

2012

Clark County Community Health Status Assessment



Southern Nevada Health District
Office of Epidemiology

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COMMUNITY HEALTH STATUS ASSESSMENT

Introduction

The purpose of the Clark County Community Health Assessment is to establish a range of health, environmental and health care access indicators for measuring changes in population health and understanding factors impacting health outcomes. The intent is to share information with the community that can be used to protect, promote, and improve the health of all Clark County residents. The report presents the following select group of indicators:

1. **Demographics:** Population density, age, sex, and race/ethnicity
2. **Socio-economic Status:** Household and family characteristics, education levels, income and poverty, and unemployment
3. **Health Resource Availability:** Numbers of licensed and credentialed health and public health personnel, uninsured, public health per capita budget
4. **Quality of Life:** Perceptions of community residents about aspects of their communities that enhance or diminish their quality of life
5. **Behavioral Risk Factors:** Behaviors which are believed to cause or to be contributing factors to injuries, disease and death during youth and adolescence, and significant morbidity and mortality later in life.
6. **Environmental Health:** The physical environment that affects health, such as air quality, water, hazardous waste, heavy metals, food safety and animal diseases that can affect humans.
7. **Maternal and Child Health:** The health of mothers, infants, children, and adolescents.
8. **Social and Mental Health:** Social and mental health factors and conditions which directly or indirectly influence overall health status and individual and community quality of life.
9. **Death, Illness and Injury:** All-cause mortality, leading causes of death and premature death
10. **Communicable Disease:** Diseases which are usually transmitted through person-to-person contact or shared use of contaminated instruments or materials.
11. **Sentinel Events:** Events that include avoidable disease, disability or untimely death if preventive services or medical care were provided; Diseases which are vaccine preventable.

Each of the above categories is defined in the National Association of County and City Health Officials (NACCHO) document, *Community Health Status Assessment Core Indicator Lists*, and is used within this assessment.

Demographics

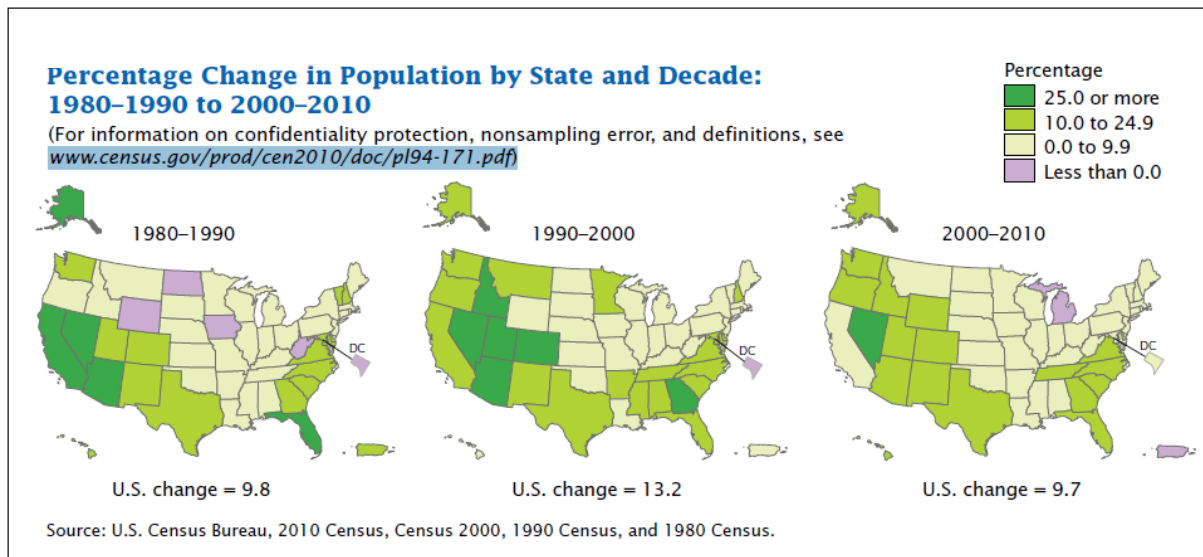
Definition of Category: Demographic characteristics include measures of total population as well as percent of total population by age group, gender, race and ethnicity, where these populations and sub-populations are located, and the rate of change in population density over time, due to births, deaths and migration patterns.

Overall Demographics

Clark County experienced a dramatic increase in population between 2000 and 2010 and was for part of that time the fastest growing community in the U.S. In 2010, Clark County contained 72% of Nevada's population and accounted for 82% of the state's growth between 2000 and 2010. Nevada grew by >25% each of the last three decades, but was the only state in the U.S. to sustain that rate of growth between 2000 and 2010.

(Figure 1) (US Census Bureau, 2010 Census Briefs: Population Distribution and Change: 2000 - 2010).

Between 2000 and 2010 alone, Clark County’s population increased by 40.2% (Table 1).



Source: U.S. Census Bureau

Figure 1. Percentage Change in Population by State and Decade

Table 1. Population Change 2000 and 2010, Clark County and Nevada

Overall Demographics									
Clark County					Nevada				
2000	2010	% Increase	Land Area	Density	2000	2010	% Increase	Land Area	Density
1,393,909	1,954,260	40.2%	7,891 mi ²	247	2,018,741	2,704,642	34.0%	109,781 mi ²	25

Source: US Census Bureau Intercensal Estimates 2011

Age/Sex Profile

Nationally, as the generation of baby boomers has aged (ranging 46-64 years of age in 2010) compared with 2000, the bulge in population is evident on the national age-sex pyramid (Figure 2). In contrast, Clark County’s population is less influenced by baby boomer population (Table 2 and Table 3, Figure 3 and Figure 4). Both the 2000 and the 2010 age-sex pyramids (Figure 3 and Figure 4) have a main bulge representing the younger age ranges of 25-44 and 25-49 years of age, respectively. In 2000 in Clark County, ages 0-9 represented a higher proportion of the population than in 2010. The median age of persons living in Clark County in 2010 was 35.5 years (36.0 years female and 35.0 years male) compared with 36.3 years in Nevada and 37.2 years in the U.S. overall. (US Census Bureau, Profile of General Population and Housing Characteristics: 2010). In the U.S., on average, women live longer than men. Because Clark County has a younger than average population, its M:F ratio, overall, was higher in 2010 (101%) than the U.S. overall (96.7%). Much of the increase in population during the past decade was related to increased construction, an industry that typically employs mainly young adult male workers, whose moving to Clark County could have contributed to that higher ratio.

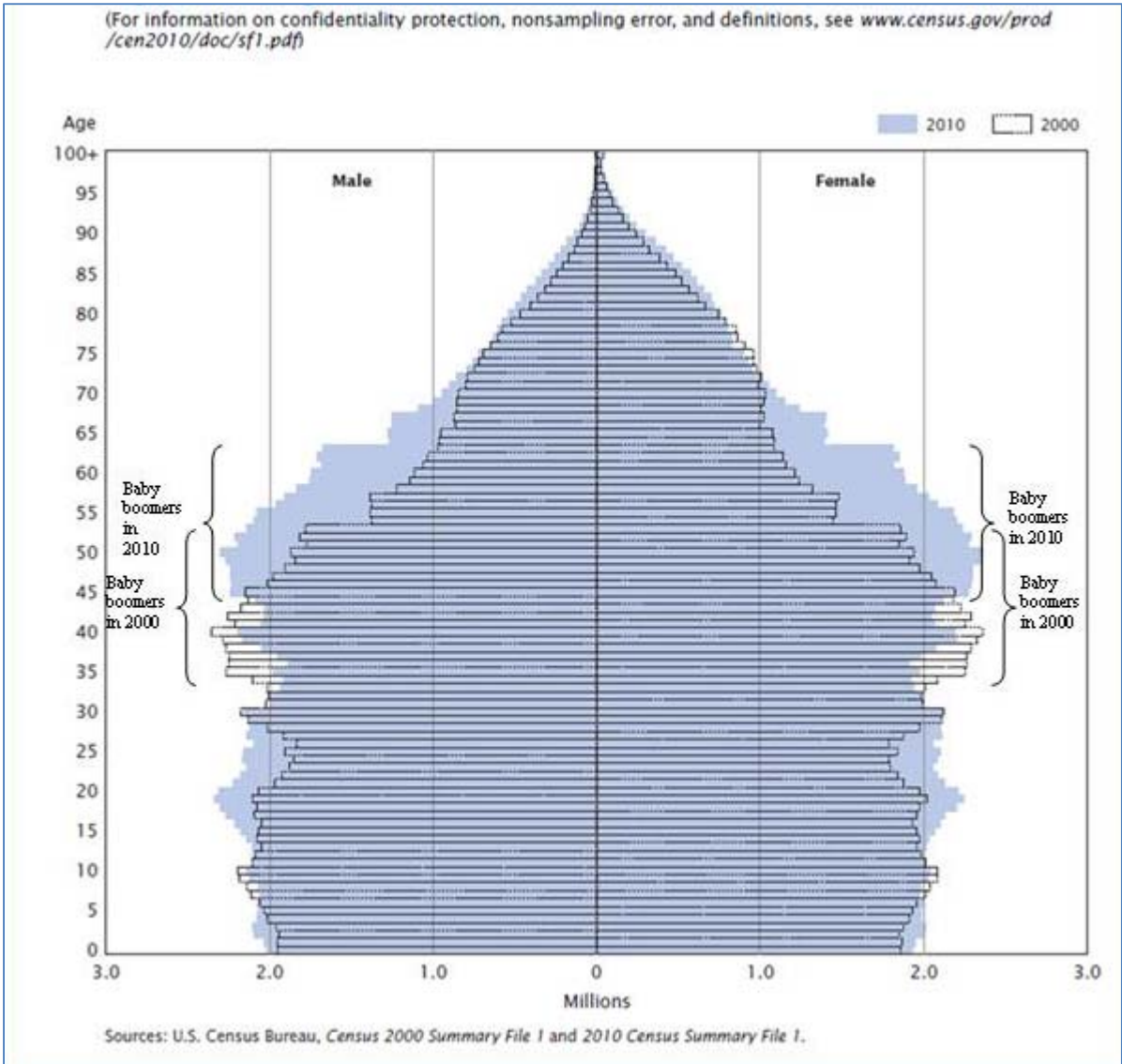
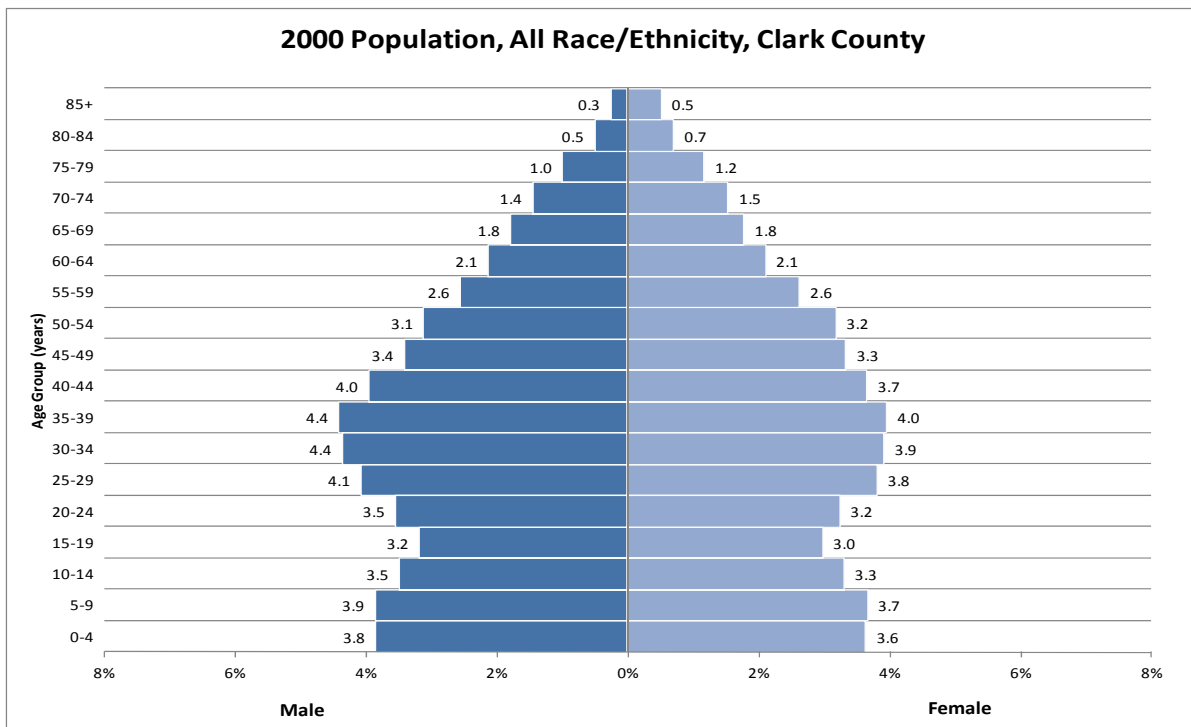


Figure 2. Population by Age and Sex, United States – 2000 and 2010

Table 2. 2000 Age/Sex Profile, Clark County vs. Nevada

2000 Demographic Profile: Age and Sex										
Age Group	Clark County					Nevada				
	Number			Percentage		Number			Percentage	
	Male	Female	Total	Male	Female	Male	Female	Total	Male	Female
0 to 4	53,590	50,739	104,329	3.8%	3.6%	75,389	71,534	146,923	3.7%	3.5%
5 to 9	53,760	51,047	104,807	3.9%	3.7%	76,746	72,949	149,695	3.8%	3.6%
10 to 14	48,554	46,103	94,657	3.5%	3.3%	72,508	68,392	140,900	3.6%	3.4%
15 to 19	44,282	41,532	85,814	3.2%	3.0%	66,536	61,992	128,528	3.3%	3.1%
20 to 24	49,386	45,187	94,573	3.5%	3.2%	69,151	63,054	132,205	3.4%	3.1%
25 to 29	56,727	53,121	109,848	4.1%	3.8%	77,344	71,705	149,049	3.8%	3.6%
30 to 34	60,704	54,592	115,296	4.4%	3.9%	83,475	75,530	159,005	4.1%	3.7%
35 to 39	61,412	55,199	116,611	4.4%	4.0%	87,459	79,258	166,717	4.3%	3.9%
40 to 44	55,098	50,992	106,090	4.0%	3.7%	81,516	76,208	157,724	4.0%	3.8%
45 to 49	47,465	46,492	93,957	3.4%	3.3%	72,176	70,005	142,181	3.6%	3.5%
50 to 54	43,360	44,337	87,697	3.1%	3.2%	65,755	65,538	131,293	3.3%	3.2%
55 to 59	35,550	36,629	72,179	2.6%	2.6%	53,328	53,300	106,628	2.6%	2.6%
60 to 64	29,642	29,377	59,019	2.1%	2.1%	43,556	42,603	86,159	2.2%	2.1%
65 to 69	24,870	24,808	49,678	1.8%	1.8%	36,229	35,786	72,015	1.8%	1.8%
70 to 74	20,195	21,448	41,643	1.4%	1.5%	29,697	31,413	61,110	1.5%	1.6%
75 to 79	13,815	16,368	30,183	1.0%	1.2%	20,833	24,607	45,440	1.0%	1.2%
80 to 84	6,974	9,841	16,815	0.5%	0.7%	10,839	15,058	25,897	0.5%	0.7%
85+	3,550	7,163	10,713	0.3%	0.5%	5,754	11,518	17,272	0.3%	0.6%
Total	708,934	684,975	1,393,909	50.9%	49.1%	1,028,291	990,450	2,018,741	50.9%	49.1%

Source: Census Bureau Intercensal Estimates 2011



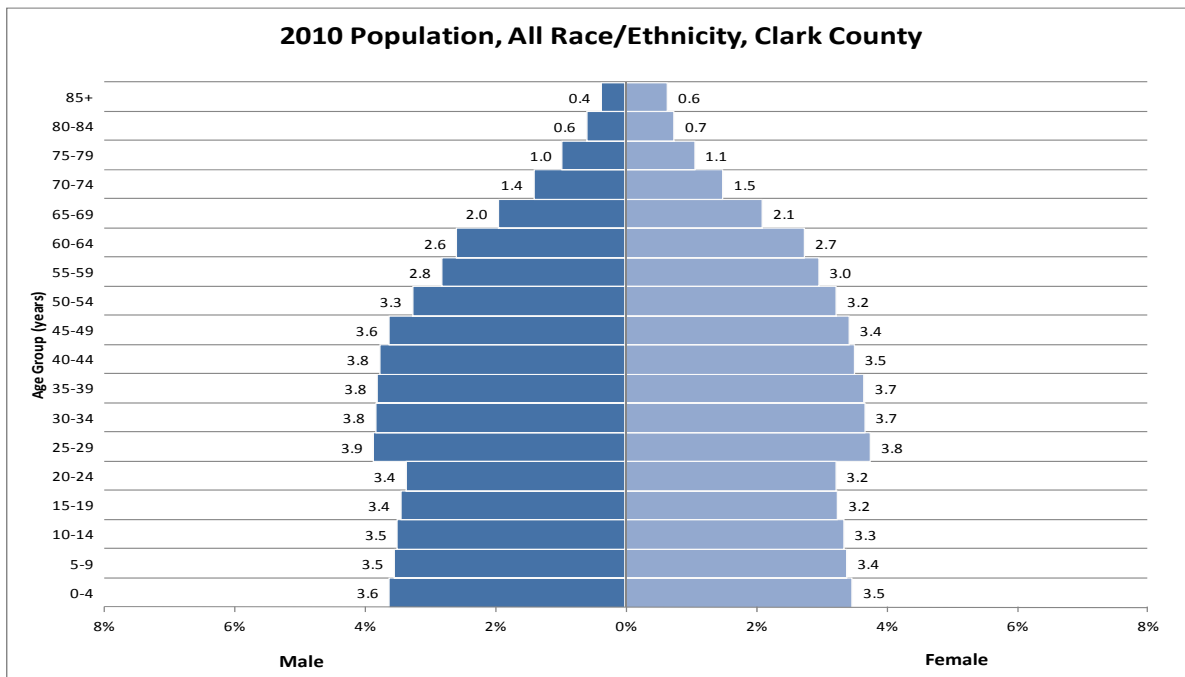
Source: Census Bureau Intercensal Estimates 2011

Figure 3. 2000 Population Histogram, Clark County, All Race/Ethnicity

Table 3. 2010 Age/Sex Profile, Clark County vs. Nevada

2010 Demographic Profile: Age and Sex										
Age Group	Clark County					Nevada				
	Number			Percentage		Number			Percentage	
	Male	Female	Total	Male	Female	Male	Female	Total	Male	Female
0 to 4	70,755	67,944	138,699	3.6%	3.5%	95,661	91,624	187,285	3.5%	3.4%
5 to 9	69,258	66,223	135,481	3.5%	3.4%	93,920	89,430	183,350	3.5%	3.3%
10 to 14	68,295	65,407	133,702	3.5%	3.3%	93,748	89,594	183,342	3.5%	3.3%
15 to 19	67,383	63,501	130,884	3.4%	3.2%	93,711	88,212	181,923	3.5%	3.3%
20 to 24	65,686	62,994	128,680	3.4%	3.2%	91,430	86,611	178,041	3.4%	3.2%
25 to 29	75,449	73,301	148,750	3.9%	3.8%	100,472	96,266	196,738	3.7%	3.6%
30 to 34	74,893	71,606	146,499	3.8%	3.7%	98,276	93,253	191,529	3.6%	3.4%
35 to 39	74,446	71,430	145,876	3.8%	3.7%	97,525	93,227	190,752	3.6%	3.4%
40 to 44	73,733	68,398	142,131	3.8%	3.5%	99,266	92,177	191,443	3.7%	3.4%
45 to 49	70,991	66,984	137,975	3.6%	3.4%	99,265	93,974	193,239	3.7%	3.5%
50 to 54	63,805	63,186	126,991	3.3%	3.2%	92,390	90,839	183,229	3.4%	3.4%
55 to 59	55,114	57,835	112,949	2.8%	3.0%	81,383	84,042	165,425	3.0%	3.1%
60 to 64	50,535	53,535	104,070	2.6%	2.7%	75,019	77,392	152,411	2.8%	2.9%
65 to 69	38,121	40,993	79,114	2.0%	2.1%	57,013	59,251	116,264	2.1%	2.2%
70 to 74	27,579	29,248	56,827	1.4%	1.5%	40,759	42,048	82,807	1.5%	1.6%
75 to 79	18,900	20,629	39,529	1.0%	1.1%	27,718	29,935	57,653	1.0%	1.1%
80 to 84	11,726	14,572	26,298	0.6%	0.7%	17,242	21,585	38,827	0.6%	0.8%
85+	7,232	12,573	19,805	0.4%	0.6%	11,113	19,271	30,384	0.4%	0.7%
Total	983,901	970,359	1,954,260	50.3%	49.7%	1,365,911	1,338,731	2,704,642	50.5%	49.5%

Source: Census Bureau Intercensal Estimates 2011



Source: Census Bureau Intercensal Estimates 2011

Figure 4. 2010 Population Histogram, Clark County, All Race/Ethnicity

Race / Ethnicity Distribution

The racial and ethnic distribution of Clark County changed notably from 2000 to 2010, with proportions of persons within all race and ethnicity categories having increased except the White Non-Hispanic and American Indian/Eskimo/Alaska Native races. Persons of White Non-Hispanic race are no longer a majority, accounting for less than half (49.5%) of the population in the county as reported in 2010 (down from 61.7% in 2000) (Table 4 and Table 5). Much of this change can be attributed to racial and ethnic changes among the under-18 population where only 36.3% of children were reported to be of White Non-Hispanic race in 2010 (compared with 50.1% in 2000) and 42.1% of children were categorized as Hispanic (Table 6, Figure 5).

Table 4. Racial/Ethnic Distribution 2000 (All Ages)

Clark County 2000		
Race/Ethnicity	Number	Percentage
White Alone	849,400	61.7%
Black/African American Alone	129,862	9.44%
American Indian/Eskimo/Aleut Alone (AEA)	9,131	0.66%
Asian/Pacific Islander Alone (API)	85,229	6.20%
Hispanic (All Races)	302,143	21.96%
Total	1,375,765	100.00%

Source: Census Bureau Bridged Race Estimates (Note: Total population for bridged race estimates does not equal the intercensal estimates)

Table 5. Racial/Ethnic Distribution 2010 (All Ages)

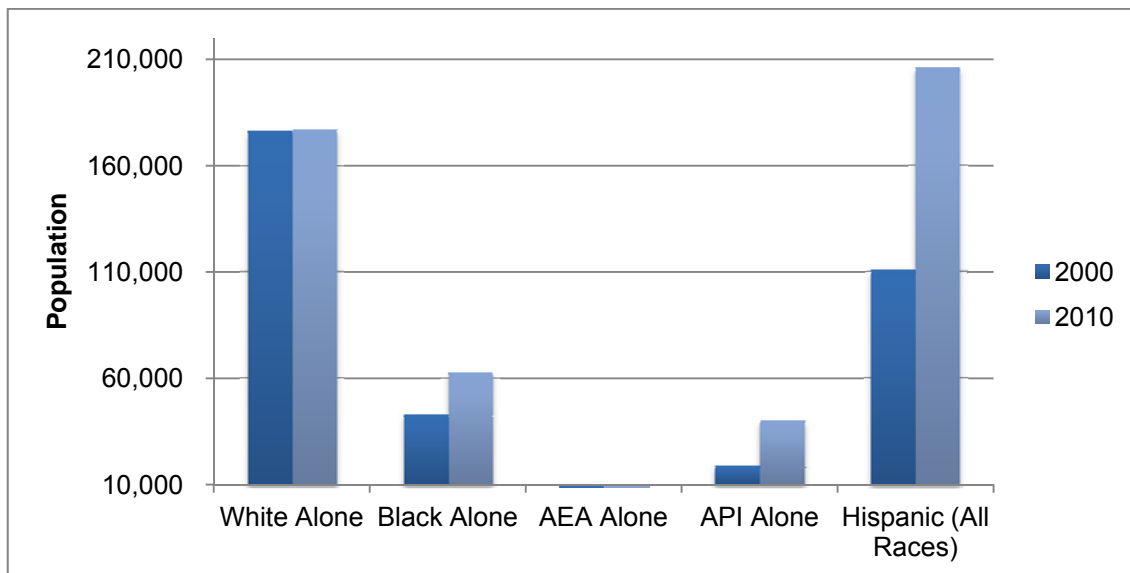
Clark County 2010		
Race/Ethnicity	Number	Percentage
White Alone	965,829	49.5%
Black/African American Alone	213,414	10.9%
American Indian/Eskimo/Aleut Alone	10,682	0.5%
Asian/Pacific Islander Alone	192,700	9.9%
Hispanic (All Races)	568,644	29.1%
Total	1,951,269	100.00%

Source: Census Bureau Bridged Race Estimates (Note: Total population for bridged race estimates does not equal intercensal estimates)

Table 6. Racial/Ethnic Distribution Children <18 years old, Clark County, 2000 vs. 2010

Race/Ethnicity	2000		2010	
	Number	Percentage	Number	Percentage
White Alone	176,531	(50.1%)	177,149	(36.3%)
Black/African American Alone	43,120	(12.3%)	62,676	(12.8%)
Native American/Eskimo/Aleut Alone	2,410	(0.7%)	2,529	(0.5%)
Asian, Pacific Islander Alone	19,039	(5.4%)	40,522	(8.3%)
Hispanic (All Races)	110,670	(31.5)	205,742	(42.1%)
Total	351,770	(100.0%)	488,618	(100.0%)

Source: Census Bureau Bridged Race Estimates



Source: Census Bureau Bridged Race Estimates

Figure 5. Racial/Ethnic Distribution Children < 18 years old

Demographic data obtained from Clark County School District (CCSD) for the 2009-2010 school year echoes the Census data. For students enrolled in kindergarten and first grade, Hispanic students are the largest racial/ethnic group, comprising nearly 45% of the student population. One-third of students are White non-Hispanic, and 13% are Black non-Hispanic. As one might imagine, the distribution of racial/ethnic groups in Clark County is not homogenous. Racial/ethnic groups generally tend to cluster in certain areas of the Las Vegas valley. There are many zip codes in which a majority of the student population is from minority groups (i.e., non-White), but where the majority of the estimated overall population is not from minority groups (Figure 6). Figure 7 through Figure 11 illustrate the racial/ethnic geographic clustering of K–1 students in the Las Vegas Valley.

