NON-HODGKIN'S LYMPHOMA

NON-HODGKIN'S LYMPHOMA

GENERAL PROFILE⁴

Figure 101. Anatomy of the Lymphatic System



General Anatomy: Lymphoma is a general term for cancers that develop in the lymphatic system. The lymphatic system is part of the body's immune system that helps the body fight disease and infection and includes a network of thin tubes (lymphatic vessels) that branch, like blood vessels, into tissues throughout the body. Lymphatic vessels carry lymph, a colorless, watery fluid that contains infection-fighting cells called lymphocytes. Along this network of vessels are small organs called lymph nodes that are found in the underarms, groin, neck, chest, and abdomen. Other parts of the lymphatic system are the spleen, thymus, tonsils, and bone marrow. Lymphatic tissue is also found in other parts of the body, including the stomach, intestines, and skin.

In non-Hodgkin's lymphoma, cells in the lymphatic system become abnormal. They divide and grow without any order or control, or old cells do not die as cells normally do. Non-Hodgkin's lymphoma can start almost anywhere in the body and may occur in a single lymph node, a group of lymph nodes, or in another organ. This type of cancer can spread to almost any part of the body, including the liver, bone marrow, and spleen.

Risk Factors: Age, male gender, weakened immune system, viruses (Human T-lymphotropic virus type I (HTLV-1) and Epstein-Barr virus), and environment (chemical exposure).

Signs and Symptoms: Unexplained fever, night sweats, constant fatigue, unexplained weight loss, itchy skin, and reddened patches on the skin.

Diagnosing the Cancer: X-rays, computed tomography (CAT) scan, magnetic resonance imaging (MRI), and lymphangiogram.

Treatment: Treatment options include: chemotherapy, radiation therapy, bone marrow transplantation (BMT), biological therapy, surgery, and clinical trials.

HIGHLIGHTS

- The ratio of the age-adjusted incidence rate, 14.8, to the age-adjusted mortality rate, 7.4 (per 100,000 2000 US Standard population), for Non-Hodgkin's Lymphoma was 2.01 during the 1996 to 2000 period, which means that for every 2.01 Non-Hodgkin's Lymphoma cases during this period, there was one death due to Non-Hodgkin's Lymphoma in Nevada.
- Nevadan females had a higher ratio than males when the age-adjusted incidence and ageadjusted mortality rates for Non-Hodgkin's Lymphoma were compared. For every female death due to Non-Hodgkin's Lymphoma there was 2.10 female cases while there were 1.89 male cases for every male Non-Hodgkin's Lymphoma death in Nevada from 1996 to 2000.
- The median age at diagnosis of Non-Hodgkin's Lymphoma was 65 years of age for Nevada residents from 1996 to 2000; the median age at time of death was 72 years.

INCIDENCE

- There were 1,252 cases of Non-Hodgkin's Lymphoma in Nevada from 1996 to 2000. Nevada's lower incidence rate, 14.8 (13.9-15.6), for Non-Hodgkin's Lymphoma showed statistical significance when compared to the National rate, 19.1 (18.9-19.3), per 100,000 – 2000 US Standard population.
- While regional comparisons showed that Washoe County's age-adjusted incidence rate, 17.0, was higher than the rate for All Other Counties and Clark County who had rates of 16.3 and 13.9 (per 100,000 – 2000 US Standard population) from 1996 to 2000, these differences were not statistically significant.
- Males had a higher statistically significant age-adjusted incidence rate, 17.6 (16.2-19.1), than Females from 1996 to 2000 who had a rate of 12.2 (11.2-13.3), per 100,000 2000 US Standard population.
- Whites had the highest age-adjusted incidence rate, 16.2, for Non-Hodgkin's Lymphoma of all racial/ethnic groups and were followed by Asians, Blacks and Hispanics with rates of 13.2, 8.7 and 8.1 (per 100,000 2000 US Standard population), respectively, during this period.

INPATIENT HOSPITAL DISCHARGES

There were 966 Inpatient Discharges for Non-Hodgkin's Lymphoma to Nevada residents from 1996 to 2000. Regional comparisons showed little difference between the ageadjusted inpatient discharge rates and average length of stay in days between Clark County, Washoe County and All Other Counties, as a region.

- Total billed charges for hospital inpatient discharges from Non-Hodgkin's Lymphoma in Nevada totaled just over 35 million dollars from 1996 to 2000. Clark County had the highest median total billed charge (\$23,570) once regional comparisons were made.
- The overall average billed charge per day for an inpatient hospital discharge for Non-Hodgkin's Lymphoma was approximately \$4,000 in Nevada from 1996 to 2000.

