MARIJUANA COCAINE PRESCRIPTION DRUGS

The Consumption and Consequences of Alcohol, Tobacco, and Drugs in Indiana: A State Epidemiological Profile 2008

Indiana State Epidemiology and Outcomes Workgroup

SCHOOL OF PUBLIC AND ENVIRONMENTAL AFFAIRS

INDIANA UNIVERSITY
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TOBACCO HEROIN METHAMPHETAMINE ALCOHOL

THE CONSUMPTION AND CONSEQUENCES OF ALCOHOL, TOBACCO, AND DRUGS IN INDIANA: A STATE EPIDEMIOLOGICAL PROFILE 2008

Developed by the Indiana State Epidemiology and Outcomes Workgroup, 2008

Our Vision

Healthy, safe, and drug-free environments that nurture and assist all Indiana citizens to thrive.

Our Mission

To reduce substance use and abuse across the lifespan of Indiana citizens.

Published by the Indiana University Center for Health Policy

This document, written for state policymakers and community leaders, presents data and analysis to support the development of a framework for advancing the mission of the Indiana Substance Abuse Prevention System.

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About the SEOW Support Team and the Center for Urban Policy and the Environment

This report was developed by the SEOW Support Team headed by Eric R. Wright, PhD. Dr. Wright is the director of the Indiana University Center for Health Policy; professor, School of Public and Environmental Affairs; and associate director, Indiana Consortium for Mental Health Services Research.

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The Center for Health Policy is part of the Indiana University Public Policy Institute, and a partner center of the Center for Urban Policy and the Environment, and the Center for Criminal Justice Research, at the School of Public and Environmental Affairs, Indiana University–Purdue University Indianapolis.

The mission of the Center for Health Policy is to collaborate with state and local government and public and private health care organizations in policy and program development, program evaluation, and applied research on critical health policy-related issues. Faculty and staff aspire to serve as a bridge between academic health researchers and government, health care organizations, and community leaders. The Center for Health Policy has established working partnerships through a variety of projects with government and foundation support.

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Introduction

In July 2005, Indiana's Office of the Governor received a grant from the U.S. Department of Health and Human Services' Center for Substance Abuse Prevention (CSAP) as part of CSAP's Strategic Prevention Framework State Incentive Grant (SPF SIG) Program. The SPF SIG grant program represents a continuation of ongoing CSAP initiatives to encourage states to engage in data-based decision-making in the area of substance abuse prevention planning and grant making.

The SPF SIG grant was made on the heels of an earlier CSAP State Incentive Grant (SIG) which helped to lay much of the groundwork for this new initiative. A great deal of work was completed under the first SIG to assess substance abuse prevention services and develop a strategic framework to guide policymaking in this area for the 21st century. The final report summarizing the outcomes of this work, entitled *Imagine Indiana Together: The Framework to Advance the Indiana Substance Abuse Prevention System*, was prepared by the Governor's Advisory Panel within the Division of Mental Health and Addiction (DMHA), Indiana Family and Social Services Administration. This report is available from the DMHA and the Indiana Prevention Resource Center at Indiana University Bloomington (www.prevention.indiana.edu/imagine).

For the first SIG, CSAP required that the Governor form a state advisory council to oversee all of the activities related to the grant. A new federal requirement of the SPF SIG initiative, however, stipulated that the state establish a State Epidemiology and Outcomes Workgroup (SEOW). This workgroup was to collate and analyze available epidemiological data and report findings to the GAC to facilitate data-based decision-making regarding substance abuse prevention programming across the state. This report represents the third official state epidemiological profile completed by the SEOW under this initiative and summarizes both the methodology used and the key findings.

Since its first meeting in April 2006, the SEOW has met regularly to review data and examine critical substance use and abuse trends across Indiana. The first state epidemiological profile, published in October 2006, was used by the GAC to develop the strategic plan required under the SPF SIG program. This plan identified specific counties in Indiana that faced significant challenges with regard to substance use and abuse. The GAC further recommended targeting the available SPF SIG funding toward communities with the greatest need. Twelve communities were funded to initiate the SPF planning process at the local level.

Following the process that occurred at the state level, this first cohort of funded communities was asked to conduct a local epidemiological needs assessment and to develop a strategic plan based on their analysis that would comprehensively address their focal substance abuse challenge. Over the past year and a half, these twelve communities were incredibly productive. Not only did they complete their own individual local epidemiological profiles and strategic plans, most are in the process of implementing their strategic plans.

This year's report includes brief summaries of key findings from the local epidemiological profiles of the twelve communities funded in 2006. In addition, the Governor's Advisory Council (GAC) this year approved funding for an additional eight communities initially identified as facing significant substance abuse challenges. With this funding, these communities will proceed with developing local epidemiological profiles and strategic plans. This second cohort of communities began their work officially on October 1, 2008, and we anticipate that next year we will include key findings from their epidemiological profiles along with updates from the first cohort of communities.

As we did with the first report, we received many positive comments and helpful suggestions regarding our 2007 report. In addition to updating our analyses, we have incorporated several new features to make this full report more useful for state and local policymakers and community providers, including new and more detailed information and rankings of the counties, an expanded analysis on patterns of prescription drug abuse, and an assessment of statewide resources for substance abuse prevention.

Over the next year, we will continue to work on expanding our understanding of patterns and consequences of substance use. We are particularly excited that a representative of the Pharmacy Board has joined the ranks of the SEOW. Late this year we began receiving data from the INSPECT program which will expand our ability to examine the supply of prescription drugs across the state. In addition, we are working to develop a better understanding of the social and economic burden of substance abuse in Indiana.

Ultimately, our aim in preparing this report is to provide a helpful reference tool for communities and professionals involved in substance abuse prevention. Each year this report has increased in size, and we realize that not everyone will have the time or energy to review the contents in detail. For this reason, we are publishing several companion documents, including a chart pack of the graphs and figures in this report, a series of fact sheets on each of the major substances (designed and developed with the youth representatives of the SEOW), and a policy brief which will provide an executive summary of the key findings. This report, along with the companion documents and earlier versions of this report, are available on the Center for

Health Policy Web site (http://www.policyinstitute.iu.edu/health/2008epiprofile) or through the Indiana Prevention Resource Center's SPF SIG website (http://www.drugs.indiana.edu/consult-spf.html).

We appreciate your interest and leadership in addressing the problem of substance abuse in Indiana, and, as always, we welcome your feedback on this report and our work.

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1. Data Highlights

ALCOHOL

Alcohol is the most frequently used drug both in Indiana and the United States. About half of the population 12 years and older reported current (past month) use (U.S.: 51.37%; IN: 49.40%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008). Potentially dangerous uses of alcohol include binge, heavy, and underage drinking, and combining alcohol with driving.

Binge Drinking

Binge drinking is defined as five or more drinks on the same occasion at least once in the past month. The 30-day prevalence for binge drinking in the population 12 years and older was similar between Indiana and the United States (U.S.: 22.82%; IN: 21.10%). The highest rate was found among 18- to 25-year olds (U.S.: 41.02%; IN: 41.05%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Heavy Drinking

Heavy drinking is defined differently for men and women by the Centers for Disease Control and Prevention. For adult men, it is defined as having more than two drinks per day, and for adult women, having more than one drink per day. Overall rates for heavy use were similar between Indiana and the United States (US: 5.2%; IN: 4.6%). Rates were higher for men (U.S.: 6.1%; IN: 6.4%) than for women (U.S.: 4.0%; IN: 2.9%). However, while heavy drinking prevalence was statistically the same for Indiana and U.S. males, it was significantly lower for female Hoosiers than their national counterparts. In regard to race/ethnicity, whites (U.S.: 5.6%; IN: 4.9%) displayed higher rates than blacks (U.S.: 2.9%; IN: 2.2%) and multiracial people (U.S.: 4.9%; IN: 0.9%); however, rates were similar between Indiana and the United States. No true differences were found across age groups (Centers for Disease Control and Prevention, 2008a).

Youth Consumption — Underage Drinking

The rates for underage drinking in Indiana and the nation were statistically similar. In Indiana, 14.57% of 12- to 17-year-old youths reported that they consumed alcohol in the past 30 days (current use) (U.S. 16.58%).

In the age category of 12 to 20 years old, the numbers were even higher: 26.91% of young Hoosiers reported current use of alcohol (U.S.: 28.29%), and 18.52% confirmed that they engaged in binge drinking (U.S.: 18.87%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

An estimated four in ten high school students (grades 9 through 12) currently use alcohol (U.S.: 44.9%; IN: 43.9%), and one in four admitted to binge drinking in the past month (U.S.: 25.5%; IN: 28.2%). Indiana and the nation were similar on both measures (Centers for Disease Control and Prevention, 2008c).

In Indiana, a small percentage of 8th, 10th, and 12th grade students reported to drink alcohol daily (i.e., on at least 20 occasions during the past month)—1.8%, 3.4%, and 4.6% respectively. U.S. rates seemed lower (0.6%, 1.4%, and 3.1%), but statistical significance of the differences could not be determined (Indiana Prevention Resource Center, 2008;[1] Inter-university Consortium for Political and Social Research, University of Michigan, n.d.)

Alcohol Abuse and Dependence

The population-based rates for alcohol abuse and/or dependence were similar in Indiana (7.68%) and the nation (7.66%). The most affected age group was 18- to 25-year-olds (U.S.: 17.58%; IN: 19.51%). The percentages of individuals needing but not receiving treatment for alcohol use in the past year was also comparable (U.S.: 7.30%; IN: 7.31%). (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

According to treatment data, alcohol was responsible for the largest percentage of admissions to substance abuse treatment facilities in 2006. Indiana's

[1]The results of this study, the ATOD survey, should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.

rate (46.4%) was significantly higher than the U.S. rate (39.5%). White individuals and older adults reported the highest rates (Substance Abuse and Mental Health Data Archive, 2008).

Morbidity and Mortality

It is estimated that 8.0% of the deaths in Indiana and the nation are attributable to alcohol (Centers for Disease Control and Prevention, 2004). Between 2000 and 2006, a total of 2,275 Hoosiers died from alcohol-related disease causes; the most affected age group was adults 25 and older (Epidemiology Resource Center, Data Analysis Team, 2008). Tables 1.1 and 1.2 list diseases that can be attributed to alcohol.

Motor Vehicle Crashes

Among Indiana high school students, 11.2% admitted to drinking and driving in the past month (U.S.: 9.9%), and 24.6% rode with a driver who had been drinking (U.S.: 28.5%). Indiana and U.S. rates were similar on both measures (Centers for Disease Control and Prevention, 2008c).

In Indiana, the number of alcohol-related collisions decreased from 13,911 in 2003 to 9,935 in 2007. However, the number of fatalities in crashes attributable to alcohol increased from 242 to 251 during those same years. The overall annual rate for alcohol-related collisions in Indiana in 2007 was 1.57 per 1,000 population (Indiana State Police, 2008).

Legal Consequences

Indiana's 2006 arrest rates, per 1,000 population, for alcohol-related infractions were significantly higher than the nation's. This trend included arrests for driving under the influence (U.S.: 4.11; IN: 5.68), public intoxication (U.S.: 1.65; IN: 3.48), and liquor law violations (U.S.: 1.89; IN: 2.64) (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.).

Table 1.1 Diseases and Conditions that Are Completely Attributable to Alcohol in Indiana (Alcohol-Related Disease Impact Database, Based on Averages from 2001–2005)

Cause/Disease	Percentage Directly Attributable to Alcohol
Alcohol abuse/dependence	100%
Alcohol cardiomyopathy	100%
Alcohol polyneuropathy	100%
Alcohol-induced chronic pancreatitis	100%
Alcoholic gastritis	100%
Alcoholic liver disease	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%

Source: Centers for Disease Control and Prevention, 2004

Table 1.2 Diseases and Conditions that Are Partially Attributable to Alcohol (Alcohol-Related Disease Impact Database, Based on Averages from 2001–2005)

Cause/Disease	Percentage Directly Attributable to Alcohol
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

TOBACCO

Cigarette smoking remains the leading cause of preventable death in the United States, accounting for approximately one of every five deaths. In Indiana, one-third of the population ages 12 years and older (33.36%) said they used a tobacco product in the past month (current use), which was significantly higher than the U.S. rate of 29.51%. The age group with the highest rates was 18- to 25-year-olds (U.S.: 44.10%; IN: 48.90%), and here too, Indiana's rate exceeded the nation's significantly. Most tobacco consumers smoke cigarettes, and Indiana's current cigarette smoking prevalence among individuals ages 12 years and older was significantly higher than the nation's (U.S.: 24.96%; IN: 28.21%). Again, the highest rate was found among 18- to 25-year olds (U.S.: 38.71%; IN: 43.03%); the difference between Indiana and the nation was significant (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Adult (18 years and older) smoking prevalence in Indiana (24.1%) is the sixth highest in the nation and significantly greater than the U.S. rate (19.8%). Smoking rates are inversely associated with education and income level: very high rates were found for individuals with less than high school education (U.S.: 33.2%; IN: 39.9%) and people whose household income was below $15K (U.S.: 31.8%; IN: 34.0%) (see Table 1.3) (Centers for Disease Control and Prevention, 2008a).

Table 1.3 Adult (18 Years and Older) Smoking Prevalence in Indiana, by Education and Income, 2007 (Behavioral Risk Factor Surveillance System, 2007)

Education	Smoking Prevalence	95% Confidence Interval
Less than high school	39.9%	33.4%–46.4%
High school or GED	28.8%	26.1%–31.5%
Some post-high school	25.3%	22.2%–28.40%
College graduate	10.5%	8.5%–12.5%
Income	**Smoking Prevalence**	**95% Confidence Interval**
Less than $15,000	34.0%	27.1%–44.9%
$15,000 – $24,999	36.9%	32.2%–41.6%
$25,000 – $34,999	36.4%	21.3%–31.5%
$35,000 – $49,999	29.0%	24.9%–33.1%
$50,000 and above	16.8%	14.4%–19.2%

Source: Centers for Disease Control and Prevention, 2008a

Youth Consumption

The percentages of young people (12 to 17 years) currently using a tobacco product (U.S.: 13.00%; IN: 14.02%) and currently smoking cigarettes (U.S.: 10.58%; IN: 11.72%) were similar for Indiana and the nation (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Of all Indiana high school students surveyed, 29.3% reported past-month use of a tobacco product, 53.3% had tried smoking a cigarette during their lifetime, and 22.5% currently smoke cigarettes. National rates were statistically similar. Black high school students in Indiana have a significantly lower 30-day smoking prevalence than white students (black: 15.6%; white: 23.1%) (Centers for Disease Control and Prevention, 2008c).

Past-month smoking prevalence among middle school students is similar in Indiana (7.8%) and the nation (6.3%). A review of Indiana data revealed a significant decrease in current cigarette use among high school students, from 32.0% in 2000 to 23.9% in 2006; current use of "any tobacco product" remained stable over the years (Indiana Tobacco Prevention and Cessation Agency, 2007).

In Indiana, a small percentage of 8th, 10th, and 12th grade students reported daily cigarette use (i.e., on at least 20 occasions during the past month)—5.5%, 11.4%, and 14.7% respectively. U.S. rates seemed lower (3.0%, 7.2%, and 12.3%), but statistical significance of the differences could not be determined (Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.)

Morbidity and Mortality

It has been shown that tobacco causes serious health consequences, including lung cancer, respiratory illness, and heart disease. In 2006 alone, 28,000 Hoosiers died of tobacco-related causes. The age-adjusted annual tobacco-attributable mortality rate (per 100,000 population) was higher among Hoosiers (449.9) than the rest of the nation (408.4) (Centers for Disease Control and Prevention, n.d.).

MARIJUANA

Marijuana is the most commonly used illicit substance. In Indiana, 481,000 residents (9.32%) reported past-year use (U.S.: 10.37%), and 286,000 Hoosiers (5.53%) used the drug in the past month (U.S.: 6.02%); the differences between Indiana and the nation were not significant. Highest rates of use were found among 18- to 25-year-old Hoosiers (past-year use: 26.60%; past-month use: 15.60%). National rates were similar (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Youth Consumption

Among youths ages 12 to 17 in Indiana, an estimated 5.69% had used marijuana for the first time during the past year, which was similar to the national rate of 5.58%. Patterns of current marijuana use among Indiana residents ages 12 to 17 tended to mirror national rates, and remained constant between 2000 and 2006 (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Past-month use among high school students was similar in Indiana and the United States (U.S.: 19.7%; IN: 18.9%). Black students (31.2%) displayed higher rates of current use than white students (17.0%) in Indiana. Also, marijuana use prevalence was lower in 9th graders than in 11th and 12th grade students. No difference by gender was distinguishable (Centers for Disease Control and Prevention, 2008c).

A review of data from 2000 through 2007 shows a decline in current marijuana use among 8th, 10th, and 12th grade students in Indiana and the nation. However, due to the nature of the data, the significance of the results could not be determined (see Table 1.4) (Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.)

Marijuana Abuse and Dependence

In 2006, more than half (53.1%) of Indiana residents in substance abuse treatment reported marijuana use at admission (U.S.: 36.4%); from 2000 through 2006, the rate was significantly higher in Indiana than the rest of the nation. In Indiana, the highest rates of reported use were found among males (55.5%) and individuals under the age of 18 (83.8%). About one-fourth of Hoosiers in treatment (24.1%) reported marijuana dependence;[2] this was significantly higher than the U.S. rate (15.9%). Males (25.4%), younger individuals under the age of 18

[2]We defined marijuana dependence as "individuals in substance abuse treatment listing marijuana as their primary substance at admission."

Table 1.4 Percentages of Indiana and U.S. 8th, 10th, and 12th Grade Students Reporting Current Marijuana Use, by Grade, 2002 through 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2002–2007)

Grade	Geography	2002	2003	2004	2005	2006	2007
8th	Indiana	11.10%	10.60%	9.80%	9.30%	8.20%	7.10%
	U.S.	8.30%	7.50%	6.40%	6.60%	6.50%	5.70%
10th	Indiana	19.20%	18.20%	17.20	16.00%	14.60%	13.50%
	U.S.	17.80%	17.00%	15.90%	15.20%	14.20%	14.20%
12th	Indiana	20.50%	19.80%	18.30%	17.80%	17.20%	16.20%
	U.S.	21.50%	21.20%	19.90%	19.80%	18.30%	18.80%

Note: The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.
Source: Indiana Prevention Resource Center, 2008, and Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

(64.1%), and blacks (29.8%) had statistically higher rates of marijuana dependence (Substance Abuse and Mental Health Data Archive, 2008).

Legal Consequences

Indiana's arrest rates, per 1,000 population, for marijuana possession (2.59) and sale/manufacture (0.33) were significantly higher than U.S. rates (2.22 and 0.26 respectively) (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan. (n.d.).

COCAINE

Population-based estimates on past-year cocaine use were similar in Indiana and the nation (U.S.: 2.37%; IN: 2.24%). Young adults ages 18 to 25 displayed the highest rates (U.S.: 6.91%; IN: 7.15%). Additional data based on annual averages from 2002–2004 show that 562,000 Indiana residents (11.1%) had used cocaine at least once in their life, and 33,000 Hoosiers (0.7%) were current users (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Youth Consumption

Past-year cocaine use among 12- to 17-year-olds was statistically similar in Indiana and the United States (U.S.: 1.64%; IN: 1.54%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

High school students' rates for lifetime use (U.S.: 7.2%; IN: 8.0%) and current use (U.S.: 3.3%; IN: 3.8%) in Indiana and the nation were statistically the same; no differences by gender, race, or grade were detected in Indiana (Centers for Disease Control and Prevention, 2008c).

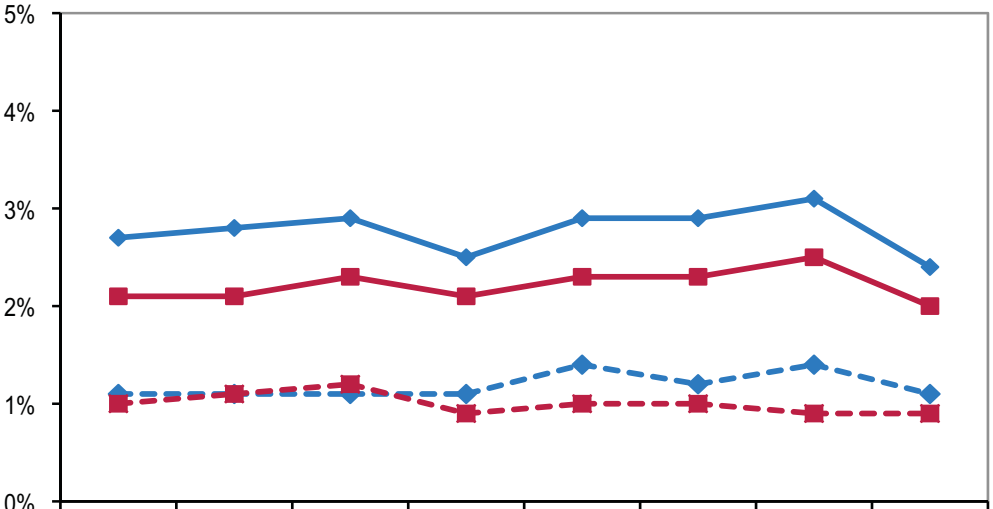
Data from 2000 through 2007 show that rates for current cocaine and crack use among high school seniors seem to be higher in Indiana than the rest of the nation, and remained stable over the years (see Figure 1.1). However, the significance of the results could not be determined (Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.)

Cocaine Abuse and Dependence

In 2006, 12.6% of Indiana residents entering substance abuse treatment identified cocaine as their primary drug;[3] the U.S. rate (13.9%) was significantly higher. Gender, age, and race differences in the Indiana treatment population were significant. More women than men reported cocaine use, blacks displayed higher rates than whites and other races, and the percentage of 35- to 44-year-olds using cocaine was greater than any other age group (see Table 1.5).

[3]We defined cocaine dependence as "individuals in substance abuse treatment listing cocaine as their primary substance at admission."

Figure 1.1 Percentage of Indiana and U.S. High School Seniors (Grade 12) Reporting Current Cocaine and Crack Use (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2000-2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Indiana Cocaine	2.7%	2.8%	2.9%	2.5%	2.9%	2.9%	3.1%	2.4%
U.S. Cocaine	2.1%	2.1%	2.3%	2.1%	2.3%	2.3%	2.5%	2.0%
Indiana Crack	1.1%	1.1%	1.1%	1.1%	1.4%	1.2%	1.4%	1.1%
U.S. Crack	1.0%	1.1%	1.2%	0.9%	1.0%	1.0%	0.9%	0.9%

Source: Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

The percentage of individuals in substance abuse programs for cocaine dependence has been significantly lower in Indiana than the nation for the past six years of data reported (2001 through 2006) (Substance Abuse and Mental Health Data Archive, 2008).

Legal Consequences

Indiana law enforcement made a total of 5,608 arrests for possession and 3,227 arrests for sale/manufacture of opiates and cocaine in 2007, representing arrest rates of 0.89 and 0.51 per 1,000 population, respectively. Indiana's arrest rates were lower for cocaine/opiate possession but higher for sale/manufacture when compared to the nation (1.21 and 0.41 per 1,000 population, respectively) (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.).[4]

Table 1.5 Percentage of Treatment Episodes in Indiana in which Cocaine was Indicated as Primary Substance (Treatment Episode Data Set, 2006)

		Cocaine Dependence
Gender	Male	10.4%
	Female	16.8%
Race	White	9.5%
	Black	27.8%
	Other	11.3%
Age Group	Under 18	1.9%
	18-24	5.3%
	25-34	14.1%
	35-44	18.9%
	45-54	15.4%
	55 and over	8.1%
Total		**12.6%**

Source: Substance Abuse and Mental Health Data Archive, 2008

[4]The Uniform Crime Reporting (UCR) Program combines arrests for cocaine and opiates; this information is not available for cocaine or opiates alone.

HEROIN

Population data based on 2002–2004 annual averages reveal that among Indiana residents, 54,000 tried heroin at least once (1.1%), 9,000 used it in the past year (0.2%), and 1,000 were current users (0.0%) of the substance. U.S. data for 2006 were comparable. (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Youth Consumption

Lifetime heroin use among high school students has been statistically the same in Indiana and the nation (U.S.: 2.3%; IN: 3.6%). No differences were detected by gender, race, or grade level in Indiana (Centers for Disease Control and Prevention, 2008c).

Across most years from 2000 through 2007, the percentage of 12th grade students reporting lifetime, annual, or monthly heroin use seemed slightly higher in Indiana than in the nation. However, statistical significance could not be determined (Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.)

Heroin Abuse and Dependence

In 2006, only 2.3% of Hoosiers in substance abuse treatment reported heroin dependence,[5] a figure that was significantly lower than the U.S. percentage (13.9%). Significant differences in heroin dependence were seen by gender (more women report use), race (higher rates for blacks), and age group (adults 55 years and older were primarily affected) (Substance Abuse and Mental Health Data Archive, 2008).

Morbidity and Mortality

A potential consequence of injected heroin use is contraction of HIV and/or hepatitis (B or C) from contaminated needles. In 2007, 421 new HIV infections and 333 new AIDS cases were reported in Indiana. A total of 9,168 individuals were living in Indiana with HIV disease,[6] and 805 of these cases were attributable to injection drug use (IDU) (Epidemiology Resource Center, Data Analysis Team, 2008).

The calculated annual AIDS rate (per 100,000 population) in Indiana was 6.5 (U.S.: 14.0), and it is estimated that in Indiana, 10% of all reported HIV transmissions (U.S.: 14%) and 11% of all AIDS cases (U.S.: 24%) were attributable to injection drug use (Centers for Disease Control and Prevention, 2008b).

The hepatitis B virus (HBV) and hepatitis C virus (HCV) are usually transmitted via unprotected sex and among injection drug users. The age-adjusted mortality rate (per 100,000 population) attributable to hepatitis B and hepatitis C (acute and chronic) was 1.2 in Indiana (U.S.: 1.7) (Centers for Disease Control and Prevention, n.d.).

Legal Consequences

In 2007, law enforcement made a total of 5,608 arrests for possession and 3,227 arrests for sale/manufacture of opiates and cocaine in Indiana, representing arrest rates of 0.89 and 0.51 per 1,000 population, respectively. Indiana's arrest rates were lower for cocaine/opiate possession but higher for sale/manufacture when compared to the nation (1.21 and 0.41 per 1,000 population, respectively) (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, n.d.).[7]

METHAMPHETAMINE

In Indiana, 4.5% of the population (225,000 residents) have used meth at least once in their life (U.S.: 4.3%), 0.8% (40,000 residents) used it in the past year (U.S.: 0.5%), and 0.2% (10,000 residents) used it in the past month (U.S.: 0.2%). The rate for past-year use is greatest among 18- to 25-year-olds (U.S.: 0.97%; IN: 1.9%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Youth Consumption Patterns

Lifetime prevalence of methamphetamine use among high school students was similar in Indiana and the nation (U.S.: 4.4%; IN: 6.2%). Rate differences by gender, race, or grade level were not significant in

[5]We defined heroin dependence as "individuals in substance abuse treatment listing heroin as their primary substance at admission."
[6]HIV disease includes both HIV infections and AIDS cases.
[7]The UCR dataset combines arrests for cocaine and opiates; this information is not available for cocaine or opiates alone.

Indiana (Centers for Disease Control and Prevention, 2008c).

Lifetime, annual, and monthly use among high school seniors seemed to be higher in Indiana than the nation; however, the significance of the differences could not be determined. Indiana meth prevalence among 12th grade students decreased significantly for lifetime use, but remained stable for annual and monthly use, from 2007 to 2008 (see Figure 1.2) (Indiana Prevention Resource Center, 2008).

Methamphetamine Abuse and Dependence

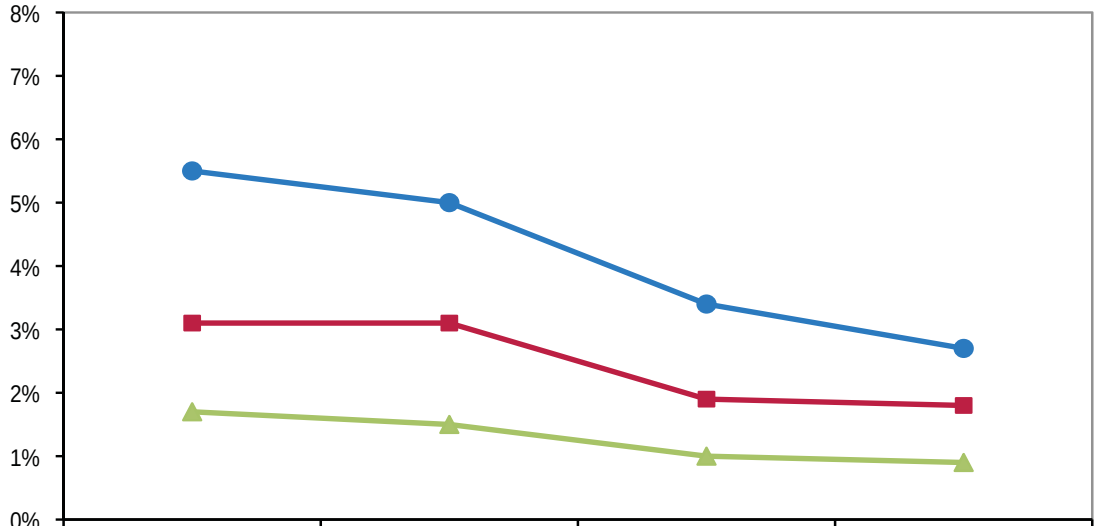
In Indiana, data show a significant increase from 1.5% in 2000 (U.S.: 3.8%) to 5.6% in 2006 (U.S.: 8.4%) in the rate of methamphetamine dependence[8] reported at substance abuse treatment admission; Indiana rates have been significantly lower than U.S. rates during the seven-year period (see Figure 1.3). Significant differences were observed by gender (more women reported using meth), race (whites had the highest rate of use), and age group (primarily 18- to 44-year olds were affected) (Substance Abuse and Mental Health Data Archive, 2008).

Legal Consequences

Seizures of clandestine methamphetamine labs by the Indiana State Police peaked in 2004, with 1,549 labs seized, and declined to 820 in 2007. During the seizures, 534 individuals were arrested and 124 children were located at these labs and put into protective custody (Indiana State Police, 2008).

In Indiana, 1,683 arrests were made for possession and 529 for the sale/manufacture of synthetic drugs[9] in 2006; this represents annual arrest rates (per 1,000

Figure 1.2 Percentage of Indiana 12th Grade Students Reporting Lifetime, Annual, and Monthly Methamphetamine Use, from 2005 through 2008 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2005-2008)

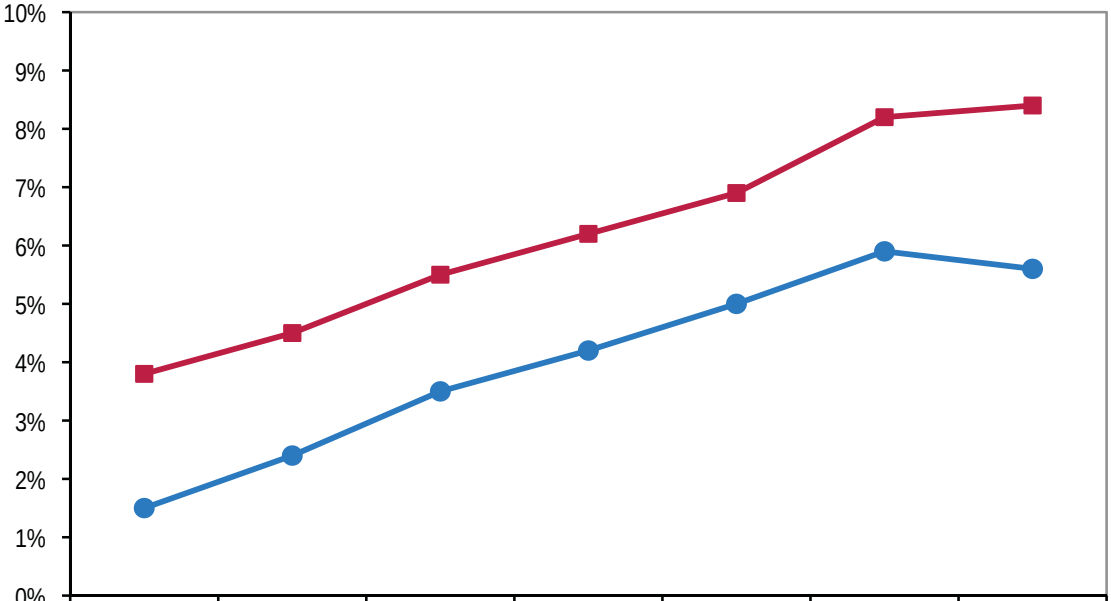


	2005	2006	2007	2008
Lifetime	5.5%	5.0%	3.4%	2.7%
Annual	3.1%	3.1%	1.9%	1.8%
Monthly	1.7%	1.5%	1.0%	0.9%

Source: Indiana Prevention Resource Center, 2008

[8]We defined methamphetamine dependence as "individuals in substance abuse treatment listing methamphetamine as their primary substance at admission."
[9]The Uniform Crime Reporting Program collects arrest information on synthetic drugs. The category includes methamphetamine, methadone, and Demerol.

Figure 1.3 Percentage of Indiana and U.S. Residents in Substance Abuse Treatment Who Listed Methamphetamine as Their Primary Substance at Admission, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana	1.5%	2.4%	3.5%	4.2%	5.0%	5.9%	5.6%
U.S.	3.8%	4.5%	5.5%	6.2%	6.9%	8.2%	8.4%

Note: We defined methamphetamine dependence as "individuals in substance abuse treatment listing methamphetamine as their primary substance at admission."
Source: Substance Abuse and Mental Health Data Archive, 2008

population) of 0.27 (U.S.: 0.19) and 0.09 (U.S.: 0.09) respectively. Indiana's arrest rate for possession was statistically higher than the nation's (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.).

PRESCRIPTION DRUG ABUSE

In Indiana, over a million residents (20.7%) have misused psychotherapeutics at least once in their life (U.S.: 20.0%). Additionally, an estimated 383,000 Hoosiers (7.6%) abused prescription drugs in the past year (U.S.: 6.2%), and 138,000 residents (2.7%) did so in the past month (U.S.: 2.6%). The psychotherapeutics that were primarily abused included pain relievers, tranquilizers, sedatives, and stimulants (see Table 1.6) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Young people between the ages of 18 and 25 have the highest rate of past-year abuse (U.S.: 12.42%; IN: 15.96%); Indiana and national rates were similar (Substance Abuse and Mental Health Services Administration, 2008).

Indiana's oxycodone distribution to retail registrants (pharmacies, hospitals, and practitioners) nearly doubled from almost 30 million dosage units in 2002 to a projected 54 million in 2007 (U.S. Drug Enforcement Administration, 2008).

Table 1.6 Lifetime, Past Year, and Current Nonmedical Use of Psychotherapeutics, Indiana and United States (National Survey on Drug Use and Health)

	Lifetime Use		Past Year Use		Past Month Use	
	Indiana	U.S.	Indiana	U.S.	Indiana	U.S.
All Psychotherapeutics	20.7%	20.0%	7.6%	6.2%	2.7%	2.6%
Pain Relievers	15.0%	13.4%	6.1%	4.9%	2.0%	1.9%
OxyContin	2.5%	1.4%	0.8%	0.5%	0.3%	0.1%
Tranquilizers	9.1%	8.7%	2.8%	2.2%	0.8%	0.7%
Sedatives	3.9%	3.7%	0.4%	0.3%	0.1%	0.1%
Stimulants	8.3%	7.8%	1.7%	1.1%	0.8%	0.4%

Note: Indiana rates are based on 2002-2004 averages; U.S. rates are based on the 2006 NSDUH.
Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008

Youth Consumption

Approximately 43,000 Hoosiers (7.86%) ages 12 to 17 have used prescription pain medications for nonmedical purposes in the past year (U.S.: 7.01%); Indiana's percentage was similar to the nation's (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

High school seniors in Indiana reported a decrease or stabilization in use of Ritalin/Adderall,[10] tranquilizers, and narcotics from 2007 to 2008. In 2007, current use of narcotics was similar among Indiana and U.S. 12th graders, while tranquilizer use seemed higher for Hoosier students; however, due to the nature of the data, significance could not be determined (see Figure 1.4) (Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.).

Prescription Drug Abuse and Dependence

Among the Indiana treatment population in 2006, a total of 7.2% reported prescription drug dependence (U.S.: 5.2%).[11] Of these, 5.4% used pain relievers (U.S.: 4.1%), 1.4% used sedatives and tranquilizers (U.S.: 0.6%), and 0.4% used stimulants (U.S.: 0.4%). Compared to the nation, Indiana's rates were significantly higher for overall prescription drug, pain reliever, and sedative/tranquilizer dependence, but similar for stimulant dependence.

In Indiana, significant differences were seen by gender (women reported higher rates across all three drug categories), race (whites had the highest rates across all three drug categories), and age group (25- to 34-year olds had the highest rate for pain reliever dependence) (see Table 1.7).

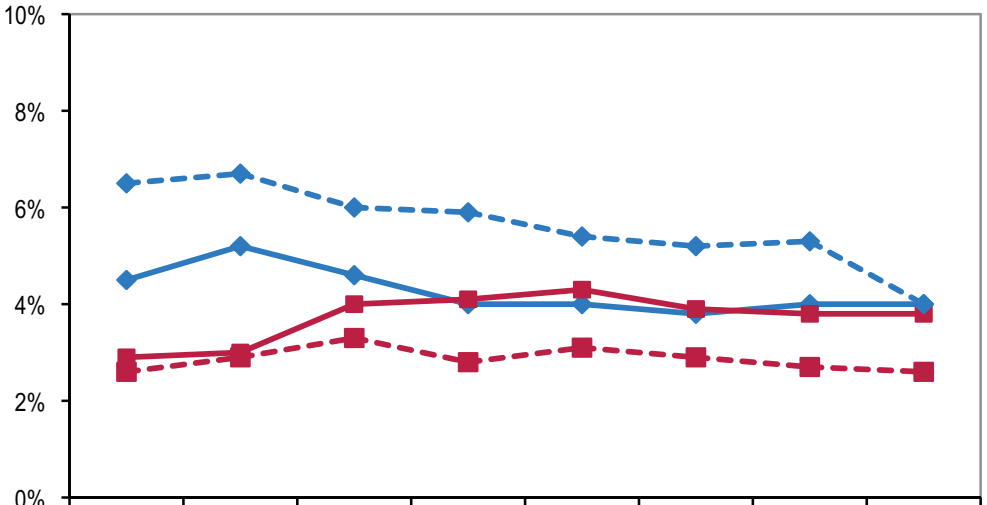
Rates for pain reliever and sedative/tranquilizer dependence have increased significantly in Indiana from 2000 through 2006, while remaining stable for stimulant and sedative/tranquilizer dependence (Substance Abuse and Mental Health Data Archive, 2008).

Legal Consequences

In 2006, law enforcement made over 2,600 arrests for possession and almost 800 arrests for sale/manufacture of "other drugs" in Indiana. This represents arrest rates of 0.42 and 0.12 per 1,000 population, respectively. The U.S. rates were significantly higher, with 0.92 for possession and 0.17 for sale/manufacture (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.).

[10]Ritalin (methylphenidate) and Adderall are stimulants that enhance brain activity and increase alertness and energy. They are often prescribed to treat Attention Deficit Hyperactivity Disorder (ADHD), Attention Deficit Disorder (ADD), and narcolepsy.
[11]We defined prescription drug dependence as "individuals in substance abuse treatment listing prescription drugs as their primary substance at admission."

Figure 1.4 Percentage of Indiana and U.S. 12th Grade Students Reporting Current Use of Narcotics and Tranquilizers, 2000 through 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2000–2008)



	2000	2001	2002	2003	2004	2005	2006	2007
Indiana Narcotics	4.5%	5.2%	4.6%	4.0%	4.0%	3.8%	4.0%	4.0%
U.S. Narcotics	2.9%	3.0%	4.0%	4.1%	4.3%	3.9%	3.8%	3.8%
Indiana Tranquilizer	6.5%	6.7%	6.0%	5.9%	5.4%	5.2%	5.3%	4.0%
U.S. Tranquilizer	2.6%	2.9%	3.3%	2.8%	3.1%	2.9%	2.7%	2.6%

Source: Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Table 1.7 Percentage of Indiana Patients Reporting Prescription Drug Dependence at Treatment Admission, by Drug Category, Gender, Race, and Age Group, 2006 (Treatment Episode Data Set, 2006)

		Pain Relievers	Sedatives/Tranquilizers	Stimulants
Gender	Male	4.2%	0.9%	0.3%
	Female	7.8%	2.5%	0.6%
Race	White	6.4%	1.7%	0.4%
	Black	0.9%	0.1%	0.2%
	Other	2.7%	1.0%	0.2%
Age Group	Under 18	1.5%	1.2%	0.7%
	18 to 24	5.2%	1.6%	0.3%
	25 to 34	7.3%	1.5%	0.4%
	35 to 44	4.7%	1.1%	0.5%
	45 to 54	3.9%	1.4%	0.4%
	55 and over	4.5%	0.9%	0.0%

Note: We defined prescription drug dependence as “individuals in substance abuse treatment listing prescription drugs as their primary substance at admission.”
Source: Substance Abuse and Mental Health Data Archive, 2008.

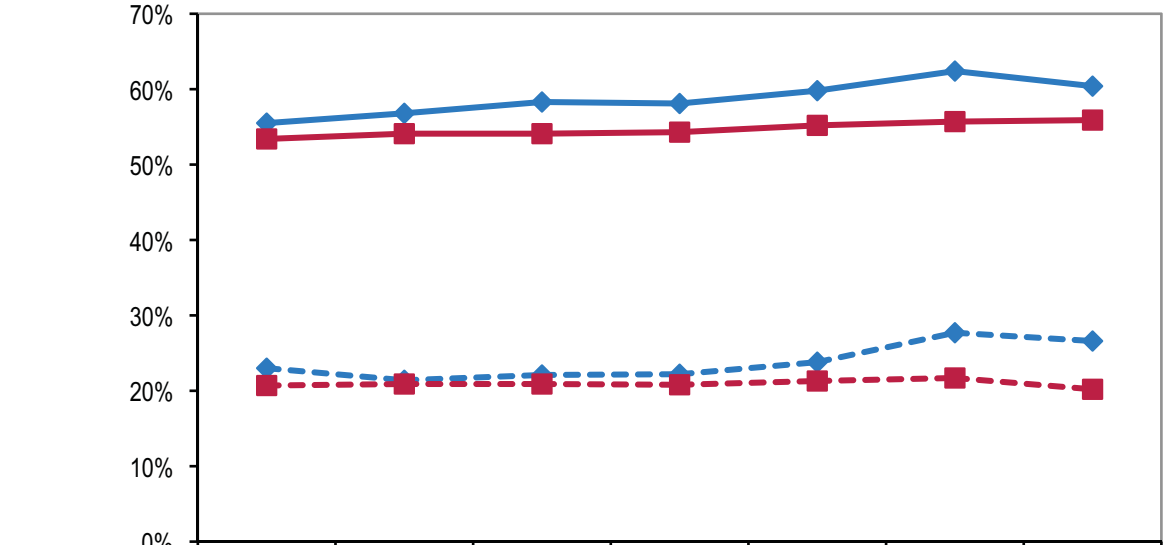
POLYSUBSTANCE ABUSE

Polysubstance abuse is a particularly serious pattern of drug use that involves consumption of two or more substances. A review of data from 2000 through 2006 revealed that over half of the individuals seeking substance abuse treatment reported using at least two drugs at the time of admission, and Indiana's rates were significantly higher than the nation's. The percentage of Hoosiers in treatment using two or more substances increased significantly from 55.5% in 2000 to 60.4% in 2006 (see Figure 1.5). Furthermore, roughly one-fourth of the Indiana treatment population reported using three or more substances; the difference between Indiana and the nation was significant. Indiana's rate increased significantly from 23.0% in 2000 to 26.6% in 2006 in Indiana (see Figure 1.4).

Significant differences in polysubstance abuse were observed by gender (more women reported using three or more substances), race (currently, more whites reported polysubstance abuse, representing a change from earlier years when blacks displayed the highest rates), and age group (younger adults reported the highest rates) (Substance Abuse and Mental Health Data Archive, 2008).

The drug clusters most frequently reported at substance abuse treatment admission in Indiana were (a) alcohol and marijuana, (b) alcohol, marijuana, and cocaine, (c) alcohol and cocaine, and (d) alcohol, marijuana, and methamphetamine (Substance Abuse and Mental Health Data Archive, 2008).

Figure 1.5 Percentage of Indiana and U.S. Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Two or Three Substances) at Admission, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana 2+	55.5%	56.8%	58.3%	58.1%	59.8%	62.4%	60.4%
U.S. 2+	53.4%	54.1%	54.1%	54.3%	55.2%	55.7%	55.9%
Indiana 3+	23.0%	21.4%	22.1%	22.2%	23.8%	27.7%	26.6%
U.S. 3+	20.7%	20.9%	20.9%	20.8%	21.3%	21.7%	20.2%

Source: Substance Abuse and Mental Health Data Archive, 2008

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2. Methods

This report describes drug consumption and drug consequence patterns for Indiana residents overall, and specifically for Indiana's adults (residents age 18 and over) and youth (residents under age 18). We compare Indiana's overall, adult, and youth patterns statistically with the consumption and consequence patterns found in the entire United States. Based on discussions with the State Epidemiology and Outcomes Workgroup (SEOW) and the Advisory Council for the Strategic Prevention Framework State Incentive Grant (SPF SIG), we have reviewed consumption and consequences patterns for the following drugs: alcohol, tobacco, marijuana, cocaine, heroin, methamphetamine, and prescription medication.

Our research team completed statistical analyses on publicly available local and national data sets using Statistical Package for the Social Sciences (SPSS) statistical analysis software. For national surveys that do not have publicly available data sets, we conducted statistical analyses using online analysis software and/or analysis tables provided by the agencies that conducted the data collection. Whenever possible, we made statistical comparisons across gender, racial, and age groups for both drug-consumption behaviors and drug-use consequences. For all comparisons, a *P* value of .05 or less was used to determine statistical significance.

Prevalence rates and other statistics may be presented somewhat differently across the eight substance chapters, depending on the data sources that provided the information.

We used two guidelines to determine potential intervention priorities. The first guideline was *statistical significance*. Statistical significance is a mathematical concept used to determine whether differences between groups are true or due to chance. Specific drug consumption and consequence patterns that place Indiana statistically significantly higher than the United States were used as markers for areas that could potentially benefit from intervention. The second guideline was *clinical or substantive significance;* i.e., consumption behaviors or drug-use consequences that show a trend toward increased frequency within a particular group, such as gender, race/ethnicity, or age, in Indiana, were used as priority indicators.

DATA

The data for these analyses were gathered from various publicly available federal and local-level surveys and data sets. In order to compare Indiana with the nation as a whole and to determine trends in drug use and drug-related consequences over time, we selected surveys and data sources that had at least two years' worth of data available at state and national levels. In all cases, the most recent versions of survey results and data were used.

All of the data sources have important strengths and weaknesses, and these were factored into the interpretations of the findings. In general, trends evident in multiple sources based on probability samples (rather than on nonrandom samples) were given more weight in the interpretation process. The following sections briefly describe the surveys and data sources used to complete these reports. An overview of these sources is also provided in the SEOW data sources list beginning on page 22 at the end of this chapter.

Alcohol-Related Disease Impact (ARDI) Database

The Centers for Disease Control and Prevention's ARDI software generates estimates of alcohol-related deaths and years of potential life lost (YPLL) due to alcohol consumption. To do this, ARDI either calculates or uses predetermined estimates of alcohol-attributable fractions (AAFs)—that is, the proportion of deaths from various causes that are due to alcohol. These AAFs are then multiplied by the number of deaths caused by a specific condition (e.g., liver cancer) to obtain the number of alcohol-attributable deaths. Reports can be generated based on national or state-level data.

Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) Survey

The ATOD is a survey conducted annually by the Indiana Prevention Resource Center (IPRC, see http://www.drugs.indiana.edu/) to monitor patterns of

alcohol, tobacco, and other drug use by Indiana's middle and high school students. Young people who complete the survey are asked to report on their *lifetime use* (use of the drug at least once in the respondent's life), *annual use* (use of the drug at least once during the year prior to the administration of the survey), *monthly use* (also known as *current use*, defined as use at least once in the 30 days prior to the survey), and for some substances, *daily use* (use of the drug at least 20 times in the past 30 days) of a wide range of drugs, including alcohol, tobacco, marijuana, cocaine, heroin, methamphetamine, hallucinogens, etc. The ATOD data are released annually, and the data are available from 1993 through 2008.

The ATOD survey results can be compared with results from the Monitoring the Future survey (see page 19) conducted by the National Institute on Drug Abuse. With these two data sets, comparisons between Indiana and the nation can be completed only for 8th, 10th, and 12th grade students. While the ATOD does provide local and regional-level consumption information on a wide range of drugs, the results should be interpreted with caution as the ATOD survey uses a nonrandom convenience sample[1] of Indiana students. Statistically significant differences in prevalence of use are reported only between the last two years, i.e., between 2007 and 2008.

Behavioral Risk Factor Surveillance System (BRFSS) Survey

BRFSS is conducted annually by the Centers for Disease Control and Prevention with the assistance of the health departments in all 50 states and the District of Columbia, Puerto Rico, Guam, and the U.S. Virgin Islands. 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, heavy alcohol use, binge drinking, and current use of tobacco. Data from BRFSS are available at national and state levels and for selected metropolitan/micropolitan areas. BRFSS data allow for statistical comparisons across gender, age, and racial groups.

Fatality Analysis Reporting System (FARS) Data and Automated Reporting Information Exchange System (ARIES)/Vehicle Crash Record System (VCRS)

The Indiana State Police's ARIES/VCRS is a central repository for all collisions reported in the state of Indiana; the data contained in the system is provided to the Fatality Analysis Reporting System (FARS). FARS is a national database of fatal motor vehicle accidents. Maintained by the National Highway Traffic Safety Administration, the database includes information about fatal accidents in which alcohol was involved. Using FARS, it is possible to calculate the rate of alcohol-related fatal motor vehicle accidents for the nation and for each state. Because of the data collection procedures used in FARS, comparisons among gender, racial, and age groups would not be statistically valid. Raw FARS data are publicly available for four years, with a two-year lag from the end of the data collection period for a given year to the time when the data are made available. Though FARS data are helpful in understanding the rate of alcohol-related motor vehicle deaths, any comparisons between Indiana and the nation should be interpreted 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.

Hospital Discharge Data

The Indiana State Department of Health (ISDH) collects information on inpatients discharged from hospitals in Indiana. The data are publicly available in aggregate format and include information on hospitals, principal diagnoses and procedures, length of stay, total charges, etc. Additionally, ISDH provides reports on statewide outpatient visits, information contained in the State Emergency Department Dataset. Both datasets can be queried on diagnoses related to alcohol or drug use.

Monitoring the Future (MTF) Survey

MTF is a national survey conducted annually by the National Institute on Drug Abuse in order to track changes in the drug consumption patterns of 8th, 10th, and 12th grade students throughout the United States.

[1]Respondents for a survey can be drawn from a random sample or convenience sample. In a random sample, each member of that population has an equal probability of being selected and results will be more likely to be representative of the underlying population. In convenience sampling, individuals that are easiest to reach are selected at the convenience of the researcher. It is not guaranteed that the sample is an accurate representation of the population under study.

Student respondents report on their lifetime, annual, and monthly use of a wide variety of substances, including alcohol, heroin, cocaine, marijuana, methamphetamine, etc. Results from MTF are released annually and data sets are publicly available. Respondents are sampled randomly from schools throughout the country, and no state-level data are available. On a local level, the findings from the MTF can be compared with findings from the Indiana Prevention Resource Center's ATOD survey. Comparisons between the two surveys should be interpreted with caution as the ATOD survey is not completed using a random sample of Indiana schools.

National Clandestine Laboratory Seizure System (NCLSS)

The NCLSS database, maintained by the U.S. Drug Enforcement Administration and the El Paso Intelligence Center, contains information on illicit drug lab seizures throughout the United States. Information in the database includes types, numbers, and locations of labs seized; precursor and chemical sources; the number of children involved (if any); and law enforcement officers affected. Data currently available at the local level include the number of labs seized by county and the total number of children affected. The Indiana State Police Department collects these data and provides the information to the NCLSS database.

National Survey on Drug Use and Health (NSDUH)

The NSDUH is a national survey funded by the federal Substance Abuse and Mental Health Services Administration (SAMHSA, part of the U.S. Department of Health and Human Services) designed to track changes in substance use patterns for U.S. citizens 12 years of age and older. The survey asks respondents to report on current (past month), past year, and lifetime use of substances including alcohol, tobacco, marijuana, cocaine, and other illicit drugs, as well as the nonmedical (recreational) use of prescription medication. Survey participants are also asked about high-risk drinking patterns such as binge drinking. Additionally, the NSDUH asks respondents whether they received treatment for drug abuse or drug dependence during the past (prior) year.

Prevalence rates for alcohol, tobacco, and other drug use are provided for the nation and each state. State-level prevalence rates are based on statistical algorithms, not on data collected within specific states. Raw files from the NSDUH surveys are publicly available; however, they do not allow for comparisons among states because NSDUH eliminates state identifiers in the process of preparing public-use data files. Comparisons of specific states to the nation are provided in analysis tables prepared by SAMHSA's Office of Applied Studies. Comparisons can thus be made between Indiana and the nation for overall consumption and age-specific consumption. Data are available from 1994 through 2006. 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)

NVSS is a data system maintained by the Centers for Disease Control and Prevention (CDC) that provides information on mortality rates by cause of death as coded in the World Health Organization's International Classification of Diseases, 10th Edition (ICD-10). Health departments in the 50 states, the District of Columbia, and U.S. territories provide the CDC with data on deaths throughout the country. Using the query system on the CDC website, mortality rates for deaths due to diseases and events associated with alcohol, tobacco, and other drug use (e.g., cirrhosis, lung cancer, heart disease, suicide, homicide, etc.) can be computed on the national, state, and county level. The system also allows comparisons across gender and racial groups. Indiana mortality data can also be requested from the Indiana State Department of Health.

National Youth Tobacco Survey (NYTS) and Indiana Youth Tobacco Survey (IYTS)

NYTS was developed and is conducted by the Centers for Disease Control and Prevention as a way to estimate the current use of tobacco products among middle school and high school students in the United States. Student respondents are asked to describe their lifetime, annual, and current use of cigarettes and other tobacco products. Baseline data for the survey were first collected in 1999, and formal data collection started in 2000. The NYTS is administered biannually; national data are available for 1999 and for 2000 through 2006 (even-numbered years only).

In order to compare Indiana with the rest of the nation, the Indiana Tobacco Prevention and Cessation Agency developed the IYTS. Conducted every other year, the IYTS includes all of the questions from the NYTS along with additional questions specific to the state of Indiana. Using data from NYTS and IYTS, comparisons of tobacco consumption behaviors between Indiana and the United States can be made across grade levels.

Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC)

The Centers for Disease Control and Prevention's SAMMEC is an online application that allows the user to estimate the health impacts and health-related economic consequences of smoking for adults and infants. Users can compute outcomes such as smoking-attributable mortality, years of potential life lost (YPLL), productivity losses, and expenditures.

Treatment Episode Data Set (TEDS)

TEDS is a national database maintained by the Substance Abuse and Mental Health Services Administration (SAMHSA) which records information about individuals entering treatment for substance abuse and/or dependence. State mental health departments submit data to TEDS on an annual basis. The information reported in TEDS includes age, race, gender, and other demographic characteristics, as well as information on the use of various substances. The TEDS data are publicly available one to two years after data are gathered. The format of the TEDS data allows for comparisons between Indiana and the United States by gender, race, and age groups.

County-level TEDS data are available for Indiana from the Indiana Department of Mental Health and Addiction. While TEDS data can provide some information on drug use and abuse patterns both nationally and at the state level, the population on which data are reported is not representative of all individuals who receive drug and alcohol treatment. For Indiana, the TEDS data are limited to information about individuals entering substance abuse treatment who are 200% below the poverty level and receiving state-funded treatment.

Uniform Crime Reporting Program (UCR)

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 United States. Law enforcement agencies in the 50 states and the District of Columbia submit UCR data annually. Data are reported for each state on a county-by-county basis. UCR data sets are publicly available; however, there is a two-year lag from the time data are collected until they are made publicly available. The format of the UCR data sets allows for comparisons of overall crime arrests between Indiana and the entire United States, and for comparisons of crime arrests for juveniles versus adults. Since the data are presented in an aggregate format, demographic variables such as gender, age, or race/ethnicity are not available.

While the UCR does include data about drug possession and drug manufacturing arrests, the involvement of drugs or alcohol in the commission of other crimes such as rape, burglary, robbery, etc., is not recorded. Additionally, because states are not required to submit crime information to the FBI, the level of reporting from state to state and from county to county within a state varies considerably. Because of the variations in reporting, the FBI uses a statistical algorithm to estimate arrests for counties for which reporting is particularly poor. In Indiana, typically 50% of counties, on average, submit information to the FBI. Because Indiana has a rather low reporting rate, comparisons using the UCR should be interpreted with caution.

Youth Risk Behavior Surveillance System (YRBSS)

The YRBSS is a national survey conducted every two years of the health-related behaviors of young people in the 9th through 12th grades. This survey is conducted by the CDC with the cooperation of state departments of health throughout the United States. Student respondents in the YRBSS are asked to describe whether they have engaged in numerous behaviors that could pose a danger to their health, including the use of alcohol, tobacco, and other drugs. YRBSS respondents are asked about their lifetime and current use of alcohol; their level of binge drinking; their lifetime and current use

of tobacco, marijuana, and cocaine; and their lifetime use of methamphetamines, heroin, inhalants, steroids, and injection drugs. CDC's statistical software allows comparisons between Indiana and the entire United States for gender, race/ethnicity, and grade level. Data for the YRBSS are available every other year (odd years), with a one-year lag between the end of data collection and the publication of results. Though YRBSS data for some states are available from 1991, Indiana started participating in data collection only in 2003.

OVERALL METHODS COMMENTS

This report relies exclusively on the data sources just discussed. They are the publicly available sources that our researchers could access and analyze within the Indiana SPF SIG project timeline agreed upon by the state of Indiana and the federal Center for Substance Abuse Prevention (CSAP). Because of the nature of the available data, there are significant limitations to the interpretations presented:

- Consistent comparisons across data sources are not always possible due to the nature of the survey questions asked and information gathered.
- Inconsistencies may occur within classifications of demographic characteristics (e.g., age ranges, racial categories, grade levels).
- Timeframes may be inconsistent for comparisons across substances and data sources (e.g., some data have longer gaps than others before they are made publicly available).
- State-level prevalence rates presented in national-level surveys are often estimated using statistical algorithms.
- Due to the reporting requirements for national databases, the data may not be representative of the actual population of either the state or the nation.

In future editions of this report, we will expand the data analysis as additional data sources are made available to the SEOW data analysis team.

SEOW DATA SOURCES LIST

Following is a list of the data sources used in this report in a format for comparison.

Alcohol-Related Disease Impact (ARDI) Database

Description: ARDI provides state and national estimates of alcohol-related deaths and years of potential life lost (YPLL) based on alcohol-attributable fractions.

Sponsoring Organization/Source: Centers for Disease Control and Prevention (CDC)

Geographic Level: National and state

Availability: The database can be accessed at http://apps.nccd.cdc.gov/ardi/HomePage.aspx.

Trend: 2001–2005 (all estimates are based on averages from 2001 through 2005 data)

Strengths/Weaknesses: ARDI may underestimate the actual number of alcohol-related deaths and years of potential life lost for several reasons:

(1) BRFSS data on alcohol use, used to calculate indirect estimates of alcohol-attributable fractions (AAFs), are based on self-reports, which tend to underestimate the true prevalence of alcohol use because of sampling non-coverage (the inability to reach some high-risk populations, such as youth and young adults) and underreporting of alcohol use by survey respondents;

(2) BRFSS prevalence estimates are based on alcohol use in the past 30 days; former drinkers who have stopped drinking are not included in calculations of AAFs;

(3) ARDI does not include estimates of alcohol-attributable deaths for some conditions (e.g., tuberculosis, pneumonia, hepatitis C) for which alcohol is considered an important risk factor but where the developers were unable to find a suitable pooled risk estimate;

(4) ARDI exclusively uses the underlying cause of death from vital statistics to identify alcohol-related conditions and does not consider contributing causes of death that may also be alcohol-related; and

(5) age-specific estimates of AAFs are only available for motor vehicle traffic deaths, even though alcohol involvement varies widely by age, particularly for acute conditions, and is generally much greater for deaths involving young people.

Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) Survey

Description: The Indiana Prevention Resource Center (IPRC) administers this survey regarding alcohol, tobacco, and other drug use among children and adolescents (6th through 12th graders) in a number of schools throughout Indiana.

Sponsoring Organization/Source: Indiana Prevention Resource Center (IPRC) and the Indiana Division of Mental Health and Addiction (DMHA)

Geographic Level: State and regions

Availability: Reports with data tables are accessible from the IPRC website: http://www.drugs.indiana.edu/data-survey_monograph.html.

Trend: 1993–2008

Strengths/Weaknesses: School-specific survey results are valuable to participating schools. While county-level analysis is considered unreliable because randomized samples are not used, statewide results are viewed as more dependable.

Behavioral Risk Factor Surveillance System (BRFSS) Survey

Description: BRFSS is a state health survey that monitors risk behaviors related to chronic diseases, injuries, and death.

Sponsoring Organization/Source: Centers for Disease Control and Prevention (CDC) and the Indiana State Department of Health (ISDH)

Geographic Level: National and state; selected metropolitan/micropolitan areas

Availability: National and state data are available from the CDC at http://apps.nccd.cdc.gov/brfss/; selected area data can be accessed at http://apps.nccd.cdc.gov/brfss-smart/index.asp.

