

Table XI-1
KIDNEY AND RENAL PELVIS CANCER (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)	40.0	35.4	48.2	41.3	34.8	51.6	59.3	70.3	51.2
Est. Annual PC (EAPC)	2.1★	1.9★	2.4★	2.1★	1.8★	2.5★	2.9★	3.3★	2.7★
Under 65									
Percent Change (PC)	33.2	28.5	42.5	35.1	28.4	46.7	44.9	53.4	37.4
Est. Annual PC (EAPC)	1.8★	1.6★	2.2★	1.8★	1.6★	2.2★	2.4★	2.5★	2.6★
65 and over									
Percent Change (PC)	48.0	42.9	54.7	48.4	41.4	57.2	83.5	95.4	77.5
Est. Annual PC (EAPC)	2.4★	2.1★	2.7★	2.4★	2.0★	2.8★	3.7★	4.5★	3.2★
<u>1975-79 - ALL AGES</u>									
Percent Change (PC)	1.8	5.2	-2.4	1.5	5.1	-3.3	5.8	-4.9	25.8
Est. Annual PC (EAPC)	1.0	1.6	0.6	0.9	1.6	0.3	2.1	-1.5	8.1
<u>1989-93 - ALL AGES</u>									
Percent Change (PC)	2.9	1.5	4.7	1.6	-0.3	4.2	14.7	12.3	18.0
Est. Annual PC (EAPC)	0.8	0.3	1.4	0.4	-0.3	1.2	4.6	3.9	5.5
<u>MORTALITY TRENDS (expressed in percents)δ:</u>									
<u>1973-93</u>									
All Ages									
Percent Change (PC)	16.3	16.6	17.1	15.3	15.0	16.3	49.5	57.3	45.7
Est. Annual PC (EAPC)	0.9★	0.9★	1.0★	0.8★	0.8★	0.9★	2.3★	2.6★	2.3★
Under 65									
Percent Change (PC)	3.7	3.0	4.0	4.1	2.7	5.0	16.1	22.2	8.5
Est. Annual PC (EAPC)	0.3★	0.2★	0.4★	0.3★	0.1	0.4★	1.0★	1.0★	1.1★
65 and over									
Percent Change (PC)	27.5	28.5	27.3	24.9	25.5	24.8	96.3	106.7	94.0
Est. Annual PC (EAPC)	1.4★	1.5★	1.4★	1.3★	1.3★	1.3★	3.7★	4.2★	3.3★
<u>1975-79 - ALL AGES</u>									
Percent Change (PC)	1.1	2.6	-0.6	0.7	2.2	-1.1	7.3	8.3	6.3
Est. Annual PC (EAPC)	0.2	0.7	-0.2	0.1	0.6	-0.5	1.9	1.8	2.2★
<u>1989-93 - ALL AGES</u>									
Percent Change (PC)	1.3	1.0	0.7	1.8	1.4	1.4	-2.6	-3.4	-2.4
Est. Annual PC (EAPC)	0.3	0.3	0.0	0.4	0.4	0.1	-0.2	-0.6	0.0

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 XI-2
KIDNEY AND RENAL PELVIS CANCER (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	6.7	9.6	4.4	6.7	9.6	4.5	6.4	8.8	4.4
1974	6.3	8.9	4.2	6.3	9.1	4.1	6.8	8.7	5.3
1975	6.1	8.8	3.9	6.3	9.2	4.0	5.4	7.5	3.5
1976	6.9	9.6	4.8	7.0	9.8	4.9	6.9	10.2	4.3
1977	6.8	9.5	4.6	6.8	9.7	4.6	7.1	9.5	5.2
1978	6.7	10.0	4.1	6.8	10.2	4.2	7.1	9.7	5.1
1979	6.5	9.3	4.3	6.7	9.7	4.4	5.9	7.1	4.8
1980	6.8	9.8	4.6	7.1	10.2	4.7	5.3	7.3	3.7
1981	7.2	10.7	4.5	7.2	10.8	4.5	8.7	13.6	5.0
1982	7.1	9.9	4.9	7.2	10.1	5.0	6.7	9.9	4.2
1983	7.7	11.3	4.9	7.9	11.7	5.0	7.6	11.3	5.0
1984	7.8	11.1	5.3	8.1	11.5	5.4	7.6	10.1	5.8
1985	7.7	11.1	4.9	7.9	11.5	5.1	7.4	10.4	5.1
1986	8.2	11.6	5.6	8.3	11.8	5.7	8.8	13.0	5.6
1987	8.5	11.9	5.7	8.6	12.1	5.8	9.6	13.5	6.5
1988	8.4	11.7	6.0	8.6	11.9	6.0	9.9	13.2	7.4
1989	8.8	12.2	6.1	9.1	12.6	6.3	9.3	12.9	6.7
1990	8.8	12.4	6.0	9.1	12.7	6.3	9.0	13.5	5.7
1991	9.0	12.6	6.1	9.2	12.7	6.3	10.3	15.3	6.4
1992	9.1	12.7	6.3	9.4	12.9	6.6	9.8	14.7	6.3
1993	9.1	12.3	6.4	9.1	12.3	6.5	11.2	15.0	8.3
<u>AGE-ADJUSTED RATES, 1989-93</u>									
AGE AT DIAGNOSIS:									
All ages	9.0	12.5	6.2	9.2	12.6	6.4	9.9	14.3	6.7
Under 65	5.1	6.8	3.5	5.2	6.8	3.6	6.4	8.8	4.3
65 and over	44.1	63.8	30.4	45.4	65.6	31.5	42.2	63.7	28.3
All ages (world std.) ^λ	7.4	10.1	5.1	7.5	10.3	5.3	8.3	11.8	5.7
<u>AGE-SPECIFIC RATES, 1989-93</u>									
AGE AT DIAGNOSIS:									
0-4	2.0	2.1	2.0	2.2	2.1	2.3	2.1	2.5	1.7
5-9	0.7	0.7	0.6	0.7	0.8	0.6	0.6	0.5	0.7
10-14	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
15-19	0.2	0.1	0.3	0.1	0.1	0.2	0.5	0.0	0.9
20-24	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.4	0.0
25-29	0.5	0.4	0.6	0.5	0.5	0.5	0.8	0.3	1.2
30-34	0.9	1.0	0.8	0.9	1.0	0.8	1.1	1.4	0.9
35-39	2.2	2.7	1.6	2.1	2.9	1.4	2.5	2.9	2.2
40-44	4.8	5.9	3.7	4.7	5.9	3.6	6.8	8.1	5.6
45-49	9.1	12.7	5.7	9.1	12.3	5.9	13.1	19.4	7.5
50-54	16.1	21.6	10.8	16.0	20.8	11.2	21.7	35.6	9.8
55-59	22.5	30.8	14.8	23.0	31.4	14.9	26.4	34.7	19.8
60-64	31.4	44.0	20.3	32.2	44.5	21.0	35.8	50.0	24.6
65-69	38.5	54.3	25.5	39.8	55.6	26.6	38.7	54.5	26.7
70-74	46.3	66.7	30.8	48.1	68.6	32.4	44.2	67.8	27.9
75-79	51.5	72.2	37.7	52.9	74.4	38.7	47.6	71.6	33.0
80-84	47.9	74.3	33.4	48.5	76.2	33.7	49.6	85.4	30.6
85+	37.7	59.9	29.1	38.6	62.0	29.9	27.1	39.2	21.9

