

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

TRENDS IN SEER INCIDENCE AND U.S. MORTALITY USING THE JOINPOINT REGRESSION PROGRAM, 1973-1997
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</u>						
Sex - Male and Female	1973-91	3.4★	1973-91	3.5★	1973-75	-9.6
	1991-97	0.5	1991-97	-0.1	1975-97	4.3★
Sex - Male	1973-91	3.9★	1973-79	2.6★	1973-97	4.3★
	1991-97	0.4	1979-90	4.7★		
			1990-97	0.0		
Sex - Female	1973-90	2.9★	1973-90	2.9★	1973-97	3.4★
	1990-97	0.8	1990-97	0.5		
<u>U.S. Cancer Mortality</u>						
Sex - Male and Female	1973-76	-0.9	1973-76	-0.8	1973-79	-0.1
	1976-97	2.1★	1976-97	2.1★	1979-97	2.8★
Sex - Male	1973-76	-1.4	1973-77	-0.3	1973-79	-0.7
	1976-97	2.2★	1977-97	2.2★	1979-97	2.9★
Sex - Female	1973-75	-1.5	1973-75	-1.7	1973-97	2.4★
	1975-97	1.9★	1975-97	1.9★		

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>									
<u>YEAR OF DIAGNOSIS:</u>									
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	9.3	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	8.9	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	12.6	9.3	7.4	9.3	5.9
1981	11.2	13.2	9.7	11.6	13.5	10.1	6.4	9.1	4.3
1982	11.2	13.0	9.6	11.7	13.7	10.0	8.5	8.7	8.1
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	15.6	11.2	8.2	11.2	5.8
1985	12.9	15.2	10.9	13.5	15.9	11.5	8.3	10.0	7.0
1986	13.1	16.0	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	11.6	15.0	18.3	12.3	9.9	13.5	7.1
1989	14.3	17.7	11.5	15.2	18.8	12.1	9.6	11.8	7.9
1990	15.3	18.9	12.3	16.0	19.7	12.8	11.6	14.3	9.4
1991	15.6	19.7	12.0	16.3	20.5	12.6	11.9	15.9	8.6
1992	15.3	18.9	12.3	16.1	19.7	12.9	11.4	15.5	8.3
1993	15.6	19.3	12.4	16.2	20.0	12.9	11.5	15.5	8.2
1994	16.4	20.2	13.0	16.9	20.7	13.6	12.1	17.9	7.3
1995	16.3	20.7	12.5	16.7	21.1	12.9	13.7	19.3	9.2
1996	15.8	19.6	12.6	16.3	20.1	13.0	12.3	15.3	9.8
1997	15.8	19.2	13.0	16.2	19.5	13.4	13.4	18.7	9.3
<u>AGE-ADJUSTED RATES, 1993-97</u>									
<u>AGE AT DIAGNOSIS:</u>									
All ages	16.0	19.8	12.7	16.5	20.3	13.2	12.6	17.3	8.8
Under 65	9.3	11.9	6.8	9.4	12.0	6.9	9.3	13.5	5.7
65 and over	77.0	92.2	66.7	80.6	96.1	70.1	43.0	52.3	36.9
All ages (world std.) [§]	13.2	16.5	10.3	13.5	16.8	10.6	11.1	15.5	7.4
<u>AGE-SPECIFIC RATES, 1993-97</u>									
<u>AGE AT DIAGNOSIS:</u>									
0-4	0.6	0.8	0.4	0.4	0.6	0.3	0.9	1.3	0.5
5-9	0.8	1.2	0.5	0.9	1.2	0.6	0.5	0.9	0.0
10-14	1.1	1.6	0.6	1.1	1.6	0.5	1.0	1.2	0.9
15-19	1.8	2.4	1.1	1.8	2.4	1.1	1.3	2.2	0.4
20-24	2.4	2.9	1.9	2.2	2.6	1.8	3.8	5.0	2.6
25-29	4.7	6.5	3.0	4.6	6.5	2.7	5.0	6.5	3.8
30-34	7.9	12.2	3.6	7.7	11.9	3.5	11.2	18.3	5.1
35-39	9.8	14.6	5.1	9.8	14.6	5.0	11.8	19.3	5.3
40-44	12.8	18.2	7.5	12.7	17.9	7.5	16.4	26.4	7.8
45-49	17.6	23.1	12.3	17.9	22.9	12.8	20.8	32.0	11.1
50-54	24.0	29.6	18.6	23.9	29.3	18.7	26.8	36.6	18.4
55-59	32.3	37.2	27.8	33.8	38.8	28.9	23.3	33.2	15.3
60-64	42.0	49.8	35.0	43.9	51.8	36.6	30.6	38.1	24.8
65-69	56.9	67.3	48.1	60.6	71.2	51.4	33.1	43.1	25.3
70-74	77.7	88.8	69.1	81.3	91.6	73.2	45.0	50.9	40.8
75-79	93.6	110.7	81.7	97.5	115.9	84.8	51.1	58.8	46.2
80-84	100.3	126.6	85.1	103.6	131.9	87.5	54.7	59.2	52.3
85+	90.5	120.6	78.3	93.0	122.5	81.6	43.0	73.0	29.6

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

Table XVIII-3
NON-HODGKIN'S LYMPHOMAS

U.S. MORTALITY 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 DEATH:</u>									
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	7.0	8.7	5.7	7.3	9.0	5.9	5.2	6.8	4.0
<u>AGE-ADJUSTED RATES, 1993-97</u>									
<u>AGE AT DEATH:</u>									
All ages	6.9	8.5	5.6	7.1	8.7	5.8	4.9	6.3	3.8
Under 65	2.8	3.6	2.1	2.9	3.7	2.1	2.7	3.8	1.9
65 and over	43.6	52.5	37.6	45.7	54.9	39.6	24.2	29.8	20.6
All ages (world std.)N	5.2	6.5	4.2	5.4	6.7	4.4	4.0	5.2	3.0
<u>AGE-SPECIFIC RATES, 1993-97</u>									
<u>AGE AT DEATH:</u>									
0-4	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1
5-9	0.1	0.2	0.1	0.1	0.2	0.0	0.2	0.2	0.1
10-14	0.2	0.3	0.1	0.2	0.3	0.1	0.2	0.2	0.1
15-19	0.3	0.4	0.2	0.3	0.5	0.2	0.3	0.3	0.3
20-24	0.5	0.7	0.4	0.5	0.6	0.4	0.7	1.0	0.4
25-29	1.0	1.3	0.6	1.0	1.3	0.6	1.2	1.7	0.7
30-34	1.5	2.2	0.9	1.5	2.2	0.8	2.0	3.0	1.2
35-39	2.1	2.9	1.2	2.0	2.9	1.2	2.8	4.0	1.8
40-44	3.0	4.2	1.9	3.0	4.2	1.8	3.8	5.4	2.4
45-49	4.5	6.1	3.0	4.5	6.0	3.1	5.3	7.8	3.3
50-54	7.3	9.3	5.4	7.5	9.4	5.6	7.5	10.7	4.8
55-59	11.6	14.3	9.1	12.1	14.9	9.5	9.3	11.8	7.4
60-64	17.9	22.0	14.3	18.7	22.7	15.0	14.1	18.6	10.7
65-69	26.4	31.7	21.9	27.8	33.3	23.2	16.9	21.4	13.6
70-74	39.4	46.9	33.7	41.4	48.9	35.6	22.6	27.8	19.1
75-79	53.4	63.4	46.6	56.1	66.3	49.1	27.2	33.2	23.6
80-84	69.0	83.7	60.7	72.0	87.2	63.4	37.5	45.5	33.4
85+	74.6	94.2	66.8	78.2	99.2	70.0	35.4	43.3	32.1

