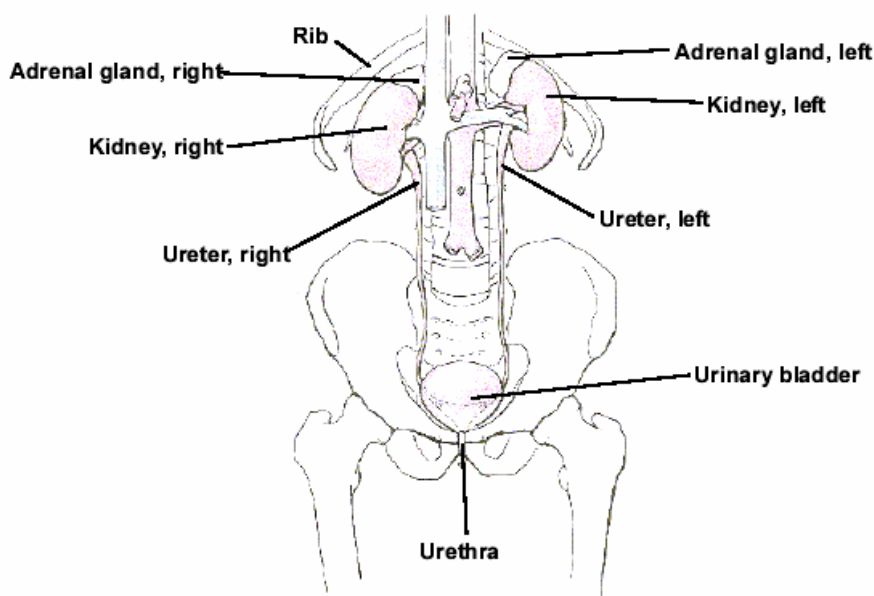


# **KIDNEY AND RENAL PELVIS CANCER**

## 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, 12.1, to the age-adjusted mortality rate, 3.9 (per 100,000 – 2000 US Standard population), for Kidney and Renal Pelvis Cancer was 3.10 during the 1999 to 2003 period, which means that for every 310 Kidney and Renal Pelvis Cancer cases during this period, there were 100 deaths 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 3.52 female cases while there were 2.92 male cases for every male Kidney and Renal Pelvis Cancer death in Nevada from 1999 to 2003.
- The median age at diagnosis of Kidney and Renal Pelvis Cancer for Nevada residents was 64 years of age from 1999 to 2003. For females and males both, the median age was 64 years. The median age at time of death due to Kidney and Renal Pelvis Cancer was 68 years for Nevada overall, 66 years of age for males and 72 years of age for females.

## **INCIDENCE**

- There were 1,227 cases of Kidney and Renal Pelvis Cancer in Nevada from 1999 to 2003. Nevada's Incidence rate for Kidney and Renal Pelvis Cancer (12.1) was only slightly higher than the national rate of 11.6 (per 100,000 – 2000 US Standard population). Regional comparisons showed little variation between Washoe County (13.3), Clark County (12.1) and All Other Counties (10.7) from 1999 to 2003.
- The higher age-adjusted incidence rate for male Kidney and Renal Pelvis Cancer, 16.3 (15.1-17.5), was statistically significant over the female rate of 8.4 (7.6-9.2), per 100,000 – 2000 US Standard population, during the 1999 to 2003 period.
- Blacks had the highest age-adjusted incidence rate, 14.0, for Kidney and Renal Pelvis Cancer of all racial/ethnic groups and were followed by Whites, Hispanics, Asians and Native Americans with rates of 12.6, 10.6, 4.4 and 2.4 (per 100,000 – 2000 US Standard population), respectively, during the 1999 to 2003 period.
- The median age at diagnosis for Asians (57 years) was the lowest of any specific racial/ethnic group and was considerably lower than the statewide median age of 64 years for the 1999 to 2003 period.

## **INPATIENT HOSPITAL DISCHARGES**

- There were 985 hospital inpatient discharges for a primary diagnosis of Kidney and Renal Pelvis Cancer to Nevada residents from 1999 to 2003. Regional comparisons showed little difference between the age-adjusted inpatient discharge rates between Clark

County (9.9), Washoe County (9.2) and All Other Counties 9.0 (per 100,000 – 2000 US Standard population).

- Total billed charges for Kidney and Renal Pelvis Cancer inpatient hospital discharges in Nevada totaled over 34 million dollars from 1999 to 2003. The overall average billed charge per day for a hospital inpatient discharge due to this type of cancer was \$5,818 in Nevada from 1999 to 2003.
- Washoe County had the highest median total billed amount (\$32,433), while the statewide median billed amount was \$25,312 from 1999 to 2003; with Clark County and All Other Counties with median billed amounts of \$24,823 and \$20,327, respectively.

### **MORTALITY**

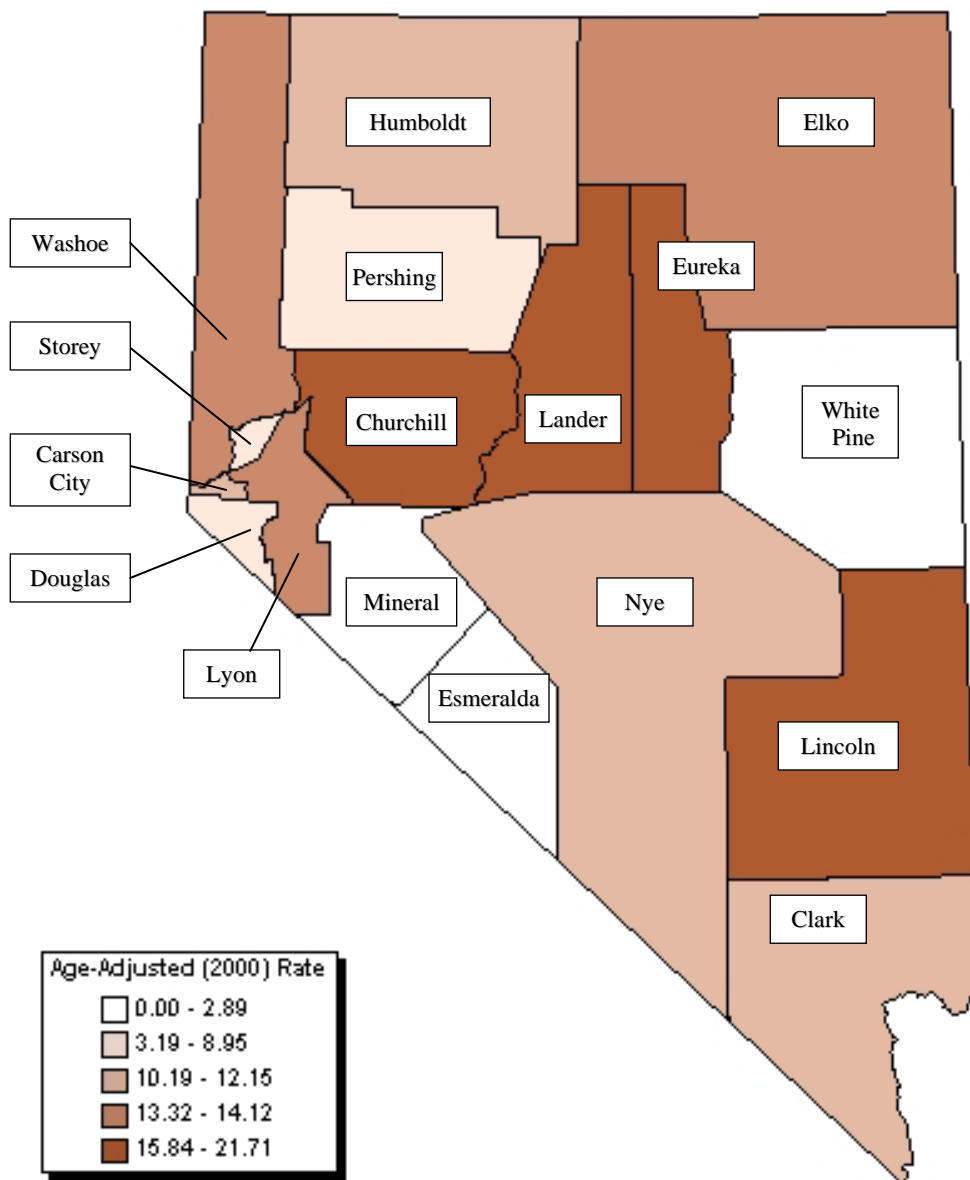
- There were 377 resident deaths due to Kidney and Renal Pelvis Cancer from 1999 to 2003. Males had a statistically significant age-adjusted mortality rate, 5.6 (4.9-6.4), more than double the female rate of 2.4 (2.0-2.9), per 100,000 – 2000 US Standard population, during this period.
- Blacks, as a racial/ethnic group, had the highest age-adjusted mortality rate for Kidney and Renal Pelvis Cancer of any racial/ethnic group, 4.1, and were followed by Whites and Hispanics with rates of 4.0 and 2.8, (per 100,000 – 2000 US Standard population) respectively, from 1999 to 2003.
- Males had a median age at death from Kidney and Renal Pelvis Cancer six years earlier than females in Nevada from 1999 to 2003 with a median age at death of 66 and 72 years, respectively.

