

Table XVIII-1  
NON-HODGKIN'S LYMPHOMAS (Invasive)

TRENDS IN SEER INCIDENCE AND U.S. MORTALITY USING THE JOINTPOINT REGRESSION PROGRAM, 1973-1998  
WITH UP TO THREE JOINTPOINTS 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</u>						
Sex - Male and Female	1973-91	3.5★	1973-91	3.6★	1973-98	3.6★
	1991-98	0.4	1991-98	0.1		
Sex - Male	1973-90	4.0★	1973-79	2.4★	1973-98	4.1★
	1990-95	2.0	1979-88	5.0★		
	1995-98	-3.3	1988-95	1.7★		
			1995-98	-3.3★		
Sex - Female	1973-88	2.9★	1973-88	3.0★	1973-98	3.0★
	1988-98	1.4★	1988-98	1.3★		
<u>U.S. Cancer Mortality</u>						
Sex - Male and Female	1973-77	-0.2	1973-77	-0.1	1973-79	0.2
	1977-95	2.2★	1977-95	2.2★	1979-98	2.6★
	1995-98	-0.2	1995-98	-0.3		
Sex - Male	1973-77	-0.9	1973-77	-0.5	1973-76	-3.7
	1977-91	2.5★	1977-94	2.4★	1976-98	2.5★
	1991-98	1.2★	1994-98	0.3		
Sex - Female	1973-75	-1.8	1973-75	-1.9	1973-98	2.4★
	1975-95	2.0★	1975-95	2.0★		
	1995-98	-0.1	1995-98	-0.3		

The APC is the Annual Percent Change based on rates age-adjusted to the 1970 U.S. standard population using the Joinpoint Regression Program.

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

Table XVIII-2  
NON-HODGKIN'S LYMPHOMAS

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>									
YEAR OF DIAGNOSIS:									
1973	8.6	10.0	7.4	8.8	10.4	7.6	7.0	8.8	5.5
1974	8.9	10.4	7.7	9.2	10.7	8.0	5.9	7.5	4.6
1975	9.4	11.0	8.0	9.8	11.5	8.5	5.6	7.0	4.2
1976	9.5	10.7	8.5	9.8	11.1	8.9	5.3	6.6	4.3
1977	9.4	10.8	8.2	9.7	11.3	8.5	5.6	6.2	5.1
1978	10.0	11.9	8.4	10.4	12.3	9.0	6.2	8.3	4.3
1979	10.4	11.8	9.3	10.8	12.1	9.8	7.4	10.3	5.3
1980	10.5	12.4	8.9	10.8	12.7	9.3	7.4	9.3	5.9
1981	11.2	13.2	9.7	11.6	13.5	10.1	6.4	9.0	4.3
1982	11.2	13.0	9.6	11.7	13.7	10.0	8.4	8.7	8.0
1983	11.6	13.8	9.8	12.1	14.5	10.2	8.8	9.7	8.1
1984	12.6	15.1	10.6	13.2	15.7	11.2	8.3	11.2	5.9
1985	12.9	15.3	10.9	13.6	16.0	11.5	8.3	10.0	7.1
1986	13.1	15.9	10.7	13.9	16.9	11.3	8.8	10.9	7.0
1987	13.9	17.3	11.1	14.7	18.4	11.6	8.8	9.2	8.3
1988	14.3	17.5	11.7	15.1	18.3	12.3	9.9	13.5	7.2
1989	14.3	17.7	11.5	15.2	18.8	12.1	9.7	11.8	8.0
1990	15.3	18.9	12.3	16.0	19.7	12.8	11.5	14.3	9.3
1991	15.6	19.7	12.0	16.3	20.5	12.6	11.9	15.9	8.7
1992	15.4	19.0	12.3	16.1	19.7	13.0	11.5	15.6	8.3
1993	15.7	19.4	12.4	16.3	20.1	12.9	11.6	15.6	8.2
1994	16.5	20.4	13.1	17.0	20.8	13.7	12.1	17.9	7.2
1995	16.4	20.8	12.6	16.8	21.1	13.0	13.8	19.7	9.0
1996	16.0	19.8	12.7	16.5	20.4	13.2	12.5	15.7	9.8
1997	16.3	19.7	13.4	16.7	20.0	14.0	13.8	19.5	9.4
1998	15.6	18.4	13.2	16.2	19.0	13.8	10.9	12.9	9.1
<u>AGE-ADJUSTED RATES, 1994-98</u>									
AGE AT DIAGNOSIS:									
All ages	16.1	19.8	13.0	16.7	20.3	13.5	12.6	17.1	8.9
Under 65	9.3	11.7	7.0	9.5	11.8	7.2	9.2	13.1	5.9
65 and over	78.5	93.6	68.1	82.3	97.6	71.7	43.5	53.8	37.0
All ages (world std.)λ	13.3	16.4	10.5	13.6	16.7	10.9	11.0	15.2	7.6
<u>AGE-SPECIFIC RATES, 1994-98</u>									
AGE AT DIAGNOSIS:									
0-4	0.5	0.7	-	0.4	-	-	-	-	-
5-9	0.9	1.4	-	1.0	1.5	-	-	-	-
10-14	1.2	1.8	0.6	1.2	1.7	-	-	-	-
15-19	1.8	2.3	1.3	1.9	2.4	1.4	-	-	-
20-24	2.4	3.0	1.8	2.2	2.6	1.8	3.5	5.1	-
25-29	4.4	5.7	3.0	4.1	5.5	2.7	5.2	7.2	-
30-34	7.6	11.4	3.9	7.4	10.9	3.8	11.6	18.8	5.5
35-39	9.4	13.8	5.1	9.4	13.6	5.1	11.4	18.7	5.2
40-44	12.6	17.5	7.8	12.5	17.3	7.7	15.7	23.9	8.7
45-49	17.1	21.7	12.6	17.1	21.3	12.9	20.3	29.7	12.2
50-54	23.8	29.0	18.7	23.8	28.8	18.9	24.7	33.9	16.9
55-59	33.2	37.6	29.0	35.1	39.6	30.8	24.5	33.0	17.6
60-64	43.2	51.4	35.8	45.7	54.0	38.0	31.5	38.8	25.9
65-69	57.3	68.9	47.6	60.8	72.7	50.5	36.8	44.7	30.6
70-74	79.7	90.4	71.3	83.9	93.9	76.1	42.9	48.7	38.8
75-79	94.8	111.1	83.4	99.6	116.4	87.8	47.4	59.1	39.7
80-84	104.3	131.5	88.2	107.0	135.3	90.6	61.9	76.0	54.1
85+	92.3	118.4	81.5	95.3	121.5	84.9	39.4	-	-

§ SEER Program. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population, unless noted.

