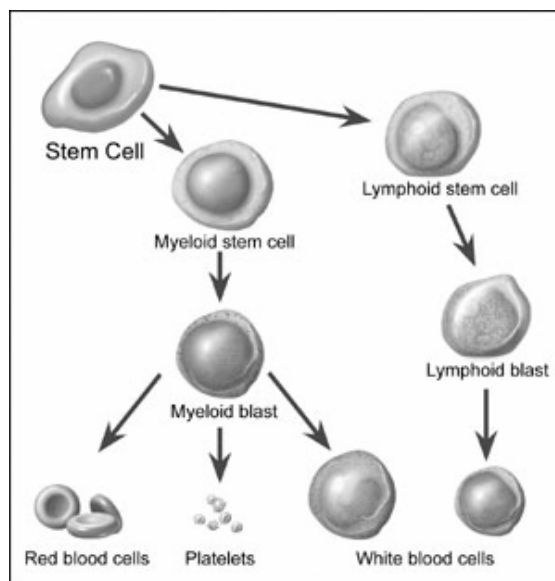


LEUKEMIA

LEUKEMIA

GENERAL PROFILE⁴

Figure 140. Anatomy of Stem Cell Maturation



General Anatomy: Blood cells form in the bone marrow, which is the soft material in the center of most bones. Immature blood cells are called stem cells and blasts. Most blood cells mature in the bone marrow and then move into the blood vessels. The bone marrow makes different types of blood cells; each with a special function: White blood cells fight infection, red blood cells carry oxygen to body tissues, and platelets help form blood clots to speed healing. In people with leukemia, the bone marrow produces abnormal white blood cells. At first, leukemia cells function almost normally. In time, they may crowd out normal white blood cells, red blood cells, and platelets.

Risk Factors: Very high levels of radiation, working with certain chemicals (e.g. Benzene, Formaldehyde), chemotherapy, down syndrome, human T-cell leukemia virus-I (HTLV-I), and myelodysplastic syndrome.

Signs and Symptoms: Fevers or night sweats, frequent infections, feeling weak or tired, headache, bleeding and bruising easily (bleeding gums, purplish patches in the skin, or tiny red spots under the skin), pain in the bones or joints, swelling or discomfort in the abdomen (from an enlarged spleen), swollen lymph nodes, especially in the neck or armpit, and weight loss.

Diagnosing the Cancer: Health exams, blood tests (High level of white blood cells, low levels of red blood cells and platelets), bone marrow aspiration, bone marrow biopsy, cytogenetics, spinal tap, and chest x-ray.

Treatment: chemotherapy (intrathecal), biological therapy, radiation therapy, or stem cell transplantation (Bone Marrow, Peripheral stem cell and Umbilical cord blood transplantations).

HIGHLIGHTS

- The ratio of the age-adjusted incidence rate, 11.8, to the age-adjusted mortality rate, 7.3 (per 100,000 – 2000 US Standard population), for Leukemia was 1.62 during the 1999 to 2003 period, which means that for every 162 Leukemia cases during this period, there was 100 Leukemia deaths in Nevada.
- Nevadan females had a slightly higher ratio than males when the age-adjusted incidence and age-adjusted mortality rates for Leukemia were compared. For every 100 female deaths due to Leukemia there were 165 female cases while only 161 male cases for every 100 male Leukemia deaths in Nevada from 1999 to 2003.
- The median age at diagnosis of Leukemia was 68 years of age for Nevada residents from 1999 to 2003; the median age at time of death was 72 years.

INCIDENCE

- There were 1,131 cases of Leukemia in Nevada from 1999 to 2003. While regional comparisons showed Clark County (12.7) as having a higher incidence rate than All Other Counties (10.9), Washoe County (9.8) and the national (1998-2002) incidence rate 12.2 (per 100,000 – 2000 US Standard population) from 1999 to 2003, statistical analysis shows a significant difference only for the Washoe County region.
- The age-adjusted incidence rate for male Leukemia, 14.8 (13.6-16.1), was statistically significant over the rate for females, 9.4 (8.5-10.3), during the 1999 to 2003 period.
- Whites, as a racial/ethnic group, had the highest age-adjusted incidence rate (12.6) from Leukemia during the 1999 to 2003 period. They were followed by Blacks, Asians and Hispanics, who had rates of 11.0, 7.0, 6.0, (per 100,000 – 2000 US Standard population), respectively.

INPATIENT HOSPITAL DISCHARGES

- Statistical regional comparisons indicate that Clark County had the highest age-adjusted inpatient discharge rate for Leukemia, 11.2 (10.4-12.0), and was followed by All Other Counties, 9.3 (7.8-11.1), and Washoe County, 8.5 (7.1-10.1), per 100,000 – 2000 US Standard population) from 1999 to 2003.
- Clark County had the highest median total charge (\$43,569) for Leukemia that was considerably higher than the median billed charges for All Other Counties (\$22,666) and Washoe County (\$20,225), as a region, during the 1999 to 2003 period.
- Total billed charges for hospital inpatient discharges from Leukemia in Nevada totaled approximately 83.3 million dollars from 1999 to 2003. The overall average billed charge per day for an inpatient hospital discharge for Leukemia was approximately \$5,817 in Nevada during this time.

MORTALITY

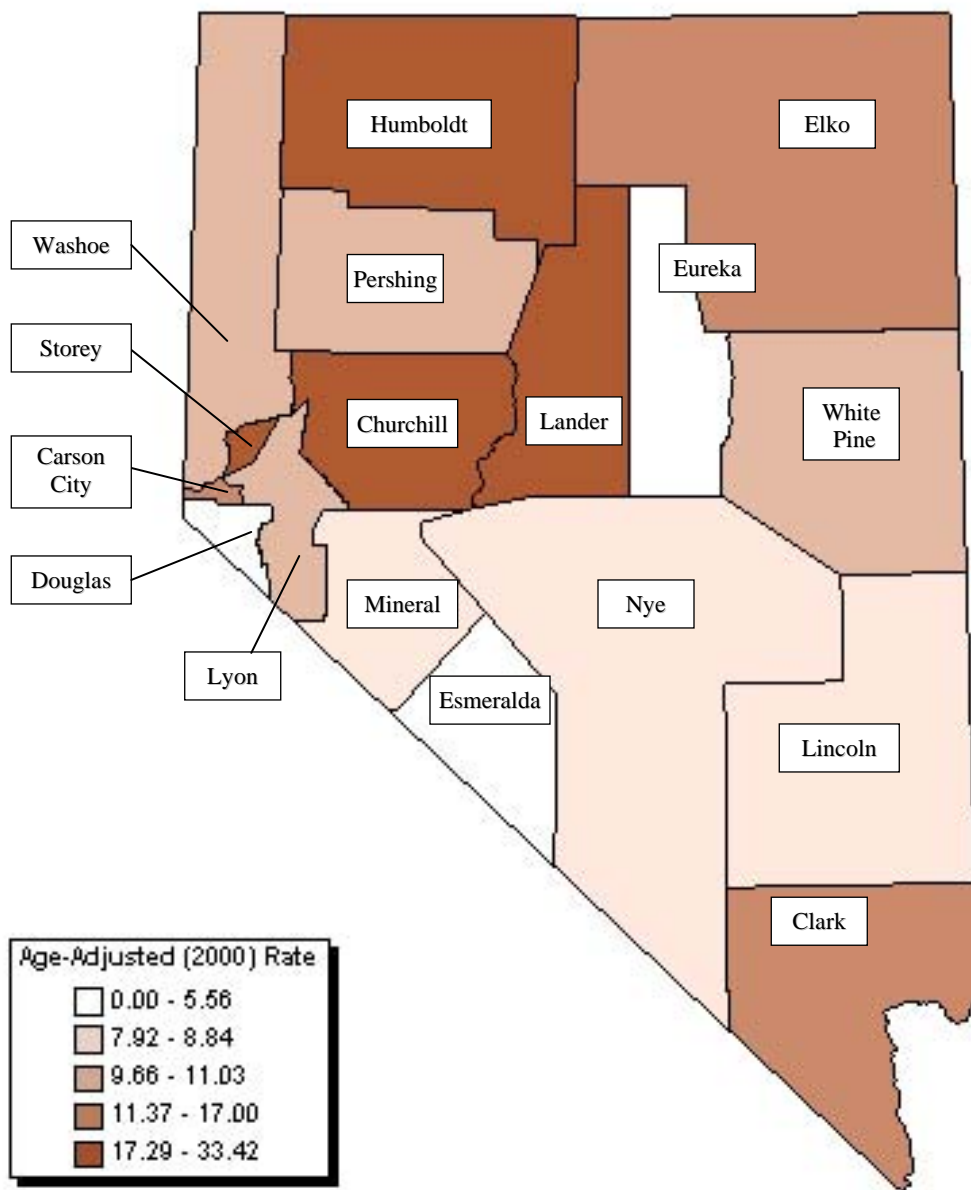
- There were 667 Leukemia deaths from 1999 to 2003. While All Other Counties, as a region, had a higher age-adjusted mortality rate, 8.5, than Clark County, 7.2 and Washoe County, 7.5 (per 100,000 – 2000 US Standard population), none of the rates show that there is any statistically significant difference that exists between the three regions.
- Males had a statistically higher age-adjusted mortality rate due to Leukemia, 9.2 (8.2-10.2), than their female counterparts' rate of 5.7 (5.0-6.4), in Nevada from 1999 to 2003.

