

Table XVII-1
MULTIPLE MYELOMA (Invasive)

TRENDS IN SEER INCIDENCE^a AND U.S. MORTALITY^b USING THE JOINPOINT REGRESSION PROGRAM, 1973-1999
WITH UP TO THREE JOINPOINTS BY RACE AND SEX

	<u>All Races</u>		<u>Whites</u>		<u>Blacks</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>						
Sex - Male and Female	1973-97	0.9★	1973-97	0.9★	1973-99	0.6★
	1997-99	-7.6	1997-99	-7.7		
Sex - Male	1973-92	1.3★	1973-91	1.4★	1973-99	0.3
	1992-99	-1.3	1991-99	-1.0		
Sex - Female	1973-97	0.9★	1973-97	0.8★	1973-99	1.0★
	1997-99	-9.0	1997-99	-9.3		
<u>U.S. Cancer Mortality^b</u>						
Sex - Male and Female	1973-76	3.8★	1973-76	3.5★	1973-82	3.3★
	1976-94	1.4★	1976-94	1.4★	1982-94	1.4★
	1994-99	-0.7★	1994-99	-0.7★	1994-99	-0.5
Sex - Male	1973-76	4.3★	1973-76	4.1★	1973-86	3.0★
	1976-94	1.4★	1976-95	1.4★	1986-99	0.1
	1994-99	-1.1★	1995-99	-1.5★		
Sex - Female	1973-78	2.8★	1973-77	3.1★	1973-81	3.8★
	1978-93	1.5★	1977-94	1.3★	1981-99	1.4★
	1993-99	-0.2	1994-99	-0.8		

The APC is the Annual Percent Change based on rates age-adjusted to the 2000 U.S. standard population by 5-year age groups using the Joinpoint Regression Program.

^a Trends are from the SEER 9 areas.

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

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

Table XVII-2
MULTIPLE MYELOMA

SEER INCIDENCE 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>AGE-ADJUSTED RATES</u>									
<u>YEAR OF DIAGNOSIS:</u>									
1973	4.6	5.6	4.0	4.2	5.0	3.8	12.2	16.1	9.3
1974	4.6	5.6	4.0	4.3	5.2	3.7	10.4	12.3	8.9
1975	4.9	6.4	3.9	4.6	6.2	3.6	9.7	10.9	8.6
1976	5.0	6.1	4.4	4.8	5.8	4.1	9.2	11.2	7.9
1977	5.1	6.4	4.1	4.8	6.2	3.9	9.1	11.0	7.7
1978	4.7	5.9	3.9	4.4	5.6	3.7	9.5	11.0	8.5
1979	4.9	6.0	4.1	4.5	5.4	3.8	11.0	15.2	8.2
1980	4.8	5.8	4.1	4.4	5.5	3.7	9.9	10.8	9.0
1981	5.0	6.0	4.3	4.6	5.5	4.0	10.9	15.0	8.2
1982	5.3	6.3	4.7	4.9	5.9	4.3	11.6	13.9	9.7
1983	5.3	6.9	4.2	4.7	6.3	3.7	13.7	16.1	11.9
1984	5.4	7.0	4.3	5.0	6.4	4.1	10.8	15.3	7.7
1985	5.2	6.3	4.3	4.9	5.9	4.2	9.3	12.6	7.0
1986	5.3	6.3	4.7	4.9	6.0	4.1	11.1	11.6	10.5
1987	5.9	7.3	5.0	5.7	7.2	4.7	11.0	13.4	9.6
1988	5.3	6.6	4.5	5.0	6.4	4.2	10.9	12.2	9.8
1989	5.4	6.7	4.5	5.1	6.3	4.2	10.6	13.3	8.8
1990	5.6	7.2	4.5	5.2	6.9	4.1	11.9	14.6	10.2
1991	6.0	7.6	4.8	5.5	7.1	4.4	12.7	15.6	10.7
1992	5.9	7.2	5.0	5.6	6.9	4.7	11.4	12.6	10.5
1993	5.6	7.3	4.3	5.1	6.8	3.9	12.6	15.6	10.3
1994	5.7	6.7	5.0	5.1	6.2	4.4	12.9	14.8	12.0
1995	5.6	7.0	4.6	5.2	6.6	4.2	11.6	14.6	9.7
1996	5.7	7.0	4.7	5.3	6.6	4.2	12.6	13.5	11.9
1997	5.9	7.1	5.1	5.5	6.7	4.6	12.2	13.4	11.5
1998	5.6	6.8	4.6	5.3	6.7	4.2	10.8	11.7	10.2
1999	5.0	6.4	4.0	4.6	5.9	3.6	10.3	12.8	8.6
<u>AGE-ADJUSTED RATES, 1995-99</u>									
<u>AGE AT DIAGNOSIS:</u>									
All ages	5.6	6.9	4.6	5.2	6.5	4.2	11.5	13.1	10.3
Under 65	2.1	2.5	1.7	1.8	2.2	1.5	4.9	5.7	4.2
65 and over	29.7	37.3	24.6	28.2	36.3	22.8	57.0	64.5	52.7
All ages (world std.) ^ë	3.5	4.2	2.9	3.2	3.9	2.6	7.4	8.4	6.7
<u>AGE-SPECIFIC RATES, 1995-99</u>									
<u>AGE AT DIAGNOSIS:</u>									
0-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-
35-39	0.6	0.8	-	0.6	0.8	-	-	-	-
40-44	1.4	1.8	1.1	1.2	1.6	0.9	3.5	-	-
45-49	3.0	3.3	2.8	2.6	2.8	2.4	7.3	-	-
50-54	6.1	7.5	4.7	5.4	6.9	4.0	13.6	13.9	13.4
55-59	9.9	12.5	7.6	8.5	10.5	6.5	26.7	36.9	18.5
60-64	13.8	15.3	12.4	12.8	14.3	11.3	30.2	32.1	28.7
65-69	20.8	25.1	17.1	19.4	24.5	15.0	39.7	40.9	38.7
70-74	27.0	34.2	21.4	25.5	33.0	19.5	56.6	65.7	50.0
75-79	34.6	40.2	30.7	32.3	38.7	27.8	70.7	69.1	71.7
80-84	40.3	53.5	32.5	39.8	53.6	31.7	67.2	91.8	53.6
85+	33.9	47.0	28.4	32.5	44.8	27.5	60.9	74.6	54.7

§ SEER 9 areas. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups, unless noted.