### **SURVIVAL RATE**

- The one-year survival rate for Kidney and Renal Pelvis Cancer in Nevada was 76.5% during the 1999 to 2003 period, while the five-year survival rate was 62.5% during this same time. The median survival rate in Nevada was greater than five years for Kidney and Renal Pelvis Cancer for this period.
- Females in Nevada had a slightly higher one-year survival rate (78.7 %) than males (75.3%) for Kidney and Renal Pelvis Cancer during the 1999 to 2003 period and this difference remained approximately the same for the five-year survival rate with females and males at 64.1% and 61.5%, respectively.
- 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 97.7% and 90.6%, respectively. This was followed by those with regional and then distant diagnoses with rates of 77.4% and 30.4% for the one year period and 56.1% and 10.5% for the five year period.

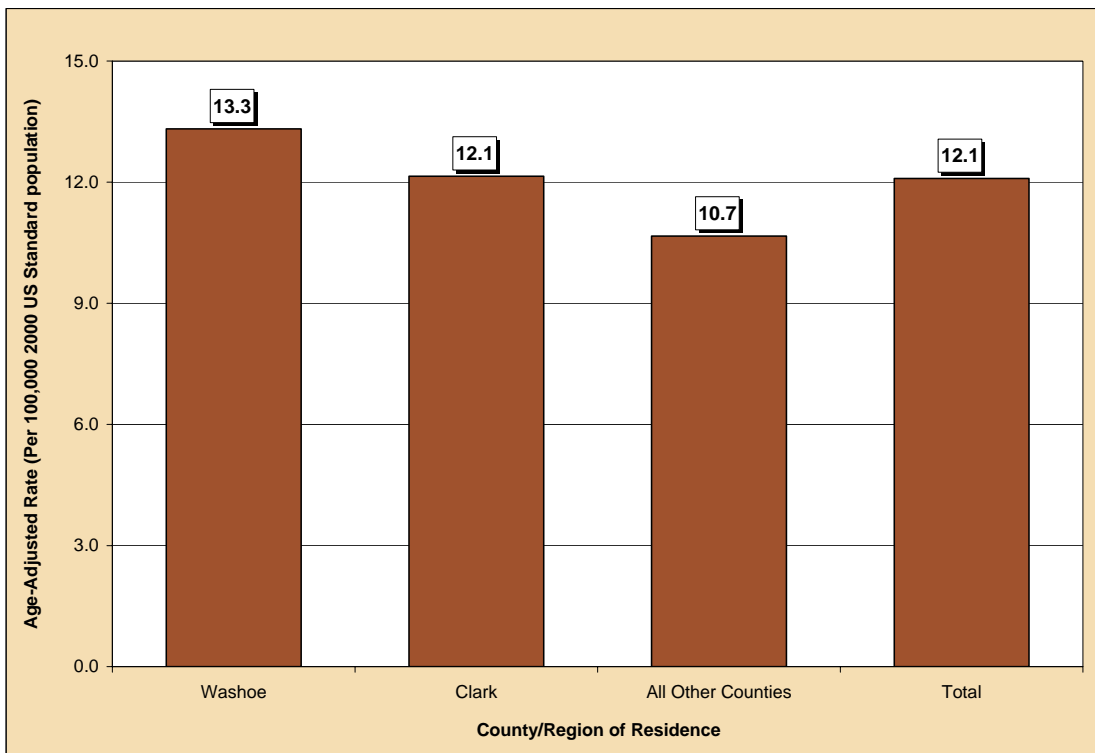
## INCIDENCE

**Figure 115. Kidney and Renal Pelvis Cancer Age-Adjusted (2000) Incidence Rates, Nevada Residents, 1999-2003**

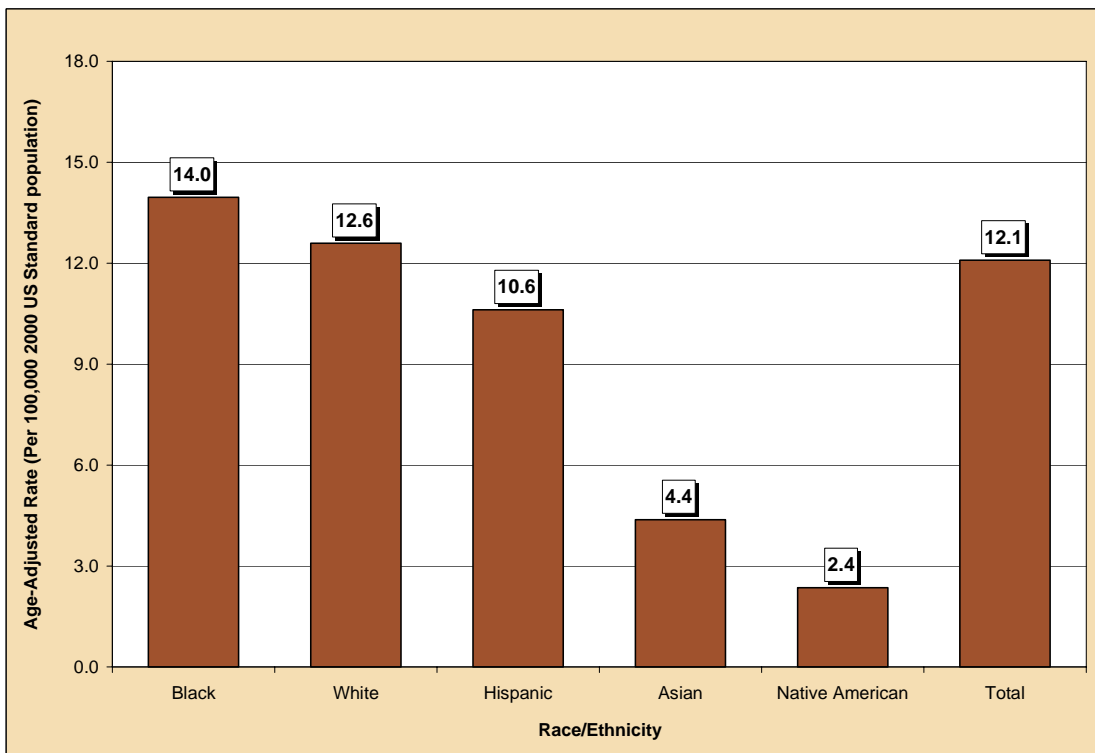


Note: Rates are per 100,000 population and age-adjusted to 2000 US Standard population. Caution should be used when interpreting rates based upon small numbers. See Technical Notes for more information.

**Figure 116. Kidney and Renal Pelvis Cancer Age-Adjusted Incidence Rates by County/Region of Residence, Nevada Residents, 1999-2003**



**Figure 117. Kidney and Renal Pelvis Cancer Age-Adjusted Incidence Rates by Race/Ethnicity, Nevada Residents, 1999-2003**



**Table 171. Kidney and Renal Pelvis Cancer Cases by Gender, Race/Ethnicity and County/Region of Residence at Diagnosis, Nevada Residents (1999-2003) and SEER-13 (1998-2002)**

Category	County/Region of Residence					SEER 13 (1998-2002)
	Nevada Total	Clark	Washoe	All Other Counties	Unknown	
<b>Total</b>						
Cases	1,227	841	218	168	0	20,619
Rate*	12.1	12.1	12.1	12.1	---	11.6
95% C.I.	(11.4-12.8)	(11.4-12.8)	(11.4-12.8)	(11.4-12.8)	---	(11.5-11.8)
<b>Gender</b>						
Male	791	791	791	791	0	12,130
Rate*	16.3	16.3	16.3	16.3	---	15.7
95% C.I.	(15.1-17.5)	(15.1-17.5)	(15.1-17.5)	(15.1-17.5)	---	(15.4-16.0)
Female	436	436	436	436	0	7,507
Rate*	8.4	8.4	8.4	8.4	---	7.8
95% C.I.	(7.6-9.2)	(7.6-9.2)	(7.6-9.2)	(7.6-9.2)	---	(7.7-8.0)
Other/Unknown	0	0	0	0	0	0
<b>Race/Ethnicity</b>						
White	1,020	672	198	150	0	16,311
Rate*	12.6	12.6	12.6	12.6	---	11.7
95% C.I.	(11.8-13.4)	(11.8-13.4)	(11.8-13.4)	(11.8-13.4)	---	(11.5-11.9)
Black	77	72	4	1	0	2,019
Rate*	14.0	14.0	---	---	---	13.3
95% C.I.	(10.9-18.0)	(10.9-18.0)	---	---	---	(12.7-13.9)
Native American	3	1	1	1	0	165
Rate*	---	---	---	---	---	10.0
95% C.I.	---	---	---	---	---	(8.5-8.5)
Asian	25	21	2	2	0	1,132
Rate*	4.4	4.4	---	---	---	6.4
95% C.I.	(2.8-6.8)	(2.8-6.8)	---	---	---	(6.0-6.8)
Hispanic	86	66	11	9	0	2,019
Rate*	10.6	10.6	10.6	---	---	11.0
95% C.I.	(8.1-14.0)	(8.1-14.0)	(8.1-14.0)	---	---	(10.5-11.5)
Other/Unknown	16	9	2	5	0	66

\* Rates are per 100,000 population and are age-adjusted to the 2000 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 (1999-2003) and SEER-13 (1998-2002)**

