

Table XXVI-1
THYROID CANCER (Invasive)

TRENDS IN SEER INCIDENCE^a AND U.S. MORTALITY^b USING THE JOINPOINT REGRESSION PROGRAM, 1975-2002
WITH UP TO THREE JOINPOINTS BY RACE AND SEX

		<u>Joinpoint Segment 1</u>		<u>Joinpoint Segment 2</u>		<u>Joinpoint Segment 3</u>		<u>Joinpoint Segment 4</u>	
		<u>Year</u>	<u>APC</u>	<u>Year</u>	<u>APC</u>	<u>Year</u>	<u>APC</u>	<u>Year</u>	<u>APC</u>
<u>SEER Cancer Incidence^a</u>									
All Races	Male and Female	1975-1977	6.1	1977-1980	-6.4	1980-1996	2.3 ^c	1996-2002	5.6 ^c
All Races	Male	1975-1977	5.6	1977-1980	-8.8	1980-2000	2.1 ^c	2000-2002	10.4
All Races	Female	1975-1977	6.4	1977-1980	-4.9	1980-1993	2.1 ^c	1993-2002	5.0 ^c
White	Male and Female	1975-1977	7.4	1977-1980	-6.9	1980-1998	2.8 ^c	1998-2002	7.5 ^c
White	Male	1975-1977	9.6	1977-1980	-9.2	1980-1999	2.6 ^c	1999-2002	7.2 ^c
White	Female	1975-1981	-1.0	1981-1993	2.2 ^c	1993-2002	5.5 ^c		
Black	Male and Female	1975-1988	-0.8	1988-2002	3.9 ^c				
Black	Male	1975-2002	1.8 ^c						
Black	Female	1975-1988	-1.1	1988-2002	4.3 ^c				
<u>SEER Delay-Adjusted Incidence^a</u>									
All Races	Male and Female	1975-1977	6.3	1977-1980	-6.9	1980-1998	2.5 ^c	1998-2002	7.7 ^c
All Races	Male	1975-1977	5.6	1977-1980	-8.9	1980-2000	2.2 ^c	2000-2002	11.6
All Races	Female	1975-1981	-1.2	1981-1993	2.0 ^c	1993-2002	5.3 ^c		
White	Male and Female	1975-1977	7.4	1977-1980	-7.0	1980-1998	2.9 ^c	1998-2002	8.4 ^c
White	Male	1975-1977	9.7	1977-1980	-9.3	1980-1999	2.7 ^c	1999-2002	8.5 ^c
White	Female	1975-1981	-1.0	1981-1993	2.2 ^c	1993-2002	5.9 ^c		
Black	Male and Female	1975-1988	-0.8	1988-2002	4.2 ^c				
Black	Male	1975-2002	2.0 ^c						
Black	Female	1975-1988	-1.1	1988-2002	4.5 ^c				
<u>U.S. Cancer Mortality^b</u>									
All Races	Male and Female	1975-1977	1.8	1977-1983	-3.7 ^c	1983-1995	-0.2	1995-2002	1.2 ^c
All Races	Male	1975-1983	-2.9 ^c	1983-2002	1.1 ^c				
All Races	Female	1975-1988	-2.5 ^c	1988-2002	0.2				
White	Male and Female	1975-1988	-2.2 ^c	1988-2002	0.7 ^c				
White	Male	1975-1983	-2.9 ^c	1983-2002	1.1 ^c				
White	Female	1975-1988	-2.7 ^c	1988-2002	0.2				
Black	Male and Female	1975-2002	-0.4						
Black	Male	1975-2002	-0.1						
Black	Female	1975-2002	-0.6 ^c						

Joinpoint Regression Program Version 3.0, April 2005, 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).

^a Trends are from the SEER 9 areas.

^b Trends are from the NCHS public use data file for the total US.

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

Table XXVI-2
 THYROID CANCER (Invasive)

SEER INCIDENCE RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES^a, BY RACE AND SEX