MORTALITY

- There were 587 deaths in Nevada due to Non-Hodgkin's Lymphoma from 1996 to 2000. Regional comparisons showed little difference between the age-adjusted mortality rates for Clark County, Washoe County, and All Other Counties, as a region, with rates of 7.6, 7.1 and 6.8 (per 100,000 – 2000 US Standard population), respectively.
- While racial/ethnic comparisons showed that Whites had highest age-adjusted mortality rate (7.9) for Non-Hodgkin's Lymphoma, and were followed by Asians, Hispanics and Blacks with rates of 6.5, 4.5 and 4.1 (per 100,000 2000 US Standard population), respectively; statistical analysis does not show any statistical significance between any of the racial/ethnic groups during the 1996 to 2000 period.

SURVIVAL RATE

- Males in Nevada had a slightly higher one-year survival rate (68.8%) than females (68.1%) for Non-Hodgkin's Lymphoma during the 1996 to 2000 period. However, this difference grew by the five-year survival period where males had a survival rate of 37.9% and females had a rate of 30.7%.
- The Non-Hodgkin's Lymphoma 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 83.6% and 43.6%, respectively. This was followed by those with regional and then distant diagnoses with rates of 61.8% and 61.1% for the one year period and 39.6% and 21.0% for the five year period.

INCIDENCE

Figure 102. Non-Hodgkin's Lymphoma Age-Adjusted (2000) Incidence Rates, Nevada Residents, 1996-2000



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 104. Non-Hodgkin's Lymphoma Age-Adjusted Incidence Rates by Race/Ethnicity, Nevada Residents, 1996-2000



Table 150. Non-Hodgkin's Lymphoma Cases by Gender, Race/Ethnicity and County/Region of Residence at Diagnosis, Nevada Residents (1996-2000) and SEER-11 (1995-1999)

		County/Region of Residence							
Category	Nevada Total	Clark	Washoe	All Other Counties	Unknown	SEER 11 (1995-1999)			
Total									
Cases	1,252	773	253	226	0	32,597			
Rate*	14.8	13.9	17.0	16.3		19.1			
95% C.I.	(13.9-15.6)	(12.9-14.9)	(14.9-19.3)	(14.2-18.7)		(18.9-19.3)			
Gender									
Male	716	432	152	132	0	18,057			
Rate*	17.6	16.1	21.8	19.3		23.7			
95% C.I.	(16.2-19.1)	(14.5-17.9)	(18.2-26.1)	(16.1-23.3)		(23.3-24.0)			
Female	535	341	100	94	0	14,540			
Rate*	12.2	11.8	13.0	13.4		15.4			
95% C.I.	(11.2-13.3)	(10.6-13.2)	(10.6-15.8)	(10.8-16.5)		(15.2-15.7)			
Other/Unknown	1	0	1	0	0	0			
Race/Ethnicity									
White	1,109	668	229	212	0	27,505			
Rate*	16.2	15.4	17.9	17.1		19.9			
95% C.I.	(15.2-17.2)	(14.2-16.7)	(15.7-20.5)	(14.8-19.6)		(19.7-20.1)			
Black	37	33	3	1	0	2,332			
Rate*	8.7	8.7				14.7			
95% C.I.	(5.9-12.9)	(5.7-13.2)				(14.1-15.3)			
Native American	4	0	2	2	0	73			
Rate*						5.9			
95% C.I.						(4.5-4.5)			
Asian	40	33	5	2	0	2,178			
Rate*	13.2	13.8				13.8			
95% C.I.	(8.7-21.1)	(8.5-23.8)				(13.2-14.4)			
Hispanic	56	34	13	9	0	2,826			
Rate*	8.1	6.8	14.4			14.4			
95% C.I.	(5.8-11.6)	(4.4-10.9)	(6.2-32.9)			(13.8-15.0)			
Other/Unknown	6	5	1	0	0	509			

* 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 151. Non-Hodgkin's Lymphoma Cases by Age Group and County/Region ofResidence at Diagnosis, Nevada Residents (1996-2000) and SEER-11 (1995-1999)