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

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

Table XVII-3
MULTIPLE MYELOMAU.S. DEATH RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES^ä, BY RACE AND SEX

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>AGE-ADJUSTED RATES</u>									
<u>YEAR OF DEATH:</u>									
1973	2.8	3.4	2.4	2.6	3.2	2.2	5.0	6.0	4.2
1974	2.9	3.6	2.4	2.6	3.3	2.2	5.1	6.6	4.0
1975	2.9	3.7	2.4	2.7	3.5	2.2	5.3	6.4	4.4
1976	3.1	3.9	2.6	2.9	3.6	2.4	5.6	6.9	4.6
1977	3.1	3.9	2.6	2.9	3.6	2.4	5.6	7.2	4.4
1978	3.2	3.9	2.7	2.9	3.7	2.5	5.7	7.0	4.9
1979	3.3	4.1	2.7	3.0	3.9	2.5	5.9	7.4	4.9
1980	3.3	4.1	2.7	3.0	3.8	2.5	6.1	7.4	5.2
1981	3.3	4.1	2.8	3.0	3.7	2.5	6.6	8.2	5.5
1982	3.4	4.2	2.9	3.1	3.8	2.6	6.7	8.6	5.4
1983	3.4	4.3	2.9	3.1	4.0	2.6	6.8	8.7	5.6
1984	3.5	4.3	3.0	3.2	3.9	2.7	6.6	8.4	5.5
1985	3.6	4.5	3.0	3.3	4.1	2.8	6.9	8.6	5.8
1986	3.6	4.5	3.0	3.3	4.1	2.8	7.2	9.1	6.0
1987	3.6	4.6	3.0	3.3	4.2	2.7	7.1	9.2	5.7
1988	3.6	4.6	3.0	3.4	4.3	2.7	6.9	8.1	6.1
1989	3.7	4.6	3.1	3.4	4.3	2.8	7.1	8.9	5.9
1990	3.8	4.8	3.1	3.5	4.4	2.9	7.3	9.6	5.9
1991	3.9	4.8	3.3	3.5	4.5	3.0	7.8	9.5	6.6
1992	3.8	4.7	3.2	3.5	4.4	2.9	7.5	9.3	6.3
1993	4.0	4.9	3.4	3.7	4.6	3.1	7.8	9.2	6.9
1994	4.0	5.0	3.3	3.7	4.7	3.0	7.7	9.6	6.5
1995	4.0	4.9	3.4	3.7	4.6	3.1	7.8	9.3	7.0
1996	3.9	4.9	3.3	3.6	4.6	3.0	7.7	9.5	6.6
1997	3.9	4.9	3.3	3.6	4.6	3.0	7.5	9.1	6.6
1998	3.9	4.8	3.2	3.5	4.4	2.9	7.8	9.3	6.9
1999	3.9	4.7	3.3	3.6	4.4	3.0	7.5	8.7	6.8
<u>AGE-ADJUSTED RATES, 1995-99</u>									
<u>AGE AT DEATH:</u>									
All ages	3.9	4.9	3.3	3.6	4.5	3.0	7.7	9.2	6.8
Under 65	1.1	1.3	0.9	0.9	1.1	0.7	2.5	2.9	2.2
65 and over	23.5	29.5	19.8	22.0	28.0	18.3	43.4	52.9	38.0
All ages (world std.) ^ö	2.3	2.8	1.9	2.1	2.6	1.7	4.6	5.4	4.1
<u>AGE-SPECIFIC RATES, 1995-99</u>									
<u>AGE AT DEATH:</u>									
0-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-
30-34	0.1	0.1	0.1	0.1	0.1	-	0.2	-	-
35-39	0.2	0.2	0.1	0.1	0.2	0.1	0.4	0.5	0.3
40-44	0.5	0.6	0.4	0.4	0.5	0.3	1.3	1.6	1.1
45-49	1.3	1.5	1.1	1.1	1.3	0.9	3.1	3.4	2.7
50-54	2.7	3.3	2.1	2.3	3.0	1.7	6.5	7.5	5.7
55-59	5.5	6.3	4.7	4.7	5.5	4.0	12.9	14.5	11.7
60-64	9.2	10.8	7.7	8.0	9.8	6.5	20.5	23.3	18.5
65-69	13.9	16.6	11.7	12.9	15.5	10.7	25.2	29.6	22.0
70-74	20.5	24.4	17.4	19.1	23.0	16.0	39.1	45.5	34.6
75-79	26.5	32.1	22.7	24.9	30.5	20.9	49.7	57.4	44.9
80-84	33.4	43.0	27.8	31.8	41.2	26.2	59.3	77.5	49.9
85+	34.2	48.6	28.3	32.2	46.3	26.5	62.9	83.2	54.5

ä NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups, unless noted.

ö NCHS public use data file. Rates are per 100,000 and are age-adjusted to the world standard population.

