

Table XXVI-1  
THYROID CANCER (Invasive)

TRENDS IN SEER INCIDENCE<sup>a</sup> AND U.S. MORTALITY<sup>b</sup> USING THE JOINPOINT REGRESSION PROGRAM, 1975-2005  
WITH UP TO THREE JOINPOINTS BY RACE AND SEX

		<u>Joinpoint Trend 1</u>		<u>Joinpoint Trend 2</u>		<u>Joinpoint Trend 3</u>		<u>Joinpoint Trend 4</u>		<u>AAPC<sup>c</sup></u>	
		<u>Years</u>	<u>APC</u>	<u>Years</u>	<u>APC</u>	<u>Years</u>	<u>APC</u>	<u>Years</u>	<u>APC</u>	<u>1996-2005</u>	<u>2001-2005</u>
<u>SEER Cancer Incidence<sup>a</sup></u>											
All Races	Both Sexes	1975-1977	6.1	1977-1980	-6.6	1980-1997	2.4*	1997-2005	6.4*	5.9*	6.4*
All Races	Male	1975-1980	-4.7*	1980-1998	1.9*	1998-2005	6.0*			5.1*	6.0*
All Races	Female	1975-1977	6.6	1977-1980	-5.6	1980-1996	2.5*	1996-2005	6.4*	6.4*	6.4*
White	Both Sexes	1975-1977	7.3	1977-1980	-6.8	1980-1998	2.8*	1998-2005	7.4*	6.4*	7.4*
White	Male	1975-1977	9.7	1977-1980	-9.2	1980-1999	2.6*	1999-2005	6.9*	5.4*	6.9*
White	Female	1975-1982	-1.1	1982-1998	3.1*	1998-2005	7.9*			6.8*	7.9*
Black	Both Sexes	1975-1988	-0.9	1988-2005	4.4*					4.4*	4.4*
Black	Male	1975-2005	2.3*							2.3*	2.3*
Black	Female	1975-1988	-1.2	1988-2005	4.7*					4.7*	4.7*
<u>SEER Delay-Adjusted Incidence<sup>a</sup></u>											
All Races	Both Sexes	1975-1977	6.1	1977-1980	-6.6	1980-1997	2.4*	1997-2005	6.6*	6.1*	6.6*
All Races	Male	1975-1977	5.6	1977-1980	-8.8	1980-1999	2.1*	1999-2005	6.7*	5.2*	6.7*
All Races	Female	1975-1981	-1.6	1981-1996	2.5*	1996-2005	6.6*			6.6*	6.6*
White	Both Sexes	1975-1977	7.3	1977-1980	-6.9	1980-1998	2.9*	1998-2005	7.8*	6.7*	7.8*
White	Male	1975-1977	9.7	1977-1980	-9.2	1980-1999	2.7*	1999-2005	7.3*	5.7*	7.3*
White	Female	1975-1982	-1.1	1982-1998	3.2*	1998-2005	8.2*			7.1*	8.2*
Black	Both Sexes	1975-1988	-1.0	1988-2005	4.5*					4.5*	4.5*
Black	Male	1975-2005	2.4*							2.4*	2.4*
Black	Female	1975-1988	-1.3	1988-2005	4.8*					4.8*	4.8*
<u>U.S. Cancer Mortality<sup>b</sup></u>											
All Races	Both Sexes	1975-1986	-2.4*	1986-2005	0.4*					0.4*	0.4*
All Races	Male	1975-1983	-2.9*	1983-2005	1.0*					1.0*	1.0*
All Races	Female	1975-1988	-2.5*	1988-2005	0.2					0.2	0.2
White	Both Sexes	1975-1987	-2.4*	1987-2005	0.5*					0.5*	0.5*
White	Male	1975-1983	-2.9*	1983-2005	1.1*					1.1*	1.1*
White	Female	1975-1988	-2.7*	1988-2005	0.2					0.2	0.2
Black	Both Sexes	1975-2005	-0.4							-0.4	-0.4
Black	Male	1975-2005	-0.1							-0.1	-0.1
Black	Female	1975-2005	-0.5*							-0.5*	-0.5*

Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. (<http://srab.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 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 over the time range of 1975-2005.  
 The APC/AAPC is significantly different from zero (p<.05).

a  
b  
c  
\*

Table XXVI-1a  
THYROID CANCER (Invasive)

TRENDS IN SEER INCIDENCE<sup>a</sup> AND U.S. MORTALITY<sup>b</sup> USING THE JOINPOINT REGRESSION PROGRAM, 1975-2005  
 WITH UP TO FOUR JOINPOINTS BY RACE AND SEX

		<u>Joinpoint Trend 1</u>		<u>Joinpoint Trend 2</u>		<u>Joinpoint Trend 3</u>		<u>Joinpoint Trend 4</u>		<u>Joinpoint Trend 5</u>		<u>AAPC<sup>c</sup></u>
		Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2001-2005
<u>SEER Cancer Incidence<sup>a</sup></u>												
All Races	Both Sexes	1975-1977	6.1	1977-1980	-6.6	1980-1997	2.4*	1997-2005	6.4*			6.4*
All Races	Male	1975-1980	-4.7*	1980-1998	1.9*	1998-2005	6.0*					6.0*
All Races	Female	1975-1977	6.6	1977-1980	-5.6	1980-1996	2.5*	1996-2005	6.4*			6.4*
White	Both Sexes	1975-1977	7.3	1977-1980	-6.8	1980-1998	2.8*	1998-2005	7.4*			7.4*
White	Male	1975-1977	9.7	1977-1980	-9.2	1980-1999	2.6*	1999-2005	6.9*			6.9*
White	Female	1975-1977	6.4	1977-1980	-4.8	1980-1993	2.4*	1993-1999	4.8*	1999-2005	7.7*	7.7*
Black	Both Sexes	1975-1988	-0.9	1988-2005	4.4*							4.4*
Black	Male	1975-2005	2.3*									2.3*
Black	Female	1975-1988	-1.2	1988-2005	4.7*							4.7*
<u>SEER Delay-Adjusted Incidence<sup>a</sup></u>												
All Races	Both Sexes	1975-1977	6.1	1977-1980	-6.6	1980-1997	2.4*	1997-2005	6.6*			6.6*
All Races	Male	1975-1980	-4.7*	1980-1998	1.9*	1998-2005	6.2*					6.2*
All Races	Female	1975-1977	6.7	1977-1980	-6.0	1980-1997	2.7*	1997-2005	6.9*			6.9*
White	Both Sexes	1975-1977	7.0	1977-1980	-6.1	1980-1993	2.5*	1993-1999	4.1*	1999-2005	7.8*	7.8*
White	Male	1975-1977	9.7	1977-1980	-9.2	1980-1999	2.7*	1999-2005	7.3*			7.3*
White	Female	1975-1977	6.4	1977-1980	-4.8	1980-1993	2.4*	1993-1999	4.9*	1999-2005	8.0*	8.0*
Black	Both Sexes	1975-1988	-1.0	1988-2005	4.5*							4.5*
Black	Male	1975-2005	2.4*									2.4*
Black	Female	1975-1988	-1.3	1988-2005	4.8*							4.8*
<u>U.S. Cancer Mortality<sup>b</sup></u>												
All Races	Both Sexes	1975-1986	-2.4*	1986-2005	0.4*							0.4*
All Races	Male	1975-1983	-2.9*	1983-2005	1.0*							1.0*
All Races	Female	1975-1988	-2.5*	1988-2005	0.2							0.2
White	Both Sexes	1975-1987	-2.4*	1987-2005	0.5*							0.5*
White	Male	1975-1983	-2.9*	1983-2005	1.1*							1.1*
White	Female	1975-1988	-2.7*	1988-2005	0.2							0.2
Black	Both Sexes	1975-2005	-0.4									-0.4
Black	Male	1975-2005	-0.1									-0.1
Black	Female	1975-2005	-0.5*									-0.5*

Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. (<http://srab.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 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 over the time range of 1975-2005.

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

a  
b  
c  
\*

Table XXVI-2  
THYROID CANCER (Invasive)

AGE ADJUSTED SEER INCIDENCE<sup>a</sup> RATES BY YEAR, RACE AND SEX

	<u>All Races</u>			<u>Whites</u>			<u>Blacks</u>		
	<u>Total</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>	<u>Males</u>	<u>Females</u>
<u>AGE-ADJUSTED RATES</u>									
<u>YEAR OF DIAGNOSIS:</u>									
1975	4.9	3.1	6.5	4.7	2.8	6.4	3.0	-	4.2
1976	4.8	2.9	6.6	4.7	2.9	6.4	3.4	-	5.0
1977	5.4	3.5	7.3	5.3	3.4	7.2	3.7	-	5.4
1978	5.1	3.1	6.9	4.9	3.0	6.8	2.9	-	4.0
1979	4.5	2.7	6.2	4.4	2.6	6.2	3.2	-	4.3
1980	4.3	2.4	6.1	4.3	2.3	6.2	2.4	-	3.4
1981	4.4	2.5	6.2	4.4	2.5	6.3	2.4	-	3.4
1982	4.6	3.0	6.1	4.6	2.9	6.1	3.3	-	4.3
1983	4.7	2.8	6.5	4.7	2.6	6.7	3.0	2.1	3.7
1984	4.8	2.6	6.9	4.7	2.6	6.8	3.0	-	4.1
1985	5.1	3.1	7.1	5.1	3.1	7.0	2.8	-	3.6
1986	5.3	3.1	7.5	5.2	3.1	7.3	3.3	-	5.1
1987	5.0	2.8	7.1	5.0	2.9	7.1	2.8	-	4.3
1988	4.9	2.9	6.9	4.9	3.0	6.8	2.5	-	3.2
1989	5.4	3.0	7.6	5.5	3.2	7.7	2.5	-	4.0
1990	5.5	2.9	8.0	5.6	3.0	8.1	3.8	2.3	4.9
1991	5.5	3.2	7.6	5.7	3.3	8.0	3.2	-	4.2
1992	5.9	3.5	8.1	5.9	3.5	8.2	4.2	3.1	5.1
1993	5.6	3.6	7.6	5.8	3.7	7.8	3.4	2.1	4.6
1994	6.1	3.4	8.7	6.2	3.4	9.0	3.8	1.8	5.3
1995	6.2	3.4	9.0	6.4	3.6	9.2	3.0	-	4.4
1996	6.5	3.5	9.4	6.7	3.6	9.8	3.9	-	5.9
1997	6.7	3.7	9.7	7.0	3.8	10.3	3.9	2.4	5.2
1998	6.9	3.7	10.0	7.2	3.9	10.3	3.9	1.6	5.8
1999	7.3	3.9	10.6	7.5	4.1	10.9	4.6	1.6	6.9
2000	7.6	4.0	11.0	8.0	4.3	11.7	4.6	2.2	6.6
2001	8.2	4.3	12.0	8.6	4.6	12.6	4.8	2.7	6.5
2002	9.1	4.9	13.2	9.6	5.2	14.1	5.4	2.8	7.5
2003	9.5	4.7	14.2	10.1	5.0	15.3	5.2	2.7	7.4
2004	10.0	5.1	14.7	10.6	5.4	15.9	6.2	3.2	8.7
2005	10.6	5.6	15.6	11.5	6.2	16.9	5.7	2.7	8.3
1975-2005	6.4	3.5	9.1	6.5	3.6	9.3	3.9	2.0	5.4

<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 XXVI-3  
THYROID CANCER (Invasive)

AGE-ADJUSTED U.S. DEATH<sup>a</sup> RATES BY YEAR, RACE AND SEX

	<u>All Races</u>			<u>Whites</u>			<u>Blacks</u>		
	<u>Total</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>	<u>Males</u>	<u>Females</u>
<u>AGE-ADJUSTED RATES</u>									
<u>YEAR OF DEATH:</u>									
1975	0.5	0.4	0.6	0.5	0.4	0.6	0.5	0.3	0.6
1976	0.6	0.5	0.6	0.6	0.5	0.6	0.5	0.4	0.6
1977	0.6	0.5	0.6	0.6	0.5	0.6	0.7	0.5	0.7
1978	0.5	0.4	0.6	0.6	0.5	0.6	0.5	0.3	0.6
1979	0.5	0.4	0.6	0.5	0.5	0.6	0.5	0.3	0.6
1980	0.5	0.4	0.5	0.5	0.4	0.5	0.4	0.3	0.5
1981	0.5	0.4	0.5	0.5	0.4	0.5	0.5	0.3	0.6
1982	0.5	0.4	0.5	0.5	0.4	0.5	0.5	0.4	0.5
1983	0.4	0.3	0.5	0.4	0.3	0.5	0.4	0.3	0.5
1984	0.5	0.4	0.5	0.5	0.4	0.5	0.5	-	0.6
1985	0.4	0.4	0.5	0.4	0.4	0.5	0.5	0.3	0.6
1986	0.5	0.4	0.5	0.5	0.4	0.5	0.5	0.3	0.6
1987	0.5	0.4	0.5	0.4	0.4	0.5	0.5	0.3	0.6
1988	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.3	0.5
1989	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.6
1990	0.4	0.4	0.5	0.4	0.4	0.5	0.4	0.3	0.5
1991	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.4	0.6
1992	0.5	0.4	0.5	0.5	0.4	0.5	0.4	0.3	0.5
1993	0.5	0.4	0.5	0.5	0.4	0.5	0.5	0.3	0.6
1994	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4
1995	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.5
1996	0.5	0.4	0.5	0.5	0.4	0.5	0.4	0.3	0.5
1997	0.5	0.4	0.5	0.5	0.5	0.4	0.5	0.4	0.6
1998	0.4	0.4	0.5	0.4	0.4	0.5	0.4	0.3	0.5
1999	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.5
2000	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.6
2001	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.6
2002	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.5
2003	0.4	0.4	0.5	0.5	0.4	0.5	0.4	0.3	0.4
2004	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5
2005	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.6
1975-2005	0.5	0.4	0.5	0.5	0.4	0.5	0.5	0.3	0.5