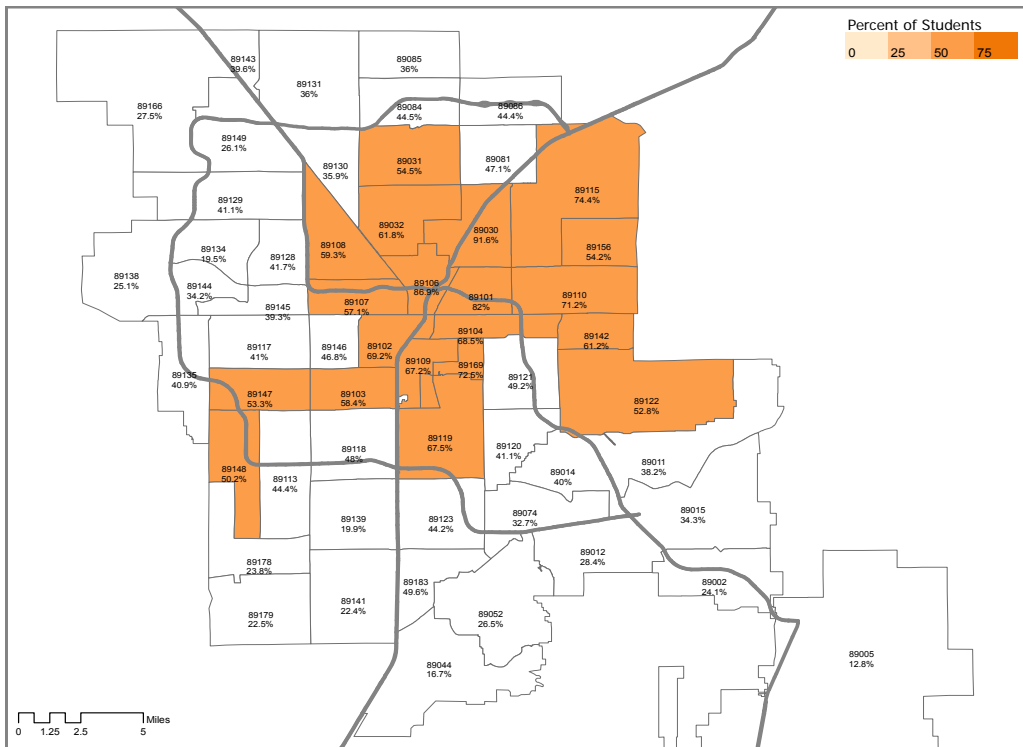


Figure 6. Zip Codes with a Majority Minority K-1 Student Population, 2009-2010 School year

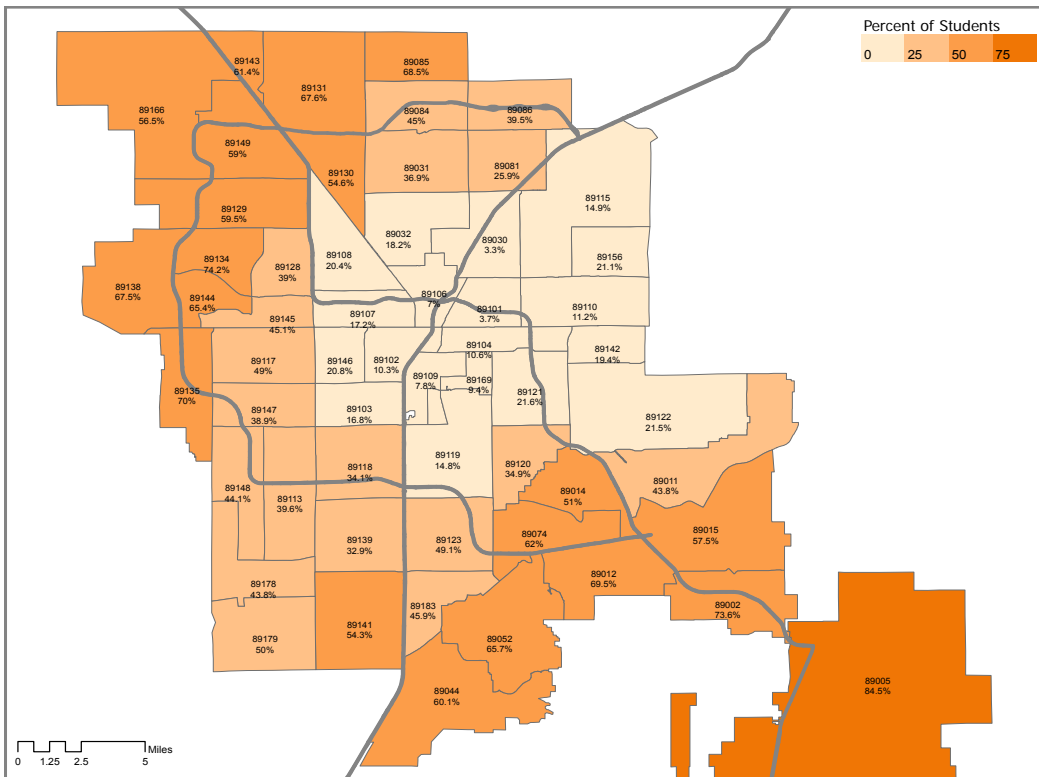


Figure 7. Percent White non-Hispanic K-1 Students, Clark County, Nevada, 2009-2010 School Year

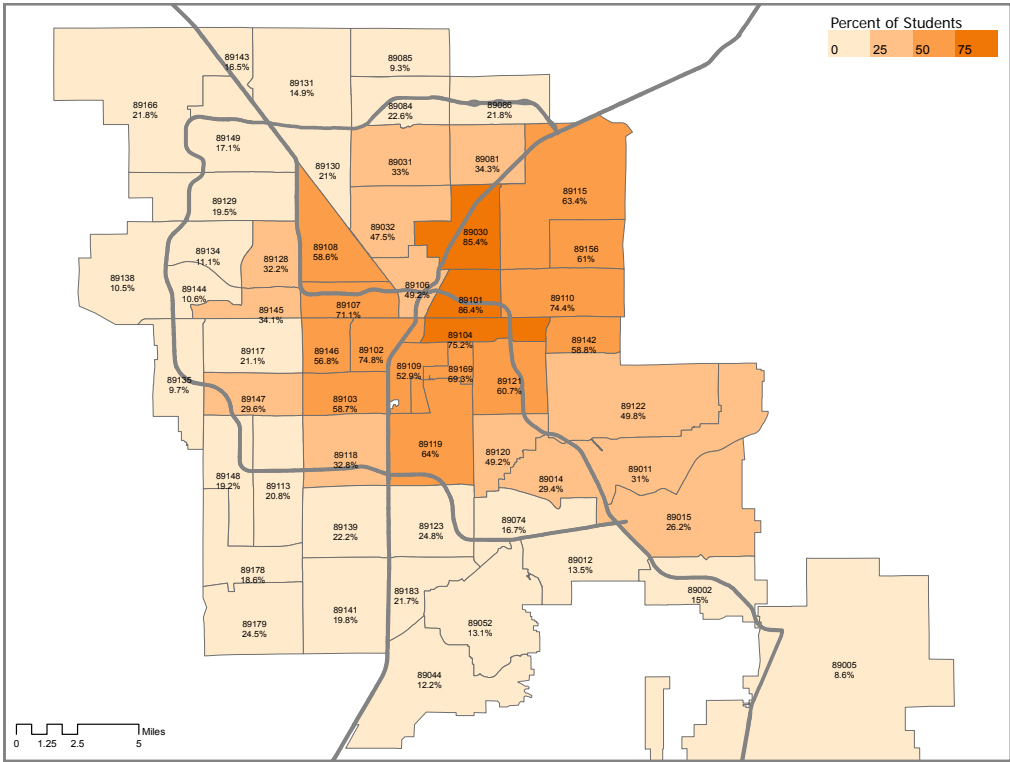


Figure 8. Percent Hispanic K-1 Students, Clark County, Nevada, 2009-2010 School Year

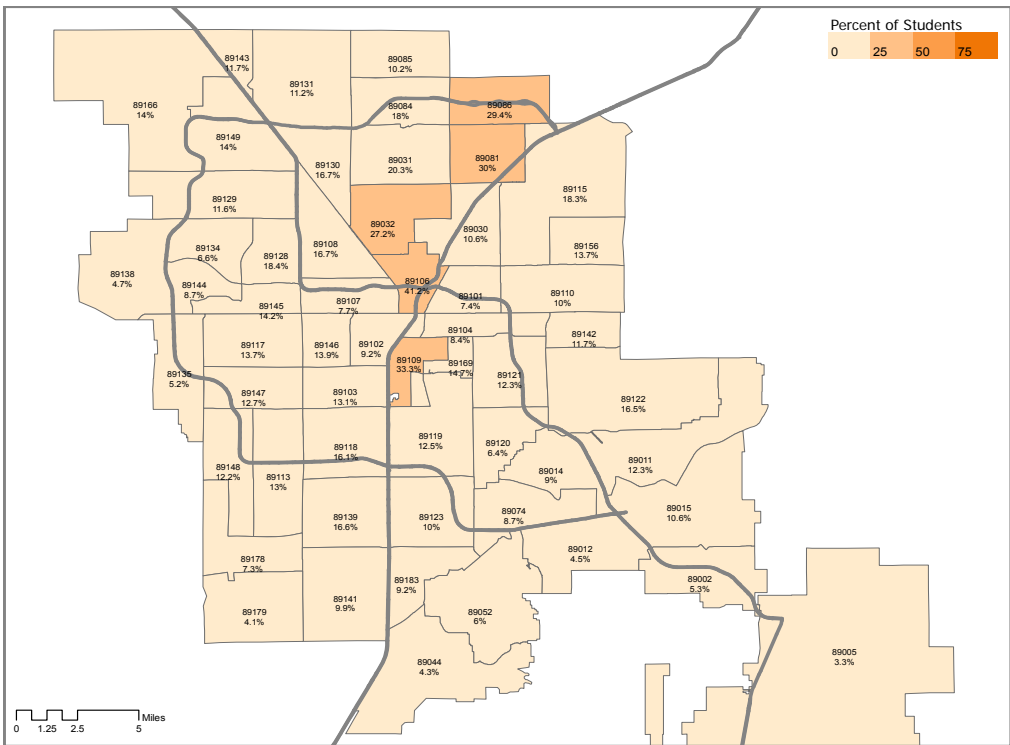


Figure 9. Percent Black K-1 Students, Clark County, Nevada, 2009-2010 School Year

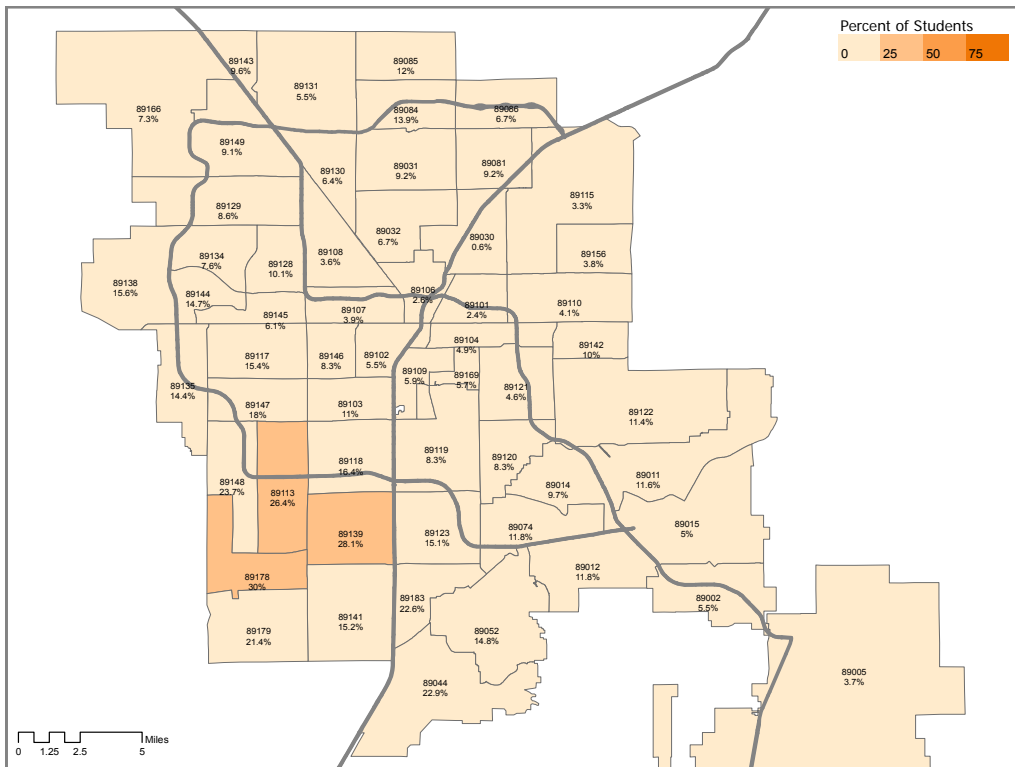


Figure 10. Percent Asian K-1 Students, Clark County, Nevada, 2009-2010 School Year

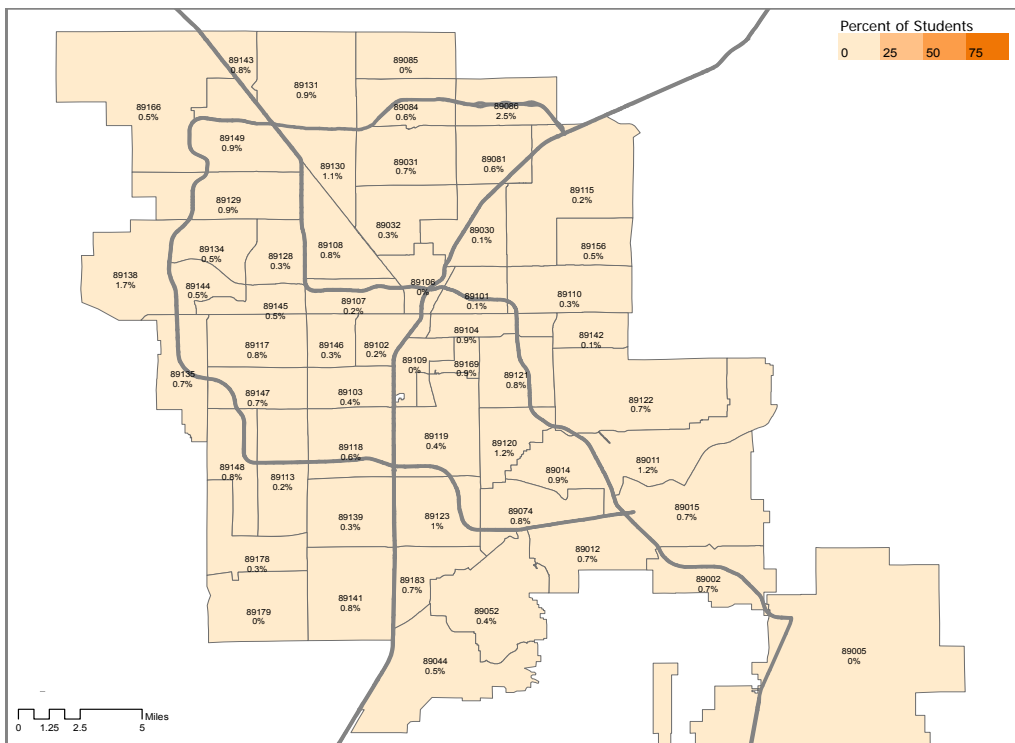
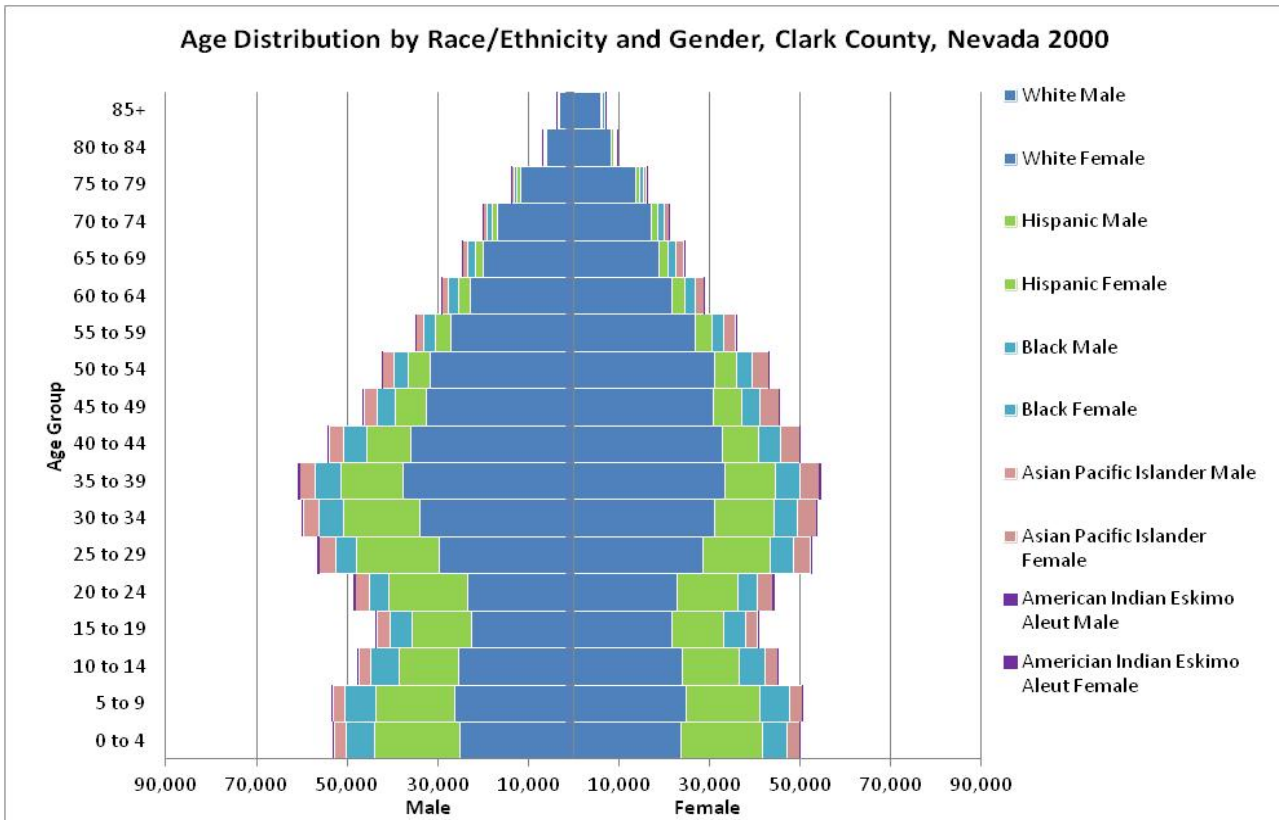


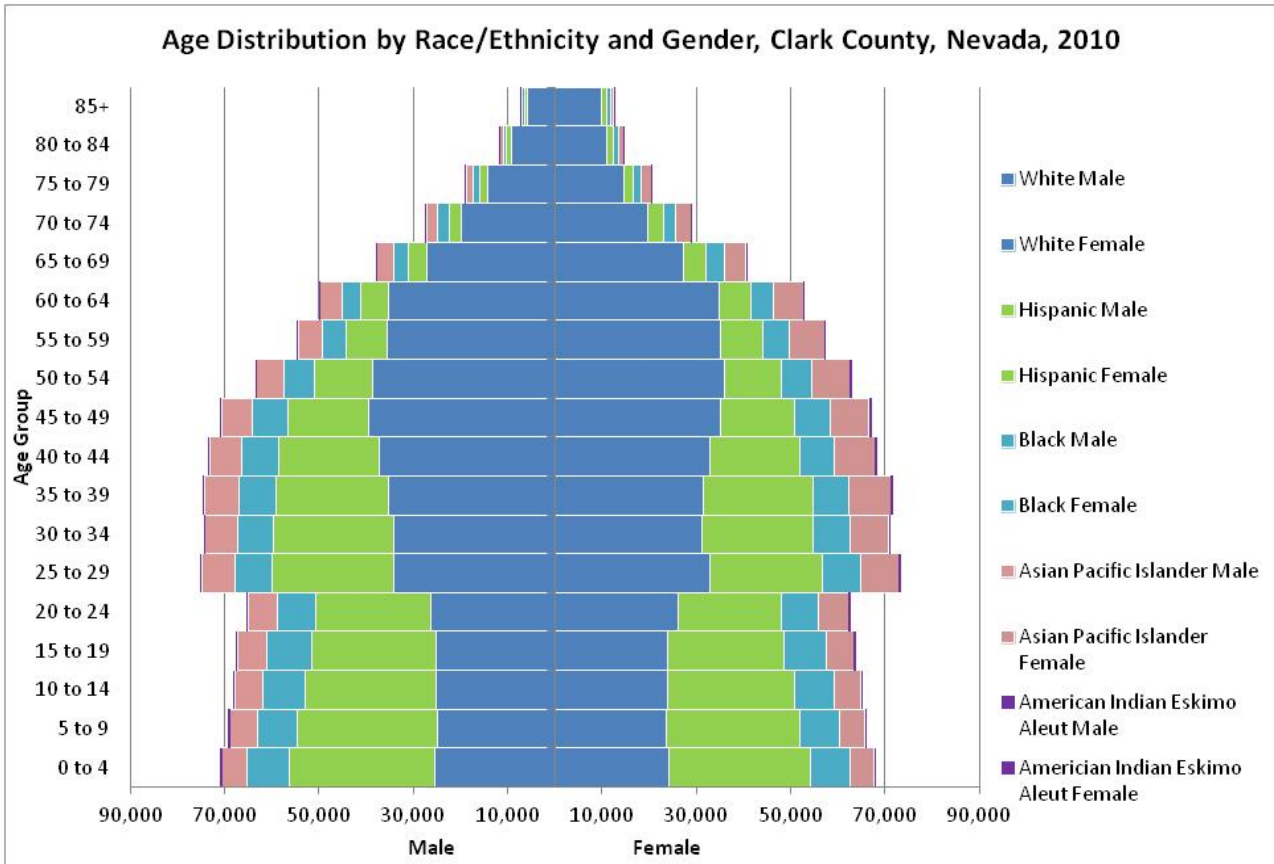
Figure 11. Percent American Indian/Alaska Native K-1 Students, Clark County, Nevada, 2009-2010 School Year

The population distribution by age, gender and race/ethnicity from 2000 and 2010 were compared (Figure 12, and Figure 13). The most dramatic change illustrated in these figures is in younger age groupings, in Hispanics. In 2000, the majority of children (0-19 yrs) were White non-Hispanic. By 2010, Hispanics proportionally dominated all age groups <20 yrs of age.



Source: Census Bureau Bridged Race Estimates

Figure 12. Age Distribution by Race/Ethnicity and Gender, Clark County, Nevada, 2000



Source: Census Bureau Bridged Race Estimates

Figure 13. Age Distribution by Race/Ethnicity and Gender, Clark County, Nevada, 2010

Socio-economic Status

Definition of Category: Socio-economic status includes household and family characteristics, education levels, income and poverty, and unemployment. It is a combined total measure of an individual's or family's economic and social position in relation to others.

Numerous indicators contribute to an overall assessment of the socioeconomic status of a community, including unemployment, poverty, household income, and education statistics. Some of Clark County's socioeconomic statistics indicate that residents were faring better than the average Nevada or U.S. resident but others show the opposite as of 2010 compared with 2000.

Unemployment

Although unemployment rates varied by industry, overall, from 2000 to 2007, Clark County and the State of Nevada overall maintained relatively stable unemployment rates that fluctuated between 4% and 6%. However, starting in 2008, unemployment rates began to increase across the U.S. and in Nevada, reaching approximately 10% and 14%, respectively by 2010 (Figure 14). The higher rate in Nevada was clearly influenced by Clark County's even more dramatic increase in unemployment rates, which rose to nearly 16% in 2010.

Although the number of persons employed in all job categories in Nevada rose during the first part

of the decade, in most categories, these numbers peaked in number sometime between 2006 and 2008 then began to decline. Overall, from 2000 to 2010, the number of Nevadans employed rose by 30% while the state's population rose by 34%. While the state gained approximately 300,000 jobs between 2000 and 2006, 175,000 jobs were lost between 2006 and 2010. The employment category that sustained the greatest loss in persons employed both in numbers and percentage was construction. Construction employment increased dramatically through 2006, gaining 55,000 jobs (up 61% compared with 2000), but then lost 75,000 jobs between 2006 and 2010 for a net loss of 33% compared with the number of persons employed in 2000. The employment categories that fared best in the 2000-2010 timeframe were mining & logging and education & health services, which together experienced a net gain of 43,000 employees, up by 36% and 64% respectively.

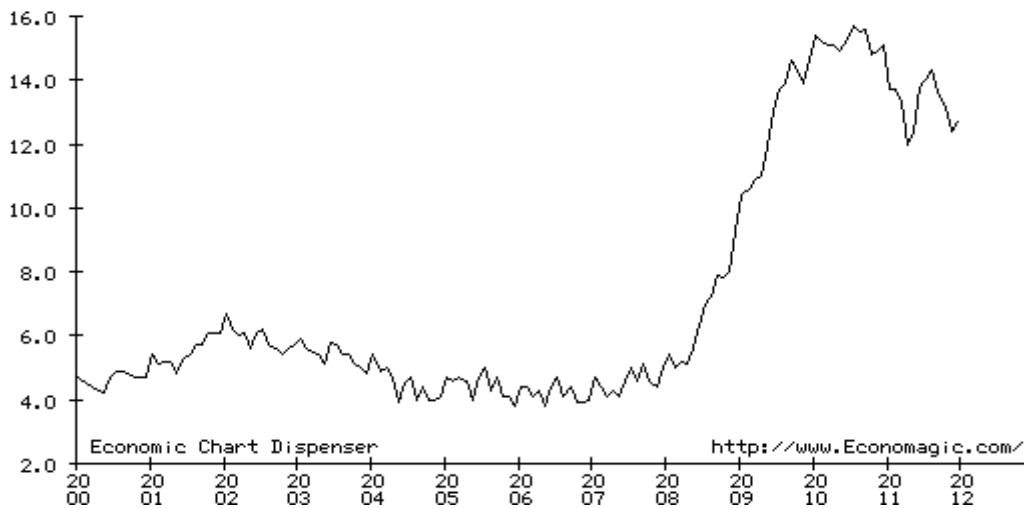


Figure 14. Unemployment Rate for Clark County Nevada, 2000-2012

Poverty

Studies have shown that low socioeconomic status has been associated with poorer health, so it is important to consider a population's financial demographics when assessing the overall health of a community. Census data indicate that the financial status of Clark County residents declined in the decade since the year 2000. In 2010, the proportion of Clark County residents of all ages who were living below the poverty levelⁱ (Table 7) was reported as being 40% greater than it was in 2000 (15.1%, up from 10.8%). Among children under 18, the poverty rate rose by 56% (Table 8) during the decade (from 14.6% to 22.8%). These changes were similar to those seen in the entire state of Nevada and at the national level. In both 2000 and 2010, Clark County had just slightly higher all-ages and under-18 poverty levels than the state's average. In 2000, Clark County's all-age and under-18 poverty rates were both lower than the U.S. averages. However, in 2010, while Clark County's all-ages level remained slightly lower than the U.S. average, the under-18 poverty rate overtook the U.S. average (22.8% compared with 21.6%). Children eligible for the Clark County School District's free lunch

ⁱ Poverty rate definitions and calculations are explained here: <http://www.census.gov/hhes/www/poverty/poverty-cal-in-acr.pdf>

(FRL) program is another indicator of low income among children. Figure 15 shows the percentage of children in kindergarten and first grade (K-1) in the FRL program in each zip code in the Las Vegas Valley. There are more than a dozen zip codes where $\geq 75\%$ of the children in K-1 are in the FRL program.

Table 7. All Ages in Poverty, Clark County and Nevada, 2000 vs. 2010

All Ages in Poverty, Clark County vs. Nevada				
Year	Clark County		Nevada	
	Number	%	Number	%
2000	145,855	10.8%	205,685	10.5%
2010	291,272	15.1%	398,027	14.9%

Table 8. <18 years of Age in Families in Poverty, Clark County and Nevada, 2000 vs. 2010

Ages <18 in Families in Poverty, Clark County vs. Nevada				
Year	Clark County		Nevada	
	Number	%	Number	%
2000	49,975	14.6%	69,777	14.0%
2010	110,353	22.8%	144,204	22.0%

Source: Census Bureau, American Fact Finder

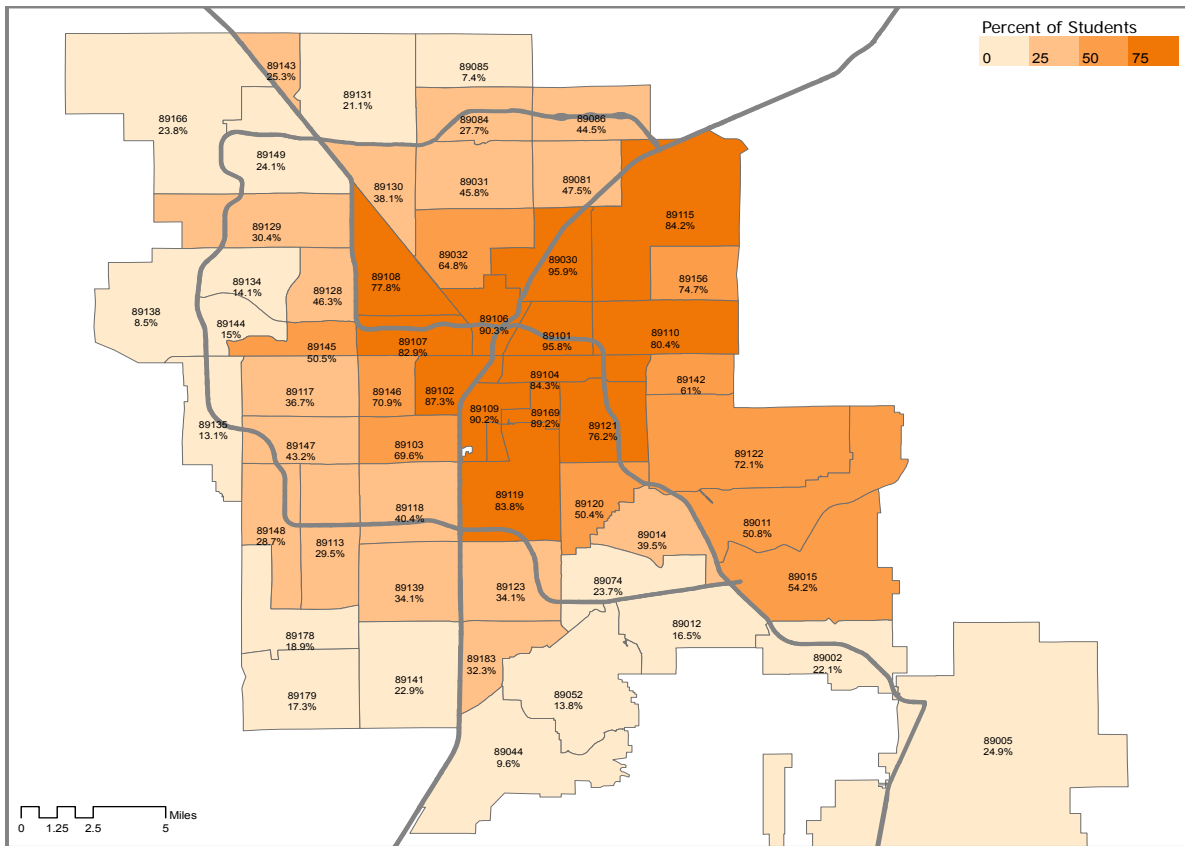


Figure 15. Percent of students FRL eligible (K-1), Clark County, 2009-2010

Household Income

Household income is another important measure of socioeconomic status and thus should be included in the assessment of the overall health of our community. Median household income rose by 18% in Clark County between 1999 and 2009ⁱⁱ, from \$43,454 to \$51,427, which was a larger increase than occurred in the state of Nevada as a whole (14%) but a slightly smaller increase than occurred on average in the U.S. (19%). The median household income in Clark County was 6% and 3% higher than the national average in 1999 and 2009ⁱ, respectively (Table 9). However, there are distinct pockets of lower income households, as shown on the map (Figure 16). Zip codes 89106 and 89101 have >20% of their households with incomes <\$15,000 annually.