λ SEER Program. 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 XVIII-3  
NON-HODGKIN'S LYMPHOMASU.S. MORTALITY RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES<sup>0</sup>, 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:									
1973	4.7	5.8	3.9	4.9	6.0	4.1	3.2	4.3	2.3
1974	4.8	5.9	4.0	5.0	6.1	4.1	3.3	4.4	2.4
1975	4.7	5.7	3.8	4.8	5.9	3.9	3.2	4.2	2.5
1976	4.7	5.7	3.9	4.9	5.9	4.1	3.0	3.9	2.3
1977	4.8	5.7	4.0	4.9	5.9	4.1	3.3	4.2	2.6
1978	4.9	6.0	4.0	5.0	6.2	4.2	3.3	4.5	2.4
1979	4.9	6.0	4.0	5.1	6.3	4.1	3.1	3.9	2.5
1980	5.1	6.1	4.2	5.3	6.3	4.4	3.3	4.3	2.5
1981	5.0	6.0	4.2	5.2	6.2	4.4	3.3	4.1	2.7
1982	5.3	6.4	4.4	5.5	6.7	4.6	3.4	4.4	2.7
1983	5.4	6.6	4.5	5.6	6.8	4.7	3.6	4.8	2.7
1984	5.4	6.5	4.6	5.7	6.8	4.8	3.5	4.4	2.8
1985	5.7	7.0	4.6	5.9	7.3	4.8	3.8	4.7	3.1
1986	5.9	7.2	4.8	6.1	7.4	5.0	4.1	5.5	3.0
1987	5.8	7.0	4.8	6.0	7.3	5.0	3.9	5.1	3.0
1988	6.0	7.4	4.9	6.2	7.6	5.1	4.1	5.5	3.0
1989	6.2	7.7	5.1	6.4	7.9	5.3	4.4	5.8	3.3
1990	6.2	7.9	5.0	6.5	8.2	5.2	4.4	5.9	3.4
1991	6.5	8.0	5.3	6.7	8.3	5.5	4.7	5.9	3.7
1992	6.5	8.1	5.3	6.8	8.4	5.5	4.6	5.9	3.6
1993	6.5	8.0	5.4	6.8	8.2	5.6	4.7	6.1	3.6
1994	6.9	8.5	5.6	7.2	8.8	5.9	4.6	5.7	3.7
1995	6.9	8.5	5.6	7.2	8.8	5.9	4.7	6.2	3.6
1996	6.9	8.6	5.6	7.2	8.9	5.9	5.1	6.8	3.9
1997	7.1	8.7	5.7	7.3	9.0	5.9	5.2	6.8	4.0
1998	6.9	8.5	5.6	7.1	8.8	5.8	4.9	6.2	4.0
<u>AGE-ADJUSTED RATES, 1994-98</u>									
AGE AT DEATH:									
All ages	6.9	8.6	5.6	7.2	8.9	5.9	4.9	6.4	3.8
Under 65	2.8	3.6	2.1	2.9	3.7	2.1	2.8	3.8	1.9
65 and over	44.3	53.6	38.1	46.6	56.1	40.1	24.5	29.5	21.3
All ages (world std.) <sup>0</sup>	5.3	6.6	4.2	5.5	6.8	4.4	4.0	5.2	3.0
<u>AGE-SPECIFIC RATES, 1994-98</u>									
AGE AT DEATH:									
0-4	0.1	0.1	-	0.1	0.1	-	-	-	-
5-9	0.1	0.2	0.1	0.1	0.2	-	0.2	-	-
10-14	0.2	0.2	0.1	0.2	0.2	0.1	-	-	-
15-19	0.3	0.4	0.2	0.3	0.4	0.2	0.3	-	-
20-24	0.6	0.7	0.5	0.6	0.6	0.5	0.7	0.9	0.4
25-29	0.9	1.3	0.6	0.9	1.2	0.6	1.2	1.7	0.8
30-34	1.5	2.2	0.9	1.5	2.1	0.8	1.9	2.7	1.2
35-39	2.0	2.8	1.2	2.0	2.8	1.2	2.8	3.9	1.9
40-44	3.0	4.1	1.9	2.9	4.0	1.8	3.8	5.4	2.5
45-49	4.5	6.0	3.0	4.5	6.0	3.0	5.3	7.8	3.3
50-54	7.3	9.4	5.3	7.5	9.4	5.5	7.6	10.9	5.0
55-59	11.5	14.3	9.0	12.0	14.8	9.4	9.6	12.2	7.6
60-64	18.2	22.5	14.3	18.9	23.2	15.0	14.6	19.6	10.8
65-69	26.6	32.2	21.9	28.1	33.9	23.2	16.7	20.9	13.6
70-74	40.0	47.8	33.9	42.0	50.0	35.7	23.4	28.1	20.2
75-79	54.6	64.6	47.6	57.3	67.6	50.1	27.3	32.1	24.3
80-84	70.6	85.3	62.1	73.7	88.8	64.9	38.4	46.8	34.1
85+	76.2	96.9	67.8	80.0	102.5	71.1	36.1	42.1	33.7

<sup>0</sup> NCHS public use tape. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population, unless noted.  
<sup>1</sup> NCHS public use tape. 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 XVIII-4  
NON-HODGKIN'S LYMPHOMAS

	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 <sup>a</sup>	-	-	-	31	31	31	-	-	-
1970-73 <sup>a</sup>	-	-	-	41	39	43	-	-	-
1974-76 <sup>b</sup>	47.2	47.1	47.3	47.8	48.1	47.4	48.6	44.3 <sup>†</sup>	54.1 <sup>†</sup>
1977-79 <sup>b</sup>	48.4	45.7	51.1	48.6	46.3	50.8	51.6	45.0	60.2 <sup>†</sup>
1980-82 <sup>b</sup>	51.3	50.2	52.5	51.8	50.9	52.8	50.0	47.2	53.3
1983-85 <sup>b</sup>	53.9	52.7	55.1	54.4	53.4	55.4	45.1	43.6	47.0
1986-88 <sup>b</sup>	52.3	49.4	55.7	52.8	50.0	56.1	50.2	46.9	54.4
1989-91 <sup>b</sup>	51.1	47.0	56.3	51.9	47.7	57.1	43.7	39.1	50.3
1992-97 <sup>b</sup>	53.1 <sup>Ω</sup>	49.3	57.8 <sup>Ω</sup>	54.2 <sup>Ω</sup>	50.6 <sup>Ω</sup>	58.6 <sup>Ω</sup>	43.4 <sup>Ω</sup>	38.9	51.4
<u>5-YR RELATIVE SURVIVAL RATES, 1992-97<sup>b</sup></u>									
AGE AT DIAGNOSIS:									
<45	52.8	45.4	70.6	55.3	47.5	74.4	36.2	30.0	52.7
45-54	61.8	55.9	71.7	62.9	56.9	73.0	52.6	48.8	61.2 <sup>†</sup>
55-64	60.7	56.5	66.0	61.5	57.6	66.7	53.2	47.7 <sup>†</sup>	60.1 <sup>†</sup>
65-74	53.4	52.9	53.9	54.5	54.1	54.9	44.2	47.2 <sup>†</sup>	41.3 <sup>†</sup>
75+	38.9	35.0	41.4	39.4	35.6	41.9	37.5 <sup>†</sup>	36.2 <sup>†</sup>	37.4 <sup>†</sup>
Under 65	57.8	51.3	69.2	59.5	53.0	70.9	44.2	38.0	57.5
65 and over	47.1	45.9	47.9	47.9	46.8	48.7	41.2	44.2 <sup>†</sup>	38.5

<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 Program. 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 through 1997.

<sup>Ω</sup> The difference in rates between 1974-76 and 1992-97 is statistically significant (p<.05).  
<sup>†</sup> The standard error of the survival rate is between 5 and 10 percentage points.  
<sup>‡</sup> The standard error of the survival rate is greater than 10 percentage points.  
 - Statistic could not be calculated.

Table XVIII-5  
NON-HODGKIN'S LYMPHOMASINCIDENCE, MORTALITY, 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
Incidence																				
SEER	9.4	10.5	11.2	11.2	11.6	12.6	12.9	13.1	13.9	14.3	14.3	15.3	15.6	15.4	15.7	16.5	16.4	16.0	16.3	15.6
Mortality																				
U.S.	4.7	5.1	5.0	5.3	5.4	5.4	5.7	5.9	5.8	6.0	6.2	6.2	6.5	6.5	6.5	6.9	6.9	6.9	7.1	6.9
SEER	4.7	5.3	5.2	5.5	5.5	5.6	6.0	6.3	5.9	5.9	6.2	6.3	6.4	6.6	6.3	6.9	6.6	6.8	6.8	6.7
Relative Survival Rates (SEER)																				
1-year	69.3	72.6	74.6	72.4	76.3	74.2	72.8	71.0	73.1	71.9	71.3	70.6	70.3	71.2	71.5	71.0	70.4	73.3	75.5	
2-year	58.8	62.6	64.9	63.2	67.2	65.4	64.1	62.5	64.1	63.0	63.1	61.5	61.3	62.4	63.6	63.1	61.8	65.7		
3-year	54.7	57.3	59.6	58.5	61.5	60.9	59.7	58.4	59.3	59.2	57.9	56.9	57.0	58.3	59.0	58.7	57.2			
4-year	50.9	54.8	54.8	55.3	57.3	57.2	56.1	54.7	56.2	55.2	54.3	53.0	54.4	55.0	56.2	55.2				
5-year	47.5	50.8	51.7	51.4	53.9	54.3	53.4	51.4	53.0	52.3	51.0	50.7	51.6	51.8	53.2					
6-year	43.2	48.5	48.7	48.2	50.4	51.2	51.2	48.7	50.1	50.2	48.5	48.4	48.8	49.4						
7-year	40.7	46.1	46.6	45.6	48.0	49.3	48.4	46.9	47.9	48.2	46.2	45.8	45.7							
8-year	39.0	44.0	44.9	44.5	46.3	46.3	46.4	44.7	45.5	46.1	43.5	43.9								
9-year	37.7	41.8	42.2	43.5	44.9	44.6	44.9	42.8	43.5	44.4	41.9									
10-year	36.4	40.1	40.6	42.1	43.4	42.7	43.2	41.1	42.3	43.1										
11-year	34.7	39.2	39.5	40.8	41.7	41.7	42.0	40.5	41.1											
12-year	33.8	37.9	38.5	39.4	40.3	41.0	41.0	39.0												
13-year	32.8	36.6	38.1	38.4	39.0	40.3	39.6													
14-year	31.7	36.0	37.4	37.2	38.1	39.1														
15-year	31.2	35.4	35.7	37.2	36.9															
16-year	30.2	35.4	34.4	36.2																
17-year	30.2	35.3	33.9																	
18-year	30.2	34.4																		
19-year	30.0																			
20-year	29.5																			
21-year	28.9																			
22-year	28.6																			
23-year	27.1																			