SURVIVAL RATE

- The one-year survival rate for Leukemia in Nevada was 59.6% during the 1999 to 2003 period, while the five-year survival rate was 38.6% during this same time. The median survival rate in Nevada for Leukemia was 2.45 years.
- Females in Nevada diagnosed with Leukemia had a slightly higher one-year survival rate (61.2%) than males (58.7%) during the 1999 to 2003 period, and this difference remained at the five-year survival rate (41.3%) when compared to the rate for males (35.4%) during this time.
- Nevadan males' median survival time for Leukemia was 2.11 years versus 2.78 years for their female counterparts during the 1999 to 2003 period.

INCIDENCE

Figure 141. Leukemia 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 142. Leukemia Age-Adjusted Incidence Rates by County/Region of Residence, Nevada Residents, 1999-2003

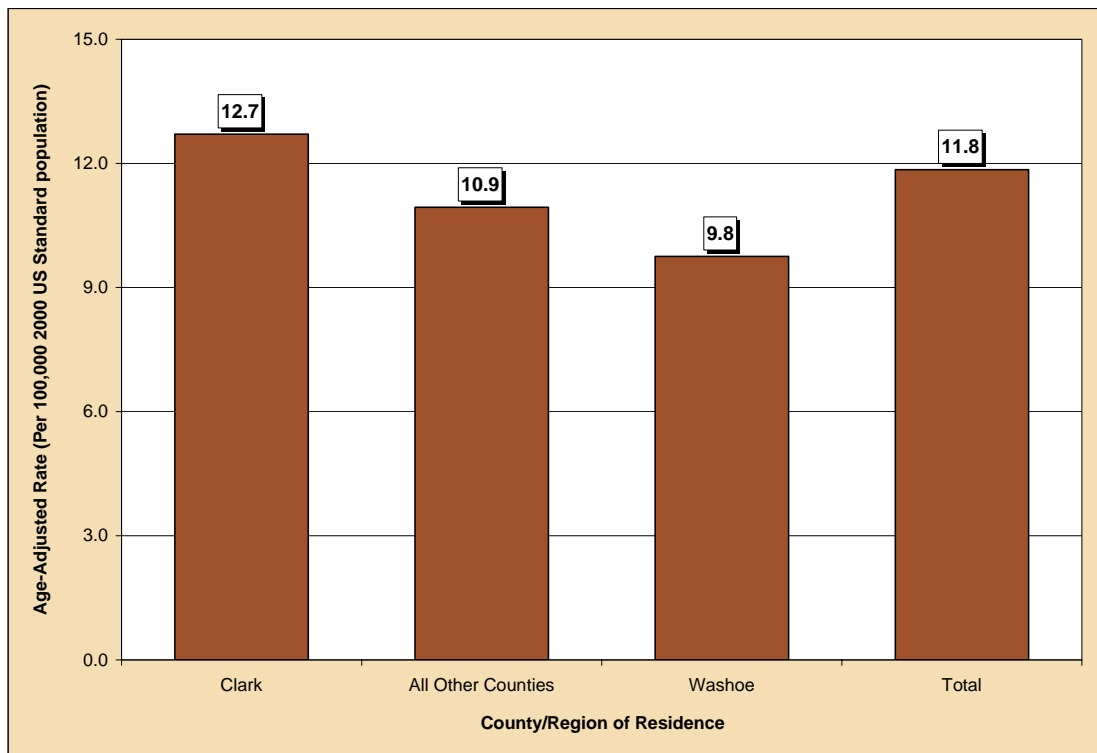


Figure 143. Leukemia Age-Adjusted Incidence Rates by Race/Ethnicity, Nevada Residents, 1999-2003

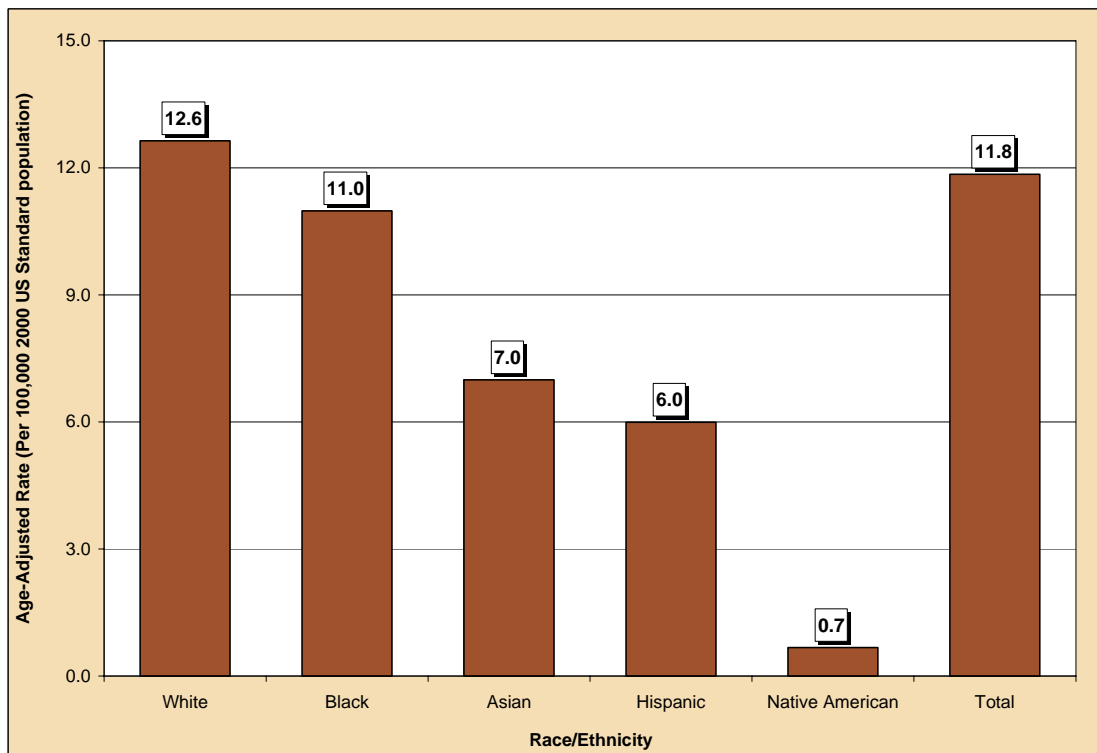


Table 213. Leukemia Cases by Gender, Race/Ethnicity and County/Region of Residence at Diagnosis, Nevada Residents (1999-2003) and SEER-13 (1998-2002)

Category	County/Region of Residence					SEER 13 (1998-2002)
	Nevada Total	Clark	Washoe	All Other Counties	Unknown	
Total						
Cases	1,131	820	152	158	1	21,832
Rate*	11.8	11.8	11.8	11.8	---	12.2
95% C.I.	(11.2-12.6)	(11.2-12.6)	(11.2-12.6)	(11.2-12.6)	---	(12.0-12.3)
Gender						
Male	664	664	664	664	1	12,187
Rate*	14.8	14.8	14.8	14.8	---	15.9
95% C.I.	(13.6-16.1)	(13.6-16.1)	(13.6-16.1)	(13.6-16.1)	---	(15.6-16.2)
Female	466	466	466	466	0	9,205
Rate*	9.4	9.4	9.4	9.4	---	9.4
95% C.I.	(8.5-10.3)	(8.5-10.3)	(8.5-10.3)	(8.5-10.3)	---	(9.2-9.6)
Other/Unknown	1	0	0	1	0	0
Race/Ethnicity						
White	951	669	134	148	0	18,176
Rate*	12.6	12.6	12.6	12.6	---	12.9
95% C.I.	(11.8-13.5)	(11.8-13.5)	(11.8-13.5)	(11.8-13.5)	---	(12.7-13.1)
Black	54	49	3	2	0	1,530
Rate*	11.0	11.0	---	---	---	9.9
95% C.I.	(8.0-15.0)	(8.0-15.0)	---	---	---	(9.4-10.5)
Native American	1	0	0	1	0	112
Rate*	---	---	---	---	---	5.0
95% C.I.	---	---	---	---	---	(4.0-4.0)
Asian	29	25	4	0	0	1,376
Rate*	7.0	7.0	---	---	---	7.5
95% C.I.	(4.1-12.1)	(4.1-12.1)	---	---	---	(7.1-8.0)
Hispanic	70	53	9	7	1	2,307
Rate*	6.0	6.0	---	---	---	9.1
95% C.I.	(4.3-8.7)	(4.3-8.7)	---	---	---	(8.7-9.6)
Other/Unknown	26	24	2	0	0	224