Trend: 1990–2007

Fatality Analysis Reporting System (FARS) and Automated Reporting Information Exchange System (ARIES)/Vehicle Crash Records System (VCRS)

Description: The FARS and ARIES/VCRS contain data on fatal traffic crashes, including motor vehicle crashes that result in the death of an occupant of a vehicle or a non-motorist within 30 days of the crash. Variables include annual numbers of crashes and vehicle deaths involving alcohol.

Sponsoring Organization/Source: U.S. Department of Transportation, National Highway Traffic Safety Administration (NHTSA), and the Indiana State Police

Geographic Level: National and state

Availability: Data are available from the NHTSA at http://www fars.nhtsa.dot.gov/Main/index.aspx and upon request from the Indiana State Police.

Trend: 1994–2007

Strengths/Weaknesses: The data are in aggregated format; comparisons by demographic variables such as age, gender, and race/ethnicity are not possible.

Hospital Discharge Data

Description: Hospital discharge data are collected and made publicly available in an aggregate format. Data can be queried on alcohol- and drug-induced diagnoses.

Sponsoring Organization/Source: Indiana State Department of Health

Geographic Level: Indiana

Availability: Annual data are available at http://www.in.gov/isdh/16889.htm.

Trend: 1999–2006

Strengths/Weaknesses: The data are in aggregated format; comparisons by demographic variables such as age, gender, and race/ethnicity are not possible.

Monitoring the Future (MTF) Survey

Description: MTF is an ongoing study of youth behaviors, attitudes, and values. Annually, approximately 50,000 students in 8th, 10th, and 12th grades are surveyed. Follow-up surveys are distributed to a sample of each graduating class for a number of years after initial participation.

Sponsoring Organization/Source: National Institute on Drug Abuse (NIDA) and National Institutes of Health (NIH)

Geographic Level: National

Availability: Data tables are available at http://www.monitoringthefuture.org/data/data.html.

Trend: 1991–2007

Strengths/Weaknesses: A limitation of the survey design is that the target population does not include students who drop out of high school before graduation.

National Clandestine Laboratory Seizure System (NCLSS)

Description: The NCLSS includes types, numbers, and locations of labs seized; precursor and chemical sources; and number of children affected and law enforcement officers involved. Data currently available include number of labs seized by county and total number of children affected by year.

Sponsoring Organization/Source: Drug Enforcement Administration (DEA), El Paso Intelligence Center (EPIC), and the Indiana State Police (ISP)

Geographic Level: National, state, and county

Availability: 1999–2006 data from EPIC and ISP lab seizure data are available on request. Indiana clandestine laboratory seizures can also be accessed at Indiana Criminal Justice Institute's website at http://www.in.gov/cji/2352.htm.

Trend: 1999–2006

National Survey on Drug Use and Health (NSDUH)

Description: NSDUH provides information on the prevalence, patterns, and consequences of alcohol, tobacco, and illegal drug use and abuse in the general population (age 12 and older).

Sponsoring Organization/Source: The Substance Abuse and Mental Health Services Administration (SAMHSA) Office of Applied Studies (OAS)

Geographic Level: National and state; sub-state data are available using small-area estimation techniques.

Availability: National and state data tables are available at the NSDUH website at http://nsduhweb.rti.org/.

Trend: National estimates are available for 1994–2006; state estimates are available for 1999–2006.

Strengths/Weaknesses: Publicly available NSDUH datasets do not allow for comparisons of Indiana and U.S. patterns of consumption by gender or race.

National Youth Tobacco Survey (NYTS) and Indiana Youth Tobacco Survey (IYTS)

Description: NYTS was developed by the CDC for use by states to design, implement, and evaluate the youth component of comprehensive tobacco control programs. The survey collects data from students in grades 6-12 regarding all types of tobacco use, exposure to secondhand smoke, access to tobacco products, knowledge and attitudes, media and advertising, school curriculum, and cessation. NYTS is the established standard in youth tobacco surveillance in the U.S. and Indiana and is critical to state tobacco control programs.

Sponsoring Organization/Source: Centers for Disease Control and Prevention and the Indiana Tobacco Prevention and Cessation Agency

Geographic Level: National and state

Availability: Detailed reports and highlights are available from ITPC at http://www.in.gov/itpc/ and on request.

Trend: 2000, 2002, 2004, 2006 (IYTS only)

Strengths/Weaknesses: The IYTS provides detailed statewide information regarding youth knowledge, attitudes, and behaviors. However, local-level data are not available.

National Vital Statistics System (NVSS) and Indiana Mortality Data

Description: NVSS collects mortality data by underlying causes of death, including alcohol-, tobacco-, and drug-induced deaths.

Sponsoring Organization/Source: Centers for Disease Control and Prevention/National Center for Health Statistics, and the Indiana State Department of Health

Geographic Level: National and state

Availability: National mortality data can be accessed by underlying cause of death (ICD-10 code) from CDC at http://wonder.cdc.gov/mortSQL.html; state data are available on request from Indiana State Department of Health.

Trend: 1999–2005 (online from CDC). Indiana data for other years are available on request from Indiana State Department of Health.

Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC)

Description: SAMMEC generates estimates on smoking-attributable outcomes such as mortality, years of potential life lost (YPLL), productivity losses, and expenditures.

Sponsoring Organization/Source: Centers for Disease Control and Prevention

Geographic Level: National and state

Availability: The database can be accessed at http://apps.nccd.cdc.gov/sammec/index.asp.

Trend: Based on 2001 data

Strengths/ Weaknesses: During periods where smoking prevalence is declining, the attributable-fraction methodology tends to understate the number of deaths caused by smoking. Conversely, when smoking prevalence is increasing, the AF formula may overstate the number of deaths. The relative risk estimates in Adult SAMMEC have been adjusted to account for the influence of age, but not for other risk factors, such as alcohol consumption. Although the sample population includes more than 1.2 million people, it is not representative of the U.S. population; it is somewhat more white and middle class. Productivity loss estimates

are also understated because they do not include the value of work missed due to smoking-related illness, other smoking-related absenteeism, excess work breaks, or the effects of secondhand smoke.

Treatment Episodes Data Set (TEDS)

Description: TEDS provides information on demographic and substance abuse characteristics of individuals in alcohol- and drug-abuse treatment. Data are collected by treatment episode. A treatment episode is defined as the period from the beginning of treatment services (admission) to termination of services.

Sponsoring Organization/Source: Substance Abuse and Mental Health Services Administration (SAMHSA) and the Indiana Division of Mental Health and Addiction (DMHA)

Geographic Level: National and state; county-level data available from DMHA upon special request.

Availability: 1999–2006 TEDS data were acquired from the Inter-university Consortium for Political and Social Research (ICPSR) at http://webapp.icpsr.umich.edu/.

Trend: 1999–2006; county-level data reported for 2007

Strengths/Weaknesses: In Indiana, these data are not representative of the state as a whole, as only individuals who are at or below the 200% poverty level are eligible for treatment at state-registered facilities.

Uniform Crime Reporting (UCR) Program: County-Level Detailed Arrest and Offense Data

Description: The UCR program provides a nationwide view of crime based on the submission of statistics by local law enforcement agencies throughout the country.

Sponsoring Organization/Source: United States Department of Justice, Federal Bureau of Investigation (FBI)

Geographic Level: National, state, and county

Availability: County-level counts of reported crime are downloadable from the National Archive of Criminal Justice Data website (http://www.icpsr.umich.edu/NACJD/ucr.html).

Trend: 1994–2005

Strengths/Weaknesses: Reporting of UCR data by jurisdictions across the state is often less than 100%.

Youth Risk Behavior Surveillance System (YRBSS)

Description: This national survey monitors health risks and behaviors among youth in grades 9 through 12.

Sponsoring Organization/Source: Centers for Disease Control (CDC) and the Indiana State Department of Health (ISDH)

Geographic Level: National, state

Availability: National and state-level data are downloadable from selected published tables on the CDC website at http://apps.nccd.cdc.gov/yrbss/.

Trend: For the nation, every other year from 1991 through 2005; Indiana data are available for 2003, 2005, and 2007.

Strengths/Weaknesses: At the state level, data by ethnicity (Hispanic) might not be available for some variables.

3. Alcohol Use in Indiana: Consumption Patterns and Consequences

ALCOHOL CONSUMPTION

General Consumption Patterns

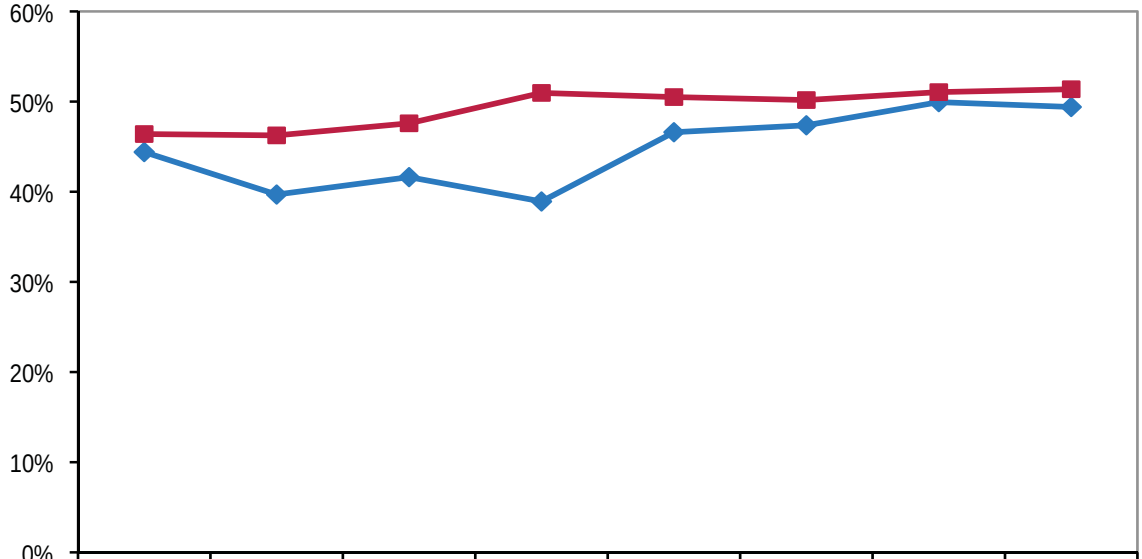
Alcohol is the most frequently used drug in both Indiana and the United States. In 2005, almost 10.2 million gallons of ethanol (the intoxicating agent in alcoholic beverages) were consumed in Indiana; this included 125,098,000 gallons of beer, 8,584,000 gallons of wine, and 8,354,000 gallons of spirits. The annual per capita consumption of ethanol for the population 14 years and older was 2.01 gallons in Indiana and 2.24 gallons in the nation (National Institute on Alcohol Abuse and Alcoholism, 2007).

In 2006, a total of 11,011 alcohol sales outlets were counted in Indiana. This represents a rate of 1.74 alcohol outlets per 1,000 Hoosiers. Most outlets were in Marion (1,577) and Lake (1,042) Counties (Alcohol and Tobacco Commission, 2007).

Based on 2005–2006 averages calculated from the National Survey on Drug Use and Health (NSDUH), the Substance Abuse and Mental Health Services Administration (SAMHSA, 2008) estimated that 49.40% (95% Confidence Interval [CI]: 46.26–52.54) of Indiana residents 12 years of age or older (2,549,000 residents) had used alcohol during the past month. SAMHSA estimated that 51.37% of the U.S. population had used alcohol in the past month. Although Indiana's current use[1] statistic seems to lie below the national rate, the difference is not significant. Similarly, rates of current use seem to have increased from 1999 to 2006 in Indiana; however, the difference is statistically insignificant (see Figure 3.1) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

One risky alcohol consumption pattern assessed by the NSDUH is *binge drinking*. The NSDUH defines

Figure 3.1 Percentage of Indiana and U.S. Population (12 years and Older) Reporting Current Alcohol Use, 1999 through 2006 (National Survey on Drug Use and Health, 1999–2006)



	1999	2000	2001	2002	2003	2004	2005	2006
Indiana	44.40%	39.69%	41.62%	38.92%	46.60%	47.37%	49.94%	49.40%
U.S.	46.40%	46.25%	47.59%	50.96%	50.50%	50.17%	51.05%	51.37%

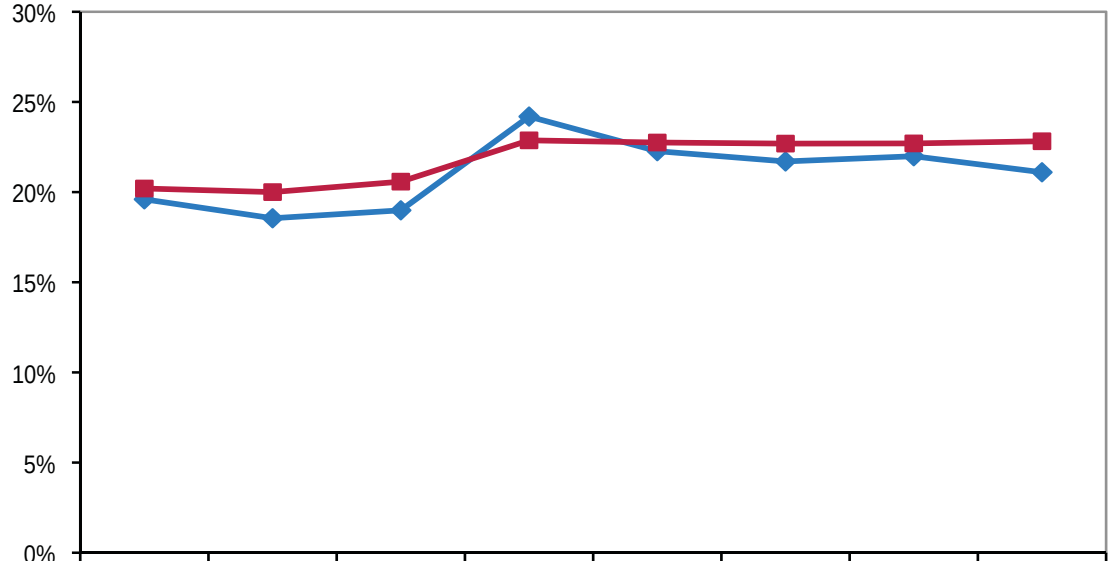
Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008

[1]Current alcohol use is defined as having used alcohol in the past 30 days or past month.

binge drinking as consumption of five or more alcoholic beverages on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least one day in the past month. Overall, the percentage of the Indiana population reporting *binge drinking* is similar to that of the national average, 21.10% (95% CI: 18.99–23.39) and 22.82%, respectively, for 2006 (see Figure 3.2) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Based on 2005–2006 NSDUH estimates, 40.04% (95% CI: 37.11–43.05) of Hoosiers 12 years and older (U.S.: 41.69%) perceive having five or more drinks of an alcoholic beverage once or twice a week to be a great risk. People's perception of risk seems to be inversely related to their actual rates of *binge drinking:* 18- to 25-year-olds who show the highest prevalence of binge drinking display the lowest rate of risk perception (30.23%; 95% CI: 27.12–33.53), followed by 12- to 17-year olds (37.33%; 95% CI: 33.95–40.83) and adults 26 years and older (42.19%; 95% CI: 38.51–45.96) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Figure 3.2 Percentage of Indiana and U.S. Population (12 years and Older) Reporting Binge Drinking in the Past 30 Days, 1999 through 2006 (National Survey on Drug Use and Health, 1999–2006)



	1999	2000	2001	2002	2003	2004	2005	2006
Indiana	19.60%	18.55%	18.99%	24.19%	22.27%	21.70%	21.99%	21.10%
U.S.	20.20%	20.00%	20.58%	22.87%	22.75%	22.69%	22.70%	22.82%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008

Adult Alcohol Consumption Patterns

Both the National Survey on Drug Use and Health (NSDUH) and the Behavioral Risk Factor Surveillance System (BRFSS) provide similar information on alcohol consumption patterns of adults (individuals age 18 or older). According to 2005–2006 NSDUH results, 61.42% of Americans between the ages of 18 and 25 report current alcohol use; the rate for Hoosiers is similar (61.56%; 95% CI: 57.77–65.22). Past-month consumption of alcohol was significantly lower for adults 26 years and older; national rates (54.03%) and Indiana rates (52.50%; 95% CI: 48.09–55.99) were similar (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

The 2007 BRFSS reports that the national adult prevalence rate for current alcohol use, 54.8%, is significantly higher than Indiana's rate of 50.4% (95% CI: 48.6–52.2). Rates are similar across younger age groups (ages 18 to 54) and start to decrease at age 55. When considering gender, it is evident that males have higher

prevalence rates (U.S.: 62.0%; IN: 58.7%) than females (U.S.: 47.9%; IN: 42.6%). In regard to race/ethnicity, current alcohol use is significantly higher for whites than for any other racial/ethnic group (U.S.: 58.4%; IN: 52.6%) (see Table 3.1) (Centers for Disease Control and Prevention, 2008a).

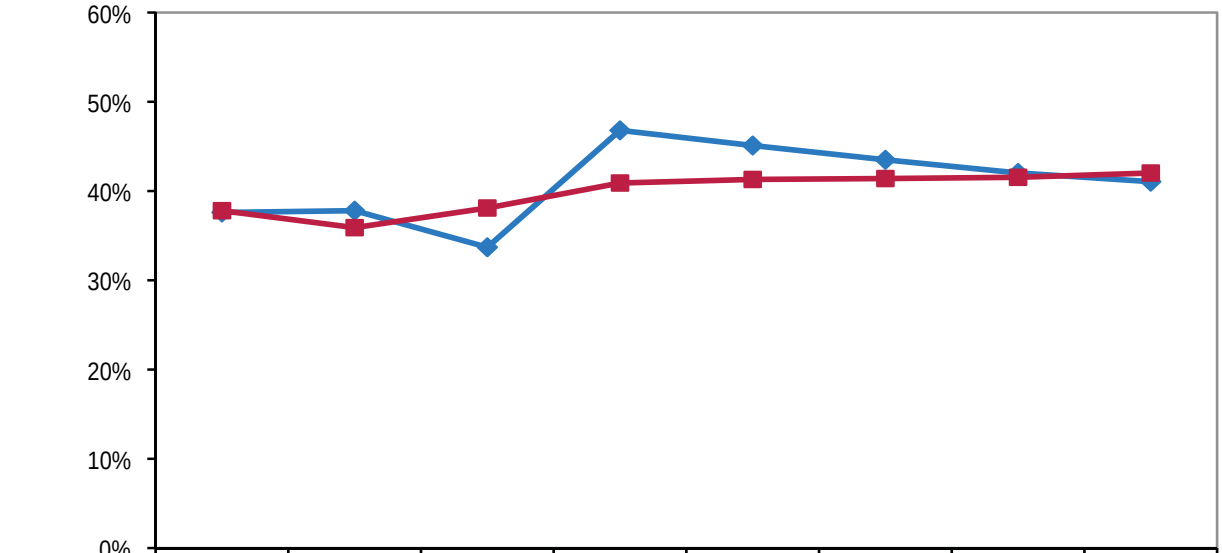
Binge drinking is particularly widespread among young adults. The most recent NSDUH results show that the highest prevalence rate is found for 18- to 25-year-olds (U.S.: 42.02%; IN: 41.05%). National and Indiana rates are statistically similar (see Figure 3.3). Among adults, *binge drinking* rates decrease with age; 19.19% (95% CI: 16.66–22.01) of Hoosiers 26 years and older report having consumed five or more drinks on the same occasion during the last 30 days (U.S.: 21.20%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Table 3.1 Percentage of Indiana and U.S. Residents Having Used Alcohol in the Past 30 Days (Behavioral Risk Factor Surveillance System, 2007)

		Indiana	U.S.
Gender	Male	58.7%	62.0%
	95% CI	55.8–61.6	
	Female	42.6%	47.9%
	95% CI	40.4–44.8	
Race	White	52.6%	58.4%
	95% CI	50.6–54.6	
	Black	39.7%	43.1%
	95% CI	32.8–46.6	
	Hispanic	35.6%	44.8%
	95% CI	25.6–45.6	
Total		**50.4%**	**54.8%**
	95% CI	**48.6–52.2**	

Note: CI = confidence interval
Source: Centers for Disease Control and Prevention, 2008a

Figure 3.3 Percentage of Indiana and U.S. 18- to 25-Year-Olds Reporting Binge Drinking in the Past 30 Days, 1999 through 2006 (National Survey on Drug Use and Health, 1999–2006)

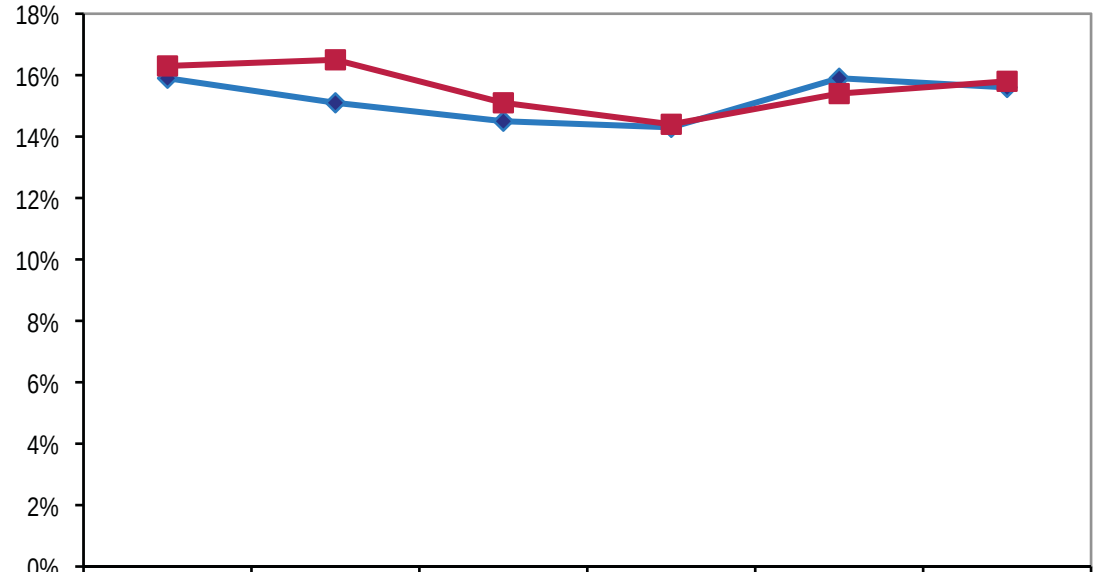


	1999	2000	2001	2002	2003	2004	2005	2006
Indiana	37.60%	37.80%	33.70%	46.80%	45.10%	43.50%	42.03%	41.05%
U.S.	37.80%	35.90%	38.10%	40.90%	41.30%	41.40%	41.54%	42.02%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008

The BRFSS examines *binge drinking* as well, but its definition varies slightly from NSDUH's description and takes gender into account. The BRFSS defines *binge drinking* as "males having five or more drinks on one occasion and females having four or more drinks on one occasion." The overall prevalence rate for adult *binge drinking* is similar between Indiana and the United States (U.S.: 15.8%; IN: 15.6%) and remained stable from 2002 through 2007 (see Figure 3.4). Younger individuals engaged in *binge drinking* at a greater rate than older people. The rate for males (U.S.: 21.2%; IN: 21.1%) is roughly twice as high as for females (U.S.: 10.1%; IN: 10.5%); no significant differences were found by race/ethnicity (see Table 3.2) (Centers for Disease Control and Prevention, 2008a).

Figure 3.4 Percentage of Indiana and U.S. Population (18 Years and Older) Reporting Binge Drinking in the Past 30 Days, 2002 through 2007 (Behavior and Risk Factor Surveillance System, 2002–2007)



	2002	2003	2004	2005	2006	2007
Indiana	15.9%	15.1%	14.5%	14.3%	15.9%	15.6%
U.S.	16.3%	16.5%	15.1%	14.4%	15.4%	15.8%

Source: Centers for Disease Control and Prevention, 2008a

Additionally, the BRFSS collects information on a measure called *heavy drinking.* The BRFSS defines *heavy drinking* as "adult men having more than two drinks per day and adult women having more than one drink per day." Overall rates for *heavy drinking* are similar between Indiana and the United States (U.S.: 5.2%; IN: 4.6%). Rates are higher for men (U.S.: 6.1%; IN: 6.4%) than for women (U.S.: 4.0%; IN: 2.9%). However, while male *heavy drinking* prevalence is statistically the same for Indiana and U.S. residents, it is significantly lower for female Hoosiers than their national counterparts. In regard to race/ethnicity, rates are similar between Indiana and the United States. The *heavy drinking* prevalence rate for whites in Indiana (4.9%; 95% CI: 3.9–5.9) is greater than for blacks (2.2%; 95% CI: 1.0–3.4); Hispanic rates are statistically no different from the rest of the population (4.1%; 95% CI: 0.3–7.8). No true difference was found across age groups (Centers for Disease Control and Prevention, 2008a).

Table 3.2 Percentage of Indiana and U.S. Residents Who Engaged in Binge Drinking in the Past 30 Days (Behavioral Risk Factor Surveillance System, 2007)

		Indiana	U.S.
Gender	Male	21.1%	21.2%
	95% CI	18.6–23.6	
	Female	10.5%	10.1%
	95% CI	8.7–12.3	
Race	White	16.1%	16.2%
	95% CI	14.5–17.7	
	Black	11.9%	10.5%
	95% CI	7.0–16.8	
	Hispanic	16.5%	15.0%
	95% CI	9.1–23.9	
Age	18-24	32.1%	27.4%
	95% CI	24.8–39.4	
	25-34	22.5%	22.5%
	95% CI	18.4–26.6	
	35-44	17.2%	18.8%
	95% CI	14.3–20.1	
	45-54	13.4%	13.8%
	95% CI	11.0–15.8	
	55-64	7.1%	9.0%
	95% CI	5.3–8.9	
	65+	3.1%	3.5%
	95% CI	1.9–4.3	
Total		**15.6%**	**15.8%**
	95% CI	**14.0–17.2**	

Note: CI = confidence interval
Source: Centers for Disease Control and Prevention, 2008a

Youth Alcohol Consumption Patterns

Various patterns of alcohol consumption among youth have been examined using data provided by the Youth Risk Behavior Surveillance System, or YRBSS (Centers for Disease Control and Prevention, 2008b), the NSDUH (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008), the Monitoring the Future survey, or MTF (Inter-university Consortium for Political and Social Research, University of Michigan, n.d.), and the Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) survey (Indiana Prevention Resource Center, 2008), a nonrandom survey of Indiana students modeled after the MTF. All of these report on alcohol consumption behaviors in middle and/or high school students.

In 2007, 43.9% (95% CI: 39.4–48.5) of high school students in Indiana had consumed at least one alcoholic drink in the past 30 days. The rate has remained stable from 2003 until now, and no significant differences by gender were observed. However, differences by race/ethnicity and grade level exist. Whites (44.9%; 95% CI: 39.9–50.1) and Hispanics (49.4%; 95% CI: 40.8–58.0) have higher prevalence rates than blacks (29.3%; 95% CI: 22.9–36.6). Also, the rate for past-month alcohol use is greater among 12th grade students (59.1%; 95% CI: 51.1–66.7) than for students in lower grades. Past-month alcohol prevalence among high school students is similar between Indiana and the nation (Centers for Disease Control and Prevention, 2008b).

According to the most recent NSDUH estimates, approximately 80,000 young people ages 12 to 17, or 14.57% (95% CI: 12.39–17.06), have consumed alcohol in the past 30 days in Indiana; the rate is similar on the national level (16.58%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Information on alcohol consumption from the MTF is based on responses by U.S. students in the 8th, 10th, and 12th grades. In 2007, 15.9% of 8th graders, 33.4% of 10th graders, and 44.4% of 12th graders reported they had used alcohol in the past month. This represents a reduction in prevalence from the previous year for all three grade levels (Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). Results from Indiana's annual school survey show that 19.9% of 8th graders, 31.1% of 10th graders, and 39.7% of 12th graders consumed alcohol in the past 30 days. Indiana rates also dropped from 2006 to 2007 for 8th, 10th, and 12th grade students (Indiana Prevention Resource Center, 2008).[2]

Among high school students in Indiana, 28.2% (95% CI: 23.4–33.6) said they had five or more alcoholic drinks within a couple of hours at least once in the past month in 2007. Rates were similar for males and females. Whites (30.0%; 95% CI: 24.9–35.7) and Hispanics (34.9%; 95% CI: 28.0–42.5) had significantly higher rates than blacks (10.7%; 95% CI: 7.3–15.5). More high school seniors (39.7%; 95% CI: 29.6–50.7) engaged in binge

[2]The ATOD survey is based on a nonrandom sample of Indiana students and therefore not necessarily representative of all Indiana students. Comparisons between results from the ATOD and other surveys (e.g., MTF or BRFSS) should be interpreted with caution.

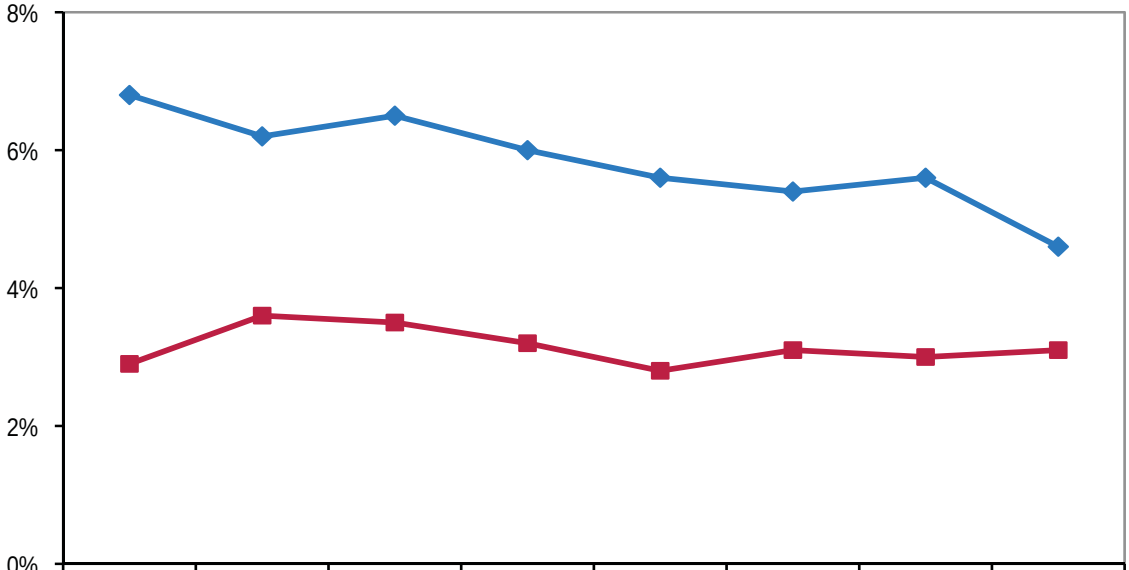
drinking than freshmen (22.1%; 95% CI: 18.0–26.8) (Centers for Disease Control and Prevention, 2008b).

Results from the 2005–2006 NSDUH reveal that about 49,000 Indiana youths ages 12 to 17 engaged in binge drinking in the past month; the state's prevalence for this age group, 9.03% (95% CI: 7.40–10.98), is similar to the nation's (10.10%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Daily alcohol use, as defined by the MTF and ATOD surveys, refers to the consumption of at least one alcoholic beverage on 20 or more days in the last month. On the national level, daily alcohol consumption increased from 0.5% in 2006 to 0.6% in 2007 among 8th grade students and remained stable for 10th graders (1.4%) and 12th graders (3.1%) (Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). In Indiana, daily alcohol use rates remained stable for 8th graders (1.8%) and 10th graders (3.4%), and decreased for 12th grade students (4.6%) (see Figure 3.5) (Indiana Prevention Resource Center, 2008).[3]

Overall alcohol consumption patterns seem to progress with age; i.e., 8th grade students show lower prevalence rates than 10th and 12th grade students. Comparisons between students in Indiana and the United States suggest higher prevalence rates among Hoosier 8th graders, but lower rates among 10th and 12th grade students, except for daily alcohol use, which seems to be higher in Indiana (see Figure 3.6). (For lifetime, annual, monthly, daily, and binge use by Indiana region and grade for 2008, see Appendix 3A, page xx). Indiana students initiate alcohol use, on average, at the age of 13.0 years (Indiana Prevention Resource Center, 2008).

Figure 3.5 Percentage of Indiana and U.S. High School Seniors (12th Grade) Reporting Daily Alcohol Use, 2000 through 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2000–2007)

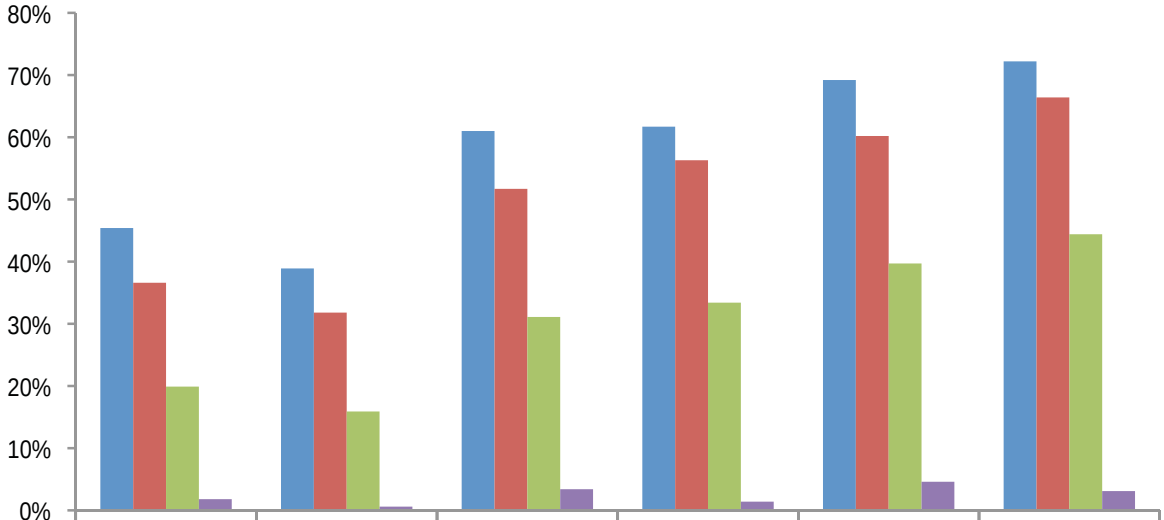


	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	6.8%	6.2%	6.5%	6.0%	5.6%	5.4%	5.6%	4.6%
U.S.	2.9%	3.6%	3.5%	3.2%	2.8%	3.1%	3.0%	3.1%

Note: Comparisons between national data (MTF) and Indiana data (ATOD survey) should be interpreted with caution as the ATOD survey is based on a nonrandom sample of Indiana students.
Source: Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

[2]The ATOD survey is based on a nonrandom sample of Indiana students and therefore not necessarily representative of all Indiana students. Comparisons between results from the ATOD and other surveys (e.g., MTF or BRFSS) should be interpreted with caution.

Figure 3.6 Percentage of Indiana and U.S. 8th, 10th, and 12th Grade Students Reporting Lifetime, Annual, Monthly, and Daily Alcohol Use, 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2007)



	Indiana	U.S.	Indiana	U.S.	Indiana	U.S.
	8th Grade		10th Grade		12th Grade	
Lifetime	45.4%	38.9%	61.0%	61.7%	69.2%	72.2%
Annual	36.6%	31.8%	51.7%	56.3%	60.2%	66.4%
Monthly	19.9%	15.9%	31.1%	33.4%	39.7%	44.4%
Daily	1.8%	0.6%	3.4%	1.4%	4.6%	3.1%

Note: Comparisons between national data (MTF) and Indiana data (ATOD survey) should be interpreted with caution as the ATOD survey is based on a nonrandom sample of Indiana students.
Source: Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

The NSDUH provides additional prevalence estimates for current alcohol use and binge drinking by individuals below the legal drinking age of 21. Based on 2005–2006 estimates, 26.91% (95% CI: 24.33–29.64) of young Hoosiers between 12 and 20 had used alcohol in the past month. Indiana's prevalence rate is similar to the U.S. rate of 28.29%. Also, 18.52% (95% CI: 16.40–20.85) of minors had engaged in binge drinking at least once in the past 30 days (U.S.: 18.87%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

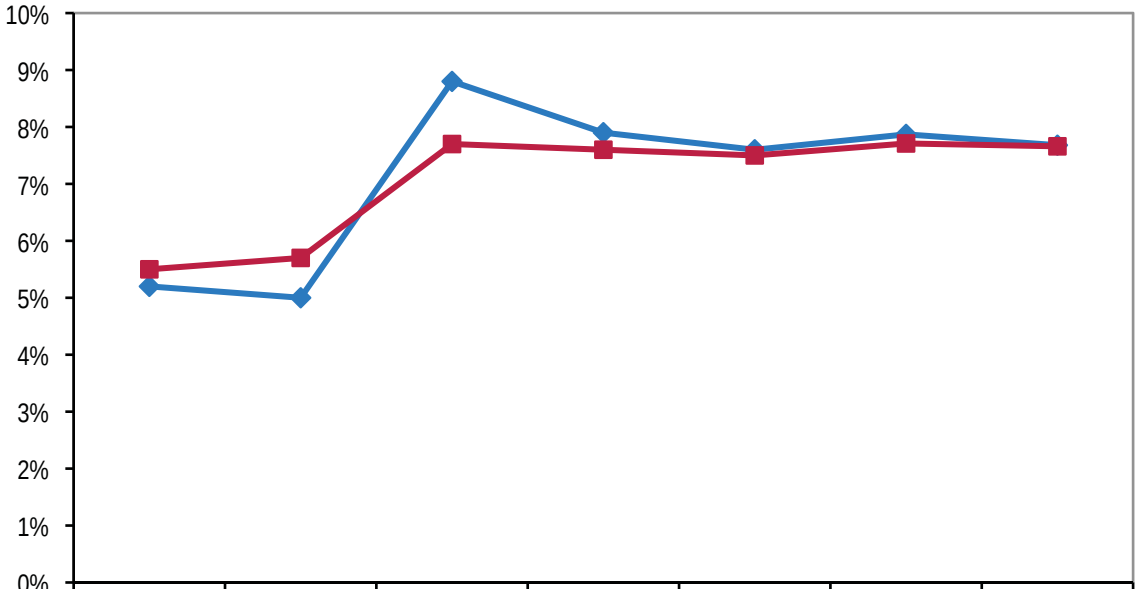
CONSEQUENCES

Alcohol use is a major factor in homicides, suicides, violent crimes, and motor vehicle crashes. Heavy alcohol use can lead to serious patterns of abuse and/or dependence and is associated with other unsafe behaviors such as smoking cigarettes, illicit drug use, and risky sex. Chronic alcohol use can lead to the development of cirrhosis and other serious liver diseases.

Alcohol Abuse and Dependence

The most recent estimated prevalence for alcohol abuse and/or alcohol dependence in Indiana is 7.68% (95% CI: 6.60–8.92), which is similar to the national estimate (7.66%). At least since 2000, Indiana's alcohol abuse/dependence prevalence estimates have been similar to U.S. rates (see Figure 3.7). Of all age groups, adults ages 18 to 25 reported the highest prevalence rates both in Indiana and nationally across all years reviewed. Additionally, an estimated 7.31% (95% CI: 6.23–8.57) are in need of but do not receive treatment for alcohol use in Indiana (U.S.: 7.30%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Figure 3.7 Percentage of Indiana and U.S. Population with Alcohol Abuse and/or Dependence, 2000 through 2006 (National Survey on Drug Use and Health, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana	5.20%	5.00%	8.80%	7.90%	7.60%	7.87%	7.68%
U.S.	5.50%	5.70%	7.70%	7.60%	7.50%	7.71%	7.66%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008

Based on findings from the Treatment Episode Data Set (TEDS), alcohol plays a major role in admissions to substance abuse treatment. In over two-thirds (70.4%) of treatment episodes in 2006, alcohol use was reported in Indiana. This is a significantly higher proportion than for the rest of the United States (60.5%; $P < 0.001$). Similarly, the percentage of treatment episodes in which alcohol was indicated as the primary substance of abuse was greater in Indiana (IN: 46.4%; U.S.: 39.5%; $P < 0.001$) (see Figure 3.8). These differences between Indiana and the rest of the United States regarding alcohol abuse and dependence among the treatment population have been true for the past seven years (from 2000 to 2006) (Substance Abuse and Mental Health Data Archive, 2008).

Factors associated with alcohol abuse and dependence[4] in Indiana include gender, age, and race/ethnicity (findings from the 2006 TEDS dataset):

Gender—More than half of the males (51.1%) indicated alcohol was their primary substance, compared to 37.2% of females ($P < 0.001$).

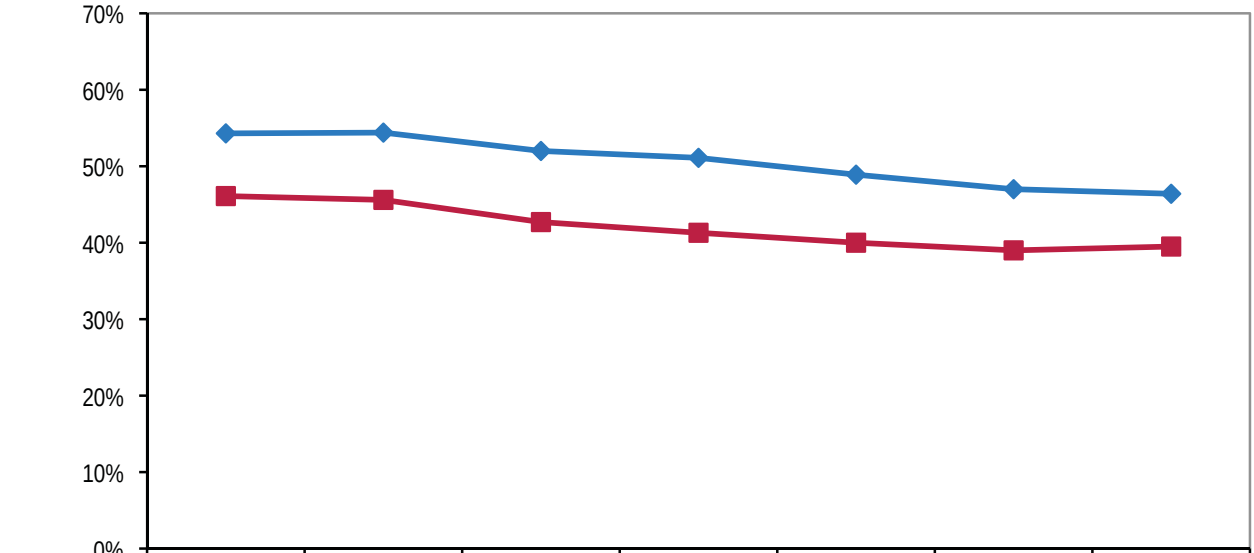
Age—Adults age 18 and older had higher rates of alcohol dependence (47.2%) compared to persons 17 years and younger (26.3%; $P < 0.001$). When looking at individual age groups it becomes evident that the percentage reporting alcohol abuse or dependence tends to increase with age. Table 3.3 depicts the percentage of Indiana residents, by age group, seeking treatment for alcohol abuse and dependence ($P < 0.001$).

Race/ethnicity—Roughly one-third of blacks (36.1%) said alcohol was their primary substance; this percentage is below that for whites (48.2%) and other races (54.5%) ($P < 0.001$). In regard to ethnicity, a significantly higher percentage of Hispanics (57.9%) reported alcohol dependence than non-Hispanics (45.9%) ($P < 0.001$).

See Appendix 3B for county-level treatment data, page 43.

[4]We defined alcohol dependence as cases in which alcohol was indicated as the primary substance of abuse.

Figure 3.8 Substance Abuse Treatment Admissions for Alcohol (in Percentages) for Indiana and U.S. Patients, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana	54.3%	54.4%	52.0%	51.1%	48.9%	47.0%	46.4%
U.S.	46.1%	45.6%	42.7%	41.3%	40.0%	39.0%	39.5%

Note: Alcohol is indicated as primary substance of abuse.
Source: Substance Abuse and Mental Health Data Archive, 2008

Table 3.3 Percentage of Indiana Residents in Substance Abuse Treatment Who Reported Alcohol Use and Dependence at Admission, by Age Group, 2006 (Treatment Episode Data Set, 2006)

Age Group	Alcohol Use	Alcohol Dependence
Under 18	63.2%	26.3%
18-24	68.0%	39.1%
25-34	65.7%	40.4%
35-44	73.7%	52.4%
45-54	78.9%	62.5%
55 and over	81.5%	69.6%

Note: We defined alcohol dependence as "individuals reporting alcohol to be their primary substance at the time of their substance abuse treatment admission."
Source: Substance Abuse and Mental Health Data Archive, 2008.

Alcohol-Related Morbidity and Mortality

Hospital discharge records show that in 2006, 877 inpatient treatments for alcohol psychoses and alcohol dependence occurred in Indiana hospitals. This represents one-half percent (0.5%) of all hospital discharges (Indiana State Department of Health, n.d.). An additional 3,385 statewide outpatient visits were recorded for these alcohol-related diagnoses (Data Analysis Team, Public Health System Development and Data Commission, 2008).

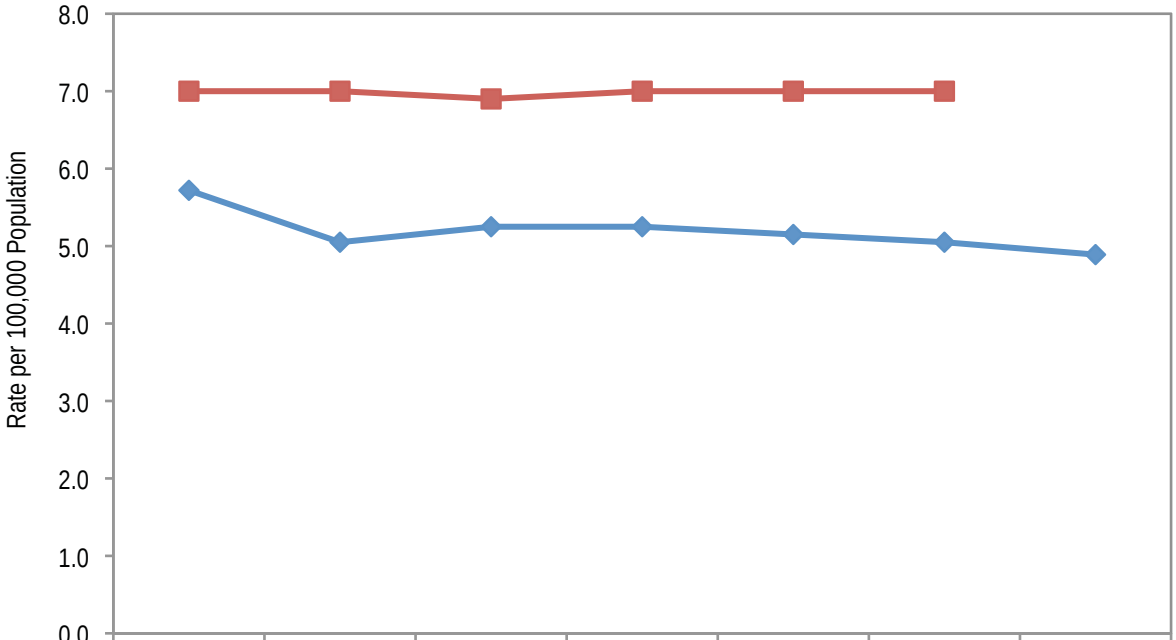
The list of ICD-10[5] codes for alcohol-induced causes of death was expanded in 2003 to be more comprehensive. Causes of death attributable to alcohol include alcohol-induced pseudo-Cushing's syndrome; mental and behavioral disorders due to alcohol use; degeneration of the nervous system due to alcohol; alcoholic polyneuropathy; alcoholic myopathy; alcoholic cardiomyopathy; alcoholic gastritis; alcoholic liver

[5]ICD-10 = international classification of diseases and related health problems, 10th revision. These codes are used to classify underlying causes of death in the United States. More information on the codes can be found at the World Health Organization (WHO) Web site at http://www.who.int/classifications/apps/icd/icd10online/.

disease; alcohol-induced chronic pancreatitis; finding of alcohol in blood; accidental poisoning by and exposure to alcohol; intentional self-poisoning by and exposure to alcohol; and poisoning by and exposure to alcohol with undetermined intent. Excluded are accidents, homicides, and other causes indirectly related to alcohol use, and newborn deaths associated with maternal alcohol use (Epidemiology Resource Center, Data Analysis Team, 2008).[6]

From 2000 to 2006, a total of 2,275 Hoosiers died from alcohol-induced causes. The age-adjusted mortality rate for alcohol-attributable deaths remained stable during that period; the rates of 5.7 (95% CI: 5.1–6.3) per 100,000 population in 2000 and 4.9 (95% CI: 4.4–5.4) in 2006 are statistically the same (Epidemiology Resource Center, Data Analysis Team, 2008). The U.S. alcohol-attributable age-adjusted mortality rate has also been stable over the years and continues to exceed Indiana's rate (7.0 per 100,000 population; 95% CI: 6.9–7.1) (see Figure 3.9) (Centers for Disease Control and Prevention, n.d.). (For alcohol-attributable deaths by county, see Map 3.1, page 49.)

Figure 3.9 Age-Adjusted Alcohol-attributable Mortality Rates per 100,000 Population in Indiana and the United States, 2000 through 2006 (CDC Wonder and Indiana Mortality Data, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana	5.7	5.1	5.3	5.3	5.2	5.1	4.9
U.S.	7.0	7.0	6.9	7.0	7.0	7.0	

Note: U.S. rate for 2006 is not available yet.
Source: Centers for Disease Control and Prevention, n.d.; Epidemiology Resource Center, Data Analysis Team, 2008

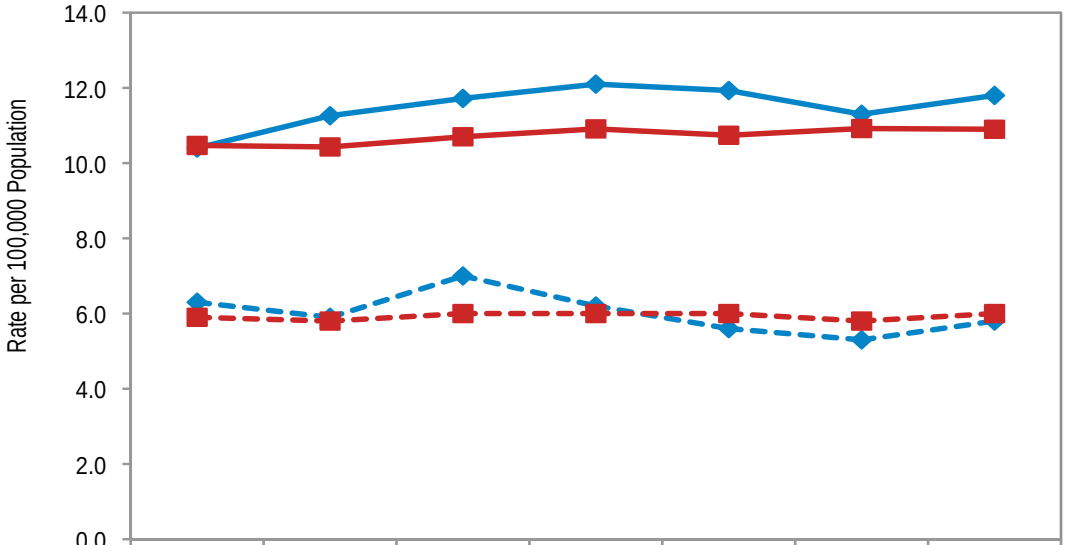
[6]Alcohol-induced causes of death include the following ICD-10 codes: E24.4, F10, G31.2, G62.1, G72.1, I42.6, K29.2, K70, K86.0, R78.0, X45, X65, Y15.

Though alcohol use is not associated with every suicide and homicide, these violent acts often involve individuals who have been drinking. According to the Alcohol-Related Disease Impact (ARDI) database, the direct alcohol-attributable fraction for suicides and homicides in Indiana and in the nation is 23% and 47%, respectively. In other words, 23% of suicides and 47% of homicides can be attributed to alcohol consumption (Centers for Disease Control and Prevention, 2004). (For a list of diseases that are heavily impacted by alcohol and their alcohol-attributable fraction, see Appendix 3C, page xx.) For this reason, intentional self-harm (suicide)[7] and assault (homicide)[8] rates may provide additional information on alcohol's impact in a community.

Indiana's age-adjusted mortality rates for suicide remained stable from 1999 (10.4 per 100,000 population; 95% CI: 9.6–11.2) to 2005 (11.8 per 100,000 population; 95% CI: 11.0–12.6) and are similar to U.S. rates (see Figure 3.10). In 2005, rates were significantly higher for males (20.5 per 100,000 population; 95% CI: 18.9–22.1) than for females (3.9 per 100,000 population; 95% CI: 3.2–4.6). Rates in 2005 were also significantly higher for whites (12.6 per 100,000 population; 95% CI: 11.7–13.5) than for blacks (5.4 per 100,000 population; 95% CI: 3.5–7.3) in Indiana.

Age-adjusted homicide death rates remained stable in Indiana from 1999 (6.3 per 100,000 population; 95% CI: 5.7–6.9) to 2005 (5.8 per 100,000 population; 95% CI: 5.2–6.4) and are similar to U.S. rates (see Figure 3.10). In 2005, rates were significantly higher for males (8.4 per 100,000 population; 95% CI: 7.4–9.4) than for females (3.1 per 100,000 population; 95% CI: 2.5–3.7). Rates in 2005 were also significantly higher for blacks (29.5 per 100,000 population; 95% CI: 25.2–33.8) than for whites (3.2 per 100,000 population; 95% CI: 2.7–3.7) in Indiana (Centers for Disease Control and Prevention, n.d.).

Figure 3.10 Age-Adjusted Mortality Rates, per 100,000 Population, for Intentional Self-Harm (Suicide) and Assault (Homicide), Indiana and the United States, 1999 through 2005 (CDC Wonder)



	1999	2000	2001	2002	2003	2004	2005
Suicide Indiana	10.4	11.3 1	1.7	12.1	11.9 1	1.3	11.8
Suicide U.S.	10.5	10.4	10.7	10.9	10.7	10.9	10.9
Homicide Indiana	6.3	5.9	7.0	6.2	5.6	5.3	5.8
Homicide U.S.	5.9	5.8	6.0	6.0	6.0	5.8	6.0

Note: ICD-10 codes for intentional self-harm (suicide) include X60-X84; ICD-10 codes for assault (homicide) include X85-Y09.
Source: Centers for Disease Control and Prevention, n.d.

[7]Intentional self-harm (suicide) includes ICD-10 codes X60-X84.
[8]Assault (homicide) includes ICD-10 codes X85-Y09.

Alcohol consumption during pregnancy is another major concern since fetal alcohol spectrum disorders (FASD) are a direct result of prenatal exposure to alcohol. FASD is not a clinical diagnosis, but an umbrella term used to describe a range of disorders such as fetal alcohol syndrome (FAS), alcohol-related neurodevelopmental disorder (ARND), and alcohol-related birth defects (ARBD). Possible physical effects include brain damage; facial anomalies; growth deficiencies; defects of heart, kidney, and liver; vision and hearing problems; skeletal defects; and dental abnormalities. In the United States, the prevalence of fetal alcohol spectrum disorders is 10.0 per 1,000 live births (Substance Abuse and Mental Health Services Administration, Fetal Alcohol Spectrum Disorders Center for Excellence, 2007). The Indiana Birth Defects and Problems Registry collects information on birth defects and birth problems for all children in Indiana from birth to 3 years old (5 years old for autism and fetal alcohol syndrome). State law requires doctors, hospitals, and other healthcare providers to submit a report to the registry at the Indiana State Department of Health when a child is born with a birth defect. The number of children born with fetal alcohol syndrome[9] dropped from 26 in 2003 to 14 in 2006. Based on data from the Indiana Birth Defects and Problems Registry, the rate for a fetus to be affected by maternal alcohol use is 2.53 per 10,000 live births (Indiana State Department of Health, n.d.).

Alcohol-Related Motor Vehicle Accidents

According to the Fatality Analysis Reporting System (FARS), a total of 817 fatal crashes occurred in Indiana in 2006, of which 291 (or 36%) were alcohol-related (U.S.: 15,945 alcohol-related fatal crashes, 41%) (National Highway Traffic Safety Administration, n.d.). Even though most fatal collisions happened during the late afternoon and evening hours, the highest percentage of crashes attributable to alcohol occurred at nighttime, especially between midnight and 3 a.m. Moreover, 45% of all single-vehicle fatal crashes were alcohol-related, as compared to 24% of all multiple-vehicle accidents (see Table 3.4).

Table 3.4 Number of Fatal Crashes and Percent Alcohol-Related in Indiana, by Time of Day and Crash Type, 2006 (Fatality Analysis Reporting System, 2006)

	Crash Type								
	Single Vehicle			Multiple Vehicle			All Crashes		
Time of Accident	Total	Alcohol-Related	Percent Alcohol-Related	Total	Alcohol-Related	Percent Alcohol-Related	Total	Alcohol-Related	Percent Alcohol-Related
Midnight to 2:59 a.m.	73	51	70%	25	17	67%	98	68	69%
3 a.m. to 5:59 a.m.	72	48	66%	19	6	33%	91	54	59%
6 a.m. to 8:59 a.m.	40	14	36%	48	4	8%	88	18	20%
9 a.m. to 11:59 a.m.	22	2	11%	48	2	4%	70	4	6%
Noon to 2:59 p.m.	46	7	16%	69	7	10%	115	14	12%
3 p.m. to 5:59 p.m.	48	11	22%	66	16	24%	114	27	23%
6 p.m. to 8:59 p.m.	65	25	39%	59	20	33%	124	45	36%
9 p.m. to 11:59 p.m.	89	47	52%	28	15	53%	117	62	53%
Total	**455**	**205**	**45%**	**362**	**87**	**24%**	**817**	**291**	**36%**

Source: National Highway Traffic Safety Administration, n.d.

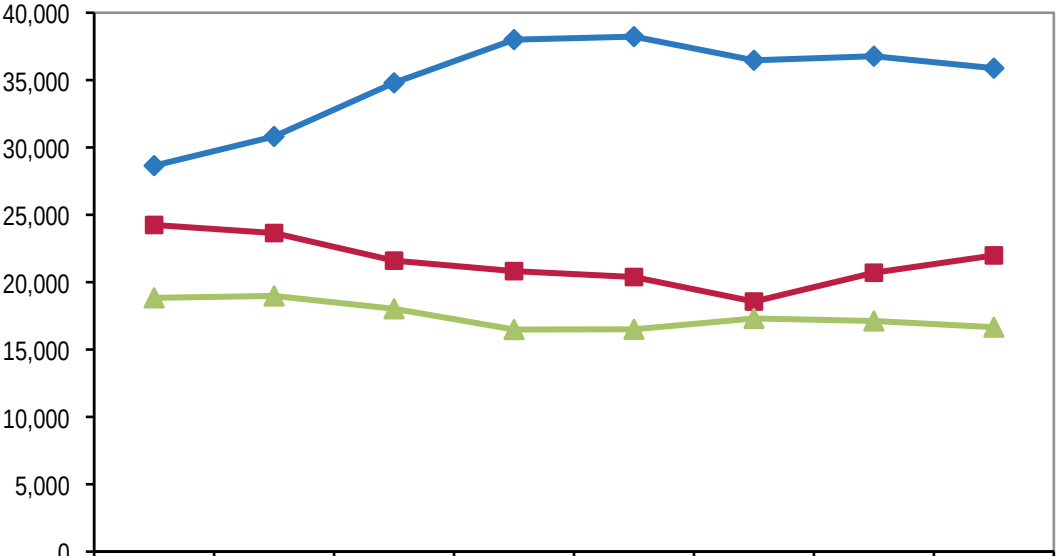
[9]The ICD-9 code for fetal alcohol syndrome is 760.71.

Data from the Automated Reporting Information Exchange System (ARIES), part of the Indiana State Police's Vehicle Crash Records System, show a decrease in alcohol-related collisions from 13,911 in 2003 to 9,935 in 2007. This represents an almost 30% drop. However, the number of fatalities in these crashes attributable to alcohol increased from 242 to 251. (For a detailed listing of alcohol-related collisions and fatalities in Indiana by county for 2007, see Appendix 3D, pages 44-46). The overall rate for alcohol-related collisions in Indiana in 2007 was 1.57 per 1,000 population; the lowest rate was found in Scott County (0.63 per 1,000 population) and the highest rate was found in White County (2.64 per 1,000 population) (Indiana State Police, 2008).

Alcohol-Related Crimes

Using the Uniform Crime Reporting (UCR) dataset, we compared alcohol-related offenses, including arrests for driving under the influence (DUI), public intoxication, and liquor law violations, between Indiana and the United States (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). In 2006, roughly 36,000 arrests were made for driving under the influence (DUI). The DUI arrest rate was significantly higher in Indiana, 5.68 (95% CI: 5.63–5.74), than the United States, 4.11 (95% CI: 4.10–4.11), per 1,000 population. Almost 22,000 Hoosiers were arrested for public intoxication; the arrest rate was more than twice as high for Indiana, 3.48 per 1,000 population (95% CI: 3.44–3.53), than for the nation, 1.65 (95% CI: 1.65–1.65), per 1,000 population. Additionally, over 16,000 arrests occurred for liquor law violations in Indiana, representing an arrest rate of 2.64 (95% CI: 2.60–2.68) per 1,000 population, which was significantly higher than the U.S. rate of 1.89 (95% CI: 1.89–1.90) (see Figures 3.11–3.14). Alcohol-related crimes vary somewhat among Indiana counties. These county differences are presented in Maps 3.2 through 3.4 (pages 50-52) and Appendix 3E (pages 47-48).