Note: Incidence and mortality rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.  
Survival rates are relative rates expressed as percents.

Table XVIII-6  
NON-HODGKIN'S LYMPHOMAS

## INCIDENCE, MORTALITY, 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
Incidence																				
SEER	11.0	12.4	13.2	13.0	13.8	15.1	15.3	15.9	17.3	17.5	17.7	18.9	19.7	19.0	19.4	20.4	20.8	19.8	19.7	18.4
Mortality																				
U.S.	5.7	6.1	6.0	6.4	6.6	6.5	7.0	7.2	7.0	7.4	7.7	7.9	8.0	8.1	8.0	8.5	8.5	8.6	8.7	8.5
SEER	5.9	6.2	6.3	6.8	6.5	6.6	7.6	7.8	7.4	7.3	7.7	8.0	7.9	8.3	7.6	8.4	7.9	8.1	8.3	8.0
Relative Survival Rates (SEER)																				
1-year	68.9	72.9	73.5	71.8	76.5	73.6	71.8	70.1	69.7	68.8	68.4	66.5	66.8	68.3	68.3	67.7	67.0	71.5	74.8	
2-year	61.2	62.9	65.0	63.0	68.2	64.4	62.9	61.4	60.9	60.2	59.3	57.5	57.2	58.1	59.3	59.6	58.6	63.6		
3-year	56.0	57.1	59.9	57.9	62.2	59.4	58.1	57.2	56.3	55.6	54.0	52.4	52.6	54.2	54.5	54.8	54.3			
4-year	52.1	54.3	54.1	54.2	58.0	55.6	53.6	52.7	52.8	51.5	50.2	48.6	49.9	50.6	51.5	51.3				
5-year	48.3	49.5	50.5	50.5	54.7	53.4	50.4	49.5	49.9	48.7	46.7	46.4	47.8	46.7	48.3					
6-year	44.4	47.0	47.6	46.9	51.0	50.1	47.8	46.4	47.2	47.0	44.2	44.7	45.1	45.0						
7-year	42.0	44.9	45.9	43.5	48.4	48.2	45.0	44.5	45.6	45.2	41.3	42.0	42.1							
8-year	40.9	43.0	44.4	43.0	46.7	44.8	43.0	42.1	42.9	44.0	39.0	40.5								
9-year	39.7	40.2	42.2	42.1	45.4	43.2	41.2	40.2	40.6	42.5	37.6									
10-year	38.4	38.4	40.9	39.9	43.3	41.6	40.0	38.7	39.5	41.3										
11-year	36.8	36.4	39.3	39.1	42.0	40.2	38.9	37.6	38.4											
12-year	35.8	35.4	38.4	37.7	41.6	39.8	37.5	36.6												
13-year	34.4	35.1	37.9	37.2	40.9	38.8	36.3													
14-year	33.1	34.9	37.2	36.4	40.0	37.5														
15-year	32.3	34.2	35.9	36.4	39.2															
16-year	30.9	34.0	34.6	35.4																
17-year	30.9	33.7	33.3																	
18-year	30.9	33.2																		
19-year	30.8																			
20-year	30.6																			
21-year	30.0																			
22-year	30.0																			
23-year	28.1																			

Note: Incidence and mortality rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.  
Survival rates are relative rates expressed as percents.

Table XVIII-7  
NON-HODGKIN'S LYMPHOMASINCIDENCE, MORTALITY, 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
Incidence																				
SEER	8.0	8.9	9.7	9.6	9.8	10.6	10.9	10.7	11.1	11.7	11.5	12.3	12.0	12.3	12.4	13.1	12.6	12.7	13.4	13.2
Mortality																				
U.S.	3.8	4.2	4.2	4.4	4.5	4.6	4.6	4.8	4.8	4.9	5.1	5.0	5.3	5.3	5.4	5.6	5.6	5.6	5.7	5.6
SEER	3.7	4.7	4.4	4.5	4.7	4.8	4.8	5.0	4.9	4.7	5.1	4.9	5.3	5.2	5.3	5.7	5.5	5.7	5.6	5.7
Relative Survival Rates (SEER)																				
1-year	69.8	72.3	75.7	73.0	76.1	74.8	74.0	72.2	77.2	75.6	74.9	75.8	75.0	74.8	75.6	75.2	74.8	75.6	76.3	76.3
2-year	56.0	62.3	64.8	63.4	66.1	66.5	65.5	63.8	68.0	66.4	67.9	66.4	66.7	67.9	69.0	67.6	66.1	68.3		
3-year	53.3	57.6	59.3	59.1	60.8	62.5	61.5	59.9	63.0	63.4	62.7	62.4	62.8	63.3	64.6	63.7	61.0			
4-year	49.7	55.3	55.5	56.4	56.6	58.8	58.8	57.0	60.3	59.6	59.5	58.4	60.3	60.5	62.1	60.3				
5-year	46.5	52.2	52.9	52.3	53.1	55.2	56.7	53.7	56.7	56.6	56.3	55.9	56.7	58.2	59.4					
6-year	41.9	50.1	49.9	49.5	49.7	52.4	55.0	51.4	53.7	54.2	53.8	53.0	53.9	54.9						
7-year	39.3	47.4	47.4	47.8	47.7	50.6	52.2	49.8	49.8	50.7	51.8	52.4	50.5	50.6						
8-year	36.9	45.1	45.5	46.1	45.8	48.0	50.2	47.9	48.7	48.7	49.2	48.0								
9-year	35.4	43.4	42.2	45.0	44.4	46.2	48.9	45.8	47.2	46.7	47.4									
10-year	34.4	41.9	40.3	44.3	43.4	43.9	46.8	44.1	45.8	45.3										
11-year	32.5	41.9	39.7	42.6	41.4	43.4	45.5	44.0	44.4											
12-year	31.7	40.6	38.5	41.1	38.9	42.4	44.9	41.9												
13-year	31.1	38.2	38.3	39.6	37.0	42.0	43.2													
14-year	30.2	37.3	37.6	38.1	36.0	40.8														
15-year	30.0	36.6	35.6	37.5	34.5															
16-year	29.5	36.6	34.3	37.0																
17-year	29.5	36.6	34.3																	
18-year	29.5	35.7																		
19-year	29.1																			
20-year	28.4																			
21-year	27.7																			
22-year	27.0																			
23-year	26.1																			

Note: Incidence and mortality rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.  
Survival rates are relative rates expressed as percents.

