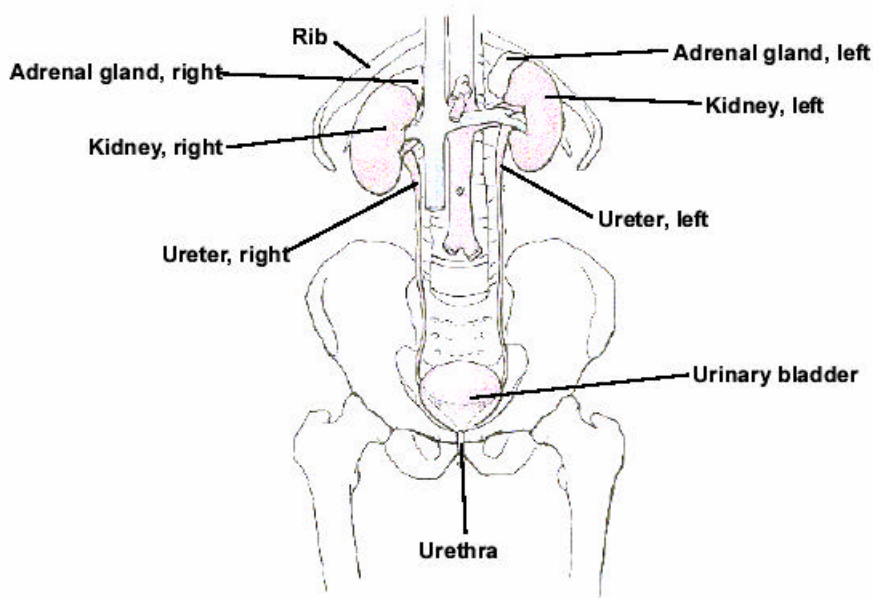


# **KIDNEY AND RENAL PELVIS CANCER**

## KIDNEY AND RENAL PELVIS CANCER

### GENERAL PROFILE<sup>4</sup>

**Figure 114. Anatomy of the Urinary System**<sup>5</sup>



**General Anatomy:** The kidneys are two reddish-brown, bean-shaped organs located just above the waist, one on each side of the spine. They are part of the urinary system. Their main function is to filter blood and produce urine to rid the body of waste. As blood flows through the kidneys, they remove waste products and unneeded water. The resulting liquid, urine, collects in the middle of each kidney in an area called the renal pelvis. Urine drains from each kidney through a long tube, the ureter, into the bladder, where it is stored. Urine leaves the body through another tube, called the urethra. The kidneys also produce substances that help control blood pressure and regulate the formation of red blood cells.

**Risk Factors:** Tobacco use, obesity, occupational exposure, radiation, phenacetin (prolonged heavy use of this painkiller), dialysis, and Von Hippel-Lindau (VHL) disease.

**Signs and Symptoms:** Blood in the urine, a lump or mass in the kidney area, and other less common symptoms may include: fatigue, loss of appetite, weight loss, recurrent fevers, a pain in the side that doesn't go away, or a general feeling of poor health.

**Diagnosing the Cancer:** Health exams, intravenous pyelogram (IVP), arteriography, computed tomography (CAT) scan, magnetic resonance imaging (MRI), and ultrasonography.

**Treatment:** Surgery (Simple or Radical Nephrectomy), arterial embolization, radiation therapy, biological therapy, chemotherapy, and hormone therapy.

## **HIGHLIGHTS**

- The ratio of the age-adjusted incidence rate, 11.8, to the age-adjusted mortality rate, 3.7 (per 100,000 – 2000 US Standard population), for Kidney and Renal Pelvis Cancer was 3.19 during the 1997 to 2001 period, which means that for every 3.19 Kidney and Renal Pelvis Cancer cases diagnosed during this period, there was one death caused by this type of cancer in Nevada.
- Nevadan females had a higher ratio than males when the age-adjusted incidence and age-adjusted mortality rates for Kidney and Renal Pelvis Cancer were compared. For every female death due to this type of cancer there were 3.73 female cases diagnosed, while there were 2.85 male cases for every male Kidney and Renal Pelvis Cancer death in Nevada from 1997 to 2001.
- The median age at diagnosis of Kidney and Renal Pelvis Cancer for Nevada residents and females was 65 years of age from 1997 to 2001 while the median age for males was 64 years. The median age at time of death due to Kidney and Renal Pelvis Cancer was 71 years for Nevada overall, 68.5 years of age for males and 73 years of age for females.

## **INCIDENCE**

- There were 1,090 cases of Kidney and Renal Pelvis Cancer in Nevada from 1997 to 2001. Nevada's incidence rate for Kidney and Renal Pelvis Cancer (11.8) was only slightly higher than the National rate of 11.3 (per 100,000 – 2000 US Standard population) from 1997 to 2001. Regional comparisons showed variation between Washoe County (13.1), All Other Counties (11.8) and Clark County (11.5) from 1997 to 2001. Through statistical analysis, none of these differences were found to be significantly different from the National rate of 11.3 (per 100,000 – 2000 US Standard population).
- The higher age-adjusted incidence rate for male Kidney and Renal Pelvis Cancer, 15.7 (14.6-17.0), was statistically significant over the female rate of 8.2 (7.4-9.0), per 100,000 – 2000 US Standard population, during the 1997 to 2001 period.
- Blacks had the highest age-adjusted incidence rate, 13.8, for Kidney and Renal Pelvis Cancer of all racial/ethnic groups and were followed by Whites, Hispanics and Asians with rates of 12.6, 7.9 and 4.8 (per 100,000 – 2000 US Standard population), respectively, during the 1997 to 2001 period.
- The median age at diagnosis for Other/Unknown (56 years) was the lowest of any racial/ethnic group and was significantly lower than the statewide median age of 64 years for the 1997 to 2001 period.

## **INPATIENT HOSPITAL DISCHARGES**

- There were 905 hospital inpatient discharges with a primary diagnosis of Kidney and Renal Pelvis Cancer to Nevada Residents from 1997 to 2001. Regional comparisons

showed little difference between the age-adjusted inpatient discharge rates between All Other Counties (10.0), Clark County (9.8) and Washoe County (9.2) (per 100,000 – 2000 US Standard population).

- Total billed charges for Kidney and Renal Pelvis Cancer inpatient hospital discharges in Nevada totaled nearly 26.8 million dollars from 1997 to 2001. The overall average billed charge per day for a hospital inpatient discharge due to this type of cancer was approximately \$4,703 in Nevada from 1997 to 2001.
- Washoe County had the highest median total billed amount (\$33,101), while the statewide median billed amount was \$29,630 from 1997 to 2001; with Clark County and All Other Counties with median billed amounts of \$31,002 and \$20,710.

### **MORTALITY**

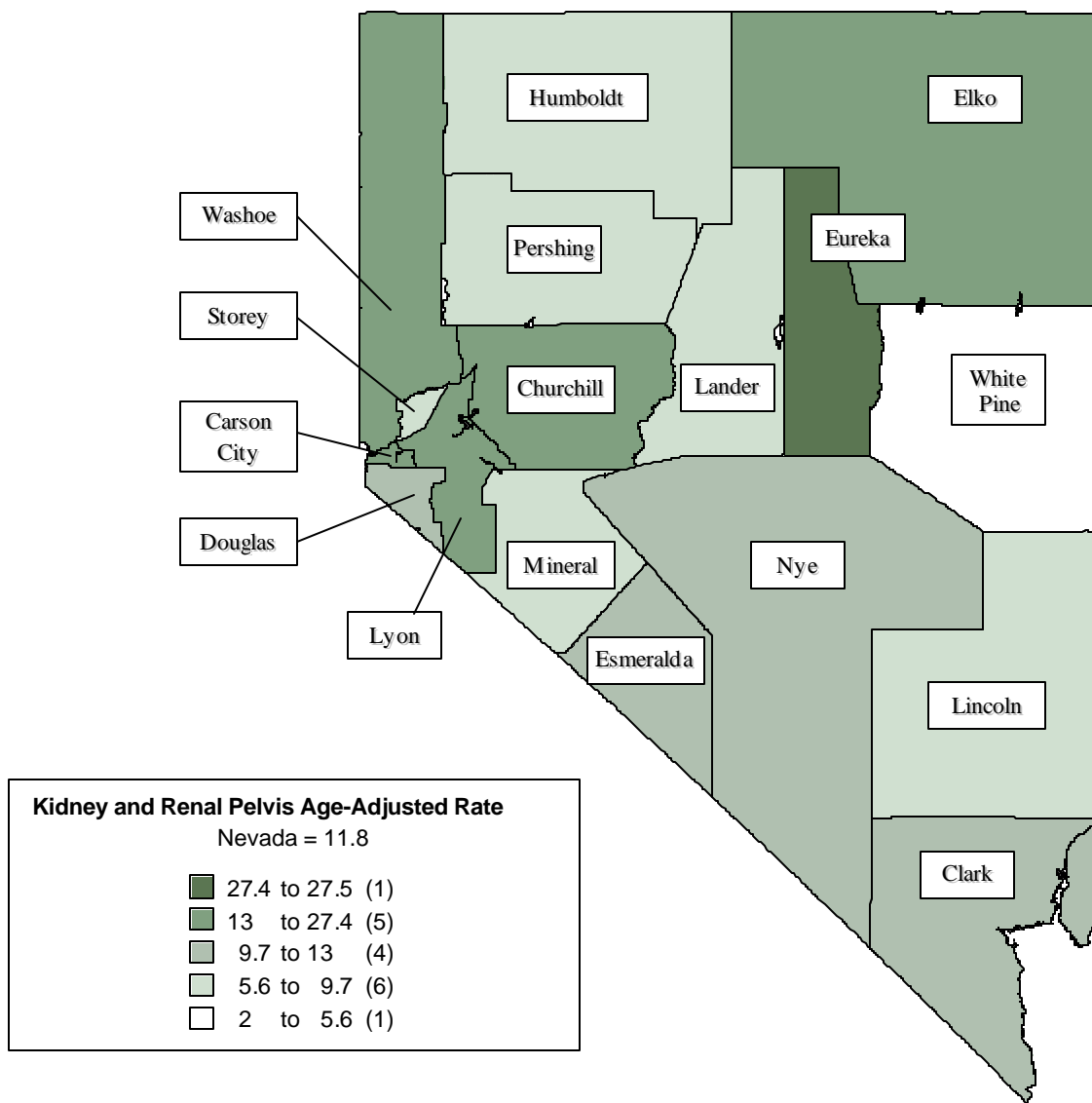
- There were 327 resident deaths due to Kidney and Renal Pelvis Cancer from 1997 to 2001. Males had a statistically significant age-adjusted mortality rate, 5.5 (4.7-6.3), more than double the female rate of 2.2 (1.8-2.7), per 100,000 – 2000 US Standard population, during this period.
- Blacks, as a racial/ethnic group, had the highest age-adjusted mortality rate for Kidney and Renal Pelvis Cancer of any racial/ethnic group, 30.0, and were followed by Whites, Asians, Native Americans, and Hispanics with rates of 23.7, 12.5, 12.0, and 11.3, (per 100,000 – 2001 US Standard population) respectively, from 1997 to 2001.
- Males had a median age at death from Kidney and Renal Pelvis Cancer five years earlier than females in Nevada from 1997 to 2001 with a median age at death of 68.5 and 73 years, respectively.