			County/Regio	on of Residence		
Category	Nevada Total	Clark	Washoe	All Other Counties	Unknown	SEER 11 (1995-1999)
Total						
Cases	1,252	773	253	226	0	32,597
Rate*	13.5	12.3	15.4	16.5		17.6
95% C.I.	(12.7-14.2)	(11.4-13.1)	(13.5-17.4)	(14.3-18.6)		(17.4-17.8)
Age Group						
<1	1	1	0	0	0	
Rate*						
95% C.I.						
1-4	7	3	2	2	0	69
Rate*						0.6
95% C.I.						(0.5-0.8)
5-14	11	6	3	2	0	261
Rate*	0.8					1.0
95% C.I.	(0.3-1.3)					(0.9-1.1)
15-24	20	13	3	4	0	493
Rate*	1.6	1.5				1.9
95% C.I.	(0.9-2.2)	(0.7-2.3)				(1.7-2.1)
25-34	62	39	12	11	0	1,663
Rate*	4.3	3.8	4.8	6.9		5.7
95% C.I.	(3.3-5.4)	(2.6-5.0)	(2.1-7.4)	(2.8-11.0)		(5.4-6.0)
35-44	103	56	33	14	0	3,234
Rate*	6.9	5.7	11.9	6.2		10.4
95% C.I.	(5.6-8.2)	(4.2-7.1)	(7.8-15.9)	(3.0-9.4)		(10.0-10.7)
45-54	163	102	30	31	0	4,410
Rate*	13.5	12.9	13.4	16.1		19.3
95% C.I.	(11.4-15.6)	(10.4-15.4)	(8.6-18.1)	(10.4-21.8)		(18.7-19.8)
55-64	235	141	54	40	0	5,288
Rate*	27.3	24.3	38.2	29.0		37.8
95% C.I.	(23.8-30.8)	(20.2-28.3)	(28.0-48.4)	(20.0-38.0)		(36.8-38.8)
65-74	316	197	57	62	0	7,764
Rate*	51.0	47.5	56.5	59.3		67.3
95% C.I.	(45.4-56.6)	(40.9-54.2)	(41.8-71.2)	(44.6-74.1)		(65.8-68.8)
75-84	275	176	49	50	0	7,086
Rate*	83.9	81.4	89.0	88.5		97.5
95% C.I.	(74.0-93.8)	(69.4-93.4)	(64.1-114.0)	(64.0-113.1)		(95.2-99.8)
85+	59	39	10	10	0	2,325
Rate*	83.7	91.0	69.4	75.8		93.7
95% C.I.	(62.4-105.1)	(62.5-119.6)	(26.4-112.4)	(28.8-122.8)		(89.9-97.6)
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 152. Non-Hodgkin's Lymphoma Cases by County of Residence at Diagnosis,Nevada Residents, 1996-2000

County of	1996-2000 Incidence						
Residence	Cases	Rat	e*	Age-Adjusted Rate**			
at Diagnosis	Cases	Rate	95% C.I.	Rate	95% C.I.		
Carson City	67	27.3	(20.8-33.9)	24.4	(18.9-31.2)		
Churchill	28	23.7	(14.9-32.5)	24.3	(16.1-35.7)		
Clark	773	12.3	(11.4-13.1)	13.9	(12.9-14.9)		
Douglas	43	21.5	(15.1-27.9)	19.5	(13.9-27.3)		
Elko	12	5.2	(2.3-8.2)	9.4	(4.5-18.1)		
Esmeralda	0						
Eureka	0						
Humboldt	9						
Lander	1						
Lincoln	1						
Lyon	28	17.3	(10.9-23.7)	15.7	(10.4-23.4)		
Mineral	2						
Nye	28	18.9	(11.9-25.8)	15.1	(9.7-23.6)		
Pershing	3						
Storey	1						
Washoe	253	15.4	(13.5-17.4)	17.0	(14.9-19.3)		
White Pine	3						
Unknown	0						
Total	1,252	13.5	(12.7-14.2)	14.8	(13.9-15.6)		

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 153. Non-Hodgkin's Lymphoma Cases by Race/Ethnicity and Gender,Nevada Residents, 1996-2000

			Ger	nder	
Rac	e/Ethnicity	Male	Female	Other/ Unknown	Total
White	Incidence	632	476	1	1,109
	Rate*	19.2	13.5		16.2
	95% C.I.	(17.6-20.8)	(12.3-14.8)		(15.2-17.2)
Black	Incidence	18	19	0	37
	Rate*	7.7	9.0		8.7
	95% C.I.	(4.4-15.9)	(5.2-14.9)		(5.9-12.9)
Native	Incidence	2	2	0	4
American	Rate*				
	95% C.I.				
Asian	Incidence	22	18	0	40
	Rate*	14.3	12.4		13.2
	95% C.I.	(8.6-28.4)	(6.1-25.6)		(8.7-21.1)
Hispanic	Incidence	39	17	0	56
	Rate*	11.4	5.0		8.1
	95% C.I.	(7.4-18.9)	(2.6-9.5)		(5.8-11.6)
Other/Unkr	iown	3	3	0	6
Total	Incidence	716	535	1	1,252
	Rate*	17.6	12.2		14.8
	95% C.I.	(16.2-19.1)	(11.2-13.3)		(13.9-15.6)

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

Table 154. Non-Hodgkin's Lymphoma Cases by Age Group and Gender, Nevada **Residents**, 1996-2000