Table 9. Median Household Income (dollars) 2000 vs. 2010

Median Household Income, Clark County vs. Nevada		
Year	Clark County	Nevada
2000	43,454	44,698
2010	51,427	50,987

Source: Census Bureau, Small Area Income and Poverty Estimates

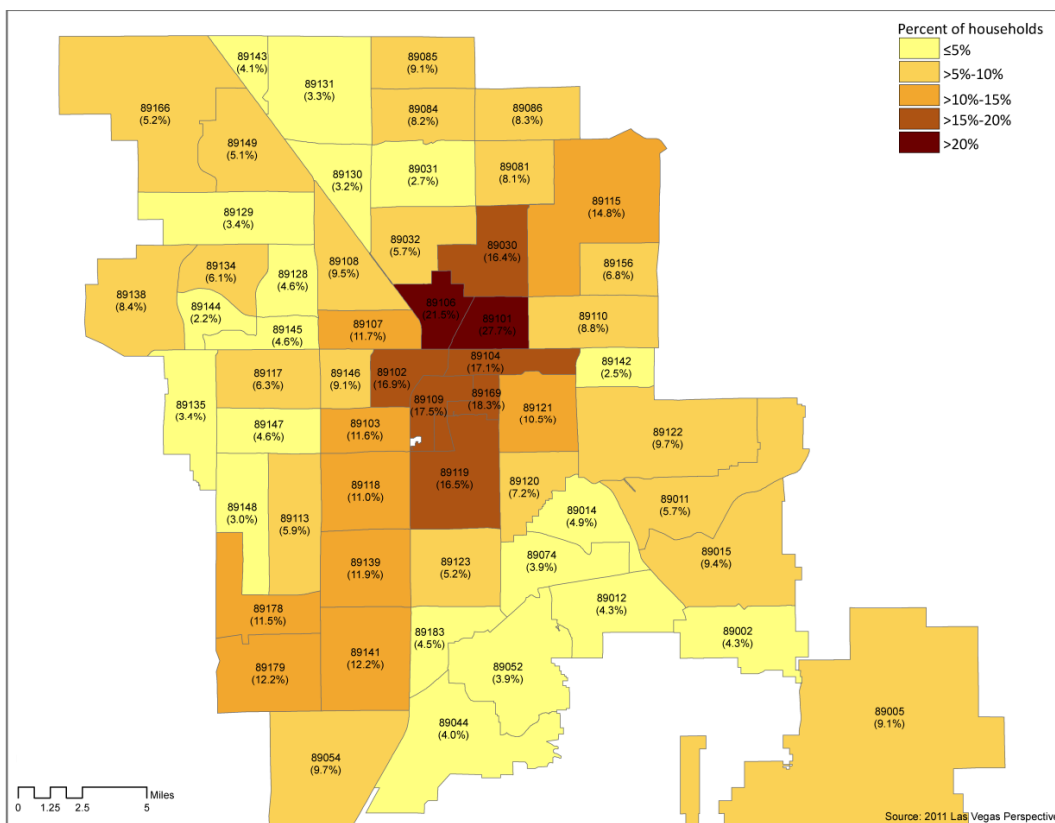
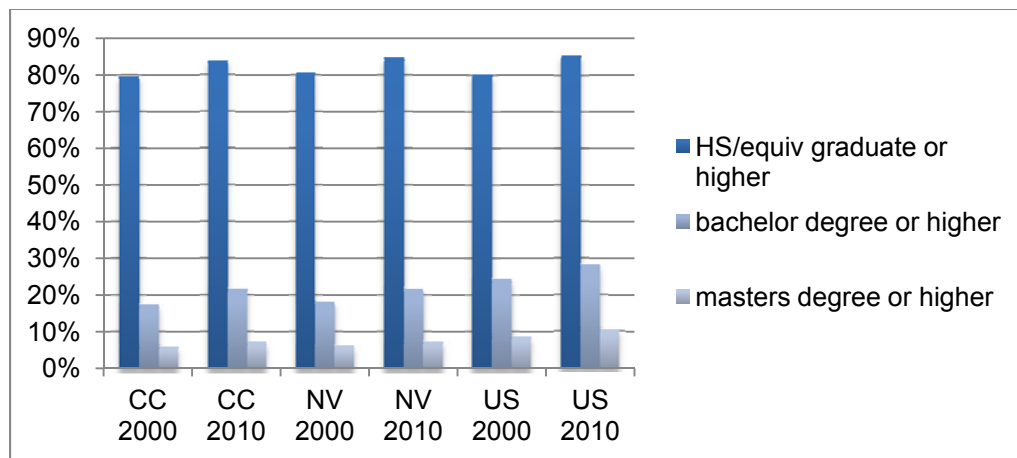


Figure 16. Percentage of Households with an Annual Income of < \$15,000, Las Vegas Valley 2010

ⁱⁱ based on answers to 2000 and 2010 census questions

Educational Attainment

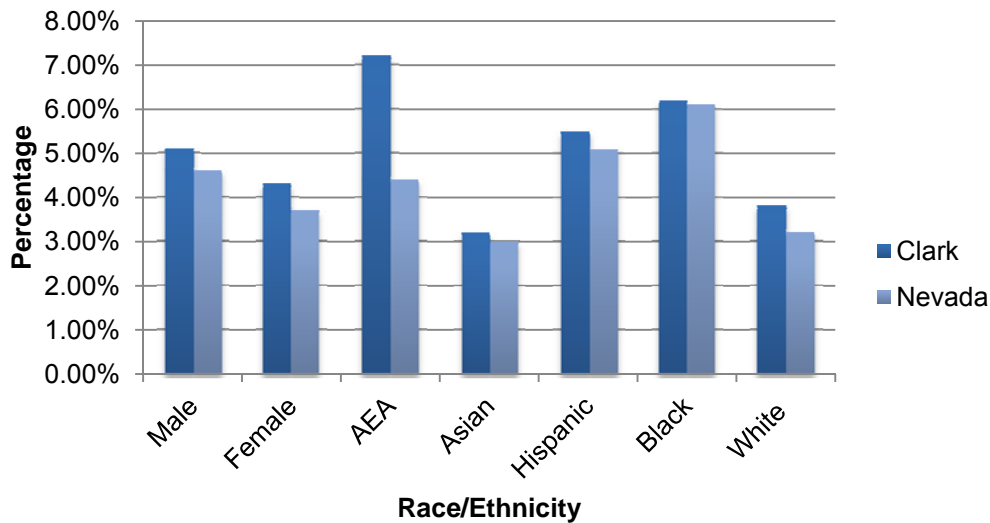
The final socioeconomic indicator we studied that has been shown to be associated with health was educational attainment. Unlike poverty, this indicator showed improvement in 2010 compared with 2000 in Clark County, in the State of Nevada, and nationwide (Figure 17). However, when comparing the educational attainment status of residents among these three regions, Clark County or Nevada residents, on average, had achieved less education than U.S. residents, both in 2000 and 2010. Further analysis is needed, however, to determine whether the lower educational attainment of Nevada residents over age 25 is due to having achieved less education as a Nevada resident, migration of persons with less education into Nevada, or migration of persons with more education out of the state.



Source: (US Census: Educational attainment – 2000 Summary File 3 and 2010 ACS 1-yr estimates)

Figure 17. Educational Attainment of Clark County, Nevada, and U.S. residents in 2000 & 2010

High school dropout rates were examined by race/ethnicity for the school year 2010-2011. Male students were slightly more likely to drop out of school than female student (Figure 18). Among the various race/ethnicities, the group with the highest dropout rate was American Indian/Eskimo/Aleut, while the lowest dropout rate was in the Asian/Pacific Islander group.



Source: <http://www.nevadareportcard.com>

Figure 18. High School Dropout Rates Clark County vs. Nevada – 2010-2011 School Year

We reviewed proportions of residents of Clark County over age 25 years attaining three different levels of education and compared those to Nevada and U.S. resident proportions: a high-school diploma (or equivalent) or higher, a bachelor’s degree or higher, and a graduate or professional degree (master’s level or higher) (Table 10). In both Clark County and Nevada overall, the proportions of residents who had graduated from high school rose by 4% between 2000 and 2010 (from 79.6 to 83.9% in Clark County and from 80.7 to 84.7% in Nevada). In comparison, the U.S. overall proportion of residents who had graduated from high school increased slightly more, from 80.4% to 85.6%. In 2000, 17.3% of Clark County and 18.2% of Nevada residents over age 25 had earned at least bachelors’ degrees. Both of these proportions had risen, to 21.6% and 21.7% respectively, by 2010. In the U.S. overall, there was a similar increase, from 24.4% to 28.2%, but the proportion of persons in the U.S. with bachelor’s degrees in 2010 was still 6.6% higher than in Clark County. In 2010, proportions of Clark County and Nevada residents with graduate or professional degrees remained lower, at 7.2% and 7.4% respectively (up from 5.9% and 6.1% in 2000), than the overall U.S. proportion, which was 10.4% (up from 8.9% in 2000).

Table 10. Educational Attainment, Clark County, 2000 vs. 2010

Clark County Educational Attainment (≥ 25 yrs old)	2000			2010		
	Number	%	% achieving at least this level	Number	%	% achieving at least this level
Population 25 years and over	900,400	100.0		1,286,065	100.0	
Less than 9th grade	62,158	6.9	---	88,056	6.8	---
9th to 12th grade, no diploma	122,840	13.6	93.2	119,117	9.3	93.2
High school graduate (includes equivalency)	268,827	29.9	79.6	383,772	29.8	83.9
Some college, no degree	237,649	26.4	49.7	325,580	25.3	54.1

Continued

Table 10, continued

Clark County Educational Attainment (≥ 25 yrs old)	2000			2010		
	Number	%	% achieving at least this level	Number	%	% achieving at least this level
Associate degree	52,843	5.9	---	91,153	7.1	---
Bachelor's degree	103,152	11.5	17.4	186,313	14.5	21.7
Graduate or professional degree	52,931	5.9	5.9	92,074	7.2	7.2

Source: American Community Survey (American Fact Finder)

Clark County Visitor Data

No discussion regarding population demographics in Clark County would be complete without information about the visitor population. Even through the recession, the visitor counts to Clark County have remained high. The lowest visitor count since 2004 was in 2009, at 36,351,469 (Table 11). The average tourist to Las Vegas stays for 4.6 days.¹ Considering the overlaps in stays, the average daily visitor volume is 458,128. Visitor spending supports the Clark County and Nevada State economies both directly and indirectly and therefore affects the socioeconomic status of many local residents.

Table 11. Clark County Visitor Information

	2004	2005	2006	2007	2008	2009	2010
Visitor Volume	37,388,781	38,566,717	38,914,889	39,196,761	37,481,552	36,351,469	37,335,426
Airline Passengers, enplaned/deplaned	41,441,531	44,267,376	46,304,376	47,729,527	44,074,707	40,469,012	39,757,359
Convention Attendance	5,724,864	6,166,194	6,307,961	6,209,253	5,899,725	4,492,275	4,473,134

Data sources: Las Vegas Convention and Visitors Authority, State of Nevada Gaming Control Board, McCarran International Airport. <http://www.lvcva.com/includes/content/images/media/docs/YE-Summaries-2004-2010.pdf>

A survey published in 2010² collected data through personal interviews conducted monthly from January 1 through December 31 from visitors that are at least 21 years of age. The total sample size for the results was approximately 3600 visitors.

The survey revealed that visitors come from all over the world, but more than 25% are from Southern California (Table 12). From the perspective of population health, the visitors of most interest are from foreign countries (~18%) where diseases of public health concern may be more common, and where vaccination rates are lower than in the US. In the US, diseases such as measles, typhoid fever and others are generally imported from foreign countries, either from US residents being exposed in foreign countries, or by infectious foreign visitors visiting the US. Additionally, the majority of outbreak investigations conducted within Clark County, although not usually caused by visitors, usually affect the visitor population.

Table 12. Clark County Visitor Demographics by Place of Residence 2010³

	Southern California	Other USA	Foreign	TOTAL
<u>GENDER</u>				
Male	52%	50%	48%	50%
Female	48	50	52	50
<u>MARITAL STATUS</u>				
Married	78	80	77	79
Single	15	13	16	14
Separated/Divorced	5	5	3	5
Widowed	2	2	3	2
<u>EMPLOYMENT</u>				
Employed	65	66	65	66
Unemployed	2	2	1	2
Student	2	3	5	3
Retired	28	26	26	27
Homemaker	2	3	4	3
<u>EDUCATION</u>				
High school or less	19	23	29	23
Some college/trade school	28	31	24	29
College graduate	53	46	48	48
<u>AGE</u>				
21 to 29	8	10	13	10
30 to 39	22	17	20	19
40 to 49	23	24	20	23
50 to 59	19	20	18	19
60 to 64	8	8	14	9
65 or older	20	21	16	20
MEAN	49.3	49.6	47.8	49.2
BASE	(943)	(2002)	(656)	(3601)

Health Resource Availability and Quality

Definition of Category: This domain represents factors associated with health system capacity, which may include both the number of licensed and credentialed health personnel and the physical capacity of health facilities. In addition, the category of health resources may include measures of access, utilization, cost and quality of health care and prevention services.

To get a good assessment of the adequacy of health resources, we first needed to visualize the distribution of the state's population. Nevada contains 16 counties and one independent city (Carson City), many of which are sparsely populated and geographically very large. As examples, Nye County (2010 Pop. 43,946), which covers >18,000 square miles, and Elko County (2010 Pop. 48,818), which covers >17,000 square miles, are the 3rd and 4th geographically largest counties in the continental U.S. and Esmeralda County, which covers approximately 3500 square miles (an area greater than the states of Rhode Island and Delaware combined) had just 783 residents in 2010 and is Nevada's least densely populated county (0.2 persons/square mile), the second least dense county in the U.S. Clark County is Nevada's most densely populated county, having a density in 2010 of 247 persons per square mile. Within Clark County, the most densely populated city or county subdivision in 2010, Sunrise Manor, was home to 5,678 people/square mile. However, even that densest portion of Clark County was sparsely populated compared with many U.S. metropolitan areas, the most extreme example of which was New York County, New York, where the 2010 population density was greater than 69,000 persons/sq. mi.

Next, we needed to determine where medical services are located with respect to the population of Clark County. Most of Clark County's population resides within the metropolitan area where the greatest numbers of medical service providers are located. However, Clark County is also home to tens of thousands of other residents living between 30 and 80 miles from the Las Vegas metropolitan area, in small cities such as Mesquite (2010 Pop. 15,276), where available medical services include a community hospital, or Moapa Valley (2010 Pop. 6,924), located approximately 35 miles from Mesquite and 60 miles from the nearest hospital in the Las Vegas metropolitan area. Some residents live in much smaller communities where few if any medical providers are nearby, such as Sandy Valley (2010 Pop. 2,051) or Searchlight (2010 Pop. 539) where there are likely to be few or no medical services and residents live more than 40 miles from the outskirts of the metropolitan area.

Figure 19 illustrates the locations of all health centers in the state of Nevada as of 2011. These include community hospitals, community health centers, and rural and tribal health clinics. Community health centers, rural clinics and tribal clinics serve populations of patients living in communities that otherwise have too few medical providers or who lack adequate insurance to allow them to visit other outpatient clinics near them, so they are not limited to rural areas. In fact, Clark County has two tribal health clinics, one of which is located within the Las Vegas area.

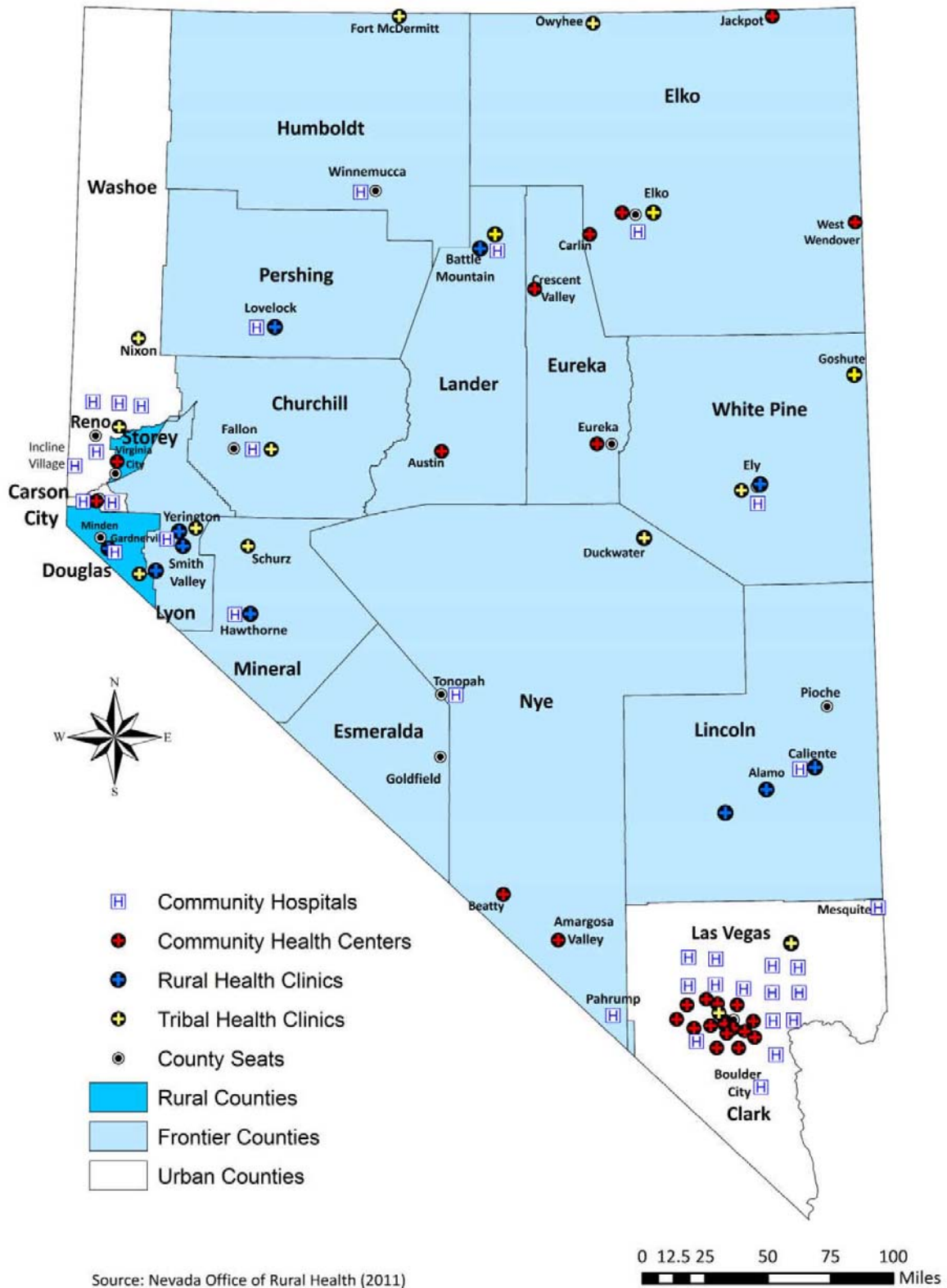


Figure 19. Healthcare Resources in Nevada

Although determining the adequacy of the available number of health care providers in Clark County would be a challenging study, comparing the numbers of health care providers in Clark County per capita with other geographic areas is a way to begin to form an estimate (Table 13).

Table 13. Licensed Primary Care Physicians (MD and DO) in Nevada by County – 2010

Region/County	Licensed Primary Care Physicians (MD and DO)			
	Number		Total	Number per 100,000
	MD	DO		
Rural and Frontier				
Churchill County	14	1	15	56.9
Douglas County	26	8	34	67.5
Elko County	22	5	27	51.9
Esmeralda County	0	0	0	0.0
Eureka County	0	0	0	0.0
Humboldt County	6	2	8	45.7
Lander County	2	0	2	33.6
Lincoln County	2	0	2	47.2
Lyon County	9	1	10	19.1
Mineral County	3	1	4	88.4
Nye County	7	5	12	26.8
Pershing County	2	0	2	28.3
Storey County	0	0	0	0.0
White Pine County	7	1	8	84.3
Region Subtotal	100	24	124	44.0
Urban				
Carson City	57	6	63	114.2
Clark County	1,257	204	1,461	76.8
Washoe County	325	39	364	90.5
Region Subtotal	1,639	249	1,888	80.0
Nevada – Total	1,739	273	2,012	76.2

Nevada Rural and Frontier Health Data Book – 2011 Edition⁴

Even though most of the rural and frontier counties in the state have fewer physicians (MDs and DOs) per capita (ranging from 0 to 88.4 per 100,000), Clark County has significantly fewer physicians (76.8/100,000) than the other two regions that contain urban areas, Washoe County (90.5/100,000) and Carson City (115/100,000).

Statistics published by Kaiser Family on StateHealthFacts.org⁵ show that in 2009, the ratio of beds per 1,000 persons in the U.S. was 2.6, with a range of 1.7-5.8. Nevada was near the bottom with 1.9/1,000.

As of 2011, Nevada’s ratio remained unchanged and Clark County’s was slightly lower at 1.8/1,000 persons (Table 14).

Table 14. Healthcare Resources, Clark County and Nevada 2011

HEALTH CARE RESOURCES	Clark County	Nevada
Number of Licensed Community Beds -2011	3,480	5,058
Licensed Community Hospital Beds Percent of Nevada Total -2011	68.7	100.0
Licensed Community Hospital Beds Per 1,000 Population -2011	1.8	1.9
Number of Licensed Long Term Care Beds -2011	3,480	5,559
Percent of Nevada Total of Licensed Long Term Care Beds -2011	62.6	100.0
Number of Licensed Long Term Care Beds per 1,000 Population -2011	1.8	2.1
Number of Licensed Long Term Care Beds per 1,000 Population Aged 65+ -2011	17.1	16.6

Source: Health and Healthcare in Clark County, 2011 Edition <http://www.medicine.nevada.edu/cehso/county/ClarkCoH&HCReport.pdf>

With regard to quality of care in nursing facilities, the Centers for Medicare and Medicaid Services define deficiencies as follows. "Actual harm" is a "deficiency that results in a negative outcome that has negatively affected the resident's ability to achieve the individual's highest functional status. "Immediate jeopardy" is defined as a deficiency that "has caused (or is likely to cause) serious injury, harm, impairment, or death to a resident receiving care in the nursing home." According to 2010 data on the StateHealthFacts.org website, nursing facilities in Nevada ranked 48th in the average number of deficiencies (15.1). The average number of deficiencies across the US was 9.4, while the lowest average in a state was 3.5 (Rhode Island).

The Commonwealth Fund Scorecard on Local Health System Performance report published in early 2012 offers several ratings of 306 U.S. major metropolitan areas in regard to quality of medical care, where they ranked the Las Vegas metropolitan area in the bottom 10% (No. 273) (Table 15). In regard to a combination of quality of care, access and affordability, preventive care, costs, and potential for patients to lead healthy lives, the Las Vegas area was ranked No. 268 (Table 16). Availability of licensed psychiatrists is also lower in Clark County (4.5/100,000) than Nevada’s other two urban areas (5.4 in Carson City and 11.7 in Washoe County). We have been aware for many years that mental health care services are in critically short supply in Clark County. Southern Nevada Health District has collected preliminary data identifying frequent excessive wait times for mental health patients for emergency department evaluations and subsequent follow-up treatment or inpatient placement. This situation represents a crisis for mental health patients. Therefore, at present, SNHD is giving higher priority to trying to solve the problems with access to mental health care over problems with access to medical health care. Although we have also determined that Clark County has too few providers, particularly in primary care, we view the mental health care provider shortage as a more critical issue at present, especially because it puts undue burden on the emergency departments, which can also affect the care received by medically needy patients. We are currently planning a formal study to assess mental health care needs in Clark County with the goal of working toward improving access to care.

Table 15. Performance of Top and Bottom 10 Percent of Hospital Referral Regions

Performance Quartile

- Top Quartile
- Second Quartile
- Third Quartile
- Bottom Quartile
- Missing Data

Dimension Rank	Local Area	Population Count	Adult Usual Source of Care	Adult Preventive Care	Diabetic Preventive Care	Inappropriate Prescription Among Elderly (1)	Hospital Quality (2)	Hospital 30-Day Mortality (3)	Patient-Centered Hospital Care	Home Recovery Discharge Instructions	Home Health Quality (4)	Nursing Home Quality (5)	Medicare Cancer Decedents with Late or No Hospice
Top 10% of Local Areas	1	Manchester, NH	893,654	■	■	■	■	■	■	■	■	■	■
	1	Wausau, WI	189,109	■	■	■	■	■	■	■	■	■	■
	3	Bangor, ME	398,446	■	■	■	■	■	■	■	■	■	■
	3	Boston, MA	4,825,960	■	■	■	■	■	■	■	■	■	■
	3	Cedar Rapids, IA	299,158	■	■	■	■	■	■	■	■	■	■
	3	Lancaster, PA	666,199	■	■	■	■	■	■	■	■	■	■
	3	Neenah, WI	237,203	■	■	■	■	■	■	■	■	■	■
	3	Portland, ME	1,071,122	■	■	■	■	■	■	■	■	■	■
	3	Worcester, MA	824,358	■	■	■	■	■	■	■	■	■	■
	10	Appleton, WI	333,220	■	■	■	■	■	■	■	■	■	■
	10	Arlington, VA	2,306,470	■	■	■	■	■	■	■	■	■	■
	10	Dubuque, IA	154,083	■	■	■	■	■	■	■	■	■	■
	10	Rochester, MN	418,800	■	■	■	■	■	■	■	■	■	■
	14	Boulder, CO	286,366	■	■	■	■	■	■	■	■	■	■
	14	Grand Rapids, MI	1,175,042	■	■	■	■	■	■	■	■	■	■
	14	Lebanon, NH	397,373	■	■	■	■	■	■	■	■	■	■
	14	Marshfield, WI	371,943	■	■	■	■	■	■	■	■	■	■
	14	Mason City, IA	132,853	■	■	■	■	■	■	■	■	■	■
	14	St. Cloud, MN	260,500	■	■	■	■	■	■	■	■	■	■
	14	Traverse City, MI	231,931	■	■	■	■	■	■	■	■	■	■
	21	Des Moines, IA	1,086,663	■	■	■	■	■	■	■	■	■	■
21	Green Bay, WI	510,108	■	■	■	■	■	■	■	■	■	■	
21	La Crosse, WI	350,219	■	■	■	■	■	■	■	■	■	■	
21	Madison, WI	1,097,923	■	■	■	■	■	■	■	■	■	■	
21	Minneapolis, MN	3,237,168	■	■	■	■	■	■	■	■	■	■	
21	New Haven, CT	1,473,068	■	■	■	■	■	■	■	■	■	■	
21	Petoskey, MI	177,769	■	■	■	■	■	■	■	■	■	■	
21	Providence, RI	1,225,202	■	■	■	■	■	■	■	■	■	■	
21	Rochester, NY	1,304,602	■	■	■	■	■	■	■	■	■	■	
21	Springfield, MA	738,817	■	■	■	■	■	■	■	■	■	■	
21	St. Paul, MN	1,077,980	■	■	■	■	■	■	■	■	■	■	
21	Waterloo, IA	217,149	■	■	■	■	■	■	■	■	■	■	
Bottom 10% of Local Areas	273	Beaumont, TX	464,624	■	■	■	■	■	■	■	■	■	■
	273	Fort Smith, AR	373,855	■	■	■	■	■	■	■	■	■	■
	273	Fresno, CA	1,244,368	■	■	■	■	■	■	■	■	■	■
	273	Harlingen, TX	565,440	■	■	■	■	■	■	■	■	■	■
	273	Houma, LA	279,132	■	■	■	■	■	■	■	■	■	■
	273	Houston, TX	6,369,027	■	■	■	■	■	■	■	■	■	■
	273	Jackson, TN	335,391	■	■	■	■	■	■	■	■	■	■
	273	Las Vegas, NV	2,075,263	■	■	■	■	■	■	■	■	■	■
	273	Lawton, OK	205,383	■	■	■	■	■	■	■	■	■	■
	273	Lubbock, TX	705,146	■	■	■	■	■	■	■	■	■	■
	273	Memphis, TN	1,814,827	■	■	■	■	■	■	■	■	■	■
	273	Paducah, KY	371,499	■	■	■	■	■	■	■	■	■	■
	273	Palm Springs/Rancho Mirage, CA	590,216	■	■	■	■	■	■	■	■	■	■
	273	Reno, NV	753,253	■	■	■	■	■	■	■	■	■	■
	273	Santa Barbara, CA	439,848	■	■	■	■	■	■	■	■	■	■
	273	Tulsa, OK	1,373,182	■	■	■	■	■	■	■	■	■	■
	273	Tupelo, MS	394,380	■	■	■	■	■	■	■	■	■	■
	290	Abilene, TX	294,137	■	■	■	■	■	■	■	■	■	■
	290	Alexandria, LA	292,937	■	■	■	■	■	■	■	■	■	■
	290	Bakersfield, CA	1,148,420	■	■	■	■	■	■	■	■	■	■
	290	Casper, WY	194,084	■	■	■	■	■	■	■	■	■	■
	290	Jackson, MS	1,070,263	■	■	■	■	■	■	■	■	■	■
	290	Lafayette, LA	622,943	■	■	■	■	■	■	■	■	■	■
	290	Los Angeles, CA	9,874,390	■	■	■	■	■	■	■	■	■	■
	290	Meridian, MS	201,585	■	■	■	■	■	■	■	■	■	■
	290	Oklahoma City, OK	1,879,596	■	■	■	■	■	■	■	■	■	■
	290	San Bernardino, CA	2,995,146	■	■	■	■	■	■	■	■	■	■
290	Stockton, CA	592,259	■	■	■	■	■	■	■	■	■	■	
301	El Paso, TX	1,115,274	■	■	■	■	■	■	■	■	■	■	
301	Hattiesburg, MS	316,829	■	■	■	■	■	■	■	■	■	■	
301	Monroe, LA	270,188	■	■	■	■	■	■	■	■	■	■	
301	Oxford, MS	152,428	■	■	■	■	■	■	■	■	■	■	
305	Idaho Falls, ID	239,146	■	■	■	■	■	■	■	■	■	■	
305	McAllen, TX	647,659	■	■	■	■	■	■	■	■	■	■	

(1) Quartile ranking is based on an average of 2 metrics: 1) Percent of Medicare beneficiaries received at least one drug that should be avoided in the elderly; 2) Percent of Medicare beneficiaries with dementia, hip/pelvic fracture, or chronic renal failure received prescription in an ambulatory care setting that is contraindicated for that condition.
 (2) Quartile ranking is based on an average of 3 metrics: 1) Percent of patients hospitalized for heart failure who received recommended care; 2) Percent of patients hospitalized for pneumonia who received recommended care; 3) Percent of surgical patients received appropriate care to prevent complications.
 (3) Quartile ranking is based on an average of 3 metrics: 1) Risk-adjusted 30-day mortality among Medicare patients hospitalized for heart attack; 2) Risk-adjusted 30-day mortality among Medicare patients hospitalized for heart failure; 3) Risk-adjusted 30-day mortality among Medicare patients hospitalized for pneumonia.
 (4) Quartile ranking is based on an average of 2 metrics: 1) Percent of home health care patients whose ability to walk or move around improved; 2) Percent of home health care patients whose wounds improved or healed after an operation.
 (5) Quartile ranking is based on an average of 3 metrics: 1) Percent of high-risk nursing home residents with pressure sores; 2) Percent of long-stay nursing home residents who were physically restrained; 3) Percent of long-stay nursing home residents who have moderate to severe pain.

