

Utah Statewide Substance Abuse Epidemiology Profile Report



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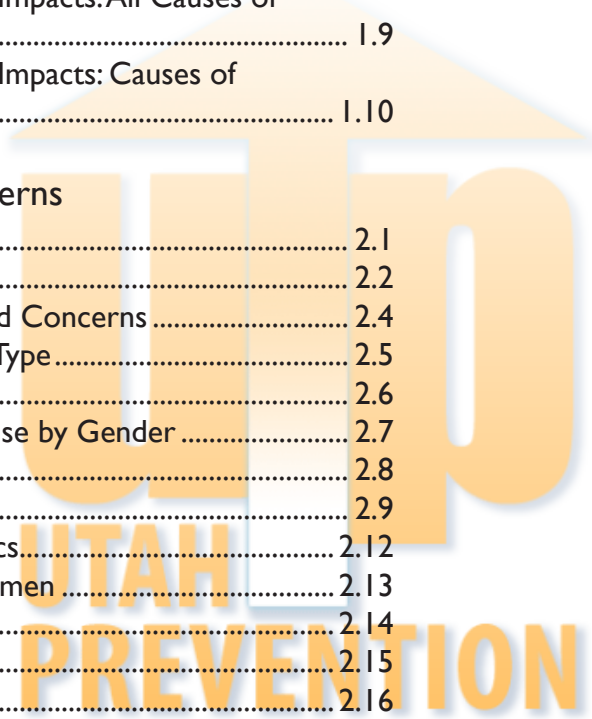


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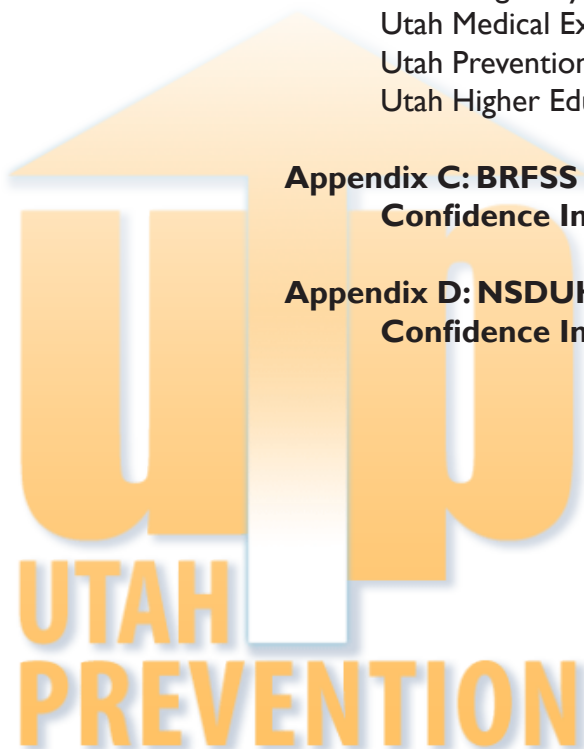


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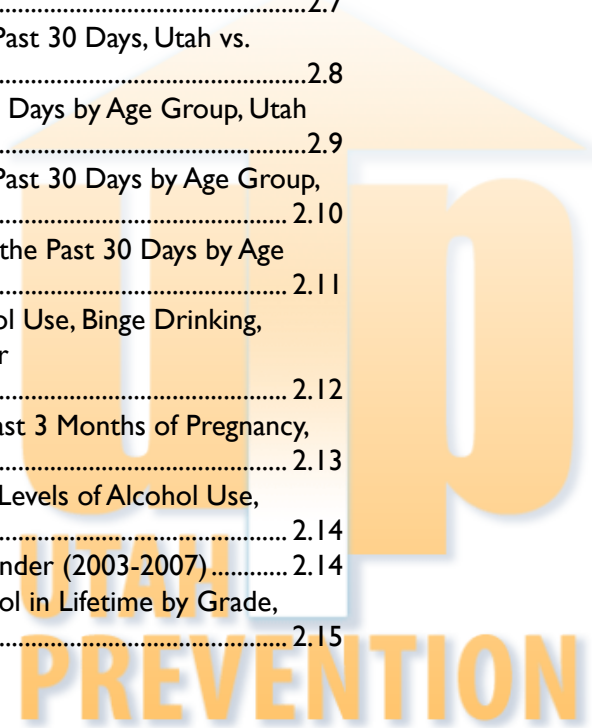


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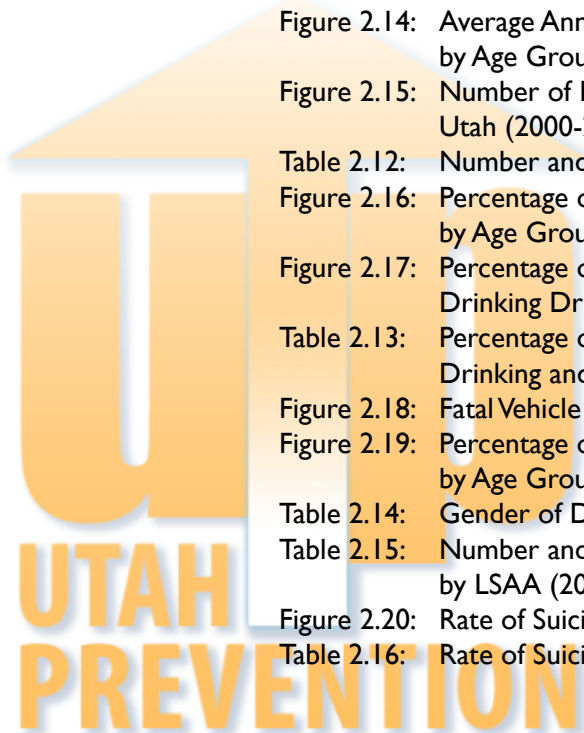


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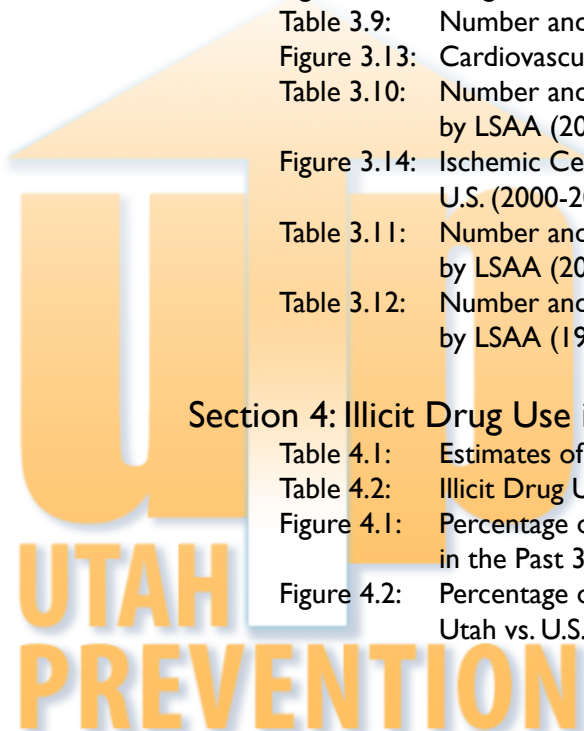


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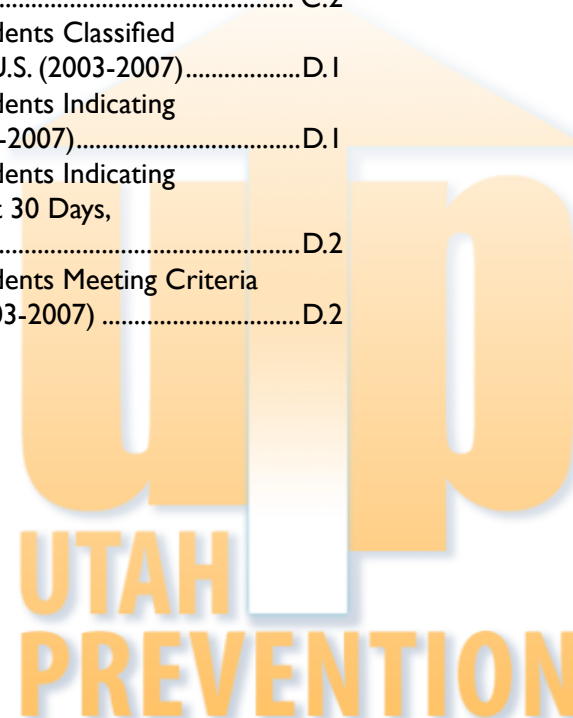
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State Epidemiological Outcomes Workgroup Membership

This report was prepared by Bach Harrison, LLC, and made possible in part by the members of the Utah SEOW, especially those who provided data from their agency or authorized staff from their agency to provide data. The current membership of the SEOW as of December 2009 is provided below.

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The logo features the word "UTAH" in a large, bold, orange font above the word "PREVENTION" in a similar but slightly smaller orange font. The letters are blocky and have a slight shadow effect. The background behind the text is a light orange color.

Section 1: Introduction: Utah Statewide Substance Abuse Epidemiology Profile 2009



Section 1 Contents:

- Executive Summary
- State Epidemiological Profile Report
- History and Methods
- Online SEOW Indicator Database Website
- Profile Report Overview
- Methods
- National and State Data Sources
- Population Estimates Used for Report
- Population Estimates by Demographics
- Substance Abuse Related Mortality and Morbidity
 - Impacts: All Causes of Death and Substance-Related Causes of Death

Executive Summary

This epidemiological profile report represents an update to the original Utah State Substance Use and Abuse Epidemiological Profile report that was published in 2007. This document is a compilation of substance-related consequence and consumption data for the state of Utah and contains data regarding 24 indicators of substance use consequences and 24 indicators of substance use estimates for youth and adult populations in the state. The presentation of these data in this epidemiological profile report are intended to facilitate substance abuse prevention planning and monitoring efforts within the state.

Utah is fortunate to experience relatively low rates of substance use and substance use related outcomes compared to the nation. With only a few notable exceptions, rates of substance use and outcomes among Utah adults are substantially less than the United States. Likewise, youth substance abuse rates are also generally much lower than the national average.

Of the 24 consequence indicators contained in this epidemiological profile report, Utah rates exceeded national rates for only four indicators (suicides, drug poisoning deaths, survey based estimates of drug abuse or dependence, and reported property crimes). In regards to substance use, the rate in Utah was higher than the nation for only one of 24 substance use indicators presented in this report (past year non-medical prescription pain medication use). While the overall picture is very positive for our state, this small group of indicators serves as a reminder that Utah is not immune to substance use problems, and that continued vigilance and is needed to ensure that substance use in Utah does not become an increasing burden on the state and its citizens.

Overview and Background

State Epidemiological Profile Report History and Methods

In preparation for the Strategic Prevention Framework State Incentive Grant (SPF SIG), the State of Utah received funding in October 2005 from the Federal Center for Substance Abuse Prevention (CSAP) to organize and convene a State Epidemiological Outcomes Workgroup (SEOW). The primary task of the SEOW at that time was to collect and interpret data related to consumption and consequences of substance use and abuse in an effort to make recommendations about the substance abuse priorities for the State of Utah, and for the Utah SPF SIG Project. For more than a year the Utah SEOW looked within the agencies represented in the workgroup and throughout the state, to find suitable data regarding substance use and the outcomes of substance use that could be added to the State Epidemiological Data System (SEDS) data provided by CSAP. The result of this effort was the original Utah State Substance Use and Abuse Epidemiological Profile Report which was completed in 2007. Contained within the 2007 epidemiological profile report were the indicators compiled by the SEOW as of March 2007. The data collected for the 2007 epidemiological profile report reflected data obtained through both national and state level sources, and covered a wide range of substance use and consequence indicators.

The State of Utah received funding for the implementation of their SPF SIG Project in October 2006. The SPF SIG emphasizes the use of data in prevention planning as well as in the evaluation and monitoring of prevention activities. The 2007 epidemiological profile report was instrumental in developing substance abuse prevention priorities during the needs assessment phase of the Utah

SPF SIG Project. Based on the data examined, priorities for the Utah SPF SIG Project were identified as follows: Alcohol related motor vehicle crash related morbidity and mortality, and Prescription medication related morbidity and mortality

The current report represents an update of the 2007 epidemiological profile report. Of primary significance, the data within this report reflect the most recent data available for each data source at the time of data query and collection (September-December 2009). Additionally, the layout, general content and organization of this epidemiological report represent varying degrees of modification from the previous epidemiological profile report to enhance the presentation of the data as well as the ease of use. The Utah Division of Substance Abuse and Mental Health (DSAMH) recognizes that in order for the data to become increasingly used in prevention planning and monitoring, it is essential that prevention staff throughout the state have access to reliable and timely data. For this reason, the DSAMH plans to update the state epidemiological profile on a biennial basis, as resources allow.

Online SEOW Indicator Database Website

In addition to the release of this updated state epidemiological profile report, the SEOW is excited to announce the upcoming launch of an online indicator database website that is being developed to increase the accessibility of data housed within the SEOW dataset. This online resource will be a valuable tool for providing data to prevention professionals that may otherwise not have access to these data. While this epidemiological profile report provides an excellent overview of the data available to the substance abuse field in Utah, it can by no means serve as a comprehensive source of the vast amount of data collected by the SEOW.

The website will allow users to query data housed by the SEOW for download, as well as allowing charting and mapping of the data for analyses. The system is being developed by the current SEOW support contractor, Bach Harrison, LLC, and is specifically being designed for use by prevention professionals at both the state and community levels. The online data system will greatly expand the ability of prevention stakeholders (and professionals from other related fields) to utilize data for planning, monitoring and evaluation purposes.

With the unveiling of the online database website, it is the hope of the SEOW that communities across the state will begin to use data in culturally competent ways to make decisions that impact the consumption and consequences of substance use and abuse. The website will allow users to make customizable queries of nearly all of the indicators presented in this epidemiological profile report as well as create presentations that will facilitate analyses of the data. Website users will be able to choose or search for indicators housed within the system and view the data at both the state and county levels (as available). Users will be able to view trends in specified indicators over time, and will have the ability to compare up to three counties and the state to better understand the meaning of the data values observed. Additionally, the website will allow users a visual comparison of all counties across the state in a given year through a mapping feature that color codes each county based on its levels of a particular indicator.

A demonstration of the online database website is currently available at the following website:
www.bach-harrison.com/utsocialindicators.

A fully functional website providing access to the vast majority of the SEOW dataset is anticipated for release at the same web address in the Spring of 2010. For more information, please contact the Utah Division of Substance Abuse and Mental Health.

Profile Report Overview

The data in this report are organized by three general substance categories: a) alcohol, b) tobacco, and c) illicit drugs. The epidemiological profile begins with this overview, followed by chapters focusing on data related to each of the substance types listed above. At the beginning of each chapter, reference tables providing an overview of the indicators associated with each substance category are presented. These tables provide a summary of the contents of each chapter, and allow the reader to compare multiple indicators on a variety of attributes.

The first table provides a summary of the consumption indicators found within the chapter, and the second table provides a summary of the consequence indicators found within the chapter. These tables allow readers to compare consequence and consumption indicators within each substance category readily across a variety of attributes. Among the attributes provided in the consumption or consequence overview tables are the following:

- 1) *Indicator Name*– The name or description of the indicator is provided. For mortality and morbidity indicators defined by either the International Classification of Diseases Ninth Revision (ICD-9) or Tenth Revision (ICD-10), the coding definitions for the indicator are also provided.
- 2) *Year(s)* – The specific (data) years which are summarized in the table.
- 3) *Average Annual Number of Cases* – The average number of cases of the substance consequence that occurred during the specified years.
- 4) *Average Rate per 100,000 Population* – The average annual rate of cases per 100,000 population during the specified years.
- 5) *UT:USA Rate Ratio* – Provides a comparison of the rate in Utah to the national rate during the same years; ratios less than one reflect a lower state rate vs. the national rate, while ratios above one reflect a higher state rate vs. the national rate.
- 6) *Trend* – The general trend in Utah for the number of cases or rate of incidence over the most recent years of data available.
- 7) *Time from Use to Outcome* – A general (but subjective) index of the amount of time between use of the substance to the onset of the consequence (immediacy).
- 8) *Strength of Relationship* - A general (but subjective) index of the extent to which substance use is a strong determinant of or is highly correlated with the consequence.
- 9) *Data source* - The acronym for the source from which the data was obtained. Detailed information about each source is contained in Appendix A.
- 10) *Use rates (For consumption tables only)* - State and National use rates expressed as percentages are provided in the columns labeled “Utah” and “USA,” respectively.

Glossary of Data Source Acronyms:

AEDS	Alcohol Epidemiologic Data System
BRFSS	Behavioral Risk Factor Surveillance System
DAWN	Drug Abuse Warning Network
FARS	Fatality Analysis Reporting (System)
NSDUH	National Survey on Drug Use and Health
NVSS	National Vital Statistics System
SHARP	Student Health and Risk Prevention (Survey)
UDH-PPMP	Utah Department of Health, Prescription Pain Management Program
UCR	Uniform Crime Reports (System)
UHEHBS	Utah Higher Education Health Behavior Survey
UT IBIS	Utah's Indicator Based Information System

Following the reference tables, more detailed “snapshots” of each indicator are presented. Within each chapter, substance use data is presented first for each substance type, followed by consequence (outcome) data related to the use of the substance.

Information about the various data sources from which the indicators were obtained is provided in the data sources section (Appendix A). Please note that while the previous epidemiological profile report focused on presenting state and national data only, the current report has been expanded to provide readers with substance use and consequence data at sub-state levels (specifically, regional level data) and for more specific populations within the state. The SEOW Indicator Database Website will provide data users even greater options for accessing data, including county level data for many indicators.

Methods

Much of the data used in this report was obtained through the State Epidemiological Data System (SEDS) website, which is funded and administered by the Center for Substance Abuse Prevention (CSAP) of the Substance Abuse and Mental Health Services Administration (SAMHSA) to make epidemiological data available to States for purposes of substance use/abuse prevention needs assessment, planning, and monitoring. The data in the SEDS are compiled from several national level data sources by CSAP in support of the Strategic Prevention Framework (SPF). Most of the data available through the SEDS are available through the original source agency directly as well. However, the SEDS website provides a convenient method for collecting all of these data in a single location and greatly eases the data collection process. In addition to the SEDS dataset, many indicators included in the SEOW dataset are collected from state level agencies within the state of Utah. The following National and Utah data sources were used in this profile. If the listed source is included in the SEDS, it is noted. For detailed source information, please see Appendix A.

National Data Sources

- Alcohol Epidemiologic Data System (AEDS) from SEDS
- Behavioral Risk Factor Surveillance System (BRFSS) from SEDS
- Drug Abuse Warning Network (DAWN)
- Fatality Analysis Reporting System (FARS) from SEDS
- Monitoring the Future Survey (MTF)
- National Survey on Drug Use and Health (NSDUH) from SEDS
- National Vital Statistics System (NVSS) from SEDS
- Uniform Crime Reporting Program (UCR) from SEDS
- Web-based Injury Statistics Query and Reporting System (WISQARS)

Utah Data Sources

- Medical Examiner Drug Poisoning Deaths Data - Utah Department of Health, Prescription Pain Management and Education Program
- Prescription Pain Medication BRFSS Supplement Data - Utah Department of Health, Prescription Pain Management and Education Program
- The Prevention Needs Assessment portion of the Student Health and Risk Prevention Survey (SHARP) - Utah Department of Human Services, Division of Substance Abuse and Mental Health (DSAMH)
- Utah Crash Summary Report Data - Utah Department of Public Safety, Highway Safety Office
- Utah Higher Education Health Behavior Survey (UHEHBS) - Utah Department of Human Services, DSAMH
- Utah Indicator Based Information System for Public Health (IBIS) – Utah Department of Health

Population Estimates Used for this Report

In addition to providing data at the state level, data will also be provided, when possible, at the Local Substance Abuse Authority (LSAA) level to allow for comparisons among the different LSAA's and between each LSAA and the state average. Table 1.1 provides the population estimates for each LSAA. If LSAA rates were not provided by the original source, these population estimates were used to calculate the rates provided in this report.

Table 1.1:

Utah Local Substance Abuse Authority (LSAA) Population Estimates (2000, 2005-2008)					
LSAA	2000	2005	2006	2007	2008
Bear River District	136,686	152,531	155,100	158,877	163,836
Central Utah	66,298	67,325	68,062	69,538	71,592
Davis County	240,279	269,739	278,759	287,751	295,332
Four Corners District	39,700	38,543	38,725	39,399	39,648
Northeastern District	40,551	43,044	44,187	46,087	47,684
Salt Lake County	901,004	961,098	987,035	1,005,245	1,022,651
San Juan County	14,373	13,891	13,998	14,457	15,055
Southwest District	142,089	175,001	185,700	193,995	199,526
Summit County	29,987	34,659	34,867	35,377	36,100
Tooele County	41,615	50,148	52,352	54,740	56,941
Utah County	371,635	454,839	482,047	513,263	530,837
Wasatch County	15,416	18,747	19,861	20,442	21,066
Weber and Morgan Counties	204,577	221,697	224,462	229,754	236,156
State of Utah	2,244,210	2,501,262	2,585,155	2,668,925	2,736,424

Source: Compiled with population estimates from U.S. Census Bureau, Population Division.

Population Estimates by Demographics

For some indicators, gender and ethnicity/race comparisons are provided. Table 1.2 provides populations estimates by race, ethnicity, and gender for 2007 and 2008.

Table 1.2:

Utah Population Estimates, by Race, Ethnicity, and Gender (2007, 2008)						
	2007			2008		
Race	Male	Female	Total	Male	Female	Total
White	1,253,897	1,230,414	2,484,311	1,283,516	1,259,045	2,542,561
Black	17,865	14,769	32,634	18,986	15,894	34,880
American Indian	18,495	18,514	37,009	19,034	19,068	38,102
Asian	24,316	27,141	51,457	25,527	28,469	53,996
Pacific Islander	10,501	9,785	20,286	10,859	10,235	21,094
Two or more races	22,007	21,221	43,228	23,339	22,452	45,791
Ethnicity*	Male	Female	Total	Male	Female	Total
Hispanic (of any race)	165,096	144,314	309,410	175,266	153,803	329,069
Not Hispanic	1,181,985	1,177,530	2,359,515	1,205,995	1,201,360	2,407,355
Total	1,347,081	1,321,844	2,668,925	1,381,261	1,355,163	2,736,424

Source: US Census Bureau, <http://www.census.gov/popest/states/asrh/>

*Hispanic origin is considered an ethnicity, not a race. Hispanics may be of any race.

Substance Abuse Related Mortality and Morbidity Impacts: All Causes of Death

Several of the leading causes of death in Utah are attributable to the abuse of alcohol, tobacco, or other drugs (see Table 1.3). In fact, the top five leading causes of death in Utah in 2006 were all substance related causes of mortality, and accounted for about 55% of deaths statewide that year. Diseases of the heart and malignant neoplasms (cancers), both of which are associated with smoking, are the two leading causes of death in Utah. The third leading cause of death in Utah is accidents-unintentional injury which is strongly related to alcohol use. Finally, cerebrovascular disease (strokes) and chronic lower respiratory disease are also frequently associated with smoking.

Table 1.3:

Fifteen Leading Causes of Death in Utah and Corresponding Percentage for the United States (2006)				
Cause of Death	% of UT Deaths	UT Rank	% of U.S. Deaths	U.S. Rank*
Diseases of Heart	21.3	1	26.0	1
Malignant Neoplasms	19.0	2	23.1	2
Accidents- Unintentional Injury	5.2	3	5.0	5
Cerebrovascular Diseases	4.9	4	5.7	3
Chronic Lower Respiratory Diseases	4.3	5	5.1	4
Diabetes Mellitus	3.6	6	3.0	6 (tie)
Alzheimer's Disease	2.8	7	3.0	6 (tie)
Suicide	2.6	8	1.4	11
Influenza and Pneumonia	2.5	9	2.3	8
Nephritis	1.5	10	1.9	9
Parkinson's Disease	1.2	11	0.8	14
Liver Disease	1.0	12	1.1	12
Perinatal Disease	0.9	13	0.6	17
Congenital Anomalies	0.8	14	NR	>20
Hypertension	0.8	15	1.0	13

Source: Web-based Injury Statistics Query and Reporting System, Leading Causes of Death for 2006

NR = Not Ranked in Nation (top 20 available)

*Ranks primary causes of death across the U.S., not Utah's rank within the U.S.

Substance Abuse Related Mortality and Morbidity Impacts: Causes of Substance-Related Death

Table 1.4 displays the eight leading causes of substance related death in Utah. Chronic causes of death represent more long-term consequences, while proximal causes of death represent more immediate or short-term consequences of substance use. Ischemic cerebrovascular disease (1st), other cardiovascular diseases (2nd), lung cancer (3rd), and lung disease (4th) head the list and are associated with tobacco use. Alcohol consumption is often associated with homicide (5th), suicide (6th), and cirrhosis (7th). The relationship of drug poisoning deaths (8th) to substance use is self-evident.

Table 1.4:

Mortality Rates for Substance Related Proximal Causes of Death and Chronic Diseases, Utah vs. U.S. (2004)				
	Utah		United States	
Chronic Disease Causes of Death	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Ischemic Cerebrovascular Disease	2,336	95.7	601,400	205.3
Cardiovascular Disease	1,396	57.2	201,160	68.7
Lung Disease	553	22.7	118,171	40.3
Lung Cancer	454	18.6	158,009	53.9
Alcohol Related Cirrhosis	47	1.9	12,548	4.3
Proximal Causes of Death				
Suicides	377	15.5	32,439	11.1
Illicit drugs	358	14.7	27,424	9.4
Homicides	45	1.8	17,165	5.9

Source: National Vital Statistics System, State Epidemiological Data System

Section 2:

Alcohol Indicators in Utah: Consumption Patterns and Consequences



Section 2 Contents:

- Information Regarding Indicator Overviews
- Alcohol Indicator Overviews
- Alcohol Consumption in Utah
 - Consumption Patterns and Concerns
 - Adult Alcohol Consumption
 - Youth Alcohol Consumption
- Consequences of Alcohol Consumption

Alcohol Indicator Overview

The following tables provide an overview of the alcohol use and consequence indicators presented in this section of the report. While not all of the alcohol related indicators contained in this section of the report lend themselves for inclusion in the overview tables, the tables provide a useful summary of alcohol related data at the state level, nonetheless. Presented in this format, the data tables allow for a comparison of use rates across different populations, as well a comparison of most of the alcohol consequence indicators included in this epidemiological profile report. For more information about the attributes included in the table or explanations of data source acronyms please see page 1.4 of the Introduction.

Table 2.1:

Estimates of Alcohol Use								
	Indicator	Age Category	Year	Utah	USA	Utah:USA Ratio	Utah Trend	Data Source
Youth	30 Day Alcohol (%)	Grade 6	2009	1.3	Not Available	Not Available	Decreasing	SHARP
		Grade 8	2009	6.6	14.9	.44	Decreasing	SHARP
		Grade 10	2009	12.9	30.4	.42	Decreasing	SHARP
		Grade 12	2009	17.1	43.5	.39	Decreasing	SHARP
	Binge Drinking (%) (5 or more drinks in the past 2 weeks)	Grade 6	2009	1.6	Not Available	Not Available	Stable	SHARP
		Grade 8	2009	4.3	7.8	.55	Decreasing	SHARP
		Grade 10	2009	7.8	17.5	.45	Decreasing	SHARP
		Grade 12	2009	11.2	25.2	.44	Decreasing	SHARP
Adult	Population Adjusted Alcohol Sales (gallons/person)		2005	1.3	2.3	.57	Stable	AEDS
	Current Alcohol Use (%)		2007	27.5	54.8	.50	Stable	BRFSS
	Binge Alcohol Use (%)		2007	9.8	15.7	.62	Stable	BRFSS
	Heavy Alcohol Use (%)		2007	2.5	5.2	.48	Stable	BRFSS
	College Enrolled Population 30 Day Alcohol Use (%)		2007	21.9	66.6	.33	Stable	UHEHBS
	College Enrolled Population Binge Drinking in Past 2 Weeks (%)		2007	10.9	41.1	.27	Stable	UHEHBS
	Drank alcohol during last 3 months of pregnancy (%)		2007	3.4	Not Available	Not Available	Stable	UT IBIS

Overview, Cont.

Table 2.2:

Alcohol Use Consequences									
	Indicator	Years	Average Annual Number of Cases	Average Rate per 100,000	UT:USA Rate Ratio	Trend	Time from Use to Outcome	Strength of Relationship	Data Source
Mortality	Alcohol Related Motor Vehicle Crash Fatalities	2000-2007	68.2	2.81	.53	Stable	Immediate	Strong	FARS
	# of Fatal Alcohol Related Vehicle Crashes	2000-2007	59.9	2.46	.46	Stable	Immediate	Strong	FARS
	Proportion of Fatal Motor Vehicle Crashes Related to Alcohol	2000-2007	22%	41%	.54	Stable	Immediate	Medium	FARS
	Alcoholic Cirrhosis (ICD-10 K70)	2000-2005	56	2.37	.55	Fluctuating	Distant	Strong	NVSS
	Alcoholism Fatalities (ICD-10 F10)	2000-2008	54.8	2.20	Not Available	Stable	Variable	Strong	UT IBIS
	Homicides (ICD-10 X85-Y09,Y87.1)	2000-2005	57.3	2.4	0.4	Fluctuating	Variable	Low-Medium	NVSS
	Suicides* (ICD-10 X60-X84, Y87.0)	2000-2005	336.7	14.38	1.32	Fluctuating	Variable	Low-Medium	NVSS
	Falls	2000-2008	108.4	4.4	Not Available	Slightly Increasing	Short	Low-Medium	UT IBIS
	Accidental Drowning and Submersion	2000-2008	23.3	.94	Not Available	Stable	Short	Low-Medium	UT IBIS
Morbidity	Emergency Department Encounters with Toxic Effect of Alcohol (ICD-9 980.0)	2000-2007	398.25	16.38	Not Available	Slightly Increasing	Immediate	Strong	UT IBIS
	Alcohol Dependence or Abuse	2003-2007	<i>Estimated* 134,288</i>	<i>Estimated* 6884</i>	<i>Estimated* 0.90</i>	Fluctuating	Variable	Strong	NSDUH
Other Consequences	Reported Violent Crimes	2000-2006	5,532	233.3	.51	Stable	Variable	Medium	UCR

Bolded/italicized item indicates that the state rate is higher than the national rate.

*Estimated number of cases and rate per 100,000 population reflect NSDUH survey based percentage estimates multiplied by the projected population.

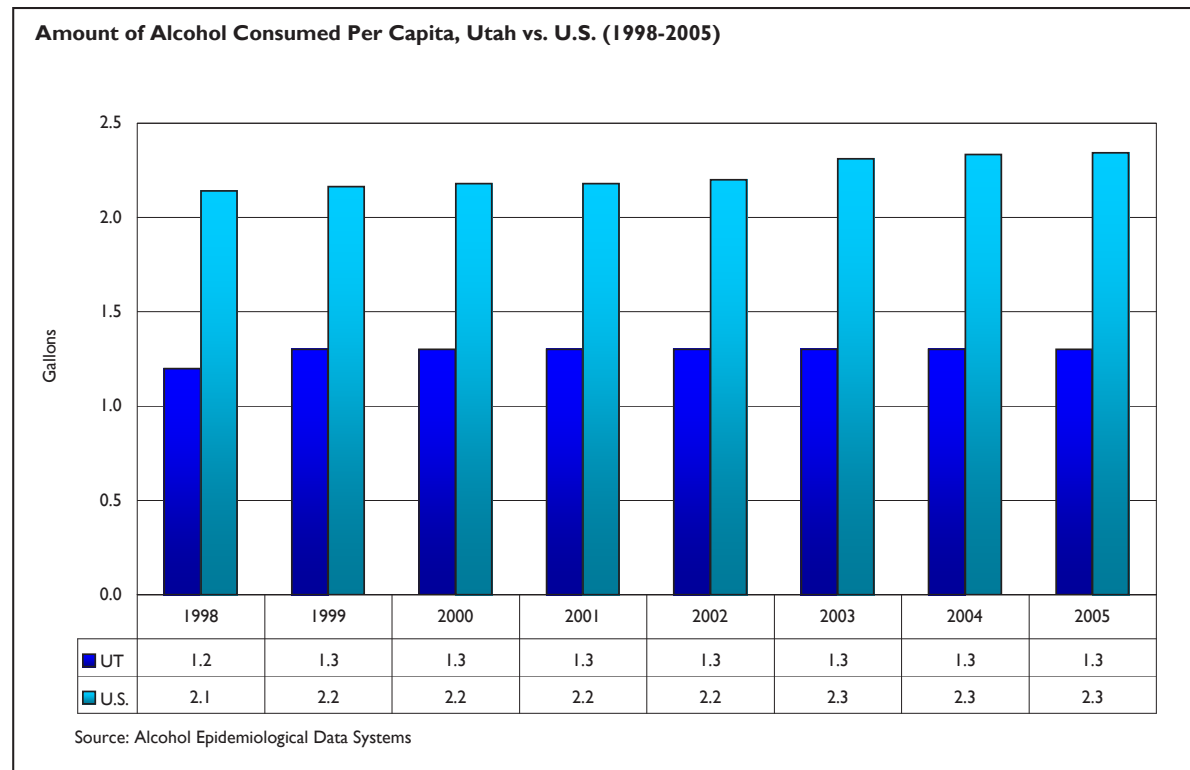
**Percent of fatal crashes involving alcohol in Utah.

Alcohol Consumption: General Consumption Patterns and Concerns

In the United States, alcohol is consumed more frequently than all illicit drugs combined and is the drug most likely associated with injury or death⁸. In Utah, alcohol use rates have historically been well below the national average. For example, 30 day alcohol use rates for both adults and youth in Utah tend to be about half the national rate. However, relative to other substances, alcohol is still the most widely used substance in the state according to both adult and youth surveys. Given the relationship between alcohol and a host of negative outcomes (e.g., homicides, suicides, chronic diseases, and accident related deaths and injuries), alcohol use in Utah still remains an important issue for substance abuse prevention efforts occurring throughout the state.

Figure 2.1 shows the trend of alcohol sales in Utah and the United States from 1998 to 2006. Utah has consistently consumed a lower volume of alcoholic beverages per capita compared to the United States average.

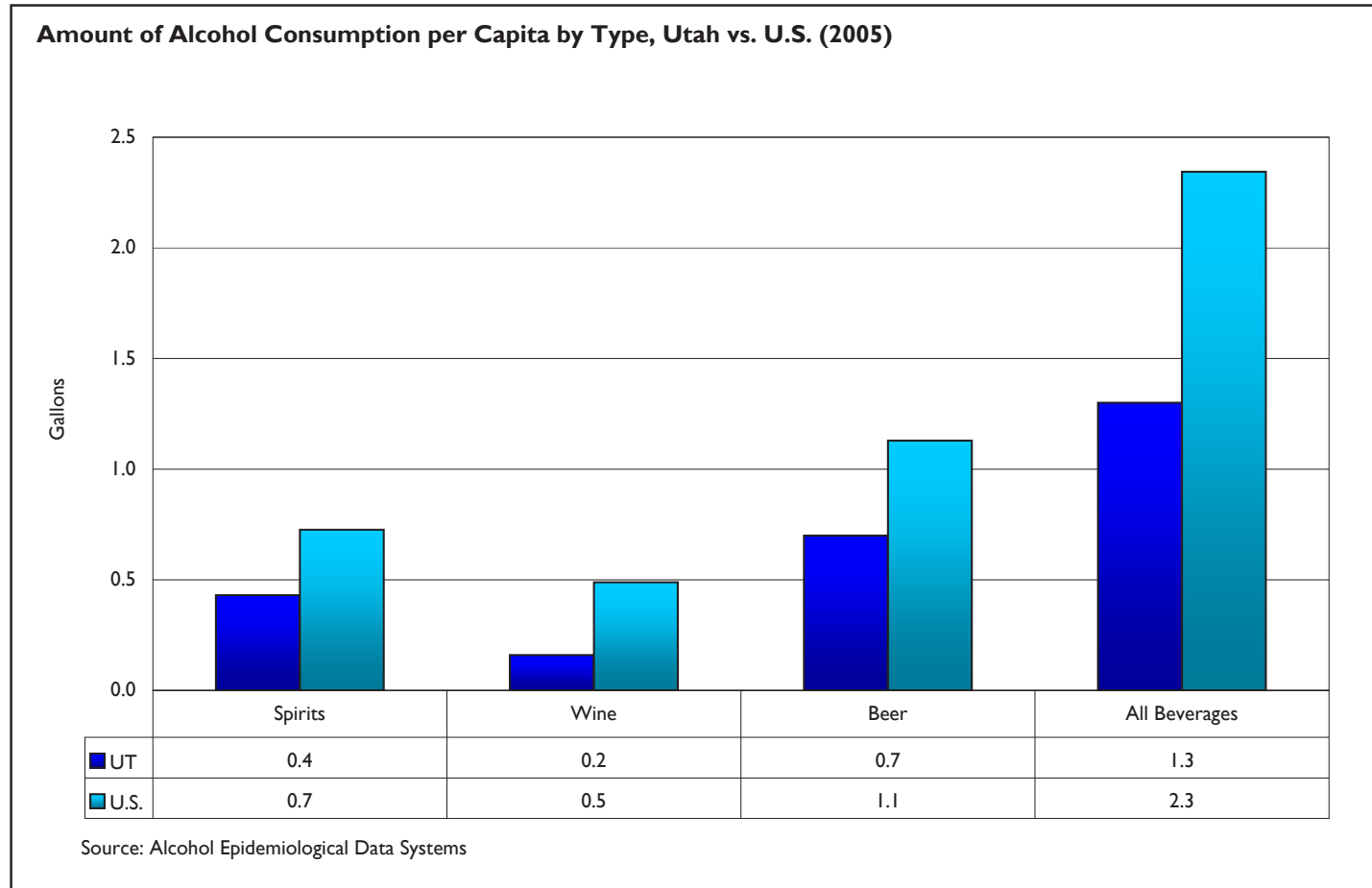
Figure 2.1:



Alcohol Consumption: General Consumption by Type of Alcohol

Figure 2.2 presents the amount of alcohol sold per capita by type of alcohol. Not surprisingly, the greatest volume of alcohol sold in Utah was beer (given the far greater availability of beer, and the relatively low alcohol to volume ratio), followed by spirits and wine.

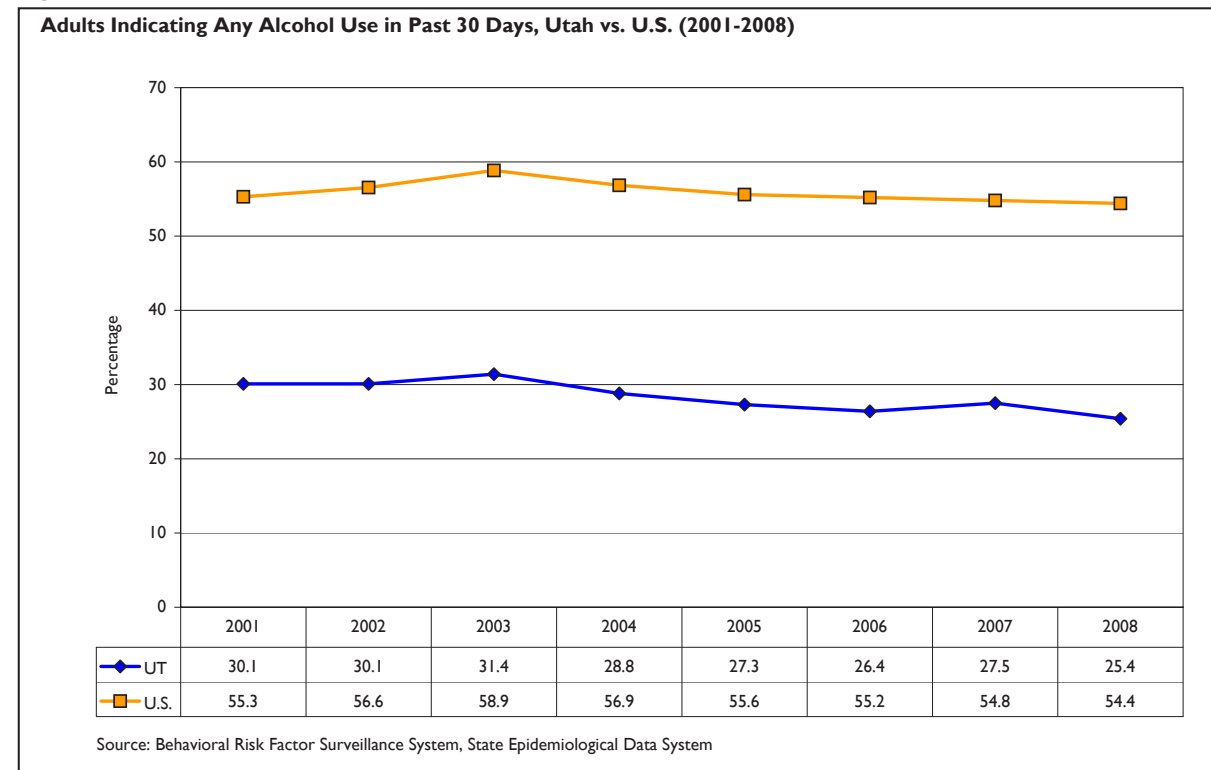
Figure 2.2:



Adult Alcohol Consumption: Past Month Alcohol Use

The Behavioral Risk Factor Surveillance System (BRFSS) survey is a national survey of adults that provides estimates of alcohol consumption at both state and national levels. Three measures of alcohol consumption from the BRFSS are highlighted in this epidemiological profile report: current drinking (past 30 day use), heavy alcohol use, and binge drinking. The percent of adults who had one or more drinks in the past 30 days, drank heavily, and binged on alcohol continues to be, on average, lower in Utah compared to the United States (See note below). Figure 2.3 shows that from 2001 through 2008 the percentage of Utah adults who have had any alcohol in the past 30 days has been almost half of the U.S. level. In 2008, only 25% of adults in Utah indicated they had alcohol in the past 30 days, compared to 54% in the United States.

Figure 2.3:

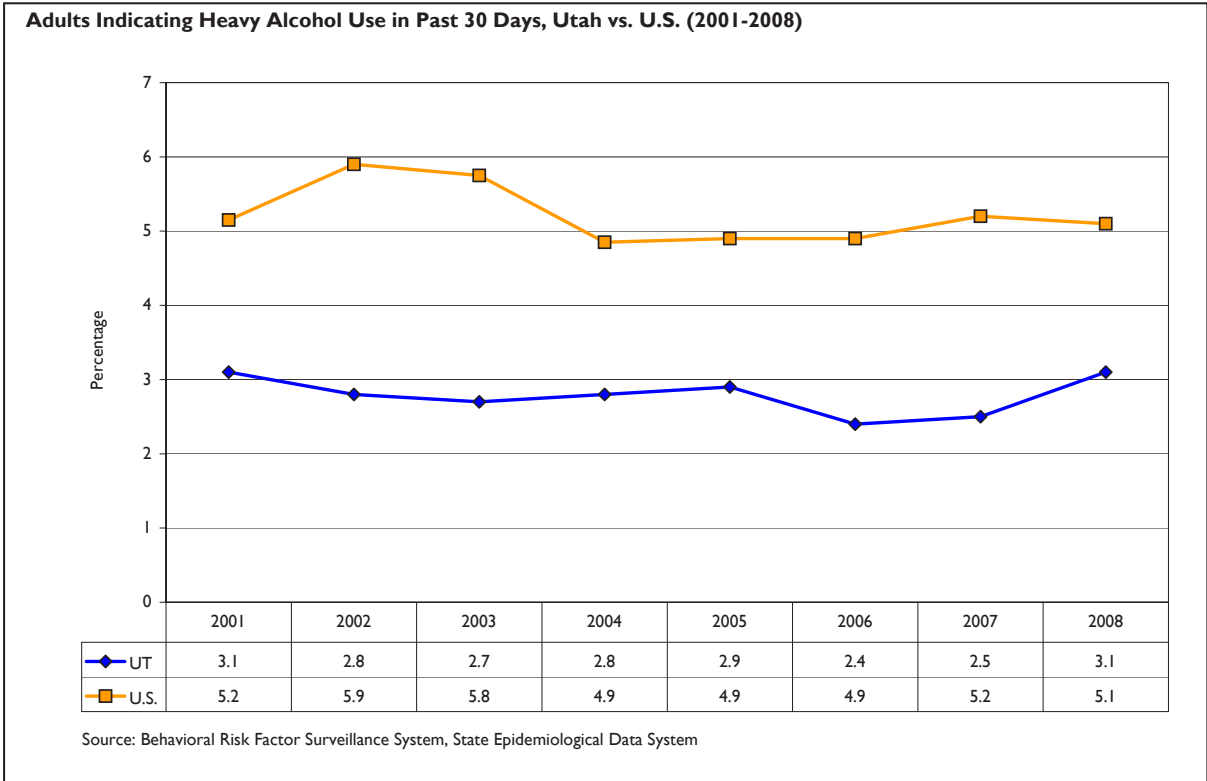


Note: BRFSS estimates with confidence interval data are included in Appendix C for those interested in examining the 95% confidence range for Utah state level BRFSS estimates.

Adult Alcohol Consumption: Past Month Heavy Alcohol Use

The BRFSS defines heavy alcohol use as 60 or more drinks per month for males and 30 or more drinks per month for females. As seen in Figure 2.4, from 2001-2008 the percentage of heavy drinkers in Utah has been about half the U.S. percentage.

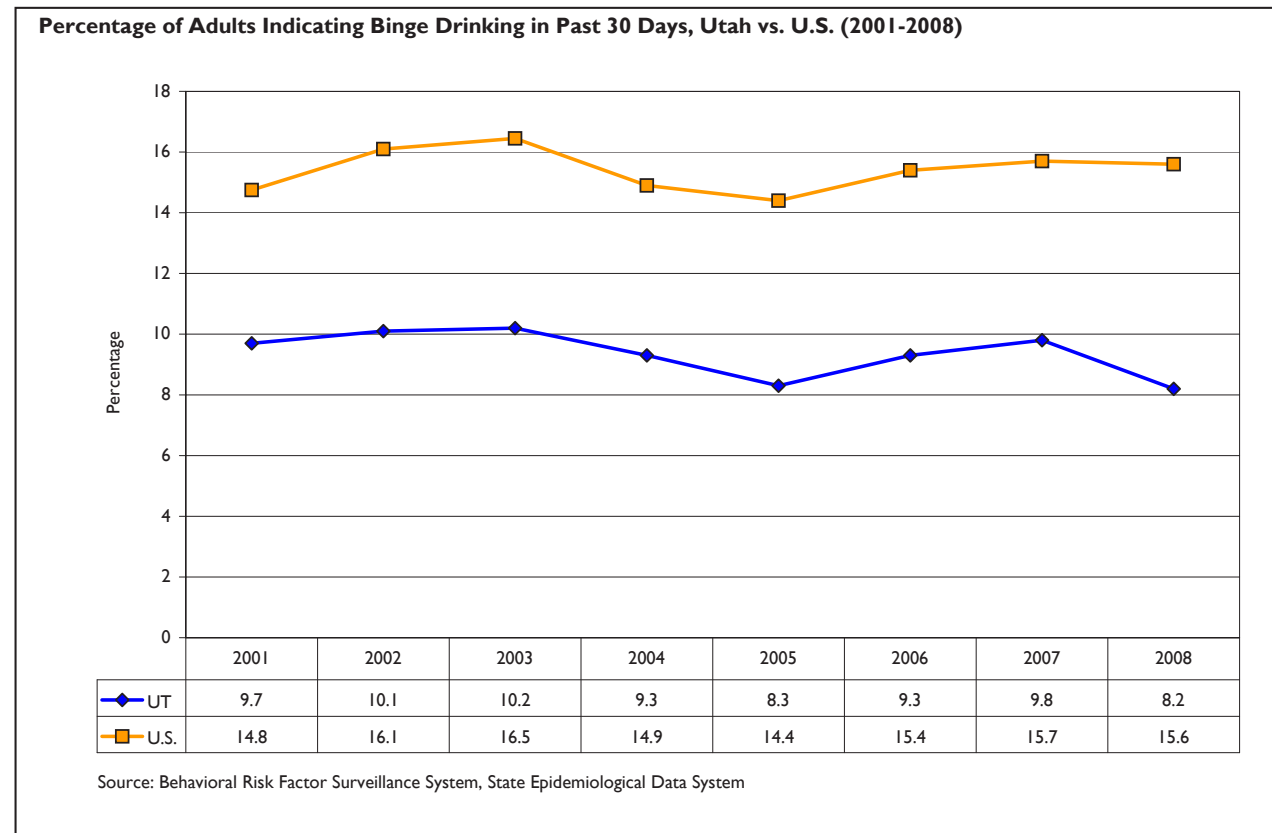
Figure 2.4:



Adult Alcohol Consumption: Binge Drinking

The BRFSS defines binge drinking as 5 drinks in a row for males and 4 drinks in a row for females on an occasion. Figure 2.5 shows that the percentage of adults in Utah who engaged in binge drinking in the past 30 days has remained well below the United States rate. In 2008, the rate of binge drinking in Utah was about 8% compared to nearly 16% for the U.S.