§ 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 XI-3
 KIDNEY AND RENAL PELVIS CANCER (Invasive)
 U.S. MORTALITY RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES δ , 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	2.9	4.2	1.9	3.0	4.4	2.0	2.2	3.1	1.5
1974	3.0	4.4	2.0	3.1	4.5	2.0	2.3	3.2	1.5
1975	3.0	4.3	2.0	3.1	4.4	2.1	2.4	3.5	1.6
1976	3.0	4.4	2.0	3.1	4.5	2.0	2.5	3.6	1.6
1977	3.1	4.4	2.0	3.1	4.6	2.1	2.4	3.5	1.7
1978	3.1	4.5	2.0	3.1	4.6	2.0	2.7	4.1	1.7
1979	3.0	4.4	2.0	3.1	4.5	2.0	2.5	3.6	1.7
1980	3.1	4.5	2.0	3.1	4.6	2.0	2.6	3.7	1.7
1981	3.1	4.4	2.1	3.1	4.5	2.1	2.7	4.0	1.8
1982	3.2	4.7	2.1	3.2	4.7	2.1	2.9	4.1	2.0
1983	3.2	4.6	2.1	3.3	4.7	2.2	2.8	4.1	1.8
1984	3.2	4.7	2.1	3.3	4.8	2.1	2.9	4.1	2.0
1985	3.3	4.7	2.2	3.3	4.7	2.2	3.2	5.0	2.0
1986	3.3	4.8	2.3	3.4	4.8	2.3	3.1	4.4	2.1
1987	3.4	4.9	2.3	3.5	5.0	2.3	3.1	4.6	2.0
1988	3.3	4.8	2.2	3.4	4.8	2.2	3.2	4.8	2.0
1989	3.4	4.9	2.3	3.5	5.0	2.3	3.3	5.0	2.2
1990	3.4	5.0	2.3	3.5	5.1	2.3	3.5	5.3	2.3
1991	3.5	5.0	2.4	3.6	5.1	2.4	3.6	5.2	2.4
1992	3.5	5.1	2.3	3.6	5.2	2.4	3.3	4.9	2.1
1993	3.4	5.0	2.2	3.5	5.1	2.3	3.4	5.0	2.3
<u>AGE-ADJUSTED RATES, 1989-93</u>									
AGE AT DEATH:									
All ages	3.5	5.0	2.3	3.5	5.1	2.3	3.4	5.1	2.3
Under 65	1.6	2.3	1.0	1.6	2.3	1.0	1.7	2.5	1.1
65 and over	20.4	29.9	14.0	20.7	30.4	14.3	18.8	28.6	12.7
All ages (world std.) ϕ	2.7	3.9	1.8	2.7	3.9	1.8	2.7	4.1	1.8
<u>AGE-SPECIFIC RATES, 1989-93</u>									
AGE AT DEATH:									
0-4	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
5-9	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
10-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-19	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.2
20-24	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2
25-29	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.2
30-34	0.2	0.3	0.2	0.2	0.2	0.1	0.6	0.6	0.5
35-39	0.5	0.7	0.3	0.5	0.6	0.3	0.8	1.1	0.6
40-44	1.2	1.6	0.7	1.1	1.6	0.7	1.6	2.3	1.0
45-49	2.7	3.9	1.6	2.7	3.9	1.5	3.2	4.5	2.0
50-54	5.0	7.1	3.0	5.1	7.1	3.1	5.5	8.2	3.2
55-59	8.0	11.4	4.9	8.2	11.6	5.0	7.6	11.4	4.6
60-64	11.5	16.4	7.1	11.7	16.7	7.3	10.7	16.4	6.4
65-69	15.1	21.5	9.9	15.3	21.8	10.0	14.5	21.4	9.6
70-74	19.8	28.9	12.9	19.9	28.9	13.1	20.0	31.5	12.4
75-79	23.3	34.0	16.3	23.8	34.7	16.7	20.4	31.2	14.0
80-84	27.6	41.5	20.1	28.0	42.5	20.3	24.1	36.2	17.9
85+	28.3	44.8	22.0	29.0	46.2	22.4	22.2	32.9	17.7

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

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

Table XI-4
 KIDNEY AND RENAL PELVIS CANCER (Invasive)

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

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
5-YR RELATIVE SURVIVAL RATES									
YEAR OF DIAGNOSIS:									
1960-63 ^a	-	-	-	37	36	39	38	38	37
1970-73 ^a	-	-	-	46	44	50	44	40	49
1974-76 ^b	51.5	51.1	52.1	51.6	51.1	52.4	48.7	49.6	47.3 [†]
1977-79 ^b	50.7	50.6	51.0	50.6	50.8	50.2	51.6	44.5	60.9 [†]
1980-82 ^b	51.6	51.8	51.2	51.1	51.6	50.2	55.3	53.1	58.8 [†]
1983-85 ^b	56.1	56.8	55.0	56.3	57.2	54.8	54.4	53.4	55.7
1986-92 ^b	58.8 ^Ω	59.2 ^Ω	58.1 ^Ω	59.6 ^Ω	60.2 ^Ω	58.6 ^Ω	54.6	52.5	57.4
1986-92 ^b									
ALL STAGES	58.8	59.2	58.1	59.6	60.2	58.6	54.6	52.5	57.4
LOCALIZED	88.1	89.6	86.0	89.1	90.9	86.5	80.8	78.2	84.0
REGIONAL	59.8	60.4	58.8	60.5	60.6	60.4	54.2	56.9 [†]	49.1 [†]
DISTANT	9.3	9.1	9.7	9.2	9.2	9.2	9.6	7.0	14.8
UNSTAGED	28.3	31.2	24.6	28.2	31.6	23.8	30.0 [†]	29.6 [†]	32.9 [†]
STAGE DISTRIBUTION (%) 1986-92^b									
ALL STAGES									
Number of cases	12,147	7,448	4,699	10,608	6,497	4,111	1,057	640	417
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
LOCALIZED	46	45	47	46	45	47	50	50	50
REGIONAL	23	24	22	23	24	22	16	16	16
DISTANT	25	25	24	24	25	24	25	26	25
UNSTAGED	7	6	7	7	6	7	9	8	10
5-YR RELATIVE SURVIVAL RATES, 1986-92^b									
AGE AT DIAGNOSIS:									
<45	76.9	74.2	80.4	79.4	77.0	82.6	65.7	58.1 [†]	73.4
45-54	63.4	63.3	63.6	64.3	64.5	64.1	55.7	53.5 [†]	58.9 [†]
55-64	60.5	59.3	62.6	60.9	59.6	63.3	58.1	54.1 [†]	63.3 [†]
65-74	55.3	57.5	51.9	56.2	58.6	52.6	49.5	49.7 [†]	50.0 [†]
75+	44.6	45.7	43.9	46.1	47.1	45.5	33.2 [†]	37.7 [†]	29.6 [†]
Under 65	64.8	63.3	67.5	65.7	64.3	68.2	59.9	55.5	66.8
65 and over	51.4	53.7	48.6	52.5	54.8	49.6	44.3	46.6 [†]	41.8 [†]