### **SURVIVAL RATE**

- The one-year survival rate for Kidney and Renal Pelvis Cancer in Nevada was 71.9% during the 1997 to 2001 period, while the five-year survival rate was 52.9% during this same time. The median survival rate in Nevada was greater than five years for Kidney and Renal Pelvis Cancer.
- Females in Nevada had a slightly higher one-year survival rate (75.4%) than males (70.0%) for Kidney and Renal Pelvis Cancer during the 1997 to 2001 period. This trend continued for the five-year survival rate with females and males at 49.5% and 59.1%, respectively. Males had a median survival time of 3.91, and females had median survival times of over five years.
- The Kidney and Renal Pelvis Cancer Survival rate varies greatly by the stage of the cancer at time of diagnosis. Those diagnosed at the localized stage had the highest one- and five-year survival rates with 83.8% and 65.1%, respectively. This was followed by those with regional, and then distant diagnoses with rates of 78.4% and 61.0% for the one-year period.

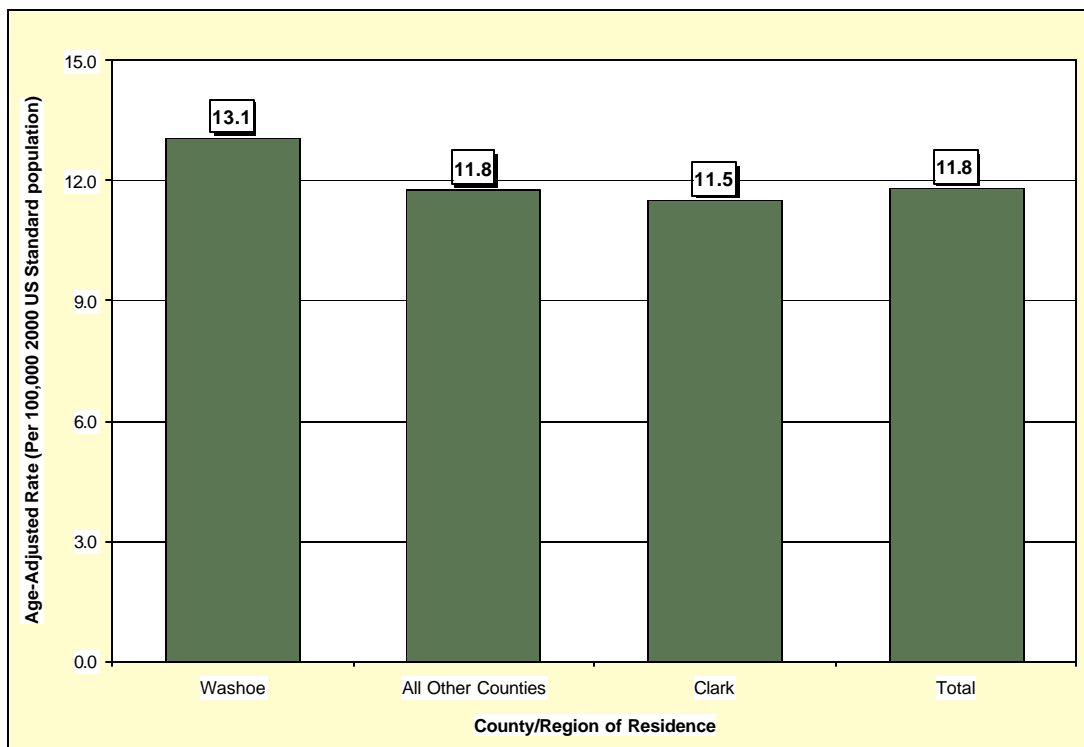
## INCIDENCE

**Figure 115. Kidney and Renal Pelvis Cancer Age-Adjusted (2001) Incidence Rates, Nevada Residents, 1997-2001**

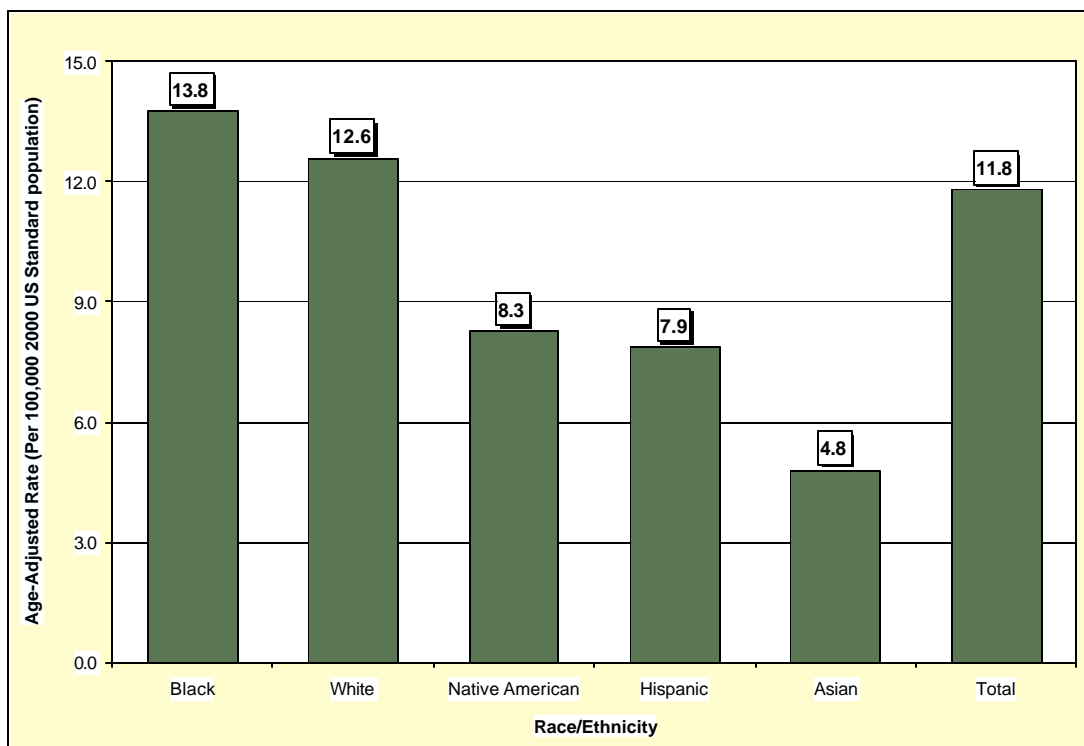


Note: Rates are per 100,000 population and age-adjusted to 2001 US Standard population. Caution should be used when interpreting rates based upon small numbers. See Technical notes for more information.

**Figure 116. Kidney and Renal Pelvis Cancer Age-Adjusted Incidence Rates by County/Region of Residence, Nevada Residents, 1997-2001**



**Figure 117. Kidney and Renal Pelvis Cancer Age-Adjusted Incidence Rates by Race/Ethnicity, Nevada Residents, 1997-2001**



**Table 171. Kidney and Renal Pelvis Cancer Cases by Gender, Race/Ethnicity and County/Region of Residence at Diagnosis, Nevada Residents (1997-2001) and SEER-11 (1997-2001)**

Category	County/Region of Residence					SEER 11 (1997-2001)
	Nevada Total	Clark	Washoe	All Other Counties	Unknown	
<b>Total</b>						
<b>Cases</b>	1,090	711	204	174	1	19,693
<b>Rate*</b>	11.8	11.5	13.1	11.8	---	11.3
<b>95% C.I.</b>	(11.1-12.5)	(10.6-12.4)	(11.3-15.0)	(10.1-13.7)	---	(11.2-11.5)
<b>Gender</b>						
<b>Male</b>	706	459	128	118	1	12,165
<b>Rate*</b>	15.7	15.3	16.9	16.3	---	15.7
<b>95% C.I.</b>	(14.6-17.0)	(13.8-16.9)	(14.0-20.5)	(13.4-19.8)	---	(15.4-16.0)
<b>Female</b>	384	252	76	56	0	7,528
<b>Rate*</b>	8.2	8.0	9.5	7.5	---	7.8
<b>95% C.I.</b>	(7.4-9.0)	(7.0-9.1)	(7.5-12.0)	(5.7-9.9)	---	(7.7-8.0)
<b>Other/Unknown</b>	0	0	0	0	0	0
<b>Race/Ethnicity</b>						
<b>White</b>	943	597	186	159	1	16,311
<b>Rate*</b>	12.6	12.4	13.8	11.9	---	11.7
<b>95% C.I.</b>	(11.8-13.4)	(11.4-13.5)	(11.9-16.0)	(10.1-14.0)	---	(11.5-11.9)
<b>Black</b>	63	55	6	2	0	2,019
<b>Rate*</b>	13.8	13.2	---	---	---	13.3
<b>95% C.I.</b>	(10.3-18.4)	(9.6-18.1)	---	---	---	(12.7-13.9)
<b>Native American</b>	8	2	2	4	0	165
<b>Rate*</b>	---	---	---	---	---	10.0
<b>95% C.I.</b>	---	---	---	---	---	(8.5-8.5)
<b>Asian</b>	19	17	1	1	0	1,132
<b>Rate*</b>	4.8	5.1	---	---	---	6.4
<b>95% C.I.</b>	(2.8-10.1)	(2.9-11.9)	---	---	---	(6.0-6.8)
<b>Hispanic</b>	50	33	9	8	0	2,019
<b>Rate*</b>	7.9	7.3	---	---	---	11.0
<b>95% C.I.</b>	(5.6-11.2)	(4.8-11.5)	---	---	---	(10.5-11.5)
<b>Other/Unknown</b>	7	7	0	0	0	66

\* Rates are per 100,000 population and are age-adjusted to the 2001 US Standard population.