Source: Commonwealth Fund Scorecard on Local Health System Performance, 2012.

Table 16. Performance Quartiles by Hospital Region

HRR	Population	Overall Rank	Overall Performance Quartile	Access & Affordability Performance Quartile	Prevention & Treatment Quartile	Potentially Avoidable Hospital Use & Cost Quartile	Potential to Lead Healthy Lives Quartile
Tupelo	394,380	295	4	4	4	3	4
Missouri							
Cape Girardeau	270,168	250	4	3	4	3	4
Columbia	707,835	195	3	2	3	2	4
Joplin	371,319	267	4	4	4	2	4
Kansas City	2,487,823	160	3	2	2	3	3
Springfield	869,999	244	4	4	4	2	4
St. Louis	3,418,466	200	3	2	3	4	3
Montana							
Billings	586,903	177	3	3	3	1	3
Great Falls	149,383	184	3	3	4	1	3
Missoula	383,540	185	3	4	3	①	3
Nebraska							
Lincoln	581,522	99	2	2	2	2	2
Omaha	1,302,354	113	2	2	2	2	2
Nevada							
Las Vegas	2,075,263	268	4	4	4	3	3
Reno	753,253	200	3	3	4	1	3
New Hampshire							
Lebanon	397,373	25	①	2	①	1	1
Manchester	893,654	9	①	①	①	2	1
New Jersey							
Camden	2,826,905	129	2	1	2	4	2
Hackensack	1,291,948	119	2	2	3	3	①
Morristown	1,014,970	38	1	①	1	2	①
New Brunswick	1,069,921	46	1	①	1	3	①
Newark	1,531,172	167	3	2	3	4	1
Paterson	389,817	113	2	2	2	3	1
Ridgewood	447,140	58	1	1	1	3	①
New Mexico							
Albuquerque	1,667,755	158	3	3	3	①	2
New York							
Albany	1,843,942	57	1	①	1	3	2
Binghamton	375,225	109	2	2	2	1	2
Bronx	1,381,167	200	3	2	3	4	2
Buffalo	1,376,734	54	1	①	1	2	2
Elmira	331,609	129	2	1	2	3	3
East Long Island	4,619,140	93	2	1	1	4	①
Manhattan	5,107,497	121	2	1	2	4	1
Rochester	1,304,602	27	①	①	①	2	2
Syracuse	1,064,220	78	2	2	1	2	2
White Plains	1,136,457	62	1	1	1	4	①
North Carolina							
Asheville	658,967	154	3	3	2	1	3
Charlotte	2,463,839	162	3	3	1	2	3
Durham	1,369,067	209	3	3	3	2	4
Greensboro	617,305	133	2	2	2	2	3
Greenville	846,064	251	4	3	3	4	4
Hickory	302,457	121	2	3	1	1	3
Raleigh	2,042,645	206	3	3	3	3	3
Wilmington	452,640	193	3	2	3	3	3
Winston-Salem	1,130,434	187	3	3	2	3	3
North Dakota							
Bismarck	212,151	58	1	1	2	1	2
Fargo/Moorhead MN	528,764	16	①	①	1	①	2
Grand Forks	167,292	75	1	①	1	1	3
Minot	126,147	93	2	①	3	①	2
Ohio							
Akron	699,542	132	2	1	2	3	2
Canton	638,566	176	3	3	3	2	2
Cincinnati	1,666,017	142	2	2	2	3	3
Cleveland	2,062,819	124	2	1	2	4	2

Source: Commonwealth Fund Scorecard on Local Health System Performance, 2012.

- = HRR in top 10%

For complete table go to: <http://www.commonwealthfund.org>

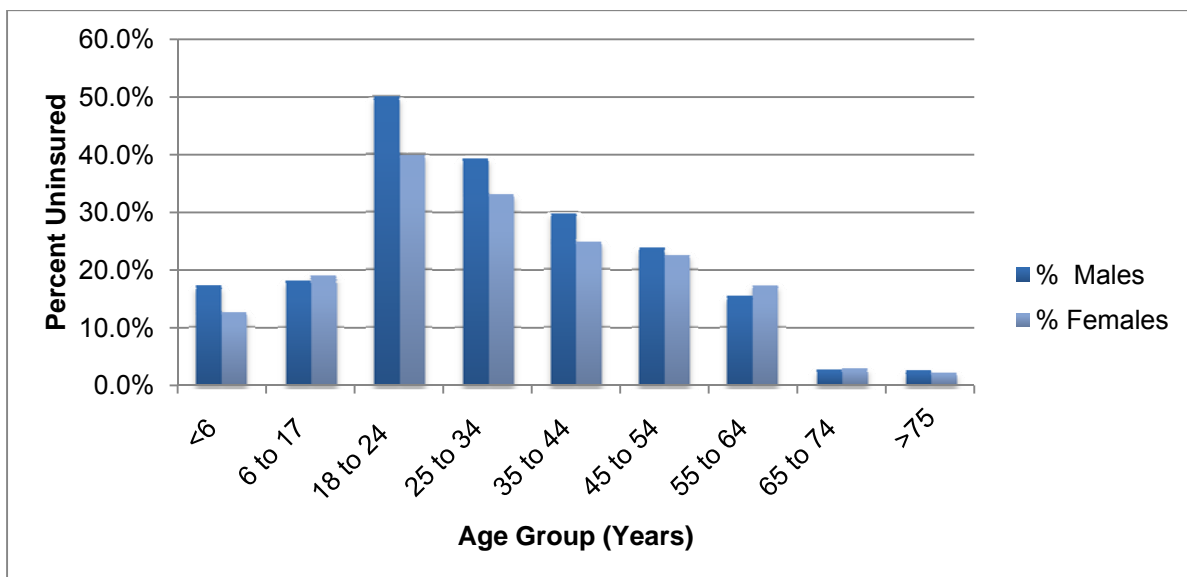
Public Health and Health Care Workforce

The number of local health department full-time equivalents employees (FTEs) in Clark County, Nevada is 530. The national median for local health departments serving populations >1,000,000 (NACCHO 2010⁶) is 530, while the mean is 936. The per capita public health budget (SNHD) for Clark County, Nevada for Fiscal Year 11 (2010-2011) was \$73,085,345/1,954,260, or \$37.40 per capita. This is similar to the median expenditures for local public health departments across the nation serving populations \geq 1,000,000, (NACCHO 2010) which was \$37 per capita, while the mean for this group was \$74 per capita in the US.

When spending from only state revenues is considered, there is wide variation in per capita public health spending across the states. In Fiscal Year 2007, per capita public health funding by state governments ranged from \$3.46 in Nevada to \$152.66 in Hawaii. Nevada is last in the nation by a large margin. The next lowest funding level by state government for public health was Wisconsin at \$9.16 per resident – more than two and one half times that of Nevada. The median funding for public health by state government was \$33.26 per person, a nearly ten-fold increase over expenditures in Nevada.⁷

Access to Care

As we know from following health care reform debates at the national level, access to affordable health insurance is a problem for many Americans, Clark County, Nevada residents included. Figure 20 and Table 17 illustrate the percentages of uninsured by age group and gender for 2010. Older age groups that are eligible for Medicare have the lowest proportion of uninsured, while the 18-24 year age group has the highest level of uninsured, especially males of which half are uninsured.



Source: American Community Survey, 2010

Figure 20. Percent Uninsured, Males vs. Females by Age Group, Clark County 2010

Table 17. Percent Uninsured, Males vs. Females by Age Group, Clark County and Nevada 2010

2010 Age Group	Clark County		Nevada	
	% Male	% Female	% Male	% Female
<6	17.1%	12.6%	16.4%	13.2%
6 to 17	18.1%	19.1%	18.1%	19.3%
18 to 24	50.0%	39.9%	46.9%	38.1%
25 to 34	39.4%	33.2%	39.1%	32.4%
35 to 44	29.8%	24.8%	30.1%	25.8%
45 to 54	23.9%	22.6%	24.0%	23.0%
55 to 64	15.4%	17.3%	15.3%	17.2%
65 to 74	2.8%	3.1%	2.1%	2.5%
≥75	2.5%	2.1%	2.0%	1.5%

Source: American Community Survey, 2010

Quality of Life

Definition of Category: Quality of Life (QOL) is a construct that “connotes an overall sense of well-being when applied to an individual” and a “supportive environment when applied to a community” (Moriarty, 1996). While some dimensions of QOL can be quantified using indicators research has shown to be related to determinants of health and community-well being, other valid dimensions of QOL include perceptions of community residents about aspects of their neighborhoods and communities that either enhance or diminish their quality of life.

University of Nevada Cooperative Extension conducts a periodic survey of Clark County residents to solicit community input on a variety of issues of concern. Results of the 2009 survey are shown in Table 18 below. Not surprisingly, since we live in a desert and have been in a drought for more than 10 years, having an adequate water supply was a major concern. This marginally edged out employment, environmental quality, availability of activities for children, and children being ready to start kindergarten.

Table 18. Quality of Life Issues Affecting Survey Respondent and Family

Item	No Problem	Small/Somewhat a Problem	Major Problem
Crime*	44%	22%	26%
Access to medical care	42%	32%	26%
Affordable housing*	44%	22%	26%
Employment	43%	29%	28%
Activities for kids/families	43%	29%	28%
Not enough money to live on	44%	30%	26%
Environmental quality	42%	30%	28%
Chronic disease	43%	30%	27%
Preparing youth for working world	43%	31%	26%
Quality of family life	46%	29%	25%
High cost of goods & services	42%	31%	27%
Having an adequate water supply	42%	29%	29%
Quality of child care	44%	29%	27%
Children ready to start kindergarten	45%	27%	28%
Having quality schools	44%	30%	26%

Continued

Table 18. continued

Item	No Problem	Small/Somewhat a Problem	Major Problem
Services for senior citizens	44%	29%	27%
Health insurance	45%	28%	27%
Cultural activities	44%	29%	27%
Family emergency preparedness	44%	30%	26%

* Percentages may not add up to 100% due to non-respondents

Highest in each category bolded

Source: UNCE Community Needs Assessment and Quality of Life Analysis Clark County 2009

<http://www.unce.unr.edu/publications/files/cd/2009/sp0913.pdf>

Health-Related Quality of Life

Behavioral Risk Factors

Definition of Category: Risk factors in this category include behaviors which are believed to cause, or to be contributing factors to, injuries, disease, and death during youth and adolescence and significant morbidity and mortality in later life.

An unhealthy diet and a lack of exercise are key contributors to rising obesity rates^{8,9} and increases the risk for a number of health conditions like coronary heart disease, type-2 diabetes, cancer, hypertension, stroke, liver disease, sleep apnea, respiratory problems, osteoarthritis, gynecological problems, and poor health status.^{10,11}

To maintain good health it is important to consuming a healthy amount of calories in the form of healthier foods. Additionally, a healthy diet leads to a decreased risk of nutritional deficiencies.

Decreased physical activity has been related to several disease conditions such as type 2 diabetes, cancer, stroke, hypertension, cardiovascular disease, and premature mortality, independent of obesity.^{12,13} The CDC also sets activity recommendations because physical activity is important for overall health.

The 2012 County Health Rankings (CHR) sets the benchmarks for the maximum proportion of adults who are obese or physically inactive (little or no exercise) at 25% and 21% respectively. The proportions of Clark County adults overall who reported through the Behavioral Risk Factor Surveillance System (BRFSS) that they were obese or were physically inactive were both higher than the benchmarks (Table 19, 'Adult' column).

Table 19. Behavioral Risk Factor By Life-Stage, 2009–2010 — Clark County, Nevada

Behavioral Risk Factor	Youth < 18 *	Adult**	Older Adult (>64)**
Lifestyle			
5+ Servings Fruit and Vegetables per day	17.5%	23.9%	18.8%
Obesity	12.3%	27.9%	24.5%
Little or No Exercise	14.7%	26.5%	33.6%
Protective Factors (safety)			
Seatbelt use (rarely or never)	9.4%	3.3%†	3.5%†
Condom use (last sexual intercourse)	63%	N/A	N/A

*Source: YRBS 2009; **Source: BRFSS 2009; †2010 BRFSS (2009 BRFSS not available for this indicator)

When we examine these risk factors by gender and race/ethnicity (Table 20), adult obesity is more prevalent in males than in females, with Asian/Pacific Islanders (API) having the highest prevalence. The Youth Risk

Behavior Survey (YRBS) was the source of data for youth <18 years of age. Among youths there is a similar gender pattern (males>females). The race/ethnicity obesity prevalence in youths is highest among the American Indian/Eskimo/Aleut group (AEA). However, due to the very small sample size, this statistic should be interpreted with caution. Physical inactivity among adults is more prevalent in females than males, with the highest prevalence among the API group. Among youths, the gender pattern is similar, but the highest prevalence of youths with little or no exercise is in the black non-Hispanic (BNH) group. With regard to eating healthy foods, overall, there appears to be no gender difference. Examination of the data by race/ethnicity reveals that the adult API grouping has a much higher prevalence than other race/ethnicity groups of eating five or more servings of fruit and vegetables daily (41.3%), followed by Hispanic (31.1%). White non-Hispanics (WNH) have the lowest prevalence (20.4%).

Table 20. Behavioral Risk Factor by Special Populations, Clark County, Nevada

Behavioral Risk Factor	Male	Female	WNH	BNH	AEA*	API	Hispanic
Lifestyle, 2009							
Adult 5+ Servings Fruit and Vegetables per day	23.9%	23.8%	20.4%	23.2%	N/A	41.3%	31.1%
Youth 5+ Servings Fruit and Vegetables per day	26.4%	17.6%	23.5%	22.3%	15.6%	14.3%	21.4%
Adult Obesity	31.1%	24.4%	28.3%	24.6%	N/A	34.4%	27.4%
Youth Obesity	16.7%	7.7%	10.8%	12.6%	35.6%	6.0%	15.0%
Adult Little or No Exercise	22.7%	30.3%	25.9%	23.95	N/A	31.1%	28.9%
Youth Little or No Exercise	11.1%	18.4%	13.8%	18.5%	8.2%	15.4%	13.6%

Sources: BRFSS 2009-2010 & YRBSS 2009. Youth Risk Behavior Survey is done every other year, in odd numbered years. 2009 was chosen in order to have comparable data for youth & adults. The indicators above correlate with information found in the Behavioral Risk Factor Surveillance System (BRFSS) and the Youth Risk Behavior Surveillance System (YRBSS). For more information, go to <http://www.cdc.gov/nccdphp/brfss/pdf/userguide.pdf> and <http://www.cdc.gov/healthyyouth/yrbss/index.htm>. *AEA race category data should be interpreted with caution because the survey sample size for this group was very small.

General Health Status

BRFSS also collected reports of respondents' self-assessed general well-being. The overall proportions of respondents who reported good to excellent health in 2010 was approximately 83% for both men and women, ranging from 69.6% among Black Nonhispanic to 90.4% among Hispanic Clark County residents (Table 21).

Table 21. Indicators by Special Populations, Clark County, Nevada, 2010

General Health Status	Male	Female	WNH	BNH	AEA	API	Hispanic
Excellent self-reported health status	20.2%	23.6%	24.5%	20.0%	N/A	25.2%	18.8%
Very good self-reported health status	31.0%	29.8%	31.4%	21.4%	51.8%	23.8%	32.2%
Good self-reported health status	32.0%	29.2%	28.1%	28.2%	24.3%	32.5%	39.4%
Fair self-reported health status	10.9%	11.1%	11.0%	18.5%	5.2%	11.2%	6.7%
Poor self-reported health status	5.9%	6.2%	5.0%	11.9%	18.7%	7.2%	2.9%
Average number of days in past month when poor physical or mental health hampered usual activities	4.0%	5.4%	5.2%	6.4%	20.8%	5.0%	1.1%

Source: BRFSS 2010

Social and Mental Health

Definition of Category: This category represents social and mental factors and conditions which directly or indirectly influence overall health status and individual and community quality of life. Mental health conditions and overall psychological well-being and safety may be influenced by substance abuse and violence within the home and within the community.

Self-Assessed Physical and Mental Health

To feel healthy requires both physical and mental well-being. The number of days when people report that their mental health was not good represents an important facet of health-related quality of life. The 2012 CHR considers health-related quality of life to be an important health outcome.¹⁴ The CHR national benchmarks for poor physical and mental health are 2.6 and 2.3 days (in the past month) respectively. In 2010, Clark County Hispanic and Asian/Pacific Islander BRFSS respondents reported fewer physically or mentally unhealthy days than were reported by most other racial-ethnic groups (Table 22).

Table 22. Physical and Mental Health by Gender and Race/Ethnicity, Clark County 2010

Behavioral Risk Factor	Male	Female	WNH	BNH	AEA*	API	Hispanic
Physical and Mental Health							
Average number of physically unhealthy days in past month	3.3	4.4	4.1	4.4	5.8	2.5	1.8
Average number of days in past month when mental health was not good due to stress, depression and emotional problems	3.1	4.2	3.7	4.3	5.1	2.1	2.4

Source: BRFSS 2010

*AEA race category data should be interpreted with caution because the survey sample size for this group was very small.

Tobacco Use

“Each year approximately 443,000 premature deaths occur in the US due to smoking. Cigarette smoking is identified as a cause in multiple diseases including various cancers, cardiovascular disease, respiratory conditions, low birth weight, and other adverse health outcomes. Measuring the prevalence of tobacco use in the population can alert communities to potential adverse health outcomes and can be valuable for assessing the need for cessation programs or the effectiveness of existing programs.”¹⁴

Over the past decade, SNHD’s nationally recognized Tobacco Control Program (TCP) has implemented evidence-based, comprehensive programming utilizing the Centers for Disease Control and Prevention’s Best Practices. TCP programs and policy efforts have contributed to a decrease in youth smoking prevalence (30.7% to 13.7%: YRBS 1999, 2007) and adult smoking prevalence (30% to 22.4%: BRFSS 2001, 2007). Continued efforts have resulted in sustained decreases in smoking prevalence (Table 23 and Table 24).

However, the 2012 CHR places the national benchmarks for adult smoking at 14%. In the CHR report, the benchmark is set at the current 90th percentile, i.e., only 10% of counties ranked better at the time. Smoking was defined by the CHR as percent of adults who had ever smoked \geq 100 cigarettes and were still smoking every day. In 2009, 22.0% of Clark County adults and 16.7% of older adults reported smoking. Both proportions exceeded the CHR benchmarks (Table 23).

Table 23. Behavioral Risk Factor by Life-Stage Clark County, Nevada

Behavioral Risk Factor	Youth < 18 *	Adult**	Older Adult (>64)**
Substance Use and Abuse			
Smoking (every or some days)	6.4% [#]	22.0% ^{##}	16.7%
Binge drinking	20.8%	17.7%	5.5%

*Source: YRBSS 2009; **Source: BRFSS 2009; [#] 20+ days in past 30 days; ^{##} ≥ 100 cigarettes

According to currently available point estimates (Table 24), males have higher smoking prevalence rates than females, and among adults, Black non-Hispanics have the highest prevalence (23.0%) while the American Indian/Eskimo/Aleut race category has the lowest (9.5%).ⁱⁱⁱ

Table 24. Behavioral Risk Factor by Special Populations, Clark County, Nevada

Behavioral Risk Factor	Male	Female	WNH	BNH	AEA	API	Hispanic
Substance Use and Abuse, 2009							
Adult Smoking (every or some days)	23.0%	21.1%	21.0%	23.0%	9.5%	21.5%	22.2%
Youth Smoking (20+ days in past 30 days)	8.7%	4.1%	9.8%	2.4%	9.9%	3.0%	4.0%
Adult Binge Drinking	24.6%	10.6%	19.2%	5.5%	33.8%	8.3%	15.6%
Youth Binge Drinking	21.5%	20.2%	23.9%	9.7%	25.5%	17.1%	23.0%

Sources: BRFSS 2009-2010 & YRBSS 2009. Youth Risk Behavior Survey is done every other year, in odd numbered years. 2009 was chosen in order to have comparable data for youth & adults. The indicators above correlate with information found in the Behavioral Risk Factor Surveillance System (BRFSS) and the Youth Risk Behavior Surveillance System (YRBSS). For more information, go to <http://www.cdc.gov/nccdphp/brfss/pdf/userguide.pdf> and <http://www.cdc.gov/healthyyouth/yrbs/index.htm>

Alcohol Use

A number of adverse health outcomes are associated with consumption of too much alcohol. These include, but are not limited to, alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, fetal alcohol syndrome, and interpersonal violence.¹⁵ Approximately 80,000 deaths in the US annually are attributed to excessive drinking. It is the third leading lifestyle-related cause of death for people in the United States each year.¹⁶ CHR defines excessive drinking as binge plus heavy drinking. To maintain a basis for comparison between age life stages and race/ethnicity, we looked at binge drinking only (Table 23 and Table 24). This results in a lower percentage than the two categories of binge plus heavy drinking, yet at 17.7% for adults, this is still well in excess of the CHR benchmark of 8% for the combined category.

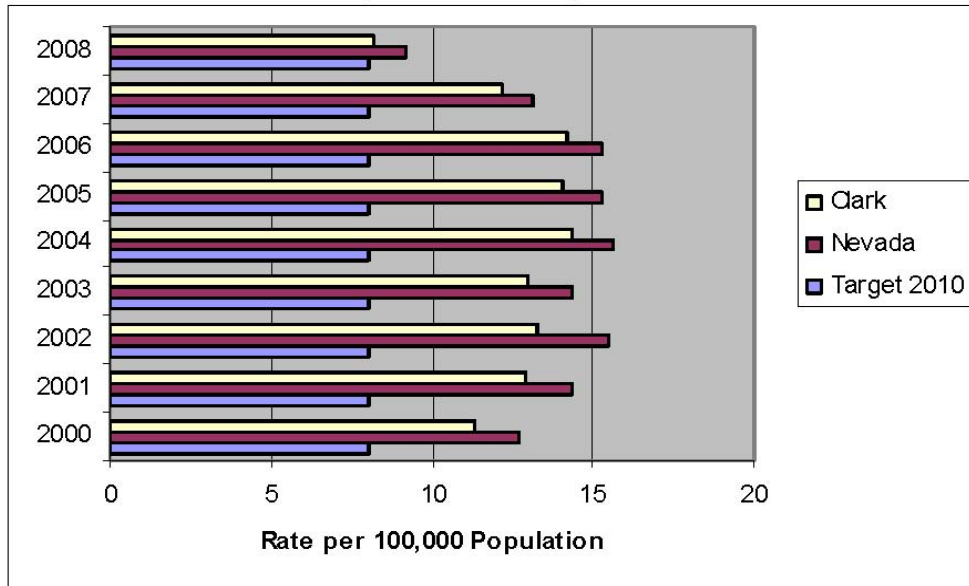
Motor Vehicle Crash Death Rate

There is a strong association between alcohol consumption and alcohol-impaired driving. Binge/heavy drinkers accounted for the most episodes of alcohol-impaired driving,¹⁷ and alcohol-related motor vehicle crashes (MVC) make up a significant portion of alcohol-related deaths.¹⁸ Alcohol-related U.S. highway crashes

ⁱⁱⁱ The data on the adult AEA race category in the table 23 should be interpreted with caution, since the survey sample size for this group was very small.

accounted for more than 13,000 deaths in 2010.¹⁹

Figure 21 shows that there was a steady decline in MVC since 2006, approaching the Healthy People 2010 benchmark of 8 deaths per 100,000 population in 2008. The 2012 CHR blended the years 2002-2008 to arrive at a crude mortality rate of 15/100,000. Unfortunately, their methodology masks the decline shown in the age-adjusted death rates.



Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countyreports/HealthyPeople2020ClarkCountyReport.pdf>
*2007-2008 Data are preliminary and subject to change

Figure 21. Age-Adjusted Death Rate Caused by Motor Vehicle Crashes, Clark County and Nevada, 2000-2008

Environmental Health Indicators

Definition of Category: The physical environment directly impacts health and quality of life. Clean air and water, as well as safely prepared food, are essential to physical health. Exposure to environmental substances such as lead or hazardous waste increases risk for preventable disease. Unintentional home, workplace or recreational injuries affect all age groups and may result in premature disability or mortality.

In the 2012 County Health Rankings, two measures are used to represent environmental quality: annual number of days that air quality was unhealthy for sensitive populations due to (1) fine particulate matter and (2) ozone concentrations. According to the 2012 CHR (Table 25), Clark County had one day that exceeded established standards for air pollution-particulate matter and thus exceeded the national benchmark of zero days. The national benchmark for air pollution-ozone days is also zero and, in this category, Clark County had 33 days in the course of a year that had excessive levels of ozone.

Table 25. Physical Environment

Physical Environment	Clark County	National Benchmark*	Nevada
Air pollution-particulate matter days	1	0	1
Air pollution-ozone days	33	0	24
Access to recreational facilities	6**	16**	7**
Limited access to healthy foods	3%	0%	4%
Fast food restaurants	59%	25%	56%

Source: 2012 County Health Rankings

*90th percentile nationally

**Recreational Facilities per 100,000 population

Background information in the *2012 CHR*, cites recent research demonstrating a strong relationship between access to recreational facilities and physical activity among adults and children.^{20,21} Additionally, there is strong evidence that access to supermarkets rather than smaller grocery/convenience stores correlates with lower prevalence of overweight, obesity, and hypertension, while proximity to small grocery or convenience stores was associated with a higher prevalence of these factors.²² Data studied for the *2012 CHR* revealed that in Clark County, there are only six recreational facilities per 100,000 population in comparison to the national benchmark of 16/100,000. Three percent of Clark County population had limited access to healthy foods, while 59% had access to fast food restaurants. Neither of the Clark County indicators is favorable when compared to the national benchmarks (Table 25).

Indoor air quality is an important public health issue in Clark County due to the large number of public facilities that allow smoking. Despite the passing of the Nevada Clean Indoor Air Act in 2006, casinos and bars that do not serve food still allow smoking. This results in the passive exposure of both patrons and staff of these establishments.

All of the Southern Nevada Water System’s drinking water comes from the Colorado River via Lake Mead. The water system that serves the majority of Clark County residents is fluoridated.

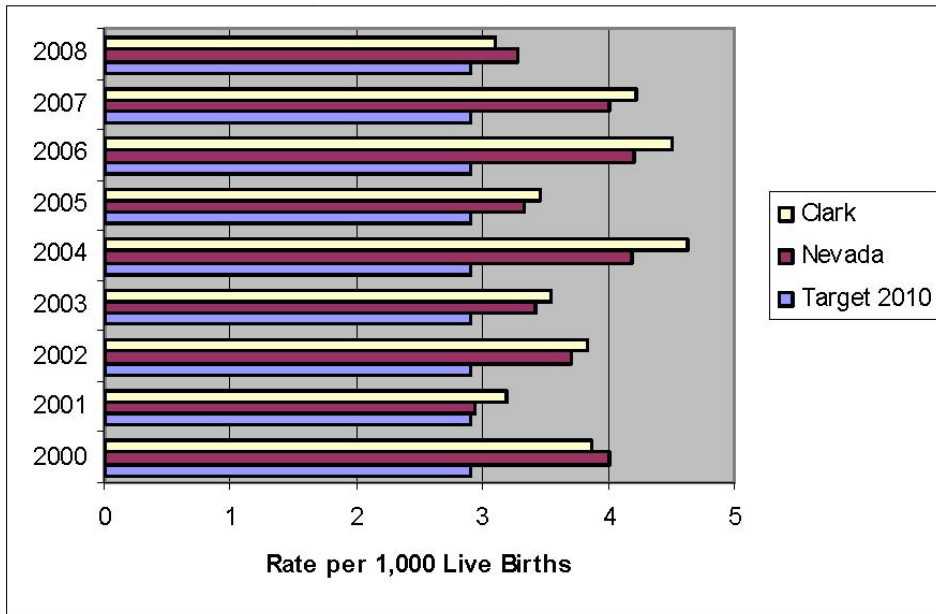
Potential sources of contamination of Lake Mead include urban chemicals such as fertilizers and pesticides, industrial activities and wildlife. However, southern Nevada is fortunate because there is relatively little agriculture upstream along the Colorado River, which limits exposure to farming-related contaminants. Every month, scientists collect and analyze water samples from intakes to the treatment facilities and from the treated water. Water delivered by the Southern Nevada Water System meets or surpasses all State of Nevada and federal drinking-water standards.²³

Maternal and Child Health

Definition of Category: This category represents factors and conditions which describe or influence overall health status of women, children and adolescents, including characteristics of births, infant mortality, birth weight, prenatal care, and teen births.