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

^b Rates are from the SEER 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 XI-5
KIDNEY AND RENAL PELVIS CANCER (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	6.7	6.3	6.1	6.9	6.8	6.7	6.5	6.8	7.2	7.1	7.7	7.8	7.7	8.2	8.5	8.4	8.8	8.8	9.0	9.1	9.1
Mortality																					
U.S.	2.9	3.0	3.0	3.0	3.1	3.1	3.0	3.1	3.1	3.2	3.2	3.2	3.3	3.3	3.4	3.3	3.4	3.4	3.5	3.5	3.4
SEER	3.1	3.1	2.9	2.9	3.0	3.1	2.8	2.8	3.1	3.0	3.3	3.2	3.0	3.0	3.2	3.2	3.4	3.2	3.2	3.2	3.1
Relative Survival Rates (SEER)																					
1-year	65.1	67.0	70.5	70.4	67.5	70.1	69.7	72.4	68.0	70.7	71.9	73.3	74.3	72.5	74.1	74.3	73.3	76.4	77.2	77.0	
2-year	54.9	55.7	61.4	61.2	58.2	62.0	61.0	63.1	58.6	60.8	63.5	65.5	66.4	65.2	66.2	65.6	65.7	68.8	69.1		
3-year	50.6	51.3	57.1	58.0	53.4	58.3	56.8	59.2	53.7	55.4	58.9	61.7	61.1	60.8	61.5	62.8	62.4	66.2			
4-year	48.5	49.7	54.5	54.5	49.7	55.7	52.5	56.2	51.1	52.7	56.2	58.7	58.8	57.5	59.7	60.0	59.1				
5-year	46.8	49.0	52.7	52.5	46.5	54.6	51.1	55.6	48.7	50.5	54.8	56.8	56.7	55.3	58.4	58.4					
6-year	46.1	47.3	51.0	51.8	45.5	53.6	48.6	54.0	47.3	48.9	52.6	54.3	54.4	54.9	56.2						
7-year	44.9	46.1	50.3	50.6	43.3	51.0	46.9	53.4	46.1	48.0	51.4	53.9	53.0	53.6							
8-year	44.6	44.8	49.1	49.6	41.6	50.0	46.6	52.9	44.6	47.4	50.9	52.5	52.8								
9-year	42.6	43.3	48.0	49.0	40.6	48.9	45.9	51.0	43.7	46.8	49.9	51.8									
10-year	41.1	42.9	47.0	48.2	40.6	47.7	45.0	50.6	41.9	45.9	49.7										
11-year	38.8	42.0	46.7	47.3	39.6	47.2	45.0	50.2	41.3	44.4											
12-year	38.0	41.2	45.9	46.0	39.1	46.6	45.0	49.9	39.4												
13-year	37.7	40.2	44.8	46.0	39.1	45.4	45.0	49.5													
14-year	37.7	40.0	43.8	46.0	39.1	43.7	44.7														
15-year	37.7	39.5	42.2	45.8	38.3	43.0															
16-year	37.7	39.3	42.2	45.5	38.3																
17-year	37.7	38.2	42.0	43.8																	
18-year	37.7	38.2	40.5																		
19-year	37.7	37.5																			
20-year	37.7																				

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 XI-6
KIDNEY AND RENAL PELVIS CANCER (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	9.6	8.9	8.8	9.6	9.5	10.0	9.3	9.8	10.7	9.9	11.3	11.1	11.1	11.6	11.9	11.7	12.2	12.4	12.6	12.7	12.3
Mortality																					
U.S.	4.2	4.4	4.3	4.4	4.4	4.5	4.4	4.5	4.4	4.7	4.6	4.7	4.7	4.8	4.9	4.8	4.9	5.0	5.0	5.1	5.0
SEER	4.5	4.5	4.0	4.0	4.3	4.7	4.0	4.3	4.5	4.3	4.8	4.8	4.3	4.5	4.5	4.5	5.0	4.6	4.4	4.6	4.4
Relative Survival Rates (SEER)																					
1-year	65.6	64.8	72.1	70.3	68.1	69.8	71.8	72.1	68.8	71.0	73.6	71.6	75.8	73.6	75.8	74.1	72.1	78.3	78.6	77.9	
2-year	56.9	54.1	62.6	60.2	57.9	61.7	63.3	62.5	59.5	61.9	65.0	63.9	67.3	66.7	67.8	65.8	64.4	70.1	69.3		
3-year	53.1	49.5	58.1	56.9	52.7	57.6	58.8	57.7	55.0	56.1	61.0	60.8	62.1	62.0	64.1	62.4	61.8	67.7			
4-year	51.7	47.7	56.0	53.2	48.4	54.6	54.4	55.0	52.8	53.0	57.5	58.4	59.6	57.6	61.8	60.4	58.5				
5-year	50.2	46.9	54.4	51.7	45.3	53.4	52.8	54.6	50.1	50.8	55.9	56.7	57.9	55.7	59.7	58.7					
6-year	49.1	45.2	53.3	51.7	44.1	51.6	50.0	52.6	49.1	48.8	53.7	54.3	55.3	55.1	56.9						
7-year	47.4	44.8	52.7	50.7	41.8	48.5	47.2	52.1	48.4	47.8	52.0	54.0	53.0	54.3							
8-year	47.1	43.1	50.4	49.5	39.5	47.5	47.1	52.0	45.8	47.6	51.9	52.5	52.9								
9-year	44.0	41.4	49.4	49.3	39.2	46.7	46.0	49.5	45.0	46.8	51.1	51.8									
10-year	42.7	41.0	47.7	48.1	39.1	44.6	45.1	48.6	42.8	46.0	51.0										
11-year	40.1	40.3	46.6	46.7	38.4	44.5	45.1	48.6	42.1	45.3											
12-year	39.8	38.9	45.4	44.4	38.3	42.9	45.1	48.6	40.7												
13-year	39.4	37.0	44.4	44.4	38.2	42.2	45.1	48.6													
14-year	38.6	37.0	43.4	44.4	37.7	40.8	44.7														
15-year	38.3	36.2	41.9	43.9	36.8	39.9															
16-year	38.3	36.2	41.9	43.8	36.8																
17-year	38.3	35.7	41.9	42.2																	
18-year	38.3	35.7	41.8																		
19-year	38.3	35.1																			
20-year	38.3																				