Table XVIII-8

NON-HODGKIN'S LYMPHOMASNUMBER OF CASES

By SEER Location and Year of Diagnosis, 1973-98

All Races, Males, All Ages

Year of Diagnosis

SEER Location	1973-79	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
All Areas⊕	6804	1205	1298	1296	1398	1557	1609	1719	1900	1957	2032	2214	2351	2312	2414	2591	2687	2582	2587	2431
All Areas Excluding SF-Oakland SMSA	5543	1002	1084	1084	1174	1274	1318	1337	1476	1529	1559	1692	1805	1789	1888	2035	2080	2037	2129	2023
San Francisco-Oakland SMSA	1261	203	214	212	224	283	291	382	424	428	473	522	546	523	526	556	607	545	458	408
San Francisco City/County	336	50	46	59	63	104	106	140	185	175	217	246	224	222	195	205	241	211	139	94

AGE-ADJUSTED CANCER INCIDENCE RATES§

By SEER Location and Year of Diagnosis, 1973-98

All Races, Males, All Ages

Year of Diagnosis

SEER Location	1973-79	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
All Areas⊕	11.0	12.4	13.2	13.0	13.8	15.1	15.3	15.9	17.3	17.5	17.7	18.9	19.7	19.0	19.4	20.4	20.8	19.8	19.7	18.4
All Areas Excluding SF-Oakland SMSA	10.8	12.3	13.1	13.0	13.9	14.8	15.1	14.9	16.2	16.6	16.5	17.4	18.3	17.7	18.2	19.2	19.3	18.6	19.4	18.3
San Francisco-Oakland SMSA	12.1	12.8	13.4	13.2	13.4	16.4	16.1	21.0	22.5	21.7	23.6	26.2	26.4	25.2	25.1	26.1	28.3	25.9	21.4	19.1
San Francisco City/County	12.2	12.4	11.7	14.0	14.8	24.5	22.5	31.2	39.6	36.0	45.2	53.6	45.6	46.9	40.4	42.6	50.8	44.9	29.1	20.7

§ SEER Program. Rates are per 100,000 males and are age-adjusted to the 1970 U.S. standard population. Each rate has been age-adjusted by 5-year age groups.

⊕ All Areas refers to all SEER data collection areas. The San Francisco-Oakland SMSA represents 15% of all persons in the SEER areas. For this age group, all SEER areas may not be generalizable to the United States for Non-Hodgkin's Lymphoma.



Table XVIII-9

NON-HODGKIN'S LYMPHOMASNUMBER OF CASES

By SEER Location and Year of Diagnosis, 1973-98

All Races, Males, Ages 0-19

Year of Diagnosis

SEER Location	1973-79	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
All Areas⊕	298	38	51	50	58	48	41	44	49	42	43	46	55	44	43	59	60	44	63	58
All Areas Excluding SF-Oakland SMSA	252	35	45	42	53	43	37	37	43	40	37	38	49	39	33	54	52	33	53	48
San Francisco-Oakland SMSA	46	<4	6	8	5	5	4	7	6	<4	6	8	6	5	10	5	8	11	10	10
San Francisco City/County	12	<4	<4	0	<4	<4	0	<4	0	0	0	<4	<4	0	<4	<4	<4	<4	<4	<4

AGE-ADJUSTED CANCER INCIDENCE RATES§

By SEER Location and Year of Diagnosis, 1973-98

All Races, Males, Ages 0-19

Year of Diagnosis

SEER Location	1973-79	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
All Areas⊕	1.2	1.1	1.5	1.5	1.7	1.5	1.3	1.3	1.5	1.3	1.3	1.4	1.6	1.3	1.2	1.7	1.7	1.2	1.7	1.6
All Areas Excluding SF-Oakland SMSA	1.2	1.2	1.5	1.5	1.8	1.5	1.3	1.3	1.5	1.4	1.3	1.3	1.7	1.3	1.1	1.8	1.7	1.0	1.6	1.5
San Francisco-Oakland SMSA	1.4	-	1.4	1.8	1.2	1.2	0.9	1.6	1.4	-	1.4	1.8	1.2	1.1	2.1	1.0	1.7	2.3	2.1	2.0
San Francisco City/County	2.1	-	-	0.0	-	-	0.0	-	0.0	0.0	0.0	-	-	0.0	-	-	-	-	-	-

§ SEER Program. Rates are per 100,000 males aged 0-19 and are age-adjusted to the 1970 U.S. standard population. Each rate has been age-adjusted by 5-year age groups.

⊕ All Areas refers to all SEER data collection areas. The San Francisco-Oakland SMSA represents 15% of all persons in the SEER areas. For this age group, all SEER areas may not be generalizable to the United States for Non-Hodgkin's Lymphoma.

Table XVIII-10

NON-HODGKIN'S LYMPHOMASNUMBER OF CASES

By SEER Location and Year of Diagnosis, 1973-98

All Races, Males, Ages 20-54

## Year of Diagnosis

SEER Location	1973-79	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
All Areas⊕	1900	335	350	363	354	460	494	568	637	661	748	839	922	891	942	1010	1062	901	829	756
All Areas Excluding SF-Oakland SMSA	1544	278	282	301	282	353	373	396	426	446	472	563	623	630	661	725	736	657	633	599
San Francisco-Oakland SMSA	356	57	68	62	72	107	121	172	211	215	276	276	299	261	281	285	326	244	196	157
San Francisco City/County	91	15	14	14	20	50	55	90	125	125	164	170	166	160	146	146	171	137	86	44

AGE-ADJUSTED CANCER INCIDENCE RATES§

By SEER Location and Year of Diagnosis, 1973-98

All Races, Males, Ages 20-54

## Year of Diagnosis

SEER Location	1973-79	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
All Areas⊕	6.4	7.5	7.6	7.9	7.5	9.6	10.0	11.1	12.0	12.1	13.2	14.4	15.4	14.7	15.1	15.6	16.2	13.5	12.4	11.1
All Areas Excluding SF-Oakland SMSA	6.3	7.4	7.3	7.9	7.3	9.0	9.3	9.5	9.9	10.2	10.2	11.8	12.9	12.8	12.8	13.6	13.5	11.8	11.3	10.6
San Francisco-Oakland SMSA	6.8	7.4	8.8	8.1	8.7	12.5	13.4	19.2	22.4	21.0	27.2	26.9	27.8	24.0	26.0	25.8	29.8	22.3	17.5	13.9
San Francisco City/County	7.7	8.3	8.0	7.2	10.2	26.0	24.1	43.5	58.7	54.6	74.2	77.9	69.9	71.9	63.9	64.5	75.4	61.5	37.6	19.0

§ SEER Program. Rates are per 100,000 males aged 20-54 and are age-adjusted to the 1970 U.S. standard population. Each rate has been age-adjusted by 5-year age groups.

⊕ All Areas refers to all SEER data collection areas. The San Francisco-Oakland SMSA represents 15% of all persons in the SEER areas. For this age group, all SEER areas may not be generalizable to the United States for Non-Hodgkin's Lymphoma.

Table XVIII-11

NON-HODGKIN'S LYMPHOMASNUMBER OF CASES

By SEER Location and Year of Diagnosis, 1973-98

All Races, Males, Ages 55+

Year of Diagnosis

SEER Location	1973-79	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
All Areas⊕	4606	832	897	883	986	1049	1074	1107	1214	1254	1241	1329	1374	1377	1429	1522	1565	1637	1695	1617
All Areas Excluding SF-Oakland SMSA	3747	689	757	741	839	878	908	904	1007	1043	1050	1091	1133	1120	1194	1256	1292	1347	1443	1376
San Francisco-Oakland SMSA	859	143	140	142	147	171	166	203	207	211	191	238	241	257	235	266	273	290	252	241
San Francisco City/County	233	34	31	45	42	53	51	48	60	50	53	75	57	62	48	58	68	72	52	48

AGE-ADJUSTED CANCER INCIDENCE RATES§

By SEER Location and Year of Diagnosis, 1973-98

All Races, Males, Ages 55+

Year of Diagnosis

SEER Location	1973-79	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
All Areas⊕	40.8	46.2	49.3	47.5	52.2	54.8	55.0	56.0	60.6	62.1	60.7	63.9	65.2	63.8	65.2	68.4	69.1	70.9	72.3	68.3
All Areas Excluding SF-Oakland SMSA	39.9	45.6	49.6	47.5	53.0	54.6	55.5	54.5	59.8	61.5	60.9	62.1	63.7	61.6	64.5	66.8	67.5	69.0	73.0	69.0
San Francisco-Oakland SMSA	45.2	49.0	47.9	47.4	48.4	55.3	52.6	63.9	64.6	65.7	59.5	73.2	73.5	75.8	69.2	76.7	78.0	81.3	68.6	64.7
San Francisco City/County	42.7	43.0	39.8	57.4	52.2	67.2	63.8	59.5	75.4	65.6	69.8	102.1	79.1	83.7	64.7	74.5	90.1	91.4	64.8	59.9

§ SEER Program. Rates are per 100,000 males aged 55+ and are age-adjusted to the 1970 U.S. standard population. Each rate has been age-adjusted by 5-year age groups.