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

N NCHS public use tape. Rates are per 100,000 and are age-adjusted to the world standard population.

Table XVIII-4
NON-HODGKIN'S LYMPHOMAS

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

	<u>All Races</u>			<u>Whites</u>			<u>Blacks</u>		
	<u>Total</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>	<u>Males</u>	<u>Females</u>
<u>5-YR RELATIVE SURVIVAL RATES</u>									
<u>YEAR OF DIAGNOSIS:</u>									
1960-63 ^a	-	-	-	31	31	31	-	-	-
1970-73 ^a	-	-	-	41	39	43	-	-	-
1974-76 ^b	47.2	47.0	47.4	47.8	47.9	47.6	49.1	44.6 [†]	54.7 [†]
1977-79 ^b	48.4	45.9	51.0	48.6	46.4	50.8	51.6	45.2	59.8 [†]
1980-82 ^b	51.4	50.2	52.6	51.9	50.9	52.9	50.0	47.0	53.6
1983-85 ^b	53.9	52.8	55.1	54.4	53.5	55.4	44.9	43.6	46.5
1986-88 ^b	52.3	49.5	55.7	52.9	50.2	56.1	49.9	46.7	54.1
1989-96 ^b	51.6 ^S	47.6	56.7 ^S	52.6 ^S	48.7	57.5 ^S	41.9 ^S	37.4 ^S	49.4
<u>5-YR RELATIVE SURVIVAL RATES, 1989-96^b</u>									
<u>AGE AT DIAGNOSIS:</u>									
<45	49.7	42.1	68.8	51.5	43.3	72.6	35.3	31.4	46.4
45-54	59.2	53.9	68.6	60.7	55.4	69.8	48.0	40.4	62.3
55-64	58.9	55.0	63.7	59.6	55.7	64.5	54.7	53.0	56.1 [†]
65-74	53.3	51.7	54.9	54.2	52.2	56.1	40.8	39.4 [†]	40.3
75+	38.7	36.1	40.4	39.0	36.8	40.4	44.5 [†]	37.8 [†]	48.6 [†]
Under 65	55.1	48.7	66.6	56.7	50.1	68.4	42.1	37.0	53.0
65 and over	47.1	45.9	48.0	47.6	46.4	48.6	42.1	40.3	43.3

^a
^b

Rates are based on End Results data from a series of hospital registries and one population-based registry. 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.

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[†]
[‡]
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The difference in rates between 1974-76 and 1989-96 is statistically significant ($p < .05$).
The standard error of the survival rate is between 5 and 10 percentage points.
The standard error of the survival rate is greater than 10 percentage points.
Statistic could not be calculated.

Table XVIII-5
NON-HODGKIN'S LYMPHOMAS

INCIDENCE, MORTALITY, AND SURVIVAL RATES

By Year of Diagnosis/Death

All Races, Males and Females

	Year of Diagnosis/Death																					
	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Incidence																						
SEER	9.5	9.3	10.0	10.4	10.5	11.2	11.2	11.6	12.6	12.9	13.1	13.9	14.3	14.3	15.3	15.6	15.3	15.6	16.4	16.3	15.8	15.8
Mortality																						
U.S.	4.7	4.8	4.9	4.9	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	7.0
SEER	4.8	4.9	5.1	5.1	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	6.5	6.8	6.8
Relative Survival Rates (SEER)																						
1-year	72.5	70.7	72.5	70.8	72.5	74.7	72.3	76.4	74.2	72.9	71.0	73.2	72.0	71.2	70.7	70.3	71.3	71.5	70.8	70.1	72.8	
2-year	62.1	59.7	61.9	62.2	62.5	65.0	63.2	67.3	65.3	64.2	62.4	64.1	63.1	63.0	61.5	61.3	62.5	63.6	63.0	61.4		
3-year	57.1	53.5	56.0	56.2	57.3	59.8	58.5	61.6	60.8	59.9	58.3	59.3	59.3	57.9	57.0	57.0	58.3	58.9	58.4			
4-year	52.7	50.0	52.0	52.9	54.8	54.9	55.4	57.3	57.1	56.2	54.6	56.2	55.3	54.4	53.1	54.3	54.9	56.0				
5-year	48.6	47.3	48.8	49.1	50.8	51.8	51.5	53.9	54.2	53.5	51.3	53.1	52.5	51.0	50.8	51.5	51.6					
6-year	46.3	44.5	46.0	46.0	48.5	48.8	48.2	50.4	51.3	51.4	48.5	50.2	50.4	48.5	48.5	48.7						
7-year	43.7	42.4	43.1	44.0	46.1	46.7	45.7	48.0	49.3	48.6	46.7	48.0	48.4	46.2	45.9							
8-year	41.9	40.0	40.5	42.5	44.0	45.0	44.6	46.2	46.4	46.6	44.6	45.6	46.2	43.3								
9-year	40.0	37.7	38.3	41.6	41.7	42.1	43.6	44.8	44.6	45.0	42.6	43.5	44.4									
10-year	38.6	36.6	37.3	40.6	39.9	40.6	42.1	43.3	42.7	43.4	40.9	42.2										
11-year	37.1	35.6	36.4	39.2	39.0	39.5	40.9	41.8	41.8	42.1	40.2											
12-year	35.9	35.2	35.2	38.2	37.8	38.4	39.4	40.4	41.1	41.0												
13-year	35.9	34.2	35.0	37.1	36.5	38.0	38.4	38.9	40.3													
14-year	34.4	33.6	34.5	35.7	36.0	37.3	37.2	37.9														
15-year	32.7	32.1	33.2	35.2	35.2	35.5	37.1															
16-year	31.7	31.4	32.2	34.7	35.2	34.1																
17-year	31.4	31.0	31.5	34.5	35.0																	
18-year	30.9	30.4	31.2	34.3																		
19-year	30.4	29.6	30.1																			
20-year	29.2	29.3																				
21-year	28.6																					