Category	County/Region of Residence					SEER 13 (1998-2002)
	Nevada Total	Clark	Washoe	All Other Counties	Unknown	
<b>Total</b>						
<b>Cases</b>	1,227	841	218	168	0	20,619
<b>Rate*</b>	12.1	12.1	13.3	10.7	---	11.6
<b>95% C.I.</b>	(11.4-12.8)	(11.3-13.0)	(11.6-15.3)	(9.1-12.5)	---	(11.5-11.8)
<b>Age Group</b>						
<1	0	0	0	0	0	48
Rate*	---	---	---	---	---	1.7
95% C.I.	---	---	---	---	---	(1.3-2.3)
1-4	11	8	3	0	0	212
Rate*	1.8	---	---	---	---	1.9
95% C.I.	(0.74-2.88)	---	---	---	---	(1.7-2.2)
5-14	8	4	3	1	0	95
Rate*	---	---	---	---	---	0.3
95% C.I.	---	---	---	---	---	(0.3-0.4)
15-24	1	1	0	0	0	52
Rate*	---	---	---	---	---	0.2
95% C.I.	---	---	---	---	---	(0.1-0.3)
25-34	12	10	1	1	0	255
Rate*	0.8	0.9	---	---	---	0.9
95% C.I.	(0.33-1.20)	(0.33-1.41)	---	---	---	(0.8-1.0)
35-44	74	43	19	12	0	1,301
Rate*	4.5	3.7	6.7	5.4	---	4.1
95% C.I.	(3.45-5.49)	(2.62-4.86)	(3.68-9.70)	(2.35-8.48)	---	(3.9-4.4)
45-54	198	135	34	29	0	3,264
Rate*	13.9	14.2	13.4	13.4	---	12.6
95% C.I.	(11.99-15.87)	(11.79-16.57)	(8.92-17.95)	(8.55-18.34)	---	(12.2-13.1)
55-64	333	236	53	44	0	4,700
Rate*	32.4	33.5	32.2	27.7	---	29.8
95% C.I.	(28.90-35.85)	(29.19-37.73)	(23.56-40.92)	(19.52-35.90)	---	(29.0-30.7)
65-74	334	236	57	41	0	5,333
Rate*	48.6	50.1	54.6	36.6	---	48.1
95% C.I.	(43.35-53.77)	(43.69-56.47)	(40.41-68.75)	(25.36-47.74)	---	(46.9-49.4)
75-84	218	143	43	32	0	4,178
Rate*	55.6	53.9	69.9	49.0	---	54.7
95% C.I.	(48.20-62.96)	(45.05-62.71)	(49.03-90.83)	(32.00-65.92)	---	(53.1-56.4)
85+	38	25	5	8	0	1,181
Rate*	43.2	45.0	---	---	---	44.1
95% C.I.	(29.46-56.92)	(27.33-62.57)	---	---	---	(41.6-46.7)
Unknown	0	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 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, 1999-2003**

County of Residence at Diagnosis	1999-2003 Incidence				
	Cases	Rate*		Age-Adjusted Rate**	
		Rate	95% C.I.	Rate	95% C.I.
Carson City	31	12.3	(7.94-16.56)	10.2	(6.9-14.6)
Churchill	20	16.3	(9.14-23.41)	16.2	(9.8-25.6)
Clark	841	11.5	(10.70-12.25)	12.1	(11.3-13.0)
Douglas	25	11.7	(7.09-16.24)	8.9	(5.8-13.4)
Elko	19	8.3	(4.59-12.10)	13.4	(7.5-23.1)
Esmeralda	0	---	---	---	---
Eureka	1	---	---	---	---
Humboldt	8	---	---	---	---
Lander	4	---	---	---	---
Lincoln	3	---	---	---	---
Lyon	30	16.2	(10.39-21.97)	14.1	(9.5-20.5)
Mineral	1	---	---	---	---
Nye	24	14.2	(8.49-19.83)	10.7	(6.6-17.1)
Pershing	1	---	---	---	---
Storey	1	---	---	---	---
Washoe	218	12.5	(10.82-14.13)	13.3	(11.6-15.3)
White Pine	0	---	---	---	---
Unknown	0	---	---	---	---
<b>Total</b>	<b>1,227</b>	<b>11.7</b>	<b>(11.03-12.34)</b>	<b>12.1</b>	<b>(11.4-12.8)</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 2000 US Standard population.

**Table 174. Kidney and Renal Pelvis Cancer Cases by Race/Ethnicity and Gender, Nevada Residents, 1999-2003**

Race/Ethnicity	Gender				
	Male	Female	Other/Unknown	Total	
White	Incidence	661	359	0	1,020
	Rate*	16.8	8.7	---	12.6
	95% C.I.	(15.5-18.2)	(7.9-9.7)	---	(11.8-13.4)
Black	Incidence	49	28	0	77
	Rate*	18.2	10.0	---	14.0
	95% C.I.	(13.3-24.6)	(6.5-15.0)	---	(10.9-18.0)
Native American	Incidence	2	1	0	3
	Rate*	---	---	---	---
	95% C.I.	---	---	---	---
Asian	Incidence	16	9	0	25
	Rate*	6.8	---	---	4.4
	95% C.I.	(3.8-11.8)	---	---	(2.8-6.8)
Hispanic	Incidence	53	33	0	86
	Rate*	16.3	6.6	---	10.6
	95% C.I.	(11.1-24.4)	(4.3-9.8)	---	(8.1-14.0)
Other/Unknown	10	6	0	16	
Total	Incidence	791	436	0	1,227
	Rate*	16.3	8.4	---	12.1
	95% C.I.	(15.1-17.5)	(7.6-9.2)	---	(11.4-12.8)

Note: The "---" is used for rates calculated on numbers less than ten. \*Rates are per 100,000 population and are age-adjusted to the 2000 US Standard population.

**Table 175. Kidney and Renal Pelvis Cancer Cases by Age Group and Gender, Nevada Residents, 1999-2003**

Age Group	Gender			
	Male	Female	Unknown	Total
<1	0	0	0	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
1-4	7	4	0	11
Rate*	---	---	---	1.81
95% C.I.	---	---	---	(0.74-2.88)
5-14	4	4	0	8
Rate*	---	---	---	---
95% C.I.	---	---	---	---
15-24	0	1	0	1
Rate*	---	---	---	---
95% C.I.	---	---	---	---
25-34	7	5	0	12
Rate*	---	---	---	0.77
95% C.I.	---	---	---	(0.33-1.20)
35-44	41	33	0	74
Rate*	4.78	4.14	---	4.47
95% C.I.	(3.31-6.24)	(2.73-5.56)	---	(3.45-5.49)
45-54	126	72	0	198
Rate*	17.50	10.27	---	13.93
95% C.I.	(14.44-20.55)	(7.90-12.65)	---	(11.99-15.87)
55-64	233	100	0	333
Rate*	45.86	19.21	---	32.38
95% C.I.	(39.97-51.75)	(15.45-22.98)	---	(28.90-35.85)
65-74	217	117	0	334
Rate*	63.94	33.57	---	48.56
95% C.I.	(55.44-72.45)	(27.49-39.66)	---	(43.35-53.77)
75-84	133	85	0	218
Rate*	75.03	39.54	---	55.58
95% C.I.	(62.28-87.78)	(31.13-47.94)	---	(48.20-62.96)
85+	23	15	0	38
Rate*	79.08	25.47	---	43.19
95% C.I.	(46.76-111.40)	(12.58-38.36)	---	(29.46-56.92)
Unknown	0	0	0	0
Total	791	436	0	1,227
Rate*	14.83	8.44	---	11.69
95% C.I.	(13.79-15.86)	(7.65-9.24)	---	(11.03-12.34)

\* 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, 1999-2003**

Age Group		Stage					Total
		In situ	Localized	Regional	Distant	Unstaged	
<1	Number	---	0	0	0	0	0
	Percent	---	---	---	---	---	---
1-4	Number	---	5	1	3	2	11
	Percent	---	45.5%	9.1%	27.3%	18.2%	100.0%
5-14	Number	---	2	2	1	3	8
	Percent	---	25.0%	25.0%	12.5%	37.5%	100.0%
15-24	Number	---	1	0	0	0	1
	Percent	---	100.0%	---	---	---	100.0%
25-34	Number	---	10	0	2	0	12
	Percent	---	83.3%	---	16.7%	---	100.0%
35-44	Number	---	53	6	8	7	74
	Percent	---	71.6%	8.1%	10.8%	9.5%	100.0%
45-54	Number	---	122	31	21	24	198
	Percent	---	61.6%	15.7%	10.6%	12.1%	100.0%
55-64	Number	---	177	45	67	44	333
	Percent	---	53.2%	13.5%	20.1%	13.2%	100.0%
65-74	Number	---	180	50	59	45	334
	Percent	---	53.9%	15.0%	17.7%	13.5%	100.0%
75-84	Number	---	101	32	37	48	218
	Percent	---	46.3%	14.7%	17.0%	22.0%	100.0%
85+	Number	---	8	4	10	16	38
	Percent	---	21.1%	10.5%	26.3%	42.1%	100.0%
Unknown	Number	---	0	0	0	0	0
	Percent	---	---	---	---	---	---
Total	Number	---	659	171	208	189	1,227
	Percent	---	53.7%	13.9%	17.0%	15.4%	100.0%

