

Table XI-1
KIDNEY AND RENAL PELVIS CANCER (Invasive)

TRENDS IN SEER INCIDENCE^a AND U.S. MORTALITY^b USING THE JOINPOINT REGRESSION PROGRAM, 1975-2002
WITH UP TO THREE JOINPOINTS BY RACE AND SEX

		<u>Joinpoint Segment 1</u>		<u>Joinpoint Segment 2</u>		<u>Joinpoint Segment 3</u>		<u>Joinpoint Segment 4</u>	
		Year	APC	Year	APC	Year	APC	Year	APC
<u>SEER Cancer Incidence^a</u>									
All Races	Male and Female	1975-1989	2.4 ^c	1989-2002	1.5 ^c				
All Races	Male	1975-2002	1.7 ^c						
All Races	Female	1975-1991	2.7 ^c	1991-2002	1.3 ^c				
White	Male and Female	1975-1989	2.4 ^c	1989-2002	1.4 ^c				
White	Male	1975-2002	1.6 ^c						
White	Female	1975-1990	2.9 ^c	1990-2002	1.3 ^c				
Black	Male and Female	1975-2002	2.9 ^c						
Black	Male	1975-2002	2.9 ^c						
Black	Female	1975-2002	3.1 ^c						
<u>SEER Delay-Adjusted Incidence^a</u>									
All Races	Male and Female	1975-2002	2.0 ^c						
All Races	Male	1975-2002	1.8 ^c						
All Races	Female	1975-1990	2.8 ^c	1990-2002	1.6 ^c				
White	Male and Female	1975-2002	2.0 ^c						
White	Male	1975-2002	1.7 ^c						
White	Female	1975-1990	2.8 ^c	1990-2002	1.5 ^c				
Black	Male and Female	1975-2002	3.0 ^c						
Black	Male	1975-2002	3.0 ^c						
Black	Female	1975-2002	3.2 ^c						
<u>U.S. Cancer Mortality^b</u>									
All Races	Male and Female	1975-1992	1.1 ^c	1992-2002	-0.2				
All Races	Male	1975-1991	1.1 ^c	1991-2002	-0.1				
All Races	Female	1975-1992	1.3 ^c	1992-2002	-0.5				
White	Male and Female	1975-1992	1.0 ^c	1992-2002	-0.1				
White	Male	1975-1991	1.0 ^c	1991-2002	-0.1				
White	Female	1975-1992	1.2 ^c	1992-2002	-0.5				
Black	Male and Female	1975-1991	2.7 ^c	1991-2002	-0.1				
Black	Male	1975-1990	3.1 ^c	1990-2002	0.0				
Black	Female	1975-1991	2.7 ^c	1991-2002	0.0				

Joinpoint Regression Program Version 3.0, April 2005, National Cancer Institute. (<http://srab.cancer.gov/joinpoint/>).

The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^a Trends are from the SEER 9 areas.

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

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

Table XI-2
KIDNEY AND RENAL PELVIS CANCER (Invasive)

SEER INCIDENCE RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES^a, 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>									
1975	7.1	10.3	4.5	7.3	10.8	4.6	6.2	8.2	4.3
1976	8.0	11.2	5.5	8.1	11.5	5.6	7.8	11.6	4.8
1977	8.1	11.4	5.5	8.1	11.7	5.5	8.5	11.1	6.4
1978	7.8	11.8	4.8	8.0	12.1	4.9	8.0	11.0	5.7
1979	7.6	11.1	5.0	7.8	11.6	5.1	7.3	8.2	6.3
1980	8.1	11.7	5.4	8.4	12.2	5.6	6.0	8.0	4.4
1981	8.5	12.8	5.3	8.6	13.0	5.3	10.0	15.8	5.8
1982	8.3	11.8	5.7	8.5	12.0	5.8	7.6	11.2	4.9
1983	8.9	13.2	5.7	9.2	13.8	5.8	8.8	13.5	5.5
1984	9.2	13.1	6.2	9.5	13.6	6.3	9.0	12.0	6.8
1985	8.9	13.1	5.8	9.2	13.6	5.9	8.6	11.6	6.2
1986	9.7	13.8	6.6	9.8	14.1	6.7	10.1	15.0	6.6
1987	9.9	14.1	6.7	10.1	14.4	6.9	11.1	15.6	7.5
1988	9.9	14.0	7.0	10.1	14.3	7.0	11.6	15.4	8.8
1989	10.3	14.5	7.1	10.6	15.0	7.2	10.8	15.1	7.8
1990	10.4	14.7	7.1	10.7	15.0	7.4	10.5	15.9	6.6
1991	10.6	15.0	7.2	10.8	15.2	7.4	12.2	18.3	7.7
1992	10.8	15.3	7.4	11.1	15.6	7.7	11.0	16.4	7.2
1993	10.7	14.7	7.6	10.8	14.7	7.7	12.7	17.3	9.4
1994	11.3	15.6	7.9	11.5	16.0	8.0	12.7	18.0	8.7
1995	11.1	15.5	7.6	11.1	15.4	7.7	14.4	21.7	9.3
1996	11.4	15.8	7.9	11.5	16.2	7.8	13.6	17.0	11.1
1997	10.9	15.0	7.6	11.0	15.0	7.7	13.4	19.2	9.2
1998	11.8	16.4	8.2	12.1	16.7	8.5	12.6	17.1	9.1
1999	11.4	15.8	7.8	11.6	16.2	7.9	13.5	18.3	10.0
2000	12.4	17.3	8.4	12.6	17.8	8.4	14.7	19.2	11.7
2001	12.3	17.1	8.5	12.6	17.4	8.7	15.2	22.1	10.2
2002	12.4	17.2	8.4	12.6	17.3	8.6	14.7	21.5	9.9
<u>AGE-ADJUSTED RATES, 1998-2002</u>									
<u>AGE AT DIAGNOSIS:</u>									
All ages	12.1	16.8	8.3	12.3	17.1	8.4	14.2	19.8	10.2
Under 65	6.3	8.5	4.3	6.4	8.5	4.4	7.9	10.6	5.7
65 and over	51.6	74.2	35.6	53.1	76.4	36.5	57.4	83.4	41.3
All ages(IARC world std) ^b	8.5	11.6	5.9	8.7	11.8	6.0	10.2	13.9	7.4
<u>AGE-SPECIFIC RATES, 1998-2002</u>									
<u>AGE AT DIAGNOSIS:</u>									
<1	1.6	-	-	-	-	-	-	-	-
1-4	2.2	2.0	2.4	2.4	2.3	2.6	-	-	-
5-9	0.5	-	0.6	0.5	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	0.3	-	-	-	-	-	-	-	-
25-29	0.6	0.6	0.5	0.6	-	-	-	-	-
30-34	1.4	1.4	1.3	1.2	1.3	1.1	2.3	-	-
35-39	2.9	3.4	2.4	2.9	3.4	2.4	3.7	3.9	3.5
40-44	6.0	7.6	4.3	5.9	7.3	4.4	8.2	10.8	5.8
45-49	10.2	14.2	6.3	10.6	14.8	6.4	10.5	14.6	6.9
50-54	15.8	21.7	10.1	15.9	21.5	10.3	21.1	30.5	13.1
55-59	26.9	36.3	18.0	27.1	36.3	18.2	34.9	48.5	23.3
60-64	36.8	51.5	23.2	37.6	52.4	23.7	42.7	57.8	30.6
65-69	46.4	63.2	31.9	48.1	64.9	33.3	54.1	80.7	34.3
70-74	54.2	76.8	36.4	55.6	79.2	36.6	62.2	82.2	48.7
75-79	56.6	82.5	38.3	58.3	85.5	39.1	60.4	81.6	47.2
80-84	56.3	84.2	39.2	57.9	86.3	40.7	62.8	110.1	37.8
85+	43.4	66.8	33.4	44.2	69.2	33.7	43.0	-	35.0