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 XI-7
KIDNEY AND RENAL PELVIS CANCER (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	4.4	4.2	3.9	4.8	4.6	4.1	4.3	4.6	4.5	4.9	4.9	5.3	4.9	5.6	5.7	6.0	6.1	6.0	6.1	6.3	6.4
Mortality																					
U.S.	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.2	2.3	2.3	2.4	2.3	2.2
SEER	2.0	2.0	1.9	2.0	2.0	1.8	1.8	1.7	2.1	2.0	2.3	1.9	1.9	1.9	2.2	2.1	2.3	2.3	2.2	2.1	2.0
Relative Survival Rates (SEER)																					
1-year	64.3	70.9	67.4	70.6	66.6	70.9	66.1	73.0	66.5	70.2	68.7	76.1	71.7	71.0	71.3	74.6	75.1	73.4	75.1	75.6	
2-year	51.5	58.6	59.1	63.0	58.7	62.3	56.9	64.1	57.0	59.0	60.8	68.3	64.8	62.7	63.6	65.5	67.9	66.6	68.8		
3-year	46.4	54.5	55.4	59.9	54.4	59.5	53.4	61.5	51.4	54.3	55.0	63.2	59.4	59.0	57.3	63.3	63.3	64.0			
4-year	43.0	53.3	51.8	56.7	51.9	57.8	49.4	57.9	48.2	52.3	53.8	59.3	57.3	57.3	56.3	59.5	60.2				
5-year	41.1	52.8	49.6	53.6	48.5	56.7	48.1	57.1	46.4	50.1	53.0	57.0	54.8	54.7	56.3	57.8					
6-year	41.1	50.9	46.9	51.6	47.5	56.7	46.2	56.2	44.1	48.9	50.6	54.2	52.8	54.5	55.0						
7-year	40.7	48.2	46.0	50.4	45.6	55.5	46.2	55.5	42.1	48.4	50.4	53.9	52.8	52.6							
8-year	40.6	47.6	46.0	49.8	44.7	54.6	45.8	54.2	42.1	47.2	49.1	52.7	52.5								
9-year	40.4	46.5	45.7	48.6	42.8	52.9	45.8	53.3	41.4	46.8	47.7	51.9									
10-year	38.6	46.1	45.7	48.5	42.8	52.9	44.9	53.3	40.3	45.8	47.5										
11-year	36.7	44.9	45.7	48.3	41.4	51.9	44.9	52.5	40.0	43.0											
12-year	35.1	44.8	45.7	48.3	40.4	51.9	44.9	51.8	37.3												
13-year	35.1	44.8	45.6	48.3	40.4	51.0	44.8	50.5													
14-year	35.1	44.6	44.5	48.3	40.4	48.5	44.7														
15-year	35.1	44.5	42.7	48.3	40.4	48.2															
16-year	35.1	43.8	42.1	48.2	40.4																
17-year	35.1	41.9	41.0	46.3																	
18-year	35.1	41.9	38.4																		
19-year	35.1	40.9																			
20-year	35.1																				

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 XI-8
KIDNEY AND RENAL PELVIS CANCER (Invasive)

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

Lifetime Risk (Percent) of Being Diagnosed 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	0.01	0.01	0.02	1.28	0.01	0.01	0.02	0.80
10	0.00	0.00	0.02	1.28	0.00	0.01	0.02	0.80
20	0.00	0.02	0.11	1.29	0.00	0.02	0.06	0.80
30	0.02	0.11	0.34	1.31	0.01	0.06	0.18	0.80
40	0.09	0.33	0.71	1.32	0.04	0.17	0.36	0.80
50	0.25	0.65	1.07	1.29	0.12	0.33	0.59	0.77
60	0.44	0.89	1.10	1.13	0.21	0.49	0.64	0.68

Lifetime Risk of Being Diagnosed = 1.28%
 Lifetime Risk of Dying = 0.49%

Lifetime Risk of Being Diagnosed = 0.80%
 Lifetime Risk of Dying = 0.33%

Whites

Current Age	Males				Females			
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually
0	0.01	0.01	0.02	1.32	0.01	0.02	0.02	0.84
10	0.00	0.00	0.02	1.32	0.00	0.00	0.02	0.83
20	0.00	0.02	0.11	1.33	0.00	0.01	0.06	0.83
30	0.02	0.10	0.34	1.35	0.01	0.06	0.18	0.83
40	0.09	0.33	0.73	1.36	0.05	0.17	0.38	0.83
50	0.25	0.66	1.09	1.32	0.13	0.34	0.61	0.80
60	0.45	0.91	1.13	1.16	0.22	0.51	0.67	0.70

Lifetime Risk of Being Diagnosed = 1.32%
 Lifetime Risk of Dying = 0.53%

Lifetime Risk of Being Diagnosed = 0.84%
 Lifetime Risk of Dying = 0.34%

Blacks

Current Age	Males				Females			
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually
0	0.02	0.02	0.02	1.04	0.01	0.02	0.03	0.72
10	0.00	0.01	0.03	1.05	0.00	0.01	0.03	0.72
20	0.00	0.03	0.14	1.07	0.01	0.02	0.08	0.72
30	0.02	0.14	0.39	1.11	0.01	0.07	0.21	0.72
40	0.12	0.38	0.75	1.15	0.06	0.21	0.41	0.72
50	0.29	0.69	1.01	1.14	0.15	0.36	0.56	0.69
60	0.48	0.86	1.01	1.01	0.23	0.45	0.56	0.59

Lifetime Risk of Being Diagnosed = 1.04%
 Lifetime Risk of Dying = 0.33%

Lifetime Risk of Being Diagnosed = 0.72%
 Lifetime Risk of Dying = 0.28%

Table XI-9
KIDNEY AND RENAL PELVIS CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY^δ RATES BY STATE, 1989-93