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>AGE-ADJUSTED RATES</u>									
YEAR OF DIAGNOSIS:									
1975	4.8	3.1	6.4	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	5.4	3.4	7.2	3.7	-	5.3
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	6.2	2.5	-	3.6
1982	4.6	3.0	6.1	4.5	2.9	6.1	3.3	-	4.3
1983	4.7	2.8	6.5	4.7	2.6	6.7	3.0	-	3.7
1984	4.8	2.6	6.9	4.7	2.6	6.8	3.0	-	4.0
1985	5.1	3.1	7.1	5.1	3.1	7.1	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	3.0	6.9	4.9	3.0	6.8	2.5	-	3.2
1989	5.3	3.0	7.6	5.5	3.2	7.7	2.5	-	4.0
1990	5.5	2.9	7.9	5.5	2.9	8.0	3.8	-	5.0
1991	5.4	3.2	7.6	5.6	3.3	7.9	3.1	-	4.2
1992	5.9	3.5	8.1	5.9	3.5	8.1	4.2	3.1	5.1
1993	5.6	3.6	7.6	5.7	3.7	7.7	3.3	-	4.4
1994	6.1	3.4	8.7	6.2	3.4	9.0	3.8	-	5.3
1995	6.2	3.4	8.9	6.4	3.6	9.2	2.9	-	4.3
1996	6.5	3.5	9.4	6.7	3.6	9.8	3.7	-	5.6
1997	6.7	3.7	9.7	7.0	3.7	10.3	3.9	2.4	5.2
1998	6.9	3.7	10.0	7.1	4.0	10.3	3.9	-	5.7
1999	7.3	3.9	10.6	7.5	4.1	10.9	4.6	-	6.9
2000	7.5	4.0	11.0	8.0	4.3	11.7	4.5	-	6.4
2001	8.1	4.3	11.9	8.5	4.5	12.6	4.7	2.7	6.4
2002	9.0	4.8	13.1	9.4	5.0	13.9	5.3	2.7	7.4
<u>AGE-ADJUSTED RATES, 1998-2002</u>									
AGE AT DIAGNOSIS:									
All ages	7.8	4.1	11.3	8.1	4.4	11.9	4.6	2.2	6.6
Under 65	7.3	3.5	11.0	7.7	3.7	11.7	3.8	1.5	5.8
65 and over	11.5	8.7	13.6	11.3	8.9	13.1	10.1	6.8	12.1
All ages(IARC world std) ^b	6.4	3.3	9.5	6.7	3.5	10.0	3.6	1.6	5.2
<u>AGE-SPECIFIC RATES, 1998-2002</u>									
AGE AT DIAGNOSIS:									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	0.5	-	0.8	0.5	-	0.9	-	-	-
15-19	2.0	0.7	3.3	2.3	0.9	3.8	-	-	-
20-24	4.5	1.2	7.9	5.2	1.4	9.3	-	-	-
25-29	7.6	2.9	12.5	8.4	3.3	13.9	2.4	-	3.8
30-34	9.4	3.2	15.8	10.1	3.6	17.0	5.0	-	8.3
35-39	10.9	4.5	17.3	11.8	4.8	19.1	5.0	-	7.6
40-44	11.6	4.9	18.1	12.5	5.6	19.4	4.4	-	7.0
45-49	12.0	6.0	17.9	12.3	6.4	18.3	6.7	-	10.8
50-54	13.0	6.9	18.8	13.3	7.5	18.9	8.9	-	12.5
55-59	13.7	9.3	17.8	13.5	9.5	17.4	9.7	-	13.5
60-64	13.3	9.4	16.9	13.4	9.5	17.1	10.4	-	15.5
65-69	13.6	10.7	16.0	13.5	11.4	15.4	8.8	-	-
70-74	11.8	8.2	14.7	11.5	8.4	14.0	11.5	-	-
75-79	12.1	9.3	14.0	12.0	9.6	13.7	-	-	-
80-84	9.8	7.5	11.1	9.5	7.4	10.9	-	-	-
85+	7.4	5.7	8.2	7.0	5.3	7.7	-	-	-

^a SEER 9 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

^b SEER 9 areas. Rates are per 100,000 and are age-adjusted to the IARC world standard population.

- Statistic not shown. Rate based on less than 25 cases for the time interval.

Table XXVI-3
 THYROID CANCER (Invasive)

U.S. DEATH RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES^a, BY RACE AND SEX

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>AGE-ADJUSTED RATES</u>									
YEAR OF DEATH:									
1975	0.5	0.4	0.6	0.5	0.4	0.6	0.5	-	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	-	0.6
1979	0.5	0.4	0.6	0.5	0.5	0.6	0.5	-	0.6
1980	0.5	0.4	0.5	0.5	0.4	0.5	0.4	-	0.5
1981	0.5	0.4	0.5	0.5	0.4	0.5	0.5	-	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	-	0.5
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	-	0.6
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
<u>AGE-ADJUSTED RATES, 1998-2002</u>									
AGE AT DEATH:									
All ages	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.5
Under 65	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2
65 and over	2.6	2.4	2.7	2.6	2.5	2.7	2.6	1.8	3.0
All ages(IARC world std) ^b	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3
<u>AGE-SPECIFIC RATES, 1998-2002</u>									
AGE AT DEATH:									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-
30-34	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	-	-
50-54	0.4	0.4	0.3	0.3	0.4	0.3	0.5	-	0.6
55-59	0.7	0.7	0.7	0.7	0.7	0.6	0.7	-	0.7
60-64	1.1	1.1	1.0	1.1	1.1	1.0	1.2	1.1	1.2
65-69	1.5	1.5	1.4	1.4	1.5	1.3	1.5	-	1.6
70-74	2.0	2.0	2.0	2.0	2.1	1.9	2.0	-	2.2
75-79	3.0	2.8	3.1	2.9	2.9	3.0	3.1	-	3.9
80-84	3.7	3.5	3.9	3.7	3.6	3.7	3.8	-	4.6
85+	4.7	3.6	5.2	4.8	3.6	5.3	4.0	-	4.3

^a NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

^b NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the IARC world standard population.

- Statistic not shown. Rate based on less than 25 cases for the time interval.