Note: The "----" is used for rates calculated on numbers less than ten and SEER numbers less than five. Caution should be used when comparing rates for racial/ethnic groups to the National (SEER) rates. See Technical Notes for more information.

**Table 172. Kidney and Renal Pelvis Cancer Cases by Age Group and County/Region of Residence at Diagnosis, Nevada Residents (1997-2001) and SEER-11 (1997-2001)**

Category	County/Region of Residence					
	Nevada Total	Clark	Washoe	All Other Counties	Unknown	SEER 11 (1997-2001)
<b>Total</b>						
Cases	1,090	711	204	174	1	19,693
Rate*	11.2	10.7	12.2	12.5	---	10.6
95% C.I.	(10.5-11.9)	(9.9-11.5)	(10.5-13.8)	(10.6-14.3)	---	(10.5-10.8)
<b>Age Group</b>						
<1	0	0	0	0	0	49
Rate*	---	---	---	---	---	1.8
95% C.I.	---	---	---	---	---	(1.3-2.3)
1-4	11	9	2	0	0	215
Rate*	1.9	---	---	---	---	1.9
95% C.I.	(0.8-3.1)	---	---	---	---	(1.7-2.2)
5-14	4	3	1	0	0	106
Rate*	---	---	---	---	---	0.4
95% C.I.	---	---	---	---	---	(0.3-0.5)
15-24	2	1	0	0	1	58
Rate*	---	---	---	---	---	0.2
95% C.I.	---	---	---	---	---	(0.2-0.3)
25-34	10	8	0	2	0	236
Rate*	0.7	---	---	---	---	0.8
95% C.I.	(0.3-1.1)	---	---	---	---	(0.7-0.9)
35-44	71	36	19	16	0	1,258
Rate*	4.6	3.4	6.7	7.1	---	4.0
95% C.I.	(3.5-5.6)	(2.3-4.6)	(3.7-9.7)	(3.6-10.5)	---	(3.8-4.2)
45-54	174	110	38	26	0	3,062
Rate*	13.6	13.0	16.1	12.9	---	13.4
95% C.I.	(11.5-15.6)	(10.6-15.4)	(11.0-21.2)	(8.0-17.9)	---	(12.9-13.9)
55-64	290	199	44	47	0	4,395
Rate*	31.7	32.0	29.3	32.5	---	31.4
95% C.I.	(28.0-35.3)	(27.6-36.5)	(20.6-38.0)	(23.2-41.8)	---	(30.5-32.3)
65-74	302	204	56	42	0	5,229
Rate*	47.0	47.2	54.6	39.2	---	45.3
95% C.I.	(41.7-52.3)	(40.7-53.6)	(40.3-68.9)	(27.3-51.0)	---	(44.1-46.6)
75-84	196	121	40	35	0	3,979
Rate*	55.8	51.8	69.2	58.4	---	54.7
95% C.I.	(48.0-63.6)	(42.6-61.0)	(47.7-90.6)	(39.1-77.8)	---	(53.0-56.4)
85+	29	20	3	6	0	1,106
Rate*	38.0	42.8	---	---	---	44.6
95% C.I.	(24.2-51.9)	(24.1-61.6)	---	---	---	(42.0-47.2)
Unknown	1	0	1	0	0	0

\* Rates are per 100,000 age-specific population.

Note: The "----" is used for rates calculated on numbers less than ten and SEER numbers less than five. See Technical Notes for more information.



**Table 173. Kidney and Renal Pelvis Cancer Cases by County of Residence at Diagnosis, Nevada Residents, 1997-2001**

County of Residence at Diagnosis	1997-2001 Incidence				
	Cases	Rate*		Age-Adjusted Rate**	
		Rate	95% C.I.	Rate	95% C.I.
Carson City	42	16.9	(11.8-22.0)	14.7	(10.6-20.1)
Churchill	19	15.8	(8.7-22.8)	16.1	(9.7-25.9)
Clark	711	10.7	(9.9-11.5)	11.5	(10.6-12.4)
Douglas	25	12.2	(7.4-17.0)	9.8	(6.3-15.2)
Elko	18	7.8	(4.2-11.4)	13.1	(7.3-22.6)
Esmeralda	1	---	---	---	---
Eureka	2	---	---	---	---
Humboldt	4	---	---	---	---
Lander	2	---	---	---	---
Lincoln	2	---	---	---	---
Lyon	30	17.6	(11.3-24.0)	15.9	(10.6-23.2)
Mineral	2	---	---	---	---
Nye	22	14.0	(8.1-19.8)	10.5	(6.4-17.2)
Pershing	2	---	---	---	---
Storey	2	---	---	---	---
Washoe	204	12.2	(10.5-13.8)	13.1	(11.3-15.0)
White Pine	1	---	---	---	---
Unknown	1	---	---	---	---
<b>Total</b>	<b>1,090</b>	<b>11.2</b>	<b>(10.5-11.9)</b>	<b>11.8</b>	<b>(11.1-12.5)</b>

Note: The “---” is used for rates calculated on numbers less than ten. \*Rates are per 100,000 population. \*\*Rates are per 100,000 population and are age-adjusted to the 2001 US Standard population.

**Table 174. Kidney and Renal Pelvis Cancer Cases by Race/Ethnicity and Gender, Nevada Residents, 1997-2001**

Race/Ethnicity		Gender			
		Male	Female	Other/Unknown	Total
White	Incidence	614	329	0	943
	Rate*	16.7	8.7	---	12.6
	95% C.I.	(15.4-18.2)	(7.8-9.7)	---	(11.8-13.4)
Black	Incidence	39	24	0	63
	Rate*	18.0	10.1	---	13.8
	95% C.I.	(12.1-28.1)	(6.3-15.8)	---	(10.3-18.4)
Native American	Incidence	4	4	0	8
	Rate*	---	---	---	---
	95% C.I.	---	---	---	---
Asian	Incidence	12	7	0	19
	Rate*	7.0	---	---	4.8
	95% C.I.	(3.5-18.6)	---	---	(2.8-10.1)
Hispanic	Incidence	32	18	0	50
	Rate*	9.3	6.2	---	7.9
	95% C.I.	(6.1-15.9)	(3.5-10.9)	---	(5.6-11.2)
Other/Unknown	Incidence	5	2	0	7
	Rate*	7.6	3.84	0	1,090
	95% C.I.	(14.6-17.0)	(7.4-9.0)	---	(11.1-12.5)
Total	Incidence	706	384	0	1,090
	Rate*	15.7	8.2	---	11.8
	95% C.I.	(14.6-17.0)	(7.4-9.0)	---	(11.1-12.5)

Note: The “---” is used for rates calculated on numbers less than ten. \*Rates are per 100,000 population and are age-adjusted to the 2001 US Standard population.

**Table 175. Kidney and Renal Pelvis Cancer Cases by Age Group and Gender, Nevada Residents, 1997-2001**

Age Group	Gender			
	Male	Female	Other/ Unknown	Total
<1	0	0	0	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
1-4	6	5	0	11
Rate*	---	---	---	1.9
95% C.I.	---	---	---	(0.8-3.1)
5-14	2	2	0	4
Rate*	---	---	---	---
95% C.I.	---	---	---	---
15-24	2	0	0	2
Rate*	---	---	---	---
95% C.I.	---	---	---	---
25-34	6	4	0	10
Rate*	---	---	---	0.7
95% C.I.	---	---	---	(0.3-1.1)
35-44	44	27	0	71
Rate*	5.5	3.6	---	4.6
95% C.I.	(3.8-7.1)	(2.2-5.0)	---	(3.5-5.6)
45-54	116	58	0	174
Rate*	17.8	9.2	---	13.6
95% C.I.	(14.6-21.1)	(6.8-11.5)	---	(11.5-15.6)
55-64	200	90	0	290
Rate*	44.0	19.5	---	31.7
95% C.I.	(37.9-50.1)	(15.5-23.5)	---	(28.0-35.3)
65-74	202	100	0	302
Rate*	63.7	30.7	---	47.0
95% C.I.	(54.9-72.5)	(24.7-36.8)	---	(41.7-52.3)
75-84	114	82	0	196
Rate*	71.9	42.5	---	55.8
95% C.I.	(58.7-85.1)	(33.3-51.7)	---	(48.0-63.6)
85+	14	15	0	29
Rate*	56.6	29.1	---	38.0
95% C.I.	(26.9-86.2)	(14.4-43.9)	---	(24.2-51.9)
Unknown	0	1	0	1
Total	706	384	0	1,090
Rate*	14.3	8.0	---	11.2
95% C.I.	(13.2-15.3)	(7.2-8.8)	---	(10.5-11.9)

\* Rates are per 100,000 age-specific population.

Note: The "----" is used for rates calculated on numbers less than ten.