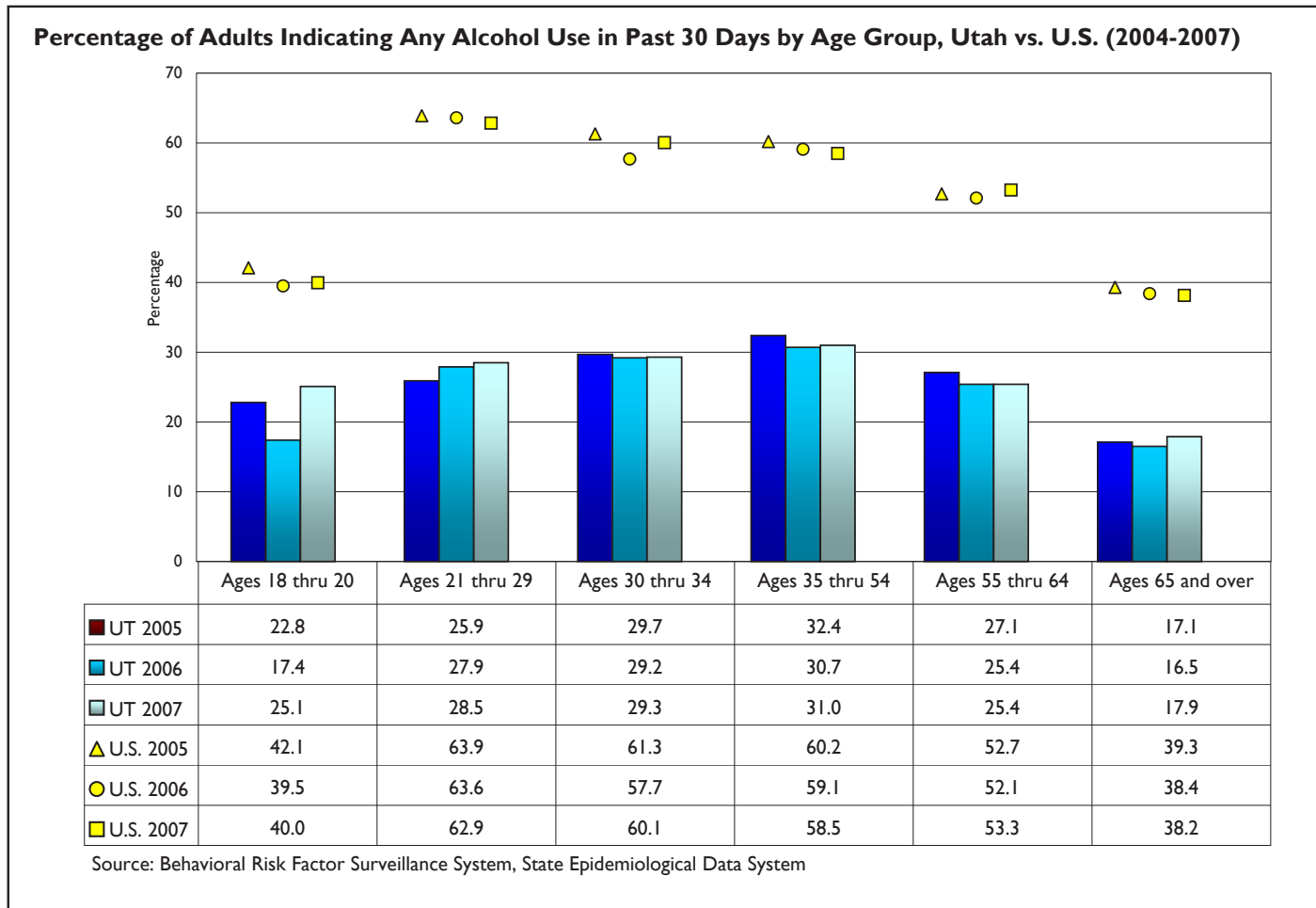
Figure 2.5:



Adult Alcohol Consumption: Alcohol Use by Age Group

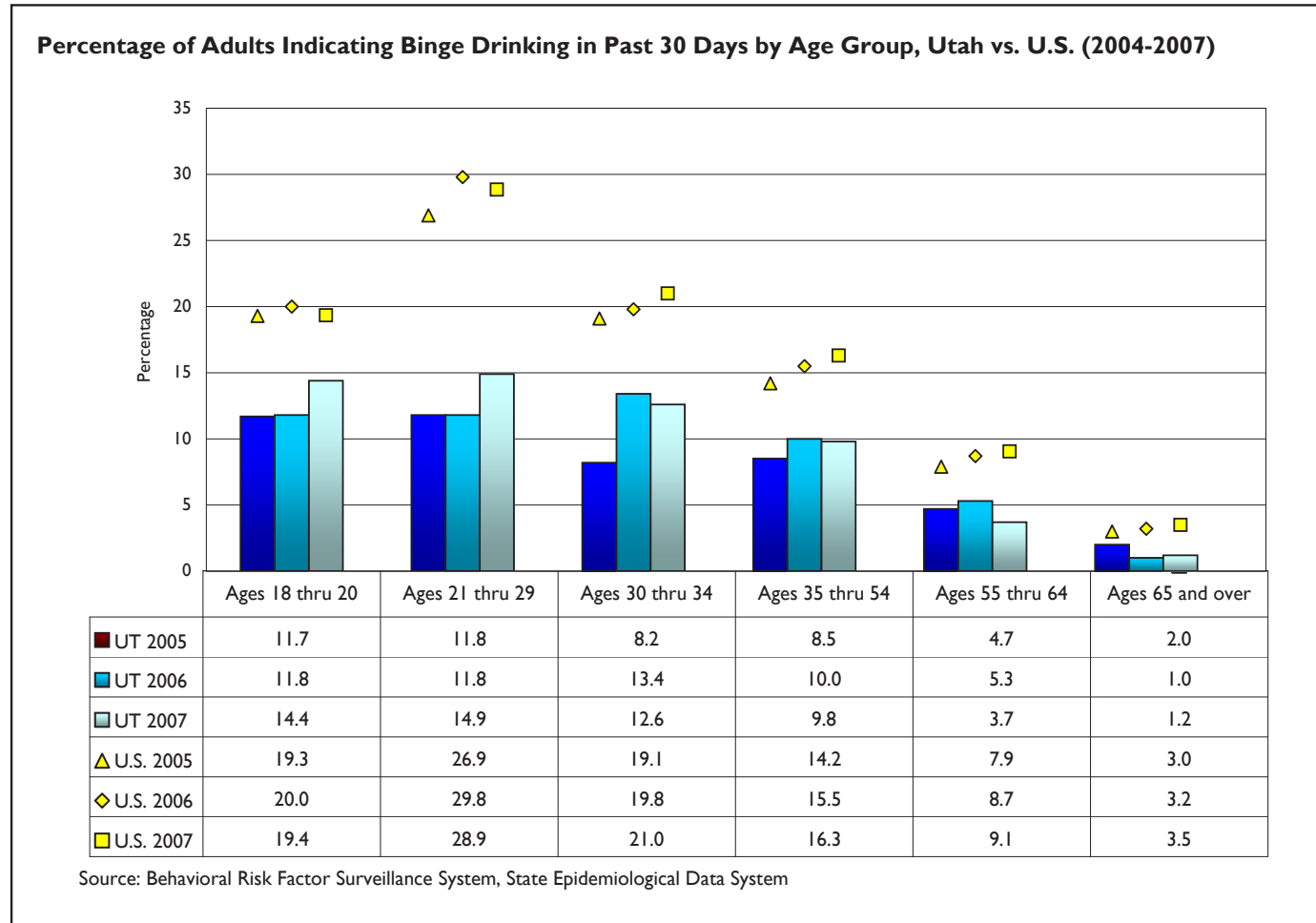
An examination of alcohol use by age group can be informative for identifying populations of higher or lower risk. As can be seen in Figures 2.6, 2.7, and 2.8 (continued on following pages), the percentage of Utah adults who reported current (past 30 day) drinking, binge drinking, and heavy drinking was lower than the U.S. across the age spectrum. Within Utah, current drinking rates were fairly similar across adult age groups with the highest 30 day use rates in the 35-54 age group. For binge drinking, rates were highest in the younger adult age categories (18-20 and 21-29) in 2007. Heavy alcohol use rates were highest in the 30-34 age group.

Figure 2.6:



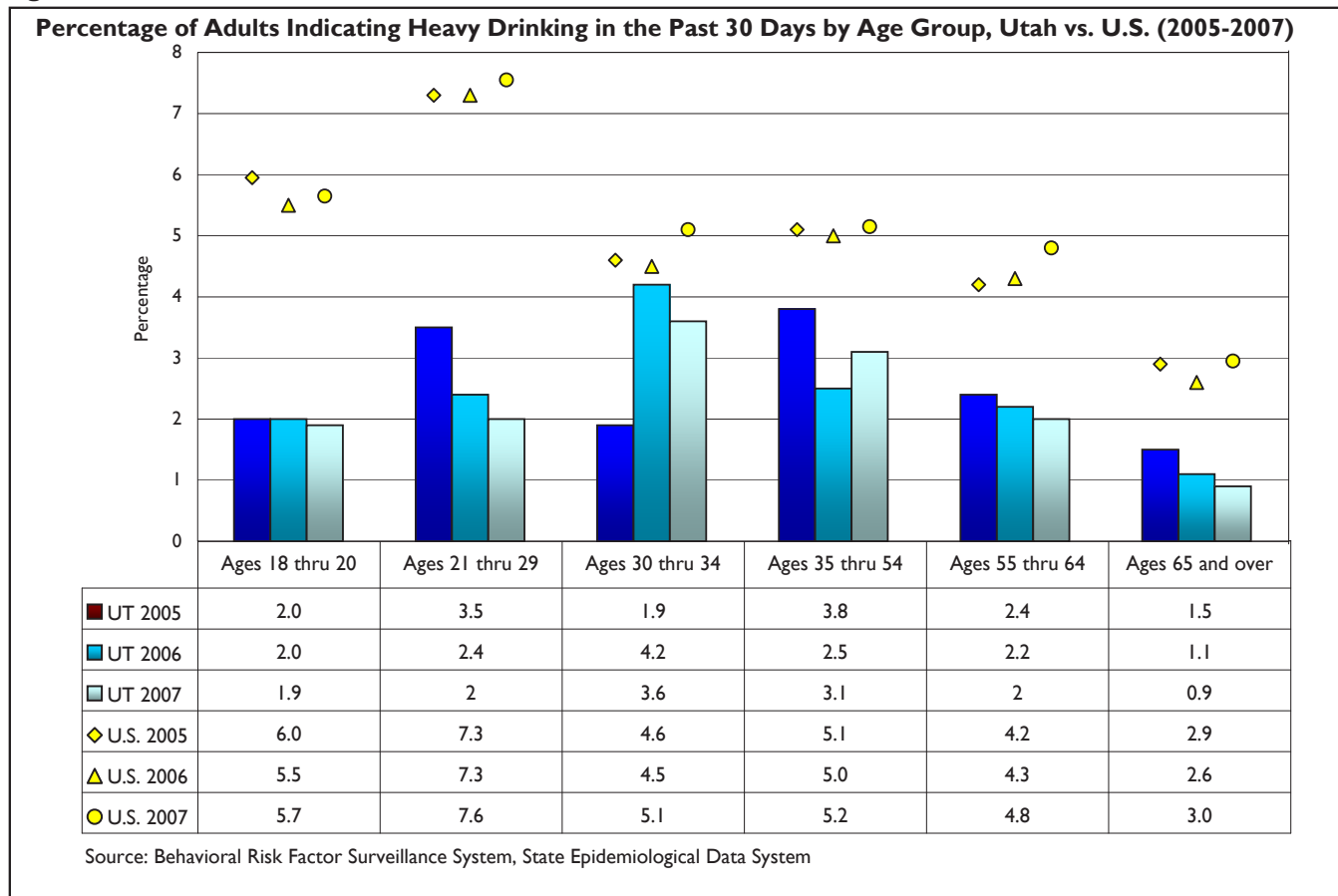
Adult Alcohol Consumption: Alcohol Use by Age Group, Cont.

Figure 2.7:



Adult Alcohol Consumption: Alcohol Use by Age Group, Cont.

Figure 2.8:



Adult Alcohol Consumption: Alcohol Use by Demographics

Table 2.3 shows the breakdown of drinking behavior from the 2007 BRFSS among different ethnic groups and both genders. Men were more likely to be current drinkers, binge drinkers, and to indicate heavy alcohol use. In regards to race and ethnicity, Hispanics, Blacks, and those who reported “other” ethnicity/race were most likely to have consumed alcohol in the past 30 days. For binge drinking, the rate among Hispanics was much higher than for any other group, and for heavy alcohol use the rate was highest among Blacks.

Table 2.3:

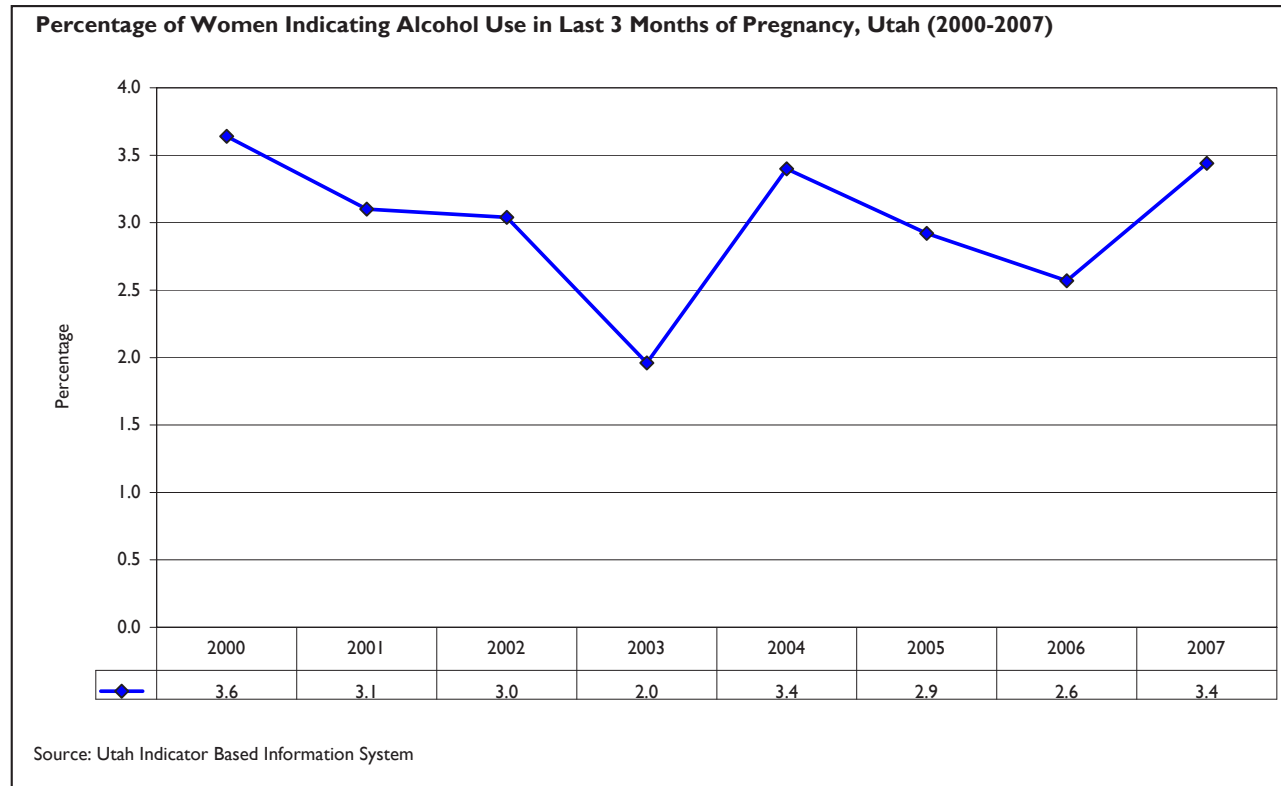
Percentage of Adults in Utah Indicating Any Alcohol Use, Binge Drinking, and Heavy Alcohol Use In Past 30 Days, by Gender and Race/Ethnicity (2007)			
Gender	Past 30 Day	Binge Drinking	Heavy Drinking
Male	33.5	13.7	2.9
Female	21.6	6.1	2.0
Race/Ethnicity			
Hispanic	41.2	22.4	2.0
White	25.6	8.4	2.5
Black	41.0	n/a	5.9
Asian, Pacific Islander	20.6	7.5	n/a
Native American, Alaska Native	23.6	12.7	2.9
Other	41.1	13.0	2.8

Source: Behavioral Risk Factor Surveillance System, State Epidemiological Data System

Adult Alcohol Consumption: Alcohol Use by Pregnant Women

Figure 2.9 examines alcohol use in pregnant women. The Pregnancy Risk Assessment Monitoring System (PRAMS) collects data from pregnant women regarding health behaviors and attitudes, including alcohol use. The figure presents the percentage of women who indicated using alcohol during the last 3 months of their pregnancy from 2000 to 2007. Since 2004, the percentage of pregnant women in Utah indicating alcohol use in the last 3 months of pregnancy has fluctuated within half a percent of 3%.

Figure 2.9:



College Alcohol Consumption in Utah

The Harvard School of Public Health, based on its annual College Alcohol Study, reported that the 2003 mean binge drinking rate was 44.4% ($\pm 14.2\%$) for undergraduates enrolled at institutions of higher education. Research from various studies has identified a range of serious “first-hand” consequences of excessive drinking by college students: deaths from vehicle crashes, accidents, overdoses, suicides, and homicides; battery and sexual assaults; physical injuries and psychological impairments; criminal offenses and legal records; academic failures and career problems; credit card debt and poor credit ratings, etc. The greater community is also subjected to “second-hand” social and economic consequences resulting from individuals’ excessive drinking: physical harm, property damage, devaluation of neighborhoods, community and university degradation, excessive involvement of emergency and public safety personnel, and increased legal costs – all unduly draining available community services and resources.¹

In 2007, the Utah Division of Substance Abuse and Mental Health (DSAMH) conducted the third biennial statewide survey of college students’ use of alcohol, tobacco and other drugs called the Utah Higher Education Health Behavior Survey (previous surveys were conducted in 2003 and 2005). The 2007 survey was completed by 10,186 students from nine public colleges. Table 2.4 presents state level alcohol use data from the UHEHBS. Included in Table 2.4 are data reflecting the percentages of survey participants who had: a) ever used alcohol in their lifetime, b) used in the past year, c) used in the past 30 days, and d) engaged in binge drinking in the 2 weeks prior to the survey. Also presented are data representing a reference group for the U.S. collected by Monitoring the Future from college students. As seen below, alcohol use rates in the higher education population in Utah were lower than the U.S. reference group across all use categories and all years. In comparing use rates within Utah from 2003 to 2007, differences observed across the three administrations of the survey were small, but the general trend appears to be towards a lower prevalence of alcohol use.

Table 2.5 compares alcohol use among male and female students attending colleges and universities in Utah. The data suggest that females generally reported higher rates of past 30 day alcohol use than males, but the opposite was true for binge drinking.

Table 2.4:

Percentage of College Students Indicating Varying Levels of Alcohol Use, Utah and U.S. (2003-2007)						
	UT 2003	UT 2005	UT 2007	U.S. 2003	U.S. 2005	U.S. 2007
Lifetime Alcohol Use	39.7	44.1	42.7	86.2	86.6	83.1
Past Year Alcohol Use	27.8	30.4	29.9	81.7	83.0	80.9
Past 30 Day Alcohol Use	20.4	22.1	21.9	66.2	67.9	66.6
Binge Drinking in Past 2 Weeks	9.4	11.7	10.9	38.5	40.1	41.1

Source: Utah Higher Education Health Behavior Survey (Utah) and Monitoring the Future (U.S.)

Table 2.5:

Alcohol Use Among Utah College Students by Gender (2003-2007)						
	Males			Females		
Indicator	2003	2005	2007	2003	2005	2007
Any Alcohol in the Past 30 Days	19.5	21.9	18.7	20.6	22.2	24.6
Binge Drinking During Past 2 Weeks	n/a	14.0	11.6	n/a	9.7	10.4

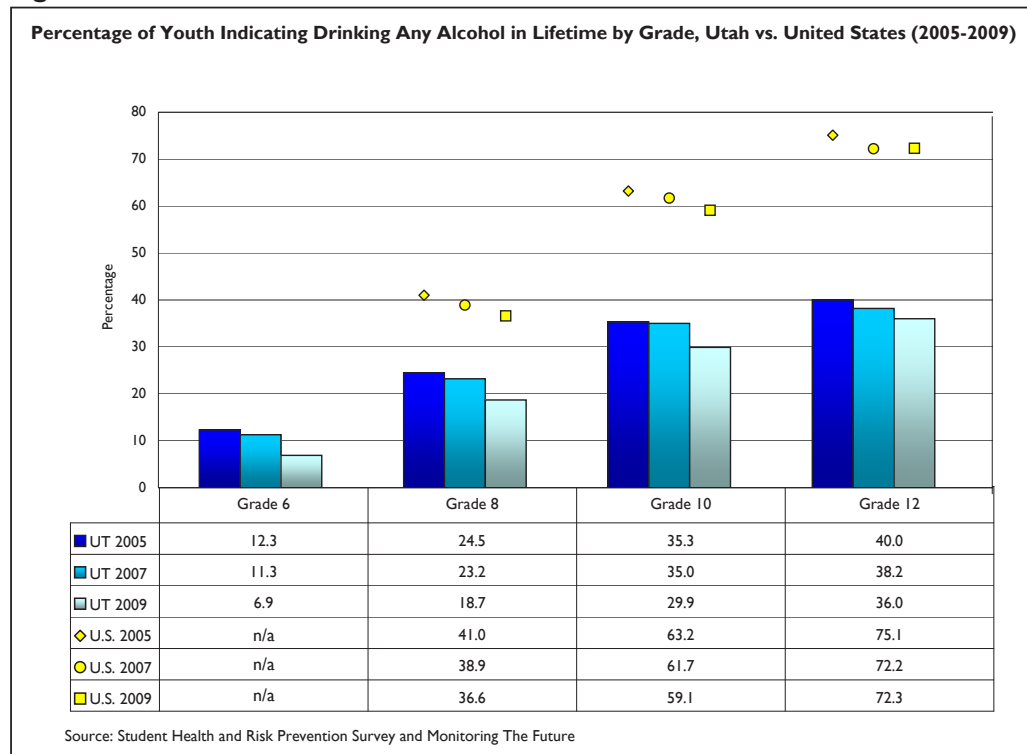
Source: Utah Higher Education Health Behavior Survey (Utah)

Youth Alcohol Consumption: Lifetime Use

Data concerning youth alcohol consumption are available through the Utah Prevention Needs Assessment Survey collected as part of the biennial Student Health and Risk Prevention (SHARP) Survey. The SHARP Survey is a large statewide survey of 6th, 8th, 10th, and 12th grade students designed to measure the prevalence of youth substance use and antisocial behaviors, as well as risk and protective factors that relate to these behaviors. The SHARP Survey has been administered statewide biennially since 2003. National comparisons for the SHARP Survey are available for 8th, 10th, and 12th grades using the Monitoring the Future survey which provides national estimates of substance use prevalence using the same items as the SHARP Survey.

Figure 2.10 displays the percentage of Utah and U.S. students who have ever tried alcohol in their lifetime. Rates of lifetime alcohol use in Utah are well below national rates for all grades and all years. In both Utah and the United States, there has been a slight decrease from 2005 to 2009 among all surveyed grades in the percentage who has ever tried alcohol.

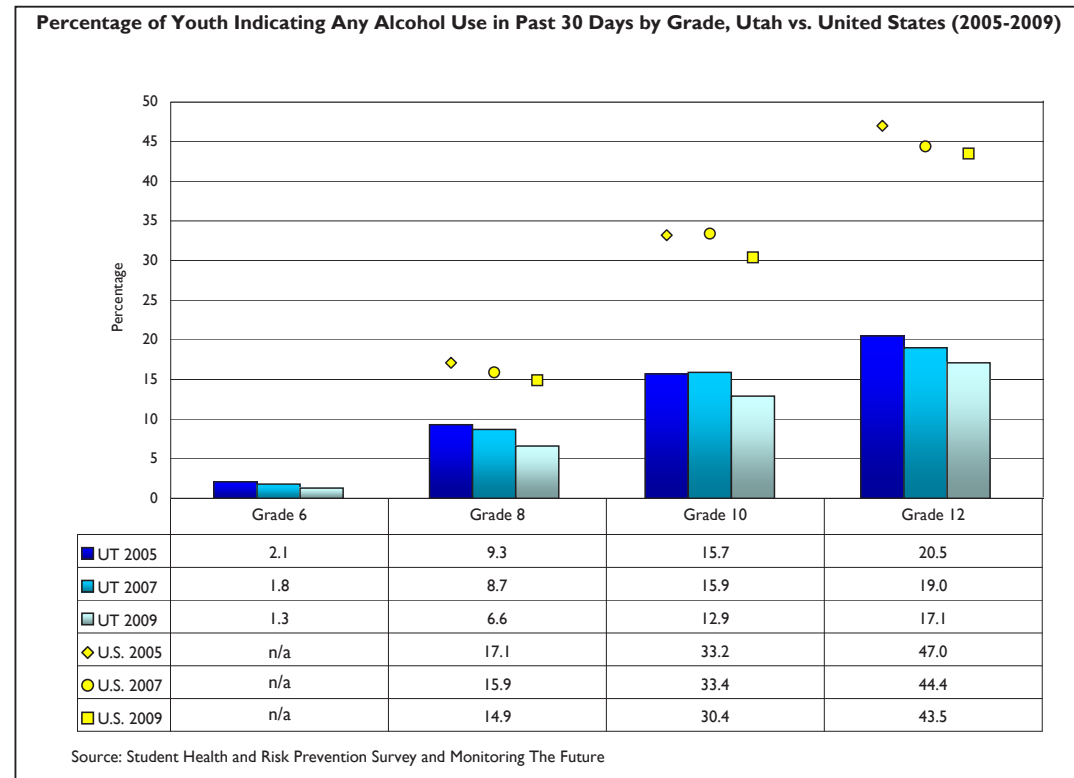
Figure 2.10:



Youth Alcohol Consumption: Past Month Use

While lifetime alcohol use rates provide a barometer for understanding experimentation with alcohol, 30 day use rates provide a better estimate of recent and/or current alcohol use. Figure 2.11 presents 30 day alcohol use rates for Utah and the U.S. by grade from 2005 to 2009. Generally speaking, past 30 day alcohol use rates in Utah are about half of the U.S. rates across all grades. In 2009, 17% of 12th graders in Utah reported using alcohol in the past 30 days, compared to 44% of 12th graders in the United States. The prevalence of past 30 day alcohol use has dropped slightly from 2005 to 2009 for both Utah and the United States.

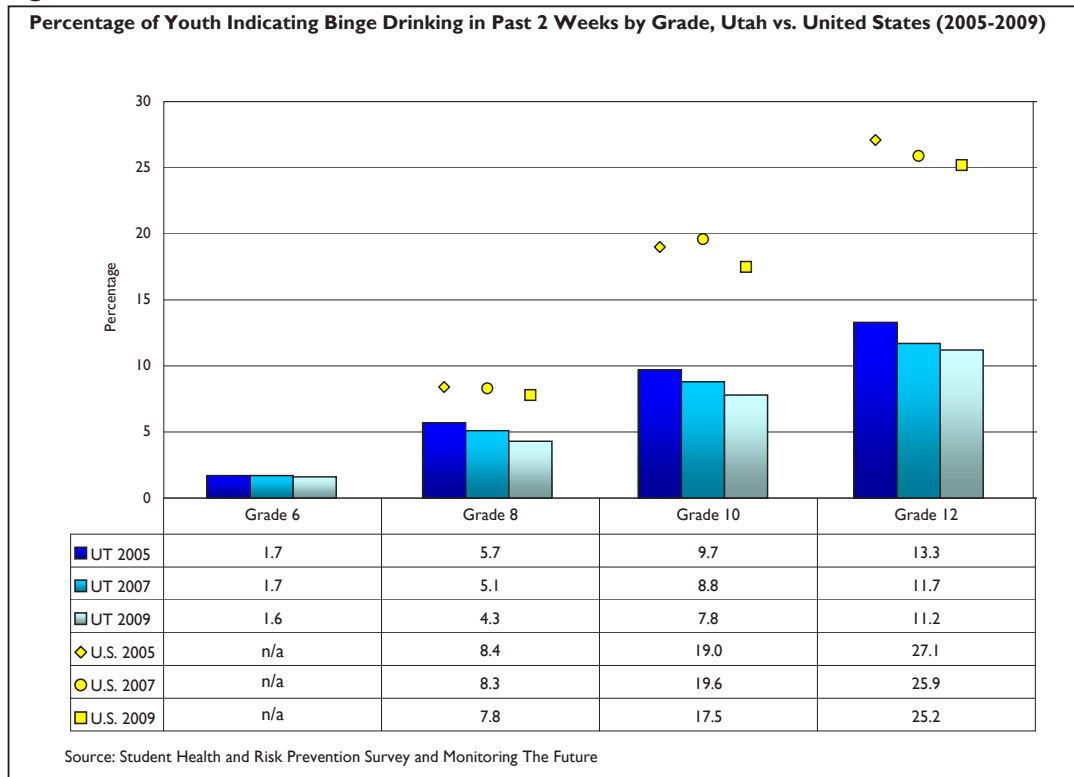
Figure 2.11:



Youth Alcohol Consumption: Binge Drinking

Studies indicate that adolescents drink less frequently than adults but more per occasion, and that binge drinking increases dramatically during adolescence. Binge drinking, as indicated by consumption of five drinks or more within a short time span, is strongly associated with injuries, motor vehicle crashes, violence, fetal alcohol spectrum disorder, chronic liver disease, and a number of other chronic and acute conditions. Binge drinking is defined by the SHARP Survey as having five or more drinks in one occasion in the past 2 weeks. Figure 2.12 presents binge drinking data from the SHARP Survey by grade from 2005-2009. Consistent with the other alcohol use indicators, binge drinking rates in Utah are much lower than rates for the U.S. About one in ten 12th grade students in Utah reported binge drinking in the past 2 weeks, compared to 1 in 4 for the U.S.

Figure 2.12:



Youth Alcohol Consumption: Binge Drinking by Gender

Table 2.6 compares the rates of lifetime, past 30 day, and binge drinking of male and female high school students in Utah from the 2009 SHARP Survey. While males were predictably higher than females for all three levels of alcohol use, differences between the genders were not overly large.

Table 2.6:

Gender Comparisons on Lifetime, Past 30 Day and Binge Drinking among High School Youth (Grades 10 and 12) in Utah (2009)			
Indicator	Male	Female	Total
Drank Alcohol in Lifetime	34.0	32.7	33.3
Alcohol Use in Past 30 Days	15.7	14.3	15.0
Binge Drinking in Past 2 Weeks	11.0	8.1	9.5

Source: Student Health and Risk Prevention Survey

Youth Alcohol Consumption: Alcohol Use by LSAA

Table 2.7 shows the prevalence of lifetime, current, and binge drinking for each Local Substance Abuse Authority (LSAA) from the 2009 SHARP Survey. Summit County had the highest level of reported lifetime, past 30 day, and binge drinking. Other LSAA's with 30 day alcohol use rates higher than the state rate include: Salt Lake County, Four Corners, Tooele, Northeastern, Wasatch, and Weber-Morgan. For binge drinking, Central, Salt Lake County, Four Corners, Tooele, Northeastern, Summit, Wasatch and Weber-Morgan were higher than the state rate.

Table 2.7:

Percentage of High School Youth (Grades 10 and 12) Indicating Alcohol Use in Lifetime, Past 30 Days, and Binge Drinking Past 2 Weeks, by LSAA (2009)			
Local Substance Abuse Authority (LSAA)	Lifetime	Past 30 Day	Binge Drinking in Past 2 Weeks
Bear River District	21.8	9.5	6.2
Central Utah	30.7	14.4	10.9
Davis County	23.4	8.7	4.7
Salt Lake County	45.4	20.4	12.7
Four Corners District	48.4	21.5	14.2
Summit County	59.4	38.3	22.7
Tooele County	42.6	21.2	12.6
Northeastern District	43.4	22.4	13.9
Utah County	14.8	6.1	3.7
Wasatch County	37.2	20.9	15.2
Weber and Morgan Counties	39.7	19.2	13.4
Southwest District	31.0	12.3	8.8
San Juan County	26.6	11.0	8.7
State	33.4	15.0	9.5

Source: Student Health and Risk Prevention Survey

Youth Alcohol Consumption: Age of First Alcohol Use

Research has focused on the association between the age at which a person first uses alcohol and alcohol problems later in life. Delaying the onset of alcohol use has been proposed as a strategy to prevent alcohol dependence or abuse in adulthood. According to a special 2003 National Survey on Drug Use and Health (NSDUH) report, persons reporting first use of alcohol before age 15 were more than 5 times as likely to have past year alcohol dependence or abuse compared with persons who first used alcohol at age 21 or older (16% vs. 3% percent likelihood, respectively). Those who drank before age 15 were also seven times more likely to report having been in a traffic crash because of drinking both during adolescence and adulthood. Additionally, almost 74 percent of U.S. adults aged 21 or older reported that they had started using alcohol before the current legal drinking age of 21. Among these individuals, 4% indicated they were less than 12 years old at time of first use, 14% indicated they were between the ages of 12 and 14, 33% indicated they were between the ages of 15 and 17, and 22% indicated they were between the ages of 18 and 20 at time of first use.

Table 2.8 shows the average age of first alcohol use (among those who indicated using) by male and female 12th grade students. The table shows that Utah male and female students initiate alcohol use at a similar age (at approximately 14.5 years of age). Nationally, the 2003 NSDUH survey indicated that males were more likely than females to report having initiated alcohol use before age 21 (83% vs. 65%, respectively), and also more likely than females to report having first used alcohol before age 15 (24% vs. 13%, respectively).

Table 2.8:

Gender Comparisons on Age of Initiation of Alcohol Use by 12th Grade Youth, Utah (2009)		
	Average Age of First Sip of Alcohol or More	Average Age of First Regular Alcohol Use*
Male	14.3	15.4
Female	14.8	15.7
Combined	14.5	15.5

Source: Student Health and Risk Prevention Survey

*Drinking at least once or twice a month.

Youth Alcohol Consumption: Average Age of First Alcohol Use by LSAA

Table 2.9 shows the average age of first alcohol use (both, first “sip or more,” as well as first “regular” use) among 12th graders in each LSAA in 2009. The table shows that there is not much variation in the age of first alcohol use among the LSAA’s. There is about a one year difference between when youth report having their first sip of alcohol and their initiation of regular use, as defined by drinking “at least once or twice a month.”

Table 2.9:

Average Age of Initiation of Alcohol Use as Reported by 12th Grade Youth, by LSAA (2009)		
Local Substance Abuse Authority (LSAA)	Average Age of First Sip of Alcohol or More	Average Age of First Regular* Alcohol Use
Bear River District	14.6	15.3
Central Utah	14.5	15.4
Davis County	14.9	15.7
Salt Lake County	14.4	15.7
Four Corners District	14.4	15.4
Summit County	14.1	15.5
Tooele County	14.5	15.3
Northeastern District	14.5	15.5
Utah County	14.6	15.5
Wasatch County	14.6	15.3
Weber and Morgan Counties	14.8	15.3
Southwest District	14.4	15.3
San Juan County	13.7	15.4
State	14.5	15.5

Source: Student Health and Risk Prevention Survey

*Drinking at least once or twice a month

Youth Alcohol Consumption: Alcohol Availability

In addition to alcohol use data, the SHARP Survey also asks youth to report where they obtained the alcohol they consumed. Table 2.10 provides a list of possible sources of alcohol and the corresponding percentages for each source, by grade. Across grades 6, 8, 10, and 12 the source of alcohol most often reported was at parties. More surprising, though, is that 34.5% of 6th grade students and 25.8% of 12th grade students got the alcohol from their home with their parent’s permission.

Table 2.10:

Sources of Obtaining Alcohol by Grade, Utah (2009)				
If you drank alcohol (more than just a sip or taste) in the past year, how did you get it?	Grade 6	Grade 8	Grade 10	Grade 12
I bought it myself from a store	4.2	3.2	3.8	11.1
I got it at a party	40.4	54.4	69.6	80.6
I gave someone else money to buy it for me	10.1	20.5	37.2	56.2
I got it from someone I know age 21 or older	34.9	47.4	59.9	72.1
I got it from someone I know under age 21	22.0	39.6	52.6	54.2
I got it from a family member or relative other than my parents	39.4	41.5	38.1	38.0
I got it from home with my parents' permission	34.5	27.7	27.1	25.8
I got it from home without my parents' permission	27.0	39.8	37.2	28.1
I got it another way	30.0	29.2	25.9	22.3

Source: Student Health and Risk Prevention Survey

Consequences of Alcohol Consumption: Overview

According to the U.S. Department of Health and Human Services, injury is the leading cause of death among young people in the United States and alcohol is the leading contributor to injury deaths. Alcohol is involved in approximately half of all homicides and fatal traffic crashes in the United States³. Additionally, according to the National Institute on Alcohol Abuse and Alcoholism (NIAAA), an estimated 5,000 individuals under age 21 die each year in the U.S. from injuries caused by underage drinking. The NIAAA also estimates that underage drinking contributes to about 1,900 motor vehicle crash deaths, about 1,600 homicides, and 300 suicides⁴. It is estimated that underage drinking in Utah cost \$266 million in 2005⁵, with almost \$156 million of the cost a result of youth violence. Many of these costs were connected to alcohol related death and injury, such as direct costs for healthcare, medical consequences of alcohol consumption, ancillary services at motor vehicle crashes, and pain and suffering associated with problems resulting from the use of alcohol by youth. Table 2.11 shows alcohol related causes of death and injury and the percentage that can be attributed to alcohol.

Table 2.11:

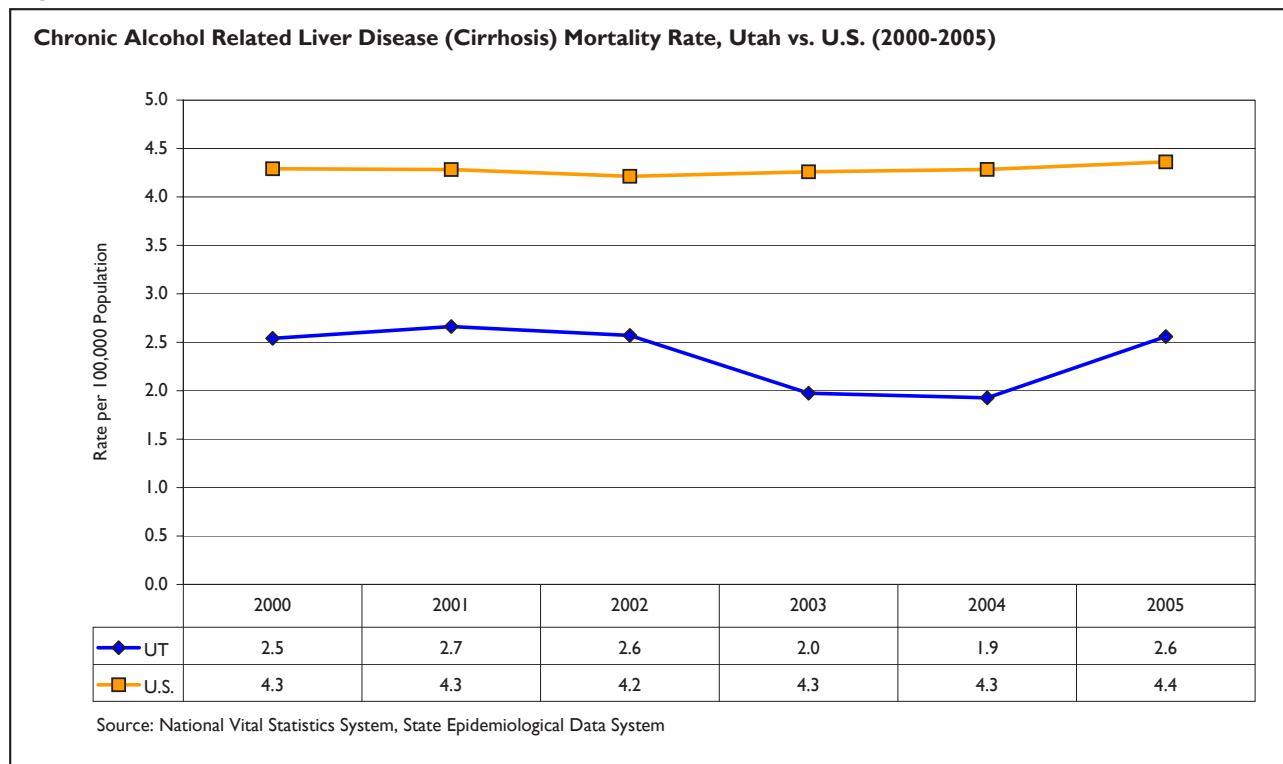
Causes of Death or Injury and Diseases That Are Attributable to Alcohol	
Cause/Disease	Percentage Attributable to Alcohol
Alcohol abuse/dependence	100%
Alcohol cardiomyopathy	100%
Alcohol polyneuropathy	100%
Alcohol-induced chronic pancreatitis	100%
Alcohol gastritis	100%
Alcoholic myopathy	100%
Alcoholic psychosis	100%
Degeneration of nervous system due to alcohol	100%
Fetal alcohol syndrome/Fetus and newborn affected by maternal alcohol use	100%
Alcohol poisoning	100%
Excessive blood alcohol level	100%
Suicide by and exposure to alcohol	100%
Chronic pancreatitis	84%
Gastroesophageal hemorrhage	47%
Homicide	47%
Fire Injuries	42%
Hypothermia	42%
Esophageal varices	40%
Liver cirrhosis unspecified	40%
Portal hypertension	40%
Drowning	34%
Fall injuries	32%
Poisoning (not alcohol)	29%
Acute pancreatitis	24%
Suicide	23%

Source: Centers for Disease Control and Prevention, 2004 (Alcohol-Related Disease Impact System)

Alcohol-Related Mortality and Morbidity: Chronic Liver Disease (Cirrhosis) Deaths

Alcohol-related chronic liver disease, such as cirrhosis, is the single cause of mortality that accounts for the most deaths due to alcohol-related chronic diseases. Long term, heavy alcohol consumption is the leading cause of chronic liver disease, particularly cirrhosis. Chronic liver disease is the 12th leading cause of death in Utah and also in the United States (See Table 1.3 in Introduction section). Approximately 15,000 people in the United States die from cirrhosis each year. Figure 2.13 compares Utah to the United States on the rate of alcohol related cirrhosis deaths from 2000 to 2005. In 2005, 2.6 deaths per 100,000 people in Utah were attributable to alcohol related cirrhosis compared to 4.4 in the United States.

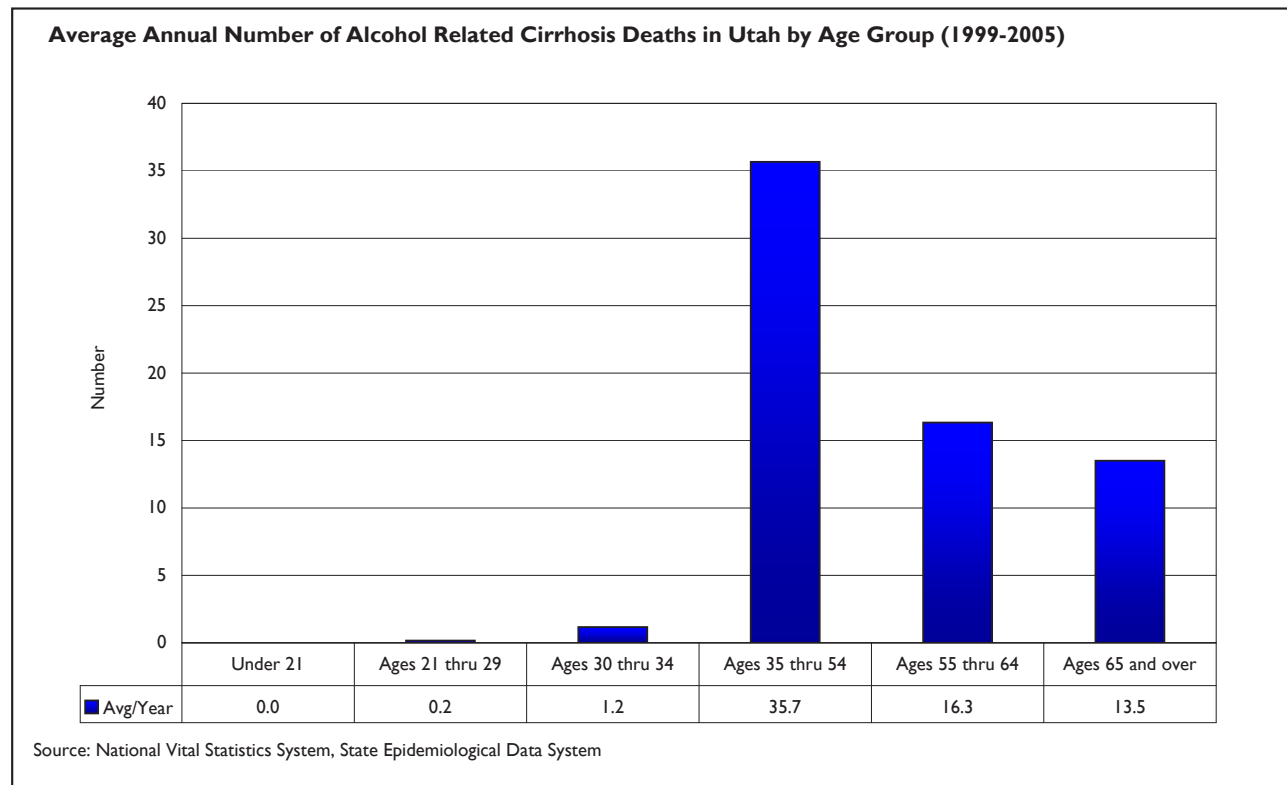
Figure 2.13:



Alcohol-Related Mortality and Morbidity: Chronic Liver Disease (Cirrhosis) Deaths by Age Group

Figure 2.14 displays the average annual number of alcohol-related cirrhosis deaths in Utah by age group for 1999-2005, combined. Cirrhosis deaths are relatively rare before the age of 35. The middle-age adults group (ages 35 thru 54) see the most number of deaths, but it is also the only age group that spans 20 years (the other age categories are generally much shorter, with the exception of 65 and older, which is open ended). The general pattern, however, is that cirrhosis is a long term health consequence of alcohol and thus affects older adults rather than younger individuals.

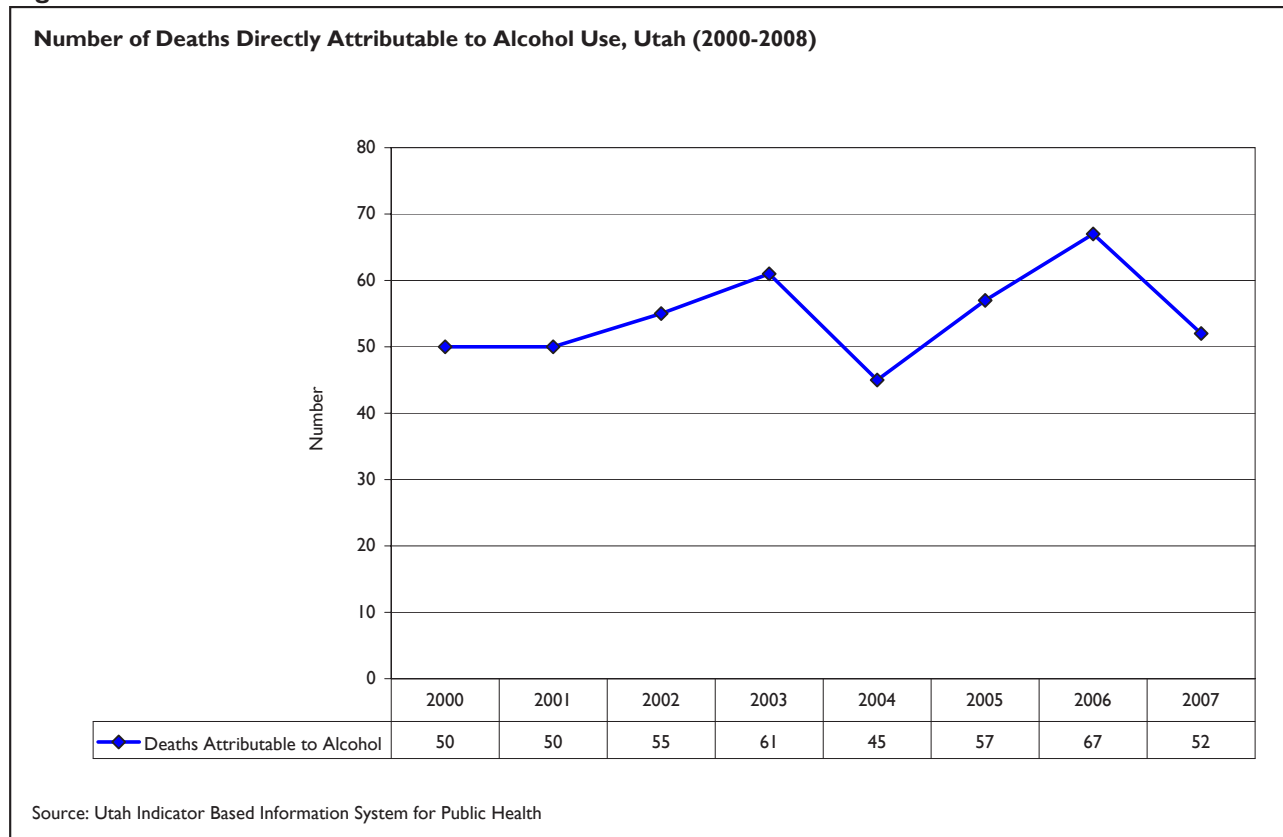
Figure 2.14:



Alcohol-Related Mortality and Morbidity: Alcoholism Fatalities

A number of deaths each year are attributable directly to alcohol use. Figure 2.15, presents the number of deaths from 2000-2008 that were classified with the primary cause of alcohol use, from either acute (e.g., alcohol poisoning) or chronic use (alcoholism related issues). The number of deaths due to a primary cause of alcohol use has fluctuated between a low of 45 (2004) to a high of 67 (2006) between 2000 and 2008.

Figure 2.15:



Alcohol-Related Mortality and Morbidity: Alcoholism Fatalities by LSAA

Table 2.12 provides the rate of alcoholism fatalities by LSAA from 1999-2008 in 5 year aggregates. Northeastern, Four Corners, San Juan and Tooele districts were all consistently higher than the state rate for alcoholism fatalities.

Table 2.12:

Number and Rate of Alcoholism Fatalities by LSAA (1999-2008)				
Local Substance Abuse Authority (LSAA)	1999-2003		2004-2008	
	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Bear River District	8	1.2	**	**
Central Utah	6	1.8	11	3.0
Davis County	22	1.8	15	1.0
Four Corners District*	14	5.2	13	4.8
Northeastern District	14	6.8	14	6.3
Salt Lake County	141	3.1	137	2.8
San Juan County*	14	5.2	13	4.8
Southwest District	12	1.6	13	1.3
Summit County	**	**	**	**
Tooele County	8	3.6	11	4.1
Utah County	14	0.7	26	1.1
Wasatch County	n/a	n/a	n/a	n/a
Weber and Morgan Counties	28	2.7	29	2.6
State of Utah	271	2.4	277	2.1

Source: Utah Indicator Based Information System for Public Health

*Data for this indicator are obtained through the Utah Department of Health. Data for San Juan and Four Corners LSAs are identical because these LSAs are a single district within the UDOH system.

**Estimate suppressed by IBIS because the relative standard error is greater than 50%, the observed number of events is very small, or it could be used to calculate the number in another suppressed cell.

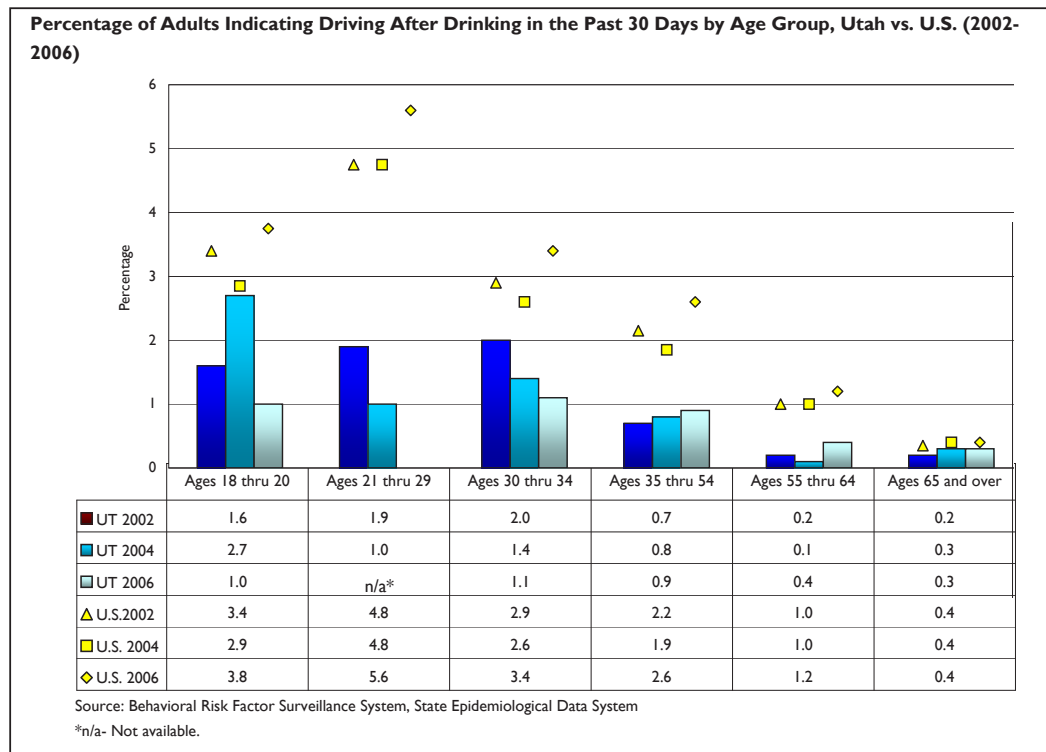
Alcohol-Related Motor Vehicle Crash Fatalities and Injuries

Alcohol consumption impairs a person’s ability to operate a motor vehicle in a safe manner. A large number of alcohol related motor vehicle crashes result in death, injury or property damage each year in Utah. This section of the epidemiological profile report highlights data regarding drinking and driving and alcohol related motor vehicle crashes.