⊕ All Areas refers to all SEER data collection areas. The San Francisco-Oakland SMSA represents 15% of all persons in the SEER areas. For this age group, all SEER areas may not be generalizable to the United States for Non-Hodgkin's Lymphoma.

Table XVIII-12

NON-HODGKIN'S LYMPHOMASAGE-ADJUSTED CANCER SEER INCIDENCE RATES<sup>§</sup>, 1980-98

By The Working Formulation and Year of Diagnosis

All Races, Males and Females

Working Formulation	Year of Diagnosis																		
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	10.5	11.2	11.2	11.6	12.6	12.9	13.1	13.9	14.3	14.3	15.3	15.6	15.4	15.7	16.5	16.4	16.0	16.3	15.6
Low Grade:	2.9	2.9	2.9	3.1	3.2	3.3	3.4	3.4	3.6	3.3	3.7	3.6	3.6	3.6	3.6	3.4	3.3	3.6	3.4
A: Small, lymphocytic	1.0	1.1	1.1	1.1	1.2	1.3	1.2	1.4	1.4	1.3	1.4	1.3	1.5	1.4	1.4	1.3	1.2	1.3	1.3
B: Follicular, small cleaved	1.4	1.3	1.2	1.5	1.4	1.3	1.5	1.2	1.4	1.2	1.3	1.4	1.3	1.3	1.2	1.2	1.1	1.3	1.1
C: Follicular, mixed small cleaved and large cell	0.5	0.5	0.5	0.6	0.6	0.7	0.8	0.7	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0
Intermediate Grade:	5.1	5.6	5.3	5.4	5.8	6.0	5.9	6.3	6.4	6.3	6.8	6.6	6.3	6.6	6.8	6.7	6.5	6.7	6.6
D: Follicular, large cell	0.2	0.2	0.3	0.2	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.5	0.5
E: Diffuse, small cleaved	1.6	1.7	1.2	1.3	1.2	1.1	0.8	1.0	1.0	1.0	1.0	0.8	0.8	0.9	0.9	0.8	0.9	0.7	0.8
F: Diffuse, mixed small and large cell	0.6	0.7	0.8	0.9	0.9	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.4	0.4
G: Diffuse, large cell	2.8	3.0	3.1	3.0	3.4	3.6	3.8	4.0	4.2	4.1	4.6	4.5	4.5	4.6	4.7	5.0	4.6	5.0	5.0
High Grade:	0.5	0.6	1.0	1.1	1.1	1.2	1.4	1.6	1.7	1.9	1.8	2.0	1.9	1.9	1.8	1.5	1.5	1.2	0.9
H: Large cell, immunoblastic	0.2	0.2	0.4	0.6	0.6	0.6	0.7	0.8	0.9	1.1	1.1	1.2	1.2	1.3	1.1	0.8	0.9	0.7	0.4
I: Lymphoblastic	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.2
J: Small noncleaved; Burkitt's	0.3	0.3	0.4	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.4	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.4
Unclassified Grade	1.9	2.2	2.0	2.0	2.4	2.5	2.3	2.6	2.6	2.9	3.1	3.4	3.5	3.6	4.2	4.8	4.7	4.8	4.6

<sup>§</sup> SEER Program. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.

Table XVIII-13  
NON-HODGKIN'S LYMPHOMAS

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

1996-1998

All Races

Current Age	Males				Females				
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually	
0	0.01	0.03	0.07	2.10	0.00	0.01	0.03	1.76	
10	0.02	0.06	0.16	2.11	0.01	0.03	0.07	1.77	
20	0.04	0.14	0.31	2.11	0.02	0.07	0.16	1.77	
30	0.11	0.27	0.58	2.10	0.04	0.14	0.36	1.76	
40	0.17	0.48	0.97	2.03	0.10	0.32	0.68	1.73	
50	0.32	0.83	1.46	1.93	0.22	0.59	1.16	1.66	
60	0.55	1.23	1.67	1.75	0.39	0.99	1.41	1.51	
Lifetime Risk of Being Diagnosed =				2.10%	Lifetime Risk of Being Diagnosed =				1.76%
Lifetime Risk of Dying =				0.99%	Lifetime Risk of Dying =				0.89%

Whites

Current Age	Males				Females				
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually	
0	0.01	0.03	0.07	2.20	0.00	0.01	0.03	1.84	
10	0.02	0.06	0.16	2.21	0.01	0.03	0.07	1.85	
20	0.04	0.14	0.31	2.21	0.02	0.06	0.16	1.85	
30	0.10	0.27	0.59	2.20	0.04	0.14	0.37	1.84	
40	0.17	0.49	1.01	2.13	0.10	0.32	0.71	1.81	
50	0.33	0.87	1.54	2.03	0.23	0.62	1.22	1.74	
60	0.58	1.30	1.75	1.83	0.41	1.04	1.48	1.58	
Lifetime Risk of Being Diagnosed =				2.20%	Lifetime Risk of Being Diagnosed =				1.84%
Lifetime Risk of Dying =				1.05%	Lifetime Risk of Dying =				0.95%

Blacks

Current Age	Males				Females				
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually	
0	0.01	0.02	0.07	1.28	0.00	0.01	0.04	1.05	
10	0.01	0.06	0.21	1.29	0.01	0.03	0.08	1.07	
20	0.05	0.20	0.41	1.29	0.03	0.08	0.17	1.07	
30	0.16	0.37	0.62	1.28	0.05	0.14	0.32	1.05	
40	0.22	0.48	0.76	1.17	0.10	0.28	0.55	1.02	
50	0.29	0.58	0.84	1.03	0.19	0.47	0.74	0.96	
60	0.35	0.65	0.84	0.88	0.31	0.60	0.79	0.84	
Lifetime Risk of Being Diagnosed =				1.28%	Lifetime Risk of Being Diagnosed =				1.05%
Lifetime Risk of Dying =				0.55%	Lifetime Risk of Dying =				0.48%

Table XVIII-14  
NON-HODGKIN'S LYMPHOMAS (Invasive)

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

By Race/Ethnicity and Sex

Incidence<sup>x</sup>

RACE/ETHNICITY	Rate 1992-1998 Rate per 100,000 persons			Trend 1992-1998 EAPC (%)		
	Total	Males	Females	Total	Males	Females
All Races	15.7	19.5	12.4	0.1	-0.5	1.1*
White	16.4	20.2	13.0	-0.2	-0.8	0.7
White Hispanic	13.0	15.9	10.3	-1.6	-2.2	-0.8
White Non-Hispanic	16.7	20.6	13.3	0.0	-0.6	0.9*
Black	12.0	16.0	8.7	1.9	-0.1	4.9*
Asian/Pacific Islander	11.0	13.4	9.1	0.6	0.5	0.7
Amer Ind/Alask Nat	5.4	6.1	4.8	2.6	-	-
Hispanic <sup>⊗</sup>	12.2	14.9	9.8	-1.6	-2.2	-0.7

Mortality<sup>❖</sup>

RACE/ETHNICITY	Rate 1992-1998 Rate per 100,000 persons			Trend 1992-1998 EAPC (%)		
	Total	Males	Females	Total	Males	Females
All Races	6.8	8.4	5.5	1.1*	1.1*	1.0*
White	7.1	8.7	5.8	1.1*	1.1*	0.9
White Hispanic	5.3	6.7	4.2	1.6*	1.4	1.8*
White Non-Hispanic	7.1	8.7	5.8	1.3*	1.4*	1.1
Black	4.8	6.3	3.8	2.0*	2.0	2.0*
Asian/Pacific Islander	4.1	5.2	3.2	0.5	0.1	1.1
Amer Ind/Alask Nat	3.2	3.7	2.8	6.8	8.6	5.5
Hispanic <sup>⊗</sup>	5.0	6.3	3.9	1.5*	1.4	1.7*