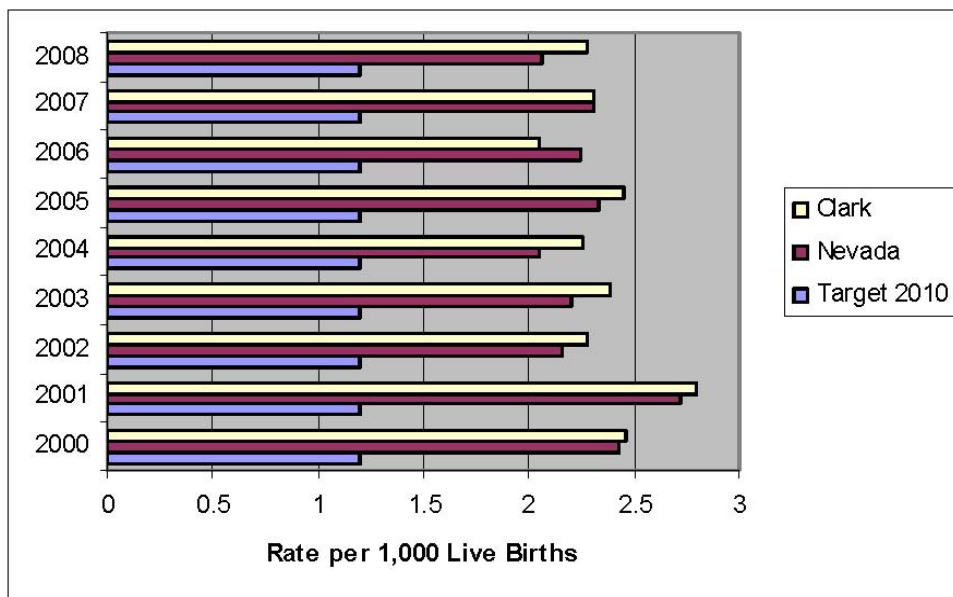
The health of a population is reflected in the health of its most vulnerable members, infants and children. Careful examination of data relating to maternal and child health provides opportunities to develop programs to improve birth outcomes, to reduce pregnancy and birth-related risks to mothers, and to monitor the success of programs focused on maternal and child health. Figure 22 through Figure 28 display trends in some of the most important maternal and child health indicators, infant and child mortality rates.²⁴

Neonatal and Infant Deaths



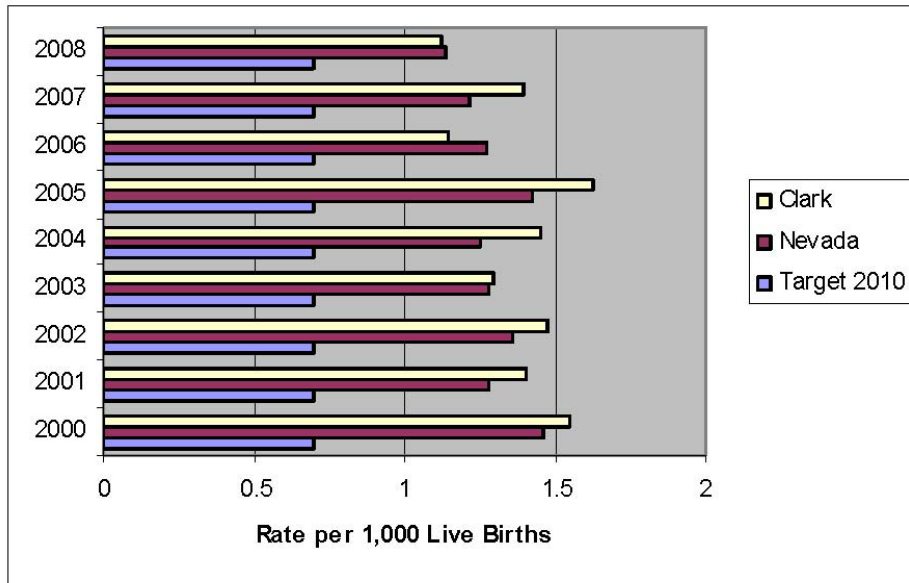
Source: Healthy People Nevada Moving From 2010 to 2020
 *2007-2008 Data are preliminary and subject to change

Figure 22. Neonatal Death Rate (First 28 Days of Life), Clark County and Nevada, 2000-2008



Source: Healthy People Nevada Moving From 2010 to 2020
 *2007-2008 Data are preliminary and subject to change

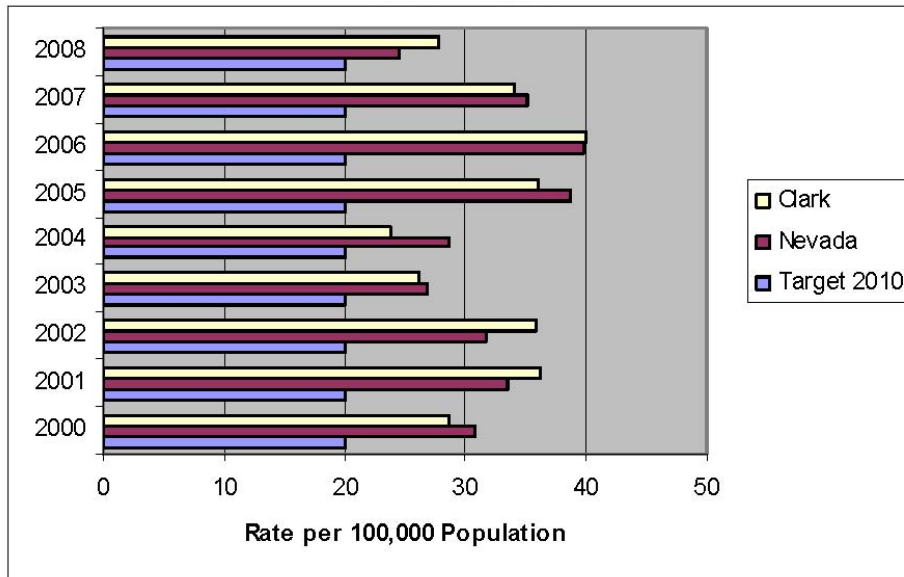
Figure 23. Postneonatal Death Rate (28 days-1 year), Clark County and Nevada, 2000-2008



Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countryrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

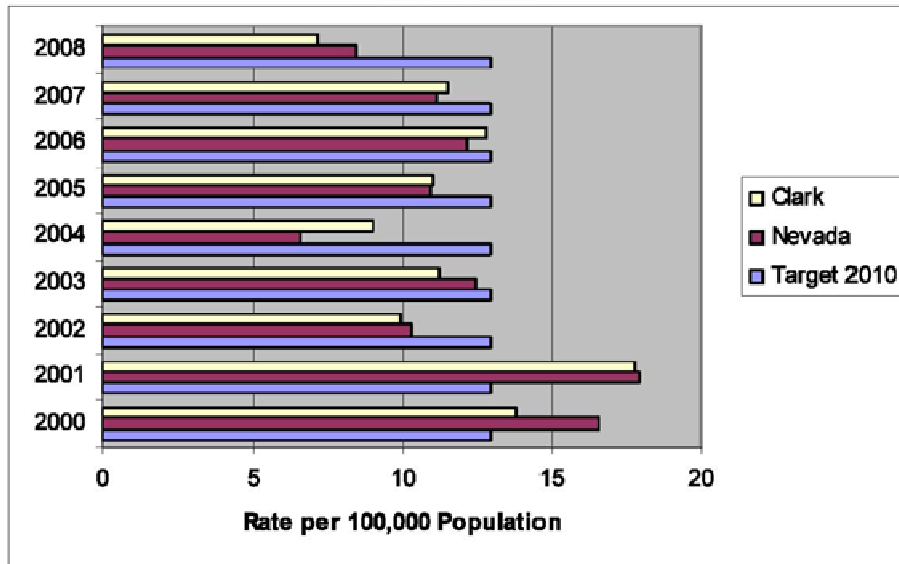
Figure 24. Infant Death Rate from Birth Defects, Clark County and Nevada, 2000-2008

Child Deaths



Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countryrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

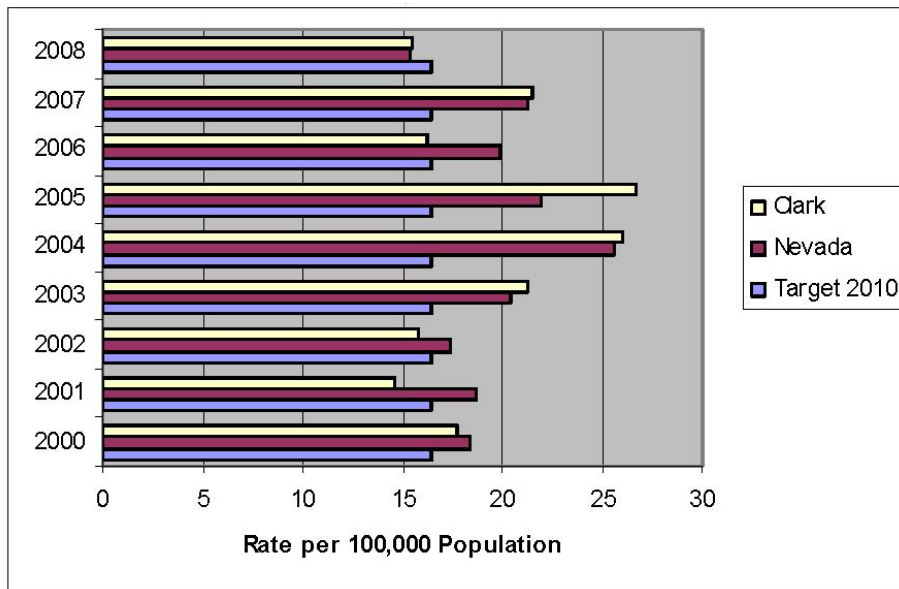
Figure 25. Death Rate of Children Aged 1-4, Clark County and Nevada, 2000-2008



Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

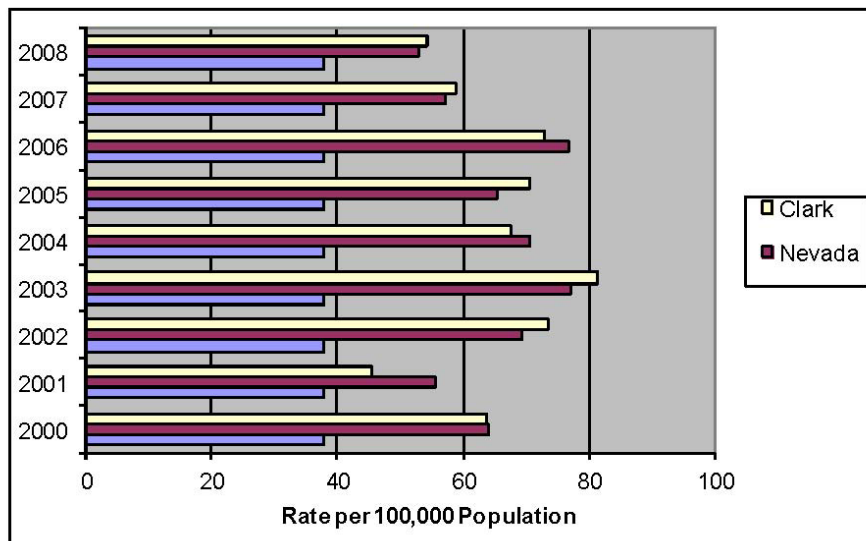
Figure 26. Death Rate of Children Aged 5-9, Clark County and Nevada, 2000-2008

Adolescent Deaths



Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

Figure 27. Death Rate of Adolescents Aged 10 to 14, Clark County and Nevada, 2000-2008



Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

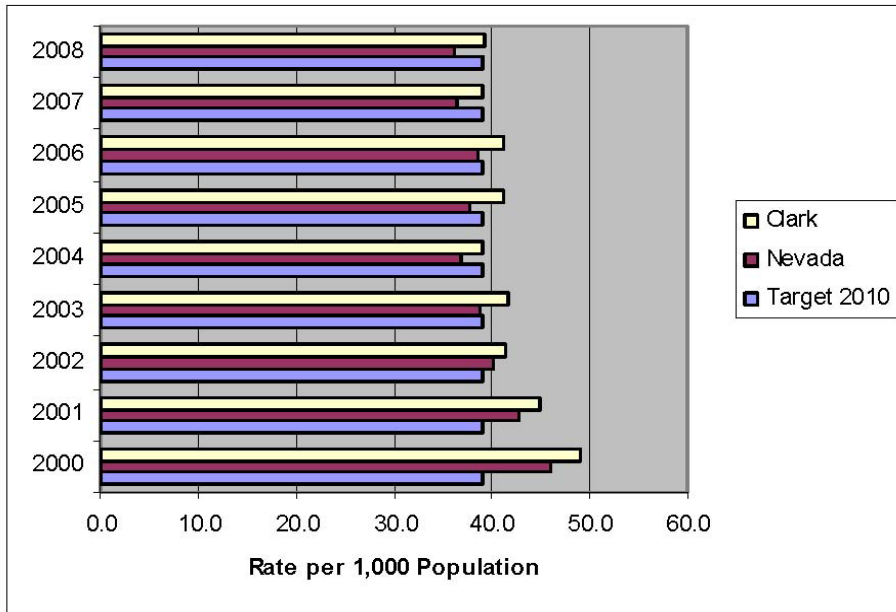
Figure 28. Death Rate of Adolescents Aged 15-19, Clark County and Nevada, 2000-2008

Adolescent Pregnancy and Births

Teen mothers and their babies face increased risks to their health when compared with mothers over age 20. Pregnancy complications may include premature labor, anemia and high blood pressure. These risks are even greater for teens under 15 years old.²⁵ Only 40% of teenagers who have children before age 18 years graduate from high school, compared with 75% of teens from similar social and economic backgrounds who delay pregnancy and birth until ages 20 or 21.²⁶ Without solid educational foundations, young women are more likely to have difficulty finding legitimate, well paying jobs, which affects their socio-economic status and likely resulting in increased costs to society from dependence on social programs. For these and other reasons, it is best if pregnancy is delayed until the teen years have passed.

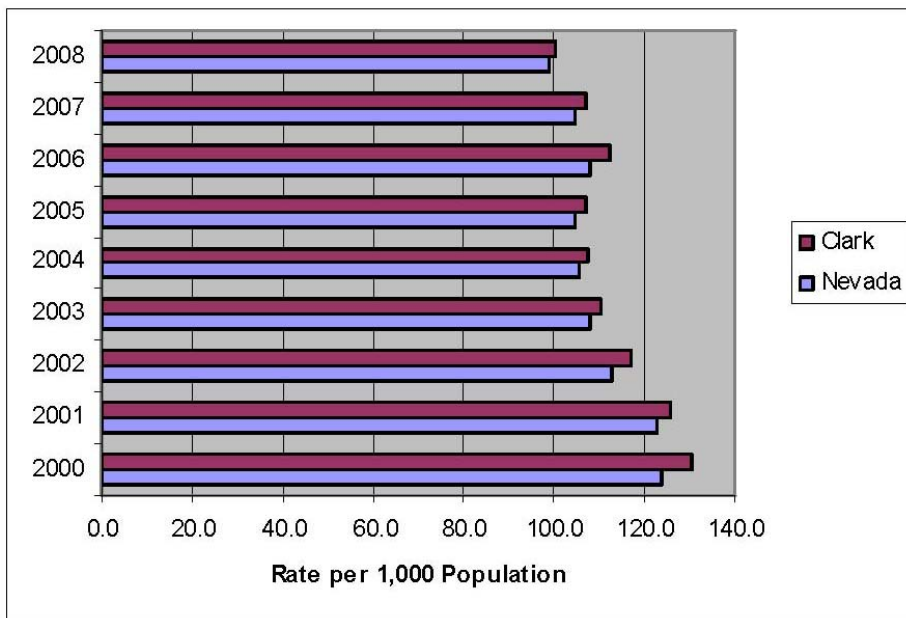
The national bench mark in the 2012 CHR for teen births is 22/1,000 females aged 15-19. The rate for Clark County in the same report is 56/1,000, down from 60/1,000 in 2011, but still well in excess of the national benchmark.

Pregnancy rates for 15- to 17- and 18- to 19-year-olds are presented in Figure 29 and Figure 30. Pregnancy rate is calculated by adding births, fetal deaths, and abortions. The 2010 target rate for adolescent pregnancy was 39/1,000 females in the 15-17 year age group. The pregnancy rate has declined over the years since 2000, and in 2007 and 2008 is close to meeting the 2010 target.²⁷



Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countyrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

Figure 29. Adolescent Pregnancy Rate among Females Aged 15-17, Clark County and Nevada, 2000-2008

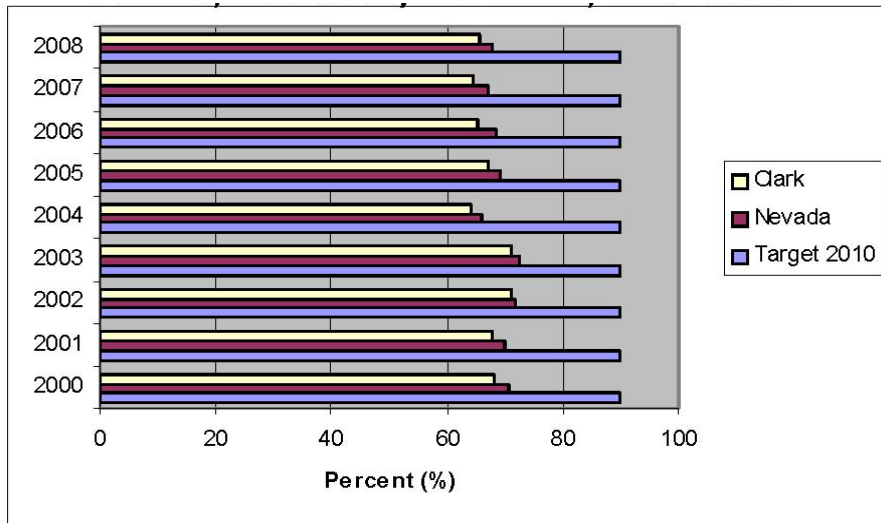


Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countyrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

Figure 30. Adolescent Pregnancy Rate Among Females Aged 18-19, Clark County and Nevada, 2000-2008

Birth Outcomes

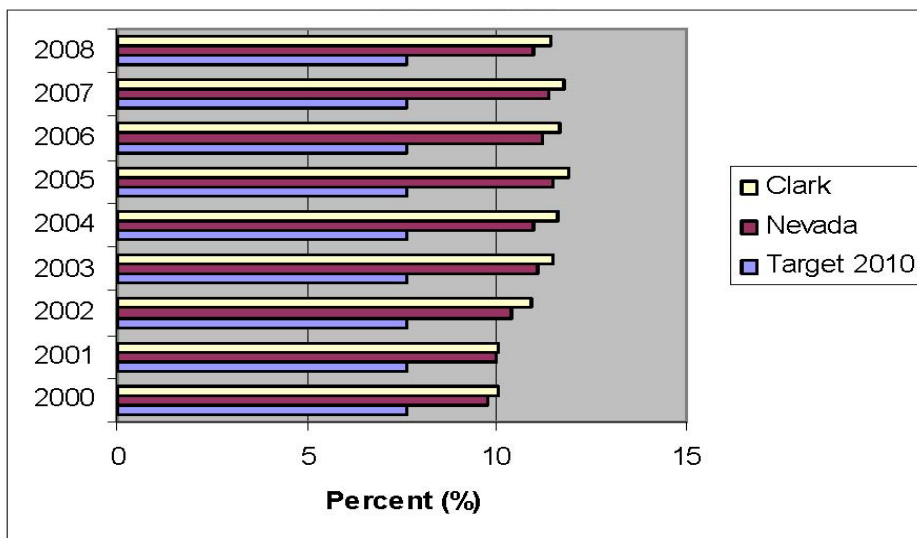
Birth outcomes are measures of children’s current and future morbidity or whether children are getting healthy starts to their lives. Birth outcomes are related to maternal health risk. Birth outcome measures include gestational age (whether births are preterm), low birth-weight (LBW), and very low-birth weight. An important predictor of good birth outcomes is adequate prenatal care. In Clark County, and Nevada, the proportion of women receiving adequate prenatal care fell short of the Healthy People 2010 target (Figure 31). The proportions of births that were preterm also fell short of the 2010 target (Figure 32).



Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countryrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

Figure 31. Proportion of Pregnant Women Receiving Early and Adequate Prenatal Care, Clark County and Nevada, 2000-2008

Preterm Births



Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countryrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

Figure 32. Proportion of Pre-Term Births, (Infants Born <37 weeks Gestation), Clark County and Nevada, 2000-2008

Low Birth Weight (LBW) Infants

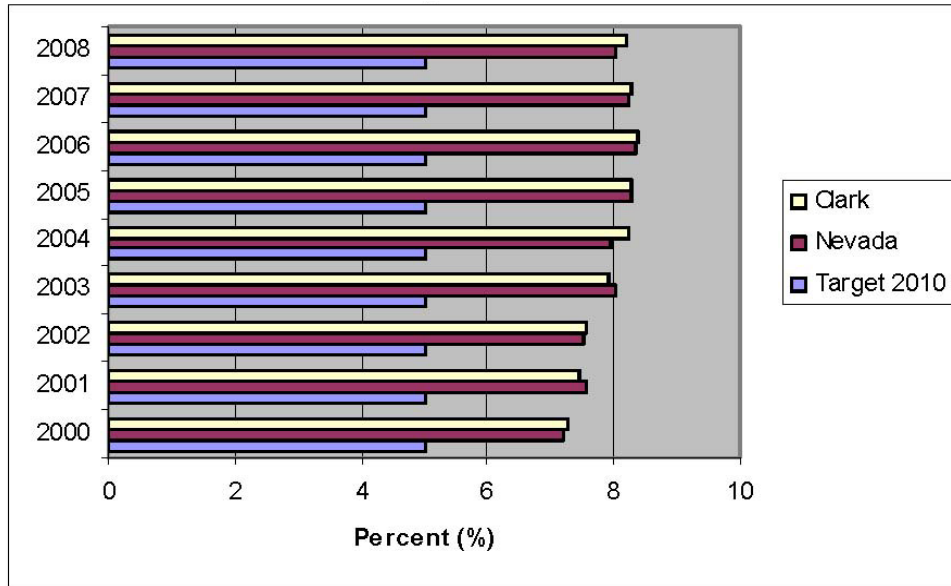
“LBW is unique as a health outcome because it represents two factors: maternal exposure to health risks and the infant’s current and future morbidity, as well as premature mortality risk. The health associations and impacts of LBW are numerous.

From the perspective of maternal health outcomes, LBW indicates maternal exposure to health risks in all categories of health factors, including her health behaviors, access to health care, the social and economic environment the mother inhabits, and environmental risks to which she is exposed. Bailey et al. find that modifiable maternal health behaviors — including weight gain, smoking, and alcohol and substance use — account for more than 10% of the variation in birth weight. Maternal smoking alone accounts for 7% of variation in birth weight.²⁸ Bergsjö and Villar’s systematic review of the evidence also finds that maternal nutrition, smoking, and excessive alcohol intake result in LBW.²⁹

In terms of the infant’s health outcomes, LBW serves as a predictor of premature mortality and/or morbidity over the life course.³⁰ Gestational age, which is correlated with birth weight, is inversely related to psychological distress.³¹ LBW children have greater developmental and growth problems, are at higher risk of cardiovascular disease later in life, and have a greater rate of respiratory conditions.^{32,33,34,35} In a systematic review, Whincup et al. found that LBW was associated with an elevated risk of developing type 2 diabetes.³⁶

LBW has also been associated with cognitive development problems. Several authors find that LBW children have higher rates of sensorineural impairments, such as cerebral palsy, and visual, auditory, and intellectual impairments.^{28-30,37,38,39} However, Shenkin finds that parental social class accounted for a greater proportion of the variance in cognitive ability and the two variables were independent.³³ Very preterm infants have lower median IQ scores at age 6, and they have global learning deficits compared to their peers.⁴⁰ As a consequence, preterm birth and LBW can ‘impose a substantial burden on special education and social services, on families and caretakers of the infants, and on society generally.⁴¹”¹

The percentage of low birth weight infants rose during the years 2000-2006 for Clark County and Nevada, but the rate remained fairly stable from 2006 to 2008 (Figure 33). With rates consistently over 8% (2004-2008), the Healthy People 2010 objective of 5% low birth weight infants has not been met.

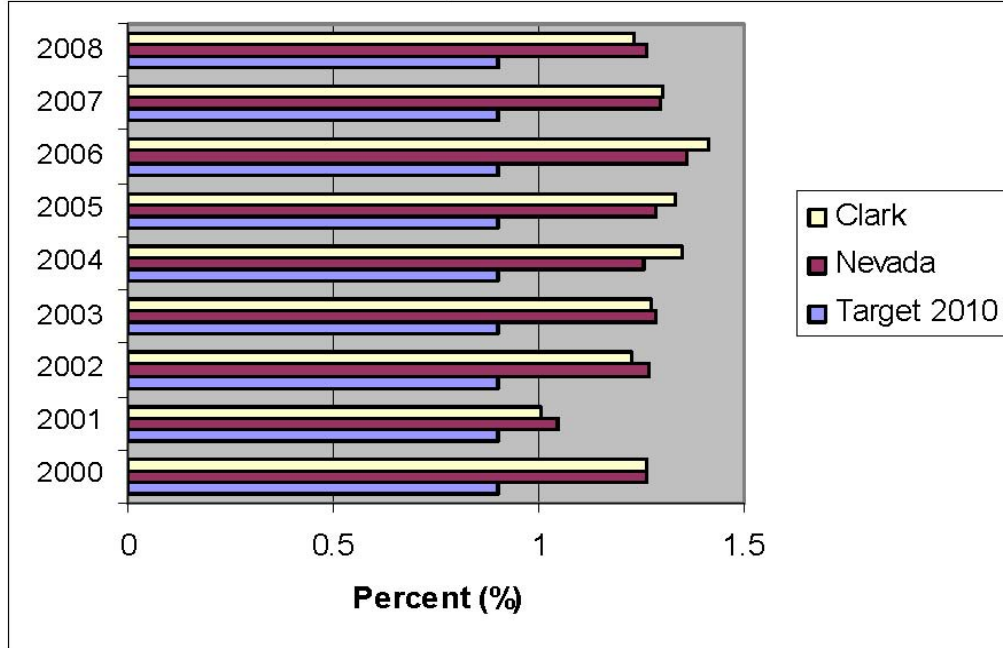


Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countyrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

Figure 33. Proportion of Low Birth Weight Infants, Clark County and Nevada, 2000-2008

Very Low Birth Weight Infants

The goal of 0.9 percent as set by Healthy People 2010 for very low birth weight babies was not attained in the years 2000-2008. It has remained ~1.25% with some minor fluctuations (Figure 34).



Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countyrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

Figure 34. Proportion of Very Low Birth Weight Infants, Clark County and Nevada, 2000-2008

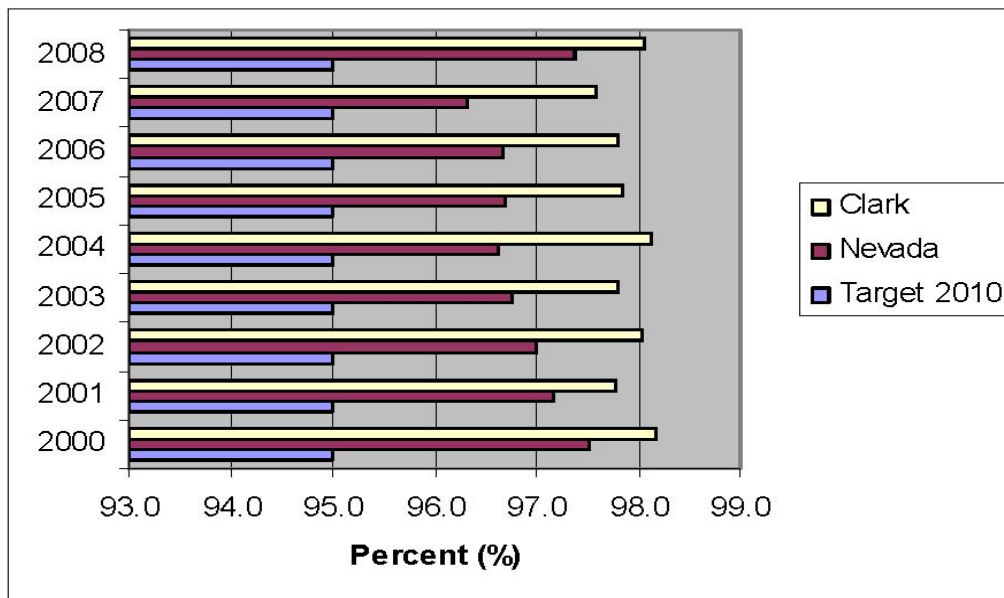
Substance Use during Pregnancy

When a pregnant woman drinks alcohol, the alcohol in the mother's blood passes through the placenta to the baby through the umbilical cord. Drinking alcohol during pregnancy can cause miscarriage, stillbirth, and a range of lifelong disorders, known as fetal alcohol spectrum disorders (FASDs). The CDC urges pregnant women not to drink alcohol any time during pregnancy. FASDs are 100% preventable. If a woman doesn't drink alcohol while she is pregnant, her child cannot have an FASD.

Children with FASDs might have the following characteristics and behaviors:⁴²

- Abnormal facial features
- Small head size
- Shorter-than-average height
- Low body weight
- Poor coordination
- Hyperactive behavior
- Difficulty paying attention
- Poor memory
- Difficulty in school (especially with math)
- Learning disabilities
- Speech and language delays
- Intellectual disability or low IQ
- Poor reasoning and judgment skills
- Sleep and sucking problems as a baby
- Vision or hearing problems
- Problems with the heart, kidney, or bones

The Healthy People 2010 target was 95% of pregnant women abstaining from alcohol. Clark County and the state of Nevada have both exceeded this target by ~3% (Figure 35).