Table XXVI-4
 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
5-YR RELATIVE SURVIVAL RATES									
YEAR OF DIAGNOSIS:									
1960-1963 ^a	-	-	-	83	75	87	-	-	-
1970-1973 ^a	-	-	-	86	82	87	-	-	-
1974-1976 ^b	92.1	90.3	92.7	92.0	90.5	92.5	87.8	75.8 ^f	90.7
1977-1979 ^b	92.6	89.6	93.4	92.3	90.2	92.8	91.3	66.5 ^f	96.2
1980-1982 ^b	94.4	91.7	95.2	93.9	90.9	94.7	94.4	93.1 ^e	94.1
1983-1985 ^b	93.4	89.9	94.6	93.4	89.0	94.5	91.1	91.4 ^e	90.3
1986-1988 ^b	95.4	93.5	95.9	95.2	93.3	95.7	92.3	88.1 ^e	92.7
1989-1991 ^b	95.2	91.2	96.3	95.4	92.1	96.3	88.3	84.7 ^e	89.2
1992-1994 ^b	95.2	92.6	96.0	95.5	92.7	96.4	92.1	90.7 ^e	92.1
1995-2001 ^b	96.6 ^d	93.9	97.4 ^d	96.9 ^d	94.4	97.7 ^d	94.8	89.2	95.4
1995-2001 ^b									
All Stages	96.6	93.9	97.4	96.9	94.4	97.7	94.8	89.2	95.4
Localized	99.5	99.1	99.6	99.8	99.6	99.8	97.4	95.8 ^e	97.5
Regional	96.4	94.7	97.0	96.7	95.3	97.2	94.9	94.5 ^e	94.7
Distant	60.0	58.3	61.0	60.4	58.3	61.8	56.7 ^e	-	62.9 ^f
Unstaged	85.4	80.6 ^e	86.7	85.1	77.2 ^e	87.4	-	-	-
5-YR PERIOD SURVIVAL RATES^{bc}									
YEAR OF DIAGNOSIS:									
1995-2001	96.9	94.7	97.4	97.3	95.0	97.8	93.1	87.2	93.6
STAGE DISTRIBUTION (%) 1995-2001^b									
All Stages									
Number of cases	11,443	2,739	8,704	9,497	2,367	7,130	638	112	526
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	58	47	61	58	47	62	60	50	63
Regional	35	42	33	35	43	32	30	32	30
Distant	5	9	4	5	8	4	7	15	5
Unstaged	2	2	2	2	2	2	2	3	2
5-YR RELATIVE SURVIVAL RATES, 1995-2001^b									
AGE AT DIAGNOSIS:									
<45	99.3	98.0	99.6	99.4	98.4	99.6	98.3	89.8 ^e	99.3
45-54	98.1	95.7	98.8	98.7	97.1	99.1	91.2	78.9 ^e	93.2
55-64	93.7	89.1	95.7	93.6	89.0	95.7	98.4	-	97.4
65-74	90.2	87.5	90.9	90.7	87.4	91.9	87.1 ^e	-	88.2 ^e
75+	75.0	69.3 ^e	75.5	77.4	68.1 ^e	78.4	57.8 ^f	-	53.9 ^f
Under 65	98.3	95.7	98.9	98.4	96.2	99.1	96.9	89.5	98.2
65 and over	85.4	84.0	85.4	86.5	83.6	86.9	78.7 ^e	-	76.6 ^e

^a Rates are based on End Results data from a series of hospital registries and one population-based registry.
^b 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 2002.
^c 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 (1999-2001: 0-1 year survival), (1998-2000: 1-2 year survival), (1997-1999: 2-3 year survival), (1996-1998: 3-4 year survival), (1995-1997: 4-5 years survival).
^d The difference in rates between 1974-1976 and 1995-2001 is statistically significant (p<.05).
^e The standard error of the survival rate is between 5 and 10 percentage points.
^f The standard error of the survival rate is greater than 10 percentage points.
 - Statistic could not be calculated.

Table XXVI-5
THYROID CANCER (Invasive)

SURVIVAL RATES^a

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
Relative Survival Rates (SEER ^b)																			
1-year	94.9	95.2	96.2	96.2	96.0	96.2	95.7	96.6	96.7	95.6	95.3	97.5	96.8	97.0	96.5	97.8	97.3	97.7	97.7
2-year	93.7	94.8	95.1	95.5	95.9	95.8	95.2	96.3	96.1	94.8	95.0	97.1	96.4	96.8	96.1	97.4	97.1	97.3	
3-year	93.2	94.2	93.9	95.3	95.7	95.6	94.6	95.8	95.8	94.4	95.0	96.6	96.4	96.4	96.1	97.3	97.1		
4-year	93.1	94.1	93.8	95.0	95.7	95.3	94.1	95.8	95.4	94.3	95.0	96.4	96.4	95.9	96.0	96.9			
5-year	92.9	94.1	93.1	94.9	95.7	95.3	94.1	95.8	94.9	93.5	95.0	96.3	96.4	95.6	95.9				
6-year	92.9	94.1	93.1	94.7	95.6	95.3	94.1	95.7	94.7	93.5	95.0	96.0	96.4	95.6					
7-year	92.9	93.8	93.1	93.8	95.1	95.3	94.1	95.6	94.4	93.5	95.0	96.0	96.4						
8-year	92.8	93.8	93.1	93.6	95.1	95.3	94.1	95.6	94.4	93.5	95.0	95.5							
9-year	92.8	93.8	92.7	93.6	95.1	95.3	94.1	95.6	94.4	93.5	95.0								
10-year	92.8	93.6	92.6	93.6	95.1	95.3	94.1	95.3	94.4	93.5									
11-year	92.8	93.4	92.6	93.4	95.1	95.3	94.1	95.0	94.4										
12-year	92.8	93.2	92.5	93.4	95.1	95.3	94.1	95.0											
13-year	92.8	93.1	92.5	93.3	95.1	95.3	94.1												
14-year	92.8	93.1	92.5	93.3	95.1	95.0													
15-year	92.8	93.0	92.5	93.0	95.1														
16-year	92.8	92.9	92.5	93.0															
17-year	92.8	92.9	92.4																
18-year	92.8	92.9																	
19-year	92.8																		
20-year	92.8																		

^a Survival rates are relative rates expressed as percents.
^b Rates are from the SEER 9 areas.

Table XXVI-6
THYROID CANCER (Invasive)