All Races, Males and Females

State	Rate	SE	Rank	PD
TOTAL U.S.	3.5	0.02		
High Five States				
Alaska	5.0 [⊛]	0.62	(01)	42.9
Maine	4.1 [⊛]	0.24	(02)	17.1
North Dakota	4.1 [⊛]	0.33	(03)	17.1
South Dakota	4.0	0.31	(04)	14.3
Minnesota	4.0	0.13	(05)	14.3
Low Five States				
Idaho	3.1	0.24	(47)	-11.4
California	3.1 [⊕]	0.05	(48)	-11.4
Alabama	3.0	0.11	(49)	-14.3
Utah	2.7 [⊛]	0.19	(50)	-22.9
Hawaii	2.1 ^{⊕⊛}	0.19	(51)	-40.0

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	3.0	0.11	(49)	-14.3	Montana	3.3	0.26	(37)	-5.7
Alaska	5.0 [⊛]	0.62	(01)	42.9	Nebraska	3.6	0.20	(27)	2.9
Arizona	3.2	0.12	(43)	-8.6	Nevada	3.6	0.23	(26)	2.9
Arkansas	3.6	0.16	(23)	2.9	New Hampshire	3.5	0.25	(30)	0.0
California	3.1 [⊕]	0.05	(48)	-11.4	New Jersey	3.4	0.09	(32)	-2.9
Colorado	3.2	0.14	(44)	-8.6	New Mexico	3.4	0.21	(36)	-2.9
Connecticut	3.4	0.13	(33)	-2.9	New York	3.1 [⊕]	0.05	(46)	-11.4
Delaware	3.8	0.32	(15)	8.6	North Carolina	3.5	0.10	(31)	0.0
District of Columbia	3.1	0.30	(45)	-11.4	North Dakota	4.1 [⊛]	0.33	(03)	17.1
Florida	3.2	0.06	(41)	-8.6	Ohio	3.8	0.08	(12)	8.6
Georgia	3.4	0.10	(34)	-2.9	Oklahoma	3.6	0.14	(25)	2.9
Hawaii	2.1 ^{⊕⊛}	0.19	(51)	-40.0	Oregon	3.4	0.14	(35)	-2.9
Idaho	3.1	0.24	(47)	-11.4	Pennsylvania	3.5	0.07	(29)	0.0
Illinois	3.8	0.08	(14)	8.6	Rhode Island	3.7	0.24	(18)	5.7
Indiana	3.9	0.11	(06)	11.4	South Carolina	3.3	0.13	(39)	-5.7
Iowa	3.8	0.15	(10)	8.6	South Dakota	4.0	0.31	(04)	14.3
Kansas	3.8	0.16	(13)	8.6	Tennessee	3.6	0.11	(24)	2.9
Kentucky	3.8	0.13	(11)	8.6	Texas	3.7	0.07	(20)	5.7
Louisiana	3.9	0.13	(08)	11.4	Utah	2.7 [⊛]	0.19	(50)	-22.9
Maine	4.1 [⊛]	0.24	(02)	17.1	Vermont	3.9	0.37	(07)	11.4
Maryland	3.7	0.12	(21)	5.7	Virginia	3.3	0.10	(38)	-5.7
Massachusetts	3.7	0.10	(17)	5.7	Washington	3.2	0.11	(42)	-8.6
Michigan	3.6	0.08	(28)	2.9	West Virginia	3.6	0.18	(22)	2.9
Minnesota	4.0	0.13	(05)	14.3	Wisconsin	3.9	0.12	(09)	11.4
Mississippi	3.2	0.15	(40)	-8.6	Wyoming	3.7	0.40	(19)	5.7
Missouri	3.8	0.11	(16)	8.6					

^δ 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 XI-10
KIDNEY AND RENAL PELVIS CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY^δ RATES BY STATE, 1989-93

All Races, Males

State	Rate	SE	Rank	PD
TOTAL U.S.	5.0	0.03		
High Five States				
Alaska	6.2 [⊛]	1.01	(01)	24.0
Maine	6.2 [⊛]	0.44	(02)	24.0
North Dakota	6.2 [⊛]	0.60	(03)	24.0
Vermont	6.1 [⊛]	0.68	(04)	22.0
Delaware	6.0 [⊛]	0.61	(05)	20.0
Low Five States				
Alabama	4.4	0.21	(47)	-12.0
California	4.4 [⊕]	0.08	(48)	-12.0
Colorado	4.2 [⊛]	0.24	(49)	-16.0
Utah	3.7 [⊛]	0.34	(50)	-26.0
Hawaii	3.2 ^{⊕⊛}	0.34	(51)	-36.0

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	4.4	0.21	(47)	-12.0	Montana	5.0	0.48	(35)	0.0
Alaska	6.2 [⊛]	1.01	(01)	24.0	Nebraska	5.3	0.36	(23)	6.0
Arizona	4.5	0.22	(44)	-10.0	Nevada	5.3	0.42	(22)	6.0
Arkansas	5.4	0.29	(14)	8.0	New Hampshire	4.9	0.44	(38)	-2.0
California	4.4 [⊕]	0.08	(48)	-12.0	New Jersey	5.1	0.16	(29)	2.0
Colorado	4.2 [⊛]	0.24	(49)	-16.0	New Mexico	5.0	0.38	(37)	0.0
Connecticut	5.0	0.24	(31)	0.0	New York	4.6	0.10	(43)	-8.0
Delaware	6.0 [⊛]	0.61	(05)	20.0	North Carolina	5.4	0.19	(18)	8.0
District of Columbia	5.0	0.60	(34)	0.0	North Dakota	6.2 [⊛]	0.60	(03)	24.0
Florida	4.7	0.11	(41)	-6.0	Ohio	5.4	0.14	(13)	8.0
Georgia	5.0	0.20	(32)	0.0	Oklahoma	5.3	0.25	(24)	6.0
Hawaii	3.2 ^{⊕⊛}	0.34	(51)	-36.0	Oregon	4.6	0.25	(42)	-8.0
Idaho	4.5	0.42	(45)	-10.0	Pennsylvania	5.1	0.13	(27)	2.0
Illinois	5.4	0.14	(20)	8.0	Rhode Island	5.1	0.44	(26)	2.0
Indiana	5.7	0.20	(07)	14.0	South Carolina	4.8	0.25	(40)	-4.0
Iowa	5.1	0.26	(28)	2.0	South Dakota	5.6	0.55	(10)	12.0
Kansas	5.5	0.29	(12)	10.0	Tennessee	5.4	0.21	(16)	8.0
Kentucky	5.2	0.24	(25)	4.0	Texas	5.4	0.12	(19)	8.0
Louisiana	5.3	0.24	(21)	6.0	Utah	3.7 [⊛]	0.34	(50)	-26.0
Maine	6.2 [⊛]	0.44	(02)	24.0	Vermont	6.1 [⊛]	0.68	(04)	22.0
Maryland	5.5	0.23	(11)	10.0	Virginia	4.8	0.19	(39)	-4.0
Massachusetts	5.4	0.19	(15)	8.0	Washington	4.5	0.19	(46)	-10.0
Michigan	5.0	0.15	(33)	0.0	West Virginia	5.1	0.32	(30)	2.0
Minnesota	5.6	0.23	(09)	12.0	Wisconsin	5.7	0.21	(06)	14.0
Mississippi	5.0	0.29	(36)	0.0	Wyoming	5.4	0.72	(17)	8.0
Missouri	5.6	0.21	(08)	12.0					