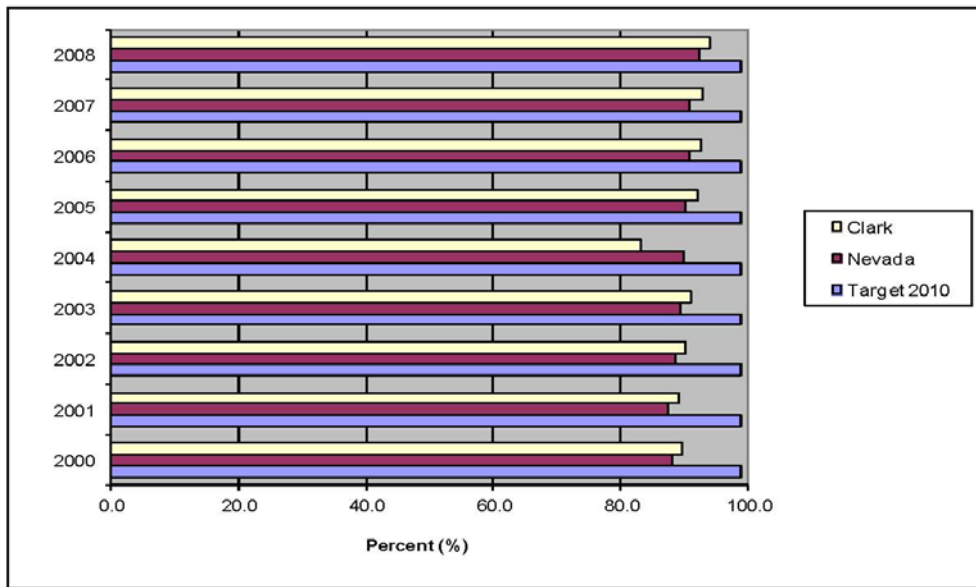


Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countyrpts/HealthyPeople2020ClarkCountyReport.pdf>
*2007-2008 Data are preliminary and subject to change

Figure 35. Proportion of Pregnant Women Aged 15-44, Abstaining from Alcohol, Clark County and Nevada 2000-2008

Some of the risks associated with smoking during pregnancy include low birth weight, premature birth, certain birth defects (cleft lip or cleft palate), and infant death. Even second hand smoke puts a woman and her unborn baby at risk for problems.⁴³ Considering the potential risks, educating women about the effects of smoking and second hand smoke and helping them quit before becoming pregnant is an important public health issue.

The proportion of pregnant women abstaining from tobacco use has fluctuated for Nevada and Clark County from 2000-2008 (Figure 36). The county rate is on average is slightly higher than the state rate. The Healthy People 2010 target of 95 percent of pregnant women abstaining from smoking was not met by either the state or the county.



Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countyreports/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

Figure 36. Proportion of Pregnant Women Abstaining from Tobacco, Clark County and Nevada 2000-2008

Death, Illness and Injury

Definition of Category: This category represents factors and conditions which describe or influence the overall health status of the general population, with a focus on adults.

Leading Causes of Death

The most common causes of death in Clark County during the years 2000 – 2008 were heart disease (26%), cancer (23%), chronic lower respiratory diseases such as chronic bronchitis and emphysema (6%), unintentional injury (5%, formerly called ‘accidents’), and stroke (5%), as shown in Figure 37.

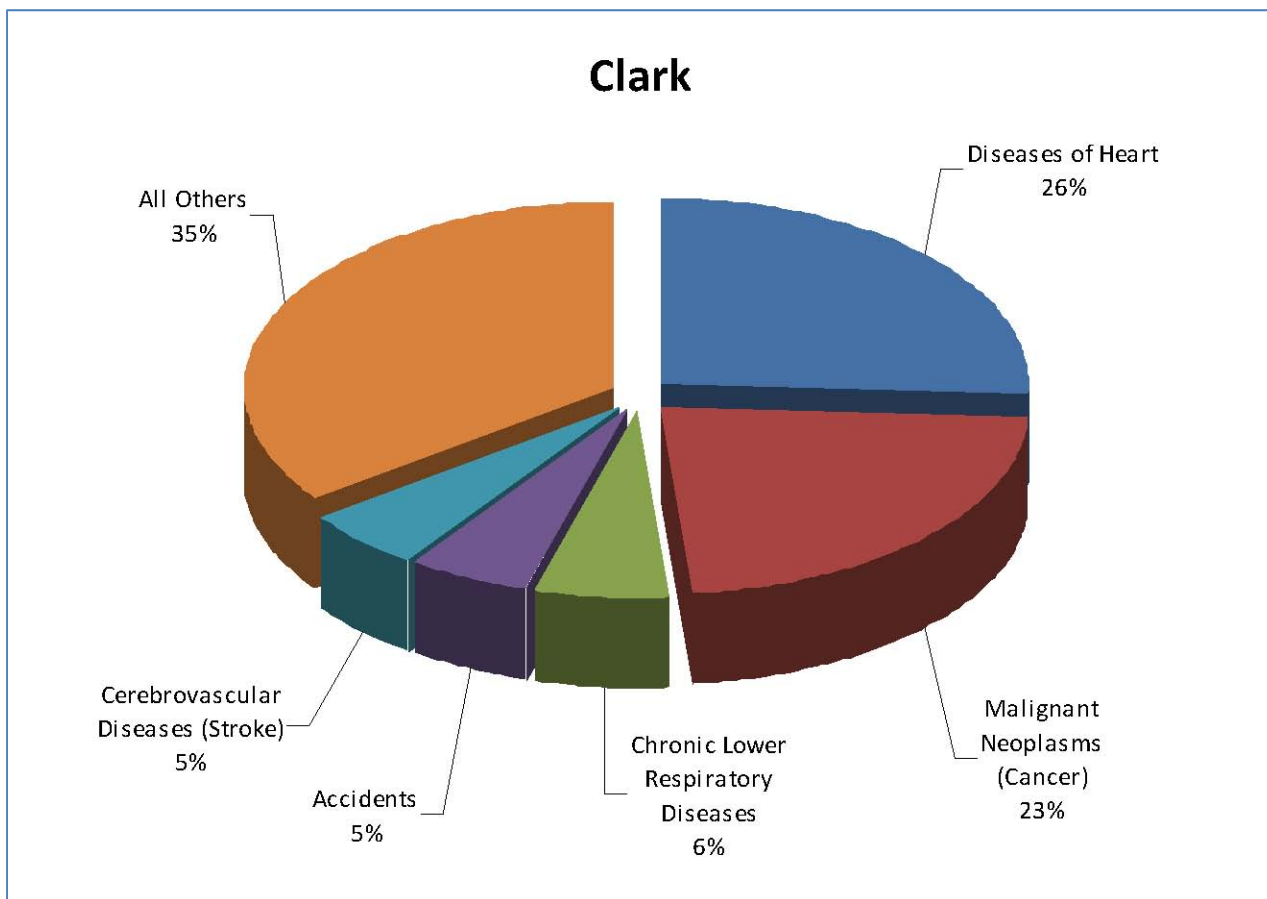


Figure 37. Leading Causes of Death, 2000-2008 Pooled Data

Age-Adjusted Mortality Rates by Socio-Demographic Status

Looking at overall mortality statistics by socio-demographic categories can help identify subpopulations at greatest risk for disease and death. For example, in 2008, Black Nonhispanic residents of Clark County, and Nevada overall, experienced the highest age-adjusted mortality rate and the mortality rate among women was notably lower than that among men (Table 26).

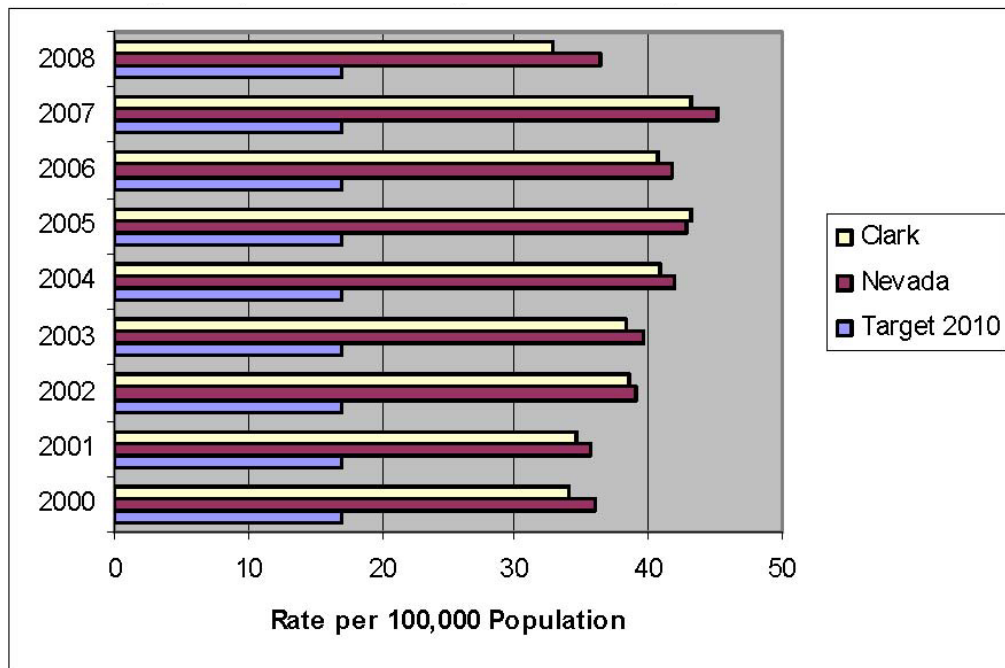
Table 26. Age-Adjusted Mortality Rates by Socio-Demographic Status, Clark County and Nevada, 2008

Socio-Demographic Status	Age-Adjusted Mortality, per 100,000 Population, 2008	
	Clark County	Nevada
Gender		
Male	934.7	963.1
Female	653.9	676.2
Race and Ethnicity		
White	783.9	818.4
Black	1032.8	1,034.70
Native American	493.8	650.3
Asian	701.2	690.7
Hispanic	723.2	684.5
Total Mortality	782.2	808.1

Source: Nevada Rural and Frontier Health Data Book – 2011 Edition

Age-Adjusted Mortality Caused by Unintentional Injury

Annual rates of fatal unintentional injury in Clark County and Nevada were more than double the Healthy People 2010 target for nearly all years during 2000–2008 (Figure 38).

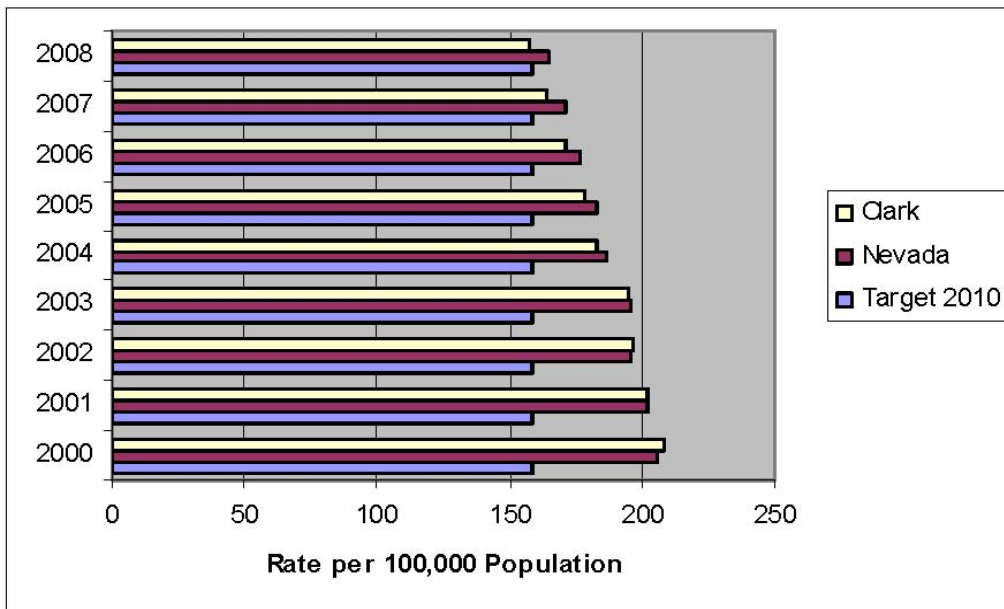


Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countryrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

Figure 38. Age-Adjusted Death Rate from Unintentional Injuries, Clark County and Nevada, 2000-2008

Overall Cancer Death Rate

Annual cancer mortality rates have been falling in Clark County and Nevada as a whole during the years 2000 – 2008, with the 2008 Clark County rate having met the Healthy People 2010 target for the first time in 2008 (Figure 39).

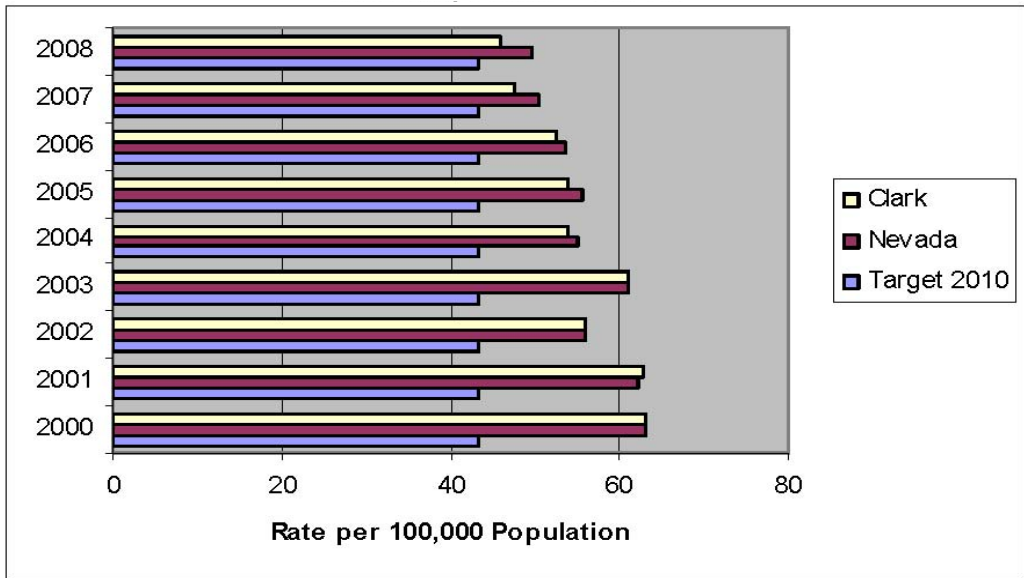


Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countyrpts/HealthyPeople2020ClarkCountyReport.pdf>
*2007-2008 Data are preliminary and subject to change

Figure 39. Age-Adjusted Overall Cancer Death Rate, Clark County and Nevada, 2000-2008

Lung Cancer Death Rate

Although breast cancer is the most common cancer among women and prostate cancer among men, lung cancer is the most commonly fatal cancer among both men and women in the U.S.^{44,45} The annual death rate for lung cancer has also been dropping during the years 2000–2008 although it did not quite meet the Healthy People 2010 target (Figure 40).

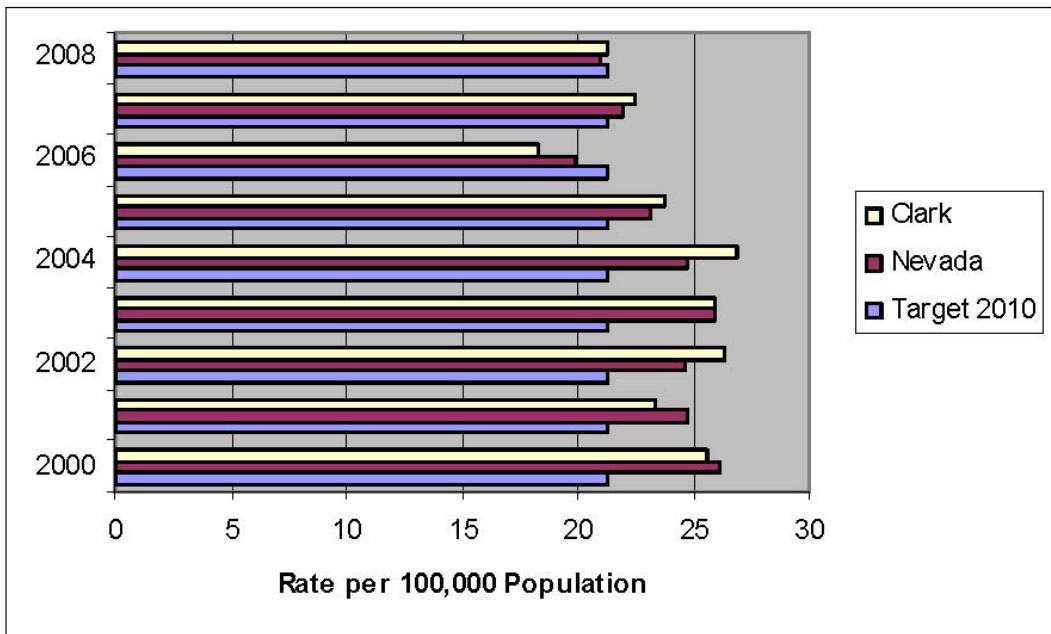


Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countyrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

Figure 40. Age-Adjusted Lung Cancer Death Rate, Clark County and Nevada, 2000-2008

Female Breast Cancer Death Rate

Breast cancer is the second most commonly fatal cancer among women. Annual breast cancer death rates among women were lower during 2005–2008 than they were during 2000–2004, although with the exception of 2006 they did not meet the Healthy People 2010 target (Figure 41).

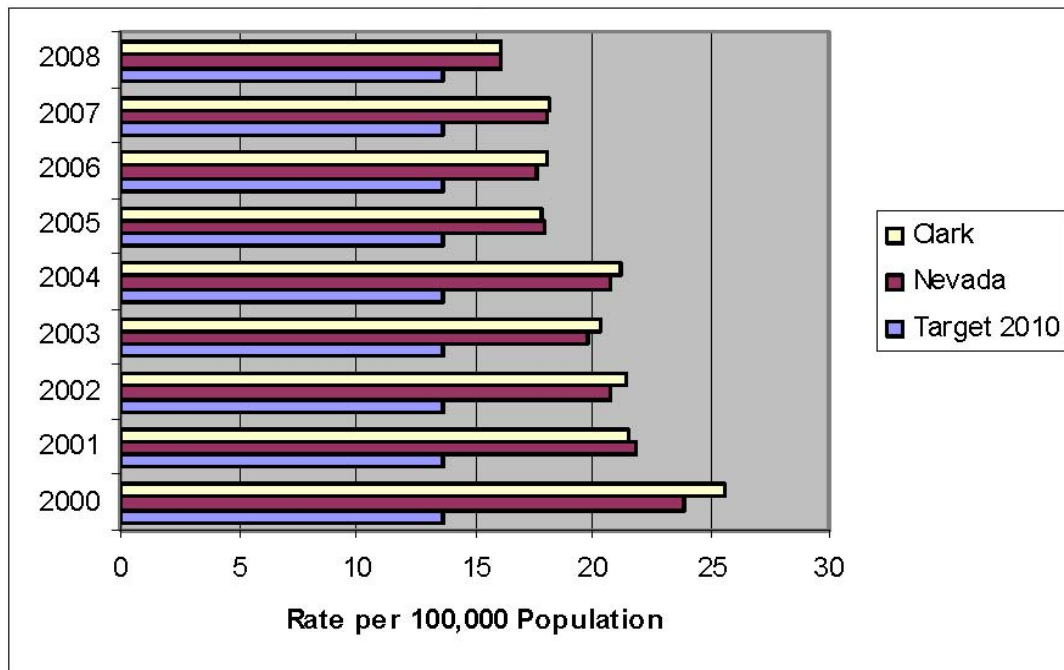


Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countyrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

Figure 41. Age-Adjusted Female Breast Cancer Death Rate, Clark County and Nevada, 2000-2008

Colorectal Cancer Death Rate

Among fatal cancers, colorectal cancer is the third-most common cancer (following lung and prostate cancers in men and lung and breast cancers in women) in both men and women. Although rates have been declining, through 2008, they had not yet reached Healthy People 2010 targets (Figure 42).

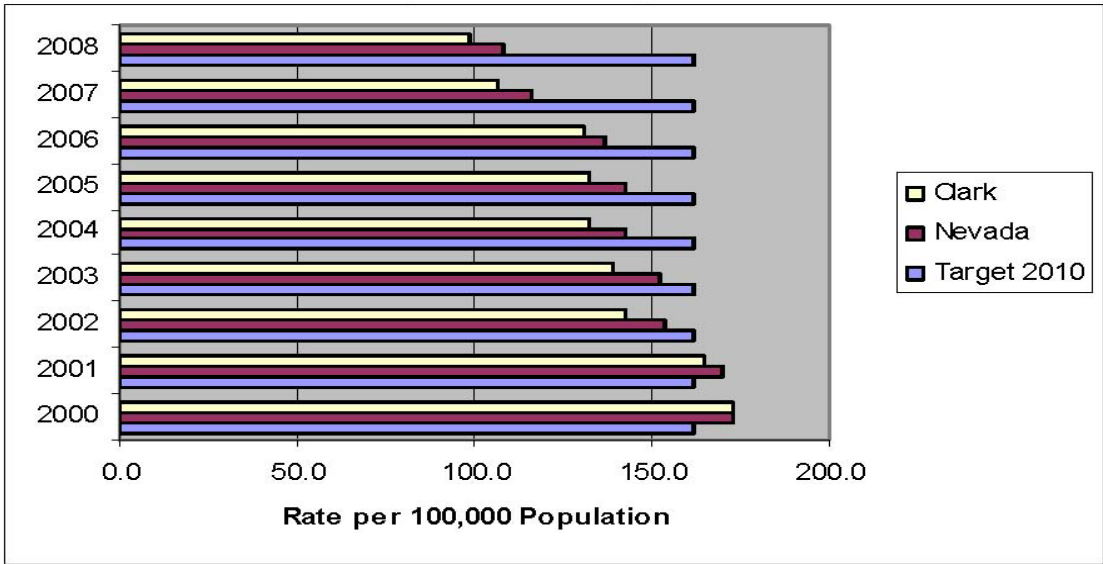


Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countyreports/HealthyPeople2020ClarkCountyReport.pdf>
*2007-2008 Data are preliminary and subject to change

Figure 42. Age-Adjusted Colorectal Cancer Death Rate, Clark County and Nevada, 2000-2008

Coronary Heart Disease Death Rate

Heart disease accounts for the greatest proportions of deaths from any cause. Great strides have been made during the 2000–2008 time frame with regard to reductions in heart disease mortality and the rate met Healthy People 2010 target in 2002 and continued to decline through 2008 (Figure 43).

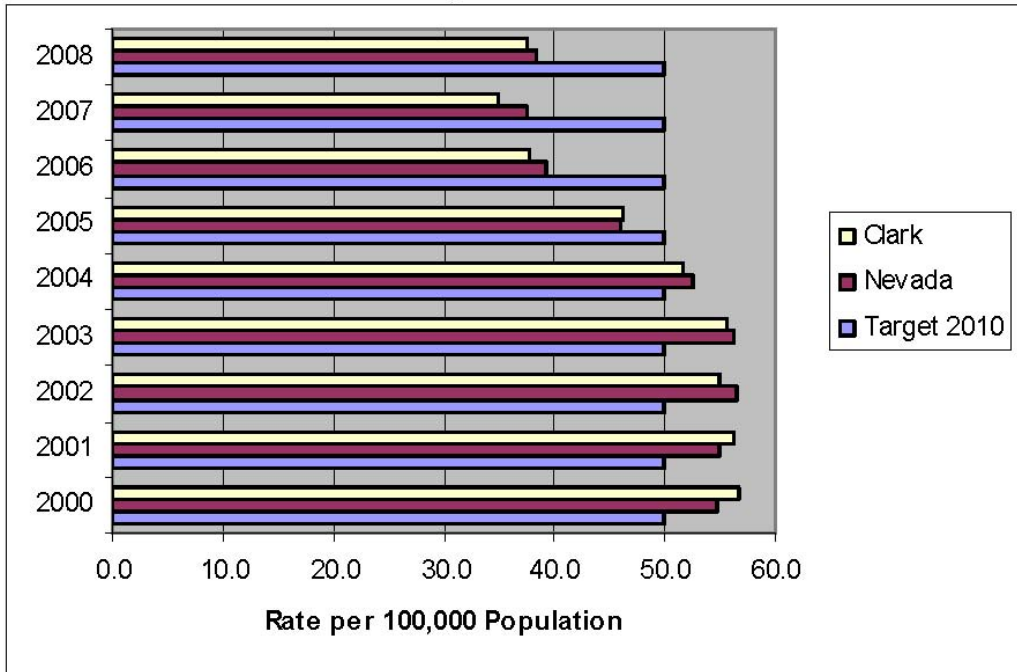


Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countryrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

Figure 43. Age-Adjusted Coronary Heart Disease Death Rate, Clark County and Nevada, 2000-2008

Stroke Death Rate

Stroke (cerebrovascular accident) is the fourth most common cause of death in the U.S.⁴⁶ Stroke death rates dropped notably during 2000–2008 in Clark County and Nevada, having met the Healthy People 2010 target in 2005 and continued to decline (Figure 44).



Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countryrpts/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

Figure 44. Age-Adjusted Stroke Death Rate, Clark County and Nevada, 2000-2008

Communicable Disease

Definition of Category: Measures within this category include diseases which are usually transmitted through person-to-person contact or shared use of contaminated instruments or materials. Many of these diseases can be prevented through a high level of vaccine coverage of vulnerable populations, or through the use of protective measures, such as condoms for the prevention of sexually-transmitted diseases.

On the national level, CDC has combined a number of disease prevention programs into the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP). The center was formed because these diseases have many commonalities. Persons who acquire these diseases, in general, have similar or overlapping risk characteristics. Certain racial and ethnic minorities have higher rates of these diseases. Men who have sex with men (MSM) and injection drug users are also high-risk group for these diseases. These diseases also have important health interactions and share similar social determinants of health. Although SNHD's tuberculosis program is not yet included, in recognition of the commonalities among these diseases, SNHD has integrated prevention efforts for the rest of these diseases into its clinical services, disease surveillance, and vaccination programs. We are also in the process of implementing disease-reporting software that will link patient records, which will facilitate these sorts of cross-disease prevention efforts, including tuberculosis.

Child Immunizations

A retrospective immunization analysis of children enrolled in kindergarten and first grade for the 2009–2010 school year in the Clark County School District (CCSD) indicates that National Immunization Survey (NIS) point estimates for Nevada are generally accurate for Clark County.^{iv}

For 2010 (the most recent year for which data are available), 4:3:1:4:3:1 ((4 DTP, 3 polio, 1 MMR, 4 Hib, 3 Hep B and 1 varicella) vaccination rates were estimated at 64.1% ($\pm 7.0\%$). In comparison, the state with the highest vaccination rates, New Hampshire, vaccinates 81.1% ($\pm 6.4\%$) of children. Given the wide confidence interval for point estimates on the NIS, state rankings are discouraged. Specific numerical ranking aside, Nevada and Clark County are near the bottom of the lowest quartile of vaccination rates.

CCSD kindergarten student vaccination rates for both the 2008-2009 and 2009-2010 school years exceed Healthy People 2020 goals (95%) for all vaccines with the exception of two doses of varicella; however, only one dose is required for CCSD enrollment. In addition, unlike many school districts, hepatitis A vaccination is required for CCSD enrollment; More than 95% of students had received at least 1 dose of hepatitis A as measured during both the 2008-2009 and 2009-2010 school years, and more than 85% of students had received both recommended doses.

Adult Immunizations

Adults 65 and over are at risk for developing serious complications from influenza infection. It is recommended

^{iv} For all six vaccines evaluated in two NIS surveys, retrospective immunization rates were within the 95% confidence interval calculated for the NIS.

that they get immunized annually for influenza. The annual Nevada BRFSS survey revealed that, although vaccination rates for seniors improved in 2008 in comparison to the previous seven years, as of 2008, they still remain below 65% in Clark County (Figure 45). The national Healthy People 2010 target for this age group was 90%.

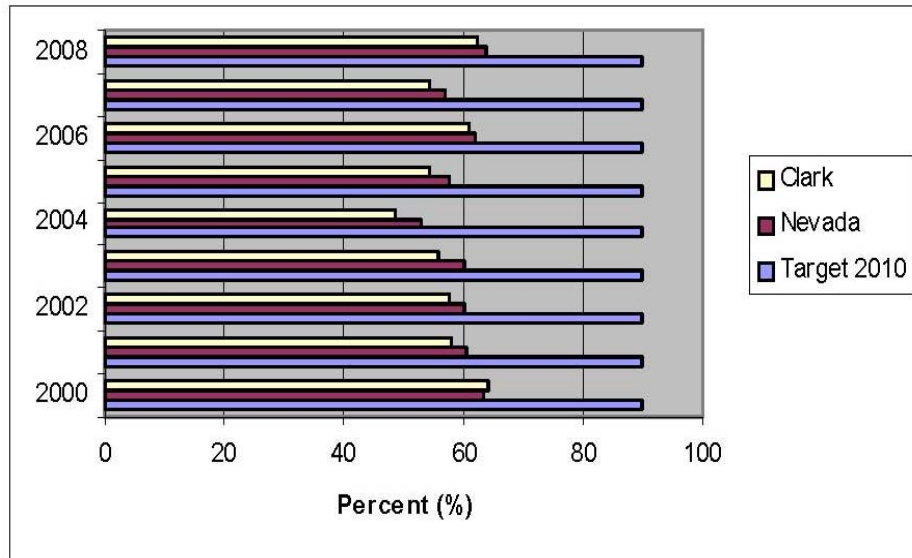


Figure 45. Proportion of Adults Aged > 65 Vaccinated Against Influenza, Clark County and Nevada (BRFSS 2000-2008)

Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countyreports/HealthyPeople2020ClarkCountyReport.pdf>
 *2007-2008 Data are preliminary and subject to change

When the BRFSS data are examined by Race/Ethnicity (Table 27), an interesting picture emerges. White Nonhispanics and Hispanics have much better influenza immunization rates than any other racial-ethnic group, with Hispanics leading the pack.