SURVIVAL RATES^a

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
Relative Survival Rates (SEER ^b)																			
1-year	94.6	92.6	94.6	96.7	97.5	91.9	94.5	93.9	95.3	94.0	93.4	96.8	93.8	94.1	92.2	97.2	97.2	96.7	96.3
2-year	92.9	92.2	93.8	94.4	97.3	91.1	92.9	92.7	92.6	92.9	92.9	95.8	92.2	94.1	90.9	95.9	96.6	95.8	
3-year	92.1	91.2	92.8	94.4	97.0	90.3	92.9	91.9	91.6	92.0	92.7	95.4	92.2	93.1	90.9	95.5	96.6		
4-year	91.4	91.1	91.8	94.0	96.9	89.3	91.0	91.9	91.3	91.7	91.3	95.2	92.2	92.9	90.1	94.8			
5-year	91.1	91.0	89.5	94.0	96.9	89.2	90.6	91.9	90.0	91.1	91.3	94.8	92.2	91.2	89.5				
6-year	91.1	91.0	89.5	93.6	96.1	89.2	90.6	91.5	89.3	91.1	91.3	94.8	92.2	91.2					
7-year	91.1	90.7	89.5	92.0	92.8	89.2	90.6	91.5	88.5	91.1	91.3	94.6	91.3						
8-year	91.1	90.7	88.5	91.4	92.6	88.8	90.6	91.5	88.4	91.1	91.3	93.9							
9-year	91.1	90.4	87.9	90.6	91.6	87.8	90.6	91.5	88.4	91.1	91.3								
10-year	91.1	89.9	87.9	90.6	89.4	87.8	90.6	91.5	88.4	91.1									
11-year	90.5	89.6	87.9	90.2	88.9	87.8	90.6	91.5	88.4										
12-year	90.5	89.1	87.9	90.2	88.9	87.8	90.6	91.5											
13-year	90.5	88.8	87.9	89.9	88.9	87.8	90.6												
14-year	90.5	88.8	87.9	89.9	88.9	87.8													
15-year	90.5	88.6	87.9	89.9	88.9														
16-year	90.5	88.6	87.9	89.9															
17-year	90.5	88.6	87.9																
18-year	90.5	88.6																	
19-year	90.5																		
20-year	90.5																		

^a Survival rates are relative rates expressed as percents.
^b Rates are from the SEER 9 areas.

Table XXVI-7
 THYROID CANCER (Invasive)

SURVIVAL RATES^a

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
Relative Survival Rates (SEER ^b)																			
1-year	95.0	96.1	96.8	95.9	95.5	97.7	96.1	97.3	97.2	96.2	95.8	97.7	97.8	97.9	97.7	97.9	97.4	98.0	98.1
2-year	94.0	95.6	95.4	95.8	95.3	97.3	95.8	97.3	97.1	95.4	95.8	97.3	97.5	97.5	97.6	97.7	97.3	97.7	
3-year	93.5	95.2	94.3	95.4	95.1	97.3	94.9	97.0	97.1	95.2	95.8	96.9	97.5	97.3	97.6	97.7	97.3		
4-year	93.5	95.1	94.2	95.2	95.1	97.2	94.9	97.0	96.6	95.1	95.8	96.7	97.5	96.8	97.6	97.5			
5-year	93.5	95.0	94.2	95.1	95.1	97.1	94.9	97.0	96.4	94.2	95.8	96.7	97.5	96.8	97.6				
6-year	93.5	95.0	94.2	95.0	95.1	97.1	94.9	96.9	96.4	94.2	95.8	96.2	97.5	96.8					
7-year	93.4	94.8	94.2	94.3	95.1	97.1	94.9	96.5	96.2	94.2	95.8	96.2	97.5						
8-year	93.3	94.8	94.2	94.2	95.1	97.1	94.9	96.5	96.2	94.2	95.8	95.9							
9-year	93.2	94.8	94.2	94.2	95.1	97.1	94.9	96.5	96.2	94.2	95.8								
10-year	93.2	94.7	93.6	94.2	95.1	97.1	94.9	95.9	96.2	94.2									
11-year	93.2	94.6	93.6	94.2	95.1	96.9	94.9	95.4	96.1										
12-year	93.2	94.6	93.3	94.0	95.1	96.9	94.9	95.4											
13-year	93.2	94.5	93.3	94.0	95.1	96.9	94.9												
14-year	93.2	94.5	93.3	94.0	95.1	96.7													
15-year	93.2	94.4	93.3	93.6	95.1														
16-year	93.2	94.3	93.3	93.6															
17-year	93.2	94.3	92.5																
18-year	93.2	94.3																	
19-year	93.2																		
20-year	93.2																		

^a Survival rates are relative rates expressed as percents.
^b Rates are from the SEER 9 areas.

Table XXVI-8
THYROID CANCER (Invasive)

Percent Diagnosed With Cancer In 10, 20 and 30 Years and In Remaining Lifetime,
 Given Cancer Free At Current Age By Race and Sex

Lifetime Risk (Percent) of Being Diagnosed (13 SEER Areas) With Cancer and
 Lifetime Risk (Percent) of Dying (Total U.S.) From Cancer

2000-2002

All Races

Current Age	Males				Females			
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually
0	0.00	0.00	0.02	0.35	0.00	0.02	0.12	0.97
10	0.00	0.02	0.06	0.36	0.02	0.12	0.28	0.98
20	0.02	0.06	0.11	0.36	0.10	0.26	0.45	0.96
30	0.04	0.09	0.17	0.34	0.16	0.35	0.53	0.86
40	0.05	0.13	0.22	0.31	0.19	0.37	0.53	0.71
50	0.08	0.17	0.24	0.27	0.19	0.35	0.47	0.53
60	0.10	0.17	0.20	0.20	0.17	0.30	0.35	0.36

Lifetime Risk of Being Diagnosed = 0.35%
 Lifetime Risk of Dying = 0.04%

Lifetime Risk of Being Diagnosed = 0.97%
 Lifetime Risk of Dying = 0.06%

Whites

Current Age	Males				Females			
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually
0	0.00	0.01	0.02	0.38	0.00	0.02	0.14	1.02
10	0.00	0.02	0.07	0.38	0.02	0.14	0.31	1.03
20	0.02	0.06	0.12	0.38	0.11	0.29	0.49	1.00
30	0.04	0.10	0.18	0.36	0.17	0.38	0.56	0.90
40	0.06	0.14	0.23	0.32	0.20	0.39	0.55	0.73
50	0.08	0.18	0.25	0.27	0.19	0.36	0.48	0.54
60	0.10	0.18	0.20	0.21	0.18	0.30	0.35	0.36

Lifetime Risk of Being Diagnosed = 0.38%
 Lifetime Risk of Dying = 0.05%

Lifetime Risk of Being Diagnosed = 1.02%
 Lifetime Risk of Dying = 0.06%

Blacks

Current Age	Males				Females			
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually
0	0.00	0.00	0.01	0.17	0.00	0.00	0.03	0.53
10	0.00	0.01	0.03	0.18	0.00	0.03	0.10	0.54
20	0.01	0.02	0.04	0.18	0.03	0.10	0.19	0.53
30	0.02	0.04	0.09	0.18	0.07	0.16	0.28	0.51
40	0.02	0.07	0.11	0.16	0.09	0.21	0.31	0.45
50	0.05	0.09	0.14	0.15	0.12	0.23	0.32	0.37
60	0.04	0.10	0.11	0.11	0.12	0.21	0.26	0.27

Lifetime Risk of Being Diagnosed = 0.17%
 Lifetime Risk of Dying = 0.03%

Lifetime Risk of Being Diagnosed = 0.53%
 Lifetime Risk of Dying = 0.06%

Devcan Version 6.0, April 2005, National Cancer Institute (<http://srab.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia). Mortality data are from the NCHS public use data file for the total US.

