

Table XVI-1  
MELANOMAS OF SKIN (Invasive)

TRENDS IN SEER INCIDENCE AND U.S. MORTALITY, BY RACE AND SEX

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>INCIDENCE TRENDS (expressed in percents)§:</u>									
<u>1973-93</u>									
All Ages									
Percent Change (PC)	110.6	142.9	82.8	113.0	144.3	85.6	-26.4	-19.7	-29.6
Est. Annual PC (EAPC)	3.9★	4.7★	3.1★	4.0★	4.8★	3.3★	-1.0	-0.1	-1.5
Under 65									
Percent Change (PC)	91.1	109.7	74.0	92.8	109.7	76.4	-19.3	53.1	-47.7
Est. Annual PC (EAPC)	3.3★	3.7★	2.9★	3.4★	3.8★	3.1★	-1.2	-	-3.1
65 and over									
Percent Change (PC)	169.0	225.3	114.1	176.2	233.9	119.3	-32.3	-73.7	-10.5
Est. Annual PC (EAPC)	5.3★	6.6★	3.8★	5.5★	6.8★	4.0★	-0.8	-	-0.5
<u>1975-79 - ALL AGES</u>									
Percent Change (PC)	15.3	16.1	16.5	18.1	18.6	19.8	-33.2	-65.1	-6.1
Est. Annual PC (EAPC)	4.9★	5.3★	4.9★	5.6★	6.0★	5.8★	-8.2	-23.8	1.6
<u>1989-93 - ALL AGES</u>									
Percent Change (PC)	7.0	9.5	3.8	4.3	7.0	0.8	-52.9	-75.3	-28.7
Est. Annual PC (EAPC)	2.1★◆	2.8★	1.1◆	1.1◆	1.8◆	0.1◆	-19.2	-33.5	-9.0
<u>MORTALITY TRENDS (expressed in percents)δ:</u>									
<u>1973-93</u>									
All Ages									
Percent Change (PC)	34.5	47.3	18.9	38.0	50.7	21.8	5.7	-11.7	21.8
Est. Annual PC (EAPC)	1.5★	2.1★	0.8★	1.7★	2.2★	0.9★	0.0	-0.7	0.7
Under 65									
Percent Change (PC)	13.5	21.0	1.9	18.0	25.1	6.5	-27.7	-20.5	-34.0
Est. Annual PC (EAPC)	0.6★	1.0★	0.1	0.8★	1.1★	0.3	-1.7★	-1.9★	-1.3
65 and over									
Percent Change (PC)	73.8	92.4	51.0	76.7	96.0	51.8	37.8	-4.7	87.8
Est. Annual PC (EAPC)	2.9★	3.7★	1.8★	3.0★	3.8★	1.9★	1.3★	0.4	2.1★
<u>1975-79 - ALL AGES</u>									
Percent Change (PC)	9.7	12.0	7.0	10.3	12.8	7.3	-0.7	-10.1	16.0
Est. Annual PC (EAPC)	3.5★	4.1★	2.9	3.7★	4.3★	3.0	0.0	-1.8	3.8
<u>1989-93 - ALL AGES</u>									
Percent Change (PC)	0.0	2.3	-3.6	0.3	2.7	-3.5	-2.7	-12.7	3.1
Est. Annual PC (EAPC)	0.1◆	0.7◆	-0.8◆	0.3◆	0.9◆	-0.8◇	-1.0	-5.9	1.5

The Est. Annual PC is the Estimated Annual Percent Change (EAPC) over the time interval.

§ SEER Program.

δ NCHS public use tape.

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

◆ The EAPC for 1989-93 is significantly different from the EAPC for 1975-79 ( $p < .05$ ).

◇ The EAPC for 1989-93 is significantly different from the EAPC for 1975-79 ( $p < .10$ ).

- Statistic could not be calculated.

Table XVI-2  
MELANOMAS OF SKIN (Invasive)

## 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	5.7	6.1	5.4	6.2	6.7	5.9	0.7	0.6	0.7
1974	5.9	6.2	5.7	6.5	6.9	6.3	0.5	0.2	0.7
1975	6.6	7.1	6.3	7.3	7.8	6.9	0.9	1.1	0.8
1976	6.9	7.4	6.4	7.6	8.1	7.1	1.4	1.7	1.2
1977	7.5	8.2	7.0	8.3	9.1	7.8	0.7	0.7	0.7
1978	7.5	8.0	7.3	8.5	8.9	8.3	0.7	0.3	0.9
1979	8.1	8.9	7.6	9.0	9.9	8.5	0.8	0.7	1.0
1980	8.9	9.9	8.2	10.1	11.1	9.3	0.7	0.7	0.7
1981	9.4	10.2	8.8	10.4	11.2	10.0	1.1	1.7	0.6
1982	9.4	10.5	8.6	10.6	11.7	9.8	0.8	1.0	0.6
1983	9.3	10.6	8.4	10.4	11.8	9.4	0.8	0.4	1.0
1984	9.6	10.9	8.7	10.7	12.2	9.7	0.6	0.1	0.9
1985	10.8	12.6	9.4	11.9	14.0	10.4	0.8	0.2	1.2
1986	11.2	13.1	9.8	12.3	14.2	10.8	0.4	0.2	0.5
1987	11.4	13.2	10.1	12.6	14.5	11.3	1.0	1.1	0.9
1988	10.7	12.4	9.5	12.2	14.1	10.9	0.9	0.9	0.9
1989	11.4	13.6	9.8	13.0	15.4	11.2	1.0	1.2	0.8
1990	11.5	13.8	9.8	13.1	15.5	11.3	0.9	1.2	0.6
1991	12.2	14.5	10.5	14.0	16.6	12.1	1.0	1.3	0.7
1992	12.3	15.1	10.2	13.9	17.0	11.5	0.3	0.3	0.3
1993	12.2	14.9	10.2	13.3	16.2	11.1	0.6	0.3	0.7
<u>AGE-ADJUSTED RATES, 1989-93</u>									
AGE AT DIAGNOSIS:									
All ages	11.9	14.4	10.1	13.4	16.2	11.4	0.7	0.9	0.6
Under 65	9.2	10.0	8.5	10.5	11.3	9.7	0.4	0.5	0.3
65 and over	36.8	54.3	24.7	40.4	60.1	27.0	3.8	4.3	3.4
All ages (world std.) <sup>λ</sup>	10.6	12.4	9.3	12.0	14.0	10.5	0.6	0.7	0.5
<u>AGE-SPECIFIC RATES, 1989-93</u>									
AGE AT DIAGNOSIS:									
0-4	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0
5-9	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0
10-14	0.3	0.2	0.4	0.4	0.3	0.5	0.0	0.0	0.0
15-19	1.7	1.1	2.2	1.8	1.4	2.3	0.0	0.0	0.0
20-24	4.2	2.9	5.5	4.7	3.3	6.1	0.0	0.0	0.0
25-29	6.8	5.3	8.2	7.9	6.3	9.5	0.2	0.3	0.2
30-34	10.2	8.3	12.1	11.8	9.5	14.1	0.3	0.5	0.2
35-39	13.2	12.4	14.0	15.2	14.2	16.3	0.5	1.0	0.2
40-44	16.6	17.0	16.2	19.0	19.1	18.9	0.5	0.2	0.8
45-49	20.1	21.8	18.6	23.0	24.7	21.3	0.2	0.3	0.0
50-54	22.6	27.2	18.1	25.7	30.8	20.8	1.0	1.3	0.8
55-59	26.8	33.9	20.2	30.5	38.4	22.9	2.4	2.2	2.6
60-64	30.4	40.7	21.3	33.9	44.8	24.0	1.8	2.9	0.9
65-69	32.7	46.4	21.4	36.6	51.7	24.1	1.7	2.7	1.0
70-74	38.0	54.5	25.4	41.9	60.2	27.8	2.7	2.8	2.6
75-79	39.0	59.9	25.1	42.7	66.4	27.1	4.9	5.7	4.3
80-84	38.6	58.4	27.8	41.1	63.2	29.4	9.5	11.0	8.7
85+	42.8	69.9	32.3	46.2	77.8	34.5	5.9	3.9	6.8