Alcohol-Related Motor Vehicle Crash Fatalities and Injuries: Adult Drinking and Driving

Alcohol Related Motor Vehicle Crashes are a direct result of drinking and driving. The BRFSS Survey provides estimates of drinking and driving behavior at the national and state levels. In the United States, there appears to be a trend in recent years of increased driving after drinking. As is evident in Figure 2.16, the U.S. saw an increase from 2002-2006 in the percentage of individuals who reported driving after “perhaps having too much to drink” in all but the most senior drivers. Utah drivers were less likely to drink and drive compared to U.S. drivers and Utah did not experience an increase in the percentage of adults indicating drinking and driving.

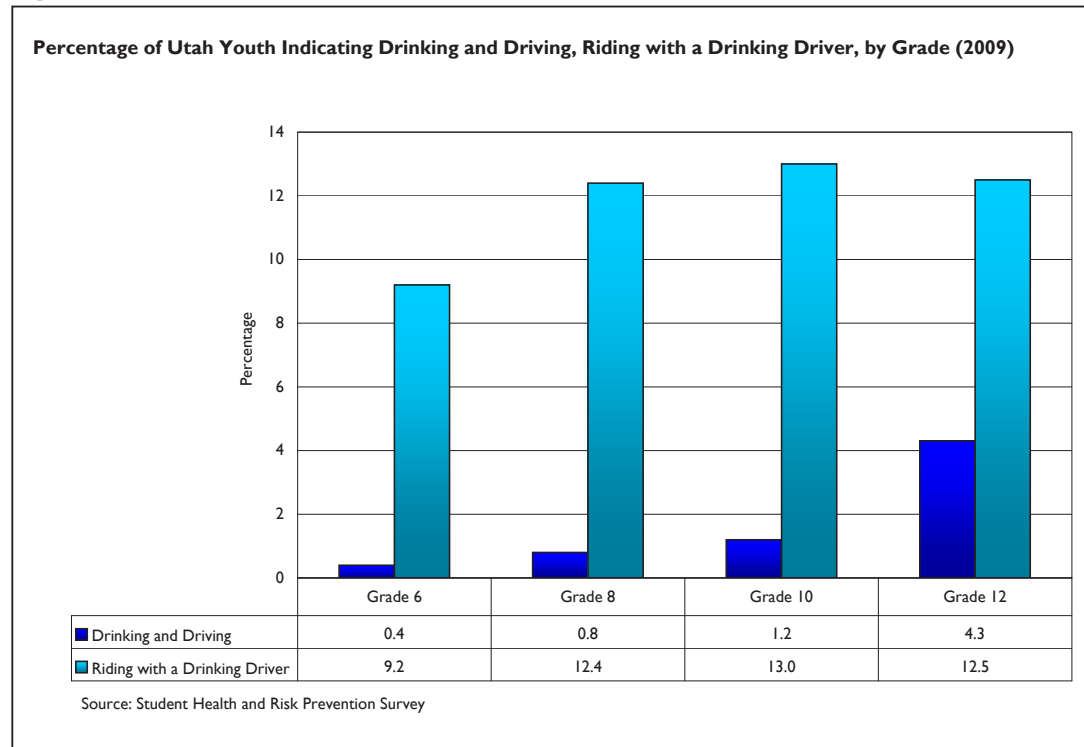
Figure 2.16:



Alcohol-Related Motor Vehicle Crash Fatalities and Injuries: Youth Drinking and Driving

In addition to estimates of adult drinking and driving provided by the BRFSS, the SHARP Survey asks youth about whether they have driven a car or other vehicle after drinking or ridden with a drinking driver in the past 30 days. Figure 2.17 reports the percentage of 6th, 8th, 10th, and 12th graders who have engaged in these risky behaviors. The figure indicates 4.3% of 12th graders in Utah reported driving a vehicle after drinking alcohol and 12.5% of 12th graders were passengers of a driver who was drinking and driving.

Figure 2.17:



Alcohol-Related Motor Vehicle Crash Fatalities and Injuries: Youth Drinking and Driving by LSAA

Table 2.13 provides the 2009 percentage of high school youth who reported drinking and driving and who rode as a passenger of a driver who was drinking and driving in the past 30 days for each LSAA. Wasatch County LSAA had the highest level of drinking and driving high school youth. Summit County and Salt Lake County both had about 18% of high school youth indicate that they had ridden in a car with a drinking driver in the past 30 days.

Table 2.13:

Percentage of High School Youth (Grades 10 and 12) Indicating Drinking and Driving, Riding with a Drinking Driver, by LSAA (2009)		
Local Substance Abuse Authority (LSAA)	Drinking and Driving	Riding with a Drinking Driver
Bear River District	2.1	9.3
Central Utah	4.5	13.4
Davis County	0.8	7.9
Four Corners District	6.0	16.7
Northeastern District	3.7	13.9
Salt Lake County	3.6	17.9
San Juan County	3.2	17.6
Southwest District	3.4	11.2
Summit County	4.7	18.4
Tooele County	4.2	14.0
Utah County	1.1	6.5
Wasatch County	7.4	17.0
Weber and Morgan Counties	3.5	13.0
State	2.8	12.8

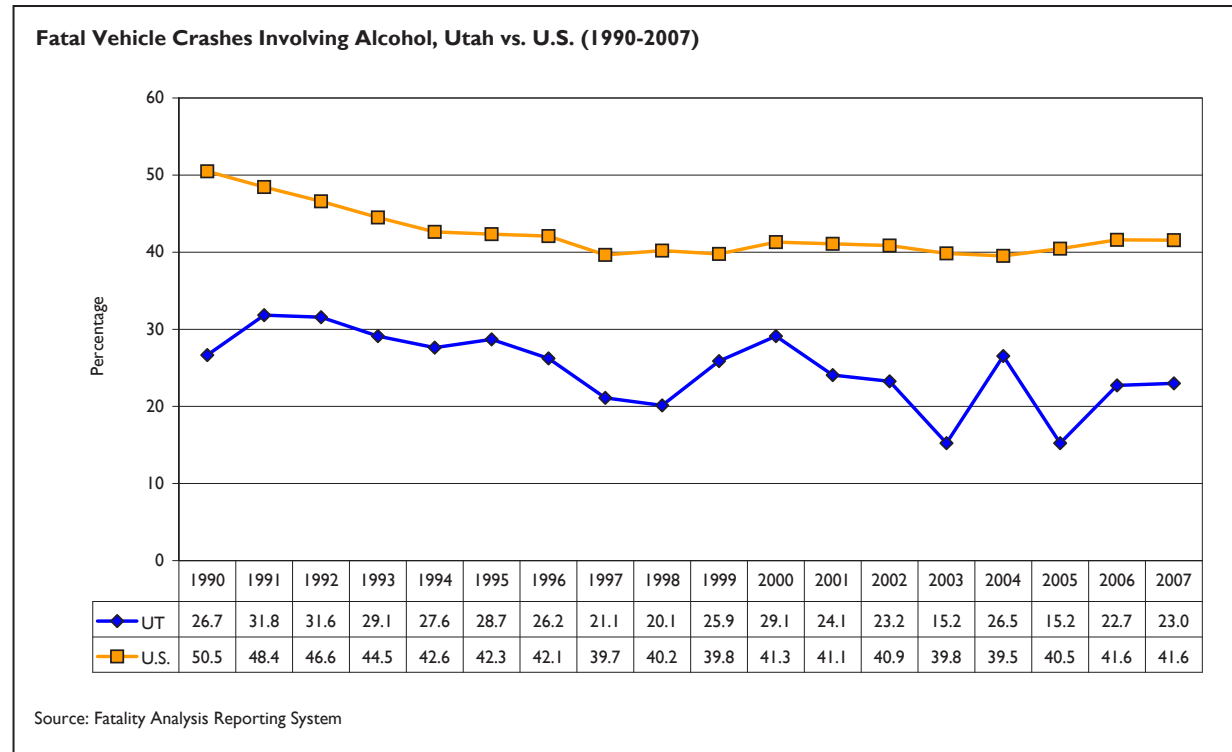
Source: Student Health and Risk Prevention Survey

Alcohol-Related Motor Vehicle Crash Fatalities and Injuries: Fatal Vehicle Crashes Involving Alcohol

Two sources of data provide estimates of the number of alcohol related motor vehicle crashes (ARMVC) that occur in Utah each year. The first source is the National Highway Traffic Safety Administration’s (NHTSA) Fatality Analysis Reporting System (FARS) which provides both national and state level estimates for alcohol-related crashes and fatalities. The second source of ARMVC data is from the Utah Department of Public Safety’s Highway Safety Office (UHSO). While FARS data allow easy comparisons between trends in Utah and the U.S. (as well as other states), UHSO data provide greater detail regarding alcohol-related crashes that occur within the state (e.g., UHSO provides data regarding the number of alcohol involved crashes resulting in injury and property damage only, as well as fatal crashes). Both data sources are useful and important for understanding ARMVC trends in the state. However, it is important to note that estimates provided by FARS often differ substantially from estimates provided by UHSO. The FARS uses a statistical model to amend the statistics from each state agency in an effort to estimate the likelihood that unclassified crash deaths can be attributed to alcohol (NHTSA DOT HS 810 627). Their estimation method leads to larger estimates of ARMVC than through UHSO.

According to FARS data, almost 17,000 people die from alcohol-related crashes each year in the U.S. Fatal vehicle crashes involving alcohol account for approximately 40 percent of U.S. traffic fatalities. Additionally, motor vehicle crashes are the leading cause of death for people ages 15-19. Figure 2.18 illustrates that in Utah the proportion of fatal accidents involving alcohol is much lower than for the nation. In 2007, 23 percent of all fatal vehicle crashes in Utah involved alcohol, compared to 42 percent for the U.S.

Figure 2.18:



Alcohol-Related Motor Vehicle Crash Fatalities and Injuries: Fatalities and Injuries by Age Group and Demographics

Data provided by the Utah Highway Safety Office’s Crash Facts Reports allows examinations of alcohol related crashes by age, gender and county. Figure 2.19 shows the percentage of alcohol involved injury and fatal vehicle crashes by age group for 2007. Those at highest risk are individuals between the ages of 20 and 29. This age group accounted for 41% of all crashes, 43% of all injury crashes, and 32% of all fatal crashes. Table 2.14 provides a gender comparison on alcohol-impaired drivers in injury, fatal, and all crashes. Males were four times more likely to be involved in alcohol related crashes and more than five time more likely to be involved in alcohol related fatal crashes.

Figure 2.19:

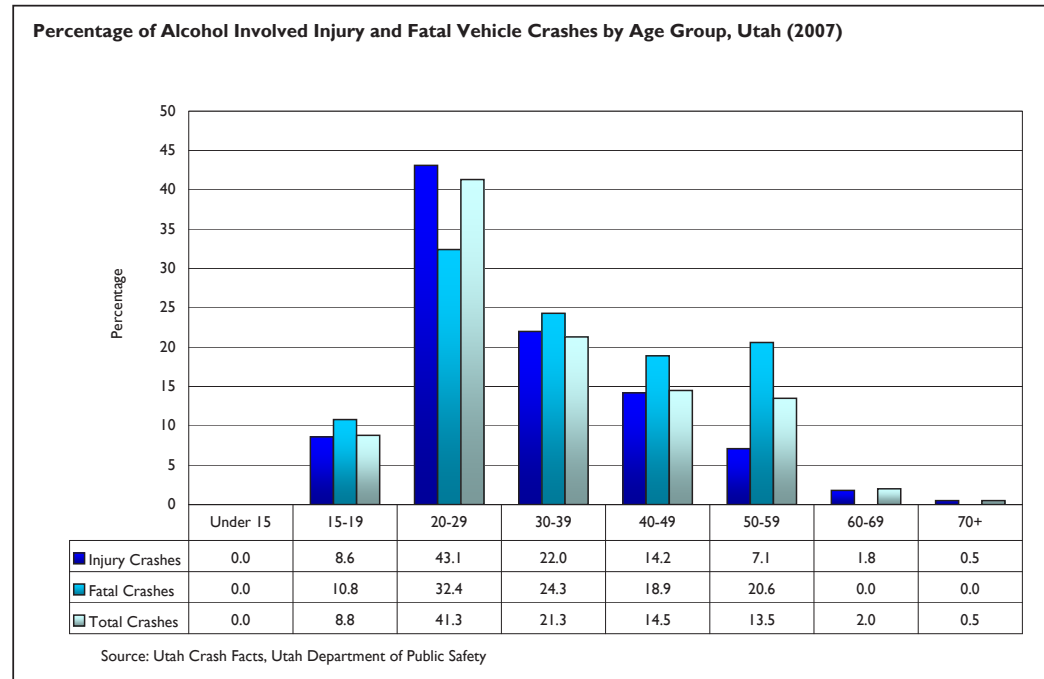


Table 2.14:

Gender of Driver in Alcohol Related Injury and Fatal Crashes, Utah (2007)

	Injury Crashes		Fatal Crashes		Total Crashes	
	Number	Percentage	Number	Percentage	Number	Percentage
Male	963	77.1%	31	83.8%	2,059	75.0%
Female	267	21.4%	6	16.2%	601	21.9%
Unknown	19	1.5%	0	0.0%	86	3.1%
Total	1,249	100.0%	37	100.0%	2,746	100.0%

Source: Utah Crash Facts, Utah Department of Public Safety

Alcohol-Related Motor Vehicle Crash Fatalities and Injuries: Fatalities and Injuries by LSAA

Table 2.15 lists the number and rate of alcohol related injury and fatal crashes as well as the total number of alcohol related crashes (including those that result in property damage only) for 2006 and 2007 combined for each LSAA. Caution should be used in interpreting rates of low population LSAs as a small change in the number of fatal crashes can lead to large changes in rates for these LSAs. For example, in 2006-2007 San Juan County had a rate of 10.5 fatal crashes per 100,000 population, which was the highest rate of all the LSAs in the state. However, the actual number of fatal crashes in San Juan in 2007 was three crashes. Because of the small population (approximately 15,000 people) in this LSAA, their rate was much higher relative to other districts. It is recommended that several data years be considered when examining data from LSAs with small populations.

Additionally, counties and LSAs with major interstates or close to recreational areas are likely to have higher rates of crashes due to relatively higher levels of traffic. In such cases, high rates of alcohol related crashes may be affected by residents outside of the county (LSAA) and not necessarily a simple reflection of alcohol consumption and consequences of the local residents.

Table 2.15: Number and Rate of Alcohol Related Injury and Fatal Vehicle Crashes, by LSAA (2006-2007 Combined)

	Injury Crashes		Fatal Crashes		Total Crashes	
	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Bear River District	115	36.6	6	1.9	220	70.1
Central Utah	105	76.3	7	5.1	185	134.4
Davis County	169	29.8	6	1.1	379	66.9
Four Corners District	73	93.4	4	5.1	144	184.3
Northeastern District	76	84.2	3	3.3	155	171.7
Salt Lake County	1,086	54.5	25	1.3	2,420	121.5
San Juan County	17	59.7	3	10.5	36	126.5
Southwest District	216	56.9	14	3.7	423	111.4
Summit County	42	59.8	3	4.3	114	162.3
Tooele County	76	71.0	5	4.7	142	132.6
Utah County	307	30.8	10	1.0	639	64.2
Wasatch County	25	62.0	0	0.0	60	148.9
Weber and Morgan Counties	211	46.5	8	1.8	475	104.6
State of Utah	2,518	47.9	94	1.8	5,392	102.6

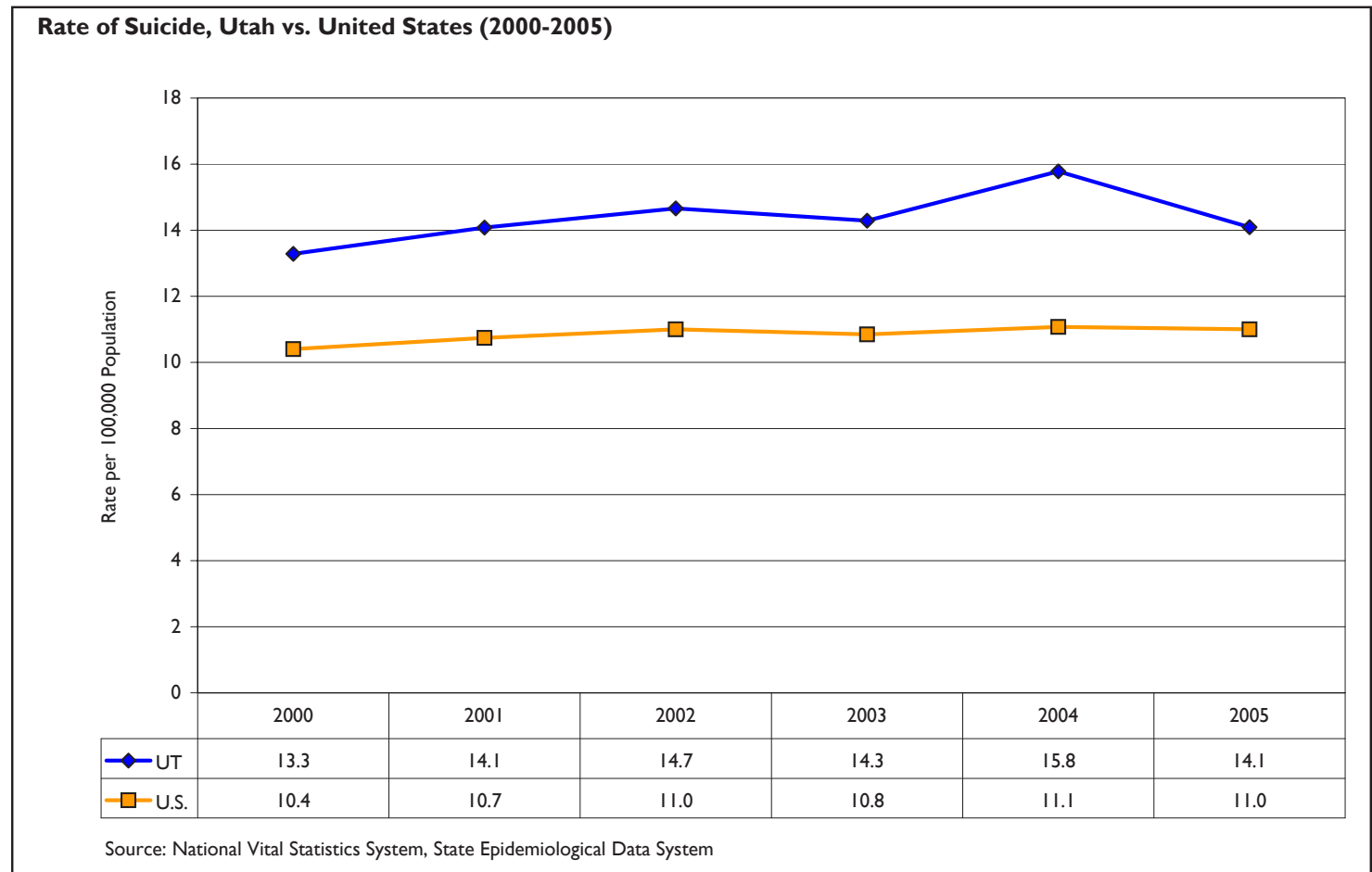
Source: Compiled with data from Utah Crash Facts, Utah Department of Public Safety.

Alcohol-Related Mortality and Morbidity: Suicides

The association between alcohol use and suicide has been well documented. Suicidal individuals have high rates of alcohol use and abuse and alcohol abusers have higher rates of suicidal behavior⁶. It is estimated that about 23 percent of suicides are attributable to alcohol.

In 2006, Suicide was the 8th leading cause of death in Utah and the 11th leading cause of death in the United States (See Table 1.3 in Introduction section). As can be seen in Figure 2.20, from 2000 through 2005 death rates from suicide in Utah were higher than national rates. Utah has about 3-4 more suicide deaths per 100,000 population compared to the nation.

Figure 2.20:



Alcohol-Related Mortality and Morbidity: Suicides by Demographics

Table 2.16 lists the number and rate of suicides by ethnic group and gender. Native Americans have the highest rate of suicide in Utah, followed by Blacks. Males are almost five times more likely to die from suicide compared to females.

Table 2.16:

Rate of Suicides in Utah by Ethnicity and Gender (2005)		
Ethnicity/Race	Number	Rate per 100,000 Population
Asian, Pacific Islander	9	13.3
Black	5	20.7
Hispanic	19	7.1
Native American	8	26.9
White	307	14.8
Gender		
Female	62	5.0
Male	286	23.1

Source: National Vital Statistics System, State Epidemiological Data System

Alcohol-Related Mortality and Morbidity: Suicides by LSAA

Table 2.17 shows the number and rate of suicides for each LSAA from 2000-2008 in 3 year aggregates. Four Corners District, Northeastern District, Central and San Juan County all had elevated rates of suicide during this timeframe relative to the state rate.

Table 2.17:

Number and Rate of Suicide Deaths by LSAA (2000-2008)						
Local Substance Abuse Authority (LSAA)	2000-2002		2003-2005		2006-2008	
	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Bear River District	46	11.0	56	12.7	42	8.8
Central Utah	28	13.8	50	23.7	42	19.0
Davis County	100	13.5	95	11.7	113	12.7
Four Corners District*	29	18.1	39	24.6	37	22.8
Northeastern District	18	14.5	28	22.1	31	22.6
Salt Lake County	393	14.3	433	15.1	450	14.7
San Juan County*	29	18.1	39	24.6	37	22.8
Southwest District	69	15.4	68	13.0	85	13.8
Summit County	7	7.5	10	9.5	12	10.4
Tooele County	21	15.8	10	6.6	24	14.1
Utah County	121	10.4	144	10.9	135	9.0
Wasatch County	12	24.4	7	12.1	7	10.6
Weber and Morgan Counties	102	16.4	116	17.7	131	19.0
State of Utah	946	13.7	1,056	14.2	1,109	13.7

Source: Utah Indicator Based Information System for Public Health

*Data for this indicator are obtained through the Utah Department of Health. Data for San Juan and Four Corners LSAs are identical because these LSAs are a single district within the UDOH system.

Alcohol-Related Mortality and Morbidity: Accidental Deaths Due to Falls and Drowning by LSAA

According to the Centers for Disease Control and Prevention, the fourth and sixth leading causes of injury deaths in the United States were accidental falls and drowning in 2006⁸. As a group, accidents/unintentional injury were the third leading cause of death in Utah and the 5th leading cause in the U.S (See Table 1.3 in Introduction section). Accidental falls and accidental drowning are among the leading causes of accidental deaths after motor vehicle accidents. According to the Centers for Disease Control and Prevention (CDC), these causes of accidental death are often associated with alcohol consumption³.

Table 2.18 displays the number and average rates of deaths due to accidental falls in three year groupings for each of Utah's LSAA. The table indicates that the state of Utah had 360 deaths due to accidental falls from 2006 to 2008, which is an average of 4.5 deaths per 100,000 population. San Juan and Four Corners District had the highest rates of accidental fall deaths in 2006-2008. However, in 2003-2005 these two districts had some of the lowest rates in the state, re-emphasizing the point that rates for areas with small populations can vary widely from year and year, and, therefore, several data points are needed to understand the rate of deaths in areas with small populations. Central and Weber-Morgan LSAs both had rates above the state rate for more than one time period between 2000-2008.

Table 2.18: Number and Rate of Deaths from Accidental Falls by LSAA (2000-2008)

Local Substance Abuse Authority (LSAA)	2000-2002		2003-2005		2006-2008	
	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Bear River District	15	3.6	17	3.9	20	4.2
Central Utah	10	4.9	15	7.1	15	6.8
Davis County	27	3.6	42	5.2	34	3.8
Four Corners District*	7	4.4	6	3.8	12	7.4
Northeastern District	7	5.6	6	4.7	6	4.4
Salt Lake County	126	4.6	126	4.4	140	4.6
San Juan County*	7	4.4	6	3.8	12	7.4
Southwest District	22	4.9	27	5.2	23	3.7
Summit County	**	**	5	4.7	**	**
Tooele County	**	**	6	4.0	**	**
Utah County	36	3.1	41	3.1	55	3.7
Wasatch County	**	**	**	**	**	**
Weber and Morgan Counties	27	4.3	36	5.5	40	5.8
State of Utah	287	4.2	329	4.4	360	4.5

Source: Utah Indicator Based Information System for Public Health

*Data for this indicator are obtained through the Utah Department of Health. Data for San Juan and Four Corners LSAs are identical because these LSAs are a single district within the UDOH system.

**Estimate suppressed by IBIS because the relative standard error is greater than 50%, the observed number of events is very small, or it could be used to calculate the number in another suppressed cell.

Alcohol-Related Mortality and Morbidity: Accidental Deaths Due to Falls and Drowning by LSAA, Cont.

Table 2.19 shows the number and average rate of accidental drowning deaths for 1999-2003 and for 2004-2008 by LSAA. In 2004-2008 there were 116 deaths in Utah due to accidental drowning, which calculates to a rate of about 1 per 100,000 population. Because of the relative infrequency of drowning deaths in Utah, data for many LSAsAs was not available for publication (due to low numbers of events within the given time frame).

Table 2.19:

Number and Rate of Accidental Drowning and Submersion Deaths by LSAA (1999-2008)				
Local Substance Abuse Authority (LSAA)	1999-2003		2004-2008	
	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Bear River District	11	1.6	6	0.8
Central Utah	6	1.8	**	**
Davis County	28	1.1	11	0.9
Four Corners District*	5	1.9	**	**
Northeastern District	**	**	**	**
Salt Lake County	35	0.8	36	0.7
San Juan County*	5	1.9	**	**
Southwest District	6	0.8	14	1.4
Summit County	**	**	**	**
Tooele County	**	**	**	**
Utah County	21	1.1	21	0.9
Wasatch County	**	**	n/a	n/a
Weber and Morgan Counties	14	1.4	9	0.8
State of Utah	117	1.0	116	0.9

Source: Utah Indicator Based Information System for Public Health

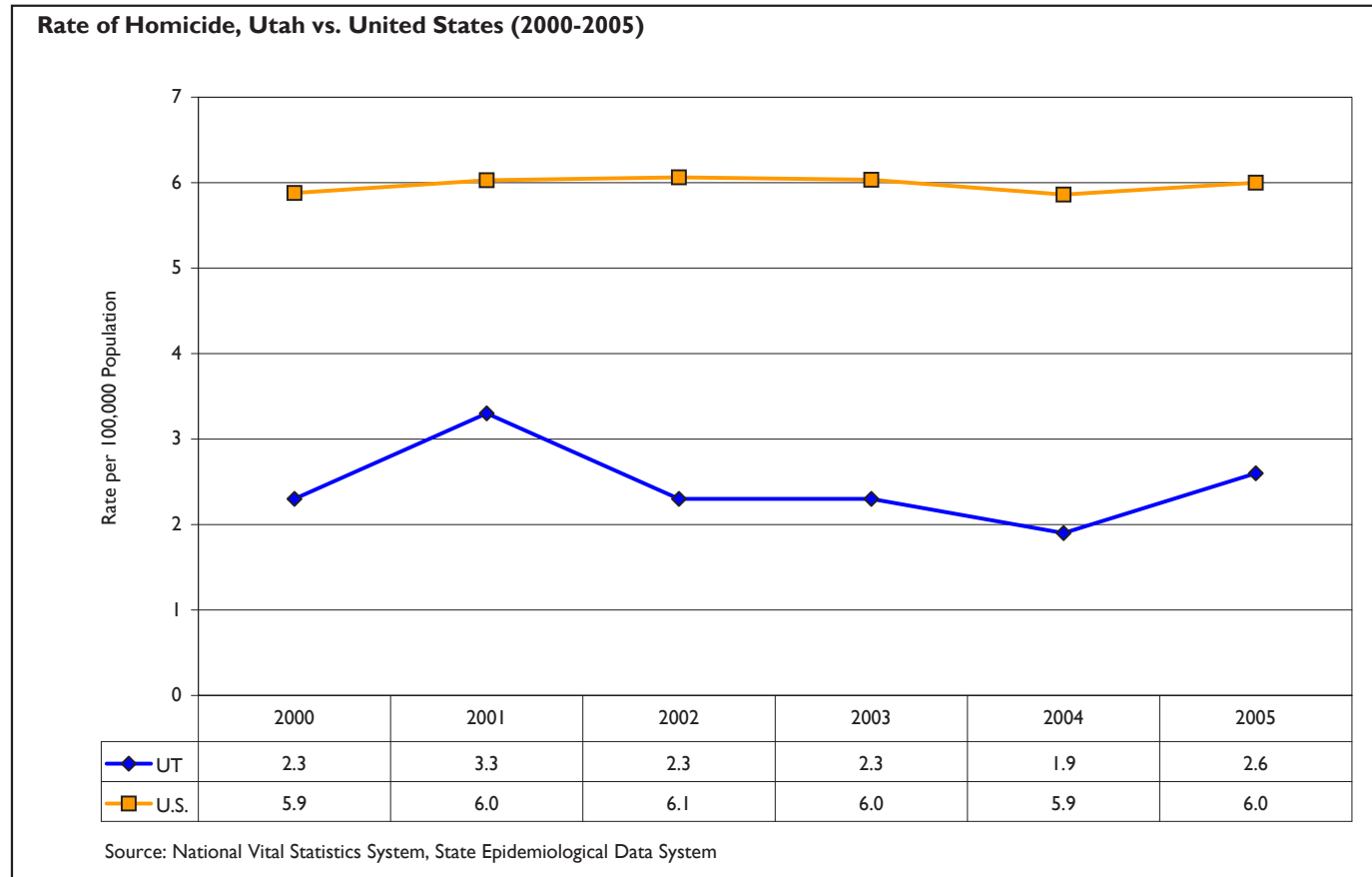
*Data for this indicator are obtained through the Utah Department of Health. Data for San Juan and Four Corners LSAsAs are identical because these LSAsAs are a single district within the UDOH system.

**Estimate suppressed by IBIS because the relative standard error is greater than 50%, the observed number of events is very small, or it could be used to calculate the number in another suppressed cell.

Alcohol-Related Mortality and Morbidity: Homicides

According to the Center for Substance Abuse Prevention’s State Epidemiological Data System website, it is estimated that approximately 47 percent of homicides in the United States are attributable to alcohol. Figure 2.21 presents the homicide rates for Utah and the U.S. from 2000-2005. As seen in the figure, Utah’s homicide rate has consistently been about half of the nation’s rate.

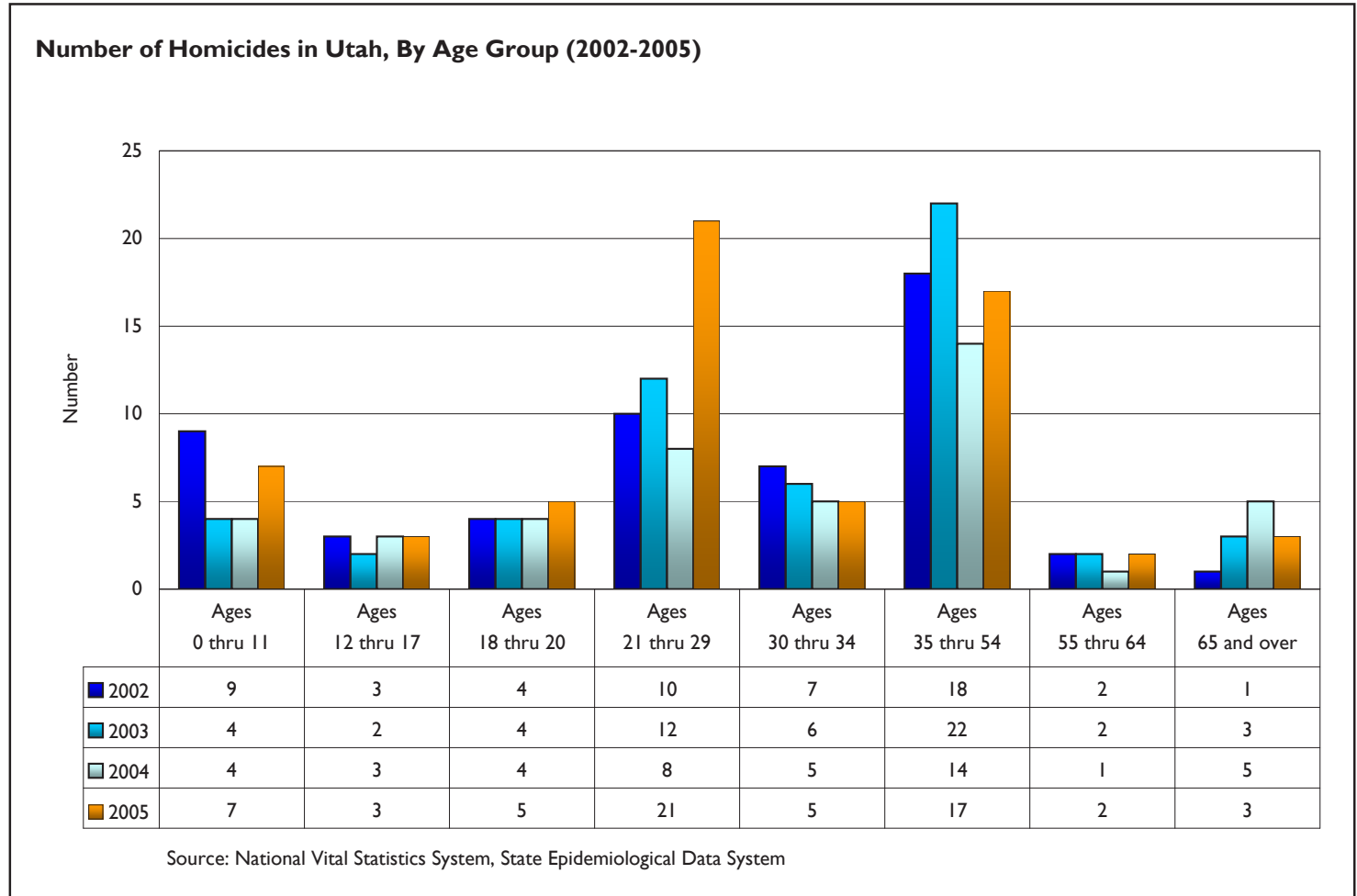
Figure 2.21:



Alcohol-Related Mortality and Morbidity: Homicides by Age Group

Figure 2.22 shows the number of homicides in Utah by age cohort for 2005. Consistent with national homicide trends, the highest number of homicides was in the 21-29 age cohort. The number of homicides in the 35-54 cohort was also consistently high, but this is to be expected given the large number of individuals who fall into this age group.

Figure 2.22:



Alcohol-Related Mortality and Morbidity: Homicides by Demographics

Table 2.20 shows the discrepancy in the rates of homicide among different ethnic groups and between genders. Whites have a homicide rate that is a third of any of the other ethnic/racial groups in Utah. Predictably, males are almost twice as likely to be victims of homicide than females in Utah.

Table 2.20:

Rate of Homicides in Utah by Ethnicity and Gender (2005)		
Ethnicity/Race	Number	Rate per 100,000 Population
Asian, Pacific Islander	4	5.9
Black	2	8.3
Hispanic	18	6.7
Native American	2	6.7
White	37	1.8
Gender		
Female	22	1.8
Male	41	3.3

Source: National Vital Statistics System, State Epidemiological Data System

Alcohol-Related Mortality and Morbidity:

Alcohol-Related Emergency Room Encounters by LSAA

In addition to the alcohol related mortality indicators presented above, emergency department data also provide information pertaining to injuries that are explicitly linked to alcohol use. Table 2.21 provides the rate of alcohol poisoning emergency department encounters by LSAA from 1999-2007 in 3 year aggregates. As expected, Salt Lake County accounts for the largest proportion of emergency department encounters resulting from alcohol poisoning, followed by Utah and Davis Counties. LSAA's with high rates of alcohol poisoning emergency department encounters include: Four Corners, San Juan County, and Tooele County.

Table 2.21:

Number and Rate of Alcohol Poisoning Emergency Department Encounters by LSAA (1999-2007)						
Local Substance Abuse Authority (LSAA)	1999-2001		2002-2004		2005-2007	
	Number	Rate per 100,000	Number	Rate per 100,000	Number	Rate per 100,000
Bear River District	65	15.9	48	11.1	35	7.6
Central Utah	30	15.0	30	14.3	37	17.0
Davis County	116	16.1	93	11.8	144	16.7
Four Corners District*	32	19.8	43	27.1	56	34.8
Northeastern District	18	14.7	20	15.9	40	30.0
Salt Lake County	621	22.9	547	19.4	516	17.2
San Juan County*	32	19.8	43	27.1	56	34.8
Southwest District	50	11.7	52	10.5	103	17.6
Summit County	8	8.9	6	5.9	14	12.5
Tooele County	25	20.1	19	13.0	48	29.4
Utah County	156	13.9	191	15.1	191	13.3
Wasatch County	7	15.1	**	n/a	**	n/a
Weber and Morgan Counties	56	9.1	69	10.7	89	13.1
State of Utah	1,184	17.6	1,122	15.5	1,277	16.2

Source: Utah Indicator Based Information System for Public Health

*Data for this indicator are obtained through the Utah Department of Health. Data for San Juan and Four Corners LSAA's are identical because these LSAA's are a single district within the UDOH system.

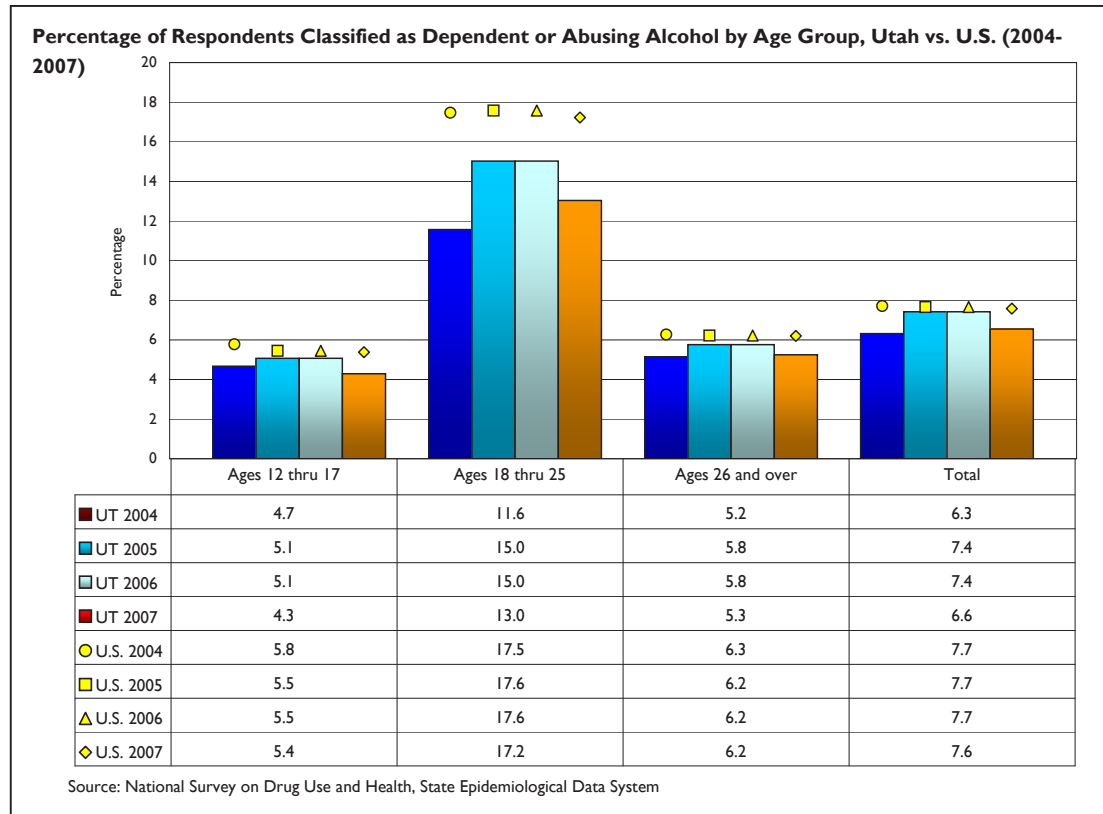
**Estimate suppressed by IBIS because the relative standard error is greater than 50%, the observed number of events is very small, or it could be used to calculate the number in another suppressed cell.

Alcohol-Related Mortality and Morbidity: Alcohol Abuse and Dependence by Age Group

Abuse and dependence are clinical terms used to characterize patterns of alcohol use associated with significant social, psychological, and physical problems for the user and/or others that may be impacted by the user. The NSDUH defines alcohol dependence or abuse using criteria specified in the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), which include such symptoms as recurrent alcohol use resulting in physical danger, trouble with the law due to alcohol use, increased tolerance to alcohol, and giving up or reducing other important activities in favor of alcohol use.

Figure 2.23 shows that the percentages of alcohol abuse or dependence among adults in Utah were similar to national rates between 2004 and 2007, with the exception of the rates for young adults, ages 18-25, which were below national rates.

Figure 2.23:

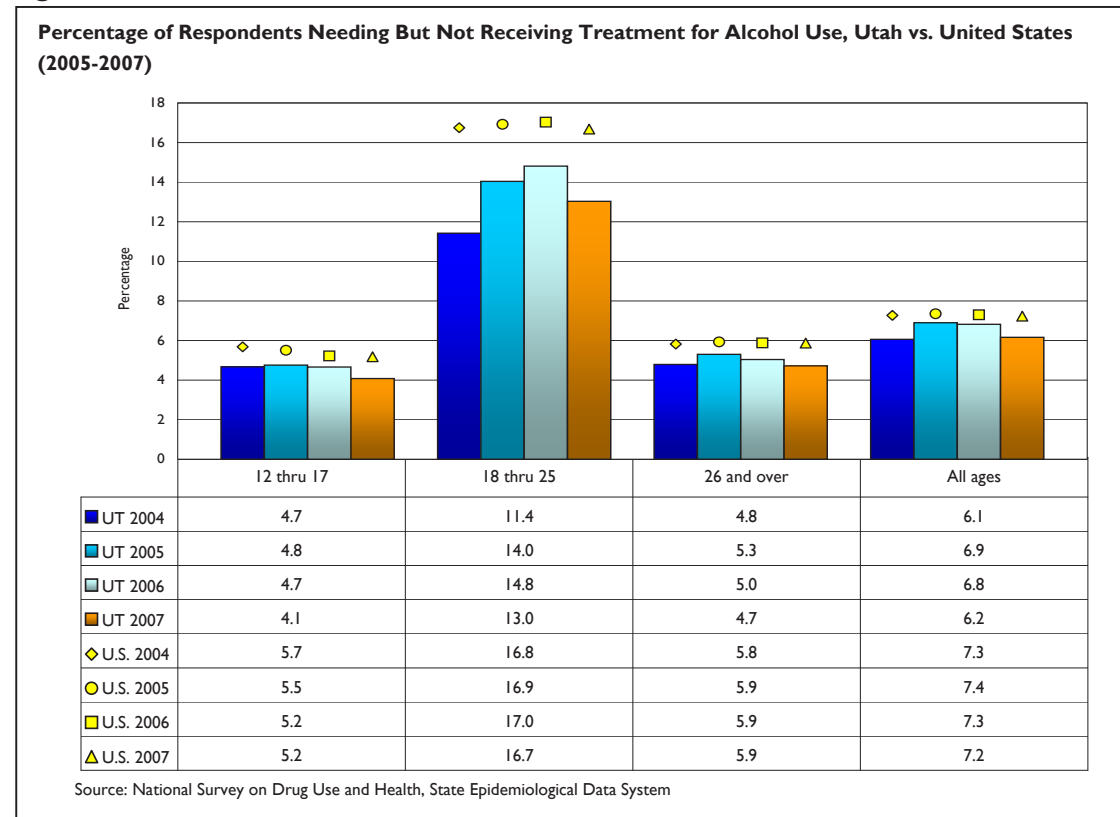


Alcohol-Related Mortality and Morbidity: Adults in Need of Treatment

National NSDUH data indicate that in 2007 about one fifth of young adults aged 18 to 25 were classified as in need of either alcohol and/or drug treatment (21.1% were classified as needing treatment for alcohol or illicit drug use; 16.7% were in need of alcohol use treatment, and 4.4% were in need of both alcohol and illicit drug use treatment). NSDUH also reported that less than one tenth (7%) of the young adults who were in need of alcohol or illicit drug use treatment in the past year received it.

Figure 2.24 compares percentages of individuals needing but not receiving treatment for alcohol use in Utah vs. the U.S. Though Utah's overall percentage is just slightly lower the national percentage, among the age group that is at highest risk for not receiving treatment (those ages 18-25), Utah had a noticeably lower prevalence of individuals needing but not receiving treatment for alcohol abuse.

Figure 2.24:



Alcohol-Related Mortality and Morbidity: Youth in Need of Treatment

Estimates of the percentage of youth in need of alcohol treatment are provided by the Student Health and Risk Prevention Survey through scores on a need for alcohol treatment scale included in the survey. The scale consists of a six question scale that has been shown to be highly correlated with alcohol dependence and abuse. The questions ask respondents if they have spent more time using alcohol than intended, neglected some of their usual responsibilities because of using alcohol, wanted to cut down on alcohol use, had others object to their alcohol use, if they frequently found themselves thinking about using alcohol, and if they used alcohol to relieve feelings such as sadness, anger or boredom. Table 2.22 presents the percentage of youth in grades, 8, 10 and 12 that were classified as in need for alcohol treatment between 2005 and 2009. The trend for all grades from 2005 to 2009 was a decreasing percentage of youth being classified as needing alcohol treatment.

Table 2.22:

Youth Classified as Needing Treatment for Alcohol by Grade (2005-2009)									
	Grade 8			Grade 10			Grade 12		
	2005	2007	2009	2005	2007	2009	2005	2007	2009
Percent Classified as Needing Treatment for Alcohol	2.2	2.0	1.5	6.0	5.4	4.6	8.6	7.0	6.4

Source: Student Health and Risk Prevention Survey

Alcohol-Related Mortality and Morbidity: College Students in Need of Treatment

For the college and university population in Utah, the Utah Higher Education Health Behavior Survey includes questions regarding their need for treatment. Table 2.23 lists the questions and the percentage of students who responded yes to each need for treatment question. The last line of the table presents the percentage of students who are likely to need treatment based on responding yes to at least three or more of the six questions.

Table 2.23:

Need for Alcohol Treatment Among Utah College Students (2007)	
Need for Treatment Symptoms: In the past 12 months, have...	% Responding Yes
You spent more time using alcohol than you intended?	4.8
You neglected responsibilities because of alcohol use?	4.5
You wanted to cut down on alcohol use?	7.1
Has anyone objected to your alcohol use?	6.1
You frequently thought about using alcohol?	8.4
You used alcohol to relieve bad feelings?	11.4
Needs Alcohol Treatment (based on above questions)	6.3

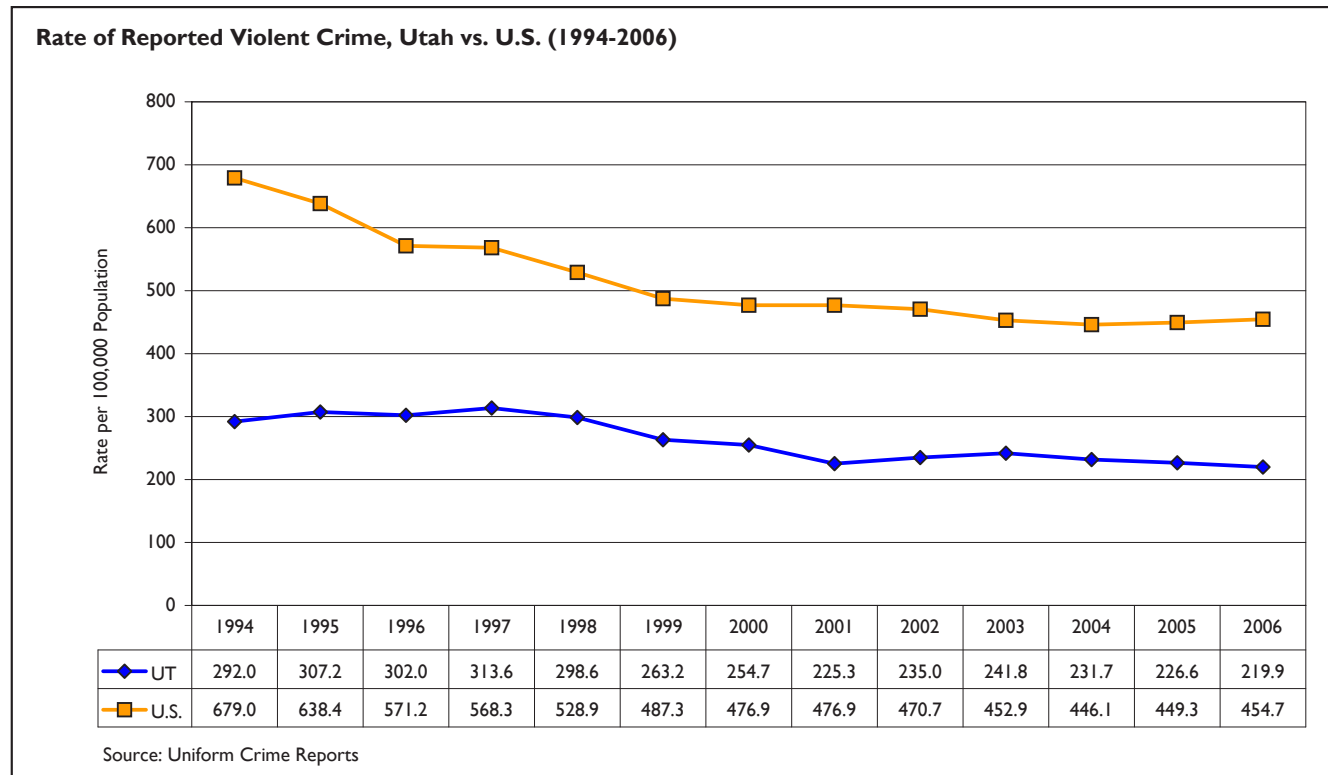
Source: Utah Higher Education Health Behavior Survey

Other Alcohol-Related Consequences: Violent Crime

Violence is associated with alcohol, though the causal pathway is not completely understood. Drinking on the part of the victim or a perpetrator can increase the risk of assaults and assault-related injuries. According to CSAP's State Epidemiological Data System (SEDS) website, approximately 23% of sexual assaults, 30% of physical assaults, and 3% of robberies are attributable to alcohol. Based on another set of estimates, alcohol is thought to be a key factor in as many as 68% of manslaughters, 62% of assaults, 54% of murders/attempted murders, and 48% of robberies⁷.

Figure 2.25 compares the rate of violent crime between Utah and the United States. The Uniform Crime Reports defines violent crime as simple and aggravated assault, sexual assault, and robbery. As seen in Figure 2.25, Utah has had a much lower rate of reported violent crime than the nation since at least 1994. In 2006, the rate of reported violent crime in Utah was 220 violent crimes per 100,000 versus 455 in the United States. Also evident is a slight decrease in the rate of reported violent crime during the last decade for both the United States and Utah.

Figure 2.25:



Other Alcohol-Related Consequences: Violent Crime by LSAA

Table 2.24 lists the number and rate of reported violent crimes in each LSAA. In both 2005 and 2006, Salt Lake County had the highest number and rate of reported violent crime in the state. Weber-Morgan district had the second highest rates. No other district exceeded the state rate during 2005 or 2006. Again, counties with smaller populations may be prone to large swings in the rate of this and other indicators, therefore interpretation of rate data for any single year from a county with a small population should be made with caution.