* 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 214. Leukemia 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					
	Nevada Total	Clark	Washoe	All Other Counties	Unknown	SEER 13 (1998-2002)
Total						
Cases	1,131	820	152	158	1	21,832
Rate*	11.8	12.7	9.8	10.9	---	12.2
95% C.I.	(11.2-12.6)	(11.8-13.7)	(8.2-11.5)	(9.1-13.8)	---	(12.0-12.3)
Age Group						
<1	5	3	1	1	0	122
Rate*	---	---	---	---	---	4.3
95% C.I.	---	---	---	---	---	(3.6-5.2)
1-4	39	27	5	7	0	965
Rate*	6.4	6.2	---	---	---	8.7
95% C.I.	(4.40-8.42)	(3.83-8.47)	---	---	---	(8.2-9.3)
5-14	33	21	8	4	0	989
Rate*	2.2	2.0	---	---	---	3.4
95% C.I.	(1.46-2.96)	(1.15-2.88)	---	---	---	(3.2-3.7)
15-24	26	18	3	5	0	708
Rate*	1.8	1.7	---	---	---	2.7
95% C.I.	(1.08-2.42)	(0.93-2.54)	---	---	---	(2.5-2.9)
25-34	36	27	4	4	1	838
Rate*	2.3	2.4	---	---	---	2.8
95% C.I.	(1.55-3.06)	(1.46-3.24)	---	---	---	(2.6-3.0)
35-44	66	50	11	5	0	1,283
Rate*	4.0	4.4	3.9	---	---	4.1
95% C.I.	(3.03-4.95)	(3.14-5.56)	(1.59-6.17)	---	---	(3.9-4.3)
45-54	94	63	14	17	0	2,121
Rate*	6.6	6.6	5.5	7.9	---	8.2
95% C.I.	(5.28-7.95)	(4.98-8.25)	(2.63-8.43)	(4.13-11.63)	---	(7.9-8.6)
55-64	190	142	25	23	0	3,038
Rate*	18.5	20.1	15.2	14.5	---	19.3
95% C.I.	(15.85-21.10)	(16.82-23.44)	(9.25-21.17)	(8.57-20.41)	---	(18.6-20.0)
65-74	282	205	34	43	0	4,480
Rate*	41.0	43.5	32.6	38.3	---	40.5
95% C.I.	(36.21-45.78)	(37.55-49.46)	(21.61-43.50)	(26.88-49.79)	---	(39.3-41.7)
75-84	271	195	37	39	0	5,075
Rate*	69.1	73.5	60.2	59.7	---	66.3
95% C.I.	(60.86-77.32)	(63.16-83.79)	(40.78-79.56)	(40.94-78.40)	---	(64.5-68.2)
85+	89	69	10	10	0	2,213
Rate*	101.2	124.1	60.2	63.5	---	82.6
95% C.I.	(80.14-122.17)	(94.78-153.33)	(22.88-97.50)	(24.14-102.86)	---	(79.2-86.1)
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 215. Leukemia 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	33	13.0	(8.59-17.49)	11.4	(7.8-16.2)
Churchill	22	17.9	(10.42-25.38)	18.2	(11.4-28.2)
Clark	820	11.2	(10.42-11.96)	12.7	(11.8-13.7)
Douglas	14	6.5	(3.11-9.95)	5.6	(2.9-10.2)
Elko	18	7.9	(4.26-11.56)	17.0	(7.0-41.7)
Esmeralda	0	---	---	---	---
Eureka	0	---	---	---	---
Humboldt	11	13.6	(5.55-21.60)	17.3	(8.3-32.9)
Lander	4	---	---	---	---
Lincoln	2	---	---	---	---
Lyon	20	10.8	(6.06-15.52)	9.7	(5.9-15.3)
Mineral	3	---	---	---	---
Nye	20	11.8	(6.63-16.97)	7.9	(4.8-12.8)
Pershing	3	---	---	---	---
Storey	3	---	---	---	---
Washoe	152	8.7	(7.32-10.08)	9.8	(8.2-11.5)
White Pine	5	---	---	---	---
Unknown	1	---	---	---	---
Total	1,131	10.8	(10.15-11.40)	11.8	(11.2-12.6)

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 216. Leukemia Cases by Race/Ethnicity and Gender, Nevada Residents, 1999-2003

Race/Ethnicity		Gender			
		Male	Female	Other/Unknown	Total
White	Incidence	564	386	1	951
	Rate*	15.7	10.0	---	12.6
	95% C.I.	(14.4-17.2)	(9.0-11.1)	---	(11.8-13.5)
Black	Incidence	29	25	0	54
	Rate*	14.7	9.0	---	11.0
	95% C.I.	(8.8-24.4)	(5.6-13.9)	---	(8.0-15.0)
Native American	Incidence	0	1	0	1
	Rate*	---	---	---	---
	95% C.I.	---	---	---	---
Asian	Incidence	13	16	0	29
	Rate*	5.5	7.9	---	7.0
	95% C.I.	(2.8-10.2)	(3.7-16.3)	---	(4.1-12.1)
Hispanic	Incidence	44	26	0	70
	Rate*	9.5	3.3	---	6.0
	95% C.I.	(5.8-16.4)	(2.0-5.4)	---	(4.3-8.7)
Other/Unknown	Incidence	14	12	0	26
	Rate*	664	466	1	1,131
	95% C.I.	(13.6-16.1)	(8.5-10.3)	---	(11.2-12.6)

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 217. Leukemia Cases by Age Group and Gender, Nevada Residents, 1999-2003

Age Group	Gender			
	Male	Female	Unknown	Total
<1	2	3	0	5
Rate*	---	---	---	---
95% C.I.	---	---	---	---
1-4	22	17	0	39
Rate*	7.07	5.71	---	6.41
95% C.I.	(4.12-10.02)	(3.00-8.43)	---	(4.40-8.42)
5-14	16	17	0	33
Rate*	2.08	2.34	---	2.21
95% C.I.	(1.06-3.10)	(1.23-3.46)	---	(1.46-2.96)
15-24	15	11	0	26
Rate*	1.95	1.54	---	1.75
95% C.I.	(0.96-2.93)	(0.63-2.45)	---	(1.08-2.42)
25-34	16	20	0	36
Rate*	1.97	2.67	---	2.31
95% C.I.	(1.00-2.93)	(1.50-3.85)	---	(1.55-3.06)
35-44	36	30	0	66
Rate*	4.19	3.77	---	3.99
95% C.I.	(2.82-5.56)	(2.42-5.11)	---	(3.03-4.95)
45-54	58	36	0	94
Rate*	8.05	5.14	---	6.62
95% C.I.	(5.98-10.13)	(3.46-6.81)	---	(5.28-7.95)
55-64	115	74	1	190
Rate*	22.64	14.22	---	18.47
95% C.I.	(18.50-26.77)	(10.98-17.46)	---	(15.85-21.10)
65-74	186	96	0	282
Rate*	54.81	27.55	---	41.00
95% C.I.	(46.93-62.69)	(22.04-33.06)	---	(36.21-45.78)
75-84	158	113	0	271
Rate*	89.13	52.56	---	69.09
95% C.I.	(75.24-103.03)	(42.87-62.25)	---	(60.86-77.32)
85+	40	49	0	89
Rate*	137.53	83.19	---	101.16
95% C.I.	(94.91-180.15)	(59.90-106.49)	---	(80.14-122.17)
Unknown	0	0	0	0
Total	664	466	1	1,131
Rate*	12.45	9.03	---	10.77
95% C.I.	(11.50-13.39)	(8.21-9.84)	---	(10.15-11.40)

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

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

Table 218. Leukemia Incidence by Age Group and Stage, Nevada Residents, 1999-2003

Age Group		Stage					Total
		In situ	Localized	Regional	Distant	Unstaged	
<1	Number	---	0	0	4	1	5
	Percent	---	---	---	80.0%	20.0%	100.0%
1-4	Number	---	0	0	39	0	39
	Percent	---	---	---	100.0%	---	100.0%
5-14	Number	---	0	0	33	0	33
	Percent	---	---	---	100.0%	---	100.0%
15-24	Number	---	0	0	26	0	26
	Percent	---	---	---	100.0%	---	100.0%
25-34	Number	---	0	0	36	0	36
	Percent	---	---	---	100.0%	---	100.0%
35-44	Number	---	0	0	64	2	66
	Percent	---	---	---	97.0%	3.0%	100.0%
45-54	Number	---	0	0	94	0	94
	Percent	---	---	---	100.0%	---	100.0%
55-64	Number	---	0	0	189	1	190
	Percent	---	---	---	99.5%	0.5%	100.0%
65-74	Number	---	0	0	274	8	282
	Percent	---	---	---	97.2%	2.8%	100.0%
75-84	Number	---	0	0	257	14	271
	Percent	---	---	---	94.8%	5.2%	100.0%
85+	Number	---	0	0	82	7	89
	Percent	---	---	---	92.1%	7.9%	100.0%
Unknown	Number	---	0	0	0	0	0
	Percent	---	---	---	---	---	---
Total	Number	---	0	0	1,098	33	1,131
	Percent	---	---	---	97.1%	2.9%	100.0%

**Table 219. Leukemia Cases by Stage and Race/Ethnicity,
Nevada Residents, 1999-2003**

Stage		Race/Ethnicity						
		White	Black	Native American	Asian	Hispanic	Other/Unknown	Total
In situ	Number	---	---	---	---	---	---	---
	Percent	---	---	---	---	---	---	---
Localized	Number	72	3	0	0	1	0	76
	Percent	240.0%	150.0%	---	---	100.0%	---	230.3%
Regional	Number	195	13	0	11	16	0	237
	Percent	20.5%	24.1%	---	37.9%	22.9%	---	21.0%
Distant	Number	921	52	1	29	69	26	1,098
	Percent	96.8%	96.3%	100.0%	100.0%	98.6%	100.0%	97.1%
Unstaged	Number	30	2	0	10	1	0	33
	Percent	3.2%	3.7%	---	#DIV/0!	1.4%	---	2.9%
Total	Number	951	54	1	29	70	26	1,131
	Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