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

Table XVII-4
MULTIPLE MYELOMA

SURVIVAL RATES, BY RACE, SEX, DIAGNOSIS YEAR 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:									
1960-63 ^a	-	-	-	12	13	10	-	-	-
1970-73 ^a	-	-	-	19	20	17	-	-	-
1974-76 ^b	24.4	23.8	25.0	24.0	23.2	24.9	27.7	28.2	27.3
1977-79 ^b	26.3	25.9	26.8	24.8	25.2	24.4	34.1	30.0	38.3
1980-82 ^b	28.1	25.8	30.4	27.9	26.3	29.3	29.8	26.8	32.9
1983-85 ^b	28.0	28.2	27.7	27.3	27.2	27.4	31.0	33.9	27.8
1986-88 ^b	29.3	30.5	28.1	29.2	30.9	27.5	31.2	29.2	32.8
1989-91 ^b	29.7	30.8	28.5	29.0	29.7	28.2	33.5	37.5	29.6
1992-98 ^b	30.2 \bar{U}	31.5 \bar{U}	28.8 \bar{U}	29.5 \bar{U}	30.9 \bar{U}	28.0 \bar{U}	32.5	34.2	31.2
<u>5-YR RELATIVE SURVIVAL RATES, 1992-98^b</u>									
AGE AT DIAGNOSIS:									
<45	48.0	46.7	49.2	50.4	51.3 \uparrow	48.5 \uparrow	40.2 \uparrow	37.6 \uparrow	43.8 \uparrow
45-54	44.4	44.3	44.5	42.6	43.1	42.2	45.2	43.1 \uparrow	47.1 \uparrow
55-64	36.0	37.2	34.6	34.8	36.1	33.0	44.1	44.0 \uparrow	44.2 \uparrow
65-74	27.1	26.9	27.3	28.0	27.3	28.7	22.6	25.3	20.6
75+	19.0	20.1	18.2	18.7	19.7	18.0	18.2	19.1 \uparrow	16.5
Under 65	40.2	40.5	39.7	39.1	39.9	37.9	43.8	42.7	45.0
65 and over	23.5	24.2	22.9	23.8	24.3	23.3	20.8	23.9	18.8

^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. They are based on data from population-based registries in Connecticut, New Mexico, Utah, Iowa, Hawaii, Atlanta, Detroit, Seattle-Puget Sound and San Francisco-Oakland. Rates are based on follow-up of patients into 1999.
 \bar{U} The difference in rates between 1974-76 and 1992-98 is statistically significant ($p < .05$).
 \uparrow The standard error of the survival rate is between 5 and 10 percentage points.
 $\uparrow\uparrow$ The standard error of the survival rate is greater than 10 percentage points.
 $-$ Statistic could not be calculated.

Table XVII-5
MULTIPLE MYELOMA

INCIDENCE, DEATH, AND SURVIVAL RATES*

By Year of Diagnosis/Death

All Races, Males and Females

	Year of Diagnosis/Death																				
	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Incidence																					
SEER ^a	4.9	4.8	5.0	5.3	5.3	5.4	5.2	5.3	5.9	5.3	5.4	5.6	6.0	5.9	5.6	5.7	5.6	5.7	5.9	5.6	5.0
Mortality																					
U.S. ^b	2.9	3.3	3.3	3.4	3.4	3.5	3.6	3.6	3.6	3.6	3.7	3.8	3.9	3.8	4.0	4.0	4.0	3.9	3.9	3.9	3.9
SEER ^a	3.2	3.1	3.4	3.2	3.5	3.3	3.8	3.3	3.3	3.6	3.9	3.7	3.9	4.0	4.1	3.9	3.9	4.0	3.8	3.8	3.9
Relative Survival Rates (SEER ^a)																					
1-year	68.7	69.6	69.4	73.2	72.7	69.7	72.5	72.0	75.5	73.8	71.8	71.7	75.9	69.2	72.9	73.4	73.9	70.6	74.0	73.7	
2-year	54.2	54.6	55.6	56.1	56.4	55.5	59.1	57.0	59.4	60.1	58.1	56.9	60.5	56.5	58.9	59.2	57.8	57.9	60.1		
3-year	42.5	44.4	42.9	44.5	44.4	44.1	47.0	44.6	47.9	47.3	44.4	44.7	48.5	45.6	46.8	48.2	46.4	45.0			
4-year	33.3	34.2	35.1	37.0	36.4	34.7	36.7	35.4	37.6	38.8	35.7	38.6	38.7	34.7	37.9	37.2	38.4				
5-year	27.4	26.9	27.9	29.5	28.9	27.5	27.5	29.8	28.4	29.7	26.7	30.8	31.4	27.0	31.2	30.9					
6-year	22.1	21.2	23.2	21.5	23.2	22.3	22.7	23.8	23.3	24.5	21.5	24.8	25.0	20.7	26.9						
7-year	16.1	18.5	17.1	17.8	17.6	18.5	19.1	19.2	19.4	18.4	16.7	19.5	21.3	18.1							
8-year	13.7	14.9	14.6	14.6	14.4	13.9	16.9	17.6	16.6	15.6	13.5	17.8	17.5								
9-year	12.8	13.5	12.4	12.2	12.4	11.5	13.2	13.1	14.3	12.8	11.2	16.2									
10-year	10.9	11.2	10.2	11.4	10.7	9.8	11.6	12.5	13.5	10.2	9.6										
11-year	9.3	10.2	9.2	9.8	10.2	9.6	10.3	10.8	11.5	9.6											
12-year	7.8	9.2	7.7	8.7	9.3	8.6	9.9	10.1	9.3												
13-year	7.5	7.7	7.3	8.4	8.4	7.5	8.6	9.7													
14-year	6.8	5.9	7.0	7.4	7.7	7.5	8.5														
15-year	6.0	5.8	6.7	7.4	7.7	6.1															
16-year	5.0	5.4	6.0	6.6	7.5																
17-year	5.0	4.8	6.0	6.0																	
18-year	4.2	4.2	5.9																		
19-year	4.2	3.8																			
20-year	4.0																				
21-year	3.4																				
22-year	3.4																				
23-year	3.4																				
24-year	3.4																				

^a Rates are from the SEER 9 areas.^b Rates are from the NCHS public use data file.

* Incidence and death rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

Survival rates are relative rates expressed as percents.