Table XXVI-9
 THYROID CANCER (Invasive)

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

Incidence^b

RACE/ETHNICITY	Rate 1998-2002 Rate per 100,000 persons			Trend 1992-2002 APC (%)		
	Total	Males	Females	Total	Males	Females
All Races	7.6	4.0	11.1	4.3 ^e	3.1 ^e	4.8 ^e
White	7.9	4.2	11.7	4.7 ^e	3.4 ^e	5.2 ^e
White Hispanic ^c	7.1	3.3	10.7	2.6 ^e	3.3	2.6 ^e
White Non-Hispanic ^c	8.3	4.5	12.1	5.2 ^e	3.9 ^e	5.8 ^e
Black	4.4	2.2	6.2	3.9 ^e	1.0	4.5 ^e
Asian/Pacific Islander	8.4	4.0	12.4	1.9 ^e	1.6	2.0 ^e
Amer Ind/Alaska Nat	4.4	-	6.7	1.0	-	2.3
Hispanic ^c	6.8	3.2	10.3	2.8 ^e	3.2	2.9 ^e

Mortality^d

RACE/ETHNICITY	Rate 1998-2002 Rate per 100,000 persons			Trend 1992-2002 APC (%)		
	Total	Males	Females	Total	Males	Females
All Races	0.5	0.4	0.5	0.6	2.0 ^e	-0.1
White	0.5	0.5	0.5	0.6	2.0 ^e	-0.1
White Hispanic ^c	0.6	0.5	0.7	-0.7	4.1	-2.6 ^e
White Non-Hispanic ^c	0.5	0.5	0.4	1.0 ^e	2.3 ^e	0.3
Black	0.5	0.4	0.5	2.1 ^e	3.8 ^e	1.5
Asian/Pacific Islander	0.6	0.4	0.7	-3.7	-	-3.8 ^e
Amer Ind/Alaska Nat	0.3	-	-	-	-	-
Hispanic ^c	0.6	0.5	0.7	-0.7	4.0	-2.7 ^e

- The APC is the Annual Percent Change over the time interval.
 - Statistic not shown. Rate based on less than 25 cases for the time interval. Trend based on less than 10 cases for at least one year within the time interval.
 a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
 b Incidence data are from the 13 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
 c 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 do not include cases from Detroit, Hawaii, Alaska Native Registry and Rural Georgia. For mortality, information is included for all states except Connecticut, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma and Vermont.
 d Mortality data are analyzed from a public use file provided by the National Center for Health Statistics (NCHS).
 e The APC is significantly different from zero (p<.05).

Table XXVI-10
THYROID CANCER (Invasive)

AGE-ADJUSTED SEER INCIDENCE RATES AND SEER DEATH RATES^a
 By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER INCIDENCE RATES^b, 1998-2002</u>									
REGISTRY									
13 SEER Areas	7.6	4.0	11.1	7.9	4.2	11.7	4.4	2.2	6.2
11 SEER Areas	7.6	4.0	11.1	7.9	4.2	11.7	4.4	2.3	6.1
9 SEER Areas	7.8	4.1	11.3	8.1	4.4	11.9	4.6	2.2	6.6
San Francisco-Oakland	6.2	3.4	8.9	5.9	3.6	8.4	3.2	-	4.8
Connecticut	8.5	4.6	12.1	8.8	4.9	12.5	3.9	-	6.1
Metropolitan Detroit	7.7	4.2	11.0	8.5	4.6	12.4	5.3	3.0	7.0
Hawaii	9.1	4.5	13.8	7.3	4.7	10.4	-	-	-
Iowa	7.8	4.0	11.6	7.8	4.0	11.6	-	-	-
New Mexico	9.6	5.2	13.8	10.1	5.5	14.4	-	-	-
Seattle-Puget Sound	7.9	4.2	11.6	8.0	4.3	11.8	5.6	-	8.3
Utah	9.3	4.5	14.1	9.5	4.6	14.3	-	-	-
Metropolitan Atlanta	6.7	3.5	9.7	7.9	4.2	11.6	4.2	1.3	6.4
San Jose-Monterey	6.7	3.6	10.0	6.8	3.6	10.2	-	-	-
Los Angeles	7.5	3.9	10.9	7.8	4.0	11.6	3.9	2.4	5.1
<u>SEER DEATH RATES^c, 1998-2002</u>									
REGISTRY									
13 SEER Areas	0.5	0.5	0.5	0.5	0.5	0.5	0.4	-	0.4
11 SEER Areas	0.5	0.5	0.5	0.5	0.5	0.5	0.4	-	0.4
9 SEER Areas	0.5	0.5	0.5	0.5	0.5	0.5	0.3	-	-
San Francisco-Oakland	0.4	0.4	0.4	0.4	0.4	-	-	-	-
Connecticut	0.5	0.6	0.4	0.5	0.6	0.4	-	-	-
Metropolitan Detroit	0.5	0.6	0.5	0.5	0.6	0.5	-	-	-
Hawaii	0.6	-	-	-	-	-	-	-	-
Iowa	0.4	0.4	0.4	0.4	0.4	0.4	-	-	-
New Mexico	0.6	-	0.6	0.6	-	0.6	-	-	-
Seattle-Puget Sound	0.4	0.3	0.5	0.4	0.3	0.5	-	-	-
Utah	0.5	-	-	0.5	-	-	-	-	-
Metropolitan Atlanta	0.4	-	-	-	-	-	-	-	-
San Jose-Monterey	0.6	-	0.6	0.5	-	-	-	-	-
Los Angeles	0.6	0.5	0.7	0.6	0.5	0.7	-	-	-

^a Incidence and death rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

^c NCHS public use data file for the total US with analyses limited to the SEER geographic areas.