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

λ SEER Program. Rates are per 100,000 and are age-adjusted to the world standard population.

Table XVI-3  
MELANOMAS OF SKIN (Invasive)  
 U.S. MORTALITY RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES $\delta$ , 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	1.6	2.0	1.3	1.7	2.2	1.4	0.4	0.6	0.4
1974	1.7	2.2	1.3	1.9	2.5	1.4	0.3	0.4	0.3
1975	1.7	2.2	1.3	1.9	2.4	1.4	0.4	0.5	0.4
1976	1.9	2.4	1.4	2.0	2.6	1.6	0.4	0.6	0.3
1977	1.9	2.4	1.4	2.1	2.6	1.6	0.4	0.5	0.3
1978	1.9	2.5	1.4	2.1	2.7	1.6	0.4	0.5	0.4
1979	2.0	2.6	1.5	2.2	2.9	1.7	0.4	0.5	0.4
1980	1.9	2.5	1.4	2.1	2.8	1.5	0.5	0.4	0.5
1981	2.0	2.6	1.5	2.2	2.8	1.7	0.4	0.5	0.4
1982	2.0	2.7	1.5	2.2	3.0	1.6	0.4	0.5	0.4
1983	2.0	2.7	1.5	2.3	3.0	1.7	0.4	0.5	0.3
1984	2.1	2.8	1.5	2.3	3.1	1.6	0.4	0.4	0.4
1985	2.1	2.8	1.5	2.3	3.1	1.7	0.4	0.5	0.4
1986	2.1	2.9	1.5	2.4	3.2	1.7	0.4	0.6	0.2
1987	2.2	3.1	1.5	2.4	3.4	1.7	0.4	0.5	0.4
1988	2.2	3.0	1.5	2.4	3.3	1.7	0.4	0.4	0.3
1989	2.2	3.1	1.5	2.5	3.4	1.7	0.4	0.4	0.4
1990	2.3	3.1	1.6	2.5	3.4	1.8	0.4	0.5	0.4
1991	2.2	3.2	1.5	2.5	3.5	1.6	0.5	0.5	0.4
1992	2.2	3.1	1.5	2.5	3.5	1.7	0.4	0.5	0.3
1993	2.2	3.2	1.5	2.5	3.5	1.7	0.4	0.3	0.5
<u>AGE-ADJUSTED RATES, 1989-93</u>									
AGE AT DEATH:									
All ages	2.2	3.1	1.5	2.5	3.5	1.7	0.4	0.5	0.4
Under 65	1.4	1.8	1.0	1.6	2.1	1.1	0.2	0.2	0.1
65 and over	9.9	14.9	6.7	10.8	16.2	7.1	2.8	2.8	2.7
All ages (world std.) $\phi$	1.9	2.6	1.3	2.1	2.9	1.4	0.3	0.3	0.3
<u>AGE-SPECIFIC RATES, 1989-93</u>									
AGE AT DEATH:									
0-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5-9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-19	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
20-24	0.2	0.2	0.1	0.2	0.3	0.2	0.0	0.0	0.0
25-29	0.5	0.5	0.5	0.6	0.6	0.6	0.1	0.1	0.1
30-34	1.0	1.1	0.8	1.1	1.4	0.9	0.1	0.1	0.0
35-39	1.6	2.1	1.1	1.9	2.4	1.3	0.2	0.2	0.1
40-44	2.3	2.8	1.7	2.6	3.3	2.0	0.2	0.2	0.2
45-49	3.1	4.0	2.2	3.5	4.5	2.6	0.2	0.3	0.2
50-54	3.9	5.1	2.7	4.4	5.8	3.1	0.4	0.4	0.3
55-59	5.1	7.0	3.4	5.8	7.8	3.8	0.8	0.7	0.8
60-64	6.5	9.3	4.0	7.2	10.3	4.4	1.1	1.6	0.8
65-69	7.8	11.3	4.9	8.5	12.4	5.3	1.8	1.6	1.9
70-74	9.2	13.7	5.9	10.0	14.9	6.3	2.4	2.5	2.3
75-79	11.1	17.1	7.2	11.9	18.4	7.7	3.5	4.2	3.1
80-84	12.7	18.8	9.4	13.5	20.3	9.9	3.9	3.4	4.1
85+	15.6	24.5	12.2	16.7	26.6	12.9	5.1	4.6	5.3