**Table 176. Kidney and Renal Pelvis Cancer Cases by Age Group and Stage, Nevada Residents, 1997-2001**

Age Group		Stage					Total
		In situ	Localized	Regional	Distant	Unstaged	
<1	Number	0	0	0	0	0	0
	Percent	---	---	---	---	---	---
1-4	Number	0	6	1	2	2	11
	Percent	---	54.5%	9.1%	18.2%	18.2%	100.0%
5-14	Number	0	2	1	1	0	4
	Percent	---	50.0%	25.0%	25.0%	---	100.0%
15-24	Number	0	0	1	0	1	2
	Percent	---	---	50.0%	---	50.0%	100.0%
25-34	Number	0	8	0	1	1	10
	Percent	---	80.0%	---	10.0%	10.0%	100.0%
35-44	Number	0	48	8	6	9	71
	Percent	---	67.6%	11.3%	8.5%	12.7%	100.0%
45-54	Number	0	106	23	24	21	174
	Percent	---	60.9%	13.2%	13.8%	12.1%	100.0%
55-64	Number	0	156	43	49	42	290
	Percent	---	53.8%	14.8%	16.9%	14.5%	100.0%
65-74	Number	0	162	34	59	47	302
	Percent	---	53.6%	11.3%	19.5%	15.6%	100.0%
75-84	Number	0	89	19	37	51	196
	Percent	---	45.4%	9.7%	18.9%	26.0%	100.0%
85+	Number	0	6	6	5	12	29
	Percent	---	20.7%	20.7%	17.2%	41.4%	100.0%
Unknown	Number	0	0	1	0	0	1
	Percent	---	---	100.0%	---	---	100.0%
Total	Number	0	583	137	184	186	1,090
	Percent	---	53.5%	12.6%	16.9%	17.1%	100.0%

**Table 177. Kidney and Renal Pelvis Cancer Cases by Stage and Race/Ethnicity, Nevada Residents, 1997-2001**

Stage		Race/Ethnicity						Total
		White	Black	Native American	Asian	Hispanic	Other/Unknown	
In situ	Number	0	0	0	0	0	0	0
	Percent	---	---	---	---	---	---	---
Localized	Number	501	40	3	9	27	3	583
	Percent	53.1%	63.5%	37.5%	47.4%	54.0%	42.9%	53.5%
Regional	Number	123	4	1	3	4	2	137
	Percent	13.0%	6.3%	12.5%	15.8%	8.0%	28.6%	12.6%
Distant	Number	164	8	2	4	6	0	184
	Percent	17.4%	12.7%	25.0%	21.1%	12.0%	---	16.9%
Unstaged	Number	155	11	2	3	13	2	186
	Percent	16.4%	17.5%	25.0%	15.8%	26.0%	28.6%	17.1%
Total	Number	943	63	8	19	50	7	1,090
	Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

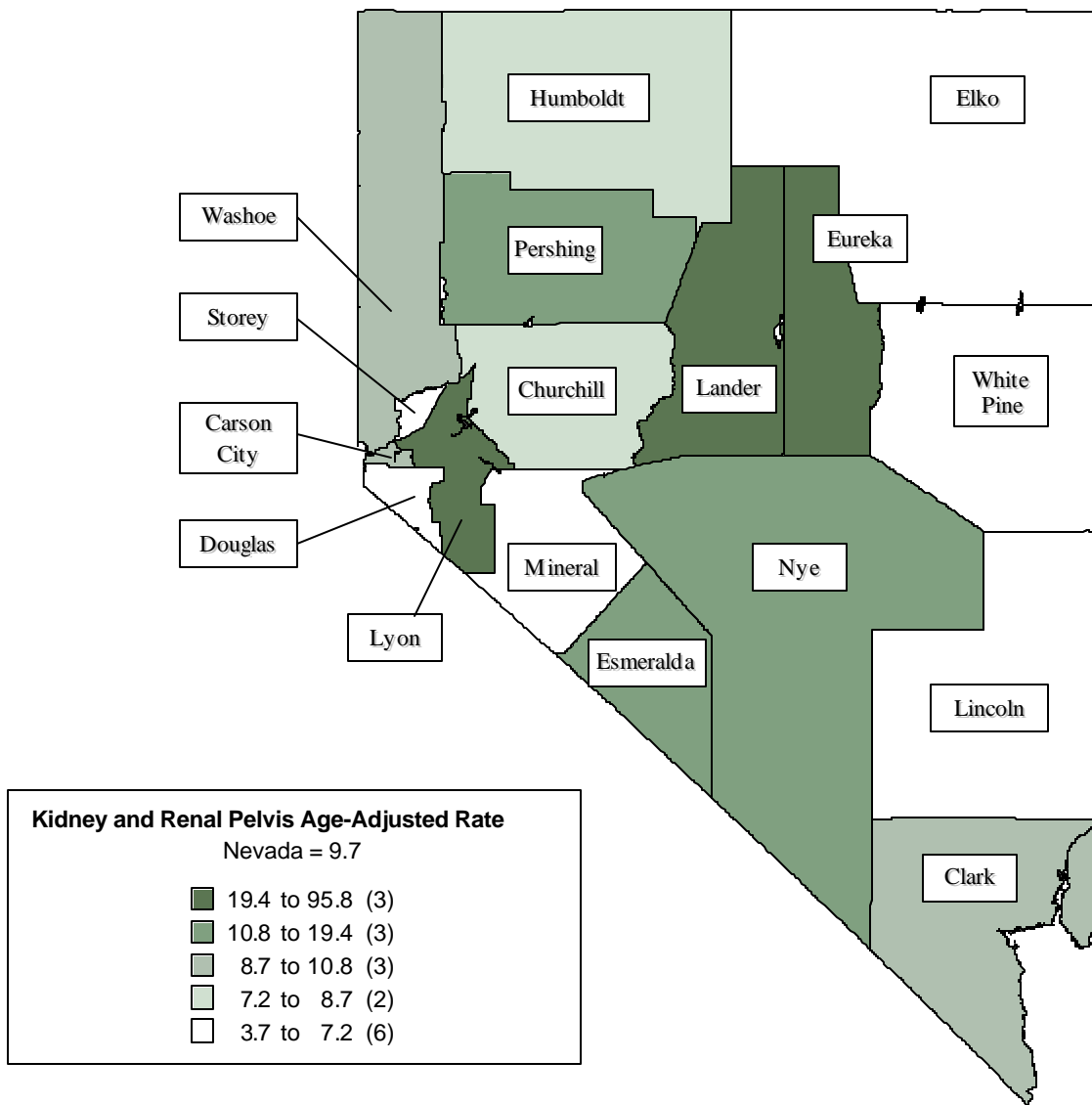
**Table 178. Median Age at Diagnosis of Kidney and Renal Pelvis Cancer by Race/Ethnicity and Gender, Nevada Residents, 1997-2001**

Race/Ethnicity	Gender					
	Male		Female		Total	
	Incidence	Median Age	Incidence	Median Age	Incidence	Median Age
White	614	64.0	328	65.0	942	64.0
Black	39	61.0	24	61.5	63	61.0
Native American	4	---	4	---	8	70.5
Asian	12	67.0	7	62.0	19	64.0
Hispanic	32	63.5	18	68.0	50	65.0
Other/Unknown	5	54.0	2	---	7	56.0
Total	706	64.0	383	65.0	1,089	64.0

Note: Those cases of other/unknown gender and/or unknown ages are not included in this table. The median age was not calculated for those numbers less than five.

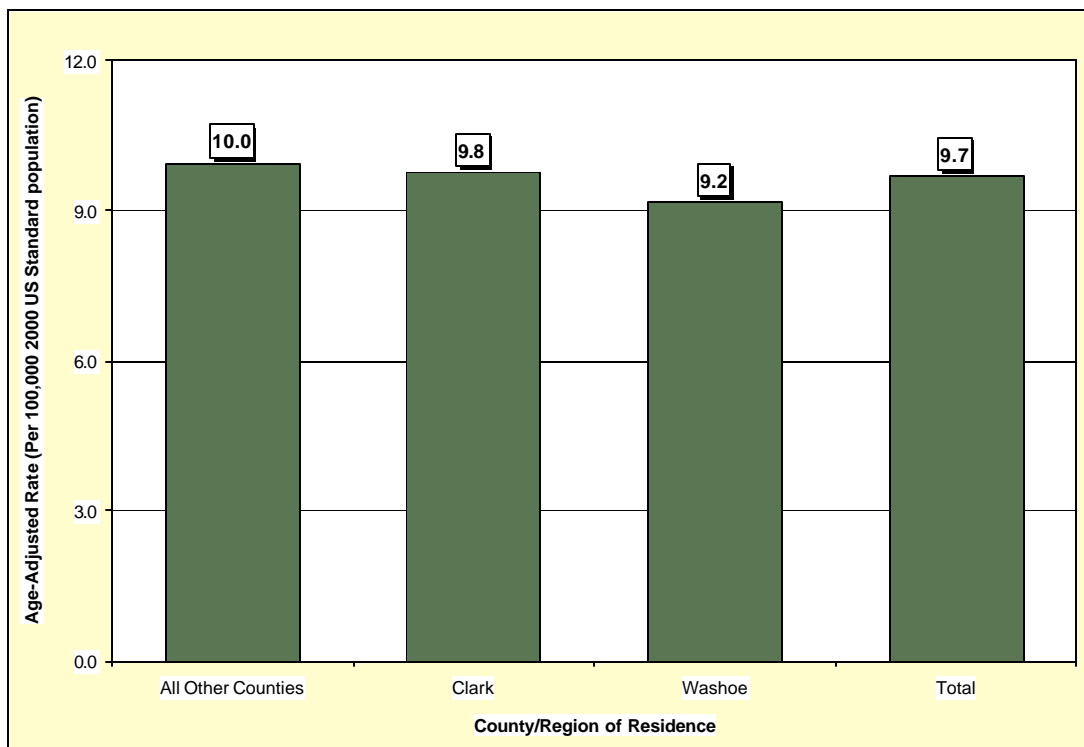
## INPATIENT HOSPITAL DISCHARGES

**Figure 118. Kidney and Renal Pelvis Cancer Age-Adjusted (2001) Inpatient Discharge Rates, Nevada Residents, 1997-2001**