Age		Ger	nder	
Group	Male	Female	Other/ Unknown	Total
<1	0	1	0	1
Rate*				
95% C.I.				
1-4	3	4	0	7
Rate*				
95% C.I.				
5-14	7	4	0	11
Rate*				0.8
95% C.I.				(0.3-1.3)
15-24	9	11	0	20
Rate*		1.8		1.6
95% C.I.		(0.7-2.8)		(0.9-2.2)
25-34	34	27	1	62
Rate*	4.6	3.9		4.3
95% C.I.	(3.0-6.1)	(2.4-5.4)		(3.3-5.4)
35-44	69	34	0	103
Rate*	8.9	4.7		6.9
95% C.I.	(6.8-11.0)	(3.1-6.3)		(5.6-8.2)
45-54	100	63	0	163
Rate*	16.3	10.6		13.5
95% C.I.	(13.1-19.5)	(8.0-13.2)		(11.4-15.6)
55-64	149	86	0	235
Rate*	34.8	19.9		27.3
95% C.I.	(29.2-40.3)	(15.7-24.1)		(23.8-30.8)
65-74	180	136	0	316
Rate*	58.9	43.3		51.0
95% C.I.	(50.3-67.5)	(36.0-50.6)		(45.4-56.6)
75-84	139	136	0	275
Rate*	94.3	75.4		83.9
95% C.I.	(78.6-109.9)	(62.8-88.1)		(74.0-93.8)
85+	26	33	0	59
Rate*	114.7	69.1		83.7
95% C.I.	(70.6-158.8)	(45.5-92.6)		(62.4-105.1)
Unknown	0	0	0	0
Total	716	535	1	1,252
Rate*	15.1	11.7		13.5
95% C.I.	(14.0-16.2)	(10.7-12.7)		(12.7-14.2)

* Rates are per 100,000 age-specific population. Note: The "---" is used for rates calculated on numbers less than ten.

Table 155. Non-Hodgkin's Lymphoma Cases by Age Group and Stage, NevadaResidents, 1996-2000

Arro	Croup	Stage					
Age	Group	In situ	Localized	Regional	Distant	Unstaged	Total
<1	Number	0	0	0	0	1	1
	Percent					100.0%	100.0%
1-4	Number	0	2	1	2	2	7
	Percent		28.6%	14.3%	28.6%	28.6%	100.0%
5-14	Number	0	1	0	6	4	11
	Percent		9.1%		54.5%	36.4%	100.0%
15-24	Number	0	9	0	5	6	20
	Percent		45.0%		25.0%	30.0%	100.0%
25-34	Number	0	18	8	20	16	62
	Percent		29.0%	12.9%	32.3%	25.8%	100.0%
35-44	Number	0	35	7	32	29	103
	Percent		34.0%	6.8%	31.1%	28.2%	100.0%
45-54	Number	0	47	13	58	45	163
	Percent		28.8%	8.0%	35.6%	27.6%	100.0%
55-64	Number	0	68	26	78	63	235
	Percent		28.9%	11.1%	33.2%	26.8%	100.0%
65-74	Number	0	85	28	97	106	316
	Percent		26.9%	8.9%	30.7%	33.5%	100.0%
75-84	Number	0	61	22	81	111	275
	Percent		22.2%	8.0%	29.5%	40.4%	100.0%
85+	Number	0	10	5	22	22	59
	Percent		16.9%	8.5%	37.3%	37.3%	100.0%
Unknown	Number	0	0	0	0	0	0
	Percent						
Total	Number Percent	0	336 26.8%	110 8.8%	401 32.0%	405 32.3%	1,252 100.0%

Table 156. Non-Hodgkin's Lymphoma Cases by Stage and Race/Ethnicity, NevadaResidents, 1996-2000

			Race/Ethnicity						
Stage		White	Black	Native American	Asian	Hispanic	Other/ Unknown	Total	
In situ	Number	0	0	0	0	0	0	0	
	Percent								
Localized	Number	297	8	2	10	16	3	336	
	Percent	26.8%	21.6%	50.0%	25.0%	28.6%	50.0%	26.8%	
Regional	Number	92	5	0	4	8	1	110	
	Percent	8.3%	13.5%		10.0%	14.3%	16.7%	8.8%	
Distant	Number	359	16	1	14	10	1	401	
	Percent	32.4%	43.2%	25.0%	35.0%	17.9%	16.7%	32.0%	
Unstaged	Number	361	8	1	12	22	1	405	
	Percent	32.6%	21.6%	25.0%	30.0%	39.3%	16.7%	32.3%	
Total	Number	1,109	37	4	40	56	6	1,252	
	Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table 157. Median Age at Diagnosis of Non-Hodgkin's Lymphoma by
Race/Ethnicity and Gender, Nevada Residents, 1996-2000

		Gender								
Race/Ethnicity	Ма	le	Fem	ale	Total					
	Incidence	Median Age	Incidence	Median Age	Incidence	Median Age				
White	632	65.0	476	67.0	1,108	66.0				
Black	18	51.0	19	65.0	37	58.0				
Native American	2		2		4					
Asian	22	63.0	18	68.5	40	64.0				
Hispanic	39	55.0	17	61.0	56	58.0				
Other/Unknown	3		3		6	56.5				
Total	716	64.0	535	67.0	1,251	65.0				

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 105. Non-Hodgkin's Lymphoma Age-Adjusted (2000) Inpatient Discharge Rates, Nevada Residents, 1996-2000



