Comprehensive Report Liver and Intrahepatic Bile Ducts Cancer

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PURPOSE

The primary purpose of this report is to provide the most current and accurate liver and intrahepatic bile ducts tumor incidence and mortality data, to describe the long-term trends of liver and intrahepatic bile ducts tumors in the State of Nevada and its counties, and compare them to the United States liver and intrahepatic bile ducts cancer incidence and mortality. It is our hope that the report findings will be utilized by advisory boards, public health professionals, policy makers, and community members to develop programs and policies that will protect the health and well-being of individuals in Nevada.

METHODS

Liver and intrahepatic bile ducts tumor counts, information on county at diagnosis, age at diagnosis, and year of diagnosis, were obtained from the 12/05/2014 Nevada Central Cancer Registry data extract[1]. Age-adjusted rates, and confidence intervals were calculated with SEER*Stat methodology[2], as well as relative standard error (RSE).

Annual age-adjusted rates from years 1995 to 2012 were calculated for liver and intrahepatic bile ducts cases by year, by county, by region, by gender, and by race/ethnicity. For adjustment, population counts were obtained from the 2000 US Standard Population (19 Age-groups)[3, 4].

Geographical description was included by county and by describing four geo-demographical regions: Urban-high populated counties (Clark County, Washoe County, and Carson City) and All Other counties (Rural, Frontier, low, and very low population density counties).

For analyses, liver and intrahepatic bile ducts incidence and mortality age-adjusted overall, by gender, and by race rates were compared between Nevada and the US, age-adjusted rates were compared between age groups (<20, 20-39, 40-64, 65-79, and 80+) within Nevada, and age-adjusted rates were compared between counties and between geo-demographical regions. All age-adjusted rates were calculated for the 1995-2012 diagnosis years (annually) and cumulative age-adjusted rates were calculated for the 2008-2012 diagnosis years. Confidence intervals were calculated and included in tables associated with each figure.

TECHNICAL NOTES

The incidence rate is the basic measure of disease occurrence as it expresses the probability or risk of disease in a defined population over a specific period of time. Age-adjusted rates with a common standard population allow for the comparison of rates in populations across regions with different age distributions. This method allows for the comparison between the US, Nevada, Nevada urban counties, Nevada rural and frontier counties. The annual and cumulative age-adjusted rates were calculated by summing the weighted crude, age-specific rates utilizing the national standard: Year 2000 US Standard Population (19 Age-groups), which were expressed per 100,000 Standard Population.

The reliability of the estimates of incidence age-adjusted rates are reflected by the RSE. RSE is the measure of the extent of the age-adjusted rate is likely to deviate from the true population, expressed as a fraction of the age-adjusted estimate, and is usually displayed as a percentage. A RSE of magnitude ≥30% is considered statistically unreliable for this report and a "¥" symbol has been shown in place of a rate with a value equivalent or greater.

The variability of the age-adjusted rates was assessed in terms of confidence intervals. The confidence intervals for this report, the computed intervals, are where we would expect the true age-adjusted rate to be within 95% of the time. Counts more than zero but less than or equal to 5 and their resulting rates and confidence limits were removed due to confidentiality and reliability issues, a "¥" symbol was shown in place of them.

Liver and intrahepatic bile ducts cancer case definitions for this report utilized the current NAACCR Standard Site Analysis Categories[5]. For liver and intrahepatic bile ducts incidence, this includes ICD-O-3 Codes C220 and C221, all histologies except 9590-9989, 9050-9055, and 9140. For liver and intrahepatic bile ducts mortality, this includes ICD-9 Codes 155.0-155.2 and ICD-10 Code C22.0-C22.4, C22.7, and C22.9.

LIMITATIONS

INCIDENCE DATA INTERPRETATION

Due to poor reporting practices in healthcare facilities within Nevada, the completeness or quality of cancer abstracts and timeliness of reporting has declined. In terms of completeness, although required by the NAC, submission of patients' race has not been included in 12.8% of cases reported to NCCR for cancers diagnosed in 2011. In addition, the number of reports received is lower than expected. In terms of timeliness, although required by the NAC, the majority of abstracts were submitted outside of healthcare facilities reporting window for each abstract.

Nevada has two large urban population concentrations and counties among the greatest population dispersion in the nation. This demographic distribution phenomenon results in similar rates between urban counties and the state, and unreliable rates or rates with large variability (large confidence intervals) in smaller, rural and frontier counties. This is primarily due to low frequency cancer cases and small populations.

For Hispanics, "Race" is underreported due to the misunderstanding between "Race" and "Ethnicity." Whether "Hispanic" is written in the race or ethnicity field, after reporting, the ethnicity field will be classified as "Hispanic" and the race field will be left empty. This results in race data being poorly reported.

Native American/Alaska Natives are underrepresented in NCCR. "Studies that estimate misclassification among American Indians/Alaska Natives using cancer registry data report these rates are underreported by 40%–57%, depending on the region of the country." [7,8,9]

Reliable survival data depend on the accuracy, completeness, and timeliness of mortality data and cancer data linkages with the state and the National Death Index, and cancer data sharing between other states. The NCCR is actively improving processes in order to attain the data quality necessary for survival calculations.

COMPARING STATE AND COUNTY RATES

Careful interpretation of counties with higher incidence or death rates than other counties or the state is needed to avoid misinterpretation or false conclusions.

Accessibility to medical care and population medical care coverage should be considered when interpreting differing cancer rates. Counties with increased participation in cancer screening result in more diagnosed cancers. In addition, screening leads to earlier detection that have a better prognosis and may find tumors that grow so slowly that they would not have otherwise been recognized in a person's lifetime.

Varying county cancer rates may be explained by the distribution of known risk factors among population in these counties. Although environmental carcinogens are responsible for a few specific cancers, majority of cases appear to be related to lifestyle factors.

Certain racial and ethnic populations are more prone to certain cancers. Thus, a county's racial and ethnic distribution should be considered when making conclusions. Statistical adjustment by race and ethnicity or age-adjusted rates by race and ethnicity can mitigate this issue.

The importance of cancer as a public health problem in a state is more a function of the absolute cancer rate than the state's relative ranking in incidence or mortality. In addition, the true burden of cancer on a healthcare system and economy of a state is determined by the number of people diagnosed with cancer, the number of people dying of cancer, and its social implications. Therefore, higher cancer rates between states may obscure the absolute number of cancer cases.

After adjustment, some uncertainty in computed cancer rates may persists because many factors contribute to the incidence and death rate in a given year or location, and some factors exhibit random behavior. Chance plays a role in determining if and when cancer develops in an individual, whether that cancer is detected, and whether that cancer progresses and leads to death. For these reasons, the reported rates are expected to vary from year to year within a state or county even in the absence of a general trend. Thus, caution is warranted when examining cancer rates for a single year and more so when rates are based on relatively few cases.

A 95% confidence interval is expected to contain the true underlying rate 95% of the time. Confidence intervals are available for age-adjusted rates to assist with interpreting results. Due to variations in the population sizes and number of reported cases and deaths across counties, more uncertainty is present in the incidence and death rates for certain counties. The confidence intervals provide a simple measure of the variability in rates and a basis when making county-specific comparisons. However, it is not recommended to use overlapping confidence intervals as a method to conclude rates are significantly different.

Another consideration when comparing differences between rates is their public health importance. Some rates have large numerators and/or denominators and consequently small standard errors that result in statistically significant differences. Conversely, some rates have large standard errors which are suppressed when they do not meet the maximum 30% relative standard error requirement.

LIVER AND INTRAHEPATIC BILE DUCTS CANCER MORTALITY

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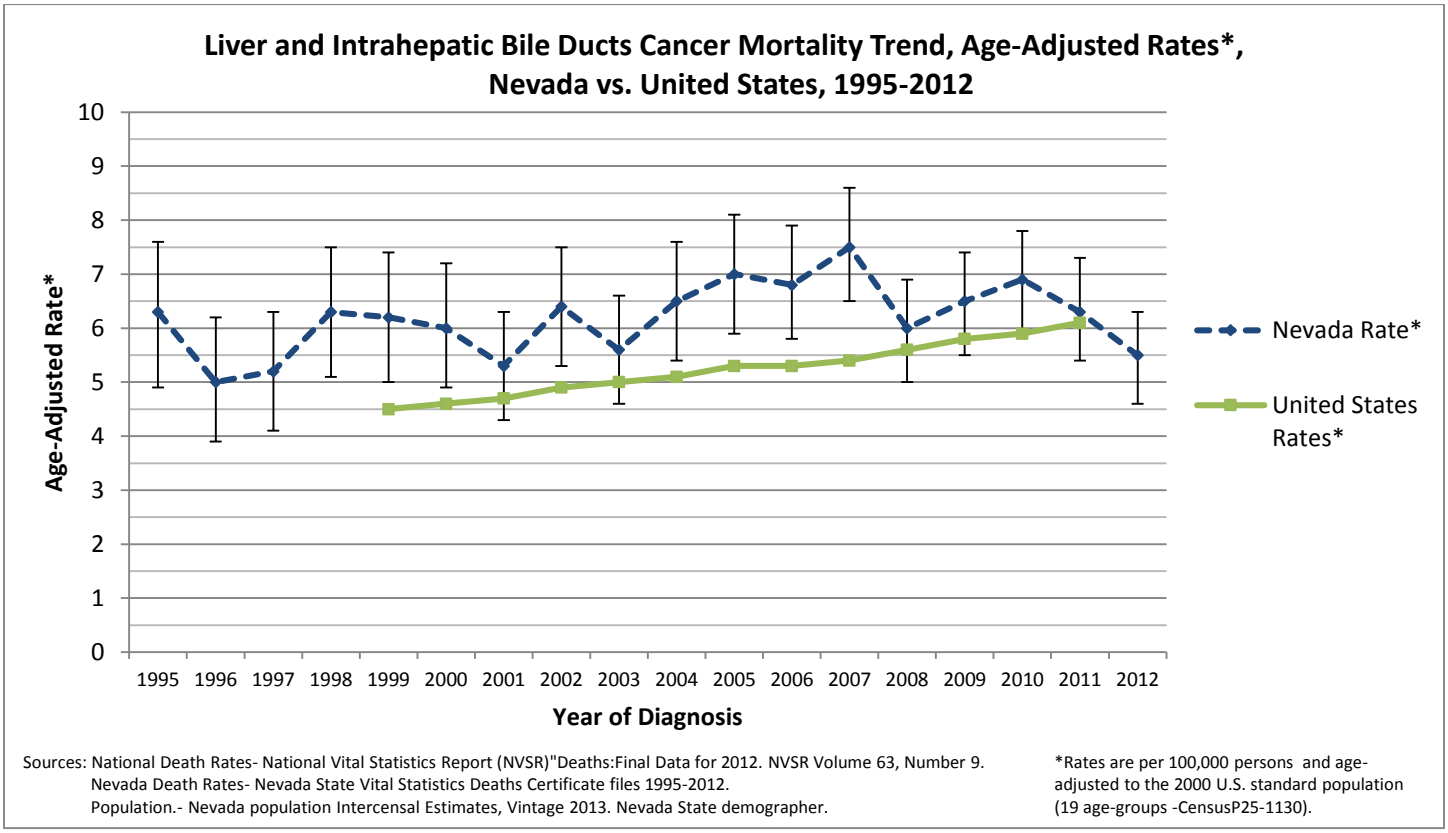
Figure 1: Liver and Intrahepatic Bile Ducts Cancer Mortality Trend, Nevada vs. United States, 1995-2012.



Sources: National Death Rates- National Vital Statistics Report (NVSR)"Deaths:Final Data for 2012. NVSR Volume 63, Number 9.
Nevada Death Rates- Nevada State Vital Statistics Deaths Certificate files 1995-2012.
Population.- Nevada population Intercensal Estimates, Vintage 2013. Nevada State demographer.

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Table 1: Liver and Intrahepatic Bile Ducts Cancer Mortality Age-Adjusted Rates* by year, Nevada and United States, 1995-2012.

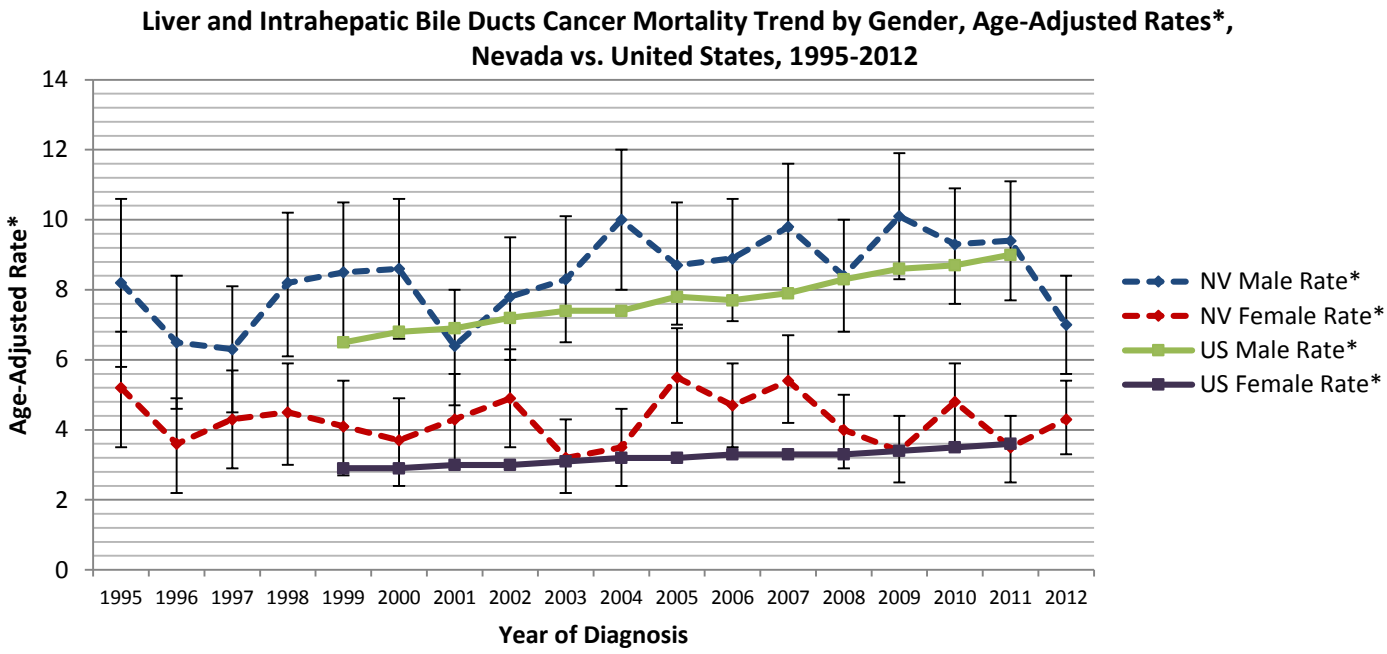
	1995	1996	1997	1998	1999	2000	2001	2002	2003
Nevada	6.3 (5.0-7.7)	5.0 (3.8-6.1)	5.2 (4.1-6.3)	6.3 (5.1-7.5)	6.2 (5.0-7.4)	6.0 (4.8-7.1)	5.3 (4.3-6.3)	6.4 (5.3-7.5)	5.6 (4.6-6.6)
United States					4.5 (4.4-4.6)	4.6 (4.6-4.7)	4.7 (4.6-4.8)	4.9 (4.8-5.0)	5.0 (4.9-5.1)

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Nevada	6.5 (5.4-7.6)	7.0 (5.9-8.1)	6.8 (5.7-7.8)	7.5 (6.4-8.5)	6.0 (5.1-7)	6.5 (5.6-7.5)	6.9 (6-7.9)	6.3 (5.3-7.2)	5.5 (4.7-6.4)
United States	5.1 (5.0-5.2)	5.3 (5.2-5.4)	5.3 (5.2-5.4)	5.4 (5.3-5.5)	5.6 (5.5-5.7)	5.8 (5.7-5.9)	5.9 (5.8-6.0)	6.1 (6.0-6.2)	

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

LIVER AND INTRAHEPATIC BILE DUCTS CANCER MORTALITY BY GENDER

Figure 2: Liver and Intrahepatic Bile Ducts Cancer Mortality Trend by Gender, Age-Adjusted Rates*, Nevada vs. United States, 1995-2012.