^a SEER 9 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

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

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

Table XI-3
KIDNEY AND RENAL PELVIS CANCER (Invasive)

U.S. DEATH RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES^a, 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:									
1975	3.6	5.2	2.4	3.7	5.3	2.5	2.8	4.1	1.8
1976	3.6	5.2	2.4	3.7	5.4	2.5	2.9	4.2	1.9
1977	3.7	5.4	2.4	3.8	5.5	2.5	2.9	4.0	2.0
1978	3.7	5.4	2.4	3.8	5.5	2.5	3.2	4.8	1.9
1979	3.6	5.3	2.4	3.7	5.5	2.4	2.9	4.2	2.0
1980	3.7	5.5	2.4	3.8	5.6	2.4	3.0	4.2	2.0
1981	3.7	5.4	2.5	3.8	5.5	2.6	3.2	4.6	2.1
1982	3.9	5.7	2.5	3.9	5.8	2.6	3.4	4.8	2.4
1983	3.8	5.6	2.6	3.9	5.7	2.7	3.3	4.9	2.1
1984	3.9	5.8	2.6	4.0	5.9	2.6	3.5	4.9	2.4
1985	4.0	5.8	2.7	4.0	5.8	2.7	3.8	6.0	2.4
1986	4.0	5.8	2.8	4.1	5.9	2.8	3.7	5.3	2.5
1987	4.1	6.0	2.8	4.2	6.1	2.8	3.7	5.5	2.4
1988	4.0	5.9	2.7	4.1	5.9	2.8	3.8	5.8	2.4
1989	4.2	6.1	2.8	4.2	6.2	2.8	4.0	6.1	2.6
1990	4.2	6.2	2.8	4.2	6.2	2.8	4.2	6.4	2.8
1991	4.3	6.2	2.9	4.3	6.2	3.0	4.3	6.4	3.0
1992	4.3	6.2	2.9	4.4	6.3	2.9	4.0	5.9	2.6
1993	4.2	6.1	2.8	4.2	6.2	2.8	4.1	6.1	2.7
1994	4.3	6.2	2.9	4.3	6.3	2.9	4.2	6.4	2.8
1995	4.3	6.2	3.0	4.4	6.3	3.0	4.4	6.3	3.1
1996	4.3	6.2	2.8	4.3	6.3	2.9	4.1	5.9	2.9
1997	4.3	6.2	2.9	4.3	6.2	2.9	4.3	6.5	2.8
1998	4.3	6.2	2.8	4.3	6.3	2.9	4.0	6.3	2.5
1999	4.1	5.9	2.7	4.1	6.0	2.7	4.2	6.1	2.8
2000	4.2	6.1	2.8	4.3	6.2	2.8	4.1	6.3	2.7
2001	4.3	6.2	2.8	4.3	6.3	2.8	4.3	6.4	2.8
2002	4.2	6.1	2.8	4.3	6.3	2.8	4.1	5.8	2.8
<u>AGE-ADJUSTED RATES, 1998-2002</u>									
AGE AT DEATH:									
All ages	4.2	6.1	2.8	4.3	6.2	2.8	4.1	6.2	2.7
Under 65	1.6	2.3	0.9	1.6	2.3	0.9	1.7	2.6	1.0
65 and over	22.2	32.5	15.4	22.6	33.1	15.7	20.6	31.0	14.5
All ages(IARC world std) ^b	2.6	3.8	1.7	2.7	3.9	1.7	2.6	4.0	1.7
<u>AGE-SPECIFIC RATES, 1998-2002</u>									
AGE AT DEATH:									
<1	-	-	-	-	-	-	-	-	-
1-4	0.1	0.1	0.1	0.1	-	0.1	-	-	-
5-9	0.1	0.1	0.1	0.1	0.1	0.1	0.2	-	-
10-14	0.0	-	-	0.0	-	-	-	-	-
15-19	0.0	0.0	-	0.0	-	-	-	-	-
20-24	0.1	0.1	-	0.0	-	-	-	-	-
25-29	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5	-
30-34	0.2	0.2	0.1	0.1	0.2	0.1	0.3	0.5	-
35-39	0.4	0.6	0.3	0.4	0.5	0.2	0.8	1.0	0.6
40-44	1.1	1.5	0.7	1.1	1.6	0.6	1.3	1.7	1.0
45-49	2.3	3.4	1.3	2.3	3.4	1.3	2.7	3.6	1.9
50-54	4.4	6.5	2.4	4.5	6.4	2.5	4.8	7.6	2.5
55-59	7.4	10.8	4.2	7.6	11.0	4.3	7.4	11.5	4.1
60-64	11.1	16.1	6.6	11.4	16.5	6.8	10.5	16.3	5.9
65-69	15.1	21.7	9.4	15.6	22.2	9.8	13.7	20.8	8.4
70-74	19.8	28.2	13.2	20.2	28.6	13.5	18.5	28.0	12.3
75-79	24.0	34.7	16.6	24.3	35.1	16.7	23.5	34.8	16.8
80-84	28.6	41.4	21.0	29.1	42.1	21.4	26.0	39.5	19.1
85+	32.2	50.9	24.5	32.7	52.3	24.7	28.8	43.4	23.3

^a NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

^b NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the IARC world standard population.