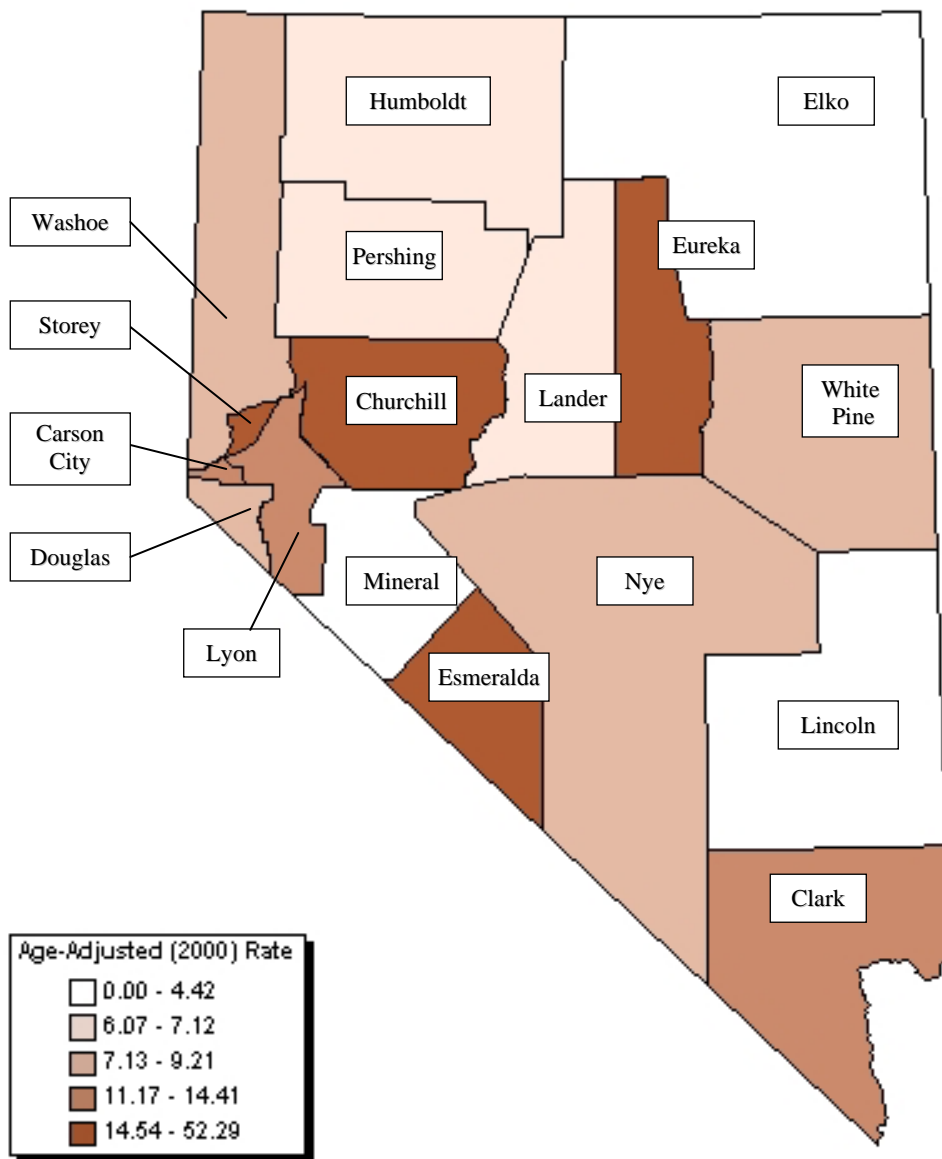
**Table 220. Median Age at Diagnosis of Leukemia by Race/Ethnicity and Gender,
Nevada Residents, 1999-2003**

Race/Ethnicity	Gender					
	Male		Female		Total	
	Cases	Median Age	Cases	Median Age	Cases	Median Age
White	564	69.0	386	70.0	950	69.0
Black	29	62.0	25	62.0	54	62.0
Native American	---	---	1	---	1	---
Asian	13	56.0	16	57.5	29	57.0
Hispanic	44	40.0	26	25.5	70	32.5
Other/Unknown	14	63.0	12	63.5	26	63.0
Total	664	68.0	466	67.0	1,130	68.0

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 144. Leukemia 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 145. Leukemia Age-Adjusted Inpatient Discharge Rates by County/Region of Residence, Nevada Residents, 1999-2003

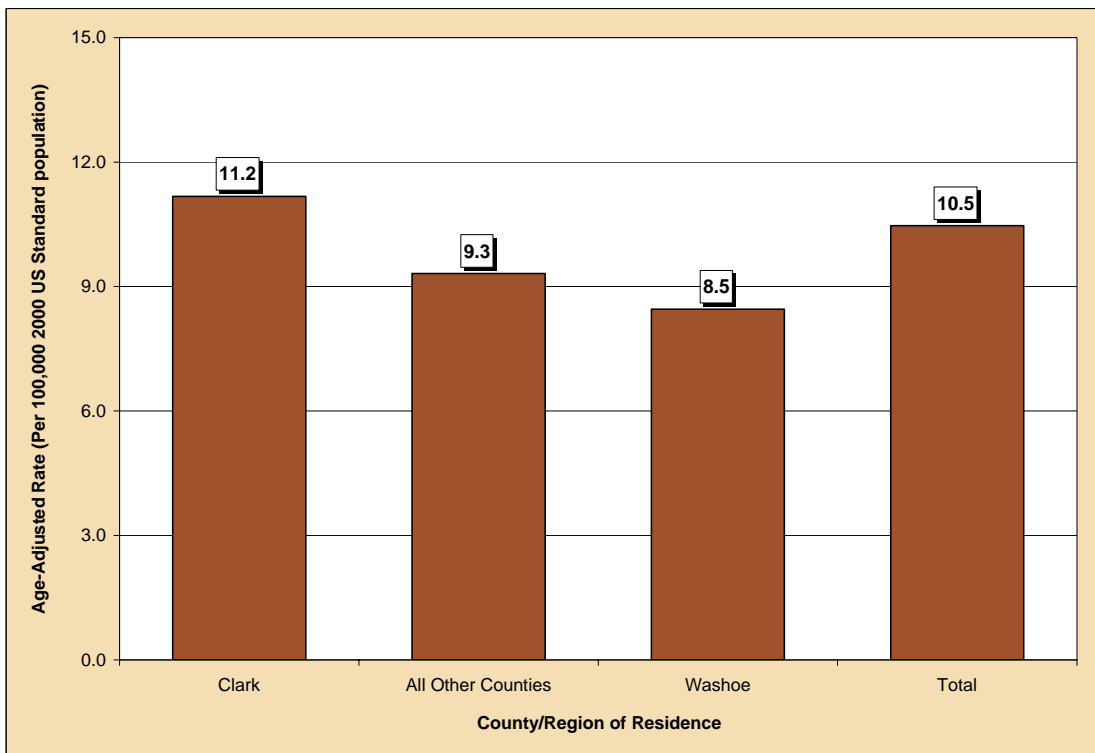


Figure 146. Median Charges for Leukemia Inpatient Discharges by County/Region of Residence, Nevada Residents, 1999-2003

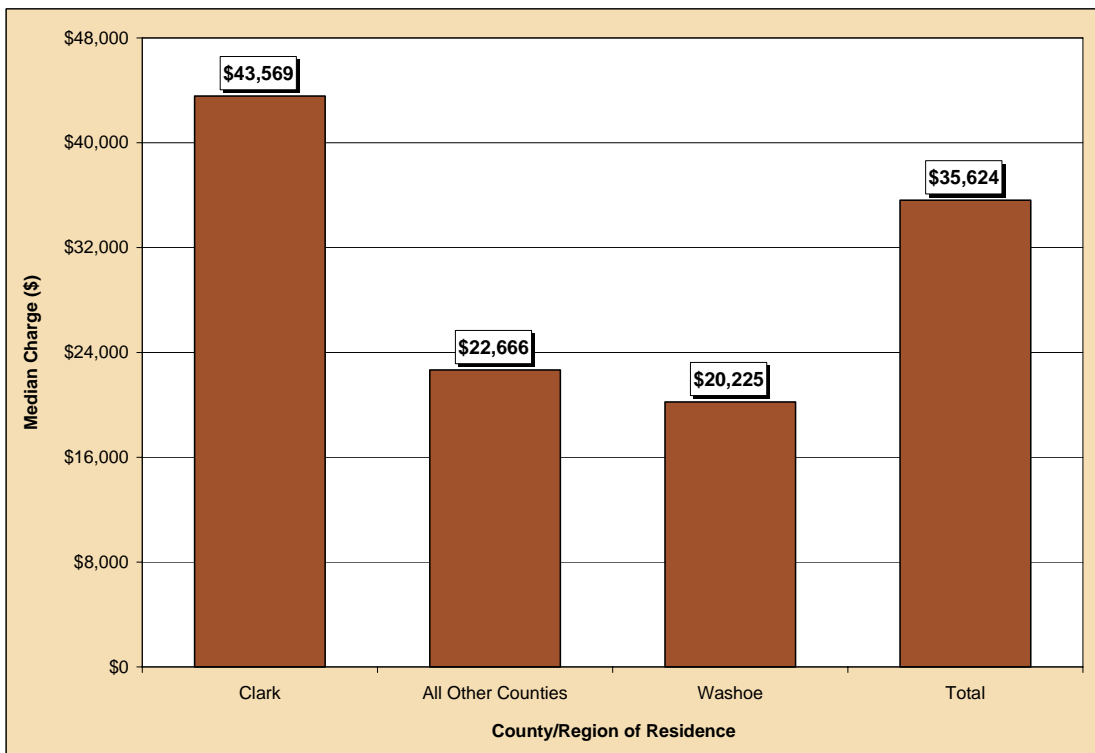


Figure 147. Average Length of Stay for Leukemia Inpatient Discharges by County/Region of Residence, Nevada Residents, 1999-2003