Table 2.24:

Number and Rate of Violent Crime Reports by LSAA (2005, 2006)				
	2005		2006	
	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Bear River District	132	86.5	130	83.8
Central Utah	86	127.7	79	116.1
Davis County	329	122.0	293	105.1
Four Corners District	82	212.7	62	160.1
Northeastern District	72	167.3	85	192.4
Salt Lake County	3,397	353.4	3,542	358.9
San Juan County	11	79.2	11	78.6
Southwest District	362	206.9	256	137.9
Summit County	40	115.4	44	126.2
Tooele County	71	141.6	91	173.8
Utah County	470	103.3	433	89.8
Wasatch County	13	69.3	18	90.6
Weber and Morgan Counties	531	239.5	564	251.3
State of Utah	5,596	223.7	5,608	216.9

Source: Uniform Crime Reports, State Epidemiological Data System

Section 3:

Tobacco Use in Utah: Consumption Patterns and Consequences



Section 3 Contents:

- Tobacco Indicator Overview
- Tobacco Consumption in Utah
 - Consumption Patterns and Concerns
 - Adult Tobacco Consumption
 - Youth Tobacco Consumption
- Consequences of Tobacco Consumption

Tobacco Indicator Overview

The following tables (Tables 3.1 and 3.2) provide an overview of the tobacco use and consequence indicators presented in this section of the report. While not all of the tobacco related indicators contained in this section of the report lend themselves for inclusion in the overview tables, the tables provide a useful summary of tobacco related data at the state level. Presented in this format, the data tables allow for a comparison of use rates across different populations, as well a comparison of most of the tobacco consequence indicators included in this epidemiological profile report. For more information about the attributes included in the table or explanations of data source acronyms please see page 1.4 of the Introduction.

Table 3.1:

Estimates of Tobacco Use								
	Indicator	Age Category	Year	Utah	USA	Utah:USA Ratio	Utah Trend	Data Source
Youth	30 Day Smokeless Tobacco (%)	Grade 6	2009	.5	Not Available	Not Available	Stable	SHARP
		Grade 8	2009	1.3	3.7	.35	Stable	SHARP
		Grade 10	2009	2.9	6.5	.47	Fluctuating	SHARP
		Grade 12	2009	3.7	8.4	.44	Fluctuating	SHARP
	30 Day Smoking (%)	Grade 6	2009	.7	Not Available	Not Available	Stable	SHARP
		Grade 8	2009	2.8	6.5	.43	Stable	SHARP
		Grade 10	2009	5.8	13.1	.44	Stable	SHARP
		Grade 12	2009	8.3	20.1	.41	Stable	SHARP
	Chronic Heavy Smoking (%) (1/2 pack or more/day)	Grade 6	2009	.1	Not Available	Not Available	Stable	SHARP
		Grade 8	2009	.2	1.0	.20	Stable	SHARP
		Grade 10	2009	.8	2.4	.33	Stable	SHARP
		Grade 12	2009	1.1	5.0	.22	Decreasing	SHARP
Adult	Current smoking (%)		2007	11.7	19.8	.59	Stable	BRFSS
	Current Smokers Who Attempted to Quit Smoking in Past Year (%)		2005	49.6	48.2	1.03	Decreasing since 2001	UT IBIS
	College Enrolled Population 30 Day Cigarette Use (%)		2007	6.4	19.9	.32	Decreasing	UHEBHS
	Smoked during last 3 months of pregnancy (%)		2007	5.3	Not Available	Not Available	Stable	UT IBIS

Tobacco Indicator Overview, Cont.

Table 3.2:

Tobacco Use Consequences									
	Indicator	Years	Average Annual Number of Cases	Average Rate per 100,000 Population	UT:USA Rate Ratio	Utah Trend	Time from Use to Outcome	Strength of Relationship	Data Source
Mortality	Lung Cancer (ICD-10 C34)	2000-2005	413	17.6	.32	Stable	Distant	Strong	NVSS
	Ischemic Cerebrovascular Disease (ICD-10 I20-I25, I60-I69)	2000-2005	2479	105.8	.48	Slightly Decreasing	Distant	Strong	NVSS
	Cardiovascular Disease (ICD-10 I00-I09, I11, I13, I26-I51 (exclude I32, I39, I41), I51.6)	2000-2005	1325	56.6	.81	Stable	Distant	Strong	NVSS
	Other Lung Diseases (ICD-10 K73-K74)	2000-2005	533	22.8	.55	Stable	Distant	Strong	NVSS
	Accidental Deaths due to Fires	2000-2008	10.3	.41	Not Available	Fluctuating	Short	Low-Medium	UT IBIS

Tobacco Consumption: Patterns and Concerns

Tobacco consumption rates in Utah are lower than rates for the nation. Data on both adult and youth cigarette use illustrate that past 30 day cigarette use rates in Utah were generally about half that of U.S. rates.

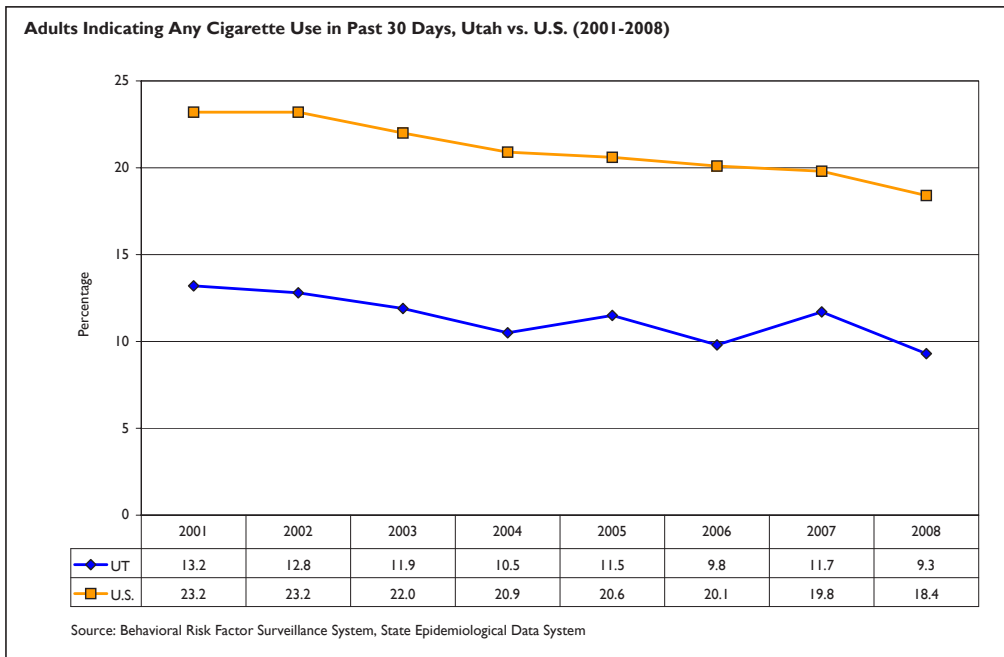
The use of tobacco is strongly associated with a variety of negative health consequences. In fact, four of the five leading causes of death in Utah and the U.S. for 2006 are at least partially attributable to tobacco use (heart disease, cancer, strokes, and respiratory disease). Consistent with the significantly lower rate of smoking in Utah compared to the U.S., Utah has historically had a lower rate of disease deaths associated with tobacco consumption.

Adult Tobacco Consumption in Utah: Past Month Use

The Behavioral Risk Factor Surveillance System (BRFSS) is an annually conducted telephone health survey system that has tracked health conditions and risk behaviors in the U.S. since 1984. BRFSS asks adults (18 and older) to respond to questions about health-related issues (see Note below). Included in the BRFSS survey are questions about past 30 day tobacco consumption among adults, as well as lifetime use, and frequency of use. Figure 3.1 presents the trend of smoking in the past 30 days for Utah and the U.S. Past 30 day consumption is often used as a marker of current smoking. From 2001 to 2008, the percentage of current smokers in Utah has been lower than the percentage of current smokers in the U.S. by about eight to eleven percentage points. The prevalence of past 30 day smoking has been steadily decreasing in the U.S., but this trend is not as apparent in Utah.

Figure 3.1:

Adults Indicating Any Cigarette Use in Past 30 Days, Utah vs. U.S. (2001-2008)

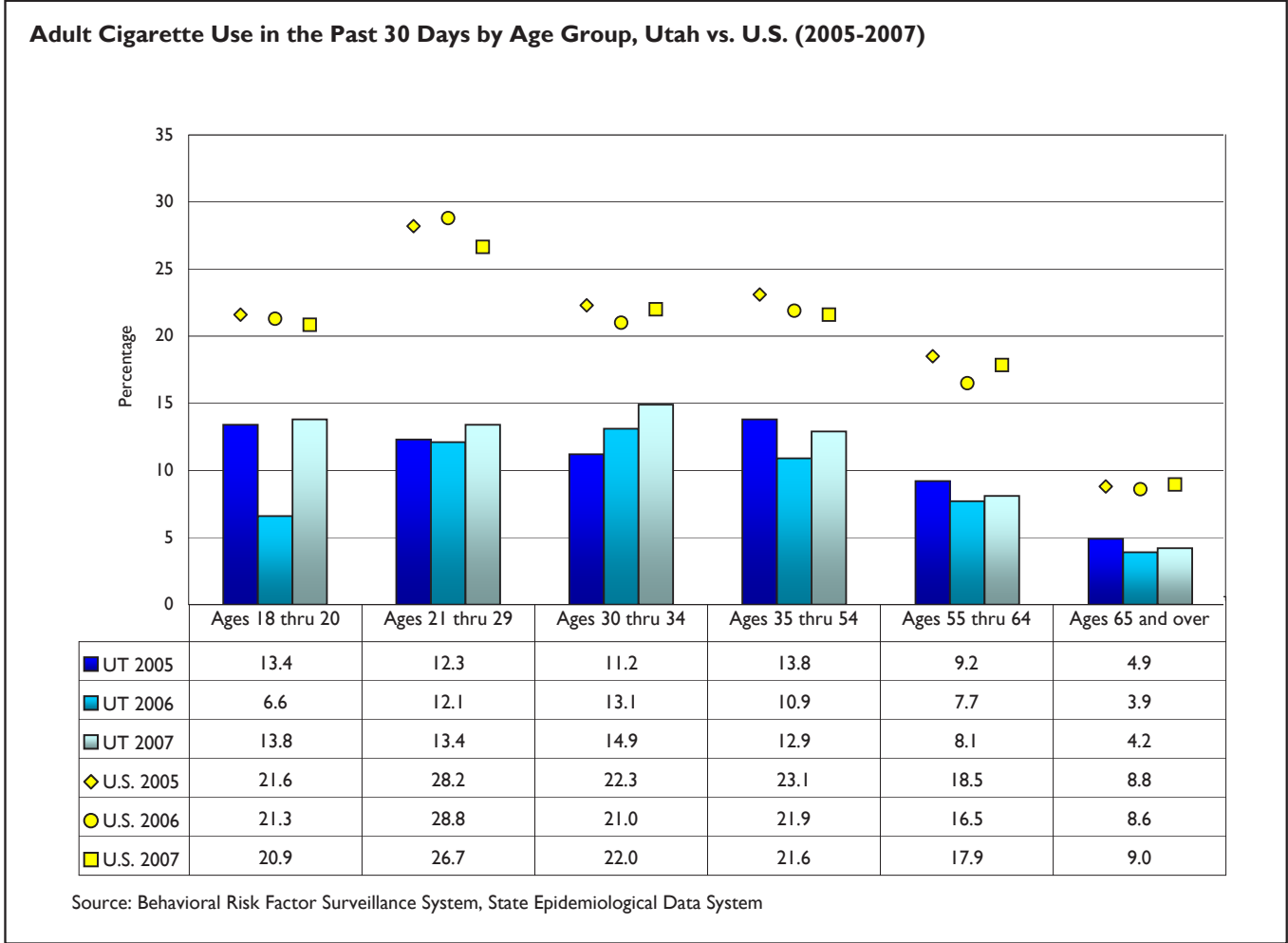


NOTE: BRFSS estimates with confidence interval data are included in Appendix C for those interested in examining the 95% confidence range for Utah state level BRFSS estimates.

Adult Tobacco Consumption: Past Month Use by Age Group

Figure 3.2 compares adult past 30 day cigarette use in Utah and the U.S. among different age groups from 2005-2007. The figure illustrates that Utah cigarette use rates were lower for all age groups compared to the U.S. Within the state, the 30-34 age group had the highest use rates in 2006 and 2007.

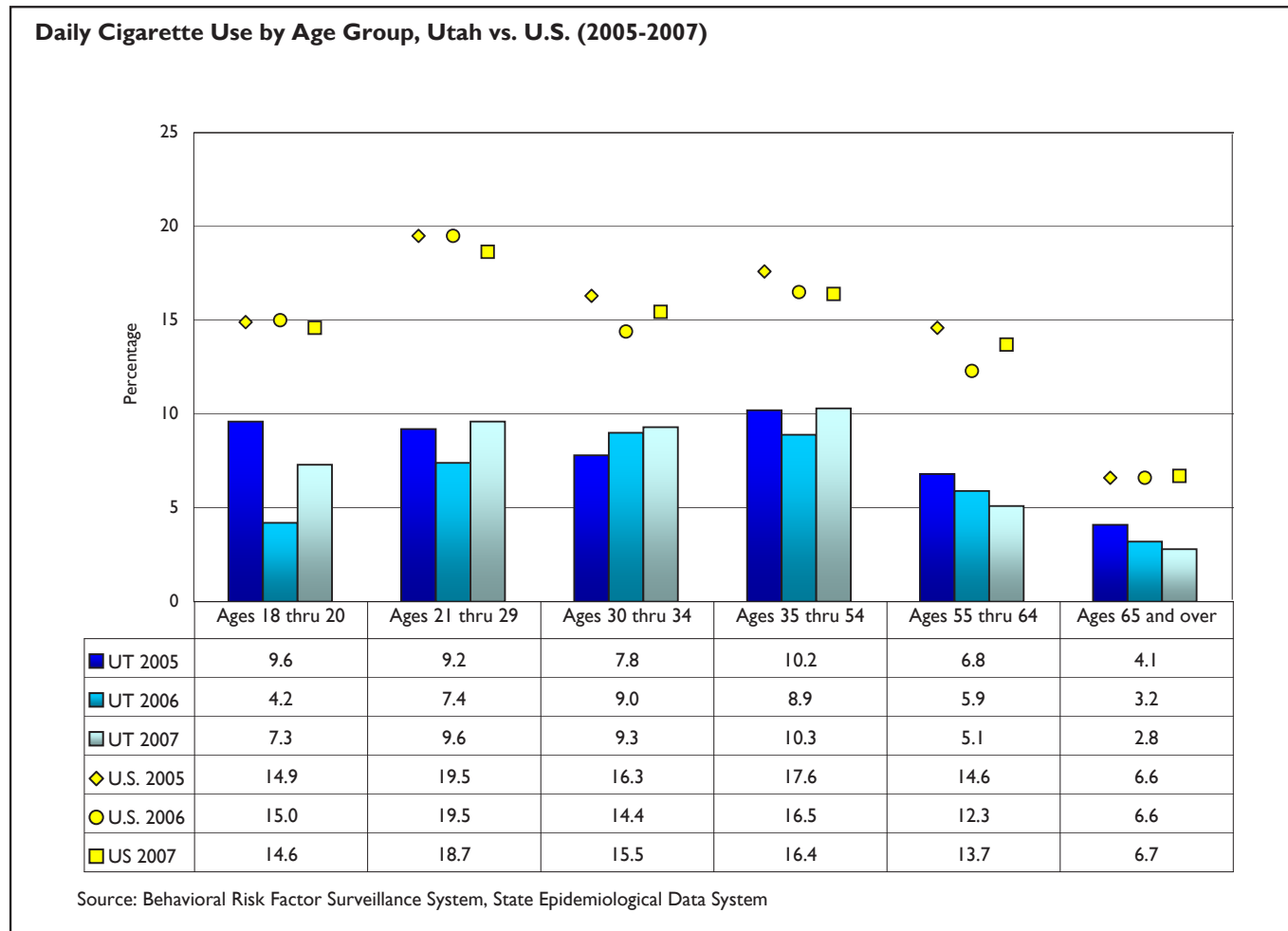
Figure 3.2:



Adult Tobacco Consumption: Daily Cigarette Use by Age Group

In addition to 30 day use rates for cigarettes, the BRFSS attempts to measure frequent or heavy use of cigarettes by inquiring about daily cigarette use. Figure 3.3 compares Utah adults to U.S. adults on reported daily cigarette use. Consistent with the overall trend of adult cigarette use indicators, the prevalence of daily cigarette use was substantially lower in Utah than in the U.S. across all age categories.

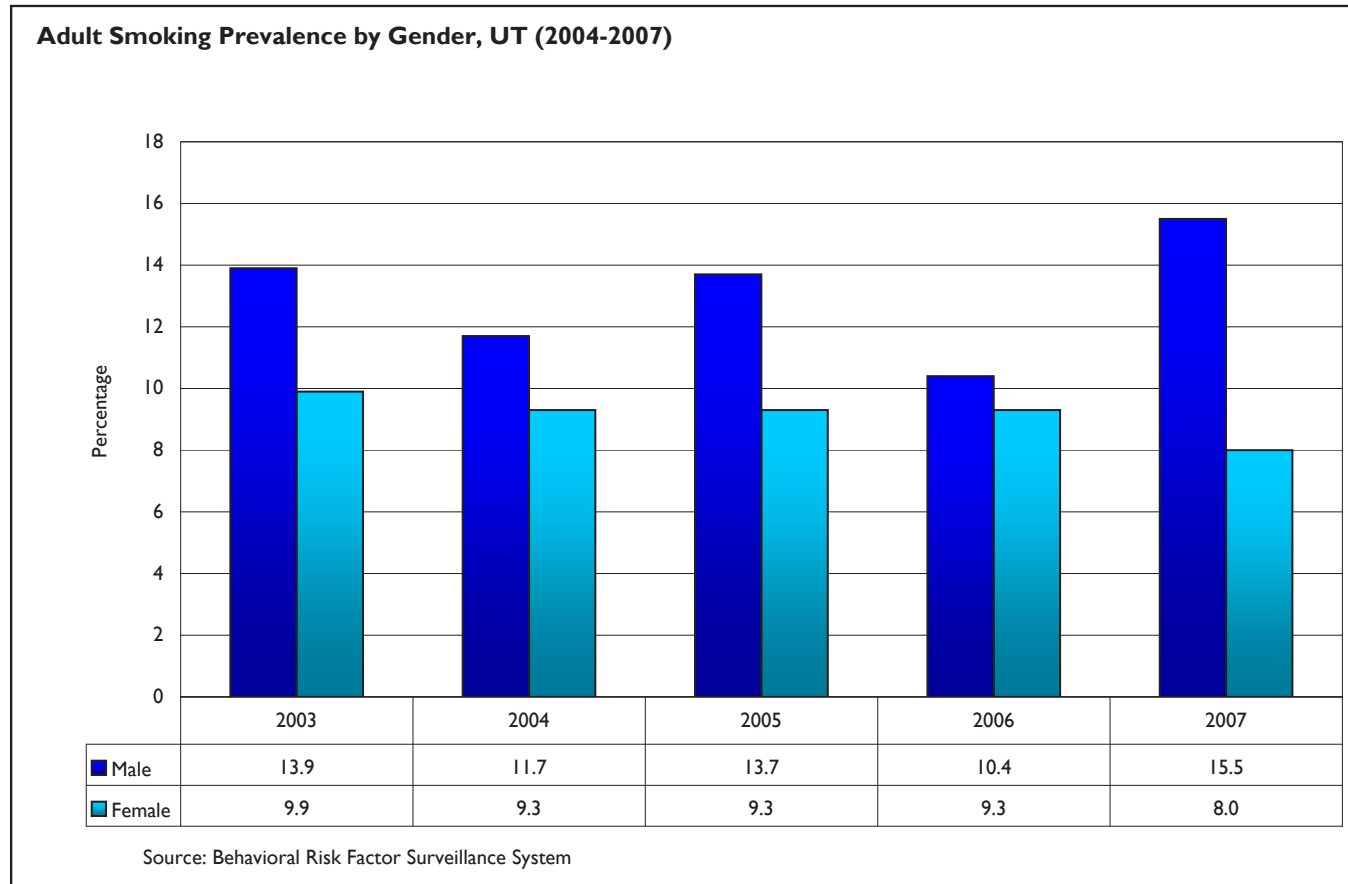
Figure 3.3:



Adult Tobacco Consumption: Smoking Prevalence by Gender

Figure 3.4 compares smoking prevalence among men and women in Utah between 2003 and 2007. Men in Utah were more likely to report smoking than women every year during this timeframe.

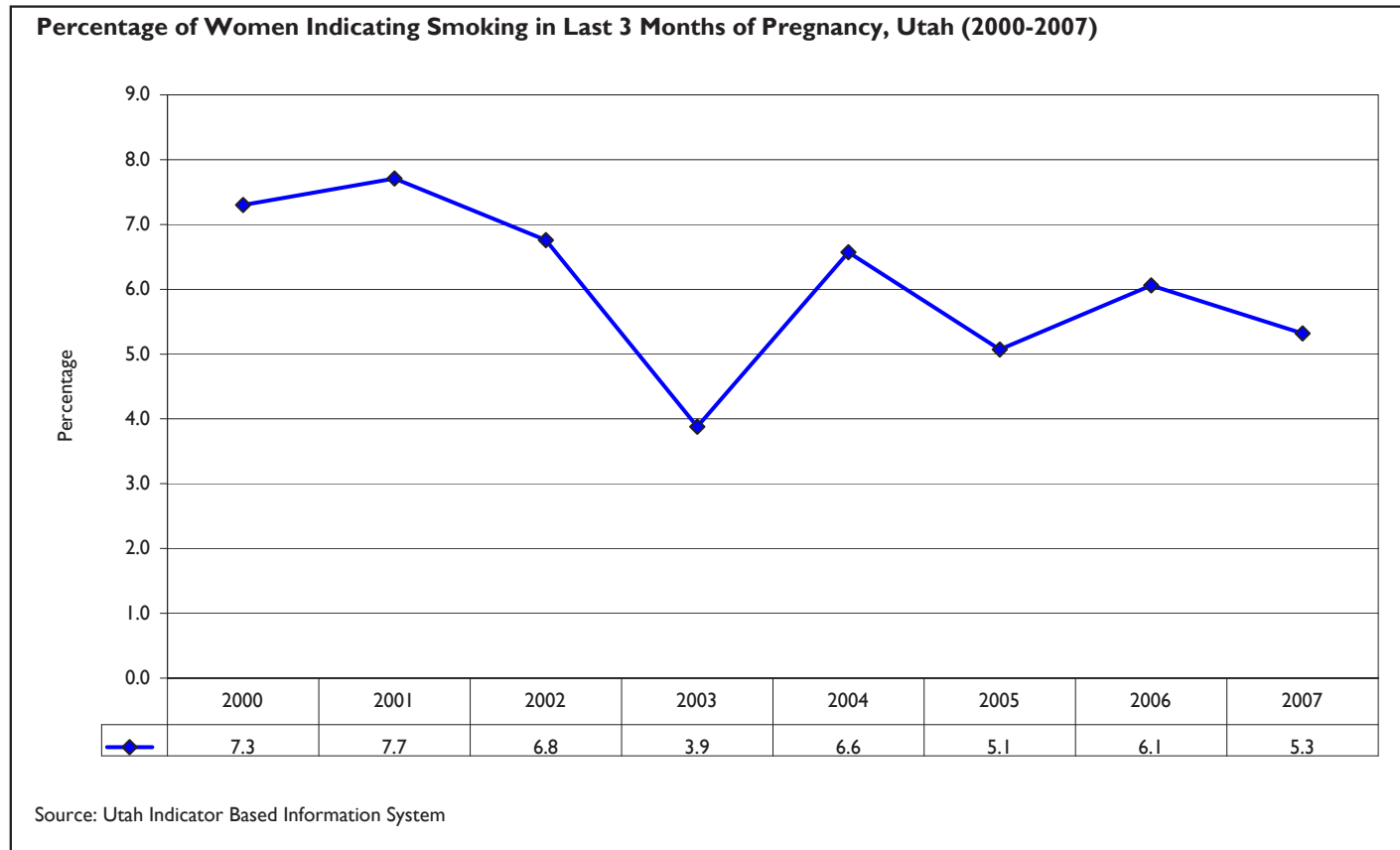
Figure 3.4:



Adult Tobacco Consumption: Smoking Prevalence by Pregnant Women

Figure 3.5 examines smoking in pregnant women. The Pregnancy Risk Assessment Monitoring System (PRAMS) collects data from pregnant women regarding health behaviors and attitudes, including tobacco use. The figure presents the percentage of women who indicated smoking cigarettes during the last 3 months of their pregnancy from 2000 to 2007. Since 2005, the percentage of pregnant women in Utah indicating smoking in the last 3 months of pregnancy has fluctuated within half a percent of 5.5%.

Figure 3.5:



College Tobacco Consumption in Utah

The Utah Division of Substance Abuse and Mental Health (DSAMH) conducted a third statewide survey of college students in 2007 called the Utah Higher Education Health Behavior Survey. The survey was completed by 10,186 students from nine public colleges. National comparison data are obtained from the Monitoring the Future (MTF) Survey. The MTF is a national survey which monitors trends in substance use and abuse among adolescents and young adults in the U.S.

Table 3.3 presents the prevalence of past 30 day smoking among Utah college students compared to their U.S. counterparts. As seen in the table, Utah college students were much less likely to smoke compared to U.S. college students in all years surveyed.

Table 3.3:

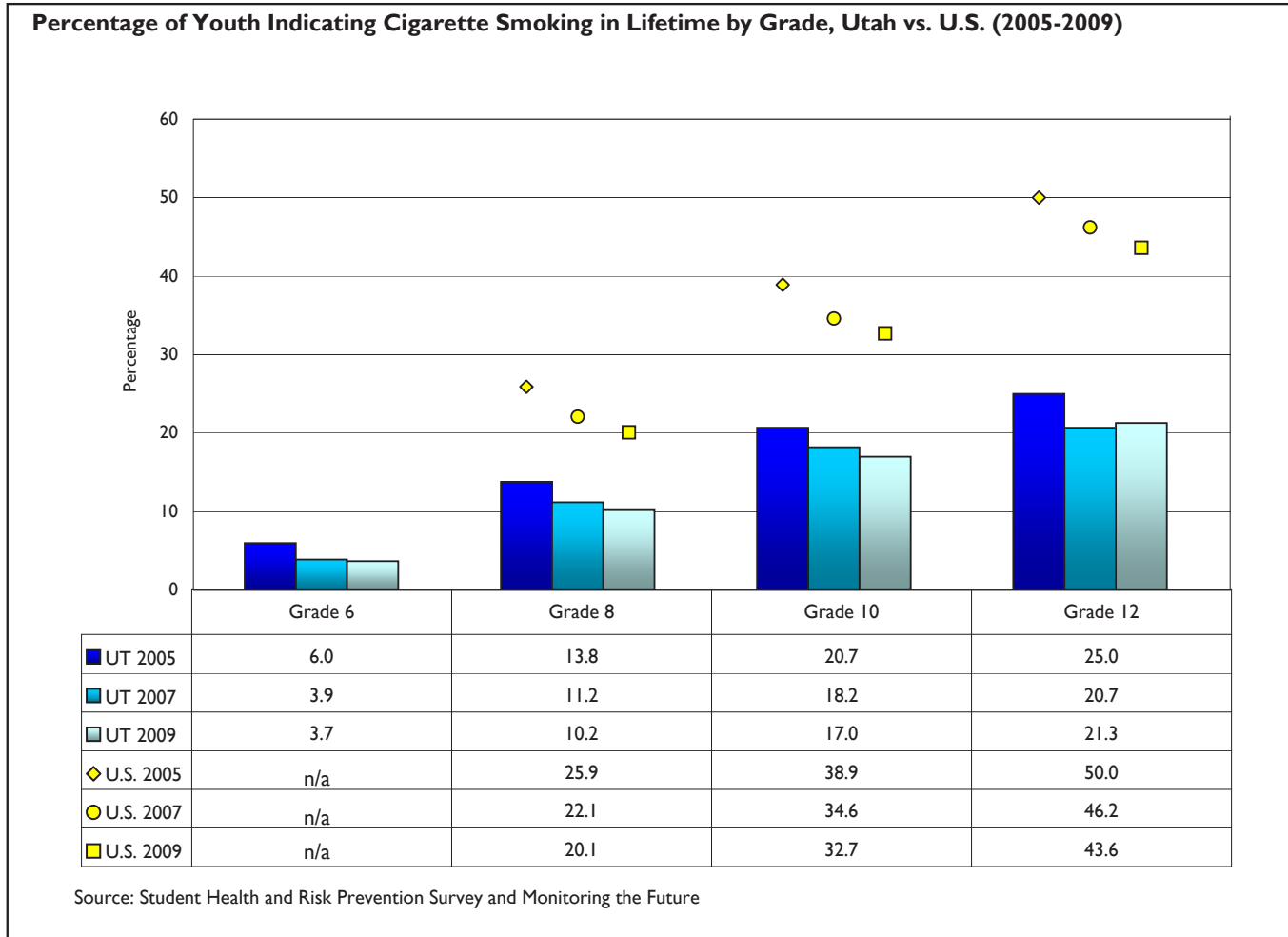
Percentage of College Students Indicating Cigarette Use in the Past 30 Days, Utah and U.S. (2003-2007)			
	2003	2005	2007
Utah	8.6	7.9	6.4
U.S.	22.5	23.8	19.9

Source: Utah Higher Education Health Behavior Survey (Utah) and Monitoring the Future (U.S.)

Youth Tobacco Consumption: Lifetime Cigarette Use

Youth tobacco consumption data are presented from the SHARP Survey in Utah and Monitoring the Future Survey for the U.S. Figure 3.6 compares Utah to the U.S. on the percentage of youth reporting ever smoking cigarettes in their lifetime. This indicator is often used as an indicator of experimentation. In 2009, twenty-one percent of 12th graders in Utah reported using cigarettes in their lifetime compared to 44% of 12th graders in the nation.

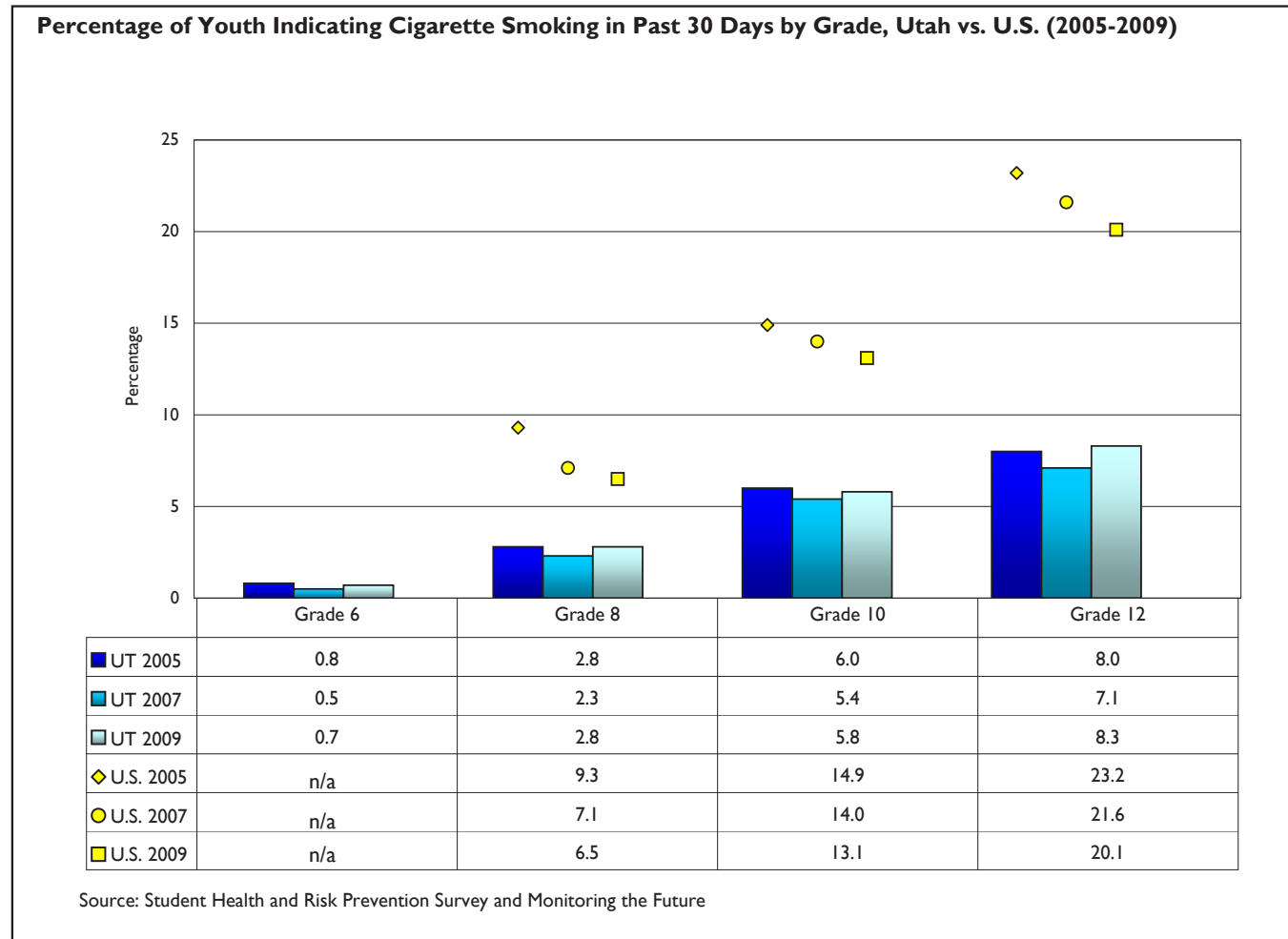
Figure 3.6:



Youth Tobacco Consumption: Past Month Cigarette Use

Past 30 day consumption is often considered an indicator of current smoking. Figure 3.7 presents the percentage of Utah and U.S. students who reported smoking in the past 30 days. As seen in the figure, cigarette use rates among Utah students are less than half the use rates in the nation across all grades.

Figure 3.7:



Youth Tobacco Consumption: Cigarette Use by Gender and LSAA

Table 3.4 compares male and female youth on lifetime cigarette use (ever used), past 30 day use, and smoking one-half or more packs of cigarettes a day. Overall, male youth were more likely to smoke than female youth, but only by about a percentage point for 30 day use. Only about one percent of male and female students in Utah report smoking one or more packs a day.

In regard to age of first cigarette use, the average age of first use among 12th graders who had indicating using cigarettes was 14.1 years of age. The average age of first use among 12th grade males was 13.9 years of age, slightly lower than the average age of first use among 12th grade females which was 14.3.

Table 3.5 shows the percentage of high school students who reported smoking in their lifetime and in the past 30 days for each LSAA. Summit County high school youth reported the highest percentage of current smoking, almost twice the state average. Utah county high school youth reported the lowest prevalence in the state.

Table 3.4:

Gender Comparisons on Lifetime, Past 30 Day and Heavy Cigarette Smoking Among High School Youth (Grades 10 and 12) in Utah (2009)			
Indicator	Male	Female	Total
Cigarette Use in Lifetime	20.6	17.7	19.1
Cigarette Use in Past 30 Days	7.6	6.4	7.0
Heavy Smoking* in Past 30 Days	1.1	0.8	0.9

Source: Student Health and Risk Prevention Survey

*Heavy smoking defined as smoking one-half or more packs of cigarettes per day.

Table 3.5:

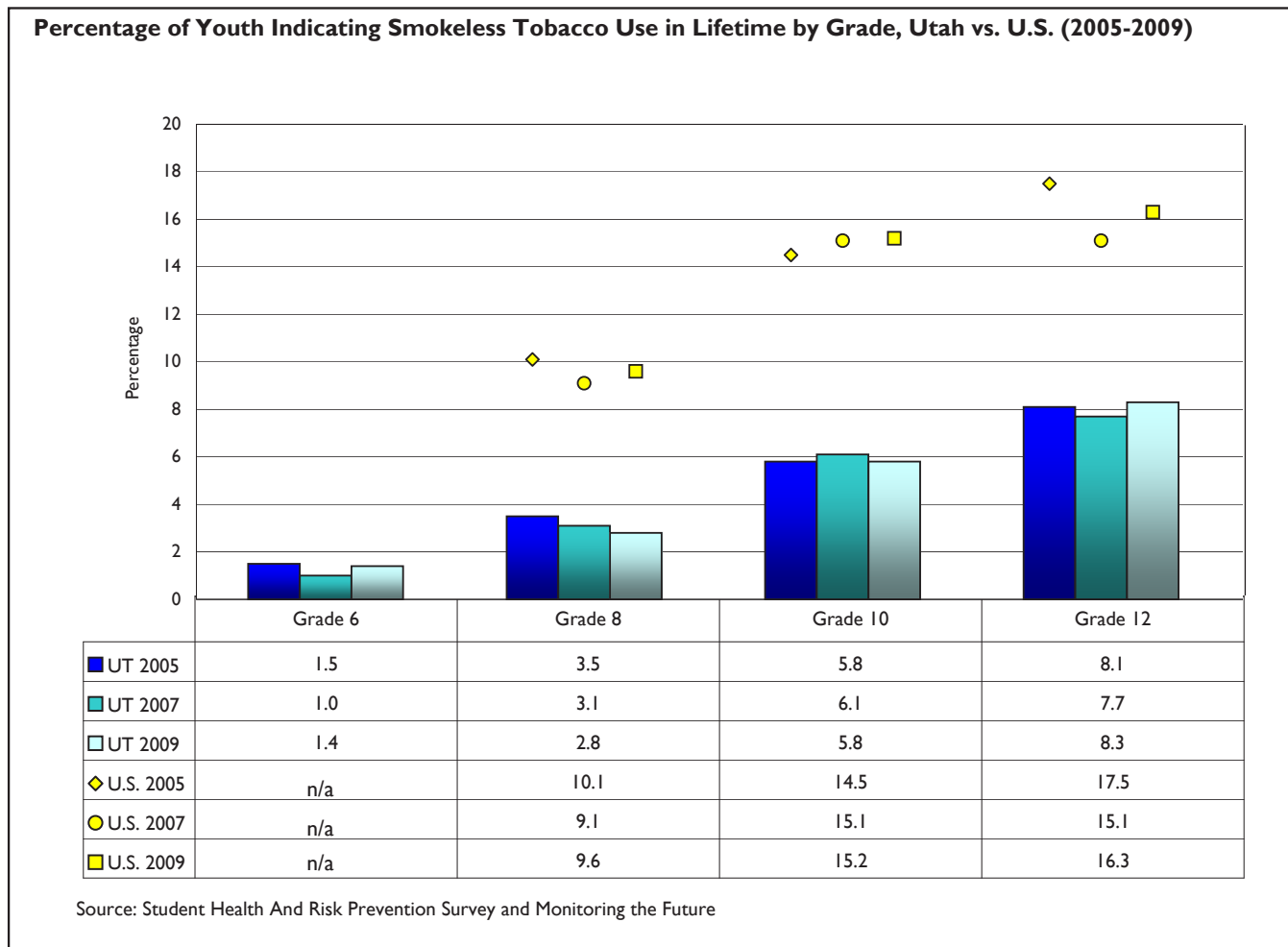
Percentage of High School Youth (Grades 10 and 12) Indicating Smoking Cigarettes in Lifetime and Past 30 Days, by LSAA (2009)		
Local Substance Abuse Authority (LSAA)	Lifetime	Past 30 Day
Bear River District	14.1	5.7
Central Utah	22.8	9.0
Davis County	12.8	4.8
Salt Lake County	24.9	9.4
Four Corners District	27.8	10.4
Summit County	27.4	13.7
Tooele County	25.2	11.3
Northeastern District	23.2	6.6
Utah County	9.1	3.1
Wasatch County	25.0	10.4
Weber and Morgan Counties	21.9	6.0
Southwest District	20.8	7.4
San Juan County	25.2	7.9
State	19.1	7.0

Source: Student Health and Risk Prevention Survey

Youth Tobacco Consumption: Lifetime Smokeless Tobacco Use

Figure 3.8 shows the percentage of youth in Utah and the U.S. who have used smokeless tobacco (e.g., chewing tobacco or snuff) in their lifetime. Again, lifetime use is often used as an indicator of experimentation. As expected, the percentage of youth who have used smokeless tobacco in their lifetime increases with grade level and is lower in Utah than it is in the U.S.

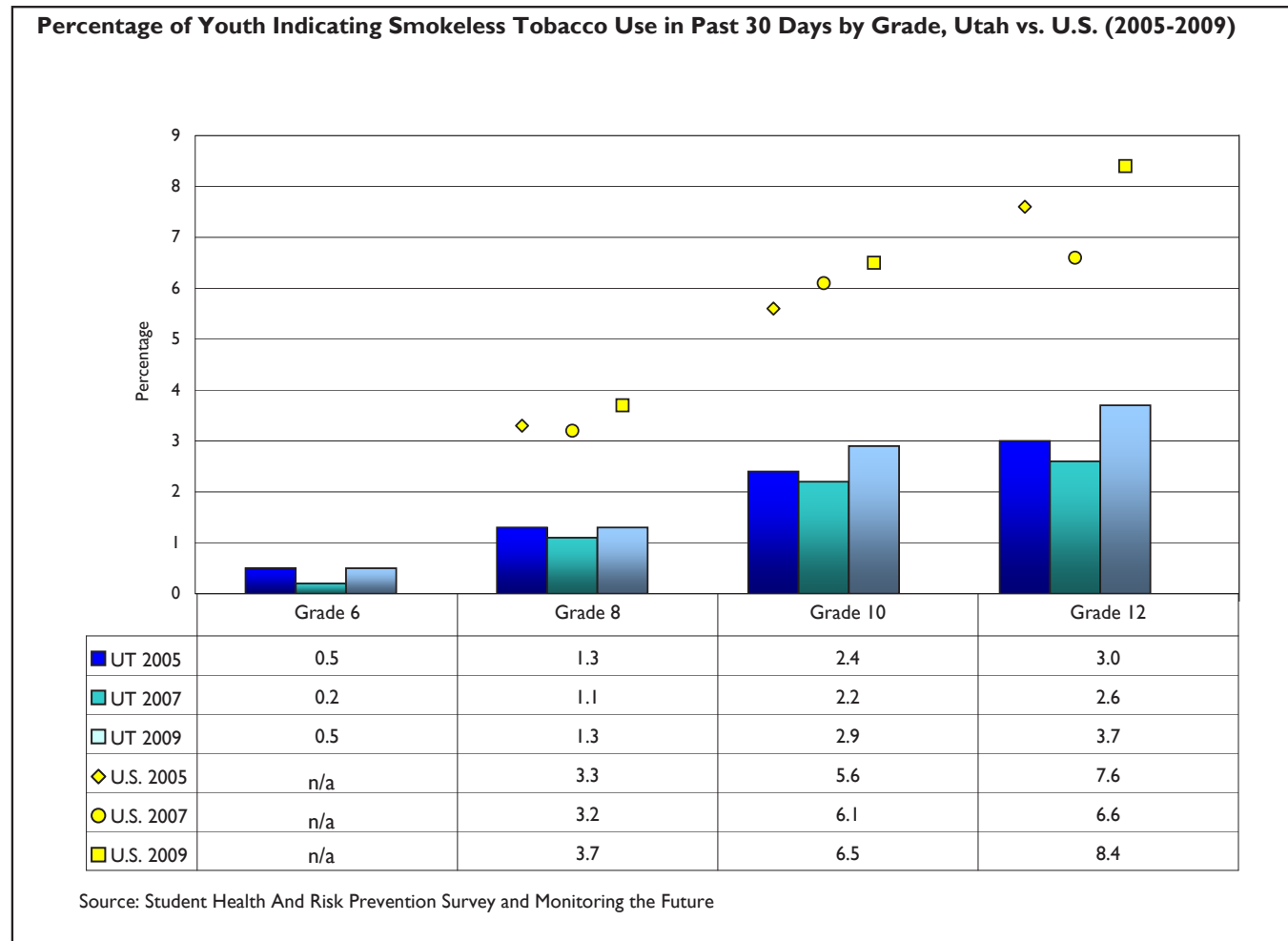
Figure 3.8:



Youth Tobacco Consumption: Past Month Smokeless Tobacco Use

Past 30 day use is often considered a indicator of current consumption. Figure 3.9 compares Utah and U.S. percentages of youth who are current users of smokeless tobacco. Almost 4% of Utah 12th graders reported using smokeless tobacco, compared to 8% of 12th graders in the U.S. It appears that both Utah and the U.S. has seen a slight increase from 2007 to 2009 in the percentage of youth reporting current smokeless tobacco use.

Figure 3.9:



Youth Tobacco Consumption: Smokeless Tobacco Use by Gender

Table 3.6 compares male and female high school youth on smokeless tobacco consumption. Not unexpectedly, male students reported higher levels of lifetime and current smokeless tobacco rates. About 5% of males, compared to 1% of females, reported past 30-day use of smokeless tobacco.

Table 3.6:

Gender Comparisons on Lifetime, Past 30 Day Smokeless Tobacco Use Among High School Youth (Grades 10 and 12) in Utah (2009)			
Indicator	Male	Female	Total
Smokeless Tobacco Use in Lifetime	10.4	3.7	7.0
Smokeless Use in Past 30 Days	5.3	1.3	3.3

Source: Student Health and Risk Prevention Survey

Youth Tobacco Consumption: Smokeless Tobacco Use by LSAA

Table 3.7 shows the percentage of high school youth who have used smokeless tobacco for each LSAA. Seven percent of high school students in Utah reported having tried smokeless tobacco in their lifetime and 3% reported current usage, but the percent for individual LSAA vary substantially. Four Corners District reported the highest level of smokeless tobacco use by its youth, with almost 18% lifetime use and 9% current use. Northeastern District had the second highest levels. Utah County had the lowest percentage of high school youth reporting smokeless tobacco use.

Table 3.7:

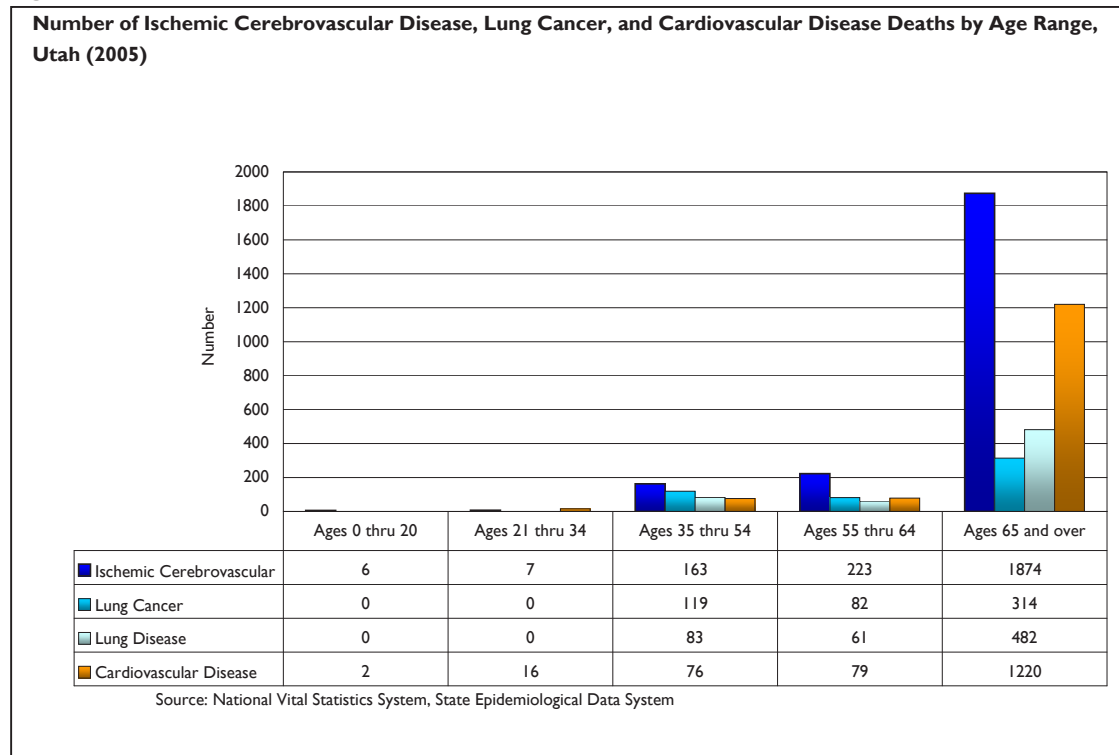
Percentage of High School Youth (Grades 10 and 12) Indicating Smokeless Tobacco Use in Lifetime and Past 30 Days, by LSAA (2009)		
Local Substance Abuse Authority (LSAA)	Lifetime	Past 30 Day
Bear River District	5.5	2.9
Central Utah	12.5	6.7
Davis County	4.5	1.2
Four Corners District	17.8	9.2
Northeastern District	15.6	7.1
Salt Lake County	7.3	3.8
San Juan County	8.7	4.8
Southwest District	8.6	3.7
Summit County	12.2	5.4
Tooele County	13.1	5.5
Utah County	4.3	1.8
Wasatch County	12.2	6.7
Weber and Morgan Counties	6.8	3.1
State	7.0	3.3

Source: Student Health and Risk Prevention Survey

Consequences of Tobacco Consumption: Overview

As stated in the introduction of the tobacco section of this epidemiological profile, the use of tobacco is strongly associated with a variety of negative health consequences. According to the Center for Substance Abuse Prevention’s State Epidemiological Data System website⁹ 80-90% of lung cancer fatalities, 80% of chronic obstructive pulmonary disease (COPD) and emphysema fatalities, and a sizeable number of cardiovascular disease fatalities are attributable to cigarette smoking (an estimated 113,000 cardiovascular disease deaths in 1998). While the relationship between tobacco use and many of these health conditions is clear, tobacco related diseases are typically long term, chronic conditions that affect users after many years of tobacco use, rather than acute conditions that have an immediate impact on health. As such, causes of death associated with tobacco are more likely to affect older adults rather than youth or younger adults (see Figure 3.10). As such, interventions planned to reduce tobacco related mortality and morbidity present a challenge because decreases in tobacco use rates do not quickly translate into changes in rates of tobacco related morbidity and mortality. Despite this, it is clear that given the large number of individuals who suffer from or die of tobacco related diseases each year, the prevention of tobacco use remains a priority for Utah.