Sources: National Death Rates- National Vital Statistics Report (NVSR)"Deaths:Final Data for 2012. NVSR Volume 63, Number 9.
Nevada Death Rates- Nevada State Vital Statistics Deaths Certificate files 1995-2012.
Population.- Nevada population Intercensal Estimates, Vintage 2013. Nevada State demographer.

*Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population.

Table 2: Liver and Intrahepatic Bile Ducts Cancer Mortality Trend by Gender, Age-Adjusted Rates*, Nevada and United States, 1995-2012.

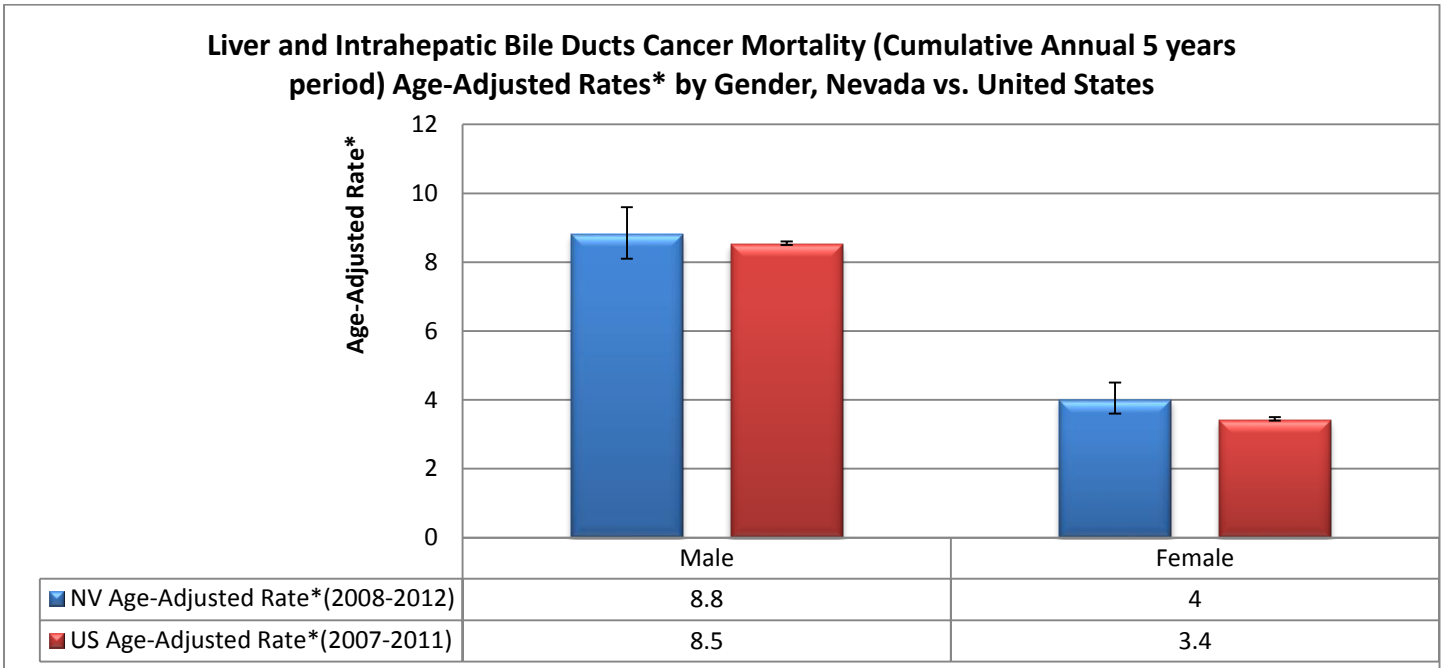
	1995	1996	1997	1998	1999	2000	2001	2002	2003
Nevada Male	8.2 (5.8-10.6)	6.5 (4.6-8.4)	6.3 (4.5-8.1)	8.2 (6.2-10.3)	8.5 (6.5-10.6)	8.6 (6.6-10.6)	6.4 (4.8-8.1)	7.8 (6.1-9.6)	8.3 (6.5-10.1)
Nevada Female	5.2 (3.6-6.9)	3.6 (2.3-5.0)	4.3 (2.9-5.7)	4.5 (3.1-6.0)	4.1 (2.8-5.5)	3.7 (2.5-5.0)	4.3 (3.0-5.6)	4.9 (3.5-6.3)	3.2 (2.1-4.2)
United States Male					6.5 (6.4-6.7)	6.8 (6.7-6.9)	6.9 (6.8-7.1)	7.2 (7.0-7.3)	7.4 (7.2-7.5)
United States Female					2.9 (2.9-3.0)	2.9 (2.9-3.0)	3.0 (2.9-3.1)	3.0 (2.9-3.1)	3.1 (3.0-3.2)

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Nevada Male	10.0 (8.0-12.0)	8.7 (6.9-10.4)	8.9 (7.2-10.7)	9.8 (8-11.6)	8.4 (6.8-10)	10.1 (8.3-11.9)	9.3 (7.7-11.0)	9.4 (7.7-11.1)	7.0 (5.6-8.4)
Nevada Female	3.5 (2.4-4.6)	5.5 (4.1-6.8)	4.7 (3.5-5.9)	5.4 (4.1-6.6)	4.0 (3.0-5.1)	3.4 (2.4-4.3)	4.8 (3.7-6.0)	3.5 (2.6-4.5)	4.3 (3.2-5.3)
United States Male	7.4 (7.3-7.6)	7.8 (7.6-7.9)	7.7 (7.6-7.9)	7.9 (7.8-8.1)	8.3 (8.2-8.5)	8.6 (8.4-8.7)	8.7 (8.6-8.9)	9.0 (8.9-9.2)	
United States Female	3.2 (3.1-3.3)	3.2 (3.1-3.3)	3.3 (3.2-3.4)	3.3 (3.2-3.3)	3.3 (3.2-3.3)	3.4 (3.3-3.5)	3.5 (3.4-3.6)	3.6 (3.6-3.7)	

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

LIVER AND INTRAHEPATIC BILE DUCTS CANCER MORTALITY BY GENDER, 2008-2012

Figure 3: Liver and Intrahepatic Bile Ducts Cancer Mortality (Cumulative Annual 5 years period) Age-Adjusted Rates* by Gender, Nevada vs. United States.



Source: National Rates-U.S. Cancer Statistics Working Group. United States Cancer Statistics: 1999–2011 Incidence and Mortality Web-based Report. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014. Available at: www.cdc.gov/uscs.
Nevada Death Rates- Nevada State Vital Statistics Deaths Certificate files 1995-2012.
Population.- Nevada population Intercensal Estimates, Nevada State Demographer. Vintage 2013.

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Notice: Most up-to-date data available for United States Cancer mortality is 2007-2011 and must be carefully compared.

Table 3: Liver and Intrahepatic Bile Ducts Cancer Mortality by Region and Gender. Cumulative Annual Age-Adjusted Rates* Nevada Geo-demographical Regions.

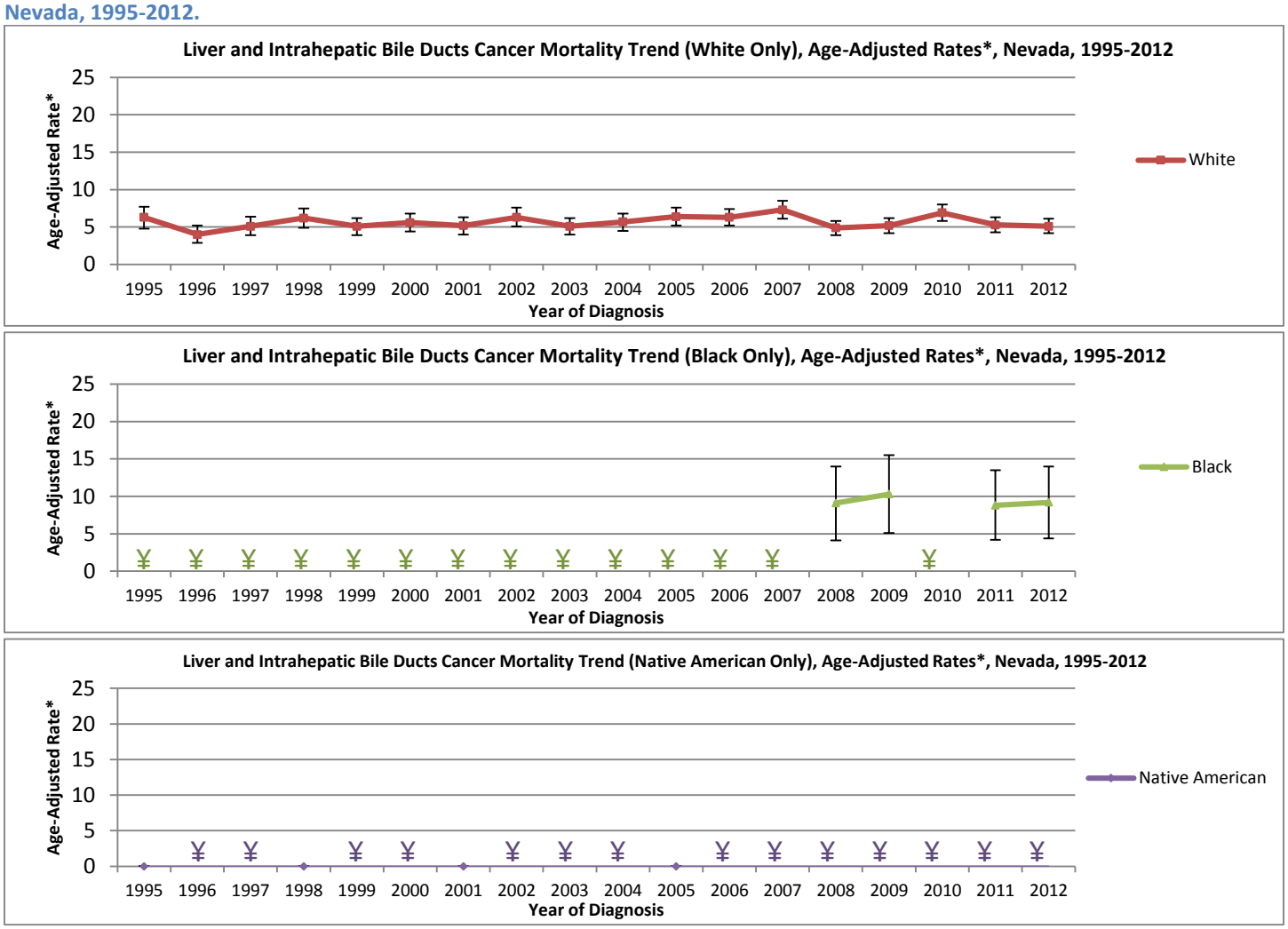
Liver and Intrahepatic Bile Ducts Cancer Mortality (All Ages, All Races) by Gender - Age-Adjusted Rates*, Nevada, 2008-2012 (Regions ordered by population size)				
Gender	**Clark**	**Washoe**	**Carson City**	**Rural**
Male	8.2 (7.3-9.0)	12.4 (10.2-14.6)	12.6 (6.8-18.5)	7.6 (5.8-9.4)
Female	3.8 (3.3-4.4)	4.7 (3.3-6.0)	¥	4.5 (3.1-5.9)
All Genders	5.8 (5.4-6.3)	8.2 (7.0-9.5)	8.2 (5.1-11.4)	6.0 (4.9-7.1)

¥ Counts more than zero or less than or equal to 5 or Rates with Relative Standard Error (RSE) >30% are suppressed; due to reliability and/or confidentiality issues.

* Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population.

LIVER AND INTRAHEPATIC BILE DUCTS CANCER MORTALITY TREND BY RACE/ETHNICITY

Figure 4: Liver and Intrahepatic Bile Ducts Cancer Mortality Trend by Race/Ethnicity, Confidence Intervals, Age-Adjusted Rates*, Nevada, 1995-2012.



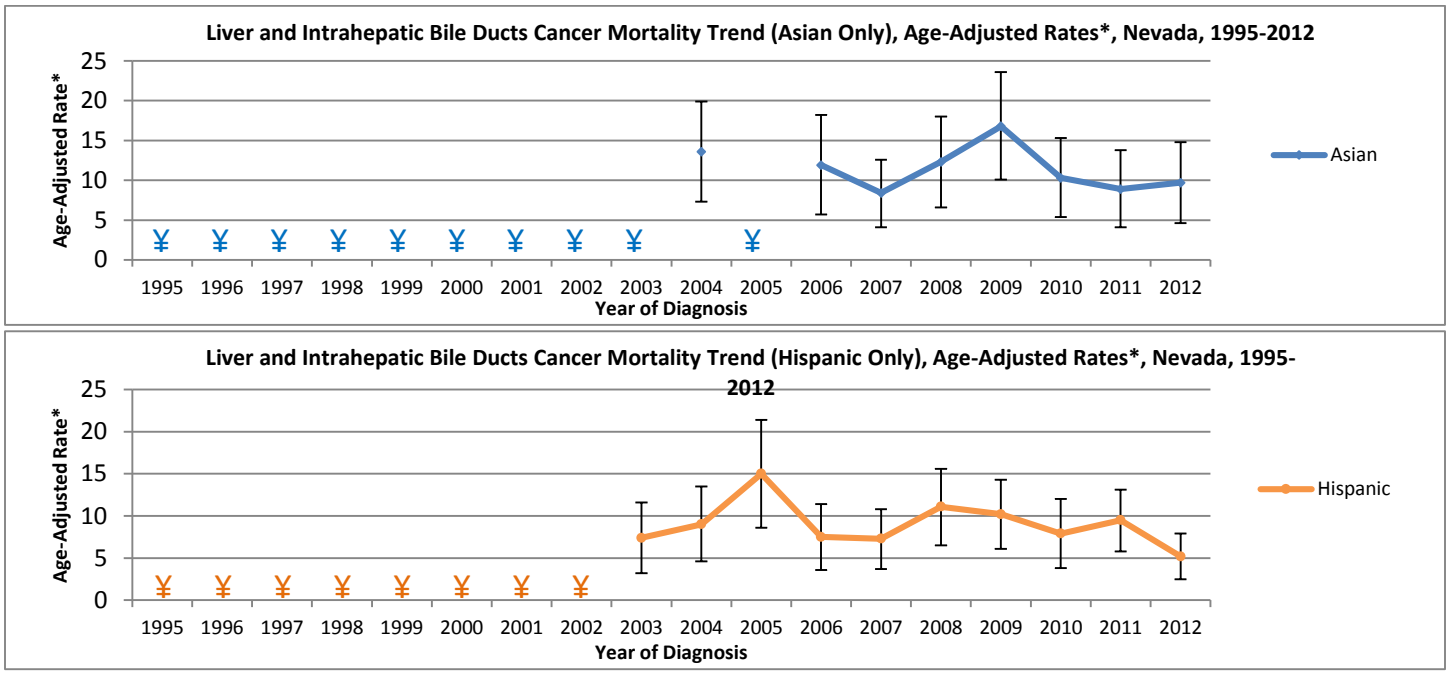
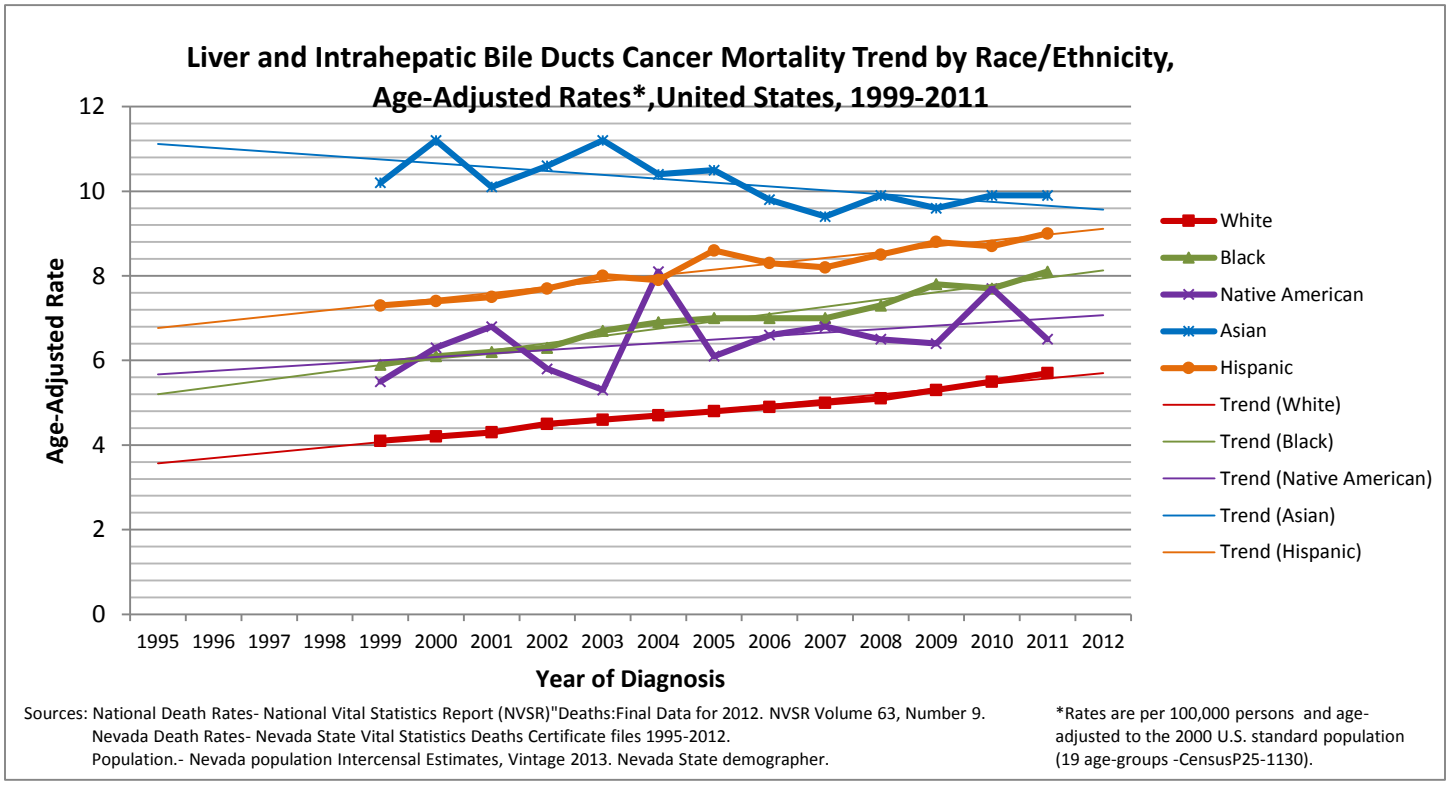