- 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.
- x Incidence data are from the 11 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, and Los Angeles) and Alaska. Unless specified, other tables use data from 9 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).
- ⊗ Hispanic is not mutually exclusive from whites, blacks, Asian Pacific Islanders, and American Indians/Native Alaskans. For incidence, all 11 SEER areas are included. For mortality, information is included for all states except Connecticut, Oklahoma, Louisiana, 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 XVIII-15  
NON-HODGKIN'S LYMPHOMASAGE-ADJUSTED SEER INCIDENCE RATES§ AND SEER MORTALITY RATES§  
By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER INCIDENCE RATES§, 1994-98</u>									
REGISTRY									
11 registries	15.9	19.6	12.6	16.5	20.3	13.1	12.3	16.4	8.9
9 registries	16.1	19.8	13.0	16.7	20.3	13.5	12.6	17.1	8.9
San Francisco-Oakland	18.2	24.0	12.9	20.1	26.6	14.0	13.3	18.8	8.5
Connecticut	17.2	20.6	14.4	17.3	20.4	14.6	14.0	18.3	10.4
Metropolitan Detroit	15.7	18.9	13.1	16.3	19.3	14.0	12.1	16.4	8.7
Hawaii	13.3	15.7	11.1	15.6	18.5	12.7	-	-	-
Iowa	16.1	18.5	14.2	16.1	18.3	14.3	-	-	-
New Mexico	12.4	15.0	10.2	12.9	15.6	10.5	-	-	-
Seattle-Puget Sound	17.0	20.8	13.7	17.2	21.0	13.8	13.2	17.8	9.2
Utah	14.7	17.9	11.9	14.8	18.1	12.0	-	-	-
Metropolitan Atlanta	15.0	19.0	11.7	15.1	18.8	12.0	12.6	17.0	9.3
San Jose-Monterey	16.4	19.8	13.5	15.8	19.5	12.5	11.7	19.4	-
Los Angeles	14.9	19.1	11.3	16.0	20.5	11.9	11.5	14.4	9.1
<u>SEER MORTALITY RATES§, 1994-98</u>									
REGISTRY									
11 registries	6.6	8.1	5.5	7.0	8.6	5.8	4.8	5.8	4.1
9 registries	6.8	8.1	5.7	7.1	8.5	6.0	4.9	6.0	4.1
San Francisco-Oakland	6.5	7.9	5.3	7.3	8.9	5.9	5.0	5.4	4.6
Connecticut	7.1	8.5	6.0	7.2	8.7	6.1	4.8	5.6	4.1
Metropolitan Detroit	7.1	8.5	6.1	7.7	9.1	6.6	4.8	6.3	3.8
Hawaii	6.0	7.0	5.1	7.6	9.2	5.9	-	-	-
Iowa	7.3	8.7	6.3	7.4	8.7	6.3	-	-	-
New Mexico	5.6	6.6	4.8	5.8	6.8	4.9	-	-	-
Seattle-Puget Sound	6.9	8.3	5.8	7.1	8.5	5.9	5.6	-	-
Utah	6.7	8.1	5.4	6.8	8.2	5.5	-	-	-
Metropolitan Atlanta	6.1	7.5	4.9	6.3	7.7	5.2	5.3	6.9	4.1
San Jose-Monterey	6.4	8.1	5.0	6.8	8.4	5.4	-	-	-
Los Angeles	6.3	8.0	4.9	6.8	8.7	5.4	4.7	5.5	4.1

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 Program. Incidence rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.  
 § NCHS public use tape. Mortality rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.  
 - Statistic could not be calculated or populations are inadequate.

Table XVIII-16  
NON-HODGKIN'S LYMPHOMASAVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY<sup>d</sup> RATES BY STATE, 1994-98

All Races, Males and Females

State	Rate	SE	Rank	PD
TOTAL U.S.	6.9	0.02		
High Five States				
Minnesota	7.8 <sup>¾</sup>	0.17	(01)	13.0
Rhode Island	7.8	0.35	(02)	13.0
New Hampshire	7.7	0.35	(03)	11.6
Ohio	7.6 <sup>¾</sup>	0.11	(04)	10.1
Maine	7.6	0.31	(05)	10.1
Low Five States				
Hawaii	6.0	0.29	(47)	-13.0
Georgia	6.0 <sup>¾</sup>	0.13	(48)	-13.0
Alaska	5.9	0.58	(49)	-14.5
New Mexico	5.6 <sup>¾</sup>	0.25	(50)	-18.8
District of Columbia	5.5 <sup>'</sup>	0.40	(51)	-20.3

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	6.4	0.16	(41)	-7.2	Montana	6.9	0.36	(25)	0.0
Alaska	5.9	0.58	(49)	-14.5	Nebraska	6.4	0.25	(42)	-7.2
Arizona	6.7	0.16	(33)	-2.9	Nevada	6.5	0.27	(38)	-5.8
Arkansas	6.9	0.21	(28)	0.0	New Hampshire	7.7	0.35	(03)	11.6
California	6.4 <sup>¾</sup>	0.06	(40)	-7.2	New Jersey	7.5 <sup>¾</sup>	0.12	(06)	8.7
Colorado	6.6	0.18	(36)	-4.3	New Mexico	5.6 <sup>¾</sup>	0.25	(50)	-18.8
Connecticut	7.1	0.19	(21)	2.9	New York	7.2	0.08	(16)	4.3
Delaware	6.9	0.41	(26)	0.0	North Carolina	6.3 <sup>¾</sup>	0.12	(43)	-8.7
District of Columbia	5.5 <sup>'</sup>	0.40	(51)	-20.3	North Dakota	6.6	0.40	(35)	-4.3
Florida	6.9	0.08	(31)	0.0	Ohio	7.6 <sup>¾</sup>	0.11	(04)	10.1
Georgia	6.0 <sup>¾</sup>	0.13	(48)	-13.0	Oklahoma	6.9	0.18	(24)	0.0
Hawaii	6.0	0.29	(47)	-13.0	Oregon	7.1	0.19	(17)	2.9
Idaho	6.9	0.33	(27)	0.0	Pennsylvania	7.2	0.09	(14)	4.3
Illinois	7.1	0.10	(20)	2.9	Rhode Island	7.8	0.35	(02)	13.0
Indiana	7.3	0.15	(12)	5.8	South Carolina	6.1 <sup>¾</sup>	0.17	(46)	-11.6
Iowa	7.3	0.20	(09)	5.8	South Dakota	7.3	0.40	(11)	5.8
Kansas	6.9	0.21	(29)	0.0	Tennessee	7.1	0.15	(19)	2.9
Kentucky	7.1	0.18	(18)	2.9	Texas	6.8	0.08	(32)	-1.4
Louisiana	7.3	0.17	(13)	5.8	Utah	6.7	0.27	(34)	-2.9
Maine	7.6	0.31	(05)	10.1	Vermont	7.3	0.47	(08)	5.8
Maryland	6.5	0.15	(39)	-5.8	Virginia	6.5	0.13	(37)	-5.8
Massachusetts	7.2	0.14	(15)	4.3	Washington	6.9	0.15	(30)	0.0
Michigan	7.4 <sup>¾</sup>	0.11	(07)	7.2	West Virginia	7.1	0.24	(22)	2.9
Minnesota	7.8 <sup>¾</sup>	0.17	(01)	13.0	Wisconsin	7.3	0.15	(10)	5.8
Mississippi	6.2	0.20	(45)	-10.1	Wyoming	6.3	0.48	(44)	-8.7
Missouri	7.1	0.15	(23)	2.9					

<sup>d</sup> NCHS public use tape. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.

SE Standard error of the rate.

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

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

<sup>¾</sup> Difference between state rate and total U.S. rate is statistically significant ( $p < .0002$ ).