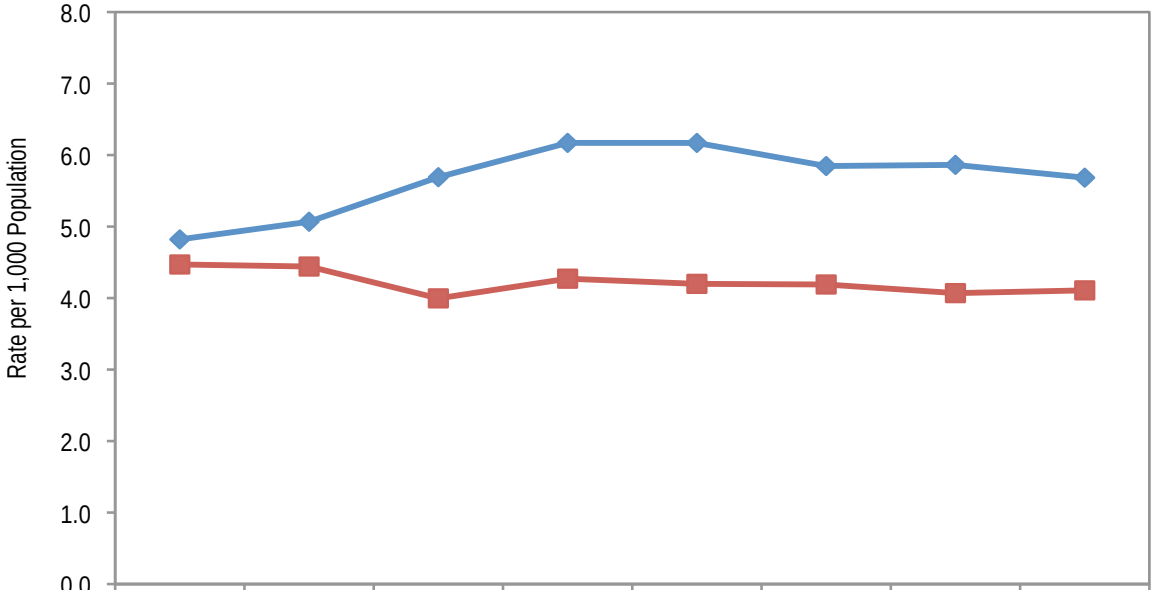
Figure 3.11 Number of Arrests for Driving Under the Influence (DUI), Public Intoxication, and Liquor Law Violations in Indiana (Uniform Crime Reporting Program, 1999–2006)



	1999	2000	2001	2002	2003	2004	2005	2006
DUI	28,649	30,814	34,797	38,003	38,226	36,469	36,772	35,884
Public Intoxication	24,247	23,647	21,598	20,820	20,382	18,562	20,701	21,987
Liquor Law Violations	18,837	18,980	18,024	16,484	16,502	17,307	17,119	16,659

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

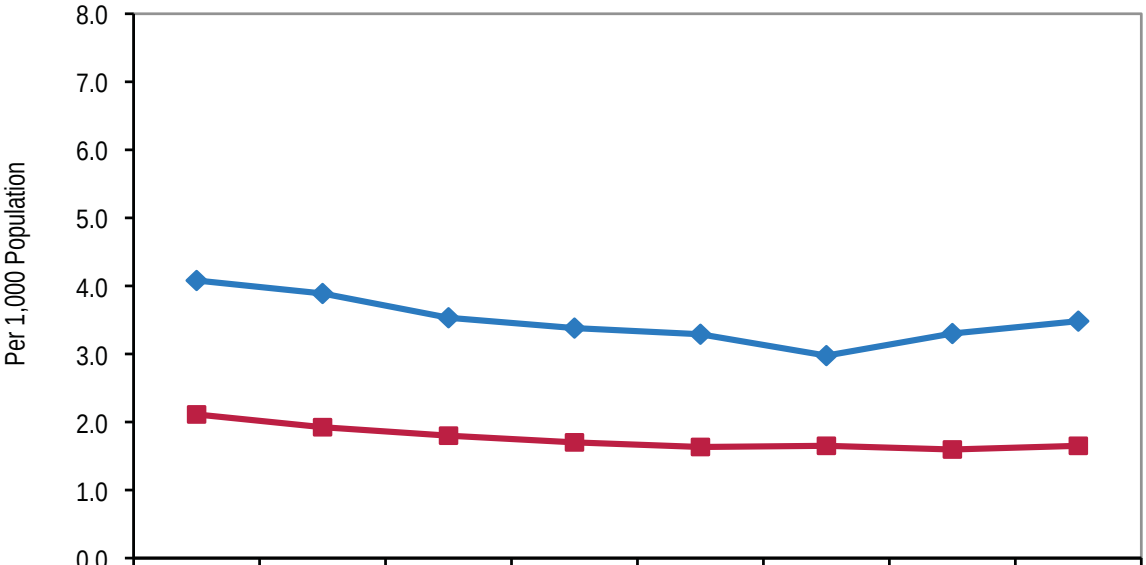
Figure 3.12 Arrest Rates, per 1,000 Population, for Driving Under the Influence (DUI) in Indiana and the United States, 1999 through 2006 (Uniform Crime Reporting Program, 1999–2006)



	1999	2000	2001	2002	2003	2004	2005	2006
Indiana	4.82	5.07	5.69	6.17	6.17	5.85	5.86	5.68
U.S.	4.47	4.44	4.00	4.27	4.20	4.19	4.07	4.11

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

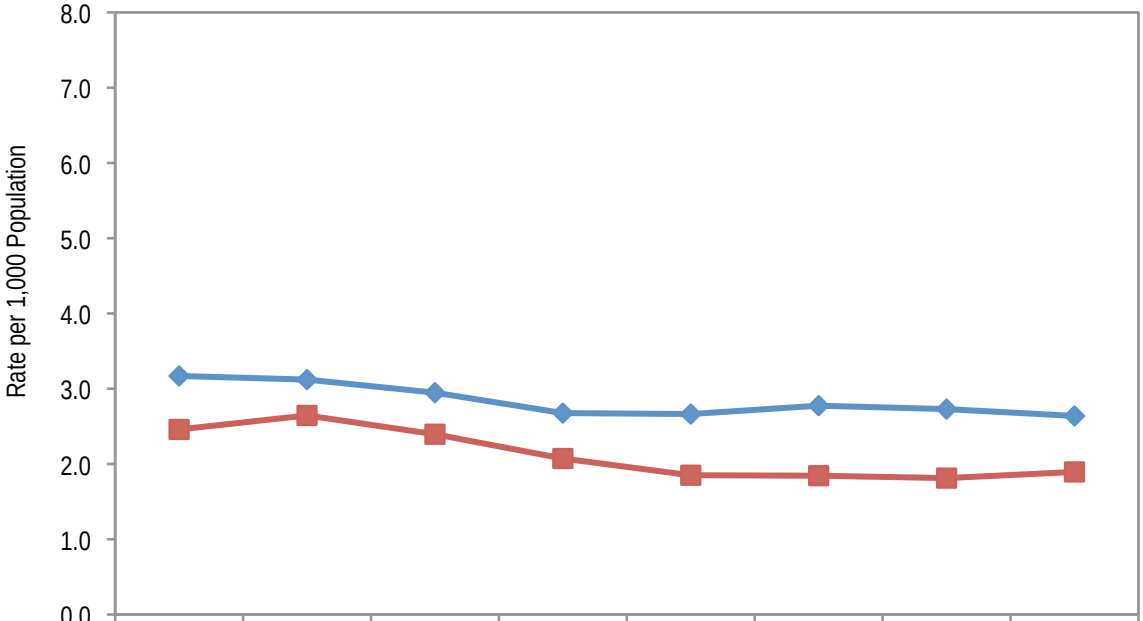
Figure 3.13 Arrest Rates, per 1,000 Population, for Public Intoxication in Indiana and the United States, 1999 through 2006 (Uniform Crime Reporting Program, 1999–2006)



	1999	2000	2001	2002	2003	2004	2005	2006
Indiana	4.08	3.89	3.53	3.38	3.29	2.98	3.30	3.48
U.S.	2.11	1.92	1.80	1.70	1.63	1.65	1.60	1.65

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Figure 3.14 Arrest Rates, per 1,000 Population, for Liquor Law Violation in Indiana and the United States, 1999 through 2006 (Uniform Crime Reporting Program, 1999–2006)



	1999	2000	2001	2002	2003	2004	2005	2006
Indiana	3.17	3.12	2.95	2.68	2.66	2.77	2.73	2.64
U.S.	2.46	2.65	2.40	2.07	1.85	1.84	1.81	1.89

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Economic Costs

A study released by the National Institute on Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism, two of the 18 Institutes that comprise the National Institutes of Health, estimates that the economic cost of alcohol abuse was more than $148 billion in 1992, the most recent year for which sufficient data were available. Most of these costs were due to lost productivity ($107 billion), legal and social consequences ($22.2 billion), and healthcare expenditures ($18.8 billion).

Much of the economic burden of alcohol abuse falls on society. About 45 percent of the cost of alcohol abuse is borne by alcohol abusers and members of their households; 39 percent by federal, state, and local governments; 10 percent by private insurance; and 6 percent by victims of alcohol abusers (National Institute on Alcohol Abuse and Alcoholism, n.d.; National Institute on Drug Abuse, National Institute on Alcohol Abuse and Alcoholism, 1998).

APPENDIX 3A

Percentage of Indiana Students Reporting Lifetime, Annual, Monthly, Daily, and Binge Alcohol Use, by Region and Grade, 2008 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2008)[10]

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	21.2	21.6	21.9	15.7	22.8	15.4	23.3	22.5	26.2
	Annual	14.5	15.0	15.9	10.9	15.6	10.3	16.2	15.2	17.7
	Monthly	6.3	6.5	6.4	4.3	6.7	4.3	7.0	6.0	8.8
	Daily	0.3	0.2	0.2	0.1	0.5	0.2	0.5	0.2	0.4
	Binge	4.2	4.8	4.1	2.8	4.5	3.0	4.4	3.7	5.6
7th Grade	Lifetime	29.8	34.5	29.5	22.5	29.3	24.5	32.1	28.1	37.8
	Annual	22.6	26.6	21.6	17.7	22.1	18.0	25.1	21.0	29.7
	Monthly	11.2	13.7	11.3	7.9	10.9	7.8	13.2	10.1	15.7
	Daily	0.8	0.9	0.9	0.6	0.7	0.5	1.2	0.7	1.0
	Binge	7.5	9.3	7.6	5.7	7.5	4.9	10.2	6.4	9.7
8th Grade	Lifetime	44.0	48.3	41.8	33.9	43.2	38.0	47.0	43.3	51.0
	Annual	35.7	40.0	33.8	27.5	34.3	30.0	38.5	35.0	42.0
	Monthly	18.8	21.7	18.4	13.9	18.1	15.1	21.0	17.5	22.5
	Daily	1.5	1.6	1.4	1.0	1.2	1.3	1.9	0.9	2.2
	Binge	12.2	14.4	12.1	8.6	11.7	10.1	13.9	9.9	14.1
9th Grade	Lifetime	50.6	55.0	49.2	46.1	50.4	43.5	53.5	50.0	60.2
	Annual	42.7	46.8	40.6	38.4	42.6	36.1	45.2	43.2	52.0
	Monthly	24.5	27.9	21.6	20.0	23.5	20.6	26.1	26.9	32.0
	Daily	2.5	2.8	1.8	2.0	2.4	1.9	3.0	2.2	4.2
	Binge	16.2	18.5	14.3	12.6	15.4	13.7	16.9	17.7	21.4
10th Grade	Lifetime	58.7	61.5	54.7	53.5	59.8	53.2	59.2	59.6	65.1
	Annual	50.2	53.3	46.7	45.6	51.0	44.5	50.6	53.5	55.2
	Monthly	28.4	30.9	25.2	23.9	29.4	24.6	27.7	32.9	32.0
	Daily	2.8	3.1	1.9	3.0	3.1	2.0	2.7	3.6	3.8
	Binge	19.5	19.5	17.5	15.9	20.6	17.1	17.2	22.5	22.7
11th Grade	Lifetime	62.4	65.7	60.8	56.9	63.0	57.6	65.5	61.7	68.3
	Annual	53.1	55.7	50.9	48.6	53.5	49.1	56.3	53.6	58.4
	Monthly	31.7	35.5	28.4	29.9	31.8	28.3	33.2	32.6	35.4
	Daily	3.4	3.3	3.5	3.0	3.5	3.0	3.9	2.6	4.5
	Binge	22.5	25.0	20.5	21.4	22.6	20.0	23.5	23.9	24.5
12th Grade	Lifetime	68.5	71.6	64.3	64.5	66.8	65.0	67.4	69.8	74.2
	Annual	59.8	63.2	53.4	58.1	57.6	55.7	59.5	62.5	66.1
	Monthly	38.4	42.5	32.9	35.4	35.9	34.1	38.6	45.5	41.6
	Daily	4.1	4.1	3.0	3.9	4.2	3.2	4.8	4.9	5.0
	Binge	26.9	29.8	23.1	24.5	25.7	25.7	27.0	33.5	29.4

Source: Indiana Prevention Resource Center, 2008

[10]The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.

APPENDIX 3B

Number of Indiana Residents in Substance Abuse Treatment Who Reported Alcohol Use and Listed Alcohol as Their Primary Substance at Admission, by County, 2007 (Substance Abuse Population by County/Treatment Episode Data Set, 2007)

County	Alcohol Use	Alcohol Dependence
Adams	96	77
Allen	894	688
Bartholomew	276	157
Benton	25	15
Blackford	102	64
Boone	124	96
Brown	66	49
Carroll	47	32
Cass	174	123
Clark	226	149
Clay	143	89
Clinton	30	19
Crawford	22	13
Daviess	92	48
Dearborn	160	129
Decatur	62	46
DeKalb	125	97
Delaware	646	370
Dubois	145	99
Elkhart	443	267
Fayette	63	37
Floyd	149	98
Fountain	74	48
Franklin	30	20
Fulton	188	133
Gibson	75	43
Grant	281	186
Greene	76	56
Hamilton	505	350
Hancock	159	98
Harrison	54	36
Hendricks	220	151
Henry	175	100
Howard	320	197
Huntington	115	74
Jackson	100	55
Jasper	55	37
Jay	89	66
Jefferson	122	77
Jennings	79	47
Johnson	206	139
Knox	200	118
Kosciusko	114	82
LaGrange	92	61
Lake	1582	1024
LaPorte	445	335
Lawrence	151	129
Madison	802	549
Marion	2538	1461
Marshall	137	84
Martin	46	33
Miami	162	104
Monroe	465	403
Montgomery	146	90
Morgan	236	175
Newton	16	9
Noble	248	181
Ohio	18	15
Orange	24	18
Owen	132	81
Parke	106	64
Perry	65	50
Pike	29	17
Porter	326	192
Posey	147	119
Pulaski	70	55
Putnam	104	49
Randolph	81	51
Ripley	52	40
Rush	47	38
St. Joseph	916	469
Scott	88	61
Shelby	113	78
Spencer	79	65
Starke	133	85
Steuben	113	90
Sullivan	61	36
Switzerland	37	32
Tippecanoe	547	306
Tipton	24	15
Union	24	20
Vanderburgh	1046	659
Vermillion	85	69
Vigo	543	356
Wabash	127	87
Warren	19	11
Warrick	222	143
Washington	40	29
Wayne	306	216
Wells	58	44
White	112	73
Whitley	91	77
Total	20,398	13,323

Note: We defined alcohol dependence as “individuals reporting alcohol to be their primary substance at the time of their substance abuse treatment admission.”
Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2008

APPENDIX 3C

Diseases and Conditions that are Directly Attributable to Alcohol in Indiana (Alcohol-Related Disease Impact, Based on Averages from 2001–2005)

Disease	Percentage Directly Attributable to Alcohol
Alcohol abuse/dependence	100%
Alcohol cardiomyopathy	100%
Alcohol polyneuropathy	100%
Alcohol-induced chronic pancreatitis	100%
Alcoholic gastritis	100%
Alcoholic liver disease	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, n.d.-b

APPENDIX 3D

Alcohol-Related Collisions and Fatalities in Indiana, by County, 2007 (Automated Reporting Information Exchange System/Vehicle Crash Records System, 2007)

	Collisions		Fatalities			
County	Total Collisions	Alcohol-Related Collisions	Total Fatal Collisions	Alcohol-Related Fatal Collisions	Population Estimate 2007	Alcohol-Related Crash Rate (Per 1,000 population)
Adams	784	33	3	0	33,644	0.98
Allen	12,261	574	21	5	349,488	1.64
Bartholomew	2,346	120	18	7	74,750	1.61
Benton	152	17	4	2	8,810	*1.93
Blackford	380	18	2	1	13,189	*1.36
Boone	1,874	63	10	3	54,137	1.16
Brown	555	37	4	1	14,670	2.52
Carroll	723	42	0	0	19,987	2.10
Cass	1,507	63	6	1	39,193	1.61
Clark	4,380	203	7	2	105,035	1.93
Clay	771	29	8	0	26,648	1.09
Clinton	981	60	3	0	33,795	1.78
Crawford	375	24	5	2	10,782	2.23
Daviess	509	46	5	2	30,035	1.53
Dearborn	1,979	111	8	2	49,759	2.23
Decatur	761	47	5	3	24,959	1.88
DeKalb	1,479	73	5	1	41,796	1.75
Delaware	4,681	230	21	5	115,419	1.99
Dubois	996	72	8	3	41,225	1.75
Elkhart	7,726	287	37	10	197,942	1.45
Fayette	641	47	2	2	24,273	1.94
Floyd	2,608	176	10	5	73,064	2.41
Fountain	440	21	3	2	17,143	1.22

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	Collisions		Fatalities			
County	Total Collisions	Alcohol-Related Collisions	Total Fatal Collisions	Alcohol-Related Fatal Collisions	Population Estimate 2007	Alcohol-Related Crash Rate (Per 1,000 population)
Franklin	575	36	7	2	23,234	1.55
Fulton	607	26	2	0	20,308	1.28
Gibson	1,099	50	8	1	32,754	1.53
Grant	2,372	103	14	3	68,847	1.50
Greene	919	62	15	4	32,692	1.90
Hamilton	6,781	245	18	3	261,661	0.94
Hancock	1,543	79	10	2	66,305	1.19
Harrison	1,283	73	9	3	36,810	1.98
Hendricks	3,696	129	16	5	134,558	0.96
Henry	1,284	41	9	0	47,181	0.87
Howard	2,548	118	9	2	83,776	1.41
Huntington	1,265	43	4	1	37,743	1.14
Jackson	1,537	90	6	2	42,184	2.13
Jasper	1,274	58	8	1	32,275	1.80
Jay	669	19	2	0	21,514	*0.88
Jefferson	1,072	63	7	0	32,704	1.93
Jennings	836	40	5	3	28,106	1.42
Johnson	2,979	136	14	5	135,951	1.00
Knox	912	65	7	4	37,949	1.71
Kosciusko	3,011	116	8	3	76,115	1.52
LaGrange	1,044	59	2	1	37,032	1.59
Lake	18,588	990	46	19	492,104	2.01
LaPorte	3,574	235	26	10	109,787	2.14
Lawrence	1,258	62	9	2	46,033	1.35
Madison	4,361	208	16	5	131,312	1.58
Marion	27,964	1,087	72	19	876,804	1.24
Marshall	1,773	60	5	1	46,698	1.28
Martin	273	17	2	0	10,058	*1.69
Miami	1,094	49	7	2	36,641	1.34
Monroe	4,056	210	3	0	128,643	1.63
Montgomery	1,125	59	4	2	37,881	1.56
Morgan	1,614	86	10	2	69,874	1.23
Newton	434	16	5	1	14,014	*1.14
Noble	1,530	74	2	0	47,526	1.56
Ohio	265	13	2	0	5,772	*2.25
Orange	627	38	2	0	19,607	1.94
Owen	595	27	4	1	22,398	1.21
Parke	617	42	1	1	17,169	2.45
Perry	510	28	2	0	18,916	1.48
Pike	184	19	3	0	12,605	*1.51
Porter	5,085	264	22	4	160,578	1.64
Posey	465	28	2	0	26,262	1.07
Pulaski	568	24	4	2	13,778	1.74
Putnam	771	32	10	1	37,014	0.86
Randolph	615	28	6	1	25,859	1.08
Ripley	778	41	5	2	27,350	1.50
Rush	414	37	3	2	17,494	2.12

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	Collisions		Fatalities			
County	Total Collisions	Alcohol-Related Collisions	Total Fatal Collisions	Alcohol-Related Fatal Collisions	Population Estimate 2007	Alcohol-Related Crash Rate (Per 1,000 population)
Saint Joseph	**8,263**	**416**	**14**	**5**	**266,088**	**1.56**
Scott	588	15	4	2	23,679	*0.63
Shelby	1,267	81	9	2	44,063	1.84
Spencer	649	32	4	1	20,334	1.57
Starke	782	54	6	2	23,542	2.29
Steuben	1,683	77	7	0	33,450	2.30
Sullivan	290	25	4	1	21,366	1.17
Switzerland	247	20	1	0	9,684	2.07
Tippecanoe	7,474	337	20	7	163,364	2.06
Tipton	398	16	3	0	16,069	*1.00
Union	185	10	2	1	7,203	*1.39
Vanderburgh	5,667	361	14	5	174,425	2.07
Vermillion	415	38	4	1	16,417	2.31
Vigo	3,661	217	13	7	104,915	2.07
Wabash	1,088	27	2	1	32,918	0.82
Warren	250	15	5	2	8,482	*1.77
Warrick	1,436	77	4	1	57,090	1.35
Washington	765	40	9	3	27,920	1.43
Wayne	1,941	124	6	2	68,260	1.82
Wells	724	35	10	5	27,927	1.25
White	986	63	5	1	23,819	2.64
Whitley	879	45	10	3	32,655	1.38
Unknown	8	0	0	0		
Total	**204,999**	**9,943**	**804**	**233**	**6,345,289**	**1.57**

* Indicates an unstable rate because number of collisions is less than 20.
Source: Indiana State Police, 2008

APPENDIX 3E

Number and Rate, per 1,000 Population, of Arrests for Driving Under the Influence (DUI), Public Intoxication, and Liquor Law Violations in Indiana by County, 2006 (Uniform Crime Reporting Program, 2006)

County	Number of Arrests for DUI	DUI Arrest Rate	Number of Arrests for Public Intoxication	Public Intoxication Arrest Rate	Number of Arrests for Liquor Law Violations	Liquor Law Violation Arrest Rate
Adams	215	6.31	78	2.29	78	2.29
Allen	2,239	6.47	826	2.39	230	0.66
Bartholomew	344	4.67	412	5.59	300	4.07
Benton	43	4.73	18	*1.98	24	2.64
Blackford	60	4.35	31	2.25	43	3.12
Boone	255	4.87	114	2.18	142	2.71
Brown	59	3.87	14	*0.92	49	3.21
Carroll	102	4.96	32	1.56	41	1.99
Cass	222	5.50	165	4.08	89	2.20
Clark	597	5.84	461	4.51	182	1.78
Clay	113	4.14	55	2.01	47	1.72
Clinton	156	4.55	51	1.49	236	6.88
Crawford	83	7.35	32	2.83	25	2.21
Daviess	244	7.96	102	3.33	116	3.78
Dearborn	286	5.79	120	2.43	127	2.57
Decatur	182	7.18	155	6.11	33	1.30
DeKalb	314	7.49	138	3.29	127	3.03
Delaware	409	3.49	285	2.43	89	0.76
Dubois	301	7.32	167	4.06	153	3.72
Elkhart	966	4.90	365	1.85	663	3.37
Fayette	141	5.63	30	1.20	211	8.42
Floyd	714	9.85	385	5.31	129	1.78
Fountain	123	7.00	56	3.19	38	2.16
Franklin	45	2.06	17	*0.78	96	4.40
Fulton	149	7.16	71	3.41	62	2.98
Gibson	167	4.97	78	2.32	95	2.82
Grant	493	6.94	266	3.75	101	1.42
Greene	178	5.28	71	2.11	59	1.75
Hamilton	1,337	5.52	276	1.14	639	2.64
Hancock	404	6.36	135	2.12	129	2.03
Harrison	162	4.37	41	1.11	70	1.89
Hendricks	639	4.98	147	1.15	395	3.08
Henry	101	2.12	42	0.88	309	6.50
Howard	299	3.50	245	2.86	112	1.31
Huntington	141	3.66	83	2.16	82	2.13
Jackson	270	6.35	219	5.15	135	3.18
Jasper	145	4.52	44	1.37	81	2.52
Jay	144	6.58	129	5.89	80	3.65
Jefferson	249	7.63	351	10.75	139	4.26
Jennings	202	7.06	94	3.28	81	2.83
Johnson	755	5.82	112	0.86	750	5.78
Knox	193	5.00	66	1.71	359	9.30
Kosciusko	481	6.31	335	4.39	211	2.77
LaGrange	106	2.86	40	1.08	109	2.94
Lake	3,712	7.48	2,152	4.33	1,635	3.29
LaPorte	1,015	9.12	466	4.19	461	4.14
Lawrence	159	3.40	135	2.89	57	1.22
Madison	641	4.88	575	4.38	327	2.49

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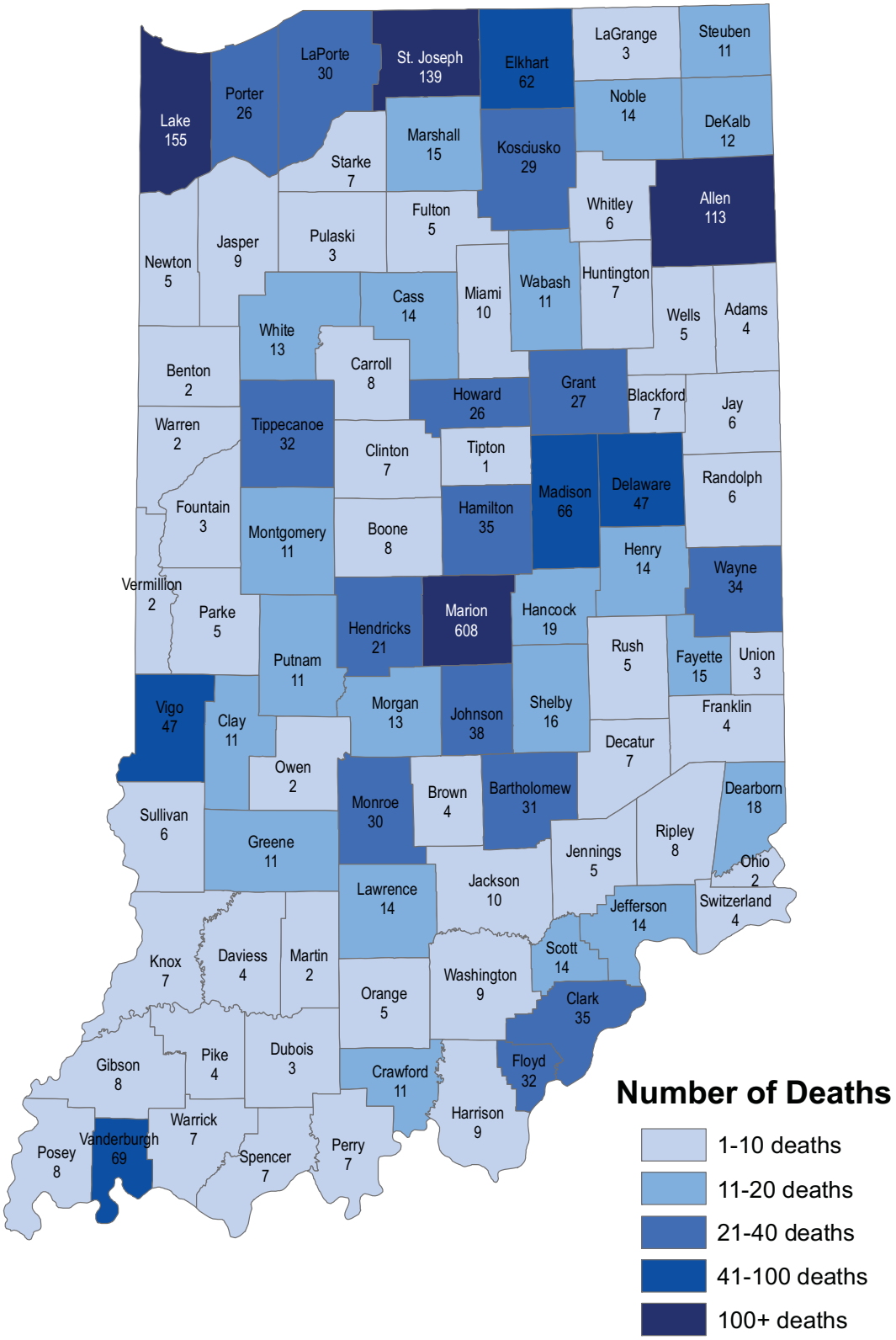
County	Number of Arrests of DUI	DUI Arrest Rate	Number of Arrests Public Intoxication	Public Intoxication Arrest Rate	Number of Arrests for Liquor Law Violations	Liquor Law Violation Arrest Rate
Marion	3,523	4.05	5,317	6.12	377	0.43
Marshall	587	12.42	229	4.85	155	3.28
Martin	60	5.74	22	2.10	23	2.20
Miami	256	7.14	126	3.51	110	3.07
Monroe	514	4.21	483	3.95	1,002	8.20
Montgomery	366	9.51	186	4.83	129	3.35
Morgan	291	4.14	54	0.77	336	4.78
Newton	77	5.29	52	3.57	20	1.37
Noble	583	12.21	186	3.89	208	4.35
Ohio	24	4.06	7	*1.18	11	*1.86
Orange	146	7.34	57	2.86	44	2.21
Owen	45	1.96	53	2.31	7	*0.30
Parke	128	7.32	50	2.86	39	2.23
Perry	166	8.66	81	4.23	78	4.07
Pike	93	7.24	41	3.19	34	2.65
Porter	864	5.44	406	2.56	702	4.42
Posey	161	5.96	61	2.26	59	2.18
Pulaski	102	7.35	39	2.81	31	2.23
Putnam	202	5.43	94	2.53	60	1.61
Randolph	185	6.89	96	3.57	76	2.83
Ripley	212	7.23	95	3.24	80	2.73
Rush	141	7.86	108	6.02	65	3.62
Saint Joseph	1,045	3.90	183	0.68	503	1.88
Scott	151	6.30	92	3.84	80	3.34
Shelby	290	6.59	124	2.82	144	3.27
Spencer	152	7.36	59	2.86	46	2.23
Starke	145	6.28	62	2.69	79	3.42
Steuben	227	6.68	64	1.88	228	6.71
Sullivan	70	3.20	30	1.37	33	1.51
Switzerland	72	7.36	28	2.86	22	2.25
Tippecanoe	884	5.71	926	5.98	884	5.71
Tipton	68	4.12	28	1.70	28	1.70
Union	54	7.44	25	3.45	31	4.27
Vanderburgh	1,014	5.82	758	4.35	108	0.62
Vermillion	75	4.50	53	3.18	24	1.44
Vigo	648	6.27	347	3.36	347	3.36
Wabash	77	2.26	54	1.59	110	3.23
Warren	65	7.35	25	2.83	20	2.26
Warrick	197	3.47	98	1.73	144	2.54
Washington	209	7.45	54	1.92	53	1.89
Wayne	850	12.20	598	8.59	140	2.01
Wells	72	2.55	56	1.98	84	2.97
White	292	11.86	154	6.25	74	3.01
Whitley	146	4.49	44	1.35	85	2.61
Total	35,884	5.68	21,987	3.48	16,659	2.64

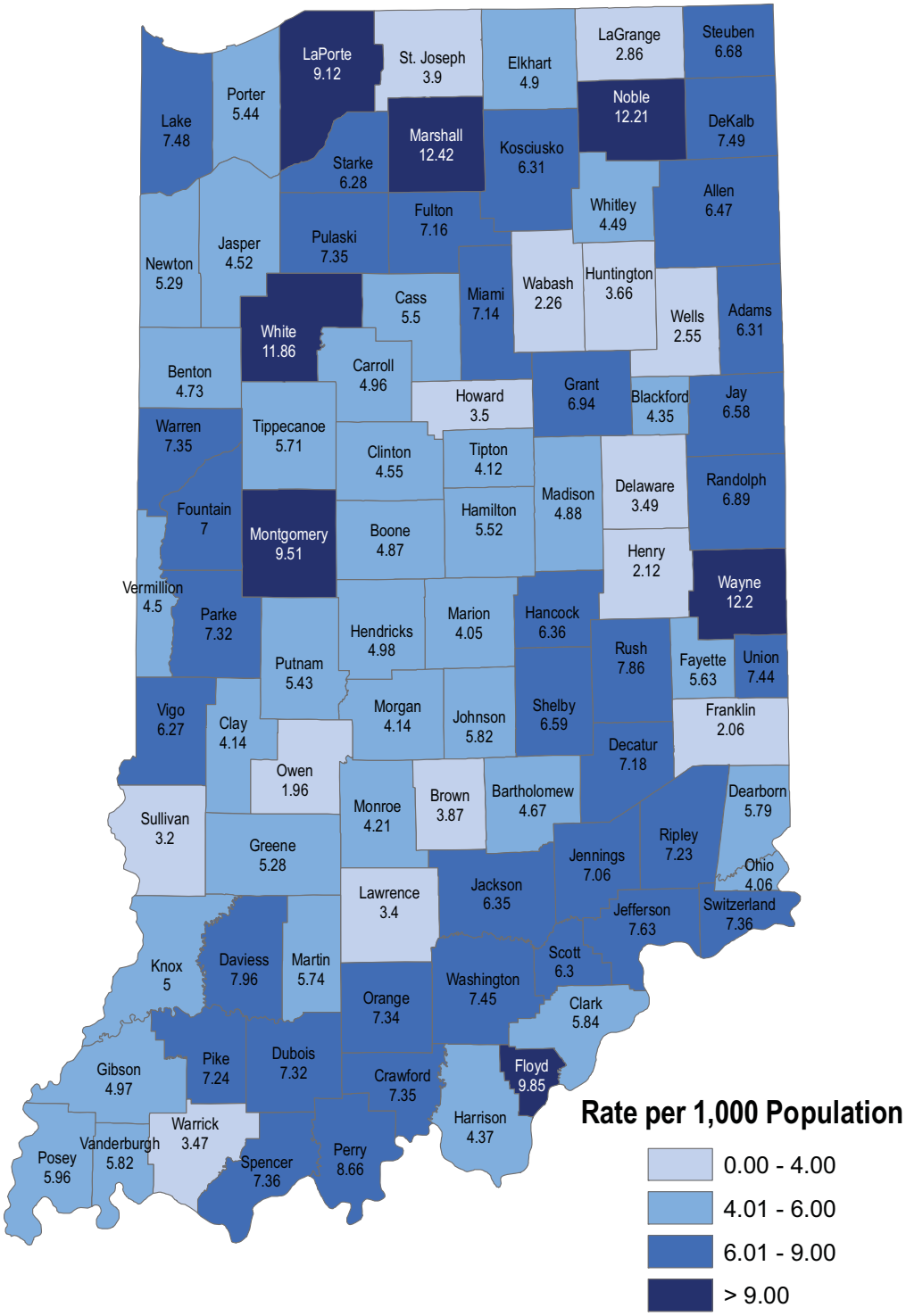
* Rates that are based on arrest numbers lower than 20 are unreliable.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 3.1 Number of Alcohol-Related Deaths in Indiana by County, 2000 to 2006 (Indiana Mortality Data, 2000–2006)



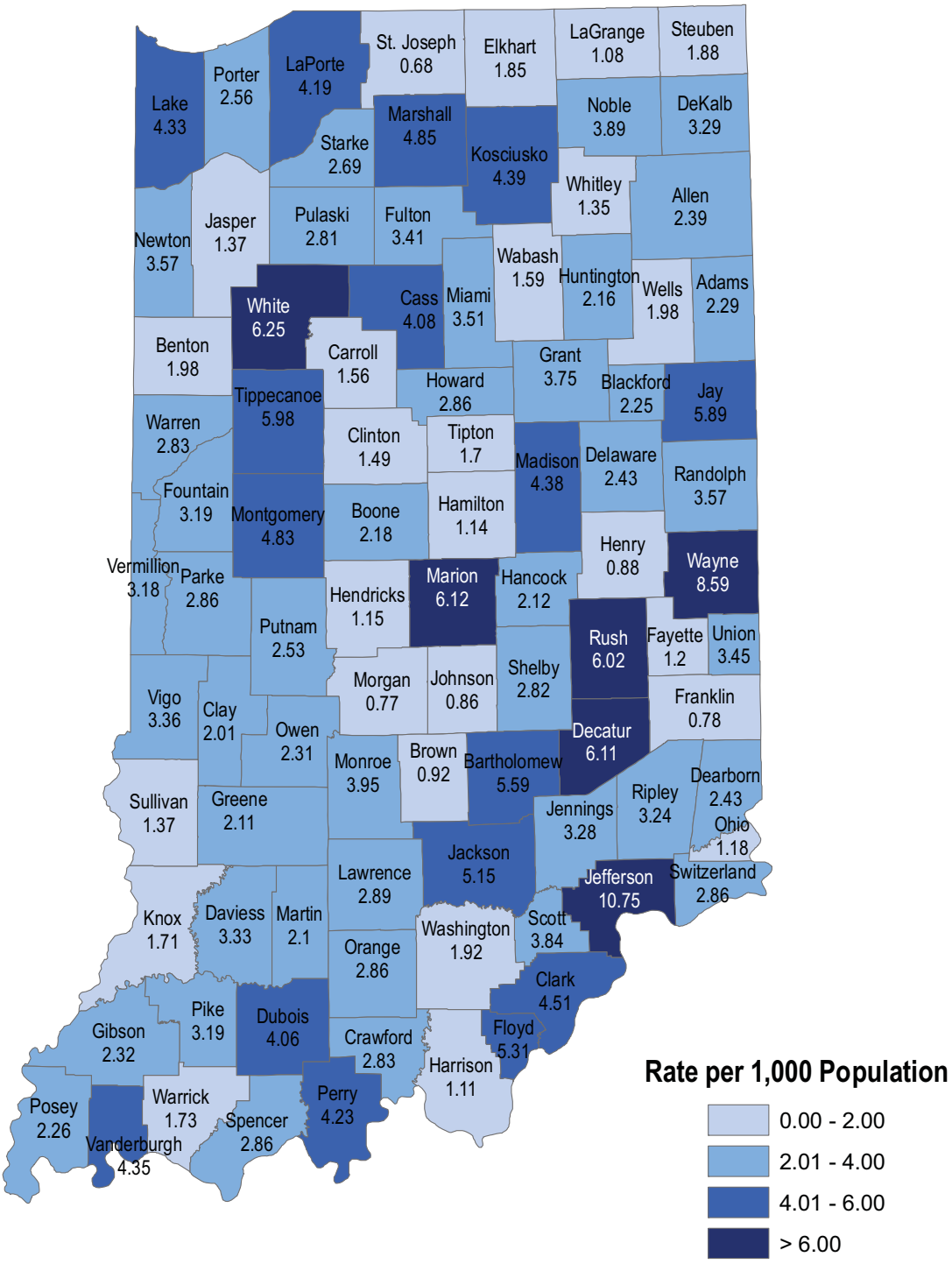
Source: Epidemiology Resource Center, Data Analysis Team, 2008

Map 3.2 DUI Arrest Rates in Indiana by County, 2006 (Uniform Crime Reporting Program)



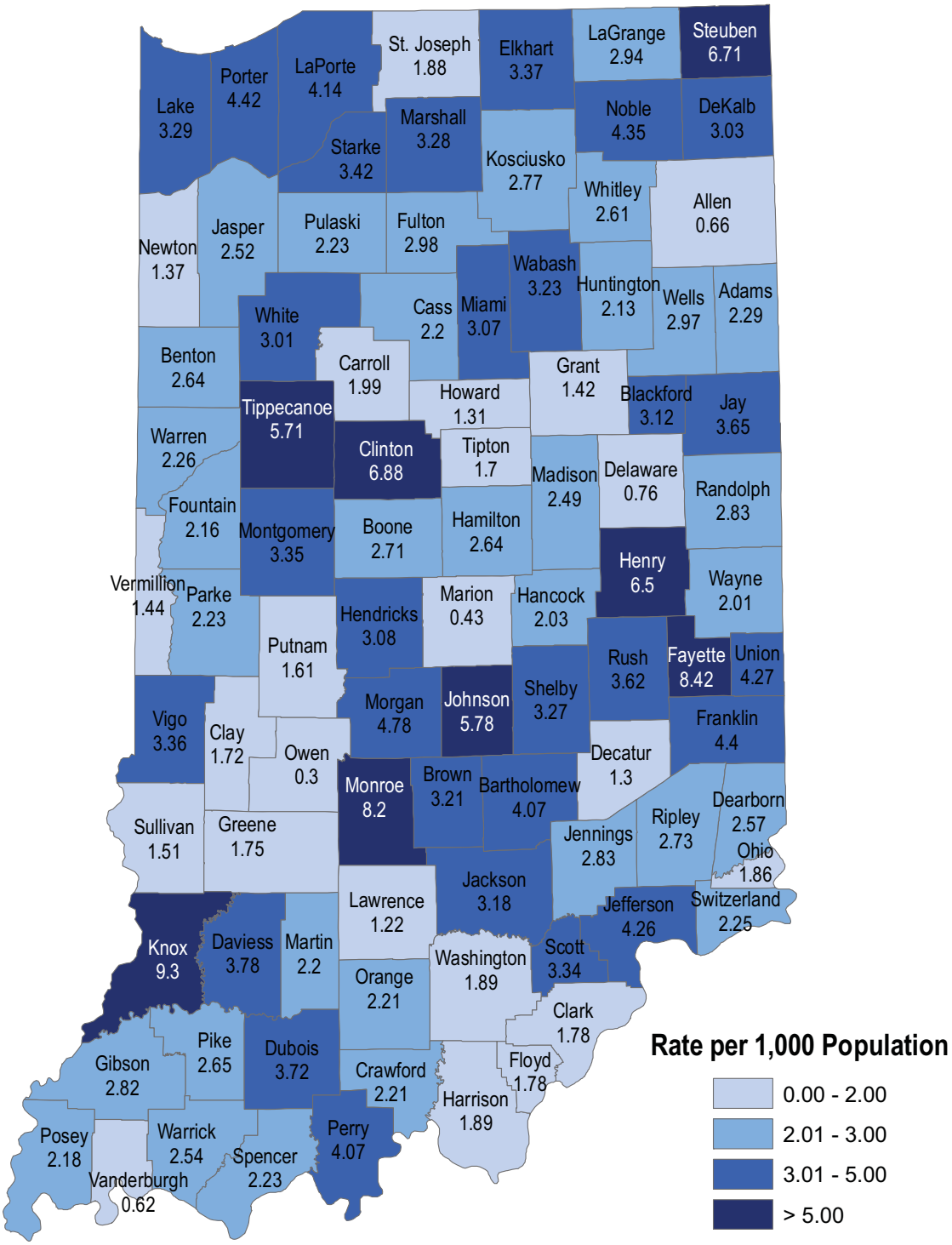
Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 3E (pages 47-48) for additional information.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 3.3 Public Intoxication Arrest Rates in Indiana by County, 2006 (Uniform Crime Reporting Program)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 3E (pages 47-48) for additional information.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 3.4 Liquor Law Violation Arrest Rates in Indiana by County, 2006 (Uniform Crime Reporting Program)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 3E (pages 47-48) for additional information.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

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4. Tobacco Use in Indiana: Consumption Patterns and Consequences

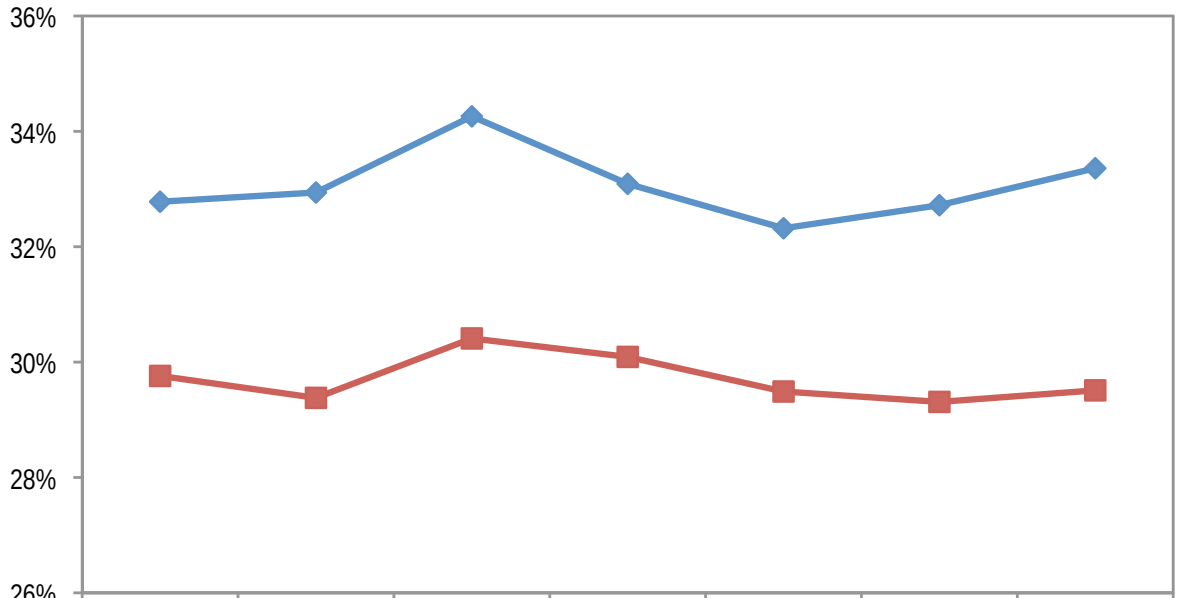
TOBACCO CONSUMPTION

General Consumption Patterns

The harmful effects of tobacco on population health have been widely studied and the results published. Cigarette smoking remains the leading cause of preventable death in the United States, accounting for approximately one of every five deaths (Centers for Disease Control and Prevention, 2008c).

The National Survey on Drug Use and Health (NSDUH) for 2005-2006 estimates that 33.36% (95% Confidence Interval [CI]: 30.74–36.10) of Indiana's teenage and adult population, or 1,722,000 Hoosiers 12 years and older, used a tobacco product in the past month. Tobacco products include cigarettes, smokeless tobacco, cigars, and pipe tobacco. Indiana's rate has remained stable and higher than the nation over the seven-year period from 2000 through 2006 (see Figure 4.1) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Figure 4.1 Percentage of Indiana and U.S. Population (12 Years and Older) Reporting Any Tobacco Use in the Past Month, 2000 to 2006 (National Survey on Drug Use and Health, 2000–2006)

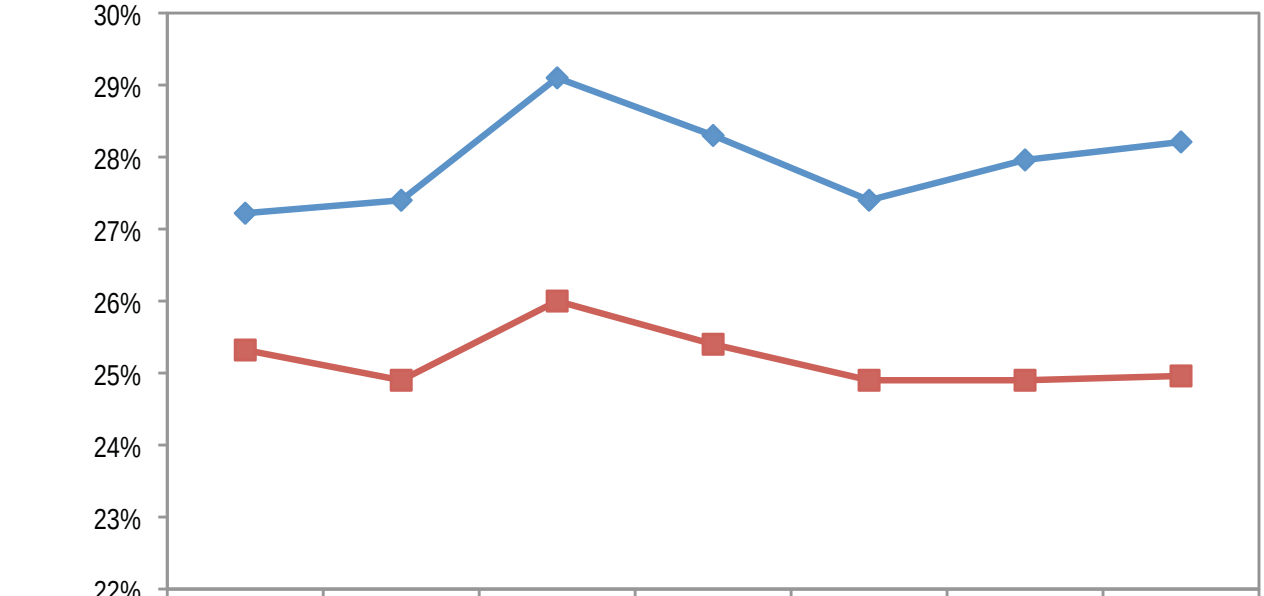


	2000	2001	2002	2003	2004	2005	2006
Indiana	32.78%	32.94%	34.26%	33.09%	32.32%	32.72%	33.36%
U.S.	29.76%	29.38%	30.41%	30.09%	29.49%	29.31%	29.51%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008

The majority of tobacco consumers smoke cigarettes. In 2006, almost 1.5 million Hoosiers 12 years and older admitted to having used cigarettes in the past month. This represents a prevalence rate of 28.21% (95% CI: 25.73–30.83), which is significantly higher than the national rate of 24.96. The smoking prevalence for Indiana remained stable from 2000 (27.22%; 95% CI: 24.68–29.88) to 2006 (see Figure 4.2).

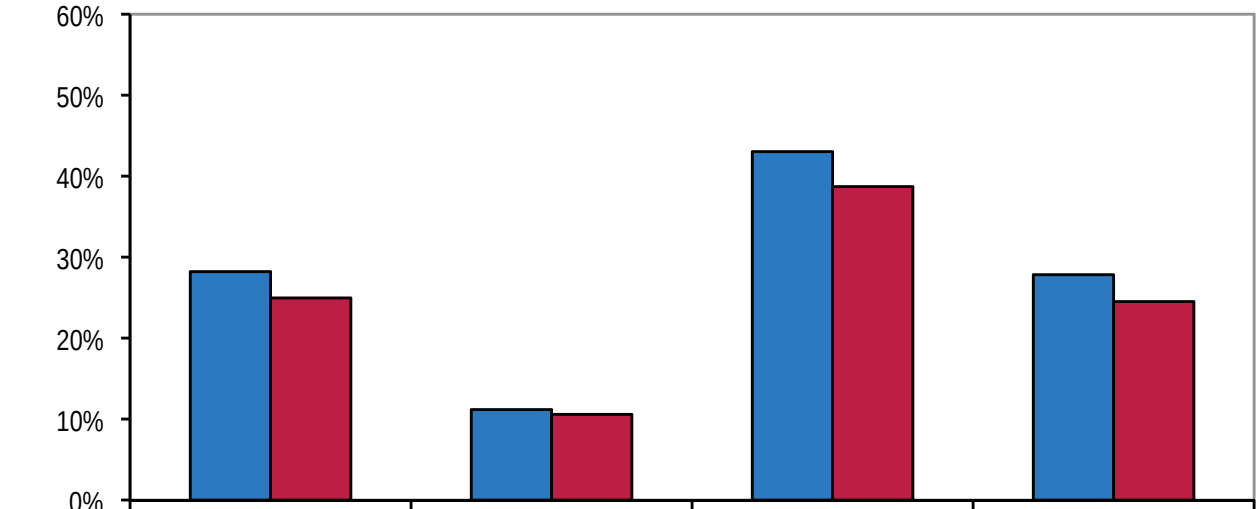
Figure 4.2 Percentage of Indiana and U.S. Population (12 Years and Older) Reporting Cigarette Use in the Past Month, 2000 through 2006 (National Survey on Drug Use and Health, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana	27.22%	27.40%	29.10%	28.30%	27.40%	27.96%	28.21%
U. S.	25.32%	24.90%	26.00%	25.40%	24.90%	24.90%	24.96%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008

Figure 4.3 Percentage of Indiana and U.S. Population (12 Years and Older) Reporting Cigarette Use in the Past Month, 2006 (National Survey on Drug Use and Health, 2006)



	Total	12-17	18-25	26 and older
Indiana	28.21%	11.17%	43.03%	27.83%
U. S.	24.96%	10.58%	38.71%	24.51%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008

In Indiana, a total of 3,575,000 residents, or 69.26% (95% CI: 66.51–71.88) of the population 12 years and older, perceive smoking one or more packs of cigarettes per day to be a great risk; the percentage within the nation is significantly higher (74.14%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

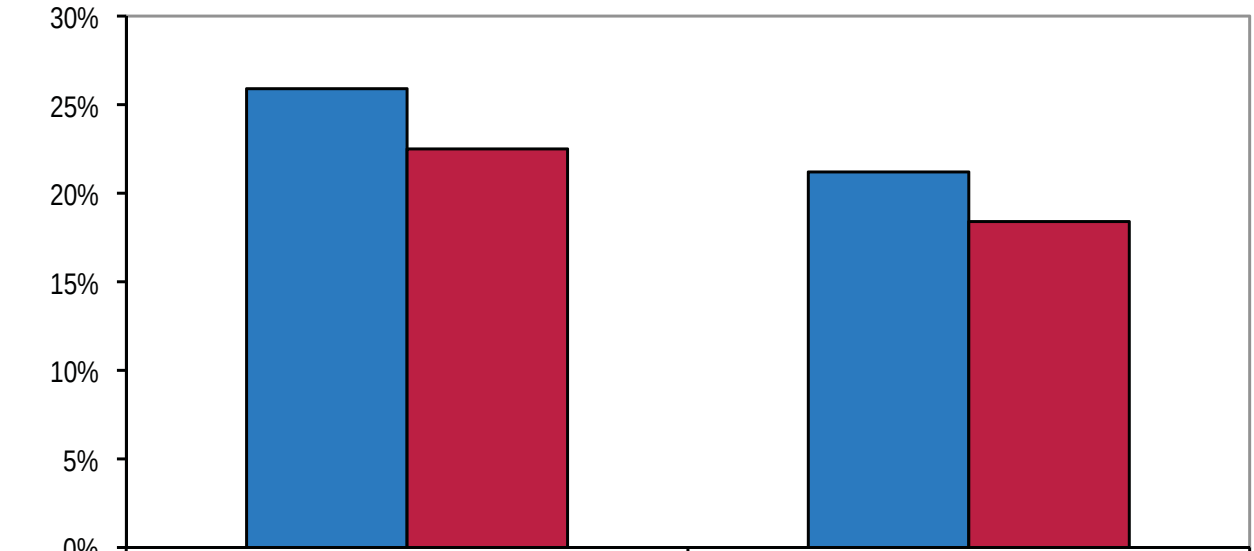
Adult Consumption Patterns

The highest rate of tobacco use was among 18- to 25-year-olds. An estimated 344,000 Hoosiers in this age group are currently using a tobacco product. Indiana's rate (48.90%; 95% CI: 45.16–52.65) exceeds the U.S. rate (44.10%). The 30-day prevalence rate for cigarette smoking among 18- to 25-year olds was 43.03% (95% CI: 39.32–46.83) in Indiana and a significantly lower 38.71% in the United States (see Figure 4.3). Among Hoosiers ages 26 and older, 33.25% (95% CI: 29.96–36.72) currently use a tobacco product and 27.83% (95% CI: 24.73–31.16) smoke cigarettes (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

The Behavioral Risk Factor Surveillance System (BRFSS) focuses on behaviors and conditions that are linked with leading causes of death. The tobacco prevention community relies heavily on these data to assess adult smoking behaviors. According to the 2007 BRFSS, the past-month prevalence rate for adult (18 years and older) smoking in Indiana was 24.1% (95% CI: 22.5–25.7). Based on this rate, an estimated 1.14 million Hoosiers 18 years and older are current smokers. Moreover, 18.2% (95% CI: 16.8–19.6) of adults used cigarettes every day.

Indiana's smoking prevalence was significantly higher than the national rate (19.8%) (Centers for Disease Control and Prevention, 2008a). Smoking prevalence in Indiana did not vary by gender. Rates among males, 25.9% (95% CI: 23.4–28.4), and females, 22.5% (95% CI: 20.5–24.5), were similar and higher than national rates (see Figure 4.4).

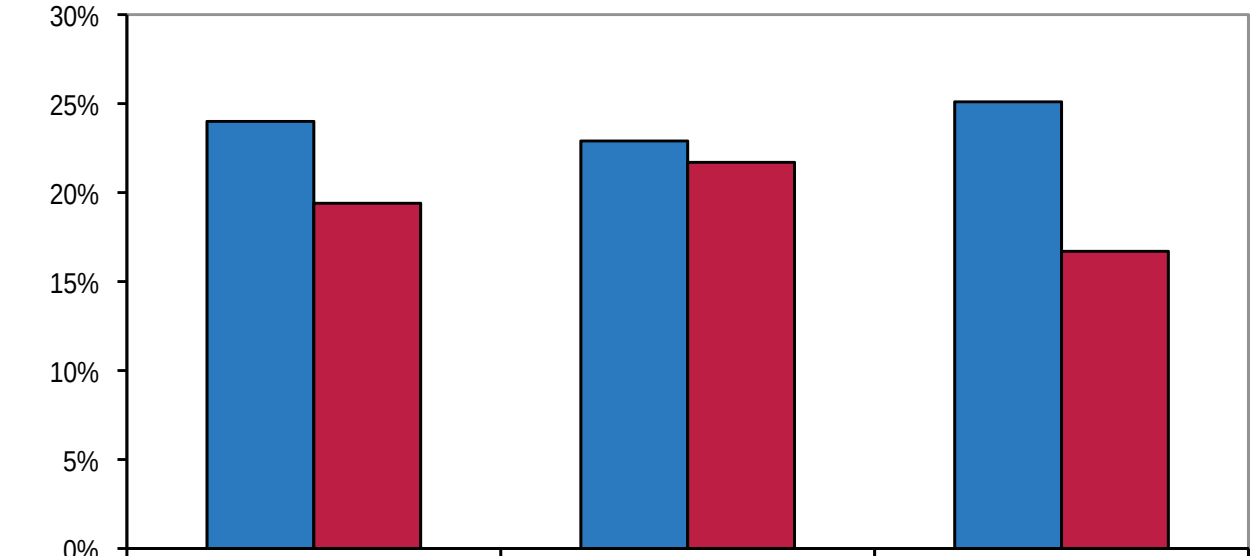
Figure 4.4 Adult (18 Years and Older) Smoking Prevalence in Indiana and the United States, by Gender, 2007 (Behavioral Risk Factor Surveillance System, 2007)



	Indiana	U.S.
Male	25.9%	21.2%
Female	22.5%	18.4%

Source: Centers for Disease Control and Prevention, 2008a

Figure 4.5 Adult (18 Years and Older) Smoking Prevalence in Indiana and the United States, by Race/Ethnicity, 2007 (Behavioral Risk Factor Surveillance System, 2007)



	White	Black	Hispanic
Indiana	24.0%	22.9%	25.1%
U.S.	19.4%	21.7%	16.7%

Source: Centers for Disease Control and Prevention, 2008a

Table 4.1 Adult Smoking Prevalence (95% CI) in Indiana and the United States, by Age Group, 2007 (Behavioral Risk Factor Surveillance System, 2007)

Age Group	Indiana	U.S.
18-24	29.8% (22.7-36.9)	24.0%
25-34	30.7% (26.4-35.0)	23.9%
35-44	25.8% (22.3-29.3)	20.4%
45-54	27.2% (24.3-30.1)	22.3%
55-64	21.7% (18.8-24.6)	18.0%
65+	9.5% (7.7-11.3)	9.0%

Note: U.S. rates are based on median percentages and do not have an associated confidence interval (CI).
Source: Centers for Disease Control and Prevention, 2008a

Race/ethnicity didn't seem to have an impact on smoking status in Indiana; the 2007 BRFSS found that 24.0% (95% CI: 22.2–25.8) of whites, 22.9% (95% CI: 17.4–28.4) of blacks, and 25.1% (95% CI: 15.7–34.5) of Hispanics smoked in the past month. Only the smoking prevalence rate for whites was significantly higher in Indiana than the United States (19.4%) (see Figure 4.5).

No significant age differences were found among Hoosiers ages 18 to 64; only people 65 years and older reported a lower smoking prevalence. In comparison to the nation, Indiana residents ages 25 to 64 had higher smoking rates (see Table 4.1).

Smoking prevalence is associated with education and income level. Generally, people with higher educational attainment and income have lower smoking rates. The smoking rate for Hoosiers with less than a high school diploma is 39.9% (95% CI: 33.4–46.4), compared to 10.5% (95% CI: 8.5–12.5) for college graduates (see Table 4.2).