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

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Incidence																						
SEER	10.7	10.8	11.9	11.8	12.4	13.2	13.0	13.8	15.1	15.2	16.0	17.3	17.5	17.7	18.9	19.7	18.9	19.3	20.2	20.7	19.6	19.2
Mortality																						
U.S.	5.7	5.7	6.0	6.0	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
SEER	5.5	5.9	6.3	6.5	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	7.8	8.1	8.3
Relative Survival Rates (SEER)																						
1-year	71.5	69.4	72.7	69.6	72.8	73.8	71.7	76.6	73.8	71.8	70.0	69.8	69.0	68.4	66.6	66.9	68.5	68.2	67.6	66.8	71.1	
2-year	60.7	57.6	60.9	60.4	62.7	65.2	63.1	68.3	64.5	63.0	61.3	60.9	60.4	59.3	57.6	57.2	58.3	59.3	59.5	58.2		
3-year	55.7	50.3	55.4	54.1	56.9	60.0	57.9	62.3	59.4	58.2	57.1	56.4	55.8	54.2	52.5	52.6	54.3	54.4	54.6			
4-year	51.1	47.3	51.2	50.3	54.1	54.2	54.3	58.0	55.7	53.7	52.7	53.0	51.6	50.3	48.7	49.9	50.6	51.3				
5-year	48.0	43.7	47.1	46.5	49.2	50.6	50.7	54.7	53.5	50.5	49.3	50.2	49.0	46.9	46.5	47.9	46.6					
6-year	45.8	41.6	44.7	43.5	46.8	47.7	47.0	51.0	50.3	47.9	46.2	47.5	47.3	44.3	44.9	45.2						
7-year	42.9	39.9	42.4	41.3	44.7	45.9	43.6	48.3	48.2	45.2	44.3	45.8	45.4	41.2	42.1							
8-year	41.1	37.7	40.2	39.8	42.7	44.3	43.1	46.6	44.9	43.1	42.0	43.1	44.1	38.7								
9-year	38.1	35.4	37.6	38.9	39.9	42.1	42.2	45.2	43.3	41.3	40.0	40.6	42.6									
10-year	36.2	33.6	37.2	38.0	38.1	40.9	39.9	43.2	41.6	40.1	38.4	39.5										
11-year	34.7	33.0	36.5	37.0	36.0	39.3	39.1	41.9	40.2	38.9	37.2											
12-year	33.8	32.6	35.4	36.4	35.2	38.4	37.8	41.5	39.8	37.4												
13-year	33.4	31.3	35.4	34.8	34.8	37.9	37.2	40.8	38.7													
14-year	31.8	30.6	35.0	33.3	34.7	37.2	36.4	39.7														
15-year	29.5	29.1	33.6	33.0	34.0	35.7	36.4															
16-year	28.8	28.2	33.0	32.4	33.7	34.3																
17-year	28.1	28.0	32.2	32.3	33.3																	
18-year	28.1	27.4	32.2	31.7																		
19-year	28.0	27.0	32.1																			
20-year	26.7	27.0																				
21-year	26.2																					

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 LYMPHOMAS

INCIDENCE, MORTALITY, AND SURVIVAL RATES

By Year of Diagnosis/Death

All Races, Females

Year of Diagnosis/Death

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Incidence																						
SEER	8.5	8.2	8.4	9.3	8.9	9.7	9.6	9.8	10.6	10.9	10.7	11.1	11.6	11.5	12.3	12.0	12.3	12.4	13.0	12.5	12.6	13.0
Mortality																						
U.S.	3.9	4.0	4.0	4.0	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
SEER	4.3	4.2	4.3	4.1	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
Relative Survival Rates (SEER)																						
1-year	73.5	72.1	72.3	72.0	72.1	75.7	73.0	76.2	74.7	74.2	72.1	77.3	75.5	74.8	75.7	74.9	74.7	75.6	75.0	74.5	75.1	
2-year	63.4	61.7	63.0	63.9	62.4	64.9	63.3	66.2	66.3	65.7	63.8	67.9	66.4	67.7	66.5	66.7	67.8	69.0	67.4	65.7		
3-year	58.5	56.7	56.7	58.2	57.9	59.5	59.1	60.9	62.4	61.8	59.8	63.0	63.5	62.5	62.6	62.7	63.2	64.6	63.4			
4-year	54.3	52.7	52.8	55.4	55.6	55.7	56.4	56.6	58.6	59.1	57.0	60.2	59.8	59.5	58.6	60.2	60.4	61.9				
5-year	49.2	51.0	50.5	51.5	52.6	53.1	52.2	53.1	54.9	57.0	53.6	56.6	56.8	56.2	56.1	56.5	57.9					
6-year	46.8	47.5	47.3	48.4	50.4	50.0	49.5	49.7	52.5	55.3	51.2	53.6	54.2	53.7	53.1	53.5						
7-year	44.5	45.0	43.9	46.6	47.7	47.5	47.8	47.7	50.5	52.4	49.6	50.6	51.9	52.3	50.5							
8-year	42.7	42.3	40.8	45.1	45.3	45.6	46.2	45.8	47.9	50.4	47.8	48.6	48.7	49.0								
9-year	41.8	40.1	39.0	44.3	43.5	42.2	45.1	44.4	46.2	49.1	45.7	47.1	46.6									
10-year	40.9	39.6	37.4	43.1	42.0	40.3	44.4	43.4	43.9	47.0	43.9	45.6										
11-year	39.4	38.3	36.3	41.3	42.0	39.6	42.7	41.7	43.6	45.7	43.7											
12-year	37.9	37.9	34.9	39.9	40.6	38.4	41.2	39.1	42.6	45.1												
13-year	37.9	37.1	34.6	39.3	38.3	38.1	39.7	37.1	42.1													
14-year	36.9	36.6	33.9	38.1	37.3	37.5	38.1	35.9														
15-year	35.7	35.1	32.9	37.3	36.6	35.3	37.3															
16-year	34.4	34.6	31.5	36.9	36.6	33.9																
17-year	34.4	34.0	30.8	36.5	36.6																	
18-year	33.0	33.4	29.9	36.5																		
19-year	32.7	32.2	28.0																			
20-year	31.4	31.6																				
21-year	30.8																					

