0	95.8	95.4	95.8	95.3	96.3	96.7	96.7	97.3	98.0	97.9									
11-year	90.3	91.7	92.7	93.3	95.1	93.3	95.0	95.8	95.0	95.8	95.3	96.1	96.7	96.5	97.2	98.0										
12-year	90.3	91.4	92.7	93.0	95.1	93.0	95.0	95.8	94.7	95.8	95.3	95.9	96.7	96.4	97.0											
13-year	90.0	91.3	92.5	93.0	95.1	92.8	95.0	95.1	94.6	95.8	95.3	95.9	96.7	96.4												
14-year	90.0	91.1	92.4	92.7	95.1	92.7	95.0	94.7	94.5	95.8	95.3	95.9	96.7													
15-year	89.7	90.7	92.4	92.4	94.3	92.4	95.0	94.2	94.4	95.8	95.2	95.9														
16-year	89.7	90.6	92.4	92.2	93.8	92.4	95.0	94.0	94.4	95.8	94.9															
17-year	89.6	90.6	92.3	92.2	93.8	92.4	95.0	93.8	94.4	95.7																
18-year	89.4	90.5	92.2	92.2	93.8	92.4	94.4	93.8	94.1																	
19-year	89.2	90.5	91.9	92.2	93.8	92.4	94.3	93.4																		
20-year	89.2	90.5	91.9	92.2	93.8	92.3	94.3																			

<sup>a</sup> 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 26.10  
Cancer of the Thyroid (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	2014	2015	2016
Survival Time																										
1-year	94.6	92.5	94.8	94.5	93.4	93.7	91.8	97.1	96.5	96.3	96.1	95.1	96.0	96.7	97.1	96.4	97.3	96.8	98.3	97.9	97.4	97.9	96.7	97.2	97.9	97.4
2-year	92.5	92.0	93.7	93.2	91.9	93.4	90.9	95.4	96.0	94.9	95.5	94.9	95.4	95.1	95.6	96.1	96.6	96.1	98.2	96.3	96.9	97.1	96.5	96.9	97.9	
3-year	91.4	90.8	93.5	92.4	91.6	92.2	90.9	94.7	96.0	94.9	94.2	94.9	94.2	94.8	95.6	96.1	96.6	96.1	98.2	96.1	96.7	96.8	96.4	96.5		
4-year	90.5	90.4	92.1	91.9	91.3	91.8	89.5	93.7	96.0	94.9	93.6	94.7	93.4	94.3	95.6	96.1	96.6	95.8	98.2	95.7	96.7	96.7	95.8			
5-year	89.8	90.2	91.6	91.0	91.2	89.9	88.2	93.7	96.0	93.7	92.4	94.3	93.2	94.0	95.6	95.7	96.6	95.1	98.0	94.4	96.7	96.4				
6-year	89.6	89.8	91.2	90.6	90.4	89.9	88.0	93.5	95.6	93.7	92.0	93.8	91.7	94.0	95.6	95.7	96.6	95.0	97.8	94.3	96.7					
7-year	89.4	89.3	90.0	90.4	88.7	89.6	88.0	93.3	95.2	93.4	92.0	92.4	91.7	92.8	95.6	95.3	96.6	94.8	97.8	94.3						
8-year	89.3	89.3	89.7	90.1	88.7	88.6	87.8	93.3	94.9	93.4	91.1	91.5	91.7	92.5	95.4	95.3	96.6	94.6	97.8							
9-year	88.8	88.6	88.4	89.9	88.7	86.8	86.9	93.3	92.8	93.4	89.8	91.0	91.7	92.1	95.2	95.3	96.6	94.5								
10-year	88.3	87.9	88.4	89.7	87.4	86.7	86.9	93.2	92.4	93.4	89.6	91.0	91.7	91.5	94.7	95.3	96.6									
11-year	87.4	87.2	88.4	89.5	86.2	85.0	86.5	93.2	92.4	93.4	89.6	90.1	91.7	91.5	94.7	95.3										
12-year	87.4	86.4	88.4	88.7	86.0	84.3	86.5	93.1	92.4	93.4	89.3	89.9	91.7	91.5	94.2											
13-year	87.3	86.2	87.8	88.2	86.0	83.3	86.5	93.1	92.4	92.9	89.3	89.9	91.7	91.5												
14-year	87.3	86.2	87.7	87.8	85.8	83.0	86.5	93.1	92.4	92.9	89.3	89.5	91.7													
15-year	86.7	85.5	87.7	87.2	85.8	83.0	86.5	93.1	92.4	92.1	87.8	89.4														
16-year	86.6	85.4	87.7	87.0	85.8	83.0	86.5	92.5	92.4	91.8	87.5															
17-year	86.6	85.0	87.7	87.0	85.8	83.0	86.5	91.9	92.4	91.6																
18-year	86.6	84.6	87.7	86.6	85.8	83.0	86.1	91.9	92.4																	
19-year	86.6	84.6	87.7	86.5	85.8	82.6	85.1	91.9																		
20-year	86.6	84.6	87.7	86.5	85.8	81.3	85.1																			

<sup>a</sup> 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 26.11  
Cancer of the Thyroid (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	2014	2015	2016
Survival Time																										
1-year	95.0	96.0	96.3	96.8	97.8	97.7	97.7	97.9	97.6	98.0	98.0	97.7	98.6	98.8	97.9	99.0	98.9	98.7	98.9	99.2	99.1	99.1	98.8	99.1	99.0	99.1
2-year	93.8	95.3	95.7	96.6	97.3	97.5	97.7	97.6	97.4	97.7	98.0	97.7	98.5	98.7	97.9	99.0	98.5	98.7	98.8	99.1	99.1	98.8	98.7	99.1	98.9	
3-year	93.3	94.7	95.2	96.3	97.3	97.1	97.7	97.5	97.4	97.5	97.7	97.7	98.5	98.7	97.9	98.9	98.5	98.7	98.8	99.1	99.1	98.8	98.7	99.1		
4-year	93.1	94.4	95.0	96.1	97.3	96.6	97.5	97.1	97.2	97.5	97.7	97.7	98.5	98.7	97.9	98.9	98.3	98.6	98.7	99.1	99.1	98.8	98.7			
5-year	92.7	94.3	94.9	95.9	97.2	96.4	97.4	96.9	96.9	97.0	97.3	97.7	98.4	98.3	97.9	98.9	98.3	98.5	98.7	99.0	99.1	98.8				
6-year	92.3	94.2	94.7	95.6	97.2	96.2	97.3	96.5	96.5	97.0	97.3	97.6	98.3	98.1	97.9	98.9	98.3	98.5	98.7	99.0	99.1					
7-year	92.2	93.8	94.6	95.4	97.2	95.9	97.3	96.5	96.3	97.0	97.3	97.6	98.1	98.0	97.9	98.9	98.3	98.5	98.7	99.0						
8-year	91.7	93.7	94.5	95.4	97.2	95.9	97.3	96.5	96.2	96.6	97.3	97.6	98.0	98.0	97.9	98.7	98.3	98.3	98.7							
9-year	91.4	93.6	94.5	95.3	97.2	95.8	97.3	96.5	96.2	96.6	97.0	97.6	98.0	98.0	97.9	98.7	98.3	98.3								
10-year	91.2	93.4	94.2	94.9	97.2	95.7	97.3	96.5	96.0	96.4	97.0	97.6	97.8	98.0	97.9	98.7	98.3									
11-year	91.2	93.2	94.1	94.6	97.2	95.7	97.3	96.5	95.8	96.4	97.0	97.6	97.8	97.9	97.9	98.7										
12-year	91.1	93.1	94.0	94.5	97.2	95.5	97.3	96.5	95.3	96.4	97.0	97.6	97.8	97.8	97.7											
13-year	91.0	92.9	94.0	94.5	97.2	95.5	97.3	95.6	94.8	96.4	97.0	97.6	97.8	97.7												
14-year	90.8	92.8	94.0	94.3	97.2	95.5	97.3	95.0	94.6	96.4	97.0	97.6	97.8													
15-year	90.7	92.5	93.9	94.1	96.7	95.1	97.3	94.4	94.4	96.4	97.0	97.6														
16-year	90.7	92.3	93.8	94.0	95.9	95.1	97.3	94.3	94.4	96.4	96.9															
17-year	90.4	92.3	93.6	94.0	95.9	95.0	97.2	94.2	94.3	96.4																
18-year	90.0	92.3	93.5	93.9	95.9	95.0	96.9	94.1	94.1																	
19-year	89.8	92.3	93.3	93.9	95.9	95.0	96.9	93.8																		
20-year	89.8	92.3	93.3	93.9	95.9	95.0	96.9																			