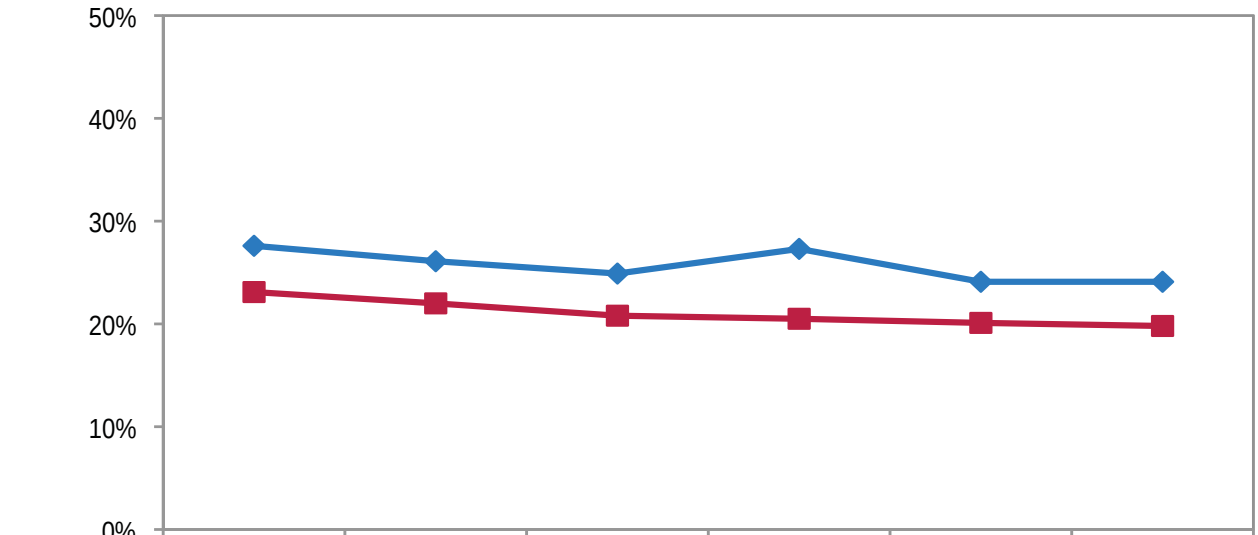
Adult smoking prevalence in Indiana has been above the national level for the past six years. Indiana's past-month smoking rate has decreased from 27.6% (95% CI: 26.2–29.0) in 2002 to 24.1% (95% CI: 22.5–25.7) in 2007, as has the nationwide median percentage from 23.2% to 19.8% (see Figure 4.6). Indiana's adult smoking prevalence ranks 6th among the 50 U.S. states (Centers for Disease Control and Prevention, 2008a).

Table 4.2 Adult Smoking Prevalence (95% CI) in Indiana, by Education and Income Level, 2007 (Behavioral Risk Factor Surveillance System, 2007)

		Indiana	U.S.
Education	Less than High School	39.9% (33.4-46.4)	33.2%
	High School or GED	28.8% (26.1-31.5)	26.0%
	Some post-High School	25.3% (22.2-28.4)	21.2%
	College Graduate	10.5% (8.5-12.5)	9.6%
Income	Less than $15,000	34.0% (27.1-40.9)	31.8%
	$15,000 – $24,999	36.9% (32.2-41.6)	28.5%
	$25,000 – $34,999	36.4% (21.3-31.5)	24.0%
	$35,000 – $49,999	29.0% (24.9-33.1)	21.4%
	$50,000 and above	16.8% (14.4-19.2)	15.0%

Source: Centers for Disease Control and Prevention, 2008a

Figure 4.6 Percentage of Indiana and U.S. Population (18 Years and Older) Reporting Current Cigarette Use, 2002 through 2007 (Behavioral Risk Factor Surveillance System, 2002–2007)



	2002	2003	2004	2005	2006	2007
Indiana	27.6%	26.1%	24.9%	27.3%	24.1%	24.1%
U.S.	23.1%	22.0%	20.8%	20.5%	20.1%	19.8%

Source: Centers for Disease Control and Prevention, 2008a

Youth Consumption Patterns

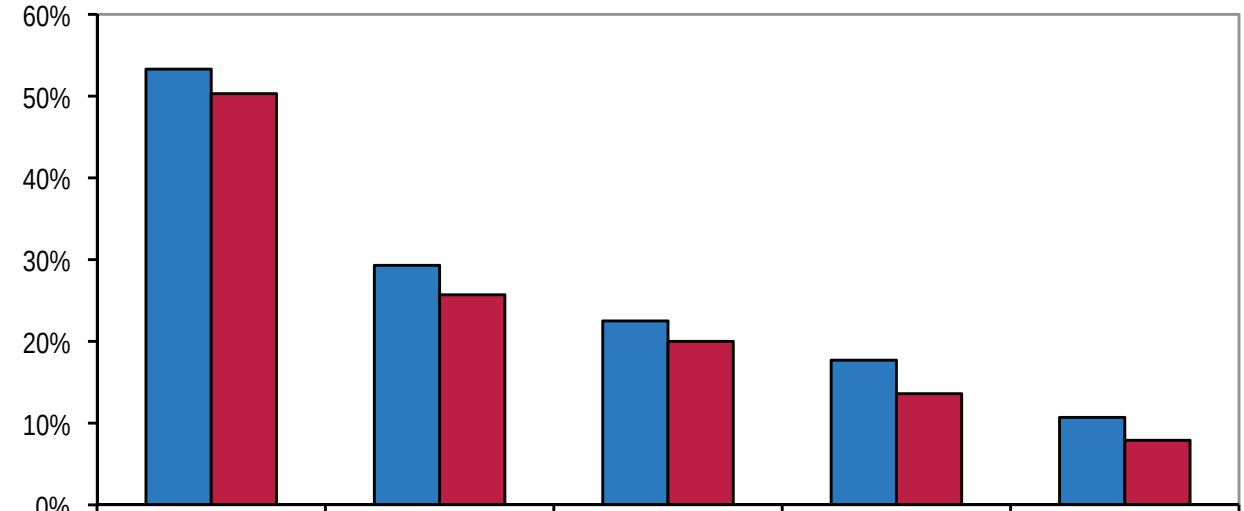
Based on the most recent results from the National Survey on Drug Use and Health (NSDUH), an estimated 77,000 Hoosiers ages 12 to 17 currently use a tobacco product; the rate of 14.02% (95% CI: 11.92–16.42) is similar to the U.S. rate of 13.00%. Of these, approximately 64,000 young people smoke cigarettes; again, rates in Indiana, 11.72% (95% CI: 9.83–13.92), and U.S., 10.58%, are statistically the same (Centers for Disease Control and Prevention, 2008a).

According to the 2007 Youth Risk Behavior Surveillance System (YRBSS), 53.3% (95% CI: 48.8–57.7) of Indiana high school students (grades 9 through 12) have tried smoking a cigarette, even one or two puffs, in their lifetime. This rate has remained stable from 2003 to 2007 and is similar to the nation's rate (50.3%; 95% CI: 47.2–53.5). The percentage of Indiana students in grades 9 through 12 who currently use any tobacco product (29.3%; 95% CI: 24.7–34.3) has also remained stable and is statistically not different than the U.S. rate of 25.7% (95% CI: 22.8–28.7). The YRBSS further found that in 2007:

- 22.5% (95% CI: 17.8–27.9) of Hoosier high school students currently smoke cigarettes (U.S.: 20.0%; 95% CI: 17.6–22.6);
- 17.7% (95% CI: 16.2–19.4) currently smoke cigars (U.S.: 13.6%; 95% CI: 12.1–15.2); and
- 10.7% (95% CI: 8.9–12.7) currently use smokeless tobacco (U.S.: 7.9%; 95% CI: 6.3–9.8) (see Figure 4.7).

A significant difference was observed between Indiana and U.S. high school students regarding current cigar use in 2007. Overall, trends have remained stable over the years (2003–2007) (Centers for Disease Control and Prevention, 2008d).

Figure 4.7 Percentage of Indiana and U.S. High School Students Reporting Tobacco Consumption, 2007 (Youth Risk Behavior Surveillance System, 2007)



	Lifetime cigarette use	Current tobacco use	Current cigarette use	Current cigar use	Current smokeless tobacco use
Indiana	53.3%	29.3%	22.5%	17.7%	10.7%
U.S.	50.3%	25.7%	20.0%	13.6%	7.9%

Source: Centers for Disease Control and Prevention, 2008a

Current cigarette use rates did not differ by gender. Indiana males seemed to have higher rates in 2007 (24.6%; 95% CI: 19.4–30.6) than females (19.9%; 95% CI: 15.2–25.5), but the difference was statistically not significant. Overall smoking rates and rates by gender remained stable from 2003 to 2007 and no true (statistical) differences were found between Indiana and the United States (see Table 4.3).

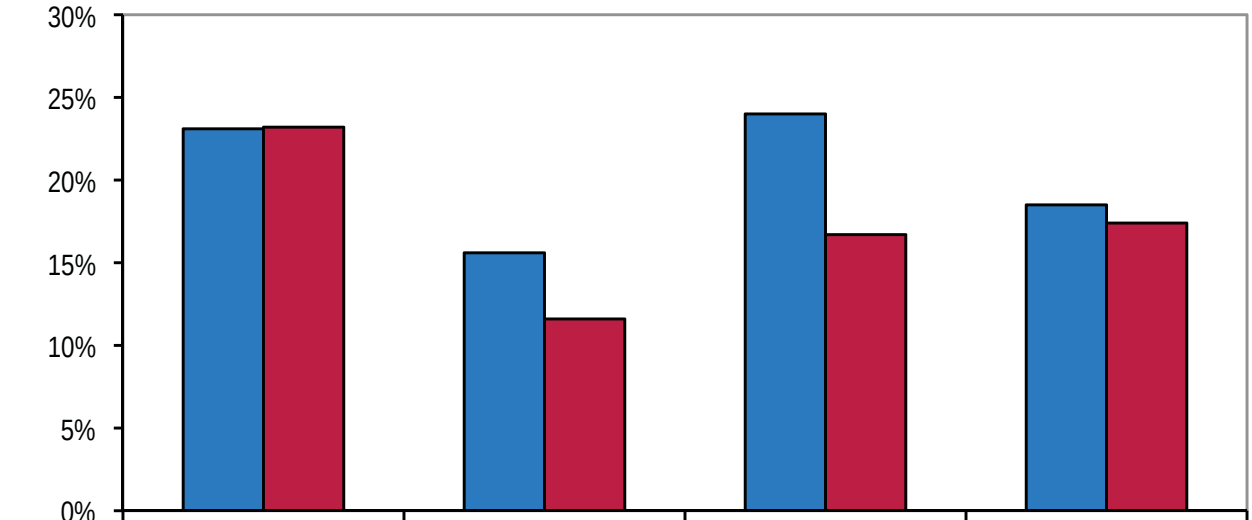
Among Indiana high school students, no differences in smoking prevalence were observed by race. Even the highest rate (Hispanics: 24.0%; 95% CI: 17.3–32.3) was statistically not different from the lowest rate (blacks: 15.6%; 95% CI: 11.2–21.2). Current smoking rates by race/ethnicity are similar between Indiana and the nation (see Figure 4.8).

Table 4.3 Smoking Rates in Indiana and U.S. High School Students (9th–12th grade), by Gender, 2003 to 2007 (Youth Risk Behavior Surveillance System, 2003–2007)

Years	Gender	Indiana	U.S.
2003	Females	25.7% (23.2–28.5)	21.9% (19.2–24.9)
	Males	25.6% (22.2–29.4)	21.8% (19.8–24.1)
	Total	25.6% (23.2–28.2)	21.9% (19.8–24.2)
2005	Females	20.5% (16.1–25.8)	23.0% (20.4–25.8)
	Males	23.2% (18.7–28.3)	22.9% (20.7–25.3)
	Total	21.9% (18.0–26.4)	23.0% (20.7–25.5)
2007	Females	19.9% (15.2–25.5)	18.7% (16.5–21.1)
	Males	24.6% (19.4–30.6)	21.3% (18.3–24.6)
	Total	22.5% (17.8–27.9)	20.0% (17.6–22.6)

Source: Centers for Disease Control and Prevention, 2008d

Figure 4.8 Smoking Rates in Indiana and U.S. High School Students (9th–12th Grade), by Race/Ethnicity, 2007 (Youth Risk Behavior Surveillance System, 2007)

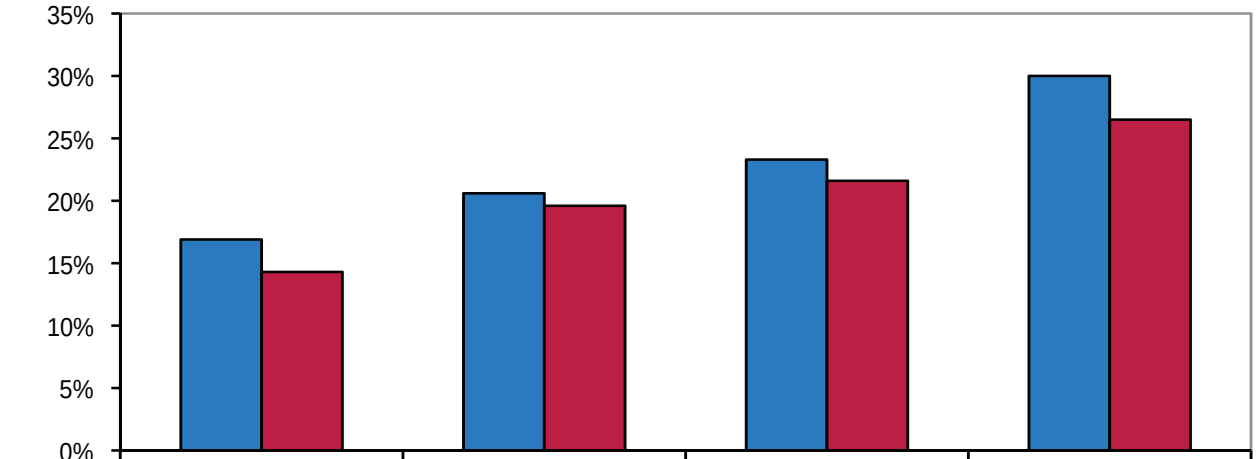


	White	Black	Hispanic	Other
Indiana	23.1%	15.6%	24.0%	18.5%
U.S.	23.2%	11.6%	16.7%	17.4%

Source: Centers for Disease Control and Prevention, 2008d

Smoking prevalence seems to increase as students progress through high school. However, these differences are statistically insignificant. In 2007, 16.9% (95% CI: 12.3–22.6) of 9th grade students and 30.0% (95% CI: 20.8–41.1) of 12th grade students said they currently use cigarettes. Current smoking rates by grade level are similar between Indiana and the United States (see Figure 4.9) (Centers for Disease Control and Prevention, 2008d).

Figure 4.9 Current Smoking Prevalence for Indiana and U.S. High School Students (9th–12th grade), by Grade, 2007 (Youth Risk Behavior Surveillance System, 2007)

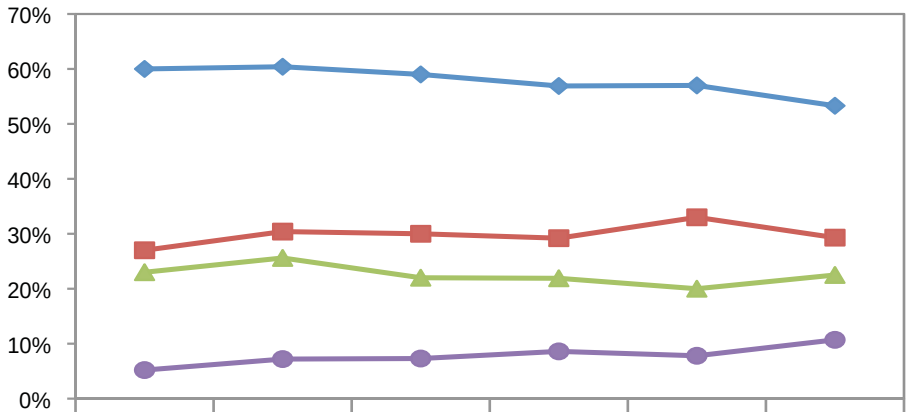


	9th Grade	10th Grade	11th Grade	12th Grade
Indiana	16.9%	20.6%	23.3%	30.0%
U.S.	14.3%	19.6%	21.6%	26.5%

Source: Centers for Disease Control and Prevention, 2008d

Lifetime use of cigarettes and current use of tobacco, cigarettes, and smokeless tobacco remained stable in Indiana from 2002 to 2007 (see Figure 4.10) (Indiana Tobacco Prevention and Cessation Agency, 2008; Centers for Disease Control and Prevention, 2008d).

Figure 4.10 Tobacco Use Among Indiana High School Students (9th–12th Grade), 2002 through 2007 (Indiana Youth Tobacco Survey [even years] and Youth Risk Behavior Surveillance System [odd years])

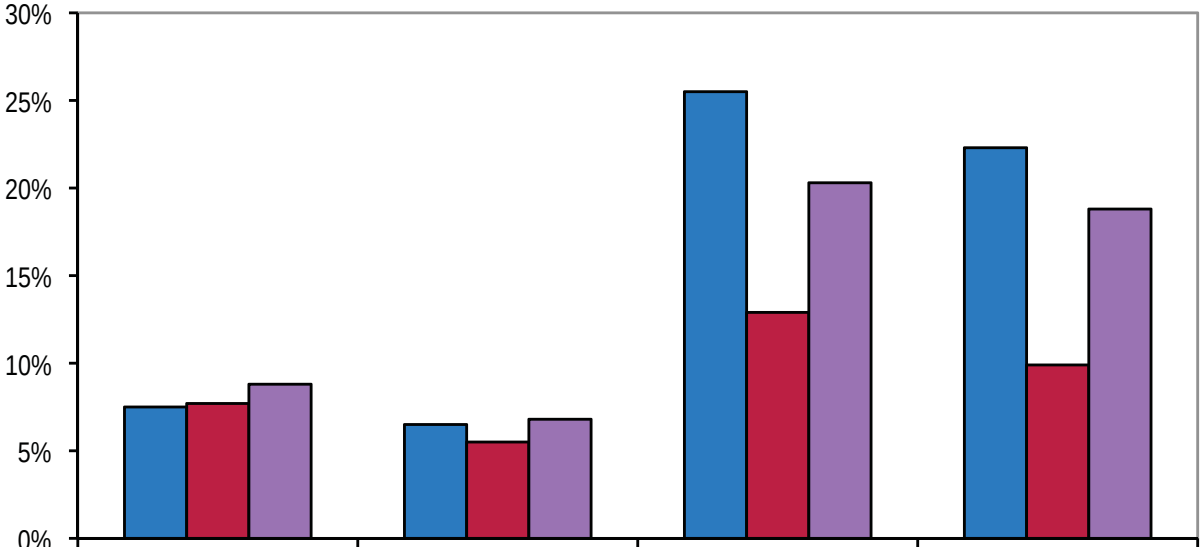


	2002	2003	2004	2005	2006	2007
Lifetime Cigarette Use	60.0%	60.4%	59.0%	56.9%	57.0%	53.3%
Current Tobacco Use	27.0%	30.4%	30.0%	29.2%	33.0%	29.3%
Current Cigarette Use	23.0%	25.6%	22.0%	21.9%	20.0%	22.5%
Current Smokeless Tobacco Use	5.2%	7.2%	7.3%	8.6%	7.8%	10.7%

Source: Indiana Tobacco Prevention and Cessation Agency, 2008; Centers for Disease Control and Prevention, 2008d

According to the 2006 Indiana Youth Tobacco Survey (IYTS), a total of 7.8% (95% CI: 5.9–9.7) of middle school students and 23.9% (95% CI: 20.0–27.7) of high school students currently smoke cigarettes (Indiana Tobacco Prevention and Cessation Agency, 2008). National prevalence, as measured by the National Youth Tobacco Survey (NYTS), is similar, 6.3% (95% CI: 5.1–7.5) in middle school and 19.7% (95% CI: 18.0–21.4) in high school (Centers for Disease Control and Prevention, 2008b). No significant differences in smoking prevalence exist among whites, blacks, and Hispanics during their middle school years. However, this changes in high school, where white students have significantly higher smoking rates than black students, both in Indiana and the United States (see Figure 4.11).

Figure 4.11 Percentage of Middle and High School Students Reporting Current Cigarette Use, Indiana and the United States, 2006 (Indiana Youth Tobacco Survey and National Youth Tobacco Survey, 2006)

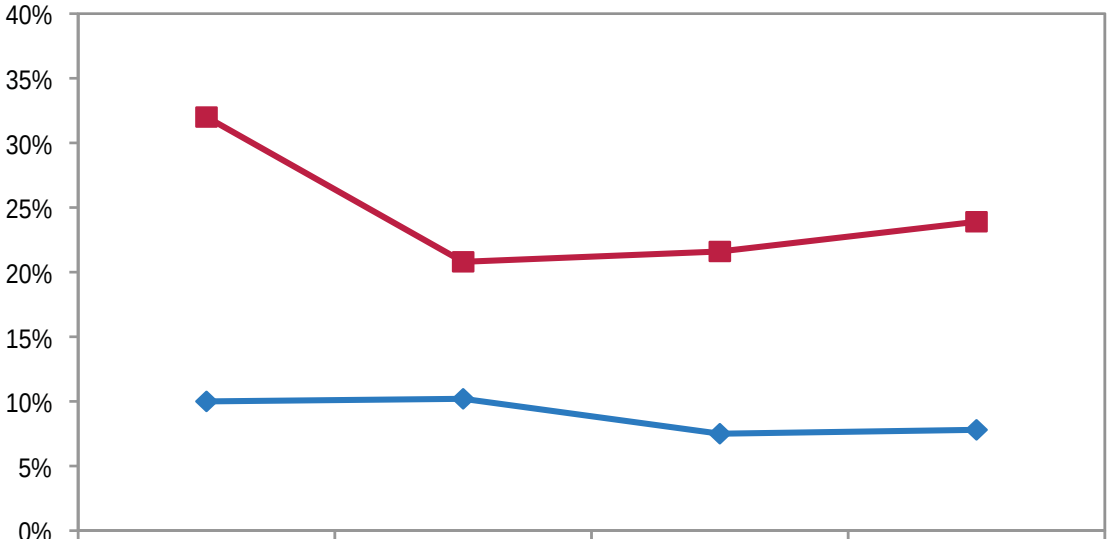


	Indiana Middle School	U.S. Middle School	Indiana High School	U.S. High School
White	7.5%	6.5%	25.5%	22.3%
Black	7.7%	5.5%	12.9%	9.9%
Hispanic	8.8%	6.8%	20.3%	18.8%

Source: Centers for Disease Control and Prevention, 2008b; Indiana Tobacco Prevention and Cessation Agency, 2008

A review of IYTS data from 2000 through 2006 reveals that even though cigarette smoking prevalence in Indiana middle school students seems to have declined over the last few years, the difference was statistically not significant. The drop in current cigarette use among high school students from 32.0% (95% CI: 28.5–35.5) in 2000 to 23.9% (95% CI: 20.0–27.7) in 2006, however, was significant (see Figure 4.12). Appendix 4A (pages 69-71) shows the percentages of Indiana middle and high school students who reported current use of various tobacco products, grouped by gender, race/ethnicity, and grade, from 2000 through 2006.

Figure 4.12 Percentage of Middle and High School Students Reporting Current Cigarette Use, Indiana and the United States, 2000 through 2006 (Indiana Youth Tobacco Survey, 2000-2006)



	2000	2002	2004	2006
Middle School	10.0%	10.2%	7.5%	7.8%
High School	32.0%	20.8%	21.6%	23.9%

Source: Indiana Tobacco Prevention and Cessation Agency, 2008

According to the 2008 Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) survey, the use of cigarettes and cigars (lifetime, annual, monthly, and daily use) among students in grades 6 to 12 has remained stable or declined from the previous year. On the other hand, the use of smokeless tobacco and pipes has increased significantly in some grades from 2007 to 2008. A comparison of Indiana data (ATOD survey) and national data (Monitoring the Future, or MTF,[1] survey) for 2007 implies that Indiana's smoking prevalence among 8th, 10th, and 12th grade students exceeds the national level.[2]

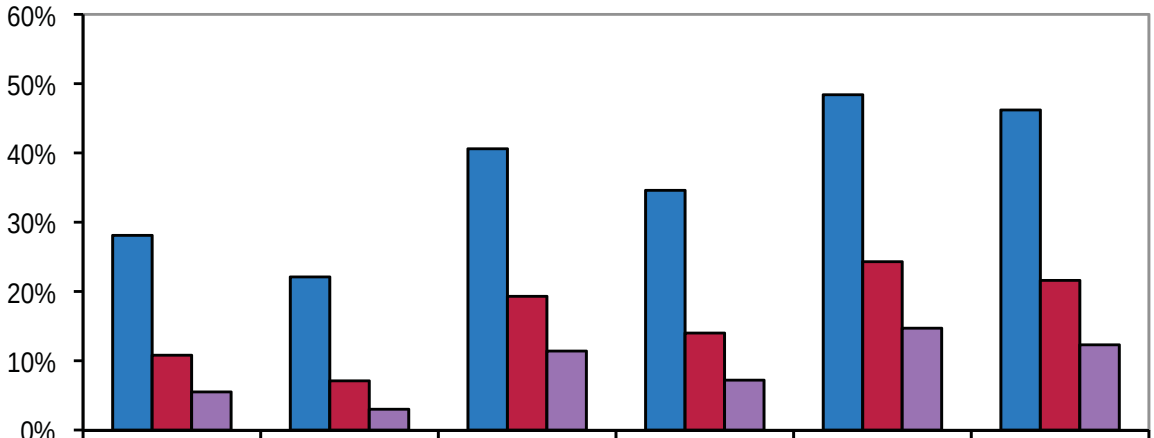
Generally, tobacco use seems to increase as students progress in school, and higher smoking rates can be found in 12th grade students (see Figure 4.13) (Indiana Prevention Resource Center, 2008). See Appendix 4B (page 72) for lifetime, annual, monthly, and daily cigarette use by Indiana region and grade for 2008.

Comparisons between Indiana (ATOD survey) and the United States (MTF survey) on 30-day prevalence of cigarette use among 12th grade students imply that (a) Hoosier students have had higher rates throughout the years, and (b) rates have been decreasing for both groups from 1998 to 2007 (see Figure 4.14). However, these results need to be interpreted with caution; statistical significance could not be determined.

Tobacco initiation tends to occur during adolescence. The mean (average) age at which Indiana students used a tobacco product for the first time was 12.7 years for cigarette, 13.3 years for smokeless tobacco, 13.5 years for cigar, and 14.1 years for pipe use (Indiana Prevention Resource Center, 2008).

[1]At the time of the report, the most recent data available were 2007 results from the MTF survey (national data) and 2008 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, only data up to 2007 were used. However, the 2008 Indiana data is available, by region, as an appendix at the end of the chapter.
[2]The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom convenience sample and is not truly representative of all middle and high school students in the state.

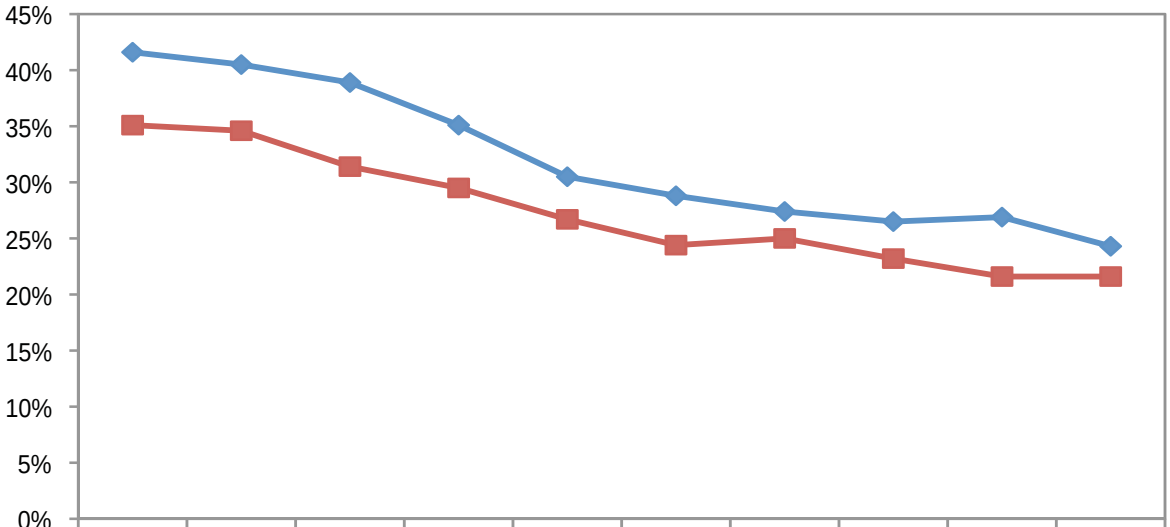
Figure 4.13 Cigarette Use Among 8th, 10th, and 12th Grade Students, Indiana and the United States, 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2007)



	Indiana 8th Grade	U.S. 8th Grade	Indiana 10th Grade	U.S. 10th Grade	Indiana 12th Grade	U.S. 12th Grade
Lifetime Use	28.1%	22.1%	40.6%	34.6%	48.4%	46.2%
Monthly Use	10.8%	7.1%	19.3%	14.0%	24.3%	21.6%
Daily Use	5.5%	3.0%	11.4%	7.2%	14.7%	12.3%

Source: Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Figure 4.14 Past-Month Smoking Prevalence for 12th Grade Students in Indiana and the United States, 1998 through 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 1998–2007)



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	41.6%	40.5%	38.9%	35.1%	30.5%	28.8%	27.4%	26.5%	26.9%	24.3%
U.S.	35.1%	34.6%	31.4%	29.5%	26.7%	24.4%	25.0%	23.2%	21.6%	21.6%

Source: Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

CONSEQUENCES

Health Consequences

Tobacco is the second major cause of death in the world. It is responsible for approximately one in 10 deaths among adults worldwide, or about 5 million deaths annually (World Health Organization, n.d.). In the United States, cigarette smoking is the single most preventable cause of disease and death, causing more deaths each year than AIDS, alcohol, cocaine, heroin, homicide, suicide, motor vehicle crashes, and fires combined.

Tobacco use is responsible for more than 430,000 deaths per year among adults in the United States, representing more than 5 million years of potential life lost (U.S. Department of Health and Human Services, 2000). On average, smoking reduces adult life expectancy by approximately 14 years. It contributes greatly to the number of deaths from lung cancer, heart disease, chronic lung diseases, and other illnesses (Centers for Disease Control and Prevention, 2008c).

Smoking affects respiratory health as well; it is related to chronic coughing and wheezing among adults. Smokers are more likely than nonsmokers to have upper and lower respiratory tract infections, perhaps because smoking suppresses the immune function. Generally, lung function declines in smokers faster than in nonsmokers. Smoking can result in cancers of the oral cavity, pharynx, larynx, esophagus, lung, bladder, stomach, cervix, kidney, and pancreas, as well as acute myeloid leukemia.

For smoking-attributable cancers, the risk generally increases with the number of cigarettes smoked and the number of years of smoking, and generally decreases after quitting completely. The leading cause of cancer deaths is lung cancer, and cigarette smoking causes most cases. However, any tobacco use can be detrimental. Smokeless tobacco has been shown to cause oral cancers and may be a risk factor for cardiovascular disease as well (National Cancer Institute, 1992).

The effects of smoking can also be observed in unborn babies, infants, and children, and may influence women's reproductive health. Women who smoke have an increased risk for infertility and ectopic pregnancies. Smoking during pregnancy causes health problems for both mothers and babies, such as an increased risk of spontaneous abortions, pregnancy complications (e.g., placenta previa, placental abruption, and premature rupture of membranes before labor begins), premature delivery, low-birth-weight infants, stillbirth, and sudden infant death syndrome (SIDS). Mothers who smoke during pregnancy reduce their babies' lung function (Centers for Disease Control and Prevention, 2008c). The percent of births to mothers who smoked during pregnancy declined in Indiana from 21.1% in 1996 to 17.9% in 2005. Prevalence differed by race and ethnicity: White mothers (18.7%) had higher rates than black mothers (14.0%); and non-Hispanic mothers (19.3%) had higher rates than Hispanic mothers (3.3%) in 2005 (Data Analysis Team, Public Health System Development and Data Commission, 2008). For a list of smoking-attributable health outcomes of diseases for which maternal smoking is a significant risk factor, in Indiana, see Appendix 4C, page 73.

Furthermore, even secondhand smoke, also called environmental tobacco smoke (ETS), has serious consequences. More than 126 million nonsmoking Americans continue to be exposed to ETS in homes, vehicles, workplaces, and public places; the exposure to tobacco smoke can cause heart disease and lung cancer even in nonsmoking adults (increased risk of 25–30% for heart disease and 20–30% for lung cancer) (Centers for Disease Control and Prevention, 2008c). Children are heavily impacted by ETS, which increases their possibility of developing significant lung conditions, especially asthma and bronchitis (U.S. Department of Health and Human Services, 2000). Secondhand smoke can cause SIDS, acute respiratory infections, ear problems, and more frequent and severe asthma attacks in children (Centers for Disease Control and Prevention, 2008c). ETS is responsible for an estimated 3,000 lung cancer deaths each year among adult nonsmokers (U.S. Department of Health and Human Services, 2000).

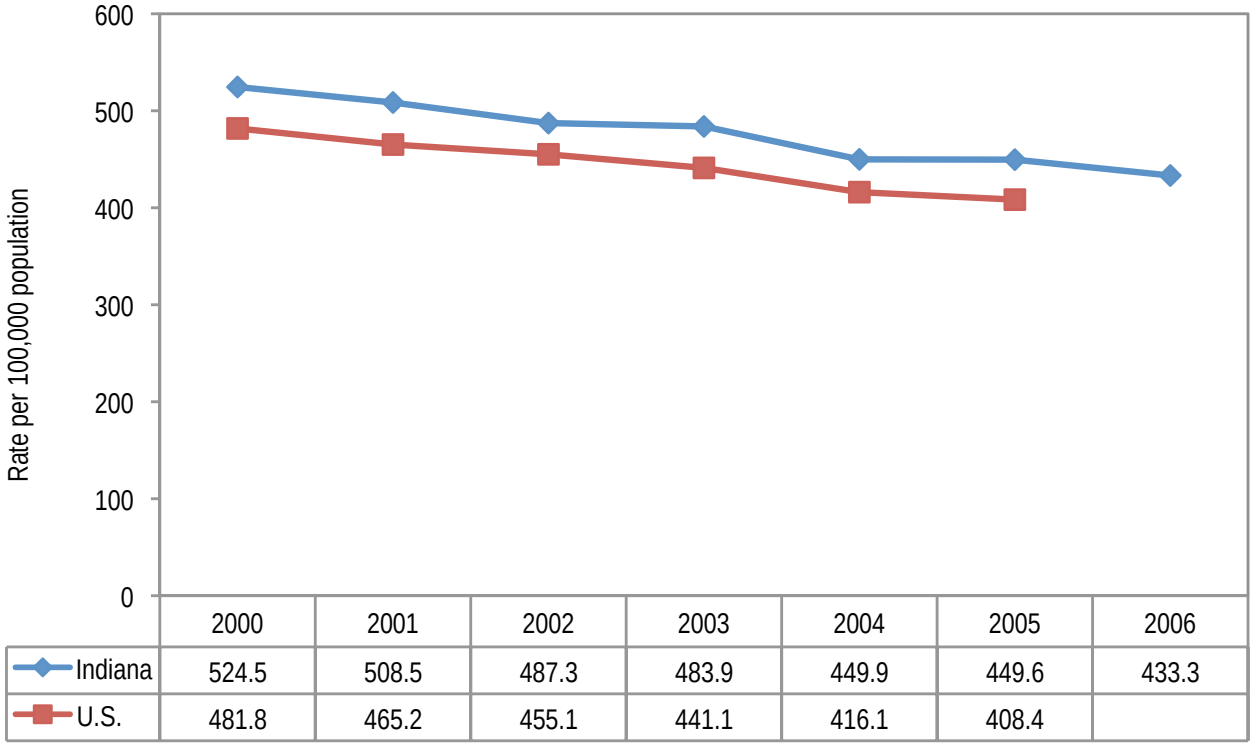
The use of tobacco products has wide-ranging consequences for adolescents and young adults. The younger people start smoking cigarettes, the more likely they are to become strongly addicted to nicotine. Factors associated with youth tobacco use include low socioeconomic status; use and approval of tobacco use by peers or siblings; smoking by parents or guardians; accessibility, availability and price of tobacco products; a perception that tobacco use is normative; lack of parental support or involvement; low levels of academic achievement; lack of skills to resist influences to tobacco use; lower self-image or self-esteem; belief in functional benefits of tobacco use; and lack of self-efficacy to refuse offers of tobacco. Tobacco use in adolescence is associated with many other health risk behaviors, including higher risk sexual behavior and use of alcohol or other drugs (Centers for Disease Control and Prevention, 2008c).

In 2006 alone, over 28,000 Hoosiers died of tobacco-related causes.[3] This represents an age-

[3]ICD-10 codes for tobacco-induced causes of death are: C00-C14, C15, C16, C25, C32, C33-C34, C53, C64-C65, C67, C92.0, I00-I09, I20-I25, I26-I51, I60-I69, I70, I71, I72-I78, J10-J18, J40-J42, J43, J44. These match SAMMEC codes for adult smoking mortality.

adjusted mortality rate of 433.3 (95% CI: 428.3–438.3) per 100,000 population (see Map 4.1, page 74) (Epidemiology Resource Center, Data Analysis Team, 2008). The age-adjusted tobacco-attributable U.S. mortality rate for 2005, the most recent national data, was 408.4 (95% CI: 407.7–409.1) per 100,000 population (Centers for Disease Control and Prevention, n.d.-a). From 2000 to 2006, tobacco-induced mortality rates have decreased significantly; however, Indiana rates still exceed the national level (see Figure 4.15).

Figure 4.15 Age-Adjusted Tobacco-Induced Mortality Rates per 100,000 Population, Indiana and the United States, 2000 through 2006 (CDC WONDER and Indiana Mortality Data, 2000-2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana	524.5	508.5	487.3	483.9	449.9	449.6	433.3
U.S.	481.8	465.2	455.1	441.1	416.1	408.4	

Note: National data for 2006 are not available yet.
Source: Centers for Disease Control and Prevention, n.d.-a; Epidemiology Resource Center, Data Analysis Team, 2008

The Smoking Attributable Mortality, Morbidity, and Economic Costs (SAMMEC) report from the Centers for Disease Control and Prevention lists the average[4] annual age-adjusted smoking-attributable mortality rate for malignant neoplasms (cancer), cardiovascular diseases (heart diseases), and respiratory diseases (lung and bronchial diseases) (Centers for Disease Control and Prevention, n.d.-b)[5]. For a list of mortality rates by disease category, see Appendix 4D, page 73.

[4]The average annual smoking-attributable mortality rate is based on averages from 1997 to 2001.
[5]Rates are calculated for adults ages 35 and older and do not include burn or secondhand smoke deaths.

Economic Consequences

Total U.S. expenditures on tobacco were estimated to be $88.8 billion in 2005, of which $82 billion were spent on cigarettes. Cigarette companies spent $13.11 billion on advertising and promotion, down from $15.15 billion in 2003, but nearly double what was spent in 1998 (Centers for Disease Control and Prevention, 2008c; Federal Trade Commission, 2007). The federal excise tax, as of January 2006, was 39 cents per pack of cigarettes. The average state cigarette excise tax rate as of July 2008 is $1.184 per pack, but varies from 7 cents in South Carolina to $2.75 in New York; Indiana's tobacco excise tax rate is 99.5 cents (Campaign for Tobacco-Free Kids, 2008).

In the United States, the annual costs of smoking are more than $167 billion, including $75.5 billion in smoking-related medical expenditures and an estimated $92 billion in productivity losses from deaths due to smoking. As stated previously, cigarette smoking results in 5.5 million years of potential life lost annually (Centers for Disease Control and Prevention, 2008c). In Indiana, more than $1.6 billion in medical costs can be attributed to smoking (among adults ages 18 and over): $501 million for ambulatory services; $419 million for hospital charges; $134 million in prescription drugs; $500 million in nursing home expenses; and $73 million for other smoking-attributable expenditures, including roughly $15 million spent on smoking-attributable neonatal expenses (Centers for Disease Control and Prevention, n.d.-b). Increased medical costs, higher insurance rates, added maintenance expenses, lower productivity, and higher rates of absenteeism from smoking cost American businesses billions every year.

APPENDIX 4A - Part 1

Percentage and 95% Confidence Interval of Indiana Middle School and High School Respondents Who Currently Use Any Tobacco Product, by Gender, Race/Ethnicity, and School Grade (Indiana Youth Tobacco Survey, 2000–2006)

	ANY TOBACCO PRODUCT							
	2000		2002		2004		2006	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
MIDDLE SCHOOL								
Gender								
Male	17.3	[13.3, 21.4]	16.6	[13.0, 20.2]	11.7	[9.2, 14.2]	13.8	[10.4, 17.2]
Female	14.9	[10.3, 19.4]	14.7	[10.9, 18.6]	14.1	[10.6, 17.7]	13.3	[10.6, 16.0]
Race/Ethnicity								
White	14.6	[10.7, 18.5]	12.5	[9.2, 15.8]	12.2	[9.4, 15.1]	12.2	[9.3, 15.1]
Black	22.4	[13.1, 31.7]	22.4	[17.3, 27.6]	16.1	[10.6, 21.6]	19.9	[15.1, 24.6]
Hispanic	27.1	[15.7, 38.5]	20.9	[12.3, 29.6]	15.1	[8.4, 21.9]	14.5	[10.3, 18.7]
Grade								
6th	10.9	[5.2, 16.5]	11.4	[6.4, 16.4]	8.8	[4.9, 12.6]	6.4	[4.5, 8.3]
7th	12.6	[8.3, 16.8]	15.0	[11.0, 19.0]	11.4	[8.6, 14.2]	11.5	[9.0, 14.0]
8th	25.1	[19.6, 30.6]	19.3	[13.1, 25.4]	17.8	[13.3, 22.4]	22.3	[17.0, 27.6]
Total	**16.1**	**[12.6, 19.6]**	**15.6**	**[12.7, 18.5]**	**12.9**	**[10.5, 15.3]**	**13.6**	**[10.9, 16.2]**
HIGH SCHOOL								
Gender								
Male	42.9	[37.3, 48.6]	30.5	[26.0, 34.9]	34.7	[31.6, 37.8]	37.0	[32.3, 41.8]
Female	33.7	[29.8, 37.5]	23.5	[18.6, 28.3]	24.7	[21.8, 27.5]	27.8	[22.7, 32.9]
Race/Ethnicity								
White	39.5	[35.3, 43.6]	27.6	[23.6, 31.6]	29.6	[26.4, 32.8]	33.2	[28.0, 38.5]
Black	25.0	[19.3, 30.7]	27.3	[21.2, 33.4]	25.2	[19.8, 30.7]	25.7	[19.5, 32.0]
Hispanic	37.4	[26.0, 48.9]	23.0	[14.4, 31.5]	35.3	[28.5, 42.2]	33.0	[27.9, 38.2]
Grade								
9th	29.0	[21.9, 36.0]	23.9	[18.0, 29.8]	26.0	[22.9, 29.1]	24.8	[20.5, 29.0]
10th	40.0	[34.9, 45.0]	25.2	[18.5, 31.8]	26.1	[22.9, 29.4]	31.7	[25.8, 37.5]
11th	36.9	[28.4, 45.4]	28.2	[19.4, 37.1]	32.2	[27.5, 37.0]	37.0	[30.5, 43.4]
12th	49.5	[39.0, 60.1]	32.6	[24.9, 40.2]	36.6	[30.5, 42.8]	39.0	[31.7, 46.2]
Total	**38.6**	**[34.6, 42.5]**	**27.1**	**[23.5, 30.8]**	**29.9**	**[27.2, 32.6]**	**32.5**	**[28.1, 36.9]**

Source: Indiana Tobacco Prevention and Cessation Agency, 2008

APPENDIX 4A - Part 2

Percentage and 95% Confidence Interval of Indiana Middle School and High School Respondents Who Currently Use Cigarettes, by Gender, Race/Ethnicity, and School Grade (Indiana Youth Tobacco Survey, 2000–2006)

	CIGARETTES							
	2000		2002		2004		2006	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
MIDDLE SCHOOL								
Gender								
Male	9.5	[6.9, 12.2]	8.7	[5.8, 11.6]	5.5	[3.2, 7.8]	7.1	[5.2, 9.1]
Female	10.6	[6.7, 14.5]	11.2	[7.4, 15.0]	9.5	[6.9, 12.1]	8.5	[6.3, 10.7]
Race/Ethnicity								
White	9.2	[6.1, 12.4]	9.3	[6.2, 12.5]	7.8	[5.2, 10.4]	7.5	[5.5, 9.6]
Black	11.7	[4.7, 18.7]	10.5	[7.4, 13.7]	6.2	[2.8, 9.7]	7.7	[4.2, 11.1]
Hispanic	21.0	[10.7, 31.3]	12.3	[5.4, 19.2]	8.0	[3.0, 13.0]	8.8	[5.4, 12.1]
Grade								
6th	6.0	[2.0, 10.0]	5.2	[1.6, 8.8]	4.6	[0.8, 8.4]	3.0	[1.7, 4.2]
7th	7.6	[4.3, 10.9]	10.6	[7.2, 14.1]	8.0	[5.9, 10.2]	5.5	[3.8, 7.2]
8th	17.1	[11.7, 22.5]	13.2	[8.0, 18.5]	9.7	[6.5, 12.8]	14.8	[10.9, 18.8]
Total	10.0	[7.2, 12.9]	10.2	[7.7, 12.8]	7.5	[5.4, 9.5]	7.8	[5.9, 9.7]
HIGH SCHOOL								
Gender								
Male	33.2	[28.1, 38.3]	21.6	[18.2, 25.1]	22.9	[20.2, 25.6]	24.5	[20.7, 28.2]
Female	30.5	[26.2, 34.8]	20.2	[15.5, 24.8]	20.1	[17.7, 22.6]	23.2	[18.3, 28.1]
Race/Ethnicity								
White	33.2	[29.7, 36.7]	21.4	[17.5, 25.3]	22.5	[19.8, 25.2]	25.5	[21.1, 29.9]
Black	15.9	[10.1, 21.7]	17.0	[11.8, 22.2]	12.6	[8.9, 16.3]	12.9	[8.4, 17.5]
Hispanic	28.8	[16.7, 40.9]	18.1	[7.7, 28.4]	23.1	[17.6, 28.6]	20.3	[14.5, 26.1]
Grade								
9th	23.4	[16.5, 30.4]	17.2	[11.6, 22.7]	18.7	[15.8, 21.7]	16.6	[13.6, 19.5]
10th	32.1	[27.5, 36.8]	20.0	[14.3, 25.8]	19.4	[16.8, 22.0]	23.1	[18.5, 27.8]
11th	30.9	[24.7, 37.1]	20.5	[13.5, 27.4]	23.1	[18.7, 27.6]	28.8	[23.0, 34.6]
12th	43.2	[32.3, 54.0]	27.6	[20.4, 34.7]	26.3	[21.0, 31.7]	29.3	[21.5, 37.1]
Total	**32.0**	**[28.5, 35.5]**	**20.8**	**[17.3, 24.4]**	**21.6**	**[19.4, 23.8]**	**23.9**	**[20.0, 27.7]**

Source: Indiana Tobacco Prevention and Cessation Agency, 2008

APPENDIX 4A - Part 3

Percentage of Indiana Middle School and High School Respondents Who Currently Use Smokeless Tobacco, by Gender, Race/Ethnicity, and School Grade (Indiana Youth Tobacco Survey, 2000–2006)

	SMOKELESS TOBACCO							
	2000		2002		2004		2006	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
MIDDLE SCHOOL								
Gender								
Male	6.3	[3.8, 8.8]	3.3	[1.7, 4.9]	3.1	[1.5, 4.7]	5.1	[3.0, 7.2]
Female	1.8	[0.7, 3.0]	1.7	[0.7, 2.7]	1.1	[0.3, 2.0]	1.9	[1.1, 2.8]
Race/Ethnicity								
White	3.8	[2.3, 5.2]	2.5	[1.4, 3.6]	2.3	[1.2, 3.4]	3.3	[1.9, 4.8]
Black	3.8	[-0.5, 8.1]	2.0	[0.8, 3.2]	3.0	[0.7, 5.3]	3.7	[1.3, 6.1]
Hispanic	7.4	[0.6, 14.1]	1.3	[-0.3, 3.0]	0.6	[-0.2, 1.4]	2.7	[0.8, 4.5]
Grade								
6th	4.2	[1.0, 7.4]	1.6	[0.3, 2.9]	1.9	[0.2, 3.5]	1.4	[0.6, 2.3]
7th	2.8	[0.9, 4.7]	2.2	[0.6, 3.8]	1.6	[0.6, 2.6]	3.1	[1.8, 4.4]
8th	5.4	[2.1, 8.6]	3.1	[1.5, 4.7]	2.6	[1.1, 4.1]	5.9	[2.8, 9.1]
Total	**4.1**	**[2.7, 5.6]**	**2.4**	**[1.6, 3.2]**	**2.2**	**[1.2, 3.1]**	**3.5**	**[2.3, 4.8]**
HIGH SCHOOL								
Gender								
Male	12.2	[8.5, 16.0]	8.1	[4.4, 11.8]	11.8	[9.4, 14.1]	13.8	[9.9, 17.7]
Female	1.4	[0.6, 2.1]	2.1	[0.8, 3.5]	2.5	[1.6, 3.3]	1.6	[0.7, 2.5]
Race/Ethnicity								
White	7.7	[5.3, 10.1]	5.9	[3.6, 8.2]	7.8	[6.2, 9.5]	8.7	[6.2, 11.2]
Black	1.2	[-0.4, 2.8]	3.7	[-1.1, 8.5]	2.6	[1.0, 4.1]	2.4	[0.9, 4.0]
Hispanic	0.0	NA	0.5	[-0.1, 1.2]	7.6	[4.3, 11.0]	7.0	[3.2, 10.8]
Grade								
9th	5.4	[2.0, 8.8]	3.9	[2.1, 5.7]	6.2	[5.0, 7.5]	6.9	[4.3, 9.4]
10th	6.7	[4.4, 9.1]	5.6	[3.2, 7.9]	7.3	[5.3, 9.4]	6.9	[3.5, 10.4]
11th	6.8	[2.4, 11.3]	6.5	[0.3, 12.6]	7.8	[5.0, 10.6]	7.1	[3.4, 10.7]
12th	8.9	[2.3, 15.6]	5.2	[1.8, 8.6]	8.0	[5.5, 10.5]	10.8	[6.8, 14.7]
Total	**6.9**	**[4.7, 9.2]**	**5.2**	**[3.1, 7.4]**	**7.3**	**[5.9, 8.8]**	**7.8**	**[5.6, 10.0]**

Source: Indiana Tobacco Prevention and Cessation Agency, 2008

APPENDIX 4B

Percentage of Indiana Students Reporting Lifetime, Annual, Monthly, and Daily Cigarette Use, by Region and Grade, 2008 (Alcohol, Tobacco and Other Drug Use by Indiana Children and Adolescents Survey, 2008)[6]

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	9.8	8.7	10.4	5.8	10.5	6.8	13.9	6.7	14.9
	Annual	5.0	4.1	5.1	3.3	5.6	3.3	6.9	3.4	8.2
	Monthly	2.6	2.1	2.2	1.9	3.1	1.7	3.4	1.8	4.2
	Daily	0.9	0.8	0.7	0.5	1.1	0.7	1.1	0.8	1.4
7th Grade	Lifetime	16.4	18.1	16.8	11.5	16.2	11.1	22.2	15.4	22.9
	Annual	9.9	10.9	10.3	6.9	9.4	6.7	13.8	8.1	14.6
	Monthly	5.4	5.5	6.1	2.9	5.3	3.5	7.9	4.5	8.2
	Daily	2.3	2.1	2.3	1.5	2.4	1.4	3.8	2.0	3.8
8th Grade	Lifetime	25.5	26.8	25.5	17.5	25.4	22.1	32.5	18.8	29.3
	Annual	16.6	17.3	16.7	11.7	16.5	14.2	21.1	11.8	19.4
	Monthly	9.7	9.9	10.2	5.9	9.8	7.8	12.4	6.6	12.1
	Daily	4.7	4.2	5.0	2.3	4.4	3.5	6.7	2.8	6.6
9th Grade	Lifetime	32.0	33.7	31.9	26.6	31.9	25.8	37.6	27.2	41.7
	Annual	22.5	23.8	22.5	18.9	21.6	18.0	26.7	19.2	29.7
	Monthly	14.7	15.0	14.7	11.6	14.0	11.5	18.2	11.5	21.0
	Daily	8.1	7.7	8.2	5.6	7.6	6.0	11.4	6.2	11.8
10th Grade	Lifetime	39.1	39.8	37.7	33.4	41.6	33.2	42.2	36.2	44.6
	Annual	27.9	28.3	26.8	22.4	30.3	23.5	28.9	27.0	32.6
	Monthly	18.7	19.0	17.4	15.9	19.7	15.5	20.3	16.8	22.9
	Daily	10.8	10.8	10.1	8.8	11.6	8.7	12.7	8.5	13.2
11th Grade	Lifetime	43.2	42.5	42.9	37.7	44.4	38.2	49.2	44.4	49.4
	Annual	31.3	30.7	30.8	26.6	32.0	27.3	36.4	33.3	36.1
	Monthly	21.3	21.3	20.8	15.3	21.4	17.7	25.9	23.4	26.4
	Daily	13.2	13.2	12.4	8.5	13.6	10.9	17.4	12.2	17.6
12th Grade	Lifetime	48.2	47.7	45.7	46.1	50.3	43.4	49.8	47.5	53.7
	Annual	35.8	34.8	35.6	33.8	37.8	30.9	36.2	36.5	40.7
	Monthly	24.8	23.4	23.7	21.4	26.5	20.5	26.7	26.6	29.3
	Daily	15.0	14.4	14.2	12.6	15.7	12.1	17.1	16.3	17.7

Source: Indiana Prevention Resource Center, 2008

[6]The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.

APPENDIX 4C

Smoking-Attributable Health Outcomes of Diseases for which Maternal Smoking is a Significant Risk Factor, in Indiana (Smoking-Attributable Mortality, Morbidity, and Economic Costs, SAMMEC)

Smoking-Attributable Fraction (SAF)

	Males	Females
Short Gestation / Low Birth Weight	14.36%	14.36%
Sudden Infant Death Syndrome	20.67%	20.67%
Respiratory Distress (Syndrome) — newborn	5.71%	5.71%
Other Respiratory Conditions — perinatal	7.65%	7.65%

Smoking-Attributable Mortality (SAM)

	Males	Females
Short Gestation / Low Birth Weight	5	7
Sudden Infant Death Syndrome	7	4
Respiratory Distress (Syndrome) — newborn	1	0
Other Respiratory Conditions — perinatal	1	1

Smoking-Attributable Years of Potential Life Lost (YPLL)

	Males	Females
Short Gestation / Low Birth Weight	372	559
Sudden Infant Death Syndrome	521	319
Respiratory Distress (Syndrome) — newborn	74	0
Other Respiratory Conditions — perinatal	74	80

Source: Centers for Disease Control and Prevention, n.d.-b

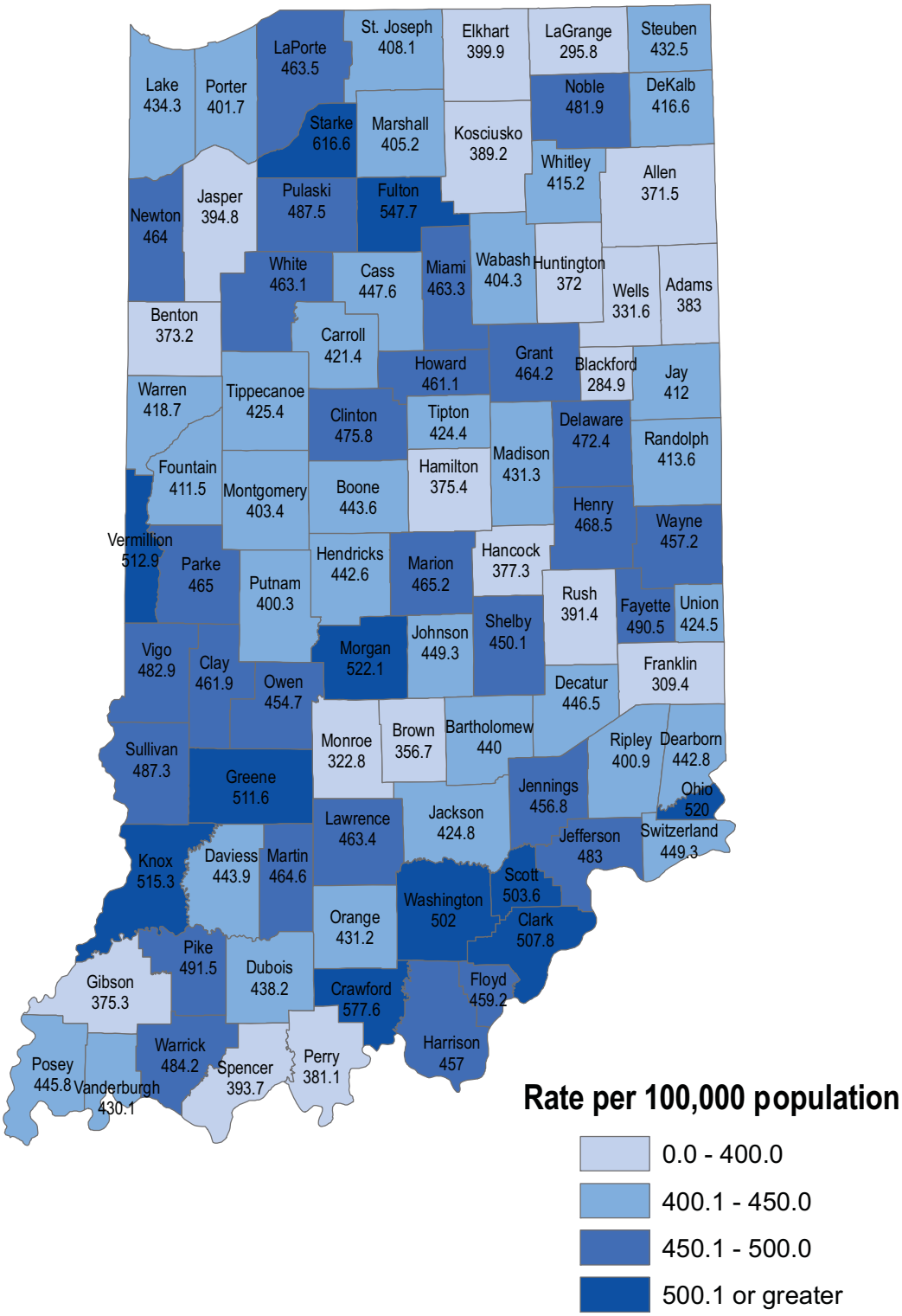
APPENDIX 4D

Average Annual Age-Adjusted Smoking-Attributable Mortality Rate Per 100,000 by Gender Among Adults 35 Years and Older, in Indiana (Smoking-Attributable Mortality, Morbidity, and Economic Costs, SAMMEC)

Disease Category	Male	Female	Total
Malignant Neoplasms			
Lip, Oral Cavity, Pharynx	5.0	1.4	3.0
Esophagus	11.7	2	6.2
Stomach	2.7	0.6	1.5
Pancreas	5.7	4.3	4.9
Larynx	3.7	0.7	1.9
Trachea, Lung, Bronchus	159.7	64.4	103.5
Cervix Uteri	0	0.6	0.3
Kidney and Renal Pelvis	5.9	0.3	2.7
Urinary Bladder	7.6	1.3	3.6
Acute Myeloid Leukemia	1.4	0.3	0.8
Subtotal	**203.4**	**75.9**	**128.4**
Cardiovascular Diseases			
Ischemic Heart Disease	102.4	39.6	66.3
Other Heart Disease	31.9	11.8	19.5
Cerebrovascular Disease	17.6	12.5	14.4
Atherosclerosis	3.5	1.1	1.9
Aortic Aneurysm	13.3	4.2	7.8
Other Circulatory Diseases	1.3	1.1	1.1
Subtotal	**170**	**70.3**	**111**
Respiratory Diseases			
Pneumonia, Influenza	12.0	5.2	7.5
Bronchitis, Emphysema	18.9	10.1	13.4
Chronic Airway Obstruction	85.8	48.5	61.9
Subtotal	**116.7**	**63.8**	**82.8**
Average Annual Total	**490.1**	**210.0**	**322.2**

Source: Centers for Disease Control and Prevention, n.d.-b

Map 4.1
Tobacco-Attributable Age-Adjusted Mortality Rate, per 100,000 Population, in Indiana, 2006 (Indiana Mortality Data, 2006)



Source: Epidemiology Resource Center, Data Analysis Team, 2008

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5. Marijuana Use in Indiana: Consumption Patterns and Consequences

MARIJUANA CONSUMPTION

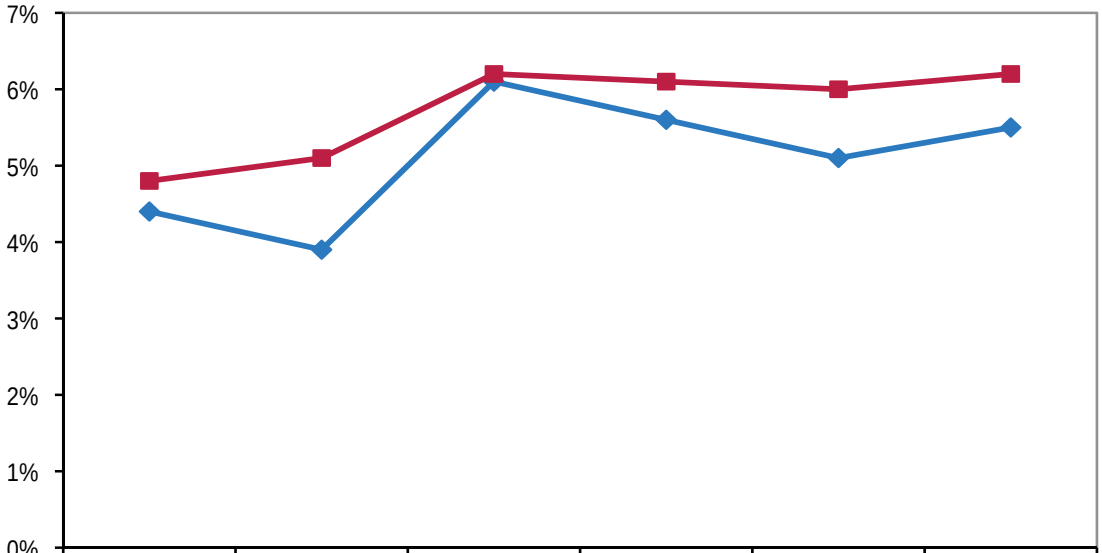
Marijuana is a green, brown, or gray mixture of dried, shredded leaves, stems, seeds, and flowers of the hemp plant (Cannabis sativa). All forms of cannabis are mind-altering (psychoactive) drugs. The main active chemical in marijuana is THC (delta-9-tetrahydrocannabinol). Marijuana is usually smoked as a cigarette (called a joint) or in a pipe or bong. It can also be consumed in blunts, which are cigars that have been emptied of tobacco and refilled with marijuana, sometimes in combination with another drug, such as crack. Marijuana can be mixed into foods or brewed as tea (Office of National Drug Control Policy, n.d.).