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

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

Table XVI-4  
MELANOMAS OF SKIN (Invasive)

SURVIVAL RATES, BY RACE, SEX, DIAGNOSIS YEAR, STAGE 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>									
YEAR OF DIAGNOSIS:									
1960-63 <sup>a</sup>	-	-	-	60	51	68	-	-	-
1970-73 <sup>a</sup>	-	-	-	68	62	75	-	-	-
1974-76 <sup>b</sup>	79.9	74.7	84.9	80.2	75.1	85.0	66.4↑	-	-
1977-79 <sup>b</sup>	81.7	77.3	86.0	82.0	77.6	86.3	50.8↑	-	-
1980-82 <sup>b</sup>	82.7	77.2	88.1	82.9	77.6	88.1	59.5↑	-	-
1983-85 <sup>b</sup>	84.7	80.6	89.2	84.9	80.7	89.4	75.6↑	-	71.6↑
1986-92 <sup>b</sup>	87.4Ω	84.3Ω	90.7Ω	87.6Ω	84.6Ω	90.8Ω	72.2↑	52.4↑	87.1↑
1986-92 <sup>b</sup>									
ALL STAGES	87.4	84.3	90.7	87.6	84.6	90.8	72.2↑	52.4↑	87.1↑
LOCALIZED	94.6	93.3	95.9	94.6	93.3	95.9	90.3↑	-	91.9↑
REGIONAL	60.8	57.9	65.0	61.1	58.5	64.9	-	-	-
DISTANT	16.0	15.6	16.6	16.0	15.7	16.6	-	-	-
UNSTAGED	69.0	64.0	75.9	69.3	64.3	76.2	-	-	-

STAGE DISTRIBUTION (%) 1986-92<sup>b</sup>

ALL STAGES									
Number of cases	17,148	9,185	7,963	16,966	9,096	7,870	93	45	48
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
LOCALIZED	82	79	85	82	80	85	60	42	77
REGIONAL	8	9	7	8	9	7	19	31	8
DISTANT	4	5	3	4	5	3	14	24	4
UNSTAGED	6	7	5	6	7	5	6	2	10

5-YR RELATIVE SURVIVAL RATES, 1986-92<sup>b</sup>

AGE AT DIAGNOSIS:									
<45	89.8	84.7	94.0	89.9	84.9	94.0	-	-	-
45-54	86.7	83.7	90.4	86.9	83.9	90.6	-	-	-
55-64	86.8	84.6	90.0	87.0	84.8	90.0	-	-	-
65-74	86.4	85.3	88.0	86.5	85.6	88.0	-	-	-
75+	83.1	81.3	83.2	83.6	82.1	83.3	-	-	-
Under 65	88.2	84.4	92.3	88.4	84.6	92.3	66.9↑	45.6↑	85.2↑
65 and over	85.4	84.9	86.0	85.7	85.3	86.0	78.3↑	-	-

<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 1993.

Ω The difference in rates between 1974-76 and 1986-92 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 XVI-5  
MELANOMAS OF SKIN (Invasive)

INCIDENCE, MORTALITY, AND SURVIVAL RATES

By Year of Diagnosis/Death

All Races, Males and Females

Year of Diagnosis/Death

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Incidence																					
SEER	5.7	5.9	6.6	6.9	7.5	7.5	8.1	8.9	9.4	9.4	9.3	9.6	10.8	11.2	11.4	10.7	11.4	11.5	12.2	12.3	12.2
Mortality																					
U.S.	1.6	1.7	1.7	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.2	2.2	2.2
SEER	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.9	2.0	1.9	1.9	2.1	1.9	1.9	2.1	2.1	2.0	2.0	2.2	2.0	2.1
Relative Survival Rates (SEER)																					
1-year	90.9	92.2	94.9	93.5	95.2	93.8	94.6	96.6	94.4	95.2	96.5	96.3	95.8	96.9	96.3	96.9	95.9	96.5	97.1	95.8	
2-year	84.5	87.6	89.7	89.1	89.5	89.4	90.9	92.4	90.1	91.0	92.1	92.7	92.8	93.2	92.9	93.2	93.4	93.2	93.8		
3-year	78.6	82.8	85.6	85.3	86.0	85.6	86.9	88.3	84.6	87.8	88.7	89.8	89.5	90.9	90.2	90.9	90.5	91.0			
4-year	74.7	79.6	82.1	83.1	83.3	83.3	83.5	85.7	82.0	85.4	86.4	86.8	87.5	89.4	88.5	89.5	88.4				
5-year	72.1	76.0	81.1	81.9	81.7	81.1	82.4	83.9	79.7	84.4	83.8	84.7	85.7	87.9	86.8	88.8					
6-year	70.1	73.4	79.1	80.3	80.7	79.2	80.1	82.9	78.7	83.7	82.2	83.6	84.5	86.7	85.8						
7-year	69.5	72.1	77.8	78.6	79.5	78.1	79.4	82.0	78.1	82.4	82.0	83.3	83.3	86.2							
8-year	68.4	71.3	76.3	77.3	78.6	77.2	78.8	80.9	78.1	81.6	80.6	82.9	83.1								
9-year	67.9	69.9	74.3	76.5	77.7	77.2	78.2	80.4	77.2	81.1	80.6	81.7									
10-year	67.5	69.3	72.6	76.5	76.9	77.2	78.2	80.2	77.2	80.9	79.9										
11-year	67.3	69.2	72.1	74.9	76.5	76.7	78.2	79.7	76.9	80.4											
12-year	66.5	69.2	70.7	74.9	76.4	76.5	78.1	78.5	76.8												
13-year	66.0	69.2	70.7	74.6	75.8	76.4	77.9	77.9													
14-year	66.0	69.1	69.0	74.1	75.8	76.2	77.9														
15-year	66.0	69.0	68.7	74.1	75.3	74.6															
16-year	65.9	67.9	68.7	73.8	75.3																
17-year	65.9	67.1	68.7	73.4																	
18-year	65.9	67.1	68.7																		
19-year	65.9	67.1																			
20-year	65.9																				

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 XVI-6  
MELANOMAS OF SKIN (Invasive)