^δ 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 XI-11
KIDNEY AND RENAL PELVIS CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY^δ RATES BY STATE, 1989-93

All Races, Females

State	Rate	SE	Rank	PD
TOTAL U.S.	2.3	0.02		
High Five States				
Alaska	3.7 [⊛]	0.75	(01)	60.9
Louisiana	2.9 [⊛]	0.16	(02)	26.1
Iowa	2.8 [⊛]	0.17	(03)	21.7
Kentucky	2.8 [⊛]	0.15	(04)	21.7
Rhode Island	2.7 [⊛]	0.28	(05)	17.4
Low Five States				
Alabama	1.9 [⊛]	0.12	(47)	-17.4
Montana	1.9 [⊛]	0.27	(48)	-17.4
District of Columbia	1.9 [⊛]	0.30	(49)	-17.4
Utah	1.9 [⊛]	0.22	(50)	-17.4
Hawaii	1.1 [⊕]	0.19	(51)	-52.2

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	1.9 [⊛]	0.12	(47)	-17.4	Montana	1.9 [⊛]	0.27	(48)	-17.4
Alaska	3.7 [⊛]	0.75	(01)	60.9	Nebraska	2.3	0.21	(27)	0.0
Arizona	2.1	0.14	(38)	-8.7	Nevada	2.2	0.25	(35)	-4.3
Arkansas	2.2	0.17	(33)	-4.3	New Hampshire	2.5	0.28	(16)	8.7
California	2.0	0.05	(43)	-13.0	New Jersey	2.2	0.09	(29)	-4.3
Colorado	2.3	0.16	(23)	0.0	New Mexico	2.1	0.22	(40)	-8.7
Connecticut	2.2	0.14	(31)	-4.3	New York	2.1	0.06	(39)	-8.7
Delaware	2.1	0.31	(41)	-8.7	North Carolina	2.0	0.10	(44)	-13.0
District of Columbia	1.9 [⊛]	0.30	(49)	-17.4	North Dakota	2.4	0.33	(18)	4.3
Florida	2.1	0.06	(42)	-8.7	Ohio	2.6	0.09	(09)	13.0
Georgia	2.2	0.11	(30)	-4.3	Oklahoma	2.3	0.15	(25)	0.0
Hawaii	1.1 [⊕]	0.19	(51)	-52.2	Oregon	2.4	0.16	(19)	4.3
Idaho	2.0	0.25	(46)	-13.0	Pennsylvania	2.3	0.07	(22)	0.0
Illinois	2.6	0.09	(10)	13.0	Rhode Island	2.7 [⊛]	0.28	(05)	17.4
Indiana	2.7 [⊛]	0.12	(06)	17.4	South Carolina	2.1	0.14	(36)	-8.7
Iowa	2.8 [⊛]	0.17	(03)	21.7	South Dakota	2.6	0.32	(08)	13.0
Kansas	2.6	0.18	(13)	13.0	Tennessee	2.3	0.12	(26)	0.0
Kentucky	2.8 [⊛]	0.15	(04)	21.7	Texas	2.4	0.07	(20)	4.3
Louisiana	2.9 [⊛]	0.16	(02)	26.1	Utah	1.9 [⊛]	0.22	(50)	-17.4
Maine	2.5	0.24	(14)	8.7	Vermont	2.1	0.36	(37)	-8.7
Maryland	2.3	0.13	(28)	0.0	Virginia	2.2	0.11	(34)	-4.3
Massachusetts	2.6	0.12	(11)	13.0	Washington	2.2	0.12	(32)	-4.3
Michigan	2.4	0.09	(17)	4.3	West Virginia	2.6	0.20	(12)	13.0
Minnesota	2.6	0.14	(07)	13.0	Wisconsin	2.5	0.13	(15)	8.7
Mississippi	2.0	0.16	(45)	-13.0	Wyoming	2.4	0.43	(21)	4.3
Missouri	2.3	0.12	(24)	0.0					

^δ 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 XI-12
 KIDNEY AND RENAL PELVIS CANCER (Invasive)

AGE-ADJUSTED SEER INCIDENCE RATES \S , SEER MORTALITY RATES δ , AND 5-YEAR RELATIVE SURVIVAL RATES ϕ
 By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER INCIDENCE RATES\S, 1989-93</u>									
REGISTRY									
Standard 9 registries	9.0	12.5	6.2	9.2	12.6	6.4	9.9	14.3	6.7
San Francisco-Oakland	8.0	11.4	5.3	8.8	12.7	5.6	8.6	10.9	6.9
Connecticut	9.8	13.8	6.7	9.8	13.7	6.8	9.6	14.8	5.7
Metropolitan Detroit	10.4	14.5	7.3	10.5	14.5	7.3	10.3	14.5	7.2
Hawaii	6.8	10.5	3.4	9.6	14.4	4.8	-	-	-
Iowa	9.6	12.7	7.1	9.5	12.7	7.0	-	-	-
New Mexico	8.2	11.2	5.8	8.0	10.9	5.5	-	-	-
Seattle-Puget Sound	9.0	12.1	6.4	9.0	12.1	6.4	11.5	15.6	7.5
Utah	6.7	8.9	4.8	6.7	9.0	4.8	-	-	-
Metropolitan Atlanta	8.7	13.0	5.5	8.3	12.2	5.4	10.1	16.1	5.8
San Jose-Monterey	7.9	11.2	5.3	8.3	11.7	5.5	12.6	21.2	5.1
Los Angeles	7.8	11.0	5.3	8.1	11.5	5.5	8.5	11.9	6.0
<u>SEER MORTALITY RATESδ, 1989-93</u>									
REGISTRY									
Standard 9 registries	3.2	4.6	2.2	3.3	4.7	2.2	3.3	4.8	2.2
San Francisco-Oakland	2.7	3.9	1.9	3.0	4.4	2.0	2.8	3.4	2.4
Connecticut	3.4	5.0	2.2	3.5	5.1	2.3	2.5	3.8	1.4
Metropolitan Detroit	3.3	4.8	2.3	3.3	4.8	2.2	3.5	5.1	2.3
Hawaii	2.1	3.2	1.1	2.6	4.6	0.8	-	-	-
Iowa	3.8	5.1	2.8	3.8	5.1	2.8	-	-	-
New Mexico	3.4	5.0	2.1	3.3	4.9	1.9	-	-	-
Seattle-Puget Sound	3.1	4.4	2.1	3.2	4.4	2.2	4.0	5.9	2.4
Utah	2.7	3.7	1.9	2.7	3.7	1.9	-	-	-
Metropolitan Atlanta	3.6	5.3	2.4	3.6	5.1	2.5	3.6	6.0	2.1
San Jose-Monterey	2.9	4.6	1.7	3.2	4.9	1.8	2.7	5.6	0.0
Los Angeles	2.9	4.0	2.0	3.1	4.4	2.2	2.9	3.8	2.2
<u>SURVIVAL RATESϕ, 1986-92</u>									
REGISTRY									
Standard 9 registries	58.8	59.2	58.1	59.6	60.2	58.6	54.6	52.5	57.4
San Francisco-Oakland	58.6	58.5	58.6	59.4	60.2	58.0	58.8	53.9 \uparrow	63.8 \uparrow
Connecticut	60.0	59.7	60.7	59.9	60.0	59.9	61.4 \uparrow	48.2 \uparrow	72.3 \uparrow
Metropolitan Detroit	59.9	61.6	57.5	61.3	63.4	58.1	55.0	53.9	55.8
Hawaii	60.9	60.5	60.3 \uparrow	67.4 \uparrow	63.6 \uparrow	73.1 \uparrow	-	-	-
Iowa	56.9	57.3	56.4	56.7	57.0	56.3	-	-	-
New Mexico	55.8	52.9	60.1	57.7	54.2	63.3	-	-	-
Seattle-Puget Sound	60.3	61.5	58.5	61.4	62.6	59.5	39.9 \uparrow	35.8 \uparrow	-
Utah	60.9	62.9	57.1	61.1	63.1	57.4	-	-	-
Metropolitan Atlanta	54.4	55.1	53.4	57.0	57.3	56.8	47.3	48.7 \uparrow	44.7 \uparrow