General Consumption Patterns

Marijuana is the most commonly used illicit drug, both in the United States and Indiana. According to the 2006 National Survey on Drug Use and Health (NSDUH), 6.2% (14.8 million) of the nation's population ages 12 and older reported current (past 30 days) marijuana use. In Indiana, an estimated 5.53% (or 286,000 Hoosiers) reported current marijuana use, while 4.2% indicated current use of illicit drugs other than marijuana (U.S.: 3.8%). Almost one-tenth (9.3%) of Indiana residents reported past year marijuana use (Substance Abuse and Mental Health Services Administration, 2008).

According to 2002–2004 NSDUH data, approximately 2,015,000 Indiana residents (39.9%) ages 12 and older have used marijuana once or more during their lifetime (*lifetime use*); this is the most recent estimate for lifetime marijuana use, which was not measured in the 2005 or 2006 surveys. Trend data from the NSDUH demonstrate that the prevalence of current marijuana use has risen from a rate of 4.8% nationally and 4.4% in Indiana (1999–2000) to 6.2% and 5.5%, respectively (2005–2006) (see Figure 5.1). These use patterns in Indiana, while seemingly lower than U.S. levels, do not show a statistically significant difference from those of the nation (Substance Abuse and Mental Health Services Administration, 2008).

Figure 5.1 Percentage of Indiana and U.S. Population (Ages 12 and Older) Reporting Current (Past Month) Marijuana Use, 2000 through 2006 (National Survey on Drug Use and Health, 2000–2006)



	2000	2001	2003	2004	2005	2006
Indiana	4.4%	3.9%	6.1%	5.6%	5.1%	5.5%
U.S.	4.8%	5.1%	6.2%	6.1%	6.0%	6.2%

Source: Substance Abuse and Mental Health Services Administration, 2008

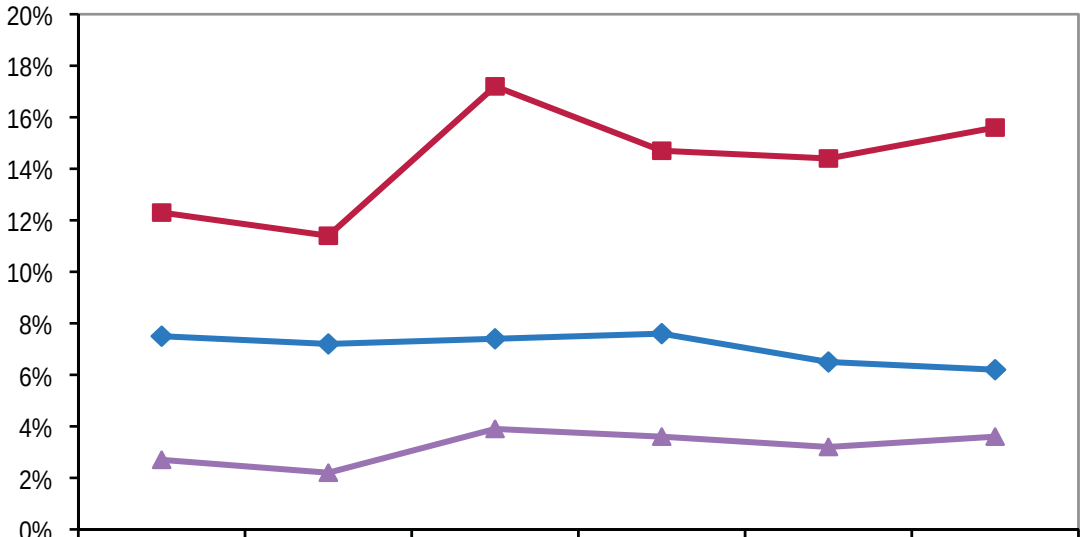
Adult Consumption Patterns

Patterns of current marijuana use among adults are similar in Indiana and the United States. According to 2005–2006 NSDUH data, 15.60% (95% Confidence Interval [CI]: 13.04–18.56) of Hoosiers ages 18 to 25 reported current (past-month) marijuana use (U.S.: 16.42%). Among Hoosiers 26 years and older, past-month use was 3.63% (95% CI: 2.71–4.86), also comparable to the national prevalence (U.S.: 4.10%). Rates for both age groups have remained stable in Indiana from 2000 to 2006 (see Figure 5.2 for Indiana rates by age group) (Substance Abuse and Mental Health Services Administration, 2008).

Regarding initiation of use in Indiana, 5.72% (95% CI: 4.44–7.34) of 18- to 25-year-olds and 0.17% (95% CI: 0.10–0.29) of individuals 26 years and older reported first use of marijuana during the past year. These rates are statistically similar to the nation's prevalence, 6.02% and 0.17% respectively (Substance Abuse and Mental Health Services Administration, 2008).

The Treatment Episode Data Set (TEDS) series represents information gathered from clients at admission for each episode of substance abuse treatment (Substance Abuse and Mental Health Data Archive, 2008). TEDS data from 2000 through 2006 show that in significantly more treatment episodes in Indiana, marijuana use was indicated, compared to the rest of the United States ($P < 0.001$). Between 2000 and 2006, roughly one-half or more of Indiana individuals entering treatment programs reported marijuana use at admission, compared with approximately one-third of U.S. patients in this category (see Figure 5.3).

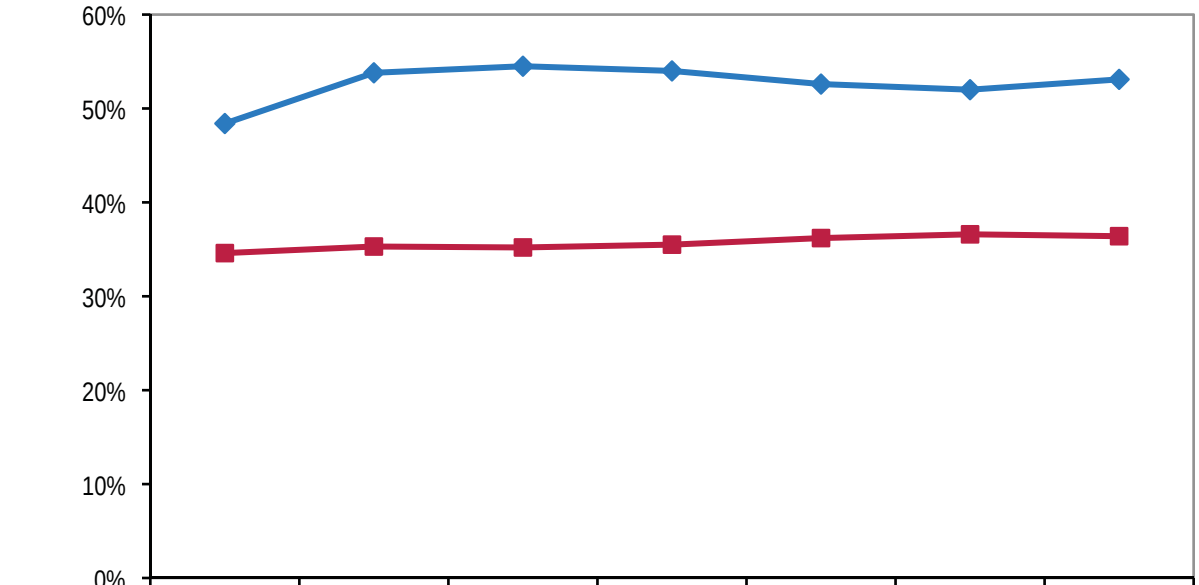
Figure 5.2 Percentage of Indiana Residents Reporting Current (Past Month) Marijuana Use, by Age Group, 2000 through 2006 (National Survey on Drug Use and Health, 2000–2006)



	2000	2001	2003	2004	2005	2006
12 -17	7.5%	7.2%	7.4%	7.6%	6.5%	6.2%
18-25	12.3%	11.4%	17.2%	14.7%	14.4%	15.6%
26 and older	2.7%	2.2%	3.9%	3.6%	3.2%	3.6%

Source: Substance Abuse and Mental Health Services Administration, 2008

Figure 5.3 Percentage of Indiana and U.S. Treatment Episodes in which Marijuana Use was Reported at Admission, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)

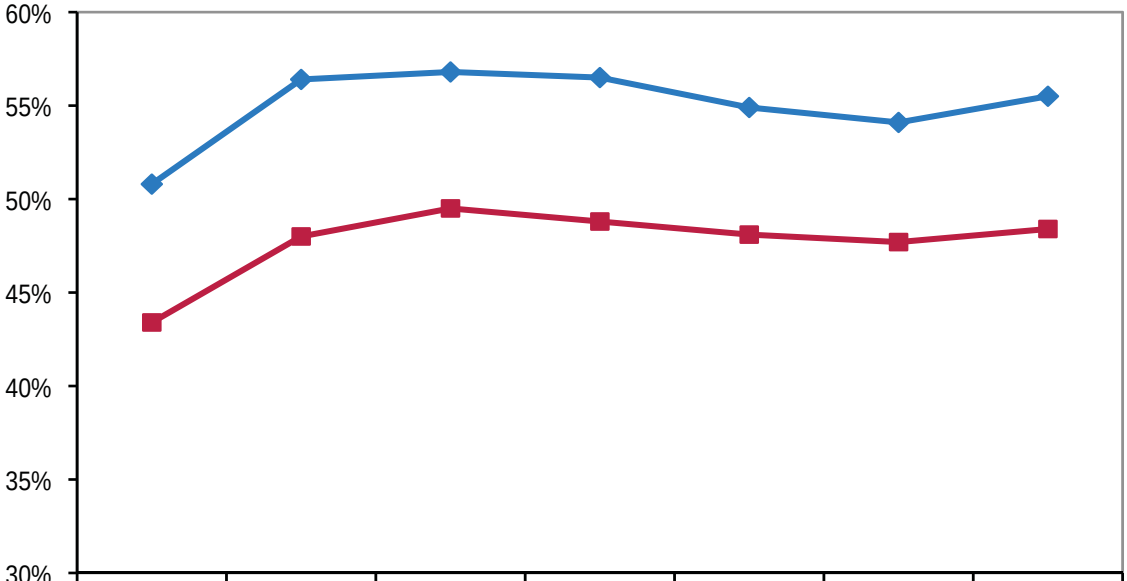


	2000	2001	2002	2003	2004	2005	2006
Indiana	48.4%	53.8%	54.5%	54.0%	52.6%	52.0%	53.1%
U.S.	34.6%	35.3%	35.2%	35.5%	36.2%	36.6%	36.4%

Source: Substance Abuse and Mental Health Data Archive, 2008

A statistically significant gender effect was apparent with marijuana use for individuals entering substance abuse treatment in Indiana. Males were statistically significantly more likely to report marijuana use at admission than females ($P < 0.001$) (see Figure 5.4).

Figure 5.4 Percentage of Indiana Treatment Episodes in which Marijuana Use was Reported at Admission, by Gender, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)

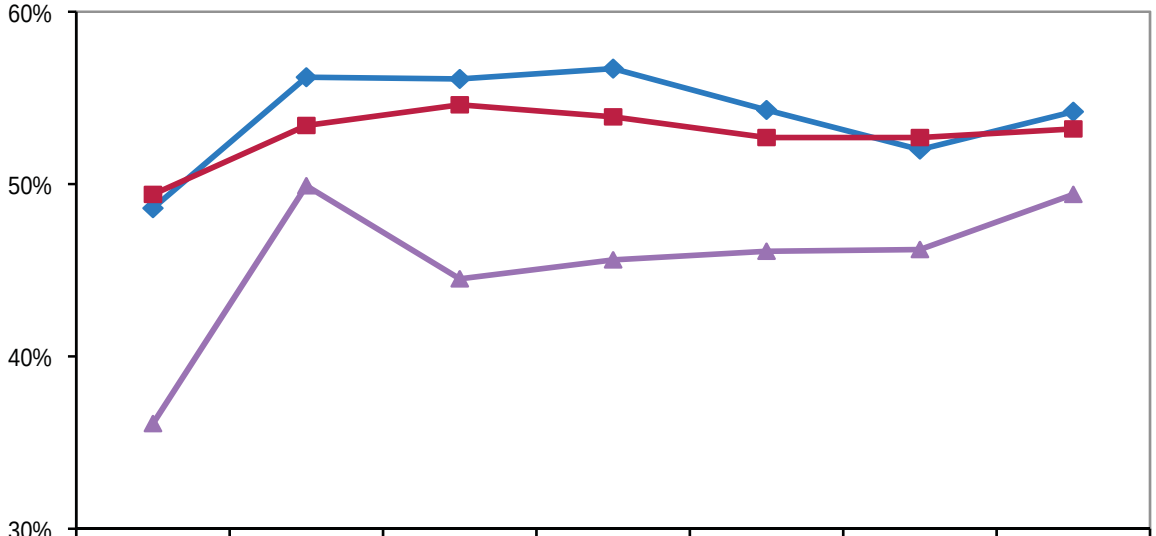


	2000	2001	2002	2003	2004	2005	2006
Male	50.8%	56.4%	56.8%	56.5%	54.9%	54.1%	55.5%
Female	43.4%	48.0%	49.5%	48.8%	48.1%	47.7%	48.4%

Source: Substance Abuse and Mental Health Data Archive, 2008

From 2000 through 2006, race was related to marijuana use ($P < 0.05$). The percentage of whites reporting marijuana use at treatment admission increased from 49.4% in 2000 to 53.2% in 2006 ($P < 0.001$). Similarly, increases in reported marijuana use were also observed for minority races; the rates for blacks and other races rose from 48.6% to 54.2% ($P < 0.001$) and from 36.1% to 49.4% ($P < 0.001$) respectively, during that time period (see Figure 5.5). From 2000 through 2006, marijuana use was also associated with age ($P < 0.001$). As shown in Figure 5.6, self-reported marijuana use by individuals entering substance abuse treatment steadily declines with age. In 2006, in almost 84% of treatment episodes among Hoosiers under age 18, marijuana use was reported; but less than one-fifth of treatment episodes among Indiana residents ages 55 and older indicated use of the substance. For county-level information on marijuana use, see Appendix 5A, page 93.

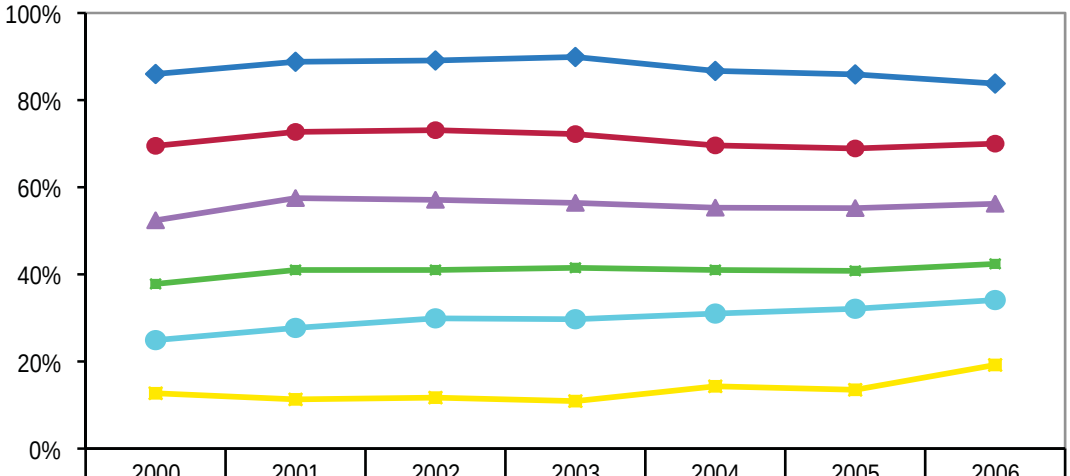
Figure 5.5 Percentage of Indiana Treatment Episodes in which Marijuana Use was Reported at Admission, by Race, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Black	48.6%	56.2%	56.1%	56.7%	54.3%	52.0%	54.2%
White	49.4%	53.4%	54.6%	53.9%	52.7%	52.7%	53.2%
Other	36.1%	49.9%	44.5%	45.6%	46.1%	46.2%	49.4%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 5.6 Percentage of Indiana Treatment Episodes in which Marijuana Use was Reported at Admission, by Age, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
under 18	86.0%	88.8%	89.1%	89.9%	86.7%	85.9%	83.8%
18 to 24	69.5%	72.7%	73.1%	72.2%	69.6%	68.9%	70.0%
25 to 34	52.4%	57.5%	57.1%	56.4%	55.3%	55.2%	56.2%
35 to 44	37.8%	41.0%	41.0%	41.5%	41.0%	40.8%	42.4%
45 to 54	24.9%	27.7%	29.9%	29.7%	31.0%	32.1%	34.1%
55 and over	12.7%	11.3%	11.7%	10.9%	14.3%	13.5%	19.2%

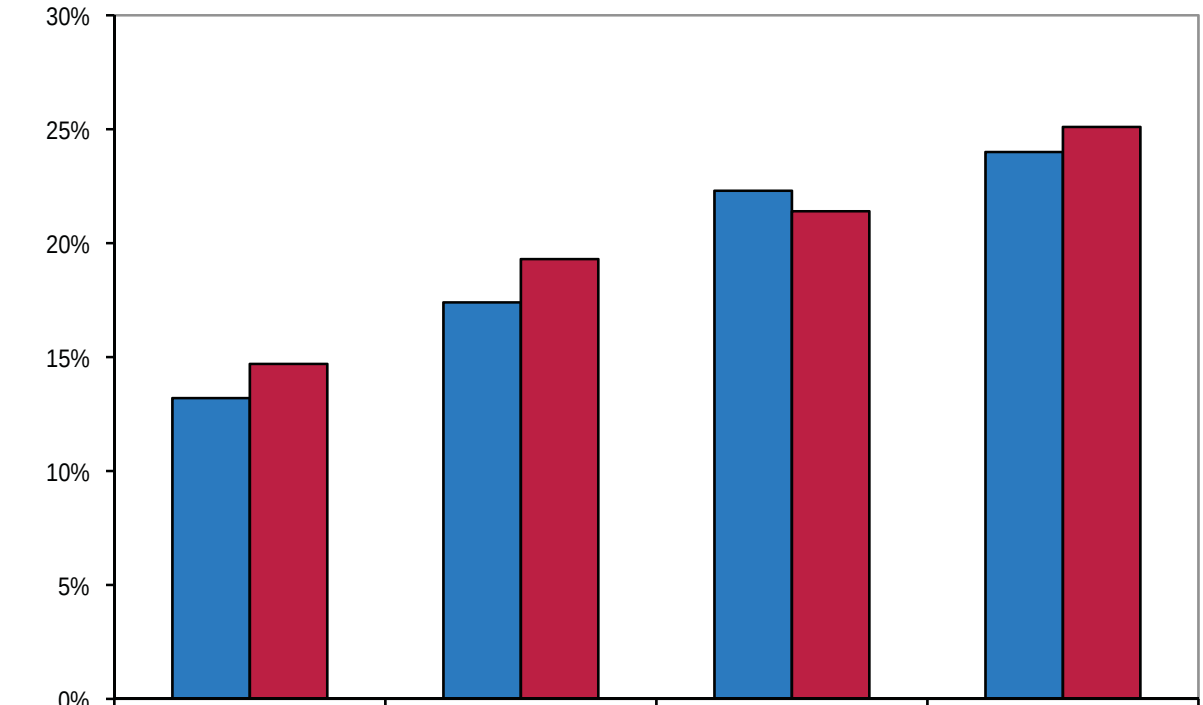
Source: Substance Abuse and Mental Health Data Archive, 2008

Youth Consumption Patterns

According to average annual rates from the 2006 NSDUH, among youths ages 12 to 17 in Indiana, an estimated 5.69% (95% CI: 4.72–6.85) had used marijuana for the first time during the past year. These rates were similar to national rates of 5.58% among 12- to 17-year-olds. Patterns of current marijuana use among Indiana residents ages 12 to 17 tended to mirror national rates, and remained constant between 2000 and 2006 (see Figure 5.2) (Substance Abuse and Mental Health Services Administration, 2008).

According to the 2007 Youth Risk Behavior Surveillance System (YRBSS), among students in grades 9 through 12, 18.9% (95% CI: 16.6–21.5) of high schoolers in Indiana reported current (past 30 days) marijuana use compared with a similar national rate of 19.7% (95% CI: 17.8–21.8) (Centers for Disease Control and Prevention, 2008). Rates of use have remained stable from 2003 levels when 22.1% (95% CI: 19.8–24.7) of Indiana students and 22.4% (95% CI: 20.2–24.6) of U.S. students indicated current use. Marijuana use tends to increase with grade level, and current use among 9th graders is significantly lower compared to students in grades 10 through 12 (see Figure 5.7). Past-month marijuana use by grade level remained stable from 2003 to 2007 for Indiana and the United States.

Figure 5.7 Percentage of Indiana and U.S. High School Students Currently Using Marijuana, by Grade Level (Youth Risk Behavior Surveillance System, 2007)



	9th Grade	10th Grade	11th Grade	12th Grade
Indiana	13.2%	17.4%	22.3%	24.0%
U.S.	14.7%	19.3%	21.4%	25.1%

Source: Centers for Disease Control and Prevention, 2008

Male students, both nationally and in Indiana, were more likely to report current marijuana use than their female counterparts. Indiana rates were statistically similar to U.S. rates among both male and female students. Also, rates remained statistically similar from 2003 to 2007 at the state and national level.

In Indiana, the prevalence rate of current marijuana use was significantly higher among black (31.2%; 95% CI: 22.9–41.0) than white (17.0%; 95% CI: 14.1–20.3) high school students in 2007. No statistical differences were observed for Hispanics or other races (see Table 5.1) (Centers for Disease Control and Prevention, 2008).

Table 5.1 Percentage of Indiana and U.S. High School Students (9th–12th Grades) Reporting Current (Past Month) Marijuana Use, by Grade, Gender, and Race, 2005 and 2007 (Youth Risk Behavior Surveillance System, 2005 and 2007)

	Year	Indiana	U.S.
Grade			
9th	2005	16.3%	17.4%
	2007	13.2%	14.7%
10th	2005	18.9%	20.2%
	2007	17.4%	19.3%
11th	2005	20.2%	21.0%
	2007	22.3%	21.4%
12th	2005	21.0%	22.8%
	2007	24.0%	25.1%
Gender			
Males	2005	21.0%	22.1%
	2007	21.6%	22.4%
Females	2005	16.7%	18.2%
	2007	16.2%	17.0%
Race			
Blacks	2005	19.9%	20.4%
	2007	31.2%	21.5%
Whites	2005	18.8%	20.3%
	2007	17.0%	19.9%
Hispanics	2005	N/A	23.0%
	2007	21.9	18.5%
Other Races	2005	14.9%	13.9%
	2007	20.3%	17.2%

Source: Centers for Disease Control and Prevention, 2008

The younger a person is when he or she first uses marijuana, the more likely that individual is to use harder drugs and to become dependent as an adult. Early initiation has been associated with problematic levels of marijuana and other substance use in adolescence and adulthood (Substance Abuse and Mental Health Services Administration, 2002). In 2007, 9.1% (95% CI: 7.6–10.9) of Indiana students reported that they had tried marijuana before the age of 13; that figure is similar to the national rate of 8.3% (95% CI: 7.0–9.7).

Male students, both nationally and in Indiana, are more likely to try marijuana before age 13. In Indiana, 11.5% (95% CI: 9.6–13.8) of male and 6.4% (95% CI: 4.8–8.4) of female high school students reported marijuana initiation before age 13; U.S. rates were similar.

Differences by race/ethnicity were only observed between white and Hispanic high school students; more Hispanic students tried marijuana at an early age (15.6%; 95% CI: 9.9–23.5) compared to white students (7.6%; 95% CI: 6.1–9.6). Any differences by grade level were not significant (see Table 5.2) (Centers for Disease Control and Prevention, 2008).

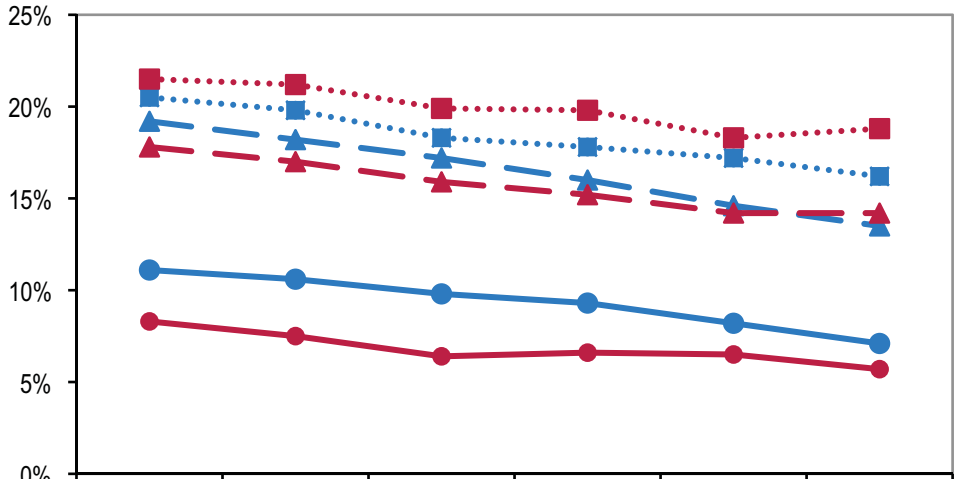
Table 5.2 Percentage of Indiana and U.S. High School Students (9th–12th Grades) Who Report Having Used Marijuana Before Age 13, by Grade, Gender, and Race, 2005 and 2007 (Youth Risk Behavior Surveillance System, 2005 and 2007)

	Year	Indiana	U.S.
Grade			
9th	2005	12.7%	11.2%
	2007	8.4%	9.8%
10th	2005	7.4%	9.1%
	2007	10.4%	8.7%
11th	2005	7.7%	7.1%
	2007	10.3%	7.2%
12th	2005	5.3%	6.2%
	2007	7.0%	6.6%
Gender			
Males	2005	10.6%	11.0%
	2007	11.5%	11.2%
Females	2005	6.5%	6.3%
	2007	6.4%	5.2%
Race			
Blacks	2005	14.4%	12.1%
	2007	14.6%	9.5%
Whites	2005	7.5%	8.7%
	2007	7.6%	7.2%
Hispanics	2005	N/A	12.5%
	2007	15.6%	9.8%
Other Races	2005	N/A	13.0%
	2007	12.3%	9.9%

Source: Centers for Disease Control and Prevention, 2008

Results from the Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD)[1] surveys (Indiana Prevention Resource Center, 2008) and the Monitoring the Future (MTF)[2] surveys (Inter-university Consortium for Political and Social Research, University of Michigan, n.d.), 2002 through 2007, reveal that Indiana 8th graders reported higher current marijuana use than 8th graders nationally (see Figure 5.8). From 2002 through 2007, reported lifetime use among students in grades 8, 10, and 12 seems to have declined, both nationally and in Indiana, except for Indiana 8th graders in 2007 (see Table 5.3). However, it could not be determined if the differences between the years, grades, or geography (for both Indiana and the United States) were statistically significant. For lifetime, annual, monthly, and daily marijuana use by Indiana region and grade for 2007, see Appendix 5B, page 94.

Figure 5.8 Percentage of Indiana and U.S. 8th, 10th, and 12th Grade Students Reporting Current Marijuana Use, 2002 through 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2002–2007)



	2002	2003	2004	2005	2006	2007
Indiana 8th Grade	11.10%	10.60%	9.80%	9.30%	8.20%	7.10%
U.S. 8th Grade	8.30%	7.50%	6.40%	6.60%	6.50%	5.70%
Indiana 10th Grade	19.20%	18.20%	17.20%	16.00%	14.60%	13.50%
U.S. 10th Grade	17.80%	17.00%	15.90%	15.20%	14.20%	14.20%
Indiana 12th Grade	20.50%	19.80%	18.30%	17.80%	17.20%	16.20%
U.S. 12th Grade	21.50%	21.20%	19.90%	19.80%	18.30%	18.80%

Source: Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

[1]The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.
[2]At the time of the report, the most recent national data available were 2007 results from the MTF survey and 2008 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, data through 2007 were used.

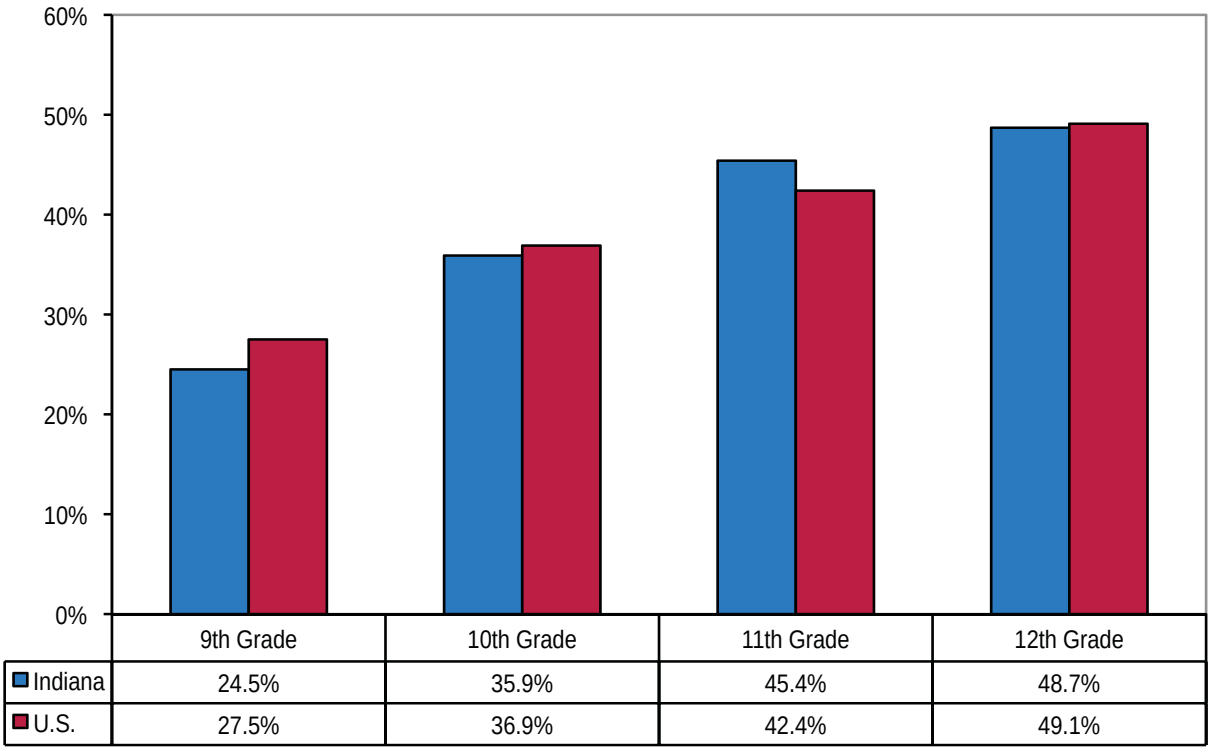
Table 5.3 Percentages of Indiana and U.S. 8th, 10th, and 12th Grade Students Reporting Using Marijuana Once or More in Their Life, by Grade, 2002 through 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2002–2007)

Grade	Geography	2002	2003	2004	2005	2006	2007
8th	Indiana	20.0%	19.1%	18.6%	17.6%	15.6%	16.1%
	U.S.	19.2%	17.5%	16.3%	16.5%	15.7%	14.2%
10th	Indiana	36.9%	34.8%	33.5%	31.6%	30.1%	29.9%
	U.S.	38.7%	36.4%	35.1%	34.1%	31.8%	31.0%
12th	Indiana	44.8%	42.3%	40.5%	40.1%	37.1%	36.5%
	U.S.	47.8%	46.1%	45.7%	44.8%	42.3%	41.8%

Source: Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

According to the YRBSS, reported lifetime marijuana use among 9th through 12th graders seemed to have declined from 43.4% (95% CI: 38.9–48.0) in 2003 to 37.8% (95% CI: 34.9–40.8) in 2007; however, the percentage decrease was statistically not significant. Indiana rates of lifetime marijuana use mirror U.S. patterns and are statistically the same. Reported lifetime use among Hoosier high school students did not differ by gender; was significantly higher in black than in white students; and increased by grade level (see Figure 5.9 and Table 5.4) (Centers for Disease Control and Prevention, 2008).

Figure 5.9 Percentage of Indiana and U.S. High School Students (9th–12th Grades) Who Report Using Marijuana One or More Times during Their Life, by Grade, 2007 (Youth Risk Behavior Surveillance System, 2007)



Source: Centers for Disease Control and Prevention, 2008

Table 5.4 Percentage of Students Who Have Used Marijuana Once or More during Their Life, by Grade, Gender, and Race, 2005 and 2007 (Youth Risk Behavior Surveillance System, 2005 and 2007)

	Year	Indiana	U.S.
Grade			
9th	2005	31.7%	29.3%
	2007	24.5%	27.5%
10th	2005	40.0%	37.4%
	2007	35.9%	36.9%
11th	2005	38.3%	42.3%
	2007	45.4%	42.4%
12th	2005	45.5%	47.6%
	2007	48.7%	49.1%
Gender			
Males	2005	41.3%	40.9%
	2007	39.5%	41.6%
Females	2005	35.1%	35.9%
	2007	36.1%	34.5%
Race			
Blacks	2005	41.0%	40.7%
	2007	55.2%	39.6%
Whites	2005	38.2%	38.0%
	2007	34.7%	38.0%
Hispanics	2005	N/A	42.6%
	2007	45.7%	38.9%
Other Races	2005	32.2%	30.6%
	2007	43.6%	32.9%

Source: Centers for Disease Control and Prevention, 2008

CONSEQUENCES OF MARIJUANA USE

Health-Related Consequences

Marijuana use can produce adverse physical, mental, emotional, and behavioral changes, and long-term use can lead to addiction. Short-term effects include memory impairment and learning problems, distorted perception, difficulty thinking and solving problems, loss of coordination, and increased heart rate. Harmful health effects also include respiratory illnesses, a weakened immune system, and increased risk of heart attack and cancer (Office of National Drug Control Policy, n.d.).

Marijuana use also is associated with risky sexual behavior, and is considered a gateway to teen sex. As such, it may result in an increase in unwanted pregnancies and sexually transmitted diseases (STDs). In addition, babies born to women who used marijuana during their pregnancy exhibit altered responses to visual

stimuli and increased tremulousness, indicating problems with neurological development. Marijuana use is also correlated with higher rates of "harder" drug use and higher rates of tobacco use (National Institute on Drug Abuse, 2007).

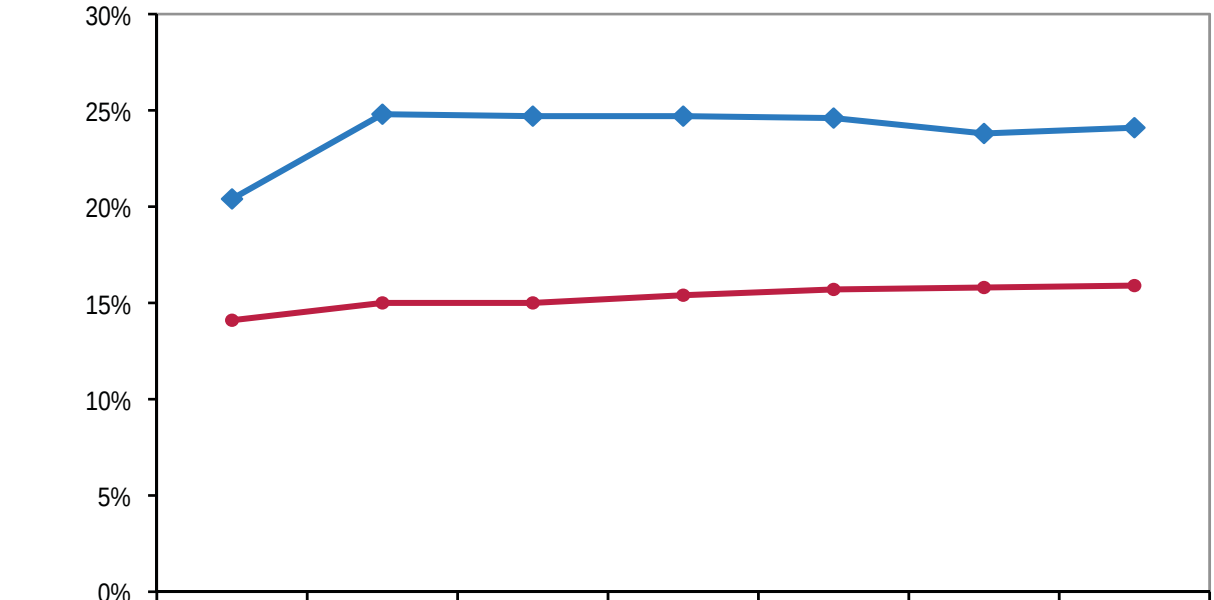
Marijuana Dependence

The Treatment Episode Data Set (TEDS) series indicates that the percent of treatment episodes for which marijuana is indicated as the primary drug[3] is statistically significantly higher in Indiana than the rest of the nation ($P < 0.001$). In Indiana, between 2001 and 2006, nearly one-quarter of the population entering drug abuse treatment reported that marijuana was their primary drug of abuse, compared to roughly 15% in the nation (see Figure 5.10).

Significant differences for marijuana dependence were observed by gender, age, and race (TEDS, 2006):

- More males (25.4%) than females (21.6%) reported marijuana dependency ($P < 0.001$) (see Figure 5.11).
- More blacks (29.8%) reported marijuana dependency than whites (23.1%) or persons from other races (20.9%) ($P < 0.001$) (see Figure 5.12).
- The percentage of adolescents (under age 18) reporting marijuana dependency was higher than any other age group ($P < 0.001$) (see Figure 5.13) (Substance Abuse and Mental Health Data Archive, 2008).

Figure 5.10 Percentage of Indiana and U.S. Treatment Episodes in which Marijuana was Indicated as Primary Drug, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)

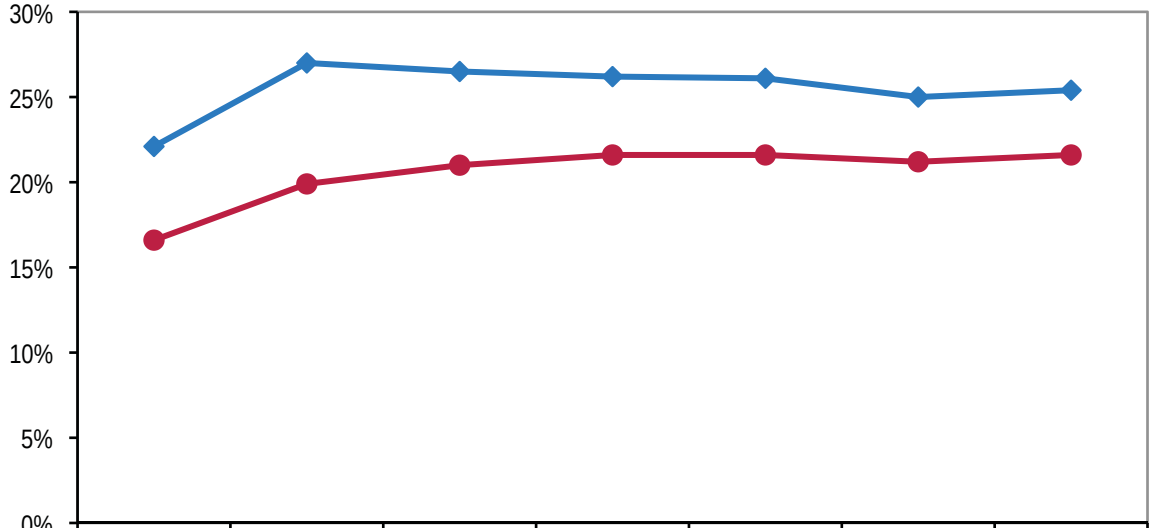


	2000	2001	2002	2003	2004	2005	2006
Indiana	20.4%	24.8%	24.7%	24.7%	24.6%	23.8%	24.1%
U.S.	14.1%	15.0%	15.0%	15.4%	15.7%	15.8%	15.9%

Source: Substance Abuse and Mental Health Data Archive, 2008

[3]We defined marijuana dependence as "individuals reporting marijuana to be their primary substance at the time of treatment admission."

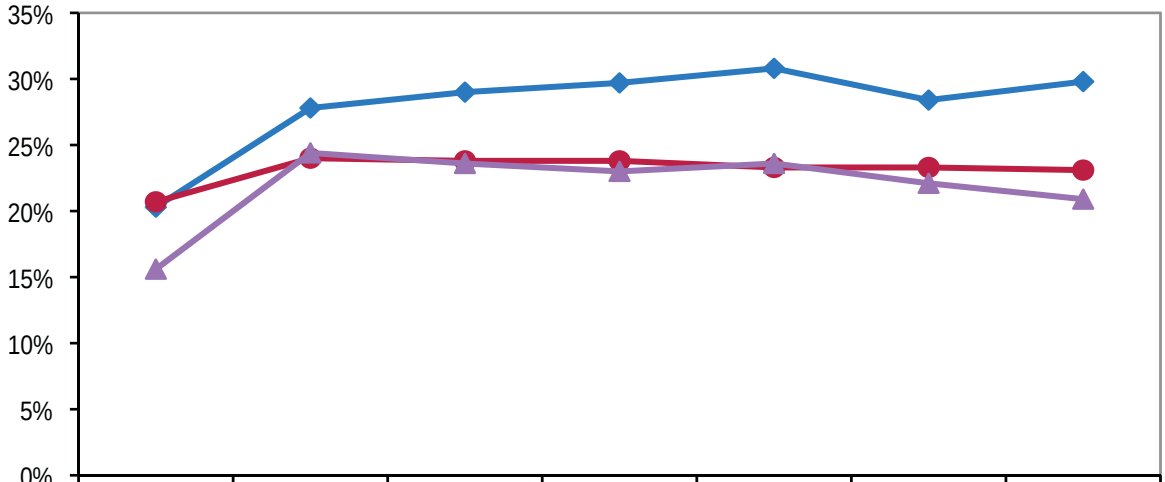
Figure 5.11 Percentage of Indiana Treatment Episodes in which Marijuana was Indicated as Primary Drug, by Gender (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Male	22.1%	27.0%	26.5%	26.2%	26.1%	25.0%	25.4%
Female	16.6%	19.9%	21.0%	21.6%	21.6%	21.2%	21.6%

Source: Substance Abuse and Mental Health Data Archive, 2008

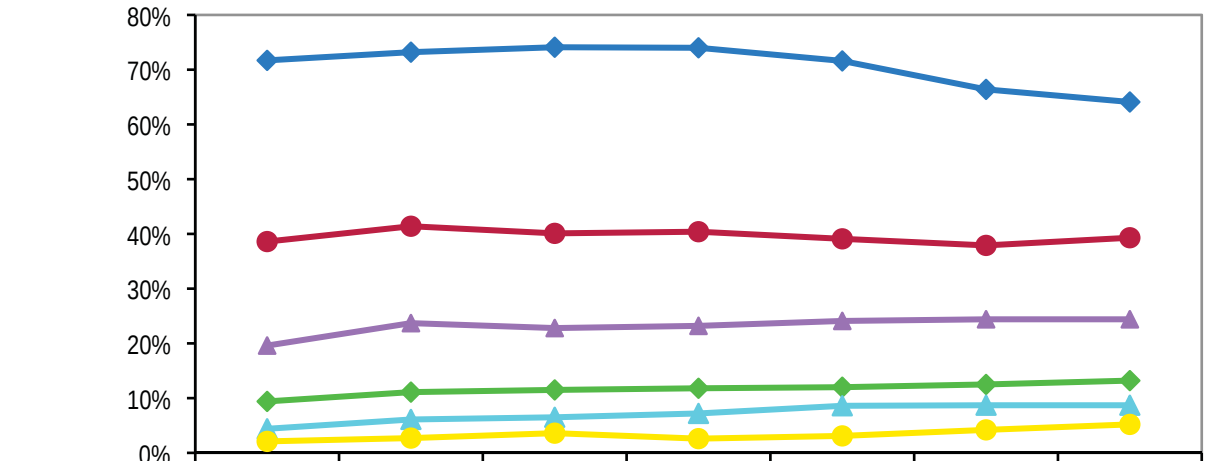
Figure 5.12 Percentage of Indiana Treatment Episodes in which Marijuana was Indicated as Primary Drug, by Race (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Black	20.3%	27.8%	29.0%	29.7%	30.8%	28.4%	29.8%
White	20.7%	24.0%	23.8%	23.8%	23.3%	23.3%	23.1%
Other	15.6%	24.4%	23.6%	23.0%	23.6%	22.1%	20.9%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 5.13 Percentage of Indiana Treatment Episodes in which Marijuana was Indicated as Primary Drug, by Age Group, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
under 18	71.7%	73.2%	74.1%	74.0%	71.6%	66.4%	64.1%
18 to 24	38.6%	41.4%	40.1%	40.4%	39.1%	37.9%	39.3%
25 to 34	19.6%	23.7%	22.8%	23.2%	24.1%	24.4%	24.4%
35 to 44	9.4%	11.1%	11.5%	11.8%	12.0%	12.5%	13.2%
45 to 54	4.4%	6.1%	6.5%	7.2%	8.6%	8.7%	8.7%
55 and over	2.1%	2.7%	3.6%	2.6%	3.1%	4.2%	5.2%

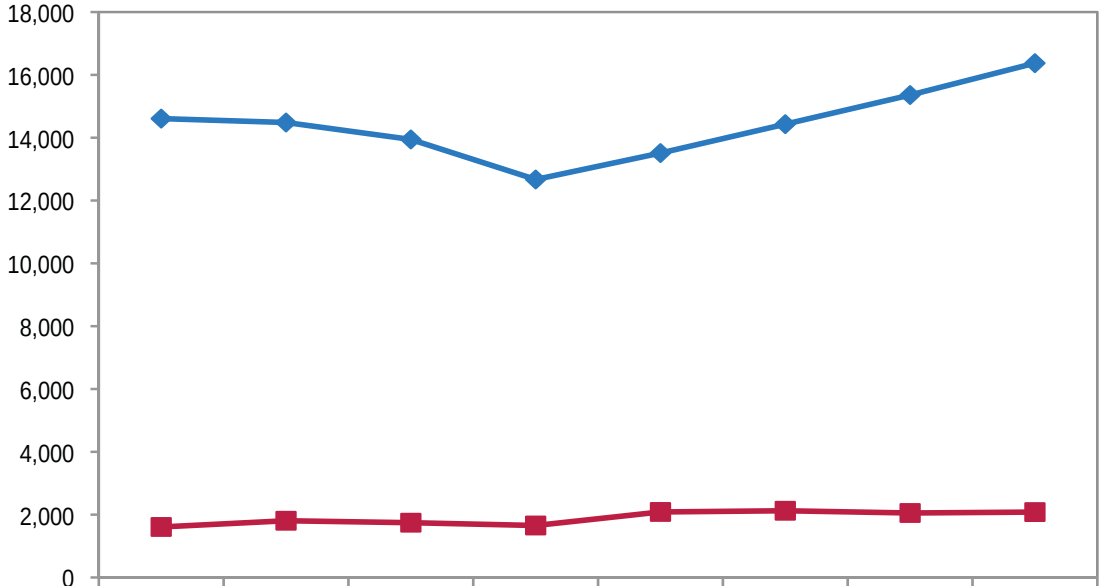
Source: Substance Abuse and Mental Health Data Archive, 2008

Criminal Consequences

Marijuana abuse remains a significant problem within Indiana. Marijuana produced in Mexico is transported and distributed by Mexican organizations. Locally produced marijuana is cultivated throughout Indiana at indoor and outdoor grow sites. As a result of the U.S. Drug Enforcement Administration's Domestic Cannabis Eradication/Suppression Program, the Indiana State Police eradicated 25,000 plants growing wild in northern Indiana. In 2007, a total of 271 kilograms, or 597 pounds, of marijuana were seized in Indiana (U.S. Drug Enforcement Administration, 2008).

The Uniform Crime Reporting (UCR) program collects drug violation arrest data nationwide (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). According to 2006 results, over 16,000 arrests were made in Indiana for the possession of marijuana. This represents an arrest rate of 2.59 (95% CI: 2.55–2.63) per 1,000 population; which is statistically higher than the U.S. rate of 2.22 (95% CI: 2.22–2.23). Additionally, just over 2,000 Hoosiers were arrested for selling and manufacturing marijuana. Indiana's arrest rate for sale/manufacture of the substance was 0.33 (95% CI: 0.32–0.34) per 1,000 population, compared to the national rate of 0.26 (95% CI: 0.26–0.27) per 1,000 population (see Figures 5.14 and 5.15).

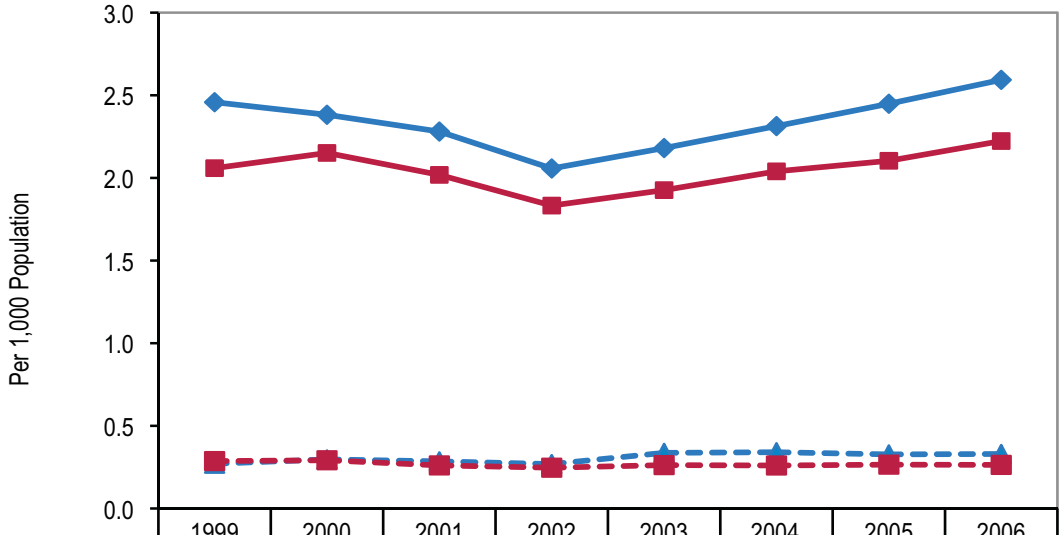
Figure 5.14 Number of Indiana Arrests for Marijuana Possession and Sale/Manufacture, 1999 through 2006 (Uniform Crime Reporting Program, 1999–2006)



	1999	2000	2001	2002	2003	2004	2005	2006
Possession	14,608	14,484	13,945	12,670	13,511	14,431	15,358	16,373
Sales	1,608	1,806	1,744	1,655	2,086	2,124	2,053	2,082

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Figure 5.15 Indiana and U.S. Arrest Rates for Marijuana Possession and Sale/Manufacture per 1,000 Population, 1999 through 2006 (Uniform Crime Reporting Program, 1999–2006)



	1999	2000	2001	2002	2003	2004	2005	2006
Indiana Possession	2.46	2.38	2.28	2.06	2.18	2.31	2.45	2.59
U.S. Possession	2.06	2.15	2.02	1.83	1.93	2.04	2.10	2.22
Indiana Sales	0.27	0.30	0.29	0.27	0.34	0.34	0.33	0.33
U.S. Sales	0.29	0.29	0.26	0.25	0.26	0.26	0.27	0.26

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Maps 5.1 and 5.2 (pages 97 and 98) and Appendix 5C (page 95), portray the distribution by county of 2006 arrest rates (per 1,000 population) due to marijuana possession and dealing (sale/manufacture) based on UCR data. While geographic/regional arrest patterns are not immediately apparent, these data demonstrate that arrest rates for possession exceed those for dealing in most counties. Caution should be exercised when interpreting these data due to variations in reporting procedures. In Indiana, reporting coverage by county and local law enforcement jurisdictions is sometimes incomplete, and therefore, a portion of these data are based on estimates. (For further details, see the discussion of UCR data in Chapter 2, Methods, page 20.)

According to the U.S. Sentencing Commission (2004), 42.7% of the people in Indiana who were convicted and sentenced for a federal crime in fiscal year (FY) 2004 had committed some type of drug offense. Approximately 15% of these drug offenses involved marijuana. Other legal consequences associated with marijuana pertain to drug-related property crimes, such as burglary and larceny, and other crimes associated with acquiring drugs.

Social Consequences

In terms of social consequences, depression, anxiety, and personality disturbances are associated with chronic marijuana use. Marijuana use compromises the ability to learn and retain information, and heavy use leads to loss of critical intellectual, job, and social skills. Students who smoke marijuana exhibit lower academic performance and are less likely to graduate from high school, relative to their nonsmoking peers. Higher rates of absenteeism are also found among students who use marijuana. Individuals who use marijuana are more likely to have problems at work, including accidents, injuries, and absenteeism (National Institute on Drug Abuse, 2008).

Marijuana use also impacts children and families by contributing to increased interpersonal conflicts, financial problems, poor parenting, incarceration of parents, and children being placed in protective custody (National Institute on Drug Abuse, 2008)

APPENDIX 5A

Number of Indiana Residents in Substance Abuse Treatment Who Reported Marijuana Use and Who Listed Marijuana as their Primary Substance at Admission, by County, 2007 (Substance Abuse Population by County/ Treatment Episode Data Set, 2007)

County	Marijuana Use	Marijuana Dependence
Allen	582	318
Bartholomew	221	84
Benton	20	9
Blackford	84	28
Boone	88	26
Brown	48	19
Carroll	29	12
Cass	109	46
Clark	203	89
Clay	109	40
Clinton	19	6
Crawford	15	8
Daviess	98	37
Dearborn	88	37
Decatur	44	17
DeKalb	85	42
Delaware	526	233
Dubois	88	29
Elkhart	357	201
Fayette	51	17
Floyd	96	39
Fountain	60	33
Franklin	34	15
Fulton	128	46
Gibson	58	23
Grant	216	87
Greene	52	22
Hamilton	390	195
Hancock	116	67
Harrison	46	21
Hendricks	159	88
Henry	156	74
Howard	284	151
Huntington	94	37
Jackson	86	39
Jasper	45	15
Jay	62	25
Jefferson	91	32
Jennings	67	27
Johnson	162	76
Knox	163	75
Kosciusko	68	34
LaGrange	65	26
Lake	1021	474
LaPorte	227	90
Lawrence	115	84
Madison	645	271
Marion	2225	1128
Marshall	113	42
Martin	37	11
Miami	140	62
Monroe	330	196
Montgomery	139	75
Morgan	234	149
Newton	12	4
Noble	171	65
Ohio	8	3
Orange	13	3
Owen	113	59
Parke	71	32
Perry	38	12
Pike	20	11
Porter	216	69
Posey	95	31
Pulaski	52	15
Putnam	80	20
Randolph	67	24
Ripley	26	13
Rush	43	20
St. Joseph	620	209
Scott	59	23
Shelby	73	38
Spencer	31	10
Starke	111	49
Steuben	60	27
Sullivan	53	17
Switzerland	21	4
Tippecanoe	498	233
Tipton	19	7
Union	20	7
Vanderburgh	878	361
Vermillion	48	22
Vigo	438	197
Wabash	95	50
Warren	22	12
Warrick	165	61
Washington	34	13
Wayne	194	71
Wells	38	27
White	78	30
Whitley	57	26
Total	15,475	7,023

Note: We defined marijuana dependence as “individuals reporting marijuana to be their primary substance at the time of treatment admission.”
Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2008

APPENDIX 5B

Percentage of Indiana Students Reporting Lifetime, Annual, Monthly, and Daily Marijuana Use, by Region and Grade, 2008 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2008)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	2.5	2.7	1.8	2.1	1.9	2.6	3.7	1.2	3.2
	Annual	2.0	2.2	1.3	1.8	1.6	2.0	3.3	0.9	2.2
	Monthly	1.3	1.3	0.7	0.7	1.2	1.2	2.1	0.8	1.6
	Daily	0.2	0.2	0.0	0.1	0.2	0.2	0.3	0.1	0.2
7th Grade	Lifetime	6.4	8.6	6.3	3.6	5.6	4.5	9.8	4.1	7.7
	Annual	5.0	6.8	4.9	2.8	4.5	3.3	8.2	3.0	5.9
	Monthly	3.2	4.3	3.4	1.7	2.9	2.2	5.0	2.1	3.8
	Daily	0.7	0.8	0.8	0.3	0.6	0.4	1.1	0.4	1.0
8th Grade	Lifetime	14.4	16.9	12.6	8.0	12.6	14.5	19.9	7.4	15.4
	Annual	11.6	13.8	9.9	6.0	9.8	11.7	16.1	5.8	12.9
	Monthly	7.1	8.1	6.8	3.7	5.8	7.1	10.3	3.5	7.6
	Daily	1.7	1.9	1.5	0.7	1.5	1.6	2.6	0.8	1.9
9th Grade	Lifetime	21.3	26.4	19.1	16.6	19.6	19.7	25.7	11.5	25.4
	Annual	17.0	20.9	15.0	13.8	15.5	15.5	20.9	8.9	20.8
	Monthly	10.4	13.1	8.7	7.9	9.0	9.6	13.2	5.0	13.1
	Daily	3.1	3.8	2.4	2.0	2.6	2.7	4.4	1.3	4.2
10th Grade	Lifetime	28.3	31.6	23.6	24.3	28.5	29.3	32.2	19.1	30.6
	Annual	22.3	26.2	18.8	19.1	21.1	23.4	25.3	14.6	24.1
	Monthly	13.5	17.0	10.8	9.9	12.3	14.1	15.9	9.1	14.6
	Daily	4.1	4.7	3.5	3.4	4.1	3.8	5.1	2.0	4.8
11th Grade	Lifetime	32.4	35.4	28.8	26.1	30.4	34.5	40.2	21.0	32.8
	Annual	25.1	28.2	21.7	19.2	23.2	26.7	32.6	15.3	25.6
	Monthly	14.6	18.1	12.7	9.1	12.7	14.6	19.9	8.0	15.9
	Daily	5.2	6.0	3.9	3.9	4.2	5.0	7.7	2.1	6.7
12th Grade	Lifetime	36.5	42.0	31.0	31.3	34.3	38.7	39.0	29.1	38.1
	Annual	27.1	32.1	22.5	23.0	23.9	29.4	30.2	22.0	27.9
	Monthly	16.2	19.6	12.3	13.0	14.3	17.7	18.3	12.4	17.3
	Daily	5.5	6.3	3.8	3.8	5.3	6.1	7.0	3.0	6.3

Note: The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.