INCIDENCE, MORTALITY, AND SURVIVAL RATES

By Year of Diagnosis/Death

All Races, Males

Year of Diagnosis/Death

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Incidence																					
SEER	6.1	6.2	7.1	7.4	8.2	8.0	8.9	9.9	10.2	10.5	10.6	10.9	12.6	13.1	13.2	12.4	13.6	13.8	14.5	15.1	14.9
Mortality																					
U.S.	2.0	2.2	2.2	2.4	2.4	2.5	2.6	2.5	2.6	2.7	2.7	2.8	2.8	2.9	3.1	3.0	3.1	3.1	3.2	3.1	3.2
SEER	1.8	2.0	1.9	2.1	2.1	2.3	2.3	2.5	2.6	2.7	2.7	2.9	2.5	2.5	3.0	2.8	2.5	2.6	3.2	2.8	2.9
Relative Survival Rates (SEER)																					
1-year	90.5	89.6	92.6	91.6	93.7	92.3	92.6	95.8	93.2	92.8	95.2	94.1	94.7	95.8	95.5	95.7	94.5	95.6	96.1	95.5	
2-year	80.7	83.3	84.9	85.4	87.2	86.5	87.8	89.7	88.1	87.3	88.8	89.3	90.7	91.1	90.6	91.7	92.0	91.4	92.9		
3-year	73.0	78.2	80.3	81.5	83.3	81.6	83.0	84.5	80.3	84.1	85.6	85.4	86.6	88.1	87.7	88.8	88.3	88.8			
4-year	69.7	75.0	76.6	78.8	80.0	78.4	78.3	81.4	77.3	81.4	83.3	81.5	84.1	86.2	85.7	87.2	85.7				
5-year	66.5	70.3	75.4	77.4	77.9	76.5	77.6	77.6	74.5	79.4	80.3	79.0	82.2	84.2	83.2	86.4					
6-year	63.9	66.7	72.9	75.4	76.6	74.2	75.1	76.7	73.0	78.4	79.1	78.2	81.1	82.5	82.5						
7-year	62.9	64.6	71.6	73.7	75.2	72.7	73.1	75.6	72.9	77.1	79.1	78.2	80.0	81.7							
8-year	61.3	63.1	69.6	72.6	74.6	71.7	71.6	74.2	72.7	76.6	77.8	78.2	79.6								
9-year	60.5	62.2	67.5	71.9	74.1	71.7	70.9	73.4	71.1	76.2	77.8	77.2									
10-year	59.9	61.8	65.5	71.9	72.9	71.7	70.9	73.2	71.1	76.2	77.8										
11-year	59.9	61.4	64.6	71.4	71.7	70.1	70.9	72.7	70.9	76.2											
12-year	59.9	61.4	62.4	71.4	71.7	69.9	70.9	71.7	70.9												
13-year	59.9	61.0	62.3	70.9	71.4	69.6	70.9	71.7													
14-year	59.9	61.0	61.3	70.2	71.4	69.6	70.9														
15-year	59.9	61.0	61.3	70.2	71.1	68.4															
16-year	59.9	60.3	61.3	70.0	71.1																
17-year	59.9	60.0	61.2	69.2																	
18-year	59.9	60.0	61.2																		
19-year	59.9	60.0																			
20-year	59.9																				

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 XVI-7  
MELANOMAS OF SKIN (Invasive)

INCIDENCE, MORTALITY, AND SURVIVAL RATES

By Year of Diagnosis/Death

All Races, Females

Year of Diagnosis/Death

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Incidence																					
SEER	5.4	5.7	6.3	6.4	7.0	7.3	7.6	8.2	8.8	8.6	8.4	8.7	9.4	9.8	10.1	9.5	9.8	9.8	10.5	10.2	10.2
Mortality																					
U.S.	1.3	1.3	1.3	1.4	1.4	1.4	1.5	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.5
SEER	1.3	1.2	1.3	1.3	1.4	1.3	1.4	1.3	1.4	1.3	1.3	1.4	1.5	1.5	1.4	1.5	1.5	1.6	1.5	1.4	1.4
Relative Survival Rates (SEER)																					
1-year	91.3	94.6	97.2	95.4	96.7	95.2	96.7	97.5	95.6	97.8	98.0	98.5	97.0	98.1	97.3	98.2	97.4	97.4	98.4	96.2	
2-year	88.2	91.5	94.6	92.8	91.9	92.1	94.0	95.3	92.1	94.9	95.6	96.2	95.1	95.5	95.3	94.7	95.1	95.3	94.8		
3-year	84.1	87.0	90.8	89.2	88.7	89.3	90.9	92.4	88.7	91.7	91.9	94.4	92.7	94.1	92.9	93.1	93.0	93.6			
4-year	79.6	83.8	87.6	87.4	86.5	87.7	88.7	90.3	86.5	89.5	89.6	92.3	91.2	93.0	91.4	91.9	91.6				
5-year	77.5	81.2	86.6	86.3	85.4	85.2	87.2	90.3	84.6	89.4	87.4	90.4	89.5	91.9	90.7	91.2					
6-year	76.1	79.5	85.0	85.2	84.7	83.7	84.9	89.4	84.0	89.0	85.4	89.1	88.2	91.3	89.3						
7-year	75.8	79.0	83.8	83.5	83.7	82.8	84.9	88.6	83.0	87.6	84.5	88.4	86.9	91.0							
8-year	75.2	78.7	82.7	82.0	82.5	82.1	84.9	87.7	83.0	86.5	83.4	87.2	86.9								
9-year	75.1	76.9	80.8	81.1	81.3	82.1	84.9	87.4	82.7	85.9	83.2	86.1									
10-year	74.7	76.1	79.3	80.9	80.8	82.1	84.9	87.2	82.4	85.6	81.9										
11-year	73.4	76.1	79.1	78.3	80.8	82.1	84.9	86.7	82.2	84.2											
12-year	72.1	76.1	78.4	78.0	80.3	82.1	84.6	85.3	82.1												
13-year	71.3	76.1	78.4	78.0	80.1	82.1	84.1	83.9													
14-year	71.3	76.1	76.1	77.8	79.8	81.2	84.1														
15-year	70.8	75.4	75.3	77.8	79.3	79.8															
16-year	70.8	74.4	75.3	77.4	79.3																
17-year	70.8	73.0	75.3	77.4																	
18-year	70.8	73.0	75.3																		
19-year	70.8	73.0																			
20-year	70.8																				