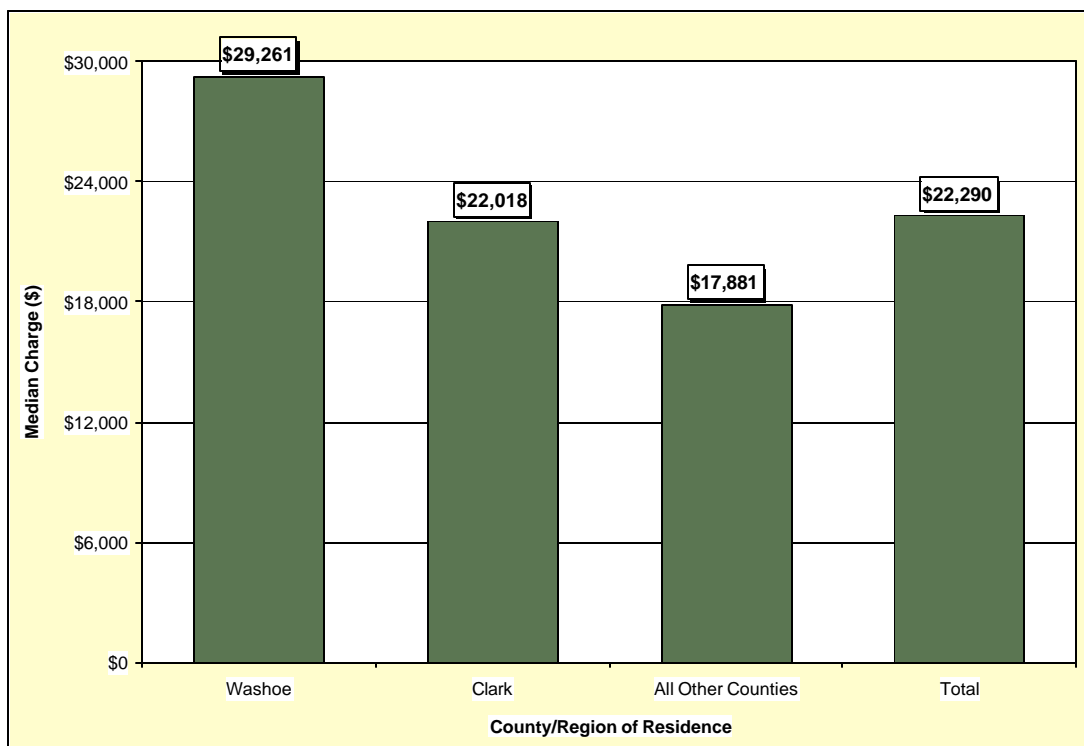


Note: Rates are per 100,000 population and age-adjusted to 2001 US Standard population. Caution should be used when interpreting rates based upon small numbers and comparing inpatient hospital discharge rates to other data sources, because it is occurrence based data. See Technical notes for more information.

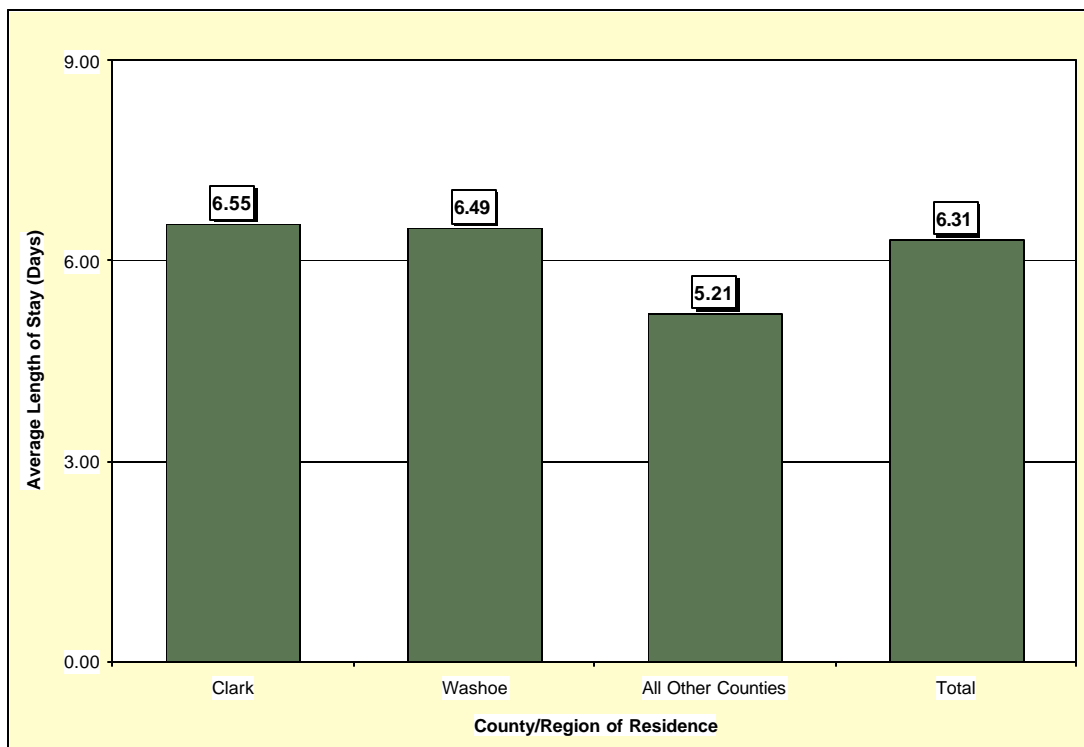
**Figure 119. Kidney and Renal Pelvis Cancer Age-Adjusted Inpatient Discharge Rates by County/Region of Residence, Nevada Residents, 1997-2001**



**Figure 120. Median Charges for Kidney and Renal Pelvis Cancer Inpatient Discharges by County/Region of Residence, Nevada Residents, 1997-2001**



**Figure 121. Average Length of Stay for Kidney and Renal Pelvis Cancer Inpatient Discharges by County/Region of Residence, Nevada Residents, 1997-2001**



**Table 179. Kidney and Renal Pelvis Cancer Inpatient Discharges by Gender, Charges, Length of Stay, and County/Region of Residence, Nevada Residents, 1997-2001**

Category	County/Region of Residence				
	Nevada Total	Clark	Washoe	All Other Counties	Unknown
<b>Total</b>					
Discharges	905	611	144	150	0
Rate*	9.7	9.8	9.2	10.0	---
95% C.I.	(9.1-10.4)	(9.0-10.6)	(7.7-10.9)	(8.4-11.7)	---
<b>Gender</b>					
Male	586	390	91	105	0
Rate*	13.0	12.8	12.1	14.2	---
95% C.I.	(11.9-14.2)	(11.5-14.3)	(9.6-15.2)	(11.5-17.4)	---
Female	319	221	53	45	0
Rate*	6.7	6.9	6.6	6.0	---
95% C.I.	(6.0-7.5)	(6.0-7.9)	(4.9-8.7)	(4.3-8.0)	---
Other/Unknown	0	0	0	0	0
<b>Inpatient Discharge Charges (\$)</b>					
Total Charges	\$26,815,356	\$18,942,286	\$4,766,512	\$3,106,558	---
Average Charges	\$29,630	\$31,002	\$33,101	\$20,710	---
Median Charges	\$22,290	\$22,018	\$29,261	\$17,881	---
<b>Discharge Length of Stay (LOS) (Days)</b>					
Total LOS	5,715	4,000	934	781	---
Average LOS	6.3	6.5	6.5	5.2	---
Median LOS	5.0	5.0	5.0	4.0	---

\* Rates are per 100,000 population and are age-adjusted to the 2001 US Standard population.

Note: The "----" is used for rates calculated on numbers less than ten. Caution should be used when comparing inpatient hospital discharge data to other data sources, since it is occurrence-based data. Please see Technical Notes for more information.



**Table 180. Kidney and Renal Pelvis Cancer Inpatient Discharges by Age Group and County/Region of Residence, Nevada Residents, 1997-2001**

Category	County/Region of Residence				
	Nevada Total	Clark	Washoe	All Other Counties	Unknown
<b>Total</b>					
<b>Discharges</b>	905	611	144	150	0
<b>Rate*</b>	9.3	9.2	8.6	10.7	---
<b>95% C.I.</b>	(8.7-9.9)	(8.4-9.9)	(7.2-10.0)	(9.0-12.5)	---
<b>Age Group</b>					
<1	2	1	0	1	0
Rate*	---	---	---	---	---
95% C.I.	---	---	---	---	---
1-4	12	12	0	0	0
Rate*	2.1	3.0	---	---	---
95% C.I.	(0.9-3.3)	(1.3-4.7)	---	---	---
5-14	10	10	0	0	0
Rate*	0.7	1.1	---	---	---
95% C.I.	(0.3-1.2)	(0.4-1.7)	---	---	---
15-24	1	1	0	0	0
Rate*	---	---	---	---	---
95% C.I.	---	---	---	---	---
25-34	8	7	0	1	0
Rate*	---	---	---	---	---
95% C.I.	---	---	---	---	---
35-44	62	36	14	12	0
Rate*	4.0	3.4	4.9	4.2	---
95% C.I.	(3.0-5.0)	(2.3-4.6)	(2.4-7.5)	(1.8-6.6)	---
45-54	149	99	28	22	0
Rate*	11.6	11.7	11.8	9.3	---
95% C.I.	(9.7-13.5)	(9.4-14.0)	(7.5-16.2)	(5.4-13.2)	---
55-64	238	159	34	45	0
Rate*	26.0	25.6	22.6	30.0	---
95% C.I.	(22.7-29.3)	(21.6-29.6)	(15.0-30.3)	(21.2-38.7)	---
65-74	262	183	41	38	0
Rate*	40.8	42.3	40.0	37.1	---
95% C.I.	(35.9-45.7)	(36.2-48.4)	(27.8-52.2)	(25.3-48.9)	---
75-84	142	89	24	29	0
Rate*	40.4	38.1	41.5	50.1	---
95% C.I.	(33.8-47.1)	(30.2-46.0)	(24.9-58.1)	(31.9-68.4)	---
85+	19	14	3	2	0
Rate*	24.9	30.0	---	---	---
95% C.I.	(13.7-36.1)	(14.3-45.7)	---	---	---
Unknown	0	0	0	0	0

\* Rates are per 100,000 age-specific population.

Note: The "----" is used for rates calculated on numbers less than ten. Caution should be used when comparing inpatient hospital discharge data to other data sources, since it is occurrence-based data. Please see Technical Notes for more information.

**Table 181. Kidney and Renal Pelvis Cancer Inpatient Discharges by Age Group and Gender, Nevada Residents, 1997-2001**

Age Group	Gender		
	Male	Female	Total
<1	0	2	2
Rate*	---	---	---
95% C.I.	---	---	---
1-4	9	3	12
Rate*	---	---	2.1
95% C.I.	---	---	(0.9-3.3)
5-14	4	6	10
Rate*	---	---	0.7
95% C.I.	---	---	(0.3-1.2)
15-24	1	0	1
Rate*	---	---	---
95% C.I.	---	---	---
25-34	5	3	8
Rate*	---	---	---
95% C.I.	---	---	---
35-44	41	21	62
Rate*	5.1	2.8	4.0
95% C.I.	(3.5-6.6)	(1.6-4.0)	(3.0-5.0)
45-54	95	54	149
Rate*	14.6	8.5	11.6
95% C.I.	(11.7-17.6)	(6.2-10.8)	(9.7-13.5)
55-64	159	79	238
Rate*	34.9	17.1	26.0
95% C.I.	(29.5-40.4)	(13.4-20.9)	(22.7-29.3)
65-74	176	86	262
Rate*	55.5	26.4	40.8
95% C.I.	(47.3-63.7)	(20.9-32.0)	(35.9-45.7)
75-84	85	57	142
Rate*	53.6	29.6	40.4
95% C.I.	(42.2-65.0)	(21.9-37.2)	(33.8-47.1)
85+	11	8	19
Rate*	44.5	---	24.9
95% C.I.	(18.2-70.7)	---	(13.7-36.1)
Unknown	0	0	0
Total	586	319	905
Rate*	11.8	6.7	9.3
95% C.I.	(10.9-12.8)	(5.9-7.4)	(8.7-9.9)

\* Rates are per 100,000 age-specific population.