<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 XXVI-4  
 THYROID CANCER (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, 2001-2005									
All ages	9.1	4.6	13.4	9.5	4.9	14.1	5.5	2.7	8.0
Under 65	8.2	3.7	12.8	8.7	3.9	13.6	4.7	1.9	7.1
65 and over	14.7	11.4	17.1	14.8	11.7	17.3	11.4	7.6	14.0
All ages(IARC world std) <sup>c</sup>	7.4	3.6	11.1	7.7	3.8	11.7	4.4	2.0	6.4
AGE-SPECIFIC RATES, 2001-2005									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	0.1	-	0.1	0.1	-	0.2	-	-	-
10-14	0.5	0.2	0.8	0.5	0.2	0.9	-	-	-
15-19	1.8	0.6	3.0	1.9	0.7	3.3	-	-	-
20-24	4.4	1.2	7.9	4.8	1.2	8.7	1.9	-	3.2
25-29	7.5	2.2	13.0	8.0	2.4	14.2	3.7	1.1	6.2
30-34	9.9	3.3	16.8	10.8	3.5	18.5	4.7	1.5	7.7
35-39	12.5	5.0	20.1	13.3	5.5	21.5	6.8	2.0	11.1
40-44	13.4	5.4	21.4	14.4	6.0	23.1	6.9	2.4	11.0
45-49	14.8	6.5	22.9	15.7	7.1	24.3	7.6	2.7	11.9
50-54	15.4	7.7	22.8	16.0	8.1	23.8	10.2	5.6	14.2
55-59	16.0	9.5	22.2	16.2	9.9	22.3	12.3	6.1	17.5
60-64	16.2	11.0	20.9	16.8	11.7	21.5	11.6	6.9	15.4
65-69	17.5	13.2	21.3	17.9	13.8	21.6	12.7	9.4	15.2
70-74	16.2	12.5	19.1	16.3	12.9	19.0	12.8	7.0	16.9
75-79	14.7	11.5	17.0	14.8	11.7	17.0	12.3	8.5	14.7
80-84	12.0	10.2	13.1	12.3	10.5	13.5	8.3	-	9.4
85+	8.2	6.7	8.8	8.1	6.4	8.9	7.9	-	9.1
<u>U.S. MORTALITY</u>									
<u>AGE AT DEATH</u>									
AGE-ADJUSTED RATES, 2001-2005									
All ages	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5
Under 65	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.2
65 and over	2.7	2.5	2.8	2.7	2.6	2.7	2.6	1.9	3.0
All ages(IARC 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, 2001-2005									
<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	0.1	0.1	0.1	0.1	0.1	0.1	-	-	-
40-44	0.1	0.1	0.1	0.1	0.1	0.1	-	-	-
45-49	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-	0.3
50-54	0.4	0.4	0.3	0.4	0.4	0.3	0.3	-	0.4
55-59	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6	0.7
60-64	1.1	1.1	1.0	1.1	1.2	1.0	1.1	0.9	1.3
65-69	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.1	1.7
70-74	2.2	2.3	2.1	2.2	2.4	2.0	1.7	1.0	2.2
75-79	2.9	2.7	3.1	2.9	2.7	3.1	2.7	2.1	3.0
80-84	3.8	3.5	4.0	3.7	3.6	3.8	4.4	2.7	5.3
85+	4.7	3.9	5.1	4.6	3.9	5.0	5.0	4.1	5.3

<sup>a</sup> SEER 17 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

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

<sup>c</sup> Rates are per 100,000 and are age-adjusted to the IARC world standard population.

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

Table XXVI-5  
THYROID CANCER (Invasive)

SURVIVAL RATES, BY RACE, SEX, DIAGNOSIS YEAR, STAGE AND AGE

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>5-YR RELATIVE SURVIVAL RATES</u>									
YEAR OF DIAGNOSIS:									
1960-1963 <sup>a</sup>	-	-	-	83	75	87	-	-	-
1970-1973 <sup>a</sup>	-	-	-	86	82	87	-	-	-
1975-1977 <sup>b</sup>	93.2	92.6	93.4	93.0	92.3	93.2	90.7	84.8 <sup>g</sup>	91.7
1978-1980 <sup>b</sup>	93.2	88.5	94.6	92.7	88.8	93.8	90.5	68.8 <sup>g</sup>	95.7
1981-1983 <sup>b</sup>	94.4	93.0	94.8	93.9	91.9	94.5	96.6	100.0	93.7
1984-1986 <sup>b</sup>	93.9	90.9	94.8	93.9	90.6	94.8	90.0	86.1 <sup>f</sup>	90.8
1987-1989 <sup>b</sup>	95.1	92.4	95.9	94.9	92.4	95.5	92.5	90.7 <sup>f</sup>	92.6
1990-1992 <sup>b</sup>	95.1	91.3	96.2	95.7	92.5	96.6	87.4	84.8 <sup>f</sup>	88.3
1993-1995 <sup>b</sup>	96.0	92.5	97.0	96.0	92.3	97.2	93.4	88.3 <sup>f</sup>	94.4
1996-2004 <sup>b</sup>	96.8 <sup>e</sup>	93.6	97.7 <sup>e</sup>	97.1 <sup>e</sup>	94.1	98.0 <sup>e</sup>	95.1	90.1	96.0
<u>5-YR PERIOD SURVIVAL RATES<sup>cd</sup></u>									
YEAR OF DIAGNOSIS:									
1996-2004	97.6	95.1	98.3	97.6	95.3	98.3	96.0	92.3	96.5
<u>STAGE DISTRIBUTION (%) 1996-2004<sup>c</sup></u>									
All Stages									
Number of cases	37,084	8,554	28,530	30,593	7,285	23,308	2,153	403	1,750
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	59	49	62	59	50	62	64	54	67
Regional	34	39	32	33	39	32	26	31	25
Distant	5	9	4	5	8	4	7	11	6
Unstaged	3	3	2	2	2	2	3	4	3
<u>5-YR RELATIVE SURVIVAL RATES, 1996-2004<sup>c</sup></u>									
AGE AT DIAGNOSIS:									
<45	99.3	97.8	99.6	99.4	98.2	99.7	98.1	89.9	99.3
45-54	98.1	95.1	99.0	98.4	95.5	99.3	94.3	85.6	96.3
55-64	95.0	91.2	96.5	95.3	91.2	96.9	91.8	86.9 <sup>f</sup>	92.8
65-74	91.4	89.2	92.3	91.8	89.5	92.9	91.4	90.5 <sup>f</sup>	89.2
75+	78.5	77.0	78.9	80.0	77.2	81.1	67.2 <sup>f</sup>	-	60.6 <sup>f</sup>
Under 65	98.3	95.6	99.1	98.5	96.0	99.2	96.0	88.5	97.4
65 and over	87.0	85.7	87.5	87.7	85.7	88.5	85.2	93.3 <sup>f</sup>	80.5
STAGE:									
All Stages	96.9	94.0	97.7	97.1	94.3	98.0	94.8	90.7	95.6
Localized	99.7	99.4	99.8	99.8	99.5	99.8	98.9	96.6	99.0
Regional	96.9	95.4	97.4	97.0	95.5	97.6	95.8	92.6	96.5
Distant	57.8	56.1	58.7	57.8	55.2	59.5	49.2 <sup>f</sup>	51.4 <sup>f</sup>	47.6 <sup>f</sup>
Unstaged	89.5	84.1	90.6	88.8	82.6	90.6	85.4 <sup>f</sup>	-	85.3 <sup>f</sup>

<sup>a</sup> Rates are based on End Results data from a series of hospital registries and one population-based registry.  
<sup>b</sup> Rates are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).  
Rates are based on follow-up of patients into 2005.  
<sup>c</sup> Rates are from the SEER 17 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 and New Jersey). California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2004. The remaining 13 SEER Areas contribute cases for the entire period 1996-2004. Rates are based on follow-up of patients into 2005.  
<sup>d</sup> Period survival provides a more up-to-date estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three calendar year blocks (2002-2004: 0-1 year survival), (2001-2003: 1-2 year survival), (2000-2002: 2-3 year survival), (1999-2001: 3-4 year survival), (1998-2000: 4-5 years survival).  
<sup>e</sup> The difference in rates between 1975-1977 and 1996-2004 is statistically significant (p<.05).  
<sup>f</sup> The standard error of the survival rate is between 5 and 10 percentage points.  
<sup>g</sup> The standard error of the survival rate is greater than 10 percentage points.  
- Statistic could not be calculated due to fewer than 16 cases during the time period.

Table XXVI-6  
THYROID CANCER (Invasive)

SURVIVAL RATES<sup>a</sup>

By Year of Diagnosis

All Races, Males and Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
Relative Survival Rates (SEER <sup>b</sup> )																							
1-year	95.1	95.3	96.3	96.2	96.2	96.3	95.6	96.7	96.7	95.7	95.4	97.5	96.8	97.0	96.6	97.8	97.4	97.7	97.7	97.3	98.1	98.4	
2-year	93.9	94.9	95.2	95.4	96.0	95.8	95.2	96.4	96.1	95.1	95.1	97.1	96.4	96.7	96.3	97.3	97.1	97.2	97.4	97.2	97.9		
3-year	93.3	94.3	94.1	95.3	95.8	95.6	94.6	95.9	96.0	94.7	95.1	96.6	96.3	96.3	96.3	97.2	97.1	97.2	97.1	97.2			
4-year	93.2	94.2	94.0	94.9	95.8	95.3	94.2	95.9	95.5	94.5	95.1	96.2	96.3	95.8	96.0	96.8	97.1	97.2	97.1				
5-year	93.1	94.2	93.3	94.8	95.8	95.3	94.2	95.9	95.0	93.9	95.1	96.1	96.3	95.5	95.8	96.7	97.1	96.8					
6-year	93.1	94.2	93.3	94.7	95.7	95.3	94.2	95.9	94.8	93.8	95.1	95.8	96.3	95.5	95.6	96.5	96.9						
7-year	93.1	93.9	93.3	93.8	95.3	95.3	94.2	95.7	94.5	93.8	95.1	95.8	96.3	95.3	95.6	96.5							
8-year	93.1	93.9	93.3	93.6	95.3	95.3	94.2	95.7	94.5	93.8	95.1	95.3	96.3	95.3	95.6								
9-year	93.0	93.9	93.1	93.6	95.3	95.3	94.2	95.7	94.5	93.8	95.1	95.2	96.3	95.1									
10-year	93.0	93.8	93.1	93.6	95.2	95.3	94.2	95.3	94.5	93.8	95.1	95.1	96.2										
11-year	93.0	93.7	93.1	93.4	95.2	95.3	94.2	94.9	94.5	93.8	94.8	95.1											
12-year	93.0	93.6	93.0	93.3	95.1	95.3	94.2	94.9	94.3	93.8	94.8												
13-year	93.0	93.5	93.0	93.2	95.1	95.3	94.2	94.7	94.3	93.8													
14-year	93.0	93.5	93.0	93.2	95.1	95.3	94.2	94.4	94.2														
15-year	93.0	93.4	93.0	92.9	95.1	95.3	94.2	94.4															
16-year	93.0	93.4	93.0	92.9	95.1	95.0	94.2																
17-year	93.0	93.4	92.8	92.9	95.1	95.0																	
18-year	93.0	93.4	92.5	92.9	95.1																		
19-year	93.0	93.4	92.4	92.9																			
20-year	93.0	93.4	92.4																				

<sup>a</sup> Survival rates are relative rates expressed as percents.

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

Table XXVI-7  
 THYROID CANCER (Invasive)

SURVIVAL RATES<sup>a</sup>

By Year of Diagnosis

All Races, Males

Year of Diagnosis

	1975- 1979	1980- 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Relative Survival Rates (SEER <sup>b</sup> )																						
1-year	94.7	92.8	94.6	96.8	97.5	92.0	94.5	93.9	95.4	94.0	93.4	96.9	93.7	93.9	92.4	97.4	97.1	96.5	96.2	95.3	96.4	96.8
2-year	92.9	92.5	93.7	94.1	97.3	91.2	92.9	92.8	92.7	93.3	92.9	95.8	91.9	93.8	91.1	95.6	96.4	95.3	95.3	95.1	95.7	
3-year	92.2	91.5	93.0	94.1	96.9	90.4	92.9	92.0	91.6	92.4	92.6	95.2	91.9	92.6	91.1	95.1	96.4	95.3	94.0	95.1		
4-year	91.5	91.4	92.1	93.9	96.8	89.4	91.0	92.0	91.4	92.1	91.1	94.8	91.8	92.2	89.9	94.3	96.4	95.3	93.4			
5-year	91.2	91.4	89.7	93.9	96.8	89.4	90.6	92.0	90.0	91.6	91.1	94.1	91.8	90.5	89.3	94.3	96.4	94.6				
6-year	91.2	91.3	89.7	93.5	96.0	89.4	90.6	91.6	89.1	91.6	91.1	93.9	91.4	90.5	88.9	94.3	96.4					
7-year	91.2	91.0	89.7	92.0	93.2	89.4	90.6	91.6	88.3	91.6	91.0	93.5	89.9	90.5	88.9	94.3						
8-year	91.2	91.0	88.8	91.5	93.0	89.4	90.6	91.6	88.0	91.6	90.8	92.7	89.9	90.2	88.9							
9-year	91.2	90.7	88.1	90.8	92.0	89.3	90.6	91.6	88.0	91.6	90.5	92.5	89.9	88.5								
10-year	91.2	90.2	88.1	90.8	89.7	89.3	90.6	91.6	88.0	91.6	89.4	92.5	89.3									
11-year	90.9	89.9	88.1	90.3	89.1	89.3	90.6	91.6	88.0	91.6	89.4	92.5										
12-year	90.9	89.4	88.1	90.3	89.1	89.3	90.6	91.5	88.0	91.4	89.4											
13-year	90.9	89.1	88.1	89.7	89.1	89.3	90.4	89.6	88.0	91.4												
14-year	90.9	89.1	88.1	89.7	89.1	89.3	89.5	89.6	88.0													
15-year	90.9	89.0	88.1	89.7	89.1	89.3	89.5	88.0														
16-year	90.9	89.0	88.1	89.7	89.1	89.3	89.5															
17-year	90.9	89.0	88.1	89.7	89.1	89.3																
18-year	90.9	88.9	88.1	89.7	89.1																	
19-year	90.9	88.9	88.1	89.7																		
20-year	90.9	88.9	88.1																			

<sup>a</sup> Survival rates are relative rates expressed as percents.