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

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
<u>5-YR RELATIVE SURVIVAL RATES</u>									
YEAR OF DIAGNOSIS:									
1960-1963 ^a	-	-	-	37	36	39	38	38	37
1970-1973 ^a	-	-	-	46	44	50	44	40	49
1974-1976 ^b	51.6	51.0	52.6	51.7	51.0	52.9	49.0	49.8	47.3 ^e
1977-1979 ^b	51.1	51.2	50.9	51.1	51.5	50.3	51.7	44.6	60.4 ^e
1980-1982 ^b	51.7	52.1	51.0	51.1	52.0	49.7	56.0	53.5	59.8 ^e
1983-1985 ^b	55.7	56.5	54.3	55.8	56.7	54.1	55.3	54.7	55.6
1986-1988 ^b	56.9	57.3	56.3	57.6	58.2	56.7	53.5	51.9	55.3
1989-1991 ^b	60.1	60.6	59.3	60.9	61.8	59.3	57.9	54.5	62.4
1992-1994 ^b	62.5	62.1	63.0	63.0	62.9	63.3	60.4	58.6	62.8
1995-2001 ^b	64.6 ^d	64.3 ^d	65.0 ^d	64.7 ^d	64.7 ^d	64.5 ^d	63.6 ^d	61.8 ^d	65.9 ^d
1995-2001 ^b									
All Stages	64.6	64.3	65.0	64.7	64.7	64.5	63.6	61.8	65.9
Localized	90.6	90.4	90.9	91.0	90.8	91.4	86.4	85.6	87.2
Regional	60.3	61.4	58.1	60.7	61.9	58.3	54.9	57.8 ^e	51.2 ^e
Distant	9.7	9.9	9.2	9.6	10.2	8.6	10.1	7.8	13.1
Unstaged	32.2	36.5	26.6	31.4	37.5	22.7	28.2 ^e	18.1 ^e	39.1 ^e
<u>5-YR PERIOD SURVIVAL RATES^{bc}</u>									
YEAR OF DIAGNOSIS:									
1995-2001	66.2	65.0	67.9	66.4	65.3	68.1	64.0	62.5	65.6
<u>STAGE DISTRIBUTION (%) 1995-2001^b</u>									
All Stages									
Number of cases	15,573	9,551	6,022	12,984	8,025	4,959	1,603	901	702
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	53	52	55	53	52	54	58	58	59
Regional	20	21	19	21	21	19	16	15	17
Distant	22	22	21	22	22	21	19	21	17
Unstaged	5	5	6	5	5	6	7	7	7
<u>5-YR RELATIVE SURVIVAL RATES, 1995-2001^b</u>									
AGE AT DIAGNOSIS:									
<45	80.0	78.2	82.3	81.8	80.4	83.9	72.1	67.9	76.5
45-54	69.4	65.6	77.9	69.7	66.6	76.8	65.9	59.2	77.1
55-64	63.8	62.6	66.2	64.1	62.9	66.4	62.2	59.1	66.4 ^e
65-74	62.3	62.6	61.7	62.0	61.8	62.0	59.9	64.1 ^e	54.6 ^e
75+	51.5	55.3	47.7	52.4	57.0	47.7	45.8 ^e	48.2 ^e	44.8 ^e
Under 65	69.5	66.9	74.3	69.8	67.6	74.2	66.8	61.8	73.8
65 and over	58.2	60.3	55.5	58.4	60.4	55.6	55.6	59.9	51.1

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

^b Rates are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta). Rates are based on follow-up of patients into 2002.

^c Period survival provides a more up-to-date estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three calendar year blocks (1999-2001: 0-1 year survival), (1998-2000: 1-2 year survival), (1997-1999: 2-3 year survival), (1996-1998: 3-4 year survival), (1995-1997: 4-5 years survival).

^d The difference in rates between 1974-1976 and 1995-2001 is statistically significant ($p < .05$).

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

^f 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)

SURVIVAL RATES^a

By Year of Diagnosis

All Races, Males and Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Relative Survival Rates (SEER ^b)																			
1-year	69.7	71.4	74.2	72.2	74.1	74.2	73.0	76.3	77.4	77.4	76.7	77.0	77.6	77.6	77.0	78.7	78.3	80.1	81.8
2-year	60.8	62.4	66.2	64.8	66.2	65.7	65.1	68.7	69.6	69.2	71.2	70.0	70.3	71.1	70.7	72.2	72.2	74.4	
3-year	56.9	57.8	60.8	60.3	61.3	62.5	61.9	66.1	65.4	66.6	67.5	67.5	66.3	68.2	67.0	69.1	68.3		
4-year	53.6	54.9	58.4	56.9	59.3	59.8	58.9	63.8	63.3	63.7	64.2	65.8	64.6	65.5	64.8	66.4			
5-year	51.7	53.3	56.3	54.6	58.0	58.0	57.4	61.1	61.8	61.7	62.4	63.3	62.9	64.1	63.4				
6-year	50.4	51.2	54.0	54.0	55.7	56.0	56.5	59.2	60.0	60.7	61.0	62.4	61.3	62.8					
7-year	48.7	50.3	52.5	52.7	54.1	55.1	55.4	57.1	59.3	58.5	60.8	61.1	60.2						
8-year	47.7	49.3	51.7	51.4	53.3	54.3	54.4	56.5	58.3	57.9	59.6	59.7							
9-year	46.8	48.2	50.5	50.3	52.0	54.0	53.0	55.5	57.1	57.0	58.9								
10-year	46.0	47.3	48.3	49.2	51.1	53.3	51.2	54.9	55.5	56.7									
11-year	45.5	46.3	46.2	48.6	50.0	52.7	49.7	54.0	54.4										
12-year	44.8	45.7	45.9	48.5	49.1	51.1	48.7	52.5											
13-year	44.3	45.4	44.6	47.4	48.2	50.3	48.6												
14-year	43.5	45.0	44.1	45.5	47.2	49.2													
15-year	42.7	45.0	43.7	43.9	46.9														
16-year	42.6	45.0	43.4	43.6															
17-year	42.5	44.9	42.8																
18-year	41.7	44.7																	
19-year	41.0																		
20-year	40.6																		

^a Survival rates are relative rates expressed as percents.
^b Rates are from the SEER 9 areas.