Table XVIII-17  
NON-HODGKIN'S LYMPHOMASAVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY<sup>d</sup> RATES BY STATE, 1994-98

All Races, Males

State	Rate	SE	Rank	PD
TOTAL U.S.	8.6	0.04		
High Five States				
Vermont	10.1'	0.83	(01)	17.4
Rhode Island	9.9'	0.60	(02)	15.1
New Hampshire	9.8	0.59	(03)	14.0
Minnesota	9.5	0.28	(04)	10.5
Maine	9.5	0.53	(05)	10.5
Low Five States				
Georgia	7.5 <sup>3/4</sup>	0.22	(47)	-12.8
Alaska	7.4	0.96	(48)	-14.0
Hawaii	7.0'	0.46	(49)	-18.6
New Mexico	6.6 <sup>3/4</sup>	0.40	(50)	-23.3
Wyoming	6.6'	0.74	(51)	-23.3

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	8.3	0.27	(31)	-3.5	Montana	8.5	0.58	(26)	-1.2
Alaska	7.4	0.96	(48)	-14.0	Nebraska	8.0	0.42	(39)	-7.0
Arizona	8.1	0.26	(36)	-5.8	Nevada	8.1	0.44	(37)	-5.8
Arkansas	9.0	0.36	(14)	4.7	New Hampshire	9.8	0.59	(03)	14.0
California	7.9 <sup>3/4</sup>	0.10	(40)	-8.1	New Jersey	9.4 <sup>3/4</sup>	0.21	(06)	9.3
Colorado	7.7	0.30	(45)	-10.5	New Mexico	6.6 <sup>3/4</sup>	0.40	(50)	-23.3
Connecticut	8.5	0.31	(27)	-1.2	New York	9.1 <sup>3/4</sup>	0.14	(10)	5.8
Delaware	8.3	0.67	(30)	-3.5	North Carolina	7.7 <sup>3/4</sup>	0.21	(42)	-10.5
District of Columbia	7.9	0.74	(41)	-8.1	North Dakota	7.7	0.64	(44)	-10.5
Florida	8.7	0.14	(22)	1.2	Ohio	9.3 <sup>3/4</sup>	0.18	(08)	8.1
Georgia	7.5 <sup>3/4</sup>	0.22	(47)	-12.8	Oklahoma	8.5	0.31	(25)	-1.2
Hawaii	7.0'	0.46	(49)	-18.6	Oregon	8.7	0.31	(21)	1.2
Idaho	8.4	0.53	(29)	-2.3	Pennsylvania	8.9	0.16	(15)	3.5
Illinois	8.9	0.17	(19)	3.5	Rhode Island	9.9'	0.60	(02)	15.1
Indiana	9.0	0.25	(13)	4.7	South Carolina	7.7	0.29	(43)	-10.5
Iowa	8.7	0.32	(24)	1.2	South Dakota	9.4	0.67	(07)	9.3
Kansas	8.3	0.35	(32)	-3.5	Tennessee	8.9	0.26	(17)	3.5
Kentucky	8.9	0.30	(16)	3.5	Texas	8.4	0.14	(28)	-2.3
Louisiana	9.1	0.30	(09)	5.8	Utah	8.1	0.45	(35)	-5.8
Maine	9.5	0.53	(05)	10.5	Vermont	10.1'	0.83	(01)	17.4
Maryland	8.2	0.26	(34)	-4.7	Virginia	8.0	0.23	(38)	-7.0
Massachusetts	9.1	0.24	(11)	5.8	Washington	8.2	0.24	(33)	-4.7
Michigan	8.8	0.19	(20)	2.3	West Virginia	8.7	0.40	(23)	1.2
Minnesota	9.5	0.28	(04)	10.5	Wisconsin	9.1	0.26	(12)	5.8
Mississippi	7.6	0.34	(46)	-11.6	Wyoming	6.6'	0.74	(51)	-23.3
Missouri	8.9	0.25	(18)	3.5					

d NCHS public use tape. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.

SE Standard error of the rate.

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

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

<sup>3/4</sup> Difference between state rate and total U.S. rate is statistically significant (p<=.0002).

Table XVIII-18  
NON-HODGKIN'S LYMPHOMASAVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY<sup>d</sup> RATES BY STATE, 1994-98

All Races, Females

State	Rate	SE	Rank	PD
TOTAL U.S.	5.6	0.03		
High Five States				
Minnesota	6.4 <sup>¾</sup>	0.21	(01)	14.3
Wyoming	6.3	0.68	(02)	12.5
Iowa	6.3	0.25	(03)	12.5
Michigan	6.3 <sup>¾</sup>	0.14	(04)	12.5
Ohio	6.3 <sup>¾</sup>	0.13	(05)	12.5
Low Five States				
South Carolina	4.9 <sup>¾</sup>	0.20	(47)	-12.5
Georgia	4.9 <sup>¾</sup>	0.15	(48)	-12.5
New Mexico	4.8	0.31	(49)	-14.3
Alaska	4.6 <sup>'</sup>	0.71	(50)	-17.9
District of Columbia	3.8 <sup>¾</sup>	0.43	(51)	-32.1

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	5.0 <sup>¾</sup>	0.18	(46)	-10.7	Montana	5.6	0.44	(31)	0.0
Alaska	4.6 <sup>'</sup>	0.71	(50)	-17.9	Nebraska	5.1	0.29	(45)	-8.9
Arizona	5.4	0.19	(33)	-3.6	Nevada	5.2	0.33	(43)	-7.1
Arkansas	5.3	0.24	(36)	-5.4	New Hampshire	6.0	0.41	(11)	7.1
California	5.2 <sup>¾</sup>	0.08	(40)	-7.1	New Jersey	6.1	0.15	(07)	8.9
Colorado	5.7	0.23	(28)	1.8	New Mexico	4.8	0.31	(49)	-14.3
Connecticut	6.0	0.23	(12)	7.1	New York	5.7	0.09	(26)	1.8
Delaware	5.7	0.49	(29)	1.8	North Carolina	5.2	0.14	(39)	-7.1
District of Columbia	3.8 <sup>¾</sup>	0.43	(51)	-32.1	North Dakota	5.8	0.50	(20)	3.6
Florida	5.3	0.10	(37)	-5.4	Ohio	6.3 <sup>¾</sup>	0.13	(05)	12.5
Georgia	4.9 <sup>¾</sup>	0.15	(48)	-12.5	Oklahoma	5.7	0.22	(27)	1.8
Hawaii	5.1	0.37	(44)	-8.9	Oregon	5.7	0.23	(22)	1.8
Idaho	5.7	0.41	(23)	1.8	Pennsylvania	6.0	0.11	(09)	7.1
Illinois	5.7	0.12	(24)	1.8	Rhode Island	6.2	0.42	(06)	10.7
Indiana	6.0	0.17	(10)	7.1	South Carolina	4.9 <sup>¾</sup>	0.20	(47)	-12.5
Iowa	6.3	0.25	(03)	12.5	South Dakota	5.6	0.46	(30)	0.0
Kansas	5.8	0.26	(19)	3.6	Tennessee	5.7	0.18	(21)	1.8
Kentucky	5.8	0.21	(16)	3.6	Texas	5.5	0.10	(32)	-1.8
Louisiana	5.8	0.21	(15)	3.6	Utah	5.4	0.33	(35)	-3.6
Maine	6.1	0.38	(08)	8.9	Vermont	5.2	0.54	(38)	-7.1
Maryland	5.2	0.18	(42)	-7.1	Virginia	5.4	0.16	(34)	-3.6
Massachusetts	5.8	0.17	(14)	3.6	Washington	5.8	0.19	(18)	3.6
Michigan	6.3 <sup>¾</sup>	0.14	(04)	12.5	West Virginia	5.8	0.29	(17)	3.6
Minnesota	6.4 <sup>¾</sup>	0.21	(01)	14.3	Wisconsin	5.9	0.18	(13)	5.4
Mississippi	5.2	0.24	(41)	-7.1	Wyoming	6.3	0.68	(02)	12.5
Missouri	5.7	0.17	(25)	1.8					

d NCHS public use tape. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.

SE Standard error of the rate.