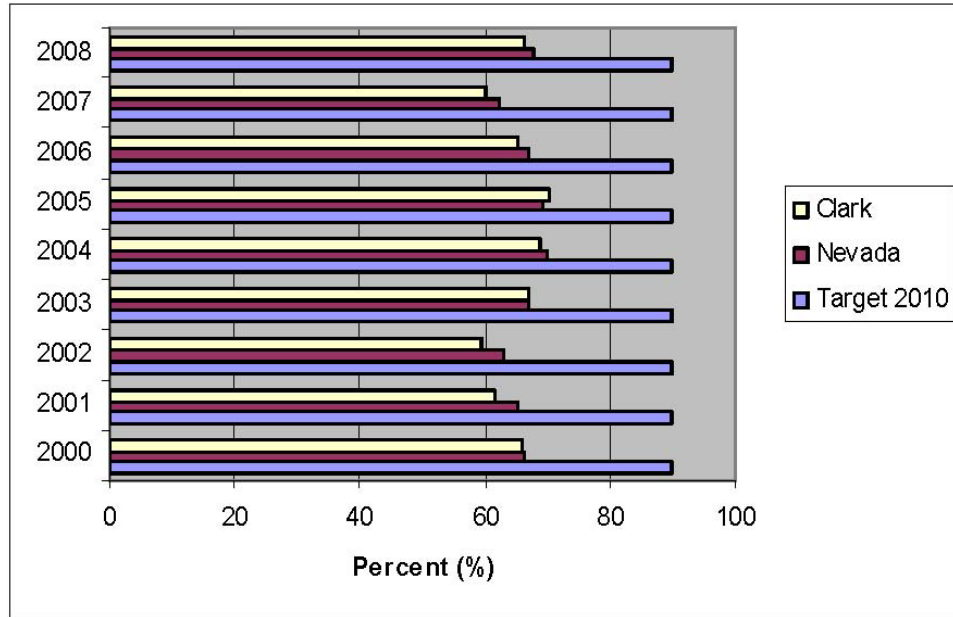
Table 27. Adults Aged 65+ Who Have Had Influenza Vaccination within the Past Year (2010), BRFSS, Clark County, Nevada 2010

Male	Female	WNH	BNH	AEA	API	Hispanic
60.0%	58.5%	63.6%	30.5%	37.3%	31.9%	65.8%

Severe morbidity and death can result from pneumococcal (*Streptococcus pneumoniae*) bacterial infections of the bloodstream (bacteremia) and the central nervous system (meningitis). Data from community-based studies indicate that overall annual incidence of pneumococcal bacteremia in the United States is estimated at 15-30 cases per 100,000 population; the estimated rate is higher for persons aged ≥ 65 years (50-83 cases per 100,000 population). Pneumococcal infection causes an estimated 40,000 deaths annually in the United States, accounting for more deaths than any other vaccine-preventable bacterial disease. Approximately half of these deaths potentially could be prevented through the use of vaccine. Case-fatality rates are highest among the elderly and patients who have underlying medical conditions. The Advisory Committee on Immunization

Practices recommends adults ≥ 65 years receive the pneumococcal vaccine.⁴⁷

The BFRSS survey revealed that Clark County is well below the 2010 goal of 90% of persons ≥ 65 years having a history of pneumococcal vaccination. Clark County has frequently been below 60% and even at the peak in 2005, was still less than 65% (Figure 46).



Source: Healthy People Nevada Moving From 2010 to 2020
<http://health.nv.gov/PDFs/HSPER/HP/countyreports/HealthyPeople2020ClarkCountyReport.pdf>
*2007-2008 Data are preliminary and subject to change

Figure 46. Proportion of Adults ≥ 65 , Ever Received Pneumococcal Vaccine, Clark County and Nevada (BRFSS)

Tuberculosis

Although both the annual numbers and rates of newly diagnosed active TB cases reported in the U.S. overall have steadily declined since 1992, including during the most recent decade (Figure 47), the numbers of cases in Clark County have risen slightly overall since 2003 (Figure 48). This increase can mainly be attributed to the dramatic increase in population in Clark County since 2000, as noted previously. However, unlike the declining U.S. average rates, Clark County TB case rates have remained relatively stable (Figure 49). In 2010, the average U.S. rate was 3.6/100,000 persons. The State of Nevada had the 9th highest rate among the 50 states (4.3/100,000 persons) (Figure 50) while Clark County's TB rate was 5.0/100,000 persons.



Source: <http://www.cdc.gov/tb/publications/factsheets/statistics/Trends.pdf>

Figure 47. Number of TB Cases in U.S., 1982–2012

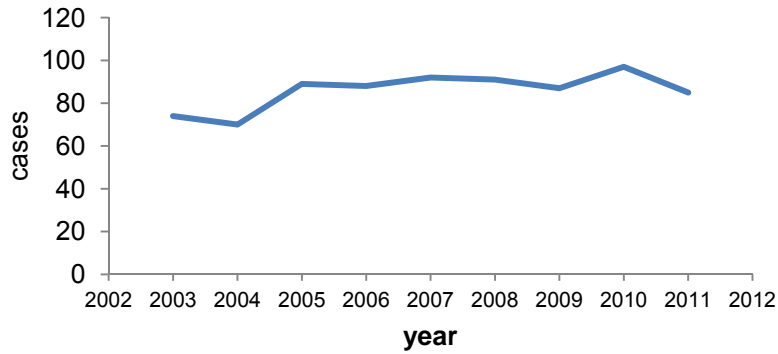


Figure 48. Number of TB Cases in Clark County, 2003–2012

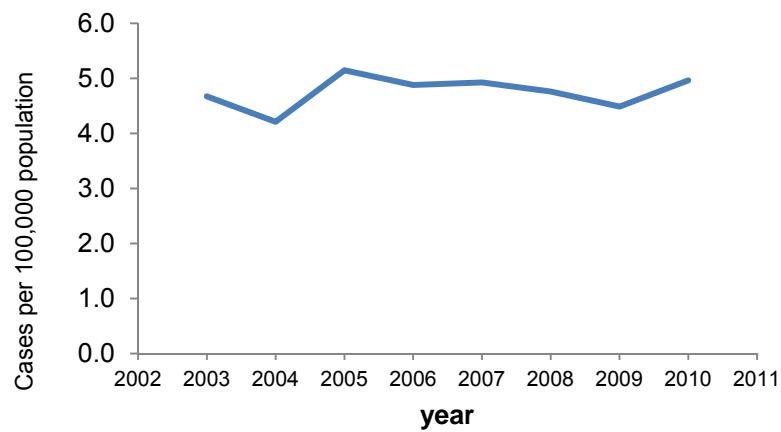
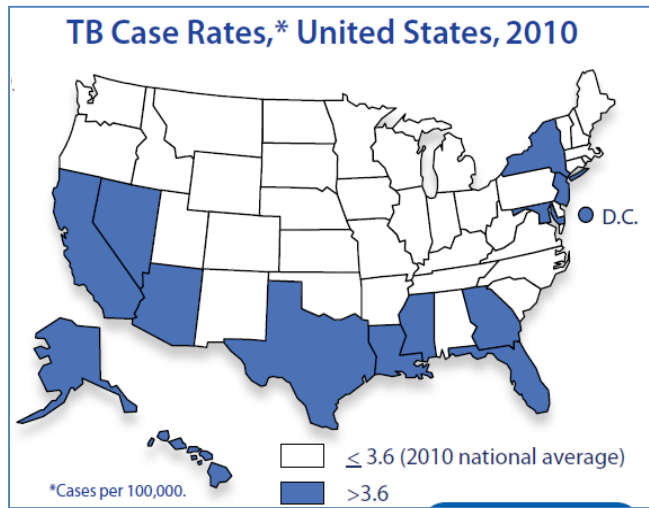


Figure 49. Clark County Rates of TB, 2003–2010



Source: <http://www.cdc.gov/tb/publications/factsheets/statistics/Trends.pdf>
 Nevada had the 9th highest rate of TB within the 50 states in 2010.
 Source: <http://www.cdc.gov/tb/statistics/reports/2010/pdf/report2010.pdf>

Figure 50. State TB Rates Higher than the U.S. Average, 2010

Male patients have consistently been diagnosed with TB more frequently than women in Clark County, although as illustrated by Figure 51, the numbers of diagnosed cases among female patients has risen since 2003. Rates of disease among male and female patients have both remained relatively constant, however, indicating that the increase in numbers is mainly due to increased population size (Figure 52).

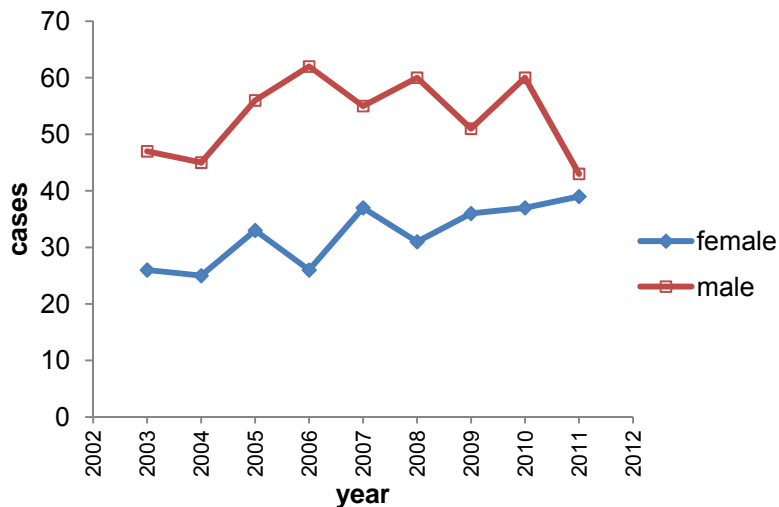


Figure 51. TB Cases in Clark County 2003 – 2011^v, by Gender

^v Data for years 2000–2002 are thought to be incomplete and possibly inaccurate; therefore data for 2011 are included to increase the span of data to 9 years.

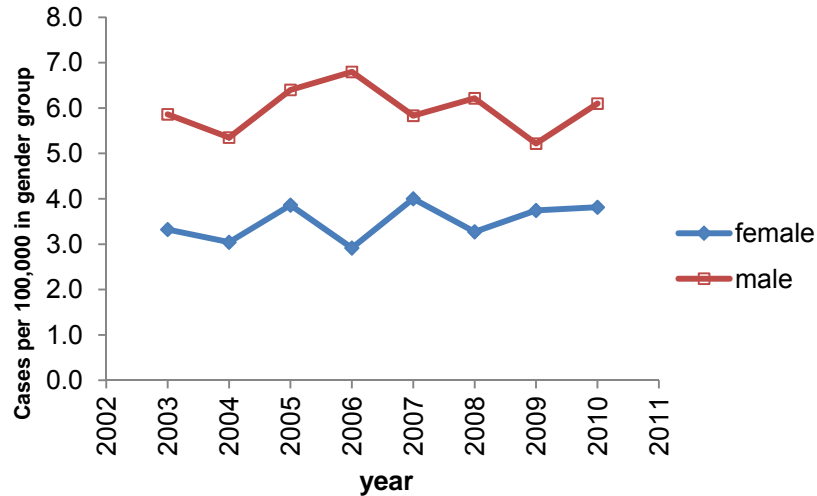
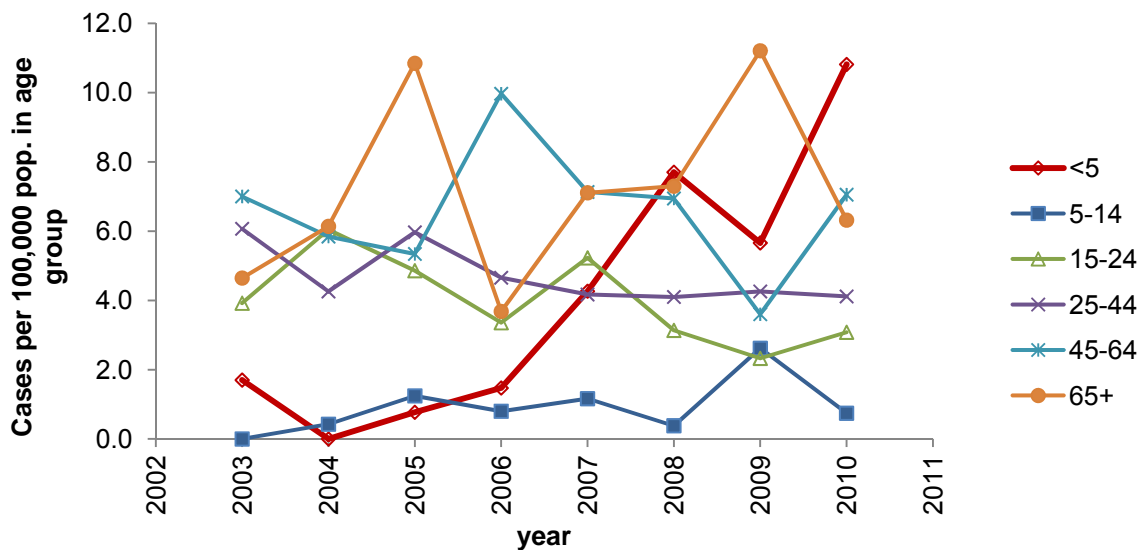


Figure 52. TB Rates in Clark County, 2003–2010, by Gender

Although rates of TB cases in Clark County within most age categories fluctuated between 2003 and 2010 with at most slight increases or decreases over the time period, an alarming increase in cases was observed in the under-5-year-old age group (Figure 53). Rates among that age group for the U.S. overall have not been increasing, however (Figure 54). Although formal epidemiologic studies have not yet been performed, SNHD intends to evaluate this important finding in depth in the near future. Results from epidemiologic analyses could lead us to develop interventions specifically targeted to prevent cases of TB in this age group. Anecdotally, the factors thought to be most frequently associated with the increase in pediatric disease rates are that the affected children have been close contacts of other persons diagnosed with TB (as opposed to the disease having been community-acquired) and that those contact persons are often persons who have previously been housed in a corrections facility.



Note: The under-5 age group (in bold red) is the only group showing dramatic increase since 2003.

Figure 53. TB Incidence by Age Category, 2003–2010 — Clark County

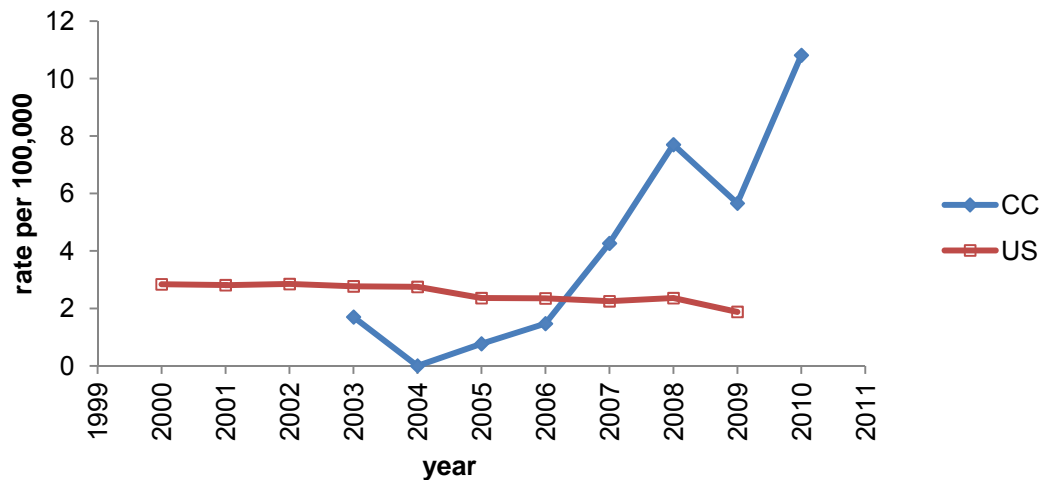


Figure 54. Incidence of tuberculosis among age group <5 years, Clark County vs. U.S., 2000-2010

SNHD collects data on a number of other risk factors (besides history of incarceration) for acquiring tuberculosis. Our knowing the greatest risk factors for disease can help us target certain populations to screen for and to educate about TB. In Clark County, as in the U.S., the most important risk factor, by far, is having been born in a country other than the U.S., even though many TB patients have lived in the U.S. for many years before being diagnosed with tuberculosis (Figure 55). Some risk factors predispose people to the disease because they are associated with impaired immunity, such as having diabetes or HIV/AIDS, or being a smoker. Other factors increase the risk of acquiring disease because they raise the probability of coming in contact with a contagious person, such as being born in a country where TB is more prevalent than it is in the

U.S., being incarcerated, having had a close contact with TB, or being homeless.

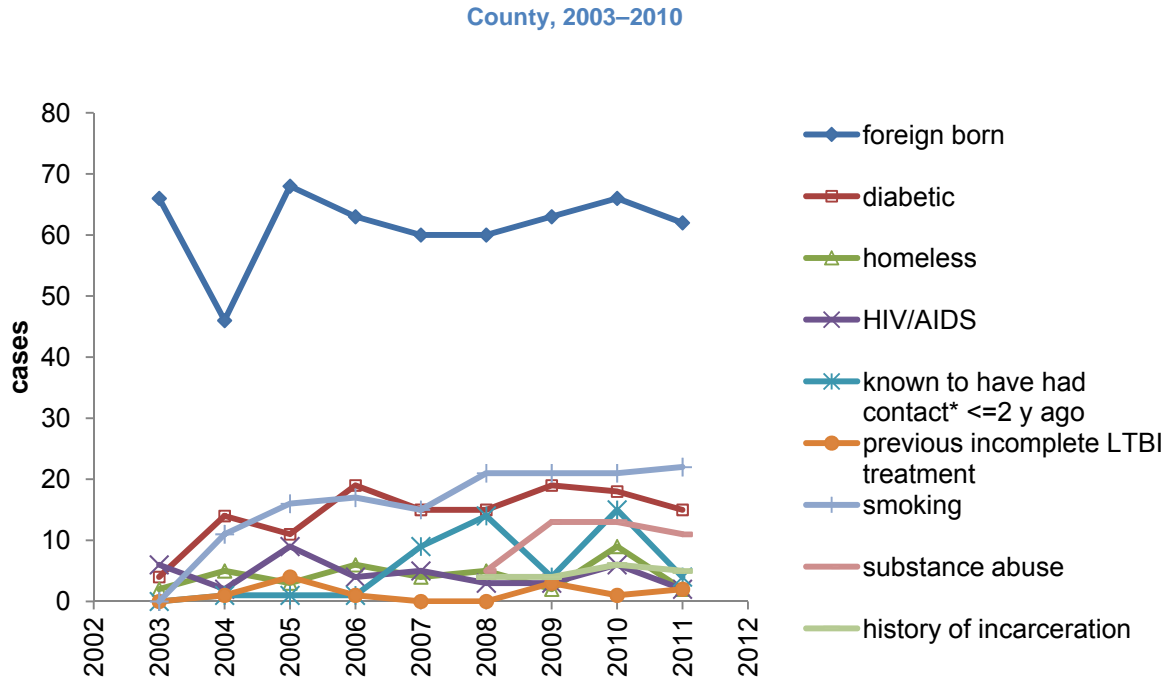


Figure 55. Numbers of Cases Associated with Different Risk Factors for Contracting Active Tuberculosis Disease in Clark

Although the numbers and rates of TB cases are remaining stable or decreasing slightly, the proportion of TB patients who were foreign born has been increasing in Nevada and in the U.S. overall (Figure 56). In Clark County, the proportion (which ranged between 65% and 89% of cases) has shown no clear trend between 2003 and 2011, although the proportion has been consistently greater than the U.S. proportion of TB patients who were foreign-born and often higher than the Nevada rate as well.

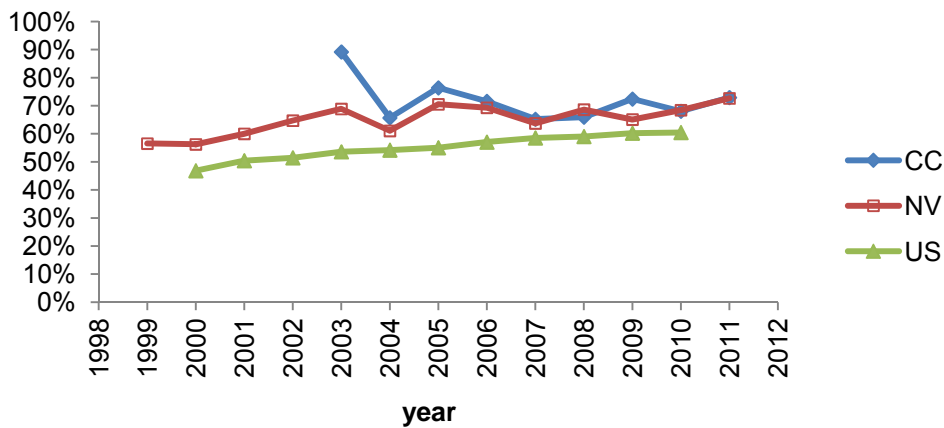


Figure 56. Percent of Total TB patients Born Outside the U.S.

Sexually Transmitted Diseases (STD)

The Southern Nevada Health District tracks cases of *Chlamydia trachomatis* (chlamydia), *Neisseria gonorrhoeae* (gonorrhea), and *Treponema pallidum* (syphilis) infections. Sexually transmitted disease overall incidence has been increasing in recent years, driven by dramatic increases in cases of chlamydia and syphilis infections. (Figure 57 through Figure 59)

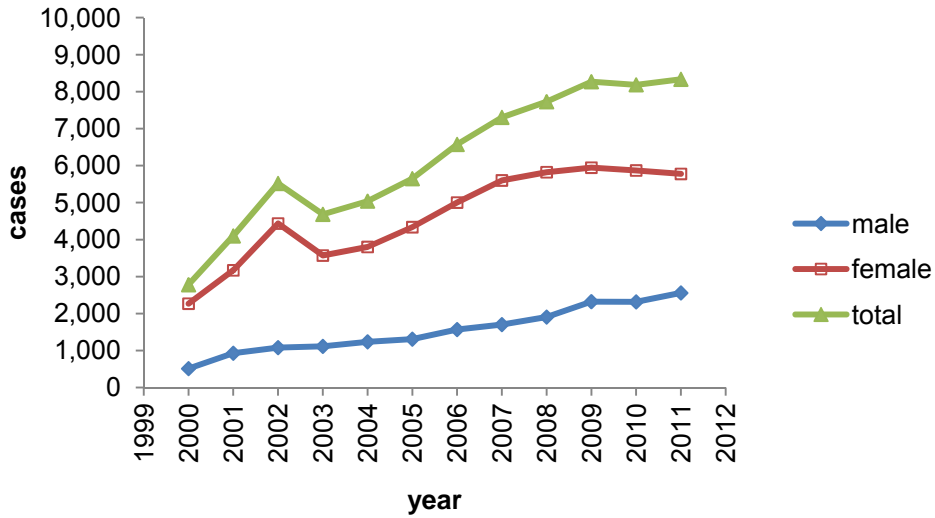


Figure 57. Chlamydia Cases, 2000-2011 – Clark County

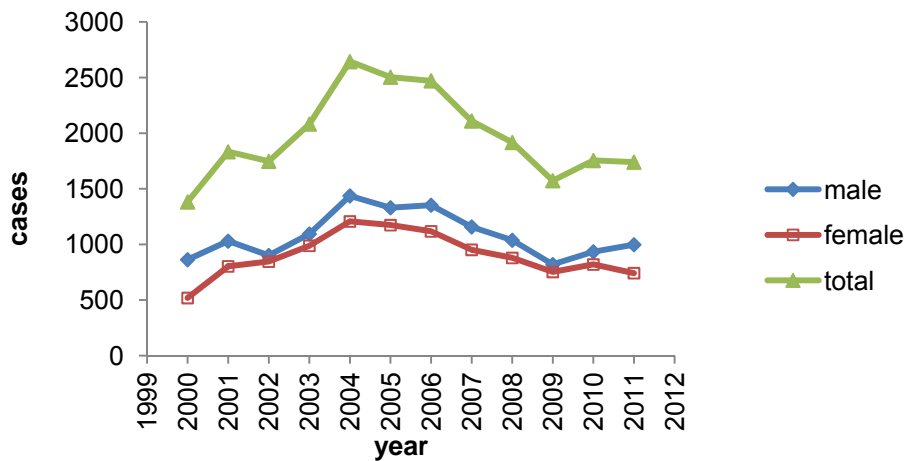


Figure 58. Gonorrhea Cases, 2000-2011 – Clark County

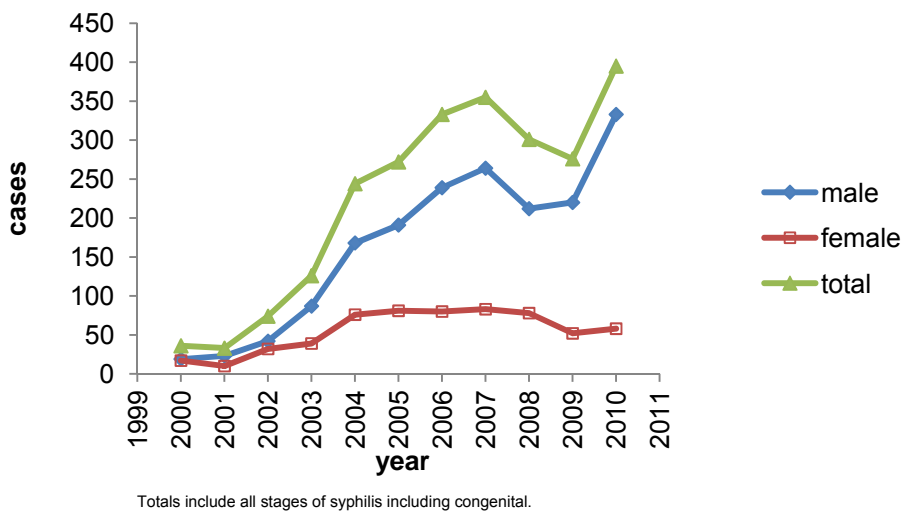


Figure 59. Syphilis Cases, 2000–2011, Clark County

We also compared Clark County sexually transmitted disease rates with rates in the State of Nevada as a whole and with the U.S. (Figure 60 through Figure 62). The increasing trend in rates of chlamydia infection is observed on a nationwide basis, although Figure 63 shows that Clark County rates are well above the national average. Trends in gonorrhea infection rates are also similar throughout the country (Figure 61). We see a rise and fall of the rates among both men and women in the U.S. that was even more dramatic in Clark County between the years of 2002 and 2007, after which rates in Clark County dropped well below national average rates. In fact, in a recent CDC surveillance publication, Nevada was ranked 30th among the 50 states in rates of newly diagnosed gonorrhea infections in 2010.⁴⁸ In contrast with the improvements seen in gonorrhea cases, the increasing rates of newly diagnosed syphilis cases in Clark County is more concerning (Figure 62).

Rates

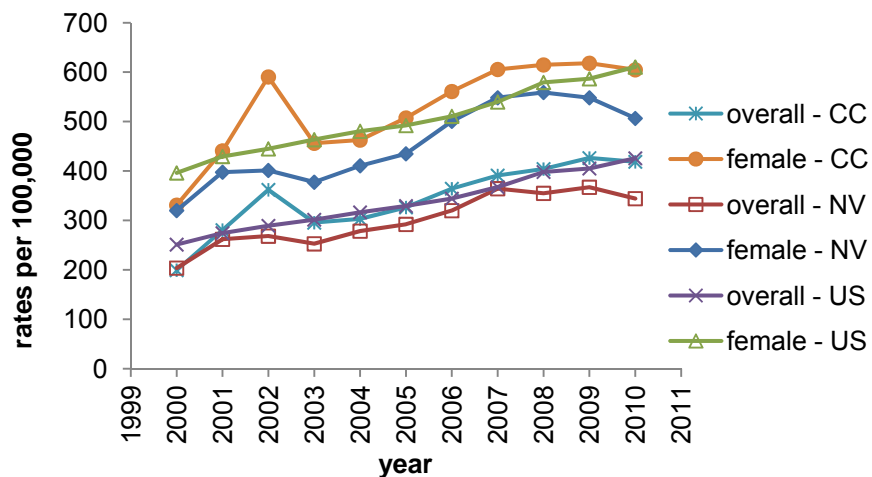


Figure 60. Chlamydia Infection Rates, Overall and Female, 2000–2010, Clark County, Nevada, and the U.S.

have actually dropped slightly among women in 2008 and 2009 compared with previous years, so the increase in overall rates is totally attributable to the rise in rates among men.

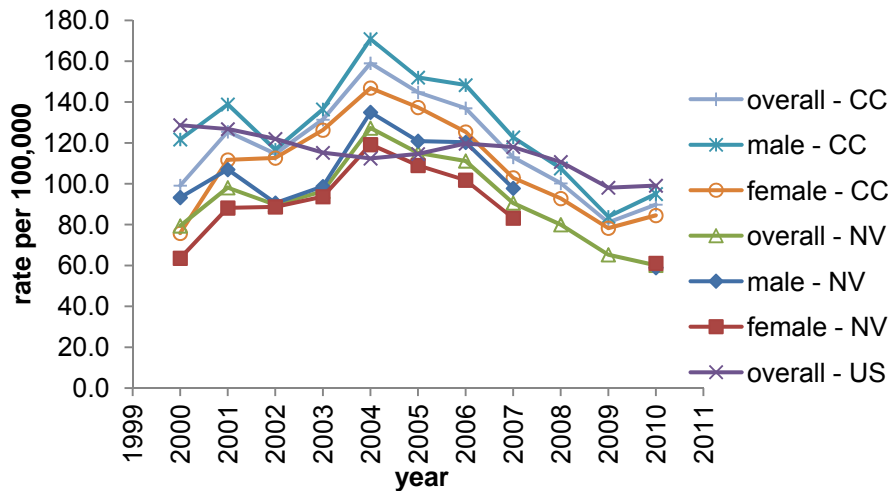


Figure 61. Gonorrhea Infection Rates, Overall and Male, 2000–2010, Clark County, Nevada, and the U.S.