**Table 177. Kidney and Renal Pelvis Cancer Cases by Stage and Race/Ethnicity, Nevada Residents, 1999-2003**

Stage		Race/Ethnicity						Total
		White	Black	Native American	Asian	Hispanic	Other/Unknown	
In situ	Number	---	---	---	---	---	---	---
	Percent	---	---	---	---	---	---	---
Localized	Number	540	51	1	10	50	7	659
	Percent	52.9%	66.2%	33.3%	40.0%	58.1%	43.8%	53.7%
Regional	Number	152	4	0	9	6	0	171
	Percent	14.9%	5.2%	---	36.0%	7.0%	---	13.9%
Distant	Number	181	7	0	3	16	1	208
	Percent	17.7%	9.1%	---	12.0%	18.6%	6.3%	17.0%
Unstaged	Number	147	15	2	3	14	8	189
	Percent	14.4%	19.5%	66.7%	12.0%	16.3%	50.0%	15.4%
Total	Number	1,020	77	3	25	86	16	1,227
	Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

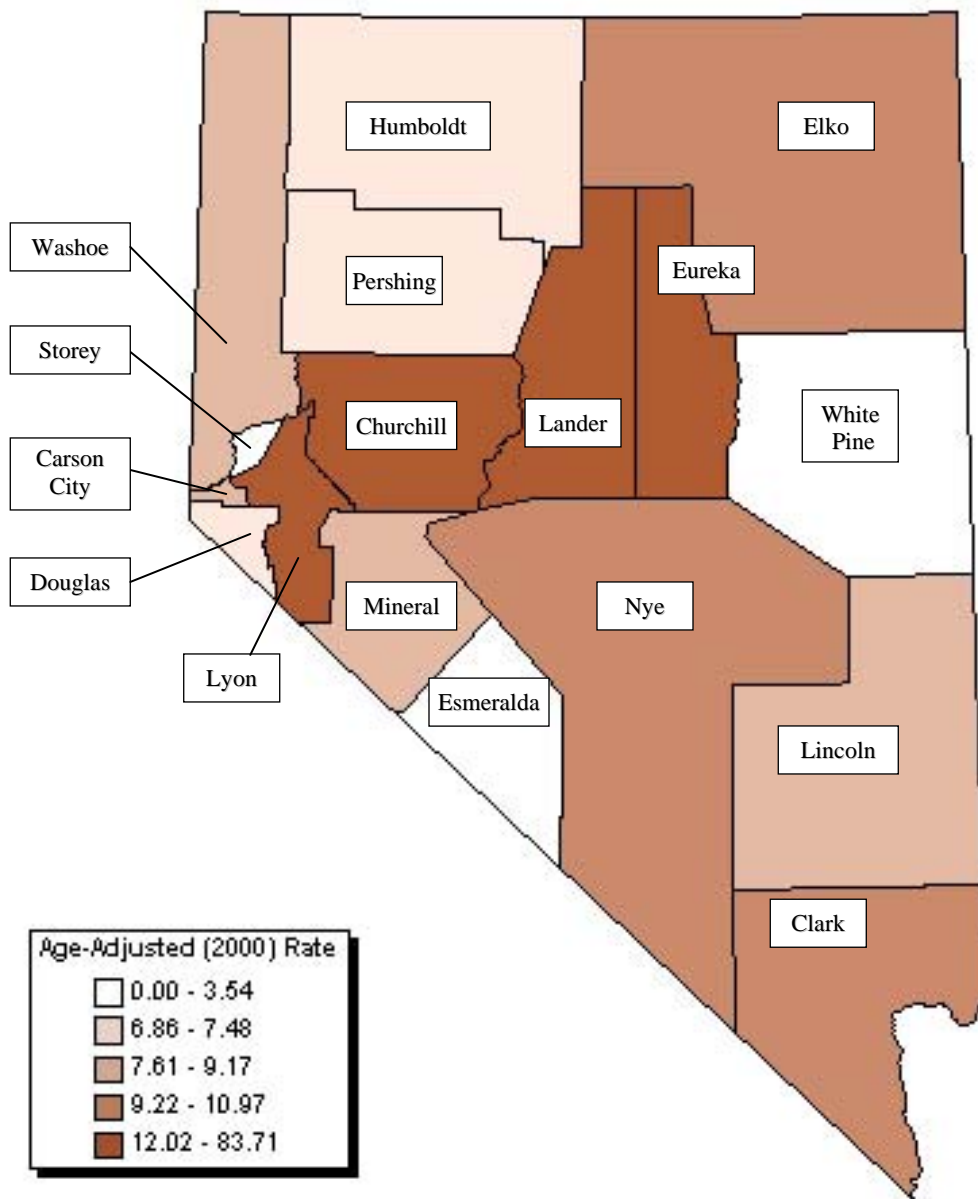
**Table 178. Median Age at Diagnosis of Kidney and Renal Pelvis Cancer by Race/Ethnicity and Gender, Nevada Residents, 1999-2003**

Race/Ethnicity	Gender					
	Male		Female		Total	
	Cases	Median Age	Cases	Median Age	Cases	Median Age
White	661	64.0	359	66.0	1,020	64.0
Black	49	60.0	28	64.5	77	61.0
Native American	2	---	1	---	3	---
Asian	16	58.5	9	47.0	25	57.0
Hispanic	53	62.0	33	52.0	86	59.0
Other/Unknown	10	68.0	6	63.5	16	65.5
Total	791	64.0	436	64.0	1,227	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.

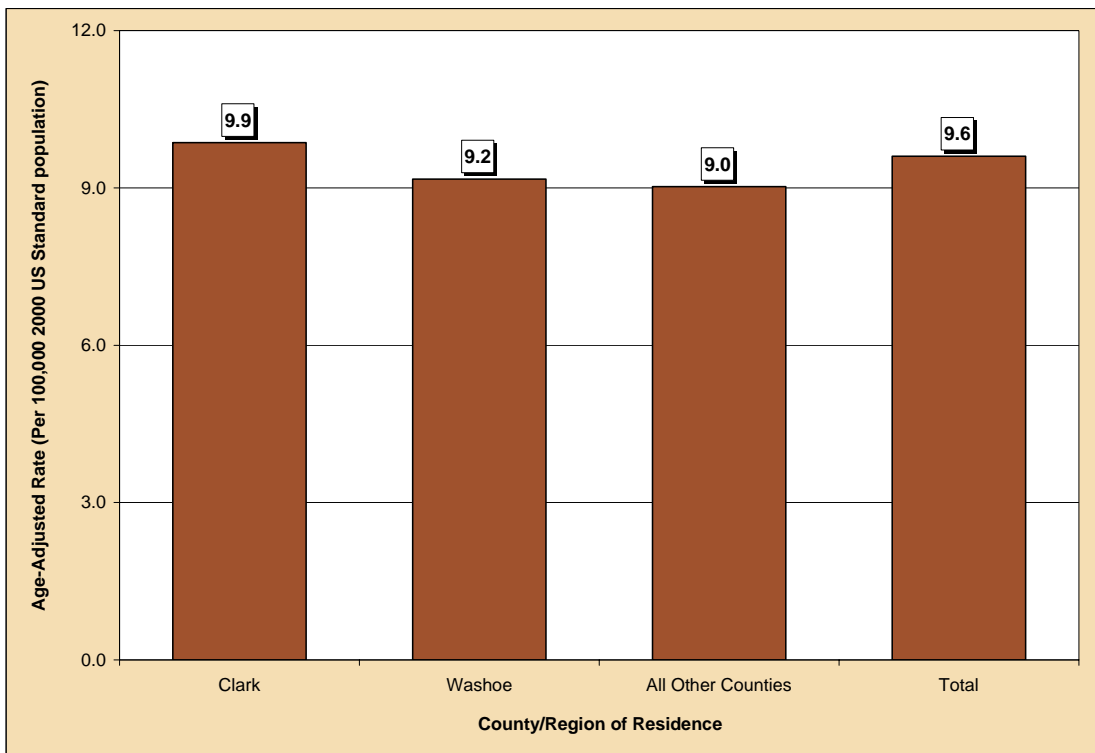
## INPATIENT HOSPITAL DISCHARGES

**Figure 118. Kidney and Renal Pelvis Cancer Age-Adjusted (2000) Inpatient Discharge Rates, Nevada Residents, 1999-2003**

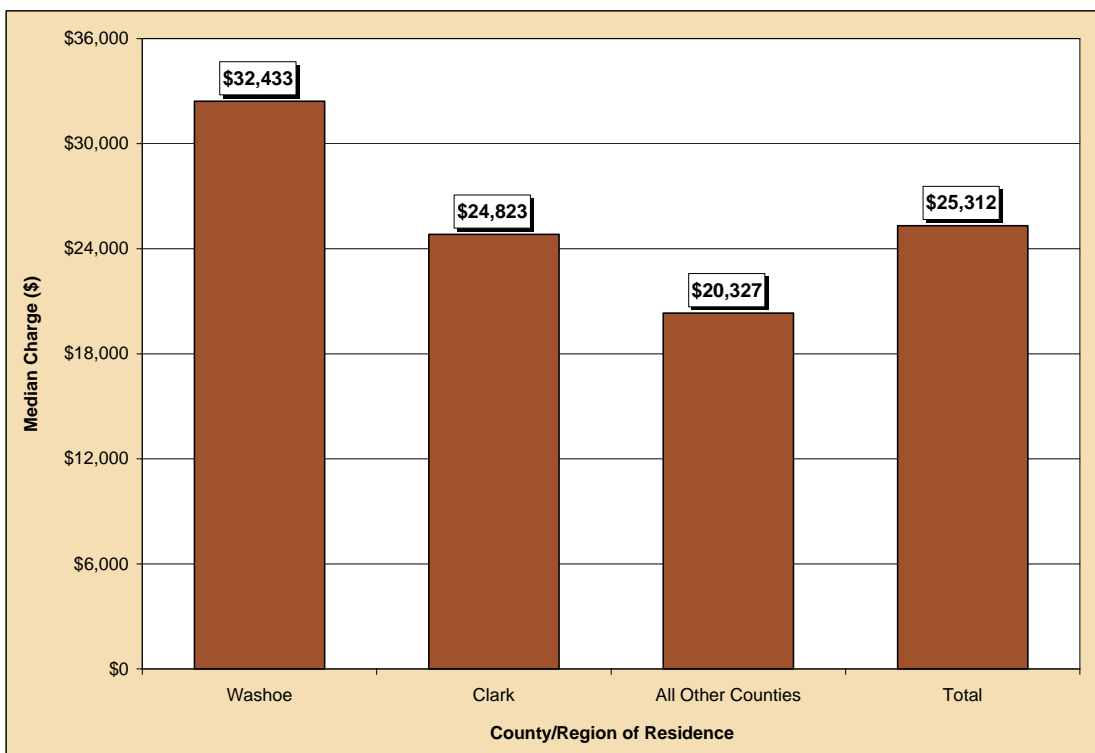


Note: Rates are per 100,000 population and age-adjusted to 2000 US Standard population. Caution should be used when interpreting rates based upon small numbers and comparing inpatient hospital discharge rates to other data sources, because it is occurrence based data. See Technical Notes for more information.