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



Table XXVI-8  
 THYROID CANCER (Invasive)

SURVIVAL RATES<sup>a</sup>

By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Relative Survival Rates (SEER <sup>b</sup> )																						
1-year	95.2	96.1	96.9	96.0	95.8	97.7	96.0	97.5	97.1	96.4	95.9	97.7	97.8	97.9	97.8	97.9	97.5	98.1	98.1	97.8	98.5	99.0
2-year	94.2	95.7	95.6	95.8	95.5	97.3	95.7	97.4	97.0	95.7	95.9	97.3	97.6	97.6	97.8	97.7	97.4	97.8	98.1	97.8	98.5	
3-year	93.7	95.2	94.5	95.4	95.3	97.3	94.9	97.1	97.0	95.5	95.9	96.9	97.6	97.3	97.8	97.7	97.4	97.7	98.0	97.8		
4-year	93.7	95.1	94.4	95.2	95.3	97.2	94.9	97.1	96.8	95.4	95.9	96.7	97.6	96.8	97.8	97.5	97.4	97.7	98.0			
5-year	93.7	95.1	94.4	95.1	95.3	97.2	94.9	97.1	96.5	94.6	95.9	96.7	97.6	96.8	97.8	97.4	97.2	97.4				
6-year	93.7	95.1	94.4	95.0	95.3	97.2	94.9	97.1	96.5	94.6	95.9	96.3	97.6	96.8	97.6	97.0	97.0					
7-year	93.6	94.8	94.4	94.3	95.3	97.2	94.9	96.6	96.4	94.6	95.9	96.3	97.6	96.5	97.6	97.0						
8-year	93.5	94.8	94.4	94.2	95.3	97.2	94.9	96.6	96.4	94.6	95.9	96.0	97.6	96.5	97.6							
9-year	93.4	94.8	94.4	94.2	95.3	97.2	94.9	96.6	96.4	94.6	95.9	95.9	97.6	96.5								
10-year	93.4	94.8	94.2	94.2	95.3	97.2	94.9	96.1	96.4	94.6	95.9	95.6	97.6									
11-year	93.4	94.8	94.1	94.2	95.3	97.1	94.9	95.6	96.2	94.6	95.9	95.6										
12-year	93.4	94.8	93.9	94.0	95.3	97.1	94.9	95.6	95.8	94.6	95.9											
13-year	93.4	94.8	93.9	94.0	95.3	97.1	94.9	95.6	95.7	94.6												
14-year	93.4	94.8	93.9	94.0	95.3	97.1	94.9	95.6	95.6													
15-year	93.4	94.8	93.9	93.7	95.3	97.1	94.9	95.6														
16-year	93.4	94.7	93.9	93.7	95.3	96.4	94.9															
17-year	93.4	94.7	93.2	93.7	95.3	96.4																
18-year	93.4	94.7	92.8	93.7	95.3																	
19-year	93.4	94.7	92.8	93.7																		
20-year	93.4	94.7	92.8																			

<sup>a</sup> Survival rates are relative rates expressed as percents.

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

Table XVI-9  
 THYROID CANCER (Invasive)

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years, Lifetime Risk of Being Diagnosed with Cancer, and  
 Lifetime Risk of Dying from Cancer Given Cancer Free At Current Age  
 Both Sexes, 2003-2005 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer			Risk of Dying from Cancer	
		+10 yrs Percent ( 95% C.I. )	+20 yrs Percent ( 95% C.I. )	+30 yrs Percent ( 95% C.I. )	Eventually Percent ( 95% C.I. )	Eventually Percent ( 95% C.I. )
All Races	0	0.00 ( 0.00, 0.00 )	0.01 ( 0.01, 0.01 )	0.07 ( 0.07, 0.08 )	0.79 ( 0.77, 0.80 )	0.05 ( 0.05, 0.06 )
	10	0.01 ( 0.01, 0.01 )	0.07 ( 0.07, 0.08 )	0.19 ( 0.18, 0.19 )	0.79 ( 0.78, 0.81 )	0.05 ( 0.05, 0.06 )
	20	0.06 ( 0.06, 0.06 )	0.18 ( 0.17, 0.18 )	0.32 ( 0.31, 0.33 )	0.79 ( 0.77, 0.80 )	0.05 ( 0.05, 0.06 )
	30	0.12 ( 0.11, 0.12 )	0.26 ( 0.26, 0.27 )	0.42 ( 0.41, 0.42 )	0.73 ( 0.72, 0.74 )	0.06 ( 0.05, 0.06 )
	40	0.15 ( 0.14, 0.15 )	0.30 ( 0.30, 0.31 )	0.46 ( 0.45, 0.46 )	0.62 ( 0.61, 0.63 )	0.06 ( 0.05, 0.06 )
	50	0.16 ( 0.16, 0.17 )	0.32 ( 0.31, 0.33 )	0.44 ( 0.43, 0.44 )	0.49 ( 0.48, 0.50 )	0.06 ( 0.05, 0.06 )
	60	0.17 ( 0.16, 0.17 )	0.29 ( 0.28, 0.30 )	0.34 ( 0.33, 0.35 )	0.35 ( 0.34, 0.36 )	0.05 ( 0.05, 0.06 )
	70	0.14 ( 0.14, 0.15 )	0.20 ( 0.20, 0.21 )	- ( - , - )	0.21 ( 0.21, 0.22 )	0.05 ( 0.05, 0.05 )
80	0.08 ( 0.08, 0.09 )	- ( - , - )	- ( - , - )	0.10 ( 0.09, 0.10 )	0.04 ( 0.04, 0.04 )	
White	0	0.00 ( 0.00, 0.00 )	0.01 ( 0.01, 0.02 )	0.08 ( 0.08, 0.08 )	0.82 ( 0.81, 0.84 )	0.05 ( 0.05, 0.06 )
	10	0.01 ( 0.01, 0.01 )	0.08 ( 0.08, 0.08 )	0.20 ( 0.20, 0.21 )	0.83 ( 0.82, 0.85 )	0.06 ( 0.05, 0.06 )
	20	0.07 ( 0.06, 0.07 )	0.19 ( 0.18, 0.19 )	0.34 ( 0.34, 0.35 )	0.82 ( 0.81, 0.84 )	0.06 ( 0.05, 0.06 )
	30	0.13 ( 0.12, 0.13 )	0.28 ( 0.27, 0.29 )	0.44 ( 0.43, 0.45 )	0.76 ( 0.75, 0.78 )	0.06 ( 0.05, 0.06 )
	40	0.16 ( 0.15, 0.16 )	0.32 ( 0.31, 0.33 )	0.48 ( 0.47, 0.49 )	0.65 ( 0.64, 0.66 )	0.06 ( 0.05, 0.06 )
	50	0.17 ( 0.16, 0.17 )	0.33 ( 0.32, 0.34 )	0.45 ( 0.44, 0.46 )	0.50 ( 0.49, 0.52 )	0.06 ( 0.05, 0.06 )
	60	0.17 ( 0.16, 0.18 )	0.30 ( 0.29, 0.31 )	0.35 ( 0.34, 0.36 )	0.36 ( 0.35, 0.37 )	0.05 ( 0.05, 0.06 )
	70	0.15 ( 0.14, 0.15 )	0.21 ( 0.20, 0.21 )	- ( - , - )	0.22 ( 0.21, 0.22 )	0.05 ( 0.05, 0.05 )
80	0.08 ( 0.08, 0.09 )	- ( - , - )	- ( - , - )	0.10 ( 0.09, 0.11 )	0.04 ( 0.04, 0.04 )	
Black	0	0.00 ( 0.00, 0.00 )	0.00 ( 0.00, 0.01 )	0.03 ( 0.03, 0.04 )	0.46 ( 0.43, 0.48 )	0.04 ( 0.04, 0.05 )
	10	0.00 ( 0.00, 0.01 )	0.03 ( 0.03, 0.04 )	0.09 ( 0.09, 0.10 )	0.47 ( 0.44, 0.50 )	0.04 ( 0.04, 0.05 )
	20	0.03 ( 0.03, 0.04 )	0.09 ( 0.08, 0.10 )	0.17 ( 0.15, 0.18 )	0.46 ( 0.44, 0.49 )	0.04 ( 0.04, 0.05 )
	30	0.06 ( 0.06, 0.07 )	0.14 ( 0.13, 0.15 )	0.24 ( 0.22, 0.26 )	0.44 ( 0.42, 0.47 )	0.04 ( 0.04, 0.05 )
	40	0.08 ( 0.07, 0.09 )	0.18 ( 0.17, 0.20 )	0.29 ( 0.27, 0.31 )	0.39 ( 0.36, 0.42 )	0.05 ( 0.04, 0.05 )
	50	0.11 ( 0.10, 0.12 )	0.22 ( 0.20, 0.24 )	0.29 ( 0.27, 0.32 )	0.33 ( 0.30, 0.36 )	0.05 ( 0.04, 0.05 )
	60	0.12 ( 0.11, 0.14 )	0.21 ( 0.18, 0.23 )	0.24 ( 0.22, 0.27 )	0.25 ( 0.22, 0.27 )	0.05 ( 0.04, 0.05 )
	70	0.11 ( 0.09, 0.13 )	0.15 ( 0.13, 0.18 )	- ( - , - )	0.16 ( 0.13, 0.18 )	0.04 ( 0.04, 0.05 )
80	0.07 ( 0.05, 0.09 )	- ( - , - )	- ( - , - )	0.08 ( 0.06, 0.11 )	0.04 ( 0.03, 0.05 )	

Devcan Version 7.0.0, April 2008, National Cancer Institute (<http://srab.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 17 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 and New Jersey). Mortality data are from the NCHS public use data file for the total US.

- Statistic could not be calculated.

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

Table XVI-9 - continued  
 THYROID CANCER (Invasive)

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years, Lifetime Risk of Being Diagnosed with Cancer, and  
 Lifetime Risk of Dying from Cancer Given Cancer Free At Current Age  
 Both Sexes, 2003-2005 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	
		+10 yrs Percent ( 95% C.I. )	+20 yrs Percent ( 95% C.I. )	+30 yrs Percent ( 95% C.I. )	Eventually Percent ( 95% C.I. )	Eventually Percent ( 95% C.I. )	
Asian/ Pacific Islander	0	0.00 ( 0.00, 0.00 )	0.01 ( 0.01, 0.02 )	0.07 ( 0.06, 0.08 )	0.83 ( 0.79, 0.88 )	0.11 ( 0.08, 0.14 )	
	10	0.01 ( 0.01, 0.02 )	0.07 ( 0.06, 0.08 )	0.18 ( 0.16, 0.19 )	0.84 ( 0.79, 0.89 )	0.11 ( 0.08, 0.14 )	
	20	0.06 ( 0.05, 0.07 )	0.16 ( 0.15, 0.18 )	0.30 ( 0.28, 0.32 )	0.83 ( 0.78, 0.88 )	0.11 ( 0.08, 0.14 )	
	30	0.11 ( 0.10, 0.12 )	0.24 ( 0.23, 0.26 )	0.40 ( 0.38, 0.42 )	0.77 ( 0.73, 0.83 )	0.11 ( 0.08, 0.14 )	
	40	0.14 ( 0.13, 0.15 )	0.29 ( 0.28, 0.31 )	0.45 ( 0.43, 0.48 )	0.67 ( 0.63, 0.72 )	0.11 ( 0.08, 0.14 )	
	50	0.16 ( 0.15, 0.17 )	0.32 ( 0.30, 0.35 )	0.46 ( 0.43, 0.49 )	0.54 ( 0.50, 0.59 )	0.11 ( 0.08, 0.14 )	
	60	0.17 ( 0.15, 0.19 )	0.31 ( 0.28, 0.34 )	0.38 ( 0.34, 0.41 )	0.40 ( 0.36, 0.45 )	0.10 ( 0.08, 0.14 )	
	70	0.16 ( 0.14, 0.18 )	0.23 ( 0.20, 0.26 )	- ( - , - )	0.25 ( 0.21, 0.30 )	0.10 ( 0.07, 0.14 )	
	80	0.09 ( 0.07, 0.12 )	- ( - , - )	- ( - , - )	0.11 ( 0.08, 0.17 )	0.08 ( 0.05, 0.13 )	
American Indian/ Alaska Native <sup>a</sup>	0	0.00 ( 0.00, 0.03 )	0.01 ( 0.01, 0.04 )	0.04 ( 0.02, 0.07 )	0.44 ( 0.34, 0.73 )	0.04 ( 0.02, 0.12 )	
	10	0.01 ( 0.00, 0.03 )	0.04 ( 0.02, 0.06 )	0.12 ( 0.09, 0.17 )	0.45 ( 0.34, 0.74 )	0.04 ( 0.02, 0.13 )	
	20	0.03 ( 0.01, 0.05 )	0.11 ( 0.08, 0.15 )	0.18 ( 0.14, 0.24 )	0.44 ( 0.34, 0.73 )	0.04 ( 0.02, 0.13 )	
	30	0.08 ( 0.06, 0.12 )	0.16 ( 0.12, 0.21 )	0.25 ( 0.19, 0.32 )	0.42 ( 0.32, 0.72 )	0.04 ( 0.02, 0.13 )	
	40	0.08 ( 0.05, 0.11 )	0.17 ( 0.12, 0.23 )	0.25 ( 0.18, 0.34 )	0.34 ( 0.24, 0.65 )	0.04 ( 0.02, 0.13 )	
	50	0.10 ( 0.06, 0.15 )	0.18 ( 0.12, 0.27 )	0.24 ( 0.16, 0.35 )	0.28 ( 0.18, 0.60 )	0.04 ( 0.02, 0.14 )	
	60	0.09 ( 0.05, 0.16 )	0.15 ( 0.08, 0.26 )	0.19 ( 0.11, 0.34 )	0.19 ( 0.11, 0.54 )	0.05 ( 0.02, 0.15 )	
	70	0.07 ( 0.02, 0.16 )	0.12 ( 0.04, 0.27 )	- ( - , - )	0.12 ( 0.04, 0.52 )	0.05 ( 0.02, 0.17 )	
	80	0.07 ( 0.01, 0.26 )	- ( - , - )	- ( - , - )	0.07 ( 0.01, 0.64 )	0.05 ( 0.01, 0.23 )	
Hispanic <sup>b</sup>	0	0.00 ( 0.00, 0.00 )	0.01 ( 0.01, 0.01 )	0.06 ( 0.05, 0.06 )	0.74 ( 0.71, 0.79 )	0.08 ( 0.07, 0.09 )	
	10	0.01 ( 0.01, 0.01 )	0.06 ( 0.05, 0.06 )	0.14 ( 0.14, 0.15 )	0.75 ( 0.71, 0.80 )	0.08 ( 0.07, 0.09 )	
	20	0.05 ( 0.04, 0.05 )	0.13 ( 0.13, 0.14 )	0.25 ( 0.24, 0.26 )	0.74 ( 0.71, 0.79 )	0.08 ( 0.07, 0.09 )	
	30	0.09 ( 0.08, 0.09 )	0.20 ( 0.19, 0.21 )	0.34 ( 0.32, 0.35 )	0.70 ( 0.66, 0.75 )	0.08 ( 0.07, 0.09 )	
	40	0.12 ( 0.11, 0.13 )	0.26 ( 0.24, 0.27 )	0.40 ( 0.38, 0.42 )	0.62 ( 0.58, 0.67 )	0.08 ( 0.07, 0.09 )	
	50	0.14 ( 0.13, 0.15 )	0.29 ( 0.27, 0.31 )	0.42 ( 0.39, 0.45 )	0.52 ( 0.48, 0.56 )	0.08 ( 0.07, 0.09 )	
	60	0.16 ( 0.14, 0.17 )	0.29 ( 0.27, 0.32 )	0.37 ( 0.34, 0.40 )	0.39 ( 0.36, 0.44 )	0.08 ( 0.06, 0.09 )	
	70	0.15 ( 0.13, 0.17 )	0.23 ( 0.21, 0.27 )	- ( - , - )	0.26 ( 0.23, 0.31 )	0.07 ( 0.05, 0.08 )	
	80	0.11 ( 0.09, 0.14 )	- ( - , - )	- ( - , - )	0.15 ( 0.11, 0.20 )	0.05 ( 0.03, 0.07 )	

Devcan Version 7.0.0, April 2008, National Cancer Institute (<http://srab.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 17 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 and New Jersey). 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 and Kentucky. Underlying mortality data for Hispanics exclude deaths from Minnesota, New Hampshire and North Dakota.