<sup>a</sup> 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 26.12  
Cancer of the Thyroid (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, 2015-2017 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	0.03	0.12	1.28	0.06	Asian/ Pacific Islander	0	0.00	0.03	0.12	1.40	0.12
	10	0.02	0.12	0.31	1.29	0.07		10	0.03	0.12	0.31	1.41	0.12
	20	0.10	0.29	0.53	1.27	0.07		20	0.09	0.28	0.54	1.39	0.12
	30	0.19	0.43	0.69	1.19	0.07		30	0.19	0.45	0.73	1.30	0.12
	40	0.24	0.50	0.75	1.01	0.07		40	0.26	0.54	0.81	1.12	0.12
	50	0.27	0.52	0.70	0.78	0.07		50	0.29	0.56	0.75	0.87	0.12
	60	0.27	0.46	0.54	0.55	0.07		60	0.28	0.48	0.58	0.60	0.12
	70	0.22	0.30	-	0.32	0.06		70	0.21	0.31	-	0.34	0.11
80	0.12	-	-	0.13	0.05	80	0.13	-	-	0.16	0.10		
White	0	0.00	0.03	0.14	1.33	0.06	American Indian/ Alaska Native <sup>a</sup>	0	0.00	0.01	0.07	0.81	0.06
	10	0.03	0.14	0.34	1.34	0.06		10	0.01	0.07	0.20	0.82	0.06
	20	0.11	0.31	0.56	1.32	0.06		20	0.06	0.19	0.30	0.81	0.06
	30	0.21	0.46	0.72	1.22	0.07		30	0.13	0.25	0.39	0.77	0.06
	40	0.25	0.52	0.77	1.03	0.07		40	0.12	0.27	0.41	0.66	0.06
	50	0.27	0.53	0.72	0.80	0.07		50	0.15	0.31	0.40	0.56	0.06
	60	0.27	0.47	0.55	0.56	0.06		60	0.17	0.27	0.35	0.44	0.07
	70	0.22	0.31	-	0.32	0.06		70	0.12	0.21	-	0.31	0.06
80	0.11	-	-	0.13	0.05	80	0.13	-	-	0.25	0.07		
Black	0	0.00	0.01	0.04	0.76	0.05	Hispanic <sup>b</sup>	0	0.00	0.02	0.11	1.26	0.11
	10	0.01	0.04	0.13	0.77	0.06		10	0.02	0.11	0.26	1.26	0.11
	20	0.03	0.12	0.26	0.77	0.06		20	0.08	0.24	0.45	1.25	0.11
	30	0.09	0.23	0.40	0.74	0.06		30	0.16	0.37	0.63	1.17	0.11
	40	0.14	0.31	0.47	0.67	0.06		40	0.21	0.48	0.73	1.02	0.11
	50	0.17	0.34	0.47	0.54	0.06		50	0.27	0.52	0.73	0.83	0.11
	60	0.18	0.32	0.38	0.40	0.06		60	0.27	0.48	0.57	0.59	0.11
	70	0.16	0.24	-	0.26	0.05		70	0.23	0.33	-	0.35	0.10
80	0.11	-	-	0.13	0.05	80	0.12	-	-	0.14	0.09		

Devcan 6.7.8, April 2020, National Cancer Institute (<https://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 21 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, Georgia excluding ATL/RG, Idaho, New York and Massachusetts). 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 PRCD (Purchased/Referred Care Delivery Areas) 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 26.13  
Cancer of the Thyroid (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, 2015-2017 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever				+10 yrs	+20 yrs	+30 yrs	Ever	
All Races	0	0.00	0.01	0.04	0.69	0.06	Asian/ Pacific Islander	0	0.00	0.01	0.04	0.74	0.10
	10	0.01	0.04	0.12	0.69	0.06		10	0.01	0.04	0.12	0.74	0.10
	20	0.04	0.11	0.22	0.69	0.06		20	0.03	0.11	0.24	0.74	0.10
	30	0.08	0.18	0.32	0.66	0.06		30	0.08	0.20	0.34	0.71	0.11
	40	0.11	0.25	0.41	0.60	0.06		40	0.12	0.26	0.42	0.63	0.11
	50	0.14	0.31	0.44	0.50	0.06		50	0.14	0.30	0.43	0.52	0.11
	60	0.18	0.31	0.38	0.38	0.06		60	0.17	0.30	0.39	0.39	0.10
	70	0.16	0.23	-	0.24	0.06		70	0.14	0.24	-	0.25	0.10
80	0.10	-	-	0.11	0.05	80	0.12	-	-	0.13	0.09		
White	0	0.00	0.01	0.05	0.73	0.06	American Indian/ Alaska Native <sup>a</sup>	0	0.00	0.01	0.02	0.31	0.05
	10	0.01	0.05	0.13	0.73	0.06		10	0.01	0.02	0.06	0.31	0.05
	20	0.04	0.12	0.23	0.73	0.06		20	0.01	0.05	0.08	0.30	0.05
	30	0.08	0.20	0.34	0.70	0.06		30	0.04	0.06	0.12	0.30	0.05
	40	0.12	0.26	0.43	0.63	0.06		40	0.03	0.09	0.19	0.27	0.05
	50	0.15	0.33	0.46	0.53	0.06		50	0.06	0.16	0.23	0.25	0.05
	60	0.19	0.33	0.39	0.40	0.06		60	0.11	0.18	0.21	0.21	0.06
	70	0.17	0.24	-	0.25	0.06		70	0.08	0.11	-	0.11	0.04
80	0.10	-	-	0.11	0.05	80	0.04	-	-	0.04	0.04		
Black	0	0.00	0.00	0.01	0.32	0.04	Hispanic <sup>b</sup>	0	0.00	0.01	0.03	0.57	0.09
	10	0.00	0.01	0.04	0.32	0.04		10	0.01	0.03	0.08	0.57	0.09
	20	0.01	0.03	0.08	0.32	0.04		20	0.02	0.08	0.15	0.56	0.09
	30	0.03	0.07	0.14	0.32	0.04		30	0.05	0.13	0.23	0.55	0.09
	40	0.05	0.12	0.20	0.30	0.04		40	0.08	0.18	0.31	0.50	0.09
	50	0.08	0.16	0.23	0.27	0.04		50	0.11	0.23	0.35	0.43	0.09
	60	0.09	0.17	0.21	0.21	0.04		60	0.13	0.26	0.32	0.34	0.09
	70	0.10	0.14	-	0.15	0.03		70	0.14	0.21	-	0.24	0.09
80	0.07	-	-	0.08	0.03	80	0.10	-	-	0.13	0.08		

Devcan 6.7.8, April 2020, National Cancer Institute (<https://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 21 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, Georgia excluding ATL/RG, Idaho, New York and Massachusetts). 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 PRCDA (Purchased/Referred Care Delivery Areas) 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 26.14  
Cancer of the Thyroid (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, 2015-2017 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	0.04	0.20	1.88	0.07	Asian/ Pacific Islander	0	0.00	0.04	0.19	2.00	0.14
	10	0.04	0.20	0.51	1.89	0.07		10	0.04	0.19	0.48	2.01	0.14
	20	0.16	0.47	0.84	1.86	0.07		20	0.15	0.44	0.82	1.97	0.14
	30	0.31	0.69	1.06	1.70	0.07		30	0.30	0.67	1.08	1.83	0.14
	40	0.38	0.76	1.09	1.41	0.07		40	0.38	0.79	1.16	1.54	0.14
	50	0.39	0.72	0.95	1.05	0.07		50	0.42	0.79	1.03	1.18	0.14
	60	0.35	0.59	0.68	0.70	0.07		60	0.38	0.63	0.74	0.78	0.14
	70	0.26	0.36	-	0.38	0.06		70	0.26	0.37	-	0.42	0.13
80	0.13	-	-	0.15	0.05	80	0.13	-	-	0.18	0.10		
White	0	0.00	0.05	0.23	1.96	0.07	American Indian/ Alaska Native <sup>a</sup>	0	0.00	0.01	0.11	1.31	0.07
	10	0.05	0.23	0.56	1.97	0.07		10	0.01	0.12	0.35	1.32	0.07
	20	0.18	0.52	0.91	1.93	0.07		20	0.10	0.34	0.54	1.31	0.07
	30	0.34	0.73	1.11	1.76	0.07		30	0.24	0.44	0.67	1.23	0.07
	40	0.40	0.78	1.12	1.44	0.07		40	0.21	0.44	0.64	1.01	0.07
	50	0.40	0.74	0.97	1.07	0.07		50	0.24	0.45	0.57	0.83	0.07
	60	0.36	0.60	0.69	0.70	0.07		60	0.22	0.35	0.48	0.62	0.07
	70	0.27	0.36	-	0.38	0.06		70	0.14	0.29	-	0.45	0.07
80	0.12	-	-	0.14	0.05	80	0.19	-	-	0.39	0.08		
Black	0	0.00	0.01	0.07	1.16	0.07	Hispanic <sup>b</sup>	0	0.00	0.04	0.19	1.95	0.12
	10	0.01	0.07	0.22	1.18	0.07		10	0.04	0.19	0.46	1.96	0.13
	20	0.06	0.21	0.43	1.17	0.07		20	0.15	0.42	0.77	1.93	0.13
	30	0.15	0.37	0.62	1.12	0.07		30	0.27	0.62	1.04	1.79	0.13
	40	0.23	0.48	0.71	0.98	0.07		40	0.35	0.77	1.14	1.53	0.13
	50	0.26	0.50	0.68	0.78	0.07		50	0.42	0.80	1.08	1.19	0.12
	60	0.26	0.44	0.53	0.55	0.07		60	0.39	0.68	0.78	0.80	0.12
	70	0.21	0.31	-	0.34	0.07		70	0.31	0.42	-	0.44	0.11
80	0.13	-	-	0.16	0.06	80	0.13	-	-	0.15	0.09		