Table XVII-6
MULTIPLE MYELOMA

INCIDENCE, DEATH, AND SURVIVAL RATES*

By Year of Diagnosis/Death

All Races, Males

Year of Diagnosis/Death

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Incidence																					
SEER ^a	6.4	5.8	6.0	6.3	6.9	7.0	6.3	6.3	7.3	6.6	6.7	7.2	7.6	7.2	7.3	6.7	7.0	7.0	7.1	6.8	6.4
Mortality																					
U.S. ^b	3.7	4.1	4.1	4.2	4.3	4.3	4.5	4.5	4.6	4.6	4.6	4.8	4.8	4.7	4.9	5.0	4.9	4.9	4.9	4.8	4.7
SEER ^a	4.1	4.0	3.9	4.0	4.2	4.1	4.6	4.3	4.1	4.5	4.6	4.5	5.1	4.9	5.3	5.3	4.7	5.1	4.7	4.6	4.6
Relative Survival Rates (SEER ^a)																					
1-year	67.8	69.2	71.7	71.1	74.2	69.3	73.9	70.9	77.0	75.1	72.2	71.3	77.2	73.0	70.8	74.6	74.6	71.7	74.3	74.7	
2-year	54.4	52.8	58.2	54.1	57.5	57.9	58.8	56.2	61.5	62.5	61.1	57.1	62.6	60.1	57.9	60.2	59.0	60.0	61.1		
3-year	40.4	42.2	44.3	41.9	46.1	46.2	45.6	43.3	47.6	50.0	47.0	45.3	50.1	48.8	45.0	48.1	48.4	45.3			
4-year	30.7	32.4	36.0	33.9	37.2	36.4	35.3	34.6	37.6	41.4	38.9	37.7	40.6	36.2	36.4	37.9	40.4				
5-year	24.7	24.6	27.1	25.6	27.9	29.5	27.1	29.6	30.4	31.5	27.2	30.9	33.8	28.6	30.4	31.4					
6-year	21.2	20.0	24.7	17.3	24.6	23.4	22.7	23.9	25.9	26.5	22.8	23.3	27.8	21.7	27.4						
7-year	15.1	18.3	17.3	14.6	20.0	19.7	20.3	19.0	21.1	21.0	19.1	19.1	23.5	18.8							
8-year	12.3	15.2	14.0	12.4	17.0	15.3	17.2	18.3	18.3	17.1	15.2	18.4	20.6								
9-year	11.5	14.5	12.1	10.1	14.7	12.4	12.6	14.1	16.1	14.7	12.0	16.8									
10-year	8.9	12.5	9.7	9.2	12.4	10.2	10.8	13.9	14.5	11.9	10.8										
11-year	7.3	10.2	8.1	8.6	12.4	10.2	8.8	12.2	12.6	11.6											
12-year	5.8	9.4	6.4	7.8	10.9	8.6	8.8	11.3	11.9												
13-year	5.7	6.5	6.4	7.8	9.9	8.4	7.8	11.3													
14-year	5.0	3.8	6.3	6.9	9.7	8.1	7.4														
15-year	4.2	3.4	5.6	6.9	9.7	6.9															
16-year	2.6	3.4	5.5	6.2	9.0																
17-year	2.6	3.3	5.5	5.3																	
18-year	2.2	2.2	5.5																		
19-year	2.2	2.2																			
20-year	1.8																				
21-year	1.0																				
22-year	1.0																				
23-year	1.0																				
24-year	1.0																				

^a Rates are from the SEER 9 areas.^b Rates are from the NCHS public use data file.

* Incidence and death rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

Survival rates are relative rates expressed as percents.

Table XVII-7
MULTIPLE MYELOMA

INCIDENCE, DEATH, AND SURVIVAL RATES*

By Year of Diagnosis/Death

All Races, Females

Year of Diagnosis/Death

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Incidence																					
SEER ^a	3.9	4.1	4.3	4.7	4.2	4.3	4.3	4.7	5.0	4.5	4.5	4.5	4.8	5.0	4.3	5.0	4.6	4.7	5.1	4.6	4.0
Mortality																					
U.S. ^b	2.4	2.7	2.8	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.3	3.2	3.4	3.3	3.4	3.3	3.3	3.2	3.3
SEER ^a	2.6	2.4	2.9	2.7	3.0	2.8	3.2	2.7	2.8	3.0	3.4	3.2	3.2	3.4	3.3	3.0	3.4	3.2	3.2	3.3	3.4
Relative Survival Rates (SEER ^a)																					
1-year	69.9	70.0	67.0	75.1	71.0	70.0	71.0	73.2	74.1	72.5	71.5	72.1	74.3	65.4	75.5	72.2	73.1	69.4	73.8	72.5	
2-year	54.0	56.3	52.9	58.0	55.2	52.6	59.4	57.8	57.3	57.6	55.0	56.6	58.0	52.8	60.2	58.2	56.5	55.8	59.0		
3-year	45.1	46.6	41.6	47.0	42.6	41.6	48.4	46.0	48.1	44.5	41.7	43.9	46.5	42.3	49.0	48.2	44.1	44.6			
4-year	36.3	36.0	34.2	39.8	35.6	32.8	38.3	36.1	37.6	36.1	32.4	39.5	36.4	33.3	39.8	36.7	36.3				
5-year	30.7	29.0	28.7	33.0	30.0	25.2	28.0	30.0	26.6	27.9	26.2	30.6	28.6	25.4	32.1	30.4					
6-year	23.1	22.3	21.8	25.2	21.8	20.9	22.6	23.7	20.9	22.4	20.2	26.5	21.7	19.7	26.2						
7-year	17.3	18.7	16.9	20.5	15.0	17.2	17.9	19.4	17.9	15.9	14.3	19.9	18.7	17.3							
8-year	15.2	14.7	15.2	16.6	11.6	12.3	16.6	17.0	15.1	14.0	11.7	17.2	14.0								
9-year	14.2	12.5	12.7	13.9	9.9	10.5	13.7	12.1	12.8	11.0	10.4	15.4									
10-year	13.0	10.1	10.7	13.2	8.9	9.3	12.3	11.1	12.6	8.6	8.4										
11-year	11.6	10.1	10.1	10.8	7.7	9.0	11.8	9.6	10.5	7.7											
12-year	10.0	9.1	9.0	9.5	7.7	8.7	10.9	9.0	7.1												
13-year	9.4	8.7	8.2	8.9	6.7	6.5	9.4	8.3													
14-year	8.7	7.8	7.7	7.8	5.7	6.5	9.4														
15-year	7.9	7.8	7.7	7.8	5.7	5.2															
16-year	7.7	6.7	6.5	6.9	5.7																
17-year	7.7	6.1	6.3	6.4																	
18-year	6.3	5.9	6.0																		
19-year	5.9	5.0																			
20-year	5.9																				
21-year	5.8																				
22-year	5.8																				
23-year	5.7																				
24-year	5.7																				

^a Rates are from the SEER 9 areas.^b Rates are from the NCHS public use data file.