- Statistic could not be calculated.

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

Table XVI-9 - continued  
 THYROID CANCER (Invasive)

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years, Lifetime Risk of Being Diagnosed with Cancer, and  
 Lifetime Risk of Dying from Cancer Given Cancer Free At Current Age  
 Males, 2003-2005 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	
		+10 yrs Percent ( 95% C.I. )	+20 yrs Percent ( 95% C.I. )	+30 yrs Percent ( 95% C.I. )	Eventually Percent ( 95% C.I. )	Eventually Percent ( 95% C.I. )	
All Races	0	0.00 ( 0.00, 0.00 )	0.00 ( 0.00, 0.00 )	0.02 ( 0.02, 0.02 )	0.41 ( 0.40, 0.42 )	0.05 ( 0.04, 0.05 )	
	10	0.00 ( 0.00, 0.00 )	0.02 ( 0.02, 0.02 )	0.06 ( 0.06, 0.07 )	0.42 ( 0.40, 0.43 )	0.05 ( 0.04, 0.05 )	
	20	0.02 ( 0.02, 0.02 )	0.06 ( 0.06, 0.06 )	0.12 ( 0.11, 0.12 )	0.41 ( 0.40, 0.43 )	0.05 ( 0.04, 0.05 )	
	30	0.04 ( 0.04, 0.05 )	0.10 ( 0.10, 0.11 )	0.19 ( 0.18, 0.19 )	0.40 ( 0.39, 0.41 )	0.05 ( 0.04, 0.05 )	
	40	0.06 ( 0.06, 0.07 )	0.15 ( 0.14, 0.15 )	0.25 ( 0.24, 0.26 )	0.37 ( 0.35, 0.38 )	0.05 ( 0.04, 0.05 )	
	50	0.09 ( 0.08, 0.09 )	0.19 ( 0.18, 0.20 )	0.28 ( 0.26, 0.29 )	0.32 ( 0.30, 0.33 )	0.05 ( 0.04, 0.05 )	
	60	0.11 ( 0.11, 0.12 )	0.20 ( 0.19, 0.21 )	0.24 ( 0.23, 0.25 )	0.25 ( 0.24, 0.26 )	0.05 ( 0.04, 0.05 )	
	70	0.11 ( 0.10, 0.11 )	0.15 ( 0.14, 0.16 )	- ( - , - )	0.16 ( 0.15, 0.17 )	0.04 ( 0.04, 0.04 )	
80	0.07 ( 0.06, 0.08 )	- ( - , - )	- ( - , - )	0.08 ( 0.07, 0.09 )	0.03 ( 0.03, 0.03 )		
White	0	0.00 ( 0.00, 0.00 )	0.00 ( 0.00, 0.01 )	0.02 ( 0.02, 0.03 )	0.44 ( 0.42, 0.45 )	0.05 ( 0.05, 0.05 )	
	10	0.00 ( 0.00, 0.00 )	0.02 ( 0.02, 0.03 )	0.07 ( 0.06, 0.07 )	0.44 ( 0.43, 0.45 )	0.05 ( 0.05, 0.05 )	
	20	0.02 ( 0.02, 0.02 )	0.06 ( 0.06, 0.07 )	0.13 ( 0.12, 0.14 )	0.44 ( 0.43, 0.45 )	0.05 ( 0.05, 0.05 )	
	30	0.05 ( 0.04, 0.05 )	0.11 ( 0.11, 0.12 )	0.20 ( 0.19, 0.21 )	0.43 ( 0.41, 0.44 )	0.05 ( 0.05, 0.05 )	
	40	0.07 ( 0.06, 0.07 )	0.16 ( 0.15, 0.16 )	0.26 ( 0.25, 0.27 )	0.39 ( 0.37, 0.40 )	0.05 ( 0.05, 0.05 )	
	50	0.09 ( 0.09, 0.10 )	0.20 ( 0.19, 0.21 )	0.29 ( 0.28, 0.30 )	0.33 ( 0.32, 0.34 )	0.05 ( 0.05, 0.05 )	
	60	0.12 ( 0.11, 0.13 )	0.21 ( 0.20, 0.22 )	0.25 ( 0.24, 0.26 )	0.25 ( 0.24, 0.27 )	0.05 ( 0.04, 0.05 )	
	70	0.11 ( 0.10, 0.12 )	0.16 ( 0.14, 0.17 )	- ( - , - )	0.16 ( 0.15, 0.17 )	0.04 ( 0.04, 0.04 )	
80	0.07 ( 0.06, 0.08 )	- ( - , - )	- ( - , - )	0.08 ( 0.07, 0.09 )	0.03 ( 0.03, 0.03 )		
Black	0	0.00 ( 0.00, 0.00 )	0.00 ( 0.00, 0.01 )	0.01 ( 0.01, 0.02 )	0.21 ( 0.18, 0.24 )	0.02 ( 0.02, 0.03 )	
	10	0.00 ( 0.00, 0.00 )	0.01 ( 0.01, 0.02 )	0.03 ( 0.02, 0.03 )	0.22 ( 0.19, 0.25 )	0.03 ( 0.02, 0.03 )	
	20	0.01 ( 0.01, 0.01 )	0.03 ( 0.02, 0.03 )	0.05 ( 0.04, 0.06 )	0.22 ( 0.19, 0.25 )	0.03 ( 0.02, 0.03 )	
	30	0.02 ( 0.01, 0.02 )	0.04 ( 0.04, 0.05 )	0.10 ( 0.08, 0.11 )	0.21 ( 0.18, 0.25 )	0.03 ( 0.02, 0.03 )	
	40	0.03 ( 0.02, 0.04 )	0.08 ( 0.07, 0.10 )	0.14 ( 0.12, 0.16 )	0.20 ( 0.17, 0.24 )	0.03 ( 0.02, 0.03 )	
	50	0.06 ( 0.05, 0.07 )	0.12 ( 0.10, 0.14 )	0.16 ( 0.14, 0.19 )	0.19 ( 0.16, 0.22 )	0.03 ( 0.02, 0.03 )	
	60	0.07 ( 0.06, 0.10 )	0.12 ( 0.10, 0.15 )	0.15 ( 0.12, 0.18 )	0.15 ( 0.12, 0.19 )	0.03 ( 0.02, 0.03 )	
	70	0.06 ( 0.04, 0.09 )	0.10 ( 0.07, 0.13 )	- ( - , - )	0.10 ( 0.07, 0.14 )	0.03 ( 0.02, 0.04 )	
80	0.06 ( 0.04, 0.10 )	- ( - , - )	- ( - , - )	0.06 ( 0.04, 0.12 )	0.03 ( 0.02, 0.04 )		

Devcan Version 7.0.0, April 2008, National Cancer Institute (<http://srab.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 17 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 and New Jersey). Mortality data are from the NCHS public use data file for the total US.

- Statistic could not be calculated.

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

Table XVI-9 - continued  
 THYROID CANCER (Invasive)

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years, Lifetime Risk of Being Diagnosed with Cancer, and  
 Lifetime Risk of Dying from Cancer Given Cancer Free At Current Age  
 Males, 2003-2005 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	
		+10 yrs Percent ( 95% C.I. )	+20 yrs Percent ( 95% C.I. )	+30 yrs Percent ( 95% C.I. )	Eventually Percent ( 95% C.I. )	Eventually Percent ( 95% C.I. )	
Asian/ Pacific Islander	0	0.00 ( 0.00, 0.00 )	0.00 ( 0.00, 0.01 )	0.02 ( 0.01, 0.03 )	0.42 ( 0.37, 0.49 )	0.07 ( 0.04, 0.12 )	
	10	0.00 ( 0.00, 0.01 )	0.02 ( 0.01, 0.03 )	0.06 ( 0.05, 0.07 )	0.42 ( 0.37, 0.50 )	0.07 ( 0.04, 0.12 )	
	20	0.02 ( 0.01, 0.02 )	0.05 ( 0.04, 0.07 )	0.10 ( 0.09, 0.11 )	0.42 ( 0.37, 0.49 )	0.07 ( 0.04, 0.12 )	
	30	0.04 ( 0.03, 0.05 )	0.08 ( 0.07, 0.10 )	0.15 ( 0.13, 0.17 )	0.41 ( 0.35, 0.48 )	0.07 ( 0.04, 0.12 )	
	40	0.05 ( 0.04, 0.06 )	0.11 ( 0.10, 0.13 )	0.20 ( 0.17, 0.23 )	0.37 ( 0.32, 0.45 )	0.07 ( 0.04, 0.12 )	
	50	0.07 ( 0.05, 0.08 )	0.16 ( 0.13, 0.19 )	0.25 ( 0.21, 0.29 )	0.33 ( 0.28, 0.41 )	0.07 ( 0.04, 0.12 )	
	60	0.09 ( 0.07, 0.12 )	0.19 ( 0.16, 0.23 )	0.25 ( 0.21, 0.30 )	0.28 ( 0.22, 0.35 )	0.07 ( 0.04, 0.12 )	
	70	0.11 ( 0.08, 0.14 )	0.17 ( 0.13, 0.22 )	- ( - , - )	0.20 ( 0.15, 0.28 )	0.06 ( 0.04, 0.13 )	
	80	0.09 ( 0.06, 0.13 )	- ( - , - )	- ( - , - )	0.12 ( 0.07, 0.22 )	0.05 ( 0.02, 0.13 )	
American Indian/ Alaska Native <sup>a</sup>	0	0.00 ( 0.00, 0.05 )	0.01 ( 0.00, 0.05 )	0.01 ( 0.00, 0.05 )	0.28 ( 0.15, 0.93 )	0.02 ( 0.00, 0.21 )	
	10	0.00 ( 0.00, 0.02 )	0.00 ( 0.00, 0.02 )	0.02 ( 0.01, 0.06 )	0.29 ( 0.15, 0.95 )	0.02 ( 0.00, 0.22 )	
	20	0.00 ( 0.00, 0.02 )	0.02 ( 0.00, 0.06 )	0.04 ( 0.02, 0.10 )	0.29 ( 0.15, 0.96 )	0.02 ( 0.00, 0.22 )	
	30	0.02 ( 0.00, 0.06 )	0.04 ( 0.02, 0.10 )	0.09 ( 0.05, 0.17 )	0.29 ( 0.15, 0.98 )	0.02 ( 0.00, 0.22 )	
	40	0.02 ( 0.01, 0.06 )	0.07 ( 0.03, 0.15 )	0.15 ( 0.07, 0.27 )	0.28 ( 0.14, 1.00 )	0.02 ( 0.00, 0.23 )	
	50	0.05 ( 0.02, 0.12 )	0.13 ( 0.06, 0.26 )	0.21 ( 0.10, 0.40 )	0.27 ( 0.13, 1.03 )	0.02 ( 0.00, 0.25 )	
	60	0.09 ( 0.03, 0.21 )	0.17 ( 0.07, 0.37 )	0.23 ( 0.09, 0.54 )	0.24 ( 0.09, 1.08 )	0.02 ( 0.00, 0.27 )	
	70	0.10 ( 0.02, 0.30 )	0.18 ( 0.04, 0.52 )	- ( - , - )	0.18 ( 0.04, 1.20 )	0.01 ( 0.00, 0.34 )	
	80	0.11 ( 0.00, 0.59 )	- ( - , - )	- ( - , - )	0.12 ( 0.00, 1.65 )	0.00 ( 0.00, 0.51 )	
Hispanic <sup>b</sup>	0	0.00 ( 0.00, 0.00 )	0.00 ( 0.00, 0.01 )	0.01 ( 0.01, 0.02 )	0.33 ( 0.29, 0.39 )	0.06 ( 0.05, 0.08 )	
	10	0.00 ( 0.00, 0.00 )	0.01 ( 0.01, 0.02 )	0.04 ( 0.03, 0.05 )	0.33 ( 0.30, 0.40 )	0.06 ( 0.05, 0.09 )	
	20	0.01 ( 0.01, 0.01 )	0.04 ( 0.03, 0.04 )	0.07 ( 0.07, 0.08 )	0.33 ( 0.30, 0.40 )	0.06 ( 0.05, 0.09 )	
	30	0.03 ( 0.02, 0.03 )	0.06 ( 0.06, 0.07 )	0.12 ( 0.11, 0.13 )	0.33 ( 0.29, 0.39 )	0.07 ( 0.05, 0.09 )	
	40	0.04 ( 0.03, 0.04 )	0.09 ( 0.08, 0.10 )	0.17 ( 0.15, 0.19 )	0.30 ( 0.27, 0.37 )	0.07 ( 0.05, 0.09 )	
	50	0.06 ( 0.05, 0.07 )	0.14 ( 0.12, 0.16 )	0.22 ( 0.19, 0.25 )	0.28 ( 0.24, 0.34 )	0.07 ( 0.05, 0.09 )	
	60	0.09 ( 0.07, 0.11 )	0.17 ( 0.14, 0.20 )	0.22 ( 0.19, 0.26 )	0.23 ( 0.19, 0.30 )	0.06 ( 0.05, 0.09 )	
	70	0.10 ( 0.08, 0.12 )	0.15 ( 0.12, 0.20 )	- ( - , - )	0.17 ( 0.13, 0.24 )	0.06 ( 0.05, 0.09 )	
	80	0.08 ( 0.05, 0.12 )	- ( - , - )	- ( - , - )	0.10 ( 0.06, 0.20 )	0.04 ( 0.02, 0.08 )	

Devcan Version 7.0.0, April 2008, National Cancer Institute (<http://srab.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 17 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 and New Jersey). 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 and Kentucky. Underlying mortality data for Hispanics exclude deaths from Minnesota, New Hampshire and North Dakota.

- Statistic could not be calculated.