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.

\S 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.

ϕ Survival rates are relative rates expressed as percents and are based on follow-up of patients through 1993.

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

\uparrow 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 Kidney and Renal Pelvis, Male By Race

White

Black

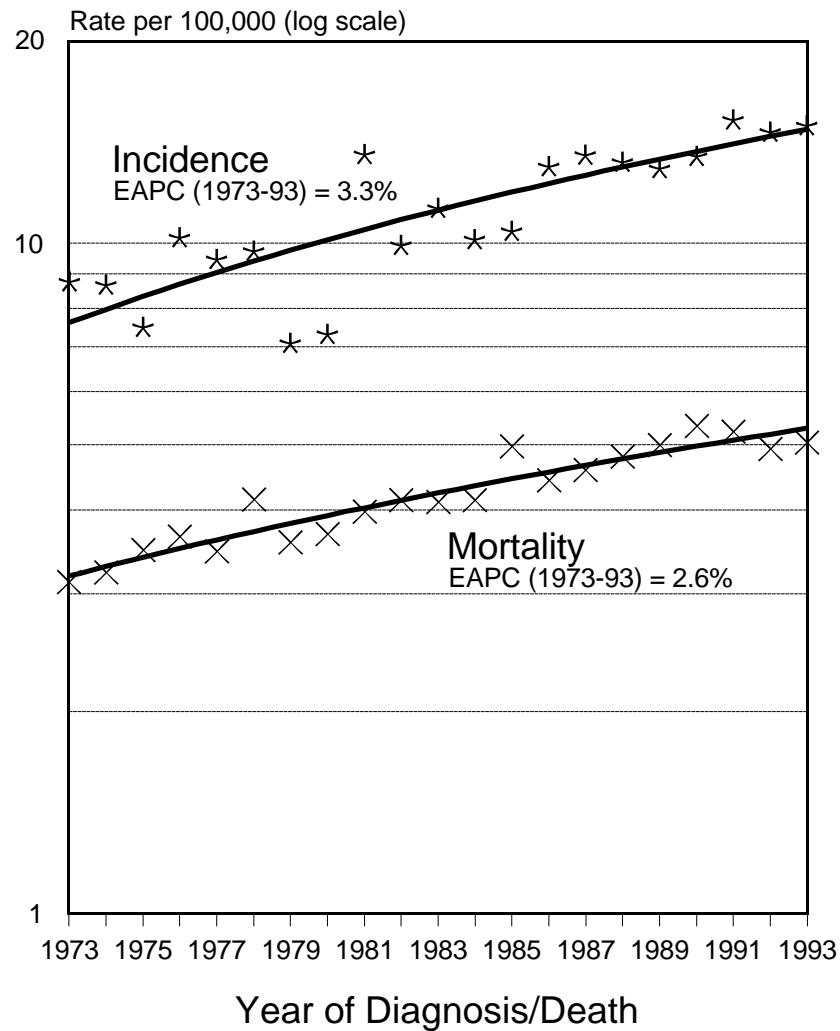
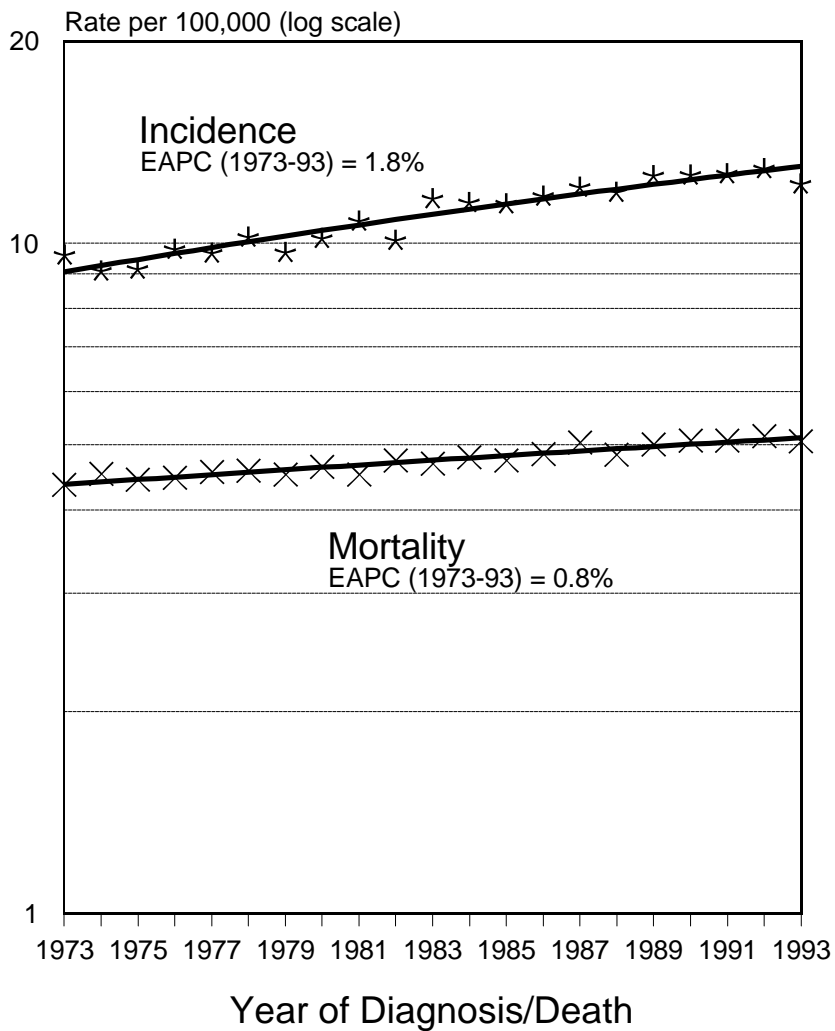