Devcan 6.7.8, April 2020, National Cancer Institute (<https://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 21 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, Georgia excluding ATL/RG, Idaho, New York and Massachusetts). 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 PRCD (Purchased/Referred Care Delivery Areas) 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 26.15  
Cancer of the Thyroid (Invasive)

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

SEER Incidence	SEER 21 Areas <sup>b</sup>			SEER 21 Areas <sup>b</sup>			SEER 9 Areas <sup>b</sup>		
	Rate 2013-2017			Trend 2008-2017 <sup>c</sup>			Trend 2008-2017 <sup>d</sup>		
	Rate per 100,000 persons			AAPC (%)			AAPC (%)		
Race/Ethnicity	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Races	15.7	8.1	23.1	0.8	1.4*	0.7	0.3	1.8*	0.0
White	16.4	8.6	24.3	0.6	1.3	0.4	0.1	1.7*	-0.2
White Hispanic <sup>e</sup>	14.5	6.1	22.8	2.0	3.7*	1.9	-	-	-
White Non-Hispanic <sup>e</sup>	17.2	9.3	25.0	0.4	1.3	0.1	-	-	-
Black	9.5	4.0	14.3	1.2	1.2	1.3	1.4	3.1*	1.2
Asian/Pacific Islander	15.8	7.9	22.7	1.2	3.1*	1.5*	-	-	-
Amer Ind/Alaska Nat <sup>f</sup>	9.3	3.9	14.5	3.0*	3.0	4.2*	-	-	-
Hispanic <sup>e</sup>	14.2	5.9	22.3	3.0*	3.9*	3.0*	-	-	-
<u>U.S. Mortality<sup>g</sup></u>									
	Rate 2013-2017			Trend 2008-2017 <sup>h</sup>					
	Rate per 100,000 persons			AAPC (%)					
Race/Ethnicity	Total	Males	Females	Total	Males	Females			
All Races	0.5	0.5	0.5	0.5*	1.0*	0.2			
White	0.5	0.5	0.5	0.5*	1.0*	0.2			
White Hispanic <sup>e</sup>	0.7	0.6	0.7	0.8*	2.6	0.8			
White Non-Hispanic <sup>e</sup>	0.5	0.5	0.5	0.4*	1.0*	0.0			
Black	0.5	0.4	0.6	0.2	0.8	-0.2			
Asian/Pacific Islander	0.6	0.5	0.7	-0.3	1.2	-1.0			
Amer Ind/Alaska Nat									
Total U.S.	0.4	0.4	0.4	1.2	-	0.0			
PRCDA Counties	0.5	0.6	0.4	-0.7	-	-2.8			
Non-PRCDA Counties	0.3	-	-	-	-	-			
Hispanic <sup>e</sup>	0.6	0.6	0.7	0.7*	2.5	0.7			

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 4.8, April 2020, 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.

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).

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

The SEER 21 areas comprise the SEER 9 areas plus San Jose-Monterey, Los Angeles, the Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, Georgia excluding ATL/RG, Idaho, New York and Massachusetts.

The 2008-2017 AAPC estimates are based on a Joinpoint analysis with up to 3 Joinpoints over diagnosis years 2000-2017.

The 2008-2017 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2017.

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.

Incidence data for American Indian/Alaska Native are based on the Purchased/Referred Care Delivery Area (PRCDA) counties.

US Mortality Files, National Center for Health Statistics, CDC.

The 2008-2017 mortality AAPCs are based on a Joinpoint analysis using years of death 2000-2017.

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

Table 26.16  
Cancer of the Thyroid (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>, 2013-2017</u>									
California	13.05	6.63	19.40	13.38	6.84	20.06	6.80	3.49	9.93
Greater Bay Area	12.01	6.58	17.46	12.37	6.96	18.11	4.98	2.51	7.29
San Francisco-Oakland	11.87	6.82	16.87	12.48	7.45	17.84	4.78	2.57	6.75
San Jose-Monterey	12.28	6.16	18.58	12.21	6.15	18.63	6.40	-	10.86
Los Angeles	13.52	6.93	19.91	13.96	7.21	20.80	7.91	3.88	11.37
Greater California	13.21	6.51	19.87	13.44	6.65	20.33	6.70	3.56	9.88
Connecticut	18.73	9.71	27.39	19.09	10.10	27.89	10.96	4.52	16.20
Detroit	16.19	8.29	23.62	18.42	9.37	27.41	10.79	5.34	15.15
Georgia	12.25	6.26	17.88	14.06	7.30	20.86	8.45	3.35	12.53
Atlanta	11.83	6.04	17.13	13.98	7.27	20.90	8.67	3.58	12.58
Rural Georgia	10.67	4.66	16.33	13.29	-	19.84	6.92	-	11.16
Greater Georgia	12.54	6.41	18.39	14.09	7.33	20.83	8.34	3.21	12.62
Hawaii	14.53	7.09	22.16	12.70	6.82	19.98	-	-	-
Idaho	15.06	7.79	22.40	14.91	7.78	22.13	-	-	-
Iowa	14.52	7.66	21.49	14.79	7.84	21.81	7.94	-	13.50
Kentucky	15.72	8.20	23.09	16.02	8.57	23.34	11.72	3.35	19.50
Louisiana	14.27	7.34	20.91	16.28	8.50	24.11	9.83	4.15	14.61
Massachusetts	19.21	10.32	27.63	19.14	10.49	27.43	12.40	4.19	19.38
New Jersey	19.26	9.90	28.26	20.82	10.86	30.64	10.56	4.13	15.86
New Mexico	15.64	7.70	23.51	16.32	7.97	24.66	6.24	-	-
New York	19.89	10.33	28.96	20.76	11.09	30.33	11.01	4.39	16.36
Seattle-Puget Sound	13.87	7.48	20.35	13.94	7.73	20.34	9.28	4.01	15.41
Utah	17.88	8.62	27.26	18.19	8.80	27.69	-	-	-
SEER 9 Areas <sup>b</sup>	14.72	7.67	21.63	15.71	8.28	23.29	9.00	4.08	13.17
SEER 13 Areas <sup>b</sup>	14.26	7.38	21.00	15.06	7.89	22.38	8.72	4.01	12.74
SEER 18 Areas <sup>b</sup>	14.47	7.40	21.39	15.28	7.91	22.73	8.91	3.85	13.28
SEER 21 Areas <sup>b</sup>	15.68	8.07	23.07	16.41	8.59	24.27	9.54	3.98	14.27

<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.

The SEER 21 areas comprise the SEER 18 areas plus Idaho, New York and Massachusetts.