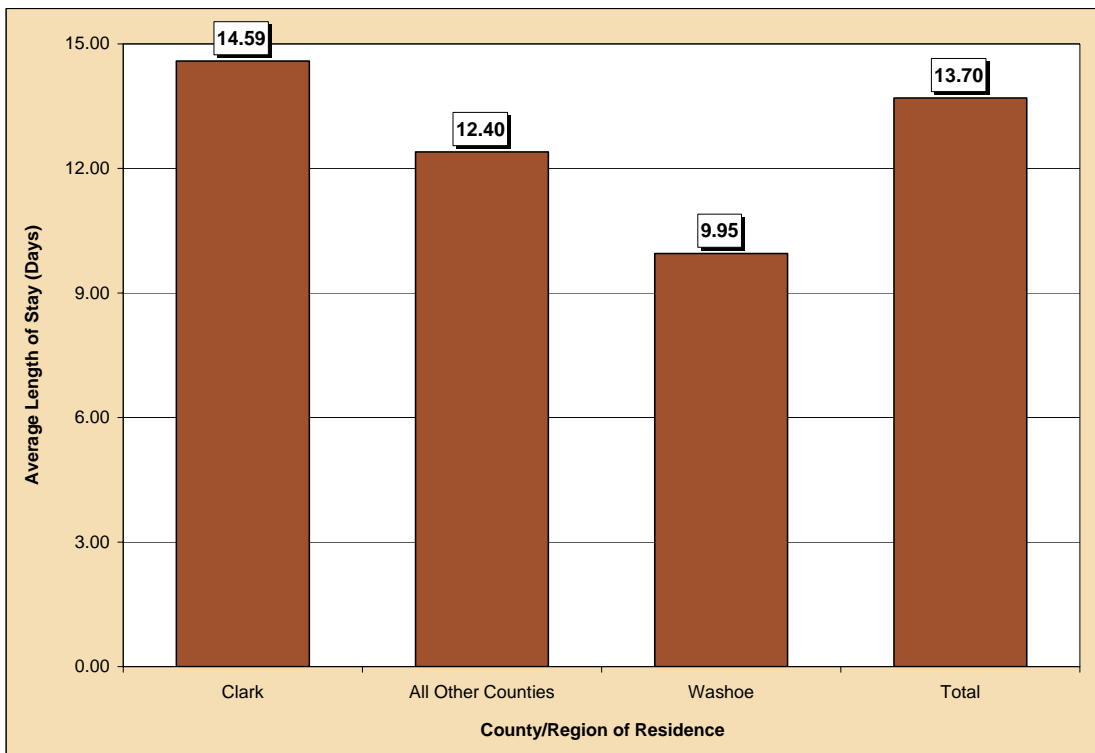


Table 221. Leukemia Inpatient Discharges by Gender, Charges, Length of Stay, and County/Region of Residence, Nevada Residents, 1999-2003

Category	County/Region of Residence				
	Nevada Total	Clark	Washoe	All Other Counties	Unknown
Total					
Discharges	1,045	772	135	138	0
Rate*	10.5	11.2	8.5	9.3	---
95% C.I.	(9.8-11.1)	(10.4-12.0)	(7.1-10.1)	(7.8-11.1)	---
Gender					
Male	605	455	74	76	0
Rate*	12.5	13.6	10.0	10.0	---
95% C.I.	(11.5-13.6)	(12.3-15.1)	(7.8-12.9)	(7.8-12.7)	---
Female	439	316	61	62	0
Rate*	8.6	9.0	7.3	8.5	---
95% C.I.	(7.8-9.5)	(8.0-10.1)	(5.6-9.4)	(6.5-11.0)	---
Other/Unknown	1	1	0	0	0
Inpatient Discharge Charges (\$)					
Total Charges	\$83,257,779	\$67,551,913	\$6,859,516	\$8,846,350	---
Average Charges	\$79,673	\$87,502	\$50,811	\$64,104	---
Median Charges	\$35,624	\$43,569	\$20,225	\$22,666	---
Discharge Length of Stay (LOS) (Days)					
Total LOS	14,314	11,260	1,343	1,711	---
Average LOS	13.7	14.6	9.9	12.4	---
Median LOS	7.0	8.0	6.0	6.0	---

* 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 222. Leukemia 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
Total				
Discharges	1,045	772	135	138
Rate*	10.0	10.5	7.7	9.7
95% C.I.	(9.35-10.56)	(9.79-11.28)	(6.42-9.03)	(8.08-11.32)
Age Group				
<1	5	5	0	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
1-4	73	61	4	8
Rate*	12.0	13.9	---	---
95% C.I.	(9.24-14.75)	(10.41-17.38)	---	---
5-14	124	108	12	4
Rate*	8.3	10.4	4.9	---
95% C.I.	(6.84-9.76)	(8.41-12.32)	(2.13-7.68)	---
15-24	56	40	4	12
Rate*	3.8	3.9	---	6.2
95% C.I.	(2.78-4.76)	(2.66-5.06)	---	(2.68-9.67)
25-34	74	59	6	9
Rate*	4.7	5.1	---	---
95% C.I.	(3.66-5.82)	(3.83-6.45)	---	---
35-44	62	52	7	3
Rate*	3.8	4.5	---	---
95% C.I.	(2.81-4.68)	(3.29-5.75)	---	---
45-54	101	64	14	23
Rate*	7.1	6.7	5.5	10.7
95% C.I.	(5.72-8.49)	(5.07-8.37)	(2.63-8.43)	(6.30-15.02)
55-64	155	105	27	23
Rate*	15.1	14.9	16.4	14.5
95% C.I.	(12.70-17.44)	(12.04-17.73)	(10.23-22.62)	(8.57-20.41)
65-74	187	139	22	26
Rate*	27.2	29.5	21.1	23.2
95% C.I.	(23.29-31.08)	(24.59-34.40)	(12.26-29.87)	(14.27-32.09)
75-84	162	110	31	21
Rate*	41.3	41.5	50.4	32.1
95% C.I.	(34.94-47.66)	(33.70-49.19)	(32.67-68.16)	(18.39-45.87)
85+	46	29	8	9
Rate*	52.3	52.1	---	---
95% C.I.	(37.17-67.39)	(33.16-71.12)	---	---
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 223. Leukemia Inpatient Discharges by Age Group and Gender, Nevada Residents, 1999-2003

Age Group	Gender		
	Male	Female	Total
<1	2	3	5
Rate*	---	---	---
95% C.I.	---	---	---
1-4	43	30	73
Rate*	13.82	10.08	11.99
95% C.I.	(9.69-17.95)	(6.48-13.69)	(9.24-14.75)
5-14	73	50	124
Rate*	9.50	6.89	8.30
95% C.I.	(7.32-11.68)	(4.98-8.80)	(6.84-9.76)
15-24	39	17	56
Rate*	5.06	2.38	3.77
95% C.I.	(3.47-6.65)	(1.25-3.51)	(2.78-4.76)
25-34	32	42	74
Rate*	3.94	5.62	4.74
95% C.I.	(2.57-5.30)	(3.92-7.32)	(3.66-5.82)
35-44	34	28	62
Rate*	3.96	3.52	3.75
95% C.I.	(2.63-5.29)	(2.21-4.82)	(2.81-4.68)
45-54	73	28	101
Rate*	10.14	3.99	7.11
95% C.I.	(7.81-12.46)	(2.52-5.47)	(5.72-8.49)
55-64	89	66	155
Rate*	17.52	12.68	15.07
95% C.I.	(13.88-21.16)	(9.62-15.74)	(12.70-17.44)
65-74	108	79	187
Rate*	31.82	22.67	27.19
95% C.I.	(25.82-37.83)	(17.67-27.67)	(23.29-31.08)
75-84	92	70	162
Rate*	51.90	32.56	41.30
95% C.I.	(41.30-62.51)	(24.93-40.19)	(34.94-47.66)
85+	20	26	46
Rate*	68.77	44.14	52.28
95% C.I.	(38.63-98.90)	(27.18-61.11)	(37.17-67.39)
Unknown	0	0	0
Total	605	439	1,045
Rate*	11.34	8.50	9.96
95% C.I.	(10.44-12.25)	(7.71-9.30)	(9.35-10.56)