Table XI-6
KIDNEY AND RENAL PELVIS CANCER (Invasive)

SURVIVAL RATES^a

By Year of Diagnosis

All Races, Males

Year of Diagnosis

	1975- 1979	1980- 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Relative Survival Rates (SEER ^b)																			
1-year	70.3	71.6	75.7	73.0	75.8	74.0	71.8	78.0	79.0	78.7	78.1	76.9	80.0	78.8	78.8	79.1	77.7	79.4	81.3
2-year	61.1	62.7	67.3	66.2	67.5	65.6	63.7	69.8	70.1	69.6	71.7	69.4	72.0	72.8	71.7	72.9	71.3	73.4	
3-year	56.9	58.3	61.9	61.3	63.6	61.9	61.3	67.3	66.6	67.1	68.2	66.6	68.1	69.3	67.8	69.4	67.6		
4-year	53.5	55.5	59.2	56.8	61.2	59.7	58.1	64.4	65.0	63.5	64.7	65.1	65.5	66.4	65.3	66.5			
5-year	51.9	53.8	57.6	54.7	59.1	58.0	57.2	61.4	63.1	60.8	62.6	62.9	63.8	65.0	63.3				
6-year	50.6	51.7	54.9	53.8	56.3	55.0	56.0	58.9	60.5	60.2	60.9	62.4	61.3	64.4					
7-year	48.5	50.6	52.6	52.8	54.6	54.8	54.1	56.9	59.7	58.1	60.7	61.3	60.7						
8-year	47.2	49.6	51.9	50.9	53.1	53.9	53.0	56.1	58.2	57.6	60.0	60.0							
9-year	46.5	48.5	49.8	49.6	51.3	53.8	51.2	55.3	57.5	56.8	59.4								
10-year	45.3	47.6	47.8	48.7	50.2	53.0	49.7	54.5	55.8	56.4									
11-year	44.6	46.6	46.0	47.8	48.5	52.2	47.6	53.1	54.3										
12-year	43.6	46.1	45.4	47.6	47.0	50.3	46.7	51.7											
13-year	43.1	45.8	44.0	46.1	45.7	49.9	46.6												
14-year	42.2	45.0	43.5	44.2	44.7	49.0													
15-year	41.2	45.0	43.5	43.3	44.0														
16-year	41.0	44.7	43.5	43.0															
17-year	41.0	44.7	43.1																
18-year	40.3	44.7																	
19-year	39.7																		
20-year	39.1																		

^a Survival rates are relative rates expressed as percents.
^b Rates are from the SEER 9 areas.

Table XI-7
KIDNEY AND RENAL PELVIS CANCER (Invasive)

SURVIVAL RATES^a

By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Relative Survival Rates (SEER ^b)																			
1-year	68.6	71.0	71.6	70.9	71.4	74.4	74.9	73.7	74.9	75.4	74.7	77.1	73.7	75.9	74.4	78.0	79.2	81.3	82.6
2-year	60.2	61.9	64.4	62.5	64.0	65.8	67.5	66.9	68.8	68.6	70.3	70.9	67.7	68.5	69.1	71.0	73.6	76.1	
3-year	56.8	57.0	58.8	58.6	57.4	63.5	63.0	64.2	63.5	65.9	66.4	68.7	63.6	66.5	65.8	68.6	69.5		
4-year	53.6	53.9	56.6	57.0	56.2	59.8	60.0	62.8	60.6	64.1	63.4	66.8	63.2	64.0	64.1	66.1			
5-year	51.3	52.4	54.1	54.5	56.2	58.0	57.6	60.7	59.7	63.0	62.1	63.8	61.4	62.8	63.0				
6-year	50.1	50.5	52.3	54.3	54.6	57.5	57.1	59.6	59.0	61.4	60.8	62.3	61.0	60.3					
7-year	49.0	49.7	52.2	52.7	53.1	55.5	57.1	57.4	58.7	59.0	60.5	60.7	59.5						
8-year	48.5	48.7	51.4	52.2	53.1	54.3	56.1	56.8	58.1	58.2	58.7	59.3							
9-year	47.3	47.8	51.4	51.3	53.0	54.1	55.7	55.9	56.5	57.2	58.1								
10-year	47.2	47.0	49.1	49.5	52.4	53.0	53.2	55.0	54.9	57.2									
11-year	46.9	45.8	46.5	49.5	52.0	53.0	52.6	55.0	54.5										
12-year	46.6	45.2	46.5	49.1	51.7	52.1	51.3	53.7											
13-year	46.3	44.7	45.5	49.1	51.7	50.8	51.3												
14-year	45.4	44.5	44.9	47.1	50.8	49.2													
15-year	45.1	44.5	43.2	44.7	50.6														
16-year	44.9	44.5	42.4	44.2															
17-year	44.7	44.5	41.9																
18-year	43.8	44.1																	
19-year	42.9																		
20-year	42.8																		

^a Survival rates are relative rates expressed as percents.
^b Rates are from the SEER 9 areas.