Source: Indiana Prevention Resource Center, 2008

APPENDIX 5C

Number and Rate, per 1,000 Population, of Arrests for Marijuana Possession and Sale/Manufacture in Indiana by County, 2006 (Uniform Crime Reporting Program, 2006)

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Adams	66	1.94	3	*0.09
Allen	720	2.08	38	0.11
Bartholomew	370	5.02	13	*0.18
Benton	17	*1.87	2	*0.22
Blackford	32	2.32	3	*0.22
Boone	103	1.97	14	*0.27
Brown	21	1.38	2	*0.13
Carroll	38	1.85	3	*0.15
Cass	65	1.61	10	*0.25
Clark	204	1.99	19	*0.19
Clay	66	2.42	3	*0.11
Clinton	113	3.29	24	0.70
Crawford	30	2.66	2	*0.18
Daviess	95	3.10	7	*0.23
Dearborn	108	2.19	14	*0.28
Decatur	80	3.16	3	*0.12
DeKalb	119	2.84	12	*0.29
Delaware	155	1.32	4	*0.03
Dubois	133	3.23	8	*0.19
Elkhart	448	2.27	22	0.11
Fayette	81	3.23	7	*0.28
Floyd	273	3.77	32	0.44
Fountain	42	2.39	5	*0.28
Franklin	24	1.10	64	2.94
Fulton	59	2.84	6	*0.29
Gibson	69	2.05	9	*0.27
Grant	255	3.59	24	0.34
Greene	57	1.69	5	*0.15
Hamilton	464	1.92	47	0.19
Hancock	138	2.17	10	*0.16
Harrison	59	1.59	6	*0.16
Hendricks	224	1.75	88	0.69
Henry	44	0.93	78	1.64
Howard	360	4.21	10	*0.12
Huntington	54	1.40	8	*0.21
Jackson	157	3.69	8	*0.19
Jasper	38	1.18	20	0.62
Jay	71	3.24	4	*0.18
Jefferson	95	2.91	3	*0.09
Jennings	59	2.06	36	1.26
Johnson	425	3.28	36	0.28
Knox	57	1.48	47	1.22
Kosciusko	242	3.17	12	*0.16
LaGrange	0	*0.00	0	*0.00
Lake	1,234	2.49	417	0.84
LaPorte	270	2.43	7	*0.06
Lawrence	84	1.80	5	*0.11
Madison	322	2.45	22	0.17
Marion	2,448	2.82	274	0.32

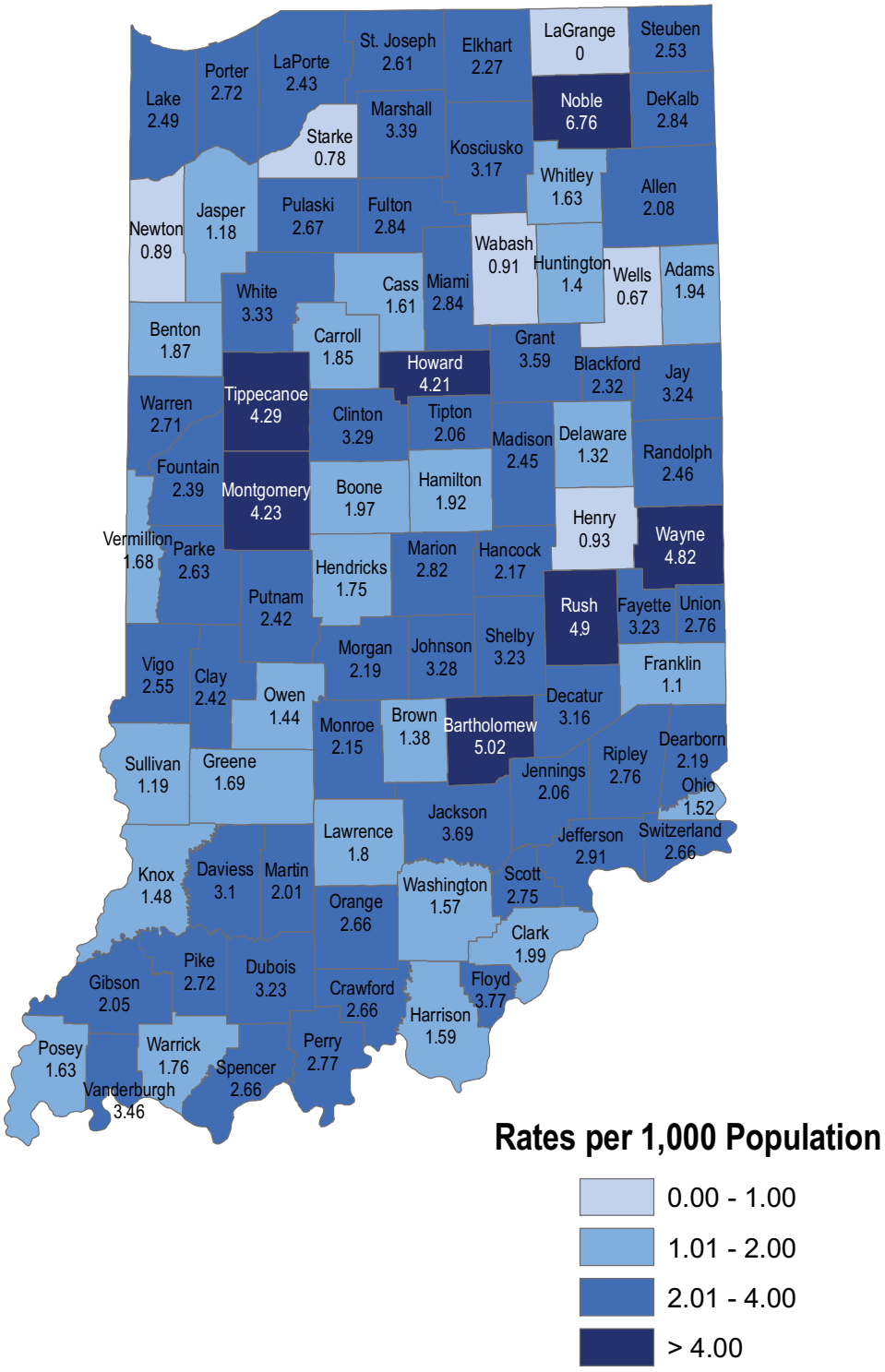
(continued on next page)

APPENDIX 5C *(Continued from previous page)*

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Marshall	160	3.39	8	*0.17
Martin	21	2.01	1	*0.10
Miami	102	2.84	10	*0.28
Monroe	263	2.15	11	*0.09
Montgomery	163	4.23	5	*0.13
Morgan	154	2.19	75	1.07
Newton	13	*0.89	24	1.65
Noble	323	6.76	10	*0.21
Ohio	9	*1.52	1	*0.17
Orange	53	2.66	3	*0.15
Owen	33	1.44	0	*0.00
Parke	46	2.63	3	*0.17
Perry	53	2.77	3	*0.16
Pike	35	2.72	3	*0.23
Porter	432	2.72	18	*0.11
Posey	44	1.63	3	*0.11
Pulaski	37	2.67	2	*0.14
Putnam	90	2.42	19	*0.51
Randolph	66	2.46	5	*0.19
Ripley	81	2.76	7	*0.24
Rush	88	4.90	3	*0.17
Saint Joseph	699	2.61	57	0.21
Scott	66	2.75	5	*0.21
Shelby	142	3.23	29	0.66
Spencer	55	2.66	3	*0.15
Starke	18	*0.78	2	*0.09
Steuben	86	2.53	5	*0.15
Sullivan	26	1.19	3	*0.14
Switzerland	26	2.66	2	*0.20
Tippecanoe	664	4.29	86	0.56
Tipton	34	2.06	2	*0.12
Union	20	2.76	4	*0.55
Vanderburgh	603	3.46	97	0.56
Vermillion	28	1.68	2	*0.12
Vigo	263	2.55	16	*0.15
Wabash	31	0.91	3	*0.09
Warren	24	2.71	1	*0.11
Warrick	100	1.76	6	*0.11
Washington	44	1.57	4	*0.14
Wayne	336	4.82	32	0.46
Wells	19	*0.67	2	*0.07
White	82	3.33	7	*0.28
Whitley	53	1.63	4	*0.12
Total	16,373	2.59	2,082	0.33

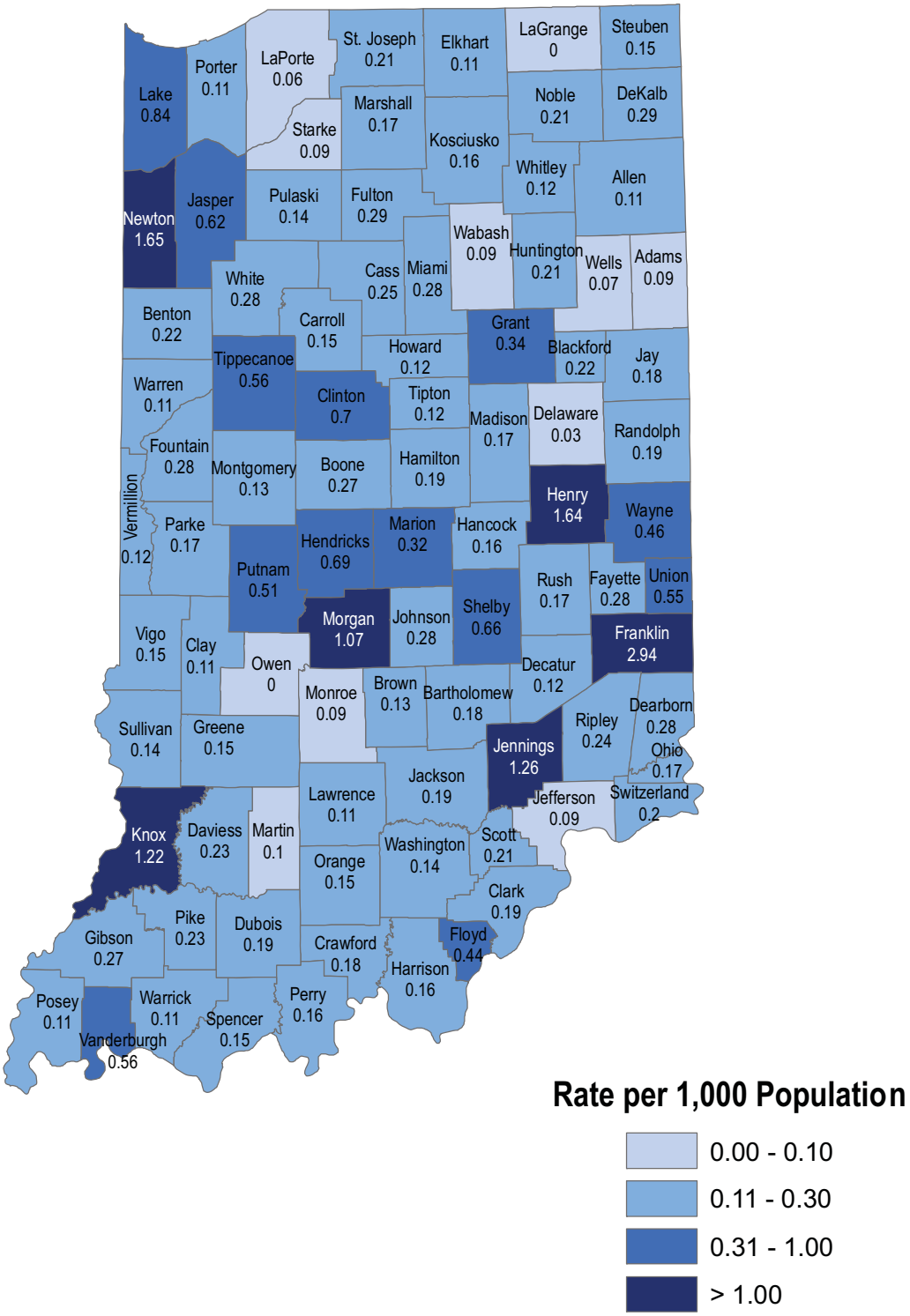
* Rates that are based on arrest numbers lower than 20 are unreliable.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 5.1 Marijuana Possession Arrest Rates in Indiana by County, 2006 (Uniform Crime Reporting Program, 2006)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 5C (pages 95-96) for additional information.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 5.2 Marijuana Sale/Manufacture Arrest Rates in Indiana by County, 2006 (Uniform Crime Reporting Program, 2006)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 5C (pages 95-96) for additional information.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

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6. Cocaine Use in Indiana: Consumption Patterns and Consequences

COCAINE CONSUMPTION

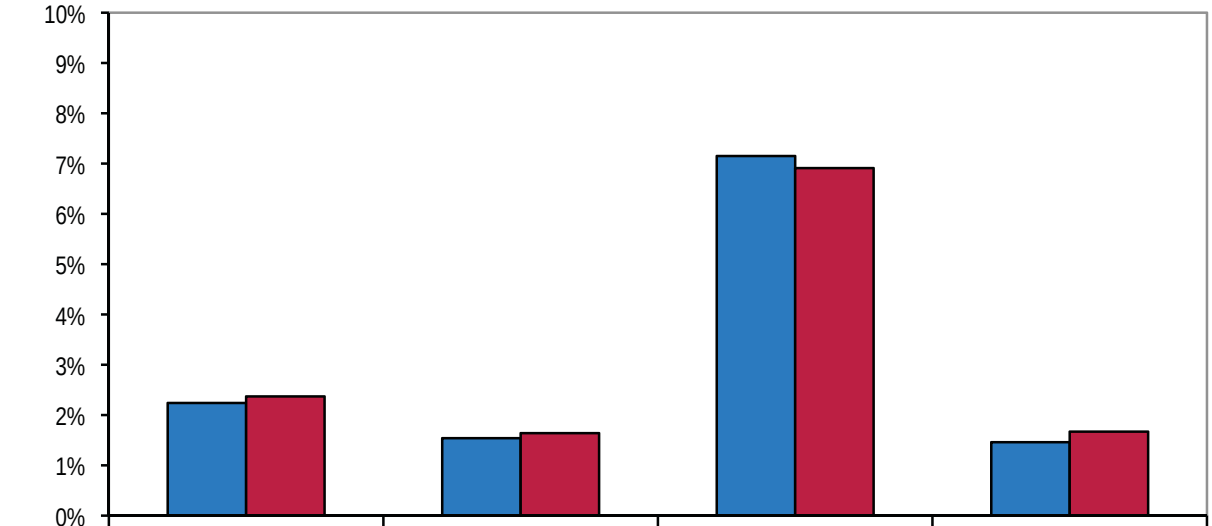
Cocaine is the most potent stimulant of natural origin. It can be snorted, smoked, or injected. When snorted, cocaine powder is inhaled through the nose where it is absorbed into the bloodstream through the nasal tissues. When injected, the user uses a needle to release the drug directly into the bloodstream. Smoking involves inhaling cocaine vapor or smoke into the lungs where absorption into the bloodstream is as rapid as by injection (Office of National Drug Control Policy, n.d.).

Crack is cocaine base that has not been neutralized by an acid to make the hydrochloride salt. This form of cocaine comes in a rock crystal that is heated to produce vapors, which are smoked. The term "crack" refers to the crackling sound produced by the rock as it is heated (Office of National Drug Control Policy, n.d).

General Consumption Patterns

The National Survey on Drug Use and Health (NSDUH) provides national and state-level estimates of alcohol, tobacco, and other drug use (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008). According to 2006 data, the most recent estimates available, 116,000 Hoosiers ages 12 and older used cocaine in the past year, representing 2.24% (95% Confidence Interval [CI]: 1.73–2.91) of Indiana's population. This rate is comparable to the nation's (2.37%). Past-year cocaine use was highest among Hoosiers ages 18 to 25, at 7.15% (95% CI: 5.59–9.11); the rate for U.S. residents in that age group was similar (6.91%) (see Figure 6.1).

Figure 6.1 Percentage of Indiana and U.S. Population (12 Years and Older) Reporting Cocaine Use in the Past Year, by Age Group, 2006 (National Survey on Drug Use and Health, 2006)



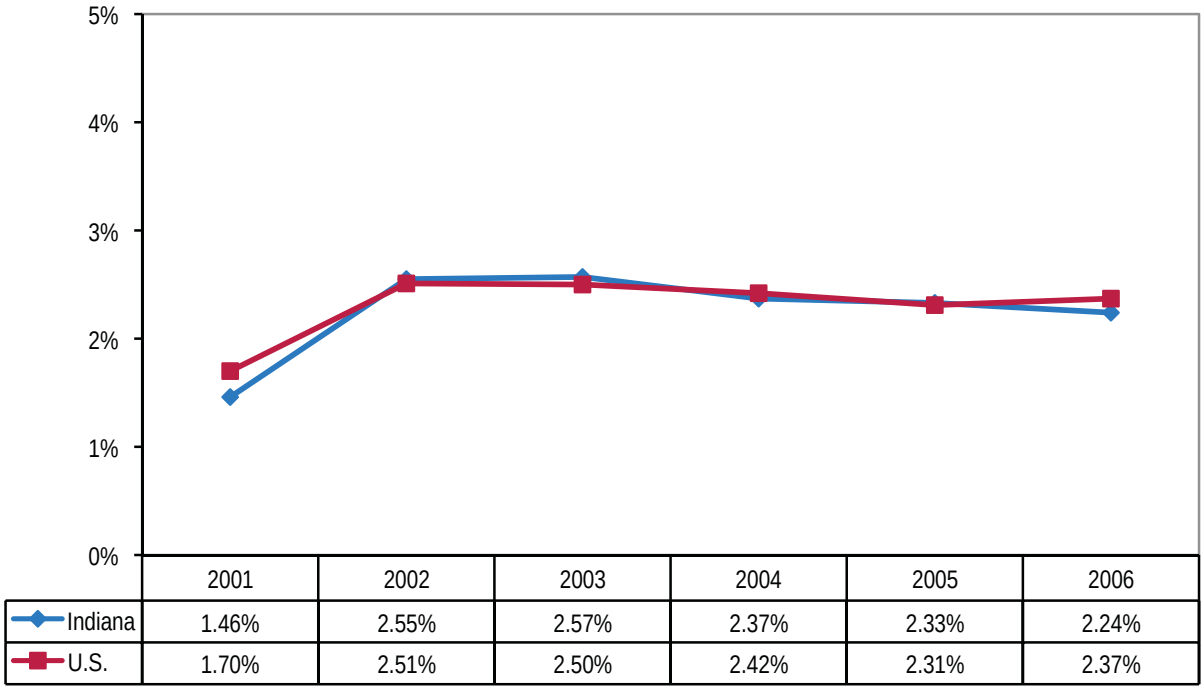
	Total	12 -17	18-25	26 and older
Indiana	2.24%	1.54%	7.15%	1.46%
U.S.	2.37%	1.64%	6.91%	1.67%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008

NSDUH data from 2001 through 2006 show that past-year cocaine use remained stable in Indiana from 1.46% (95% CI: 1.06–1.96) in 2001 to 2.24% (95% CI: 1.73–2.91) in 2006, mirroring national rates (see Figure 6.2).

Lifetime use was reported by 562,000 Hoosiers, or 11.1% (U.S.: 14.3%), and current (past-month) use was reported by 33,000 Hoosiers, or 0.7% (U.S.: 1.0%).[1] Publicly available NSDUH data currently do not include gender or race comparisons at the state level (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Figure 6.2 Percentage of Indiana and U.S. Population (12 Years and Older) Reporting Cocaine Use in the Past Year, 2001 through 2006 (National Survey on Drug Use and Health, 2001–2006)



	2001	2002	2003	2004	2005	2006
Indiana	1.46%	2.55%	2.57%	2.37%	2.33%	2.24%
U.S.	1.70%	2.51%	2.50%	2.42%	2.31%	2.37%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008

Adult Consumption Patterns

According to 2006 NSDUH estimates, past-year prevalence rates for cocaine use were highest among 18- to 25-year-olds; 7.15% (95% CI: 5.59–9.11) of Hoosiers in that age group used cocaine in the past year. The rate for Indiana residents ages 26 and older was significantly lower (1.46%; 95% CI: 0.94–2.26) (see Figure 6.1). Indiana and U.S. rates were statistically the same. Similarly, young adults ages 18 to 25 reported the highest rate of past-month cocaine use (IN: 7.46%; U.S.: 6.77%); use by individuals 26 and older was much lower (IN: 1.52%; U.S.: 1.62%).[2] (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

[1]The most recent estimates of lifetime and current (past-month) cocaine use from the National Survey on Drug Use and Health are based on annual averages from 2002 to 2004. The confidence intervals (CI) for these rates were not provided.
[2]The most recent estimates of lifetime and current (past-month) cocaine use from the National Survey on Drug Use and Health are based on annual averages from 2002 to 2004. The confidence intervals (CI) for these rates were not provided.

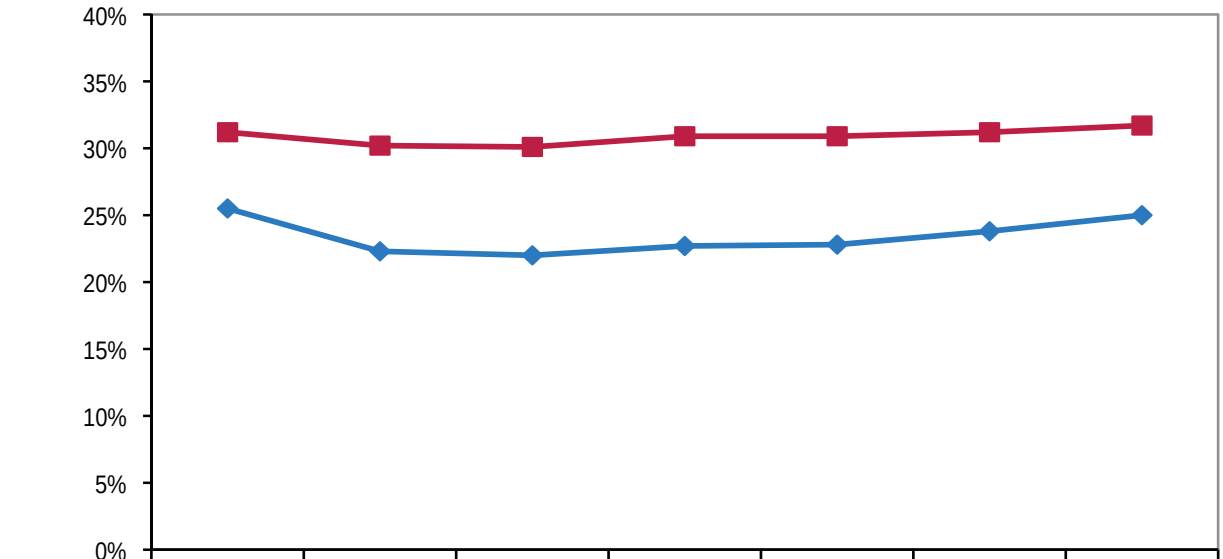
The 2006 Treatment Episode Data Set (TEDS) shows that cocaine use was reported in 25.0% of treatment episodes in Indiana; the U.S. percentage was significantly higher with 31.7% ($P < 0.001$) (see Figure 6.3) (Substance Abuse and Mental Health Data Archive, 2008). Gender, age, and race differences in the Indiana treatment population were significant ($P < 0.001$). More women (30.1%) than men (22.4%) reported cocaine use; blacks displayed drastically higher rates (43.8%) than whites (21.1%) and other races (24.0%); and the percentage of 35- to 44-year olds (33.2%) using cocaine was greater than any other age group (see Table 6.1).

Table 6.1 Percentage of Treatment Episodes in Indiana with Reported Cocaine Use (Treatment Episode Data Set, 2006)

		Cocaine Use
Gender	Male	22.4%
	Female	30.1%
Race	White	21.1%
	Black	43.8%
	Other	24.0%
Age Group	Under 18	6.7%
	18-24	15.1%
	25-34	27.0%
	35-44	33.2%
	45-54	30.8%
	55 and over	17.9%
Total		**25.0%**

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 6.3 Percentage of Treatment Episodes in Indiana and the United States with Reported Cocaine Use (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana	25.5%	22.3%	22.0%	22.7%	22.8%	23.8%	25.0%
U.S.	31.2%	30.2%	30.1%	30.9%	30.9%	31.2%	31.7%

Source: Substance Abuse and Mental Health Data Archive, 2008

Youth Consumption Patterns

Findings from the 2006 NSDUH survey show that 1.54% (95% CI: 1.07–2.21) of 12- to 17-year-old Hoosiers used cocaine in the past year (see Figure 6.1). The national rate is similar, at 1.64% (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

According to the 2007 Youth Risk Behavior Survey System (YRBSS), 8.0% (95% CI: 6.5–9.8) of Indiana high school students (grades 9 through 12) reported that they had used any form of cocaine, including powder, crack, or freebase, once or more during their life, and 3.8% (95% CI: 2.7–5.3) stated that they currently use cocaine (Centers for Disease Control and Prevention, 2008). National rates for lifetime use and current use were slightly lower, at 7.2% (95% CI: 6.2–8.2) and 3.3% (95% CI: 2.8-4.8), respectively. The rate differences between Indiana and the United States were statistically not significant (see Table 6.2).

In Indiana, 8.7% (95% CI: 6.3–11.8) of males and 5.8% (95% CI: 3.4–8.2) of females reported lifetime use, and 4.2% (95% CI: 2.7–6.7) of males and 2.8% (95% CI: 2.0–3.9) of females reported current use of the substance. National rates were comparable. Neither the differences between the genders nor between Indiana and the United States were statistically significant (see Table 6.2).

In Indiana, Hispanic students reported the highest rate of cocaine use, with 12.4% (95% CI: 7.9–18.9) reporting lifetime use and 8.0% (95% CI: 3.5–17.3) reporting current use. The prevalence for white students seemed lower, at 8.0% (95% CI: 6.5–9.9) for lifetime use and 3.2% (95% CI: 2.3–4.5) for current use, but the differences were statistically not significant. Black students had the lowest rates of cocaine use, with 2.4% (95% CI: 0.7–7.8) reporting lifetime use and 2.4% (95% CI: 0.7–7.8) reporting current use (see Table 6.2).

The lowest rate of cocaine use in Indiana high school students was found among 9th graders, of whom 4.4% (95% CI: 2.5–7.5) reported lifetime use and 2.7% (95% CI: 1.4–5.3) reported current use. Rates tend to increase with age. High school seniors displayed the highest rates, with 10.4% (95% CI: 5.8–18.1) reporting lifetime use and 5.4% (95% CI: 2.5–11.4) reporting

Table 6.2 Percentage of Indiana and U.S. High School Students (Grades 9 through 12) Reporting Lifetime and Current Cocaine Use (Youth Risk Behavior Surveillance System, 2007)

			Lifetime Use	Current Use
Indiana	Gender	Male	8.7%	4.2%
		Female	6.8%	2.8%
	Race	White	8.0%	3.2%
		Black	2.4%	2.4%
		Hispanic	12.4%	8.0%
		Other	9.9%	7.1%
	Grade	9	4.4%	2.7%
		10	8.7%	3.2%
		11	8.6%	2.9%
		12	10.4%	4.4%
	Total		**8.0%**	**3.8%**
U.S.	Gender	Male	7.8%	4.0%
		Female	6.5%	2.5%
	Race	White	7.4%	3.0%
		Black	1.8%	1.1%
		Hispanic	10.9%	5.3%
		Other	6.5%	4.0%
	Grade	9	4.8%	2.7%
		10	7.2%	3.2%
		11	7.7%	2.9%
		12	9.5%	4.4%
	Total		**7.2%**	**3.3%**

Source: Centers for Disease Control and Prevention, 2008

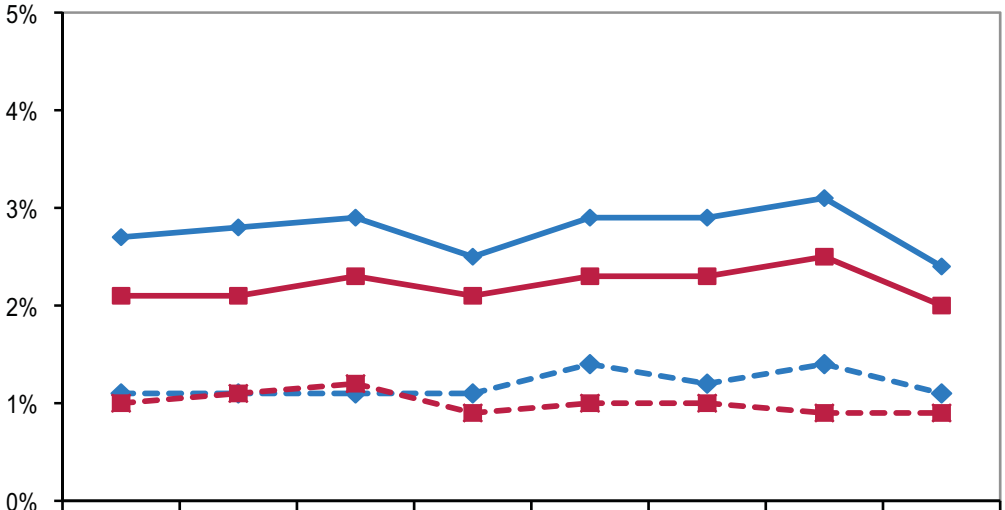
current use. However, rates for lifetime and current cocaine use between Indiana and the United States were statistically the same, as were rates among individual grades (9 through 12) (see Table 6.2).

Prevalence of lifetime and current cocaine use among Indiana's high school students remained stable from 2003 through 2007 (Centers for Disease Control and Prevention, 2008).

The annual Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) survey is based on a nonrandom sample and may not be representative of all Indiana students (Indiana Prevention Resource Center, 2008). However, the survey provides a good estimate of substance use among Hoosier children in grades 6 through 12. The 2008 survey shows that lifetime, annual, and monthly cocaine and crack use in middle and high school students generally increases with age. Lowest rates of use are found among 6th graders, the youngest students surveyed. Furthermore, crack and cocaine use rates are similar in grades 6 through 8, but cocaine seems to gain popularity as students move on through high school.

Current cocaine and crack use among high school seniors has remained stable from 2000 through 2007 in Indiana and the nation (see Figure 6.4) (Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). For regional data, see Appendix 6B, parts 1 and 2, pages 110-111.

Figure 6.4 Percentage of Indiana and U.S. High School Seniors (Grade 12) Reporting Current Cocaine and Crack Use (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2000-2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Indiana Cocaine	2.7%	2.8%	2.9%	2.5%	2.9%	2.9%	3.1%	2.4%
U.S. Cocaine	2.1%	2.1%	2.3%	2.1%	2.3%	2.3%	2.5%	2.0%
Indiana Crack	1.1%	1.1%	1.1%	1.1%	1.4%	1.2%	1.4%	1.1%
U.S. Crack	1.0%	1.1%	1.2%	0.9%	1.0%	1.0%	0.9%	0.9%

Source: Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

CONSEQUENCES

Health Consequences

Cocaine is an addictive drug and powerful stimulant. It can be taken orally, intranasally, rubbed onto mucous tissues, dissolved in water and injected intravenously, and smoked in its freebase form (known as crack) (National Institute on Drug Abuse, 2004).

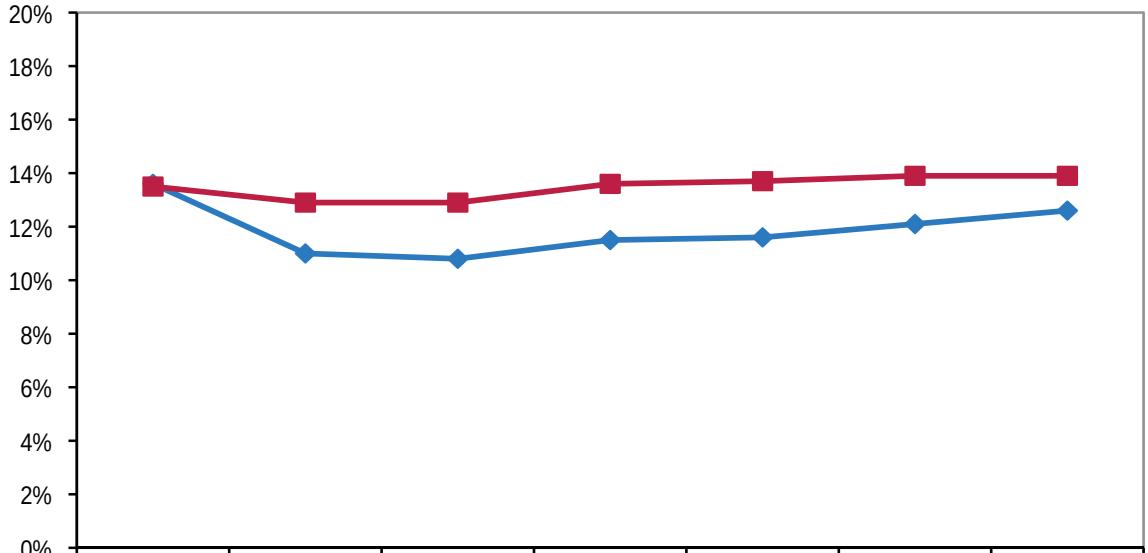
The effects of cocaine depend on the amount of the drug taken and the route of administration. Taken in small amounts, it can make the user feel euphoric, energetic, talkative, and mentally alert, and it may temporarily decrease the need for food and sleep. Short-term physiological effects of cocaine include constricted blood vessels; dilated pupils; and increased temperature, heart rate, and blood pressure. Large amounts may lead to bizarre, erratic, and violent behavior. Users may experience tremors, vertigo, muscle twitches, and paranoia. With repeated doses, users may have a toxic reaction closely resembling amphetamine poisoning. Use of crack/cocaine may result in feelings of restlessness, irritability, and anxiety. A user may suffer sudden death with the first use of cocaine or unexpectedly during any use thereafter. Long-term effects of cocaine use include dependence, irritability, mood disturbances, restlessness, paranoia, and auditory hallucinations (National Institute on Drug Abuse, 2004).

The medical consequences of cocaine abuse are primarily cardiovascular problems (such as disturbances in heart rhythm and heart attacks), respiratory difficulties (such as chest pain and respiratory failure), neurological effects (such as strokes, seizures, and headaches), and gastrointestinal complications (such as abdominal pain and nausea). Babies born to mothers who abuse cocaine during pregnancy are often prematurely delivered, have low birth weights and smaller head circumferences, and are often shorter in length (National Institute on Drug Abuse, 2004). Additionally, users who inject cocaine intravenously are at higher risk for acquiring and/or transmitting sexually transmitted diseases if needles or other injection equipment are shared (Office of National Drug Control Policy, n.d.).

Cocaine Dependence

Results from the Treatment Episode Data Set (TEDS) show that the percentage of treatment episodes in which cocaine was indicated as the primary drug has been significantly lower in Indiana than the nation for the past six years (2001 through 2006) ($P < 0.001$). Furthermore, the percentage within Indiana decreased significantly from 13.6% in 2000 to 12.6% in 2006 ($P < 0.001$) (see Figure 6.5) (Substance Abuse and Mental Health Data Archive, 2008).

Figure 6.5 Percentage of Treatment Episodes in Indiana and the United States in which Cocaine was Indicated as Primary Substance (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana	13.6%	11.0%	10.8%	11.5%	11.6%	12.1%	12.6%
U.S.	13.5%	12.9%	12.9%	13.6%	13.7%	13.9%	13.9%

Source: Substance Abuse and Mental Health Data Archive, 2008

According to 2006 TEDS data, gender, race, and age are associated with cocaine dependence[3] ($P < 0.001$). Higher rates were found in women (16.8%) than in men (10.4%); in blacks (27.8%) than in whites (9.5%) or other races (11.3%); and in 35- to 44-year olds (18.9%) (see Table 6.3) (Substance Abuse and Mental Health Data Archive, 2008). For county-level information, see Appendix 6A, page 109.

Legal and Criminal Consequences

During fiscal year 2007, a total of 6,282 federal offenders were sentenced for powder cocaine-related charges and 5,477 were sentenced for crack cocaine charges in U.S. courts. Approximately 98.2% of the powder cocaine cases and 95.8% of the crack cocaine cases involved trafficking (Office of National Drug Control Policy, n.d.). In 2007, almost 91 kilograms, or 200 pounds, of cocaine were seized in Indiana by federal law enforcement agencies (U.S. Drug Enforcement Administration, 2008).

Legal consequences associated with cocaine use include arrests for possession and sale or manufacture of the substance. The Uniform Crime Reporting (UCR) Program provides the number of arrests for offenses regarding cocaine and opiates combined; data on either drug category individually are currently not available (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). According to 2006 results, over 5,600 arrests were made in Indiana for possession of cocaine/opiates. However, Indiana's arrest rate, 0.89 (95% CI: 0.87–0.91) per 1,000 population, was below the nation's, 1.21 (95% CI: 1.21–1.21) per 1,000 population. The number of arrests for sale and manufacture of cocaine/opiates in Indiana was 3,227, representing an arrest rate of 0.51 (95% CI: 0.49–0.53) per 1,000 population. The U.S. rate was lower at 0.41 (95% CI: 0.41–0.42) per 1,000 population (see Figures 6.6 and 6.7). Maps 6.1 and 6.2 (pages 114-115) and Appendix 6C (pages 112-113) show Indiana's cocaine/opiates possession and sale/manufacture arrests by county for 2006.

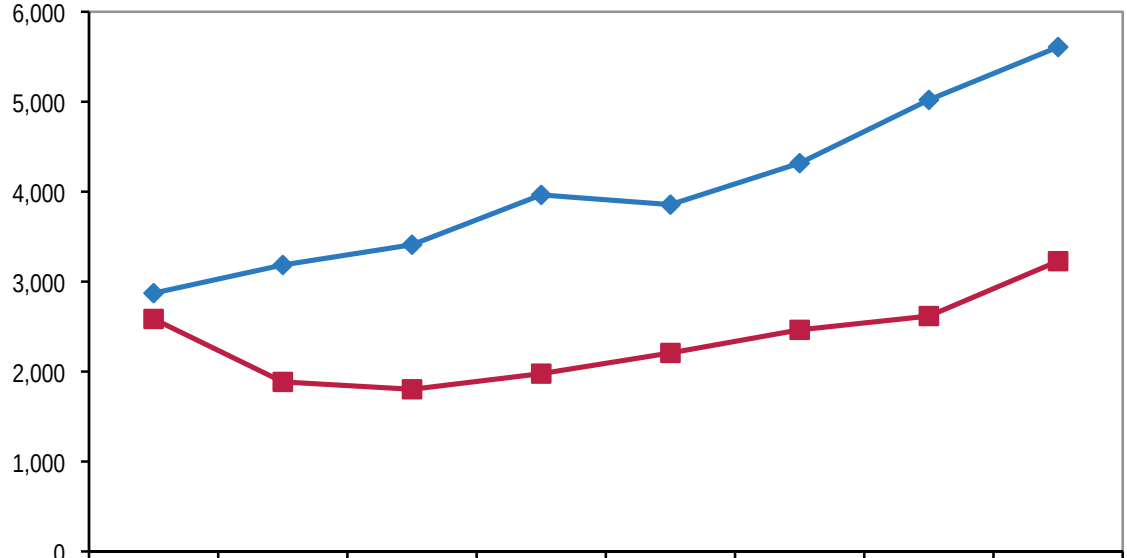
Table 6.3 Percentage of Treatment Episodes in Indiana in which Cocaine was Indicated as Primary Substance (Treatment Episode Data Set, 2006)

		Cocaine Dependence
Gender	Male	10.4%
	Female	16.8%
Race	White	9.5%
	Black	27.8%
	Other	11.3%
Age Group	Under 18	1.9%
	18-24	5.3%
	25-34	14.1%
	35-44	18.9%
	45-54	15.4%
	55 and over	8.1%
Total		**12.6%**

Source: Substance Abuse and Mental Health Data Archive, 2008

[3]We defined, cocaine dependence as "individuals reporting cocaine as their primary drug at substance abuse treatment admission."

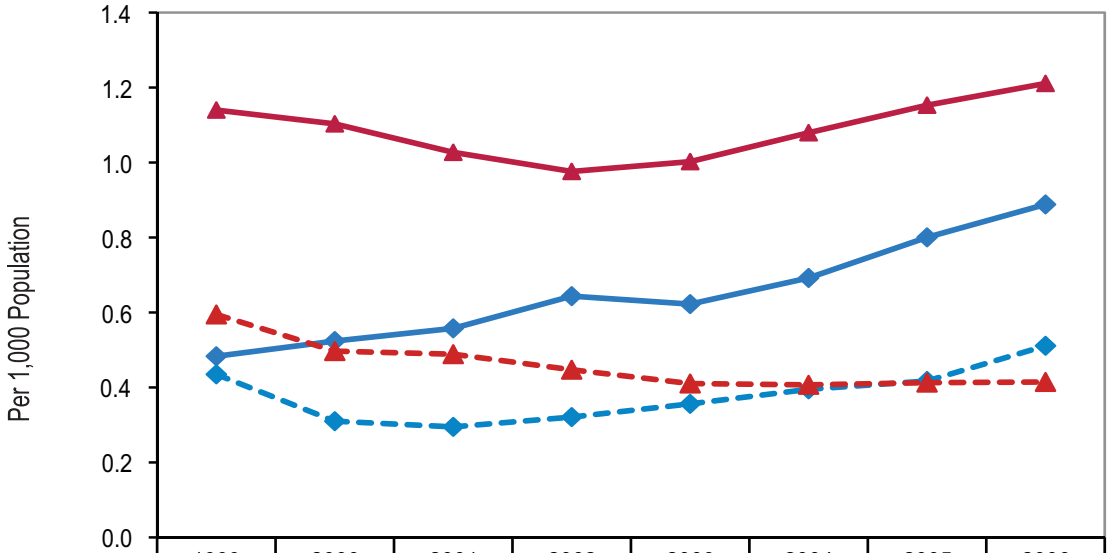
Figure 6.6 Number of Arrests for Cocaine and Opiates Possession and Sale/Manufacture in Indiana, from 1999 to 2006 (Uniform Crime Reporting Program, 1999–2006)



	1999	2000	2001	2002	2003	2004	2005	2006
Possession	2,872	3,185	3,410	3,964	3,856	4,317	5,020	5,608
Sale	2,585	1,885	1,803	1,977	2,207	2,464	2,617	3,227

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Figure 6.7 Indiana and U.S. Arrest Rates, per 1,000 Population, for Cocaine and Opiates Possession and Sale/Manufacture, 1999 to 2006 (Uniform Crime Reporting Program, 1999–2006)



	1999	2000	2001	2002	2003	2004	2005	2006
IN Possession	0.48	0.52	0.56	0.64	0.62	0.69	0.80	0.89
U.S. Possession	1.14	1.10	1.03	0.98	1.00	1.08	1.15	1.21
IN Sale	0.43	0.31	0.29	0.32	0.36	0.40	0.42	0.51
U.S. Sale	0.59	0.50	0.49	0.45	0.41	0.41	0.41	0.41

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

APPENDIX 6A

Number of Indiana Residents in Substance Abuse Treatment who Reported Cocaine Use and Who Listed Cocaine as their Primary Substance at Admission (Substance Abuse Population by County/Treatment Episode Data Set, 2007)

County	Cocaine Use	Cocaine Dependence
Adams	18	7
Allen	264	147
Bartholomew	104	46
Benton	7	5
Blackford	38	7
Boone	32	16
Brown	8	3
Carroll	7	1
Cass	25	3
Clark	126	65
Clay	11	1
Clinton	10	4
Crawford	6	4
Daviess	15	4
Dearborn	44	22
Decatur	10	4
DeKalb	20	5
Delaware	287	152
DuBois	9	1
Elkhart	192	114
Fayette	17	10
Floyd	79	40
Fountain	17	5
Franklin	11	5
Fulton	19	4
Gibson	3	2
Grant	63	25
Greene	7	3
Hamilton	115	46
Hancock	49	25
Harrison	15	6
Hendricks	82	48
Henry	60	22
Howard	109	51
Huntington	19	7
Jackson	31	13
Jasper	14	5
Jay	15	1
Jefferson	38	19
Jennings	18	3
Johnson	71	37
Knox	21	10
Kosciusko	26	11
LaGrange	16	4
Lake	793	419
LaPorte	99	42
Lawrence	14	12
Madison	214	86
Marion	1,779	1,012
Marshall	41	14
Martin	10	4
Miami	25	6
Monroe	121	87
Montgomery	48	18
Morgan	49	36
Newton	11	6
Noble	42	16
Ohio	3	1
Orange	7	3
Owen	15	4
Parke	9	4
Perry	5	2
Pike	2	0
Porter	136	73
Posey	15	3
Pulaski	7	4
Putnam	16	4
Randolph	20	11
Ripley	10	3
Rush	7	1
St. Joseph	736	487
Scott	33	9
Shelby	17	7
Spencer	7	3
Starke	31	13
Steuben	19	5
Sullivan	2	1
Switzerland	8	7
Tippecanoe	223	86
Tipton	6	2
Union	8	1
Vanderburgh	366	224
Vermillion	3	0
Vigo	83	37
Wabash	16	5
Warren	6	1
Warrick	42	14
Washington	11	3
Wayne	108	56
Wells	11	1
White	27	4
Whitley	16	4
Total	7,425	3,854

Note: We defined cocaine dependence as “individuals listing cocaine as their primary substance at the time of substance abuse treatment admission.”
Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2008

APPENDIX 6B - PART 1

Lifetime, Annual, and Monthly Cocaine Use, by Region and Grade, for 2008 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2008)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	**Lifetime**	0.4	0.4	0.3	0.1	0.4	0.3	0.4	0.3	0.4
	Annual	0.3	0.4	0.2	0.1	0.4	0.4	0.3	0.4	0.2
	Monthly	0.2	0.3	0.1	0.2	0.1	0.3	0.2	0.2	0.2
7th Grade	**Lifetime**	1.2	1.4	1.1	0.7	1.3	1.0	1.6	0.9	1.4
	Annual	0.9	1.1	1.0	0.4	0.9	0.7	1.0	0.7	0.9
	Monthly	0.6	0.6	0.6	0.4	0.7	0.5	0.5	0.4	0.7
8th Grade	**Lifetime**	2.1	2.2	2.4	1.7	2.0	2.1	2.4	1.3	2.1
	Annual	1.5	1.7	1.6	1.2	1.2	1.6	1.9	0.9	1.8
	Monthly	0.9	0.9	1.2	0.7	0.8	0.8	1.2	0.6	1.0
9th Grade	**Lifetime**	3.6	4.5	3.6	3.4	2.7	3.2	4.0	2.3	4.4
	Annual	2.5	3.1	2.2	2.2	1.9	2.5	2.8	1.3	3.4
	Monthly	1.4	1.5	1.1	1.2	1.1	1.5	1.6	0.3	1.8
10th Grade	**Lifetime**	4.9	5.7	4.8	4.8	4.7	5.2	4.4	2.8	5.3
	Annual	3.4	4.3	3.4	2.9	3.4	3.4	3.1	1.8	3.8
	Monthly	1.7	2.2	1.5	1.7	1.8	1.8	1.4	1.1	2.0
11th Grade	**Lifetime**	6.3	6.8	6.7	4.9	5.4	6.2	6.8	3.8	8.2
	Annual	4.2	4.9	4.8	3.4	3.2	4.0	4.5	1.9	5.2
	Monthly	1.8	1.8	2.3	1.7	1.4	1.9	2.1	1.0	2.2
12th Grade	**Lifetime**	7.4	8.8	7.2	6.3	6.5	6.8	7.6	5.2	8.7
	Annual	4.6	5.7	4.3	4.7	4.7	4.0	4.9	3.1	5.1
	Monthly	2.0	2.6	2.1	2.1	2.0	1.5	2.5	1.7	2.1

Note: The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.
Source: Indiana Prevention Resource Center, 2008

APPENDIX 6B - PART 2

Lifetime, Annual, and Monthly Crack Use, by Region and Grade, for 2008 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2008)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	**Lifetime**	0.5	0.5	0.3	0.6	0.6	0.6	0.6	0.3	0.6
	Annual	0.4	0.5	0.2	0.2	0.5	0.5	0.5	0.4	0.4
	Monthly	0.3	0.3	0.1	0.1	0.3	0.4	0.2	0.2	0.2
7th Grade	**Lifetime**	1.3	1.5	1.2	1.0	1.5	1.1	1.7	0.7	1.2
	Annual	1.0	1.3	0.8	1.0	1.0	0.8	1.3	0.7	1.1
	Monthly	0.6	0.7	0.4	0.3	0.8	0.5	0.6	0.5	0.7
8th Grade	**Lifetime**	1.8	1.8	2.2	1.6	1.5	1.9	1.8	1.3	1.6
	Annual	1.3	1.4	1.6	1.0	1.1	1.3	1.6	1.0	1.3
	Monthly	0.8	0.8	0.9	0.4	0.8	0.7	0.9	0.6	1.0
9th Grade	**Lifetime**	2.5	2.6	2.2	2.3	2.2	2.5	3.0	1.6	2.7
	Annual	1.6	1.6	1.1	1.5	1.3	1.8	2.1	0.8	1.8
	Monthly	0.9	0.9	0.7	0.9	0.9	1.0	1.1	0.4	1.0
10th Grade	**Lifetime**	2.7	2.7	2.8	2.2	2.7	3.2	2.6	1.6	3.1
	Annual	1.9	2.1	1.8	1.7	1.9	2.1	1.8	1.1	2.0
	Monthly	1.1	1.2	0.9	1.0	1.1	1.3	0.9	0.6	1.1
11th Grade	**Lifetime**	3.0	2.6	3.3	2.0	3.2	3.4	3.2	1.7	3.7
	Annual	1.9	1.8	2.3	1.3	1.5	2.2	1.9	0.9	2.1
	Monthly	1.0	0.8	1.3	1.0	0.9	1.1	0.8	0.6	1.2
12th Grade	**Lifetime**	3.1	2.7	3.5	2.9	3.0	2.9	3.7	2.7	3.5
	Annual	1.9	2.0	2.1	2.0	1.9	1.9	2.2	1.6	1.8
	Monthly	1.0	1.2	1.0	1.0	1.0	1.2	1.2	0.8	0.9

Note: The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.
Source: Indiana Prevention Resource Center, 2008

APPENDIX 6C

Number and Rate, per 1,000 Population, of Arrests for Cocaine/Opiates Possession and Sale/Manufacture in Indiana by County, 2006 (Uniform Crime Reporting Program, 2006)

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Adams	17	*0.50	15	*0.44
Allen	422	1.22	216	0.62
Bartholomew	70	0.95	5	*0.07
Benton	4	*0.44	3	*0.33
Blackford	11	*0.80	9	*0.65
Boone	23	0.44	18	*0.34
Brown	1	*0.07	2	*0.13
Carroll	8	*0.39	5	*0.24
Cass	13	*0.32	9	*0.22
Clark	118	1.15	22	0.22
Clay	7	*0.26	6	*0.22
Clinton	21	0.61	35	1.02
Crawford	8	*0.71	8	*0.71
Daviess	19	*0.62	5	*0.16
Dearborn	24	0.49	16	*0.32
Decatur	29	1.14	13	*0.51
DeKalb	24	0.57	20	0.48
Delaware	93	0.79	33	0.28
Dubois	26	0.63	18	*0.44
Elkhart	127	0.64	21	0.11
Fayette	10	*0.40	13	*0.52
Floyd	0	*0.00	162	2.24
Fountain	11	*0.63	10	*0.57
Franklin	8	*0.37	1	*0.05
Fulton	15	*0.72	13	*0.62
Gibson	15	*0.45	12	*0.36
Grant	56	0.79	50	0.70
Greene	6	*0.18	4	*0.12
Hamilton	77	0.32	80	0.33
Hancock	22	0.35	16	*0.25
Harrison	14	*0.38	10	*0.27
Hendricks	43	0.34	37	0.29
Henry	1	*0.02	13	*0.27
Howard	119	1.39	56	0.65
Huntington	10	*0.26	8	*0.21
Jackson	17	*0.40	26	0.61
Jasper	10	*0.31	8	*0.25
Jay	11	*0.50	11	*0.50
Jefferson	27	0.83	18	*0.55
Jennings	16	*0.56	19	*0.66
Johnson	52	0.40	36	0.28
Knox	24	0.62	29	0.75
Kosciusko	58	0.76	46	0.60
LaGrange	0	*0.00	0	*0.00
Lake	326	0.66	364	0.73
LaPorte	79	0.71	68	0.61
Lawrence	5	*0.11	4	*0.09
Madison	92	0.70	38	0.29
Marion	2,049	2.36	733	0.84

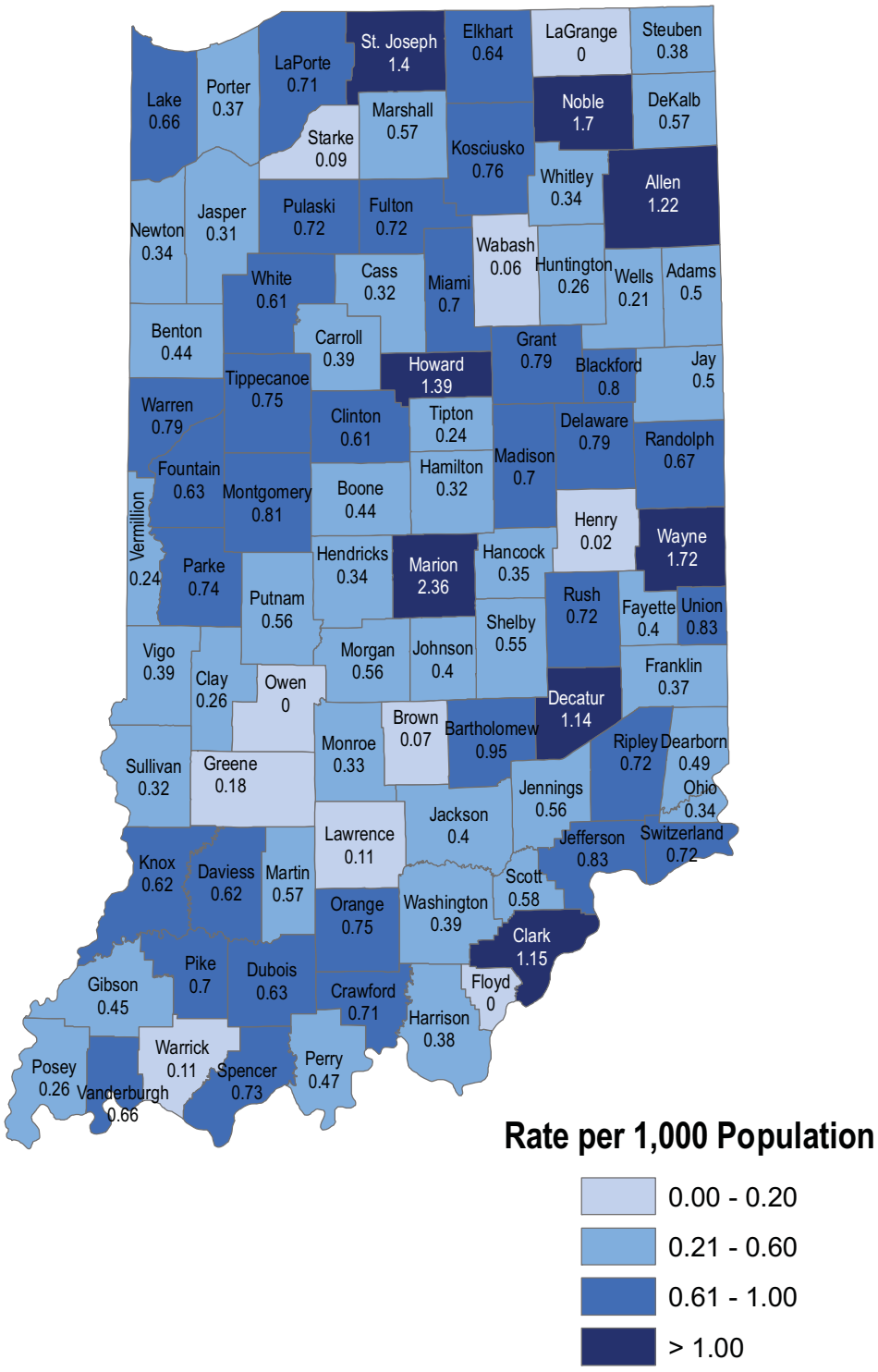
(continued on next page)

APPENDIX 6C *(Continued from previous page)*

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Marshall	27	0.57	25	0.53
Martin	6	*0.57	6	*0.57
Miami	25	0.70	22	0.61
Monroe	40	0.33	18	*0.15
Montgomery	31	0.81	25	0.65
Morgan	39	0.56	34	0.48
Newton	5	*0.34	3	*0.21
Noble	81	1.70	59	1.24
Ohio	2	*0.34	2	*0.34
Orange	15	*0.75	14	*0.70
Owen	0	*0.00	0	*0.00
Parke	13	*0.74	13	*0.74
Perry	9	*0.47	11	*0.57
Pike	9	*0.70	9	*0.70
Porter	59	0.37	10	*0.06
Posey	7	*0.26	9	*0.33
Pulaski	10	*0.72	10	*0.72
Putnam	21	0.56	19	*0.51
Randolph	18	*0.67	15	*0.56
Ripley	21	0.72	20	0.68
Rush	13	*0.72	9	*0.50
Saint Joseph	374	1.40	98	0.37
Scott	14	*0.58	12	*0.50
Shelby	24	0.55	24	0.55
Spencer	15	*0.73	15	*0.73
Starke	2	*0.09	0	*0.00
Steuben	13	*0.38	16	*0.47
Sullivan	7	*0.32	5	*0.23
Switzerland	7	*0.72	7	*0.72
Tippecanoe	116	0.75	66	0.43
Tipton	4	*0.24	4	*0.24
Union	6	*0.83	1	*0.14
Vanderburgh	115	0.66	77	0.44
Vermillion	4	*0.24	3	*0.18
Vigo	40	0.39	39	0.38
Wabash	2	*0.06	8	*0.23
Warren	7	*0.79	6	*0.68
Warrick	6	*0.11	9	*0.16
Washington	11	*0.39	7	*0.25
Wayne	120	1.72	125	1.79
Wells	6	*0.21	0	*0.00
White	15	*0.61	1	*0.04
Whitley	11	*0.34	7	*0.22
Indiana	5,608	0.89	3,227	0.51

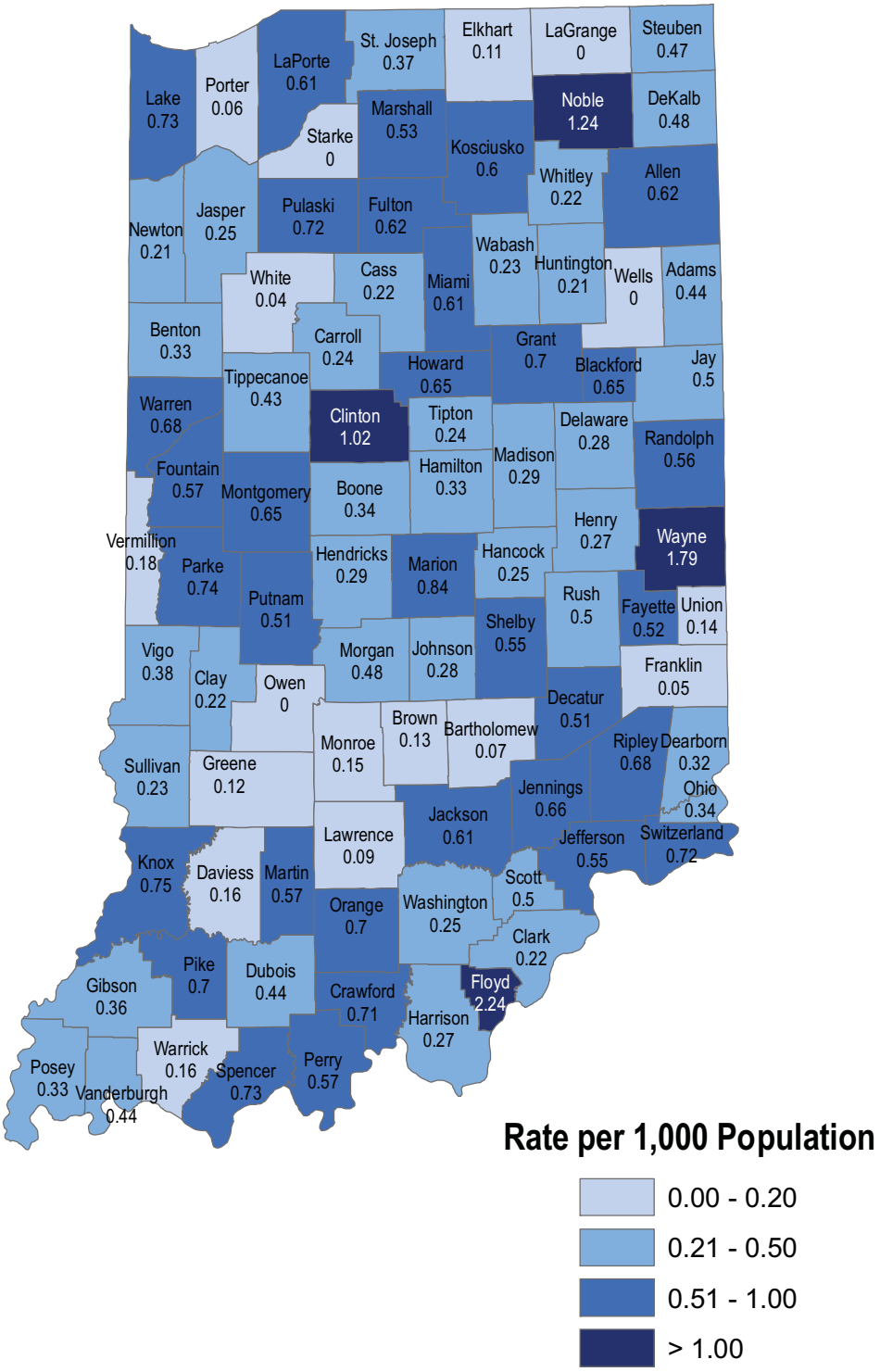
* Rates that are based on arrest numbers lower than 20 are unreliable.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d

Map 6.1 Indiana Cocaine/Opiate Possession Arrest Rates, by County, 2006 (Uniform Crime Reporting Program, 2006)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 6C (pages 112-113) for additional information.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 6.2 Indiana Cocaine/Opiate Sales Arrest Rates, by County, 2006 (Uniform Crime Reporting Program, 2006)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 6C (pages 112-113) for additional information.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

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7. Heroin Use in Indiana: Consumption Patterns and Consequences

HEROIN CONSUMPTION

Heroin is an illegal, highly addictive drug. It is both the most abused and the most rapidly acting of the illegal opiate-type drugs. It is processed from morphine, a naturally occurring substance extracted from the seed pod of certain varieties of poppy plants. Heroin can be injected, smoked, or sniffed/snorted. The substance is typically sold as a white or brownish powder or as a black, sticky substance known on the streets as "black tar heroin" (Office of National Drug Control Policy, n.d.).