* 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 224. Leukemia 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	33	13.0	(8.59-17.49)	12.2	(8.4-17.3)
Churchill	18	14.6	(7.88-21.41)	14.5	(8.6-23.6)
Clark	772	10.5	(9.79-11.28)	11.2	(10.4-12.0)
Douglas	20	9.3	(5.24-13.42)	9.2	(5.5-14.8)
Elko	2	---	---	---	---
Esmeralda	2	---	---	---	---
Eureka	3	---	---	---	---
Humboldt	4	---	---	---	---
Lander	2	---	---	---	---
Lincoln	1	---	---	---	---
Lyon	29	15.6	(9.95-21.34)	14.4	(9.6-21.1)
Mineral	0	---	---	---	---
Nye	17	10.0	(5.26-14.80)	7.1	(4.0-12.6)
Pershing	2	---	---	---	---
Storey	1	---	---	---	---
Washoe	135	7.7	(6.42-9.03)	8.5	(7.1-10.1)
White Pine	4	---	---	---	---
Unknown	0	---	---	---	---
Total	1,045	10.0	(9.35-10.56)	10.5	(9.8-11.1)

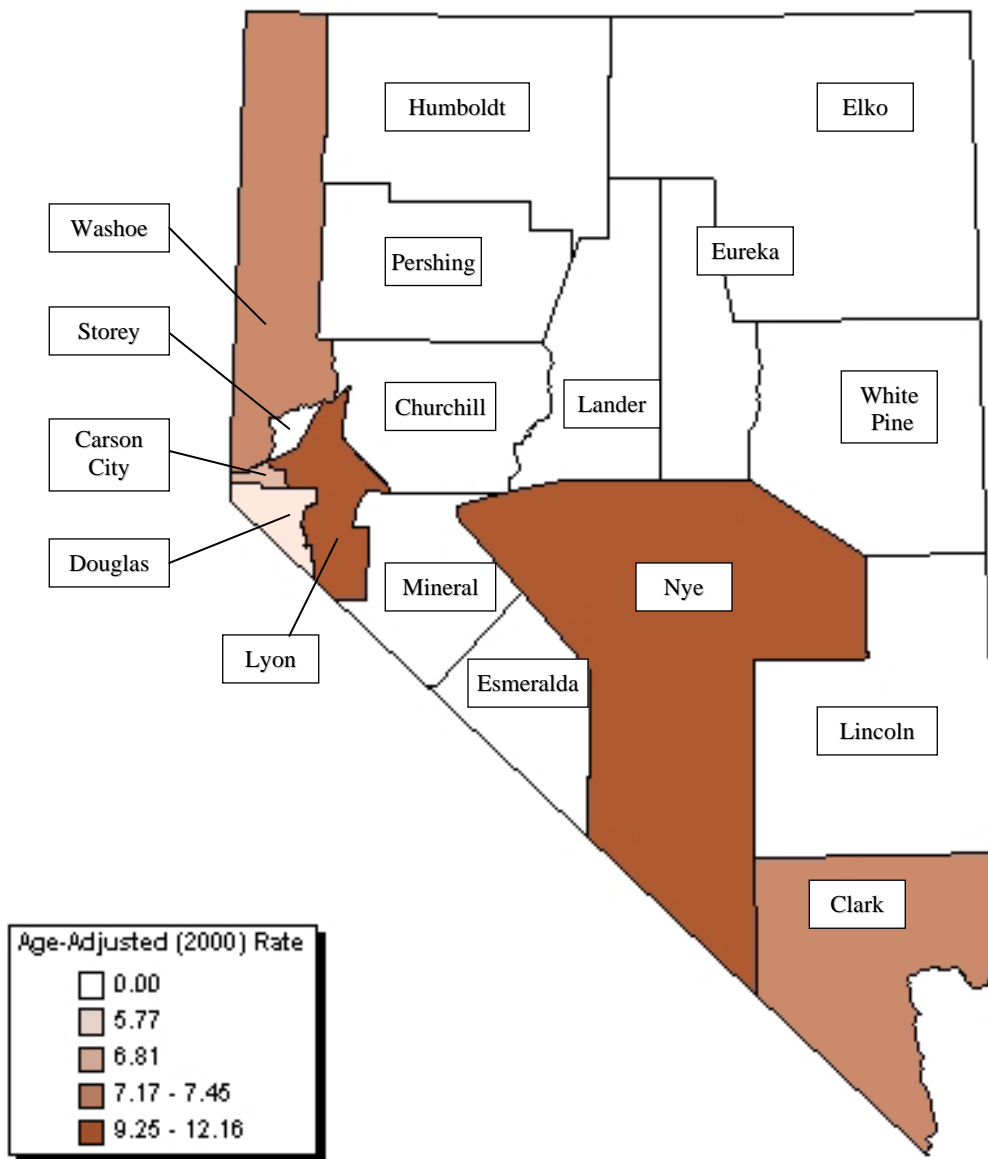
Note: The "---" is used for rates calculated on numbers less than ten. *Rates are per 100,000 population. **Rates are per 100,000 population and are age-adjusted to the 2000 US Standard population.

Table 225. Leukemia 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	5	---	---	---	---	---	---
1-4	73	4,072,295	55,785	32,574	787	10.8	7.0
5-14	124	6,673,428	53,818	25,107	1,070	8.6	5.5
15-24	56	4,578,201	81,754	53,272	850	15.2	8.5
25-34	74	8,938,792	120,794	60,156	1,327	17.9	11.0
35-44	62	6,451,884	104,063	100,951	1,188	19.2	13.0
45-54	101	9,202,603	91,115	51,628	1,731	17.1	10.0
55-64	155	15,759,247	101,673	46,441	2,569	16.6	9.0
65-74	187	16,462,365	88,034	43,702	2,763	14.8	8.0
75-84	162	9,248,063	57,087	27,126	1,682	10.4	7.0
85+	46	1,082,544	23,534	18,796	273	5.9	5.0
Unknown	0	---	---	---	---	---	---
Total	1,045	83,257,779	79,673	35,624	14,314	13.7	7.0

MORTALITY

Figure 148. Leukemia 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 149. Leukemia Age-Adjusted Mortality Rates by County/Region of Residence, Nevada Residents, 1999-2003

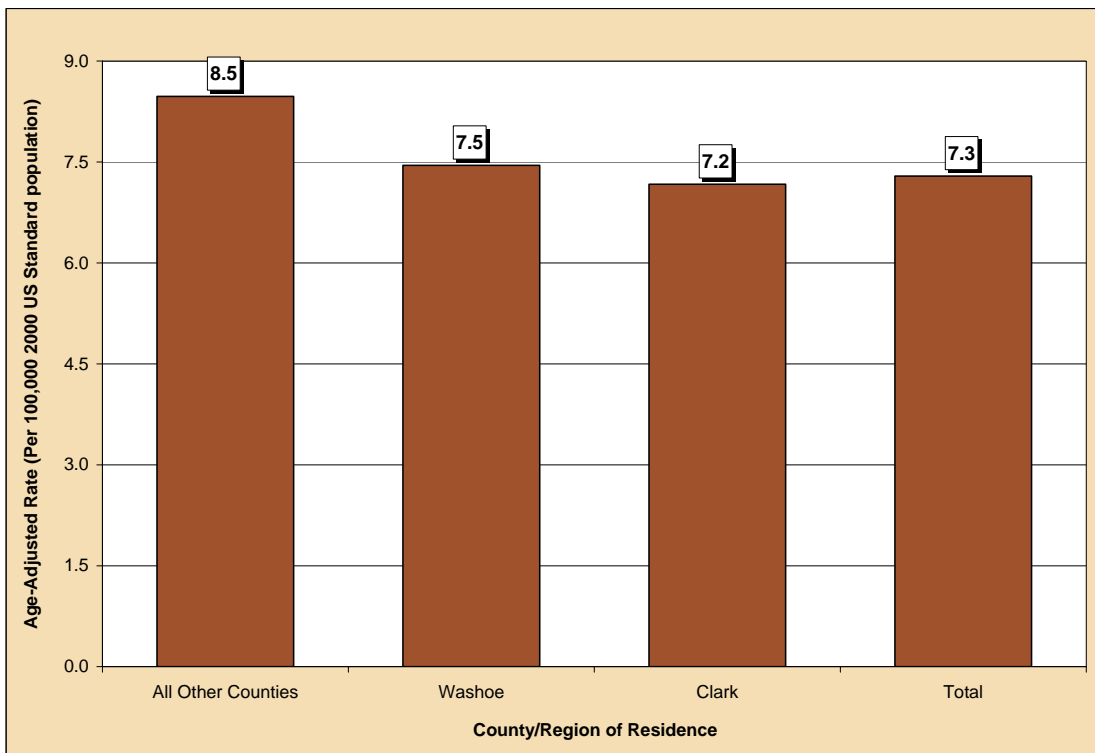


Figure 150. Leukemia Age-Adjusted Mortality Rates by Race/Ethnicity, Nevada Residents, 1999-2003