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, 1973-97

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
All Areas [⊕]	6802	1204	1299	1296	1398	1557	1607	1720	1901	1953	2029	2216	2351	2310	2408	2577	2678	2556	2526
All Areas Excluding SF-Oakland SMSA	5541	1001	1085	1084	1174	1274	1317	1338	1477	1526	1556	1693	1805	1787	1882	2024	2071	2017	2090
San Francisco-Oakland SMSA	1261	203	214	212	224	283	290	382	424	427	473	523	546	523	526	553	607	539	436
San Francisco City/County	336	50	46	59	63	104	106	140	185	175	217	246	224	222	195	204	242	209	133

AGE-ADJUSTED CANCER INCIDENCE RATES[§]

By SEER Location and Year of Diagnosis, 1973-97

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
All Areas [⊕]	11.0	12.4	13.2	13.0	13.8	15.1	15.2	16.0	17.3	17.5	17.7	18.9	19.7	18.9	19.3	20.2	20.7	19.6	19.2
All Areas Excluding SF-Oakland SMSA	10.8	12.3	13.2	13.0	13.9	14.8	15.1	14.9	16.2	16.6	16.5	17.4	18.3	17.7	18.2	19.1	19.2	18.4	19.0
San Francisco-Oakland SMSA	12.1	12.8	13.4	13.2	13.5	16.4	16.0	21.0	22.5	21.7	23.6	26.2	26.4	25.1	25.1	25.9	28.3	25.6	20.4
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	40.5	42.4	51.1	44.5	28.1

§ 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, 1973-97

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
All Areas⊕	298	38	51	50	59	48	41	44	49	42	43	46	55	44	43	60	61	43	61
All Areas Excluding SF-Oakland SMSA	252	35	45	42	53	43	37	37	43	40	37	38	49	39	33	55	53	32	51
San Francisco-Oakland SMSA	46	<4	6	8	6	5	4	7	6	<4	6	8	6	5	10	5	8	11	10
San Francisco City/County	12	<4	<4	0	<4	<4	0	<4	0	0	0	<4	<4	0	<4	<4	<4	<4	<4

AGE-ADJUSTED CANCER INCIDENCE RATES§

By SEER Location and Year of Diagnosis, 1973-97

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
All Areas⊕	1.2	1.1	1.5	1.5	1.8	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	1.6
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
San Francisco-Oakland SMSA	1.4	-	1.4	1.8	1.5	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
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, 1973-97

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
All Areas⊕	1901	334	351	363	353	460	493	569	638	658	749	841	922	890	939	1005	1060	895	807
All Areas Excluding SF-Oakland SMSA	1545	277	283	301	282	353	373	397	427	444	473	565	623	629	658	721	735	653	618
San Francisco-Oakland SMSA	356	57	68	62	71	107	120	172	211	214	276	276	299	261	281	284	325	242	189
San Francisco City/County	91	15	14	14	20	50	55	90	125	125	164	170	166	160	146	146	171	137	82

AGE-ADJUSTED CANCER INCIDENCE RATES§

By SEER Location and Year of Diagnosis, 1973-97

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
All Areas⊕	6.4	7.4	7.6	7.9	7.5	9.6	10.0	11.1	12.1	12.0	13.2	14.5	15.4	14.7	15.0	15.5	16.1	13.4	12.0
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	10.3	11.9	12.9	12.7	12.8	13.5	13.5	11.7	11.1
San Francisco-Oakland SMSA	6.8	7.4	8.8	8.1	8.6	12.5	13.2	19.2	22.4	20.9	27.2	26.9	27.8	24.0	25.9	25.7	29.7	22.1	17.0
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	75.5	61.5	36.1

§ 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, 1973-97

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
All Areas⊕	4603	832	897	883	986	1049	1073	1107	1214	1253	1237	1329	1374	1376	1426	1512	1557	1618	1658
All Areas Excluding SF-Oakland SMSA	3744	689	757	741	839	878	907	904	1007	1042	1046	1090	1133	1119	1191	1248	1283	1332	1421
San Francisco-Oakland SMSA	859	143	140	142	147	171	166	203	207	211	191	239	241	257	235	264	274	286	237
San Francisco City/County	233	34	31	45	42	53	51	48	60	50	53	75	57	62	48	57	69	70	50

AGE-ADJUSTED CANCER INCIDENCE RATES§

By SEER Location and Year of Diagnosis, 1973-97

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
All Areas⊕	40.8	46.2	49.3	47.5	52.2	54.8	55.0	56.0	60.5	62.1	60.5	63.9	65.2	63.8	65.1	67.9	68.7	70.1	70.6
All Areas Excluding SF-Oakland SMSA	39.9	45.6	49.6	47.5	53.0	54.6	55.5	54.5	59.8	61.4	60.7	62.1	63.7	61.6	64.3	66.3	66.9	68.2	71.8
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	73.3	73.4	75.6	69.2	76.1	78.1	80.1	64.5
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	79.2	83.8	64.7	73.3	91.3	89.2	63.0

§ 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[§], 1980-97

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
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	15.3	15.6	16.4	16.3	15.8	15.8
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	3.3	3.2	3.5
A: Small, lymphocytic	1.0	1.1	1.1	1.1	1.2	1.3	1.2	1.4	1.4	1.4	1.4	1.3	1.5	1.4	1.4	1.3	1.2	1.3
B: Follicular, small cleaved	1.4	1.3	1.2	1.5	1.4	1.4	1.5	1.2	1.4	1.2	1.3	1.4	1.3	1.2	1.2	1.1	1.1	1.3
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
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	6.4	6.5
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
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	0.8	0.8	0.8	0.9	0.7
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
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	4.9
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
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
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
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
Unclassified Grade	1.9	2.2	2.0	2.0	2.4	2.4	2.3	2.6	2.6	2.9	3.1	3.4	3.5	3.6	4.2	4.8	4.6	4.6

[§] 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 With Cancer and
 Lifetime Risk (Percent) of Dying From Cancer