Figure 5: Liver and Intrahepatic Bile Ducts Cancer Mortality Trend by Race/Ethnicity, Age-Adjusted Rates*, United States, 1999-2011.



Sources: National Death Rates- National Vital Statistics Report (NVSR)"Deaths:Final Data for 2012. NVSR Volume 63, Number 9.
Nevada Death Rates- Nevada State Vital Statistics Deaths Certificate files 1995-2012.
Population.- Nevada population Intercensal Estimates, Vintage 2013. Nevada State demographer.

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Table 4: Liver and Intrahepatic Bile Ducts Cancer Mortality Annual Age-Adjusted Rates* by Race/Ethnicity, Nevada, 1995-2012.

Nevada	1995	1996	1997	1998	1999	2000	2001	2002	2003
White	6.3 (4.8-7.7)	4.0 (2.9-5.2)	5.1 (3.9-6.4)	6.2 (4.9-7.5)	5.1 (3.9-6.2)	5.6 (4.4-6.8)	5.2 (4.0-6.3)	6.3 (5.1-7.6)	5.1 (4.0-6.2)
Black	¥	¥	¥	¥	¥	¥	¥	¥	¥
Native American	0	¥	¥	0	¥	¥	0	¥	¥
Asian	¥	¥	¥	¥	¥	¥	¥	¥	¥
Hispanic	¥	¥	¥	¥	¥	¥	¥	¥	7.4 (3.2-11.6)

Nevada	2004	2005	2006	2007	2008	2009	2010	2011	2012
White	5.7 (4.5-6.8)	6.4 (5.2-7.6)	6.3 (5.2-7.4)	7.3 (6.1-8.5)	4.9 (3.9-5.8)	5.2 (4.2-6.2)	6.9 (5.8-8.0)	5.3 (4.3-6.3)	5.1 (4.2-6.1)
Black	¥	¥	¥	¥	9.1 (4.1-14)	10.3 (5.1-15.5)	¥	8.8 (4.2-13.5)	9.2 (4.4-14.0)
Native American	¥	0	¥	¥	¥	¥	¥	¥	¥
Asian	13.6 (7.3-19.9)	¥	11.9 (5.7-18.2)	8.4 (4.1-12.6)	12.3 (6.6-18.0)	16.8 (10.1-23.6)	10.3 (5.4-15.3)	8.9 (4.1-13.8)	9.7 (4.6-14.8)
Hispanic	9.0 (4.6-13.5)	15 (8.6-21.4)	7.5 (3.6-11.4)	7.3 (3.7-10.8)	11.1 (6.5-15.6)	10.2 (6.1-14.3)	7.9 (3.8-12.0)	9.5 (5.8-13.1)	5.2 (2.5-7.9)

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Table 5: Liver and Intrahepatic Bile Ducts Cancer Mortality Annual Age-Adjusted Rates* by Race/Ethnicity, United States, 1999-2011.

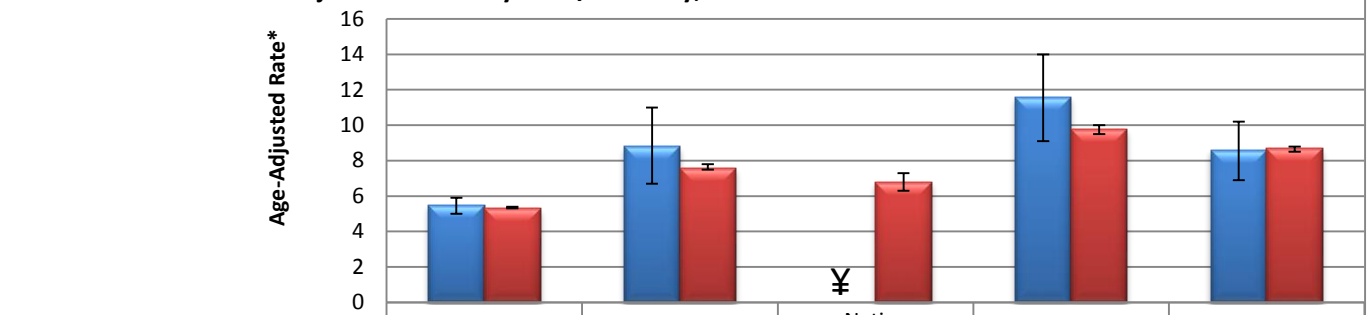
United States	1995	1996	1997	1998	1999	2000	2001	2002	2003
White					4.1 (4.1-4.2)	4.2 (4.1-4.3)	4.3 (4.2-4.4)	4.5 (4.4-4.6)	4.6 (4.5-4.7)
Black					5.9 (5.6-6.3)	6.1 (5.8-6.4)	6.2 (5.9-6.6)	6.3 (6.0-6.6)	6.7 (6.3-7.0)
Native American					5.5 (4.2-6.9)	6.3 (5.1-7.8)	6.8 (5.5-8.3)	5.8 (4.6-7.2)	5.3 (4.3-6.6)
Asian					10.2 (9.5-11.0)	11.2 (10.4-11.9)	10.1 (9.5-10.9)	10.6 (9.9-11.3)	11.2 (10.5-11.9)
Hispanic					7.3 (6.8-7.8)	7.4 (7.0-7.9)	7.5 (7.0-7.9)	7.7 (7.3-8.2)	8.0 (7.6-8.4)

United States	2004	2005	2006	2007	2008	2009	2010	2011	2012
White	4.7 (4.6-4.8)	4.8 (4.8-4.9)	4.9 (4.8-5.0)	5.0 (4.9-5.1)	5.1 (5.1-5.2)	5.3 (5.3-5.4)	5.5 (5.4-5.6)	5.7 (5.6-5.8)	
Black	6.9 (6.6-7.2)	7.0 (6.7-7.3)	7.0 (6.7-7.3)	7.0 (6.7-7.3)	7.3 (7.0-7.7)	7.8 (7.5-8.1)	7.7 (7.4-8.0)	8.1 (7.8-8.4)	
Native American	8.1 (6.7-9.6)	6.1 (5.0-7.3)	6.6 (5.4-7.9)	6.8 (5.6-8.0)	6.5 (5.4-7.8)	6.4 (5.3-7.5)	7.7 (6.6-8.9)	6.5 (5.5-7.6)	
Asian	10.4 (9.7-11.0)	10.5 (9.9-11.2)	9.8 (9.2-10.4)	9.4 (8.8-10.0)	9.9 (9.4-10.5)	9.6 (9.0-10.1)	9.9 (9.3-10.4)	9.9 (9.4-10.5)	
Hispanic	7.9 (7.5-8.3)	8.6 (8.2-9.1)	8.3 (7.9-8.7)	8.2 (7.8-8.5)	8.5 (8.1-8.9)	8.8 (8.5-9.2)	8.7 (8.3-9.1)	9 (8.6-9.4)	

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

LIVER AND INTRAHEPATIC BILE DUCTS CANCER MORTALITY TREND BY RACE/ETHNICITY, 2008-2012

Figure 6: Liver and Intrahepatic Bile Ducts Cancer Mortality (Cumulative Annual 5 years period) Age-Adjusted Rates* by Race/Ethnicity, Nevada vs. United States.



	White	Black	Native American	Asian	Hispanic
NV Age-Adjusted Rate*(2008-2012)	5.5	8.8	¥	11.6	8.6
US Age-Adjusted Rate*(2007-2011)	5.3	7.6	6.8	9.8	8.7

Source: National Rates-U.S. Cancer Statistics Working Group. United States Cancer Statistics: 1999–2011 Incidence and Mortality Web-based Report. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014. Available at: www.cdc.gov/uscs.
Nevada Death Rates- Nevada State Vital Statistics Deaths Certificate files 1995-2012.
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*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Notice: Most up-to-date data available for United States Cancer mortality is 2007-2011 and must be carefully compared.

LIVER AND INTRAHEPATIC BILE DUCTS CANCER MORTALITY BY REGION, BY RACE/ETHNICITY IN NEVADA, 2008-2012

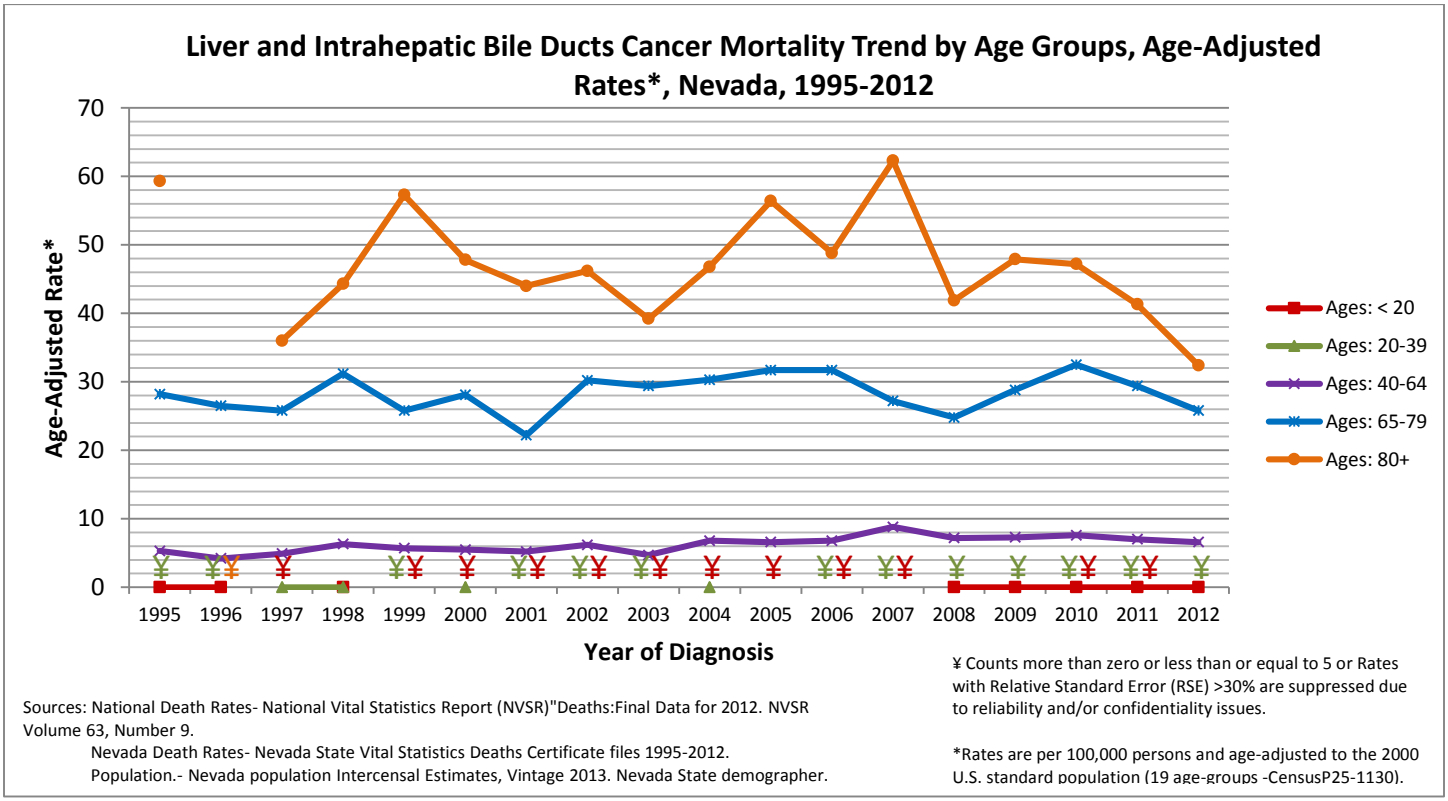
Table 6: Liver and Intrahepatic Bile Ducts Cancer Mortality by Region and by Race/Ethnicity, Age-Adjusted Rates*, Nevada Geo-demographical Regions, 2008-2012

Liver and Intrahepatic Bile Ducts Cancer Mortality (All Ages, All Races) by Races - Age-Adjusted Rates*, 2008-2012 (Regions ordered by population size)				
Race/Ethnicity	**Clark**	**Washoe**	**Carson City**	**Rural**
White	4.9 (4.4-5.4)	7.3 (6.1-8.6)	6.8 (3.9-9.7)	6 (4.8-7.2)
Black	7.8 (5.7-9.9)	¥	¥	0
Native American	¥	¥	0	¥
Asian	12.3 (9.5-15.1)	¥	¥	¥
Hispanic	7.8 (6.0-9.6)	11.1 (5.9-16.2)	¥	¥
All Races/Ethnicities	5.8 (5.4-6.3)	8.2 (7.0-9.5)	8.2 (5.1-11.4)	6.0 (4.9-7.1)

¥ Counts more than zero or less than or equal to 5 or Rates with Relative Standard Error (RSE) >30% are suppressed; due to reliability and/or confidentiality issues.
* Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population.

LIVER AND INTRAHEPATIC BILE DUCTS MORTALITY TREND BY AGE GROUPS, 1995-2012

Figure 7: Liver and Intrahepatic Bile Ducts Cancer Mortality Trend by Age Groups, Age-Adjusted Rates*, Nevada, 1995-2012.



Sources: National Death Rates- National Vital Statistics Report (NVSR)"Deaths:Final Data for 2012. NVSR Volume 63, Number 9.
Nevada Death Rates- Nevada State Vital Statistics Deaths Certificate files 1995-2012.
Population.- Nevada population Intercensal Estimates, Vintage 2013. Nevada State demographer.

¥ Counts more than zero or less than or equal to 5 or Rates with Relative Standard Error (RSE) >30% are suppressed due to reliability and/or confidentiality issues.

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Table 7: Liver and Intrahepatic Bile Ducts Cancer Mortality Annual Age-Adjusted Rates* by Age Groups, Nevada, 1995-2012.