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 107. Median Charges for Non-Hodgkin's Lymphoma Discharges by County/Region of Residence, Nevada Residents, 1996-2000







Table 158. Non-Hodgkin's Lymphoma Discharges by Gender, Charges, Length of
Stay, and County/Region of Residence, Nevada Residents, 1996-2000

		Coun	ty/Region of Resid	ence	
Category	Nevada Total	Clark	Washoe	All Other Counties	Unknown
Total					
Discharges	966	662	164	140	0
Rate*	11.3	11.7	11.2	10.0	
95% C.I.	(10.6-12.1)	(10.8-12.6)	(9.5-13.1)	(8.4-11.9)	
Gender					
Male	553	373	99	81	0
Rate*	13.2	13.5	14.2	11.3	
95% C.I.	(12.1-14.5)	(12.1-15.1)	(11.3-17.8)	(8.9-14.3)	
Female	413	289	65	59	0
Rate*	9.4	9.9	8.6	8.5	
95% C.I.	(8.5-10.4)	(8.8-11.2)	(6.6-11.0)	(6.5-11.1)	
Other/Unknown	0	0	0	0	0
Inpatient Discharge Cl	harges (\$)				
Total Charges	\$35,296,828	\$24,713,117	\$5,762,200	\$4,821,511	
Average Charges	\$36,539	\$37,331	\$35,135	\$34,439	
Median Charges	\$21,406	\$23,570	\$20,192	\$17,496	
Discharge Length of S	stay (LOS) (Days)				
Total LOS	8,789	6,040	1,481	1,268	
Average LOS	9.1	9.1	9.0	9.1	
Median LOS	6.0	7.0	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 159. Non-Hodgkin's Lymphoma Discharges by Age Group and
County/Region of Residence, Nevada Residents, 1996-2000

		Count	y/Region of Resider	ice	
Category	Nevada Total	Clark	Washoe	All Other Counties	Unknown
Total					
Discharges	966	662	164	140	0
Rate*	10.4	10.5	10.0	10.2	
95% C.I.	(9.7-11.0)	(9.7-11.3)	(8.5-11.5)	(8.5-11.9)	
Age Group					
<1	1	1	0	0	0
Rate*					
95% C.I.					
1-4	6	4	0	2	0
Rate*					
95% C.I.					
5-14	15	12	2	1	0
Rate*	1.1	1.4			
95% C.I.	(0.6-1.7)	(0.6-2.1)			
15-24	20	15	2	3	0
Rate*	1.6	1.7			
95% C.I.	(0.9-2.2)	(0.9-2.6)			
25-34	54	37	12	5	0
Rate*	3.8	3.6	4.8		
95% C.I.	(2.8-4.8)	(2.5-4.8)	(2.1-7.4)		
35-44	61	43	14	4	0
Rate*	4.1	4.3	5.0		
95% C.I.	(3.1-5.1)	(3.0-5.6)	(2.4-7.7)		
45-54	122	91	13	18	0
Rate*	10.1	11.5	5.8	8.0	
95% C.I.	(8.3-11.9)	(9.1-13.8)	(2.6-8.9)	(4.3-11.7)	
55-64	178	112	42	24	0
Rate*	20.7	19.3	29.7	17.0	
95% C.I.	(17.6-23.7)	(15.7-22.8)	(20.7-38.7)	(10.2-23.8)	
65-74	264	177	38	49	0
Rate*	42.6	42.7	37.7	48.6	
95% C.I.	(37.4-47.7)	(36.4-49.0)	(25.7-49.7)	(35.0-62.2)	
75-84	203	146	31	26	0
Rate*	61.9	67.5	56.3	47.2	
95% C.I.	(53.4-70.5)	(56.6-78.5)	(36.5-76.2)	(29.1-65.4)	
85+	42	24	10	8	0
Rate*	59.6	56.0	69.4		
95% C.I.	(41.6-77.6)	(33.6-78.4)	(26.4-112.4)		
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 160. Non-Hodgkin's Lymphoma Discharges by Age Group and Gender,Nevada Residents, 1996-2000