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 XVI-8  
MELANOMAS OF SKIN (Invasive)

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

Lifetime Risk (Percent) of Being Diagnosed With Cancer and  
 Lifetime Risk (Percent) of Dying From Cancer

SEER Areas, 1991-93

All Races

Current Age	Males				Females			
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually
0	0.00	0.01	0.04	1.42	0.00	0.01	0.08	1.08
10	0.01	0.04	0.14	1.43	0.01	0.08	0.20	1.09
20	0.04	0.13	0.32	1.44	0.07	0.19	0.36	1.08
30	0.10	0.28	0.55	1.42	0.13	0.29	0.47	1.02
40	0.19	0.47	0.82	1.36	0.17	0.35	0.54	0.91
50	0.29	0.66	1.01	1.22	0.19	0.38	0.58	0.75
60	0.41	0.78	0.97	1.02	0.20	0.41	0.56	0.60

Lifetime Risk of Being Diagnosed = 1.42%  
 Lifetime Risk of Dying = 0.31%

Lifetime Risk of Being Diagnosed = 1.08%  
 Lifetime Risk of Dying = 0.20%

Whites

Current Age	Males				Females			
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually
0	0.00	0.01	0.05	1.61	0.00	0.01	0.09	1.22
10	0.01	0.05	0.16	1.62	0.01	0.09	0.23	1.23
20	0.04	0.15	0.36	1.63	0.08	0.22	0.41	1.22
30	0.11	0.32	0.63	1.60	0.15	0.34	0.54	1.15
40	0.21	0.53	0.93	1.53	0.20	0.40	0.61	1.01
50	0.33	0.74	1.12	1.37	0.21	0.43	0.65	0.83
60	0.45	0.87	1.07	1.13	0.23	0.46	0.62	0.65

Lifetime Risk of Being Diagnosed = 1.61%  
 Lifetime Risk of Dying = 0.36%

Lifetime Risk of Being Diagnosed = 1.22%  
 Lifetime Risk of Dying = 0.23%

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	0.05	0.00	0.00	0.00	0.07
10	0.00	0.00	0.01	0.05	0.00	0.00	0.00	0.07
20	0.00	0.01	0.01	0.05	0.00	0.00	0.01	0.08
30	0.01	0.01	0.02	0.05	0.00	0.01	0.02	0.08
40	0.00	0.01	0.02	0.04	0.01	0.03	0.03	0.08
50	0.01	0.02	0.03	0.04	0.02	0.02	0.03	0.07
60	0.02	0.03	0.04	0.04	0.00	0.02	0.04	0.06

Lifetime Risk of Being Diagnosed = 0.05%  
 Lifetime Risk of Dying = 0.04%

Lifetime Risk of Being Diagnosed = 0.07%  
 Lifetime Risk of Dying = 0.05%



Table XVI-9  
MELANOMAS OF SKIN (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY<sup>δ</sup> RATES BY STATE, 1989-93

All Races, Males and Females

State	Rate	SE	Rank	PD
TOTAL U.S.	2.2	0.01		
High Five States				
Delaware	2.9*	0.28	(01)	31.8
Utah	2.8*	0.20	(02)	27.3
Vermont	2.8*	0.31	(03)	27.3
Nevada	2.7*	0.20	(04)	22.7
Massachusetts	2.6*	0.09	(05)	18.2
Low Five States				
Michigan	1.8⊕*	0.06	(47)	-18.2
Mississippi	1.8*	0.11	(48)	-18.2
North Dakota	1.5*	0.20	(49)	-31.8
Hawaii	1.1⊕*	0.14	(50)	-50.0
District of Columbia	0.9⊕*	0.16	(51)	-59.1

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	2.3	0.10	(19)	4.5	Montana	2.5	0.23	(13)	13.6
Alaska	2.1	0.38	(39)	-4.5	Nebraska	2.1	0.15	(36)	-4.5
Arizona	2.4	0.11	(18)	9.1	Nevada	2.7*	0.20	(04)	22.7
Arkansas	2.2	0.13	(28)	0.0	New Hampshire	2.3	0.20	(23)	4.5
California	2.5⊕	0.04	(14)	13.6	New Jersey	2.4	0.07	(17)	9.1
Colorado	2.5	0.12	(12)	13.6	New Mexico	2.1	0.16	(32)	-4.5
Connecticut	2.2	0.11	(27)	0.0	New York	2.0	0.04	(41)	-9.1
Delaware	2.9*	0.28	(01)	31.8	North Carolina	2.5	0.08	(10)	13.6
District of Columbia	0.9⊕*	0.16	(51)	-59.1	North Dakota	1.5*	0.20	(49)	-31.8
Florida	2.4	0.05	(16)	9.1	Ohio	2.1	0.06	(37)	-4.5
Georgia	2.3	0.08	(20)	4.5	Oklahoma	2.6*	0.12	(06)	18.2
Hawaii	1.1⊕*	0.14	(50)	-50.0	Oregon	2.5	0.12	(07)	13.6
Idaho	2.5	0.21	(09)	13.6	Pennsylvania	2.3	0.06	(24)	4.5
Illinois	1.9⊕	0.05	(44)	-13.6	Rhode Island	2.2	0.19	(29)	0.0
Indiana	2.2	0.08	(31)	0.0	South Carolina	2.1	0.11	(33)	-4.5
Iowa	2.1	0.11	(38)	-4.5	South Dakota	2.0	0.22	(43)	-9.1
Kansas	2.5	0.13	(11)	13.6	Tennessee	2.4	0.09	(15)	9.1
Kentucky	2.2	0.10	(30)	0.0	Texas	2.1	0.05	(34)	-4.5
Louisiana	1.8*	0.09	(46)	-18.2	Utah	2.8*	0.20	(02)	27.3
Maine	2.3	0.18	(21)	4.5	Vermont	2.8*	0.31	(03)	27.3
Maryland	2.1	0.09	(35)	-4.5	Virginia	2.3	0.08	(26)	4.5
Massachusetts	2.6*	0.09	(05)	18.2	Washington	2.3	0.09	(25)	4.5
Michigan	1.8⊕*	0.06	(47)	-18.2	West Virginia	2.5	0.15	(08)	13.6
Minnesota	2.0	0.09	(42)	-9.1	Wisconsin	1.9	0.08	(45)	-13.6
Mississippi	1.8*	0.11	(48)	-18.2	Wyoming	2.1	0.30	(40)	-4.5
Missouri	2.3	0.09	(22)	4.5					

<sup>δ</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.