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

2000-2002

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	1.56	0.01	0.01	0.02	0.91
10	0.00	0.01	0.03	1.57	0.00	0.01	0.02	0.91
20	0.00	0.03	0.13	1.58	0.00	0.02	0.08	0.91
30	0.03	0.13	0.39	1.59	0.02	0.07	0.20	0.91
40	0.10	0.37	0.82	1.59	0.06	0.19	0.42	0.90
50	0.27	0.75	1.25	1.55	0.13	0.37	0.64	0.86
60	0.51	1.05	1.33	1.37	0.25	0.53	0.72	0.76

Lifetime Risk of Being Diagnosed = 1.56%
Lifetime Risk of Dying = 0.59%

Lifetime Risk of Being Diagnosed = 0.91%
Lifetime Risk of Dying = 0.34%

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	1.64	0.01	0.01	0.02	0.94
10	0.00	0.01	0.03	1.65	0.00	0.01	0.02	0.94
20	0.00	0.03	0.13	1.66	0.00	0.02	0.08	0.94
30	0.03	0.13	0.39	1.67	0.02	0.07	0.21	0.94
40	0.11	0.37	0.86	1.67	0.06	0.20	0.44	0.93
50	0.28	0.78	1.31	1.61	0.14	0.38	0.66	0.89
60	0.53	1.11	1.39	1.43	0.26	0.54	0.74	0.78

Lifetime Risk of Being Diagnosed = 1.64%
Lifetime Risk of Dying = 0.61%

Lifetime Risk of Being Diagnosed = 0.94%
Lifetime Risk of Dying = 0.35%

Blacks

Current Age	Males				Females			
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually
0	0.01	0.02	0.02	1.45	0.02	0.03	0.03	0.91
10	0.00	0.01	0.04	1.48	0.00	0.01	0.04	0.91
20	0.01	0.04	0.16	1.49	0.01	0.03	0.10	0.91
30	0.03	0.16	0.48	1.52	0.02	0.09	0.24	0.91
40	0.13	0.46	0.91	1.54	0.06	0.22	0.47	0.90
50	0.36	0.84	1.25	1.52	0.16	0.42	0.72	0.87
60	0.56	1.03	1.29	1.35	0.29	0.61	0.76	0.77

Lifetime Risk of Being Diagnosed = 1.45%
Lifetime Risk of Dying = 0.45%

Lifetime Risk of Being Diagnosed = 0.91%
Lifetime Risk of Dying = 0.28%

Devcan Version 6.0, April 2005, National Cancer Institute (<http://srab.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia). Mortality data are from the NCHS public use data file for the total US.

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

SEER INCIDENCE AND U.S. MORTALITY
AGE-ADJUSTED RATES AND TRENDS^a
 By Race/Ethnicity and Sex

Incidence^b

RACE/ETHNICITY	Rate 1998-2002			Trend 1992-2002		
	Rate per 100,000 persons			APC (%)		
	Total	Males	Females	Total	Males	Females
All Races	11.6	16.2	8.0	1.5 ^e	1.4 ^e	1.4 ^e
White	12.0	16.7	8.3	1.7 ^e	1.6 ^e	1.5 ^e
White Hispanic ^c	12.0	16.3	8.7	2.3 ^e	1.9	2.7 ^e
White Non-Hispanic ^c	11.8	16.4	8.0	1.7 ^e	1.7 ^e	1.4 ^e
Black	13.7	19.4	9.7	2.3 ^e	2.2 ^e	2.5 ^e
Asian/Pacific Islander	6.4	8.8	4.4	1.1	0.1	2.8 ^e
Amer Ind/Alaska Nat	9.7	13.9	6.3	-4.4 ^e	-4.0 ^e	-
Hispanic ^c	11.6	15.7	8.4	2.4 ^e	2.0 ^e	2.7 ^e

Mortality^d

RACE/ETHNICITY	Rate 1998-2002			Trend 1992-2002		
	Rate per 100,000 persons			APC (%)		
	Total	Males	Females	Total	Males	Females
All Races	4.2	6.1	2.8	-0.1	-0.1	-0.4
White	4.3	6.2	2.8	-0.1	-0.1	-0.4
White Hispanic ^c	3.9	5.8	2.5	0.3	0.7	-0.7
White Non-Hispanic ^c	4.3	6.3	2.8	0.0	0.1	-0.4
Black	4.1	6.2	2.7	0.0	0.1	0.0
Asian/Pacific Islander	1.9	2.6	1.3	-0.1	-0.2	0.3
Amer Ind/Alaska Nat	5.1	7.1	3.4	0.6	0.8	-1.1
Hispanic ^c	3.8	5.7	2.4	0.4	0.7	-0.5

- The APC is the 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.
- ^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
- ^b Incidence data are from the 13 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
- ^c Hispanic and Non-Hispanic are not mutually exclusive from Whites, Blacks, Asian Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics do not include cases from Detroit, Hawaii, Alaska Native Registry and Rural Georgia. For mortality, information is included for all states except Connecticut, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma and Vermont.
- ^d Mortality data are analyzed from a public use file provided by the National Center for Health Statistics (NCHS).
- ^e The APC is significantly different from zero (p<.05).

Table XI-10
KIDNEY AND RENAL PELVIS CANCER (Invasive)

AGE-ADJUSTED SEER INCIDENCE RATES AND SEER DEATH RATES^a
 By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER INCIDENCE RATES^b, 1998-2002</u>									
REGISTRY									
13 SEER Areas	11.6	16.2	8.0	12.0	16.7	8.3	13.7	19.4	9.7
11 SEER Areas	11.6	16.1	8.0	12.0	16.7	8.3	13.7	19.5	9.6
9 SEER Areas	12.1	16.8	8.3	12.3	17.1	8.4	14.2	19.8	10.2
San Francisco-Oakland	9.9	14.1	6.6	10.7	15.5	6.9	11.9	15.1	9.6
Connecticut	13.2	18.3	9.2	13.2	18.2	9.3	12.4	17.9	8.3
Metropolitan Detroit	14.5	19.9	10.4	14.0	19.3	10.0	16.5	22.4	12.5
Hawaii	9.2	13.0	5.7	11.7	16.2	6.8	-	-	-
Iowa	13.1	17.9	9.4	13.1	17.7	9.3	15.8	-	-
New Mexico	11.5	16.1	7.7	11.6	16.4	7.6	-	-	-
Seattle-Puget Sound	12.4	17.3	8.3	12.6	17.6	8.5	16.1	20.1	12.4
Utah	9.6	12.4	7.1	9.6	12.5	7.2	-	-	-
Metropolitan Atlanta	11.4	16.9	7.2	11.2	16.4	6.9	12.6	19.7	7.8
San Jose-Monterey	9.4	12.8	6.7	10.5	14.1	7.6	-	-	-
Los Angeles	10.8	15.0	7.4	11.5	16.0	8.0	12.9	19.2	8.5
<u>SEER DEATH RATES^c, 1998-2002</u>									
REGISTRY									
13 SEER Areas	3.9	5.7	2.5	4.1	6.0	2.7	4.1	6.0	2.7
11 SEER Areas	3.9	5.7	2.5	4.1	6.0	2.7	4.1	6.0	2.7
9 SEER Areas	4.0	6.0	2.6	4.2	6.2	2.6	4.0	5.8	2.8
San Francisco-Oakland	3.4	5.0	2.1	3.7	5.5	2.2	4.6	6.0	3.6
Connecticut	3.8	5.8	2.4	3.9	5.9	2.4	3.1	-	-
Metropolitan Detroit	4.5	6.4	3.1	4.6	6.6	3.1	4.3	5.8	3.2
Hawaii	3.1	4.6	1.8	3.5	5.5	-	-	-	-
Iowa	5.0	7.6	3.1	5.0	7.6	3.1	-	-	-
New Mexico	4.4	6.5	2.6	4.3	6.5	2.6	-	-	-
Seattle-Puget Sound	4.4	6.3	2.8	4.5	6.5	2.9	5.5	-	-
Utah	3.1	4.6	1.8	3.1	4.7	1.8	-	-	-
Metropolitan Atlanta	3.6	5.3	2.4	3.7	5.4	2.4	3.5	5.5	2.3
San Jose-Monterey	3.2	4.2	2.4	3.5	4.6	2.7	-	-	-
Los Angeles	3.7	5.3	2.5	4.0	5.7	2.7	4.2	6.8	2.5