General Consumption Patterns

Limited information exists on the overall use of heroin, both in Indiana and the United States. According to the National Survey on Drug Use and Health (NSDUH), in 2006, 1.5% of all U.S. citizens age 12 or older had tried heroin at least once in their lifetime; 0.2% had used it in the past year; and 0.1% were current (past month) users. The annual averages in Indiana for lifetime, past year, and current heroin use, based on 2002–2004 NSDUH data,[1] were 1.1% (54,000 residents), 0.2% (9,000 residents), and 0.0% (1,000 residents) respectively (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

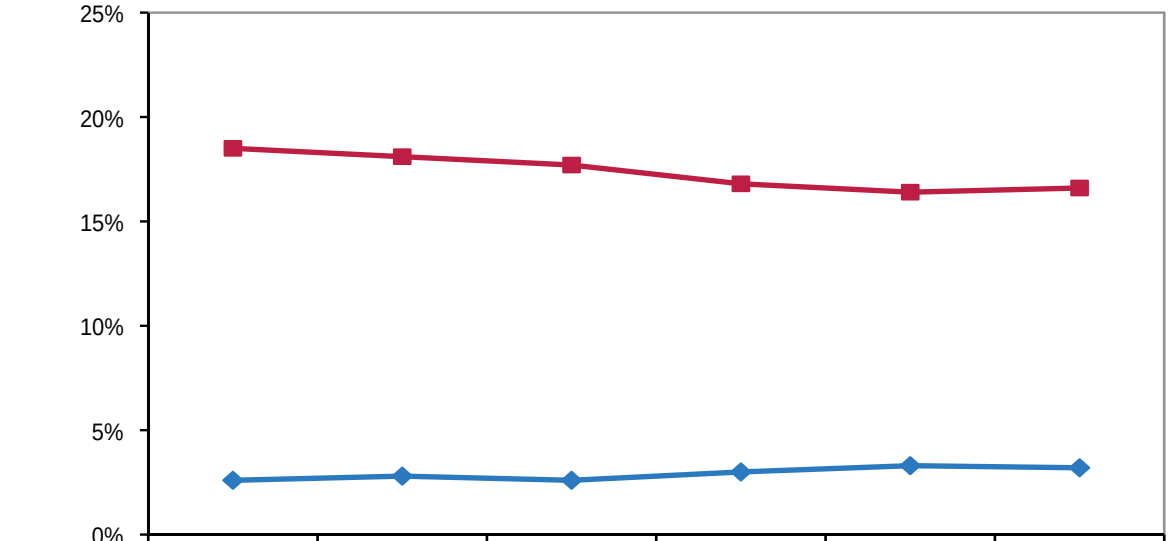
Adult Consumption Patterns

Based on 2006 NSDUH results, prevalence of current heroin use was low and primarily associated with young adults ages 18 to 25 (U.S.: 0.2%). Only 0.1% of Americans ages 26 and older reported current use (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008). Prevalence rates by age group were not available at the state level.

Data from the Treatment Episode Data Set (TEDS) for the years 2001 through 2006 show that the percentage of treatment episodes in which heroin use was reported at admission was significantly lower in Indiana than the United States ($P < 0.001$). In 2006, 3.2% of Hoosiers in treatment reported heroin use, as compared to 16.6% of Americans. Reported heroin use increased in Indiana from 2.6% in 2001 to 3.2% in 2006; the opposite was true for the nation, which showed a rate decrease from 18.5% to 16.6% during the same time period (see Figure 7.1) (Substance Abuse and Mental Health Data Archive, 2008). For county-level information on treatment admissions with reported heroin use in Indiana for 2006, see Appendix 7A, page 126.

[1]Estimates based on NSDUH averages from 2002 through 2004 are the most recent state-level data available.

Figure 7.1 Percentage of Indiana and U.S. Patients Reporting Heroin Use at Time of Treatment Admission, 2001 through 2006 (Treatment Episode Data Set, 2001–2006)



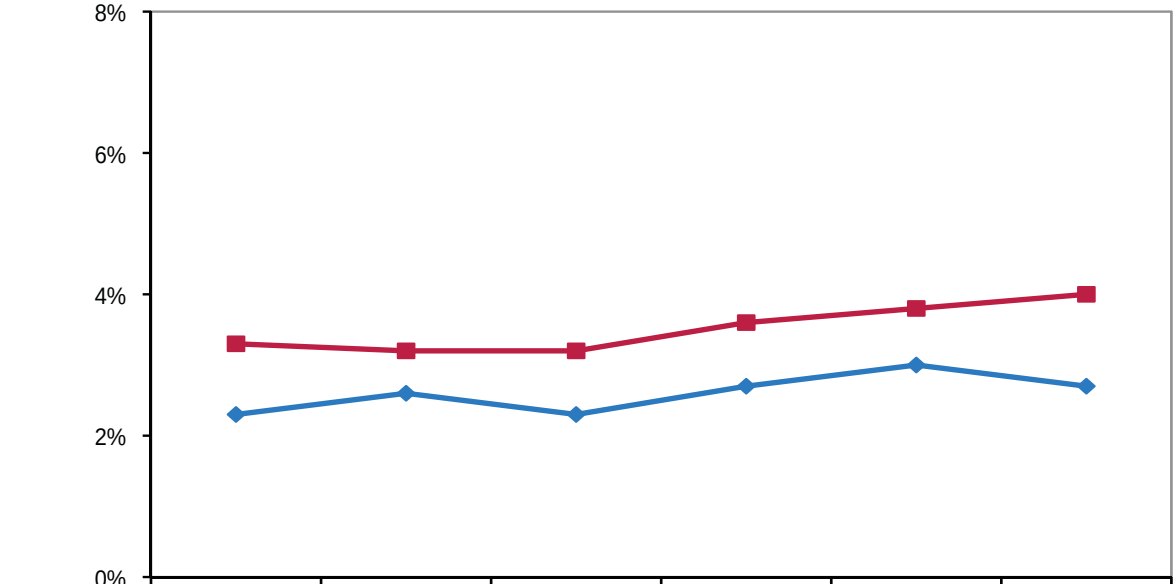
	2001	2002	2003	2004	2005	2006
Indiana	2.6%	2.8%	2.6%	3.0%	3.3%	3.2%
U.S.	18.5%	18.1%	17.7%	16.8%	16.4%	16.6%

Source: Substance Abuse and Mental Health Data Archive, 2008

Reported heroin use differed by gender in Indiana's treatment population. From 2001 through 2006, males were significantly more likely to report use of the drug than females ($P < 0.001$) (see Figure 7.2).

Race was also related to heroin use. In the years reviewed, in Indiana blacks reported the highest rate of use and whites reported the lowest ($P < 0.001$) (see Figure 7.3).

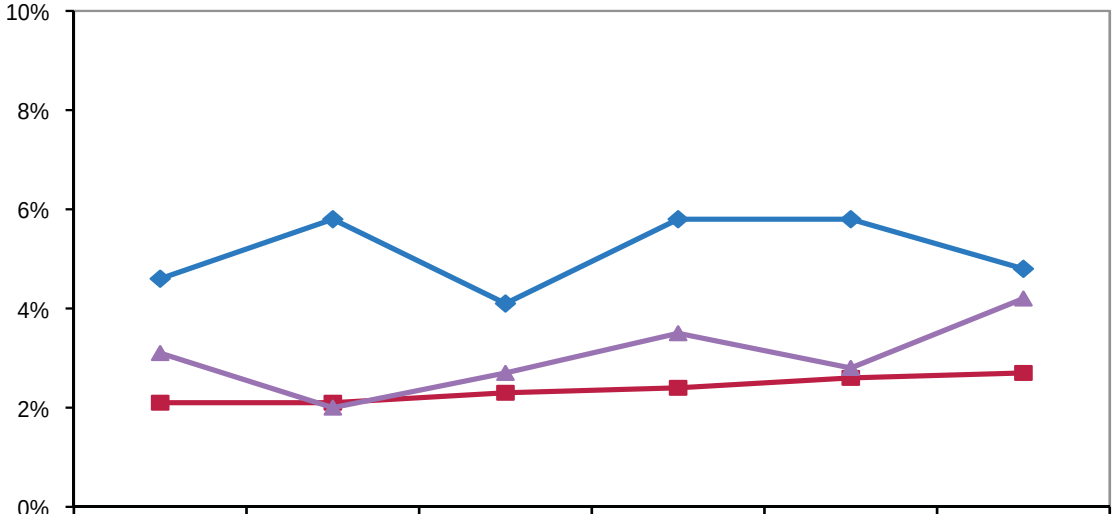
Figure 7.2 Percentage of Indiana Residents Reporting Heroin Use at Time of Treatment Admission, by Gender, 2001 through 2006 (Treatment Episode Data Set, 2001–2006)



	2001	2002	2003	2004	2005	2006
Male	2.3%	2.6%	2.3%	2.7%	3.0%	2.7%
Female	3.3%	3.2%	3.2%	3.6%	3.8%	4.0%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 7.3 Percentage of Indiana Residents Reporting Heroin Use at Time of Treatment Admission, by Race, 2001 through 2006 (Treatment Episode Data Set, 2001–2006)

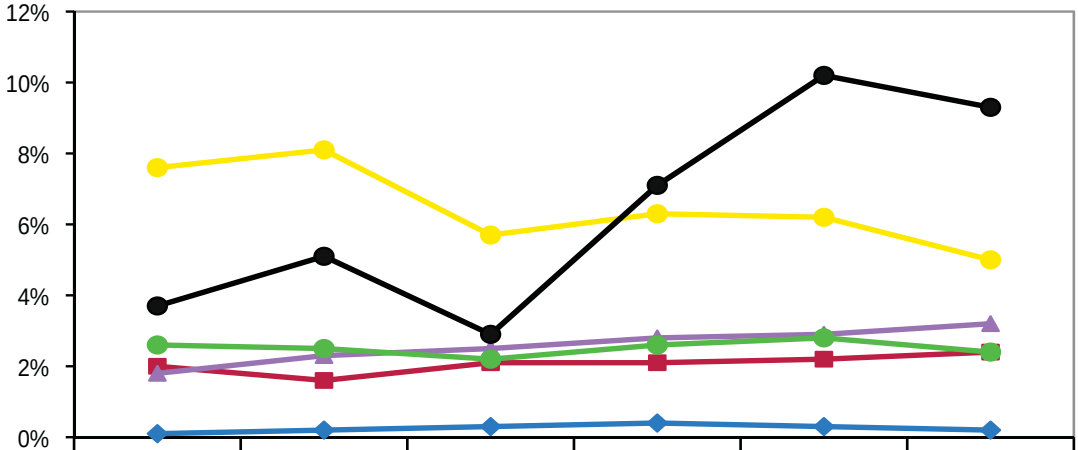


	2001	2002	2003	2004	2005	2006
Black	4.6%	5.8%	4.1%	5.8%	5.8%	4.8%
White	2.1%	2.1%	2.3%	2.4%	2.6%	2.7%
Other	3.1%	2.0%	2.7%	3.5%	2.8%	4.2%

Source: Substance Abuse and Mental Health Data Archive, 2008

Age is another characteristic associated with heroin use reported at treatment admission. Most Indiana residents who used heroin were 18 years or older. Primarily older adults (over the age of 44) reported use of the substance. The difference in heroin use across age groups was statistically significant for all years reviewed (2000–2006; $P < 0.001$) (see Figure 7.4) (Substance Abuse and Mental Health Data Archive, 2008).

Figure 7.4 Percentage of Indiana Residents Reporting Heroin Use at Time of Treatment Admission, by Age, 2001 through 2006 (Treatment Episode Data Set, 2001–2006)



	2001	2002	2003	2004	2005	2006
Under 18	0.1%	0.2%	0.3%	0.4%	0.3%	0.2%
18 to 24	2.0%	1.6%	2.1%	2.1%	2.2%	2.4%
25 to 34	1.8%	2.3%	2.5%	2.8%	2.9%	3.2%
35 to 44	2.6%	2.5%	2.2%	2.6%	2.8%	2.4%
45 to 54	7.6%	8.1%	5.7%	6.3%	6.2%	5.0%
55 and over	3.7%	5.1%	2.9%	7.1%	10.2%	9.3%

Source: Substance Abuse and Mental Health Data Archive, 2008

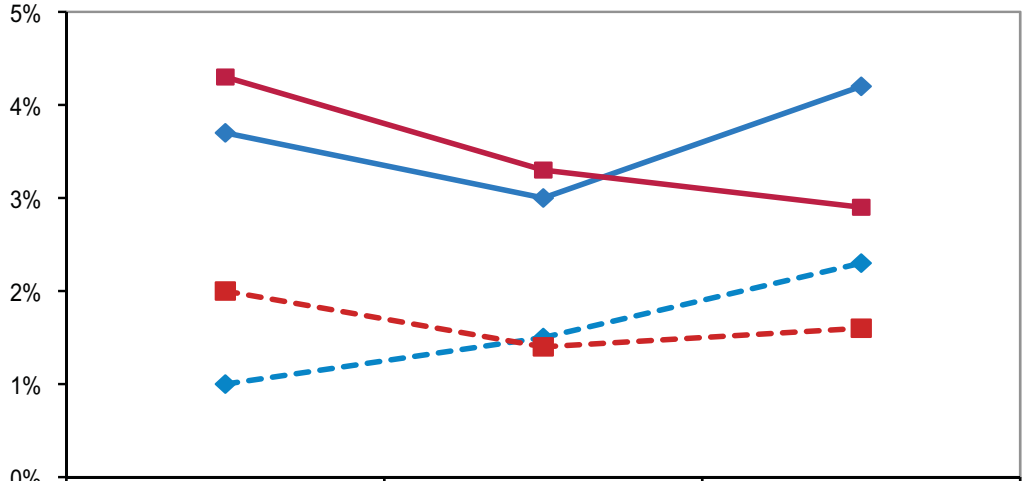
Youth Consumption Patterns

According to the 2007 Youth Risk Behavior Surveillance System (YRBSS), 3.6% (95% Confidence Interval [CI]: 2.8–4.8) of high school students (grades 9 through 12) in Indiana tried heroin at least once in their life. Indiana's rate was statistically similar to that reported by YRBSS participants in the entire nation (2.3%; 95% CI: 1.8–2.8). Prevalence of lifetime heroin use has remained stable in Indiana and U.S. high school students from 2003 through 2007. No statistical differences by gender or grade level were observed in 2007 (Centers for Disease Control and Prevention, 2008c) (see Figure 7.5).

Lifetime heroin prevalence in Indiana for 2007 seems to be lower for whites (2.8%; 95% CI: 2.4–3.3) and blacks (2.8%; 95% CI: 1.2–6.7) but the rates are statistically not different than rates for Hispanics (6.4%; 95% CI: 2.8–13.9) and other races (7.5%; 95% CI: 3.1–17.2) (Centers for Disease Control and Prevention, 2008c).

Based on results from the 2007 Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) survey, 1.9% of 12th grade students reported lifetime use; 1.3% reported annual use; and 0.8% reported current heroin use (Indiana Prevention Resource Center, 2008).[2] National rates, as measured by the 2007 Monitoring the Future (MTF) survey, seem similar (lifetime use: 1.5%; annual use: 0.9%; monthly use: 0.4%) (Inter-university Consortium for Political and Social Research, University of Michigan, n.d.).[3] Across most years from 2000 through 2007, the percentage of 12th grade students reporting lifetime, annual, or monthly heroin use seemed slightly higher in Indiana than in the nation (see Figures 7.6 through 7.8). Heroin use among Hoosier students appeared to increase with age, with lower rates in earlier grades and highest rates in high school seniors (Indiana Prevention Resource Center, 2008). For lifetime, annual, and monthly heroin use rates in Indiana by region and grade, see Appendix 7B, page 127.

Figure 7.5 Percentage of Indiana and U.S. High School Students (Grades 9 through 12) Who Have Used Heroin at Least Once During their Lifetime, 2003 through 2007 (Youth Risk Behavior Surveillance System, 2003–2007)

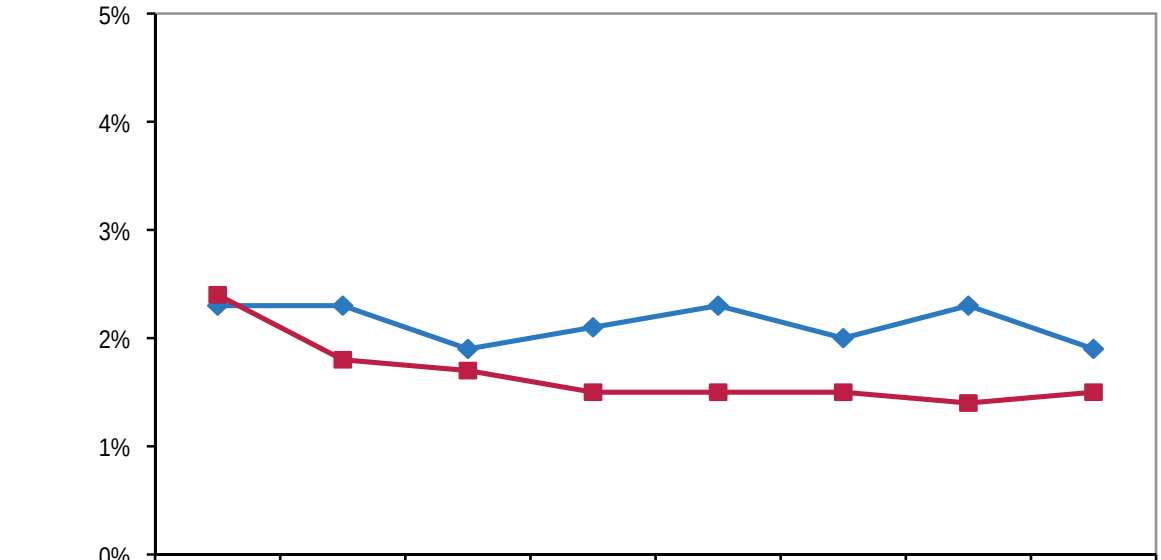


	2003	2005	2007
Indiana Males	3.7%	3.0%	4.2%
U.S. Males	4.3%	3.3%	2.9%
Indiana Females	1.0%	1.5%	2.3%
U.S. Females	2.0%	1.4%	1.6%

Source: Centers for Disease Control and Prevention, 2008c

[2]The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.
[3]Statistical significance of differences between the two datasets could not be determined.

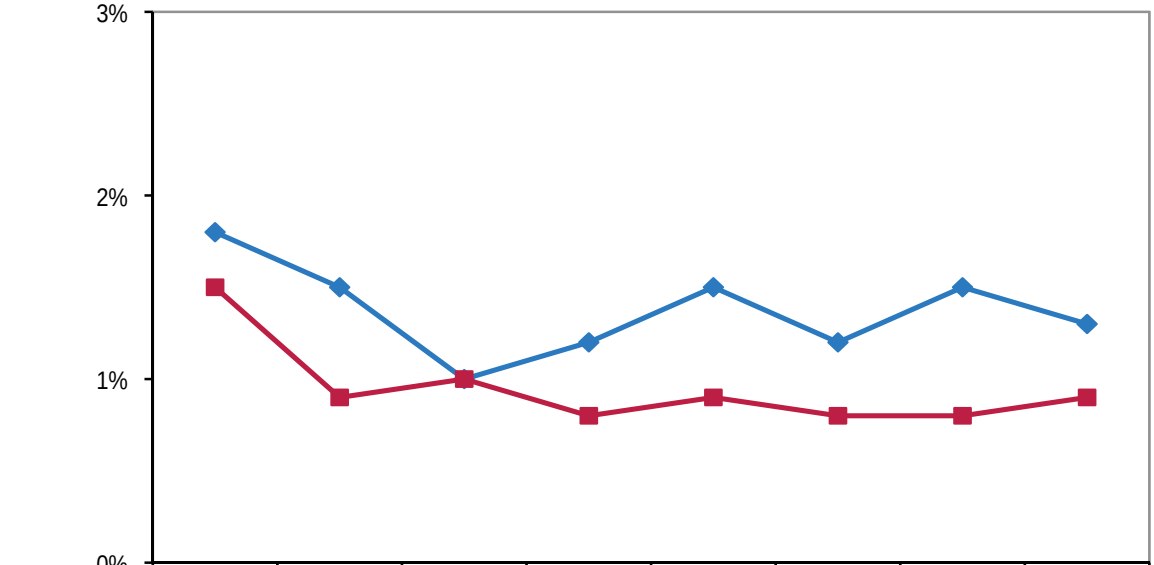
Figure 7.6 Percentage of Indiana and U.S. 12th Grade Students Reporting Lifetime Heroin Use, 2000 through 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	2.3%	2.3%	1.9%	2.1%	2.3%	2.0%	2.3%	1.9%
U.S.	2.4%	1.8%	1.7%	1.5%	1.5%	1.5%	1.4%	1.5%

Source: Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

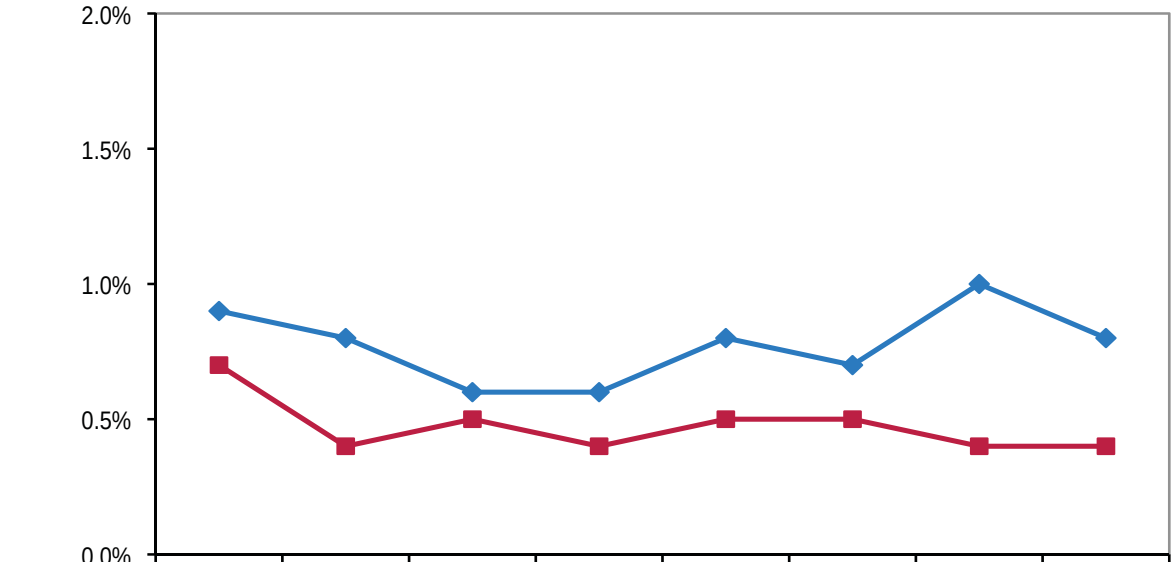
Figure 7.7 Percentage of Indiana and U.S. 12th Grade Students Reporting Annual Heroin Use, 2000 through 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	1.8%	1.5%	1.0%	1.2%	1.5%	1.2%	1.5%	1.3%
U.S.	1.5%	0.9%	1.0%	0.8%	0.9%	0.8%	0.8%	0.9%

Source: Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Figure 7.8 Percentage of Indiana and U.S. 12th Grade Students Reporting Monthly Heroin Use, 2000 through 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	0.9%	0.8%	0.6%	0.6%	0.8%	0.7%	1.0%	0.8%
U.S.	0.7%	0.4%	0.5%	0.4%	0.5%	0.5%	0.4%	0.4%

Source: Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d

CONSEQUENCES

Heroin abuse is associated with serious health conditions, including heroin dependence, fatal overdose, spontaneous abortion, collapsed veins, and, particularly in users who inject the drug, infectious diseases, such as HIV/AIDS and hepatitis C. Other health problems that have been reported in heroin abusers are infections of the heart lining and valves, abscesses, cellulitis, liver disease, and pulmonary complications (National Institute on Drug Abuse, 2005).

Because street heroin often contains toxic additives that do not easily dissolve, blood vessels leading to the heart, lungs, liver, kidneys, or brain can become clogged. Clogs of this nature can lead to infection or death of small patches of cells in vital organs (National Institute on Drug Abuse, 2005; Office of National Drug Control Policy, n.d.). The Drug Abuse Warning Network reports that approximately 11% of drug-related emergency room visits nationally in 2005 involved heroin (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2007).

Heroin Dependence

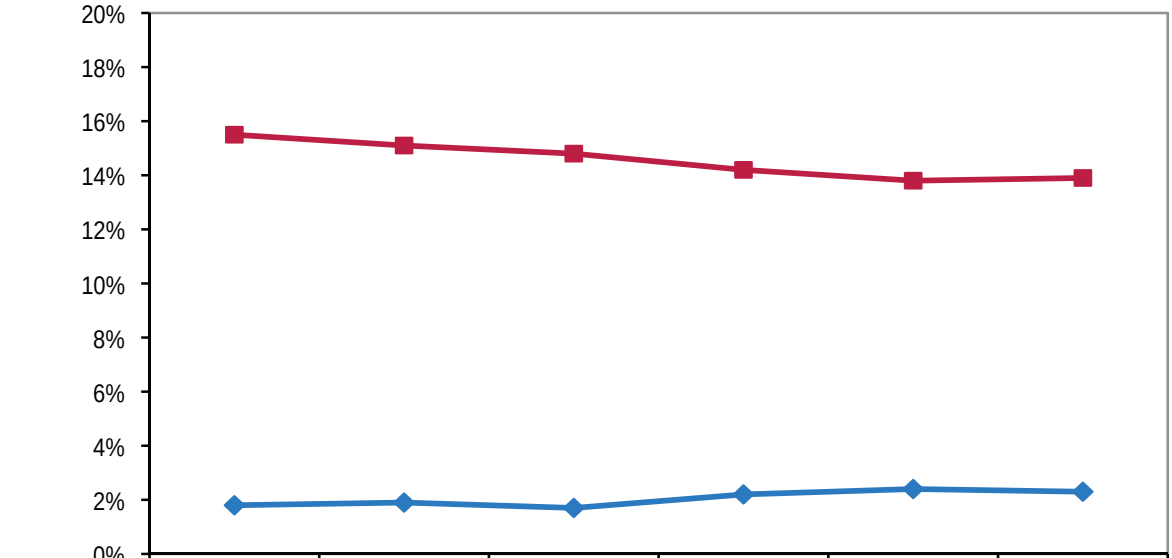
A comparison of data from the Treatment Episode Data Set (TEDS) from 2001 through 2006 shows that the percentage of heroin-related drug treatment admissions has consistently been lower in Indiana than the rest of the United States ($P < 0.001$) (see Figure 7.9).

Significant differences in treatment admissions for heroin dependence[4] were observed in Indiana by gender, race, and age group ($P < 0.001$):

- The percentage of women reporting heroin dependence was greater than the percentage of men, 3.0% and 2.0% respectively (see Figure 7.10).
- The percentage of patients in treatment for heroin dependence was highest for blacks (4.1%) and lowest for whites (1.9%) (see Figure 7.11).
- Heroin dependence was reported almost exclusively by individuals 18 years of age or older. Highest rates were found among older patients, especially persons 55 and over (8.1%) (see Figure 7.12). (For county-level information on heroin dependence, see Appendix 7A, page 126.)

[4]We defined, heroin dependence as "individuals who reported heroin as their primary substance at treatment admission."

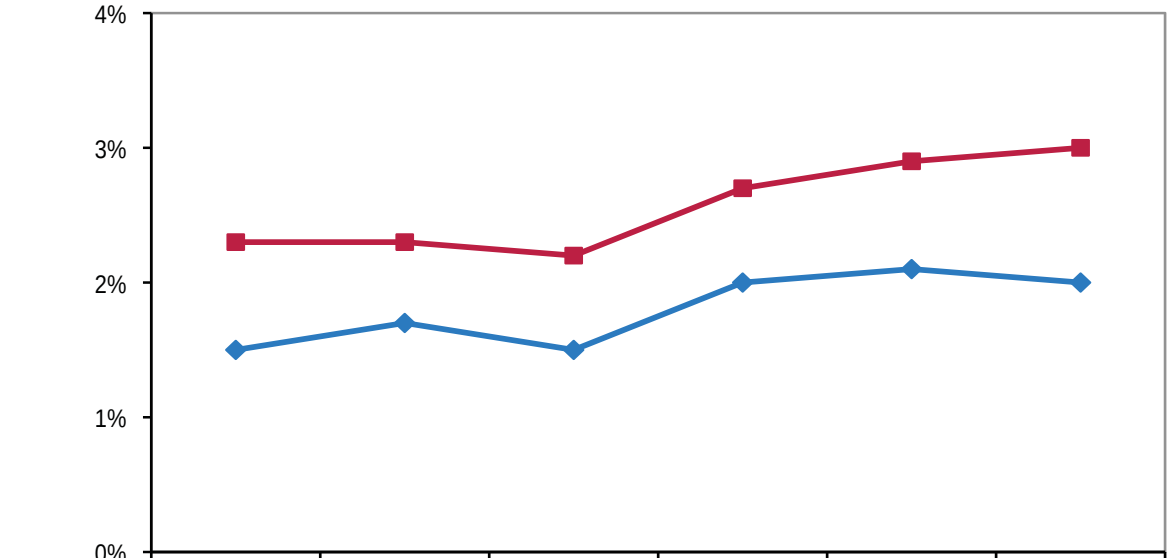
Figure 7.9 Percentage of Indiana and U.S. Residents Reporting Heroin Dependence at Time of Treatment Admission, 2001 through 2006 (Treatment Episode Data Set, 2001–2006)



	2001	2002	2003	2004	2005	2006
Indiana	1.8%	1.9%	1.7%	2.2%	2.4%	2.3%
U.S.	15.5%	15.1%	14.8%	14.2%	13.8%	13.9%

Source: Substance Abuse and Mental Health Data Archive, 2008

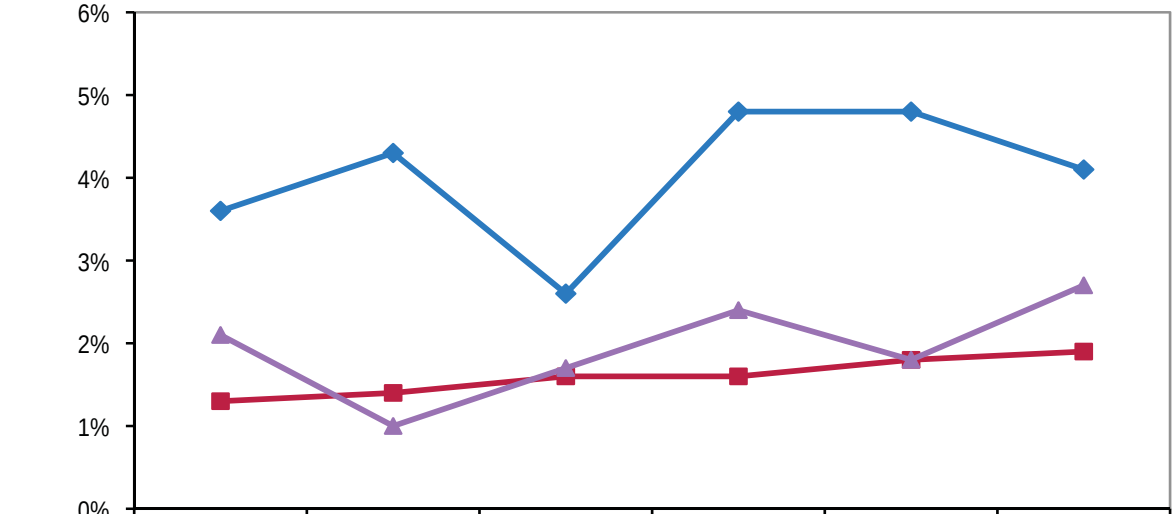
Figure 7.10 Percentage of Indiana Residents Reporting Heroin Dependence at Time of Treatment Admission, by Gender, 2001 through 2006 (Treatment Episode Data Set, 2001–2006)



	2001	2002	2003	2004	2005	2006
Male	1.5%	1.7%	1.5%	2.0%	2.1%	2.0%
Female	2.3%	2.3%	2.2%	2.7%	2.9%	3.0%

Source: Substance Abuse and Mental Health Data Archive, 2008

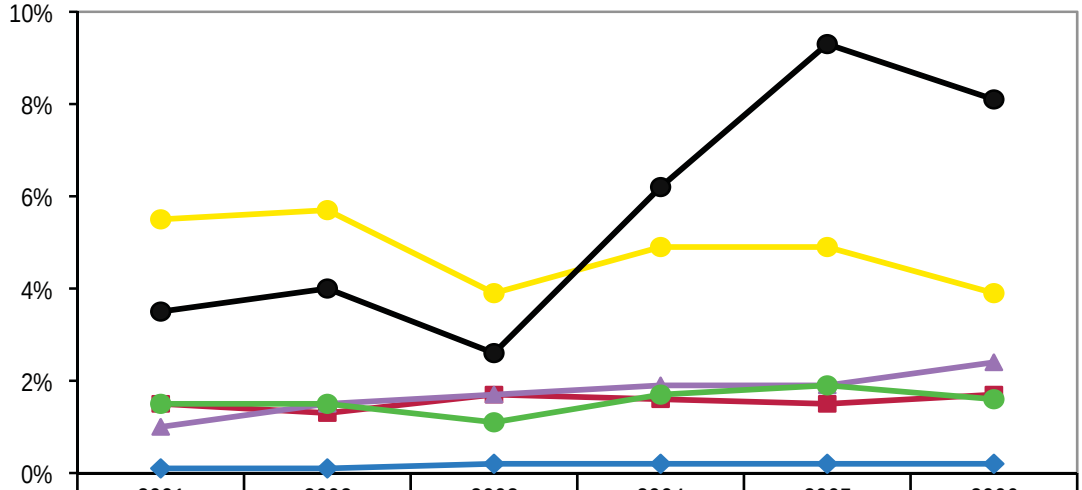
Figure 7.11 Percentage of Indiana Residents Reporting Heroin Dependence at Time of Treatment Admission, by Race, 2001 through 2006 (Treatment Episode Data Set, 2001–2006)



	2001	2002	2003	2004	2005	2006
Black	3.6%	4.3%	2.6%	4.8%	4.8%	4.1%
White	1.3%	1.4%	1.6%	1.6%	1.8%	1.9%
Other	2.1%	1.0%	1.7%	2.4%	1.8%	2.7%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 7.12 Percentage of Indiana Residents Reporting Heroin Dependence at Time of Treatment Admission, by Age Group, 2001 through 2006 (Treatment Episode Data Set, 2001–2006)



	2001	2002	2003	2004	2005	2006
Under 18	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%
18 to 24	1.5%	1.3%	1.7%	1.6%	1.5%	1.7%
25 to 34	1.0%	1.5%	1.7%	1.9%	1.9%	2.4%
35 to 44	1.5%	1.5%	1.1%	1.7%	1.9%	1.6%
45 to 54	5.5%	5.7%	3.9%	4.9%	4.9%	3.9%
55 and over	3.5%	4.0%	2.6%	6.2%	9.3%	8.1%

Source: Substance Abuse and Mental Health Data Archive, 2008

HIV/AIDS

One of the most serious consequences of heroin abuse is contraction of HIV from contaminated needles. In 2007, 412 new HIV infections and 333 new AIDS cases were reported in Indiana. Twenty of the new HIV infections and 19 of the new AIDS cases were transmitted through injection drug use (IDU). By the end of 2007, a total of 9,168 individuals were living in Indiana with HIV disease;[5] 805 of these cases were attributed to IDU (Indiana State Department of Health, n.d.). The Centers for Disease Control and Prevention calculated the annual AIDS rate to be 6.5 in Indiana and 14.0 in the United States, per 100,000 population (Centers for Disease Control and Prevention, 2007c). However, not all of these cases were caused by IDU. According to the Indiana State Department of Health, 10% of all reported HIV transmissions and 11% of all AIDS cases are attributable to IDU (Indiana State Department of Health, n.d.). The numbers are higher for the nation: 14% (HIV) and 24% (AIDS) (Centers for Disease Control and Prevention, 2008a).

The age-adjusted HIV/AIDS mortality rate[6] in Indiana in 2005 was 1.7 per 100,000 population (95% CI: 1.4–2.0), which is significantly lower than the U.S. rate of 4.5 per 100,000 population (95% CI: 4.1–4.3) (Centers for Disease Control and Prevention, n.d.).

Hepatitis

Hepatitis is a liver disease that is caused by viral infection. The most common types are hepatitis A, B, and C. The hepatitis B virus (HBV) and hepatitis C virus (HCV) are transmitted when blood of an infected person enters the body of a person who is not infected. The disease is frequently spread via unprotected sex and among injection drug users (Centers for Disease Control and Prevention, 2008b). The incidence rates per 100,000 for acute hepatitis in Indiana were 1.3 for HBV (U.S.: 1.6) and 0.2 for HCV (U.S.: 0.3) in 2006. Both HBV and HCV incidence rates have been declining since the mid- to late 1980s, but continue to be higher for males than females. IDU has been identified as a risk factor, and of all the patients with acute hepatitis B in 2004, 16.0% injected drugs 6 weeks to 6 months prior to onset of the disease; this proportion is even higher for patients with acute hepatitis C (54.0%).

With an estimated 3.2 million chronically infected persons nationwide, hepatitis C is the most common chronic blood-borne infection in the United States. No effective vaccine is available (Centers for Disease Control and Prevention, 2008b). The age-adjusted mortality rate attributable to HBV and HCV[7] in 2005 was 1.2 per 100,000 population (95% CI: 0.9–1.5) in Indiana, which is significantly lower than the national rate of 1.7 per 100,000 population (95% CI: 1.7–1.8) (Centers for Disease Control and Prevention, n.d.).

Legal Consequences

According to the U.S. Drug Enforcement Administration (DEA), heroin does not present a major threat to Indiana as it is not readily available in central and southern Indiana. However, in both its brown powder or black tar forms, heroin can be found more easily in northern Indiana. In 2007, the DEA seized 1.6 kilograms, or 3.5 pounds, of heroin in Indiana. This is considerably less than the amount seized in the surrounding states of Ohio, Illinois, or Michigan (U.S. Drug Enforcement Administration, 2008).

The Uniform Crime Reporting (UCR) Program collects information on arrests for possession and sale/manufacture of opiates and cocaine combined (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). According to the 2006 dataset, a total of 5,608 arrests were made for possession, and 3,227 arrests for sale/manufacture of opiates and cocaine in Indiana. This represents arrest rates of 0.89 (95% CI: 0.87–0.91) and 0.51 (95% CI: 0.49–0.53) per 1,000 population respectively. For comparisons with the United States, and for county-level data, refer to Maps 6.1 and 6.2 (pages 114 and 115) and Appendix 6C (pages 112-113) in Chapter 6.

[5]HIV disease includes both HIV infections and AIDS cases.
[6]Mortality rates for HIV/AIDS are based on the following ICD-10 codes: B20-B24 (Human immunodeficiency virus [HIV] disease).
[7]Mortality rates for hepatitis B and C infections are based on the following ICD-10 codes: B16.0 (Acute hepatitis B with delta-agent [coinfection] with hepatic coma), B16.1 (Acute hepatitis B with delta-agent [coinfection] without hepatic coma), B16.2 (Acute hepatitis B without delta-agent with hepatic coma), B16.9 (Acute hepatitis B without delta-agent and without hepatic coma), B17.0 (Acute delta-[super]infection of hepatitis B carrier), B17.1 (Acute hepatitis C), B18.0 (Chronic viral hepatitis B with delta-agent), B18.1 (Chronic viral hepatitis B without delta-agent), B18.2 (Chronic viral hepatitis C).

APPENDIX 7A

Number of Indiana Residents in Substance Abuse Treatment who Reported Heroin Use and Who Listed Heroin as their Primary Drug at Admission, by County (Substance Abuse Population by County/Treatment Episode Data Set, 2007)

County	Heroin Use	Heroin Dependence
Adams	2	1
Allen	12	4
Bartholomew	7	3
Benton	0	0
Blackford	0	0
Boone	8	5
Brown	0	0
Carroll	0	0
Cass	2	2
Clark	11	7
Clay	2	2
Clinton	1	1
Crawford	0	0
Daviess	0	0
Dearborn	14	11
Decatur	0	0
DeKalb	3	1
Delaware	8	6
Dubois	3	2
Elkhart	4	3
Fayette	2	1
Floyd	7	4
Fountain	4	2
Franklin	0	0
Fulton	1	1
Gibson	1	0
Grant	1	0
Greene	0	0
Hamilton	15	10
Hancock	8	6
Harrison	0	0
Hendricks	6	5
Henry	4	2
Howard	6	5
Huntington	3	1
Jackson	0	0
Jasper	3	1
Jay	0	0
Jefferson	1	1
Jennings	2	2
Johnson	12	8
Knox	3	0
Kosciusko	1	0
LaGrange	2	2
Lake	289	258
LaPorte	15	9
Lawrence	1	1
Madison	14	8
Marion	314	251
Marshall	8	6
Martin	0	0
Miami	2	0
Monroe	18	17
Montgomery	5	1
Morgan	8	7
Newton	1	0
Noble	2	0
Ohio	1	0
Orange	1	1
Owen	2	1
Parke	2	2
Perry	1	0
Pike	0	0
Porter	49	35
Posey	0	0
Pulaski	1	1
Putnam	1	0
Randolph	0	0
Ripley	1	1
Rush	1	1
St. Joseph	38	22
Scott	3	2
Shelby	8	5
Spencer	0	0
Starke	4	0
Steuben	1	0
Sullivan	0	0
Switzerland	1	1
Tippecanoe	22	14
Tipton	0	0
Union	2	1
Vanderburgh	9	4
Vermillion	0	0
Vigo	8	2
Wabash	11	6
Warren	0	0
Warrick	1	0
Washington	1	1
Wayne	18	9
Wells	0	0
White	1	0
Whitley	0	0
Total	1,024	766

Note: We defined heroin dependence as “individuals reporting heroin to be their primary substance at the time of their substance abuse treatment admission.”
Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2008

APPENDIX 7B

Lifetime, Annual, and Monthly Heroin Use Rates in Indiana, by Region and Grade for 2008 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2008)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	**Lifetime**	0.3	0.4	0.1	0.2	0.4	0.2	0.4	0.0	0.4
	Annual	0.2	0.3	0.1	0.1	0.3	0.2	0.2	0.2	0.3
	Monthly	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2
7th Grade	**Lifetime**	0.9	0.9	0.9	0.8	0.9	0.8	1.1	0.8	1.0
	Annual	0.6	0.6	0.7	0.4	0.6	0.6	0.6	0.6	0.7
	Monthly	0.5	0.5	0.5	0.1	0.4	0.5	0.4	0.5	0.7
8th Grade	**Lifetime**	1.4	1.3	1.7	1.6	1.2	1.6	1.5	1.0	1.3
	Annual	1.0	0.9	1.2	0.9	0.7	1.1	1.0	0.8	1.0
	Monthly	0.6	0.5	0.9	0.5	0.6	0.6	0.7	0.4	0.7
9th Grade	**Lifetime**	1.8	2.0	1.6	2.2	1.5	1.9	1.8	1.5	2.2
	Annual	1.3	1.2	0.9	1.5	1.2	1.5	1.3	0.8	1.6
	Monthly	0.8	0.7	0.5	0.9	0.8	1.0	0.9	0.2	1.1
10th Grade	**Lifetime**	2.1	2.3	2.0	1.3	2.0	2.6	1.6	1.4	2.2
	Annual	1.4	1.7	1.1	1.0	1.3	1.8	1.4	0.8	1.6
	Monthly	1.0	1.3	0.7	0.7	0.9	1.2	0.6	0.7	1.1
11th Grade	**Lifetime**	2.0	1.9	2.4	1.3	1.8	2.4	2.0	1.5	2.1
	Annual	1.3	1.2	1.9	0.7	1.2	1.5	1.3	0.8	1.1
	Monthly	0.7	0.5	0.9	0.5	0.6	1.0	0.7	0.7	0.8
12th Grade	**Lifetime**	2.0	2.5	2.5	2.2	1.6	2.2	2.1	1.2	1.8
	Annual	1.4	1.9	1.6	1.6	1.3	1.5	1.6	0.8	1.1
	Monthly	0.8	1.2	0.9	0.9	0.8	1.0	0.8	0.7	0.6

Note: The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.
Source: Indiana Prevention Resource Center, 2008

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8. Methamphetamine Use in Indiana: Consumption Patterns and Consequences

METHAMPHETAMINE CONSUMPTION

Methamphetamine (meth) is a powerful, highly addictive stimulant that affects the central nervous system. Meth is similar to amphetamine, but it has a more pronounced effect. It can be injected, snorted, smoked, or ingested orally. Methamphetamine users feel a short yet intense "rush" when the drug is initially administered. The immediate effects of methamphetamine include increased activity and decreased appetite. The drug is easily made in clandestine laboratories with over-the-counter ingredients. Meth's relative ease of manufacture and highly addictive potential are thought to contribute to its use across the nation (Office of National Drug Control Policy, n.d.).

General Consumption Patterns

The National Survey on Drug Use and Health (NSDUH) measures lifetime, past year, and past month (current) use of methamphetamine in the population ages 12 and older (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008). The latest prevalence estimates for the nation are based on the 2006 survey. However, state-level rates are based on annual averages calculated with data from 2002 through 2004 (the most recent data now available).

In Indiana, 4.5% of the population (225,000 residents) used meth at least once in their life; 0.8% (40,000 residents) used it in the past year; and 0.2% (10,000 residents) used it in the past month. The rates for the nation are similar, with 5.8% lifetime use, 0.8% past-year use, and 0.3% current use. Prevalence of past-year use varies by region within the United States: Highest rates are found in the West (1.2%), followed by the Midwest (0.5%) and South (0.5%), while lowest rates are found in the Northeast (0.1%). Across the country, young Americans ages 18 to 25 years reported the highest rate of current use (0.32%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

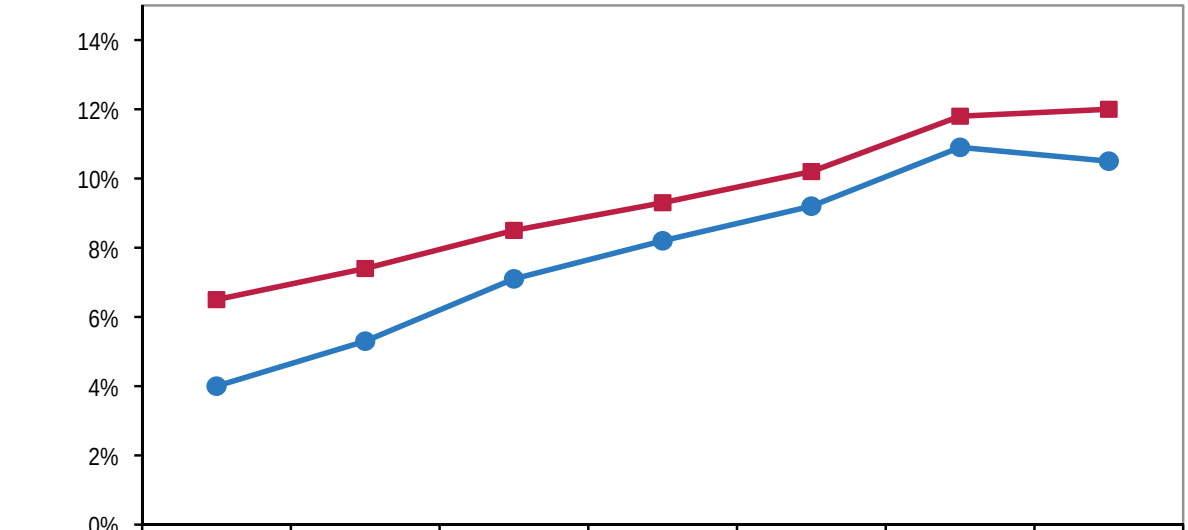
Adult Consumption Patterns

According to NSDUH results, almost 1.3 million Americans, including 40,000 Hoosiers, used methamphetamine in the past year. As mentioned before, the age group mostly affected is 18- to 25-year olds (IN: 1.9%; U.S.: 0.97%); adults ages 26 and older report lower past-year use (IN: not available; U.S.: 0.3%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

The Treatment Episode Data Set (TEDS) includes information gathered from patients at the time of substance abuse treatment admission (Substance Abuse Mental Health Data Archive, 2008). TEDS data from 2000 through 2006 show a steady increase, both nationally and in Indiana, in the reported rate of meth use at admission (see Figure 8.1). However, the percentage of treatment admissions with reported meth use was significantly lower in Indiana than the United States ($P < 0.001$). From 2000 to 2006, the percentage of reported meth use in Indiana more than doubled from 4.0% to 10.5%.

A statistically significant gender effect was observed with meth use among individuals entering substance abuse treatment in Indiana. Across all data points, female clients were statistically significantly more likely to report meth use at admission than males ($P < 0.001$) (see Figure 8.2).

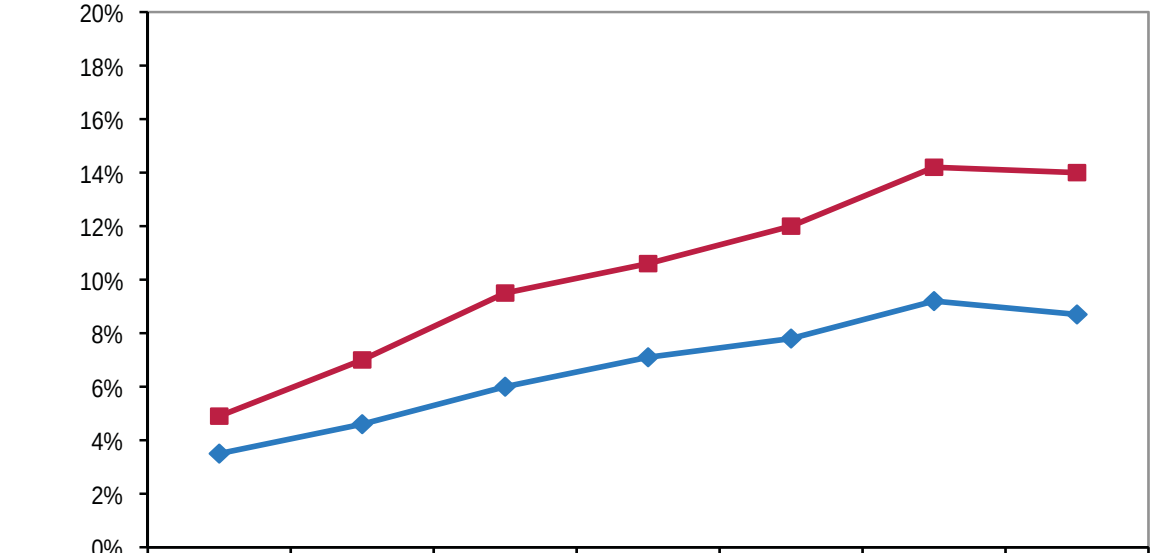
Figure 8.1 Percentage of Indiana and U.S. Residents in Substance Abuse Treatment Who Reported Methamphetamine Use at Admission, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana	4.0%	5.3%	7.1%	8.2%	9.2%	10.9%	10.5%
U.S.	6.5%	7.4%	8.5%	9.3%	10.2%	11.8%	12.0%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 8.2 Percentage of Indiana Residents in Substance Abuse Treatment Who Reported Methamphetamine Use at Admission, by Gender, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)

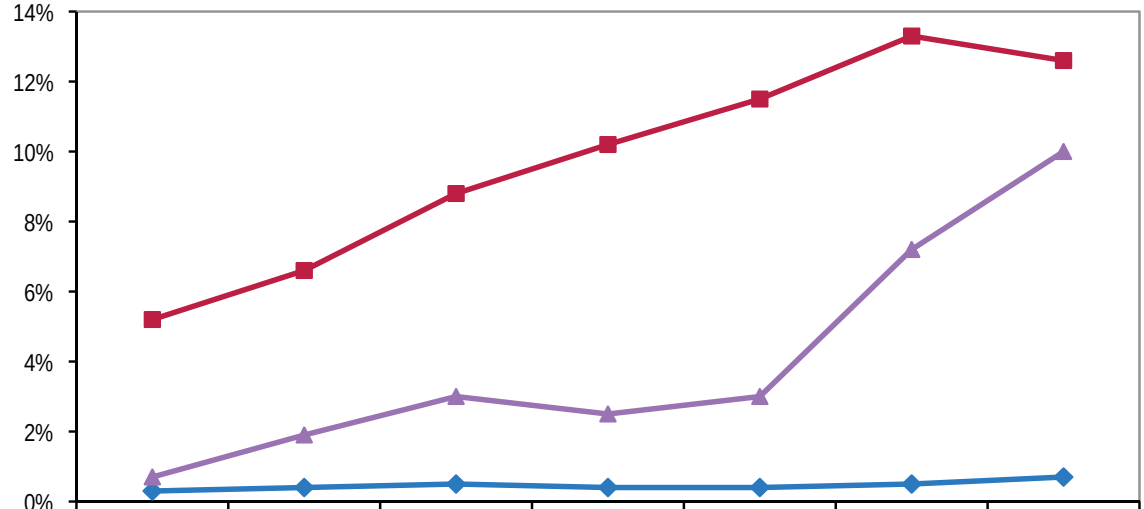


	2000	2001	2002	2003	2004	2005	2006
Male	3.5%	4.6%	6.0%	7.1%	7.8%	9.2%	8.7%
Female	4.9%	7.0%	9.5%	10.6%	12.0%	14.2%	14.0%

Source: Substance Abuse and Mental Health Data Archive, 2008

A statistically significant race effect was also observed for meth use among individuals entering substance abuse treatment ($P < 0.001$) (see Figure 8.3). White people were more likely than black or other minority individuals to report meth use at admission. Rates of use increased significantly from 2000 to 2006 in all three race categories ($P < 0.001$): Reported use for whites more than doubled from 5.2% to 12.6%; even though blacks consistently had the lowest rate, reported use increased significantly from 0.3% to 0.7%; and the greatest increase was found among other races, whose rates rose from 0.7% to 10.0% (Substance Abuse and Mental Health Data Archive, 2008). For county-level treatment data, see Appendix 8A, page 142.

Figure 8.3 Percentage of Indiana Residents in Substance Abuse Treatment Who Reported Methamphetamine Use at Admission, by Race, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)

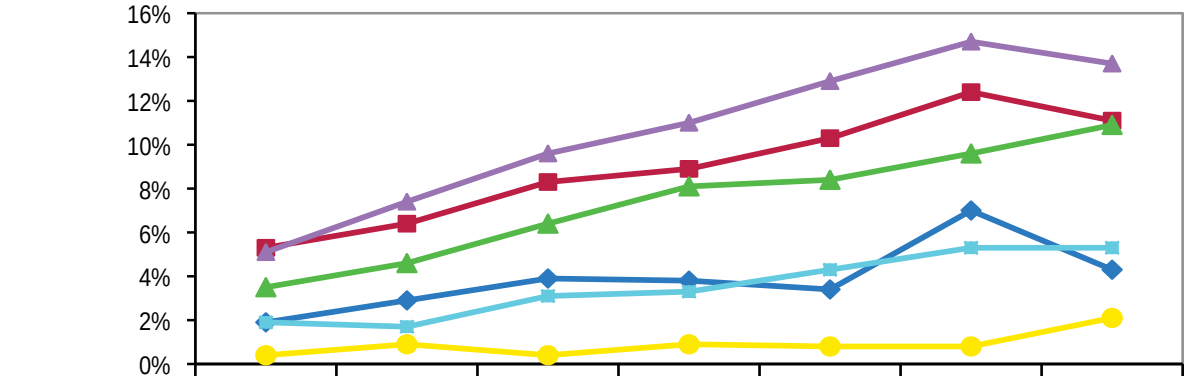


	2000	2001	2002	2003	2004	2005	2006
Black	0.3%	0.4%	0.5%	0.4%	0.4%	0.5%	0.7%
White	5.2%	6.6%	8.8%	10.2%	11.5%	13.3%	12.6%
Other	0.7%	1.9%	3.0%	2.5%	3.0%	7.2%	10.0%

Source: Substance Abuse and Mental Health Data Archive, 2008

Meth use appears to be associated with age. As shown in Figure 8.4, with the exception of individuals under 18, younger individuals tend to have higher rates of use than older people, with the highest rates among adults ages 25 to 34. The differences among the age categories were statistically significant for all years reviewed ($P < 0.001$).

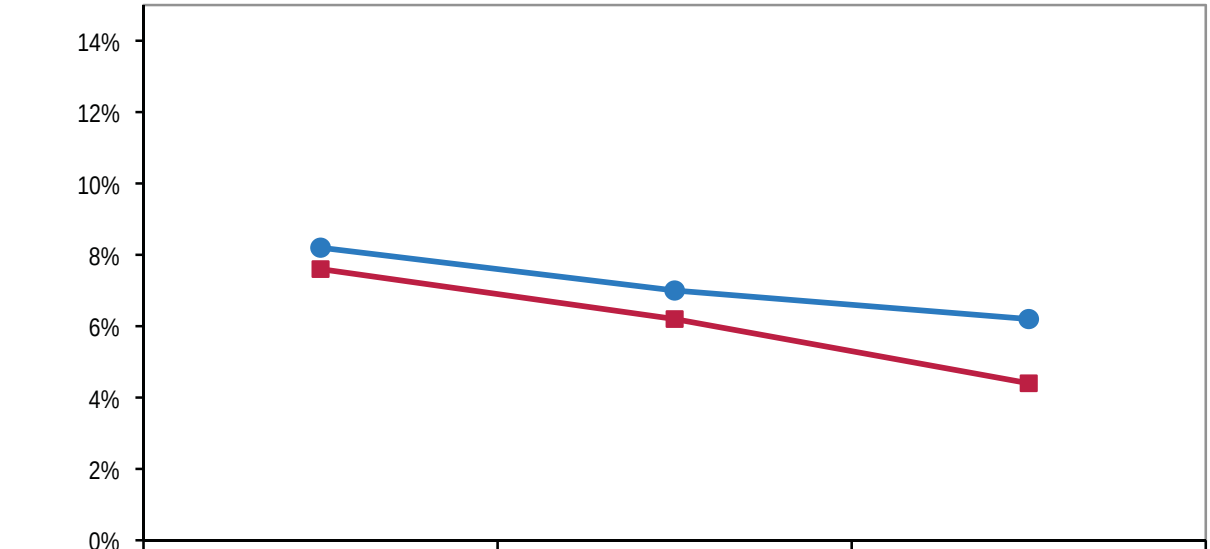
Figure 8.4 Percentage of Indiana Residents in Substance Abuse Treatment Who Reported Methamphetamine Use at Admission, by Age Group, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
under 18	1.9%	2.9%	3.9%	3.8%	3.4%	7.0%	4.3%
18 to 24	5.3%	6.4%	8.3%	8.9%	10.3%	12.4%	11.1%
25 to 34	5.1%	7.4%	9.6%	11.0%	12.9%	14.7%	13.7%
35 to 44	3.5%	4.6%	6.4%	8.1%	8.4%	9.6%	10.9%
45 to 54	1.9%	1.7%	3.1%	3.3%	4.3%	5.3%	5.3%
55 and over	0.4%	0.9%	0.4%	0.9%	0.8%	0.8%	2.1%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 8.5 Percentage of Indiana and U.S. High School Students (9th–12th Grade) Reporting Lifetime Methamphetamine Use, 2003 through 2007 (Youth Risk Behavior Surveillance System, 2003–2007)



	2003	2005	2007
Indiana	8.2%	7.0%	6.2%
U.S.	7.6%	6.2%	4.4%

Source: Substance Abuse and Mental Health Data Archive, 2008

According to the 2007 Youth Risk Behavior Surveillance System (YRBSS), among students in 9th through 12th grades, 6.2% (95% Confidence Interval [CI]: 4.7–8.2) in Indiana reported having used meth once or more in their lifetimes, compared with a statistically similar national rate of 4.4% (95% CI: 3.7–5.3). Lifetime prevalence in Indiana seemed to have decreased from 8.2% (95% CI: 6.5–10.3) in 2003 to 6.2% (95% CI: 4.7–8.2) in 2007, but the difference was not significant (see Figure 8.5) (Centers for Disease Control and Prevention, 2008).

Table 8.1 Percentage of High School Students (9th–12th Grades) Reporting Lifetime Methamphetamine Use, by Grade, Gender, and Race, Indiana and United States, 2005 and 2007 (Youth Risk Behavior Surveillance System, 2005 and 2007)

	Year	Indiana	U.S.
Grade			
9th	2005	5.7%	5.7%
	2007	3.6%	4.7%
10th	2005	6.9%	5.9%
	2007	4.1%	6.1%
11th	2005	7.0%	6.7%
	2007	5.4%	7.1%
12th	2005	9.0%	6.4%
	2007	4.5%	6.3%
Gender	**Year**	**Indiana**	**U.S.**
Male Students	2005	7.9%	6.3%
	2007	4.6%	6.8%
Female Students	2005	6.1%	6.0%
	2007	4.1%	5.1%
Race	**Year**	**Indiana**	**U.S.**
Black	2005	3.7%	1.7%
	2007	1.9%	3.4%
White	2005	7.7%	6.5%
	2007	4.5%	5.9%
Other	2005	4.6%	6.4%
	2007	5.2%	11.1%

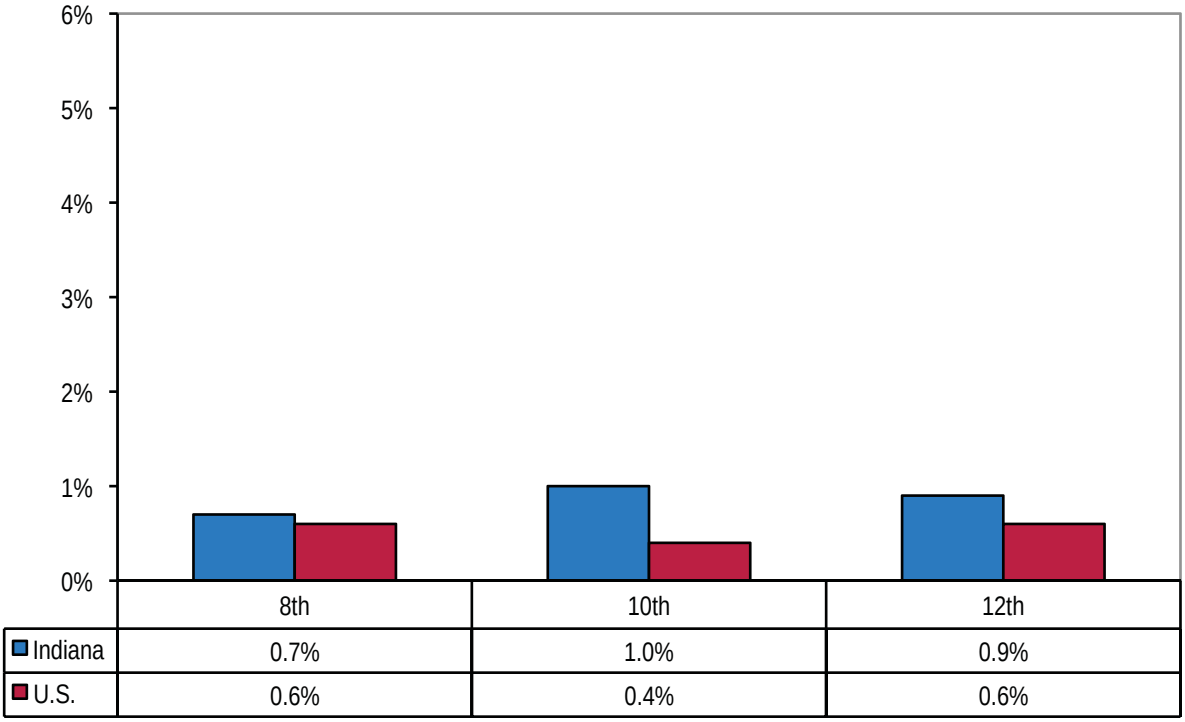
Source: Centers for Disease Control and Prevention, 2008

Rate differences by gender, race, and grade level were not significant in Indiana. Also, even though usage rates seemed higher for Indiana high school students than their U.S. counterparts, lifetime use prevalence rates were statistically the same (see Table 8.1).