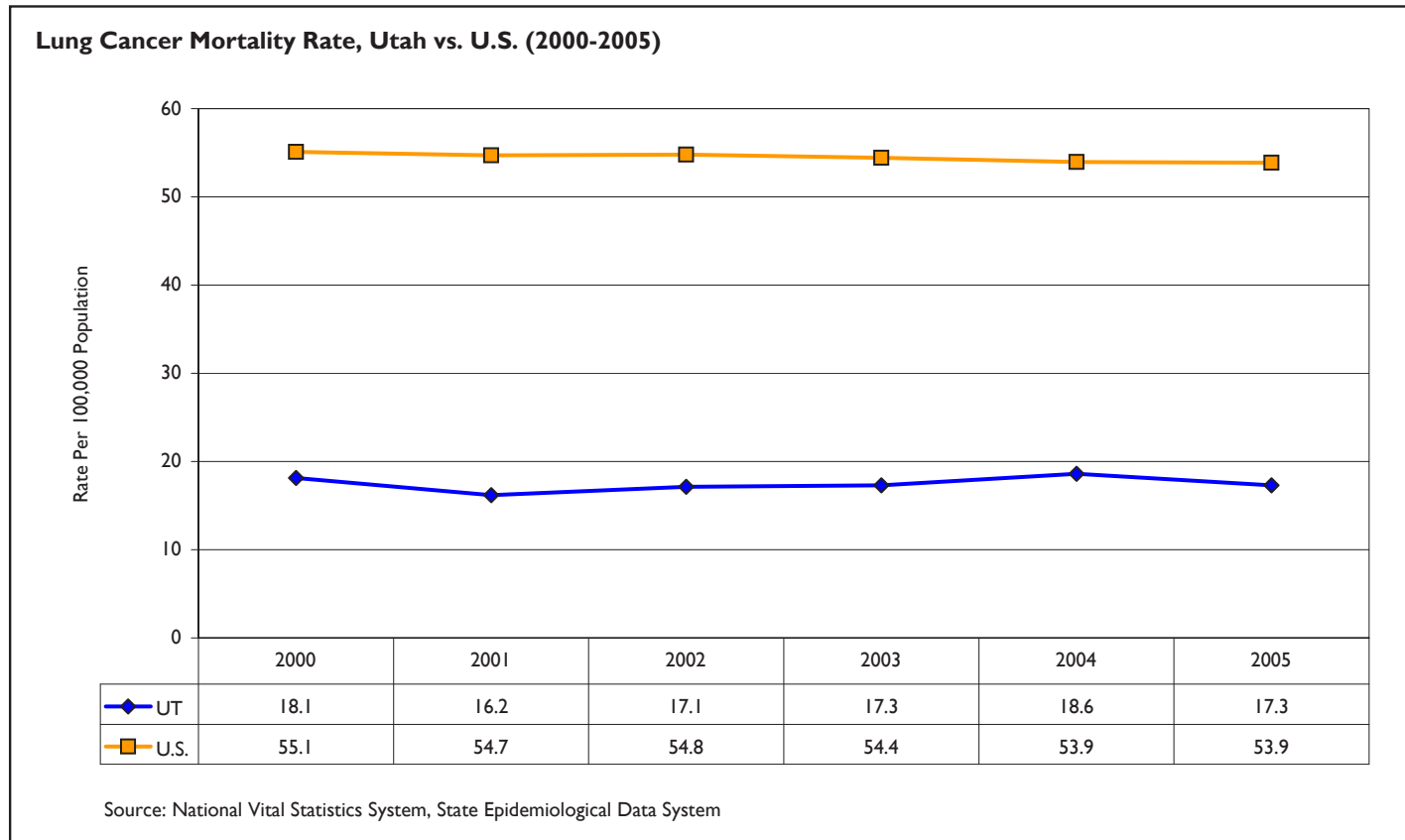
Figure 3.10:



Tobacco-Related Mortality and Morbidity: Lung Cancer Deaths

Figure 3.11 compares Utah to the U.S. on the rate of lung cancer mortality from 2000-2005. Utah has consistently had a much lower rate of lung cancer mortality than the U.S. over this time period. Utah's rate has held steady, at a rate of about 16-19 deaths per 100,000 population, while the U.S. rate has hovered near 55 per 100,000 population.

Figure 3.11:



Tobacco-Related Mortality and Morbidity: Lung Cancer Deaths by LSAA

Table 3.8 presents the number and rate of lung cancer deaths by LSAA from 2000-2008 by three year groupings. With a rate of 34 deaths per 100,000 population, Northeastern District had the highest rate of lung cancers deaths in Utah from 2006 to 2008. Utah County consistently had one of the lowest rates of lung cancer deaths from 2000 to 2008.

Table 3.8:

Number and Rate of Lung Cancer Deaths by LSAA (2000-2008)						
Local Substance Abuse Authority (LSAA)	2000-2002		2003-2005		2006-2008	
	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Bear River District	39	9.4	40	9.1	52	10.9
Central Utah	49	24.1	48	22.7	50	22.6
Davis County	110	14.8	132	16.3	96	10.8
Four Corners District*	53	33.1	54	34.0	40	24.7
Northeastern District	40	32.3	33	26.0	46	33.5
Salt Lake County	462	16.8	526	18.3	511	16.7
San Juan County*	53	33.1	54	34.0	40	24.7
Southwest District	118	26.3	137	26.2	155	25.2
Summit County	9	9.6	16	15.2	6	5.2
Tooele County	34	25.6	29	19.2	32	18.9
Utah County	105	9.0	102	7.7	106	7.1
Wasatch County	9	18.3	6	10.4	11	16.7
Weber and Morgan Counties	140	22.4	172	26.3	139	20.2
State of Utah	1168	16.9	1,295	17.4	1,244	15.4

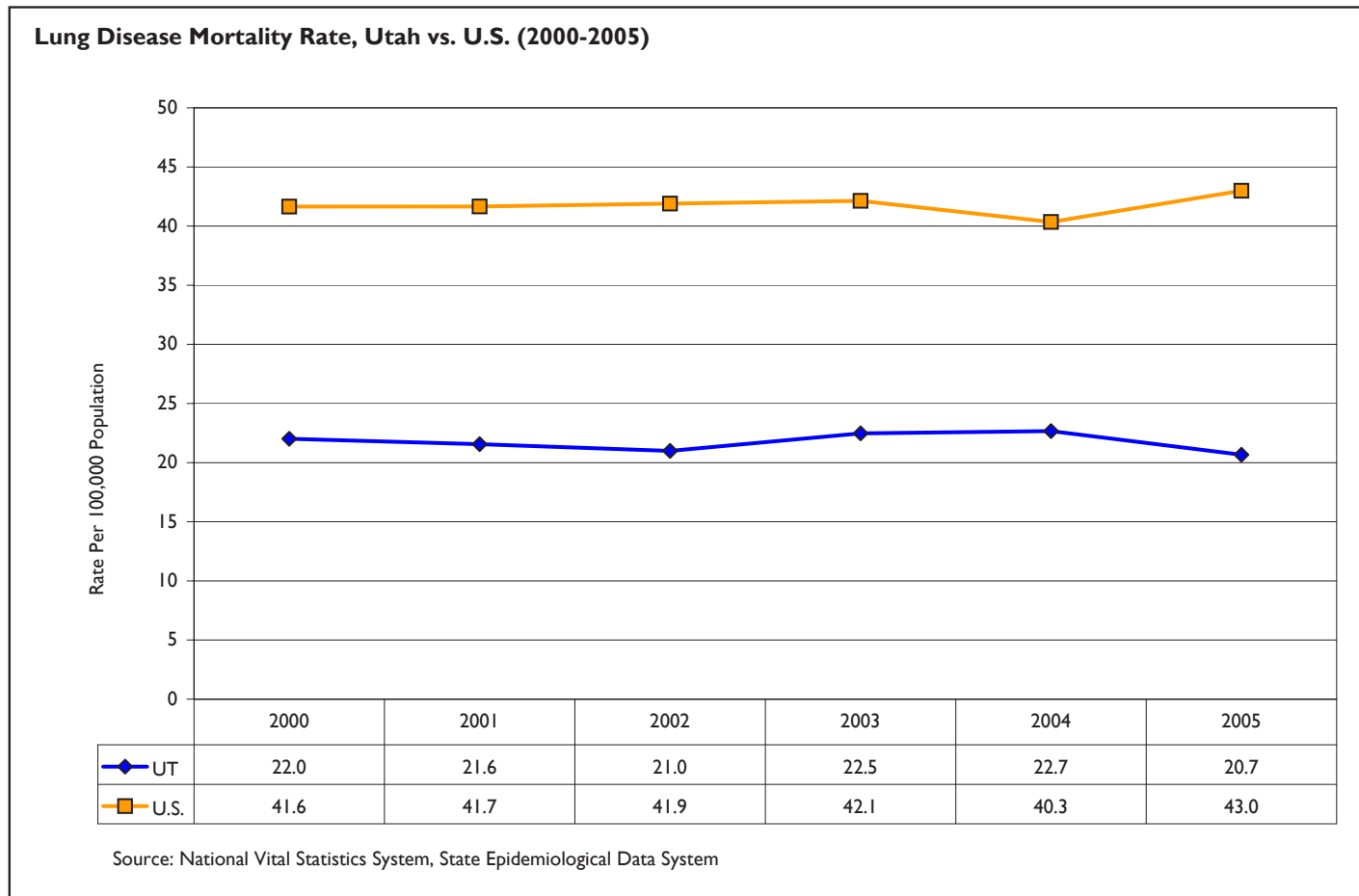
Source: Utah Indicator Based Information System for Public Health

*Data for this indicator are obtained through the Utah Department of Health. Data for San Juan and Four Corners LSAA's are identical because these LSAA's are a single district within the UDOH system.

Tobacco-Related Mortality and Morbidity: Lung Disease Mortality

Figure 3.12 shows the trend for lung disease mortality in Utah and the U.S. from 2000-2005. The rate of lung disease in Utah has consistently been almost half the U.S. rate, with about 20 fewer deaths per 100,000 population than the U.S. from 2000 to 2005.

Figure 3.12:



Tobacco-Related Mortality and Morbidity: Lung Disease Mortality by LSAA

Table 3.9 shows the number and rate of lung disease deaths for each LSAA in Utah. From 2006-2008, Northeastern District had the highest rate of lung disease deaths. Northeastern District's rate of 45 deaths per 100,000 population was more than double the state rate of 22. In examining rates by district, it is important to remember that rates for small populations can vary greatly from year to year because small fluctuations in the number of deaths can greatly affect the rate in small populations. For smaller counties or LSAs it is necessary to look at several years' data to obtain a more accurate estimate of prevalence.

Table 3.9:

Number and Rate of Lung Disease Deaths by LSAA (2000-2008)						
Local Substance Abuse Authority (LSAA)	2000-2002		2003-2005		2006-2008	
	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Bear River District	75	18.0	83	18.8	78	16.4
Central Utah	65	32.0	97	45.9	67	30.3
Davis County	122	16.4	137	16.9	150	16.9
Four Corners District*	67	41.9	71	44.7	59	36.4
Northeastern District	35	28.2	43	33.9	62	45.1
Salt Lake County	688	25.0	664	23.1	713	23.3
San Juan County*	67	41.9	71	44.7	59	36.4
Southwest District	121	27.0	131	25.0	163	26.5
Summit County	7	7.5	**	**	12	10.4
Tooele County	24	18.1	36	23.8	49	28.9
Utah County	135	11.6	148	11.2	162	10.8
Wasatch County	11	22.4	14	24.3	14	24.3
Weber and Morgan Counties	196	31.4	217	33.2	219	31.8
State of Utah	1,546	22.4	**	**	1,747	21.6

Source: Utah Indicator Based Information System for Public Health

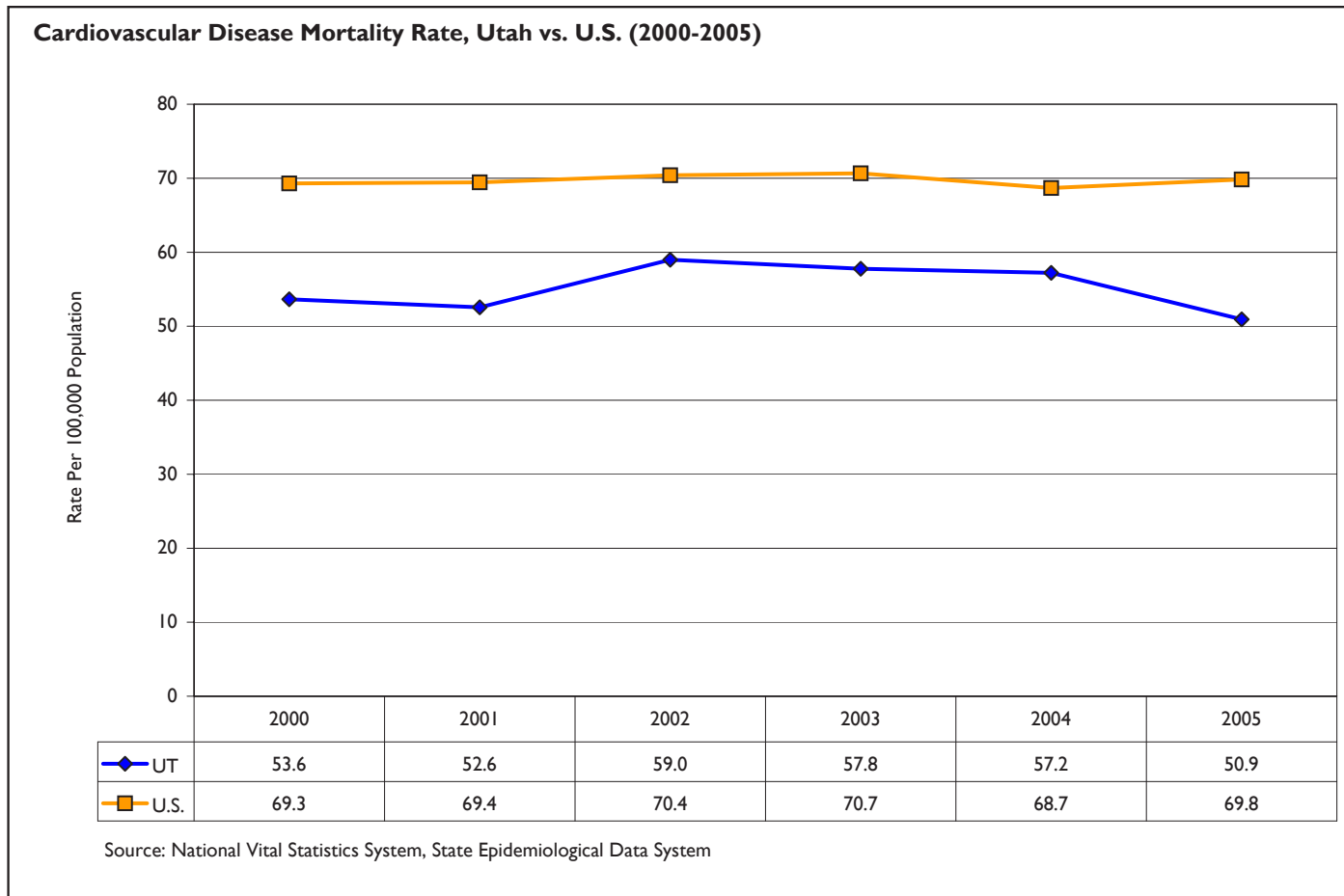
*Data for this indicator are obtained through the Utah Department of Health. Data for San Juan and Four Corners LSAs are identical because these LSAs are a single district within the UDOH system.

**Estimate suppressed by IBIS because the relative standard error is greater than 50%, the observed number of events is very small, or it could be used to calculate the number in another suppressed cell.

Tobacco-Related Mortality and Morbidity: Cardiovascular Disease Death Rates

Figure 3.13 presents the cardiovascular disease death rates for Utah and the U.S. The cardiovascular disease mortality rate in Utah has been consistently lower than the U.S. rate since at least 2000, although not to the same extent as with Lung Cancer or Lung Disease. Utah’s cardiovascular disease mortality rate was lower than the U.S. rate by 11-19 deaths per 100,000 population from 2000-2005.

Figure 3.13:



Tobacco-Related Mortality and Morbidity: Cardiovascular Disease Death Rates by LSAA

Table 3.10 shows the number and rate of major cardiovascular disease deaths for each LSAA by 3 year groupings. Central Utah LSAA consistently had the highest rate of cardiovascular disease deaths from 2000-2008. Four Corners, San Juan and Weber-Morgan also demonstrated consistently higher rates than the state during this time frame.

Table 3.10:

Number and Rate of Major Cardiovascular Disease Deaths by LSAA (2000-2008)						
Local Substance Abuse Authority (LSAA)	2000-2002		2003-2005		2006-2008	
	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Bear River District	176	42.2	214	48.4	206	43.4
Central Utah	158	77.7	207	98.0	206	93.0
Davis County	335	45.2	349	43.1	386	43.5
Four Corners District*	106	66.3	107	67.4	139	85.7
Northeastern District	73	58.9	94	74.1	75	54.6
Salt Lake County	1,484	54.0	1,577	54.9	1,686	55.2
San Juan County*	106	66.3	107	67.4	139	85.7
Southwest District	312	69.6	375	71.7	383	62.3
Summit County	26	27.8	27	25.6	31	27.0
Tooele County	61	45.9	90	59.5	65	38.3
Utah County	567	48.5	620	47.1	677	45.1
Wasatch County	33	67.1	34	58.9	35	53.1
Weber and Morgan Counties	445	71.3	462	70.7	499	72.4
State of Utah	3,776	54.6	4,156	55.9	4,388	54.2

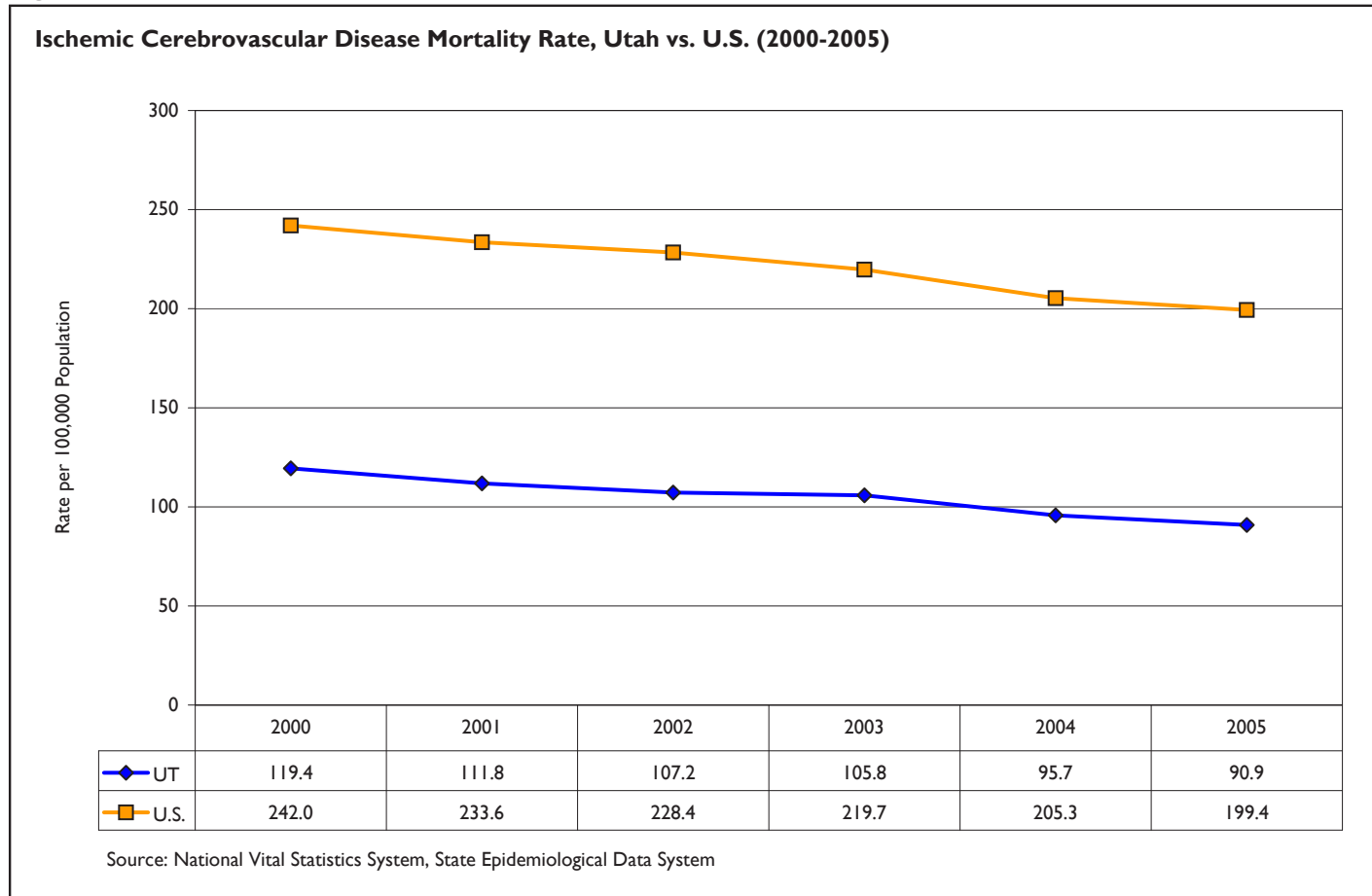
Source: Utah Indicator Based Information System for Public Health

*Data for this indicator are obtained through the Utah Department of Health. Data for San Juan and Four Corners LSAs are identical because these LSAs are a single district within the UDOH system.

Tobacco-Related Mortality and Morbidity: Ischemic Cerebrovascular Disease Mortality

Figure 3.14 compares Utah to the U.S. on the rate of ischemic cerebrovascular disease (stroke) deaths from 2000-2005. Utah's rate of cerebrovascular disease deaths is less than half of the nation's rate. Both Utah and the U.S. experienced a decrease in the rate of cerebrovascular disease deaths from 2000-2005.

Figure 3.14:



Tobacco-Related Mortality and Morbidity:

Ischemic Cerebrovascular Disease Mortality by LSAA

Table 3.11 displays the rate of ischemic cerebrovascular disease deaths for each LSAA from 2000-2008 in three year aggregates. Similar to cardiovascular death rates, Central Utah LSAA consistently had the highest rate of ischemic cerebrovascular disease deaths from 2000-2008. Four Corners, San Juan, Weber-Morgan and Southwest Districts also had consistently higher ischemic cerebrovascular disease death rates than the state.

Table 3.11:

Number and Rate of Ischemic Cerebrovascular Disease Deaths by LSAA (2000-2008)						
Local Substance Abuse Authority (LSAA)	2000-2002		2003-2005		2006-2008	
	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Bear River District	537	128.9	466	105.4	407	85.6
Central Utah	372	183.0	360	170.5	323	145.9
Davis County	697	93.9	727	89.8	627	70.6
Four Corners District*	228	142.5	208	131.0	229	141.1
Northeastern District	165	133.0	165	130.1	152	110.6
Salt Lake County	2,813	102.3	2,570	89.4	2,247	73.5
San Juan County*	228	142.5	208	131.0	229	141.1
Southwest District	742	165.6	700	133.8	642	104.5
Summit County	56	59.9	51	48.4	59	51.4
Tooele County	129	97.0	101	66.8	110	64.8
Utah County	1,028	88.0	952	72.3	892	59.4
Wasatch County	59	120.0	35	60.7	44	66.7
Weber and Morgan Counties	876	140.4	717	109.7	701	101.7
State of Utah	7,702	111.5	7,052	94.9	6,433	79.5

Source: Utah Indicator Based Information System for Public Health

*Data for this indicator are obtained through the Utah Department of Health. Data for San Juan and Four Corners LSAs are identical because these LSAs are a single district within the UDOH system.

Tobacco-Related Mortality and Morbidity: Accidental Deaths Due to Fire

According to the U.S. Fire Administration's National Fire Data Center, approximately 19% of residential fire fatalities are attributable to cigarette use¹⁰. From 1999-2008 (combined), there were 97 accidental deaths in Utah resulting from fires (smoke, fire and flames). Data for the U.S. were not available. Table 3.12 provides the number and rate of accidental deaths related to fire by LSAA. San Juan, Four Corners and Northeastern Districts had the highest rate of accidental deaths due to fire for the aggregate years of 1999-2008. Their rates of accidental deaths due to fire were more than three times the state rate.

Table 3.12:

Number and Rate of Accidental Deaths Due to Fire and Flames by LSAA (1999-2008)		
	1999-2008	
Local Substance Abuse Authority (LSAA)	Number	Rate per 100,000 Population
Bear River District	9	0.6
Central Utah	**	**
Davis County	**	**
Four Corners District*	8	1.5
Northeastern District	6	1.4
Salt Lake County	31	0.3
San Juan County*	8	1.5
Southwest District	11	0.6
Summit County	**	**
Tooele County	**	**
Utah County	6	0.1
Wasatch County	n/a	n/a
Weber and Morgan Counties	15	0.7
State of Utah	97	0.4

Source: Utah Indicator Based Information System for Public Health

*Data for this indicator are obtained through the Utah Department of Health. Data for San Juan and Four Corners LSAs are identical because these LSAs are a single district within the UDOH system.

**Estimate suppressed by IBIS because the relative standard error is greater than 50%, the observed number of events is very small, or it could be used to calculate the number in another suppressed cell.

Section 4:

Illicit Drug Use in Utah: Consumption Patterns and Consequences



Section 4 Contents:

- Illicit Drugs Indicator Overview
- Illicit Drug Consumption in Utah
 - Consumption Patterns and Concerns
 - Adult Illicit Drug Consumption
 - Youth Illicit Drug Consumption
- Consequences of Illicit Drug Consumption

Illicit Drugs Indicator Overview

The following tables provide an overview of the illicit drug use and consequence indicators presented in this section of the report. While not all of the illicit drug related indicators contained in this section of the report lend themselves for inclusion in the overview tables, the tables provide a useful summary of illicit drug related data at the state level. Presented in this format, the data tables allow for a comparison of use rates across different populations, as well a comparison of most of the illicit drug consequence indicators included in this epidemiological profile report. For more information about the attributes included in the table or explanations of data source acronyms please see page 1.4 of the Introduction.

Table 4.1:

Estimates of Other Drug Use								
		Age Category	Year	Utah	USA	UT:USA Ratio	Utah Trend	Data Source
Youth	30 Day Inhalant Use (%)	Grade 6	2009	1.9	Not Available	Not Available	Decreasing	SHARP
		Grade 8	2009	3.0	3.8	.77	Decreasing	SHARP
		Grade 10	2009	1.9	2.2	.86	Decreasing	SHARP
		Grade 12	2009	1.1	1.2	.92	Decreasing	SHARP
	30 Day Marijuana Use (%)	Grade 6	2009	.4	Not Available	Not Available	Stable	SHARP
		Grade 8	2009	3.2	6.5	.49	Stable	SHARP
		Grade 10	2009	7.4	15.9	.47	Stable	SHARP
		Grade 12	2009	8.0	20.6	.39	Stable	SHARP
	30 Day "Any Drug Use" (%)	Grade 6	2009	2.7	Not Available	Not Available	Decreasing	SHARP
		Grade 8	2009	7.4	10.6	.70	Stable	SHARP
		Grade 10	2009	10.8	18.8	.57	Stable	SHARP
		Grade 12	2009	12.0	24.1	.50	Stable	SHARP
Adult	Current (30 Day) Marijuana Use (%)		2007	4.2	5.9	.71	Slightly Decreasing	NSDUH
	Current (30 Day) Illicit Drug (Other than Marijuana) Use (%)		2007	3.4	3.8	.89	Decreasing	NSDUH
	Past Year Cocaine Use (%)		2007	2.3	2.5	.92	Stable	NSDUH
	Past Year Non-Medical Prescription Pain Medication Use (%)		2007	5.2	5.0	1.04	Decreasing	NSDUH
	College Enrolled Population 30 Day Marijuana Use (%)		2007	3.9	16.8	.23	Decreasing	UHEHBS
	College Enrolled Population 30 Day Any Illicit Drug Use (%)		2007	7.2	19.3	.37	Slightly Decreasing	UHEHBS

*Bolted/italicized item indicates the state rate is higher than the national rate.

Illicit Drugs Indicator Overview, Cont.

Table 4.2:

Illicit Drug Use Consequences									
	Indicator	Years	Average Annual Number of Cases	Average Rate per 100,000 Population	UT:USA Rate Ratio	Trend	Time from Use to Outcome	Strength of Relationship	Data Source
Mortality	Drug Poisoning Deaths (ICD-10 X40-X44, X46, X60-X64, X66, Y10-Y14, Y16)	2000-2005	309.3	13.21	1.60	Increasing	Immediate	Strong	NVSS
	Drug Related Deaths	2003-2007	385.5	15.33	Not Available	Increasing	Immediate	Strong	DAWN
	Drug Related Suicides	2003-2007	51.8	2.06	Not Available	Fluctuating	Immediate	Strong	DAWN
	Number of Accidental and Undetermined Intent Illicit Drug Poisoning Deaths	2000-2008	97.3	3.95	Not Available	Fluctuating	Immediate	Strong	UDH-PPMP
	Number of Accidental and Undetermined Intent Non-Illicit Drug Poisoning Deaths	2000-2008	229.8	9.32	Not Available	Increasing until 2008	Immediate	Strong	UDH-PPMP
Morbidity	Emergency Department Encounters for Narcotics Overdose (ICD-9 965)	2000-2007	335.75	13.81	Not Available	Increasing	Immediate	Strong	UT IBIS
	Drug Dependence or Abuse	2003-2007	Estimated* 60,469	Estimated* 3102	Estimated* 1.07	Decreasing since 2005	Variable	Strong	NSDUH
Other	Reported Property Crimes	2000-2006	94,193.3	3972.6	1.18	Decreasing		Medium	UCR

Bolded/italicized items indicate that the state rate is higher than the national rate.

*Estimated number of cases and rate per 100,000 population reflect NSDUH survey based percentage estimates multiplied by the projected population.

Illicit Drug Consumption: Patterns and Concerns

In both Utah and the U.S., use rates for illicit drugs are generally much lower than for alcohol and tobacco. The exception to this rule is marijuana use, which is by far the illicit drug with the highest use rates. Among certain populations (e.g., youth) marijuana use rates are comparable to cigarette use rates in many states, and at the national level. In fact in some grades, youth marijuana use is higher than cigarette use.

Utah's illicit drug use rate is generally lower than the use rate among same age peers in the U.S. A few exceptions include sedative use among adults (college students) and youth, and non-medical use of pain relievers among adults. Though the rate of consumption of illicit drugs is lower than the U.S., the rate of drug poisoning deaths is much higher in Utah. In fact, the rate of drug poisoning deaths in Utah doubled from 2000 to 2005.

In the 2007 state epidemiological profile report, illicit drug consumption data presented focused only on a select number of drugs. In the current report, the types of illicit drug use data presented have been expanded to provide a more comprehensive picture of illicit drug use patterns in Utah.

Adult Illicit Drug Consumption

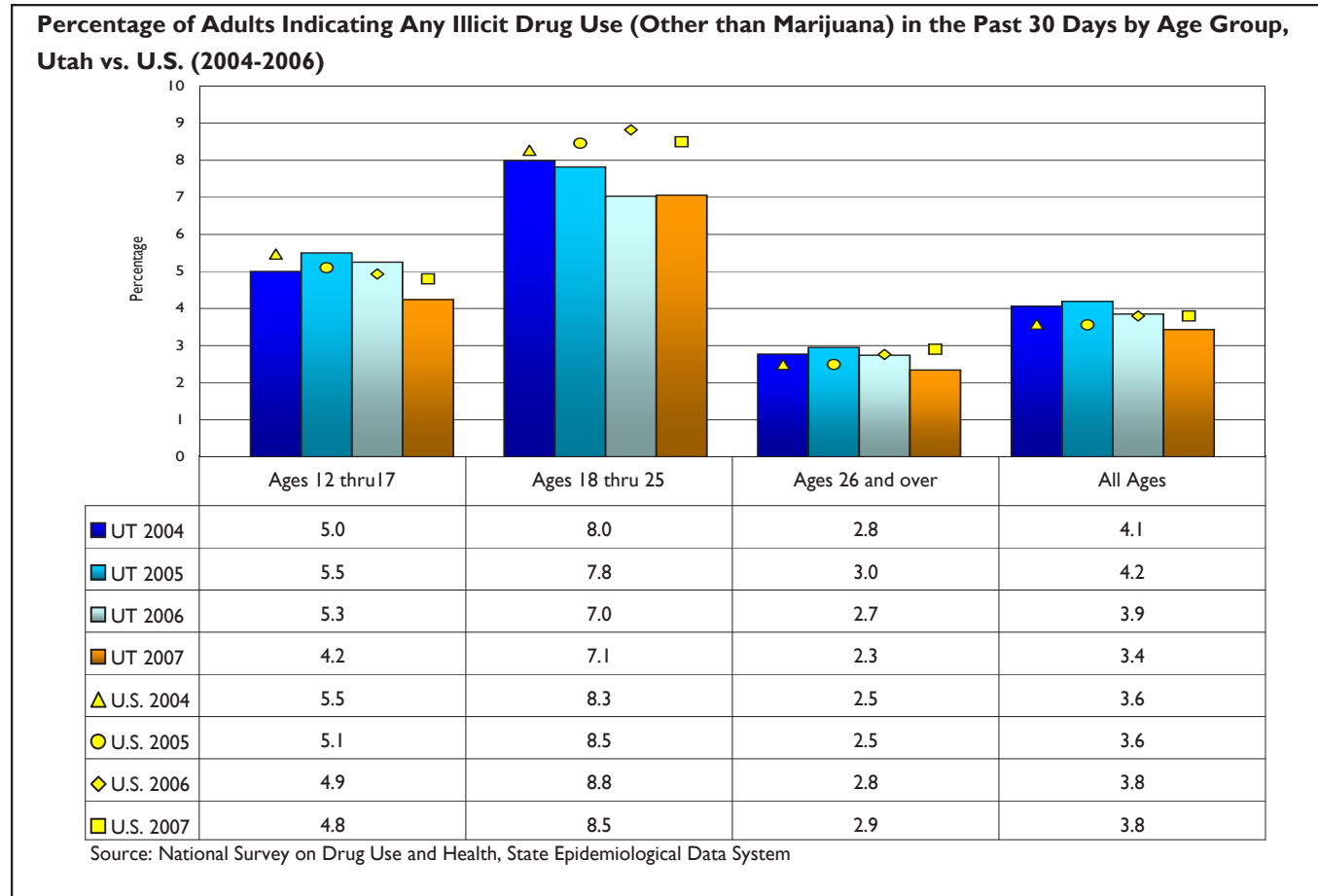
The main source of data regarding adult illicit drug consumption is the National Survey on Drug Use and Health (NSDUH). This national survey provides state level estimates for illegal drug use, but does not provide County level estimates. In this section, four types of adult illicit drug use consumption data from the NSDUH are presented: a) any illicit drug (30 day), b) cocaine (past year), c) marijuana (30 day), and d) non-medical prescription drug use (past year) (see Note below). Data on prescription pain medication use (prescribed and not prescribed) collected by the Utah Department of Health are also presented.

Note: NSDUH estimates with confidence interval data are included in Appendix D for those interested in examining the 95% confidence range for Utah state level NSDUH estimates.

Adult Illicit Drug Consumption: Any Illicit Drug Use

Figure 4.1 shows the percentage of adults who have used any illicit drug (other than marijuana) in the past 30 days from 2004 to 2007. The data suggest that while there has been a steady increase in the nation's rate of illicit drug use from 2005 to 2007, Utah's rate has seen a slight decrease across all age groups. Utah's rate of any illicit drug use is very similar to the nation's use rate for all age groups except for young adults ages 18-25, which has generally been lower than the national rate.

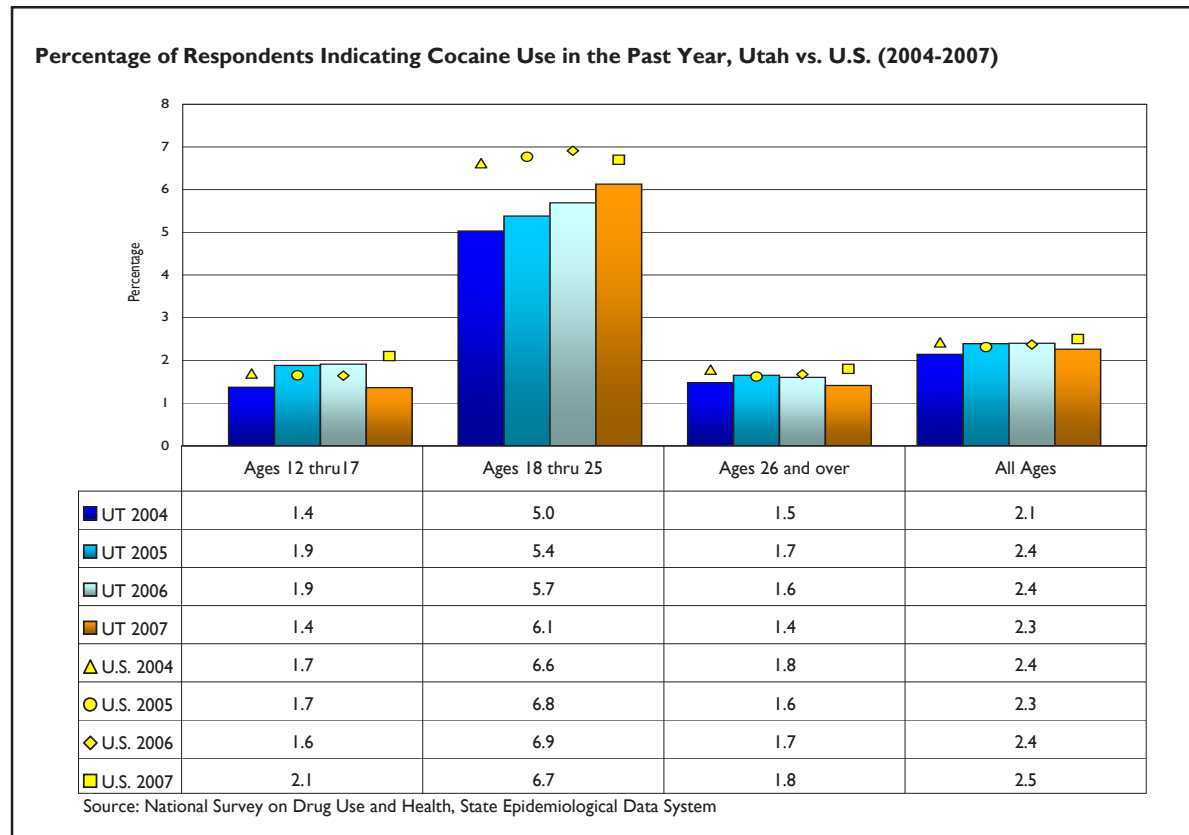
Figure 4.1:



Adult Illicit Drug Consumption: Cocaine Use

Figure 4.2 presents the percentage of adults who reported using cocaine in the past year. Please note that the time frame for this data reflect any use in the past year rather than in the past 30 days. Based on Figure 4.2, the data show the overall prevalence of cocaine use in 2007 was similar between Utah and the U.S. In comparison to U.S. prevalence, cocaine use is lower among young adults in Utah ages 18-25, but similar for adults 26 and older.

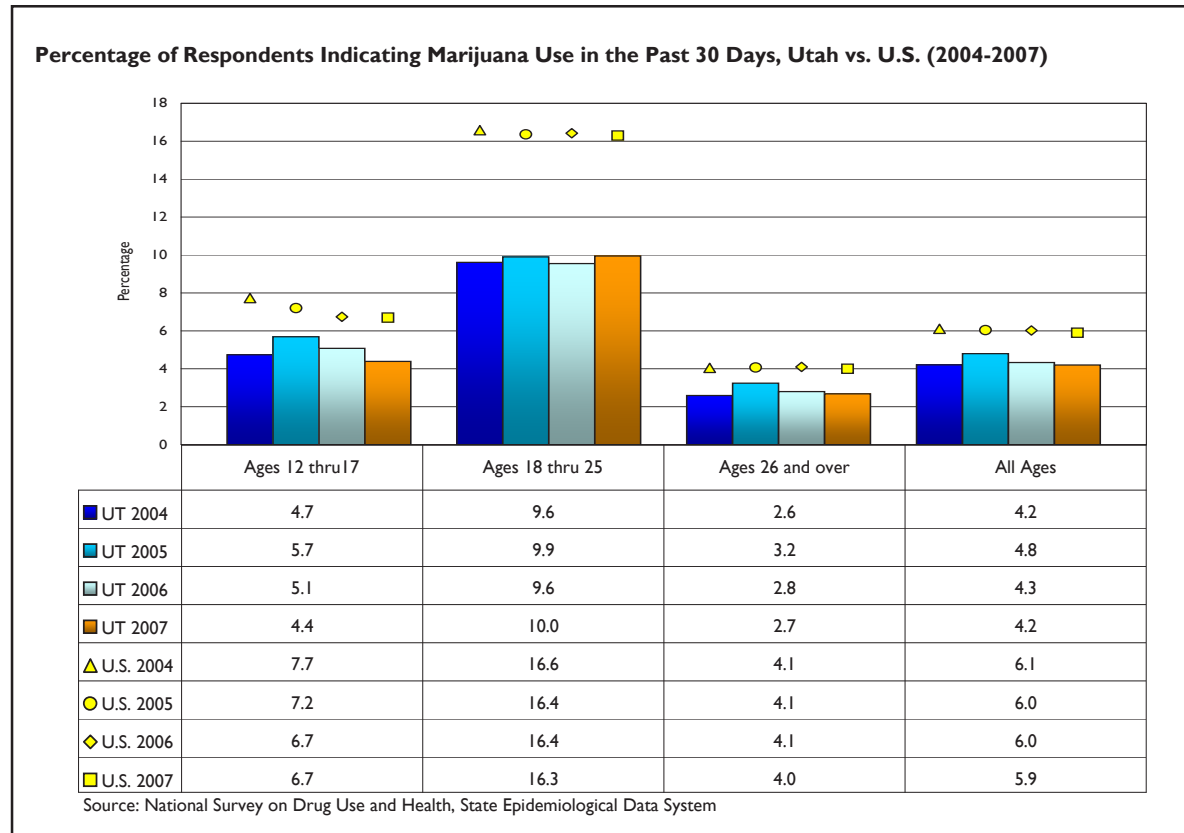
Figure 4.2:



Adult Illicit Drug Consumption: Marijuana Use

Figure 4.3 reports the percentage of adults who used marijuana in the past 30 days from 2004 to 2007. The prevalence of past 30 day marijuana use in Utah has consistently been lower than the U.S. in all age groups, especially for young adults ages 18-25. The prevalence of marijuana use in Utah held pretty constant at around 4-5% from 2004 to 2007, whereas the U.S. rate was around 6%. The age group with the highest prevalence of marijuana use in Utah was the young adult age group (18-25 year olds), who had a 30 day use rate of about 10%.

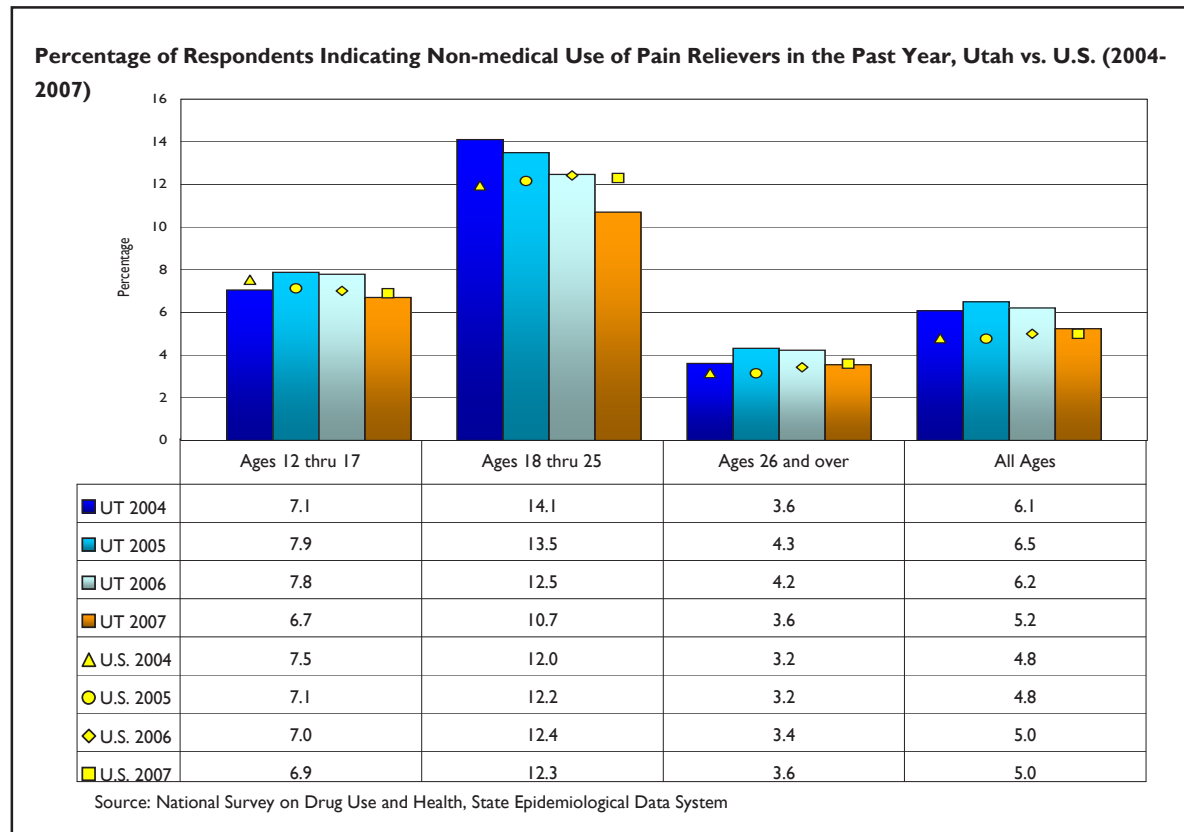
Figure 4.3:



Adult Illicit Drug Consumption: Past-Year Non-Medical Use of Pain Relievers

In recent years, prescription narcotics have become associated with a large number of overdose deaths. In fact, overdose deaths from legal prescription drugs in Utah have surpassed overdose deaths from illegal drugs according to the Utah Department of Health's Prescription Pain Medication Management Program. Because prescription pain killers can be obtained legally with a prescription, many people underestimate the potential dangerousness of using these substances in a manner other than as directed by a doctor. Beginning in 2004, the NSDUH asked respondents to indicate whether they have used prescription pain killers that were not prescribed for them or that were taken "only for the experience or feeling they caused." Figure 4.4 presents the percentage of respondents who indicated non-medical prescription pain killer use in the past year by age group from 2004 to 2007. In general, the data show that individuals in Utah reported a slightly higher percentage of use than the nation. However, the prevalence of non-medical use of prescription pain relievers in Utah decreased slightly from 6.5% in 2005 to 5.2% in 2007.

Figure 4.4:



Adult Illicit Drug Consumption: Past-Year Non-Medical Use of Pain Relievers, Cont.

In order to better understand the use of prescription pain medication in ways “other than prescribed by a doctor,” the Utah Department of Health added a prescription pain medication supplement to the administration of the 2008 Behavioral Risk Factor Surveillance Survey. This supplement focused on the misuse or abuse of prescription pain medications, in particular opioid based pain medications. Respondents were asked if they had used prescription pain medications that were prescribed to them in ways other than directed by a physician (e.g., in higher doses or in greater frequency than prescribed), or whether they had used prescription pain medication without a prescription. If respondents met either of these conditions, they were asked to indicate why they used the prescription medications. Table 4.3 presents reasons given by participants who had a prescription but used their pain medication in ways other than as directed by a physician. Table 4.4 presents reasons given by participants who took prescription pain medication that was not prescribed to them. In the overwhelming majority of cases, the reported reason pain medications were taken was for pain relief, however a small minority of respondents indicated they took these medications for fun or to get high.

Table 4.3: The last time you used (opioid) prescription pain medication in ways other than directed by your physician, what were the reasons? (2008)

Reason for Use	Number of Responses*	Estimated Percentage**	95% Confidence Interval
To relieve pain	20	70.8%	54.6%-87%
Other	4	10.7%	0%-23.6%
For fun, good feeling, getting high	3	19.3%	10.3%-28.2%
To relieve anxiety or depression	1	2.6%	0%-8.1%
Total Responses	28		

Source: Utah Department of Health

*Respondents could provide more than one response to this item.

**This column reflects the estimated percentage among individuals in the population (after weighing the observed frequencies) who used prescription pain medications in a manner other than prescribed by their doctor.

Table 4.4: The last time you used (opioid) prescription pain medication that was not prescribed to you, what were the reasons? (2008)

Reason for Use	Number of Responses*	Estimated Percentage**	95% Confidence Interval
To relieve pain	77	69.8%	57.9%-81.7%
Other	17	19.3%	9.5%-29.2%
For fun, good feeling, getting high	2	10.7%	0.8%-20.5%
To relieve other physical symptoms	2	2.2%	0%-5.4%
To prevent or relieve withdrawal symptoms	1	1.3%	0%-3.9%
To relieve anxiety or depression	4	3.0%	0.6%-5.5%
Total Responses	103		

Source: Utah Department of Health

*Respondents could provide more than one response to this item.

**This column reflects the estimated percentage among individuals in the population (after weighing the observed frequencies) who used prescription pain medications without a doctor's prescription.

College Illicit Drug Use in Utah

The Utah Division of Substance Abuse and Mental Health (DSAMH) conducted a third statewide survey of college students in 2007 called the Utah Higher Education Health Behavior Survey. The survey was completed by 10,186 students from nine public colleges. The College Survey had several objectives: 1) assess the prevalence of alcohol, tobacco, and other drug (ATOD) use on Utah campuses, 2) measure the need for substance abuse treatment by college students, 3) gain information about health and safety issues facing college students, 4) measure students' perception of substance abuse prevention and policies on campus, 5) measure the levels of selected risk factors for substance abuse, and 6) compare the results across survey administrations (2003, 2005, and 2007). National comparison data are obtained from the Monitoring the Future (MTF) Survey. The MTF is a national survey which monitors trends in substance use and abuse among adolescents and young adults in the U.S.

Table 4.5 presents lifetime illicit drug use rates, and Table 4.6 presents 30 day illicit drug use rates. Also presented are data representing a reference group for the U.S., comprised of an aggregate sample collected by the Monitoring the Future. Other than sedatives, Utah college students reported using illicit drugs at a lower rate than students in the U.S. In 2007, 2.4% of Utah college students reported using sedatives in the past 30 days, compared to 1.4% of college students in the U.S.

Table 4.5:

Percentage of College Students Indicating Illicit Drug Use in the Lifetime (2003-2007)						
	Utah 2003	Utah 2005	Utah 2007	U.S. 2003	U.S. 2005	U.S. 2007
Marijuana	24.0	26.4	24.1	50.7	49.1	47.5
Cocaine	6.6	7.0	6.5	9.2	8.8	8.5
Stimulants (Meth or Other)	12.7	6.0	6.6	12.3	n/a	n/a
Methamphetamine*	n/a	n/a	4.4	n/a	4.1	1.9
Non-Meth Stimulants	n/a	n/a	4.1	n/a	n/a	n/a
Sedatives**	5.8	9.0	7.9	11.0	8.5	5.9
Hallucinogens (LSD, PCP)	8.0	8.8	7.8	14.5	11.0	9.1
Heroin and Other Opiates***	2.3	4.9	5.1	14.2	14.9	14.6
Inhalants (glue, solvents, gas)	4.7	6.6	5.5	9.7	7.1	6.3
DXM	n/a	3.4	2.9	n/a	n/a	n/a
Ecstasy	5.7	4.8	4.2	12.9	8.3	5.4
Other Club Drugs	0.2	2.0	1.4	n/a	n/a	n/a
Any Drug	28.9	30.2	28.6	54.1	52.3	50.5

Source: Utah Higher Education Health Behavior Survey (Utah) and Monitoring the Future (U.S.)

* In 2005, methamphetamines were included under stimulants. In 2003 and 2007, the category was separated into "Methamphetamines" and "Stimulants other than methamphetamines."

MTF Sedatives are reported as Sedative/Tranquilizers / *MTF Heroin is reported as Heroin/Other Narcotics

Table 4.6:

Percentage of College Students Indicating Illicit Drug Use in the Past 30 Days (2003-2007)						
	Utah 2003	Utah 2005	Utah 2007	U.S. 2003	U.S. 2005	U.S. 2007
Marijuana	5.4	4.6	3.9	19.3	17.1	16.8
Cocaine	0.7	0.5	0.4	1.9	1.8	1.7
Stimulants (Meth or Other)	2.7	0.6	0.7	3.1	n/a	n/a
Methamphetamine*	n/a	n/a	0.0	n/a	0.1	0.1
Non-Meth Stimulants	n/a	n/a	0.7	n/a	n/a	n/a
Sedatives**	1.3	2.6	2.4	2.8	1.3	1.4
Hallucinogens (LSD, PCP)	0.4	0.4	0.3	1.8	1.2	1.3
Heroin and Other Opiates***	0.3	1.0	1.3	2.3	3.2	2.3
Inhalants (glue, solvents, gas)	0.2	0.2	0.2	0.4	0.3	0.1
DXM	n/a	0.2	0.2	n/a	n/a	n/a
Ecstasy	0.4	0.4	0.4	1.0	0.8	0.4
Other Club Drugs	0.1	0.1	0.1	n/a	n/a	n/a
Any Drug	8.3	7.4	7.2	21.9	19.5	19.3

Source: Utah Higher Education Health Behavior Survey (Utah) and Monitoring the Future (U.S.)