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



Table 26.17  
Cancer of the Thyroid (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>, 2013-2017</u>									
California	0.64	0.61	0.66	0.64	0.63	0.64	0.52	0.44	0.57
Greater Bay Area	0.57	0.46	0.66	0.55	0.47	0.61	-	-	-
San Francisco-Oakland	0.59	0.48	0.67	0.53	0.45	0.60	-	-	-
San Jose-Monterey	0.54	0.42	0.62	0.58	0.50	0.62	-	-	-
Los Angeles	0.69	0.71	0.68	0.73	0.75	0.71	0.56	-	0.57
Greater California	0.64	0.63	0.65	0.63	0.63	0.63	0.54	-	0.68
Connecticut	0.47	0.52	0.43	0.50	0.54	0.45	-	-	-
Detroit	0.54	0.63	0.48	0.55	0.63	0.49	0.53	-	-
Georgia	0.43	0.46	0.41	0.43	0.47	0.39	0.45	0.41	0.46
Atlanta	0.45	0.50	0.42	0.43	0.47	0.41	0.47	-	-
Rural Georgia	-	-	-	-	-	-	-	-	-
Greater Georgia	0.43	0.46	0.40	0.43	0.49	0.38	0.47	-	0.49
Hawaii	0.63	0.58	0.69	-	-	-	-	-	-
Idaho	0.62	0.71	0.52	0.62	0.72	0.54	-	-	-
Iowa	0.49	0.53	0.47	0.48	0.53	0.44	-	-	-
Kentucky	0.50	0.49	0.51	0.50	0.50	0.51	-	-	-
Louisiana	0.49	0.45	0.51	0.48	0.48	0.46	0.46	-	0.58
Massachusetts	0.52	0.59	0.48	0.52	0.60	0.47	-	-	-
New Jersey	0.50	0.54	0.47	0.53	0.57	0.50	0.39	-	-
New Mexico	0.57	0.61	0.55	0.62	0.67	0.58	-	-	-
New York	0.53	0.50	0.54	0.53	0.53	0.53	0.58	0.39	0.67
Seattle-Puget Sound	0.56	0.44	0.65	0.56	0.48	0.63	-	-	-
Utah	0.65	0.83	0.50	0.67	0.84	0.52	-	-	-
SEER 9 Areas <sup>b</sup>	0.54	0.54	0.54	0.53	0.56	0.52	0.43	0.47	0.41
SEER 13 Areas <sup>b</sup>	0.57	0.57	0.57	0.57	0.59	0.56	0.45	0.46	0.45
SEER 18 Areas <sup>b</sup>	0.56	0.56	0.56	0.56	0.58	0.55	0.46	0.41	0.48
SEER 21 Areas <sup>b</sup>	0.55	0.56	0.55	0.56	0.58	0.54	0.49	0.40	0.54
Total U.S.	0.51	0.52	0.49	0.51	0.54	0.48	0.50	0.40	0.55

<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.

The SEER 21 areas comprise the SEER 18 areas plus Idaho, New York and Massachusetts.

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

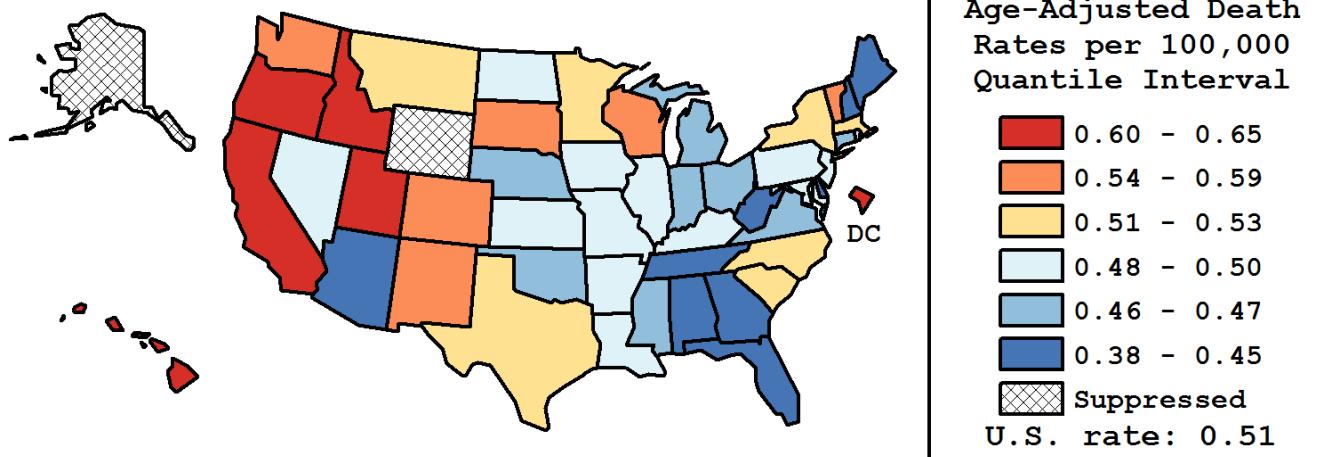
Table 26.18  
Cancer of the Thyroid (Invasive)

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2013-2017

Males and Females

State	Rate	SE	Rank(CI) <sup>d</sup>	PD
TOTAL U.S.	0.51	0.01		
High Five States				
Utah	0.65	0.07	01(01,38)	26.68 <sup>c</sup>
California	0.64	0.02	02(01,10)	26.16 <sup>c</sup>
Hawaii	0.63	0.09	03(01,45)	24.41 <sup>c</sup>
Idaho	0.62	0.08	04(01,46)	20.89 <sup>c</sup>
Oregon	0.60	0.05	05(01,33)	18.69 <sup>c</sup>
Low Five States				
Alabama	0.41	0.04	45(16,49)	-18.85 <sup>c</sup>
West Virginia	0.40	0.06	46(08,49)	-21.98 <sup>c</sup>
Maine	0.38	0.06	47(07,49)	-24.49 <sup>c</sup>
New Hampshire	0.38	0.07	48(06,49)	-25.64 <sup>c</sup>
Delaware	0.38	0.08	49(04,49)	-26.35 <sup>c</sup>

State	Rate	SE	Rank(CI) <sup>d</sup>	PD	State	Rate	SE	Rank(CI) <sup>d</sup>	PD
Alabama	0.41	0.04	45(16,49)	-18.85 <sup>c</sup>	Montana	0.52	0.09	18(01,49)	1.22
Alaska	-	-	-(-,-)	-	Nebraska	0.46	0.06	38(02,49)	-9.82
Arizona	0.45	0.03	41(10,49)	-11.07	Nevada	0.50	0.06	21(02,49)	-1.59
Arkansas	0.50	0.05	25(02,48)	-2.42	New Hampshire	0.38	0.07	48(06,49)	-25.64 <sup>c</sup>
California	0.64	0.02	02(01,10)	26.16 <sup>c</sup>	New Jersey	0.50	0.03	23(06,45)	-1.78
Colorado	0.57	0.05	10(01,40)	11.95	New Mexico	0.57	0.07	09(01,47)	12.77
Connecticut	0.47	0.05	33(05,49)	-6.95	New York	0.53	0.02	13(06,35)	3.37
Delaware	0.38	0.08	49(04,49)	-26.35 <sup>c</sup>	North Carolina	0.52	0.03	15(05,41)	2.54
D.C.	0.60	0.14	06(01,49)	18.08 <sup>c</sup>	North Dakota	0.50	0.11	26(01,49)	-2.45
Florida	0.45	0.02	42(21,47)	-11.99	Ohio	0.46	0.03	37(14,47)	-9.64
Georgia	0.43	0.03	44(16,49)	-15.01 <sup>c</sup>	Oklahoma	0.47	0.05	36(06,49)	-8.25
Hawaii	0.63	0.09	03(01,45)	24.41 <sup>c</sup>	Oregon	0.60	0.05	05(01,33)	18.69 <sup>c</sup>
Idaho	0.62	0.08	04(01,46)	20.89 <sup>c</sup>	Pennsylvania	0.49	0.02	30(09,44)	-3.76
Illinois	0.48	0.03	32(10,46)	-5.59	Rhode Island	0.49	0.09	31(01,49)	-4.03
Indiana	0.46	0.03	40(10,49)	-10.62	South Carolina	0.51	0.04	19(03,46)	1.10
Iowa	0.49	0.05	27(03,48)	-3.05	South Dakota	0.55	0.11	11(01,49)	8.26
Kansas	0.50	0.06	24(02,49)	-2.39	Tennessee	0.44	0.03	43(13,49)	-12.82
Kentucky	0.50	0.04	22(04,47)	-1.72	Texas	0.52	0.02	14(07,34)	2.94
Louisiana	0.49	0.04	28(04,48)	-3.07	Utah	0.65	0.07	01(01,38)	26.68 <sup>c</sup>
Maine	0.38	0.06	47(07,49)	-24.49 <sup>c</sup>	Vermont	0.59	0.12	07(01,49)	16.10 <sup>c</sup>
Maryland	0.50	0.04	20(05,47)	-1.16	Virginia	0.46	0.03	39(10,48)	-10.07
Massachusetts	0.52	0.04	16(04,44)	2.38	Washington	0.54	0.04	12(02,40)	6.87
Michigan	0.47	0.03	34(11,47)	-7.71	West Virginia	0.40	0.06	46(08,49)	-21.98 <sup>c</sup>
Minnesota	0.52	0.04	17(03,45)	1.69	Wisconsin	0.58	0.04	08(01,35)	13.97
Mississippi	0.47	0.05	35(04,49)	-7.99	Wyoming	-	-	-(-,-)	-
Missouri	0.49	0.04	29(06,47)	-3.57					



<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.