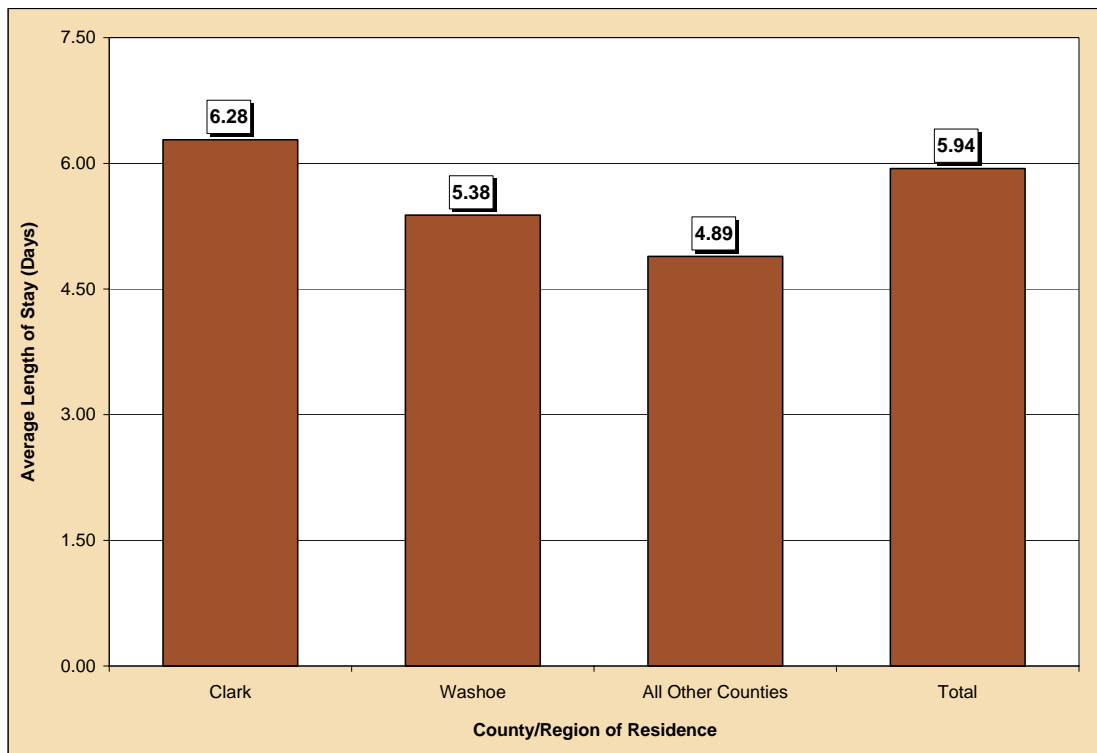
**Figure 119. Kidney and Renal Pelvis Cancer Age-Adjusted Inpatient Discharge Rates by County/Region of Residence, Nevada Residents, 1999-2003**



**Figure 120. Median Charges for Kidney and Renal Pelvis Cancer Inpatient Discharges by County/Region of Residence, Nevada Residents, 1999-2003**



**Figure 121. Average Length of Stay for Kidney and Renal Pelvis Cancer Inpatient Discharges by County/Region of Residence, Nevada Residents, 1999-2003**



**Table 179. Kidney and Renal Pelvis Cancer Inpatient Discharges by Gender, Charges, Length of Stay, and County/Region of Residence, Nevada Residents, 1999-2003**

Category	County/Region of Residence				
	Nevada Total	Clark	Washoe	All Other Counties	Unknown
<b>Total</b>					
Discharges	985	688	152	145	0
Rate*	9.6	9.9	9.2	9.0	---
95% C.I.	(9.0-10.2)	(9.1-10.7)	(7.8-10.8)	(7.6-10.7)	---
<b>Gender</b>					
Male	645	439	101	105	0
Rate*	13.0	13.0	12.9	13.4	---
95% C.I.	(12.0-14.2)	(11.8-14.4)	(10.4-16.0)	(10.9-16.4)	---
Female	340	249	51	40	0
Rate*	6.5	7.0	6.0	4.9	---
95% C.I.	(5.8-7.2)	(6.1-7.9)	(4.4-7.8)	(3.5-6.8)	---
Other/Unknown	0	0	0	0	0
<b>Inpatient Discharge Charges (\$)</b>					
Total Charges	\$34,031,099	\$24,743,703	\$5,533,040	\$3,754,356	---
Average Charges	\$34,549	\$35,965	\$36,402	\$25,892	---
Median Charges	\$25,312	\$24,823	\$32,433	\$20,327	---
<b>Discharge Length of Stay (LOS) (Days)</b>					
Total LOS	5,849	4,322	818	709	---
Average LOS	5.9	6.3	5.4	4.9	---
Median LOS	4.0	5.0	5.0	4.0	---

\* Rates are per 100,000 population and are age-adjusted to the 2000 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, 1999-2003**

Category	County/Region of Residence			
	Nevada Total	Clark	Washoe	All Other Counties
<b>Total</b>				
<b>Discharges</b>	985	688	152	145
<b>Rate*</b>	9.4	9.4	8.7	10.2
<b>95% C.I.</b>	(8.80-9.97)	(8.69-10.09)	(7.32-10.08)	(8.53-11.85)
<b>Age Group</b>				
<1	0	0	0	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
1-4	10	9	1	0
Rate*	1.6	---	---	---
95% C.I.	(0.62-2.66)	---	---	---
5-14	3	3	0	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
15-24	1	1	0	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
25-34	9	7	1	1
Rate*	---	---	---	---
95% C.I.	---	---	---	---
35-44	64	39	14	11
Rate*	3.9	3.4	4.9	5.0
95% C.I.	(2.92-4.81)	(2.33-4.46)	(2.35-7.52)	(2.03-7.90)
45-54	166	120	23	23
Rate*	11.7	12.6	9.1	10.7
95% C.I.	(9.90-13.46)	(10.35-14.86)	(5.37-12.80)	(6.30-15.02)
55-64	270	185	41	44
Rate*	26.3	26.2	24.9	27.7
95% C.I.	(23.12-29.38)	(22.45-30.01)	(17.31-32.58)	(19.52-35.90)
65-74	279	200	47	32
Rate*	40.6	42.4	45.0	28.5
95% C.I.	(35.80-45.32)	(36.56-48.32)	(32.14-57.87)	(18.64-38.41)
75-84	162	108	22	32
Rate*	41.3	40.7	35.8	49.0
95% C.I.	(34.94-47.66)	(33.02-48.37)	(20.83-50.73)	(32.00-65.92)
85+	21	16	3	2
Rate*	23.9	28.8	---	---
95% C.I.	(13.66-34.08)	(14.67-42.86)	---	---
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. 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, 1999-2003**

Age Group	Gender		
	Male	Female	Total
<1	0	0	0
Rate*	---	---	---
95% C.I.	---	---	---
1-4	9	1	10
Rate*	---	---	1.64
95% C.I.	---	---	(0.62-2.66)
5-14	2	1	3
Rate*	---	---	---
95% C.I.	---	---	---
15-24	0	1	1
Rate*	---	---	---
95% C.I.	---	---	---
25-34	4	5	9
Rate*	---	---	---
95% C.I.	---	---	---
35-44	39	25	64
Rate*	4.54	3.14	3.87
95% C.I.	(3.12-5.97)	(1.91-4.37)	(2.92-4.81)
45-54	104	62	166
Rate*	14.44	8.85	11.68
95% C.I.	(11.67-17.22)	(6.64-11.05)	(9.90-13.46)
55-64	184	86	270
Rate*	36.22	16.52	26.25
95% C.I.	(30.99-41.45)	(13.03-20.02)	(23.12-29.38)
65-74	187	92	279
Rate*	55.10	26.40	40.56
95% C.I.	(47.21-63.00)	(21.01-31.80)	(35.80-45.32)
75-84	103	59	162
Rate*	58.11	27.44	41.30
95% C.I.	(46.88-69.33)	(20.44-34.45)	(34.94-47.66)
85+	13	8	21
Rate*	44.70	---	23.87
95% C.I.	(20.40-69.00)	---	(13.66-34.08)
Unknown	0	0	0
Total	645	340	985
Rate*	12.09	6.59	9.38
95% C.I.	(11.16-13.02)	(5.89-7.29)	(8.80-9.97)