Note: The "----" is used for rates calculated on numbers less than ten. Caution should be used when comparing inpatient hospital discharge data to other data sources, since it is occurrence-based data. Please see Technical Notes for more information.

**Table 182. Kidney and Renal Pelvis Cancer Inpatient Discharges by County/Region of Residence, Nevada Residents, 1997-2001**

County of Residence	1997-2001 Inpatient Hospital Discharges				
	Number	Rate*		Age-Adjusted Rate**	
		Rate	95% C.I.	Rate	95% C.I.
Carson City	25	10.0	(6.1-14.0)	8.7	(5.6-13.1)
Churchill	9	---	---	---	---
Clark	611	9.2	(8.4-9.9)	9.8	(9.0-10.6)
Douglas	18	8.8	(4.7-12.8)	7.1	(4.2-12.0)
Elko	11	4.8	(1.9-7.6)	7.2	(3.5-14.5)
Esmeralda	1	---	---	---	---
Eureka	6	---	---	---	---
Humboldt	5	---	---	---	---
Lander	5	---	---	---	---
Lincoln	2	---	---	---	---
Lyon	37	21.8	(14.7-28.8)	19.4	(13.6-27.3)
Mineral	1	---	---	---	---
Nye	23	14.6	(8.7-20.6)	10.8	(6.7-17.6)
Pershing	3	---	---	---	---
Storey	2	---	---	---	---
Washoe	144	8.6	(7.2-10.0)	9.2	(7.7-10.9)
White Pine	2	---	---	---	---
Unknown	0	---	---	---	---
<b>Total</b>	<b>905</b>	<b>9.3</b>	<b>(8.7-9.9)</b>	<b>9.7</b>	<b>(9.1-10.4)</b>

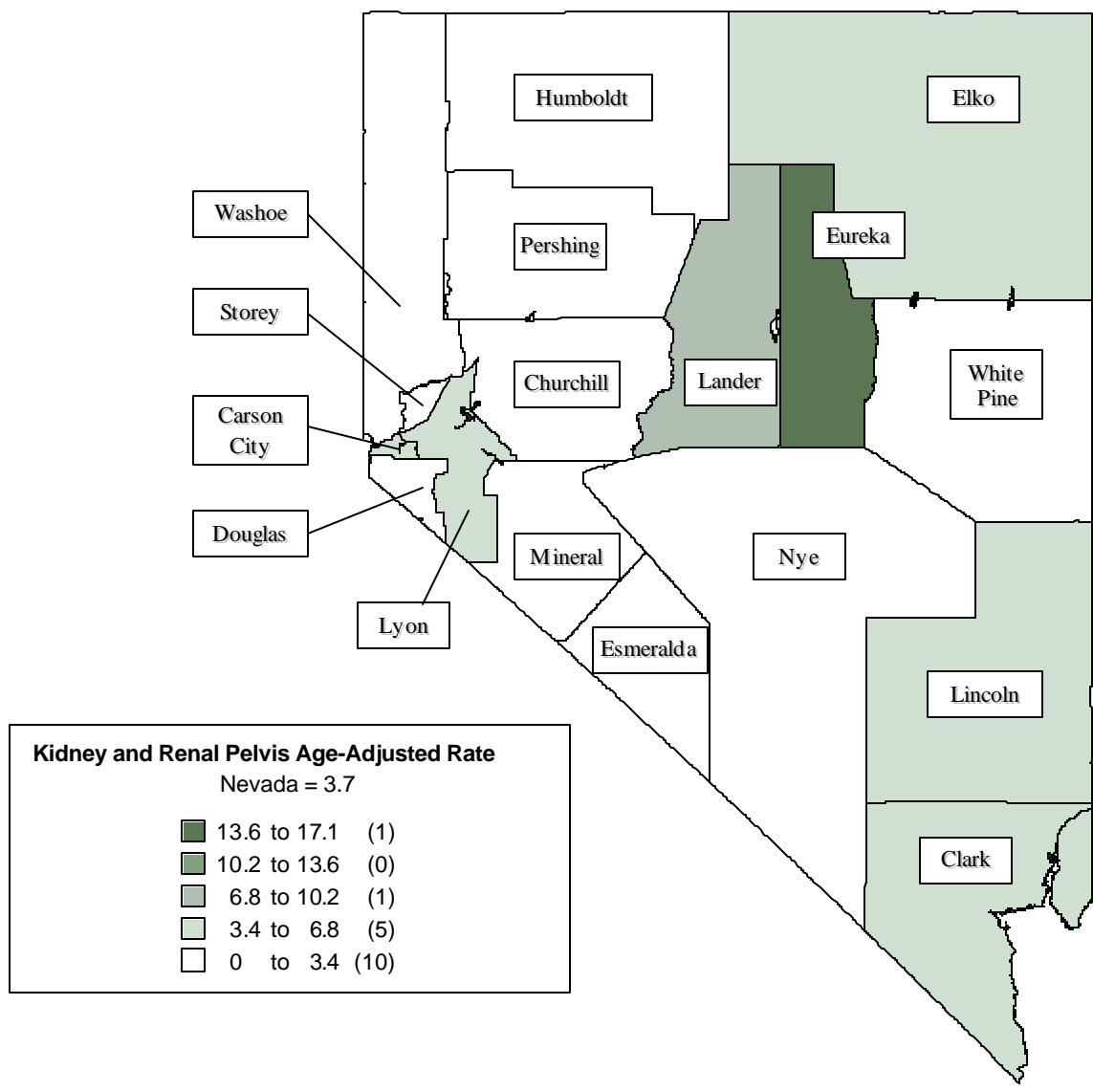
Note: The "----" is used for rates calculated on numbers less than ten. \*Rates are per 100,000 population. \*\*Rates are per 100,000 population and are age-adjusted to the 2001 US Standard population.

**Table 183. Kidney and Renal Pelvis Cancer Inpatient Discharges by Age Group, Charges and Length of Stay, Nevada Residents, 1997-2001**

Age Group	Discharges	Charges (\$)			Length of Stay (Days)		
		Total	Average	Median	Total	Average	Median
<1	2	---	---	---	---	---	---
1-4	12	399,892	33,324	38,481	90	7.5	7.0
5-14	10	986,495	98,650	39,568	160	16.0	6.5
15-24	1	---	---	---	---	---	---
25-34	8	151,123	18,890	19,239	36	4.5	4.0
35-44	62	1,721,379	27,764	21,189	336	5.4	4.0
45-54	149	3,816,522	25,614	21,446	812	5.4	4.0
55-64	238	7,000,087	29,412	22,866	1,549	6.5	5.0
65-74	262	7,082,511	27,032	22,145	1,512	5.8	5.0
75-84	142	5,039,695	35,491	24,270	1,061	7.5	6.0
85+	19	519,233	27,328	20,081	131	6.9	6.0
Unknown	0	---	---	---	---	---	---
<b>Total</b>	<b>905</b>	<b>486,469</b>	<b>842</b>	<b>27,742</b>	<b>65</b>	<b>842.0</b>	<b>6.4</b>