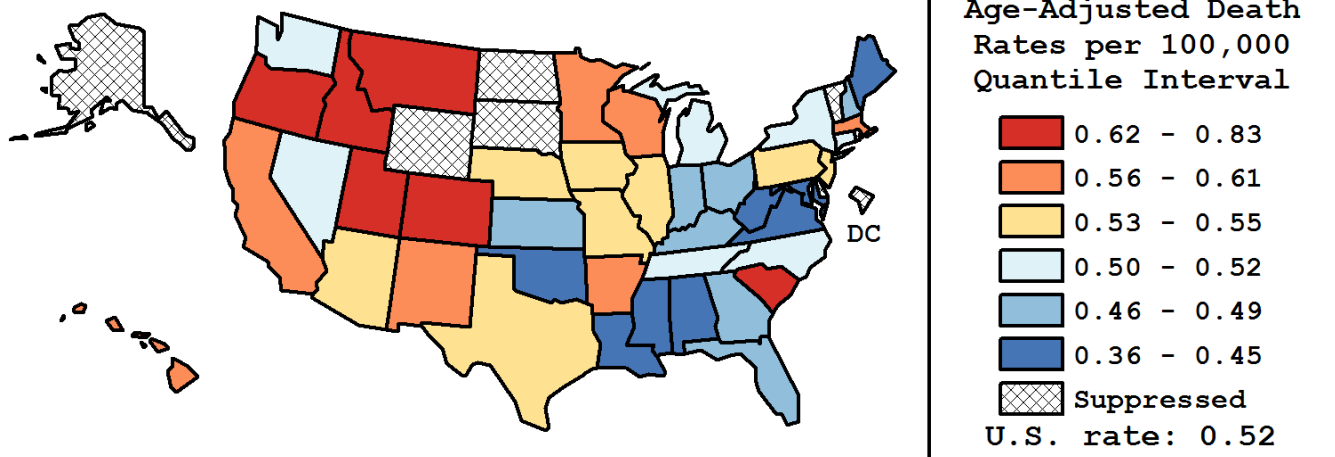
Table 26.19  
Cancer of the Thyroid (Invasive)

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2013-2017

Males

State	Rate	SE	Rank(CI) <sup>d</sup>	PD
TOTAL U.S.	0.52	0.01		
High Five States				
Utah	0.83	0.12	01(01,27)	57.22 <sup>c</sup>
Idaho	0.71	0.13	02(01,41)	35.95 <sup>c</sup>
Oregon	0.71	0.08	03(01,29)	35.56 <sup>c</sup>
South Carolina	0.62	0.07	04(01,37)	18.05 <sup>c</sup>
Montana	0.62	0.14	05(01,43)	17.69 <sup>c</sup>
Low Five States				
Virginia	0.42	0.05	39(13,43)	-19.43 <sup>c</sup>
Alabama	0.40	0.06	40(12,43)	-24.44 <sup>c</sup>
Maine	0.39	0.10	41(02,43)	-24.79 <sup>c</sup>
Mississippi	0.39	0.08	42(07,43)	-26.37 <sup>c</sup>
West Virginia	0.36	0.09	43(06,43)	-30.62 <sup>c</sup>

State	Rate	SE	Rank(CI) <sup>d</sup>	PD	State	Rate	SE	Rank(CI) <sup>d</sup>	PD
Alabama	0.40	0.06	40(12,43)	-24.44 <sup>c</sup>	Montana	0.62	0.14	05(01,43)	17.69 <sup>c</sup>
Alaska	-	-	-(-,-)	-	Nebraska	0.55	0.11	14(01,43)	4.64
Arizona	0.54	0.05	19(03,40)	2.11	Nevada	0.51	0.08	27(02,43)	-2.80
Arkansas	0.59	0.09	09(01,42)	11.47	New Hampshire	0.46	0.12	34(01,43)	-12.16
California	0.61	0.03	07(02,20)	16.96 <sup>c</sup>	New Jersey	0.54	0.05	16(03,40)	3.50
Colorado	0.62	0.07	06(01,38)	17.53 <sup>c</sup>	New Mexico	0.61	0.11	08(01,43)	15.65 <sup>c</sup>
Connecticut	0.52	0.07	23(02,43)	-0.97	New York	0.50	0.03	28(09,39)	-4.07
Delaware	-	-	-(-,-)	-	North Carolina	0.52	0.05	25(05,40)	-1.40
D.C.	-	-	-(-,-)	-	North Dakota	-	-	-(-,-)	-
Florida	0.46	0.03	35(17,41)	-12.82	Ohio	0.46	0.04	30(10,42)	-11.48
Georgia	0.46	0.05	33(07,43)	-12.10	Oklahoma	0.45	0.07	37(05,43)	-14.93
Hawaii	0.58	0.12	12(01,43)	9.55	Oregon	0.71	0.08	03(01,29)	35.56 <sup>c</sup>
Idaho	0.71	0.13	02(01,41)	35.95 <sup>c</sup>	Pennsylvania	0.54	0.04	17(04,36)	3.31
Illinois	0.53	0.04	21(05,39)	0.10	Rhode Island	-	-	-(-,-)	-
Indiana	0.46	0.05	32(07,43)	-12.01	South Carolina	0.62	0.07	04(01,37)	18.05 <sup>c</sup>
Iowa	0.53	0.08	20(02,43)	1.08	South Dakota	-	-	-(-,-)	-
Kansas	0.46	0.08	31(03,43)	-11.89	Tennessee	0.52	0.06	26(04,42)	-1.87
Kentucky	0.49	0.07	29(03,43)	-6.48	Texas	0.55	0.03	15(05,33)	4.60
Louisiana	0.45	0.07	36(05,43)	-13.98	Utah	0.83	0.12	01(01,27)	57.22 <sup>c</sup>
Maine	0.39	0.10	41(02,43)	-24.79 <sup>c</sup>	Vermont	-	-	-(-,-)	-
Maryland	0.43	0.05	38(10,43)	-18.73 <sup>c</sup>	Virginia	0.42	0.05	39(13,43)	-19.43 <sup>c</sup>
Massachusetts	0.59	0.06	10(02,38)	11.45	Washington	0.52	0.05	22(04,41)	-0.54
Michigan	0.52	0.05	24(04,40)	-1.15	West Virginia	0.36	0.09	43(06,43)	-30.62 <sup>c</sup>
Minnesota	0.56	0.06	13(02,41)	6.34	Wisconsin	0.58	0.06	11(02,39)	10.19
Mississippi	0.39	0.08	42(07,43)	-26.37 <sup>c</sup>	Wyoming	-	-	-(-,-)	-
Missouri	0.54	0.06	18(02,41)	2.74					



<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.