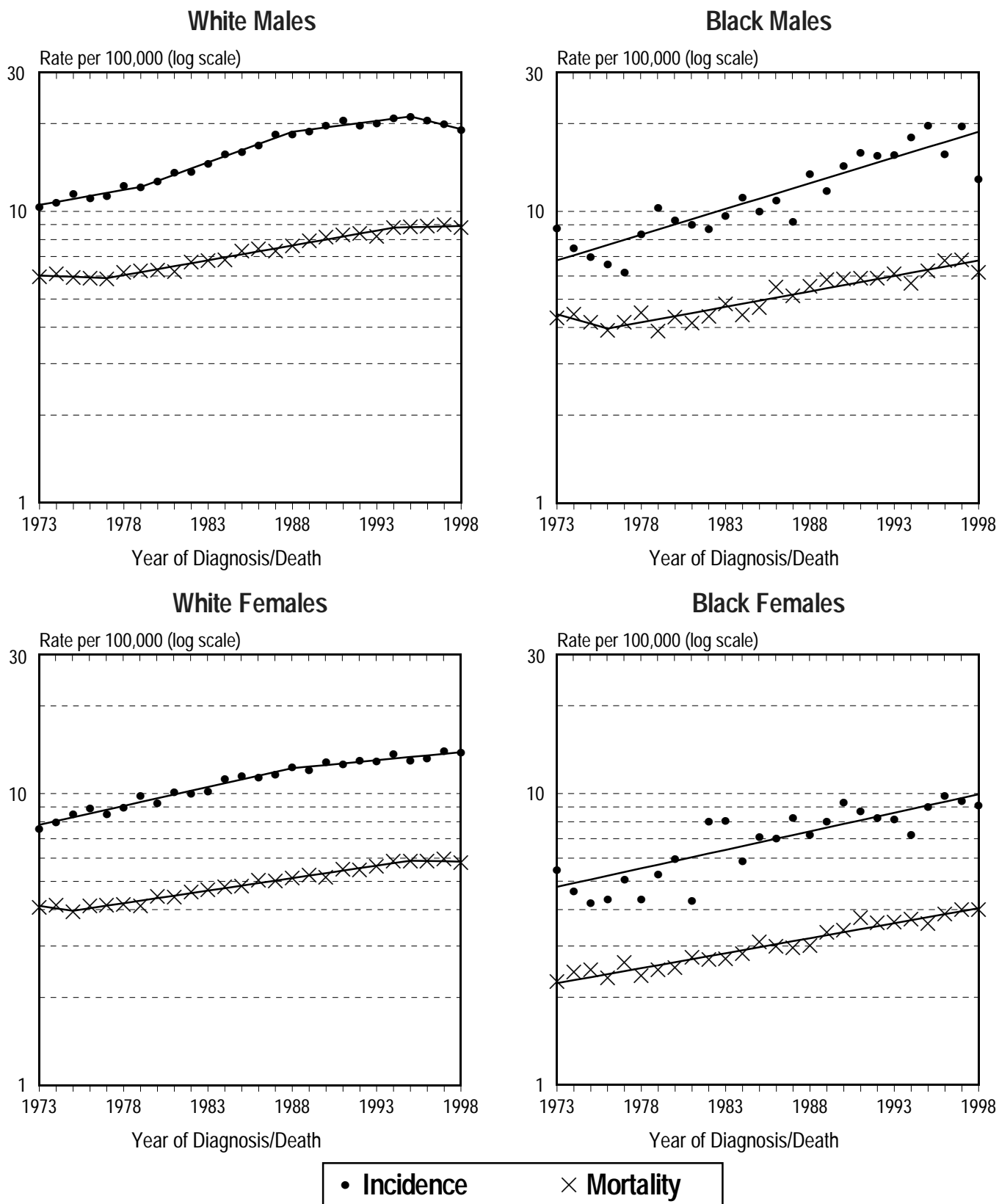
PD Percent difference between state rate and total U.S. rate.

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

¾ Difference between state rate and total U.S. rate is statistically significant (p&lt;=.0002).

Figure XVIII-1

# SEER Incidence and U.S. Mortality Rates<sup>+</sup> Non-Hodgkin's Lymphoma

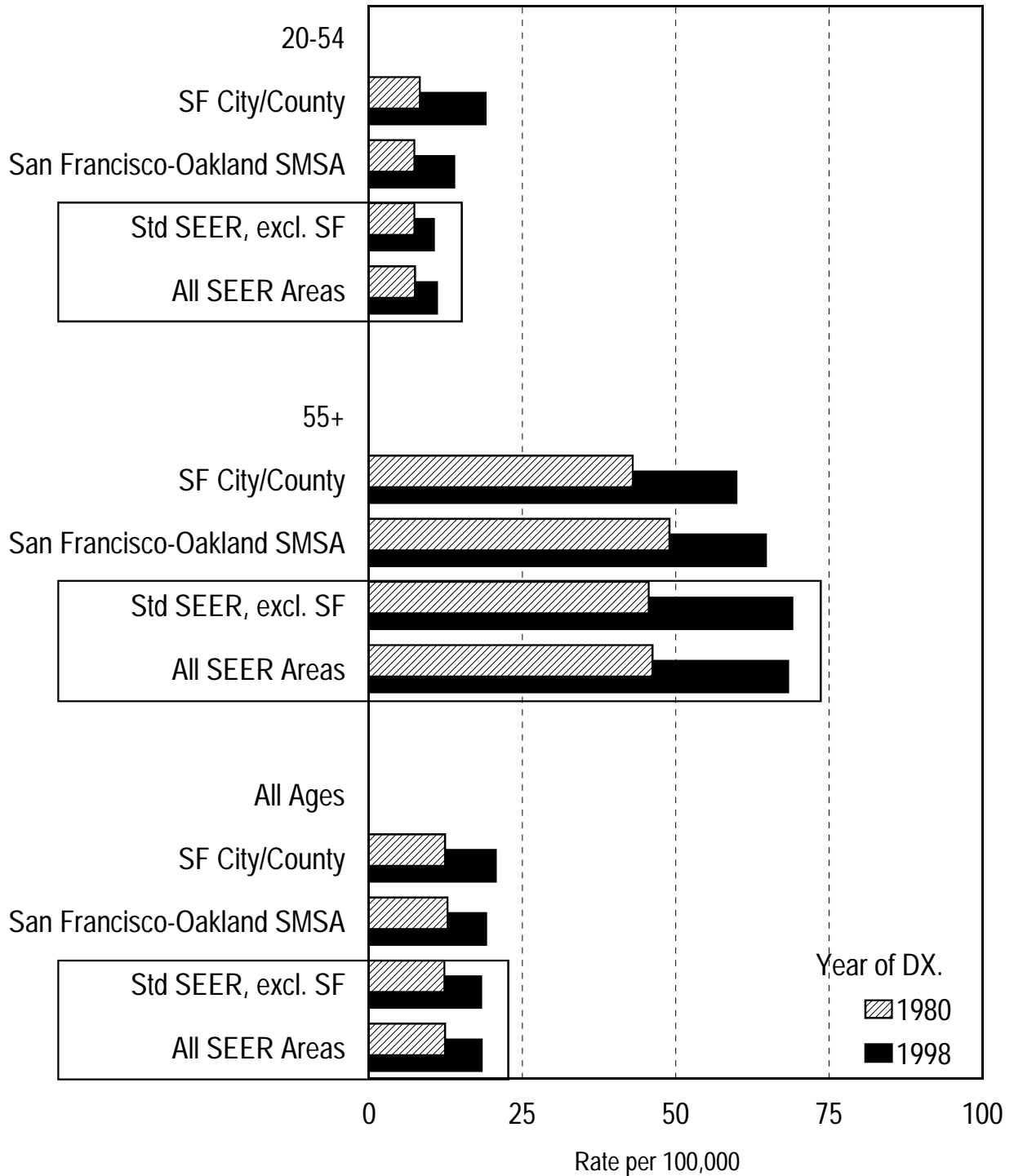


<sup>+</sup> Rates are age-adjusted to the 1970 U.S. standard million population. Regression lines are calculated using the Joinpoint Regression Program.

Figure XVIII-2

# Non-Hodgkin's Lymphoma Incidence Rates Males

AGE/AREA



# Non-Hodgkin's Lymphoma SEER Incidence by Age 1973-1975 vs. 1996-1998 All Races, Males