* Incidence and death rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

Survival rates are relative rates expressed as percents.

Table XVII-8
MULTIPLE MYELOMA

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

1997-1999

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	0.00	0.66	0.00	0.00	0.00	0.55	
10	0.00	0.00	0.01	0.67	0.00	0.00	0.00	0.55	
20	0.00	0.01	0.03	0.67	0.00	0.00	0.02	0.55	
30	0.01	0.03	0.11	0.68	0.00	0.02	0.08	0.55	
40	0.03	0.11	0.28	0.68	0.02	0.08	0.20	0.56	
50	0.09	0.26	0.50	0.68	0.06	0.19	0.37	0.55	
60	0.19	0.44	0.61	0.64	0.14	0.33	0.49	0.51	
Lifetime Risk of Being Diagnosed =				0.66%	Lifetime Risk of Being Diagnosed =				0.55%
Lifetime Risk of Dying =				0.45%	Lifetime Risk of Dying =				0.41%

Whites

Current Age	Males				Females				
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually	
0	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.50	
10	0.00	0.00	0.01	0.64	0.00	0.00	0.00	0.51	
20	0.00	0.01	0.03	0.64	0.00	0.00	0.02	0.51	
30	0.01	0.03	0.10	0.65	0.00	0.02	0.07	0.51	
40	0.02	0.10	0.26	0.66	0.02	0.06	0.18	0.51	
50	0.08	0.25	0.47	0.65	0.05	0.17	0.34	0.51	
60	0.18	0.42	0.59	0.61	0.12	0.30	0.45	0.48	
Lifetime Risk of Being Diagnosed =				0.63%	Lifetime Risk of Being Diagnosed =				0.50%
Lifetime Risk of Dying =				0.43%	Lifetime Risk of Dying =				0.38%

Blacks

Current Age	Males				Females				
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually	
0	0.00	0.00	0.00	0.93	0.00	0.00	0.00	0.95	
10	0.00	0.00	0.01	0.95	0.00	0.00	0.01	0.97	
20	0.00	0.01	0.07	0.96	0.00	0.01	0.05	0.97	
30	0.01	0.07	0.24	0.98	0.01	0.05	0.18	0.98	
40	0.06	0.24	0.49	1.01	0.04	0.18	0.41	0.99	
50	0.19	0.47	0.81	1.02	0.14	0.39	0.75	0.99	
60	0.32	0.73	0.93	0.98	0.27	0.67	0.90	0.93	
Lifetime Risk of Being Diagnosed =				0.93%	Lifetime Risk of Being Diagnosed =				0.95%
Lifetime Risk of Dying =				0.64%	Lifetime Risk of Dying =				0.69%

Table XVII-9
MULTIPLE MYELOMA (Invasive)

AGE-ADJUSTED SEER INCIDENCE AND U.S. DEATH RATES

By Race/Ethnicity and Sex

Incidenceⁱ

RACE/ETHNICITY	Rate 1992-1999 Rate per 100,000 persons			Trend 1992-1999 EAPC (%)		
	Total	Males	Females	Total	Males	Females
All Races	5.5	6.9	4.6	-1.1	-1.3	-1.3
White	5.2	6.5	4.2	-1.2	-1.3	-1.6
White Hispanic	5.0	6.2	4.2	-1.6	-3.5	-0.1
White Non-Hispanic	5.1	6.5	4.0	-1.0	-0.9	-1.6
Black	11.4	13.1	10.3	-1.7	-1.5	-1.8
Asian/Pacific Islander	3.4	4.4	2.7	0.1	-1.3	2.2
Amer Ind/Alaska Nat	3.1	3.6	2.7	-	-	-
Hispanic [⊗]	4.8	5.8	4.0	-1.7★	-3.4	-0.4

Mortality[❖]

RACE/ETHNICITY	Rate 1992-1999 Rate per 100,000 persons			Trend 1992-1999 EAPC (%)		
	Total	Males	Females	Total	Males	Females
All Races	3.9	4.9	3.3	-0.1	-0.3	-0.1
White	3.6	4.5	3.0	-0.2	-0.2	-0.3
White Hispanic	3.0	3.6	2.6	0.5	-1.8	2.4
White Non-Hispanic	3.6	4.6	3.0	-0.1	0.0	-0.3
Black	7.7	9.3	6.7	0.0	-0.6	0.5
Asian/Pacific Islander	1.9	2.4	1.6	2.7★	1.7	3.8
Amer Ind/Alaska Nat	2.8	3.3	2.4	2.0	-	-
Hispanic [⊗]	2.9	3.4	2.5	0.6	-1.6	2.1

- The EAPC is the Estimated 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.
- ⁱ Incidence data are from the 12 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, and Alaska Native Registry).
- [⊗] Hispanic is not mutually exclusive from whites, blacks, Asian Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics does not include cases from Detroit, Hawaii and Alaska Native Registry. For mortality, information is included for all states except Connecticut, Oklahoma, New York, and New Hampshire.
- [❖] Mortality data are analyzed from a public use file provided by the National Center for Health Statistics (NCHS).
- [★] The EAPC is significantly different from zero (p<.05).