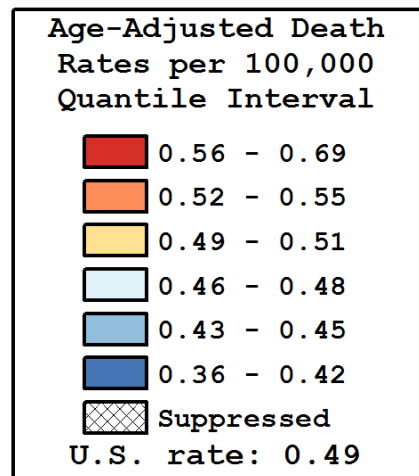
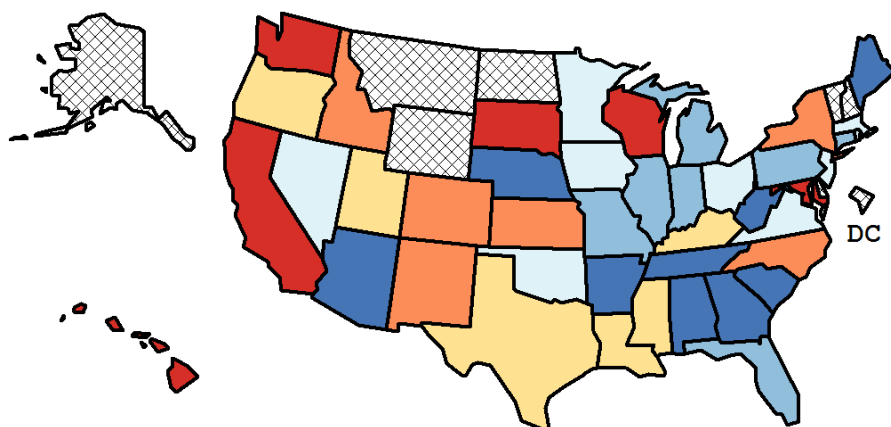
Table 26.20  
Cancer of the Thyroid (Invasive)

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2013-2017

Females

State	Rate	SE	Rank(CI) <sup>d</sup>	PD
TOTAL U.S.	0.49	0.01		
High Five States				
Hawaii	0.69	0.12	01(01,40)	39.17 <sup>c</sup>
South Dakota	0.68	0.16	02(01,43)	37.43 <sup>c</sup>
California	0.66	0.02	03(01,08)	33.78 <sup>c</sup>
Wisconsin	0.57	0.06	04(01,33)	15.76 <sup>c</sup>
Maryland	0.56	0.06	05(01,35)	13.94
Low Five States				
Georgia	0.41	0.04	39(13,43)	-17.40 <sup>c</sup>
Arizona	0.39	0.04	40(13,43)	-21.67 <sup>c</sup>
Tennessee	0.39	0.04	41(14,43)	-21.76 <sup>c</sup>
Nebraska	0.37	0.08	42(03,43)	-25.57 <sup>c</sup>
Maine	0.36	0.08	43(04,43)	-26.52 <sup>c</sup>

State	Rate	SE	Rank(CI) <sup>d</sup>	PD	State	Rate	SE	Rank(CI) <sup>d</sup>	PD
Alabama	0.42	0.05	38(06,43)	-15.63 <sup>c</sup>	Montana	-	-	-(-,-)	-
Alaska	-	-	-(-,-)	-	Nebraska	0.37	0.08	42(03,43)	-25.57 <sup>c</sup>
Arizona	0.39	0.04	40(13,43)	-21.67 <sup>c</sup>	Nevada	0.48	0.08	22(02,43)	-3.41
Arkansas	0.42	0.07	36(04,43)	-14.80	New Hampshire	-	-	-(-,-)	-
California	0.66	0.02	03(01,08)	33.78 <sup>c</sup>	New Jersey	0.47	0.04	23(05,41)	-4.28
Colorado	0.54	0.06	09(01,40)	9.36	New Mexico	0.55	0.09	07(01,43)	12.20
Connecticut	0.43	0.06	34(04,43)	-13.06	New York	0.54	0.03	08(03,26)	9.62
Delaware	-	-	-(-,-)	-	North Carolina	0.52	0.04	10(02,36)	5.85
D.C.	-	-	-(-,-)	-	North Dakota	-	-	-(-,-)	-
Florida	0.44	0.02	32(14,41)	-11.07	Ohio	0.46	0.03	27(07,42)	-7.49
Georgia	0.41	0.04	39(13,43)	-17.40 <sup>c</sup>	Oklahoma	0.47	0.06	24(02,43)	-4.60
Hawaii	0.69	0.12	01(01,40)	39.17 <sup>c</sup>	Oregon	0.50	0.06	18(02,42)	1.10
Idaho	0.52	0.10	11(01,43)	5.69	Pennsylvania	0.45	0.03	30(10,41)	-9.70
Illinois	0.44	0.03	31(10,42)	-10.81	Rhode Island	0.47	0.12	25(01,43)	-5.40
Indiana	0.45	0.05	29(05,43)	-9.57	South Carolina	0.42	0.05	35(05,43)	-14.49
Iowa	0.47	0.07	26(02,43)	-5.56	South Dakota	0.68	0.16	02(01,43)	37.43 <sup>c</sup>
Kansas	0.52	0.08	12(01,43)	5.24	Tennessee	0.39	0.04	41(14,43)	-21.76 <sup>c</sup>
Kentucky	0.51	0.06	15(01,42)	2.58	Texas	0.50	0.03	16(05,33)	1.61
Louisiana	0.51	0.06	14(01,42)	3.42	Utah	0.50	0.09	17(01,43)	1.30
Maine	0.36	0.08	43(04,43)	-26.52 <sup>c</sup>	Vermont	-	-	-(-,-)	-
Maryland	0.56	0.06	05(01,35)	13.94	Virginia	0.48	0.04	19(04,41)	-1.89
Massachusetts	0.48	0.05	21(04,41)	-3.14	Washington	0.56	0.05	06(01,35)	13.32
Michigan	0.43	0.04	33(10,43)	-12.89	West Virginia	0.42	0.08	37(02,43)	-15.08 <sup>c</sup>
Minnesota	0.48	0.05	20(03,42)	-2.48	Wisconsin	0.57	0.06	04(01,33)	15.76 <sup>c</sup>
Mississippi	0.51	0.07	13(01,43)	4.25	Wyoming	-	-	-(-,-)	-
Missouri	0.45	0.05	28(05,43)	-8.51					



<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 26.21  
Cancer of the Thyroid (Invasive)

Estimated United States Cancer Prevalence Counts<sup>a</sup> on January 1, 2017  
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 <sup>b</sup>		> 25 <sup>d</sup>	Complete <sup>e</sup>
<u>Race</u>	<u>Sex</u>									
All Races	Both Sexes	231,706	190,426	126,803	80,597	56,569	686,101	173,737	859,838	
	Males	56,375	41,757	26,946	16,660	11,811	153,550	40,548	194,098	
	Females	175,330	148,669	99,857	63,937	44,758	532,551	133,189	665,740	
White	Both Sexes	195,432	163,435	111,041	71,352	50,080	591,341	153,707	745,047	
	Males	49,044	36,941	24,228	15,099	10,702	136,015	34,423	170,438	
	Females	146,388	126,494	86,813	56,253	39,378	455,326	119,283	574,609	
Black	Both Sexes	17,046	13,329	7,854	4,211	2,890	45,330	9,545	54,875	
	Males	3,157	2,180	1,295	669	503	7,803	1,444	9,247	
	Females	13,889	11,150	6,559	3,542	2,388	37,527	8,100	45,628	
Asian/ Pacific Islander	Both Sexes	13,318	9,772	5,992	3,817	2,600	35,499	+	+	
	Males	2,903	1,828	988	689	405	6,813	+	+	
	Females	10,415	7,944	5,004	3,128	2,195	28,686	+	+	
Hispanic	Both Sexes	29,121	20,368	12,721	7,789	5,169	75,168	+	+	
	Males	5,359	3,352	2,028	1,235	825	12,800	+	+	
	Females	23,762	17,015	10,693	6,554	4,343	62,368	+	+	

Estimated prevalence percent<sup>a</sup> on January 1, 2017, of the SEER population diagnosed in the previous 25 years  
By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence		Age Specific (Crude)										Age-Adjusted <sup>c</sup>
		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	Both Sexes	0.2117	0.0002	0.0068	0.0510	0.1608	0.3079	0.4016	0.4364	0.4433	0.3201	0.1925
	Males	0.0962	0.0002	0.0032	0.0173	0.0517	0.1160	0.1714	0.2330	0.2817	0.2263	0.0884
	Females	0.3237	0.0002	0.0106	0.0863	0.2709	0.4967	0.6217	0.6205	0.5784	0.3785	0.2913
White	Both Sexes	0.2337	0.0003	0.0078	0.0581	0.1803	0.3341	0.4327	0.4565	0.4564	0.3291	0.2066
	Males	0.1085	0.0002	0.0035	0.0201	0.0577	0.1274	0.1864	0.2477	0.2957	0.2366	0.0953
	Females	0.3567	0.0003	0.0123	0.0982	0.3072	0.5432	0.6734	0.6500	0.5939	0.3878	0.3149
Black	Both Sexes	0.0995	-	0.0020	0.0163	0.0618	0.1627	0.2122	0.2701	0.3140	0.2105	0.1055
	Males	0.0357	-	0.0013	0.0033	0.0160	0.0473	0.0795	0.1218	0.1543	0.1231	0.0412
	Females	0.1584	-	0.0027	0.0294	0.1041	0.2650	0.3278	0.3886	0.4256	0.2542	0.1590
Asian/ Pacific Islander	Both Sexes	0.1702	-	0.0064	0.0423	0.1273	0.2634	0.3390	0.4113	0.3969	0.3042	0.1679
	Males	0.0681	-	0.0034	0.0129	0.0436	0.0999	0.1366	0.1852	0.2197	0.1682	0.0717
	Females	0.2642	-	0.0094	0.0718	0.2035	0.4080	0.5144	0.5934	0.5387	0.3930	0.2501
Hispanic	Both Sexes	0.1293	0.0001	0.0073	0.0429	0.1285	0.2358	0.3209	0.3835	0.3990	0.2964	0.1598
	Males	0.0436	-	0.0034	0.0112	0.0332	0.0738	0.1055	0.1619	0.1988	0.1727	0.0596
	Females	0.2168	0.0002	0.0112	0.0774	0.2322	0.4025	0.5342	0.5803	0.5533	0.3731	0.2561

<sup>a</sup> US 2017 cancer prevalence counts are based on 2017 cancer prevalence proportions from the SEER 13 Areas (excluding the Alaska Native Registry) and 1/1/2017 US population estimates based on the average of 2016 and 2017 population estimates from the US Bureau of the Census.