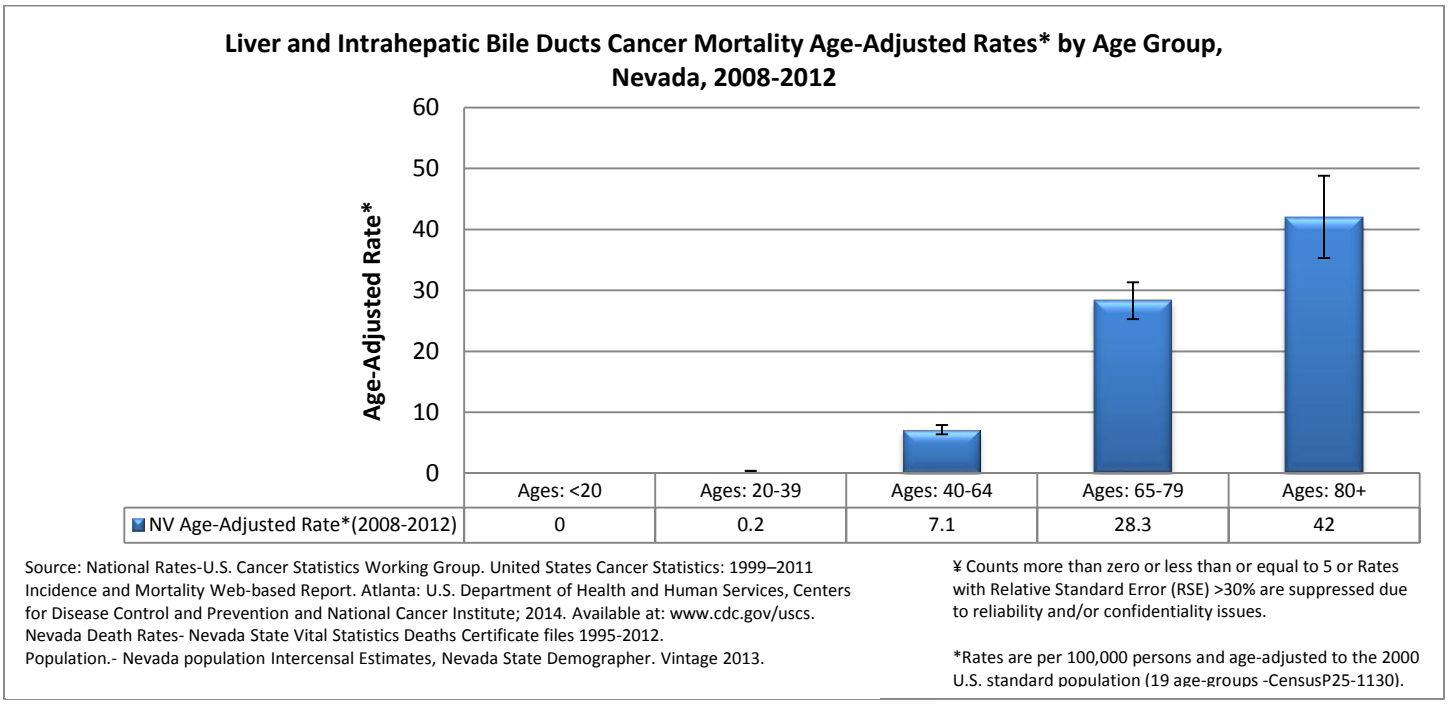
Nevada	1995	1996	1997	1998	1999	2000	2001	2002	2003
< 20	0	0	¥	0	¥	¥	¥	¥	¥
20 - 39	¥	¥	0	0	¥	0	¥	¥	¥
40 - 64	5.3 (3.2-7.3)	4.2 (2.4-6.0)	4.9 (3.0-6.7)	6.3 (4.3-8.4)	5.7 (3.8-7.6)	5.5 (3.7-7.3)	5.2 (3.5-6.9)	6.2 (4.4-8.1)	4.7 (3.1-6.2)
65 - 79	28.2 (19.5-37.0)	26.5 (18.2-34.8)	25.8 (17.8-33.8)	31.2 (22.7-39.7)	25.8 (18.2-33.4)	28.1 (20.3-35.9)	22.2 (15.4-29.0)	30.2 (22.5-38.0)	29.4 (21.8-37.0)
80 +	59.3 (31.1-87.4)	¥	36.0 (15.6-56.4)	44.3 (21.9-66.7)	57.3 (32.8-81.9)	47.8 (26.9-68.8)	44.0 (24.7-63.2)	46.2 (27.3-65.0)	39.2 (22.4-56.0)

Nevada	2004	2005	2006	2007	2008	2009	2010	2011	2012
< 20	¥	¥	¥	¥	0	0	0	0	0
20 - 39	0	¥	¥	¥	¥	¥	¥	¥	¥
40 - 64	6.8 (5.0-8.7)	6.6 (4.8-8.3)	6.8 (5.0-8.5)	8.8 (6.8-10.7)	7.2 (5.5-8.9)	7.3 (5.6-9.0)	7.6 (5.8-9.3)	7.0 (5.3-8.6)	6.6 (5.0-8.2)
65 - 79	30.3 (22.7-37.8)	31.7 (24.0-39.4)	31.7 (24.1-39.2)	27.2 (20.4-34.1)	24.8 (18.4-31.2)	28.8 (22.0-35.7)	32.5 (25.4-39.7)	29.4 (22.7-36.2)	25.8 (19.7-31.9)
80 +	46.8 (28.8-64.8)	56.4 (37.7-75.0)	48.8 (31.6-66.0)	62.3 (43.2-81.4)	41.9 (26.4-57.4)	47.9 (31.6-64.3)	47.2 (31.3-63.0)	41.3 (26.5-56.1)	32.4 (19.4-45.4)

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

LIVER AND INTRAHEPATIC BILE DUCTS CANCER MORTALITY BY AGE GROUPS, 2008-2012

Figure 8: Liver and Intrahepatic Bile Ducts Cancer Mortality by Age Groups, Cumulative Annual Age-Adjusted Rates*, Nevada, 2008-2012.



Source: National Rates-U.S. Cancer Statistics Working Group. United States Cancer Statistics: 1999–2011 Incidence and Mortality Web-based Report. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014. Available at: www.cdc.gov/uscs.
Nevada Death Rates- Nevada State Vital Statistics Deaths Certificate files 1995-2012.
Population.- Nevada population Intercensal Estimates, Nevada State Demographer. Vintage 2013.

¥ Counts more than zero or less than or equal to 5 or Rates with Relative Standard Error (RSE) >30% are suppressed due to reliability and/or confidentiality issues.

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Table 8: Liver and Intrahepatic Bile Ducts Cancer Mortality by Region and by Age Groups, Age-Adjusted Rates*, Nevada Geo-demographical Regions, 2008-2012

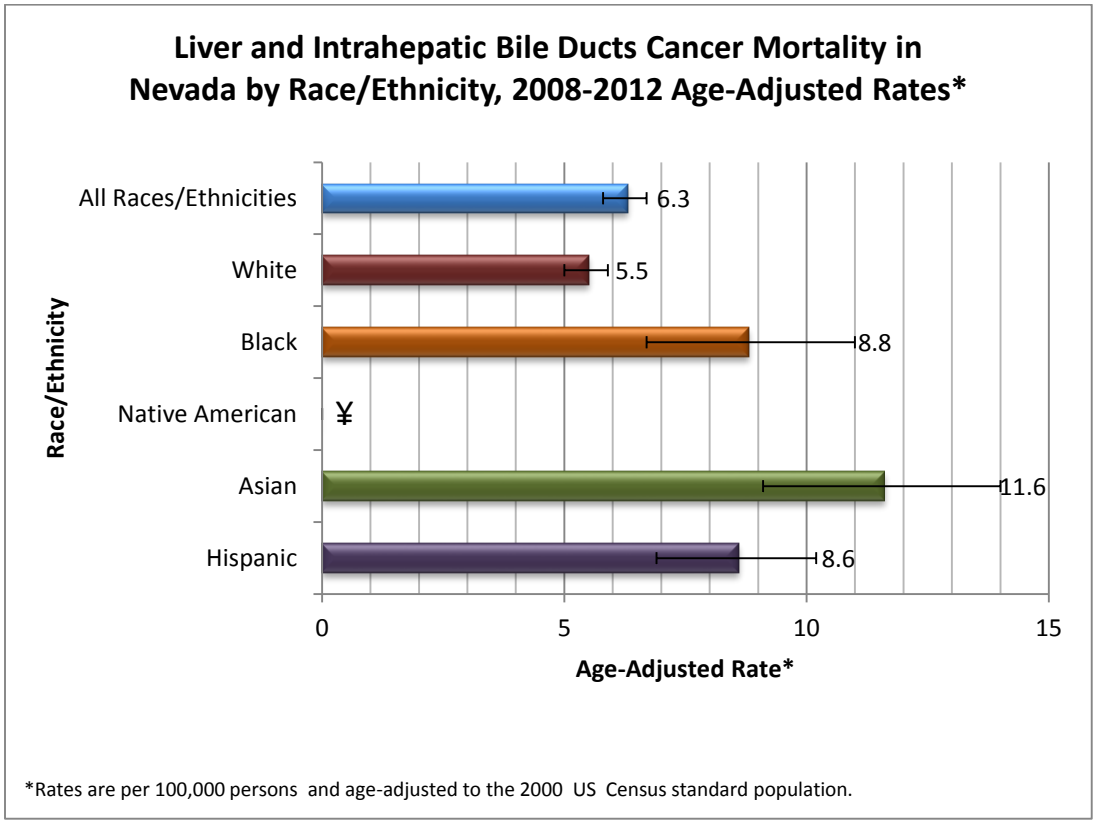
Liver and Intrahepatic Bile Ducts Cancer Mortality (All Races) by Age Group - Age-Adjusted Rates*, 2008-2012 (Regions ordered by population size)				
Age Groups	**Clark**	**Washoe**	**Carson City**	**Rural**
< 20	0	0	0	0
20 - 39	¥	¥	¥	0
40 - 64	6.3 (5.4-7.1)	8.9 (6.8-11.0)	¥	8.9 (6.5-11.3)
65 - 79	26.8 (23.3-30.2)	39.1 (29.7-48.4)	¥	23.6 (16.2-31.0)
80 +	41.7 (33.6-49.8)	53.2 (33.5-72.9)	¥	32.3 (15.9-48.6)
All Ages	5.8 (5.4-6.3)	8.2 (7.0-9.5)	8.2 (5.1-11.4)	6.0 (4.9-7.1)

¥ Counts more than zero or less than or equal to 5 or Rates with Relative Standard Error (RSE) >30% are suppressed; due to reliability and/or confidentiality issues.

* Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population.

LIVER AND INTRAHEPATIC BILE DUCTS CANCER MORTALITY SNAPSHOT

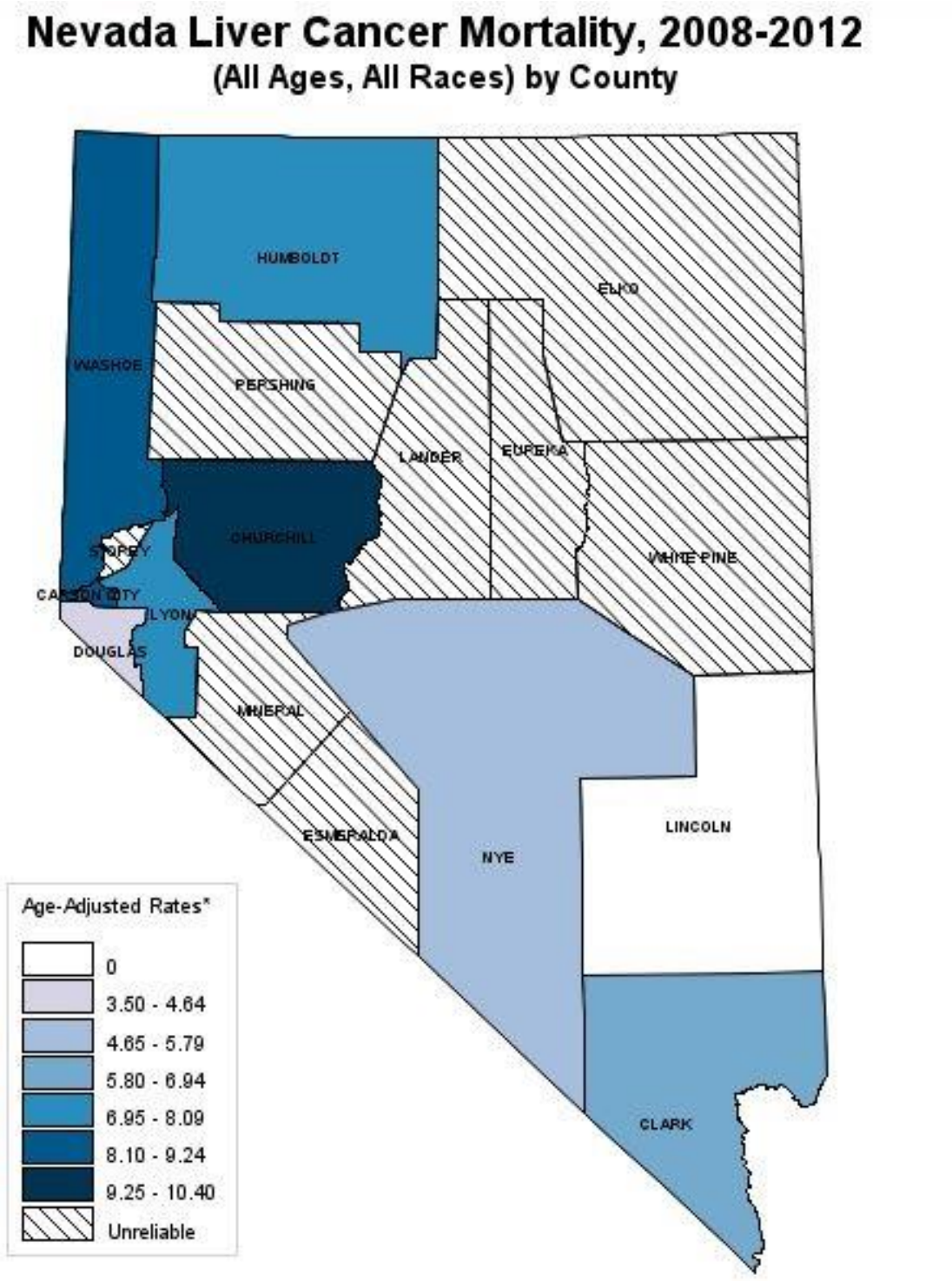
Table 9: Liver and Intrahepatic Bile Ducts Cancer Mortality Causes Annual Age-Adjusted Rates* by Race/Ethnicity, Nevada, 2008-2012.



*Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population.

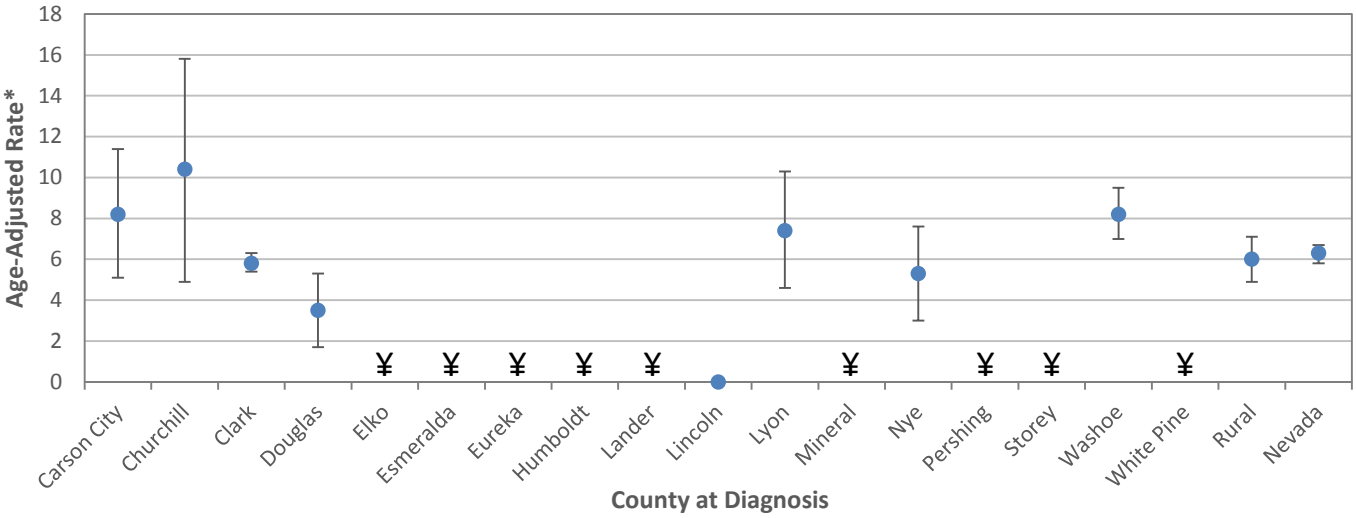
LIVER AND INTRAHEPATIC BILE DUCTS CANCER MORTALITY BY GEOGRAPHICAL DISTRIBUTION

Figure 9: Liver and Intrahepatic Bile Ducts Cancer Mortality Cumulative Annual Age-Adjusted Rates* by County, Nevada, 2008-2012.



*Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population (19 age grps.-CensusP25-1130).

Figure 10: Liver and Intrahepatic Bile Ducts Cancer Mortality by County, Age-Adjusted Rates*, Nevada, 2008-2012.



* Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population.

¥ Counts more than zero or less than or equal to 5 or Rates with Relative Standard Error (RSE) >30% are suppressed due to reliability and/or confidentiality issues.

Table 10: Liver and Intrahepatic Bile Ducts Cancer Mortality Cumulative Annual Age-Adjusted Rates* by County, Nevada, 2008-2012.

Nevada Liver and Intrahepatic Bile Ducts Cancer Mortality (All Ages, All Races) by County - Counts/Age-Adjusted Rates*, 2008-2012		
County	**Counts**	**Age Adj. Rate***
Carson City	26	8.2 (5.1-11.4)
Churchill	14	10.4 (4.9-15.8)
Clark	550	5.8 (5.4-6.3)
Douglas	14	3.5 (1.7-5.3)
Elko	9	¥
Esmeralda	¥	¥
Eureka	¥	¥
Humboldt	6	7.9 (1.6-14.2)
Lander	¥	¥
Lincoln	0	0
Lyon	26	7.4 (4.6-10.3)
Mineral	¥	¥
Nye	20	5.3 (3.0-7.6)
Pershing	¥	¥
Storey	¥	¥
Washoe	168	8.2 (7.0-9.5)
White Pine	¥	¥
Rural Counties	107	6.0 (4.9-7.1)

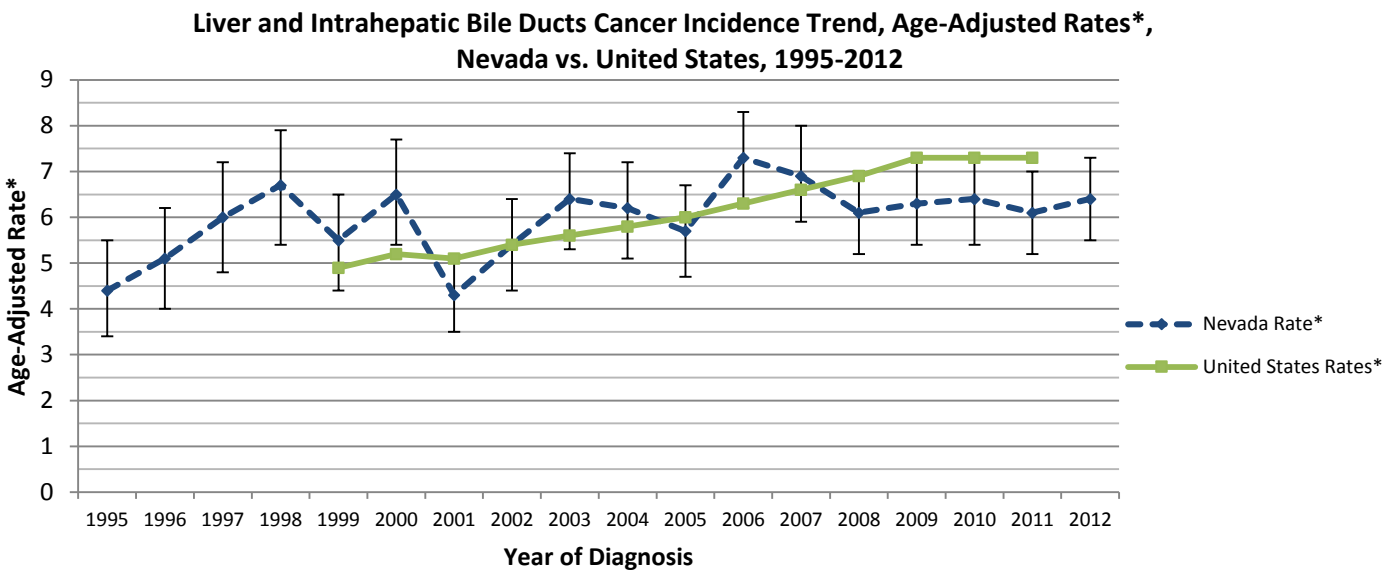
¥ Counts more than zero or less than or equal to 5 or Rates with Relative Standard Error (RSE) >30% are suppressed; due to reliability and/or confidentiality issues.

* Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population.

LIVER AND INTRAHEPATIC BILE DUCTS CANCER INCIDENCE

LIVER AND INTRAHEPATIC BILE DUCTS CANCER INCIDENCE

Figure 11: Liver and Intrahepatic Bile Ducts Cancer Incidence Trend, Nevada vs. United States, 1995-2012.



Sources: National Incidence Rates.- US Cancer Statistics Working Group:1999-2011 Incidence and Mortality Web-based Report. Available at: www.cdc.gov/uscs
Nevada Incidence Rates.- NDPBH, Office of Public Health Informatics and Epidemiology. Nevada Central Cancer Registry. Data extracted from 12/05/2014.
Nevada Populations.- Nevada Intercensal Population Estimates, Nevada State Demographer. Vintage 2013.

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Table 11: Liver and Intrahepatic Bile Ducts Cancer Incidence Age-Adjusted Rates* by year, Nevada and United States, 1995-2012.

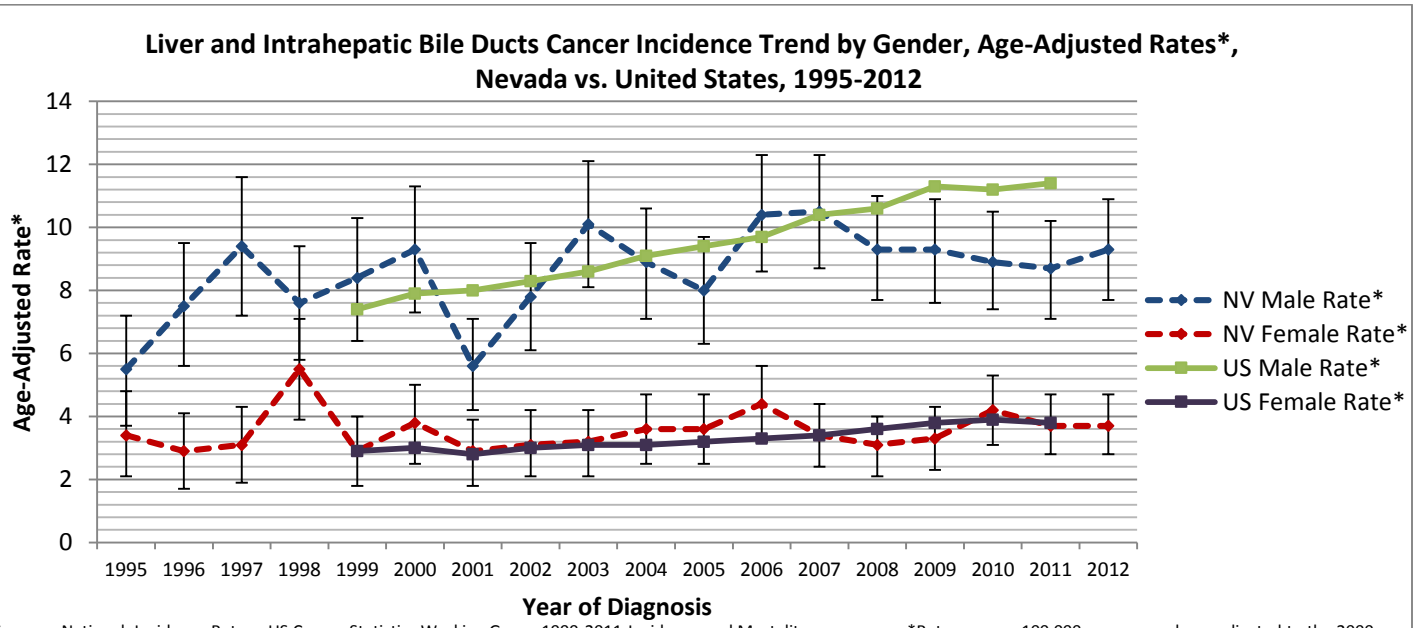
	1995	1996	1997	1998	1999	2000	2001	2002	2003
Nevada	4.4 (3.3-5.4)	5.1 (4.0-6.2)	6.0 (4.8-7.2)	6.7 (5.5-8.0)	5.5 (4.5-6.6)	6.5 (5.3-7.6)	4.3 (3.4-5.1)	5.4 (4.4-6.4)	6.4 (5.4-7.5)
United States					4.9 (4.9-5.0)	5.2 (5.1-5.3)	5.1 (5.1-5.2)	5.4 (5.3-5.5)	5.6 (5.5-5.7)

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Nevada	6.2 (5.2-7.3)	5.7 (4.7-6.7)	7.3 (6.3-8.4)	6.9 (5.8-7.9)	6.1 (5.2-7)	6.3 (5.3-7.2)	6.4 (5.5-7.4)	6.1 (5.2-7)	6.4 (5.5-7.3)
United States	5.8 (5.8-5.9)	6.0 (6.0-6.1)	6.3 (6.2-6.4)	6.6 (6.5-6.7)	6.9 (6.8-7.0)	7.3 (7.2-7.4)	7.3 (7.2-7.4)	7.3 (7.3-7.4)	

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

LIVER AND INTRAHEPATIC BILE DUCTS CANCER INCIDENCE BY GENDER

Figure 12: Liver and Intrahepatic Bile Ducts Cancer Incidence Trend by Gender, Age-Adjusted Rates*, Nevada vs. United States, 1995-2012.



Sources: National Incidence Rates.- US Cancer Statistics Working Group:1999-2011 Incidence and Mortality Web-based Report. Available at: www.cdc.gov/uscs
Nevada Incidence Rates.- NDPBH, Office of Public Health Informatics and Epidemiology. Nevada Central Cancer Registry. Data extracted from 12/05/2014.
Nevada Populations.- Nevada Intercensal Population Estimates, Nevada State Demographer. Vintage 2013.

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Table 12: Liver and Intrahepatic Bile Ducts Cancer Incidence Trend by Gender, Age-Adjusted Rates*, Nevada and United States, 1995-2012.

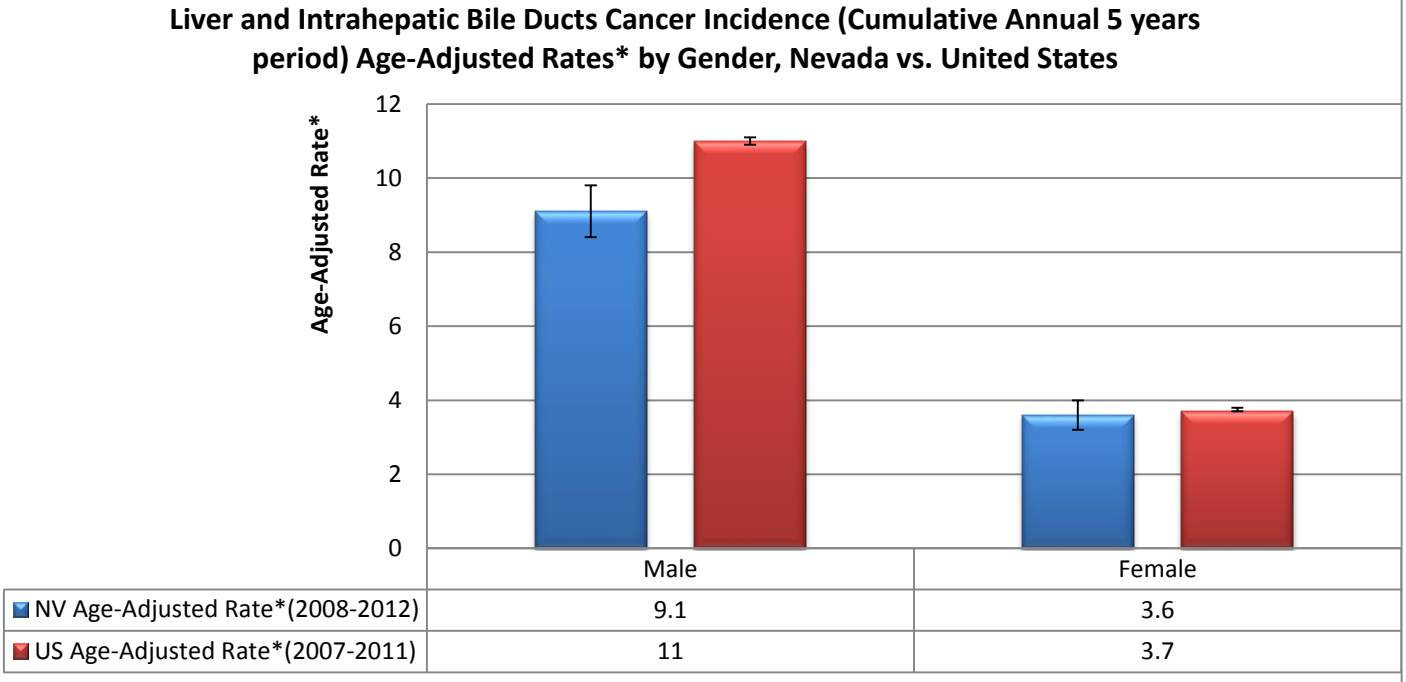
	1995	1996	1997	1998	1999	2000	2001	2002	2003
Nevada Male	5.5 (3.8-7.3)	7.5 (5.5-9.4)	9.4 (7.2-11.6)	7.6 (5.8-9.4)	8.4 (6.5-10.4)	9.3 (7.3-11.3)	5.6 (4.1-7)	7.8 (6.1-9.5)	10.1 (8.1-12.1)
Nevada Female	3.4 (2.0-4.7)	2.9 (1.7-4.1)	3.1 (1.9-4.3)	5.5 (3.9-7.1)	2.9 (1.8-4.0)	3.8 (2.6-5.1)	2.9 (1.9-4.0)	3.1 (2.0-4.1)	3.2 (2.2-4.3)
United States Male					7.4 (7.2-7.6)	7.9 (7.8-8.1)	8.0 (7.8-8.1)	8.3 (8.2-8.5)	8.6 (8.4-8.7)
United States Female					2.9 (2.9-3.0)	3.0 (2.9-3.1)	2.8 (2.8-2.9)	3.0 (2.9-3.1)	3.1 (3.0-3.2)

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Nevada Male	8.9 (7.2-10.7)	8.0 (6.3-9.7)	10.4 (8.5-12.2)	10.5 (8.7-12.3)	9.3 (7.6-10.9)	9.3 (7.7-11)	8.9 (7.3-10.4)	8.7 (7.2-10.3)	9.3 (7.7-10.9)
Nevada Female	3.6 (2.5-4.7)	3.6 (2.5-4.7)	4.4 (3.2-5.6)	3.4 (2.4-4.4)	3.1 (2.2-4.1)	3.3 (2.3-4.3)	4.2 (3.1-5.3)	3.7 (2.7-4.6)	3.7 (2.7-4.6)
United States Male	9.1 (8.9-9.2)	9.4 (9.3-9.6)	9.7 (9.6-9.9)	10.4 (10.2-10.6)	10.6 (10.5-10.8)	11.3 (11.1-11.4)	11.2 (11.0-11.3)	11.4 (11.2-11.5)	
United States Female	3.1 (3.0-3.2)	3.2 (3.1-3.3)	3.3 (3.2-3.4)	3.4 (3.3-3.5)	3.6 (3.5-3.7)	3.8 (3.7-3.9)	3.9 (3.8-4.0)	3.8 (3.7-3.9)	

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

LIVER AND INTRAHEPATIC BILE DUCTS CANCER INCIDENCE BY GENDER, 2008-2012

Figure 13: Liver and Intrahepatic Bile Ducts Cancer Incidence (Cumulative Annual 5 years period) Age-Adjusted Rates* by Gender, Nevada vs. United States.