\* 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, 1999-2003**

County of Residence	1999-2003 Inpatient Hospital Discharges				
	Cases	Rate*		Age-Adjusted Rate**	
		Rate	95% C.I.	Rate	95% C.I.
Carson City	23	9.1	(5.37-12.80)	7.6	(4.8-11.6)
Churchill	15	12.2	(6.03-18.38)	12.0	(6.7-20.5)
Clark	688	9.4	(8.69-10.09)	9.9	(9.1-10.7)
Douglas	19	8.9	(4.88-12.85)	6.9	(4.1-10.9)
Elko	14	6.2	(2.93-9.37)	9.2	(4.7-17.2)
Esmeralda	0	---	---	---	---
Eureka	5	---	---	---	---
Humboldt	6	---	---	---	---
Lander	3	---	---	---	---
Lincoln	2	---	---	---	---
Lyon	27	14.6	(9.07-20.06)	12.7	(8.4-18.7)
Mineral	2	---	---	---	---
Nye	25	14.8	(8.97-20.53)	11.0	(6.8-17.4)
Pershing	2	---	---	---	---
Storey	1	---	---	---	---
Washoe	152	8.7	(7.32-10.08)	9.2	(7.8-10.8)
White Pine	1	---	---	---	---
Unknown	0	---	---	---	---
<b>Total</b>	<b>985</b>	<b>9.4</b>	<b>(8.80-9.97)</b>	<b>9.6</b>	<b>(9.0-10.2)</b>

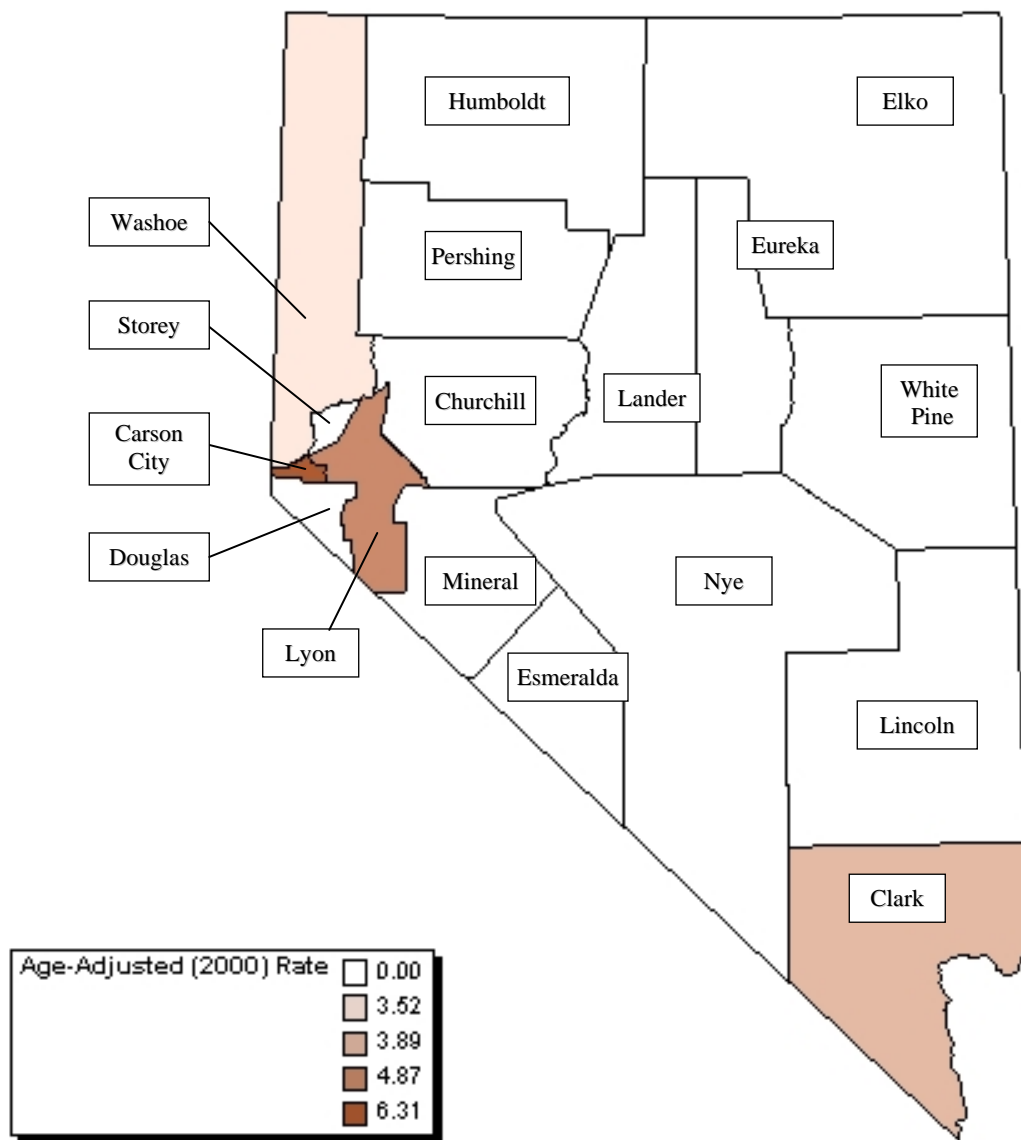
Note: The "---" is used for rates calculated on numbers less than ten. \*Rates are per 100,000 population. \*\*Rates are per 100,000 population and are age-adjusted to the 2000 US Standard population.

**Table 183. Kidney and Renal Pelvis Cancer Inpatient Discharges by Age Group, Charges and Length of Stay, Nevada Residents, 1999-2003**

Age Group	Discharges	Charges (\$)			Length of Stay (Days)		
		Total	Average	Median	Total	Average	Median
<1	0	---	---	---	---	---	---
1-4	10	---	---	---	---	---	---
5-14	3	---	---	---	---	---	---
15-24	1	---	---	---	---	---	---
25-34	9	---	---	---	---	---	---
35-44	64	1,817,155	28,393	25,482	307	4.8	4.0
45-54	166	5,495,508	33,105	23,764	903	5.4	4.0
55-64	270	9,237,659	34,214	25,314	1,665	6.2	4.0
65-74	279	9,287,589	33,289	25,763	1,593	5.7	5.0
75-84	162	6,774,974	41,821	26,254	1,102	6.8	5.0
85+	21	640,374	30,494	23,437	134	6.4	5.0
Unknown	0	---	---	---	---	---	---
<b>Total</b>	<b>985</b>	<b>34,031,099</b>	<b>34,549</b>	<b>25,312</b>	<b>5,849</b>	<b>5.9</b>	<b>4.0</b>