<sup>b</sup> Prevalence was calculated using the first invasive tumor for each cancer site diagnosed during the previous 25 years. Maximum limited-duration prevalence is 25 years for 1992-2017 data.

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

<sup>d</sup> Cases diagnosed more than 25 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000).

<sup>e</sup> Complete prevalence is obtained by summing <=25 and > 25.

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

+ Not available.

Table 26.22

## Cancer of the Thyroid (Invasive)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2013-2017  
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	95,669	99.7%	75,724	99.7%	7,096	99.6%	10,083	99.8%	391	100.0%	15,610	99.7%
Epidermoid carcinoma <sup>d</sup> (8051-8131)	107	0.1%	85	0.1%	-	-	-	-	-	-	-	-
Adenocarcinoma <sup>e</sup>	92,789	96.7%	73,437	96.7%	6,793	95.3%	9,850	97.5%	379	96.9%	15,177	96.9%
Papillary adenocarcinoma (8050,8260,8340-8344, 8350,8450)	86,543	90.2%	68,561	90.3%	6,061	85.0%	9,359	92.6%	356	91.0%	14,329	91.5%
Follicular carcinoma (8330-8332,8335)	4,126	4.3%	3,135	4.1%	540	7.6%	344	3.4%	-	-	582	3.7%
Oxyphilic (8290)	1,669	1.7%	1,376	1.8%	150	2.1%	109	1.1%	-	-	196	1.3%
Other specific carcinomas <sup>f</sup>	1,614	1.7%	1,321	1.7%	164	2.3%	95	0.9%	-	-	251	1.6%
Medullary carcinoma (8510)	1,562	1.6%	1,281	1.7%	161	2.3%	88	0.9%	-	-	244	1.6%
Carcinoma, NOS (8004,8010-8012, 8020-8022,8030-8032)	1,159	1.2%	881	1.2%	130	1.8%	127	1.3%	-	-	167	1.1%
Anaplastic carcinoma (8004,8012,8020-8021, 8030-8032)	782	0.8%	614	0.8%	74	1.0%	82	0.8%	-	-	120	0.8%
Sarcoma and other soft tissue tumors <sup>g</sup>	22	0.0%	16	0.0%	-	-	-	-	-	-	-	-
Other specific types <sup>h</sup>	-	-	-	-	-	-	-	-	-	-	-	-
Unspecified (8000-8003,8005)	240	0.3%	171	0.2%	27	0.4%	18	0.2%	-	-	41	0.3%
Total	95,939	100.0%	75,918	100.0%	7,127	100.0%	10,102	100.0%	391	100.0%	15,658	100.0%

Source: SEER 21 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, Georgia excluding ATL/RG, Idaho, New York and Massachusetts).  
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 Purchased/Referred Care Delivery Area (PRCDA) 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>e</sup> Adenocarcinoma includes histologies 8050, 8140-8147, 8160-8162, 8180-8221, 8250-8507, 8514, 8520-8551, 8560, 8570-8574, 8576, 8940-8941.

<sup>f</sup> Other specific carcinomas include histologies 8013-8015, 8033-8046, 8150-8155, 8170-8171, 8230-8249, 8510, 8512, 8561-8562, 8575, 8580-8671.

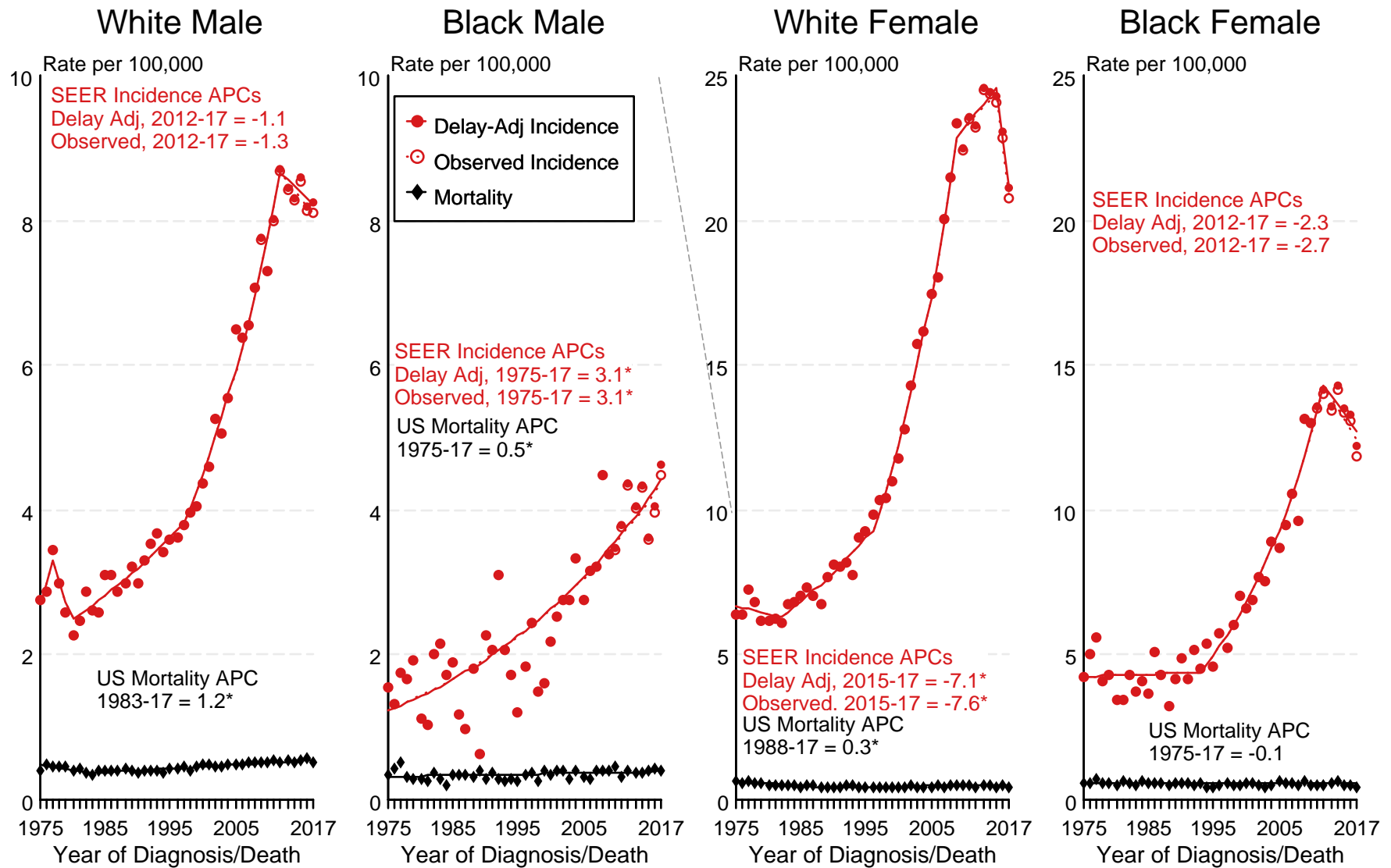
<sup>g</sup> Sarcoma and other soft tissue tumors include histologies 8680-8713, 8800-8921, 8990-8991, 9040-9044, 9120-9136, 9150-9252, 9370-9373, 9540-9582.

<sup>h</sup> Other specific types include histologies 8720-8790, 8930-8936, 8950-8983, 9000-9030, 9060-9110, 9260-9365, 9380-9539.