9 SEER Areas, 1995-97

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	2.11	0.00	0.01	0.03	1.74	
10	0.02	0.06	0.19	2.12	0.01	0.03	0.07	1.75	
20	0.04	0.17	0.35	2.12	0.02	0.07	0.16	1.75	
30	0.13	0.31	0.62	2.10	0.04	0.14	0.36	1.74	
40	0.19	0.50	0.98	2.03	0.10	0.32	0.68	1.71	
50	0.33	0.82	1.44	1.91	0.23	0.60	1.15	1.65	
60	0.54	1.21	1.65	1.72	0.39	0.97	1.38	1.49	
Lifetime Risk of Being Diagnosed =				2.11%	Lifetime Risk of Being Diagnosed =				1.74%
Lifetime Risk of Dying =				0.97%	Lifetime Risk of Dying =				0.93%

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	1.82	
10	0.02	0.06	0.18	2.21	0.01	0.03	0.07	1.83	
20	0.04	0.16	0.35	2.20	0.02	0.06	0.16	1.83	
30	0.12	0.31	0.62	2.19	0.04	0.14	0.37	1.82	
40	0.19	0.51	1.01	2.11	0.10	0.33	0.71	1.79	
50	0.33	0.85	1.50	1.99	0.23	0.63	1.21	1.72	
60	0.56	1.27	1.72	1.79	0.41	1.02	1.45	1.56	
Lifetime Risk of Being Diagnosed =				2.20%	Lifetime Risk of Being Diagnosed =				1.82%
Lifetime Risk of Dying =				1.03%	Lifetime Risk of Dying =				0.99%

Blacks

Current Age	Males				Females				
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually	
0	0.01	0.03	0.08	1.38	0.00	0.01	0.04	0.98	
10	0.02	0.08	0.26	1.41	0.01	0.03	0.09	0.99	
20	0.06	0.24	0.46	1.41	0.03	0.08	0.18	0.99	
30	0.19	0.41	0.71	1.39	0.06	0.15	0.32	0.97	
40	0.24	0.55	0.86	1.27	0.10	0.26	0.48	0.93	
50	0.35	0.68	0.94	1.13	0.17	0.40	0.67	0.87	
60	0.39	0.70	0.90	0.93	0.24	0.55	0.73	0.77	
Lifetime Risk of Being Diagnosed =				1.38%	Lifetime Risk of Being Diagnosed =				0.98%
Lifetime Risk of Dying =				0.54%	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

Incidenceⁱ

RACE/ETHNICITY	Rate 1990-1997 Rate per 100,000 persons			Trend 1990-1997 EAPC (%)		
	Total	Males	Females	Total	Males	Females
All Races	15.5	19.4	12.2	0.6	0.5	0.7*
White	16.2	20.1	12.8	0.2	0.2	0.2
White Hispanic	13.0	15.7	10.4	0.0	0.0	-0.1
White Non-Hispanic	16.6	20.6	13.0	0.2	0.2	0.4
Black	11.8	15.7	8.5	2.0*	2.3	1.5
Asian/Pacific Islander	10.8	13.3	8.7	1.3	0.1	3.0
American Indian	4.4	4.7	4.1	-	-	-
Hispanic [⊙]	12.3	14.8	9.9	-0.1	-0.1	-0.1

Mortality[❖]

RACE/ETHNICITY	Rate 1990-1997 Rate per 100,000 persons			Trend 1990-1997 EAPC (%)		
	Total	Males	Females	Total	Males	Females
All Races	6.7	8.3	5.4	1.7*	1.5*	1.8*
White	7.0	8.6	5.7	1.7*	1.5*	1.9*
White Hispanic	5.2	6.5	4.1	2.9*	3.0*	3.0*
White Non-Hispanic	7.0	8.6	5.7	1.9*	1.6*	2.0*
Black	4.8	6.2	3.7	2.0*	2.3*	1.6*
Asian/Pacific Islander	4.0	5.2	3.1	0.9	1.3	0.5
American Indian	3.2	3.7	2.8	4.6	5.9	3.2
Hispanic [⊙]	4.9	6.1	3.8	2.6*	2.8*	2.7*

- 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.
- ⁱ 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). 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. 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§, 1993-97</u>									
REGISTRY									
11 registries	15.7	19.6	12.4	16.3	20.3	12.8	12.1	16.2	8.6
9 registries	16.0	19.8	12.7	16.5	20.3	13.2	12.6	17.3	8.8
San Francisco-Oakland	18.5	25.0	12.6	20.4	27.4	13.7	13.8	20.2	8.3
Connecticut	16.9	20.4	14.0	17.0	20.3	14.3	14.0	19.2	9.8
Metropolitan Detroit	15.5	19.0	12.7	16.2	19.3	13.7	11.8	16.5	8.2
Hawaii	13.2	15.6	10.9	16.1	20.6	11.5	-	-	-
Iowa	15.7	18.2	13.8	15.7	18.1	13.8	-	-	-
New Mexico	11.8	14.0	9.8	12.2	14.6	10.1	-	-	-
Seattle-Puget Sound	16.7	20.5	13.3	16.7	20.6	13.2	13.7	18.9	9.1
Utah	14.5	17.7	11.8	14.6	17.7	11.8	-	-	-
Metropolitan Atlanta	15.3	19.5	12.0	15.4	19.6	12.0	13.1	16.7	10.2
San Jose-Monterey	16.0	19.3	13.2	15.5	18.9	12.5	11.6	16.4	5.9
Los Angeles	14.8	19.1	11.1	16.0	20.7	11.8	10.7	13.5	8.3
<u>SEER MORTALITY RATES*, 1993-97</u>									
REGISTRY									
11 registries	6.6	8.1	5.4	7.0	8.5	5.8	4.7	5.6	3.9
9 registries	6.7	8.1	5.6	7.0	8.4	5.9	4.7	5.8	3.9
San Francisco-Oakland	6.5	8.0	5.2	7.2	8.9	5.8	5.0	5.5	4.4
Connecticut	7.1	8.3	6.1	7.2	8.5	6.2	4.8	5.6	4.1
Metropolitan Detroit	6.9	8.1	5.9	7.4	8.7	6.4	4.8	6.0	3.9
Hawaii	5.8	7.0	4.7	7.6	9.0	5.9	-	-	-
Iowa	7.3	8.8	6.2	7.4	8.9	6.2	-	-	-
New Mexico	5.8	7.1	4.8	6.0	7.2	4.9	-	-	-
Seattle-Puget Sound	6.7	8.2	5.5	6.9	8.4	5.7	4.8	7.2	3.3
Utah	6.6	7.9	5.5	6.7	7.9	5.6	-	-	-
Metropolitan Atlanta	5.8	7.2	4.7	6.2	7.5	5.3	4.5	6.1	3.2
San Jose-Monterey	6.7	8.5	5.2	7.2	8.9	5.7	3.1	3.5	2.2
Los Angeles	6.4	8.1	5.0	7.0	8.8	5.6	4.5	5.4	3.8