Age		Gender	
Group	Male	Female	Total
<1	0	1	1
Rate*			
95% C.I.			
1-4	3	3	6
Rate*			
95% C.I.			
5-14	5	10	15
Rate*		1.6	1.1
95% C.I.		(0.6-2.5)	(0.6-1.7)
15-24	11	9	20
Rate*	1.7		1.6
95% C.I.	(0.7-2.6)		(0.9-2.2)
25-34	33	21	54
Rate*	4.4	3.1	3.8
95% C.I.	(2.9-5.9)	(1.7-4.4)	(2.8-4.8)
35-44	49	12	61
Rate*	6.3	1.7	4.1
95% C.I.	(4.6-8.1)	(0.7-2.6)	(3.1-5.1)
45-54	69	53	122
Rate*	11.3	8.9	10.1
95% C.I.	(8.6-13.9)	(6.5-11.3)	(8.3-11.9)
55-64	109	69	178
Rate*	25.4	16.0	20.7
95% C.I.	(20.7-30.2)	(12.2-19.7)	(17.6-23.7)
65-74	161	103	264
Rate*	52.7	32.8	42.6
95% C.I.	(44.5-60.8)	(26.5-39.1)	(37.4-47.7)
75-84	98	105	203
Rate*	66.5	58.2	61.9
95% C.I.	(53.3-79.6)	(47.1-69.4)	(53.4-70.5)
85+	15	27	42
Rate*	66.2	56.5	59.6
95% C.I.	(32.7-99.6)	(35.2-77.8)	(41.6-77.6)
Unknown	0	0	0
Total	553	413	966
Rate*	11.7	9.0	10.4
95% C.I.	(10.7-12.7)	(8.2-9.9)	(9.7-11.0)

* 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 161. Non-Hodgkin's Lymphoma Discharges by County/Region of Residence,Nevada Residents, 1996-2000

Country of	1996-2000 Inpatient Hospital Discharges						
County of Residence	Number	Rat	e*	Age-Adjusted Rat			
	Number	Rate	95% C.I.	Rate	95% C.I.		
Carson City	29	11.8	(7.5-16.1)	10.0	(6.7-14.6)		
Churchill	23	19.5	(11.5-27.5)	20.2	(12.8-30.9)		
Clark	662	10.5	(9.7-11.3)	11.7	(10.8-12.6)		
Douglas	14	7.0	(3.3-10.7)	6.5	(3.4-11.9)		
Elko	4						
Esmeralda	0						
Eureka	0						
Humboldt	7						
Lander	0						
Lincoln	1						
Lyon	28	17.3	(10.9-23.7)	15.6	(10.3-23.2)		
Mineral	3						
Nye	27	18.2	(11.3-25.1)	14.8	(9.4-23.3)		
Pershing	3						
Storey	0						
Washoe	164	10.0	(8.5-11.5)	11.2	(9.5-13.1)		
White Pine	1						
Unknown	0						
Total	966	10.4	(9.7-11.0)	11.3	(10.6-12.1)		

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 162. Non-Hodgkin's Lymphoma Discharges by Age Group, Charges and
Length of Stay, Nevada Residents, 1996-2000

Age	Discharges	Charges (\$)			Len	gth of Stay (Da	ys)
Group	Discharges	Total	Average	Median	Total	Average	Median
<1	1						
1-4	6	365,693	60,949	33,537	64	10.7	7.0
5-14	15	768,799	51,253	46,479	155	10.3	8.0
15-24	20	2,087,493	104,375	36,043	332	16.6	9.5
25-34	54	2,520,021	46,667	32,897	648	12.0	7.0
35-44	61	2,988,784	48,996	21,100	638	10.5	6.0
45-54	122	4,361,742	35,752	25,295	1,067	8.7	6.0
55-64	178	6,195,907	34,808	20,935	1,559	8.8	6.0
65-74	264	8,977,281	34,005	21,095	2,337	8.9	6.0
75-84	203	6,047,647	29,791	20,039	1,674	8.2	7.0
85+	42	976,664	23,254	15,266	313	7.5	5.5
Unknown	0						
Total	966	35,296,828	36,539	21,406	8,789	9.1	6.0

MORTALITY

Figure 109. Non-Hodgkin's Lymphoma Age-Adjusted (2000) Mortality Rates, Nevada Residents, 1996-2000



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 111. Non-Hodgkin's Lymphoma Age-Adjusted Mortality Rates by Race/Ethnicity, Nevada Residents, 1996-2000



Table 163. Non-Hodgkin's Lymphoma Mortality by Gender, Race/Ethnicity and
County/Region of Residence, Nevada Residents, 1996-2000

	County/Region of Residence						
Category	Nevada Total	Clark	Washoe	All Other Counties			
Total							
Mortality	587	395	100	92			
Rate*	7.4	7.6	7.1	6.8			
95% C.I.	(6.8-8.0)	(6.8-8.4)	(5.7-8.7)	(5.4-8.4)			
Gender							
Male	340	223	56	61			
Rate*	9.3	9.4	8.9	9.4			
95% C.I.	(8.3-10.5)	(8.1-10.9)	(6.5-12.1)	(7.1-12.5)			
Female	247	172	44	31			
Rate*	5.8	6.2	5.9	4.4			
95% C.I.	(5.1-6.6)	(5.3-7.2)	(4.2-7.9)	(3.0-6.3)			
Other/Unknown	0	0	0	0			
Race/Ethnicity							
White	526	348	92	86			
Rate*	7.9	8.3	7.4	6.9			
95% C.I.	(7.2-8.6)	(7.4-9.3)	(5.9-9.1)	(5.5-8.6)			
Black	16	15	1	0			
Rate*	4.1	4.1					
95% C.I.	(2.2-7.3)	(2.2-7.7)					
Native American	3	0	1	2			
Rate*							
95% C.I.							
Asian	19	17	1	1			
Rate*	6.5	7.0					
95% C.I.	(3.7-12.9)	(3.9-15.2)					
Hispanic	22	14	5	3			
Rate*	4.5	4.1					
95% C.I.	(2.6-7.8)	(2.0-8.2)					
Other/Unknown	1	1	0	0			