- Statistic could not be calculated or populations are inadequate.

Table XXVI-11
 THYROID CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER DEATH^a RATES BY STATE, ALL RACES, 1998-2002

Males and Females

State	Rate	SE	Rank	PD
TOTAL U.S.	0.5	0.01		
High Five States				
New Mexico	0.6 ^b	0.08	(01)	20.0
Louisiana	0.6 ^b	0.05	(02)	20.0
Hawaii	0.6 ^b	0.09	(03)	20.0
West Virginia	0.6 ^b	0.07	(04)	20.0
Kentucky	0.5	0.05	(05)	0.0
Low Five States				
Idaho	0.4 ^b	0.08	(47)	-20.0
Nevada	0.4 ^b	0.07	(48)	-20.0
Delaware	0.4 ^b	0.10	(49)	-20.0
Maryland	0.3 ^b	0.04	(50)	-40.0
North Dakota	0.3 ^b	0.09	(51)	-40.0

Males

State	Rate	SE	Rank	PD
TOTAL U.S.	0.4	0.01		
High Five States				
Rhode Island	0.6 ^b	0.16	(01)	50.0
Alaska	0.6 ^b	0.31	(02)	50.0
Maine	0.6 ^b	0.14	(03)	50.0
Kansas	0.6 ^b	0.10	(04)	50.0
Connecticut	0.6 ^b	0.09	(05)	50.0
Low Five States				
Oregon	0.3 ^b	0.06	(47)	-25.0
Maryland	0.3 ^b	0.05	(48)	-25.0
Virginia	0.3 ^{bc}	0.05	(49)	-25.0
Idaho	0.3 ^b	0.09	(50)	-25.0
North Dakota	0.3 ^b	0.13	(51)	-25.0

Females

State	Rate	SE	Rank	PD
TOTAL U.S.	0.5	0.01		
High Five States				
Louisiana	0.6 ^b	0.07	(01)	20.0
Hawaii	0.6 ^b	0.13	(02)	20.0
New Mexico	0.6 ^b	0.11	(03)	20.0
Wyoming	0.6 ^b	0.21	(04)	20.0
Kentucky	0.6 ^b	0.07	(05)	20.0
Low Five States				
Oklahoma	0.3 ^b	0.06	(47)	-40.0
Delaware	0.3 ^b	0.12	(48)	-40.0
Arizona	0.3 ^b	0.05	(49)	-40.0
Alaska	0.3 ^b	0.21	(50)	-40.0
Rhode Island	0.2 ^b	0.09	(51)	-60.0

For additional detailed cancer statistics by state, please visit the State Cancer Profiles website. <http://statecancerprofiles.cancer.gov/>

^a NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
^b Absolute percent difference between state rate and total U.S. rate is 15% or more.
^c Difference between state rate and total U.S. rate is statistically significant (p<=.0002).
 SE Standard error of the rate.
 PD Percent difference between state rate and total U.S. rate.

Table XXVI-12
 THYROID CANCER (Invasive)

Estimated United States Cancer Prevalence Counts^a on January 1, 2002
 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	0 to <12 ^e	0 to <27 ^e	>=27 ^g	Complete ^h
Race/Sex									
All Races ^b	88,240	64,212	47,035	37,303	31,523	172,922	279,685	47,718	327,403
Males	20,450	15,144	10,315	8,315	6,831	40,148	63,721	11,264	74,985
Females	67,790	49,068	36,720	28,988	24,692	132,774	215,964	36,454	252,418
White ^b	77,398	56,657	42,256	33,568	28,399	152,440	248,569	43,144	291,713
Males	18,433	13,747	9,572	7,494	6,283	36,396	58,010	9,572	67,582
Females	58,965	42,910	32,684	26,074	22,116	116,044	190,559	33,572	224,131
Black ^b	5,217	3,670	2,179	1,773	1,532	9,923	14,933	1,979	16,912
Males	902	727	373	370	194	1,818	2,648	212	2,860
Females	4,315	2,943	1,806	1,403	1,338	8,105	12,285	1,767	14,052
Asian/Pacific Islander ^c	3,906	2,703	+	+	+	7,382	+	+	+
Males	754	472	+	+	+	1,351	+	+	+
Females	3,152	2,231	+	+	+	6,031	+	+	+
Hispanic ^d	7,297	5,077	+	+	+	13,737	+	+	+
Males	1,341	960	+	+	+	2,564	+	+	+
Females	5,956	4,117	+	+	+	11,173	+	+	+