Table XVII-10
MULTIPLE MYELOMAAGE-ADJUSTED SEER INCIDENCE RATES§ AND SEER DEATH RATESä
By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER INCIDENCE RATES§, 1995-99</u>									
REGISTRY									
11 registries	5.5	6.8	4.5	5.1	6.4	4.1	11.1	12.7	10.0
9 registries	5.6	6.9	4.6	5.2	6.5	4.2	11.5	13.1	10.3
San Francisco-Oakland	5.4	6.8	4.4	4.9	6.2	4.0	11.9	12.9	11.1
Connecticut	5.4	6.7	4.5	5.1	6.3	4.2	10.4	12.0	9.6
Metropolitan Detroit	6.5	7.9	5.7	5.3	6.6	4.4	11.9	13.5	10.8
Hawaii	3.6	4.1	3.1	4.7	5.7	3.5	-	-	-
Iowa	5.2	6.1	4.4	5.1	6.0	4.4	-	-	-
New Mexico	4.9	5.7	4.1	4.9	5.7	4.1	-	-	-
Seattle-Puget Sound	6.1	7.9	4.8	6.1	7.8	4.8	11.5	13.1	-
Utah	5.0	7.0	3.4	4.9	6.9	3.4	-	-	-
Metropolitan Atlanta	5.7	7.2	4.6	4.3	5.7	3.2	11.3	13.6	9.6
San Jose-Monterey	5.1	6.5	4.1	5.1	6.6	4.0	-	-	-
Los Angeles	5.3	6.6	4.3	4.8	6.2	3.8	10.5	11.8	9.6
<u>SEER DEATH RATESä, 1995-99</u>									
REGISTRY									
11 registries	3.8	4.6	3.2	3.6	4.5	3.0	7.3	7.7	7.2
9 registries	3.9	4.7	3.3	3.7	4.6	3.0	7.6	8.1	7.3
San Francisco-Oakland	3.5	4.4	2.9	3.3	4.3	2.6	8.0	7.9	8.2
Connecticut	3.4	4.2	3.0	3.3	4.0	2.9	5.6	7.8	-
Metropolitan Detroit	4.5	5.5	3.9	3.7	4.8	3.0	7.8	8.3	7.5
Hawaii	2.5	3.2	2.0	3.8	5.2	-	-	-	-
Iowa	3.8	4.7	3.2	3.7	4.6	3.1	-	-	-
New Mexico	3.9	4.2	3.6	3.8	4.1	3.6	-	-	-
Seattle-Puget Sound	4.2	5.1	3.5	4.2	5.2	3.5	-	-	-
Utah	4.0	5.1	3.2	4.0	5.1	3.2	-	-	-
Metropolitan Atlanta	4.3	5.5	3.6	3.3	4.6	2.5	8.5	9.9	7.9
San Jose-Monterey	3.4	4.3	2.7	3.5	4.6	2.6	-	-	-
Los Angeles	3.5	4.3	3.0	3.4	4.3	2.7	6.6	6.7	6.7

Note: San Jose-Monterey and Los Angeles are new SEER areas as of 1992 and their data are only used in tables where indicated.
 § SEER 9 areas. Incidence rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.
 ä NCHS public use data file. Death rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.
 - Statistic could not be calculated or populations are inadequate.

Table XVII-11
MULTIPLE MYELOMAAVERAGE ANNUAL AGE-ADJUSTED CANCER DEATH^ä RATES BY STATE, 1995-99

All Races, Males and Females

State	Rate	SE	Rank	PD
TOTAL U.S.	3.9	0.02		
High Five States				
District of Columbia	5.7 ^{⊕*}	0.45	(01)	46.2
South Carolina	5.0 ^{⊕*}	0.17	(02)	28.2
Louisiana	4.8 ^{⊕*}	0.16	(03)	23.1
Virginia	4.7 ^{⊕*}	0.13	(04)	20.5
Tennessee	4.6 ^{⊕*}	0.13	(05)	17.9
Low Five States				
Arizona	3.4 [⊕]	0.12	(47)	-12.8
Wyoming	3.3 [*]	0.39	(48)	-15.4
Nevada	3.3 [*]	0.22	(49)	-15.4
Rhode Island	2.9 ^{⊕*}	0.23	(50)	-25.6
Hawaii	2.5 ^{⊕*}	0.21	(51)	-35.9

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	4.2	0.14	(11)	7.7	Montana	3.7	0.28	(36)	-5.1
Alaska	3.6	0.57	(41)	-7.7	Nebraska	3.6	0.20	(40)	-7.7
Arizona	3.4 [⊕]	0.12	(47)	-12.8	Nevada	3.3 [*]	0.22	(49)	-15.4
Arkansas	4.0	0.17	(22)	2.6	New Hampshire	3.4	0.25	(46)	-12.8
California	3.5 [⊕]	0.05	(44)	-10.3	New Jersey	3.9	0.10	(28)	0.0
Colorado	3.8	0.16	(34)	-2.6	New Mexico	3.9	0.23	(31)	0.0
Connecticut	3.4	0.14	(45)	-12.8	New York	3.6 [⊕]	0.06	(39)	-7.7
Delaware	4.3	0.35	(09)	10.3	North Carolina	4.5 ^{⊕*}	0.11	(06)	15.4
District of Columbia	5.7 ^{⊕*}	0.45	(01)	46.2	North Dakota	4.1	0.34	(15)	5.1
Florida	3.5 [⊕]	0.06	(43)	-10.3	Ohio	4.1	0.08	(17)	5.1
Georgia	4.2	0.12	(13)	7.7	Oklahoma	3.7	0.15	(37)	-5.1
Hawaii	2.5 ^{⊕*}	0.21	(51)	-35.9	Oregon	4.0	0.15	(21)	2.6
Idaho	4.0	0.27	(25)	2.6	Pennsylvania	3.9	0.07	(26)	0.0
Illinois	4.0	0.08	(20)	2.6	Rhode Island	2.9 ^{⊕*}	0.23	(50)	-25.6
Indiana	3.9	0.12	(27)	0.0	South Carolina	5.0 ^{⊕*}	0.17	(02)	28.2
Iowa	3.8	0.15	(35)	-2.6	South Dakota	3.9	0.32	(30)	0.0
Kansas	4.0	0.17	(24)	2.6	Tennessee	4.6 ^{⊕*}	0.13	(05)	17.9
Kentucky	4.1	0.15	(19)	5.1	Texas	4.1	0.07	(16)	5.1
Louisiana	4.8 ^{⊕*}	0.16	(03)	23.1	Utah	4.0	0.24	(23)	2.6
Maine	4.2	0.25	(12)	7.7	Vermont	3.6	0.36	(38)	-7.7
Maryland	4.3	0.14	(08)	10.3	Virginia	4.7 ^{⊕*}	0.13	(04)	20.5
Massachusetts	3.6	0.10	(42)	-7.7	Washington	4.2	0.13	(14)	7.7
Michigan	4.2	0.09	(10)	7.7	West Virginia	4.1	0.20	(18)	5.1
Minnesota	3.9	0.13	(29)	0.0	Wisconsin	3.8	0.12	(32)	-2.6
Mississippi	4.3	0.18	(07)	10.3	Wyoming	3.3 [*]	0.39	(48)	-15.4
Missouri	3.8	0.12	(33)	-2.6					

ä NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

SE Standard error of the rate.