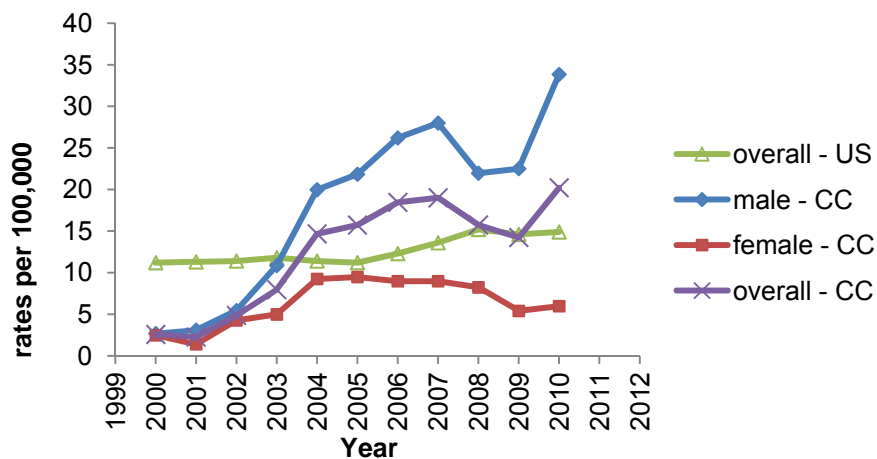


Figure 62. Syphilis Rates (All Stages, Including Congenital), By Gender, 2000-2010, Clark County, Nevada, and the U.S.

Congenital syphilis is a serious but preventable condition that can result in stillbirth, hydrops fetalis, or preterm birth. It also may be asymptomatic at birth and children born with syphilis infection can develop latent syphilis, the symptoms of which can involve the central nervous system (CNS), bones and joints, teeth, eyes, and skin.⁴⁹ We are lacking readily accessible data prior to 2006, but beginning that year, Clark County congenital syphilis cases have been recorded and counts declined through 2010, although absolute counts were small (Figure 63). When we compare the rates in Clark County with the U.S. average, we see that Clark County

congenital syphilis case rates (per 100,000 live births) have declined over the most recently reported years (Figure 64). However, prior to 2009, these rates had been much higher than the national average. As of 2009, the congenital syphilis rate in Clark County had dropped to 143% of the U.S. average, a big improvement improved compared with 2006 when the rate was more than 5 times the national average.

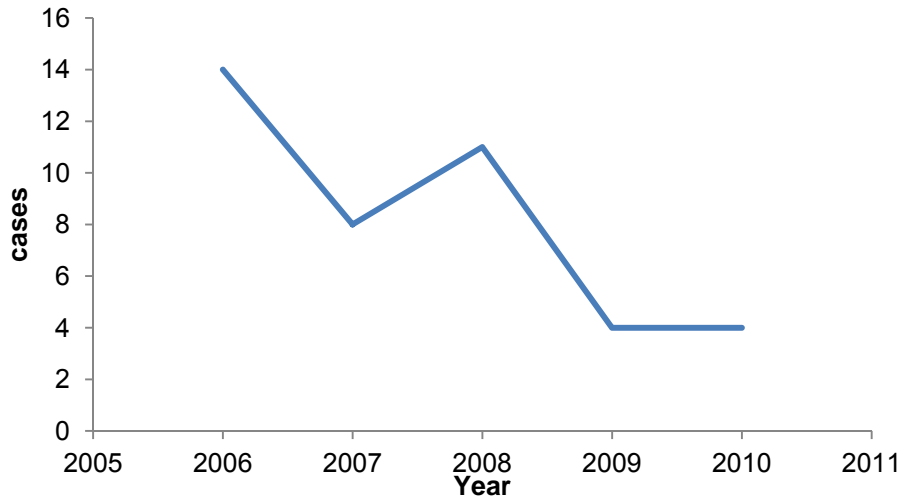
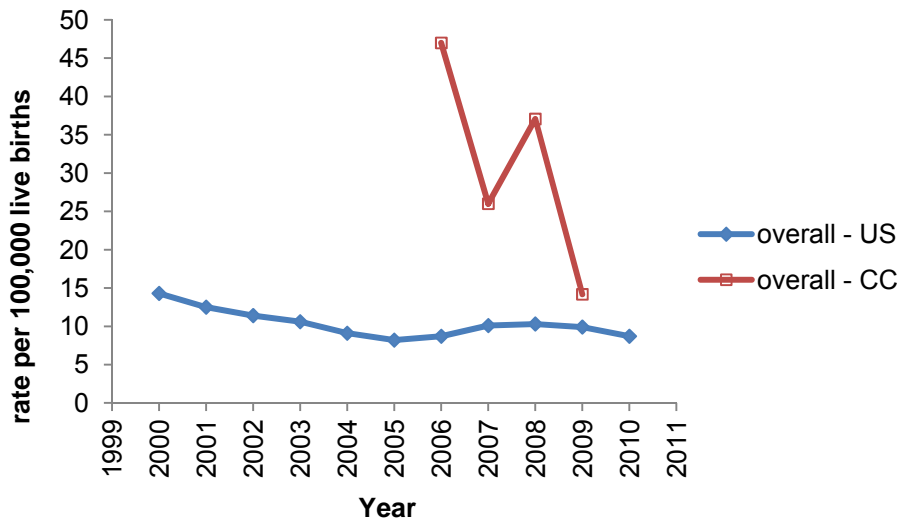


Figure 63. Congenital Syphilis Cases in Clark County, 2006-2010



Clark County congenital syphilis cases include confirmed and stillborn/presumptive cases.
 The State of Nevada does not publish data for congenital syphilis cases or case rates.
 No Clark County congenital syphilis case data are available prior to 2006.
 The 2010 Clark County rate could not be calculated because the total number of 2010 births was not readily available.

Figure 64. Rates of Congenital Syphilis in Clark County and the U.S., 2000–2010

HIV/AIDS

Accurate tracking of HIV and AIDS cases has been hampered by a surveillance system that, until 2010, recorded cases of HIV and AIDS separately without noting which persons were diagnosed with HIV and AIDS simultaneously. Prior to 2010, although we had case counts for HIV and AIDS separately, we were unable to determine accurately how many people in Nevada were affected by either HIV or AIDS. Before HIV medications became highly effective at increasing survival rates, measuring AIDS cases and deaths was a reasonable surveillance substitute for HIV cases. However, with survival times having dramatically increased, it has become important to learn more detail about individuals living with HIV and to have accurate counts of HIV cases, not just AIDS cases and deaths. Therefore, as of 2010, the surveillance system was changed. HIV cases are now recorded as HIV-only or as HIV diagnosed concurrently with AIDS, giving us a case count of all persons affected by HIV.

Another challenge to using HIV/AIDS surveillance data is that case-count alterations often occur, up to several years after they were recorded, to eliminate duplicate reporting of patients' cases that occur when they are inadvertently reported in multiple jurisdictions. During reconciliation, each patient-case is assigned to a single jurisdiction and case counts are adjusted between jurisdictions accordingly. A 2010 upgrade to the HIV/AIDS reporting system used throughout the State of Nevada has increased the ability to identify and reconcile these sorts of duplicate entries more quickly. However, reconciliation is also performed on a national level by CDC, a time-consuming process that occurs infrequently and also often results in adjustments in case counts years after they were originally recorded.

Due to these challenges in interpreting HIV/AIDS surveillance data through 2009, we chose to evaluate trends in AIDS cases and death counts, even though, with length of survival having risen substantially since the mid 1990s, these counts now correlate less closely the incidence of new HIV cases. In future years, with the newer method of reporting HIV cases having been implemented in 2010, we will be able to report much more accurately the numbers of persons in Clark County who have been diagnosed with HIV.

Figure 65 shows the trends in annual counts of new AIDS diagnoses and of AIDS-related deaths. Peak counts for each occurred in the early to mid-1990s. By 2011, the annual number of AIDS-related deaths has declined by 93% compared with its peak (275) in 1992. Similarly, we observed a 49% decline in newly diagnosed AIDS cases since its peak (363) in 1995. These observations represent the combination of decreasing numbers of newly diagnosed HIV cases, patients living longer with HIV illness before the disease progresses to AIDS, and longer survival rates overall. The trends we observed in Clark County are similar to those observed elsewhere in the U.S. during the same time period.

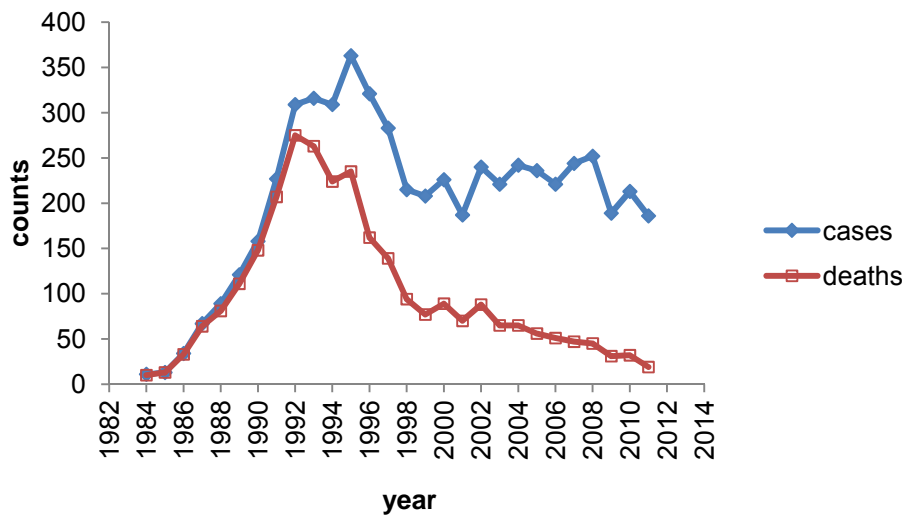


Figure 65. Counts of New AIDS Cases and AIDS-related Deaths, Clark County, by year, 1984–2011.

Graphing the ratio of the numbers of AIDS-related deaths to the numbers of newly diagnosed AIDS cases by year further illustrates how the average length of survival following a Clark County patient’s diagnosis of AIDS has dramatically changed in recent years (Figure 66). Prior to 1992, this ratio was close to 1:1, but has been steadily declining ever since, which is consistent with a continuing increase in the number of years the average patient with AIDS survives. This sort of increased survival is consistent with what is being observed throughout the U.S.

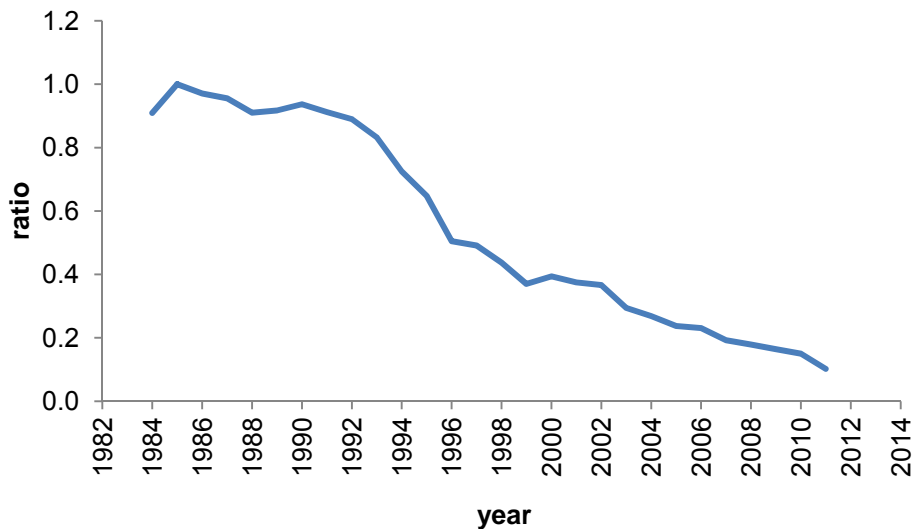


Figure 66. Ratio of AIDS-related Deaths to Newly Diagnosed AIDS Cases, Clark County, 1984–2011

HIV/AIDS demographics

Through 2011, the majority of AIDS cases in Clark County have occurred among adolescents or adults 13 years and older, among whom 4850/5675 (85%) were among male patients. From 1982–2011, a total of 26 cases among children under 13 years of age (14 girls and 12 boys) have been documented. The majority of them (24) had mothers with HIV or at risk for HIV infection. The other two children had received transplants or infusions of blood, blood components or tissue. Among adult men, the most commonly associated risk factors were male-to-male sexual contact (75%), injection drug use (12%), or both (9%). Heterosexual contact was considered the most likely associated risk factor for only 3% of male case-patients. Among women, the most associated risk factors were heterosexual contact (60%) and injection drug use (31%). For 2% of men and 8% of women, risk factors either could not be identified or were not documented. Cumulatively, through 2011, 53% of AIDS patients have been white Non-Hispanic, 18% have been Hispanic, and 25% have been Black or African American Non-Hispanic, the latter of which is disproportionately large compared with 2010 Census data showing that Blacks or African Americans make up only 12.0% of Clark County's population.^{vi}

Hepatitis

Hepatitis A

SNHD closely tracks and initiates public health actions related to reported cases of Hepatitis A. While most people fully recover from Hepatitis A infections, on rare occasions, the disease can cause liver damage severe enough to require transplantation and it can sometimes be fatal. Through the mid 1990s, Clark County had among the highest incidence of Hepatitis A infection in the U.S. Accordingly, ours was one of the first communities in the country specifically targeted, in 1996 and 1999, by the Advisory Committee for Immunization Practices (ACIP), in its recommendations to administer Hepatitis A vaccine routinely to children. In 1999, the Southern Nevada Health District mandated all health card applicants be immunized against Hepatitis A. In 2001, the state of Nevada mandated Hepatitis A immunizations for all new Clark County school district students. Implementation of these recommendations and mandates in Clark County appears to have resulted in a dramatic decline in incidence of the disease, which is evident during the years 2000–2010 (Figure 67). This decline has occurred among all age groups, but has been the most dramatic among children under 15, for whom rates were initially the highest (Figure 68).

^{vi} Does not include persons who are multiracial.

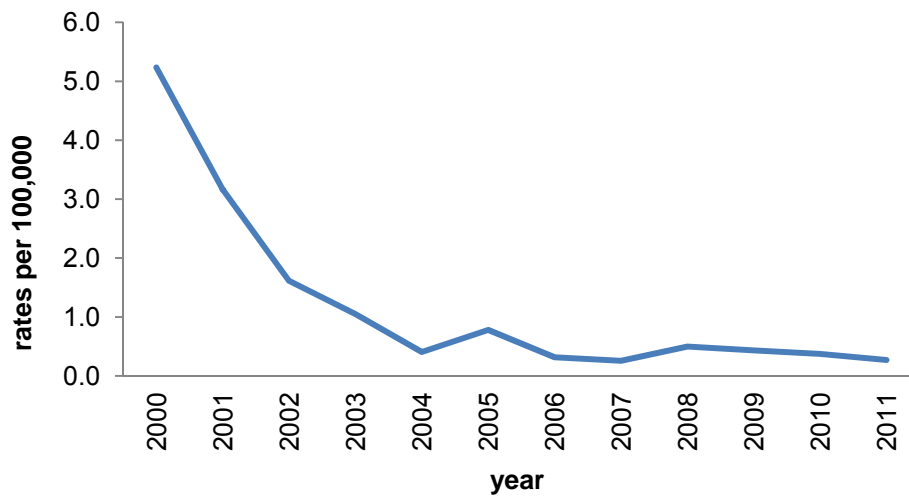
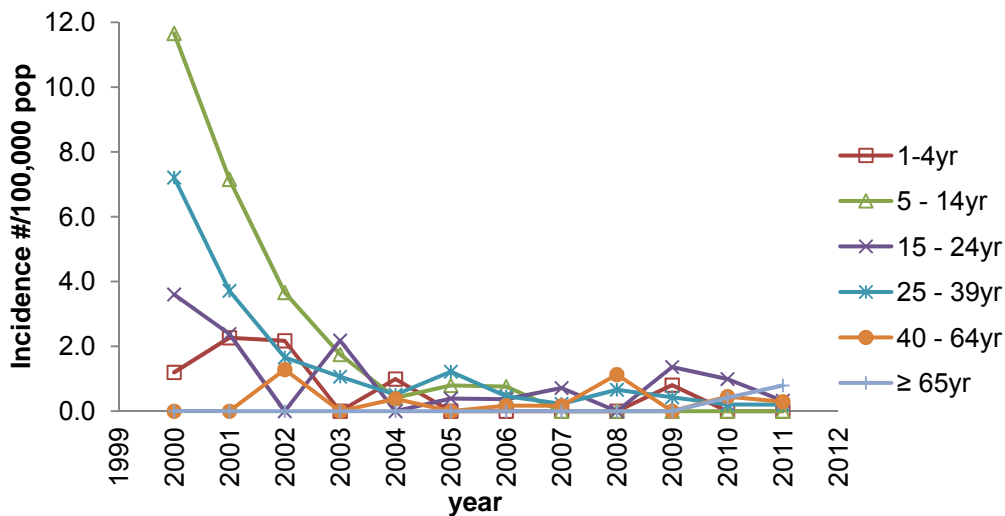


Figure 67. Annual Hepatitis A Incidence in Clark County, 2000 – 2011.



No Hepatitis A cases were reported in the <1 yr age group in the 2000 to 2011 time frame.

Figure 68. Reported Hepatitis A in Clark County by Age Group, 2000 – 2011.

Hepatitis B

Hepatitis B incidence has been declining overall in Clark County (Figure 69). A mandate that new students enrolling in Clark County schools be vaccinated against Hepatitis B was implemented in July 2002. Cases of Hepatitis B are reported to SNHD, but in late 2010, we stopped performing case investigations except when the case-patients are under 18 or over 50 years of age. The slight overall drop in rates observed between 2010 and 2011 could be due to a decreased number of additional cases among family members or household contacts being identified because fewer interviews have been performed since late 2010 after it was decided that the labor necessary to perform them was excessive given the small number of additional cases identified.

Rates by age group are shown in (Figure 70). Hepatitis B rarely occurs among children under age 15 and no cases among children under age 1 were reported for 2000–2011. In Clark County, persons in the 25-39 year

age group have consistently had the highest rates of newly diagnosed Hepatitis B infection. The school vaccination mandate could have contributed to the decline in incidence observed in the 15-to-24-year-old age group since 2002.

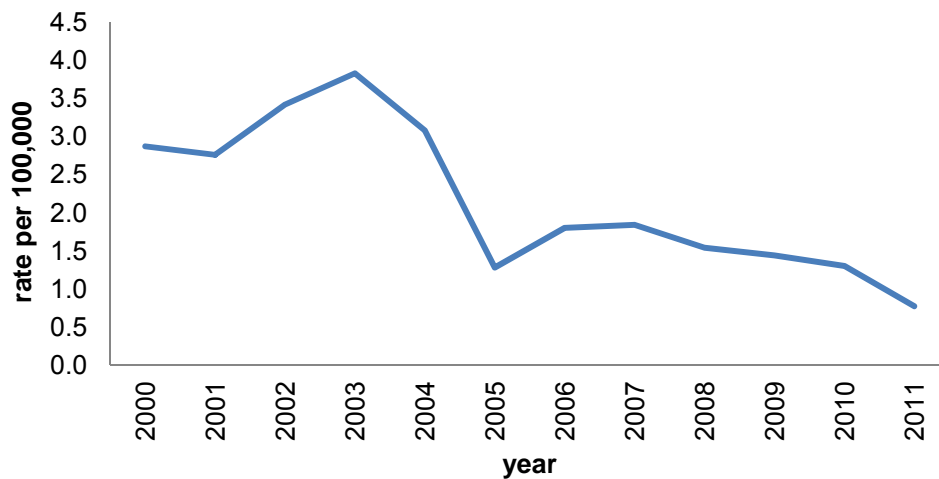
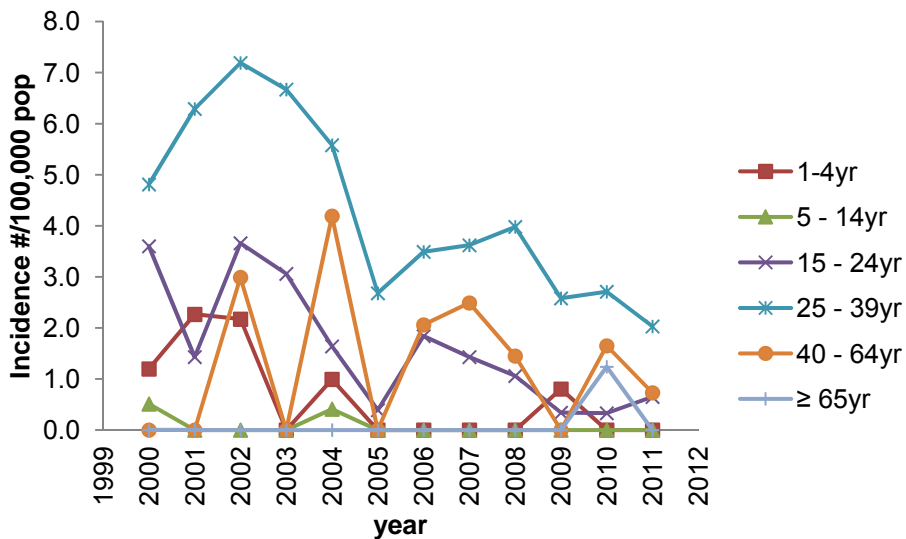


Figure 69. Incidence of Hepatitis B in Clark County, 2000–2011.



No Hepatitis B cases were reported in the <1 yr age group in the 2000 to 2011 time frame.

Figure 70. Incidence of Hepatitis B infection in Clark County, 2000–2011, by Age Group.

Hepatitis C

Incidence of Hepatitis C in Clark County has remained relatively low and steady during the past decade, with one year’s exception (Figure 71). In 2008, a much higher than normal number of Hepatitis C cases were reported. Some of these cases were believed to have been part of a highly publicized outbreak, the cause of which was traced to unsafe injection practices at an endoscopy clinic. It is believed that a heightened awareness about Hepatitis C occurred among both the general public and medical providers, resulting in an

increase in the frequency of testing and detection of Hepatitis C cases not associated with the outbreak that might not otherwise have been detected in 2008. The outbreak primarily affected persons 40 years and older. With the exception of 2008, the vast majority of reported cases of Hepatitis C in Clark County have been among persons 25 to 64 years of age (Figure 72). One other spike in cases within a single age group can be seen. In 2011, a higher than normal number of cases among persons in the 25-39 year age category was observed. Further investigation found no links among these persons although most of them had one or more of the most common risk factors for acquiring Hepatitis C infection, such as having a history of IV drug use.

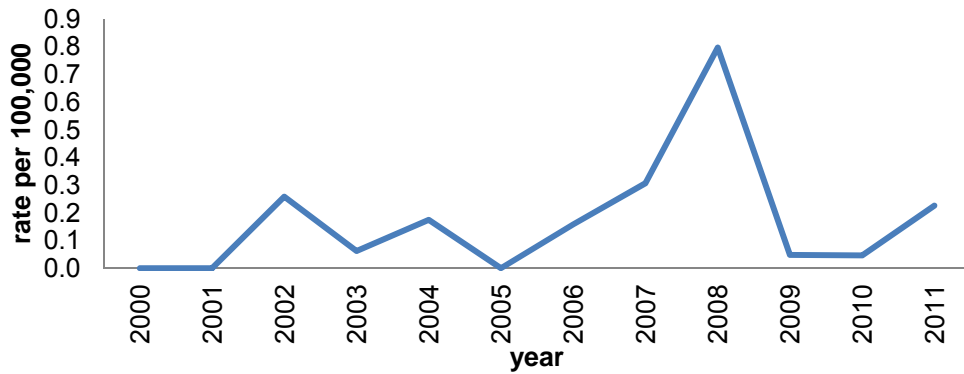
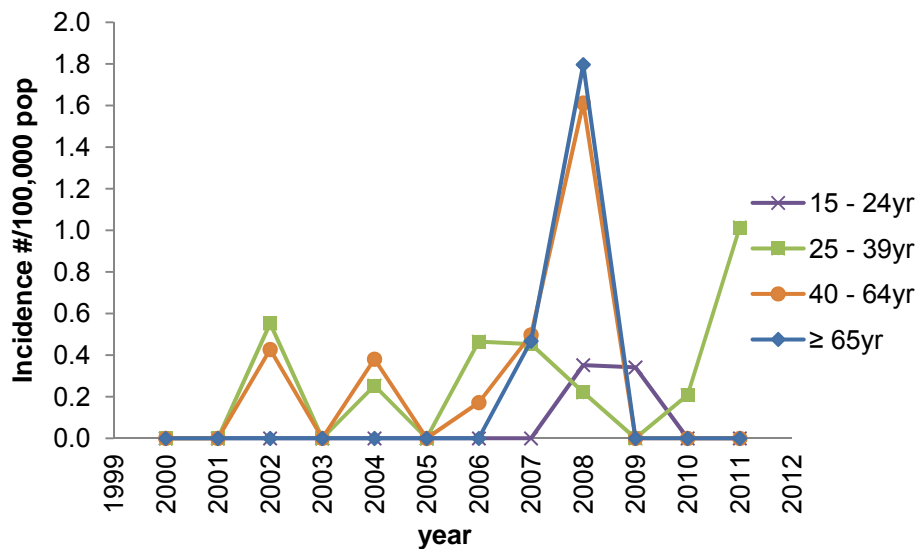


Figure 71. Incidence of Hepatitis C Infection in Clark County, 2000–2011



No Hepatitis C cases were reported in the <1 yr, 1–4 yr, 5–14 yr, or ≥65 yr age groups in the 2000 to 2011 time frame.

Figure 72. Incidence of Hepatitis C infection in Clark County, 2000–2011, by age group

Sentinel Events

Definition of Category: Sentinel events are those cases of unnecessary disease, disability, or untimely death that could be avoided if appropriately and timely medical care or preventive services were provided. These include vaccine-preventable illness, late stage cancer diagnosis, and unexpected syndromes or infections. Sentinel events may alert the community to health system problems such as inadequate vaccine coverage, lack of primary care and/or screening, a bioterrorist event, or the introduction of globally transmitted infections

Meningitis

SNHD records cases of meningitis cases several ways. Many of the diseases that can cause meningitis are recorded by their causative organisms. Therefore, we are unable to determine without reviewing each individual case, for example, which cases of invasive meningococcal disease manifested as meningitis and which did not. We do track cases of bacterial meningitis of bacterial origin that do not fall into another disease category based on specific organisms. The trend in these cases is illustrated in Figure 73 and has been steadily declining since 2000. Figure 74 illustrates the significant impact of bacterial meningitis on the <1 year age group compared with its impact on all other age groups.

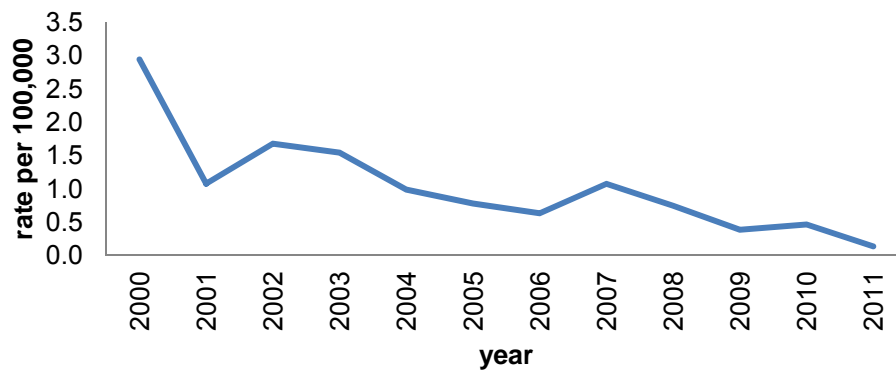


Figure 73. Incidence of Bacterial Meningitis Infection in Clark County, 2000–2011

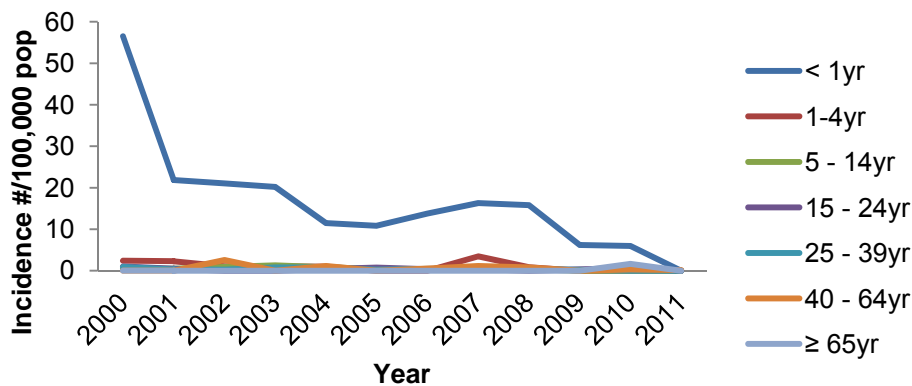


Figure 74. Incidence of Bacterial Meningitis Infection in Clark County, 2000–2011, by Age Group

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⁴⁶ Centers for Disease Control and Prevention, National Center for Health Statistics. Compressed Mortality File 1999-2009. CDC WONDER Online Database, compiled for Compressed Mortality File 1999-2009 Series 20, No. 20, 2012. Underlying cause-of-death 1999-2009.<http://wonder.cdc.gov/mortSQL.html>

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⁴⁸ Centers for Disease Control and Prevention. 2010 Sexually Transmitted Diseases Surveillance. Table 13. Gonorrhea - Reported Cases and Rates by State, Ranked by Rates, United States, 2010 www.cdc.gov/std/stats10/tables/13.htm

⁴⁹ Red Book Online. Section 3. Summaries of Infectious Diseases – Syphilis