* In 2005, methamphetamines were included under stimulants. In 2003 and 2007, the category was separated into "Methamphetamines" and "Stimulants other than methamphetamines."

MTF Sedatives are reported as Sedative/Tranquilizers / *MTF Heroin is reported as Heroin/Other Narcotics

Youth Illicit Drug Use in Utah: Overview

Illicit drug consumption data for Utah are gathered from the SHARP Survey which is a large statewide youth survey conducted every other year in grades 6, 8, 10 and 12. The SHARP Survey allows for data analyses at state and Local Substance Abuse Authority (LSAA) levels. National comparison data are obtained from the Monitoring the Future (MTF) Survey. The MTF is a national survey which monitors trends in substance use and abuse among adolescents and young adults in the U.S. MTF does not include 6th graders in its survey and therefore no 6th grade national comparisons are provided in the tables and figures.

Table 4.7 provides a summary of the percentage of 6th, 8th, 10th, and 12th grade students in Utah who have used various illicit drugs in their lifetime and in the past 30 days for 2009. Following the table are more detailed presentations of youth illicit drug use in Utah.

Table 4.7:

Percentage of Students in Grades 8, 10, and 12 Who Have Used Illicit Drugs in their Lifetime, Past 30 Days, Utah (2009)								
Illicit Drug	Lifetime Use				Past 30 Day Use			
	6th	8th	10th	12th	6th	8th	10th	12th
Cocaine	0.4	1.2	2.4	3.2	0.2	0.5	0.7	0.8
Ecstasy*	0.1	0.8	2.6	4.6	0.1	0.8	1.9	2.2
Hallucinogens	0.3	1.5	4.5	5.0	0.1	0.6	1.3	1.2
Heroin	0.2	0.7	1.3	2.0	0.1	0.3	0.4	0.5
Inhalants	5.5	8.9	8.2	7.4	1.9	3.0	1.9	1.1
Marijuana	1.0	6.8	15.5	20.4	0.4	3.2	7.4	8.0
Methamphetamines	0.3	0.9	1.5	1.9	0.1	0.2	0.5	0.3
Prescription Narcotics**	0.4	2.4	6.3	9.3	0.1	0.7	2.0	3.3
Sedative	1.9	5.0	8.4	9.6	0.6	2.1	3.3	3.4
Steroids*	0.8	1.3	1.2	1.5	0.4	0.7	0.6	0.8
Any Illicit Drug	7.5	16.1	22.9	27.3	2.7	7.4	10.8	12.0

Source: Student Health and Risk Prevention Survey

*Lifetime ecstasy use and lifetime steroid use are 2007 SHARP data, because 2009 lifetime data are not available for these substances.

**Without a doctor telling them to take them.

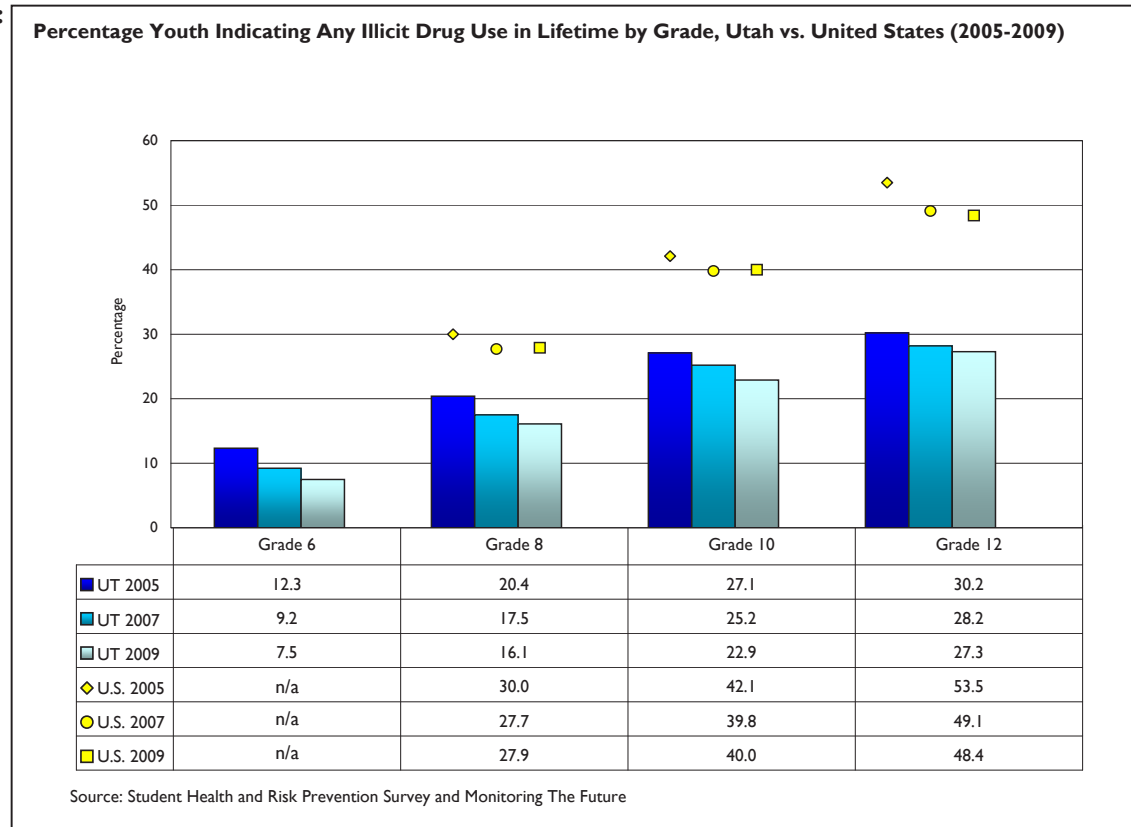
Youth Illicit Drug Use in Utah: Lifetime Any Illicit Drug Use

Figure 4.5 reports the percentage of students (grades 6, 8, 10, and 12) who reported ever using any illicit drugs in their lifetime. Lifetime use is often considered a measure of experimentation. As expected, there is a higher percentage of youth reporting experimentation with illicit drug use in each successive grade as youth get older. Lifetime use rates in 8th thru 12th grades are lower in Utah compared to the U.S. There is a trend from 2005 to 2009 toward lower prevalence of illicit drug experimentation in Utah across all grade levels.

Figure 4.6 shows the percentage of U.S. and Utah students indicating current (past 30 day) use of any illicit drug. As expected, 30 day use rates of “any drug” in Utah were lower than rates for the U.S. In fact, by 12th grade, the rate in Utah was half the national rate for 2009. There also appears to be a decrease in “any drug” use from 2005 to 2009 for Utah 6th, 8th and 10th graders (the rate among 12th graders stayed the same).

NOTE: The info that follows applies to both the figures in this section [4.5 and 4.6]: Monitoring the Future (U.S. data) defines “any illicit drug use” using the following drugs: For 12th graders, use of marijuana, LSD, other hallucinogens, crack, other cocaine, or heroin; or any use of narcotics other than heroin, amphetamines, sedatives (barbiturates), or tranquilizers not under a doctor’s orders. For 8th and 10th graders, the use of narcotics other than heroin and sedatives (barbiturates) has been excluded because these younger respondents appear to over report use.

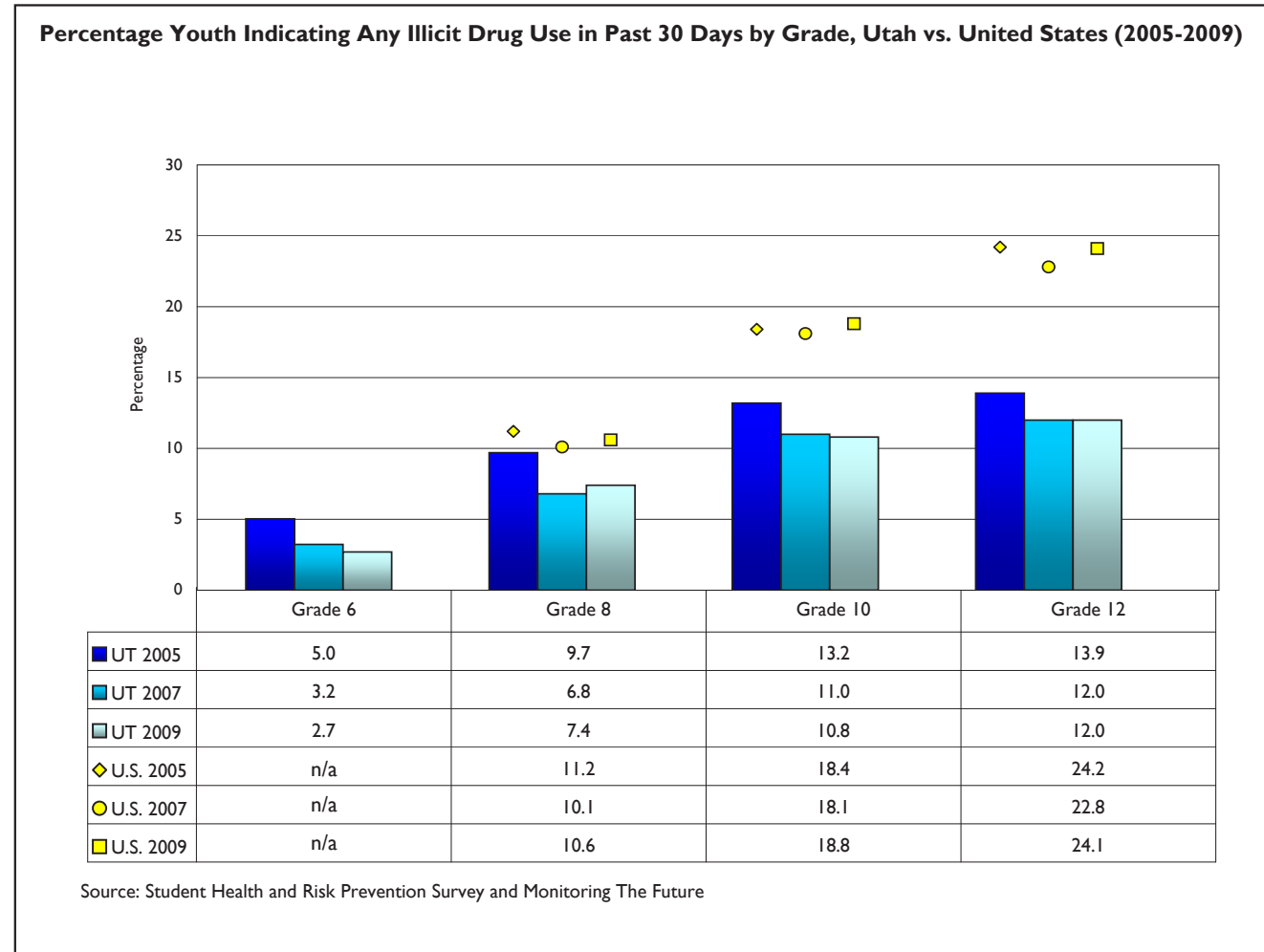
Figure 4.5: Percentage Youth Indicating Any Illicit Drug Use in Lifetime by Grade, Utah vs. United States (2005-2009)



Youth Illicit Drug Use in Utah: Past Month Any Illicit Drug Use

Figure 4.6 shows the percentage of U.S. and Utah students indicating current (past 30 day) use of any illicit drug. As expected, 30 day use rates of “any drug” in Utah were lower than rates for the U.S. In fact, by 12th grade, the rate in Utah was half the national rate for 2009. There also appears to be a decrease in “any drug” use from 2005 to 2009 for Utah 6th, 8th and 10th graders (the rate among 12th graders stayed the same).

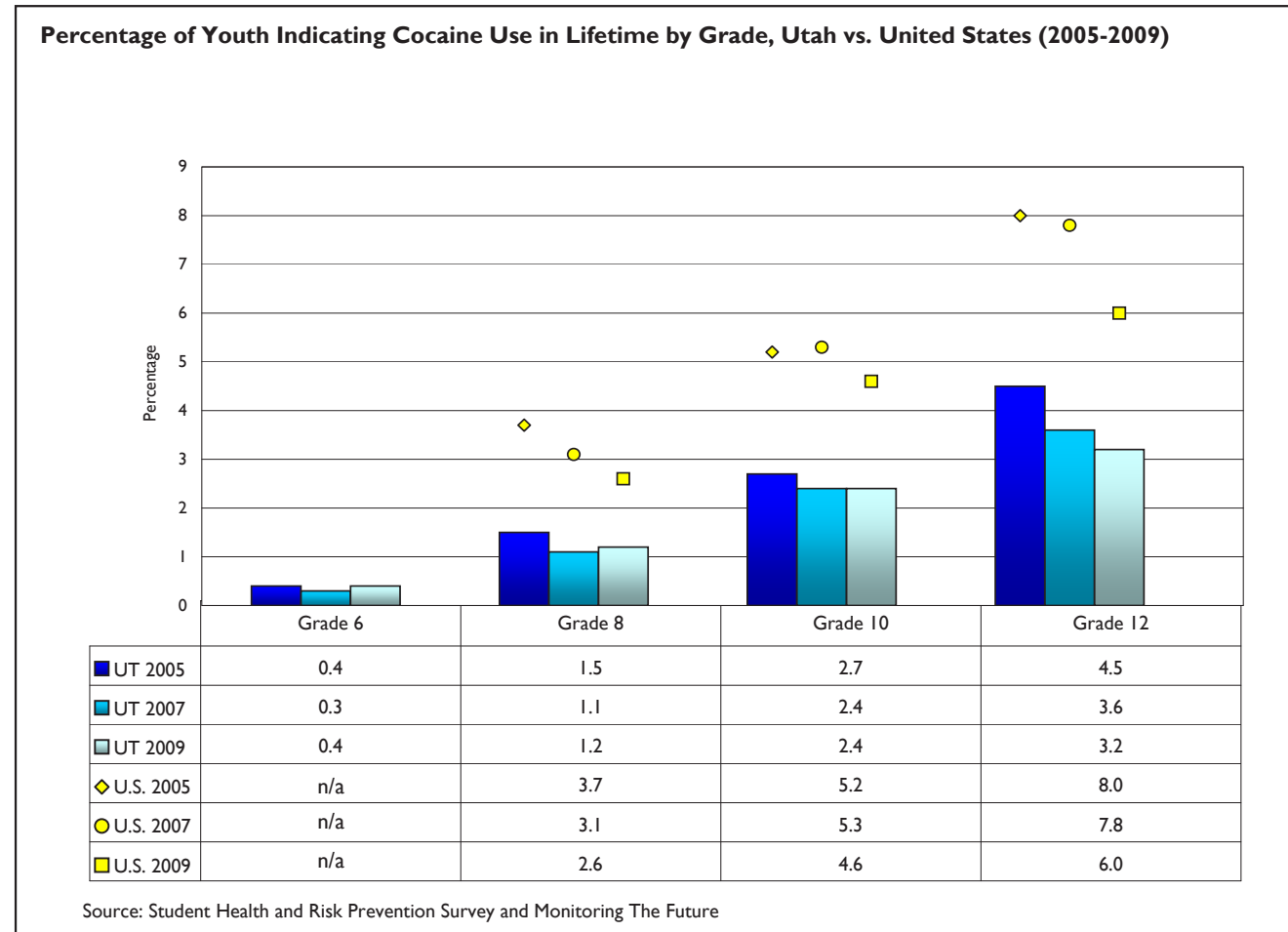
Figure 4.6:



Youth Illicit Drug Consumption: Lifetime Cocaine Use

Figure 4.7 shows the prevalence of lifetime use of cocaine in Utah compared to the United States. Overall, cocaine use among youth is a relatively low frequency occurrence compared to alcohol, tobacco and marijuana. Moreover, Utah students report lifetime use of cocaine at a lower rate than U.S. students. The prevalence of lifetime use of cocaine in Utah is about half the rate of U.S. students across grades 8, 10, and 12.

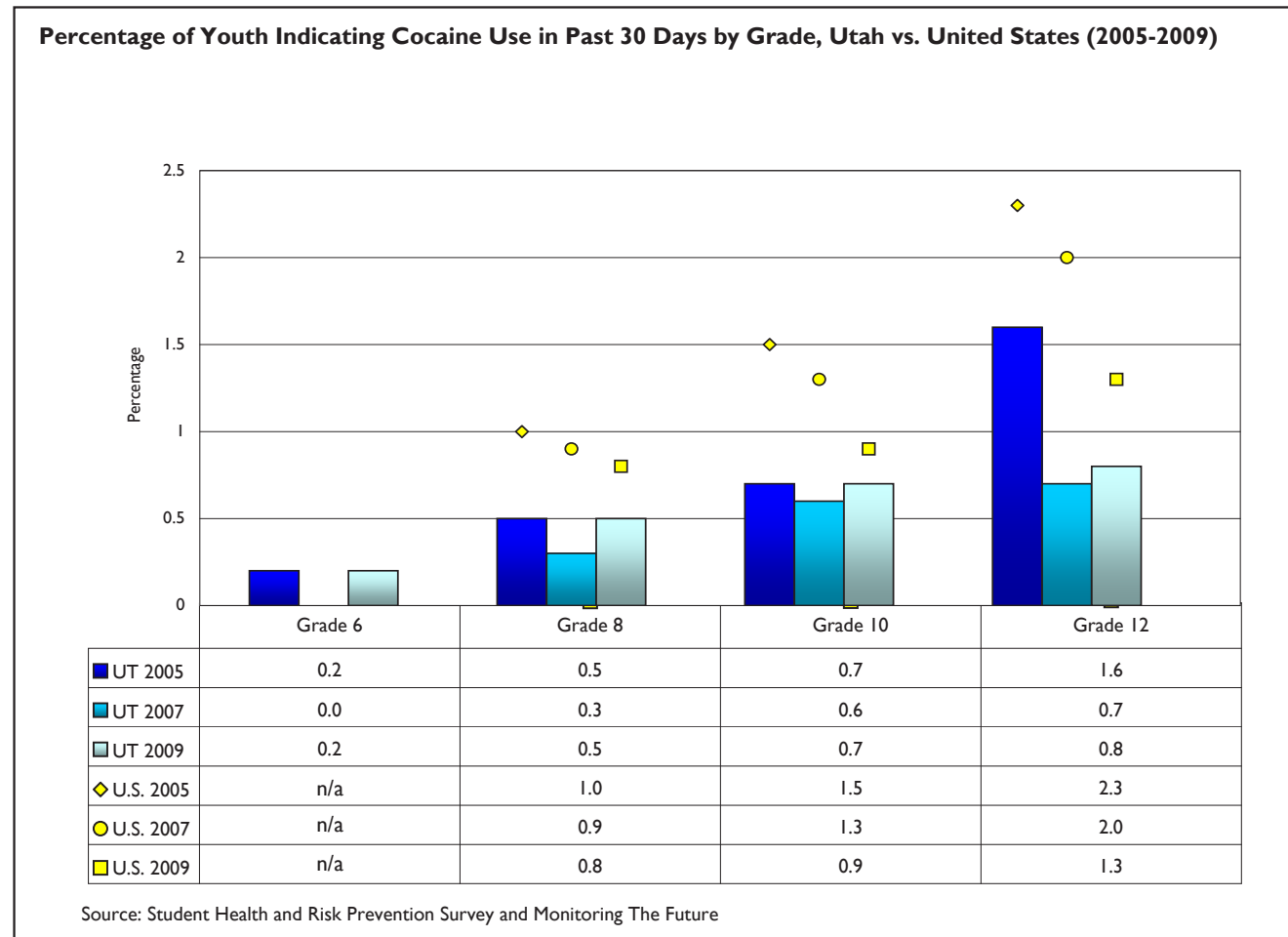
Figure 4.7:



Youth Illicit Drug Consumption: Past Month Cocaine Use

Figure 4.8 shows the prevalence of 30 day use of cocaine in Utah compared to the United States. Overall, cocaine use among youth is a relatively low frequency occurrence compared to alcohol, tobacco and marijuana. Moreover, Utah students report 30 day use of cocaine at a lower rate than U.S. students. The prevalence of past 30 day cocaine use in Utah is lower than the U.S. rate for grades 8, 10 and 12.

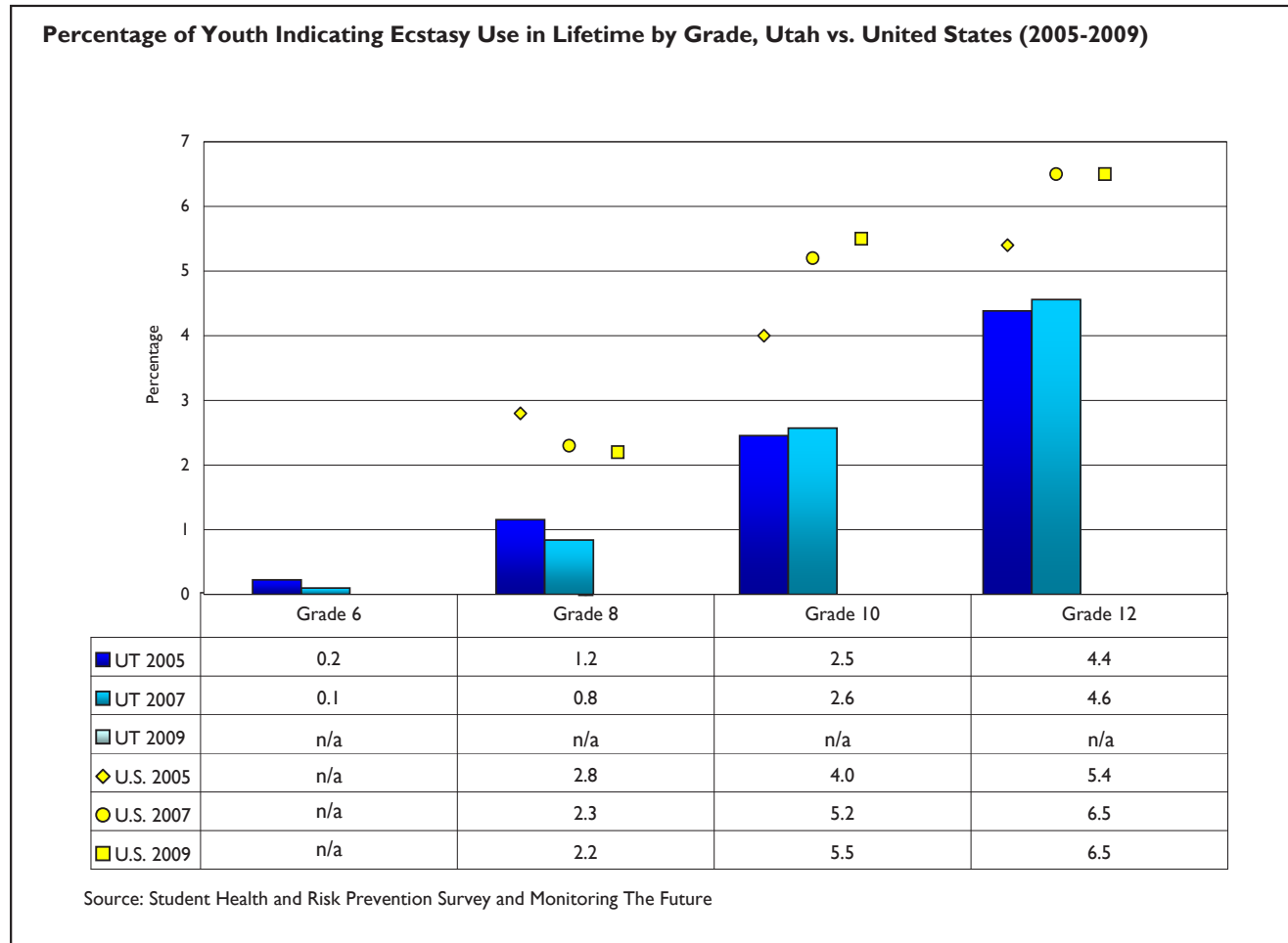
Figure 4.8:



Youth Illicit Drug Consumption: Lifetime Ecstasy Use

Figure 4.9 shows the percentage of youth who have used ecstasy in their lifetime. As with most illicit drugs other than marijuana, ecstasy use rates tend to be very low. Lifetime ecstasy use rates were not assessed in Utah in 2009. In 2007, about 3% of 10th graders and 5% of 12th graders in Utah reported ever using ecstasy in their lifetime.

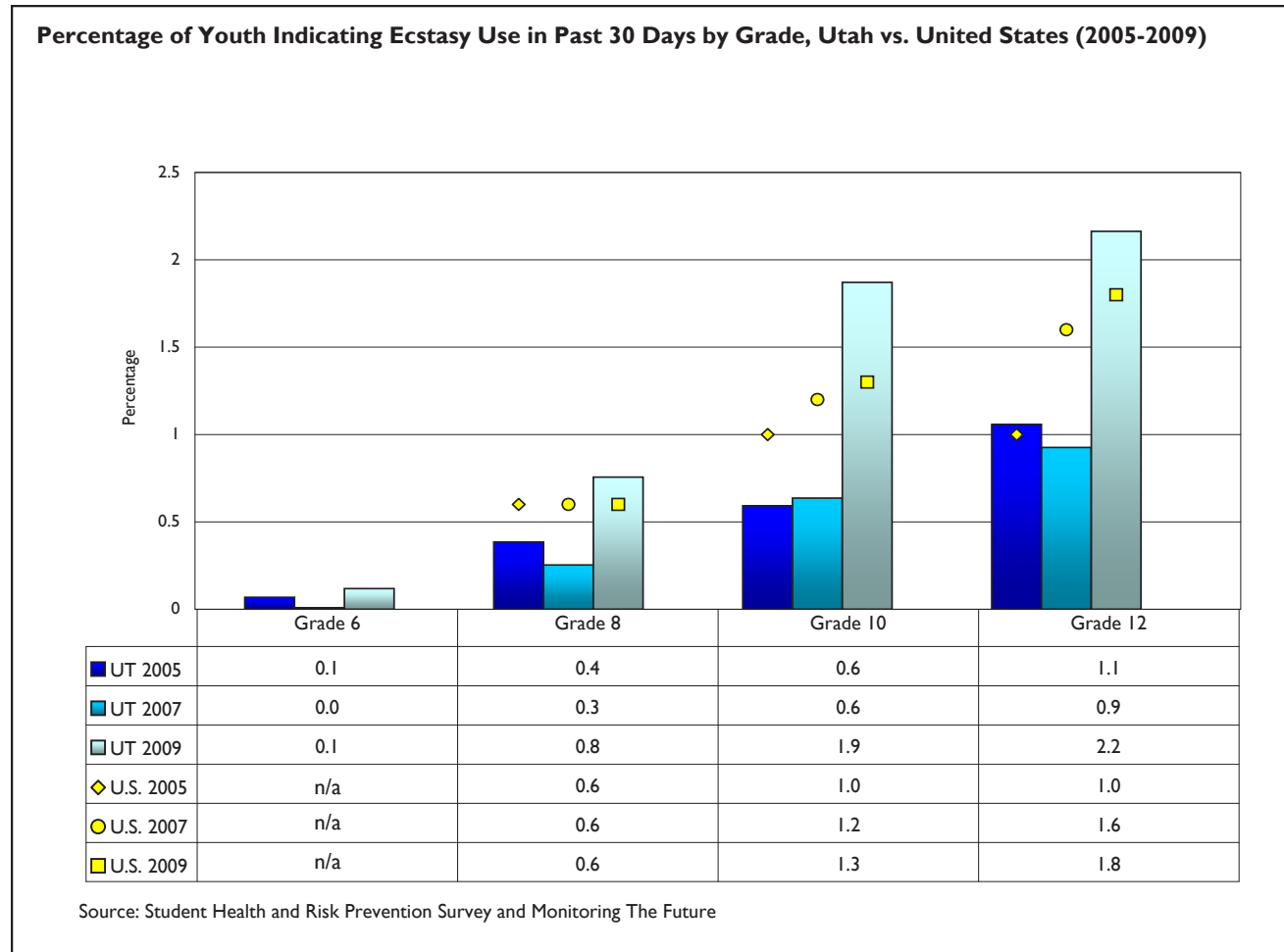
Figure 4.9:



Youth Illicit Drug Consumption: Past Month Ecstasy Use

Figure 4.10 shows the percentage of students who have used ecstasy in the past 30 days in Utah and the U.S. In 2005 and 2007, the prevalence of past 30 day use of ecstasy was similar or lower in Utah compared to the U.S., but in 2009 the reported prevalence of ecstasy use increased dramatically, to the extent that the rate in Utah was higher than the U.S. rate across all grades.

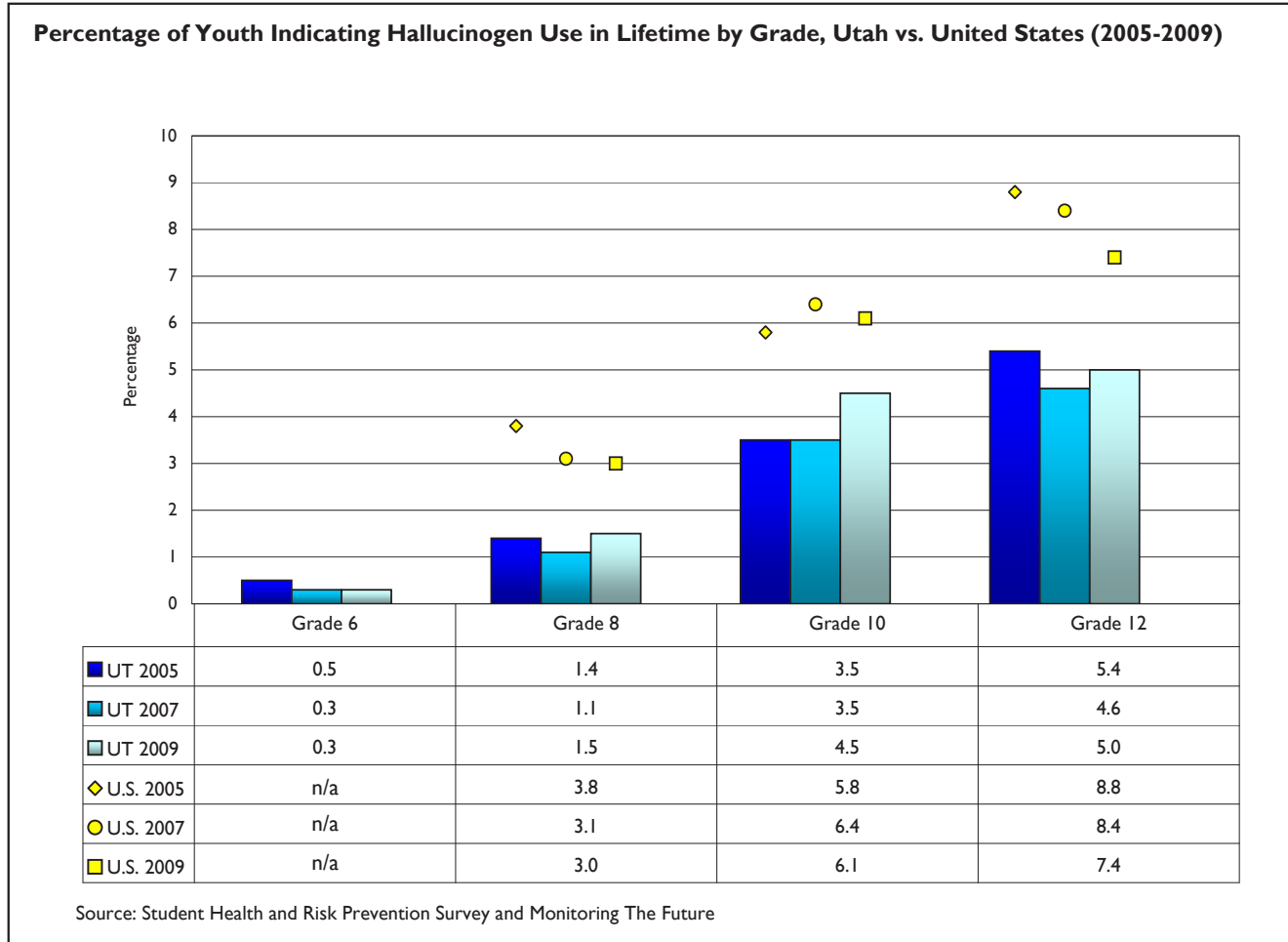
Figure 4.10:



Youth Illicit Drug Consumption: Lifetime Hallucinogens Use

Figure 4.11 compares Utah and the nation regarding the percentage of youth who have ever used hallucinogens in their lifetime. As with most illegal drugs, hallucinogen use rates are low. Less than 8% of 10th and 12th grade respondents indicated using hallucinogens in their lifetime in both the U.S. and Utah. The prevalence of hallucinogens in Utah was slightly lower than the U.S. across all surveyed grades.

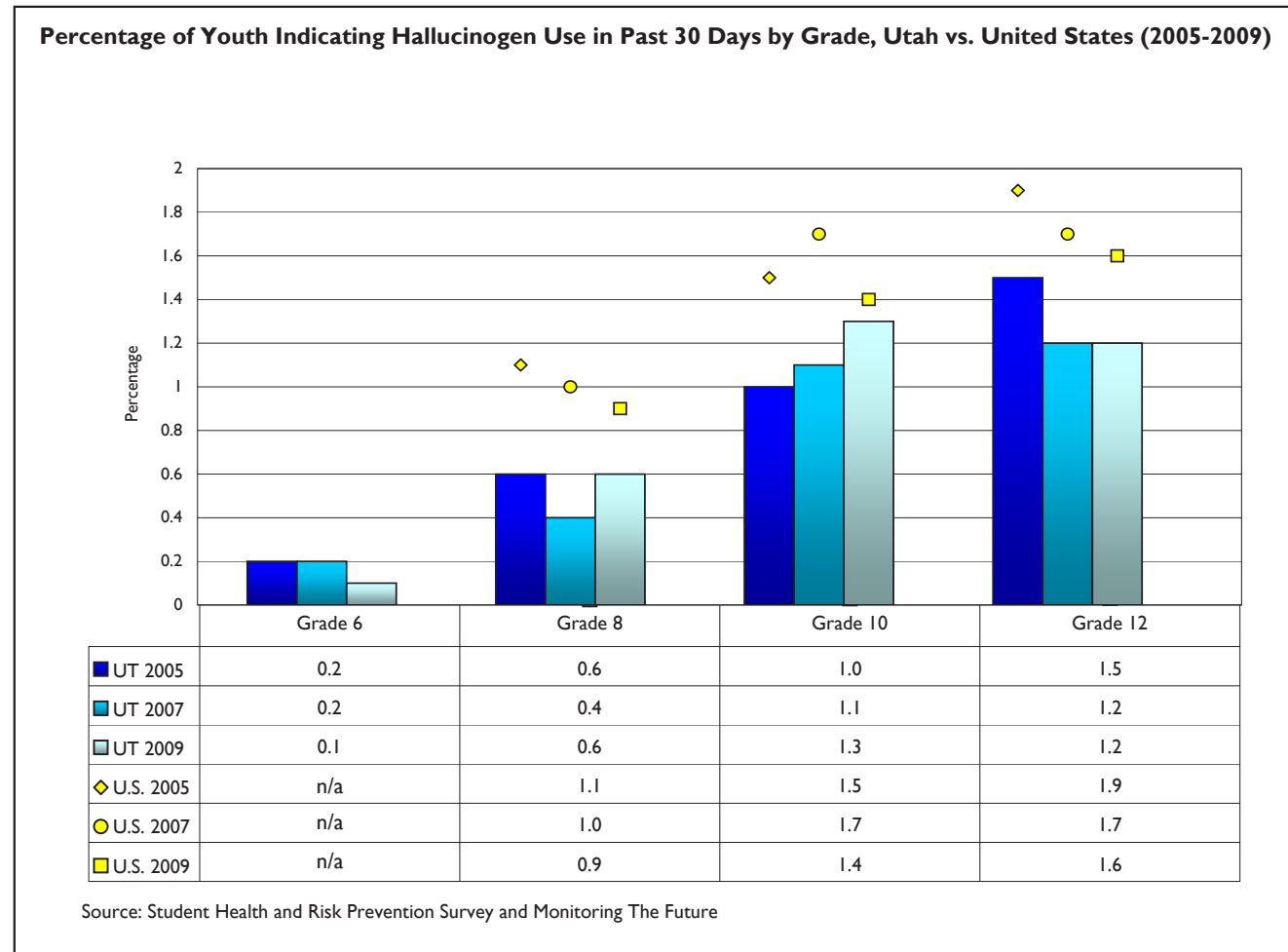
Figure 4.11:



Youth Illicit Drug Consumption: Past Month Hallucinogens Use

Figure 4.12 provides a comparison of the percentage of youth who used hallucinogens in the past 30 days. As with most illegal drugs, hallucinogen use rates are low. Just over 1% of 10th and 12th grade respondents indicated using hallucinogens in the past 30 days for both the U.S. and Utah. The prevalence of hallucinogens in Utah was slightly lower than the U.S. across all surveyed grades.

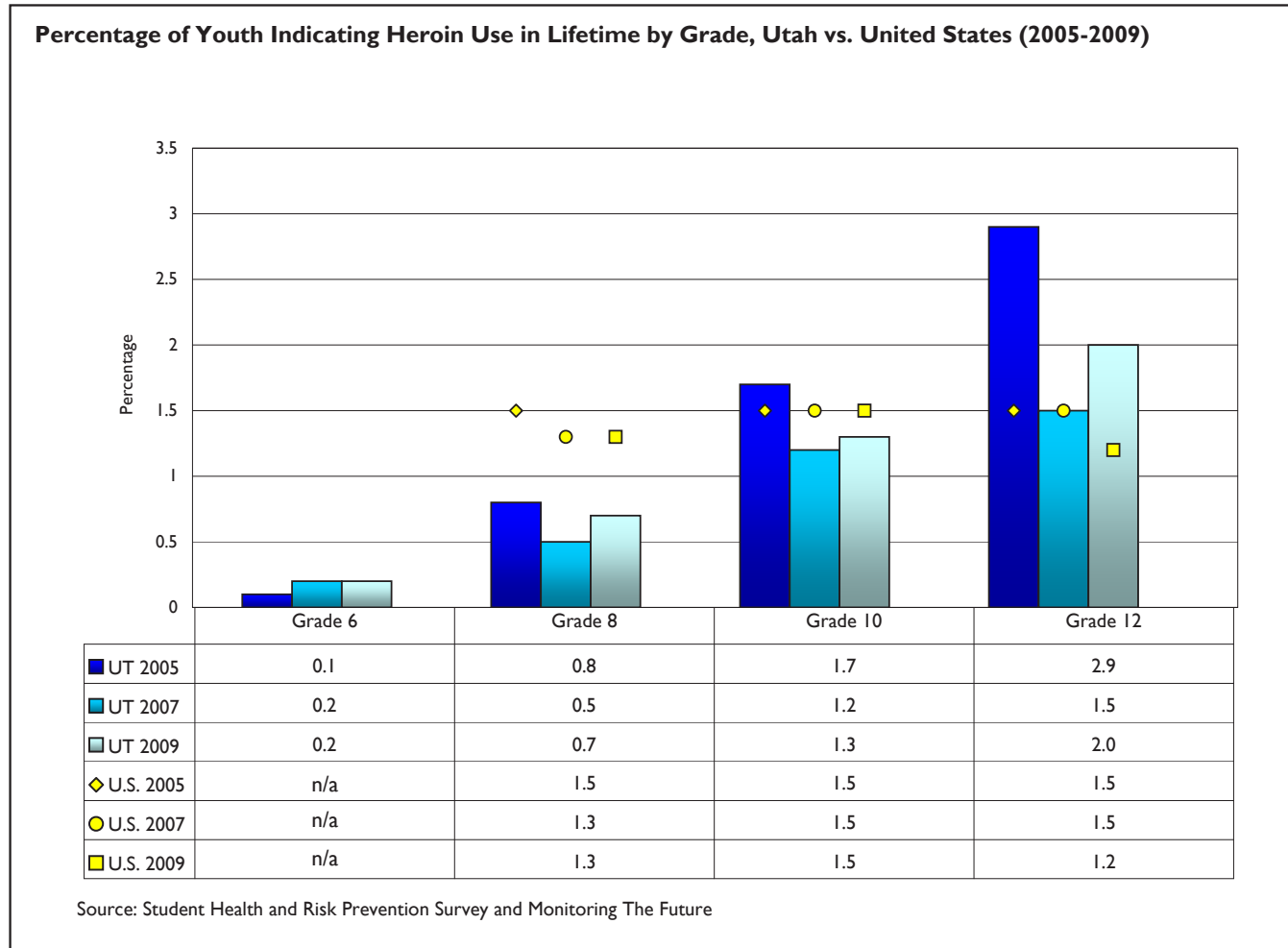
Figure 4.12:



Youth Illicit Drug Consumption: Lifetime Heroin Use

Figure 4.13 shows the lifetime use rates for heroin among Utah and U.S. students in grades 8, 10, and 12. As with most of the more severe illicit drugs, use of heroin among youth is a very infrequent occurrence. The prevalence of lifetime use rates among 12th grade Utah students compared to 12th grade U.S. students, but lower among students grades 8 and 10. In 2009, 2% of Utah 12th graders had ever used heroin in their lifetime compared to 1% of 12th graders in the U.S.

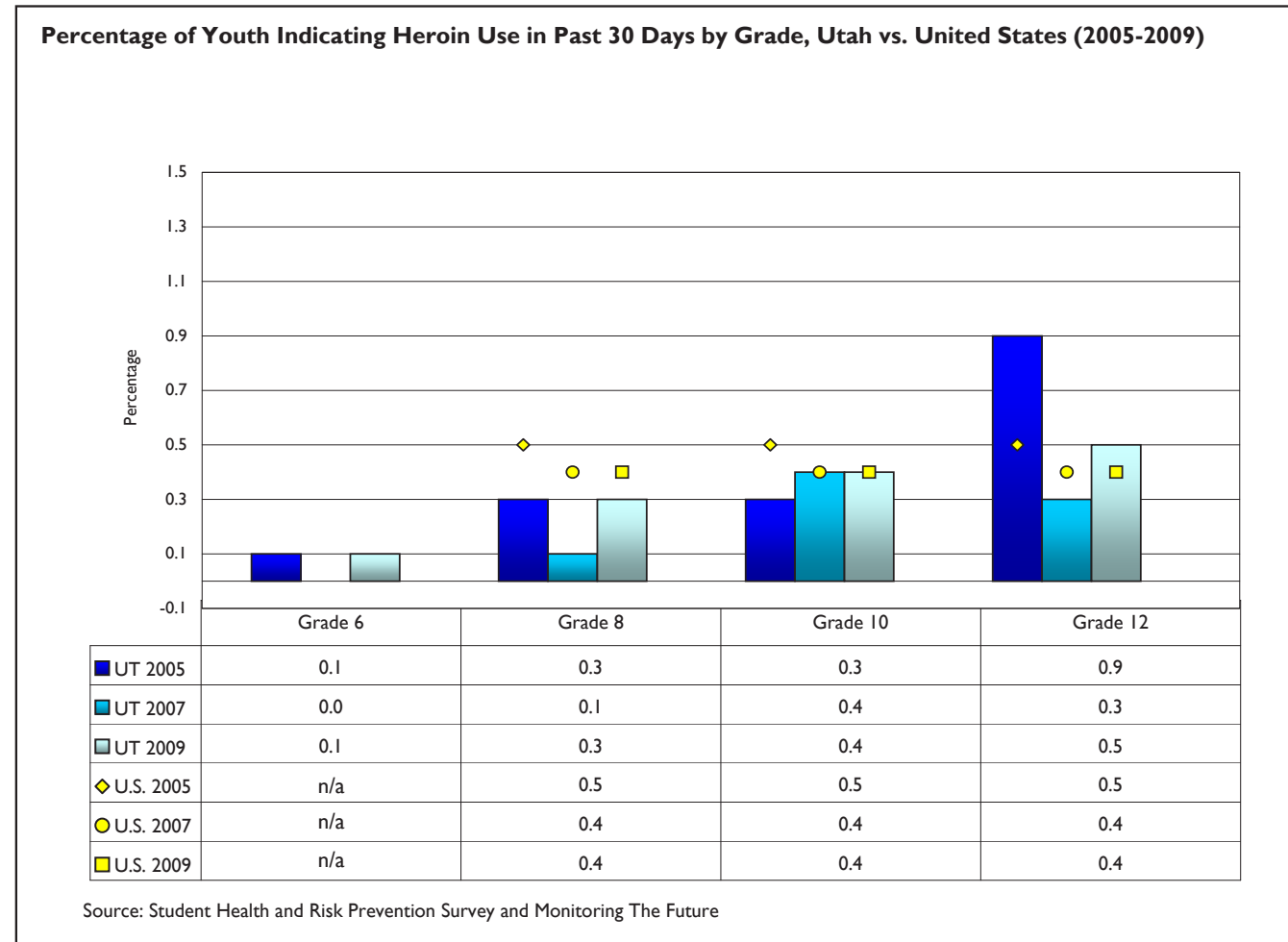
Figure 4.13:



Youth Illicit Drug Consumption: Past Month Heroin Use

Figure 4.14 shows the percentage of students in grades 8, 10, and 12 who reported using heroin in the past 30 days in Utah and in the U.S. Prevalence rates between Utah and the nation were very similar. Only approximately 0.5% of 10th and 12th graders reported heroin use in the past 30 days in 2009.

Figure 4.14:

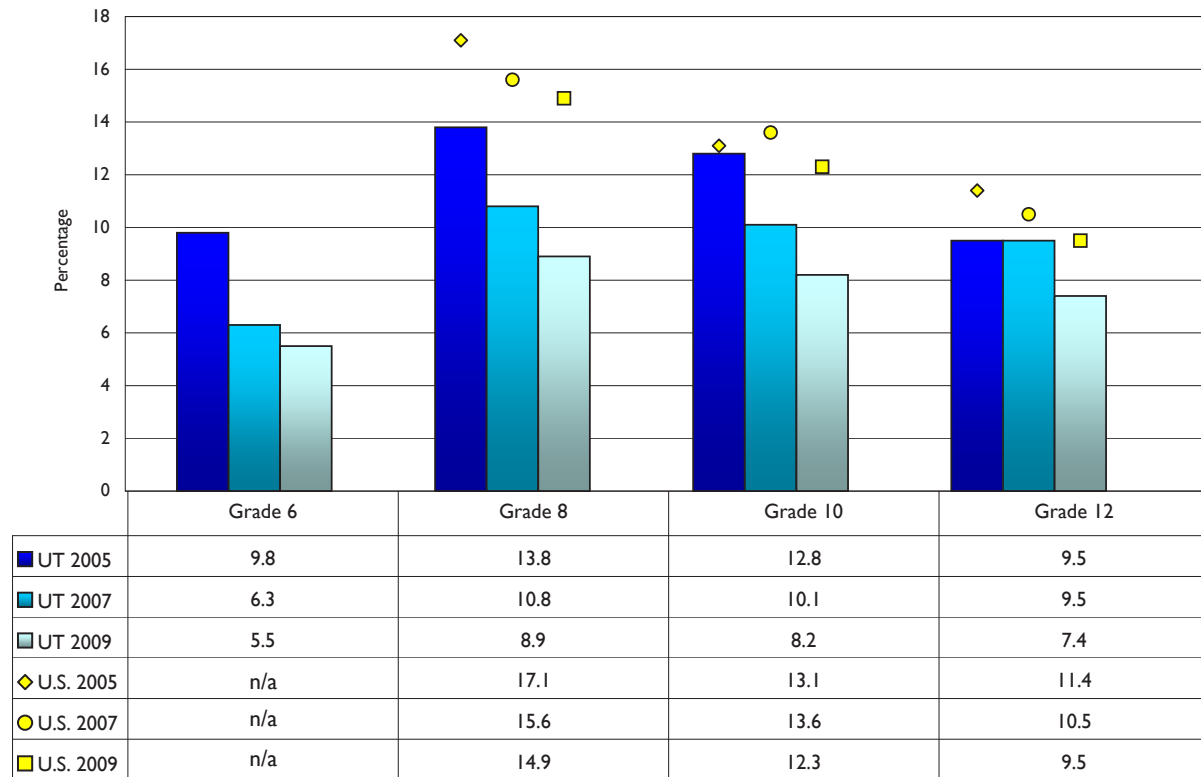


Youth Illicit Drug Consumption: Lifetime Inhalant Use

The use of inhalants includes such activities as sniffing glue or breathing in solvents or the contents of aerosol cans for the purpose of getting high. Typically, across the nation, inhalant use peaks in the 7th or 8th grade. This trend seems to bear out in Utah as well according to SHARP data. Figure 4.15 shows that inhalant experimentation was slightly less prevalent in Utah than it is in the U.S. This was seen across all grades surveyed.

Figure 4.15:

Percentage of Youth Indicating Inhalant Use in Lifetime by Grade, Utah vs. United States (2005-2009)

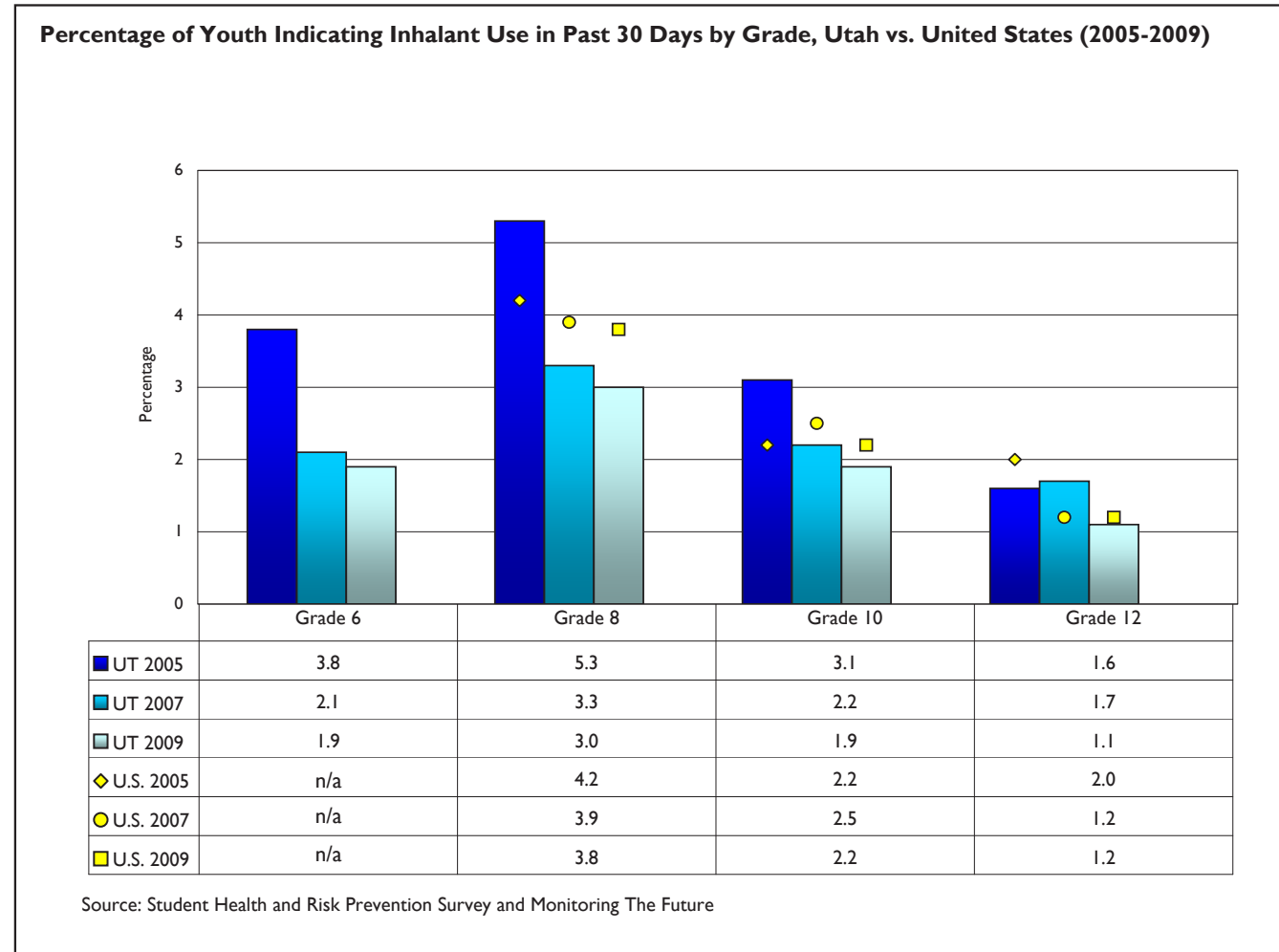


Source: Student Health and Risk Prevention Survey and Monitoring The Future

Youth Illicit Drug Consumption: Past Month Inhalant Use

Figure 4.16 displays the percentage of students reporting past 30 day use of inhalants. As with lifetime inhalant use rates, 30 day use rates for Utah youth were lower than national rates for grades 8, 10 and 12 in 2009 (and for grades 8 and 10 in 2007). This reverses a trend of higher 30 day inhalant use rates in Utah compared to the nation that were seen in the 2003 and 2005 SHARP Surveys for grades 8 and 10.