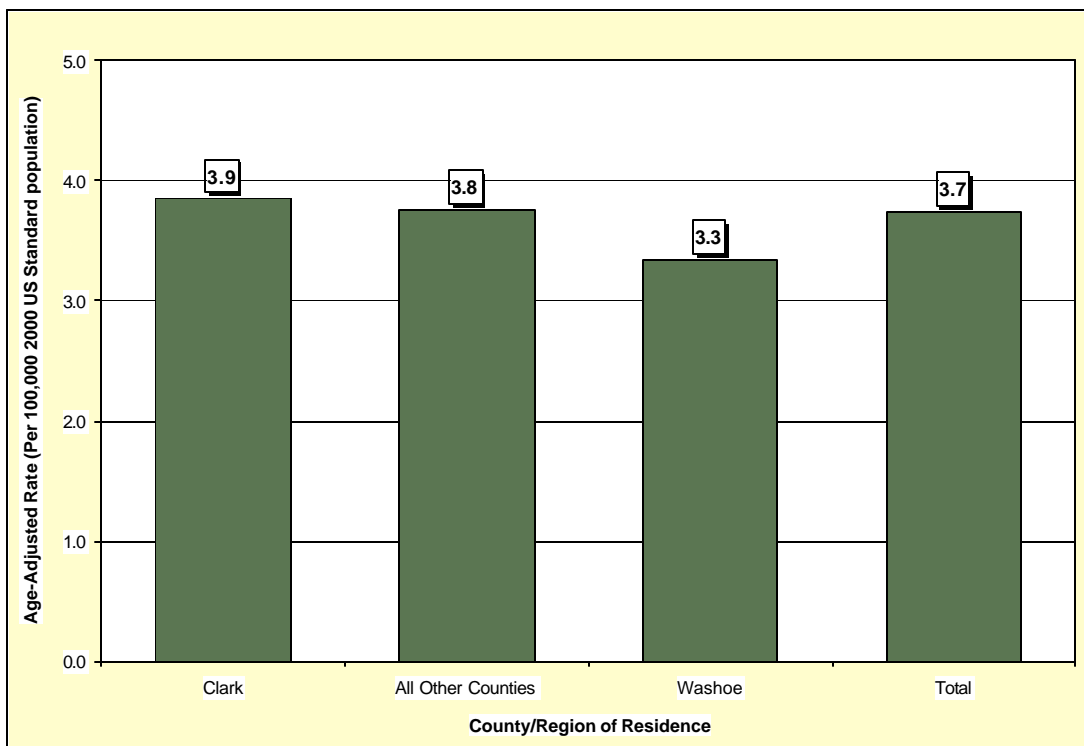
## MORTALITY

**Figure 122. Kidney and Renal Pelvis Cancer Age-Adjusted (2001) Mortality Rates, Nevada Residents, 1997-2001**

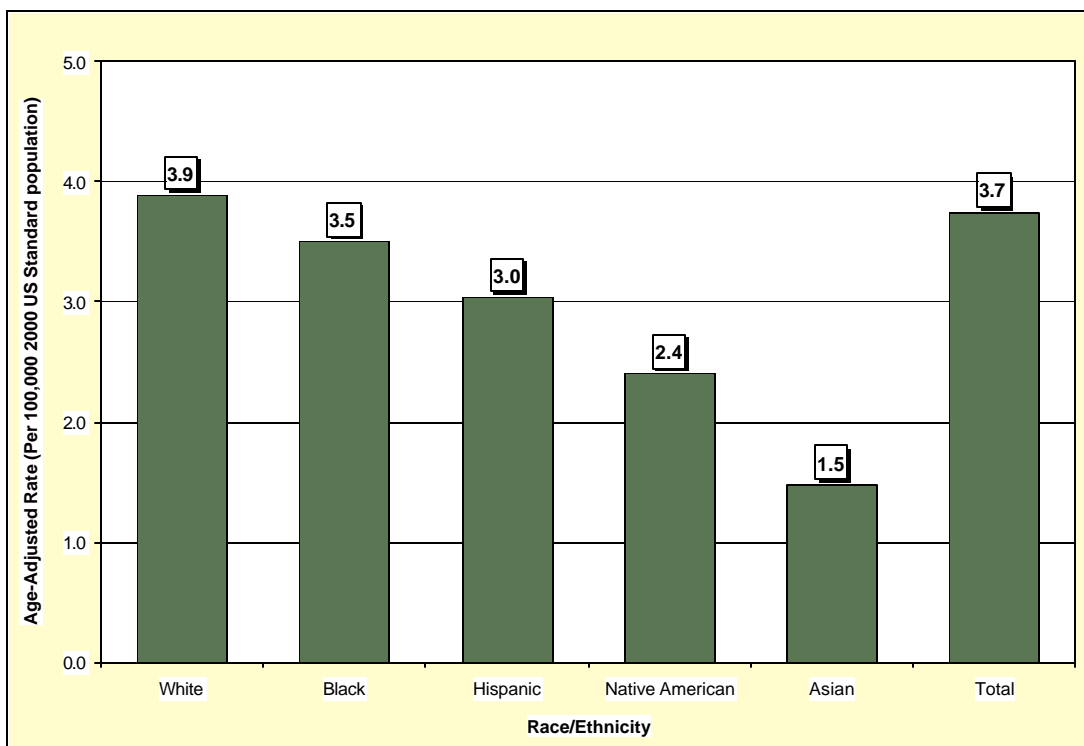


Note: Rates are per 100,000 population and age-adjusted to 2001 US Standard population. Caution should be used when interpreting rates based upon small numbers. See Technical notes for more information.

**Figure 123. Kidney and Renal Pelvis Cancer Age-Adjusted Mortality Rates by County/Region of Residence, Nevada Residents, 1997-2001**



**Figure 124. Kidney and Renal Pelvis Cancer Age-Adjusted Mortality Rates by Race/Ethnicity, Nevada Residents, 1997-2001**



**Table 184. Kidney and Renal Pelvis Cancer Mortality by Gender, Race/Ethnicity and County/Region of Residence, Nevada Residents, 1997-2001**

Category	County/Region of Residence			
	Nevada Total	Clark	Washoe	All Other Counties
<b>Total</b>				
Mortality	327	223	50	54
Rate*	3.7	3.9	3.3	3.8
95% C.I.	(3.3-4.2)	(3.4-4.4)	(2.5-4.5)	(2.8-5.0)
<b>Gender</b>				
Male	226	154	34	38
Rate*	5.5	5.7	4.9	5.4
95% C.I.	(4.7-6.3)	(4.7-6.8)	(3.3-7.2)	(3.7-7.7)
Female	101	69	16	16
Rate*	2.2	2.3	2.1	2.2
95% C.I.	(1.8-2.7)	(1.8-2.9)	(1.2-3.4)	(1.2-3.7)
Other/Unknown	0	0	0	0
<b>Race/Ethnicity</b>				
White	284	191	45	48
Rate*	3.9	4.1	3.5	3.7
95% C.I.	(3.4-4.4)	(3.5-4.7)	(2.5-4.7)	(2.7-5.0)
Black	13	12	1	0
Rate*	3.5	3.6	---	---
95% C.I.	(1.8-6.6)	(1.7-7.0)	---	---
Native American	2	0	2	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
Asian	7	6	1	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
Hispanic	19	13	1	5
Rate*	3.0	3.0	---	---
95% C.I.	(1.7-5.6)	(1.4-6.5)	---	---
Other/Unknown	2	1	0	1

\*Rates are per 100,000 population and are age-adjusted to the 2001 US Standard population.

Note: The "----" is used for rates calculated on numbers less than ten.

**Table 185. Kidney and Renal Pelvis Cancer Mortality by Age Group and County/Region of Residence, Nevada Residents, 1997-2001**

Category	County/Region of Residence			
	Nevada Total	Clark	Washoe	All Other Counties
<b>Total</b>				
<b>Mortality</b>	327	223	50	54
<b>Rate*</b>	3.4	3.3	3.0	3.9
<b>95% C.I.</b>	(3.0-3.7)	(2.9-3.8)	(2.2-3.8)	(2.8-4.9)
<b>Age Group</b>				
<1	0	0	0	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
1-4	0	0	0	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
5-14	1	0	1	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
15-24	0	0	0	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
25-34	0	0	0	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
35-44	7	6	0	1
Rate*	---	---	---	---
95% C.I.	---	---	---	---
45-54	25	17	5	3
Rate*	1.9	2.0	---	---
95% C.I.	(1.2-2.7)	(1.1-3.0)	---	---
55-64	80	55	10	15
Rate*	8.7	8.8	6.7	10.4
95% C.I.	(6.8-10.6)	(6.5-11.2)	(2.5-10.8)	(5.1-15.6)
65-74	105	66	20	19
Rate*	16.3	15.3	19.5	17.7
95% C.I.	(13.2-19.5)	(11.6-18.9)	(11.0-28.1)	(9.8-25.7)
75-84	87	65	12	10
Rate*	24.8	27.8	20.8	16.7
95% C.I.	(19.6-30.0)	(21.1-34.6)	(9.0-32.5)	(6.3-27.0)
85+	22	14	2	6
Rate*	28.9	30.0	---	---
95% C.I.	(16.8-40.9)	(14.3-45.7)	---	---
Unknown	0	0	0	0

\* Rates are per 100,000 age-specific population.

Note: The "----" is used for rates calculated on numbers less than ten.

**Table 186. Kidney and Renal Pelvis Cancer Mortality by County of Residence, Nevada Residents, 1997-2001**

County of Residence	1997-2001 Mortality				
	Cases	Rate*		Age-Adjusted Rate**	
		Rate	95% C.I.	Rate	95% C.I.
Carson City	16	6.4	(3.3-9.6)	5.8	(3.3-9.6)
Churchill	4	---	---	---	---
Clark	223	3.3	(2.9-3.8)	3.9	(3.4-4.4)
Douglas	9	---	---	---	---
Elko	5	---	---	---	---
Esmeralda	0	---	---	---	---
Eureka	1	---	---	---	---
Humboldt	1	---	---	---	---
Lander	2	---	---	---	---
Lincoln	1	---	---	---	---
Lyon	9	---	---	---	---
Mineral	0	---	---	---	---
Nye	4	---	---	---	---
Pershing	0	---	---	---	---
Storey	1	---	---	---	---
Washoe	50	3.0	(2.2-3.8)	3.3	(2.5-4.5)
White Pine	1	---	---	---	---
Unknown	0	---	---	---	---
<b>Total</b>	<b>327</b>	<b>3.4</b>	<b>(3.0-3.7)</b>	<b>3.7</b>	<b>(3.3-4.2)</b>

Note: The "----" is used for rates calculated on numbers less than ten. \*Rates are per 100,000 population. \*\*Rates are per 100,000 population and are age-adjusted to the 2001 US Standard population.

**Table 187. Kidney and Renal Pelvis Cancer Mortality by Race/Ethnicity and Gender, Nevada Residents, 1997-2001**

Race/Ethnicity		Gender		
		Male	Female	Total
White	Mortality	197	87	284
	Rate*	5.7	2.3	3.9
	95% C.I.	(4.9-6.7)	(1.8-2.8)	(3.4-4.4)
Black	Mortality	7	6	13
	Rate*	---	---	3.5
	95% C.I.	---	---	(1.8-6.6)
Native American	Mortality	0	2	2
	Rate*	---	---	---
	95% C.I.	---	---	---
Asian	Mortality	7	0	7
	Rate*	---	---	---
	95% C.I.	---	---	---
Hispanic	Mortality	14	5	19
	Rate*	4.3	---	3.0
	95% C.I.	(2.2-10.3)	---	(1.7-5.6)
Other/Unknown		1	1	2
Total	Mortality	226	101	327
	Rate*	5.5	2.2	3.7
	95% C.I.	(4.7-6.3)	(1.8-2.7)	(3.3-4.2)

Note: The "----" is used for rates calculated on numbers less than ten. \*Rates are per 100,000 population and are age-adjusted to the 2001 US Standard population.