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

Table XVI-10  
MELANOMAS OF SKIN (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY<sup>δ</sup> RATES BY STATE, 1989-93

All Races, Males

State	Rate	SE	Rank	PD
TOTAL U.S.	3.1	0.02		
High Five States				
Vermont	4.0 <sup>*</sup>	0.54	(01)	29.0
Delaware	3.8 <sup>*</sup>	0.48	(02)	22.6
Utah	3.8 <sup>*</sup>	0.33	(03)	22.6
Florida	3.7 <sup>⊕*</sup>	0.10	(04)	19.4
Oklahoma	3.7 <sup>*</sup>	0.21	(05)	19.4
Low Five States				
Michigan	2.5 <sup>⊕*</sup>	0.11	(47)	-19.4
Alaska	2.0 <sup>*</sup>	0.46	(48)	-35.5
North Dakota	1.8 <sup>*</sup>	0.32	(49)	-41.9
Hawaii	1.5 <sup>⊕*</sup>	0.24	(50)	-51.6
District of Columbia	1.4 <sup>⊕*</sup>	0.31	(51)	-54.8

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	3.3	0.18	(21)	6.5	Montana	3.0	0.37	(29)	-3.2
Alaska	2.0 <sup>*</sup>	0.46	(48)	-35.5	Nebraska	2.7	0.26	(41)	-12.9
Arizona	3.3	0.19	(20)	6.5	Nevada	3.5	0.33	(08)	12.9
Arkansas	3.0	0.22	(30)	-3.2	New Hampshire	3.4	0.36	(13)	9.7
California	3.5	0.07	(10)	12.9	New Jersey	3.4	0.13	(12)	9.7
Colorado	3.3	0.21	(16)	6.5	New Mexico	2.9	0.28	(37)	-6.5
Connecticut	2.9	0.18	(36)	-6.5	New York	2.8	0.08	(38)	-9.7
Delaware	3.8 <sup>*</sup>	0.48	(02)	22.6	North Carolina	3.5	0.15	(09)	12.9
District of Columbia	1.4 <sup>⊕*</sup>	0.31	(51)	-54.8	North Dakota	1.8 <sup>*</sup>	0.32	(49)	-41.9
Florida	3.7 <sup>⊕*</sup>	0.10	(04)	19.4	Ohio	3.0	0.10	(33)	-3.2
Georgia	3.3	0.16	(17)	6.5	Oklahoma	3.7 <sup>*</sup>	0.21	(05)	19.4
Hawaii	1.5 <sup>⊕*</sup>	0.24	(50)	-51.6	Oregon	3.3	0.21	(18)	6.5
Idaho	3.6 <sup>*</sup>	0.38	(06)	16.1	Pennsylvania	3.2	0.10	(24)	3.2
Illinois	2.6 <sup>⊕*</sup>	0.10	(43)	-16.1	Rhode Island	3.2	0.35	(26)	3.2
Indiana	3.2	0.15	(25)	3.2	South Carolina	3.3	0.20	(19)	6.5
Iowa	2.8	0.19	(39)	-9.7	South Dakota	2.7	0.38	(40)	-12.9
Kansas	3.4	0.23	(15)	9.7	Tennessee	3.4	0.17	(11)	9.7
Kentucky	3.0	0.18	(35)	-3.2	Texas	3.0	0.09	(31)	-3.2
Louisiana	2.6 <sup>*</sup>	0.16	(46)	-16.1	Utah	3.8 <sup>*</sup>	0.33	(03)	22.6
Maine	3.2	0.31	(27)	3.2	Vermont	4.0 <sup>*</sup>	0.54	(01)	29.0
Maryland	3.0	0.16	(32)	-3.2	Virginia	3.0	0.14	(34)	-3.2
Massachusetts	3.6 <sup>*</sup>	0.15	(07)	16.1	Washington	3.1	0.16	(28)	0.0
Michigan	2.5 <sup>⊕*</sup>	0.11	(47)	-19.4	West Virginia	3.4	0.26	(14)	9.7
Minnesota	2.6 <sup>*</sup>	0.16	(42)	-16.1	Wisconsin	2.6 <sup>*</sup>	0.14	(44)	-16.1
Mississippi	2.6 <sup>*</sup>	0.20	(45)	-16.1	Wyoming	3.2	0.55	(22)	3.2
Missouri	3.2	0.16	(23)	3.2					

<sup>δ</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.

<sup>\*</sup> Absolute difference between state rate and total U.S. rate is 15% or more.

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

Table XVI-11  
MELANOMAS OF SKIN (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY<sup>δ</sup> RATES BY STATE, 1989-93

All Races, Females

State	Rate	SE	Rank	PD
TOTAL U.S.	1.5	0.01		
High Five States				
Delaware	2.2*	0.34	(01)	46.7
Massachusetts	2.0*	0.11	(02)	33.3
Utah	2.0*	0.22	(03)	33.3
Nevada	1.9*	0.24	(04)	26.7
Alaska	1.9*	0.52	(05)	26.7
Low Five States				
North Dakota	1.2*	0.25	(47)	-20.0
Mississippi	1.2*	0.12	(48)	-20.0
Wyoming	1.1*	0.30	(49)	-26.7
Hawaii	0.7⊕*	0.15	(50)	-53.3
District of Columbia	0.5⊕*	0.15	(51)	-66.7