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Table XVI-9 - continued  
 THYROID CANCER (Invasive)

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years, Lifetime Risk of Being Diagnosed with Cancer, and  
 Lifetime Risk of Dying from Cancer Given Cancer Free At Current Age  
 Females, 2003-2005 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	
		+10 yrs Percent ( 95% C.I. )	+20 yrs Percent ( 95% C.I. )	+30 yrs Percent ( 95% C.I. )	Eventually Percent ( 95% C.I. )	Eventually Percent ( 95% C.I. )	
All Races	0	0.00 ( 0.00, 0.00 )	0.02 ( 0.02, 0.03 )	0.13 ( 0.12, 0.13 )	1.17 ( 1.15, 1.18 )	0.06 ( 0.06, 0.06 )	
	10	0.02 ( 0.02, 0.02 )	0.13 ( 0.12, 0.13 )	0.32 ( 0.31, 0.33 )	1.18 ( 1.16, 1.20 )	0.06 ( 0.06, 0.06 )	
	20	0.11 ( 0.10, 0.11 )	0.30 ( 0.29, 0.31 )	0.53 ( 0.52, 0.54 )	1.16 ( 1.14, 1.18 )	0.06 ( 0.06, 0.06 )	
	30	0.19 ( 0.19, 0.20 )	0.42 ( 0.41, 0.43 )	0.65 ( 0.64, 0.66 )	1.06 ( 1.04, 1.08 )	0.06 ( 0.06, 0.07 )	
	40	0.23 ( 0.23, 0.24 )	0.46 ( 0.45, 0.47 )	0.66 ( 0.65, 0.67 )	0.87 ( 0.86, 0.89 )	0.06 ( 0.06, 0.07 )	
	50	0.23 ( 0.23, 0.24 )	0.44 ( 0.43, 0.45 )	0.59 ( 0.57, 0.60 )	0.66 ( 0.64, 0.67 )	0.06 ( 0.06, 0.07 )	
	60	0.21 ( 0.21, 0.22 )	0.37 ( 0.36, 0.38 )	0.43 ( 0.42, 0.45 )	0.44 ( 0.43, 0.46 )	0.06 ( 0.06, 0.06 )	
	70	0.17 ( 0.17, 0.18 )	0.25 ( 0.23, 0.26 )	- ( - , - )	0.26 ( 0.25, 0.27 )	0.05 ( 0.05, 0.06 )	
80	0.09 ( 0.09, 0.10 )	- ( - , - )	- ( - , - )	0.11 ( 0.10, 0.12 )	0.04 ( 0.04, 0.05 )		
White	0	0.00 ( 0.00, 0.00 )	0.03 ( 0.02, 0.03 )	0.14 ( 0.13, 0.15 )	1.23 ( 1.20, 1.25 )	0.06 ( 0.06, 0.06 )	
	10	0.02 ( 0.02, 0.03 )	0.14 ( 0.13, 0.15 )	0.35 ( 0.34, 0.36 )	1.24 ( 1.22, 1.26 )	0.06 ( 0.06, 0.06 )	
	20	0.12 ( 0.11, 0.12 )	0.32 ( 0.31, 0.33 )	0.57 ( 0.56, 0.58 )	1.22 ( 1.19, 1.24 )	0.06 ( 0.06, 0.06 )	
	30	0.21 ( 0.20, 0.22 )	0.45 ( 0.44, 0.47 )	0.69 ( 0.68, 0.70 )	1.11 ( 1.09, 1.13 )	0.06 ( 0.06, 0.06 )	
	40	0.25 ( 0.24, 0.26 )	0.49 ( 0.48, 0.50 )	0.69 ( 0.68, 0.71 )	0.91 ( 0.89, 0.93 )	0.06 ( 0.06, 0.06 )	
	50	0.24 ( 0.24, 0.25 )	0.45 ( 0.44, 0.46 )	0.60 ( 0.59, 0.62 )	0.67 ( 0.66, 0.69 )	0.06 ( 0.06, 0.06 )	
	60	0.22 ( 0.21, 0.23 )	0.38 ( 0.36, 0.39 )	0.44 ( 0.42, 0.45 )	0.45 ( 0.43, 0.47 )	0.06 ( 0.06, 0.06 )	
	70	0.18 ( 0.17, 0.19 )	0.25 ( 0.24, 0.26 )	- ( - , - )	0.26 ( 0.25, 0.27 )	0.05 ( 0.05, 0.06 )	
80	0.10 ( 0.09, 0.10 )	- ( - , - )	- ( - , - )	0.11 ( 0.10, 0.12 )	0.04 ( 0.04, 0.04 )		
Black	0	0.00 ( 0.00, 0.00 )	0.01 ( 0.00, 0.01 )	0.06 ( 0.05, 0.07 )	0.69 ( 0.64, 0.73 )	0.06 ( 0.05, 0.07 )	
	10	0.01 ( 0.00, 0.01 )	0.06 ( 0.05, 0.07 )	0.16 ( 0.14, 0.18 )	0.70 ( 0.66, 0.75 )	0.06 ( 0.05, 0.07 )	
	20	0.05 ( 0.04, 0.06 )	0.15 ( 0.14, 0.17 )	0.27 ( 0.25, 0.29 )	0.70 ( 0.65, 0.74 )	0.06 ( 0.05, 0.07 )	
	30	0.10 ( 0.09, 0.12 )	0.22 ( 0.20, 0.24 )	0.37 ( 0.34, 0.40 )	0.65 ( 0.61, 0.70 )	0.06 ( 0.05, 0.07 )	
	40	0.12 ( 0.11, 0.14 )	0.27 ( 0.25, 0.30 )	0.41 ( 0.38, 0.45 )	0.56 ( 0.51, 0.60 )	0.06 ( 0.05, 0.07 )	
	50	0.16 ( 0.14, 0.18 )	0.30 ( 0.27, 0.34 )	0.41 ( 0.37, 0.45 )	0.45 ( 0.41, 0.50 )	0.06 ( 0.05, 0.07 )	
	60	0.16 ( 0.14, 0.19 )	0.28 ( 0.24, 0.31 )	0.32 ( 0.28, 0.36 )	0.32 ( 0.29, 0.37 )	0.06 ( 0.05, 0.07 )	
	70	0.14 ( 0.11, 0.17 )	0.19 ( 0.16, 0.23 )	- ( - , - )	0.20 ( 0.16, 0.24 )	0.06 ( 0.05, 0.07 )	
80	0.07 ( 0.05, 0.10 )	- ( - , - )	- ( - , - )	0.09 ( 0.06, 0.12 )	0.05 ( 0.04, 0.06 )		

Devcan Version 7.0.0, April 2008, National Cancer Institute (<http://srab.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 17 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 and New Jersey). Mortality data are from the NCHS public use data file for the total US.

- Statistic could not be calculated.

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

Table XVI-9 - continued  
 THYROID CANCER (Invasive)

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years, Lifetime Risk of Being Diagnosed with Cancer, and  
 Lifetime Risk of Dying from Cancer Given Cancer Free At Current Age  
 Females, 2003-2005 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	
		+10 yrs Percent ( 95% C.I. )	+20 yrs Percent ( 95% C.I. )	+30 yrs Percent ( 95% C.I. )	Eventually Percent ( 95% C.I. )	Eventually Percent ( 95% C.I. )	
Asian/ Pacific Islander	0	0.00 ( 0.00, 0.00 )	0.02 ( 0.02, 0.03 )	0.12 ( 0.11, 0.14 )	1.21 ( 1.14, 1.29 )	0.14 ( 0.10, 0.19 )	
	10	0.02 ( 0.02, 0.03 )	0.12 ( 0.11, 0.14 )	0.29 ( 0.27, 0.32 )	1.22 ( 1.15, 1.30 )	0.14 ( 0.10, 0.20 )	
	20	0.10 ( 0.09, 0.11 )	0.27 ( 0.25, 0.29 )	0.49 ( 0.46, 0.52 )	1.20 ( 1.13, 1.28 )	0.14 ( 0.10, 0.20 )	
	30	0.17 ( 0.15, 0.19 )	0.39 ( 0.37, 0.42 )	0.63 ( 0.59, 0.67 )	1.10 ( 1.04, 1.19 )	0.14 ( 0.10, 0.20 )	
	40	0.22 ( 0.20, 0.24 )	0.46 ( 0.43, 0.49 )	0.68 ( 0.64, 0.73 )	0.93 ( 0.87, 1.02 )	0.14 ( 0.10, 0.20 )	
	50	0.24 ( 0.22, 0.26 )	0.46 ( 0.42, 0.50 )	0.64 ( 0.59, 0.69 )	0.72 ( 0.66, 0.80 )	0.14 ( 0.10, 0.20 )	
	60	0.23 ( 0.20, 0.26 )	0.41 ( 0.37, 0.46 )	0.48 ( 0.43, 0.54 )	0.50 ( 0.44, 0.57 )	0.14 ( 0.10, 0.19 )	
	70	0.19 ( 0.16, 0.23 )	0.27 ( 0.23, 0.32 )	- ( - , - )	0.28 ( 0.24, 0.36 )	0.12 ( 0.09, 0.19 )	
80	0.09 ( 0.06, 0.13 )	- ( - , - )	- ( - , - )	0.11 ( 0.07, 0.18 )	0.11 ( 0.07, 0.18 )		
American Indian/ Alaska Native <sup>a</sup>	0	0.00 ( 0.00, 0.05 )	0.02 ( 0.01, 0.07 )	0.08 ( 0.04, 0.14 )	0.61 ( 0.46, 1.11 )	0.07 ( 0.03, 0.21 )	
	10	0.02 ( 0.01, 0.05 )	0.08 ( 0.04, 0.13 )	0.22 ( 0.15, 0.31 )	0.62 ( 0.47, 1.12 )	0.07 ( 0.03, 0.21 )	
	20	0.05 ( 0.03, 0.10 )	0.20 ( 0.14, 0.29 )	0.32 ( 0.24, 0.43 )	0.60 ( 0.45, 1.11 )	0.07 ( 0.03, 0.21 )	
	30	0.15 ( 0.09, 0.22 )	0.27 ( 0.19, 0.37 )	0.41 ( 0.30, 0.54 )	0.55 ( 0.40, 1.06 )	0.07 ( 0.03, 0.22 )	
	40	0.13 ( 0.08, 0.19 )	0.26 ( 0.18, 0.37 )	0.35 ( 0.24, 0.50 )	0.41 ( 0.28, 0.94 )	0.06 ( 0.03, 0.22 )	
	50	0.14 ( 0.08, 0.23 )	0.23 ( 0.14, 0.37 )	0.26 ( 0.16, 0.43 )	0.29 ( 0.17, 0.84 )	0.07 ( 0.03, 0.22 )	
	60	0.10 ( 0.04, 0.21 )	0.13 ( 0.05, 0.28 )	0.16 ( 0.06, 0.37 )	0.16 ( 0.06, 0.75 )	0.07 ( 0.03, 0.24 )	
	70	0.04 ( 0.00, 0.17 )	0.08 ( 0.01, 0.29 )	- ( - , - )	0.08 ( 0.01, 0.76 )	0.07 ( 0.02, 0.27 )	
80	0.05 ( 0.00, 0.32 )	- ( - , - )	- ( - , - )	0.05 ( 0.00, 0.97 )	0.08 ( 0.02, 0.35 )		
Hispanic <sup>b</sup>	0	0.00 ( 0.00, 0.00 )	0.02 ( 0.02, 0.02 )	0.11 ( 0.10, 0.12 )	1.16 ( 1.10, 1.24 )	0.09 ( 0.07, 0.11 )	
	10	0.02 ( 0.02, 0.02 )	0.11 ( 0.10, 0.12 )	0.26 ( 0.25, 0.28 )	1.17 ( 1.11, 1.25 )	0.09 ( 0.07, 0.11 )	
	20	0.09 ( 0.09, 0.10 )	0.25 ( 0.23, 0.26 )	0.45 ( 0.42, 0.47 )	1.16 ( 1.10, 1.23 )	0.09 ( 0.07, 0.11 )	
	30	0.15 ( 0.14, 0.16 )	0.35 ( 0.33, 0.37 )	0.57 ( 0.54, 0.60 )	1.07 ( 1.01, 1.14 )	0.09 ( 0.07, 0.11 )	
	40	0.20 ( 0.19, 0.22 )	0.42 ( 0.40, 0.45 )	0.63 ( 0.59, 0.67 )	0.92 ( 0.86, 1.00 )	0.09 ( 0.07, 0.11 )	
	50	0.22 ( 0.20, 0.24 )	0.43 ( 0.40, 0.47 )	0.60 ( 0.56, 0.65 )	0.73 ( 0.67, 0.81 )	0.09 ( 0.07, 0.11 )	
	60	0.22 ( 0.19, 0.25 )	0.40 ( 0.36, 0.44 )	0.49 ( 0.44, 0.54 )	0.53 ( 0.47, 0.60 )	0.08 ( 0.07, 0.11 )	
	70	0.19 ( 0.17, 0.22 )	0.30 ( 0.26, 0.35 )	- ( - , - )	0.34 ( 0.29, 0.41 )	0.07 ( 0.05, 0.09 )	
80	0.13 ( 0.10, 0.17 )	- ( - , - )	- ( - , - )	0.18 ( 0.13, 0.26 )	0.05 ( 0.03, 0.08 )		

Devcan Version 7.0.0, April 2008, National Cancer Institute (<http://srab.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 17 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 and New Jersey). 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 and Kentucky. Underlying mortality data for Hispanics exclude deaths from Minnesota, New Hampshire and North Dakota.

- Statistic could not be calculated.