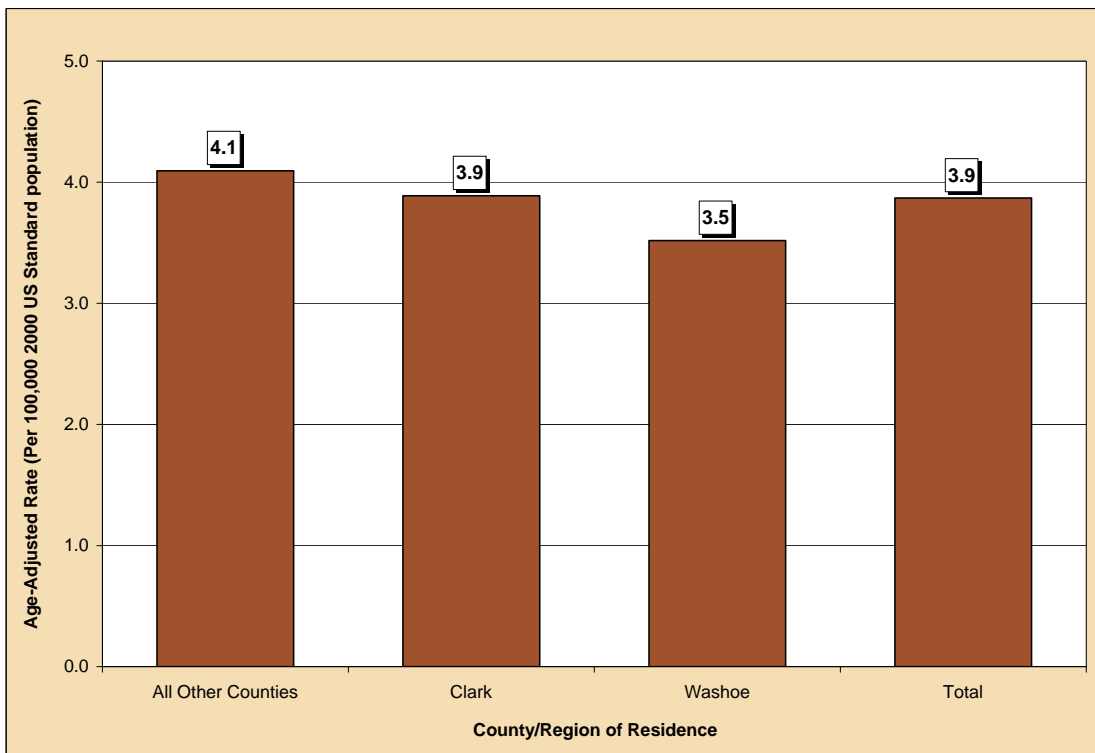
## MORTALITY

**Figure 122. Kidney and Renal Pelvis Cancer Age-Adjusted (2000) Mortality Rates, Nevada Residents, 1999-2003**

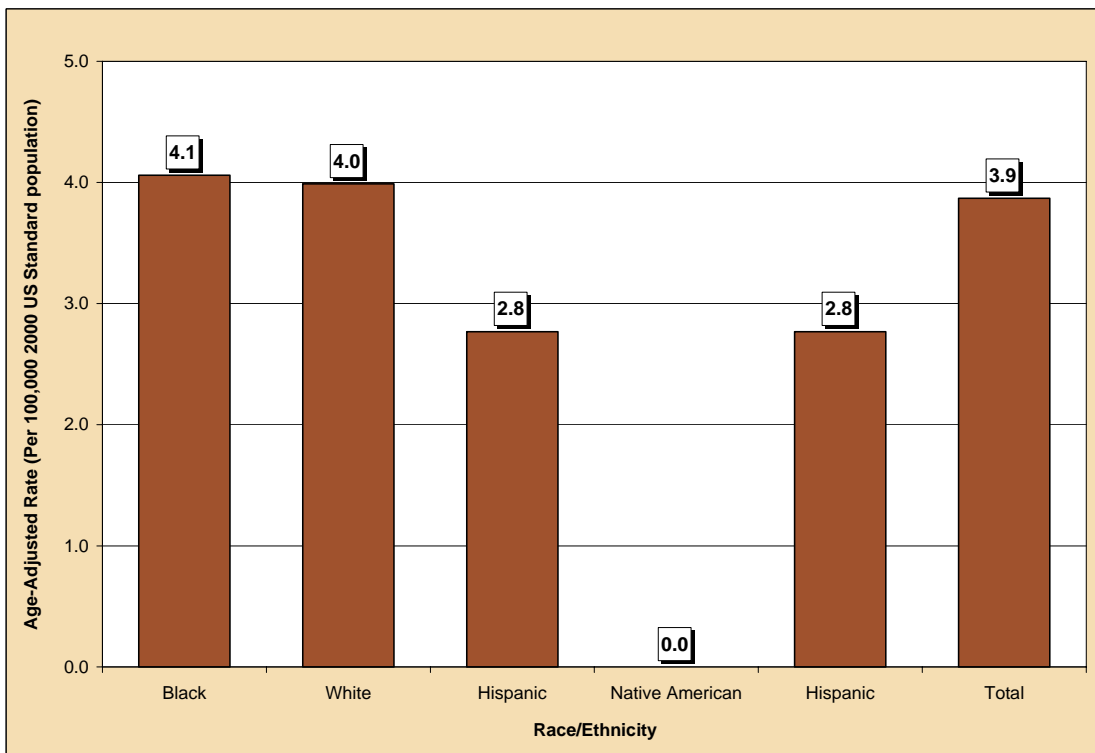


Note: Rates are per 100,000 population and age-adjusted to 2000 US Standard population. Caution should be used when interpreting rates based upon small numbers. See Technical Notes for more information.

**Figure 123. Kidney and Renal Pelvis Cancer Age-Adjusted Mortality Rates by County/Region of Residence, Nevada Residents, 1999-2003**



**Figure 124. Kidney and Renal Pelvis Cancer Age-Adjusted Mortality Rates by Race/Ethnicity, Nevada Residents, 1999-2003**



**Table 184. Kidney and Renal Pelvis Cancer Mortality by Gender, Race/Ethnicity and County/Region of Residence, Nevada Residents, 1999-2003**

Category	County/Region of Residence			
	Nevada Total	Clark	Washoe	All Other Counties
<b>Total</b>				
Mortality	377	258	55	64
Rate*	3.9	3.9	3.5	4.1
95% C.I.	(3.5-4.3)	(3.4-4.4)	(2.6-4.6)	(3.1-5.3)
<b>Gender</b>				
Male	257	257	257	257
Rate*	5.6	5.7	4.9	5.8
95% C.I.	(4.9-6.4)	(4.8-6.7)	(3.4-7.2)	(4.1-8.1)
Female	120	120	120	120
Rate*	2.4	2.4	2.3	2.5
95% C.I.	(2.0-2.9)	(1.9-3.0)	(1.4-3.6)	(1.5-3.9)
Other/Unknown	0	0	0	0
<b>Race/Ethnicity</b>				
White	318	215	48	55
Rate*	4.0	4.1	3.5	3.9
95% C.I.	(3.6-4.5)	(3.6-4.7)	(2.6-4.7)	(2.9-5.1)
Black	20	18	2	0
Rate*	4.1	4.0	---	---
95% C.I.	(2.4-6.9)	(2.3-7.0)	---	---
Native American	5	0	2	3
Rate*	---	---	---	---
95% C.I.	---	---	---	---
Asian	9	8	1	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
Hispanic	23	16	2	5
Rate*	2.8	2.4	---	---
95% C.I.	(1.7-4.5)	(1.3-4.3)	---	---
Other/Unknown	2	1	0	1

\*Rates are per 100,000 population and are age-adjusted to the 2000 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, 1999-2003**

Category	County/Region of Residence			
	Nevada Total	Clark	Washoe	All Other Counties
<b>Total</b>				
<b>Deaths</b>	377	258	55	64
<b>Rate*</b>	3.9	3.9	3.5	4.1
<b>95% C.I.</b>	(3.5-4.3)	(3.4-4.4)	(2.6-4.6)	(3.1-5.3)
<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	1	1	0	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
35-44	9	7	0	2
Rate*	---	---	---	---
95% C.I.	---	---	---	---
45-54	36	24	8	4
Rate*	2.5	2.5	---	---
95% C.I.	(1.71-3.36)	(1.51-3.53)	---	---
55-64	110	73	16	21
Rate*	10.7	10.4	9.7	13.2
95% C.I.	(8.70-12.69)	(7.98-12.72)	(4.96-14.50)	(7.57-18.88)
65-74	103	71	11	21
Rate*	15.0	15.1	10.5	18.7
95% C.I.	(12.08-17.87)	(11.56-18.57)	(4.31-16.76)	(10.71-26.73)
75-84	91	68	14	9
Rate*	23.2	25.6	22.8	---
95% C.I.	(18.43-27.97)	(19.53-31.71)	(10.84-34.70)	---
85+	26	14	5	7
Rate*	29.6	25.2	---	---
95% C.I.	(18.19-40.91)	(11.99-38.36)	---	---
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, 1999-2003**

County of Residence at Diagnosis	1999-2003 Mortality				
	Cases	Rate*		Age-Adjusted Rate**	
		Rate	95% C.I.	Rate	95% C.I.
Carson City	18	7.1	(3.83-10.40)	6.3	(3.7-10.1)
Churchill	7	---	---	---	---
Clark	258	3.5	(3.09-3.95)	3.9	(3.4-4.4)
Douglas	6	---	---	---	---
Elko	6	---	---	---	---
Esmeralda	0	---	---	---	---
Eureka	1	---	---	---	---
Humboldt	2	---	---	---	---
Lander	3	---	---	---	---
Lincoln	1	---	---	---	---
Lyon	10	5.4	(2.05-8.74)	4.9	(2.3-9.3)
Mineral	0	---	---	---	---
Nye	8	---	---	---	---
Pershing	0	---	---	---	---
Storey	1	---	---	---	---
Washoe	55	3.1	(2.32-3.98)	3.5	(2.6-4.6)
White Pine	1	---	---	---	---
Unknown	0	---	---	---	---
<b>Total</b>	<b>377</b>	<b>3.6</b>	<b>(3.23-3.95)</b>	<b>3.9</b>	<b>(3.5-4.3)</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 2000 US Standard population.

**Table 187. Kidney and Renal Pelvis Cancer Mortality by Race/Ethnicity and Gender, Nevada Residents, 1999-2003**

Race/Ethnicity	Gender				
	Male	Female	Other/Unknown	Total	
White	Incidence	216	102	0	318
	Rate*	5.7	2.5	---	4.0
	95% C.I.	(5.0-6.6)	(2.0-3.0)	---	(3.6-4.5)
Black	Incidence	11	9	0	20
	Rate*	4.1	---	---	4.1
	95% C.I.	(2.0-7.9)	---	---	(2.4-6.9)
Native American	Incidence	1	4	0	5
	Rate*	---	---	---	---
	95% C.I.	---	---	---	---
Asian	Incidence	9	0	0	9
	Rate*	---	---	---	---
	95% C.I.	---	---	---	---
Hispanic	Incidence	19	4	0	23
	Rate*	4.9	---	---	2.8
	95% C.I.	(2.8-8.5)	---	---	(1.7-4.5)
Other/Unknown	1	1	0	2	
Total	Incidence	257	120	0	377
	Rate*	5.6	2.4	---	3.9
	95% C.I.	(4.9-6.4)	(2.0-2.9)	---	(3.5-4.3)

Note: The "----" is used for rates calculated on numbers less than ten. \*Rates are per 100,000 population and are age-adjusted to the 2000 US Standard population.