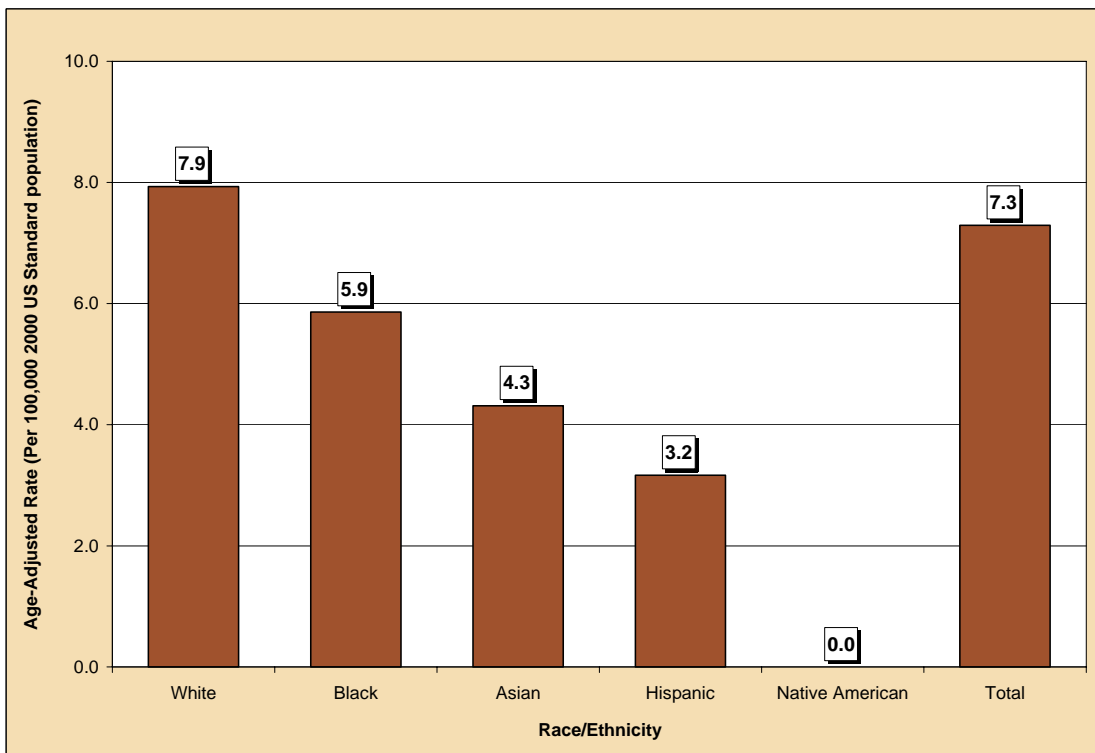


Table 226. Leukemia Mortality by Gender, Race/Ethnicity and County/Region of Residence, Nevada Residents, 1999-2003

Category	County/Region of Residence			
	Nevada Total	Clark	Washoe	All Other Counties
Total				
Mortality	667	444	110	113
Rate*	7.3	7.2	7.5	8.5
95% C.I.	(6.7-7.9)	(6.5-7.9)	(6.1-9.0)	(6.6-11.4)
Gender				
Male	391	391	391	391
Rate*	9.2	9.4	8.1	11.2
95% C.I.	(8.2-10.2)	(8.2-10.8)	(6.0-10.8)	(8.0-16.6)
Female	276	276	276	276
Rate*	5.7	5.4	6.8	5.5
95% C.I.	(5.0-6.4)	(4.7-6.3)	(5.1-8.8)	(4.0-7.5)
Other/Unknown	0	0	0	0
Race/Ethnicity				
White	591	383	102	106
Rate*	7.9	8.0	7.9	8.3
95% C.I.	(7.3-8.6)	(7.2-8.8)	(6.5-9.7)	(6.5-11.4)
Black	29	27	1	1
Rate*	5.9	5.8	---	---
95% C.I.	(3.8-9.0)	(3.7-9.2)	---	---
Native American	2	1	0	1
Rate*	---	---	---	---
95% C.I.	---	---	---	---
Asian	18	15	3	0
Rate*	4.3	3.5	---	---
95% C.I.	(2.2-8.8)	(1.9-6.2)	---	---
Hispanic	27	18	4	5
Rate*	3.2	2.7	---	---
95% C.I.	(1.9-5.0)	(1.5-4.9)	---	---
Other/Unknown	0	0	0	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.

Table 227. Leukemia 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
Total				
Deaths	667	444	110	113
Rate*	7.3	7.2	7.5	8.5
95% C.I.	(6.7-7.9)	(6.5-7.9)	(6.1-9.0)	(6.6-11.4)
Age Group				
<1	3	1	0	2
Rate*	---	---	---	---
95% C.I.	---	---	---	---
1-4	5	3	1	1
Rate*	---	---	---	---
95% C.I.	---	---	---	---
5-14	8	6	2	0
Rate*	---	---	---	---
95% C.I.	---	---	---	---
15-24	11	8	1	2
Rate*	0.7	---	---	---
95% C.I.	(0.30-1.18)	---	---	---
25-34	12	8	2	2
Rate*	0.8	---	---	---
95% C.I.	(0.33-1.20)	---	---	---
35-44	28	24	3	1
Rate*	1.7	2.1	---	---
95% C.I.	(1.07-2.32)	(1.25-2.92)	---	---
45-54	54	36	10	8
Rate*	3.8	3.8	4.0	---
95% C.I.	(2.79-4.81)	(2.55-5.02)	(1.50-6.40)	---
55-64	101	62	18	21
Rate*	9.8	8.8	11.0	13.2
95% C.I.	(7.90-11.74)	(6.60-10.98)	(5.89-16.01)	(7.57-18.88)
65-74	157	111	18	28
Rate*	22.8	23.6	17.2	25.0
95% C.I.	(19.25-26.40)	(19.17-27.94)	(9.27-25.20)	(15.72-34.21)
75-84	213	137	40	36
Rate*	54.3	51.6	65.1	55.1
95% C.I.	(47.01-61.60)	(42.98-60.27)	(44.89-85.21)	(37.09-73.07)
85+	75	48	15	12
Rate*	85.2	86.3	90.3	76.2
95% C.I.	(65.95-104.54)	(61.89-110.71)	(44.59-135.98)	(33.09-119.32)
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 228. Leukemia 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	20	7.9	(4.44-11.37)	6.8	(4.1-10.6)
Churchill	9	---	---	---	---
Clark	444	6.1	(5.50-6.62)	7.2	(6.5-7.9)
Douglas	14	6.5	(3.11-9.95)	5.8	(3.1-10.4)
Elko	9	---	---	---	---
Esmeralda	0	---	---	---	---
Eureka	0	---	---	---	---
Humboldt	5	---	---	---	---
Lander	2	---	---	---	---
Lincoln	4	---	---	---	---
Lyon	21	11.3	(6.48-16.17)	12.2	(6.3-24.8)
Mineral	1	---	---	---	---
Nye	22	13.0	(7.56-18.40)	9.3	(5.6-15.1)
Pershing	1	---	---	---	---
Storey	2	---	---	---	---
Washoe	110	6.3	(5.12-7.47)	7.5	(6.1-9.0)
White Pine	3	---	---	---	---
Unknown	0	---	---	---	---
Total	667	6.4	(5.87-6.84)	7.3	(6.7-7.9)

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 229. Leukemia Mortality by Race/Ethnicity and Gender, Nevada Residents, 1999-2003

Race/Ethnicity	Gender				
	Male	Female	Other/Unknown	Total	
White	Incidence	343	248	0	591
	Rate*	9.8	6.3	---	7.9
	95% C.I.	(8.7-11.0)	(5.5-7.2)	---	(7.3-8.6)
Black	Incidence	18	11	0	29
	Rate*	8.3	4.2	---	5.9
	95% C.I.	(4.4-16.1)	(2.1-7.8)	---	(3.8-9.0)
Native American	Incidence	1	1	0	2
	Rate*	---	---	---	---
	95% C.I.	---	---	---	---
Asian	Incidence	10	8	0	18
	Rate*	4.7	---	---	4.3
	95% C.I.	(2.1-9.5)	---	---	(2.2-8.8)
Hispanic	Incidence	19	8	0	27
	Rate*	5.0	---	---	3.2
	95% C.I.	(2.7-8.7)	---	---	(1.9-5.0)
Other/Unknown	0	0	0	0	
Total	Incidence	391	276	0	667
	Rate*	9.2	5.7	---	7.3
	95% C.I.	(8.2-10.2)	(5.0-6.4)	---	(6.7-7.9)

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 230. Leukemia Mortality by Age Group and Gender, Nevada Residents, 1999-2003