Figure XI-1

SEER Incidence and U.S. Mortality Kidney and Renal Pelvis, Female By Race

White

Black

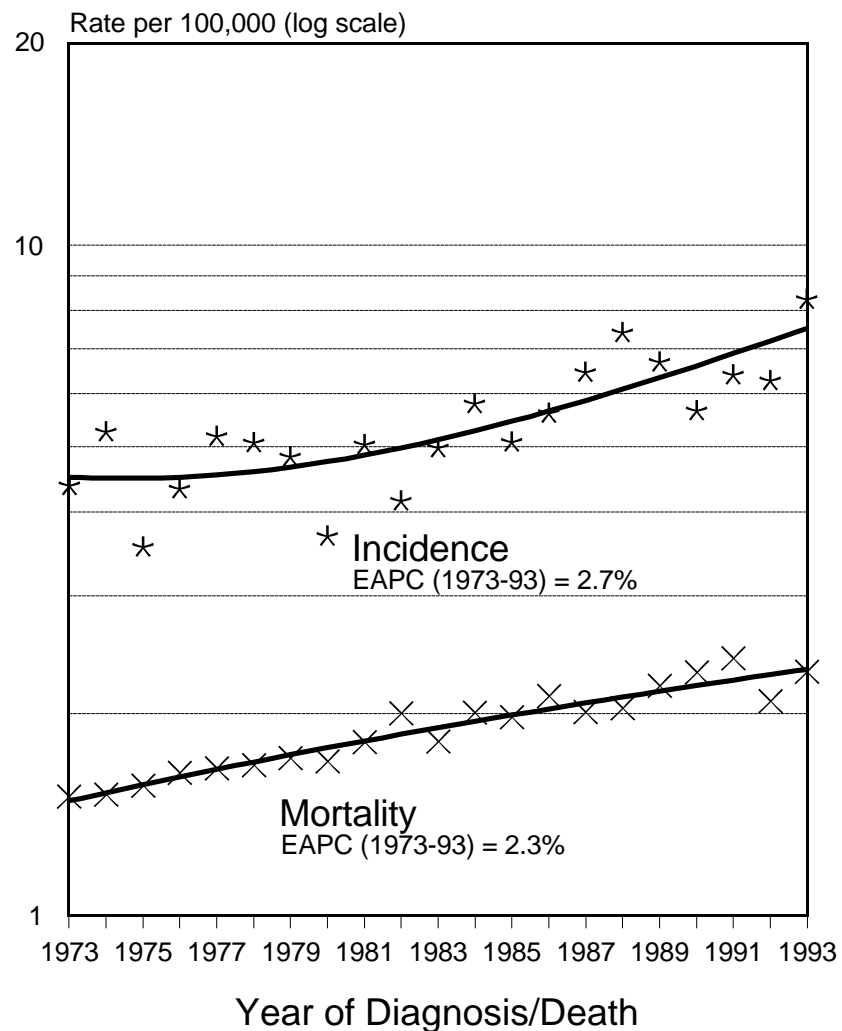
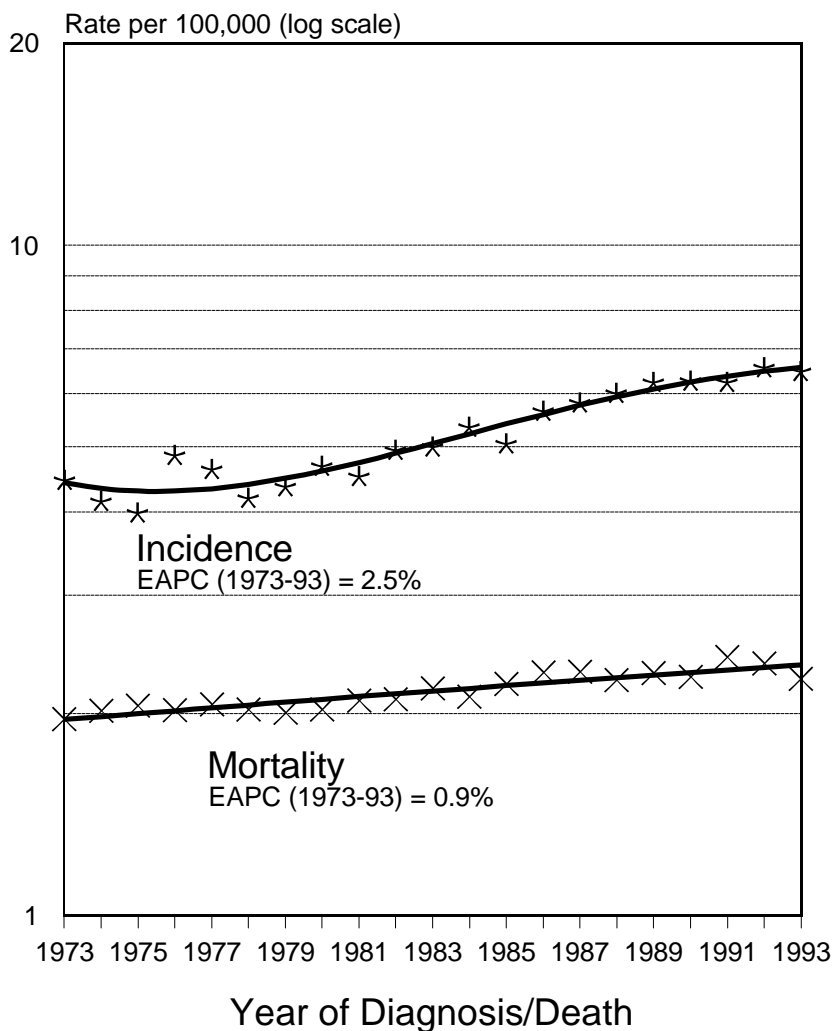


Figure XI-2