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	1.6	0.11	(23)	6.7	Montana	1.9*	0.28	(06)	26.7
Alaska	1.9*	0.52	(05)	26.7	Nebraska	1.6	0.18	(19)	6.7
Arizona	1.6	0.12	(22)	6.7	Nevada	1.9*	0.24	(04)	26.7
Arkansas	1.6	0.14	(20)	6.7	New Hampshire	1.5	0.23	(32)	0.0
California	1.6	0.05	(18)	6.7	New Jersey	1.6	0.08	(24)	6.7
Colorado	1.8*	0.14	(12)	20.0	New Mexico	1.5	0.19	(29)	0.0
Connecticut	1.8*	0.13	(14)	20.0	New York	1.4	0.05	(38)	-6.7
Delaware	2.2*	0.34	(01)	46.7	North Carolina	1.8*	0.09	(13)	20.0
District of Columbia	0.5⊕*	0.15	(51)	-66.7	North Dakota	1.2*	0.25	(47)	-20.0
Florida	1.4	0.06	(39)	-6.7	Ohio	1.4	0.06	(37)	-6.7
Georgia	1.5	0.09	(30)	0.0	Oklahoma	1.8*	0.14	(10)	20.0
Hawaii	0.7⊕*	0.15	(50)	-53.3	Oregon	1.9*	0.14	(07)	26.7
Idaho	1.5	0.22	(33)	0.0	Pennsylvania	1.6	0.06	(21)	6.7
Illinois	1.4	0.06	(40)	-6.7	Rhode Island	1.5	0.21	(31)	0.0
Indiana	1.4	0.09	(41)	-6.7	South Carolina	1.3	0.11	(44)	-13.3
Iowa	1.5	0.13	(28)	0.0	South Dakota	1.3	0.24	(42)	-13.3
Kansas	1.8*	0.15	(11)	20.0	Tennessee	1.7	0.10	(17)	13.3
Kentucky	1.6	0.12	(27)	6.7	Texas	1.5	0.06	(36)	0.0
Louisiana	1.2*	0.10	(45)	-20.0	Utah	2.0*	0.22	(03)	33.3
Maine	1.7	0.21	(16)	13.3	Vermont	1.8*	0.35	(09)	20.0
Maryland	1.5	0.10	(35)	0.0	Virginia	1.7	0.10	(15)	13.3
Massachusetts	2.0*	0.11	(02)	33.3	Washington	1.6	0.11	(26)	6.7
Michigan	1.2*	0.07	(46)	-20.0	West Virginia	1.8*	0.17	(08)	20.0
Minnesota	1.5	0.11	(34)	0.0	Wisconsin	1.3	0.09	(43)	-13.3
Mississippi	1.2*	0.12	(48)	-20.0	Wyoming	1.1*	0.30	(49)	-26.7
Missouri	1.6	0.10	(25)	6.7					

<sup>δ</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.

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

Table XVI-12  
MELANOMAS OF SKIN (Invasive)AGE-ADJUSTED SEER INCIDENCE RATES<sup>§</sup>, SEER MORTALITY RATES<sup>δ</sup>, AND 5-YEAR RELATIVE SURVIVAL RATES<sup>⊙</sup>  
By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER INCIDENCE RATES<sup>§</sup>, 1989-93</u>									
REGISTRY									
Standard 9 registries	11.9	14.4	10.1	13.4	16.2	11.4	0.7	0.9	0.6
San Francisco-Oakland	11.3	14.3	9.0	13.9	17.4	11.2	0.8	1.1	0.5
Connecticut	14.4	17.5	12.3	15.0	17.9	12.9	1.4	1.7	1.3
Metropolitan Detroit	9.3	11.9	7.4	10.9	13.8	8.7	0.5	0.6	0.5
Hawaii	8.5	10.7	6.4	23.0	29.6	16.6	-	-	-
Iowa	10.4	11.7	9.4	10.4	11.8	9.3	-	-	-
New Mexico	11.2	13.7	9.2	12.1	14.8	10.1	-	-	-
Seattle-Puget Sound	13.3	14.8	12.2	14.5	16.1	13.3	0.8	1.1	0.4
Utah	14.5	17.1	12.3	14.1	16.6	12.0	-	-	-
Metropolitan Atlanta	14.6	19.1	11.8	16.7	21.9	13.3	0.8	1.1	0.6
San Jose-Monterey	9.9	11.7	8.7	10.1	12.2	8.6	0.2	0.4	0.0
Los Angeles	9.6	12.2	7.6	11.2	14.2	9.0	0.8	1.0	0.7
<u>SEER MORTALITY RATES<sup>δ</sup>, 1989-93</u>									
REGISTRY									
Standard 9 registries	2.1	2.8	1.5	2.4	3.2	1.7	0.4	0.5	0.4
San Francisco-Oakland	2.2	2.9	1.6	2.8	3.8	2.1	0.6	0.4	0.7
Connecticut	2.2	2.9	1.8	2.4	3.1	1.9	0.3	0.7	0.0
Metropolitan Detroit	1.6	2.2	1.1	1.9	2.6	1.4	0.3	0.4	0.2
Hawaii	1.1	1.5	0.7	3.3	4.5	2.2	-	-	-
Iowa	2.1	2.8	1.5	2.1	2.8	1.6	-	-	-
New Mexico	2.1	2.9	1.5	2.3	3.0	1.7	-	-	-
Seattle-Puget Sound	2.3	3.1	1.6	2.4	3.3	1.7	0.6	0.7	0.5
Utah	2.8	3.8	2.0	2.9	3.9	2.0	-	-	-
Metropolitan Atlanta	2.1	3.3	1.3	2.6	4.0	1.5	0.6	0.8	0.6
San Jose-Monterey	2.4	3.5	1.6	2.8	4.1	1.8	0.0	0.0	0.0
Los Angeles	2.2	3.1	1.5	2.7	3.8	1.9	0.4	0.5	0.3
<u>SURVIVAL RATES<sup>⊙</sup>, 1986-92</u>									
REGISTRY									
Standard 9 registries	87.4	84.3	90.7	87.6	84.6	90.8	72.2 <sup>↑</sup>	52.4 <sup>↑</sup>	87.1 <sup>↑</sup>
San Francisco-Oakland	88.7	85.2	92.6	88.8	85.4	92.7	-	-	-
Connecticut	84.0	81.7	86.4	84.1	81.9	86.3	-	-	-
Metropolitan Detroit	87.6	85.7	89.8	87.8	86.1	89.9	65.5 <sup>↑</sup>	-	-
Hawaii	90.9	88.6	92.7	92.6	90.0	94.9	-	-	-
Iowa	86.3	82.9	89.2	86.3	82.9	89.2	-	-	-
New Mexico	87.8	87.0	88.5	88.0	87.3	88.7	-	-	-
Seattle-Puget Sound	88.7	84.5	93.4	89.0	84.9	93.4	-	-	-
Utah	84.2	80.5	88.1	84.2	80.4	88.0	-	-	-
Metropolitan Atlanta	90.2	85.3	95.8	90.6	85.7	96.1	-	-	-

Note: San Jose-Monterey and Los Angeles are new SEER areas as of 1992 and their data are only used in this table and not other tables in this section.