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

Table XXVI-10  
THYROID CANCER (Invasive)

SEER INCIDENCE AND U.S. MORTALITY  
AGE-ADJUSTED RATES AND TRENDS<sup>a</sup>  
 By Race/Ethnicity and Sex

<u>SEER Incidence</u>	Rate 2001-2005 <sup>b</sup>			Seer 13 Areas <sup>c</sup> Trend 1996-2005 AAPC (%)			SEER 9 Areas <sup>d</sup> Trend 1996-2005 AAPC (%)		
	Rate per 100,000 persons			Total Males Females			Total Males Females		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
RACE/ETHNICITY									
All Races	9.1	4.6	13.4	5.5*	5.3*	5.8*	5.9*	5.1*	6.4*
White	9.5	4.9	14.1	5.9*	5.2*	6.3*	6.4*	5.4*	6.8*
White Hispanic <sup>e</sup>	8.2	3.6	12.8	3.3*	2.9*	3.7*	-	-	-
White Non-Hispanic <sup>e</sup>	10.1	5.4	14.8	6.3*	5.7*	6.6*	-	-	-
Black	5.5	2.7	8.0	6.5*	6.7*	5.6*	4.4*	2.3*	4.7*
Asian/Pacific Islander	8.9	4.1	13.3	2.1*	0.8	2.4*	-	-	-
Amer Ind/Alaska Nat <sup>f</sup>	5.9	2.9	8.8	2.8	-	-	-	-	-
Hispanic <sup>e</sup>	8.0	3.5	12.5	3.5*	3.1*	3.9*	-	-	-
<u>U.S. Mortality<sup>g</sup></u>									
	Rate 2001-2005			Trend 1996-2005 <sup>h</sup>					
	Rate per 100,000 persons			AAPC (%)					
	Total	Males	Females	Total	Males	Females			
RACE/ETHNICITY									
All Races	0.5	0.5	0.5	0.5*	1.5*	0.5*			
White	0.5	0.5	0.5	0.5*	1.7*	0.4*			
White Hispanic <sup>e</sup>	0.6	0.6	0.6	-0.9	3.0*	-2.7*			
White Non-Hispanic <sup>e</sup>	0.5	0.5	0.4	0.7*	1.8*	0.2			
Black	0.5	0.4	0.5	1.0	1.7	0.9			
Asian/Pacific Islander	0.6	0.4	0.7	-2.7*	-	-2.8*			
Amer Ind/Alaska Nat									
Total U.S.	0.3	-	0.3	-	-	-			
CHSDA Counties	0.4	-	-	-	-	-			
Non-CHSDA Counties	-	-	-	-	-	-			
Hispanic <sup>e</sup>	0.6	0.5	0.6	-1.1	2.8*	-2.9*			

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 3.3, April 2008, 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).

Incidence data used in calculating the 2001-2005 rates are from the SEER 17 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 and New Jersey).

The SEER 13 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia. The 1996-2005 AAPC trends are based on a Joinpoint analysis using diagnosis years 1992-2005.

The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta. The 1996-2005 AAPC trends are based on a Joinpoint analysis using diagnosis years 1975-2005.

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 and Kentucky. The 2001-2005 Hispanic and Non-Hispanic death rates exclude deaths from Minnesota, New Hampshire and North Dakota. The 1996-2005 Hispanic and Non-Hispanic mortality trends exclude deaths from Connecticut, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma and Vermont.

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

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

The 1996-2005 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2005.

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



Table XXVI-11  
 THYROID CANCER (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>, 2001-2005</u>									
REGISTRY									
Atlanta & Rural Georgia	8.1	4.1	11.9	10.0	5.3	14.9	4.9	2.0	7.3
Atlanta	8.2	4.2	12.0	10.1	5.4	15.0	4.8	1.9	7.2
Rural Georgia	6.6	-	10.2	7.1	-	11.1	-	-	-
California	8.0	4.1	11.8	8.1	4.3	12.1	4.9	2.4	7.1
Greater Bay Area	7.1	3.4	10.9	7.1	3.4	10.9	4.0	2.3	5.5
San Francisco-Oakland	6.7	3.2	10.1	6.6	3.3	10.1	3.7	-	5.5
San Jose-Monterey	7.9	3.6	12.3	7.8	3.6	12.4	5.4	-	-
Los Angeles	8.6	4.5	12.6	9.0	4.8	13.2	5.2	2.5	7.4
Greater California	8.0	4.2	11.8	8.1	4.3	12.0	5.1	2.5	7.7
Connecticut	11.7	5.9	17.2	12.4	6.2	18.3	5.4	2.6	7.7
Detroit	8.9	5.1	12.6	9.9	5.4	14.5	6.3	4.1	8.2
Hawaii	10.6	5.0	16.2	7.5	4.3	11.3	-	-	-
Iowa	9.4	5.3	13.6	9.4	5.3	13.5	6.6	-	-
Kentucky	8.4	4.1	12.7	8.5	4.2	12.7	7.2	-	11.7
Louisiana	7.5	4.0	10.8	8.8	4.8	12.8	4.8	2.0	7.1
New Jersey	11.8	5.8	17.4	12.6	6.2	18.7	6.7	3.2	9.5
New Mexico	12.1	6.0	18.0	12.8	6.5	18.9	-	-	-
Seattle-Puget Sound	9.4	4.8	14.1	9.7	5.1	14.4	6.7	-	10.3
Utah	11.9	6.3	17.5	12.0	6.4	17.7	-	-	-
9 SEER Areas <sup>b</sup>	9.5	4.9	14.0	10.1	5.3	15.0	5.5	2.8	7.7
11 SEER Areas <sup>b</sup>	9.2	4.7	13.5	9.7	5.1	14.4	5.4	2.8	7.6
13 SEER Areas <sup>b</sup>	9.2	4.7	13.5	9.7	5.0	14.4	5.4	2.8	7.6
17 SEER Areas <sup>b</sup>	9.1	4.6	13.4	9.5	4.9	14.1	5.5	2.7	8.0

<sup>a</sup> Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130)  
<sup>b</sup> The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.  
 The SEER 11 areas comprise the SEER 9 areas plus San Jose-Monterey and Los Angeles.  
 The SEER 13 areas comprise the SEER 11 areas plus the Alaska Native Registry and Rural Georgia.  
 The SEER 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

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

Table XXVI-12  
 THYROID CANCER (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>, 2001-2005</u>									
REGISTRY									
Atlanta & Rural Georgia	0.4	-	0.4	0.4	-	0.5	-	-	-
Atlanta	0.4	-	0.4	0.4	-	0.5	-	-	-
Rural Georgia	-	-	-	-	-	-	-	-	-
California	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5
Greater Bay Area	0.5	0.4	0.5	0.4	0.4	0.4	-	-	-
San Francisco-Oakland	0.4	0.4	0.5	0.4	0.4	0.4	-	-	-
San Jose-Monterey	0.5	0.4	0.5	0.3	-	0.4	-	-	-
Los Angeles	0.6	0.5	0.7	0.6	0.6	0.6	0.5	-	-
Greater California	0.5	0.5	0.5	0.5	0.5	0.5	-	-	-
Connecticut	0.5	0.5	0.5	0.5	0.5	0.5	-	-	-
Detroit	0.5	0.5	0.4	0.5	0.5	0.5	-	-	-
Hawaii	0.5	-	0.5	-	-	-	-	-	-
Iowa	0.4	0.5	0.4	0.5	0.5	0.4	-	-	-
Kentucky	0.5	0.5	0.5	0.5	0.5	0.5	-	-	-
Louisiana	0.6	0.4	0.6	0.5	0.5	0.6	0.7	-	0.9
New Jersey	0.5	0.5	0.5	0.5	0.5	0.5	0.4	-	-
New Mexico	0.6	0.6	0.7	0.7	0.7	0.7	-	-	-
Seattle-Puget Sound	0.5	0.4	0.5	0.4	0.4	0.5	-	-	-
Utah	0.4	0.5	0.3	0.4	0.5	0.3	-	-	-
9 SEER Areas <sup>b</sup>	0.5	0.5	0.5	0.5	0.5	0.5	0.3	-	0.4
11 SEER Areas <sup>b</sup>	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.4
13 SEER Areas <sup>b</sup>	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4
17 SEER Areas <sup>b</sup>	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.5
Total U.S.	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5

<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 11 areas comprise the SEER 9 areas plus San Jose-Monterey and Los Angeles.

The SEER 13 areas comprise the SEER 11 areas plus the Alaska Native Registry and Rural Georgia.

The SEER 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

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

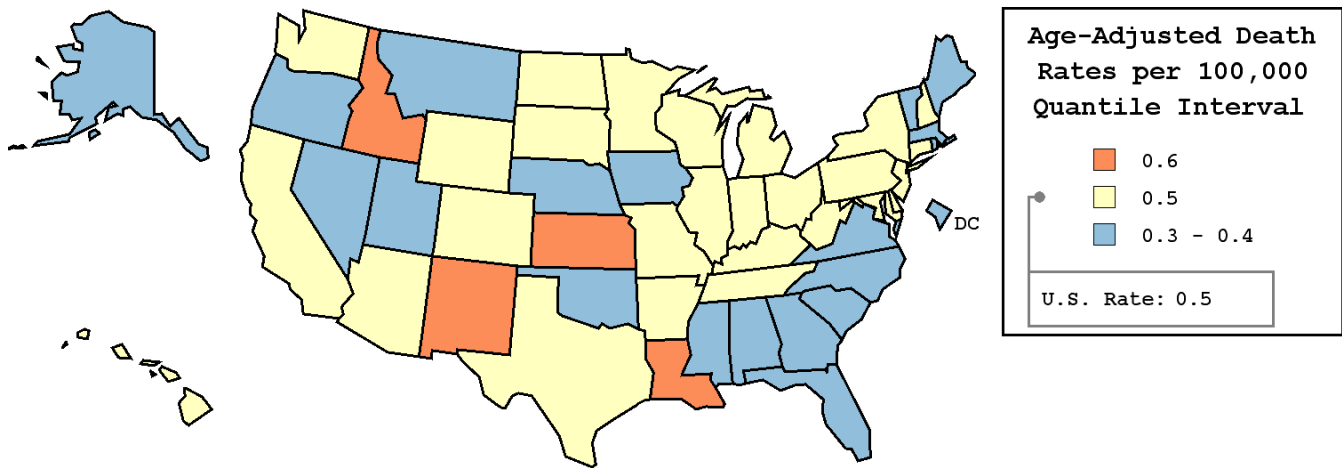
Table XXVI-13  
 THYROID CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER DEATH<sup>a</sup> RATES BY STATE, ALL RACES, 2001-2005

Males and Females

State	Rate	SE	Rank	PD
TOTAL U.S.	0.5	0.01		
High Five States				
New Mexico	0.6	0.08	(01)	20.0 <sup>c</sup>
Idaho	0.6	0.09	(02)	20.0 <sup>c</sup>
Kansas	0.6	0.06	(03)	20.0 <sup>c</sup>
Louisiana	0.6	0.05	(04)	20.0 <sup>c</sup>
Kentucky	0.5	0.05	(05)	0.0
Low Five States				
Nevada	0.4	0.06	(47)	-20.0 <sup>c</sup>
Rhode Island	0.4	0.08	(48)	-20.0 <sup>c</sup>
D.C.	0.3	0.11	(49)	-40.0 <sup>c</sup>
Vermont	0.3	0.09	(50)	-40.0 <sup>c</sup>
Alaska	0.3	0.14	(51)	-40.0 <sup>c</sup>

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	0.4	0.04	(46)	-20.0 <sup>c</sup>	Montana	0.4	0.09	(43)	-20.0 <sup>c</sup>
Alaska	0.3	0.14	(51)	-40.0 <sup>c</sup>	Nebraska	0.4	0.07	(35)	-20.0 <sup>c</sup>
Arizona	0.5	0.04	(07)	0.0	Nevada	0.4	0.06	(47)	-20.0 <sup>c</sup>
Arkansas	0.5	0.06	(12)	0.0	New Hampshire	0.5	0.09	(13)	0.0
California	0.5	0.02	(10)	0.0	New Jersey	0.5	0.03	(06)	0.0
Colorado	0.5	0.05	(27)	0.0	New Mexico	0.6	0.08	(01)	20.0 <sup>c</sup>
Connecticut	0.5	0.05	(09)	0.0	New York	0.5	0.02	(17)	0.0
Delaware	0.5	0.10	(24)	0.0	North Carolina	0.4	0.03	(44)	-20.0 <sup>c</sup>
D.C.	0.3	0.11	(49)	-40.0 <sup>c</sup>	North Dakota	0.5	0.11	(25)	0.0
Florida	0.4	0.02	(41)	-20.0 <sup>c</sup>	Ohio	0.5	0.03	(21)	0.0
Georgia	0.4	0.03	(45)	-20.0 <sup>c</sup>	Oklahoma	0.4	0.05	(32)	-20.0 <sup>c</sup>
Hawaii	0.5	0.08	(14)	0.0	Oregon	0.4	0.05	(39)	-20.0 <sup>c</sup>
Idaho	0.6	0.09	(02)	20.0 <sup>c</sup>	Pennsylvania	0.5	0.03	(22)	0.0
Illinois	0.5	0.03	(16)	0.0	Rhode Island	0.4	0.08	(48)	-20.0 <sup>c</sup>
Indiana	0.5	0.04	(28)	0.0	South Carolina	0.4	0.05	(38)	-20.0 <sup>c</sup>
Iowa	0.4	0.05	(33)	-20.0 <sup>c</sup>	South Dakota	0.5	0.10	(23)	0.0
Kansas	0.6	0.06	(03)	20.0 <sup>c</sup>	Tennessee	0.5	0.04	(20)	0.0
Kentucky	0.5	0.05	(05)	0.0	Texas	0.5	0.02	(08)	0.0
Louisiana	0.6	0.05	(04)	20.0 <sup>c</sup>	Utah	0.4	0.07	(34)	-20.0 <sup>c</sup>
Maine	0.4	0.07	(40)	-20.0 <sup>c</sup>	Vermont	0.3	0.09	(50)	-40.0 <sup>c</sup>
Maryland	0.5	0.04	(19)	0.0	Virginia	0.4	0.03	(42)	-20.0 <sup>c</sup>
Massachusetts	0.4	0.04	(36)	-20.0 <sup>c</sup>	Washington	0.5	0.04	(18)	0.0
Michigan	0.5	0.03	(11)	0.0	West Virginia	0.5	0.06	(26)	0.0
Minnesota	0.5	0.04	(30)	0.0	Wisconsin	0.5	0.04	(29)	0.0
Mississippi	0.4	0.06	(37)	-20.0 <sup>c</sup>	Wyoming	0.5	0.13	(31)	0.0
Missouri	0.5	0.04	(15)	0.0					



<sup>a</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
<sup>b</sup> Difference between state rate and total U.S. rate is statistically significant ( $p \leq .0002$ ).  
<sup>c</sup> Absolute percent difference between state rate and total U.S. rate is 15% or more.  
 SE Standard error of the rate.  
 PD Percent difference between state rate and total U.S. rate.