**Table 188. Kidney and Renal Pelvis Cancer Mortality by Age Group and Gender, Nevada Residents, 1997-2001**

Age Group	Gender		
	Male	Female	Total
<1	0	0	0
Rate*	---	---	---
95% C.I.	---	---	---
1-4	0	0	0
Rate*	---	---	---
95% C.I.	---	---	---
5-14	0	1	1
Rate*	---	---	---
95% C.I.	---	---	---
15-24	0	0	0
Rate*	---	---	---
95% C.I.	---	---	---
25-34	0	0	0
Rate*	---	---	---
95% C.I.	---	---	---
35-44	6	1	7
Rate*	---	---	---
95% C.I.	---	---	---
45-54	19	6	25
Rate*	2.9	---	1.9
95% C.I.	(1.6-4.2)	---	(1.2-2.7)
55-64	63	17	80
Rate*	13.8	3.7	8.7
95% C.I.	(10.4-17.3)	(1.9-5.4)	(6.8-10.6)
65-74	72	33	105
Rate*	22.7	10.1	16.3
95% C.I.	(17.5-28.0)	(6.7-13.6)	(13.2-19.5)
75-84	55	32	87
Rate*	34.7	16.6	24.8
95% C.I.	(25.5-43.9)	(10.8-22.4)	(19.6-30.0)
85+	11	11	22
Rate*	44.5	21.4	28.9
95% C.I.	(18.2-70.7)	(8.7-34.0)	(16.8-40.9)
Unknown	0	0	0
Total	226	101	327
Rate*	4.6	2.1	3.4
95% C.I.	(4.0-5.2)	(1.7-2.5)	(3.0-3.7)

\* Rates are per 100,000 age-specific population.

Note: The "—" is used for rates calculated on numbers less than ten.

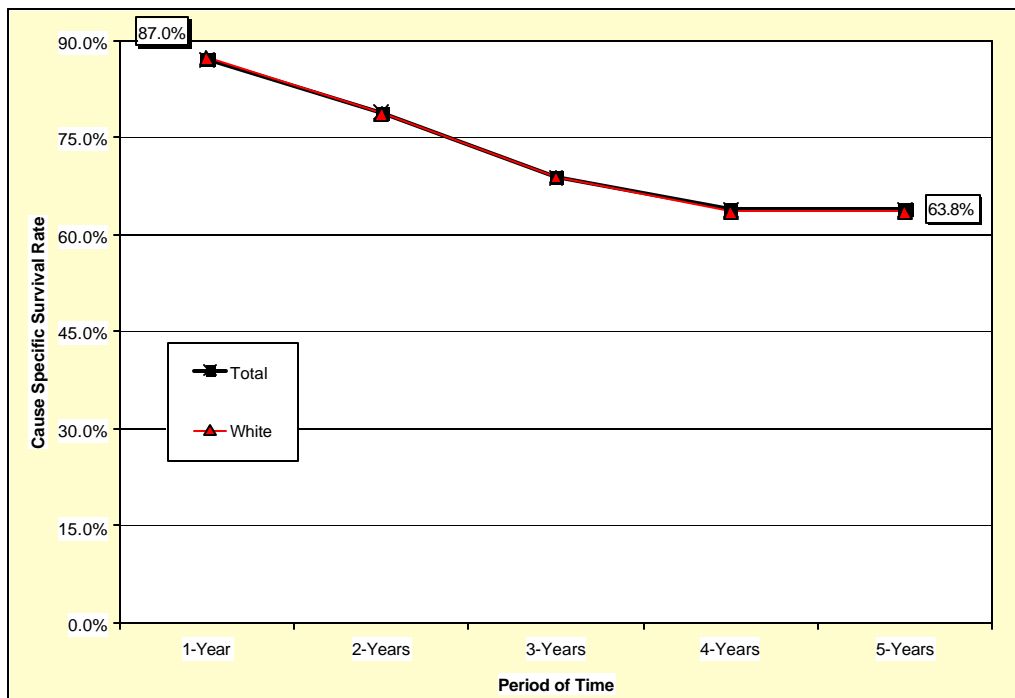
**Table 189. Median Age at Death from Kidney and Renal Pelvis Cancer by Race/Ethnicity and Gender, Nevada Residents, 1997-2001**

Race/Ethnicity	Gender					
	Male		Female		Total	
	Deaths	Median Age	Deaths	Median Age	Deaths	Median Age
White	197	69.0	87	73.0	284	71.0
Black	7	68.0	6	76.0	13	72.0
Native American	0	---	2	---	2	---
Asian	7	61.0	0	---	7	61.0
Hispanic	14	62.5	5	67.0	19	65.0
Other/Unknown	1	---	1	---	2	---
<b>Total</b>	<b>226</b>	<b>68.5</b>	<b>101</b>	<b>73.0</b>	<b>327</b>	<b>71.0</b>

Note: Those cases of other/unknown gender and/or unknown ages are not included in this table. The median age was not calculated for those numbers less than five.

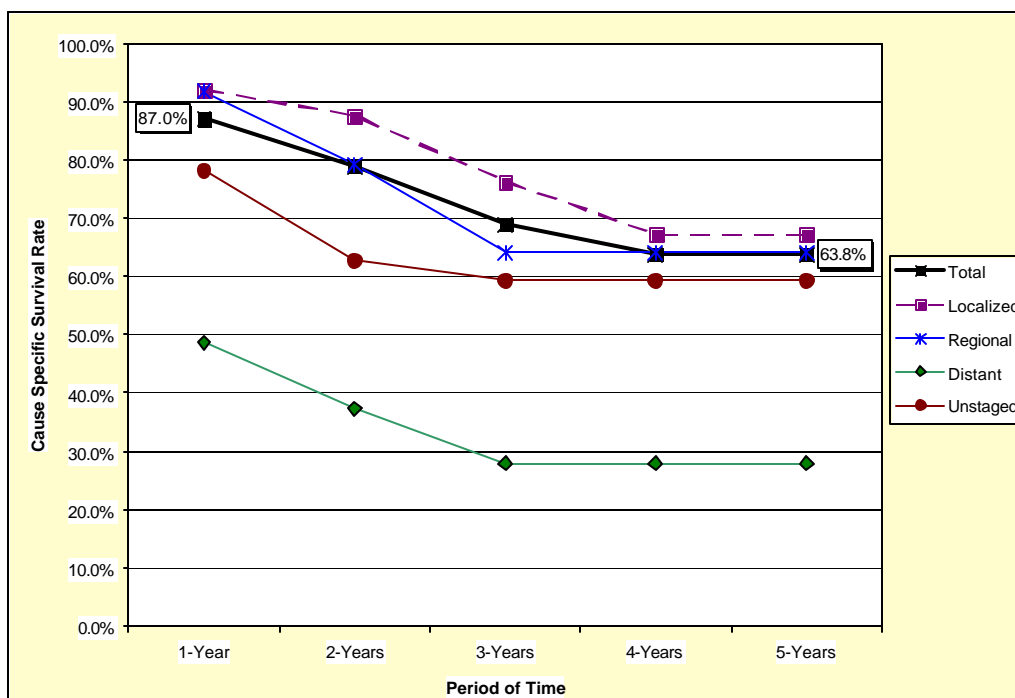
### SURVIVAL RATE

**Figure 125. Survival Rates for Kidney and Renal Pelvis Cancer by Race/Ethnicity, Nevada Residents, 1997-2001**



Notes: The survival rate for those racial/ethnic groups not included in this chart could not be calculated due to small cell size.

**Figure 126. Survival Rates for Kidney and Renal Pelvis Cancer by Stage of Cancer at Diagnosis, Nevada Residents, 1997-2001**



**Table 190. Cause-Specific Survival Rates for Kidney and Renal Pelvis Cancer by Race/Ethnicity and Gender, Nevada Residents, 1997-2001**

Race/ Ethnicity and Gender	Number of Cases	Cause Specific Survival Rate					Median Survival Time (years)
		One Year	Two Years	Three Years	Four Years	Five Years	
Total	816	71.9%	61.2%	56.3%	52.9%	52.9%	>5 years
Male	522	70.0%	57.7%	54.8%	49.5%	49.5%	3.91
Female	294	75.4%	67.3%	59.1%	59.1%	59.1%	>5 years
<b>Race/Ethnicity</b>							
White	706	71.0%	59.3%	53.8%	51.3%	51.3%	>5 years
Male	454	68.4%	54.9%	51.6%	47.9%	47.9%	3.44
Female	252	75.7%	67.3%	57.9%	57.9%	57.9%	>5 years
Black	46	---	---	---	---	---	---
Male	25	---	---	---	---	---	---
Female	21	---	---	---	---	---	---
Native American	7	---	---	---	---	---	---
Male	4	---	---	---	---	---	---
Female	3	---	---	---	---	---	---
Asian	13	---	---	---	---	---	---
Male	9	---	---	---	---	---	---
Female	4	---	---	---	---	---	---
Hispanic	38	---	---	---	---	---	---
Male	25	---	---	---	---	---	---
Female	13	---	---	---	---	---	---

Notes: 1) The “---” indicates that survival rate could not be calculated due to small cell size. Caution should be used when interpreting survival rates based upon categories with a small number of cases. 2) Those cases where the gender and/or race/ethnicity were other/unknown, are not shown separately, but are included in the category totals. 3) These rates may not be directly comparable to National rates because of different methodologies. Caution should be used when trying to compare rates for Nevada and the Nation. For more information on the calculation of survival rates, please refer to Technical Notes section.

**Table 191. Cause-Specific Survival Rates for Kidney and Renal Pelvis Cancer by Stage of Cancer at Diagnosis and Gender, Nevada Residents, 1997-2001**

Survival Rate of Stage at Diagnosis		Gender		
		Total	Male	Female
Total	Cases	816	522	294
	One Year	71.9%	70.0%	75.4%
	5 Years	52.9%	49.5%	59.1%
	Median Survival	>5 years	3.91	>5 years
<b>Stage at Diagnosis</b>				
In situ	Cases	0	0	0
	One Year	---	---	---
	5 Years	---	---	---
	Median Survival	---	---	---
Localized	Cases	445	276	169
	One Year	83.8%	81.8%	87.0%
	5 Years	65.1%	62.2%	70.8%
	Median Survival	>5 years	>5 years	>5 years
Regional	Cases	102	65	37
	One Year	78.4%	74.5%	---
	5 Years	61.0%	60.1%	---
	Median Survival	>5 years	>5 years	---
Distant	Cases	145	100	45
	One Year	40.9%	42.0%	---
	5 Years	---	---	---
	Median Survival	0.85	0.86	---
Unstaged	Cases	124	81	43
	One Year	64.7%	64.2%	---
	5 Years	44.1%	45.2%	---
	Median Survival	2.00	1.75	---

Notes: 1) The “---” indicates that survival rate could not be calculated due to small cell size. Caution should be used when interpreting survival rates based upon categories with a small number of cases. 2) These rates may not be directly comparable to National rates because of different methodologies. Caution should be used when trying to compare rates for Nevada and the Nation. For more information on the calculation of survival rates, please refer to Technical Notes section.