Figure 4.16:

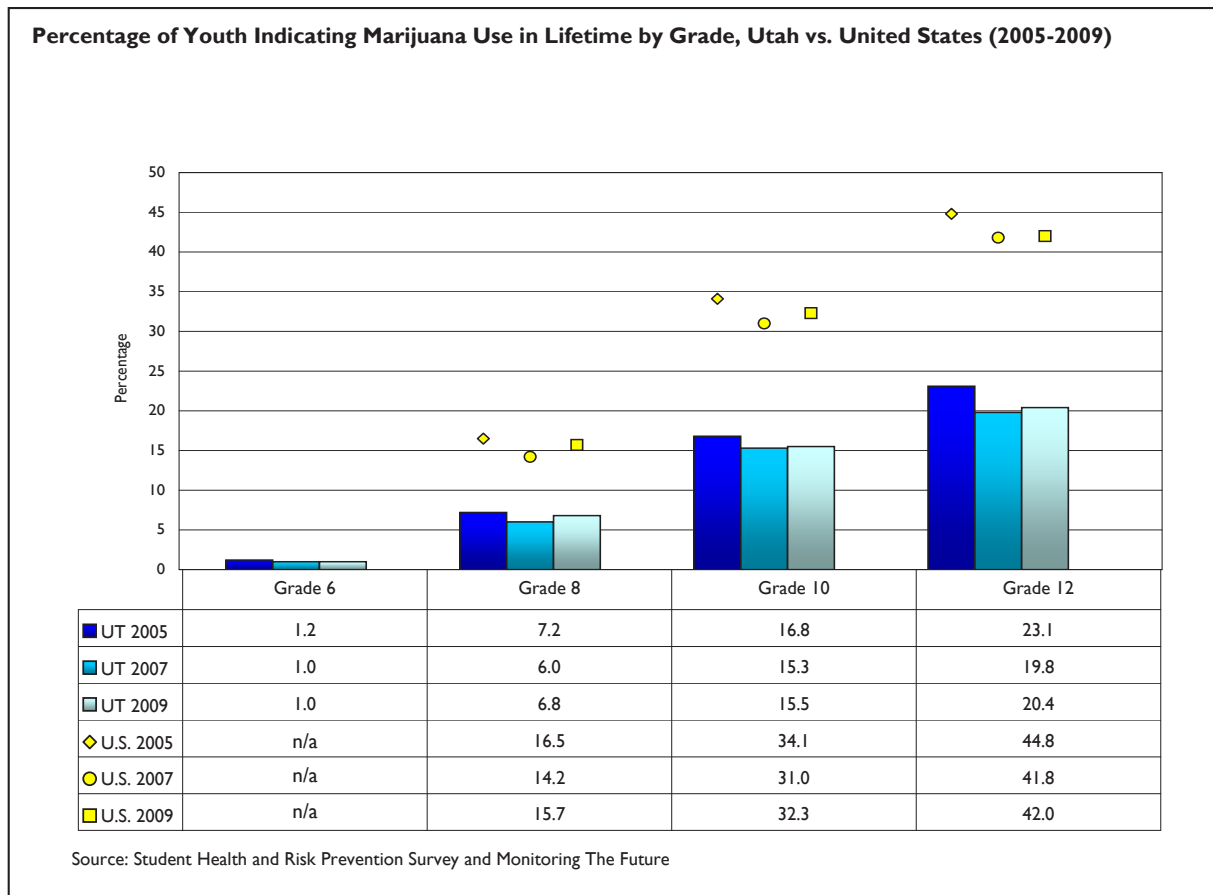


Youth Illicit Drug Consumption: Lifetime Marijuana Use

Marijuana is often considered a gateway drug to more potent substances and is the drug with the highest use rates of any illegal drug. In fact, nationally among grades 8-12, 30 day use rates for marijuana and 30 day cigarette use rates are fairly comparable. While this is in large part attributable to the decrease in cigarette use rates across the nation over the past two decades, it also highlights the prevalence of marijuana and the continued popularity of this drug.

Figure 4.17 shows the percentage of students who have ever used marijuana in their lifetime. Utah's rate of lifetime marijuana use is less than half of the nation's rate across all grades.

Figure 4.17:

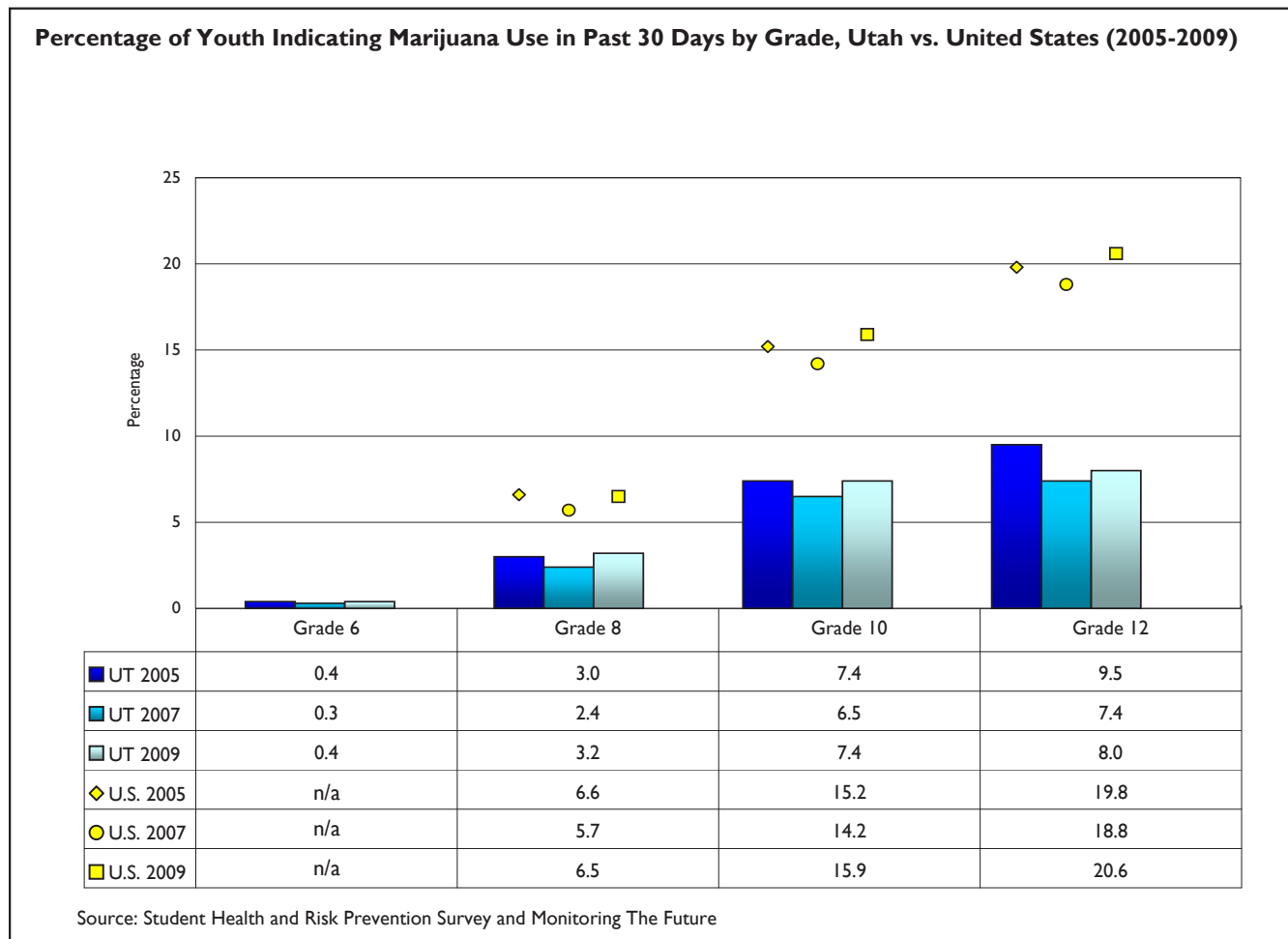


Youth Illicit Drug Consumption: Past Month Marijuana Use

Figure 4.18 shows past 30 day use rates for marijuana among Utah and U.S. students. As with alcohol and tobacco use, there is a clear upward trend in 30 day marijuana use rates as students get older (e.g., for 2009, 30 day use rates for 8th graders was 3% and for 12th graders was 8%). However, it is important to point out that 30 day marijuana use rates for Utah still remain at less than half the national rates for all three grade levels which allow for national comparisons in 2009.

In Utah, past 30 day marijuana use rates in 2009 were actually slightly higher than past 30 day cigarette use rates for students in 8th and 10th grades. Among 12th graders in Utah, past 30 day marijuana use is very similar to that of past 30 day cigarette use.

Figure 4.18:



Youth Illicit Drug Consumption: Marijuana Use by Gender

Table 4.8 compares males and females on age of first use and the percentage of past 30 day marijuana use. The 30 day use rate was higher for males than for females (5.5% vs. 3.8%). The age of first marijuana use was virtually the same, with males and females (who indicated use) reporting that their age of first use was approximately 14 years.

Table 4.8:

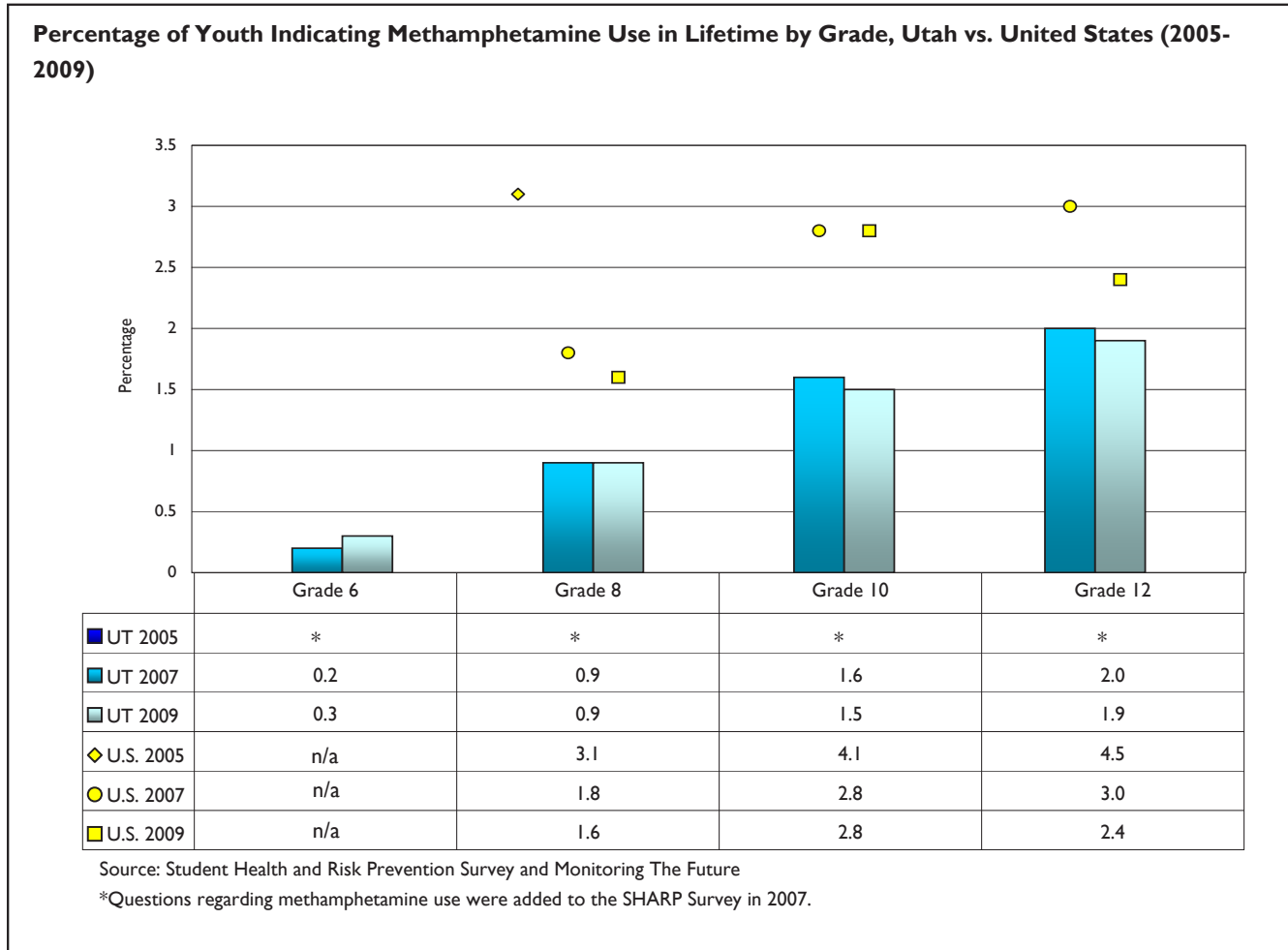
Average Age of First Marijuana Use and Percentage Indicating Past 30 Day Marijuana Use (6th, 8th, 10th and 12th graders combined), by Gender (2009)		
Category	Male	Female
Percentage Indicating Past 30 Day Use	5.5	3.8
Average Age of First Use	13.9	14

Source: Student Health and Risk Prevention Survey

Youth Illicit Drug Consumption: Lifetime Methamphetamine Use

Figure 4.19 shows the percentage of youth who reported lifetime use of methamphetamines. The use rates for methamphetamine were low both nationally and in Utah. Less than 2.5% of students in grades 8, 10, and 12 nationally and 2.0% or less in Utah reported lifetime methamphetamine use, suggesting methamphetamine use is not common in youth populations.

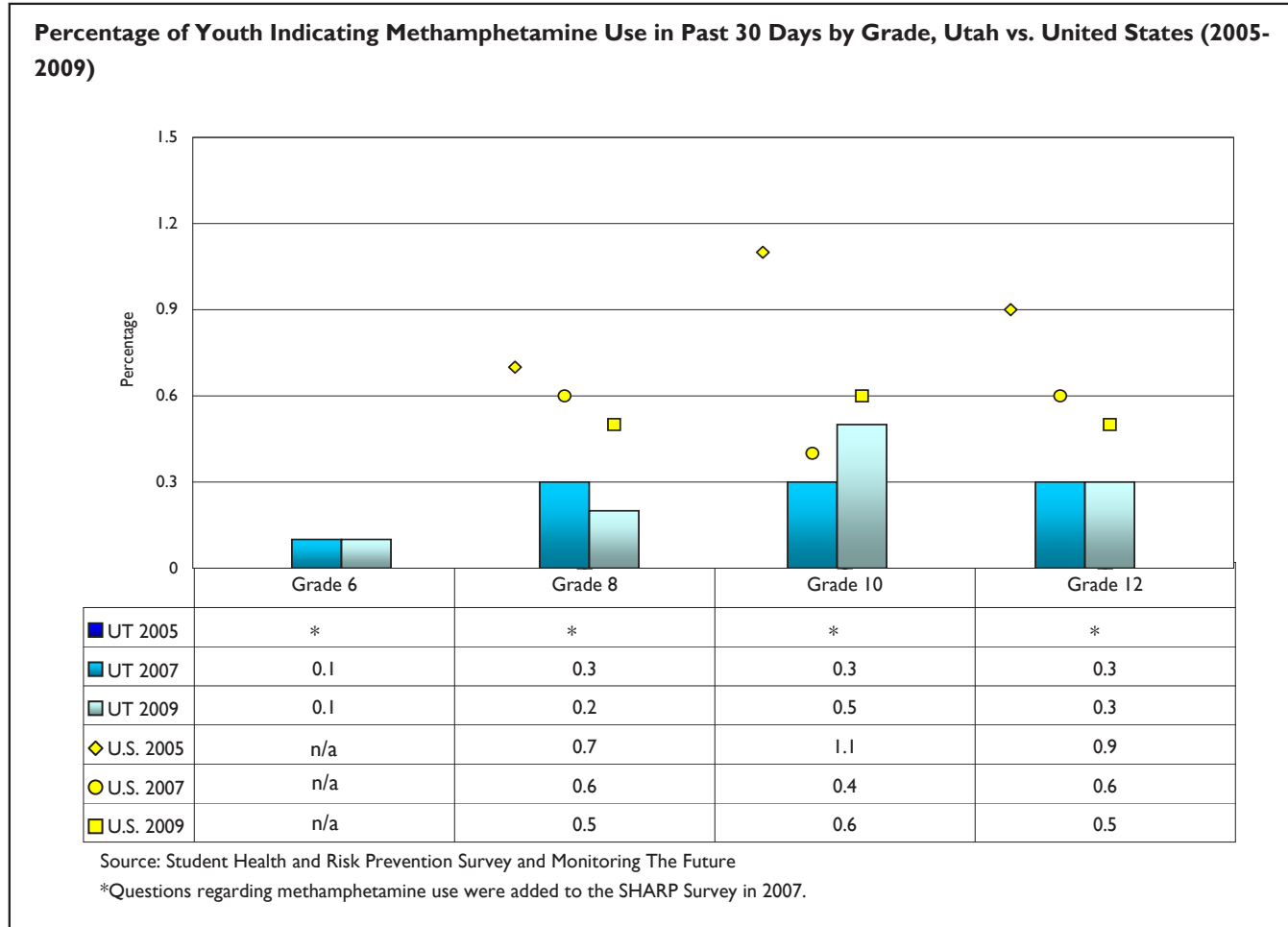
Figure 4.19:



Youth Illicit Drug Consumption: Past Month Methamphetamine Use

Figure 4.20 shows the percentage of youth who reported 30 day use of methamphetamines. As would be expected based on lifetime use data, the 30 day use rates for methamphetamine were low both nationally and in Utah. Less than 1% of students in grades 8, 10, and 12 nationally and .5% or less in Utah reported using methamphetamine in the past 30 days, suggesting methamphetamine use is not common in youth populations.

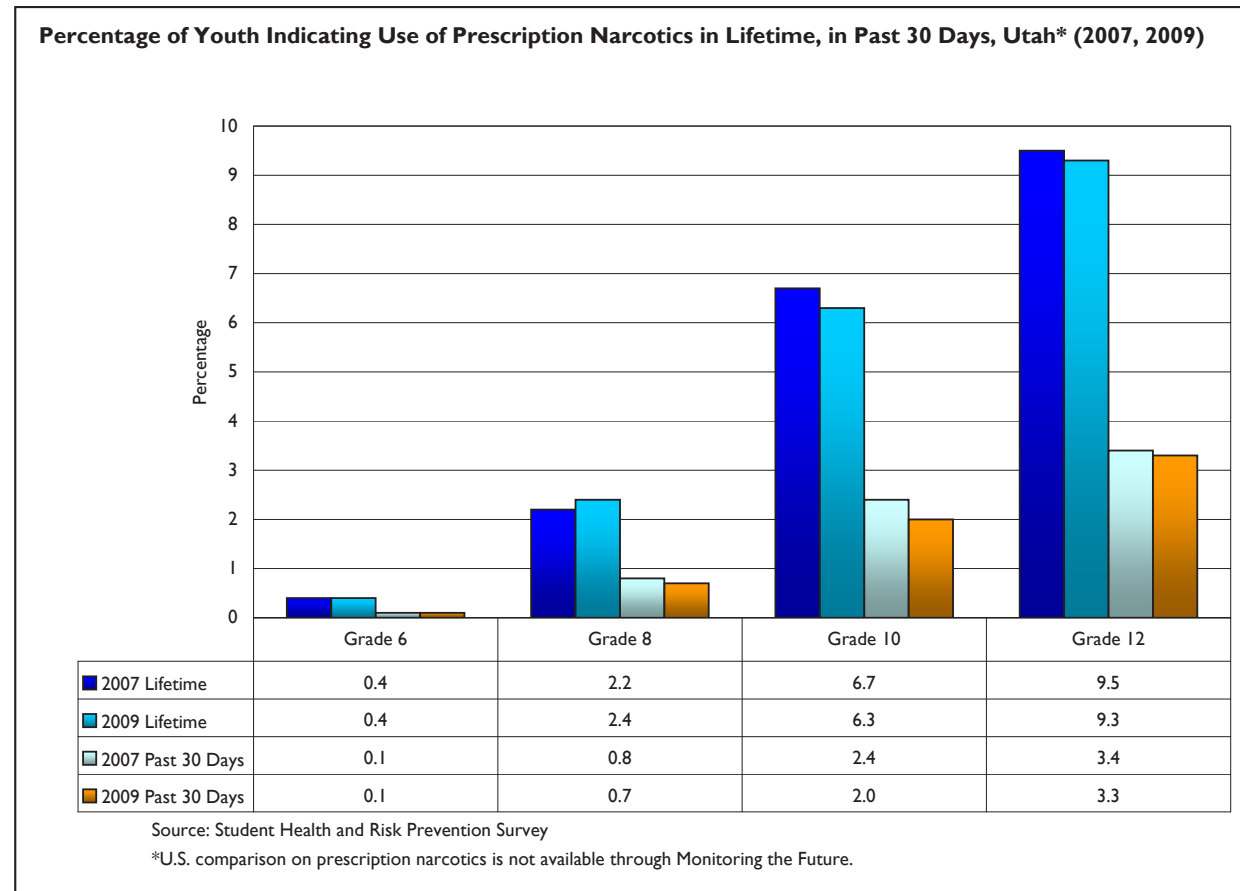
Figure 4.20:



Youth Illicit Drug Consumption: Prescription Narcotic Use

In 2007, an item was also added to the SHARP Survey to examine the prevalence of prescription narcotic use in ways other than prescribed by a doctor. Figure 4.21 reports the percentage of Utah youth who indicating using prescription narcotics for non-prescribed purposes, both in their lifetime and during the past 30 days. In 2009, almost 10% of Utah 12th graders reported using prescription narcotics for non-prescribed purposes in their lifetime and 3% reported using prescription narcotics in the past 30 days. There are no exact MTF comparisons, but the MTF survey includes questions on using “narcotics other than heroin” and provides some examples of prescription narcotics. The 2009 U.S. MTF lifetime use of “narcotics other than heroin” among 12th graders was 13% and past 30 day use among 12th graders was 4%.

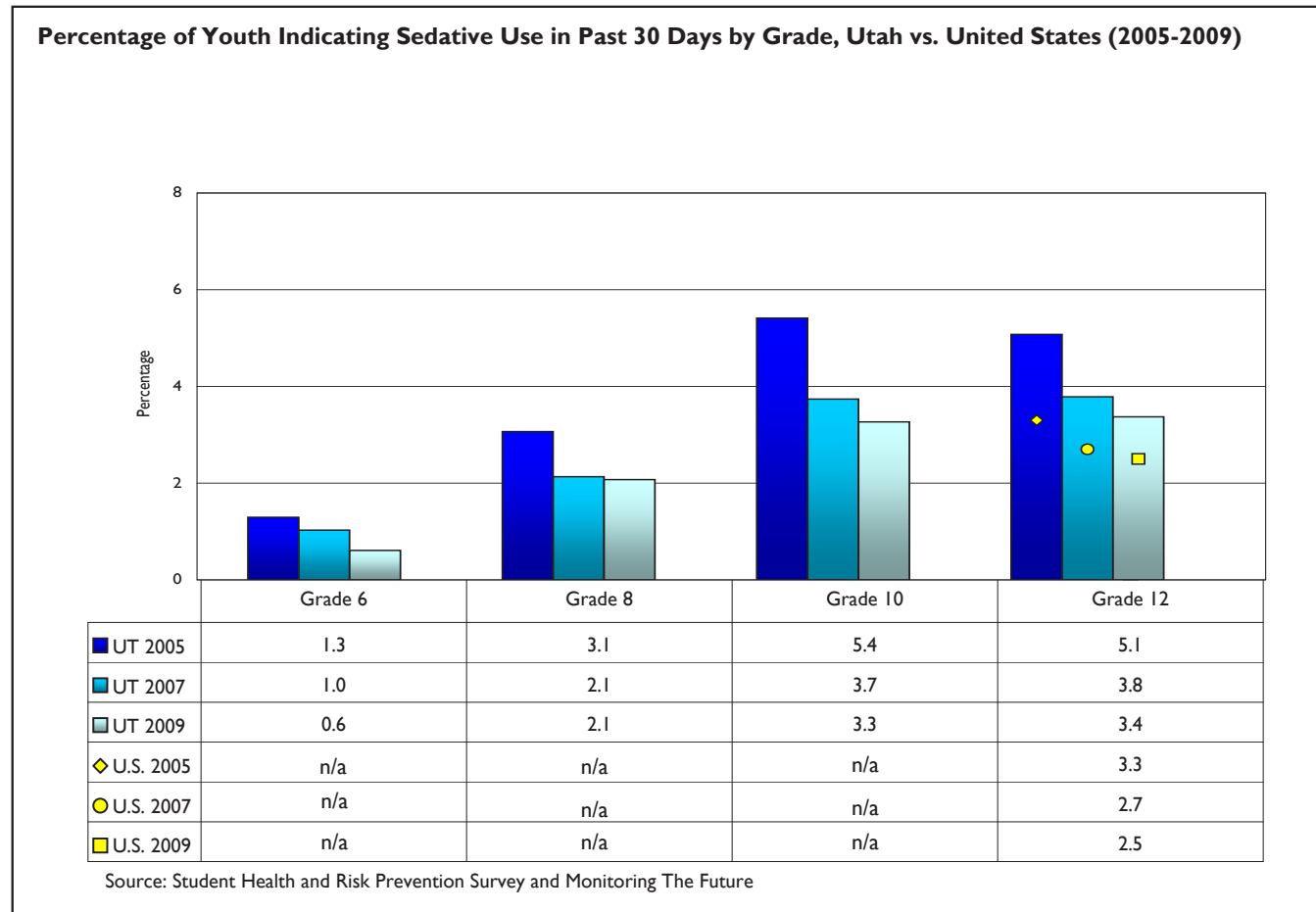
Figure 4.21:



Youth Illicit Drug Consumption: Lifetime Sedative Use

Figure 4.22 presents the percentage of youth indicating sedative use in their lifetime for Utah students in grades 6, 8, 10, and 12 and for U.S. students in grade 12. For lifetime use, there was a drop from 2005 to 2009 in sedative use among Utah students across all grades. However, the rate of lifetime sedative use among 12th grade Utah students was still higher than for the national counterpart. Only 12th grade comparisons are provided because only 12th grade national data were available for sedative use.

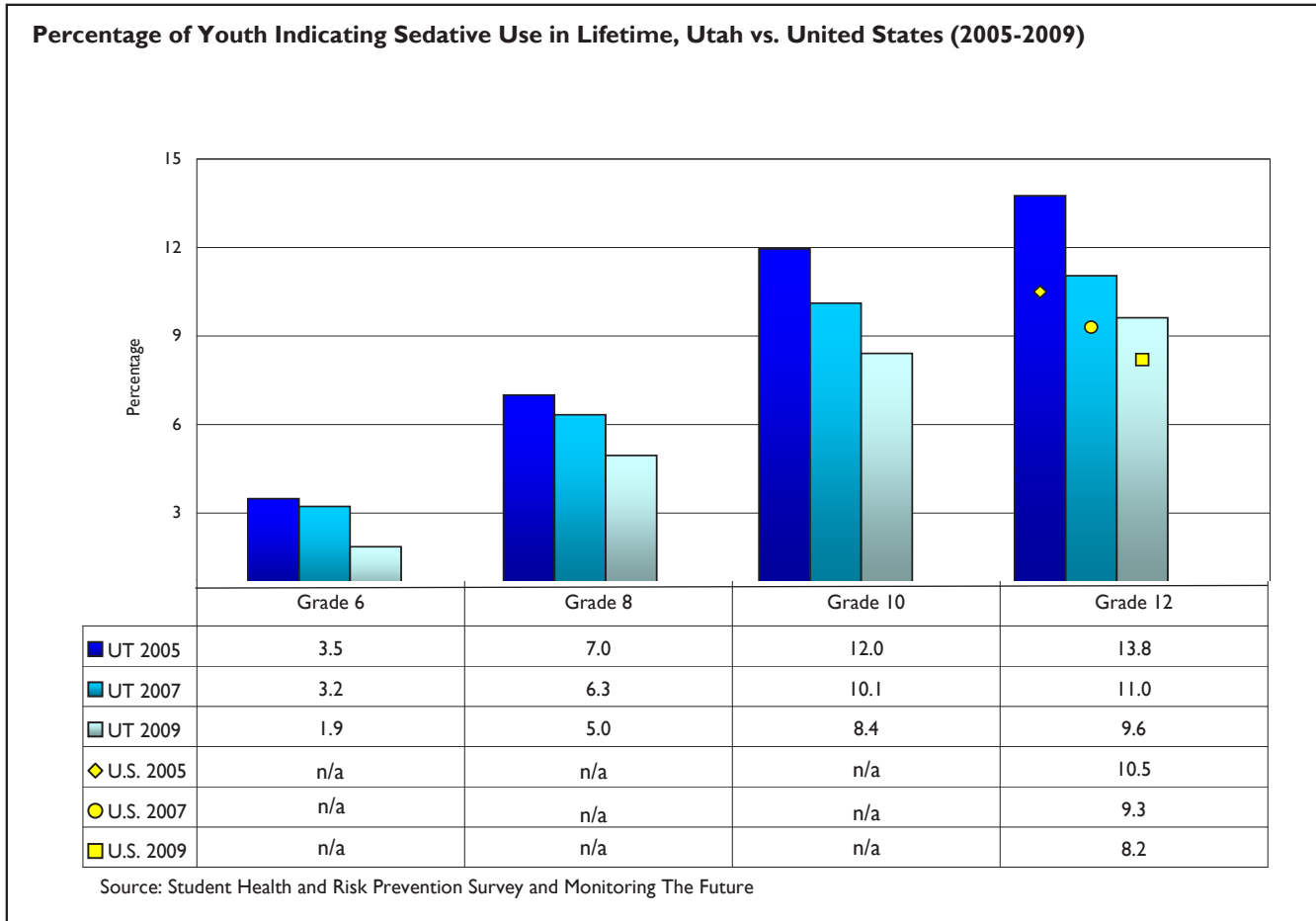
Figure 4.22:



Youth Illicit Drug Consumption: Past Month Sedative Use

Figure 4.23 presents the percentage of youth indicating sedative use in the past 30 days for Utah students in grades 6, 8, 10, and 12 and for U.S. students in grade 12. For past 30 day use, there was a drop from 2005 to 2009 in sedative use among Utah students across all grades. However, the rate of past 30 day sedative use among 12th grade Utah students was still higher than for the national counterparts. Only 12th grade comparisons are provided because only 12th grade national data were available for sedative use.

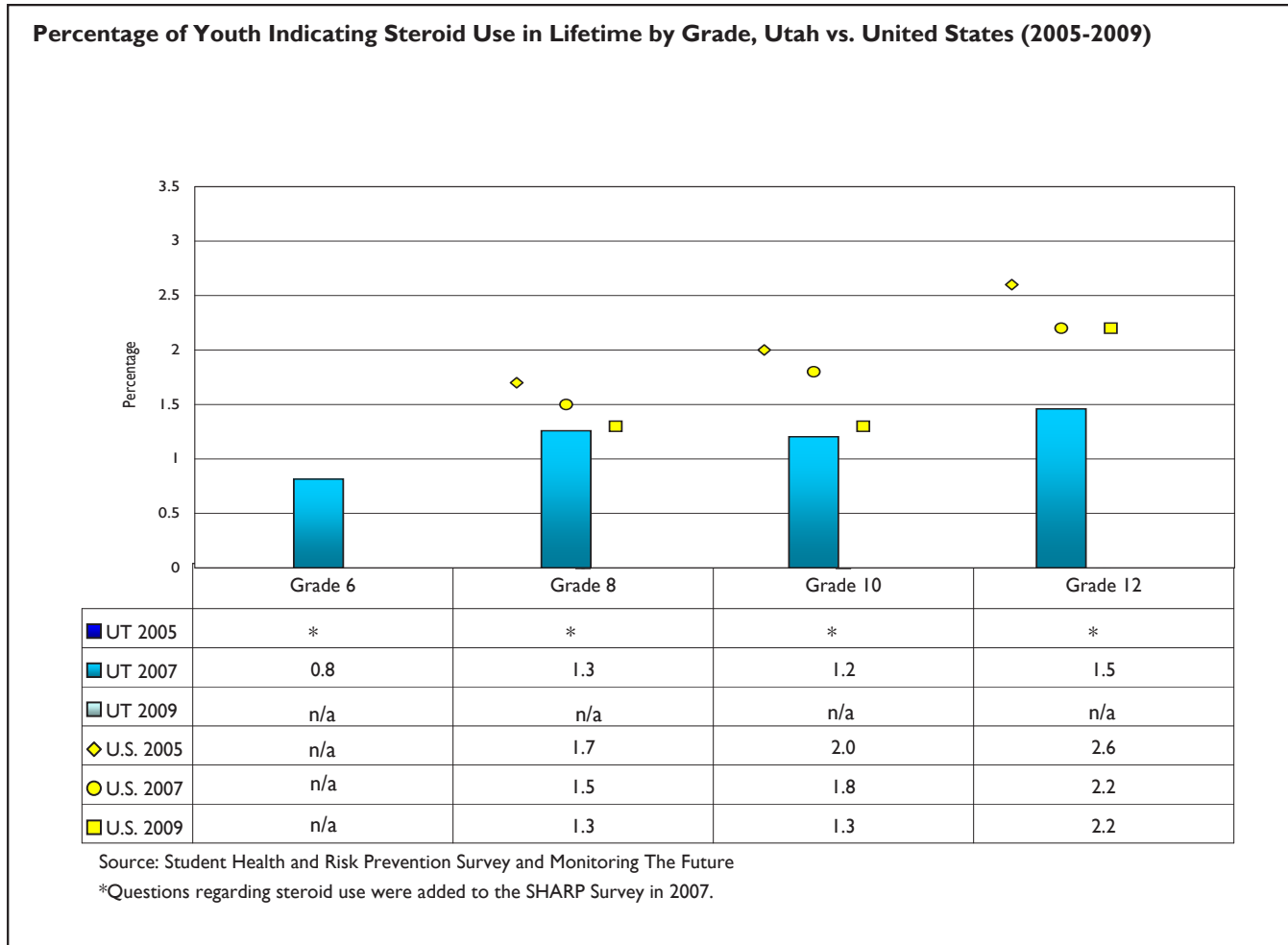
Figure 4.23:



Youth Illicit Drug Consumption: Lifetime Steroid Use

Figure 4.24 presents the percentage of Utah and U.S. students indicating the use of steroids in their lifetime. Steroid lifetime use rates are low, less than 2.5% for each grade for the nation and less than 1.5% for each grade for Utah.

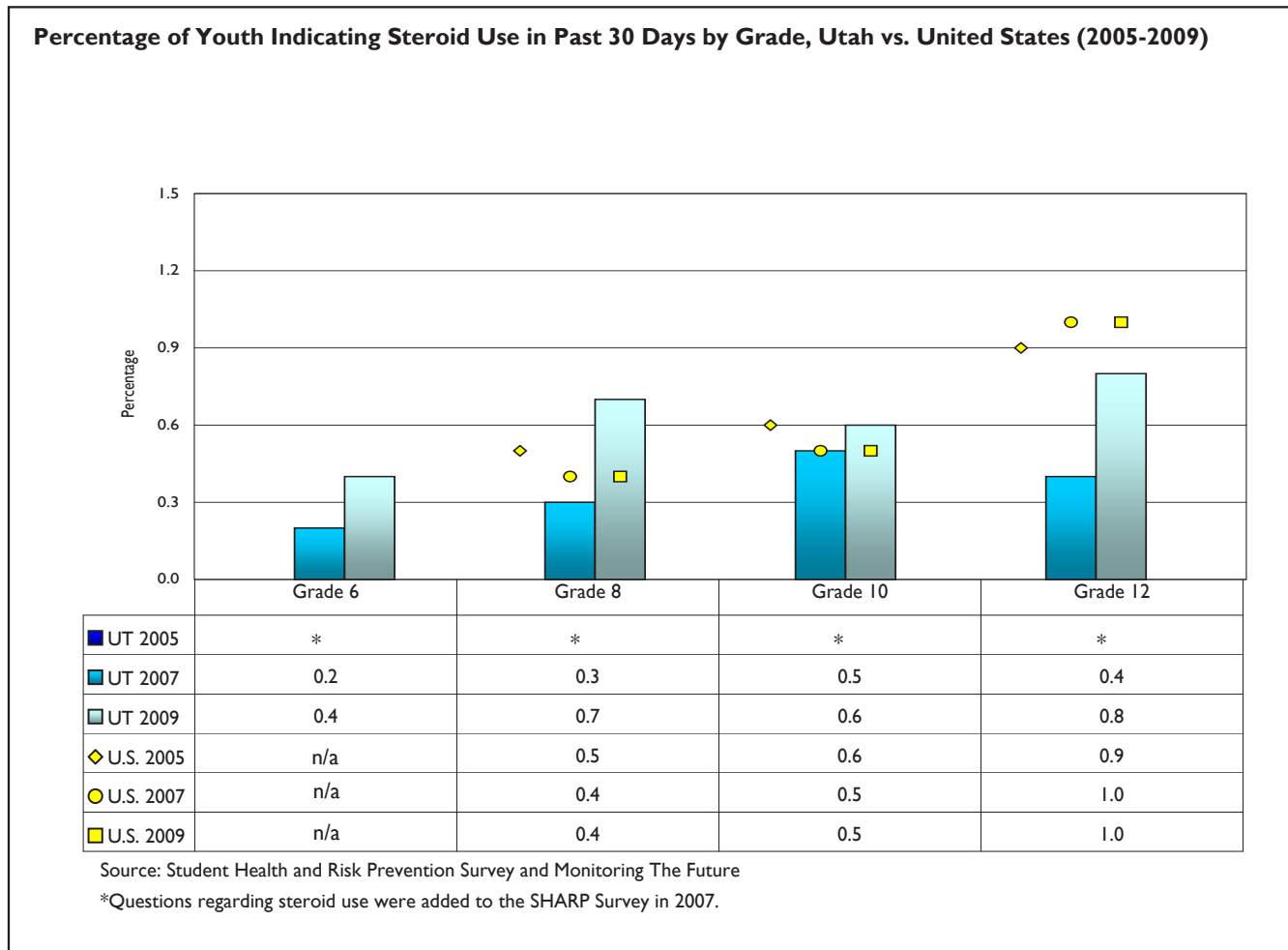
Figure 4.24:



Youth Illicit Drug Consumption: Past Month Steroid Use

Figure 4.25 presents the percentage of Utah and U.S. students indicating the use of steroids in the past 30 days. Past 30 day use steroid rates are low, around 1%, for both Utah and the nation.

Figure 4.25:



Illicit Drug Consequences: Overview

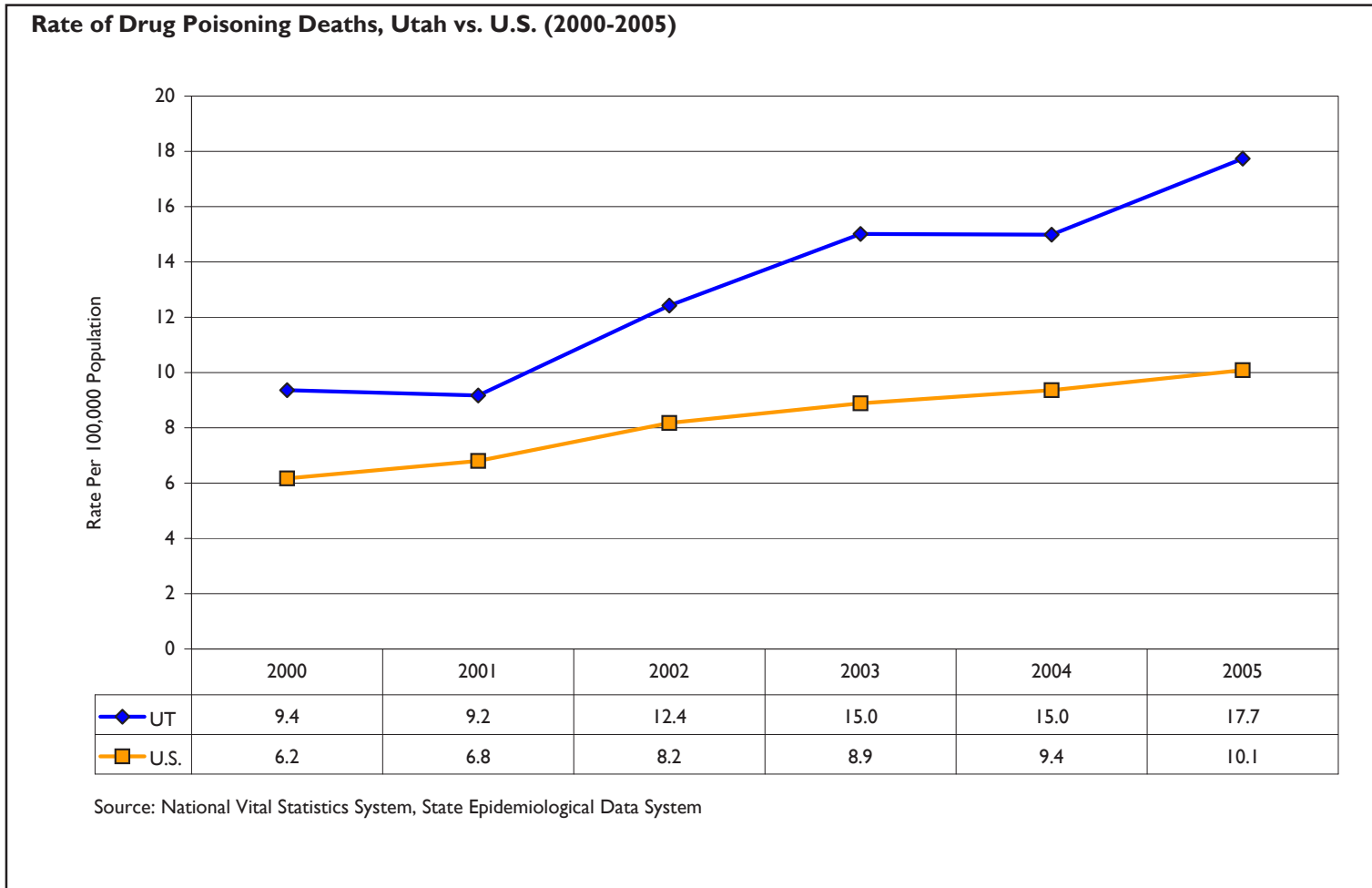
Illicit drug use is associated with a myriad of negative consequences at the individual, family and societal levels. In this section of the epidemiological profile report data related to the consequences of illicit drug use are presented. These data fall into two general categories: drug related mortality and morbidity and drug related crime. While these data do not tell the entire story regarding the consequences of illegal drug use, they do provide insight regarding the toll that illegal drug use puts on the State of Utah and its citizens.

Illicit Drug-Related Mortality and Morbidity: Drug Overdoses and Poisonings

Data regarding mortality associated with drug overdoses and poisonings are available from three sources. Each source produces counts independently and differences in the numbers reported for any given year reflect differences in the method of counting deaths. The first data source for drug overdose deaths is the National Vital Statistics System (NVSS). NVSS data is available at both the state and national levels as well as for counties with populations over 100,000. As such, NVSS data is very useful for making national and state comparisons. A second source of drug related death data is the Drug Abuse Warning Network (DAWN), which tracks drug related trends in participating states, one of which is Utah. DAWN data is available at both the state and county levels, making it particularly useful for examining trends at sub-state levels. Finally, the Utah Department of Public Health's Prescription Pain Medication Program provides estimates of drug overdose deaths based on data from the Utah Medical Examiner's Office. These data provide a breakdown of deaths resulting from illicit drugs vs. non-illicit drugs. All of these data sources are valuable for understanding trends in mortality associated with drug overdoses and poisonings.

Figure 4.26, which can be found on the following page, compares the rate of drug poisoning deaths in Utah and the nation. As seen in the figure, while the nation had an increasing rate of drug poisoning deaths, Utah's rate increased at a more dramatic pace from 2000 to 2005. Utah's rate of drug poisoning deaths doubled, from 9 deaths per 100,000 population in 2000, to 18 deaths per 100,000 population in 2005. The actual number of deaths more than doubled during this timeframe, from 210 deaths in 2000 to 438 deaths in 2005.

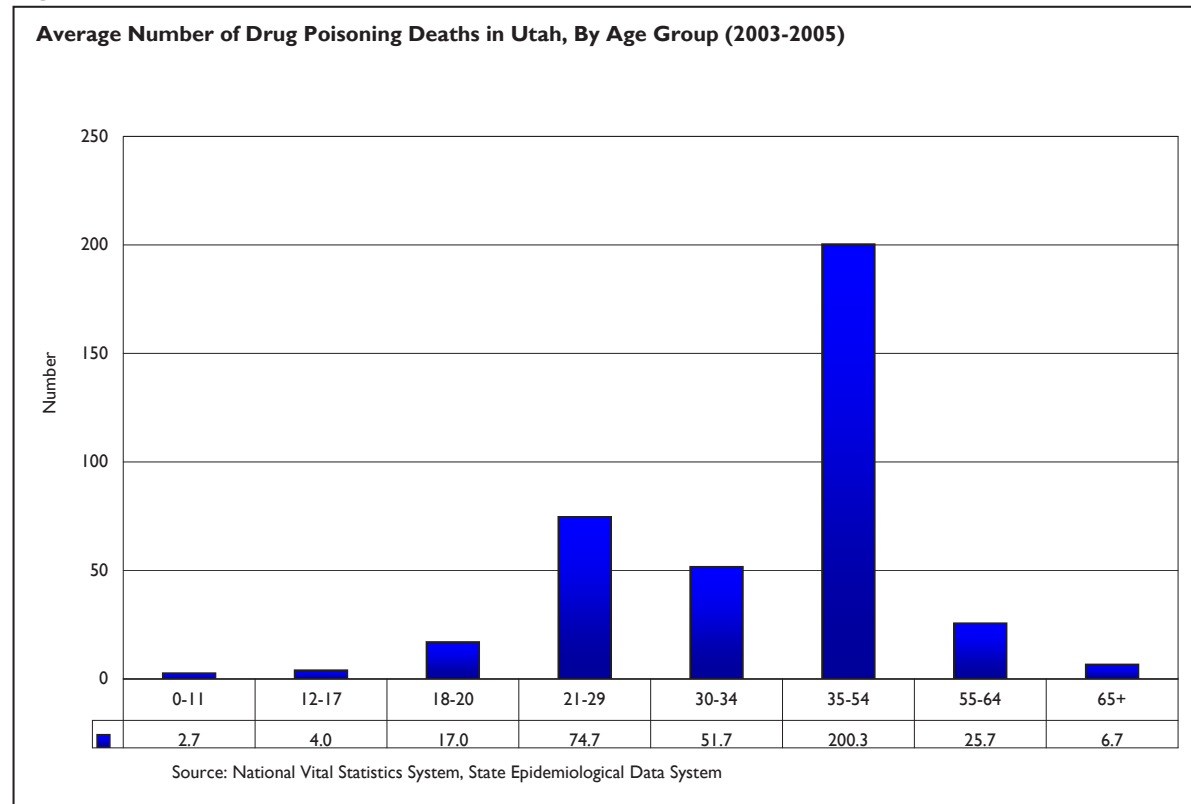
Figure 4.26:



Illicit Drug-Related Mortality and Morbidity: Drug Poisoning Deaths by Age Group

Figure 4.27 presents the average number of drug poisoning deaths per year by age group between 2003-2005. The largest number of deaths occurred in the 35-54 age group, followed by the 21-29 age group and the 30-34 age group. Please keep in mind that the 35-54 age group spans 20 years, whereas the other two age groups span 8 and 5 years, respectively.

Figure 4.27:



Illicit Drug-Related Mortality and Morbidity: Drug Poisoning Deaths by LSAA

Table 4.9 presents the number of drug poisoning deaths in each LSAA from 2000-2008 in three year aggregates. The largest number of deaths occurred in Salt Lake, Utah, and Davis Counties, followed by Weber-Morgan District. The highest rates between 2006-08 were in Four Corners, San Juan, and Wasatch Districts.

Table 4.9:

Number and Rate of Drug Poisoning Deaths by LSAA (2000-2008)						
Local Substance Abuse Authority (LSAA)	2000-2002		2003-2005		2006-2008	
	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Bear River District	21	5.0	46	10.4	49	10.3
Central Utah	17	8.4	36	17.1	36	16.3
Davis County	66	8.9	88	10.9	145	16.3
Four Corners District*	24	15.0	28	17.6	37	22.8
Northeastern District	17	13.7	21	16.6	22	16.0
Salt Lake County	359	13.1	530	18.4	616	20.2
San Juan County*	24	15.0	28	17.6	37	22.8
Southwest District	29	6.5	68	13.0	88	14.3
Summit County	**	**	9	8.5	8	7.0
Tooele County	14	10.5	27	17.9	31	18.3
Utah County	79	6.8	183	13.9	212	14.1
Wasatch County	**	**	7	12.1	15	22.7
Weber and Morgan Counties	53	8.5	105	16.1	135	19.6
State of Utah	686	9.9	1,148	15.5	1,394	17.2

Source: Utah Indicator Based Information System for Public Health

*Data for this indicator are obtained through the Utah Department of Health. Data for San Juan and Four Corners LSAs are identical because these LSAs are a single district within the UDOH system.

**Estimate suppressed by IBIS because the relative standard error is greater than 50%, the observed number of events is very small, or it could be used to calculate the number in another suppressed cell.

Illicit Drug-Related Mortality and Morbidity: Drug Related Deaths and Suicides

Table 4.10 presents data from the DAWN regarding the number and rate of drug related deaths and suicides in Utah from 2003-2007. These data echo the same alarming trend seen in the NVSS data presented above. According to DAWN data, the number of annual drug related deaths rose from 326 (rate of 13.9 per 100,000 population) in 2003, to 465 (rate of 17.6) in 2007.