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 LYMPHOMAS

AVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY* RATES BY STATE, 1993-97

All Races, Males and Females

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
TOTAL U.S.	6.9	0.02							
High Five States									
Minnesota	7.9⊕	0.17	(01)	14.5					
New Hampshire	7.7	0.35	(02)	11.6					
Vermont	7.7	0.49	(03)	11.6					
Rhode Island	7.6	0.35	(04)	10.1					
Ohio	7.5⊕	0.11	(05)	8.7					
Low Five States									
New Mexico	5.8*	0.25	(47)	-15.9					
Georgia	5.8⊕*	0.13	(48)	-15.9					
Hawaii	5.8*	0.29	(49)	-15.9					
District of Columbia	5.7*	0.41	(50)	-17.4					
Alaska	5.2*	0.55	(51)	-24.6					
Alabama	6.4	0.16	(42)	-7.2	Montana	7.0	0.36	(18)	1.4
Alaska	5.2*	0.55	(51)	-24.6	Nebraska	6.4	0.25	(40)	-7.2
Arizona	6.6	0.16	(35)	-4.3	Nevada	6.6	0.28	(34)	-4.3
Arkansas	6.9	0.21	(26)	0.0	New Hampshire	7.7	0.35	(02)	11.6
California	6.4⊕	0.06	(39)	-7.2	New Jersey	7.3	0.12	(08)	5.8
Colorado	6.5	0.18	(37)	-5.8	New Mexico	5.8*	0.25	(47)	-15.9
Connecticut	7.1	0.19	(16)	2.9	New York	7.2	0.08	(12)	4.3
Delaware	7.0	0.41	(20)	1.4	North Carolina	6.2⊕	0.12	(43)	-10.1
District of Columbia	5.7*	0.41	(50)	-17.4	North Dakota	6.8	0.41	(31)	-1.4
Florida	6.7	0.08	(32)	-2.9	Ohio	7.5⊕	0.11	(05)	8.7
Georgia	5.8⊕*	0.13	(48)	-15.9	Oklahoma	7.0	0.19	(22)	1.4
Hawaii	5.8*	0.29	(49)	-15.9	Oregon	7.0	0.19	(21)	1.4
Idaho	6.9	0.33	(28)	0.0	Pennsylvania	7.3	0.09	(10)	5.8
Illinois	7.1	0.10	(15)	2.9	Rhode Island	7.6	0.35	(04)	10.1
Indiana	7.0	0.14	(17)	1.4	South Carolina	6.0⊕	0.17	(46)	-13.0
Iowa	7.3	0.20	(07)	5.8	South Dakota	7.1	0.39	(14)	2.9
Kansas	7.0	0.22	(19)	1.4	Tennessee	7.0	0.15	(23)	1.4
Kentucky	7.0	0.18	(25)	1.4	Texas	6.8	0.09	(30)	-1.4
Louisiana	7.0	0.17	(24)	1.4	Utah	6.6	0.28	(36)	-4.3
Maine	7.4	0.31	(06)	7.2	Vermont	7.7	0.49	(03)	11.6
Maryland	6.4	0.15	(41)	-7.2	Virginia	6.5	0.14	(38)	-5.8
Massachusetts	7.2	0.14	(11)	4.3	Washington	6.7	0.15	(33)	-2.9
Michigan	7.2	0.11	(13)	4.3	West Virginia	6.9	0.24	(27)	0.0
Minnesota	7.9⊕	0.17	(01)	14.5	Wisconsin	7.3	0.15	(09)	5.8
Mississippi	6.0	0.20	(44)	-13.0	Wyoming	6.0	0.48	(45)	-13.0
Missouri	6.9	0.14	(29)	0.0					

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

Table XVIII-17
NON-HODGKIN'S LYMPHOMAS

AVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY* RATES BY STATE, 1993-97

All Races, Males

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
TOTAL U.S.	8.5	0.04							
High Five States									
Vermont	10.4*	0.85	(01)	22.4					
Rhode Island	9.8*	0.61	(02)	15.3					
New Hampshire	9.6	0.59	(03)	12.9					
Minnesota	9.4	0.28	(04)	10.6					
New York	9.2⊕	0.14	(05)	8.2					
Low Five States									
Georgia	7.3⊕	0.22	(47)	-14.1					
New Mexico	7.1*	0.42	(48)	-16.5					
Hawaii	7.0*	0.47	(49)	-17.6					
Wyoming	6.3*	0.74	(50)	-25.9					
Alaska	5.8*	0.84	(51)	-31.8					
Alabama	8.0	0.27	(35)	-5.9	Montana	8.4	0.58	(30)	-1.2
Alaska	5.8*	0.84	(51)	-31.8	Nebraska	8.1	0.42	(33)	-4.7
Arizona	8.0	0.26	(37)	-5.9	Nevada	8.0	0.45	(36)	-5.9
Arkansas	8.9	0.36	(12)	4.7	New Hampshire	9.6	0.59	(03)	12.9
California	7.9	0.11	(39)	-7.1	New Jersey	8.9	0.20	(09)	4.7
Colorado	7.8	0.30	(42)	-8.2	New Mexico	7.1*	0.42	(48)	-16.5
Connecticut	8.3	0.31	(31)	-2.4	New York	9.2⊕	0.14	(05)	8.2
Delaware	8.8	0.70	(14)	3.5	North Carolina	7.7	0.21	(43)	-9.4
District of Columbia	8.3	0.76	(32)	-2.4	North Dakota	7.4	0.63	(46)	-12.9
Florida	8.5	0.14	(28)	0.0	Ohio	9.2	0.18	(06)	8.2
Georgia	7.3⊕	0.22	(47)	-14.1	Oklahoma	8.7	0.32	(19)	2.4
Hawaii	7.0*	0.47	(49)	-17.6	Oregon	8.6	0.31	(23)	1.2
Idaho	8.6	0.54	(22)	1.2	Pennsylvania	8.9	0.16	(13)	4.7
Illinois	8.8	0.17	(18)	3.5	Rhode Island	9.8*	0.61	(02)	15.3
Indiana	8.6	0.24	(20)	1.2	South Carolina	7.4	0.29	(45)	-12.9
Iowa	8.8	0.33	(15)	3.5	South Dakota	9.0	0.66	(08)	5.9
Kansas	8.6	0.36	(21)	1.2	Tennessee	8.8	0.26	(16)	3.5
Kentucky	8.5	0.30	(25)	0.0	Texas	8.5	0.14	(27)	0.0
Louisiana	8.8	0.30	(17)	3.5	Utah	7.9	0.45	(41)	-7.1
Maine	8.9	0.52	(11)	4.7	Vermont	10.4*	0.85	(01)	22.4
Maryland	7.9	0.26	(40)	-7.1	Virginia	8.0	0.23	(38)	-5.9
Massachusetts	8.9	0.24	(10)	4.7	Washington	8.1	0.25	(34)	-4.7
Michigan	8.5	0.19	(26)	0.0	West Virginia	8.5	0.40	(24)	0.0
Minnesota	9.4	0.28	(04)	10.6	Wisconsin	9.0	0.26	(07)	5.9
Mississippi	7.5	0.34	(44)	-11.8	Wyoming	6.3*	0.74	(50)	-25.9
Missouri	8.5	0.24	(29)	0.0					