Estimated prevalence percent^a on January 1, 2002, of the SEER 11 population diagnosed in the previous 10 years
 By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence	Age Specific (Crude)										Age-Adjusted ^f
	All Ages	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	All Ages
Race/Sex											
All Races ^c	0.0514%	0.0001%	0.0035%	0.0279%	0.0656%	0.0890%	0.0971%	0.0934%	0.0784%	0.0553%	0.0519%
Males	0.0237%	-	0.0014%	0.0080%	0.0232%	0.0367%	0.0529%	0.0591%	0.0554%	0.0405%	0.0252%
Females	0.0784%	-	0.0057%	0.0489%	0.1093%	0.1406%	0.1391%	0.1240%	0.0956%	0.0632%	0.0778%
White ^c	0.0548%	0.0001%	0.0038%	0.0311%	0.0713%	0.0955%	0.1001%	0.0950%	0.0772%	0.0529%	0.0546%
Males	0.0261%	-	0.0015%	0.0090%	0.0253%	0.0403%	0.0563%	0.0617%	0.0571%	0.0394%	0.0269%
Females	0.0835%	-	0.0062%	0.0550%	0.1205%	0.1517%	0.1429%	0.1254%	0.0925%	0.0601%	0.0823%
Black ^c	0.0233%	-	0.0013%	0.0090%	0.0263%	0.0404%	0.0595%	0.0587%	0.0591%	0.0341%	0.0271%
Males	0.0096%	-	-	0.0022%	0.0084%	0.0139%	0.0290%	0.0316%	0.0460%	0.0198%	0.0127%
Females	0.0356%	-	0.0019%	0.0153%	0.0423%	0.0635%	0.0849%	0.0801%	0.0677%	0.0408%	0.0391%
Asian/Pacific Islander ^c	0.0554%	-	0.0041%	0.0263%	0.0646%	0.0893%	0.1062%	0.1057%	0.0965%	0.0946%	0.0559%
Males	0.0216%	-	-	0.0067%	0.0208%	0.0325%	0.0461%	0.0593%	0.0477%	0.0617%	0.0234%
Females	0.0871%	-	0.0078%	0.0456%	0.1060%	0.1403%	0.1589%	0.1441%	0.1326%	0.1171%	0.0844%
Hispanic ^d	0.0332%	-	0.0031%	0.0199%	0.0466%	0.0735%	0.0913%	0.0870%	0.0849%	0.0693%	0.0456%
Males	0.0118%	-	0.0010%	0.0053%	0.0134%	0.0235%	0.0382%	0.0505%	0.0530%	0.0398%	0.0192%
Females	0.0557%	-	0.0054%	0.0372%	0.0844%	0.1244%	0.1401%	0.1172%	0.1077%	0.0855%	0.0712%

^a US 2002 cancer prevalence counts are based on 2002 cancer prevalence proportions from the SEER registries and 1/1/2002 US population estimates based on the average of 2001 and 2002 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

^{b c d} Statistics based on b) SEER 9 Areas c) SEER 11 Areas and Rural Georgia d) SEER 11 Areas excluding Hawaii and Detroit.

^e Maximum limited-duration prevalence: 27 years for 1975-2002 SEER 9 data; 12 years for 1990-2002 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).

^f Percentages are age-adjusted to the 2000 US standard population by 5-year age groups.

^{g h} (g) Cases diagnosed more than 27 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 <27 and >=27.

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

+ Not available.