^a Incidence and death rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^b The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta. The SEER 11 areas comprise the SEER 9 areas plus San Jose-Monterey and Los Angeles. The SEER 13 areas comprise the SEER 11 areas plus the Alaska Native Registry and Rural Georgia.

^c NCHS public use data file for the total US with analyses limited to the SEER geographic areas.

- Statistic could not be calculated or populations are inadequate.

Table XI-11
 KIDNEY AND RENAL PELVIS CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER DEATH^a RATES BY STATE, ALL RACES, 1998-2002

Males and Females

State	Rate	SE	Rank	PD
TOTAL U.S.	4.2	0.02		
High Five States				
Oklahoma	5.2 ^{bc}	0.17	(01)	23.8
Indiana	5.2 ^{bc}	0.13	(02)	23.8
Iowa	5.0 ^{bc}	0.18	(03)	19.0
North Dakota	5.0 ^b	0.38	(04)	19.0
Maine	5.0 ^b	0.26	(05)	19.0
Low Five States				
Florida	3.6 ^c	0.06	(47)	-14.3
New York	3.6 ^c	0.06	(48)	-14.3
District of Columbia	3.4 ^b	0.35	(49)	-19.0
Hawaii	3.1 ^{bc}	0.22	(50)	-26.2
Utah	3.1 ^{bc}	0.20	(51)	-26.2

Males

State	Rate	SE	Rank	PD
TOTAL U.S.	6.1	0.03		
High Five States				
Iowa	7.6 ^{bc}	0.33	(01)	24.6
Indiana	7.5 ^{bc}	0.25	(02)	23.0
Oklahoma	7.4 ^{bc}	0.31	(03)	21.3
Maine	7.2 ^b	0.49	(04)	18.0
Alaska	7.1 ^b	1.06	(05)	16.4
Low Five States				
Florida	5.3 ^c	0.11	(47)	-13.1
New York	5.2 ^c	0.12	(48)	-14.8
New Hampshire	5.2	0.46	(49)	-14.8
Utah	4.6 ^{bc}	0.37	(50)	-24.6
Hawaii	4.6 ^{bc}	0.40	(51)	-24.6

Females

State	Rate	SE	Rank	PD
TOTAL U.S.	2.8	0.02		
High Five States				
North Dakota	3.6 ^b	0.43	(01)	28.6
Indiana	3.5 ^{bc}	0.14	(02)	25.0
Rhode Island	3.5 ^b	0.32	(03)	25.0
Louisiana	3.5 ^{bc}	0.17	(04)	25.0
Oklahoma	3.5 ^{bc}	0.19	(05)	25.0
Low Five States				
Vermont	2.1 ^b	0.34	(47)	-25.0
District of Columbia	1.9 ^b	0.34	(48)	-32.1
Utah	1.8 ^{bc}	0.21	(49)	-35.7
Hawaii	1.8 ^{bc}	0.23	(50)	-35.7
Alaska	1.6 ^b	0.43	(51)	-42.9

For additional detailed cancer statistics by state, please visit the State Cancer Profiles website. <http://statecancerprofiles.cancer.gov/>

^a NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
^b Absolute percent difference between state rate and total U.S. rate is 15% or more.
^c Difference between state rate and total U.S. rate is statistically significant (p<=.0002).
 SE Standard error of the rate.
 PD Percent difference between state rate and total U.S. rate.

Table XI-12
KIDNEY AND RENAL PELVIS CANCER (Invasive)

Estimated United States Cancer Prevalence Counts^a on January 1, 2002
By Race/Ethnicity, Sex and Years Since Diagnosis

Years Since Diagnosis	0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	0 to <12 ^e	0 to <27 ^e	>=27 ^g	Complete ^h
Race/Sex									
All Races ^b	89,323	53,895	32,405	18,544	10,573	158,462	207,723	13,547	221,270
Males	53,720	32,010	18,695	11,071	5,894	94,880	123,059	7,595	130,654
Females	35,603	21,885	13,710	7,473	4,679	63,582	84,664	5,952	90,616
White ^b	76,701	46,650	28,943	16,667	9,425	136,918	181,029	13,474	194,503
Males	46,557	28,148	16,848	10,100	5,401	82,905	108,541	6,658	115,199
Females	30,144	18,502	12,095	6,567	4,024	54,013	72,488	6,816	79,304
Black ^b	9,741	5,706	2,849	1,546	956	16,798	21,078	2,062	23,140
Males	5,348	2,977	1,511	766	400	9,091	11,153	721	11,874
Females	4,393	2,729	1,338	780	556	7,707	9,925	1,341	11,266
Asian/Pacific Islander ^c	1,619	791	+	+	+	2,574	+	+	+
Males	990	512	+	+	+	1,593	+	+	+
Females	629	279	+	+	+	981	+	+	+
Hispanic ^d	6,039	3,029	+	+	+	9,952	+	+	+
Males	3,510	1,744	+	+	+	5,698	+	+	+
Females	2,529	1,285	+	+	+	4,254	+	+	+