The DAWN also provides data regarding the number and rate of drug related deaths and suicides by county. These data were aggregated to allow examination of the number of drug related deaths in each LSAA. Table 4.11 presents the total number of deaths from 2003 to 2007 combined and the corresponding rate for each of the LSAs across this timeframe. Predictably, Salt Lake County had the highest number of drug related deaths, followed by Utah County and Weber-Morgan District. LSAs with rates higher than the state included: Four Corners, Salt Lake County, and Central.

Table 4.10: Number and Rate per 100,000 Population of Drug Related Deaths and Suicides in Utah (2003-2007)

	2003		2004		2005		2006		2007	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Drug Related Deaths	326	13.9	343	14.4	389	15.6	406	15.9	465	17.6
Drug Related Suicides	45	1.9	54	2.3	47	1.9	61	2.4	52	2.0

Source: Drug Abuse Warning Network

Table 4.11: Number and Rate of Drug Related Deaths and Suicides in Each Local Substance Abuse Authority (2003-07 Combined)

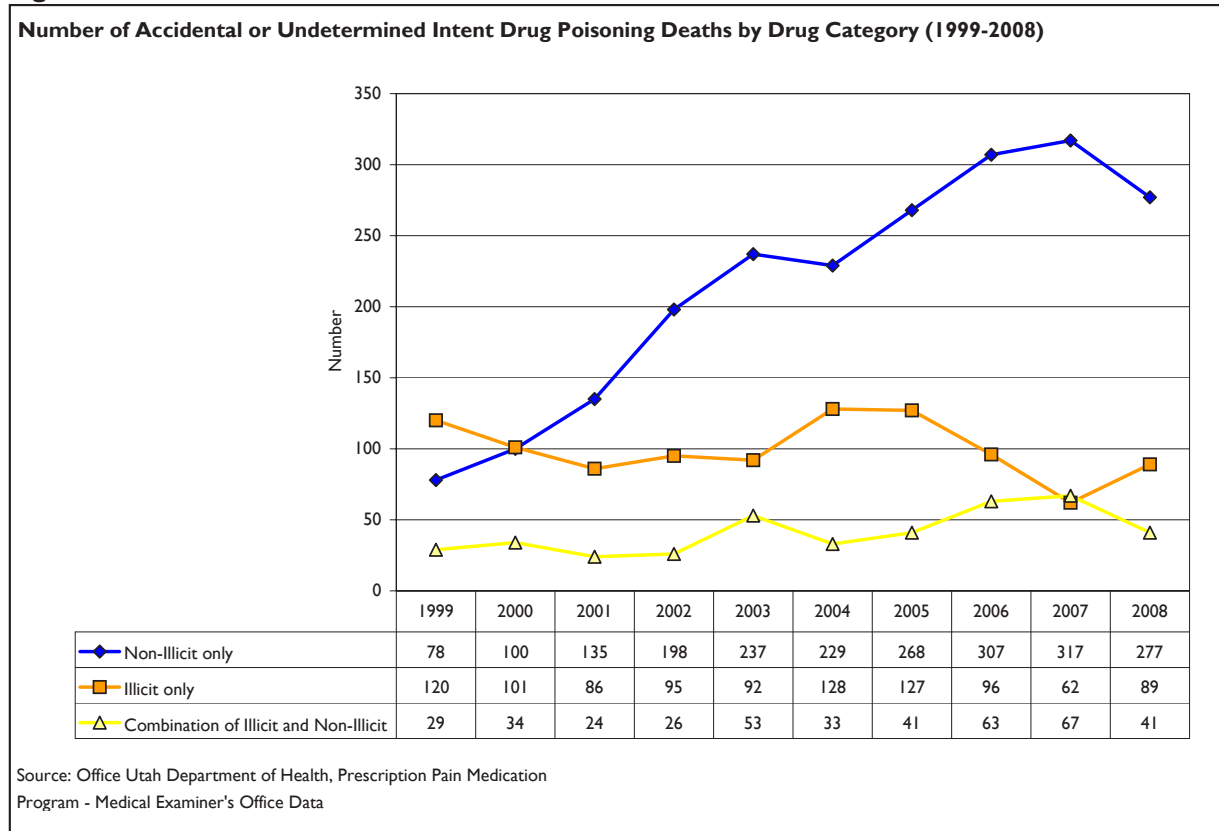
Local Substance Abuse Authority	Drug Related Deaths		Drug Related Suicides	
	Deaths	Rate per 100,000 Population	Deaths	Rate per 100,000 Population
Bear River	58	10.7	7	1.3
Central	55	16.0	11	3.2
Davis	138	10.2	17	1.3
Four Corners	50	25.6	5	2.6
Northeastern	33	15.1	3	1.4
Salt Lake County	919	19.1	134	2.8
San Juan	4	5.7	0	0.0
Southwest	117	13.4	17	1.9
Summit	19	11.0	3	1.7
Tooele	38	14.8	7	2.7
Utah County	327	14.9	22	1.0
Wasatch	14	14.7	2	2.1
Weber	157	14.3	31	2.8
Total	1,929	15.5	259	2.1

Source: Drug Abuse Warning Network

Illicit Drug-Related Mortality and Morbidity: Accidental or Undetermined Intent Drug Poisoning Deaths

Finally, data collected from the Medical Examiner’s Office by the Utah Department of Health illustrates the rising trend of non-illicit drug deaths in Utah over the past decade. Figure 4.28 presents the number of poisoning deaths resulting from non-illicit drugs, illicit drugs and a combination of illicit and non-illicit drugs from 1999 to 2008. While the number of deaths resulting from illicit drugs (only) has remained relatively stable over time, the number of deaths resulting from non-illicit drugs (only) has risen sharply. According the Utah Department of Health, most non-illicit drug deaths are attributable to opioid based pain medications available with a prescription (e.g., methadone, oxycontin, fentanyl, etc.)

Figure 4.28:



Illicit Drug-Related Mortality and Morbidity: Drug Poisoning Emergency Department Encounters

Not all drug overdoses and poisonings result in death. Data from the Utah Emergency Department Encounter Database provides information regarding the number of emergency department encounters that result from drug poisonings. Table 4.12 presents the number and rate of drug poisoning emergency room encounters by LSAA from 1999 to 2007 in three year aggregates. As the LSAA with the largest population, Salt Lake County had the highest number of drug poisoning emergency department encounters in each time period, and also consistently had a rate above the state rate. Between 2005-07, Tooele County had the highest rate in the state, followed by Salt Lake County, Weber-Morgan, and Utah County.

Table 4.12:

Number and Rate of Drug Poisoning Emergency Department Encounters by LSAA (1999-2007)						
	1999-2001		2002-2004		2005-2007	
Local Substance Abuse Authority (LSAA)	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Bear River District	369	90.1	342	79.1	347	74.9
Central Utah	164	82.2	199	95.2	231	106.3
Davis County	688	95.3	749	95.3	955	110.9
Four Corners District*	140	86.7	165	104.0	168	104.4
Northeastern District	100	81.7	130	103.6	140	105.0
Salt Lake County	3,068	113.4	3,386	119.9	3,812	127.3
San Juan County*	140	86.7	165	104.0	168	104.4
Southwest District	343	80.0	423	85.6	620	106.0
Summit County	58	64.4	55	54.2	63	56.5
Tooele County	102	82.1	156	106.8	226	138.6
Utah County	977	87.2	1320	104.2	1735	121.1
Wasatch County	25	54.0	30	54.4	36	57.1
Weber and Morgan Counties	509	83.0	709	110.3	851	125.7
State of Utah	6,543	97.0	7,664	105.8	9,184	116.8

Source: Utah Indicator Based Information System for Public Health

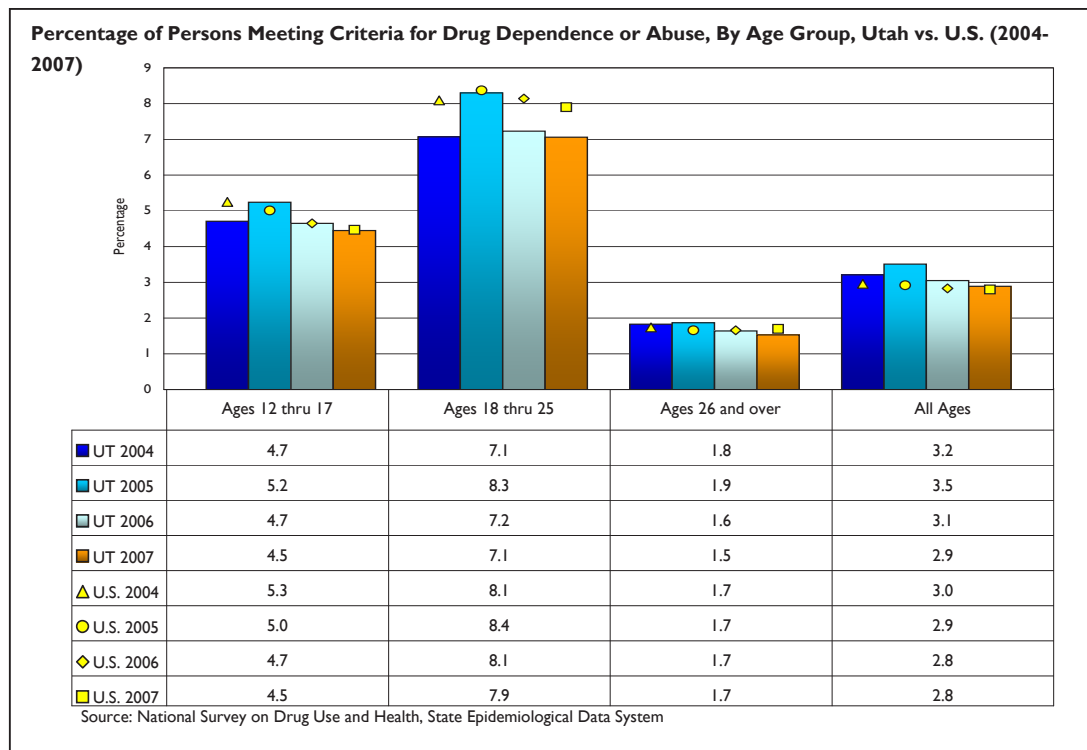
*Data for this indicator are obtained through the Utah Department of Health. Data for San Juan and Four Corners LSAs are identical because these LSAs are a single district within the UDOH system.

Illicit Drug-Related Mortality and Morbidity: Illicit Drug Abuse and Dependence

Another form of morbidity associated with illicit drug use is drug abuse and/or dependence. The National Survey on Drug Use and Health (NSDUH) provides yearly national and state level estimates of alcohol, tobacco, illicit drug, and non-medical prescription drug use, including estimates regarding the number of people meeting criteria for drug dependence and abuse. Figure 4.29 provides data comparing Utah to the United States on the percentage of survey respondents that were classified as drug dependent or abusing drugs by age group. Abuse and dependence are clinical terms used to characterize patterns of alcohol use associated with significant social, psychological, and physical problems for the user and/or others that may be negatively impacted by the user.

In looking at Figure 4.29, data for 2007 regarding the prevalence of persons meeting criteria for drug dependence or abuse suggest that Utah and the U.S. had similar rates of drug abuse/dependence. Prior to 2007, the rate was slightly higher in Utah compared to the U.S. The exception to this were the young adults ages 18-25 who were generally less likely than U.S. young adults in this age group to meet criteria for drug dependence or abuse.

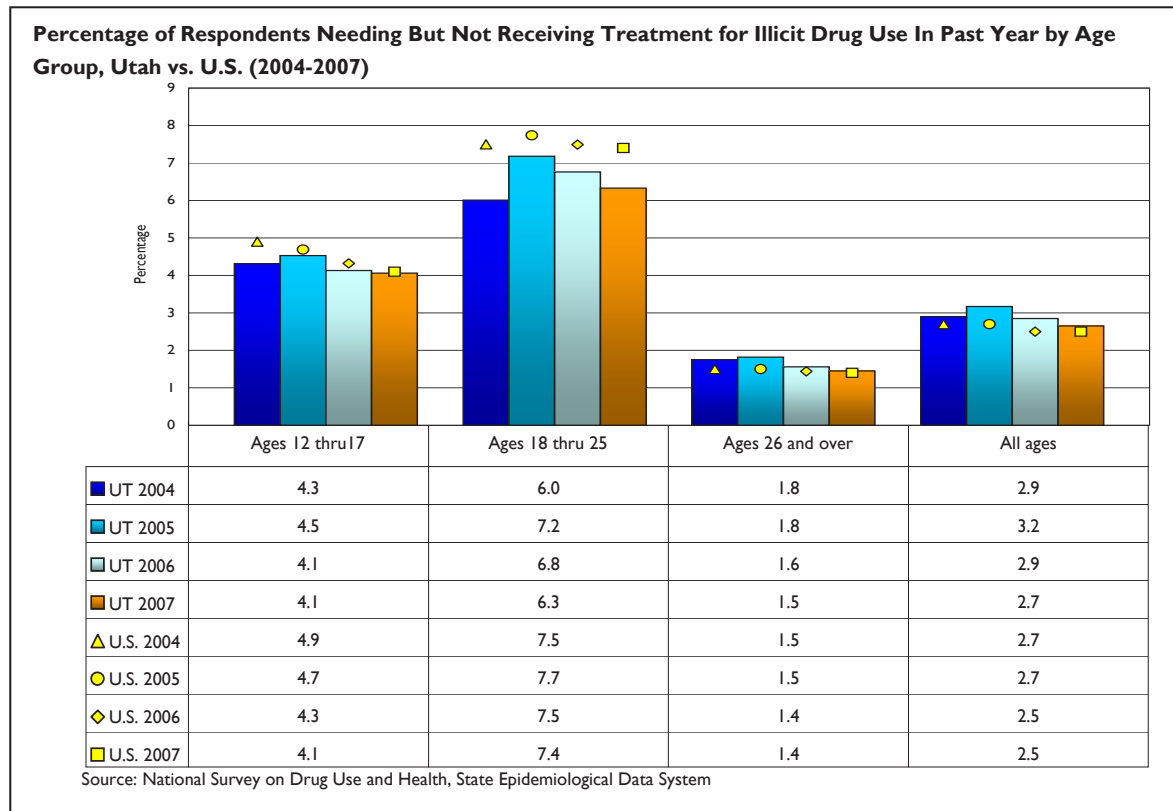
Figure 4.29:



Illicit Drug-Related Mortality and Morbidity: Utahns in Need of Treatment But Not Receiving Treatment for Illicit Drug Use

Figure 4.30 compares the percentage of respondents who were classified as needing treatment for illicit drugs but who did not receive treatment. These data show the same pattern as the abuse and dependence data above, suggesting that Utahns were similar to the nation regarding the percentage of individuals needing but not receiving treatment for drug use. One exception was the young adult age group (18-25), who had a lower rate of individuals who were in need but did not receive treatment than their U.S. counterparts.

Figure 4.30:



Illicit Drug-Related Mortality and Morbidity: Youth in Need of Treatment

Estimates of the percentage of youth in need of drug treatment are provided by the Student Health and Risk Prevention (SHARP) Survey through scores on a need for drug treatment scale included in the survey. The scale consists of a six question scale that has been shown to be highly correlated with alcohol dependence and abuse. The questions ask respondents if they have spent more time using drugs than intended, neglected some of their usual responsibilities because of using drugs, wanted to cut down on their drug use, had others object to their drug use, if they frequently found themselves thinking about using drugs, and if they used drugs to relieve feelings such as sadness, anger or boredom. Table 4.13 presents the percentage of youth in grades, 8, 10 and 12 that were classified as in need for drug treatment between 2005 and 2009. The trend for all grades was a decrease in the need for drug treatment from 2005 to 2007, but then a leveling of the need for treatment from 2007 to 2009.

Table 4.13:

Youth Classified as Needing Treatment for Drug Abuse by Grade (2005-2009)									
	Grade 8			Grade 10			Grade 12		
	2005	2007	2009	2005	2007	2009	2005	2007	2009
Percent Classified as Needing Treatment for Drug Abuse	2.0	1.3	1.3	5.5	4.2	4.2	6.4	5.3	5.2

Source: Student Health and Risk Prevention Survey

Illicit Drug-Related Mortality and Morbidity: College Students in Need of Treatment

The Utah Higher Education Health Behavior Survey includes questions regarding their need for drug treatment among college and university students. Table 4.14 lists the questions and the percentage of students who responded yes to each need for treatment question. The last line of the table indicates that, based on responding yes to at least three or more of the six need for treatment questions, about 2.5% of Utah higher education students need drug abuse treatment.

Table 4.14:

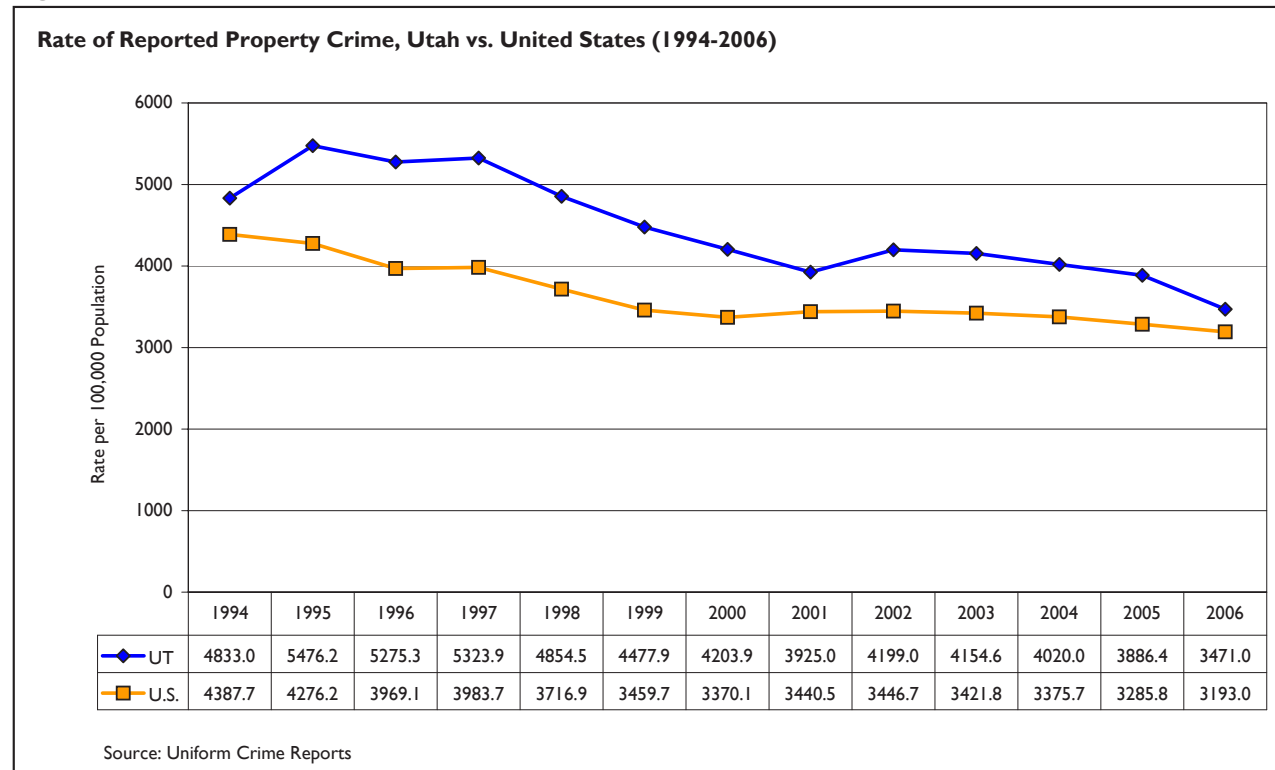
Need for Drug Treatment Among Utah College Students (2007)	
Need for Treatment Symptoms: In the past 12 months, have...	% Responding Yes
You spent more time using drugs than you intended?	1.9
You neglected responsibilities because of drug use?	1.9
You wanted to cut down on drug use?	2.8
Has anyone objected to your drug use?	2.4
You frequently thought about using drugs?	3.7
You used drugs to relieve bad feelings?	3.9
Needs Drug Treatment (based on above questions)	2.5

Source: Utah Higher Education Health Behavior Survey

Illicit Drug-Related Crime

According to the Center for Substance Abuse Prevention’s State Epidemiological Data System (SEDS), approximately 30% of property crimes are attributable to illegal drug use. Presented in this section of the epidemiological profile report are data reflecting the number of reported property crimes. These data come from the federal Uniform Crime Reports (UCR) System via the SEDS. Property crime is defined by the UCR as an index measure combining the following indicators: a) burglary, b) larceny and c) motor vehicle theft. Please note, however, that it is commonly accepted that reported crimes underestimate the true number of crimes that occur because not all crimes are reported by victims. Figure 4.31, below, presents the rate of reported property crimes in Utah and the U.S. As seen in the figure, the rate of reported property crime in Utah has been consistently higher than the national rate since at least 1994, but the trend is clearly toward a decreasing rate of crime over time.

Figure 4.31:



Illicit Drug-Related Crime by LSAA

The rate of reported property crime across the state varies considerably from LSAA to LSAA. Table 4.15 provides the number and rate of property crimes for each of Utah's LSAs. Salt Lake County had the highest number and highest rate of reported property crimes for both 2005 and 2006. Weber and Morgan Counties had the second highest rate of property crimes in 2005 and 2006.

Table 4.15:

Number and Rate of Property Crime Reports by LSAA (2005, 2006)				
	2005		2006	
	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Bear River District	3,208	2,103.2	3,041	1,960.7
Central Utah	1,326	1,969.6	1,349	1,982.0
Davis County	6,591	2,443.5	6,319	2,266.8
Four Corners District	1,033	2,680.1	1,010	2,608.1
Northeastern District	1,132	2,629.9	979	2,215.6
Salt Lake County	53,986	5,617.1	49,255	4,990.2
San Juan County	95	683.9	77	550.1
Southwest District	3,803	2,173.1	3,690	1,987.1
Summit County	1,172	3,381.5	1,176	3,372.8
Tooele County	1,315	2,622.2	1,267	2,420.2
Utah County	13,296	2,923.2	11,549	2,395.8
Wasatch County	120	640.1	231	1,163.1
Weber and Morgan Counties	8,900	4,014.5	8,559	3,813.1
State of Utah	95,977	3,837.1	88,502	3,423.5

Source: Uniform Crime Reports, State Epidemiological Data System

References and Appendices



References and Appendices Contents:

References Cited in the Utah Epidemiology Profile

Appendix A: Data Sources

Appendix B: Additional Information for Utah-Specific Data Sources

Appendix C: BRFSS Substance Use Estimate Data Tables
with Confidence Intervals

Appendix D: NSDUH Substance Use Estimate Data Tables
with Confidence Intervals

References

Alcohol Consumption

1. Wechsler & Kuo (2003), Watering Down Drinks: The Moderating Effect of College Demographics on Alcohol Use of High-Risk Groups, *American Journal of Public Health*, 93 (11), 1929-1933.

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3. Centers for Disease Control and Prevention. (2004). Alcohol-Related Disease Impact (ARDI) System. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5337a2.htm>

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6. Center for Substance Abuse Prevention. State Epidemiological Data System. http://www.epidcc.samhsa.gov/indicators/PDF_Files/Alcohol/Suicide_Death_Rate.pdf

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7. Center for Substance Abuse Prevention Factsheet (1995). Making the Link: Violence, Alcohol & Other Drugs.

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8. Centers for Disease Control and Prevention. (2009). National Vital Statistics Reports, Deaths: Final Data for 2006. http://www.cdc.gov/NCHS/data/nvsr/nvsr57/nvsr57_14.pdf

Tobacco Consequences

9. Center for Substance Abuse Prevention. State Epidemiological Data System. http://www.epidcc.samhsa.gov/indicators/Tobacco_Conseq.asp

10. U.S. Fire Administration's National Fire Data Center <http://www.usfa.dhs.gov/downloads/pdf/tfrs/v5i5.pdf>

National Data Sources

Alcohol Epidemiologic Data System (AEDS)

Description: Per capita consumption of absolute alcohol has been used historically as an indicator of overall drinking within a state and has been shown to be correlated with many types of alcohol problems. The indicator is consistently defined and readily available from archival data for all states and for many years.

Sponsoring Organization/Source: National Institute on Alcohol Abuse and Alcoholism

Data used in report: Total sales of ethanol in beer, wine, and spirits per year, estimated in gallons of ethanol, per 10,000 population age 14 and older

Geographic Level: national and state

Availability: Available through SEDS at <http://www.epidcc.samhsa.gov/default.asp>

Years Available: 1990-2005

Demographic Categories: NA

Limitations: Findings regarding the association between per capita alcohol consumption and negative consequences have been inconsistent. Average consumption levels may not be sensitive in identifying areas with a high prevalence of heavy use where there are also high rates of abstinence. Estimates may be inflated due to consumption by non-residents (e.g., tourists and other visitors). Untaxed alcohol (e.g., products that are smuggled or homemade) are not captured in this indicator.

Behavioral Risk Factor Surveillance System (BRFSS)

Description: BRFSS is an annually conducted telephone health survey system, tracking health conditions and risk behaviors in the US yearly since 1984. BRFSS asks adults (18 and older) to respond to questions about health-related issues. Included in the BRFSS survey are questions about current alcohol consumption and tobacco use.

Sponsoring Organization/Source: Centers for Disease Control and Prevention

Data used in report: Alcohol dependence or abuse, adult current drinking, adult heavy use, binge drinking, adult cigarette use, daily cigarette use

Geographic level: National and state

Availability: <http://apps.nccd.cdc.gov/brfss/>; also at available through SEDS at <http://www.epidcc.samhsa.gov/default.asp>

Years Available: 1984-2007

Demographic Categories: BRFSS data allow comparison across gender, age, and racial groups.

Limitations: BRFSS is a telephone survey subject to potential bias due to self-report, non-coverage (households without phones), and non-response (refusal/no answer). Estimates for subgroups may have relatively low precision (i.e., large confidence intervals).

Drug Abuse Warning Network (DAWN)

Description: DAWN is a public health surveillance system that monitors drug-related deaths investigated by medical examiners and coroners, and drug-related visits to hospital emergency departments. DAWN includes illegal drugs, prescription and over-the-counter medications, dietary supplements, non-pharmaceutical inhalants, alcohol in combination with other drugs, and alcohol alone.

Sponsoring Organization/Source: Substance Abuse and Mental Health Services Administration (SAMHSA)

Data used in report: Drug related deaths and suicides

Geographic level: national, state and county

Availability: <http://dawninfo.samhsa.gov/pubs/mepubs/default.asp>

Years Available: 2003-2007

Demographic Categories: none

Limitations: Not all drugs reported to DAWN are confirmed by toxicology. There are many possible sources for drug use information including toxicology testing, clinical assessment and diagnoses, reports by patients, their friends, or families. Testing protocols vary across hospitals, clinicians, and patients.

Fatality Analysis Reporting System (FARS)

Description: FARS is a national database of fatal motor vehicle accidents maintained by the National Highway Traffic Safety Administration. It includes information about fatal accidents in which alcohol was involved.

Sponsoring Organization/Source: National Highway Traffic Safety Administration

Data used in report: alcohol related motor vehicle crash fatalities

Geographic level: national, state, and county

Availability: www.fars.nhtsa.dot.gov/main/index.aspx; also available through SEDS at <http://www.epidcc.samhsa.gov/default.asp>

Years Available: 1994-2008

Demographic Categories: Age by Gender (of persons killed)

Limitations: Using FARS, it is possible to calculate the rate of alcohol-related fatal motor vehicle accidents for the nation and for each state. Though FARS data are helpful in understanding the rate of alcohol-related motor vehicle deaths, comparisons between state and national levels should be made with caution as data submissions to the FARS database are done on a voluntary basis and may not include all fatal motor vehicle accidents within a state or the nation. Another consideration when using FARS data is the fact that the NHTSA estimates driver BAC for cases missing data regarding actual BAC levels. This leads to discrepancies between FARS estimates of alcohol-related motor vehicle crashes and state agency developed estimates of these events. Thus, estimates from the Utah Department of Public Safety and estimates from FARS are not consistent with one another.

Monitoring the Future Survey (MTF)

Description: MTF is a national survey conducted annually to track changes in the drug consumption patterns of 8th, 10th, and 12th grade students throughout the US. Student respondents report on their lifetime, annual, and monthly use of a wide variety of substances, including alcohol, heroin, cocaine, marijuana, and methamphetamine. Findings from MTF are compared to the SHARP data to allow comparisons between national trends and state or county data.

Sponsoring Organization/Source: National Institute on Drug Abuse

Data used in report: Lifetime and 30 day substance use rates for nation

Geographic level: national

Availability: www.monitoringthefuture.org/data/data.html

Years Available: 1991-2009

Demographic Categories:

Limitations: Respondents are sampled randomly from schools throughout the country, and no state data are available. The MTF, like all of the survey data available presented in this epi profile report is collected through self-report, and is subject to potential bias due. Results from MTF are released annually and data sets are publicly available.

National Survey on Drug Use and Health (NSDUH)

Description: The NSDUH is a national survey funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) designed to track changes in substance use patterns for US residents 12 years of age and older. The survey asks respondents to report on past month, past year, and lifetime use of substances including alcohol, tobacco, marijuana, cocaine, and other illicit drugs. Additionally, the NSDUH asks respondents whether they had received treatment for drug abuse or drug dependence during the past year.

Sponsoring Organization/Source: Substance Abuse and Mental Health Services Administration (SAMHSA)

Data used in report: Prevalence rate of drug dependence or abuse, alcohol dependence or abuse, marijuana use, other illicit drug use

Geographic level: National and state

Availability: National and state reports are available at <http://oas.samhsa.gov/nsduh.htm>; also available through SEDS at <http://www.epidcc.samhsa.gov/default.asp>

Years Available: 1994-2006 for national trends, 1991-2007 for state trends

Demographic Categories: Age

Limitations: State-level prevalence rates are based on statistical algorithms, not on data collected within specific states. State-level estimates for most states are based on relatively small samples. Although augmented by model-based estimation procedures, estimates for specific age groups have relatively low precision (i.e., large confidence intervals). The estimates are provided directly by SAMHSA and raw data that could be used for alternative calculations (e.g., demographic subgroups) are not available. The estimates are subject to bias due to self-report and non-response (refusal/no answer). There is usually a two-year delay between the time data are gathered and the time when data are made available to the public.

National Vital Statistics System (NVSS)

Description: NVSS is a data set that provides information on mortality rates by cause of death. Data on deaths throughout the country are provided to the CDC by health departments in the 50 states and US territories. Age-adjusted death rates for deaths due to disease and events associated with alcohol, tobacco, and other drugs can be computed for the nation and each state, and comparisons can be made across gender and racial groups. Age-adjusted death rates for deaths due to disease and events associated with alcohol, tobacco, and other drugs can be computed for the nation and each state, and comparisons can be made across gender and racial groups.

Sponsoring Organization/Source: National Center for Health Statistics, Center for Disease Control

Data used in report: rate of ischemic-cerebrovascular disease, homicides, suicides, lung cancer, lung disease, illicit drug deaths, cardiovascular disease, and chronic liver disease

Geographic level: National and state

Availability: <http://www.cdc.gov/nchs/fastats/default.htm>; also available through SEDS at <http://www.epidcc.samhsa.gov/default.asp>

Years Available: 1999-2006

Demographic Categories: Age, gender, race

Limitations: There is variability in the procedures used within and across each state to determine cause of death. There is typically a three-year gap between the time data are collected and the time when data are made publicly available.

Uniform Crime Reporting Program (UCR)

Description: The UCR is a national database maintained by the FBI that records information on the rates of property crimes, violent crimes, and drug related crimes throughout the US. The UCR data are voluntarily submitted by law enforcement agencies on a county-by-county basis by each of the 50 states. UCR data allows for comparisons of overall crime rates between Utah and the entire US, and comparisons of crime rates for juveniles versus adults.

Sponsoring Organization/Source: Federal Bureau of Investigation (FBI)

Data used in report: Reported violent crimes, reported property crimes

Geographic level: national, state, and county

Availability: County levels available at <http://www.icpsr.umich.edu/NACJD/ucr.html>; also available through SEDS at <http://www.epidcc.samhsa.gov/default.asp>

Years Available: 1994-2006

Demographic Categories: NA

Limitations: UCR data are publicly available with a two-year lag from the time data are collected until they are made publicly available. States are not required to submit crime information to the FBI, rather data submission is voluntary. Therefore, the level of reporting varies considerably from county to county (county to county) and state to state. Although most police departments do report UCR data, there are a few jurisdictions each year for which data are not provided. The FBI uses a statistical algorithm to estimate arrests for counties for which reporting is particularly poor, however county to county comparisons should still be interpreted with caution.

Web-based Injury Statistics Query and Reporting System (WISQARS)

Description: WISQARS is an interactive database system that provides customized reports of injury-related data. Calculates the years of potential life lost (YPSS) which emphasizes premature mortality by giving a larger computational weight to youthful deaths. Provides US injury mortality data: charts of deaths by common causes of death, years of potential life lost (premature death) by specific causes of injury mortality and common causes of death. Also provides national estimates of nonfatal injuries treated in US hospital emergency departments.

Sponsoring Organization/Source: National Center for Injury Prevention and Control, Center for Disease Control

Data used in report: Years of potential life lost for several causes of mortality, Top 10 and 20 causes of death in Utah.

Geographic level: national and state

Availability: <http://www.cdc.gov/injury/wisqars/index.html>

Years Available: 1999-2006

Demographic Categories: race, sex, age group, cause of death

Limitations: Unknown

Utah Data Sets

Student Health and Risk Prevention (SHARP) Survey

Description: The SHARP Survey is designed to assess Utah student's involvement in a specific set of problem behaviors, as well as exposure to risk and protective factors that predict problem behaviors in adolescents. The SHARP surveys 6th, 8th, 10th, and 12th grade students on a biennial basis, to more than 40,000 students enrolled in Utah public schools. A Total of 37 school districts and 10 charter schools participated in 2009 survey.

Organization/Source: Utah Department of Human Services, Division of Substance Abuse and Mental Health

Data used in report: Youth 30 day alcohol use, alcohol dependence or abuse, youth percent cigarette use, youth 30 day marijuana use, percentage of youth who are in need for alcohol or drug treatment.

Geographic level: Local Substance Abuse Authority and state level reports available.

Availability: <http://www.dsamh.utah.gov/sharp.htm>

Years Available: 2005-2009 (biennially)

Demographic Categories: grade, gender and race/ethnicity

Limitations: Sample sizes and responses rates vary across Local Substance Abuse Authorities (LSAA) and school districts. As a result some LSAA level data must be interpreted with caution when response rates or sample sizes warrant. As with other survey data presented in this epidemiological profile report, the SHARP is subject to potential bias due to the self-report nature of the data.

Utah Crash Summary Report Data, Utah Department of Public Safety

Description: The Utah Crash Facts Reports describe trends and effects of traffic crashes in Utah. Data from the summary are derived from Utah crash reports completed by law enforcement officers who investigate crash scenes. Crash reports are forwarded to the Utah Department of Public Safety for central collection. Data compiled by the Utah Department of Public Safety are entered into the national Fatality Analysis Reporting System (FARS).

Sponsoring Organization/Source: Utah Department of Public Safety

Data used in report: rate and percentage of alcohol impaired injury and fatal crashes

Geographic level: county and state

Availability: <http://publicsafety.utah.gov/highwaysafety/publications.html>

Years Available: 1998-2007

Demographic Categories: age, gender, BAC level, DUI convictions, etc.

Limitations: Data reflect police reporting of alcohol involvement in crashes. Officers are likely to report alcohol involvement only overt signs of alcohol use are available at the scene of the accident.

Utah Department of Health, Prescription Pain Medication Management and Education Program

Description: In July 2007, the Utah State Legislature appropriated funding to the Utah Department of Health (UDOH) to establish to a two-year program to reduce deaths and other harm from prescription opiates. The Prescription Pain Medication Management and Education Program goals were to 1) reduce the number of deaths due to prescription medications by 15% by 2009 2) improve understanding of occurrence of deaths related to prescription

pain medications and understanding of prescribing patterns and other risk factors that increase risk of death, and 3) provide recommendations regarding use of the CSD to identify risks and potentially to prevent deaths due to prescription pain medications. Drug overdose deaths were obtained from the Medical Examiner's database.

Sponsoring Organization/Source: Utah Department of Health

Data used in report: BRFSS prescription pain medication supplement module (reasons for using prescribed and non-prescribed pain medication); number of accidental or undetermined intent drug poisoning deaths

Geographic level: state

Availability: <http://health.utah.gov/prescription/html/publications.html>

Years Available: 2008 for reasons of use, 1999-2008 for medical examiner's database

Demographic Categories: none

Limitations: Many items contained in the prescription pain medication BRFSS supplement were dependent on skip patterns that limited the sample sizes associated with the items. Sample sizes associated with some items are very small, which may affect the reliability of the estimates. Medical Examiner drug poisoning deaths data reflects data queried using search terms associated with drug overdose or poisoning by Department of Health staff of Medical Examiner data. Counts and rates of death, therefore, are dependent on the particular search terms used for the query process for a given year. Counts and rates may vary from earlier or future years as the search terms used are updated and enhanced.

Utah Higher Education Health Behavior Survey

Description: The Utah Higher Education Health Behavior Survey has several objectives: 1) assess the prevalence of alcohol, tobacco, and other drug (ATOD) use on Utah campuses, 2) measure the need for substance abuse treatment by college students, 3) gain information about health and safety issues facing college students, 4) measure students' perception of substance abuse prevention and policies on campus, 5) measure the levels of selected risk factors for substance abuse, and 6) compare the results across survey administrations (2003, 2005, and 2007). The 2007 Survey was completed by over 10,000 students from nine public colleges.

Sponsoring Organization/Source: Utah Department of Human Services, Division of Substance Abuse and Mental Health

Data used in report: lifetime, annual, and 30-day prevalence, for a variety of substances including: tobacco, alcohol, marijuana, and other drugs; need for alcohol or drug treatment.

Geographic level: state

Availability: http://www.dsamh.utah.gov/higher_ed.htm

Years Available: 2003-2007 (biennially)

Demographic Categories: gender, ethnicity, age

Limitations: As with other survey data presented in this epidemiological profile report, the Utah Higher Education Health Behavior Survey is subject to potential bias due to the self-report nature of the data.

Utah Indicator Based Information System for Public Health (IBIS)

Description: Utah has developed an internet portal that hosts data from several different sources through which data are available to the public and to researchers. Utah-specific data accessed for this profile report using IBIS include the following:

1. Utah Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health
2. Utah Death Certificate Database, Office of Vital Records and Statistics, Utah Department of Health
3. Utah Emergency Department Encounter Database, Bureau of Emergency Medical Services, Utah Department of Health
4. Utah Pregnancy Risk Assessment Monitoring System (PRAMS), Utah Department of Health

Sponsoring Organization/Source: Utah Department of Health

Data used in report: smoking during pregnancy, alcohol use during pregnancy, cirrhosis deaths, alcohol dependence and abuse, alcoholism deaths, homicide deaths, suicide deaths, accidental drowning deaths, accidental fall deaths, drug poisoning deaths, emergency department encounters for drug poisoning, ischemic cerebrovascular disease deaths, lung cancer deaths, cardiovascular deaths, lung disease deaths, accidental fire deaths by Local Substance Abuse Authority.

Geographic level: Varies depending on source data.

Availability: <http://ibis.health.utah.gov/home>

Years Available: Varies depending on source data.

Demographic Categories: Varies depending on source data.

Limitations: Varies depending on source data.

Additional Information for Utah-Specific Data Sources

Utah Death Certificate Database

Death certificates in Utah are required to be filed by funeral directors. Funeral directors obtain demographic information from an informant, a close family member of the decedent. The cause of death is certified by the decedent's physician or the physician that attended the death. Accidental and suspicious deaths are certified by the Medical Examiner. Death certificate data go through extensive edits for completeness and consistency. The Office of Vital Records and Statistics does annual trainings for funeral directors and local registrars.

When death certificates are received the cause of death literals are keyed into software locally by Office of Vital Records and Statistics (OVRs), then shipped to the National Center for Health Statistics where they are machine coded into ICD-10 codes. NCHS returns the ICD-10 codes to OVRs where the death records are updated.

Utah Birth Certificate Database

Birth certificates are filed electronically by hospital birth certificate clerks. The information comes from a variety of sources including a worksheet the mother fills out, the mother's prenatal record, and the delivery record. The Office of Vital Records and Statistics has a Quality Control program where every hospital is audited annually. Births are randomly selected and hospital records are checked to verify the accuracy of the reported information.

Utah Emergency Department Encounter Database

The Emergency Department Encounter Database (ED) contains the consolidated information on complete billing, medical codes, personal characteristics describing a patient, services received, and charges billed for each patient emergency department (ED) encounter. The Bureau of Emergency Medical Services/Office of Health Care Statistics receives quarterly Emergency Department Encounter Data from hospitals in various formats and media. The data are converted into a standardized format. The data are validated through a process of automated editing and report verification. Each record is subjected to a series of edits that check for accuracy, consistency, completeness, and conformity with the definitions specified in the Utah Hospital Emergency Patient Encounter Data Submittal Manual. Records failing the edit check are returned to the data supplier for corrections of comment.

Coverage and Validity of Diagnosis Codes: Since the data come from the billing forms, all visits or encounters have a diagnosis code making coverage great. There is some difference of opinion regarding whether some providers may emphasize diagnosis codes that yield higher reimbursements. The hospital and ED data are considered "Administrative Data" because they were created for use in billing and remittance of payment. As such, they were not constructed for public health surveillance purposes primarily, and are weak in some areas, such as external cause of injury and race or ethnicity. But, in general, they are extremely valuable and reasonably complete and valid.

Utah Pregnancy Risk Assessment Monitoring System (PRAMS)

PRAMS, the Pregnancy Risk Assessment Monitoring System, is a surveillance project of the Centers for Disease Control and Prevention (CDC) and state health departments. PRAMS collects state-specific, population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy. PRAMS was initiated in 1987 because infant mortality rates were no longer declining as rapidly as they had in prior years. In addition, the incidence of low birth weight infants had changed little in the previous 20 years. Research has indicated that maternal behaviors during pregnancy may influence infant birth weight and mortality rates. The goal of the PRAMS project is to improve the health of mothers and infants by reducing adverse outcomes such as low birth weight, infant mortality and morbidity, and maternal morbidity. PRAMS provides state-specific data for planning and assessing health programs and for describing maternal experiences that may contribute to maternal and infant health.

Utah Medical Examiner Database

Utah has a state-wide, centralized medical examiner system that has statute mandated jurisdiction over sudden and unexpected deaths. The database contains 113 variables including demographic information about the decedent, toxicological, laboratory, and autopsy examination results.

Utah Prevention Needs Assessment Survey

The Utah Department of Human Services, Division of Substance Abuse and Mental Health has conducted a prevention needs assessment survey for youth across the state on a bi-annual basis starting in 2003. The PNA survey measures youth substance use rates in a variety of substance categories as well as antisocial behaviors such as theft, violence, and school suspension. The survey is based on the Risk and Protective Factor Model of Youth Problem Behavior (Hawkins, Catalano, & Miller, 1989), and also contains several scales measuring various risk and protective factors associated with substance use and other problem behaviors (e.g., school drop out, delinquency, etc.).

Utah Higher Education Health Behavior Survey

The Utah Department of Human Services, Division of Substance Abuse and Mental Health and the Utah Department of Health have collaborated to conduct a prevention needs assessment survey for the higher education population across the state on a bi-annual basis starting in 2003. Like the youth-oriented PNA Survey, the higher education survey is based on the Risk and Protective Factor Model of Youth Problem Behavior (Hawkins, Catalano, & Miller, 1989). The survey measures substance use rates in a variety of substance categories, antisocial behaviors, and risk and protective factors relevant to the higher education population that are associated with substance use.

BRFSS Substance Use Estimate Data Tables with Confidence Intervals

The Behavioral Risk Factor Surveillance System Survey (BRFSS) provides 95% confidence intervals (CI) for estimates of substance use at the state level. While the estimates provided in the main body of this epidemiological profile report represent the best single value estimates of substance use based on the data collected from the state BRFSS samples, each estimate is inherently prone to random error due to sampling. Logically, use rates obtained from a sample of individuals in the population (through a random or any other sampling method) will rarely, if ever, exactly match the actual use rates of the entire population simply as a result of sampling error (no sample is ever 100% representative of the population of interest). To account for sampling error, a CI can be calculated that identifies the possible range of values that the true population use rate falls within based on data collected from the sample. For the BRFSS, 95% CI are provided for each substance use estimate for the state of Utah. CI are not provided for U.S. estimates of substance use by the BRFSS. A 95% CI indicates that based on the data collected, there is a 95% probability that the true use rate of the population falls within the range of the interval. For example, the BRFSS estimate of 30 day alcohol use for the State of Utah in 2008 was 25.4%, with a CI range from 23.9-27.0%. These statistics indicate that the best single value estimate of 30 day alcohol use is 25.4% (based on the 2008 BRFSS sample for Utah), and that there is a 95% probability that the actual use rate for the State of Utah falls between 23.9% and 27.0%.

The tables that follow present state level estimates of substance use from the BRFSS with 95% confidence intervals included. These tables are provided to enhance the ability of those who use the data in this report to judge the reliability of comparisons in substance use rates between Utah and the U.S. and across years within Utah from the BRFSS.

Table C.1:

Percentage (with confidence intervals*) of Adults Indicating Any Alcohol Use in Past 30 Days, Utah vs. U.S. (2001-2008)								
	2001	2002	2003	2004	2005	2006	2007	2008
UT	30.1 (28.1-32.1)	30.1 (28.1-32.1)	31.4 (29.4-33.4)	28.8 (27.2-29.8)	27.3 (25.7-28.9)	26.4 (24.8-28.0)	27.5 (25.7-29.3)	25.4 (23.9-27.0)
U.S.	55.3	56.6	58.9	56.9	55.6	55.2	54.8	54.4

Behavioral Risk Factor Surveillance System, State Epidemiological Data System

*Confidence Intervals not available for U.S. data

Table C.2:

Percentage (with confidence intervals*) of Adults Indicating Heavy Alcohol Use in Past 30 Days, Utah vs. U.S. (2001-2008)								
	2001	2002	2003	2004	2005	2006	2007	2008
UT	3.1 (2.5-3.7)	2.8 (2.2-3.4)	2.7 (1.9-3.5)	2.8 (2.2-3.4)	2.9 (2.3-3.5)	2.4 (1.8-3.0)	2.5 (1.9-3.1)	3.1 (2.4-3.7)
U.S.	5.2	5.9	5.8	4.9	4.9	4.9	5.2	5.1

Behavioral Risk Factor Surveillance System, State Epidemiological Data System

*Confidence Intervals not available for U.S. data

Table C.3:

Percentage (with confidence intervals*) of Adults Indicating Binge Drinking in Past 30 Days, Utah vs. U.S. (2001-2008)								
	2001	2002	2003	2004	2005	2006	2007	2008
UT	9.7	10.1	10.2	9.3	8.3	9.3	9.8	8.2
	(8.5-10.9)	(8.7-11.5)	(8.8-11.6)	(8.3-10.3)	(7.1-9.5)	(8.1-10.5)	(8.4-11.2)	(7.2-9.2)
U.S.	14.8	16.1	16.5	14.9	14.4	15.4	15.7	15.6

Behavioral Risk Factor Surveillance System, State Epidemiological Data System

*Confidence Intervals not available for U.S. data

Table C.4:

Percentage (with confidence intervals*) of Adults Indicating Cigarette Use in Past 30 Days, Utah vs. U.S. (2001-2008)								
	2001	2002	2003	2004	2005	2006	2007	2008
UT	13.2	12.8	11.9	10.5	11.5	9.8	11.7	9.3
	(11.8-14.6)	(11.4-14.2)	(10.5-13.3)	(9.5-11.5)	(10.3-12.7)	(8.6-11.0)	(10.3-13.1)	(8.2-10.4)
U.S.	23.2	23.2	22	20.9	20.6	20.1	19.8	18.4

Behavioral Risk Factor Surveillance System, State Epidemiological Data System

*Confidence Intervals not available for U.S. data

NSDUH Substance Use Estimate Data Tables with Confidence Intervals

The National Survey of Drug Use and Health (NSDUH) provides 95% confidence intervals (CI) for estimates of substance use and estimates of substance abuse or dependence at the state level. While the estimates provided in the main body of this epidemiological profile report represent the best single value estimates of substance use based on the data collected from the state NSDUH samples, each estimate is inherently prone to random error due to sampling. Logically, use rates obtained from a sample of individuals in the population (through a random or any other sampling method) will rarely, if ever, exactly match the actual use rates of the entire population simply as a result of sampling error (no sample is ever 100% representative of the population of interest). To account for sampling error, a CI can be calculated that identifies the possible range of values that the true population use rate falls within based on data collected from the sample. For the NSDUH, 95% CI are provided for each substance use estimate for the state of Utah. CI are not provided for U.S. estimates of substance use or for Utah in 2007 by the NSDUH. A 95% CI indicates that based on the data collected, there is a 95% probability that the true use rate of the population falls within the range of the interval. For example, the NSDUH estimate of 30 day marijuana use for the State of Utah in 2006 was 4.3%, with a CI range from 3.5-5.4%. These statistics indicate that the best single value estimate of 30 day marijuana use was 4.3% (based on the 2006 NSDUH sample for Utah), and that there is a 95% probability that the actual use rate for the State of Utah falls between 3.5% and 5.4%.

The tables that follow present state level estimates of substance use from the NSDUH with 95% confidence intervals included. These tables are provided to enhance the ability of those who use the data in this report to judge the reliability of comparisons in substance use rates between Utah and the U.S. and across years within Utah from the NSDUH.

Table D.1: Percentage (with confidence intervals*) of Respondents Classified as Dependent or Abusing Alcohol, Utah vs. U.S. (2003-2007)

	2003	2004	2005	2006	2007
UT	6.9	6.3	7.3	7.4	6.6
	(5.7-8.3)	(5.1-7.8)	(6.1-8.6)	(6.3-8.7)	(n/a)
U.S.	7.6	7.6	7.7	7.6	7.5

National Survey on Drug Use and Health, State Epidemiological Data System

*Confidence Intervals not available for U.S. data

Table D.2: Percentage (with confidence intervals*) of Respondents Indicating Marijuana Use in Past 30 Days, Utah vs. U.S. (2003-2007)

	2003	2004	2005	2006	2007
UT	4.0	4.2	4.8	4.3	4.2
	(3.2-5.0)	(3.4-5.3)	(3.9-5.9)	(3.5-5.4)	(n/a)
U.S.	6.2	6.1	6.0	6.0	5.8

National Survey on Drug Use and Health, State Epidemiological Data System

*Confidence Intervals not available for U.S. data

Table D.3:

Percentage (with confidence intervals*) of Respondents Indicating Any Illicit Drug Use (other than Marijuana) in Past 30 Days, Utah vs. U.S. (2003-2007)					
	2003	2004	2005	2006	2007
UT	3.7	4.1	4.2	3.9	3.4
	(3.1-4.6)	(3.4-4.9)	(3.5-5.1)	(3.1-4.8)	(n/a)
U.S.	3.7	3.6	3.6	3.8	3.7

National Survey on Drug Use and Health, State Epidemiological Data System

*Confidence Intervals not available for U.S. data

Table D.4:

Percentage (with confidence intervals*) of Respondents Meeting Criteria for Drug Dependence or Abuse, Utah vs. U.S. (2003-2007)					
	2003	2004	2005	2006	2007
UT	2.9	3.2	3.5	3.1	2.9
	(2.3-3.5)	(2.7-3.8)	(2.9-4.2)	(2.5-3.8)	(n/a)
U.S.	3.0	3.0	2.9	2.8	2.8

National Survey on Drug Use and Health, State Epidemiological Data System

*Confidence Intervals not available for U.S. data