SEER Incidence and US Death Rates Thyroid Cancer, by Race and Sex

+

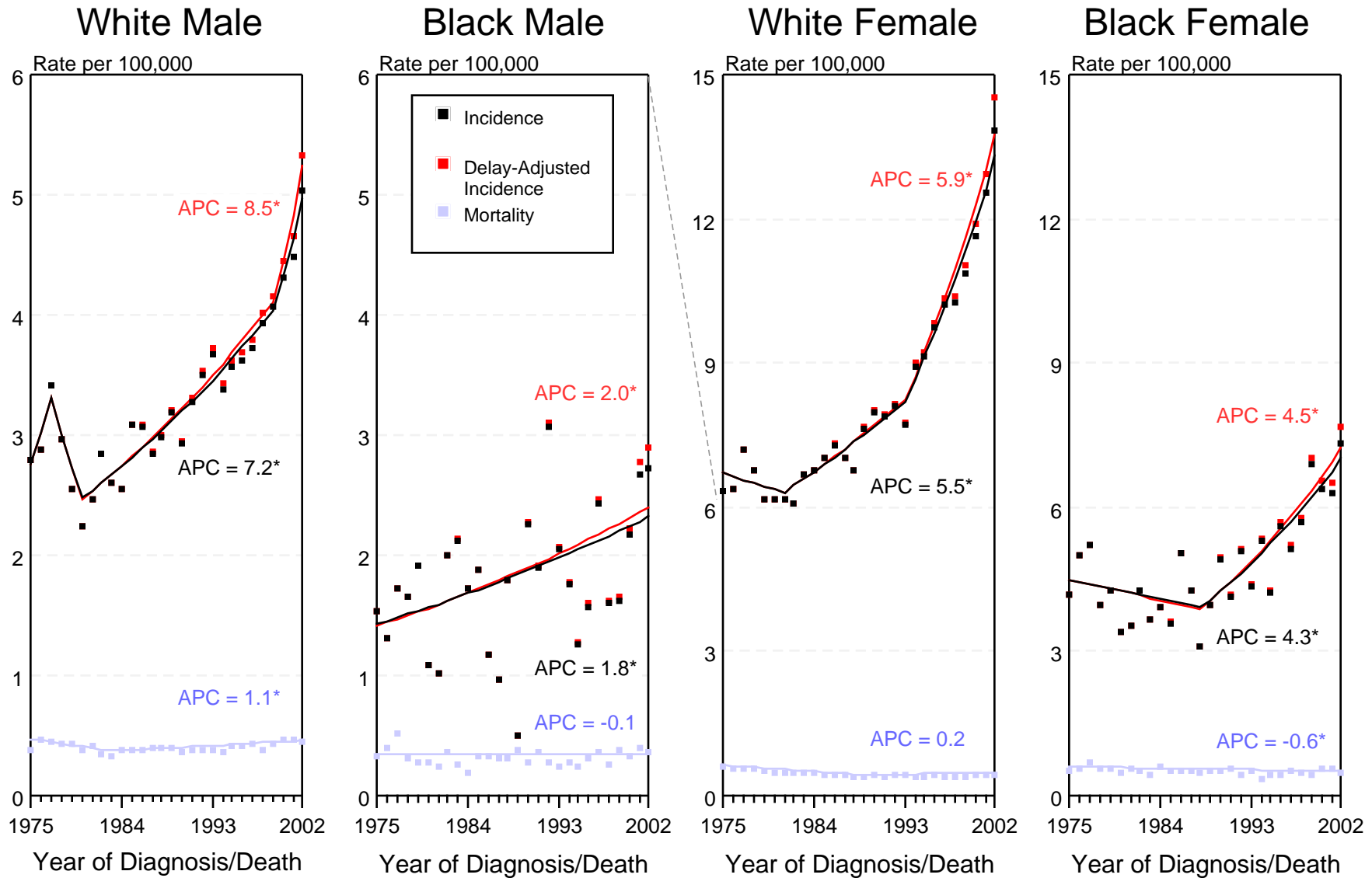


Figure XXVI-1

+ Source: SEER 9 areas and NCHS public use data file for the total US. 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 3.0, April 2005, 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 + Thyroid Cancer, Both Sexes

Joinpoint Analyses for 1975-2002 for Whites and Blacks

Rates for 1992-2002 for Asian/Pacific Islander, American Indian/Alaska Native and Hispanic

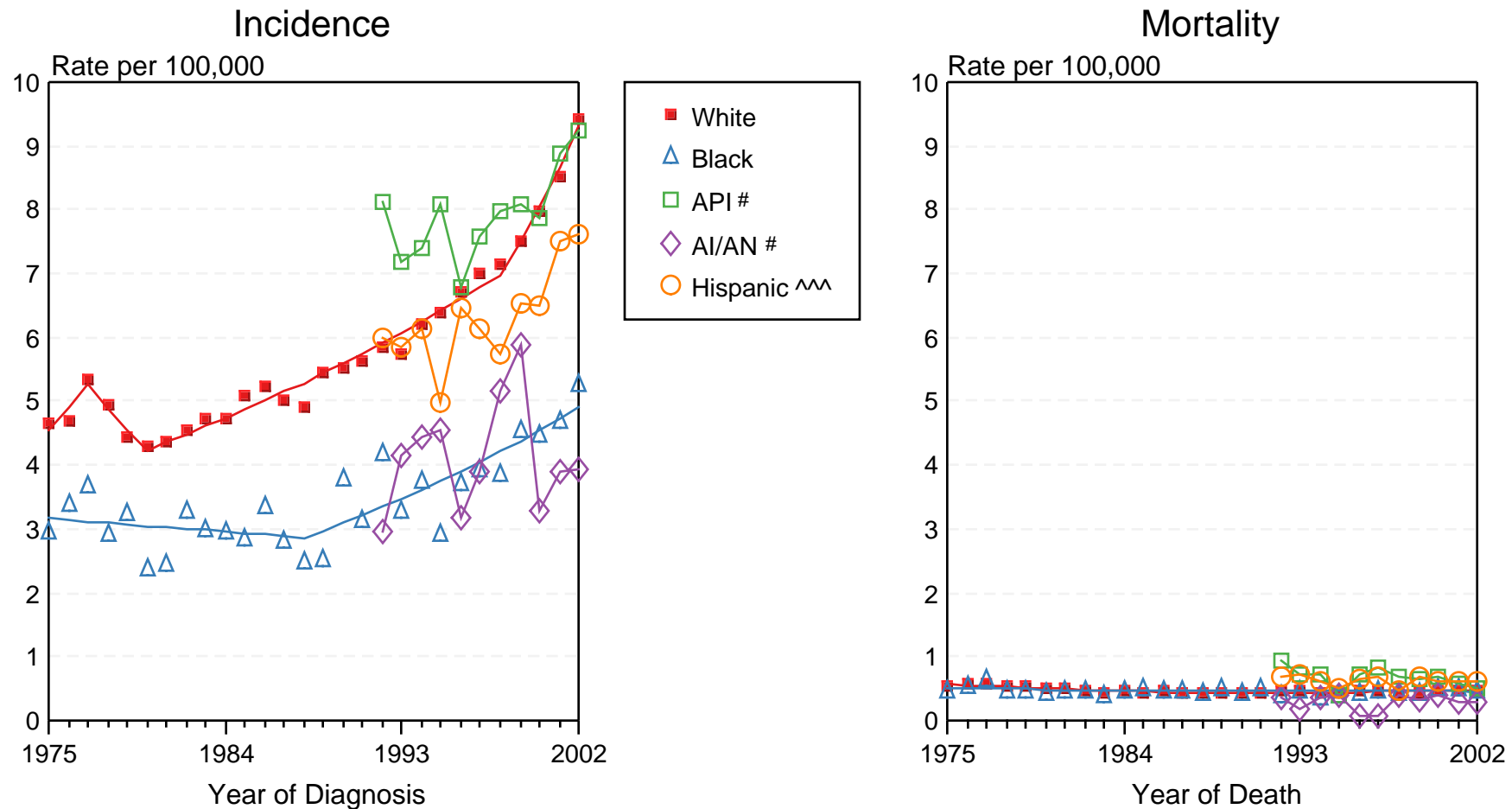


Figure XXVI-2

+ Source: Incidence data for whites and blacks is from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta). Incidence data for Asian/Pacific Islanders, American Indian/Alaska Natives and Hispanics is from the SEER 13 Areas (SEER 9 Areas, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Mortality data is from NCHS public use data file for the total US. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines for whites and blacks are calculated using the Joinpoint Regression Program Version 3.0, April 2005, National Cancer Institute.

API = Asian/Pacific Islander. AI/AN = American Indian/Alaska Native.

^^ Hispanic is not mutually exclusive from Whites, Blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics excludes cases from Detroit, Hawaii, Alaska Native Registry and Rural Georgia. Mortality data for Hispanics excludes cases from Connecticut, Maine, Maryland, Minnesota, Oklahoma, New Hampshire, New York, North Dakota, and Vermont.