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 164. Non-Hodgkin's Lymphoma Mortality by Age Group and
County/Region of Residence, Nevada Residents, 1996-2000

	County/Region of Residence							
Category	Nevada Total	Clark	Washoe	All Other Counties				
Total								
Mortality	587	395	100	92				
Rate*	6.3	6.3	6.1	6.7				
95% C.I.	(5.8-6.8)	(5.7-6.9)	(4.9-7.3)	(5.3-8.1)				
Age Group								
<1	0	0	0	0				
Rate*								
95% C.I.								
1-4	0	0	0	0				
Rate*								
95% C.I.								
5-14	1	1	0	0				
Rate*								
95% C.I.								
15-24	3	3	0	0				
Rate*								
95% C.I.								
25-34	12	9	2	1				
Rate*	0.8							
95% C.I.	(0.4-1.3)							
35-44	22	14	6	2				
Rate*	1.5	1.4						
95% C.I.	(0.9-2.1)	(0.7-2.2)						
45-54	59	39	7	13				
Rate*	4.9	4.9		6.8				
95% C.I.	(3.6-6.1)	(3.4-6.5)		(3.1-10.4)				
55-64	91	51	22	18				
Rate*	10.6	8.8	15.6	13.0				
95% C.I.	(8.4-12.7)	(6.4-11.2)	(9.1-22.1)	(7.0-19.1)				
65-74	167	107	32	28				
Rate*	26.9	25.8	31.7	26.8				
95% C.I.	(22.9-31.0)	(20.9-30.7)	(20.7-42.7)	(16.9-36.7)				
75-84	181	138	22	21				
Rate*	55.2	63.8 (52.2.74.5)	40.0	(21.2.52.1)				
95% C.I. 85+	(47.2-63.3)	(53.2-74.5)	(23.3-56.7)	(21.3-53.1)				
	51	33	9	9				
Rate*	72.4	77.0						
95% C.I.	(52.5-92.3)	(50.7-103.3)						
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 165. Non-Hodgkin's Lymphoma Mortality by County of Residence, NevadaResidents, 1996-2000

County of	1996-2000 Mortality							
County of Residence	Casaa	Rat	te*	Age-Adjusted Rate				
	Cases	Rate	95% C.I.	Rate	95% C.I.			
Carson City	24	9.8	(5.9-13.7)	8.7	(5.6-13.2)			
Churchill	9							
Clark	395	6.3	(5.7-6.9)	7.6	(6.8-8.4)			
Douglas	13	6.5	(3.0-10.0)	6.7	(3.4-12.6)			
Elko	11	4.8	(2.0-7.6)	9.3	(4.3-18.4)			
Esmeralda	0							
Eureka	0							
Humboldt	4							
Lander	0							
Lincoln	0							
Lyon	14	8.7	(4.1-13.2)	7.2	(3.9-12.9)			
Mineral	2							
Nye	12	8.1	(3.5-12.7)	6.7	(3.2-13.6)			
Pershing	1							
Storey	0							
Washoe	100	6.1	(4.9-7.3)	7.1	(5.7-8.7)			
White Pine	2							
Unknown	0							
Total	587	6.3	(5.8-6.8)	7.4	(6.8-8.0)			

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 166. Non-Hodgkin's Lymphoma Mortality by Race/Ethnicity and Gender,
Nevada Residents, 1996-2000

			Gender						
Rac	e/Ethnicity	Male	Female	Total					
White	Mortality Rate* 95% C.I.	309 10.1 (8.9-11.4)	217 6.1 (5.3-6.9)	526 7.9 (7.2-8.6)					
Black	Mortality Rate* 95% C.I.		(010 010) 9 	(1.2 00) 16 4.1 (2.2-7.3)					
Native American	Mortality Rate* 95% C.I.	1	2	3					
Asian	Mortality Rate* 95% C.I.	11 8.0 (3.7-21.5)	8 	19 6.5 (3.7-12.9)					
Hispanic	Mortality Rate* 95% C.I.	11 2.9 (1.2-9.1)	11 5.3 (2.5-10.4)	22 4.5 (2.6-7.8)					
Other/Unkr	Iown	1	0	1					
Total	Mortality Rate* 95% C.I.	340 9.3 (8.3-10.5)	247 5.8 (5.1-6.6)	587 7.4 (6.8-8.0)					

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

Table 167. Non-Hodgkin's Lymphoma Mortality by Age Group and Gender,
Nevada Residents, 1996-2000