Estimated prevalence percent^a on January 1, 2002, of the SEER 11 population diagnosed in the previous 10 years
By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence	Age Specific (Crude)										Age-Adjusted ^f
	All Ages	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	All Ages
Race/Sex											
All Races ^c	0.0434%	0.0074%	0.0040%	0.0015%	0.0074%	0.0291%	0.0825%	0.1611%	0.2064%	0.1824%	0.0466%
Males	0.0530%	0.0067%	0.0036%	0.0013%	0.0085%	0.0363%	0.1106%	0.2169%	0.2845%	0.2736%	0.0625%
Females	0.0340%	0.0082%	0.0043%	0.0018%	0.0062%	0.0220%	0.0558%	0.1115%	0.1477%	0.1333%	0.0339%
White ^c	0.0473%	0.0078%	0.0042%	0.0014%	0.0075%	0.0300%	0.0852%	0.1706%	0.2179%	0.1891%	0.0488%
Males	0.0577%	0.0074%	0.0039%	0.0009%	0.0086%	0.0377%	0.1141%	0.2275%	0.2986%	0.2886%	0.0653%
Females	0.0370%	0.0083%	0.0046%	0.0018%	0.0063%	0.0222%	0.0571%	0.1188%	0.1562%	0.1364%	0.0352%
Black ^c	0.0385%	0.0080%	0.0054%	0.0026%	0.0092%	0.0351%	0.1014%	0.1737%	0.2123%	0.1765%	0.0517%
Males	0.0453%	0.0054%	0.0051%	0.0026%	0.0098%	0.0428%	0.1357%	0.2363%	0.2946%	0.2460%	0.0681%
Females	0.0324%	0.0106%	0.0058%	0.0027%	0.0087%	0.0284%	0.0729%	0.1243%	0.1581%	0.1440%	0.0399%
Asian/Pacific Islander ^c	0.0223%	0.0040%	-	0.0013%	0.0048%	0.0164%	0.0444%	0.0791%	0.1116%	0.1108%	0.0251%
Males	0.0287%	0.0026%	-	0.0020%	0.0063%	0.0221%	0.0609%	0.1128%	0.1644%	0.1470%	0.0347%
Females	0.0164%	0.0055%	-	-	0.0034%	0.0114%	0.0298%	0.0512%	0.0724%	0.0860%	0.0173%
Hispanic ^d	0.0235%	0.0063%	0.0027%	0.0012%	0.0058%	0.0268%	0.0730%	0.1599%	0.2112%	0.1865%	0.0453%
Males	0.0262%	0.0053%	0.0017%	0.0008%	0.0065%	0.0288%	0.0992%	0.2221%	0.2679%	0.2820%	0.0595%
Females	0.0206%	0.0073%	0.0039%	0.0016%	0.0050%	0.0248%	0.0489%	0.1086%	0.1708%	0.1340%	0.0345%

^a US 2002 cancer prevalence counts are based on 2002 cancer prevalence proportions from the SEER registries and 1/1/2002 US population estimates based on the average of 2001 and 2002 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

^{b c d} Statistics based on b) SEER 9 Areas c) SEER 11 Areas and Rural Georgia d) SEER 11 Areas excluding Hawaii and Detroit.

^e Maximum limited-duration prevalence: 27 years for 1975-2002 SEER 9 data; 12 years for 1990-2002 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).

^f Percentages are age-adjusted to the 2000 US standard population by 5-year age groups.

^{g h} (g) Cases diagnosed more than 27 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000). (h) Complete prevalence is obtained by summing 0 to <27 and >=27.

- Statistic not shown. Statistic based on fewer than 5 cases estimated alive in SEER for the time interval.

+ Not available.

SEER Incidence, Delay Adjusted Incidence and US Death Rates+ Kidney and Renal Pelvis Cancer, by Race and Sex