Age Group	Gender		
	Male	Female	Total
<1	3	0	3
Rate*	---	---	---
95% C.I.	---	---	---
1-4	2	3	5
Rate*	---	---	---
95% C.I.	---	---	---
5-14	2	6	8
Rate*	---	---	---
95% C.I.	---	---	---
15-24	9	2	11
Rate*	---	---	0.74
95% C.I.	---	---	(0.30-1.18)
25-34	8	4	12
Rate*	---	---	0.77
95% C.I.	---	---	(0.33-1.20)
35-44	11	17	28
Rate*	1.28	2.13	1.69
95% C.I.	(0.52-2.04)	(1.12-3.15)	(1.07-2.32)
45-54	38	16	54
Rate*	5.28	2.28	3.80
95% C.I.	(3.60-6.95)	(1.16-3.40)	(2.79-4.81)
55-64	62	39	101
Rate*	12.20	7.49	9.82
95% C.I.	(9.17-15.24)	(5.14-9.85)	(7.90-11.74)
65-74	97	60	157
Rate*	28.58	17.22	22.83
95% C.I.	(22.90-34.27)	(12.86-21.57)	(19.25-26.40)
75-84	130	83	213
Rate*	73.34	38.61	54.30
95% C.I.	(60.73-85.95)	(30.30-46.91)	(47.01-61.60)
85+	29	46	75
Rate*	99.71	78.10	85.24
95% C.I.	(63.42-136.00)	(55.53-100.67)	(65.95-104.54)
Unknown	0	0	0
Total	391	276	667
Rate*	7.33	5.35	6.35
95% C.I.	(6.60-8.06)	(4.71-5.98)	(5.87-6.84)

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

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

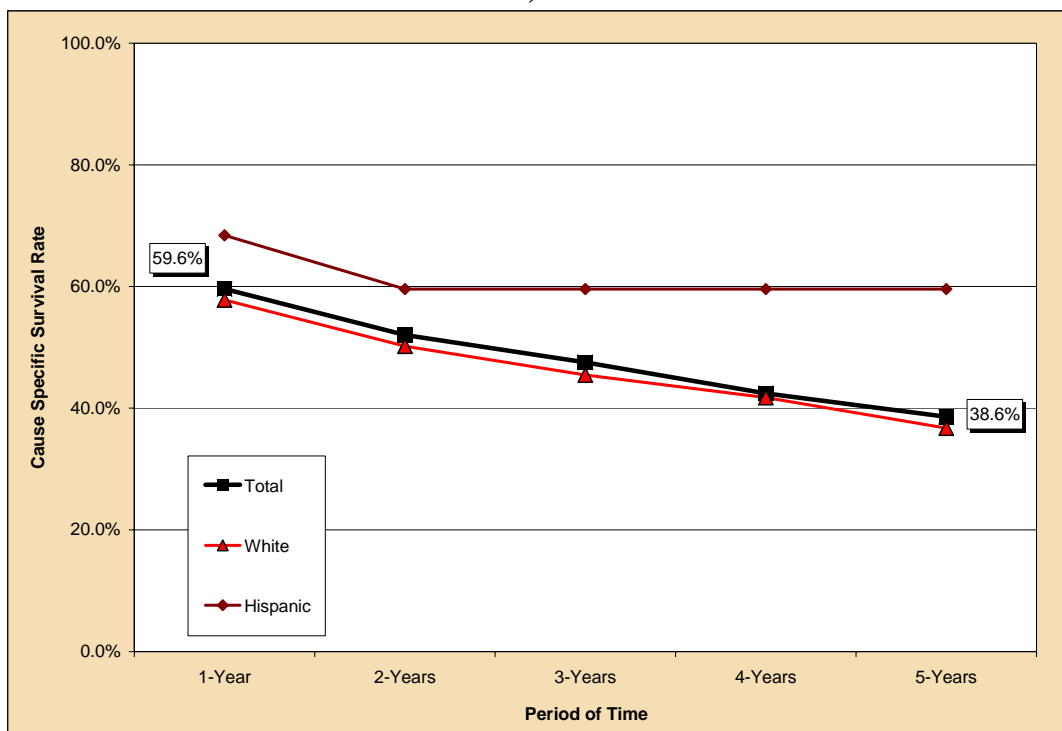
Table 231. Median Age at Death from Leukemia by Race/Ethnicity and Gender, Nevada Residents, 1999-2003

Race/Ethnicity	Gender					
	Male		Female		Total	
	Cases	Median Age	Cases	Median Age	Cases	Median Age
White	343	72.0	248	74.0	591	73.0
Black	18	60.5	11	70.0	29	64.0
Native American	1	---	1	---	2	---
Asian	10	63.5	8	57.0	18	60.5
Hispanic	19	63.0	8	50.5	27	61.0
Other/Unknown	0	---	0	---	0	---
Total	391	71.0	276	73.0	667	72.0

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.

SURVIVAL RATE

Figure 151. Survival Rates for Leukemia 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 152. Survival Rates for Leukemia by Stage of Cancer at Diagnosis, Nevada Residents, 1999-2003

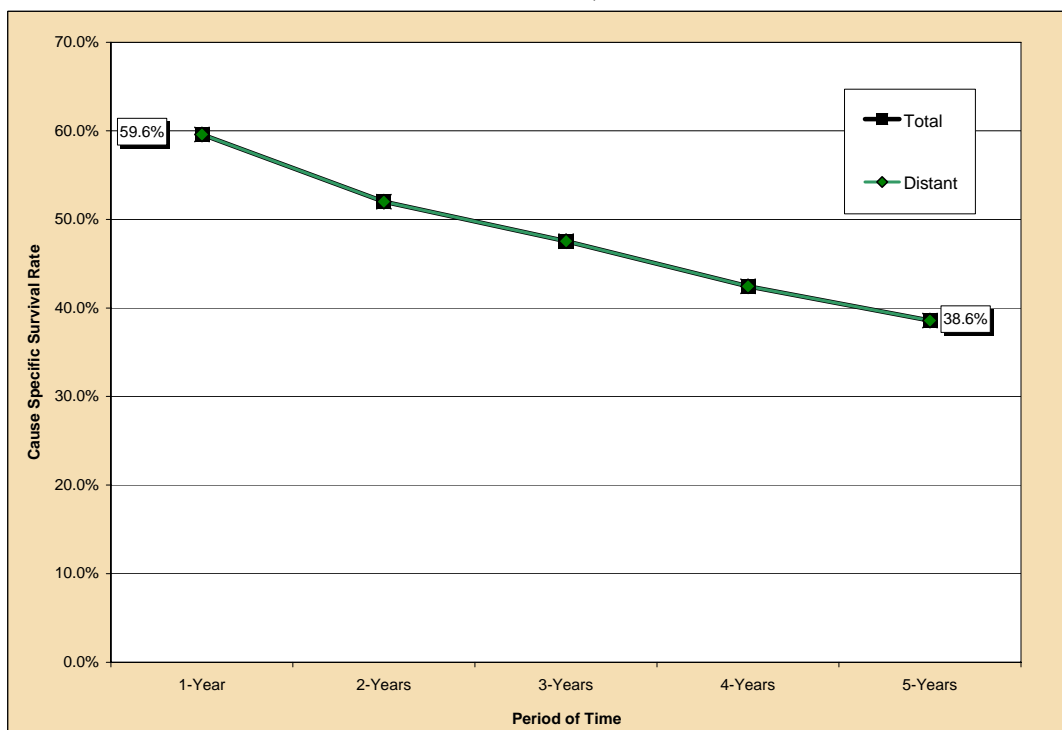


Table 232. Cause-Specific Survival Rates for Leukemia by Race/Ethnicity and Gender, Nevada Residents, 1999-2003

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	881	59.6%	52.0%	47.5%	42.5%	38.6%	2.45
Male	528	58.7%	50.4%	46.8%	43.3%	35.4%	2.11
Female	352	61.2%	54.6%	48.8%	41.3%	41.3%	2.78
Race/Ethnicity							
White	726	57.8%	50.2%	45.5%	41.8%	36.7%	2.04
Male	441	56.6%	48.8%	45.4%	42.3%	31.7%	1.85
Female	284	59.8%	52.5%	45.6%	41.1%	41.1%	2.36
Black	41	---	---	---	---	---	.
Male	20	---	---	---	---	---	.
Female	21	---	---	---	---	---	.
Native American	1	---	---	---	---	---	.
Male	0	---	---	---	---	---	---
Female	1	---	---	---	---	---	.
Asian	28	---	---	---	---	---	.
Male	13	---	---	---	---	---	.
Female	15	---	---	---	---	---	.
Hispanic	63	68.4%	59.6%	59.6%	59.6%	59.6%	> 5 YEARS
Male	41	---	---	---	---	---	.
Female	22	---	---	---	---	---	.

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 233. Cause-Specific Survival Rates for Leukemia by Stage of Cancer at Diagnosis and Gender, Nevada Residents, 1999-2003

Survival Rate of Stage at Diagnosis		Gender		
		Total	Male	Female
Total	Cases	881	528	352
	One Year	59.6%	58.7%	61.2%
	5 Years	38.6%	35.4%	41.3%
	Median Survival	2.45	2.11	2.78
Stage at Diagnosis				
In situ	Cases	---	---	---
	One Year	---	---	---
	5 Years	---	---	---
	Median Survival	---	---	---
Localized	Cases	---	---	---
	One Year	---	---	---
	5 Years	---	---	---
	Median Survival	---	---	---
Regional	Cases	---	---	---
	One Year	---	---	---
	5 Years	---	---	---
	Median Survival	---	---	---
Distant	Cases	881	528	352
	One Year	59.6%	58.7%	61.2%
	5 Years	38.6%	35.4%	41.3%
	Median Survival	2.45	2.11	2.78
Unstaged	Cases	---	---	---
	One Year	---	---	---
	5 Years	---	---	---
	Median Survival	---	---	---

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.