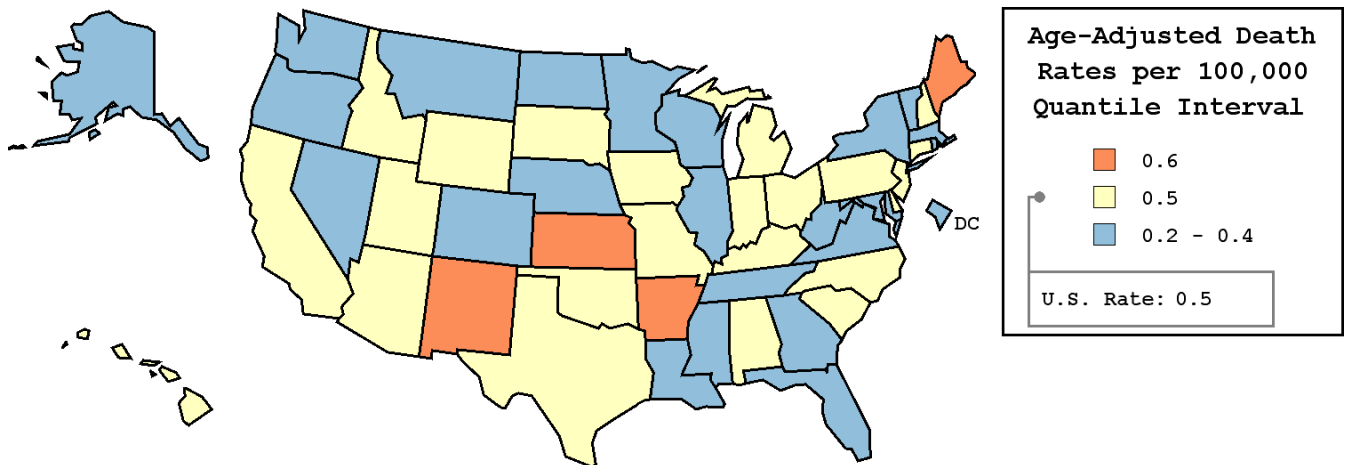
Table XXVI-14  
 THYROID CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER DEATH<sup>a</sup> RATES BY STATE, ALL RACES, 2001-2005

Males

State	Rate	SE	Rank	PD
TOTAL U.S.	0.5	0.01		
High Five States				
New Mexico	0.6	0.12	(01)	20.0 <sup>c</sup>
Arkansas	0.6	0.09	(02)	20.0 <sup>c</sup>
Maine	0.6	0.13	(03)	20.0 <sup>c</sup>
Kansas	0.6	0.10	(04)	20.0 <sup>c</sup>
Arizona	0.5	0.07	(05)	0.0
Low Five States				
Alaska	0.3	0.28	(47)	-40.0 <sup>c</sup>
Washington	0.3	0.05	(48)	-40.0 <sup>c</sup>
Vermont	0.3	0.15	(49)	-40.0 <sup>c</sup>
Minnesota	0.3	0.06	(50)	-40.0 <sup>c</sup>
Montana	0.2	0.10	(51)	-60.0 <sup>c</sup>

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	0.5	0.07	(21)	0.0	Montana	0.2	0.10	(51)	-60.0 <sup>c</sup>
Alaska	0.3	0.28	(47)	-40.0 <sup>c</sup>	Nebraska	0.3	0.09	(46)	-40.0 <sup>c</sup>
Arizona	0.5	0.07	(05)	0.0	Nevada	0.4	0.09	(40)	-20.0 <sup>c</sup>
Arkansas	0.6	0.09	(02)	20.0 <sup>c</sup>	New Hampshire	0.5	0.13	(25)	0.0
California	0.5	0.03	(23)	0.0	New Jersey	0.5	0.05	(13)	0.0
Colorado	0.4	0.07	(30)	-20.0 <sup>c</sup>	New Mexico	0.6	0.12	(01)	20.0 <sup>c</sup>
Connecticut	0.5	0.08	(19)	0.0	New York	0.4	0.03	(28)	-20.0 <sup>c</sup>
Delaware	0.5	0.16	(15)	0.0	North Carolina	0.5	0.06	(12)	0.0
D.C.	0.4	0.19	(42)	-20.0 <sup>c</sup>	North Dakota	0.4	0.16	(34)	-20.0 <sup>c</sup>
Florida	0.4	0.03	(36)	-20.0 <sup>c</sup>	Ohio	0.5	0.05	(14)	0.0
Georgia	0.4	0.05	(45)	-20.0 <sup>c</sup>	Oklahoma	0.5	0.08	(16)	0.0
Hawaii	0.5	0.12	(26)	0.0	Oregon	0.4	0.07	(39)	-20.0 <sup>c</sup>
Idaho	0.5	0.13	(18)	0.0	Pennsylvania	0.5	0.04	(27)	0.0
Illinois	0.4	0.04	(38)	-20.0 <sup>c</sup>	Rhode Island	0.4	0.13	(37)	-20.0 <sup>c</sup>
Indiana	0.5	0.07	(10)	0.0	South Carolina	0.5	0.08	(20)	0.0
Iowa	0.5	0.08	(22)	0.0	South Dakota	0.5	0.17	(09)	0.0
Kansas	0.6	0.10	(04)	20.0 <sup>c</sup>	Tennessee	0.4	0.06	(35)	-20.0 <sup>c</sup>
Kentucky	0.5	0.08	(07)	0.0	Texas	0.5	0.04	(06)	0.0
Louisiana	0.4	0.07	(29)	-20.0 <sup>c</sup>	Utah	0.5	0.12	(08)	0.0
Maine	0.6	0.13	(03)	20.0 <sup>c</sup>	Vermont	0.3	0.15	(49)	-40.0 <sup>c</sup>
Maryland	0.4	0.06	(32)	-20.0 <sup>c</sup>	Virginia	0.4	0.05	(43)	-20.0 <sup>c</sup>
Massachusetts	0.4	0.06	(31)	-20.0 <sup>c</sup>	Washington	0.3	0.05	(48)	-40.0 <sup>c</sup>
Michigan	0.5	0.05	(11)	0.0	West Virginia	0.4	0.10	(33)	-20.0 <sup>c</sup>
Minnesota	0.3	0.06	(50)	-40.0 <sup>c</sup>	Wisconsin	0.4	0.06	(41)	-20.0 <sup>c</sup>
Mississippi	0.4	0.08	(44)	-20.0 <sup>c</sup>	Wyoming	0.5	0.21	(24)	0.0
Missouri	0.5	0.06	(17)	0.0					



<sup>a</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
<sup>b</sup> Difference between state rate and total U.S. rate is statistically significant ( $p \leq .0002$ ).  
<sup>c</sup> Absolute percent difference between state rate and total U.S. rate is 15% or more.  
 SE Standard error of the rate.  
 PD Percent difference between state rate and total U.S. rate.

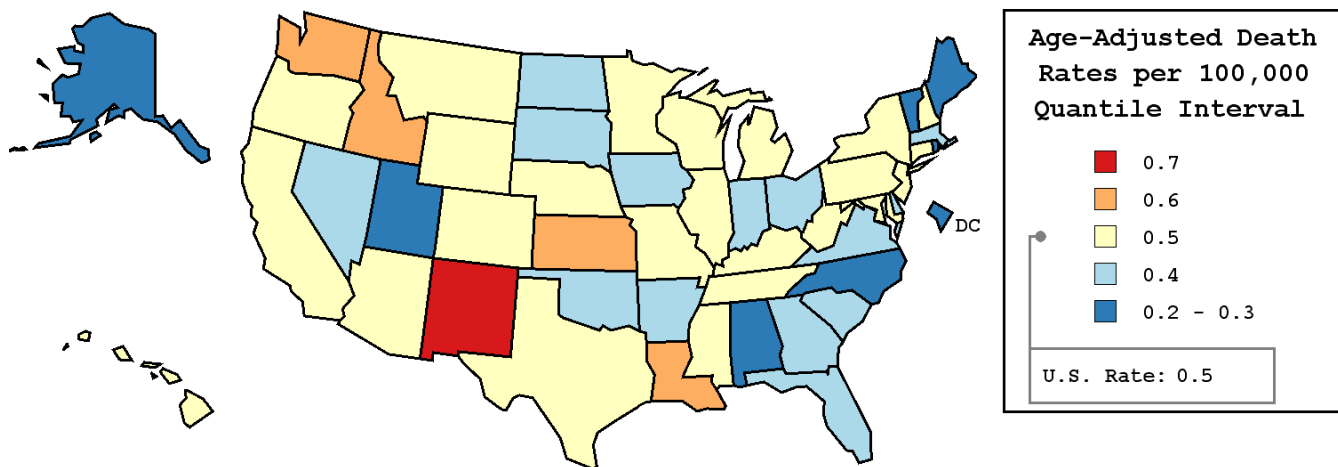
Table XXVI-15  
 THYROID CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER DEATH<sup>a</sup> RATES BY STATE, ALL RACES, 2001-2005

Females

State	Rate	SE	Rank	PD
TOTAL U.S.	0.5	0.01		
High Five States				
New Mexico	0.7	0.11	(01)	40.0 <sup>c</sup>
Louisiana	0.6	0.07	(02)	20.0 <sup>c</sup>
Idaho	0.6	0.13	(03)	20.0 <sup>c</sup>
Kansas	0.6	0.09	(04)	20.0 <sup>c</sup>
Washington	0.6	0.06	(05)	20.0 <sup>c</sup>
Low Five States				
North Carolina	0.3 <sup>b</sup>	0.04	(47)	-40.0 <sup>c</sup>
Maine	0.3	0.08	(48)	-40.0 <sup>c</sup>
D.C.	0.3	0.13	(49)	-40.0 <sup>c</sup>
Alaska	0.2	0.17	(50)	-60.0 <sup>c</sup>
Vermont	0.2	0.11	(51)	-60.0 <sup>c</sup>

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	0.3	0.05	(46)	-40.0 <sup>c</sup>	Montana	0.5	0.13	(11)	0.0
Alaska	0.2	0.17	(50)	-60.0 <sup>c</sup>	Nebraska	0.5	0.10	(23)	0.0
Arizona	0.5	0.06	(15)	0.0	Nevada	0.4	0.08	(43)	-20.0 <sup>c</sup>
Arkansas	0.4	0.07	(31)	-20.0 <sup>c</sup>	New Hampshire	0.5	0.12	(14)	0.0
California	0.5	0.02	(12)	0.0	New Jersey	0.5	0.05	(07)	0.0
Colorado	0.5	0.07	(28)	0.0	New Mexico	0.7	0.11	(01)	40.0 <sup>c</sup>
Connecticut	0.5	0.07	(08)	0.0	New York	0.5	0.03	(18)	0.0
Delaware	0.4	0.12	(40)	-20.0 <sup>c</sup>	North Carolina	0.3 <sup>b</sup>	0.04	(47)	-40.0 <sup>c</sup>
D.C.	0.3	0.13	(49)	-40.0 <sup>c</sup>	North Dakota	0.4	0.14	(30)	-20.0 <sup>c</sup>
Florida	0.4	0.03	(37)	-20.0 <sup>c</sup>	Ohio	0.4	0.03	(33)	-20.0 <sup>c</sup>
Georgia	0.4	0.04	(38)	-20.0 <sup>c</sup>	Oklahoma	0.4	0.06	(41)	-20.0 <sup>c</sup>
Hawaii	0.5	0.12	(09)	0.0	Oregon	0.5	0.07	(29)	0.0
Idaho	0.6	0.13	(03)	20.0 <sup>c</sup>	Pennsylvania	0.5	0.03	(27)	0.0
Illinois	0.5	0.04	(06)	0.0	Rhode Island	0.3	0.09	(45)	-40.0 <sup>c</sup>
Indiana	0.4	0.05	(36)	-20.0 <sup>c</sup>	South Carolina	0.4	0.06	(39)	-20.0 <sup>c</sup>
Iowa	0.4	0.06	(35)	-20.0 <sup>c</sup>	South Dakota	0.4	0.13	(42)	-20.0 <sup>c</sup>
Kansas	0.6	0.09	(04)	20.0 <sup>c</sup>	Tennessee	0.5	0.05	(21)	0.0
Kentucky	0.5	0.07	(10)	0.0	Texas	0.5	0.03	(16)	0.0
Louisiana	0.6	0.07	(02)	20.0 <sup>c</sup>	Utah	0.3	0.08	(44)	-40.0 <sup>c</sup>
Maine	0.3	0.08	(48)	-40.0 <sup>c</sup>	Vermont	0.2	0.11	(51)	-60.0 <sup>c</sup>
Maryland	0.5	0.06	(19)	0.0	Virginia	0.4	0.05	(34)	-20.0 <sup>c</sup>
Massachusetts	0.4	0.05	(32)	-20.0 <sup>c</sup>	Washington	0.6	0.06	(05)	20.0 <sup>c</sup>
Michigan	0.5	0.04	(24)	0.0	West Virginia	0.5	0.09	(25)	0.0
Minnesota	0.5	0.06	(13)	0.0	Wisconsin	0.5	0.06	(17)	0.0
Mississippi	0.5	0.08	(26)	0.0	Wyoming	0.5	0.19	(20)	0.0
Missouri	0.5	0.05	(22)	0.0					



<sup>a</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
<sup>b</sup> Difference between state rate and total U.S. rate is statistically significant ( $p \leq .0002$ ).  
<sup>c</sup> Absolute percent difference between state rate and total U.S. rate is 15% or more.  
 SE Standard error of the rate.  
 PD Percent difference between state rate and total U.S. rate.