PD Percent difference between state rate and total U.S. rate.

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

⊕ Difference between state rate and total U.S. rate is statistically significant (p<=.0002).

Table XVII-12
MULTIPLE MYELOMA

AVERAGE ANNUAL AGE-ADJUSTED CANCER DEATH RATES BY STATE, 1995-99

All Races, Males

State	Rate	SE	Rank	PD
TOTAL U.S.	4.9	0.03		
High Five States				
District of Columbia	6.4*	0.78	(01)	30.6
Virginia	6.1⊕*	0.23	(02)	24.5
South Carolina	6.0⊕*	0.31	(03)	22.4
North Carolina	5.9⊕*	0.21	(04)	20.4
Louisiana	5.8*	0.28	(05)	18.4
Low Five States				
Wyoming	4.1*	0.70	(47)	-16.3
Nevada	4.0*	0.37	(48)	-18.4
Arizona	4.0⊕*	0.20	(49)	-18.4
Rhode Island	3.6*	0.41	(50)	-26.5
Hawaii	3.2⊕*	0.35	(51)	-34.7

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	5.1	0.25	(19)	4.1	Montana	4.8	0.49	(32)	-2.0
Alaska	4.6	1.08	(36)	-6.1	Nebraska	4.4	0.35	(40)	-10.2
Arizona	4.0⊕*	0.20	(49)	-18.4	Nevada	4.0*	0.37	(48)	-18.4
Arkansas	5.2	0.31	(15)	6.1	New Hampshire	4.3	0.44	(44)	-12.2
California	4.4⊕	0.09	(42)	-10.2	New Jersey	4.7	0.17	(34)	-4.1
Colorado	4.8	0.28	(28)	-2.0	New Mexico	4.2	0.36	(46)	-14.3
Connecticut	4.2	0.24	(45)	-14.3	New York	4.4⊕	0.11	(43)	-10.2
Delaware	5.7*	0.65	(08)	16.3	North Carolina	5.9⊕*	0.21	(04)	20.4
District of Columbia	6.4*	0.78	(01)	30.6	North Dakota	5.1	0.58	(17)	4.1
Florida	4.4⊕	0.10	(41)	-10.2	Ohio	5.1	0.15	(18)	4.1
Georgia	5.4	0.22	(12)	10.2	Oklahoma	4.5	0.26	(38)	-8.2
Hawaii	3.2⊕*	0.35	(51)	-34.7	Oregon	5.2	0.27	(13)	6.1
Idaho	4.9	0.46	(27)	0.0	Pennsylvania	5.1	0.14	(22)	4.1
Illinois	4.8	0.15	(29)	-2.0	Rhode Island	3.6*	0.41	(50)	-26.5
Indiana	5.0	0.21	(25)	2.0	South Carolina	6.0⊕*	0.31	(03)	22.4
Iowa	4.7	0.26	(35)	-4.1	South Dakota	5.4	0.57	(11)	10.2
Kansas	5.1	0.30	(21)	4.1	Tennessee	5.8⊕*	0.24	(06)	18.4
Kentucky	4.8	0.25	(33)	-2.0	Texas	4.9	0.13	(26)	0.0
Louisiana	5.8*	0.28	(05)	18.4	Utah	5.1	0.41	(20)	4.1
Maine	5.7*	0.47	(07)	16.3	Vermont	4.6	0.62	(37)	-6.1
Maryland	5.0	0.24	(23)	2.0	Virginia	6.1⊕*	0.23	(02)	24.5
Massachusetts	4.5	0.19	(39)	-8.2	Washington	5.2	0.22	(16)	6.1
Michigan	5.2	0.17	(14)	6.1	West Virginia	5.5	0.37	(09)	12.2
Minnesota	4.8	0.23	(31)	-2.0	Wisconsin	5.0	0.22	(24)	2.0
Mississippi	5.5	0.33	(10)	12.2	Wyoming	4.1*	0.70	(47)	-16.3
Missouri	4.8	0.21	(30)	-2.0					

ä NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

SE Standard error of the rate.

PD Percent difference between state rate and total U.S. rate.