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

Table XVIII-18
NON-HODGKIN'S LYMPHOMAS

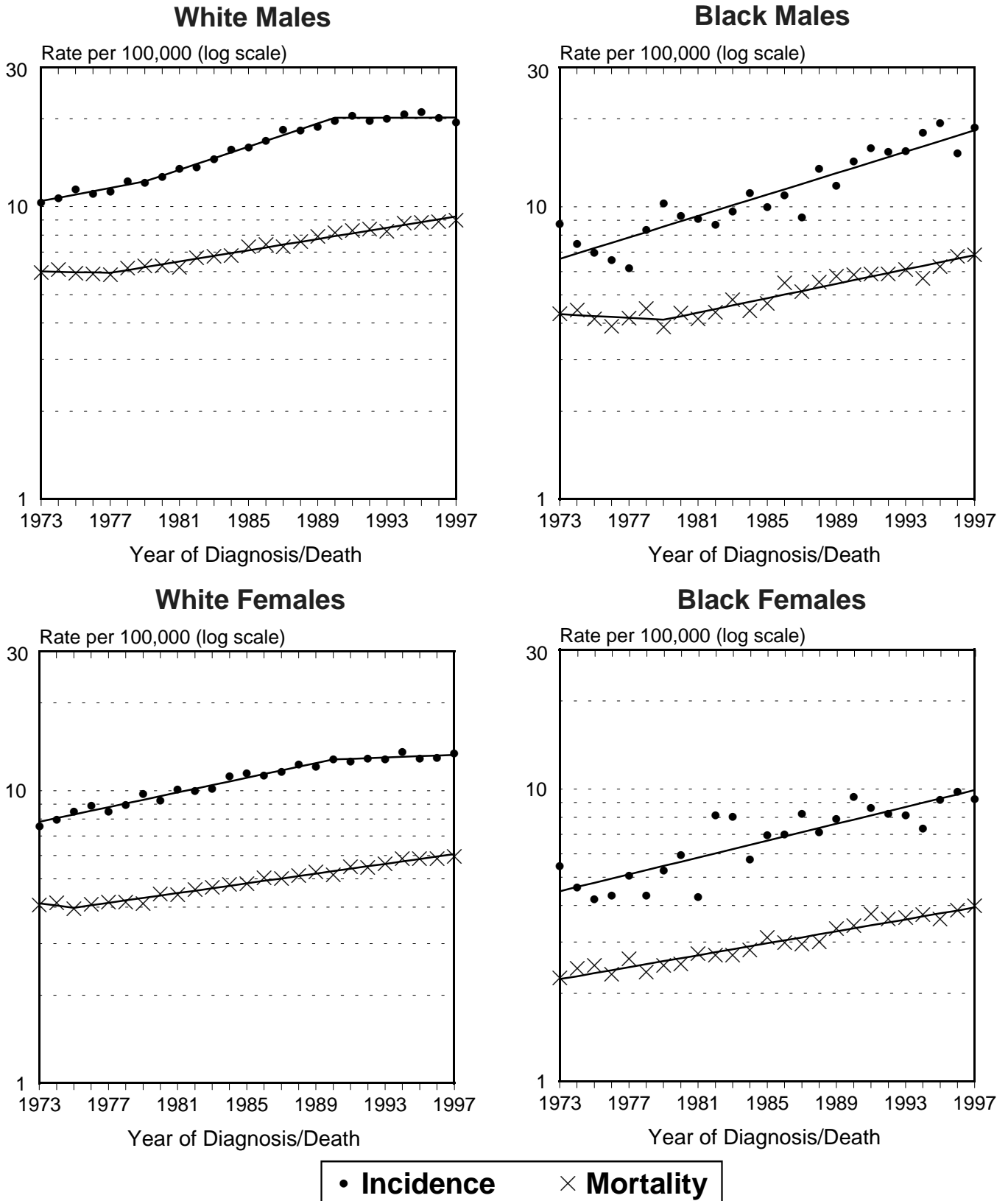
AVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY* RATES BY STATE, 1993-97