Sources: National Incidence Rates.- US Cancer Statistics Working Group:1999-2011 Incidence and Mortality Web-based Report. Available at: www.cdc.gov/uscs
Nevada Incidence Rates.- NDPBH, Office of Public Health Informatics and Epidemiology. Nevada Central Cancer Registry. Data extracted from 12/05/2014.
Nevada Populations.- Nevada Intercensal Population Estimates, Nevada State Demographer. Vintage 2013.

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Notice: Most up-to-date data available for United States Cancer mortality is 2007-2011 and must be carefully compared.

Table 13: Liver and Intrahepatic Bile Ducts Cancer Incidence by Region and Gender. Cumulative Annual Age-Adjusted Rates* Nevada Geo-demographical Regions.

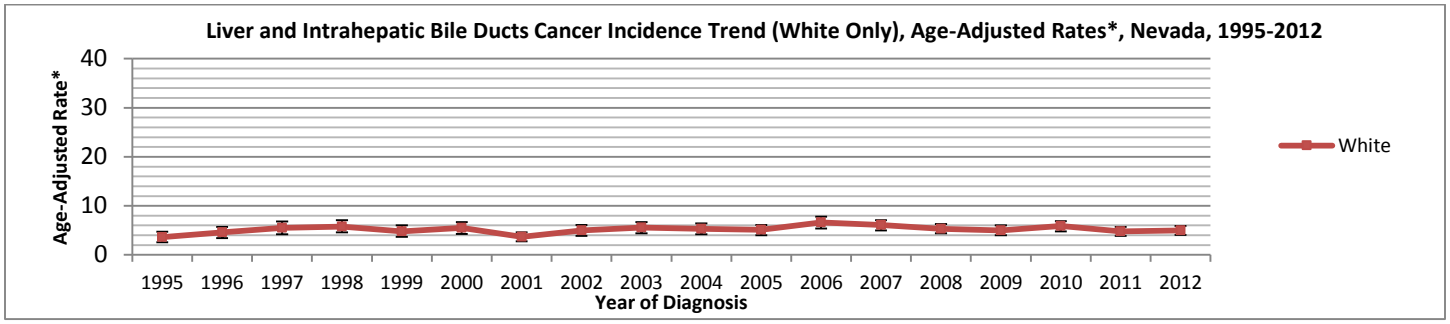
Liver and Intrahepatic Bile Ducts Cancer Incidence (All Ages, All Races) by Gender - Age-Adjusted Rates*, Nevada, 2008-2012 (Regions ordered by population size)				
Gender	**Clark**	**Washoe**	**Carson City**	**Rural**
Male	9.0 (8.1-9.9)	10.9 (9.0-12.9)	8.4 (3.8-13.0)	7.5 (5.7-9.2)
Female	3.5 (3.0-4.0)	3.8 (2.6-5.0)	¥	3.8 (2.5-5.1)
All Genders	6.1 (5.6-6.6)	7.2 (6.1-8.4)	6.3 (3.6-9.1)	5.6 (4.5-6.7)

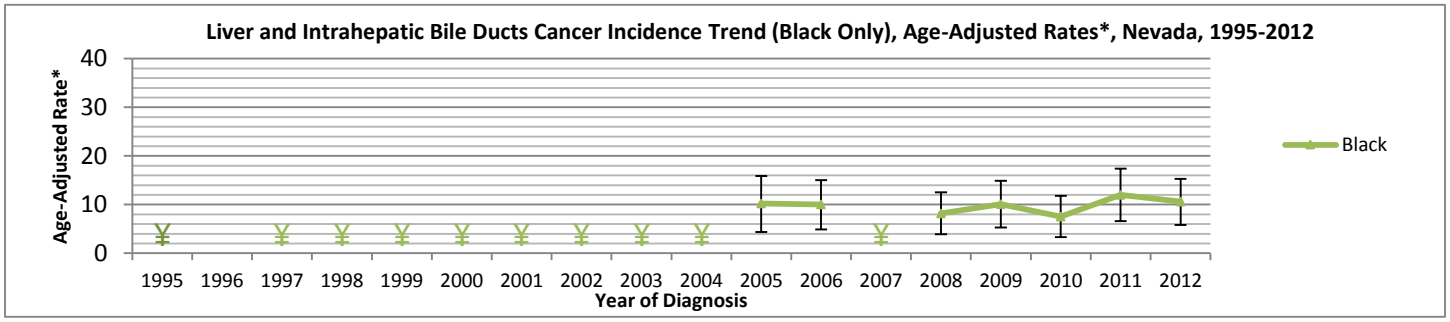
¥ Counts more than zero or less than or equal to 5 or Rates with Relative Standard Error (RSE) >30% are suppressed; due to reliability and/or confidentiality issues.

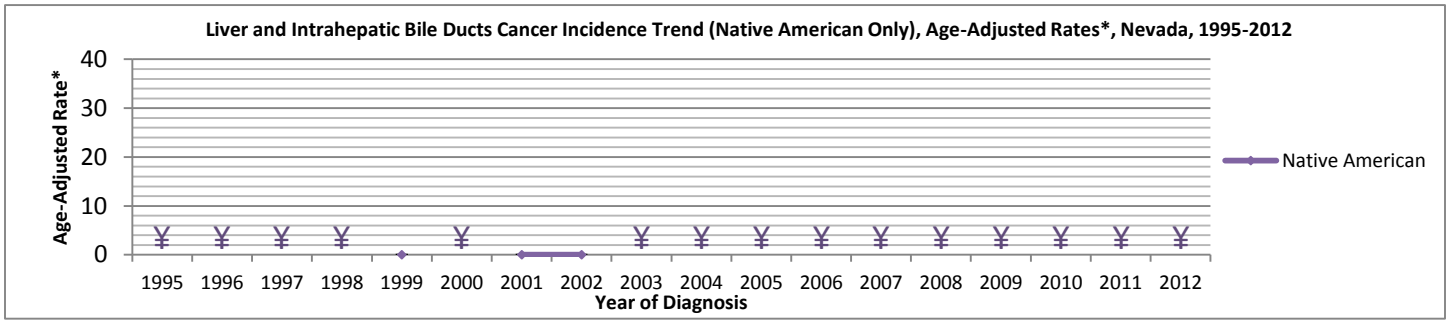
* Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population.

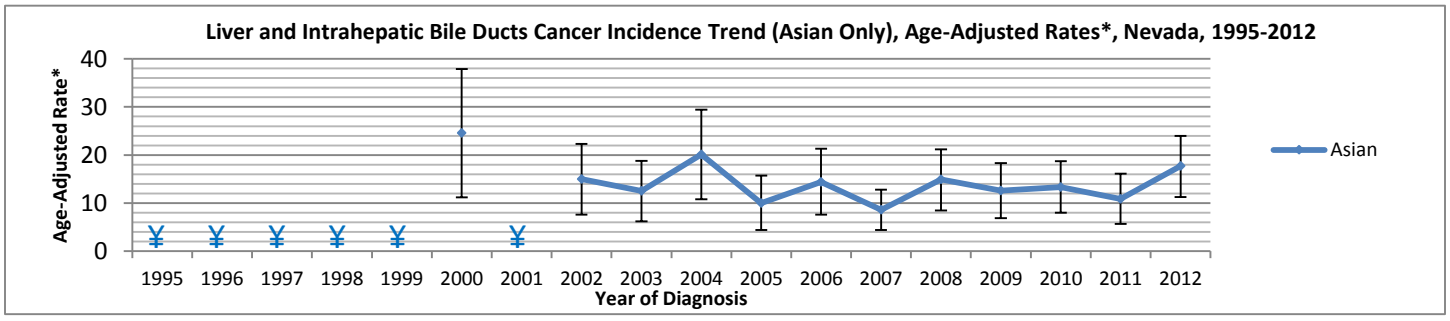
LIVER AND INTRAHEPATIC BILE DUCTS CANCER INCIDENCE TREND BY RACE/ETHNICITY

Figure 14: Liver and Intrahepatic Bile Ducts Cancer Incidence Trend by Race/Ethnicity, Confidence Intervals, Age-Adjusted Rates*, Nevada, 1995-2012.









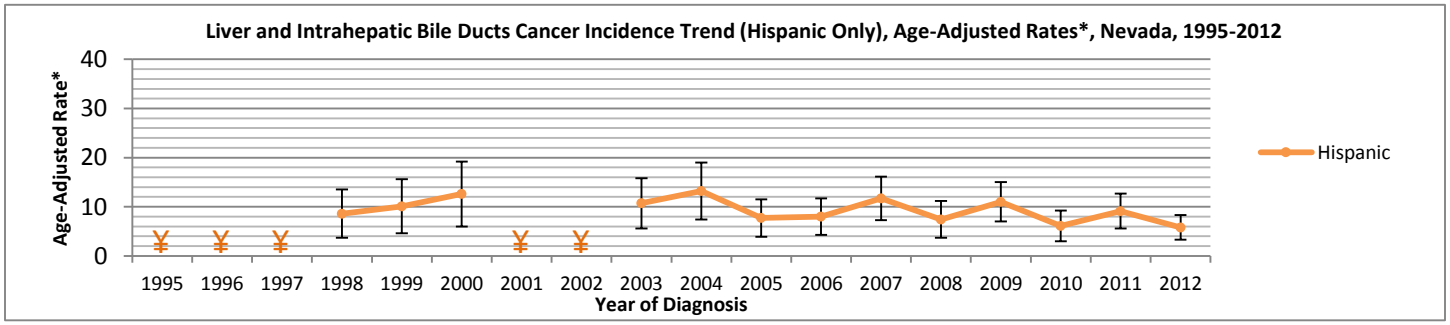
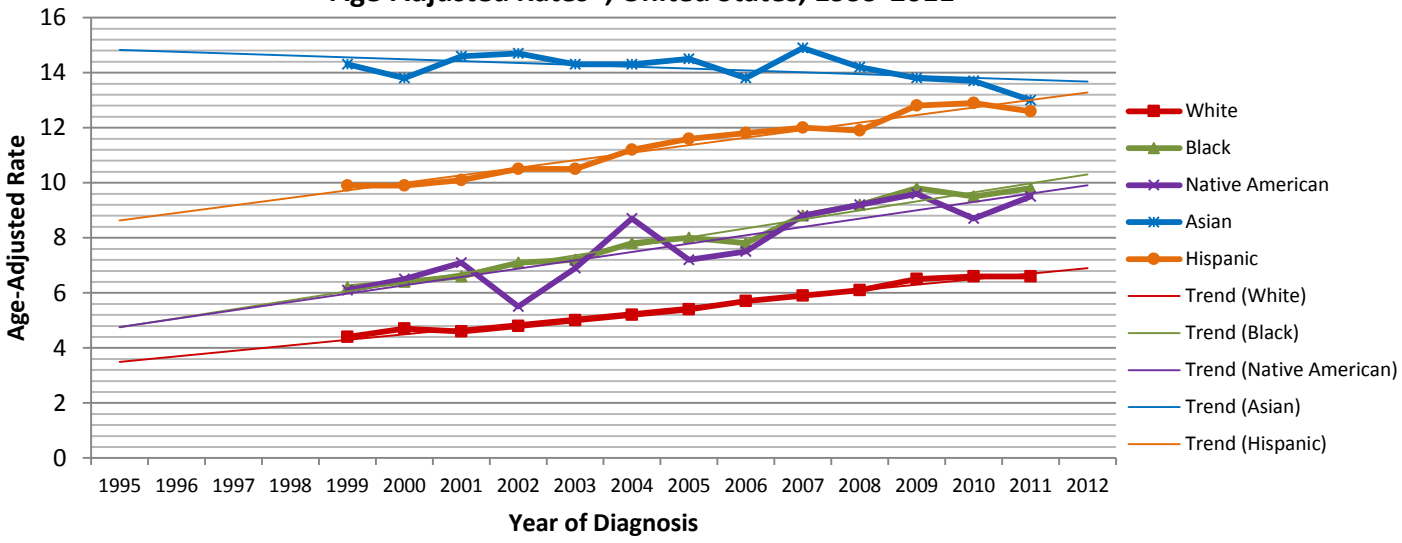


Figure 15: Liver and Intrahepatic Bile Ducts Cancer Incidence Trend by Race/Ethnicity, Age-Adjusted Rates*, United States, 1999-2011.



Sources: National Incidence Rates.- US Cancer Statistics Working Group:1999-2011 Incidence and Mortality Web-based Report. Available at: www.cdc.gov/uscs
Nevada Incidence Rates.- NDPBH, Office of Public Health Informatics and Epidemiology. Nevada Central Cancer Registry. Data extracted from 12/05/2014.
Nevada Populations.- Nevada Intercensal Population Estimates, Nevada State Demographer. Vintage 2013.

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Table 14: Liver and Intrahepatic Bile Ducts Cancer Incidence Annual Age-Adjusted Rates* by Race/Ethnicity, Nevada, 1995-2012.

Nevada	1995	1996	1997	1998	1999	2000	2001	2002	2003
White	3.6 (2.6-4.7)	4.6 (3.4-5.7)	5.5 (4.2-6.8)	5.8 (4.6-7.1)	4.8 (3.7-6)	5.5 (4.3-6.7)	3.7 (2.8-4.6)	5.0 (3.9-6.1)	5.6 (4.4-6.7)
Black	¥	0	¥	¥	¥	¥	¥	¥	¥
Native American	¥	¥	¥	¥	0	¥	0	0	¥
Asian	¥	¥	¥	¥	¥	24.6 (11.2-37.9)	¥	15.0 (7.6-22.3)	12.5 (6.2-18.8)
Hispanic	¥	¥	¥	8.6 (3.7-13.5)	10.1 (4.6-15.6)	12.6 (6.0-19.2)	¥	¥	10.7 (5.6-15.8)

Nevada	2004	2005	2006	2007	2008	2009	2010	2011	2012
White	5.3 (4.2-6.4)	5.1 (4.0-6.1)	6.6 (5.4-7.8)	6.1 (5.0-7.1)	5.3 (4.4-6.3)	5.0 (4.0-6.0)	5.9 (4.8-6.9)	4.8 (3.9-5.7)	5.0 (4.1-5.9)
Black	¥	10.2 (4.4-15.9)	10 (4.9-15.0)	¥	8.2 (3.9-12.5)	10.1 (5.3-14.9)	7.5 (3.3-11.8)	12 (6.6-17.4)	10.6 (5.8-15.3)
Native American	¥	¥	¥	¥	¥	¥	¥	¥	¥
Asian	20.1 (10.8-29.4)	10.0 (4.4-15.7)	14.4 (7.6-21.3)	8.6 (4.4-12.8)	14.9 (8.5-21.2)	12.6 (6.9-18.3)	13.3 (8.0-18.7)	10.9 (5.7-16.1)	17.7 (11.3-24.0)
Hispanic	13.2 (7.4-19.0)	7.7 (3.9-11.5)	8.0 (4.3-11.7)	11.7 (7.3-16.1)	7.4 (3.7-11.2)	11.0 (7.0-15.0)	6.1 (3.0-9.2)	9.1 (5.6-12.7)	5.8 (3.3-8.3)

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Table 15: Liver and Intrahepatic Bile Ducts Cancer Incidence Annual Age-Adjusted Rates* by Race/Ethnicity, United States, 1999-2011.