Table XXVI-16  
 THYROID CANCER (Invasive)

Estimated United States Cancer Prevalence Counts<sup>a</sup> on January 1, 2005  
 By Race/Ethnicity, Sex and Years Since Diagnosis

Years Since Diagnosis	0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	25 to <30	0 to <15 <sup>e</sup>	0 to <30 <sup>e</sup>	>=30 <sup>g</sup>	Complete <sup>h</sup>
<b>Race/Sex</b>										
All Races <sup>b</sup>	111,720	75,355	54,707	41,816	31,647	28,938	241,781	344,182	44,204	388,386
Males	24,952	16,619	12,751	9,163	6,611	6,520	54,322	76,616	10,304	86,920
Females	86,768	58,736	41,956	32,653	25,036	22,418	187,459	267,566	33,900	301,466
White <sup>b</sup>	97,772	66,163	48,807	37,480	28,642	26,087	212,741	304,950	40,017	344,967
Males	22,349	15,081	11,638	8,451	5,899	6,057	49,068	69,475	8,737	78,212
Females	75,423	51,082	37,169	29,029	22,743	20,030	163,673	235,475	31,280	266,755
Black <sup>b</sup>	6,893	4,203	2,917	1,867	1,447	1,408	14,014	18,734	1,822	20,556
Males	1,350	625	615	308	330	137	2,591	3,365	202	3,567
Females	5,543	3,578	2,302	1,559	1,117	1,271	11,423	15,369	1,620	16,989
Asian/Pacific Islander <sup>c</sup>	4,965	3,328	2,238	+	+	+	10,531	+	+	+
Males	927	589	377	+	+	+	1,893	+	+	+
Females	4,038	2,739	1,861	+	+	+	8,638	+	+	+
Hispanic <sup>d</sup>	9,996	6,145	4,401	+	+	+	20,542	+	+	+
Males	1,773	1,084	765	+	+	+	3,622	+	+	+
Females	8,223	5,061	3,636	+	+	+	16,920	+	+	+

Estimated prevalence percent<sup>a</sup> on January 1, 2005, of the SEER 11 population diagnosed in the previous 15 years  
 By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence	Age Specific (Crude)										Age-Adjusted <sup>f</sup>
	All Ages	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	All Ages
<b>Race/Sex</b>											
All Races <sup>c</sup>	0.0785%	0.0001%	0.0038%	0.0332%	0.0921%	0.1340%	0.1511%	0.1535%	0.1293%	0.0928%	0.0783%
Males	0.0349%	-	0.0012%	0.0091%	0.0313%	0.0514%	0.0738%	0.0951%	0.0848%	0.0677%	0.0364%
Females	0.1212%	-	0.0065%	0.0588%	0.1547%	0.2163%	0.2246%	0.2061%	0.1634%	0.1067%	0.1187%
White <sup>c</sup>	0.0845%	0.0001%	0.0041%	0.0367%	0.1018%	0.1464%	0.1578%	0.1561%	0.1302%	0.0914%	0.0831%
Males	0.0386%	-	0.0014%	0.0097%	0.0349%	0.0570%	0.0796%	0.0995%	0.0895%	0.0693%	0.0392%
Females	0.1304%	-	0.0069%	0.0665%	0.1738%	0.2381%	0.2342%	0.2085%	0.1621%	0.1035%	0.1272%
Black <sup>c</sup>	0.0357%	-	0.0015%	0.0129%	0.0405%	0.0569%	0.0835%	0.1093%	0.0807%	0.0558%	0.0408%
Males	0.0143%	-	-	0.0043%	0.0129%	0.0180%	0.0368%	0.0603%	0.0544%	0.0350%	0.0184%
Females	0.0551%	-	0.0020%	0.0210%	0.0648%	0.0910%	0.1222%	0.1475%	0.0981%	0.0658%	0.0593%
Asian/Pacific Islander <sup>c</sup>	0.0798%	-	0.0040%	0.0319%	0.0797%	0.1250%	0.1571%	0.1656%	0.1501%	0.1263%	0.0787%
Males	0.0299%	-	-	0.0103%	0.0249%	0.0433%	0.0599%	0.0877%	0.0687%	0.0719%	0.0313%
Females	0.1265%	-	0.0079%	0.0532%	0.1315%	0.1997%	0.2421%	0.2310%	0.2092%	0.1625%	0.1203%
Hispanic <sup>d</sup>	0.0492%	-	0.0039%	0.0249%	0.0638%	0.1071%	0.1305%	0.1447%	0.1270%	0.1056%	0.0664%
Males	0.0166%	-	0.0009%	0.0051%	0.0200%	0.0283%	0.0525%	0.0833%	0.0618%	0.0687%	0.0262%
Females	0.0837%	-	0.0070%	0.0487%	0.1144%	0.1900%	0.2036%	0.1962%	0.1740%	0.1269%	0.1058%

<sup>a</sup> US 2005 cancer prevalence counts are based on 2005 cancer prevalence proportions from the SEER registries and 1/1/2005 US population estimates based on the average of 2004 and 2005 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

<sup>b c d</sup> Statistics based on (b) SEER 9 Areas (c) SEER 11 Areas and Rural Georgia (d) NHIA for Hispanic for SEER 11 Areas and Rural Georgia.

<sup>e</sup> Maximum limited-duration prevalence: 30 years for 1975-2005 SEER 9 data; 15 years for 1990-2005 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).

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

<sup>g h</sup> (g) Cases diagnosed more than 30 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 <30 and >=30.

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

+ Not available.

Table XXVI-17

THYROID CANCER(Invasive)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2001-2005  
Both Sexes by Race

Histology <sup>a</sup>	All Races		White		Black		API		AI/AN		Hispanic <sup>b</sup>	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Carcinoma	33,656	99.8%	27,993	99.8%	1,995	99.7%	3,121	99.9%	147	99.3%	4,632	99.7%
Epidermoid carcinoma <sup>c</sup> (8051-8131)	46	0.1%	37	0.1%	-	-	-	-	-	-	-	-
Adenocarcinoma <sup>d</sup>	32,466	96.2%	26,995	96.2%	1,905	95.2%	3,043	97.4%	144	97.3%	4,497	96.8%
Papillary adenocarcinoma (8050,8260,8340-8344, 8350,8450)	28,669	85.0%	23,898	85.2%	1,576	78.7%	2,728	87.3%	129	87.2%	4,079	87.8%
Follicular carcinoma (8330-8332,8335)	2,247	6.7%	1,785	6.4%	223	11.1%	207	6.6%	-	-	247	5.3%
Oxyphilic (8290)	1,147	3.4%	973	3.5%	85	4.2%	69	2.2%	-	-	120	2.6%
Other specific carcinomas <sup>e</sup>	561	1.7%	490	1.7%	38	1.9%	23	0.7%	-	-	67	1.4%
Medullary carcinoma (8510,8511)	526	1.6%	461	1.6%	35	1.7%	21	0.7%	-	-	61	1.3%
Carcinoma, NOS (8004,8010-8012, 8020-8022,8030-8032)	583	1.7%	471	1.7%	49	2.4%	50	1.6%	-	-	64	1.4%
Anaplastic carcinoma (8004,8012,8020-8021, 8030-8032)	367	1.1%	300	1.1%	30	1.5%	33	1.1%	-	-	35	0.8%
Sarcoma and other soft tissue tumors (8680-8713,8800-8921, 8990-8991,9040-9044, 9120-9136,9150-9252, 9370-9373,9540-9582)	-	-	-	-	-	-	-	-	-	-	-	-
Other specific types <sup>f</sup>	-	-	-	-	-	-	-	-	-	-	-	-
Unspecified (8000-8003,8005)	65	0.2%	52	0.2%	-	-	-	-	-	-	-	-
Total	33,737	100.0%	28,058	100.0%	2,002	100.0%	3,125	100.0%	148	100.0%	4,645	100.0%

Source: SEER 17 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 and New Jersey). Percents may not sum to 100 due to rounding.

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

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

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

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

<sup>d</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, 8030-8046, 8150-8155, 8170-8171, 8230-8249, 8510-8512, 8561-8562, 8575, 8580-8671.

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

# SEER Incidence, Delay Adjusted Incidence and US Death Rates<sup>a</sup> Thyroid Cancer, by Race and Sex

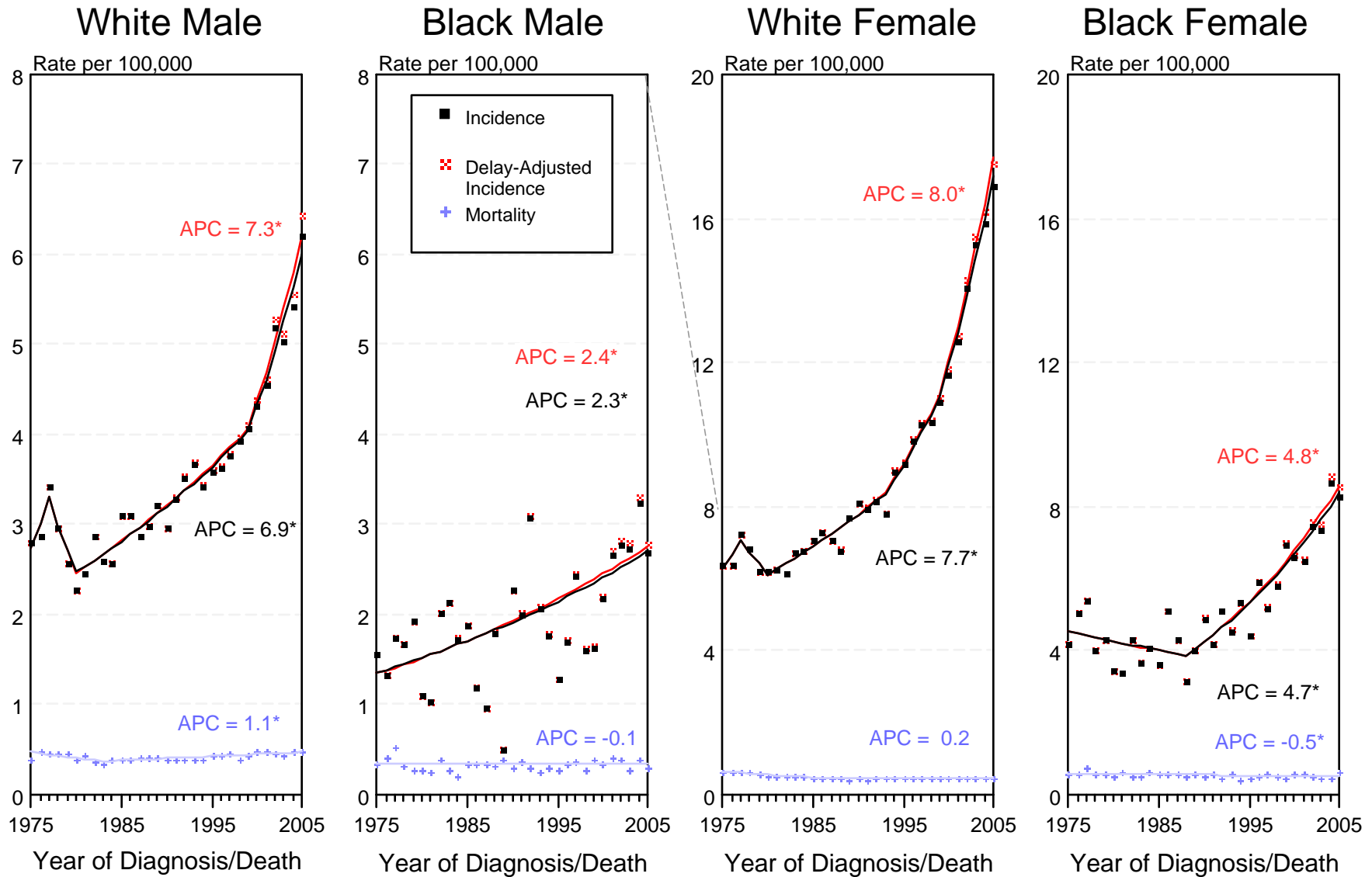


Figure XXVI-1

<sup>a</sup> Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.3.1, April 2008, 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 ( $p < 0.05$ ).



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

Joinpoint Analyses for Whites and Blacks from 1975-2005

and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2005

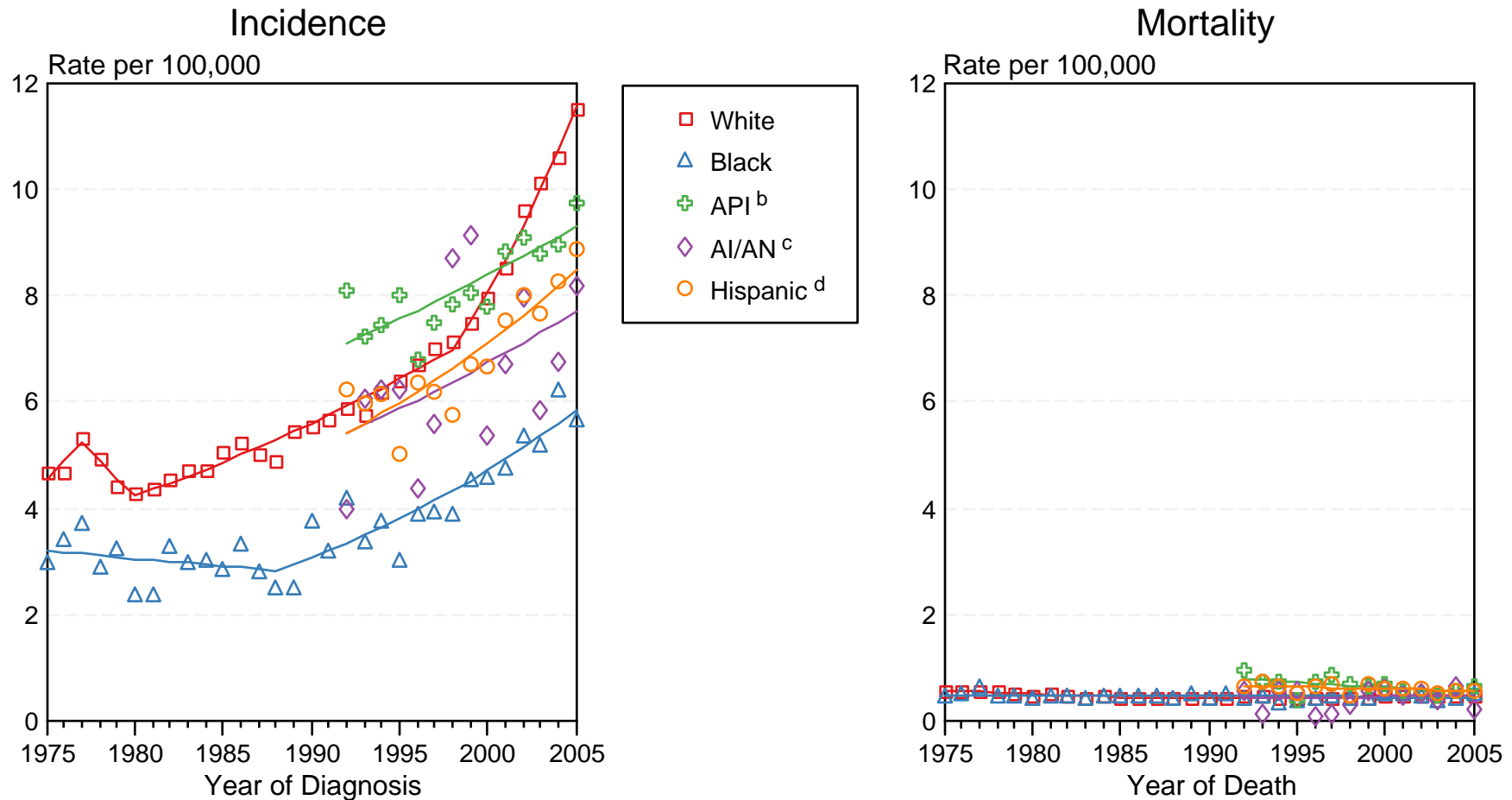


Figure XXVI-2

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 3.3.1, April 2008, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2005 period allow a maximum of 4 joinpoints. Analyses for other ethnic groups during the period 1992-2005 allow a maximum of 3 joinpoints.

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

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

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