**Table 188. Kidney and Renal Pelvis Cancer Mortality by Age Group and Gender, Nevada Residents, 1999-2003**

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	1	0	1
Rate*	---	---	---
95% C.I.	---	---	---
35-44	7	2	9
Rate*	---	---	---
95% C.I.	---	---	---
45-54	28	8	36
Rate*	3.89	---	2.53
95% C.I.	(2.45-5.33)	---	(1.71-3.36)
55-64	84	26	110
Rate*	16.53	5.00	10.70
95% C.I.	(13.00-20.07)	(3.08-6.92)	(8.70-12.69)
65-74	68	35	103
Rate*	20.04	10.04	14.97
95% C.I.	(15.28-24.80)	(6.72-13.37)	(12.08-17.87)
75-84	55	36	91
Rate*	31.03	16.75	23.20
95% C.I.	(22.83-39.23)	(11.28-22.22)	(18.43-27.97)
85+	14	12	26
Rate*	48.14	20.37	29.55
95% C.I.	(22.92-73.35)	(8.85-31.90)	(18.19-40.91)
Unknown	0	0	0
Total	257	120	377
Rate*	4.82	2.32	3.59
95% C.I.	(4.23-5.41)	(1.91-2.74)	(3.23-3.95)

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

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

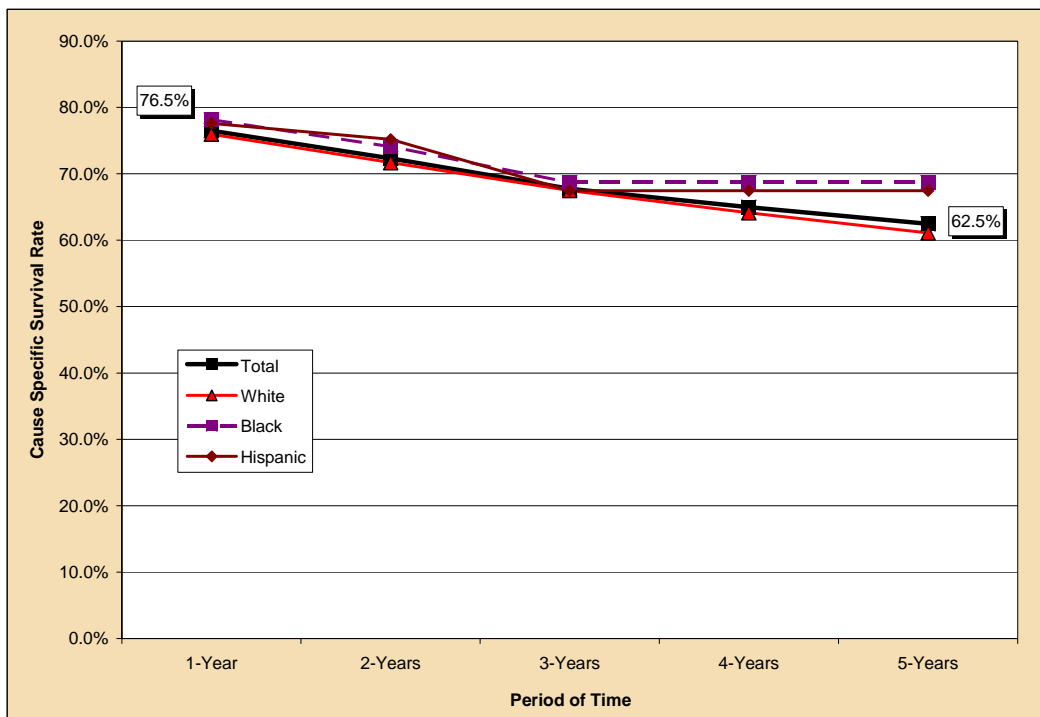
**Table 189. Median Age at Death from Kidney and Renal Pelvis Cancer by Race/Ethnicity and Gender, Nevada Residents, 1999-2003**

Race/Ethnicity	Gender					
	Male		Female		Total	
	Cases	Median Age	Cases	Median Age	Cases	Median Age
White	216	66.0	102	73.0	318	69.0
Black	11	62.0	9	67.0	20	64.0
Native American	1	---	4	---	5	64.0
Asian	9	61.0	0	---	9	61.0
Hispanic	19	59.0	4	---	23	59.0
Other/Unknown	1	---	1	---	2	---
<b>Total</b>	<b>257</b>	<b>66.0</b>	<b>120</b>	<b>72.0</b>	<b>377</b>	<b>68.0</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.

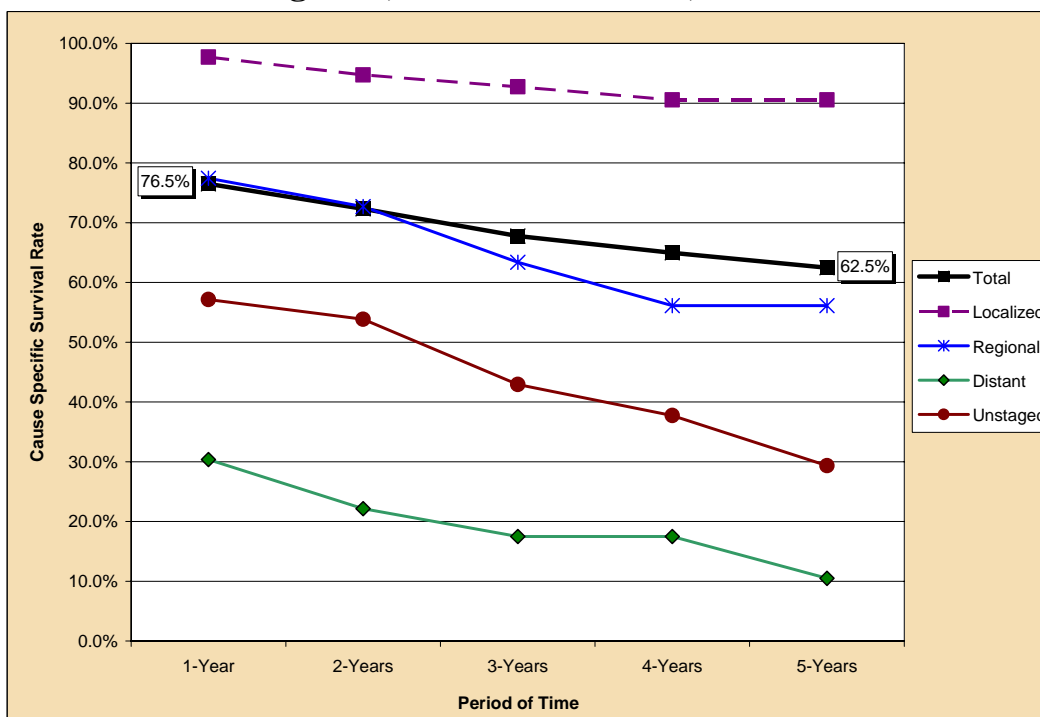
### SURVIVAL RATE

**Figure 125. Survival Rates for Kidney and Renal Pelvis Cancer by Race/Ethnicity, Nevada Residents, 1999-2003**



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, 1999-2003**



**Table 190. Cause-Specific Survival Rates for Kidney and Renal Pelvis Cancer by Race/Ethnicity and Gender, Nevada Residents, 1999-2003**

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	982	76.5%	72.3%	67.8%	65.0%	62.5%	> 5 YEARS
Male	626	75.3%	71.6%	66.6%	63.4%	61.5%	> 5 YEARS
Female	356	78.7%	73.6%	69.9%	67.7%	64.1%	> 5 YEARS
<b>Race/Ethnicity</b>							
White	811	76.0%	71.7%	67.5%	64.1%	61.1%	> 5 YEARS
Male	521	75.0%	70.8%	66.3%	62.5%	60.2%	> 5 YEARS
Female	290	77.8%	73.3%	69.7%	67.0%	62.7%	> 5 YEARS
Black	63	78.2%	74.1%	68.7%	68.7%	68.7%	> 5 YEARS
Male	39	---	---	---	---	---	.
Female	24	---	---	---	---	---	.
Native American	3	---	---	---	---	---	.
Male	2	---	---	---	---	---	.
Female	1	---	---	---	---	---	.
Asian	21	---	---	---	---	---	.
Male	13	---	---	---	---	---	.
Female	8	---	---	---	---	---	.
Hispanic	72	77.6%	75.2%	67.5%	67.5%	67.5%	> 5 YEARS
Male	44	---	---	---	---	---	.
Female	28	---	---	---	---	---	.

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, 1999-2003**

Survival Rate of Stage at Diagnosis		Gender		
		Total	Male	Female
Total	Cases	982	626	356
	One Year	76.5%	75.3%	78.7%
	5 Years	62.5%	61.5%	64.1%
	Median Survival	> 5 YEARS	> 5 YEARS	> 5 YEARS
<b>Stage at Diagnosis</b>				
In situ	Cases	---	---	---
	One Year	---	---	---
	5 Years	---	---	---
	Median Survival	---	---	---
Localized	Cases	532	329	203
	One Year	97.7%	97.3%	98.3%
	5 Years	90.6%	89.3%	92.6%
	Median Survival	> 5 YEARS	> 5 YEARS	> 5 YEARS
Regional	Cases	136	89	47
	One Year	77.4%	77.2%	---
	5 Years	56.1%	59.0%	---
	Median Survival	> 5 YEARS	> 5 YEARS	.
Distant	Cases	178	119	59
	One Year	30.4%	29.8%	31.5%
	5 Years	10.5%	17.1%	0.0%
	Median Survival	0.72	0.71	0.73
Unstaged	Cases	136	89	47
	One Year	57.1%	56.9%	---
	5 Years	29.3%	28.7%	---
	Median Survival	2.35	2.61	.

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.