Age	Gender					
Group	Male	Female	Total			
<1	0	0	0			
Rate*						
95% C.I.						
1-4	0	0	0			
Rate*						
95% C.I.						
5-14	1	0	1			
Rate*						
95% C.I.						
15-24	3	0	3			
Rate*						
95% C.I.						
25-34	9	3	12			
Rate*			0.8			
95% C.I.			(0.4-1.3)			
35-44	16	6	22			
Rate*	2.1		1.5			
95% C.I.	(1.1-3.1)		(0.9-2.1)			
45-54	35	24	59			
Rate*	5.7	4.0	4.9			
95% C.I.	(3.8-7.6)	(2.4-5.6)	(3.6-6.1)			
55-64	52	39	91			
Rate*	12.1	9.0	10.6			
95% C.I.	(8.8-15.4)	(6.2-11.9)	(8.4-12.7)			
65-74	98	69	167			
Rate*	32.1	22.0	26.9			
95% C.I.	(25.7-38.4)	(16.8-27.1)	(22.9-31.0)			
75-84	101	80	181			
Rate*	68.5	44.4	55.2			
95% C.I.	(55.1-81.8)	(34.7-54.1)	(47.2-63.3)			
85+	25	26	51			
Rate*	110.3	54.4	72.4			
95% C.I.	(67.0-153.5)	(33.5-75.3)	(52.5-92.3)			
Unknown	0	0	0			
Total	340	247	587			
Rate*	7.2	5.4	6.3			
95% C.I.	(6.4-8.0)	(4.7-6.1)	(5.8-6.8)			

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

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

Table 168. Median Age at Death from Non-Hodgkin's Lymphoma by
Race/Ethnicity and Gender, Nevada Residents, 1996-2000

	Gender								
Race/Ethnicity	Ма	le	Fem	ale	Total				
	Deaths	Median Age	Deaths	Median Age	Deaths	Median Age			
White	309	71.0	217	72.0	526	72.0			
Black	7	70.0	9	63.0	16	66.5			
Native American	1		2		3				
Asian	11	69.0	8	74.5	19	73.0			
Hispanic	11	54.0	11	77.0	22	66.5			
Other/Unknown	1		0		1				
Total	340	70.0	247	72.0	587	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





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

Figure 113. Survival Rates for Non-Hodgkin's Lymphoma by Stage of Cancer at Diagnosis, Nevada Residents, 1996-2000



Table 169. Cause-Specific Survival Rates for Non-Hodgkin's Lymphoma byRace/Ethnicity and Gender, Nevada Residents, 1996-2000

Race/	Newslaw	Cause Specific Survival Rate					Median
Ethnicity of Cases	Number of Cases	One Year	Two Years	Three Years	Four Years	Five Years	Survival Time (years)
Total	845	68.5%	58.7%	47.6%	42.1%	35.0%	2.78
Male	482	68.8%	57.6%	49.2%	43.9%	37.9%	2.90
Female	362	68.1%	60.2%	45.3%	39.5%	30.7%	2.68
Race/Ethnicity							
White	744	68.3%	57.8%	46.6%	40.7%	34.7%	2.70
Male	420	67.5%	55.7%	47.3%	41.5%	34.9%	2.68
Female	323	69.1%	60.5%	45.5%	39.3%	34.4%	2.70
Black	28						
Male	15						
Female	13						
Native American	3						
Male	2						
Female	1						
Asian	26						
Male	15						
Female	11						
Hispanic	40						
Male	27						
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 170. Cause-Specific Survival Rates for Non-Hodgkin's Lymphoma by Stageof Cancer at Diagnosis and Gender, Nevada Residents, 1996-2000

Survival Rate of Stage at Diagnosis			Gender					
		Total	Male	Female				
Total	Cases	845	482	362				
	One Year	68.5%	68.8%	68.1%				
	5 Years	35.0%	37.9%	30.7%				
	Median Survival	2.78	2.90	2.68				
Stage at Di	iagnosis							
In situ	Cases	0	0	0				
	One Year							
	5 Years							
	Median Survival							
Localized	Cases	248	127	121				
	One Year	83.6%	84.2%	83.0%				
	5 Years	43.6%	42.2%	44.9%				
	Median Survival	4.48	4.35	4.60				
Regional	Cases	84	57	27				
	One Year	61.8%	62.2%	60.9%				
	5 Years	39.6%	46.3%	31.6%				
	Median Survival	2.41	2.68	1.85				
Distant	Cases	312	180	131				
	One Year	61.1%	62.7%	58.5%				
	5 Years	21.0%	28.3%	8.1%				
	Median Survival	2.03	1.93	2.09				
Unstaged	Cases	201	118	83				
	One Year	66.1%	66.0%	66.4%				
	5 Years	42.6%	43.1%	42.9%				
	Median Survival	2.95	3.27	2.51				

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.