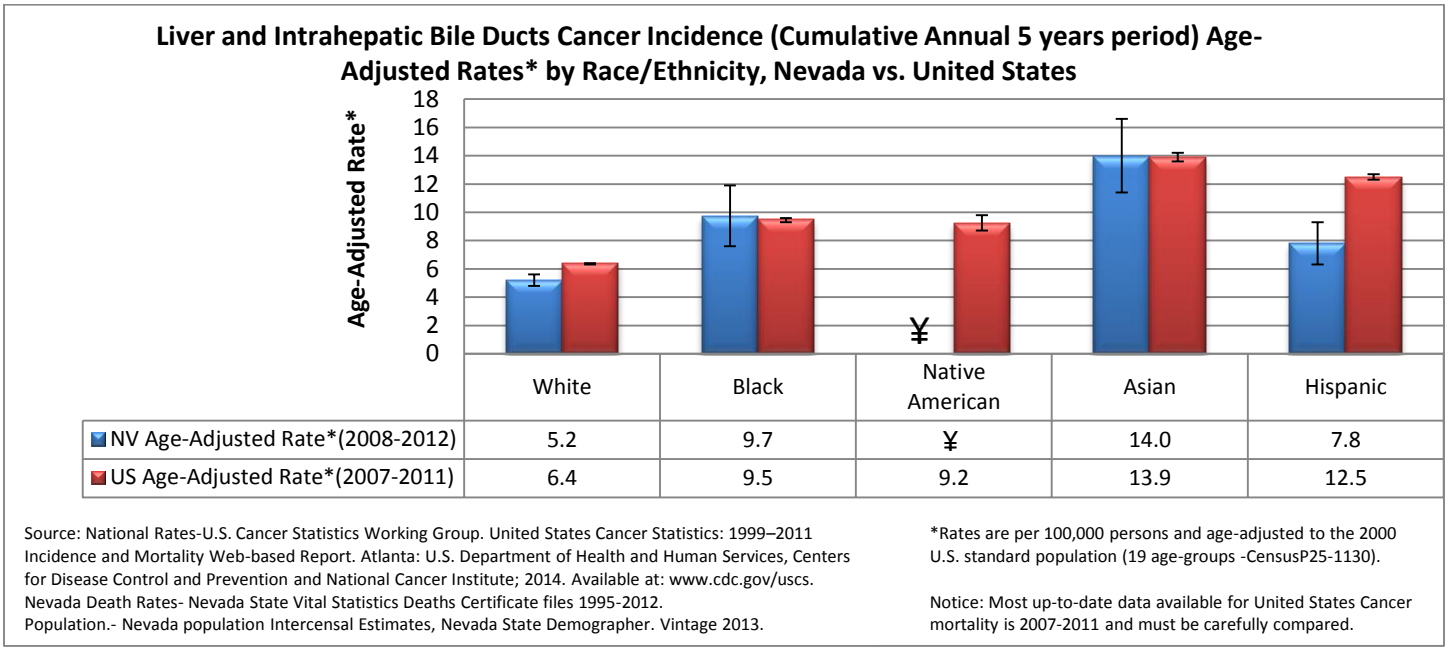
United States	1995	1996	1997	1998	1999	2000	2001	2002	2003
White					4.4 (4.3-4.5)	4.7 (4.6-4.8)	4.6 (4.5-4.7)	4.8 (4.7-4.9)	5.0 (4.9-5.1)
Black					6.2 (5.9-6.5)	6.4 (6.1-6.8)	6.6 (6.3-6.9)	7.1 (6.7-7.4)	7.2 (6.9-7.5)
Native American					6.1 (4.8-7.7)	6.5 (5.2-8.0)	7.1 (5.8-8.6)	5.5 (4.4-6.8)	6.9 (5.7-8.2)
Asian					14.3 (13.4-15.2)	13.8 (13.0-14.6)	14.6 (13.7-15.4)	14.7 (13.9-15.5)	14.3 (13.6-15.1)
Hispanic					9.9 (9.4-10.5)	9.9 (9.4-10.4)	10.1 (9.6-10.6)	10.5 (10.0-11.0)	10.5 (10.0-10.9)

United States	2004	2005	2006	2007	2008	2009	2010	2011	2012
White	5.2 (5.1-5.3)	5.4 (5.3-5.5)	5.7 (5.6-5.8)	5.9 (5.8-6.0)	6.1 (6.0-6.2)	6.5 (6.4-6.6)	6.6 (6.5-6.6)	6.6 (6.5-6.7)	
Black	7.8 (7.5-8.1)	8.0 (7.7-8.4)	7.8 (7.5-8.1)	8.8 (8.5-9.2)	9.2 (8.9-9.5)	9.8 (9.5-10.1)	9.5 (9.2-9.8)	9.8 (9.5-10.2)	
Native American	8.7 (7.3-10.2)	7.2 (6.0-8.6)	7.5 (6.3-8.8)	8.8 (7.6-10.2)	9.2 (8.0-10.6)	9.6 (8.4-10.9)	8.7 (7.5-9.9)	9.5 (8.4-10.8)	
Asian	14.3 (13.6-15.1)	14.5 (13.7-15.2)	13.8 (13.1-14.5)	14.9 (14.2-15.6)	14.2 (13.5-14.9)	13.8 (13.2-14.5)	13.7 (13.1-14.4)	13.0 (12.4-13.6)	
Hispanic	11.2 (10.7-11.7)	11.6 (11.1-12.1)	11.8 (11.4-12.3)	12.0 (11.5-12.4)	11.9 (11.4-12.3)	12.8 (12.4-13.2)	12.9 (12.5-13.4)	12.6 (12.2-13.0)	

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

LIVER AND INTRAHEPATIC BILE DUCTS CANCER INCIDENCE TREND BY RACE/ETHNICITY, 2008-2012

Figure 16: Liver and Intrahepatic Bile Ducts Cancer Incidence (Cumulative Annual 5 years period) Age-Adjusted Rates* by Race/Ethnicity, Nevada vs. United States.



	White	Black	Native American	Asian	Hispanic
NV Age-Adjusted Rate*(2008-2012)	5.2	9.7	¥	14.0	7.8
US Age-Adjusted Rate*(2007-2011)	6.4	9.5	9.2	13.9	12.5

Source: National Rates-U.S. Cancer Statistics Working Group. United States Cancer Statistics: 1999–2011 Incidence and Mortality Web-based Report. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014. Available at: www.cdc.gov/uscs.
Nevada Death Rates- Nevada State Vital Statistics Deaths Certificate files 1995-2012.
Population.- Nevada population Intercensal Estimates, Nevada State Demographer. Vintage 2013.

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Notice: Most up-to-date data available for United States Cancer mortality is 2007-2011 and must be carefully compared.

LIVER AND INTRAHEPATIC BILE DUCTS CANCER INCIDENCE BY REGION, BY RACE/ETHNICITY IN NEVADA, 2008-2012

Table 16: Liver and Intrahepatic Bile Ducts Cancer Incidence by Region and by Race/Ethnicity, Age-Adjusted Rates*, Nevada Geo-demographical Regions, 2008-2012

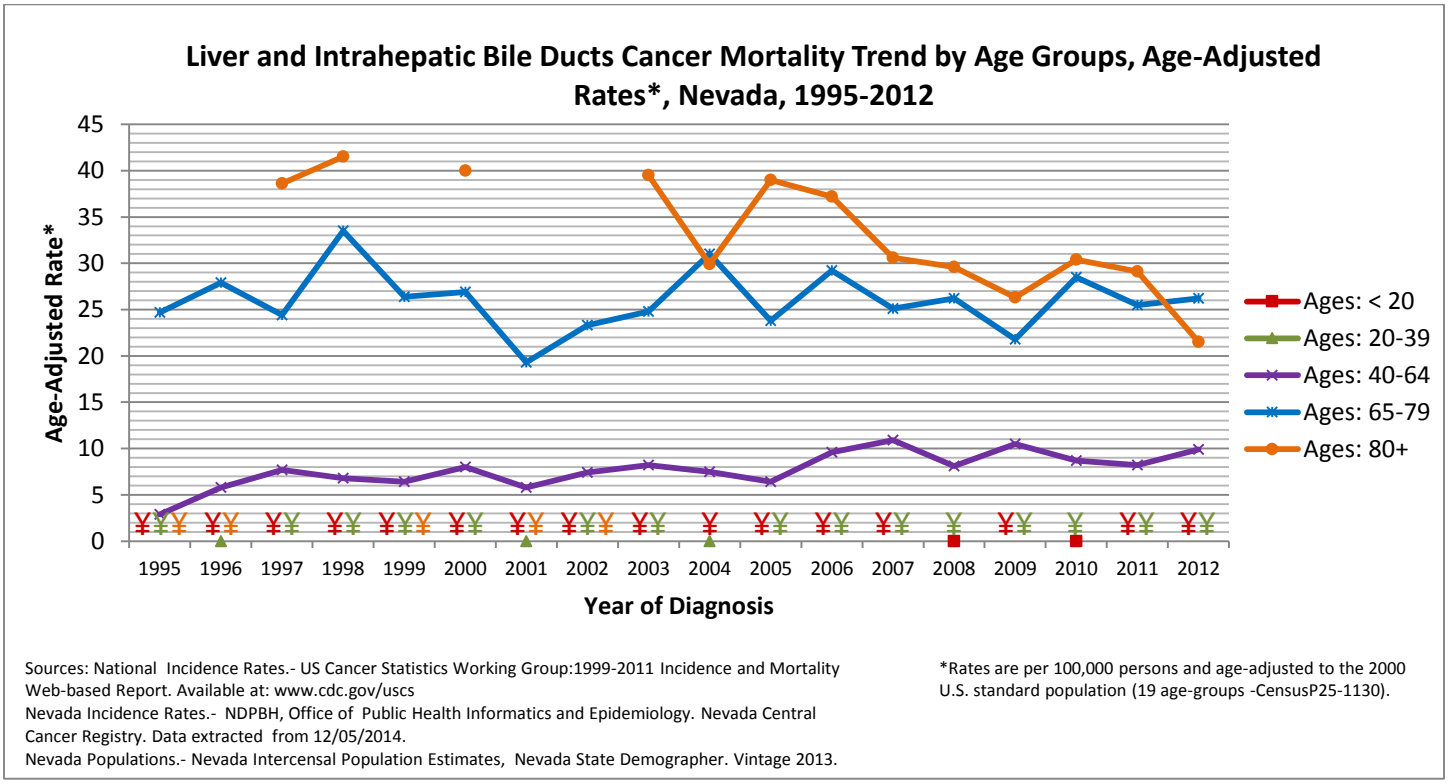
Liver and Intrahepatic Bile Ducts Cancer Incidence (All Ages, All Races) by Races - Age-Adjusted Rates*, 2008-2012 (Regions ordered by population size)				
Race/Ethnicity	**Clark**	**Washoe**	**Carson City**	**Rural**
White	4.8 (4.3-5.3)	6.6 (5.4-7.8)	5.2 (2.6-7.7)	5.3 (4.2-6.4)
Black	8.9 (6.9-11.0)	¥	¥	¥
Native American	¥	¥	0	¥
Asian	14.6 (11.6-17.5)	10.7 (4.6-16.7)	¥	¥
Hispanic	7.7 (6.0-9.4)	8.7 (4.4-12.9)	¥	¥
All Races/Ethnicities	6.1 (5.6-6.6)	7.2 (6.1-8.4)	6.3 (3.6-9.1)	5.6 (4.5-6.7)

¥ Counts more than zero or less than or equal to 5 or Rates with Relative Standard Error (RSE) >30% are suppressed; due to reliability and/or confidentiality issues.

* Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population.

LIVER AND INTRAHEPATIC BILE DUCTS INCIDENCE TREND BY AGE GROUPS, 1995-2012

Figure 17: Liver and Intrahepatic Bile Ducts Cancer Incidence Trend by Age Groups, Age-Adjusted Rates*, Nevada, 1995-2012.



Sources: National Incidence Rates.- US Cancer Statistics Working Group:1999-2011 Incidence and Mortality Web-based Report. Available at: www.cdc.gov/uscs
Nevada Incidence Rates.- NDPBH, Office of Public Health Informatics and Epidemiology. Nevada Central Cancer Registry. Data extracted from 12/05/2014.
Nevada Populations.- Nevada Intercensal Population Estimates, Nevada State Demographer. Vintage 2013.

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Table 17: Liver and Intrahepatic Bile Ducts Cancer Incidence Annual Age-Adjusted Rates* by Age Groups, Nevada, 1995-2012.

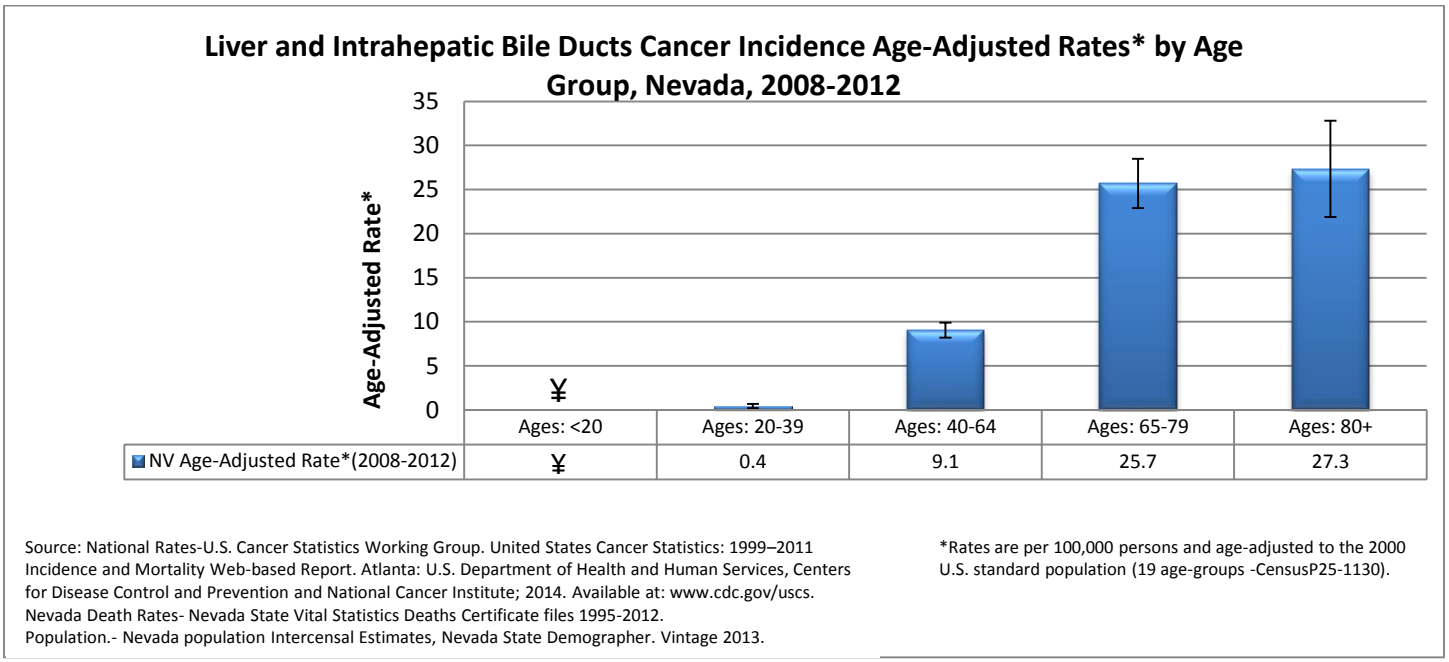
Nevada	1995	1996	1997	1998	1999	2000	2001	2002	2003
< 20	¥	¥	¥	¥	¥	¥	¥	¥	¥
20 - 39	¥	0	¥	¥	¥	¥	0	¥	¥
40 - 64	2.9 (1.4-4.5)	5.8 (3.7-7.9)	7.7 (5.3-10.0)	6.8 (4.7-9.0)	6.4 (4.4-8.5)	8.0 (5.8-10.1)	5.8 (4.0-7.7)	7.4 (5.3-9.4)	8.2 (6.1-10.3)
65 - 79	24.7 (16.5-32.8)	27.9 (19.5-36.4)	24.4 (16.6-32.1)	33.5 (24.7-42.3)	26.4 (18.7-34.1)	26.9 (19.3-34.5)	19.3 (13.0-25.6)	23.3 (16.5-30.2)	24.8 (17.8-31.8)
80 +	¥	¥	38.6 (17.6-59.6)	41.5 (20.5-62.6)	¥	40.0 (21.0-59.0)	¥	¥	39.5 (22.2-56.8)

Nevada	2004	2005	2006	2007	2008	2009	2010	2011	2012
< 20	¥	¥	¥	¥	0	¥	0	¥	¥
20 - 39	0	¥	¥	¥	¥	¥	¥	¥	¥
40 - 64	7.5 (5.5-9.4)	6.4 (4.6-8.2)	9.6 (7.5-11.7)	10.9 (8.7-13)	8.1 (6.2-9.9)	10.5 (8.4-12.5)	8.7 (6.8-10.5)	8.2 (6.4-9.9)	9.9 (8.0-11.9)
65 - 79	31.0 (23.4-38.7)	23.8 (17.1-30.4)	29.2 (22.0-36.3)	25.1 (18.6-31.6)	26.2 (19.7-32.7)	21.8 (15.8-27.8)	28.5 (21.9-35.2)	25.5 (19.3-31.7)	26.2 (20.1-32.3)
80 +	29.9 (15.7-44.2)	39 (23.7-54.3)	37.2 (22.3-52.1)	30.6 (17.2-44.0)	29.6 (16.6-42.6)	26.3 (14.2-38.5)	30.4 (17.7-43.1)	29.1 (16.6-41.5)	21.5 (11.0-32.1)

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

LIVER AND INTRAHEPATIC BILE DUCTS CANCER INCIDENCE BY AGE GROUPS, 2008-2012

Figure 18: Liver and Intrahepatic Bile Ducts Cancer Incidence by Age Groups, Cumulative Annual Age-Adjusted Rates*, Nevada, 2008-2012.