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

Figure 26.1

# SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates<sup>a</sup> Cancer of the Thyroid, 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 4.8, April 2020, 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.

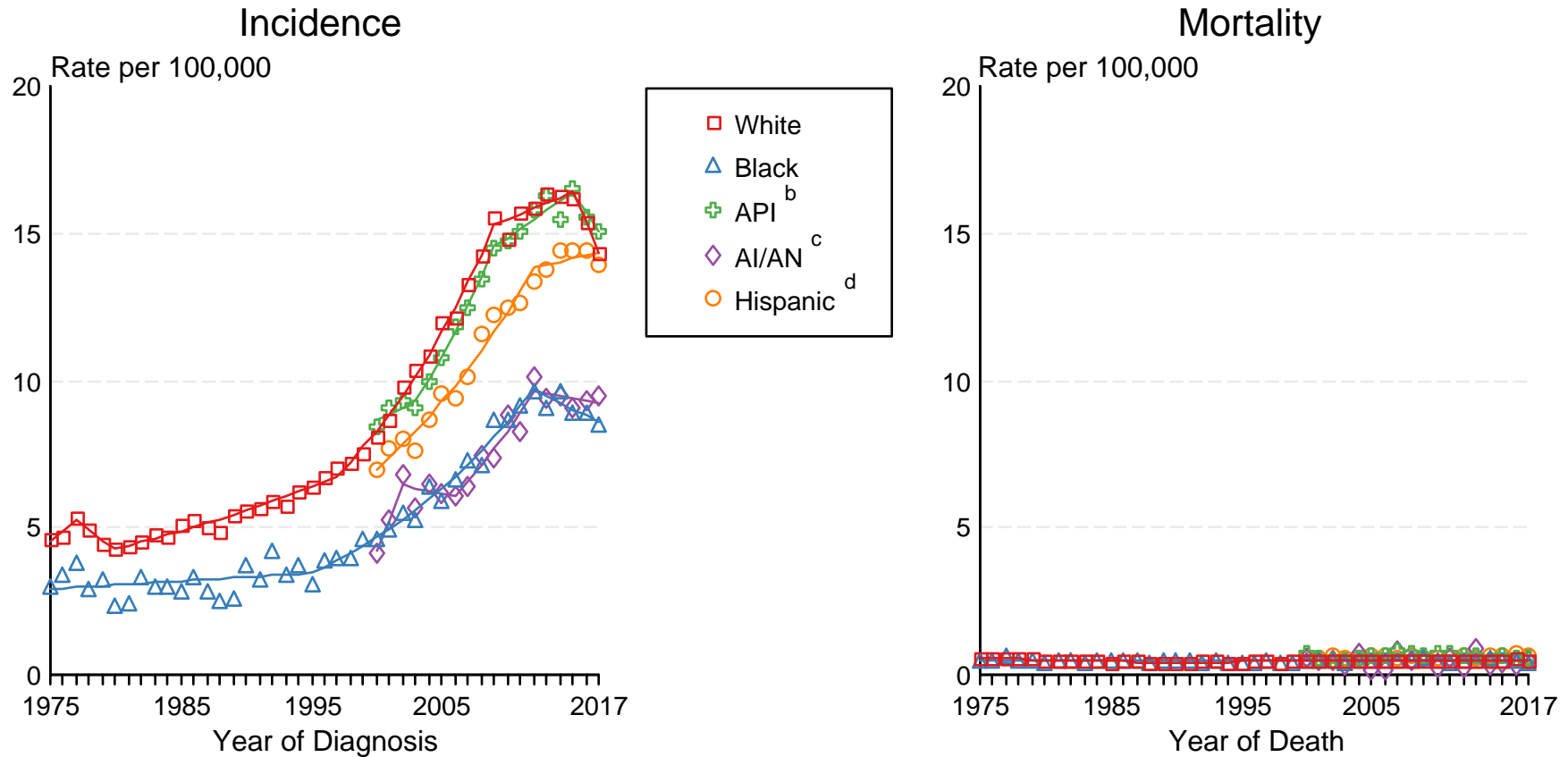
\* The APC is significantly different from zero ( $p < 0.05$ ).

Figure 26.2

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

Joinpoint Analyses for Whites and Blacks from 1975-2017

and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 2000-2017



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 21 areas (SEER 9 areas, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, Georgia excluding ATL/RG, Idaho, New York and Massachusetts).

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 4.8, April 2020, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2017 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 2000-2017 allow a maximum of 3 joinpoints.

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

<sup>c</sup> AI/AN = American Indian/Alaska Native. Rates for American Indian/Alaska Native are based on the Purchased/Referred Care Delivery Area (PRCDA) 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.

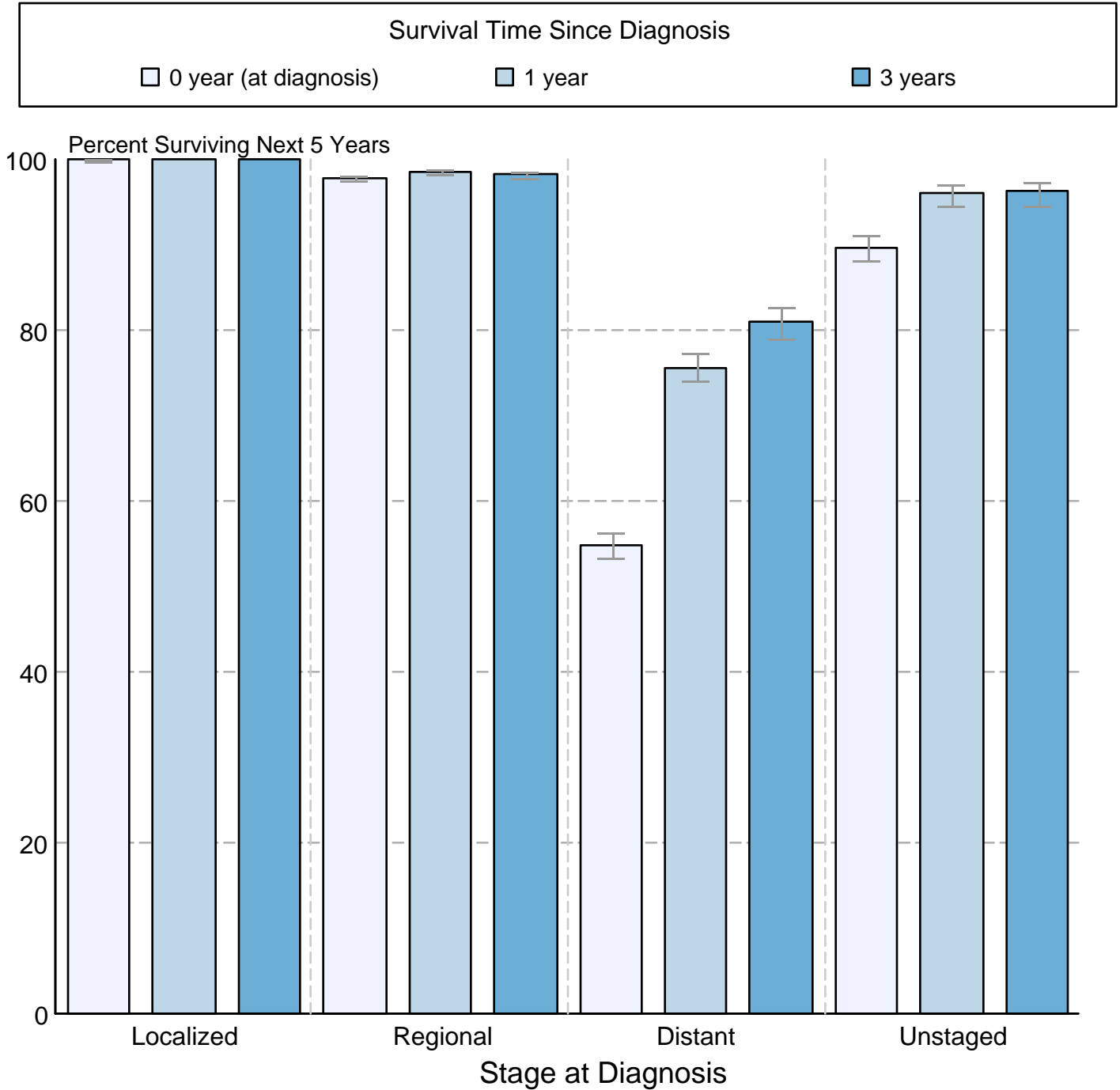


Figure 26.3

## Cancer of the Thyroid

### 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  
2000-2015 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).  
 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.