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

δ NCHS public use tape. 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 and are based on follow-up of patients through 1993.

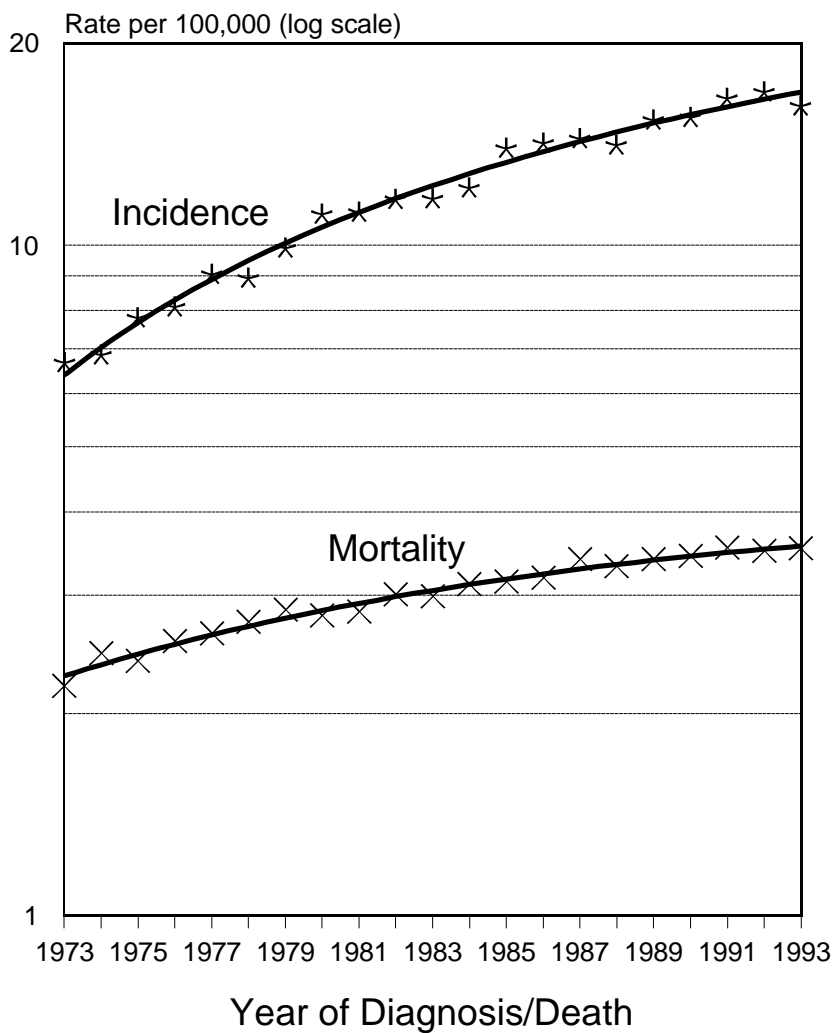
↑ The standard error of the survival rate is between 5 and 10 percentage points.

↑ The standard error of the survival rate is greater than 10 percentage points.

- Statistic could not be calculated or populations are inadequate.

# SEER Incidence and U.S. Mortality Melanoma of the Skin, White By Sex

## Male



## Female

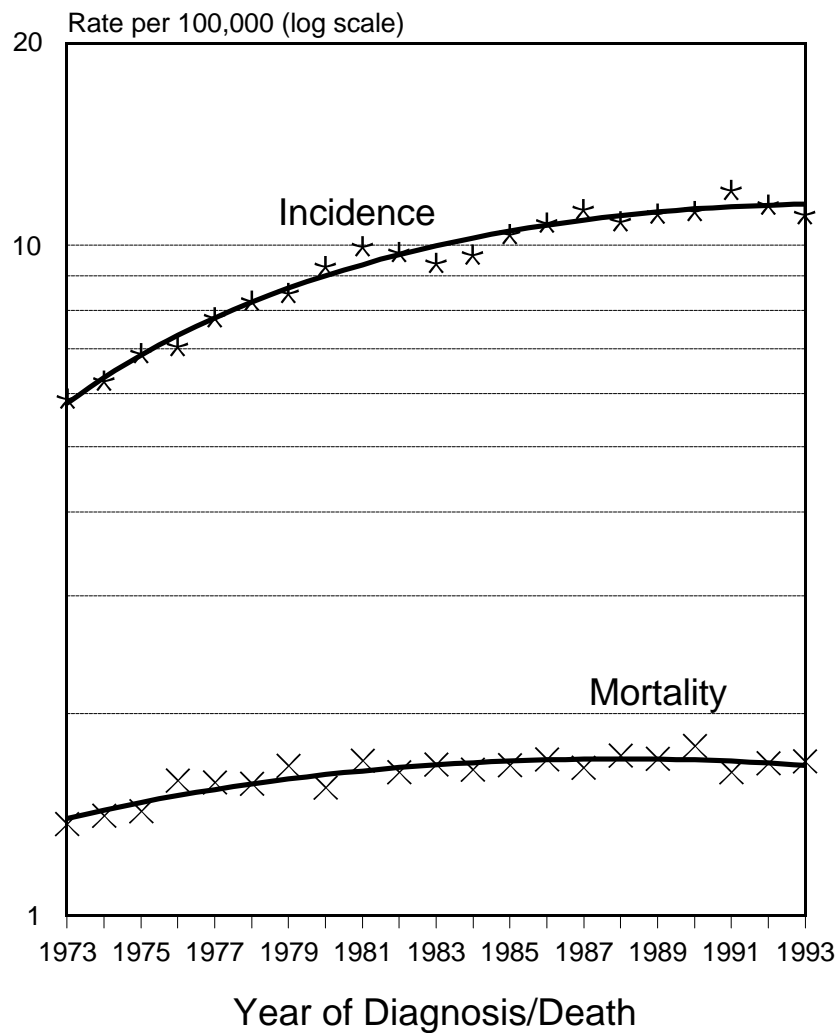


Figure XVI-1

# Melanoma of the Skin

## SEER Incidence by Age and Sex

### Whites 1973-75 vs. 1991-93