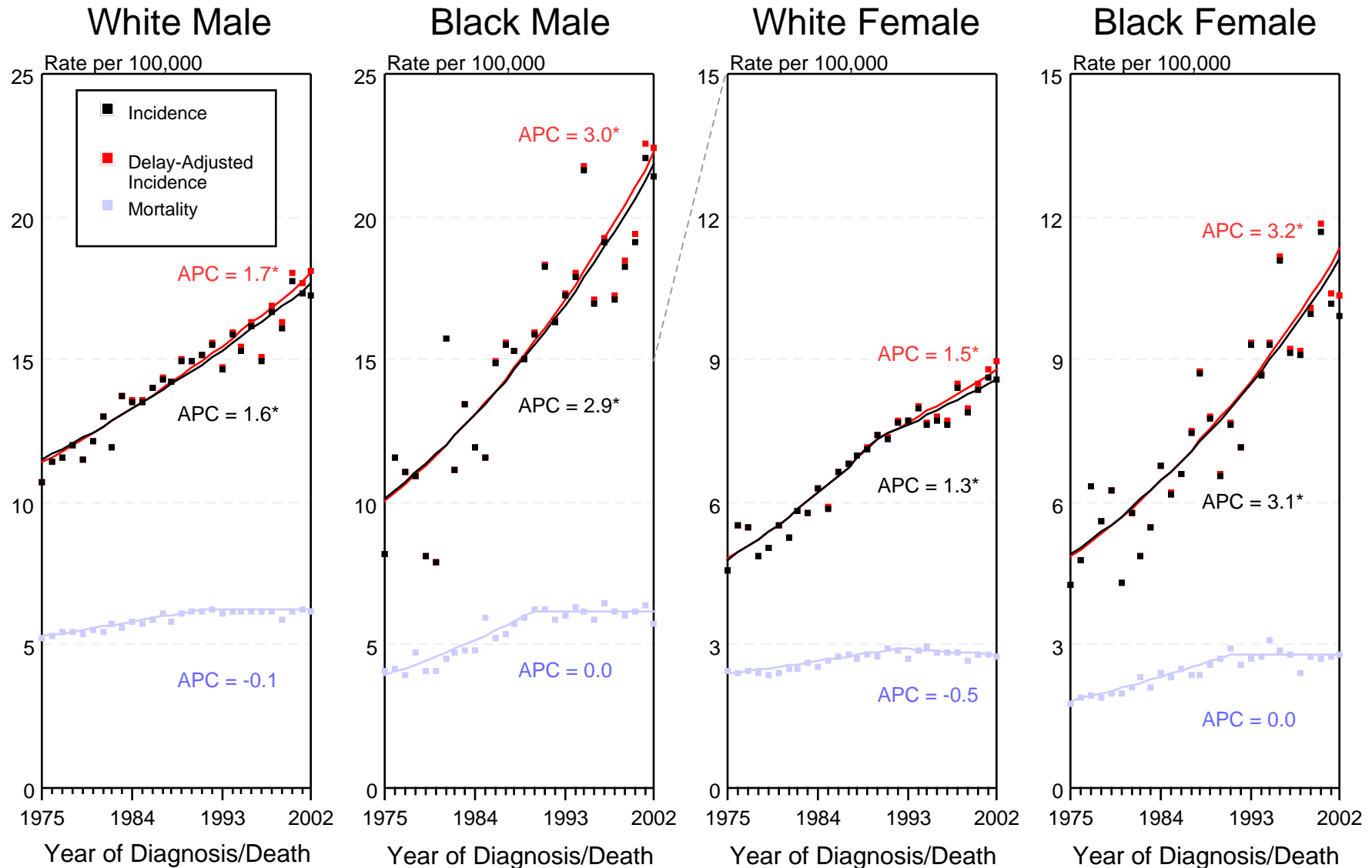


Figure XI-1

+ Source: SEER 9 areas and NCHS public use data file for the total US. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.0, April 2005, National Cancer Institute.

The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

* The APC is significantly different from zero ($p < 0.05$).

SEER Incidence and US Death Rates + Kidney and Renal Pelvis Cancer, Both Sexes

Joinpoint Analyses for 1975-2002 for Whites and Blacks

Rates for 1992-2002 for Asian/Pacific Islander, American Indian/Alaska Native and Hispanic

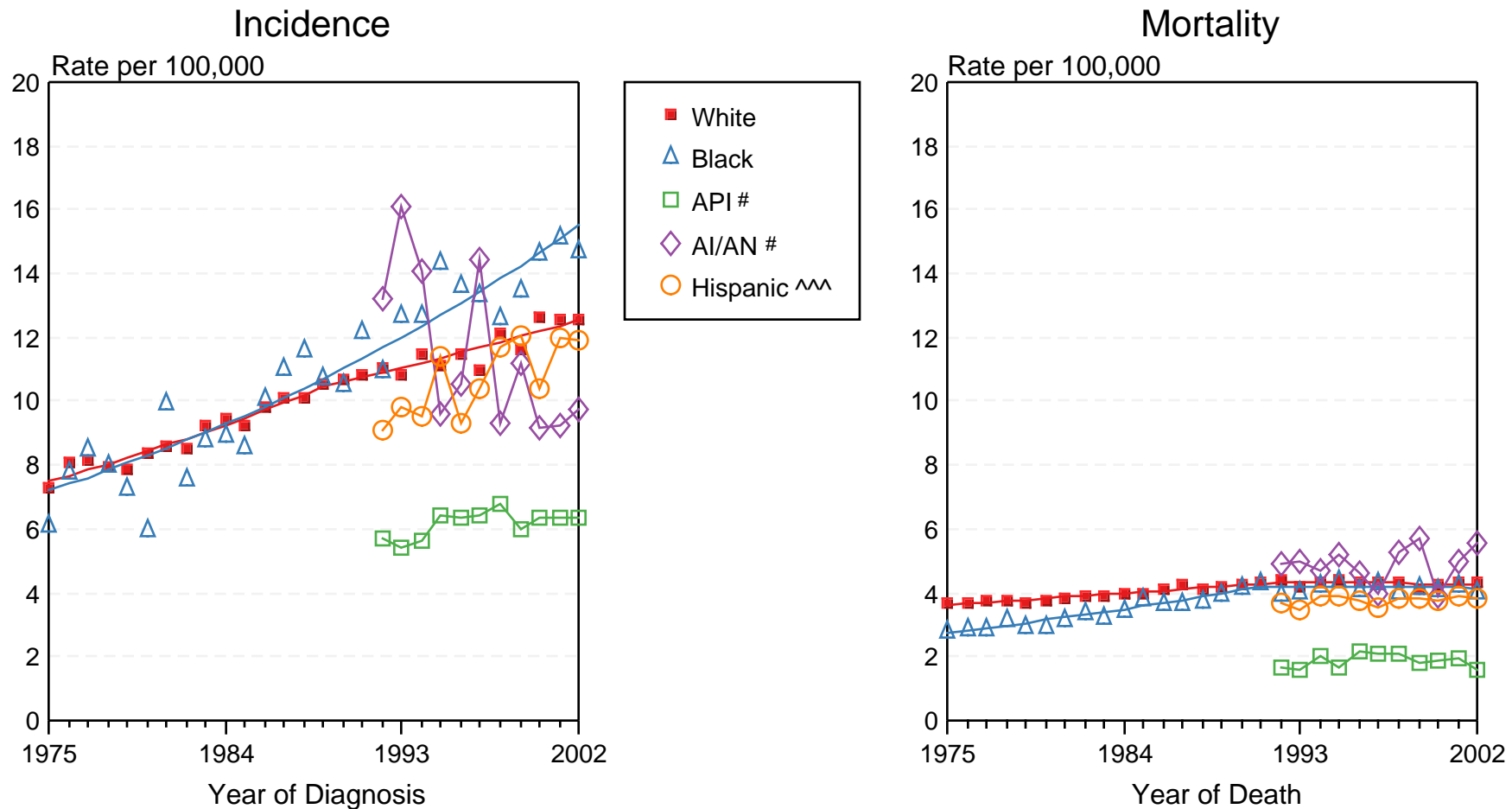


Figure XI-2

+ Source: Incidence data for whites and blacks is from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta). Incidence data for Asian/Pacific Islanders, American Indian/Alaska Natives and Hispanics is from the SEER 13 Areas (SEER 9 Areas, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Mortality data is from NCHS public use data file for the total US. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines for whites and blacks are calculated using the Joinpoint Regression Program Version 3.0, April 2005, National Cancer Institute.

API = Asian/Pacific Islander. AI/AN = American Indian/Alaska Native.

^^ Hispanic is not mutually exclusive from Whites, Blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics excludes cases from Detroit, Hawaii, Alaska Native Registry and Rural Georgia. Mortality data for Hispanics excludes cases from Connecticut, Maine, Maryland, Minnesota, Oklahoma, New Hampshire, New York, North Dakota, and Vermont.