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

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

Table XVII-13
MULTIPLE MYELOMAAVERAGE ANNUAL AGE-ADJUSTED CANCER DEATH^ä RATES BY STATE, 1995-99

All Races, Females

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
TOTAL U.S.	3.3	0.02							
High Five States									
District of Columbia	5.5⊕*	0.57	(01)	66.7					
South Carolina	4.5⊕*	0.21	(02)	36.4					
Louisiana	4.1⊕*	0.19	(03)	24.2					
Tennessee	3.9⊕*	0.16	(04)	18.2					
Virginia	3.9⊕*	0.15	(05)	18.2					
Low Five States									
South Dakota	2.7*	0.35	(47)	-18.2					
Nevada	2.7*	0.26	(48)	-18.2					
New Hampshire	2.7*	0.29	(49)	-18.2					
Rhode Island	2.5*	0.28	(50)	-24.2					
Hawaii	2.0⊕*	0.25	(51)	-39.4					
Alabama	3.6	0.17	(08)	9.1	Montana	2.8*	0.33	(45)	-15.2
Alaska	3.0	0.66	(38)	-9.1	Nebraska	3.0	0.24	(40)	-9.1
Arizona	2.9	0.15	(43)	-12.1	Nevada	2.7*	0.26	(48)	-18.2
Arkansas	3.2	0.20	(28)	-3.0	New Hampshire	2.7*	0.29	(49)	-18.2
California	2.9⊕	0.06	(42)	-12.1	New Jersey	3.4	0.12	(19)	3.0
Colorado	3.0	0.18	(37)	-9.1	New Mexico	3.6	0.29	(09)	9.1
Connecticut	3.0	0.17	(39)	-9.1	New York	3.1	0.08	(34)	-6.1
Delaware	3.4	0.41	(18)	3.0	North Carolina	3.7	0.13	(07)	12.1
District of Columbia	5.5⊕*	0.57	(01)	66.7	North Dakota	3.3	0.41	(21)	0.0
Florida	2.8⊕*	0.07	(44)	-15.2	Ohio	3.4	0.10	(16)	3.0
Georgia	3.4	0.14	(15)	3.0	Oklahoma	3.1	0.18	(31)	-6.1
Hawaii	2.0⊕*	0.25	(51)	-39.4	Oregon	3.1	0.18	(32)	-6.1
Idaho	3.3	0.33	(22)	0.0	Pennsylvania	3.2	0.09	(27)	-3.0
Illinois	3.5	0.10	(14)	6.1	Rhode Island	2.5*	0.28	(50)	-24.2
Indiana	3.3	0.14	(25)	0.0	South Carolina	4.5⊕*	0.21	(02)	36.4
Iowa	3.2	0.18	(29)	-3.0	South Dakota	2.7*	0.35	(47)	-18.2
Kansas	3.3	0.20	(24)	0.0	Tennessee	3.9⊕*	0.16	(04)	18.2
Kentucky	3.6	0.18	(11)	9.1	Texas	3.6	0.09	(12)	9.1
Louisiana	4.1⊕*	0.19	(03)	24.2	Utah	3.2	0.28	(26)	-3.0
Maine	3.3	0.29	(23)	0.0	Vermont	2.8*	0.41	(46)	-15.2
Maryland	3.8*	0.17	(06)	15.2	Virginia	3.9⊕*	0.15	(05)	18.2
Massachusetts	3.0	0.13	(36)	-9.1	Washington	3.4	0.15	(17)	3.0
Michigan	3.6	0.11	(10)	9.1	West Virginia	3.1	0.22	(33)	-6.1
Minnesota	3.4	0.16	(20)	3.0	Wisconsin	3.1	0.14	(35)	-6.1
Mississippi	3.5	0.22	(13)	6.1	Wyoming	2.9	0.50	(41)	-12.1
Missouri	3.2	0.14	(30)	-3.0					

ä NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

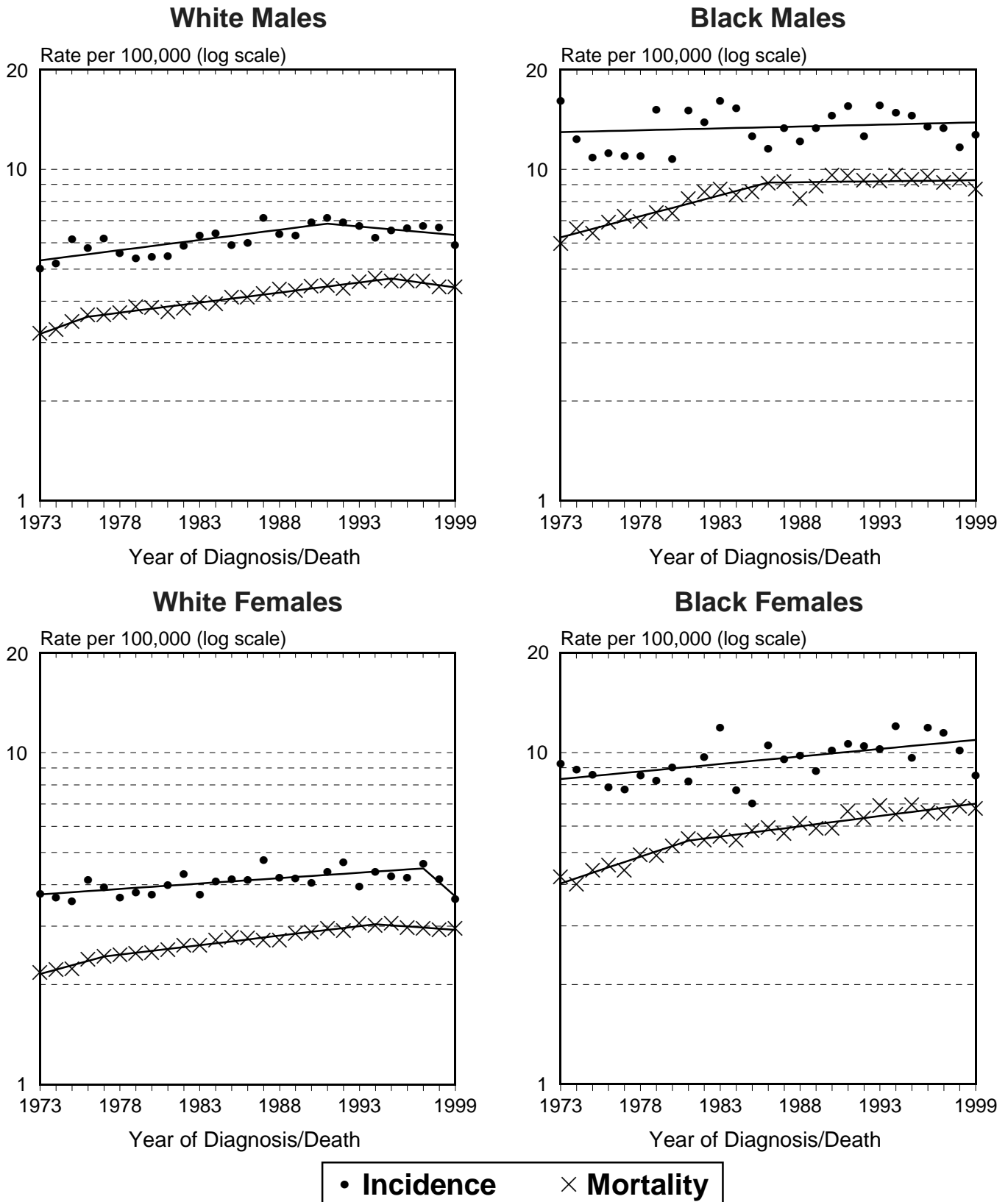
SE Standard error of the rate.

PD Percent difference between state rate and total U.S. rate.

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

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

SEER Incidence and U.S. Death Rates⁺ Multiple Myeloma



• Incidence × Mortality

⁺ Source: SEER 9 areas and NCHS public use data file. Rates are age-adjusted to the 2000 U.S. standard million population by 5-year age groups. Regression lines are calculated using the Joinpoint Regression Program.