Source: National Rates-U.S. Cancer Statistics Working Group. United States Cancer Statistics: 1999–2011 Incidence and Mortality Web-based Report. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014. Available at: www.cdc.gov/uscs.
Nevada Death Rates- Nevada State Vital Statistics Deaths Certificate files 1995-2012.
Population.- Nevada population Intercensal Estimates, Nevada State Demographer. Vintage 2013.

*Rates are per 100,000 persons and age-adjusted to the 2000 U.S. standard population (19 age-groups -CensusP25-1130).

Table 18: Liver and Intrahepatic Bile Ducts Cancer Incidence by Region and by Age Groups, Age-Adjusted Rates*, Nevada Geo-demographical Regions, 2008-2012

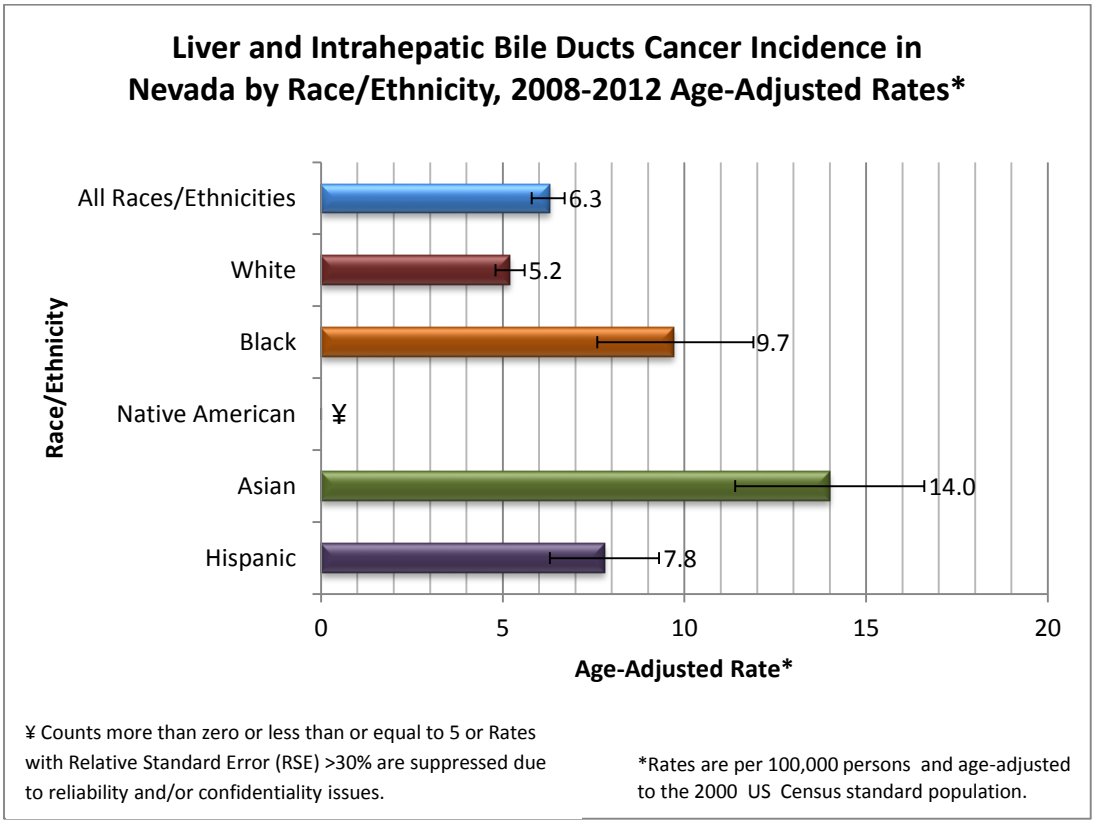
Liver and Intrahepatic Bile Ducts Cancer Incidence (All Races) by Age Group - Age-Adjusted Rates*, 2008-2012 (Regions ordered by population size)				
Age Groups	**Clark**	**Washoe**	**Carson City**	**Rural**
< 20	¥	¥	0	0
20 - 39	0.6 (0.3-0.8)	¥	0	0
40 - 64	8.7 (7.7-9.7)	10.7 (8.4-13)	¥	8.8 (6.4-11.2)
65 - 79	24.4 (21.1-27.7)	30.8 (22.5-39.1)	¥	24.9 (17.4-32.5)
80 +	29.1 (22.4-35.9)	30.1 (15.4-44.9)	¥	¥
All Ages	6.1 (5.6-6.6)	7.2 (6.1-8.4)	6.3 (3.6-9.1)	5.6 (4.5-6.7)

¥ Counts more than zero or less than or equal to 5 or Rates with Relative Standard Error (RSE) >30% are suppressed; due to reliability and/or confidentiality issues.

* Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population.

LIVER AND INTRAHEPATIC BILE DUCTS CANCER INCIDENCE SNAPSHOT

Table 19: Liver and Intrahepatic Bile Ducts Cancer Incidence Causes Annual Age-Adjusted Rates* by Race/Ethnicity, Nevada, 2008-2012.

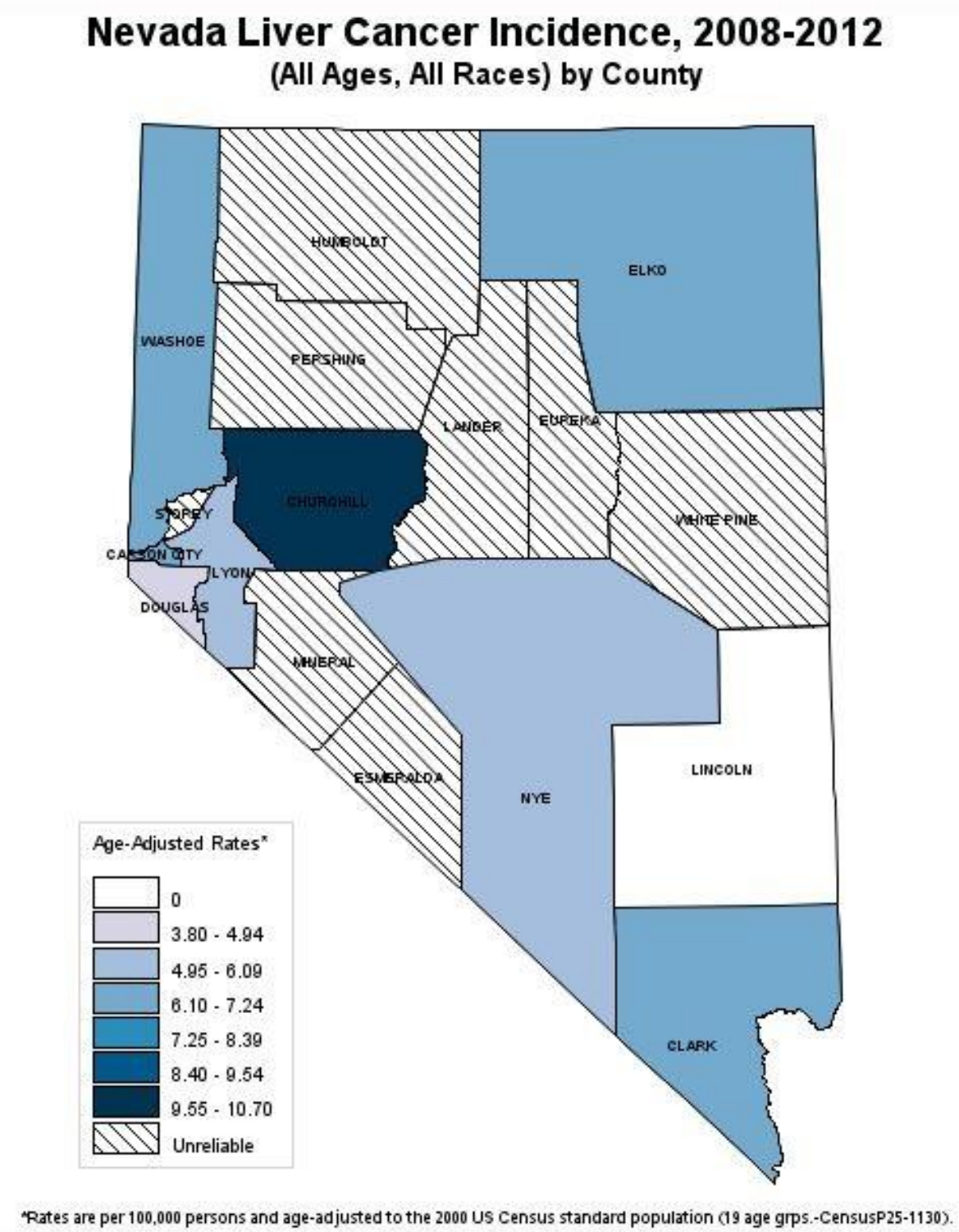


¥ Counts more than zero or less than or equal to 5 or Rates with Relative Standard Error (RSE) >30% are suppressed due to reliability and/or confidentiality issues.

*Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population.

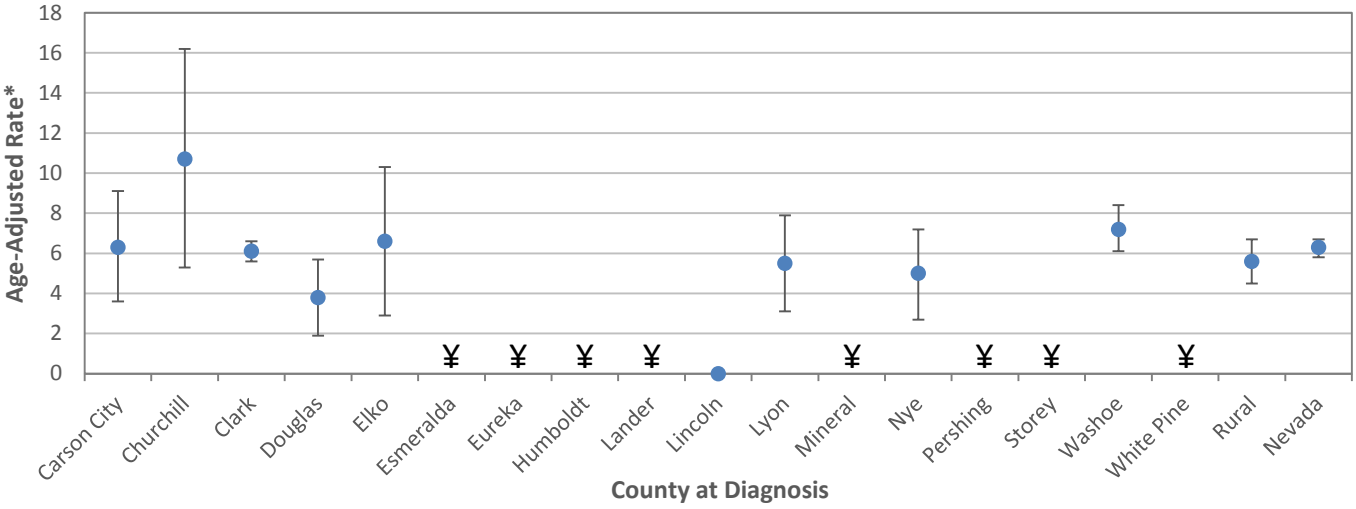
LIVER AND INTRAHEPATIC BILE DUCTS CANCER INCIDENCE BY GEOGRAPHICAL DISTRIBUTION

Figure 19: Liver and Intrahepatic Bile Ducts Cancer Incidence Cumulative Annual Age-Adjusted Rates* by County, Nevada, 2008-2012.



*Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population (19 age grps.-CensusP25-1130).

Figure 20: Liver and Intrahepatic Bile Ducts Cancer Incidence by County, Age-Adjusted Rates*, Nevada, 2008-2012.



* Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population.

¥ Counts more than zero or less than or equal to 5 or Rates with Relative Standard Error (RSE) >30% are suppressed due to reliability and/or confidentiality issues.

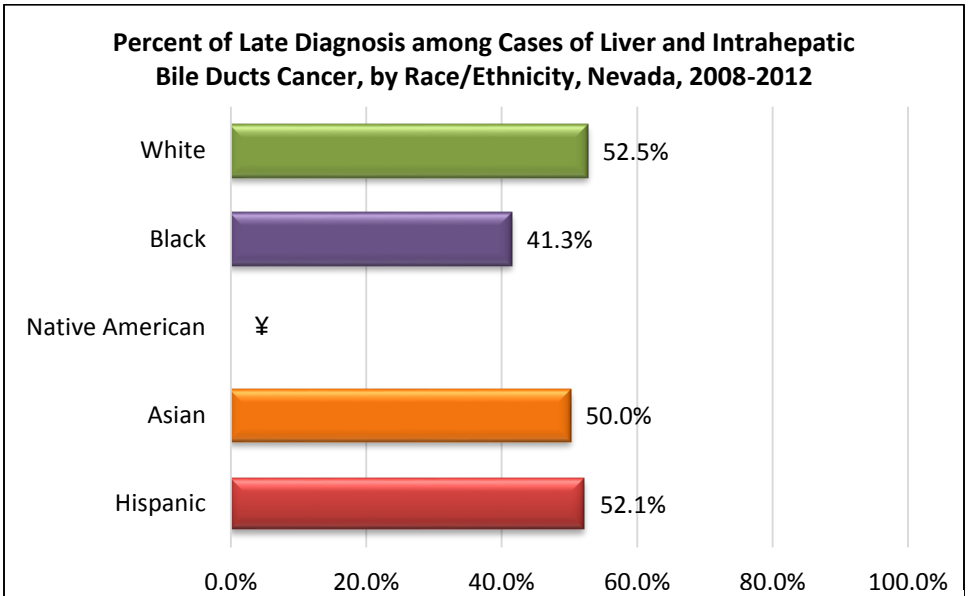
Table 20: Liver and Intrahepatic Bile Ducts Cancer Incidence Cumulative Annual Age-Adjusted Rates* by County, Nevada, 2008-2012.

Nevada Liver and Intrahepatic Bile Ducts Cancer Incidence (All Ages, All Races) by County - Counts/Age-Adjusted Rates*, 2008-2012		
County	**Counts**	**Age Adj. Rate***
Carson City	21	6.3 (3.6-9.1)
Churchill	15	10.7 (5.3-16.2)
Clark	600	6.1 (5.6-6.6)
Douglas	15	3.8 (1.9-5.7)
Elko	12	6.6 (2.9-10.3)
Esmeralda	¥	¥
Eureka	¥	¥
Humboldt	¥	¥
Lander	¥	¥
Lincoln	0	0
Lyon	20	5.5 (3.1-7.9)
Mineral	¥	¥
Nye	19	5.0 (2.7-7.2)
Pershing	¥	¥
Storey	¥	¥
Washoe	156	7.2 (6.1-8.4)
White Pine	¥	¥
Rural Counties	103	5.6 (4.5-6.7)

¥ Counts more than zero or less than or equal to 5 or Rates with Relative Standard Error (RSE) >30% are suppressed; due to reliability and/or confidentiality issues.

* Rates are per 100,000 persons and age-adjusted to the 2000 US Census standard population.

Figure 21: Percent of Late Diagnosis among Cases of Liver and Intrahepatic Bile Ducts Cancer, by Race/Ethnicity, Nevada, 2008-2012



¥ Counts more than zero or less than or equal to 5, or percentages with Relative Standard Error (RSE)≥30% are supressed due to reliability or confidentiality issues.

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