All Races, Females

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
TOTAL U.S.	5.6	0.03							
High Five States									
Minnesota	6.6*	0.21	(01)	17.9					
Maine	6.3	0.39	(02)	12.5					
North Dakota	6.2	0.53	(03)	10.7					
Ohio	6.2	0.13	(04)	10.7					
Iowa	6.2	0.24	(05)	10.7					
Low Five States									
South Carolina	4.8	0.20	(47)	-14.3					
Georgia	4.7⊕*	0.15	(48)	-16.1					
Hawaii	4.7*	0.36	(49)	-16.1					
Alaska	4.4*	0.72	(50)	-21.4					
District of Columbia	3.8*	0.42	(51)	-32.1					
Alabama	5.1	0.19	(42)	-8.9	Montana	5.9	0.45	(14)	5.4
Alaska	4.4*	0.72	(50)	-21.4	Nebraska	5.1	0.30	(43)	-8.9
Arizona	5.4	0.20	(37)	-3.6	Nevada	5.4	0.35	(38)	-3.6
Arkansas	5.5	0.25	(34)	-1.8	New Hampshire	6.1	0.42	(08)	8.9
California	5.2	0.08	(40)	-7.1	New Jersey	6.0	0.15	(10)	7.1
Colorado	5.5	0.23	(30)	-1.8	New Mexico	4.8	0.31	(46)	-14.3
Connecticut	6.1	0.23	(09)	8.9	New York	5.6	0.09	(24)	0.0
Delaware	5.5	0.49	(35)	-1.8	North Carolina	5.0	0.14	(44)	-10.7
District of Columbia	3.8*	0.42	(51)	-32.1	North Dakota	6.2	0.53	(03)	10.7
Florida	5.2	0.10	(41)	-7.1	Ohio	6.2	0.13	(04)	10.7
Georgia	4.7⊕*	0.15	(48)	-16.1	Oklahoma	5.6	0.22	(23)	0.0
Hawaii	4.7*	0.36	(49)	-16.1	Oregon	5.7	0.23	(20)	1.8
Idaho	5.5	0.41	(33)	-1.8	Pennsylvania	6.0	0.11	(11)	7.1
Illinois	5.8	0.12	(18)	3.6	Rhode Island	6.0	0.42	(12)	7.1
Indiana	5.8	0.17	(17)	3.6	South Carolina	4.8	0.20	(47)	-14.3
Iowa	6.2	0.24	(05)	10.7	South Dakota	5.5	0.46	(29)	-1.8
Kansas	5.8	0.26	(19)	3.6	Tennessee	5.6	0.18	(26)	0.0
Kentucky	5.9	0.22	(15)	5.4	Texas	5.5	0.10	(32)	-1.8
Louisiana	5.6	0.20	(25)	0.0	Utah	5.5	0.35	(27)	-1.8
Maine	6.3	0.39	(02)	12.5	Vermont	5.5	0.55	(31)	-1.8
Maryland	5.2	0.18	(39)	-7.1	Virginia	5.4	0.16	(36)	-3.6
Massachusetts	6.0	0.17	(13)	7.1	Washington	5.5	0.18	(28)	-1.8
Michigan	6.2	0.14	(06)	10.7	West Virginia	5.7	0.28	(21)	1.8
Minnesota	6.6*	0.21	(01)	17.9	Wisconsin	5.8	0.18	(16)	3.6
Mississippi	4.9	0.24	(45)	-12.5	Wyoming	6.1	0.67	(07)	8.9
Missouri	5.6	0.17	(22)	0.0					

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

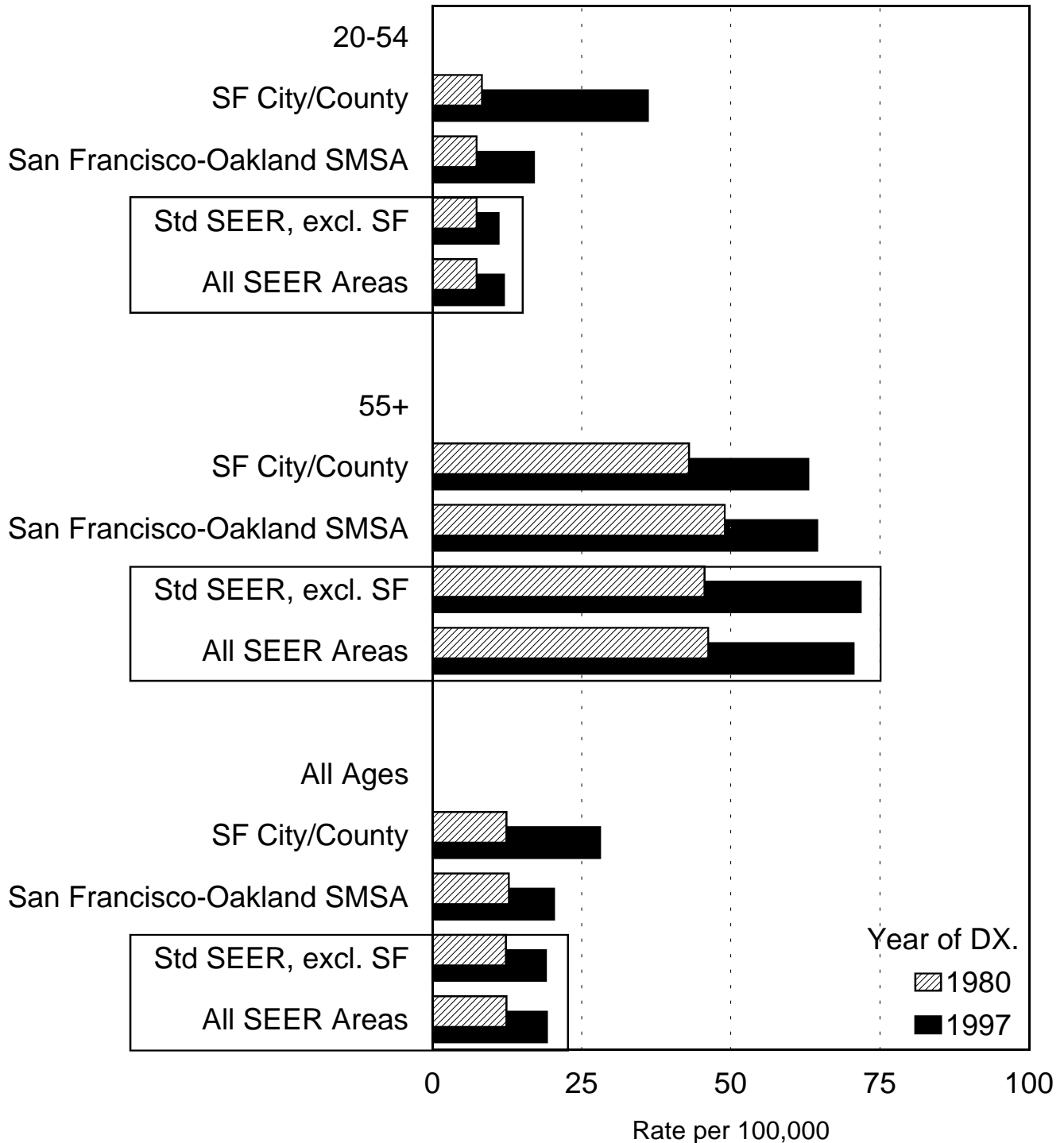
SEER Incidence and U.S. Mortality Rates[†] Non-Hodgkin's Lymphoma



[†] Rates are age-adjusted to the 1970 U.S. standard million population. Regression lines are calculated using the Joinpoint Regression Program.

Non-Hodgkin's Lymphoma Incidence Rates Males

AGE/AREA



Non-Hodgkin's Lymphoma SEER Incidence by Age 1973-1975 vs. 1995-1997 All Races, Males