Two other surveys of young people that include questions about lifetime, annual, and current methamphetamine use are the Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD)[1] survey, which is conducted among Indiana students in grades 6 through 12 by the Indiana Prevention Resource Center (Indiana Prevention Resource Center, 2008), and the Monitoring the Future (MTF)[2] survey, which is administered nationally among 8th, 10th, and 12th graders (Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). Comparable results for 2007 are shown in Figure 8.6.

MTF has tracked methamphetamine use for a number of years, but a meth question was first added to the ATOD survey in 2005; thus comparisons using these datasets are possible only for 2005 through the present. For all grades in Indiana, reported rates of current methamphetamine use surpass U.S. rates; but due to the nature of the data, the significance of these differences could not be determined.

Figure 8.6 Percentage of Indiana and U.S. 8th, 10th, and 12th Grade Students Reporting Current (Past Month) Methamphetamine Use, by Grade, 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2007)



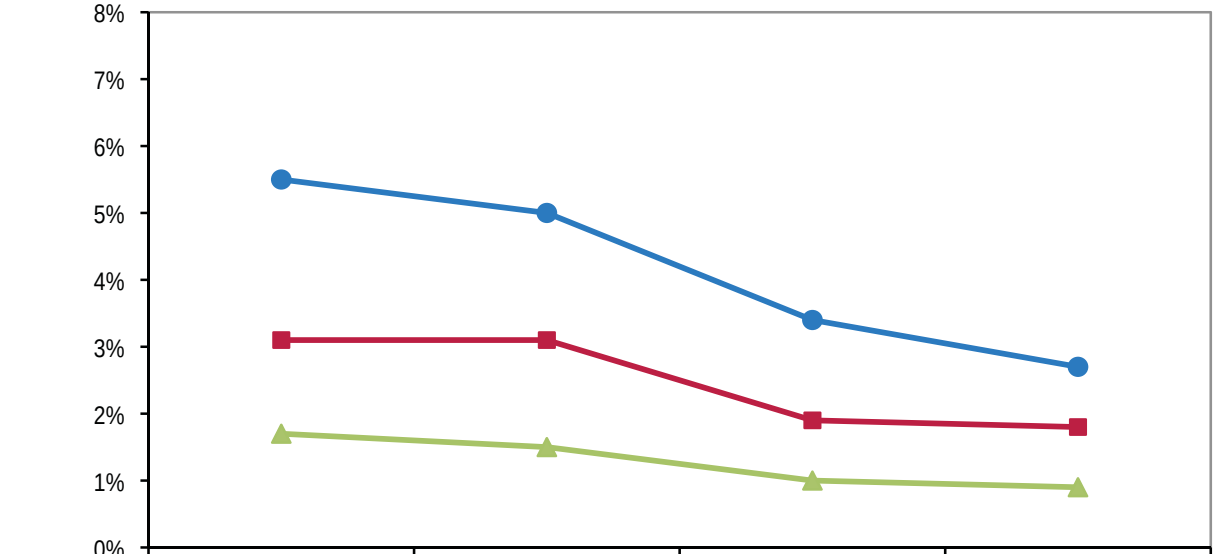
	8th	10th	12th
Indiana	0.7%	1.0%	0.9%
U.S.	0.6%	0.4%	0.6%

Sources: Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

[1]The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.
[2]At the time of the report, the most recent data available were 2007 results from the MTF survey (national data) and 2008 results from the ATOD survey (Indiana data). For comparisons between Indiana and U.S. students on methamphetamine use, data from 2005 through 2007 were used.

In Indiana, rates of use (lifetime, annual, and monthly) have in most grades decreased among 6th through 12th graders from 2007 to 2008 and have remained stable in the other grades (see Figure 8.7 for trends in lifetime, annual, and monthly meth use among Indiana high school seniors). For lifetime, annual, and monthly methamphetamine use by Indiana region and grade, see Appendix 8B, page 143.

Figure 8.7 Percentage of Indiana 12th Grade Students Reporting Lifetime, Annual, and Monthly Methamphetamine Use, from 2005 through 2008 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2005-2008)



	2005	2006	2007	2008
Lifetime	5.5%	5.0%	3.4%	2.7%
Annual	3.1%	3.1%	1.9%	1.8%
Monthly	1.7%	1.5%	1.0%	0.9%

Sources: Indiana Prevention Resource Center, 2008.

CONSEQUENCES

Health-Related Consequences

The health consequences of meth use include both short-term and chronic impacts. Short-term effects include increased wakefulness, physical activity, and decreased appetite, as well as cardiac problems, hyperthermia, depression, and confusion. When used chronically, meth causes physiological changes that result in impaired memory, mood alterations, diminished motor coordination, and psychiatric problems. Chronic, long-term use can also lead to insomnia, violent behavior, hallucinations, weight loss, and stroke. Other health consequences of prolonged meth use include cardiovascular collapse; brain, liver, and kidney damage; severe tooth decay (or “meth mouth”); hepatitis; extreme weight loss; mental illness; increased risk of unsafe sex and risky sexual behavior; increased risk of STD/HIV transmission; unwanted pregnancy; and death (Office of National Drug Control Policy, n.d.; National Institute on Drug Abuse, 2002 and 2008).

Meth labs and parental addiction pose serious risks to children due to the highly toxic fumes generated during production and because users often sleep for long periods of time, neglecting their children. Children who are present during or after meth production may face severe health and safety risks, including medical neglect and physical, emotional, and sexual abuse (National Drug Intelligence Center, 2002).

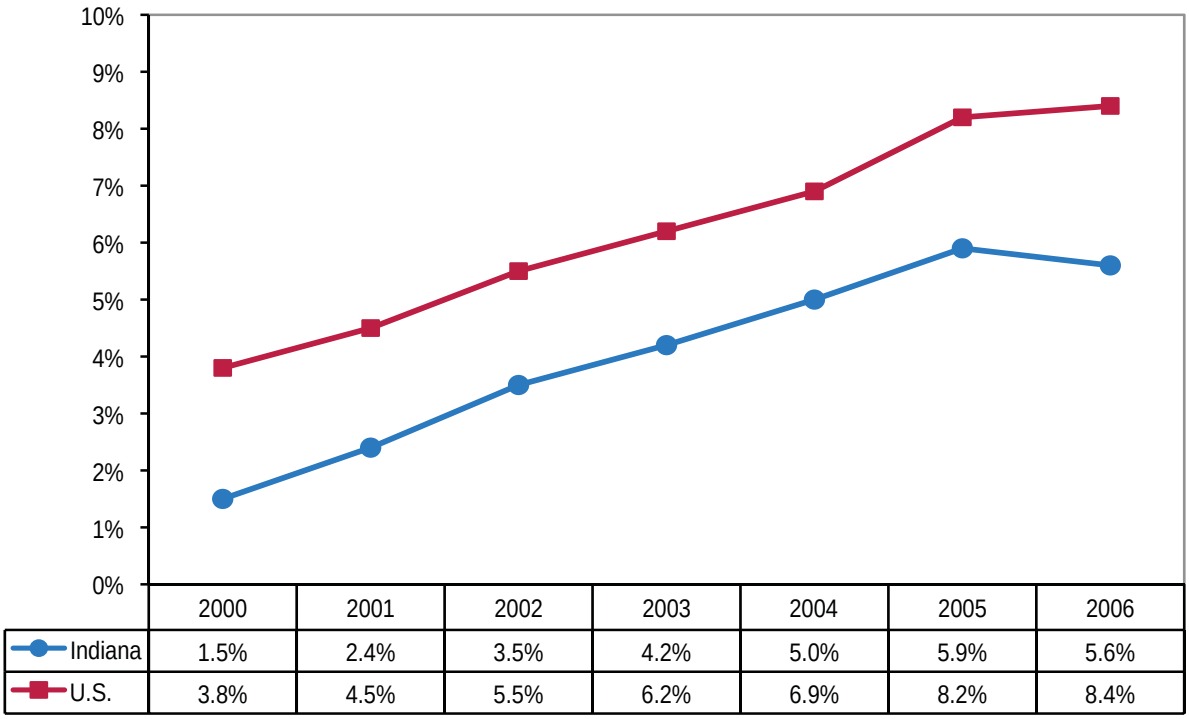
Meth Dependence

As previously mentioned, meth is considered a highly addictive substance resulting in drug dependence.[3] TEDS data demonstrate that the percent of admissions in which meth is indicated as the primary drug has been statistically significantly lower in Indiana than the rest of the nation ($P < 0.001$) (Substance Abuse and Mental Health Data Archive, 2008). In Indiana, between 2000 and 2006, the percentage of admissions in which meth was reported as the primary substance of use increased significantly from 1.5% to 5.6% (see Figure 8.8).

Differences in reported methamphetamine dependence were significant by gender ($P < 0.001$). Roughly twice as many women (8.3%) as men (4.2%) listed meth as their primary drug at treatment admission (see Figure 8.9).

Rate differences by race were also significant across all years reviewed ($P < 0.001$). The highest rate was found among the white treatment population (6.7%) and the lowest rate among the black treatment population (0.2%). Rates of reported primary meth use increased significantly among all three racial groups (see Figure 8.10).

Figure 8.8 Percentages of Indiana and U.S. Residents in Substance Abuse Treatment Who Listed Methamphetamine as Their Primary Drug at Admission, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)

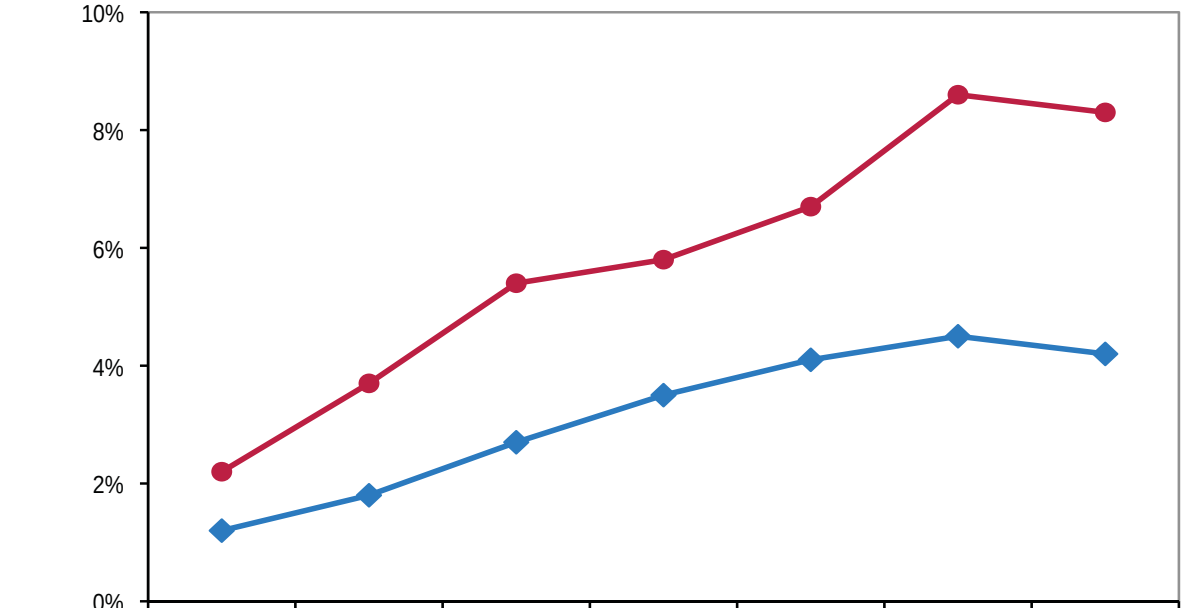


	2000	2001	2002	2003	2004	2005	2006
Indiana	1.5%	2.4%	3.5%	4.2%	5.0%	5.9%	5.6%
U.S.	3.8%	4.5%	5.5%	6.2%	6.9%	8.2%	8.4%

Note: We defined methamphetamine dependence as "individuals reporting methamphetamine as their primary drug at the time of substance abuse treatment admission."
Source: Substance Abuse and Mental Health Data Archive, 2008

[3]We defined methamphetamine dependence as "individuals reporting methamphetamine to be their primary drug at the time of their substance abuse treatment admission."

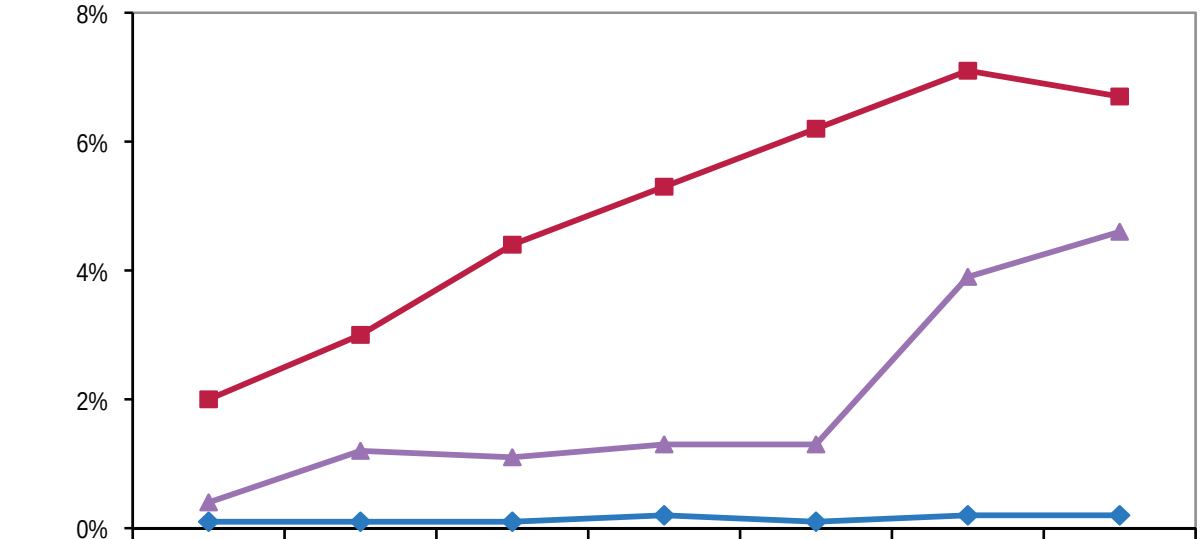
Figure 8.9 Percentage of Indiana Residents in Substance Abuse Treatment Who Listed Methamphetamine as Their Primary Drug at Admission, by Gender, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Male	1.2%	1.8%	2.7%	3.5%	4.1%	4.5%	4.2%
Female	2.2%	3.7%	5.4%	5.8%	6.7%	8.6%	8.3%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 8.10 Percentage of Indiana Residents in Substance Abuse Treatment Who Listed Methamphetamine as Their Primary Drug at Admission, by Race, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)

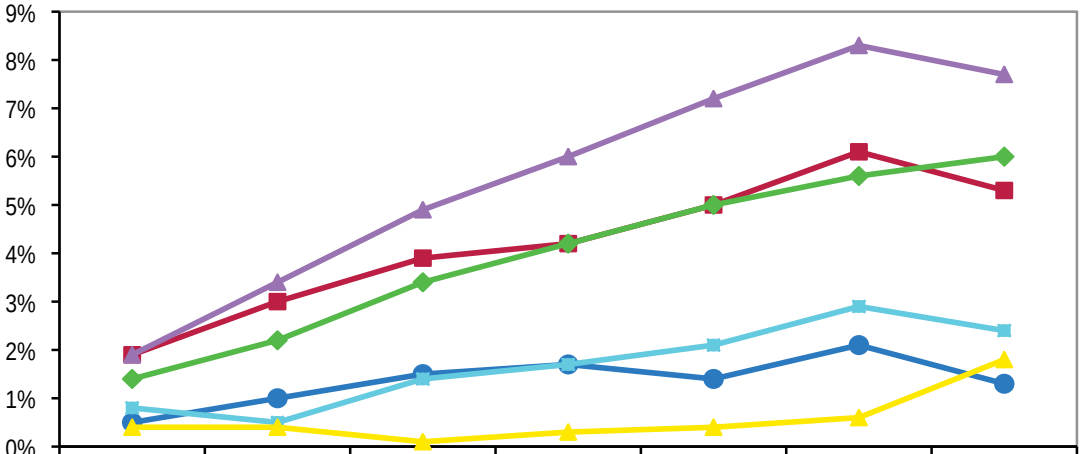


	2000	2001	2002	2003	2004	2005	2006
Black	0.1%	0.1%	0.1%	0.2%	0.1%	0.2%	0.2%
White	2.0%	3.0%	4.4%	5.3%	6.2%	7.1%	6.7%
Other	0.4%	1.2%	1.1%	1.3%	1.3%	3.9%	4.6%

Source: Substance Abuse and Mental Health Data Archive, 2008

Age also was significantly associated with methamphetamine dependence in Indiana ($P < 0.001$). Younger adults (18 to 44 years old) had higher rates of meth dependence. Rates increased from 2000 through 2006, especially among 18- to 24-year-olds (from 1.9% to 5.3%), 25- to 34-year-olds (from 1.9% to 7.7%), and 35- to 44-year-olds (from 1.4% to 6.0%); see Figure 8.11. For county-level treatment data, see Appendix 8A, page 142.

Figure 8.11 Percentage of Indiana Residents in Substance Abuse Treatment Who Listed Methampetamine as Their Primary Drug at Admission, by Age, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
under 18	0.5%	1.0%	1.5%	1.7%	1.4%	2.1%	1.3%
18 to 24	1.9%	3.0%	3.9%	4.2%	5.0%	6.1%	5.3%
25 to 34	1.9%	3.4%	4.9%	6.0%	7.2%	8.3%	7.7%
35 to 44	1.4%	2.2%	3.4%	4.2%	5.0%	5.6%	6.0%
45 to 54	0.8%	0.5%	1.4%	1.7%	2.1%	2.9%	2.4%
55 and over	0.4%	0.4%	0.1%	0.3%	0.4%	0.6%	1.8%

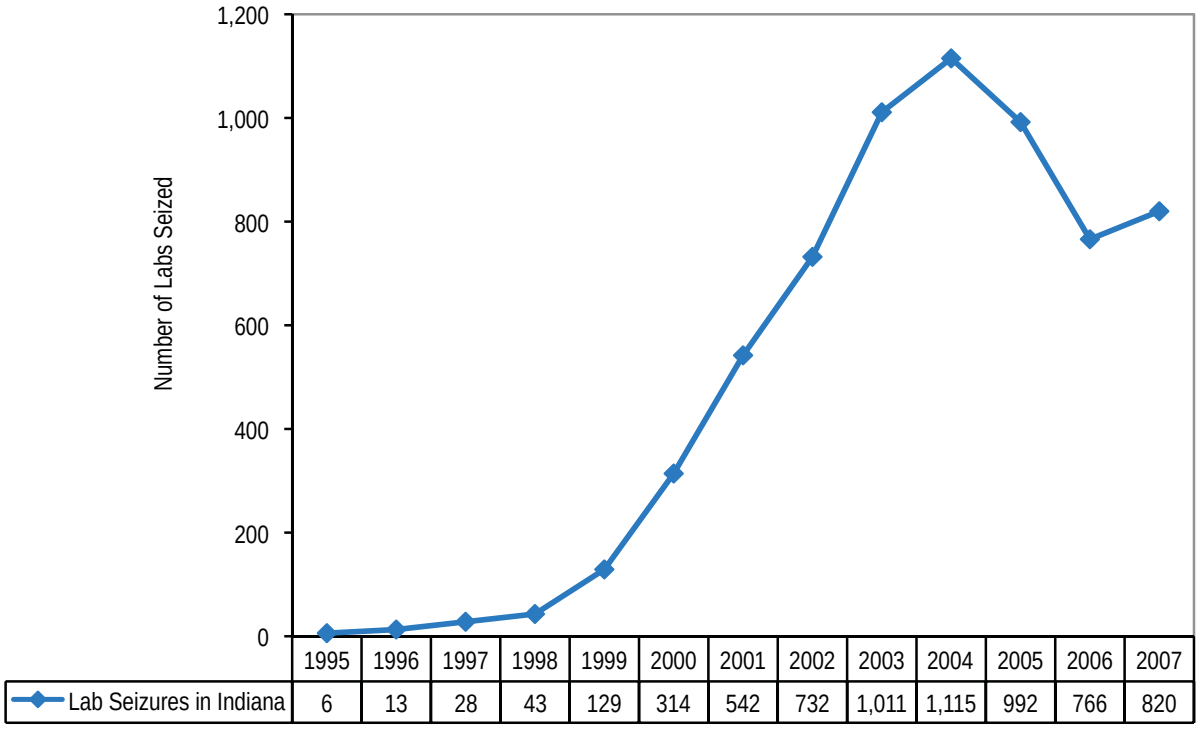
Source: Substance Abuse and Mental Health Data Archive, 2008

Criminal Consequences

According to the U.S. Drug Enforcement Administration (DEA), Indiana has become an area of high drug trafficking and distribution. Methamphetamine manufactured in Mexico and the southwestern states is increasingly being transported into Indiana. In 2007, 13.1 kg (28.9 pounds) of meth were seized in the state. Meth labs in Indiana produce higher purity (30 to 40 percent) meth, but do not generate large quantities for distribution, (U.S. Drug Enforcement Administration, 2008).

From January 1 to September 30, 2008, the Indiana State Police (ISP) seized 800 clandestine methamphetamine labs and made 464 meth lab arrests in the state. So far, the highest number of lab seizures and resulting arrests occurred in 2004, with 1,115 labs seized and 885 arrests made by ISP. Figures 8.12 and 8.13 show the trend in meth lab seizures and arrests from 1995 through 2007 (Indiana State Police, 2008). Map 8.1 (page 146) shows the number of meth labs seized by ISP in each county in 2007.

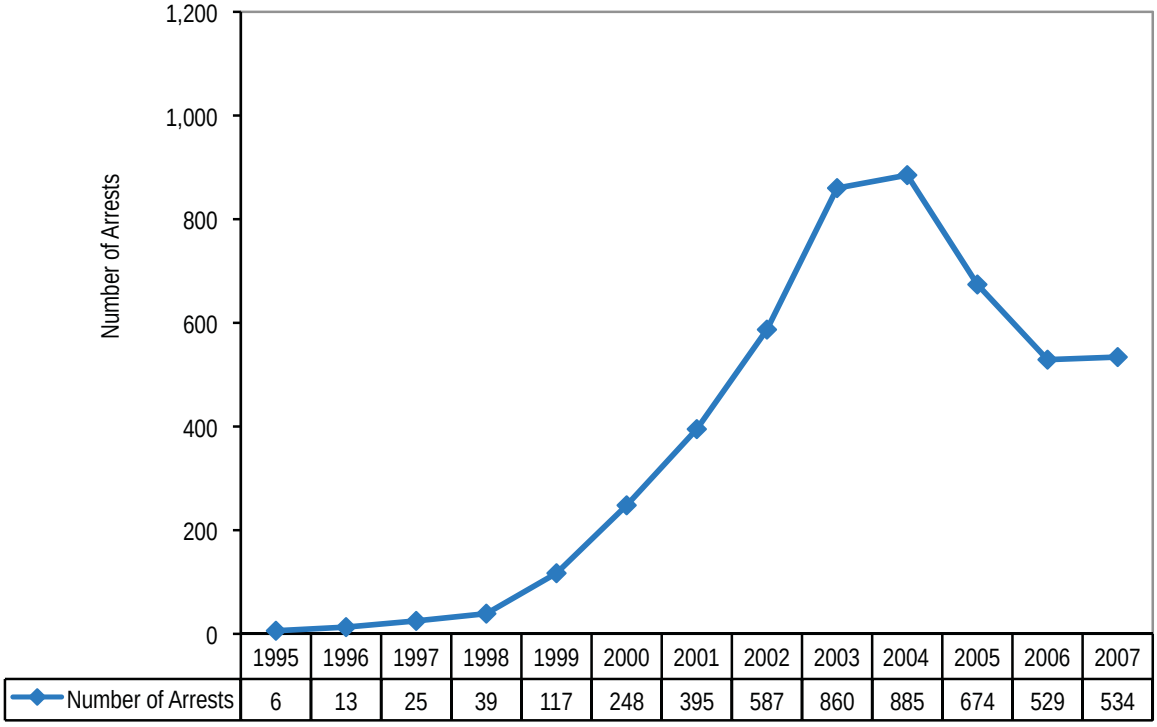
Figure 8.12 Number of Clandestine Methamphetamine Labs Seized in Indiana by the Indiana State Police, 1995 through 2007 (Indiana Meth Lab Statistics, 1995–2007)



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Lab Seizures in Indiana	6	13	28	43	129	314	542	732	1,011	1,115	992	766	820

Source: Indiana State Police, 2008

Figure 8.13 Number of Arrests Made at Methamphetamine Labs in Indiana by the Indiana State Police, 1995 through 2007 (Indiana Meth Lab Statistics, 1995–2007)



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Number of Arrests	6	13	25	39	117	248	395	587	860	885	674	529	534

Source: Indiana State Police, 2008

Meth is classified as a synthetic stimulant. The Uniform Crime Reporting (UCR) Program describes crimes associated with synthetic drug possession and sale (i.e., Part II offense data from the UCR). Substances defined as "synthetic" include a number of drugs in addition to methamphetamine, such as Demerol and methadone (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). According to 2006 results, over 1,600 Hoosiers were arrested for possession of synthetic drugs. This represents an arrest rate of 0.27 (95% CI: 0.25–0.28) per 1,000 population, which is statistically higher than the nation's, at 0.19 (95% CI: 0.18–0.19). Additionally, 529 arrests were made in Indiana for the sale and manufacture of synthetic drugs; the corresponding arrest rates were the same for Indiana and the United States, 0.08 per 1,000 population (see Figures 8.14 and 8.15).

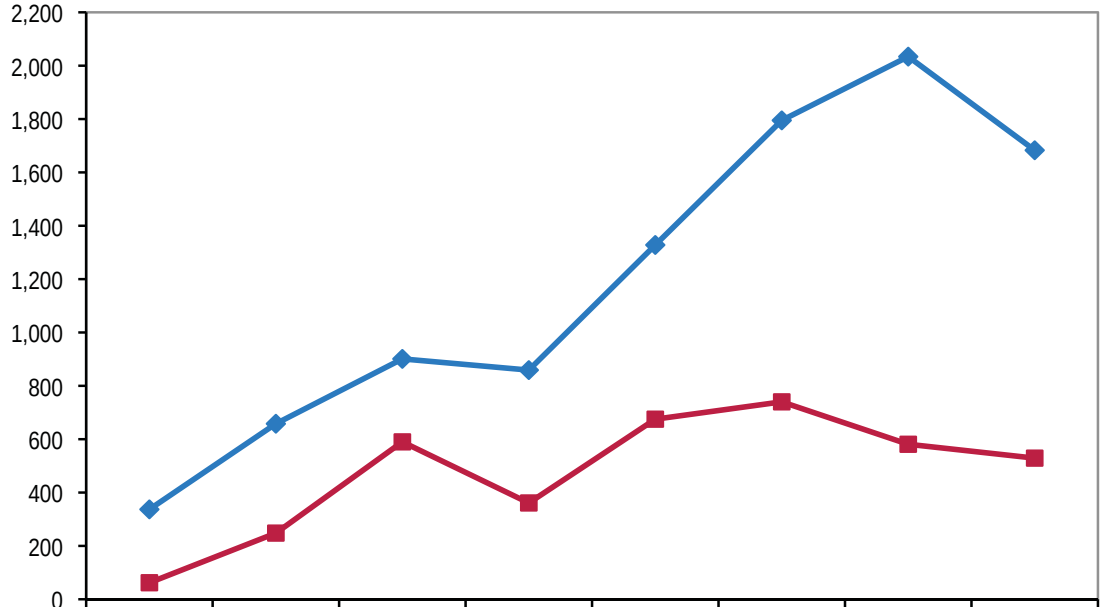
Maps 8.2 and 8.3 (pages 147 and 148), and Appendix 8C (pages 144-145) show arrest data for synthetic drug possession and sale/manufacture by county. Caution should be exercised when interpreting these data due to variations in reporting procedures and a lack of data to identify meth-specific arrests. In Indiana, reporting by county and local law enforcement jurisdictions is sometimes incomplete; therefore, a portion of these data are based on estimates. (For more details, see the discussion of UCR data in Chapter 2, Methods, Page 20.)

Social Consequences

In addition to the consequences discussed above, meth use and abuse can have serious social impacts. Students who use meth are more likely to exhibit lower academic performance, higher rates of absenteeism, and are less likely to graduate from high school. Individuals who use meth are more likely to have problems at work.

Meth use also impacts children and families in ways similar to other forms of substance abuse, by contributing to increased interpersonal conflicts, financial problems, poor parenting, incarceration (of parents), and placement of children in protective custody (National Institute on Drug Abuse, 2008). According to data from the Indiana State Police (ISP), the number of children who were located at meth labs in Indiana rose from 125 in 2003 to 172 in 2004, and fell again to 124 in 2007 (see Figure 8.16) (Indiana State Police, 2008).

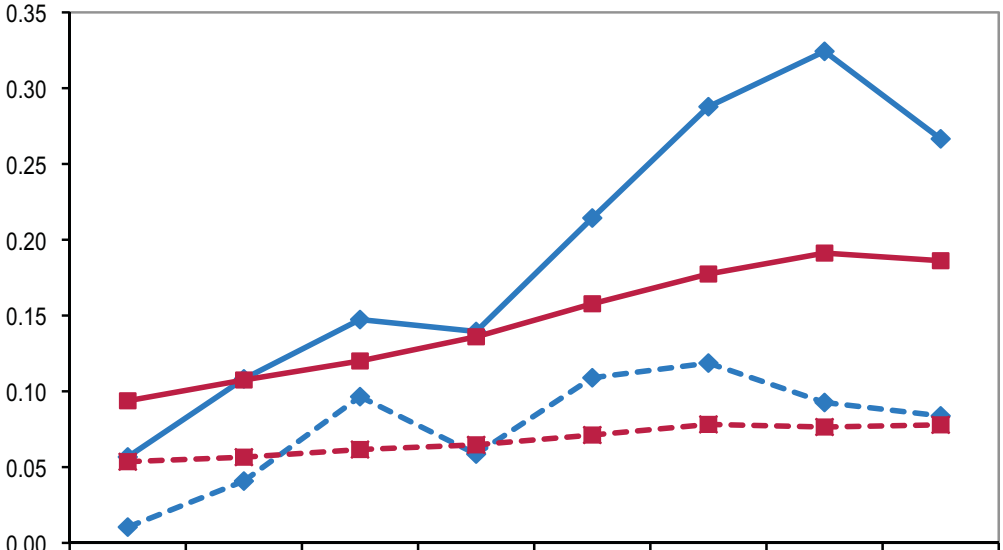
Figure 8.14 Number of Arrests for Synthetic Drug Possession and Sale/Manufacture in Indiana, 1999 through 2006, (Uniform Crime Reporting Program, 1999–2006)



	1999	2000	2001	2002	2003	2004	2005	2006
Possession	337	658	901	859	1,328	1,795	2,034	1,683
Sale	62	248	590	361	675	740	581	529

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

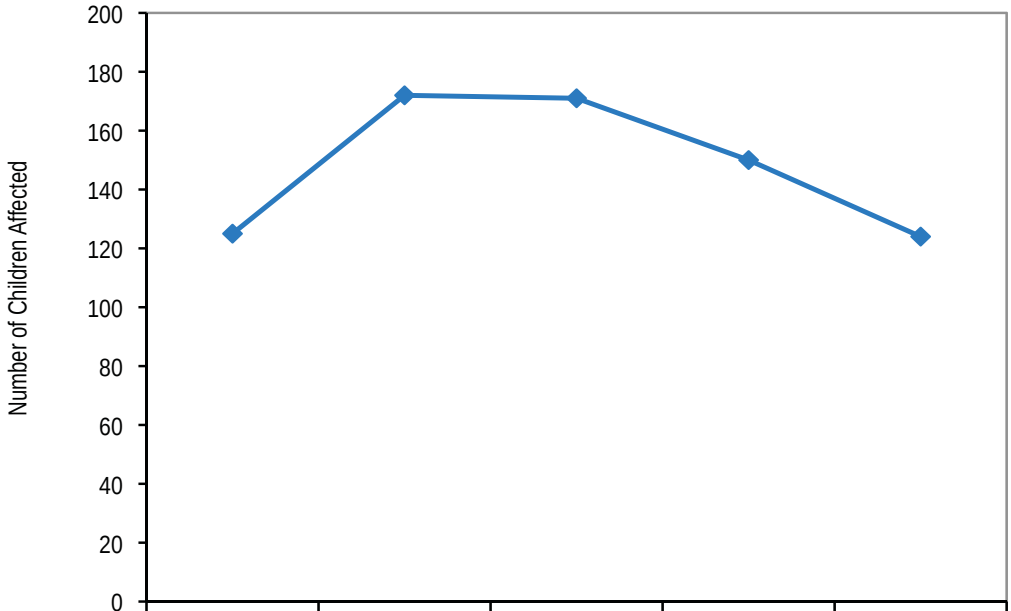
Figure 8.15 Arrest Rates for Synthetic Drug Possession and Sale/Manufacture, per 1,000 Population, Indiana and United States, 1999 through 2006 (Uniform Crime Reporting Program, 1999–2006)



	1999	2000	2001	2002	2003	2004	2005	2006
IN Possession	0.06	0.11	0.15	0.14	0.21	0.29	0.32	0.27
U.S. Possession	0.09	0.11	0.12	0.14	0.16	0.18	0.19	0.19
IN Sale	0.01	0.04	0.10	0.06	0.11	0.12	0.09	0.08
U.S. Sale	0.05	0.06	0.06	0.06	0.07	0.08	0.08	0.08

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Figure 8.16 Number of Indiana Children Located at Methamphetamine Labs by the Indiana State Police, 2003 through 2007 (Indiana Meth Lab Statistics, 2003–2007)



	2003	2004	2005	2006	2007
Children Affected in Indiana	125	172	171	150	124

Source: Indiana State Police, 2008

APPENDIX 8A

Number of Indiana Residents in Substance Abuse Treatment Who Reported Methamphetamine Use and Who Listed Methamphetamine as their Primary Substance at Admission, by County, 2007 (Substance Abuse Population by County/Treatment Episode Data Set, 2007)

County	Meth Use	Meth Dependence
Adams	2	1
Allen	21	9
Bartholomew	118	69
Benton	2	0
Blackford	3	2
Boone	15	6
Brown	8	5
Carroll	12	3
Cass	20	11
Clark	25	12
Clay	75	40
Clinton	4	3
Crawford	7	4
Daviess	55	33
Dearborn	4	1
Decatur	10	3
DeKalb	34	23
Delaware	16	4
Dubois	33	12
Elkhart	64	32
Fayette	5	2
Floyd	20	7
Fountain	13	5
Franklin	5	4
Fulton	18	12
Gibson	41	29
Grant	4	0
Greene	28	17
Hamilton	21	5
Hancock	12	2
Harrison	16	6
Hendricks	12	9
Henry	4	0
Howard	42	14
Huntington	6	0
Jackson	37	14
Jasper	4	4
Jay	6	3
Jefferson	27	16
Jennings	30	14
Johnson	23	10
Knox	122	72
Kosciusko	16	8
LaGrange	27	12
Lake	11	6
LaPorte	3	0
Lawrence	12	11
Madison	28	11
Marion	155	66
Marshall	23	19
Martin	23	11
Miami	42	18
Monroe	46	30
Montgomery	45	23
Morgan	80	62
Newton	0	0
Noble	65	37
Ohio	0	0
Orange	10	8
Owen	32	23
Parke	32	21
Perry	26	16
Pike	10	6
Porter	6	4
Posey	45	11
Pulaski	3	0
Putnam	34	16
Randolph	8	5
Ripley	2	1
Rush	7	3
St. Joseph	27	10
Scott	18	9
Shelby	7	5
Spencer	19	11
Starke	31	21
Steuben	13	7
Sullivan	36	17
Switzerland	3	2
Tippecanoe	125	69
Tipton	2	1
Union	0	0
Vanderburgh	338	166
Vermillion	23	5
Vigo	294	158
Wabash	7	4
Warren	7	5
Warrick	74	32
Washington	3	2
Wayne	9	5
Wells	2	2
White	26	14
Whitley	6	2
Total	2,885	1,493

Note: We defined methamphetamine dependence as “individuals listing methamphetamine as their primary drug at the time of substance abuse treatment admission.”
Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2008

APPENDIX 8B

Percentage of Indiana Students Reporting Lifetime, Annual, and Monthly Methamphetamine Use, by Region and Grade, 2008 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2008)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	**Lifetime**	0.4	0.4	0.2	0.1	0.4	0.4	0.3	0.3	0.5
	Annual	0.3	0.3	0.1	0.1	0.4	0.3	0.4	0.3	0.3
	Monthly	0.2	0.3	0.1	0.0	0.1	0.2	0.1	0.1	0.2
7th Grade	**Lifetime**	0.9	0.9	0.9	0.8	0.9	0.8	1.2	0.8	1.3
	Annual	0.6	0.6	0.6	0.6	0.6	0.5	0.8	0.7	0.9
	Monthly	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.5	0.6
8th Grade	**Lifetime**	1.5	1.5	1.8	1.4	1.5	1.7	1.6	1.2	1.4
	Annual	1.1	1.0	1.2	0.9	1.0	1.2	1.2	0.9	1.1
	Monthly	0.7	0.6	0.8	0.4	0.6	0.7	0.8	0.5	0.8
9th Grade	**Lifetime**	2.0	2.0	1.8	2.0	1.6	2.0	2.4	1.1	2.7
	Annual	1.4	1.3	1.3	1.3	1.1	1.5	1.9	0.6	2.1
	Monthly	0.9	0.8	0.6	0.8	0.8	1.0	1.0	0.3	1.1
10th Grade	**Lifetime**	2.5	2.2	2.6	2.1	2.5	2.7	2.0	2.1	2.9
	Annual	1.6	1.6	1.7	1.3	1.7	1.7	1.5	1.2	1.8
	Monthly	1.0	1.2	0.8	0.8	0.9	1.2	0.8	0.7	1.2
11th Grade	**Lifetime**	2.8	2.3	2.9	1.8	2.5	3.0	3.2	2.2	3.6
	Annual	1.8	1.5	2.2	1.0	1.4	2.0	2.0	1.6	1.9
	Monthly	0.9	0.9	1.3	0.5	0.6	1.2	0.7	0.8	1.1
12th Grade	**Lifetime**	2.7	2.0	2.5	2.2	3.0	2.6	2.8	3.3	3.0
	Annual	1.8	1.7	1.6	1.6	2.0	1.6	1.4	2.4	1.8
	Monthly	0.9	0.9	0.8	0.8	1.0	1.0	0.8	1.1	0.8

Note: The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.
Source: Indiana Prevention Resource Center, 2008

APPENDIX 8C

Number and Rate, per 1,000 Population, of Arrests for Synthetic Drug Possession and Sale/Manufacture in Indiana by County, 2006 (Uniform Crime Reporting Program, 2006)

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Adams	10	*0.29	4	*0.12
Allen	5	*0.01	1	*0.00
Bartholomew	91	1.23	24	0.33
Benton	2	*0.22	1	*0.11
Blackford	6	*0.43	2	*0.14
Boone	12	*0.23	4	*0.08
Brown	7	*0.46	6	*0.39
Carroll	4	*0.19	1	*0.05
Cass	8	*0.20	1	*0.02
Clark	27	0.26	2	*0.02
Clay	26	0.95	3	*0.11
Clinton	8	*0.23	3	*0.09
Crawford	5	*0.44	2	*0.18
Daviess	40	1.30	16	*0.52
Dearborn	13	*0.26	3	*0.06
Decatur	12	*0.47	3	*0.12
DeKalb	13	*0.31	4	*0.10
Delaware	27	0.23	2	*0.02
Dubois	28	0.68	4	*0.10
Elkhart	37	0.19	7	*0.04
Fayette	6	*0.24	2	*0.08
Floyd	27	0.37	0	*0.00
Fountain	7	*0.40	2	*0.11
Franklin	3	*0.14	1	*0.05
Fulton	9	*0.43	3	*0.14
Gibson	8	*0.24	2	*0.06
Grant	50	0.70	11	*0.15
Greene	9	*0.27	1	*0.03
Hamilton	77	0.32	16	*0.07
Hancock	28	0.44	3	*0.05
Harrison	8	*0.22	3	*0.08
Hendricks	23	0.18	10	*0.08
Henry	0	*0.00	0	*0.00
Howard	1	*0.01	2	*0.02
Huntington	6	*0.16	1	*0.03
Jackson	26	0.61	5	*0.12
Jasper	4	*0.12	5	*0.16
Jay	7	*0.32	3	*0.14
Jefferson	16	*0.49	4	*0.12
Jennings	10	*0.35	4	*0.14
Johnson	3	*0.02	2	*0.02
Knox	10	*0.26	3	*0.08
Kosciusko	28	0.37	10	*0.13
LaGrange	0	*0.00	0	*0.00
Lake	63	0.13	9	*0.02
LaPorte	13	*0.12	3	*0.03
Lawrence	7	*0.15	1	*0.02
Madison	45	0.34	17	*0.13
Marion	20	0.02	26	0.03

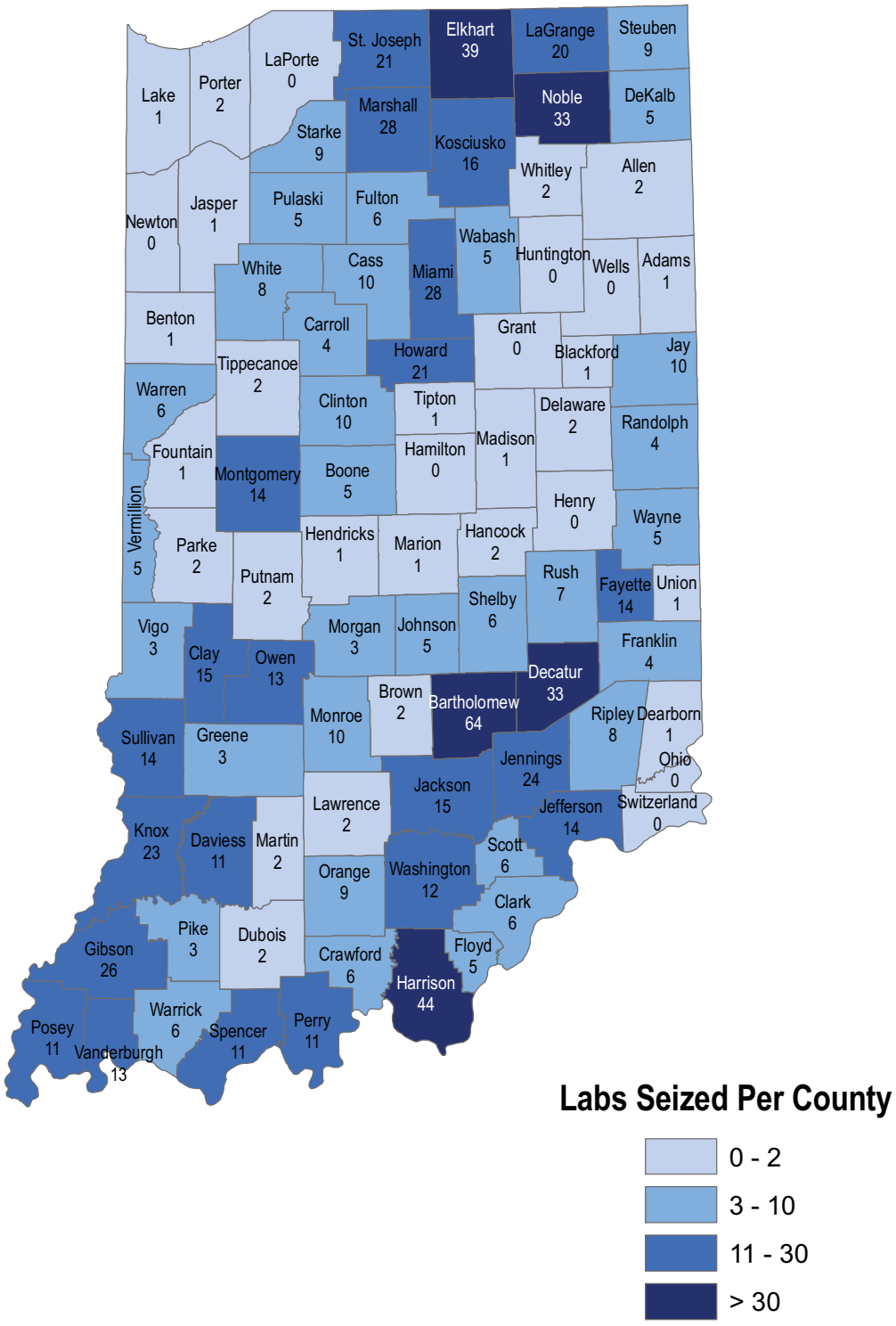
(continued on next page)

APPENDIX 8C *(Continued from previous page)*

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Marshall	29	0.61	6	*0.13
Martin	4	*0.38	1	*0.10
Miami	15	*0.42	5	*0.14
Monroe	15	*0.12	4	*0.03
Montgomery	11	*0.29	4	*0.10
Morgan	8	*0.11	3	*0.04
Newton	0	*0.00	2	*0.14
Noble	40	0.84	3	*0.06
Ohio	1	*0.17	0	*0.00
Orange	9	*0.45	3	*0.15
Owen	0	*0.00	0	*0.00
Parke	8	*0.46	3	*0.17
Perry	16	*0.84	2	*0.10
Pike	6	*0.47	2	*0.16
Porter	40	0.25	12	*0.08
Posey	15	*0.55	4	*0.15
Pulaski	6	*0.43	2	*0.14
Putnam	15	*0.40	3	*0.08
Randolph	10	*0.37	3	*0.11
Ripley	13	*0.44	4	*0.14
Rush	20	1.11	6	*0.33
St. Joseph	53	0.20	2	*0.01
Scott	28	1.17	3	*0.13
Shelby	17	*0.39	13	*0.30
Spencer	10	*0.48	4	*0.19
Starke	3	*0.13	0	*0.00
Steuben	1	*0.03	4	*0.12
Sullivan	3	*0.14	1	*0.05
Switzerland	5	*0.51	2	*0.20
Tippecanoe	122	0.79	17	*0.11
Tipton	2	*0.12	2	*0.12
Union	0	*0.00	5	*0.69
Vanderburgh	96	0.55	92	0.53
Vermillion	7	*0.42	1	*0.06
Vigo	66	0.64	30	0.29
Wabash	7	*0.21	0	*0.00
Warren	4	*0.45	2	*0.23
Warrick	45	0.79	18	*0.32
Washington	6	*0.21	2	*0.07
Wayne	19	*0.27	14	*0.20
Wells	1	*0.04	0	*0.00
White	7	*0.28	0	*0.00
Whitley	5	*0.15	3	*0.09
Total	1,683	0.27	529	0.08

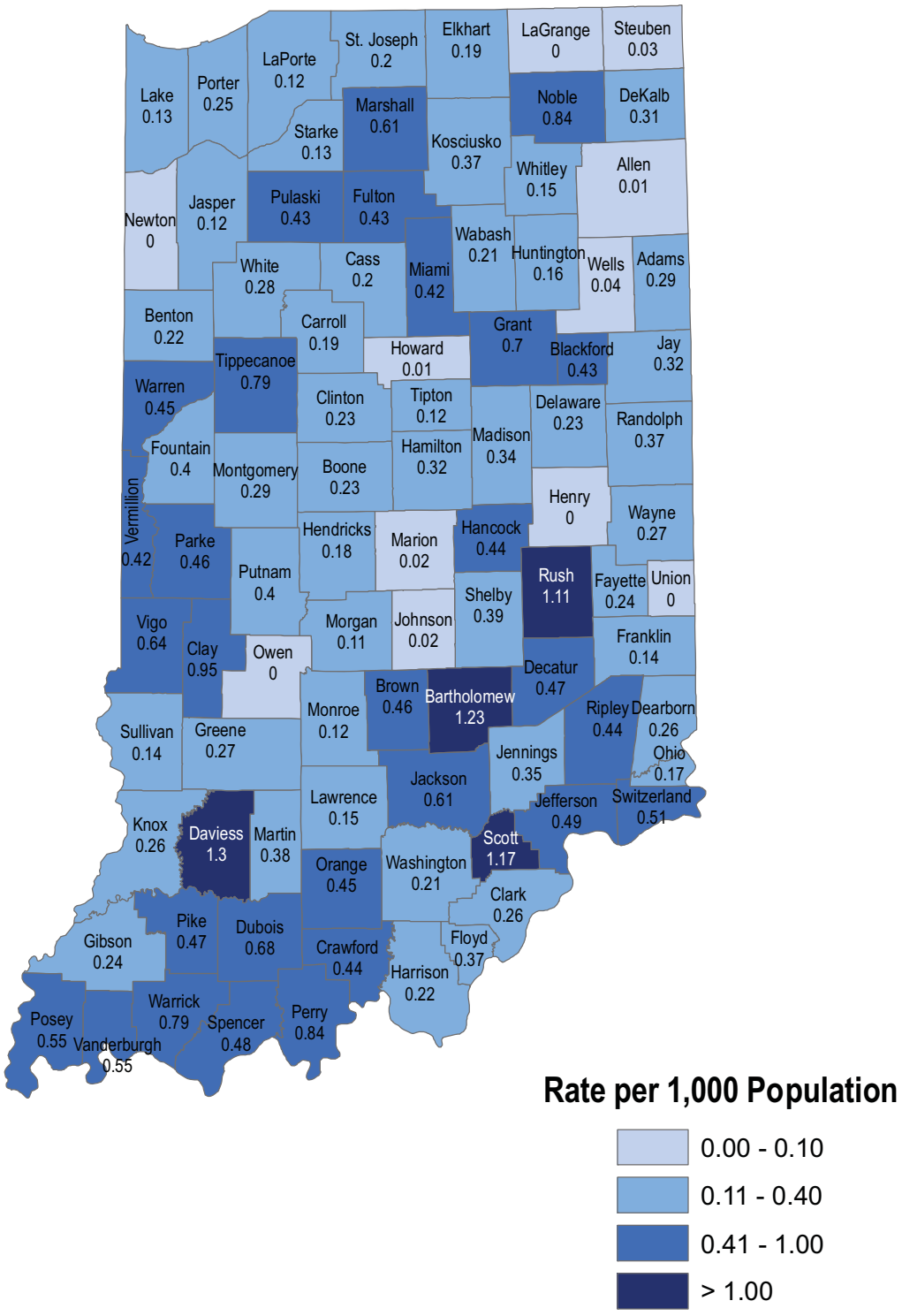
* Rates that are based on arrest numbers lower than 20 are unreliable.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 8.1 Number of Clandestine Methamphetamine Labs Seized by the Indiana State Police in Indiana, by County, 2007 (Indiana Meth Lab Statistics, 2007)



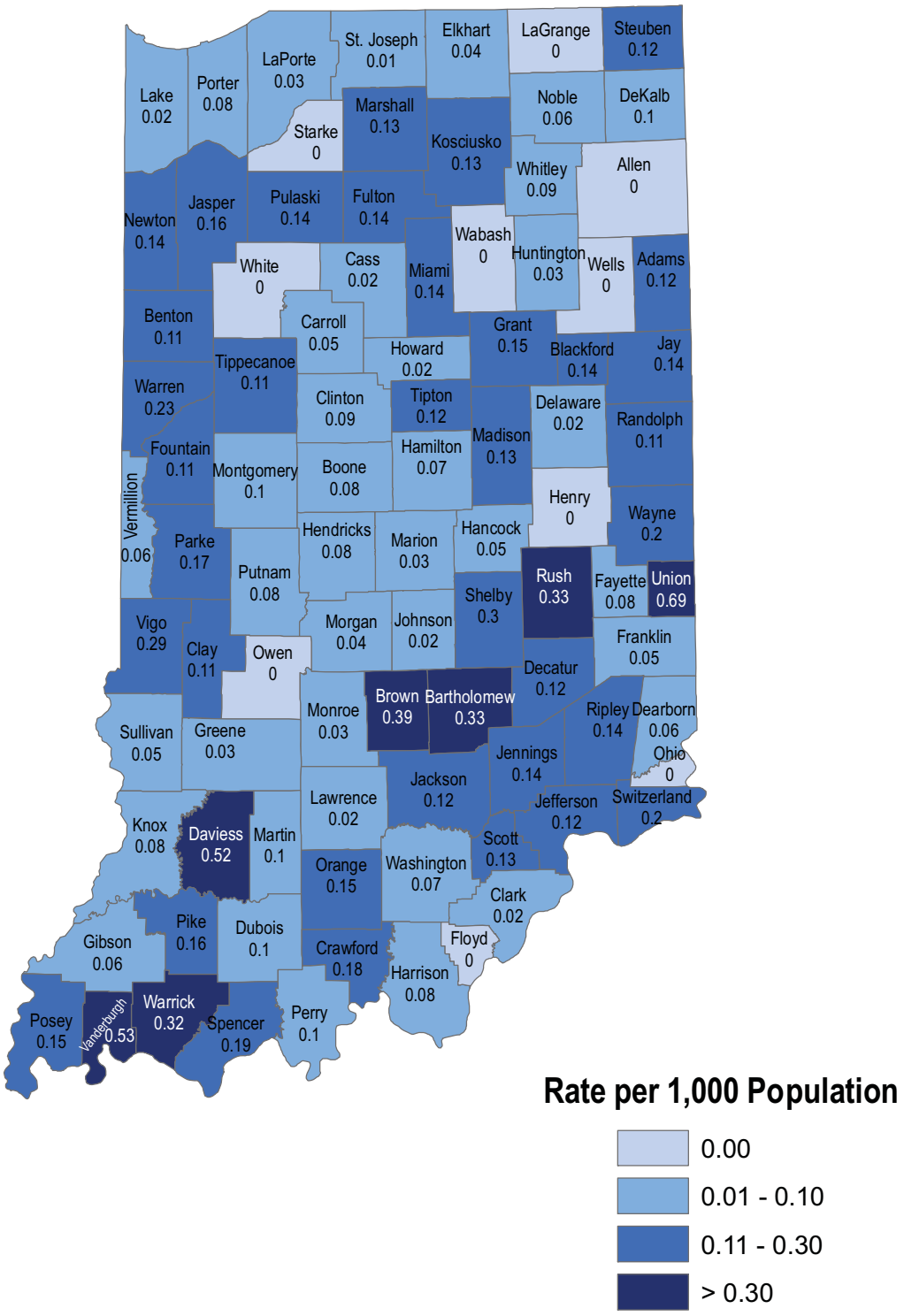
Source: Indiana State Police, 2008

Map 8.2 Arrest Rates for Synthetic Drug Possession, per 1,000 Population, by County, 2006 (Uniform Crime Reporting Program, 2006)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 8C (pages 144-145) for additional information.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 8.3 Arrest Rates for Synthetic Drug Sale/Manufacture, per 1,000 Population, by County, 2006 (Uniform Crime Reporting Program, 2006)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 8C (pages 144-145) for additional information.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

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9. Prescription Drug Abuse in Indiana: Consumption Patterns and Consequences

NONMEDICAL PRESCRIPTION DRUG CONSUMPTION

Abuse of prescription drugs is a serious and growing public health problem in the United States. According to the National Survey on Drug Use and Health (NSDUH), a total of 49.8 million Americans (20.3%) ages 12 years and older reported lifetime nonmedical use of prescription-type psychotherapeutics, including pain relievers, sedatives, tranquilizers, and stimulants in 2006. In Indiana alone, over a million Hoosiers reported that they misused psychotherapeutics at least once in their life (20.7%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

The National Institute on Drug Abuse lists the three most commonly abused types of prescription medicine as:

- *Opioids*, which are primarily prescribed to treat pain – examples include oxycodone (e.g., OxyContin®, Percocet®), codeine, and morphine;
- *Central nervous system (CNS) depressants*, such as sedatives and tranquilizers, to treat sleep and anxiety disorders – examples include barbiturates (e.g., Mebaral®, Nembutal®) and benzodiazepines (e.g., Valium®, Xanax®); and
- *Stimulants*, which are often prescribed to treat narcolepsy, attention-deficit hyperactivity disorder (ADHD), and obesity – examples include dextro-amphetamine (Dexedrine® and Adderall®) and meth-ylphenidate (Ritalin® and Concerta®) (National Institute on Drug Abuse, 2005; Office of National Drug Control Policy, n.d.).

General Consumption Patterns

According to NSDUH annual averages from 2002 through 2004, a total of 7.6% of Hoosiers (383,000 residents) engaged in the nonmedical use of psychotherapeutics in the past year, and 2.7% (138,000 residents) reported past-month use. The highest use was reported for pain relievers, which include OxyContin®, one of the most abused drugs among the psychotherapeutics. Due to the nature of the data, levels of significance between Indiana and U.S. differences could not be established (see Table 9.1) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

Table 9.1 Lifetime, Past Year, and Current Nonmedical Use of Psychotherapeutics, Indiana[1] and United States[2] (National Survey on Drug Use and Health)

	Lifetime Use		Past Year Use		Past Month Use	
	Indiana	U.S.	Indiana	U.S.	Indiana	U.S.
All Psychotherapeutics	20.7%	20.0%	7.6%	6.2%	2.7%	2.6%
Pain Relievers	15.0%	13.4%	6.1%	4.9%	2.0%	1.9%
OxyContin®	2.5%	1.4%	0.8%	0.5%	0.3%	0.1%
Tranquilizers	9.1%	8.7%	2.8%	2.2%	0.8%	0.7%
Sedatives	3.9%	3.7%	0.4%	0.3%	0.1%	0.1%
Stimulants	8.3%	7.8%	1.7%	1.1%	0.8%	0.4%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008

Based on 2005–2006 annual NSDUH averages, a total of 5.91% (95% Confidence Interval [CI]: 5.01–6.95) of the Indiana population ages 12 and older (or 305,000 residents) reported nonmedical use of pain relievers in the past year (U.S.: 5.00); the difference between Indiana and the nation was statistically significant.

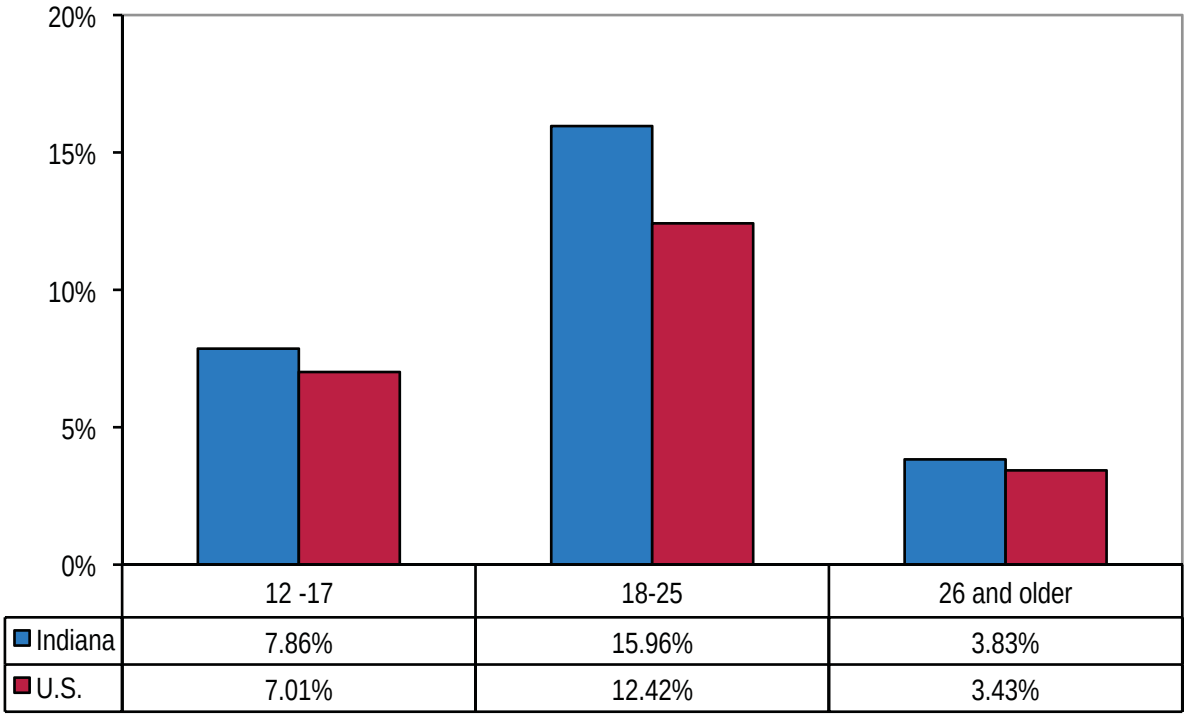
Furthermore, between January 1, 2007, and June 30, 2008, close to 63 million dosage units of oxycodone (pain reliever) were purchased by retail registrants (pharmacies, hospitals, and practitioners) in Indiana. This represents a per capita rate of 9.9 dosage units for the 18-month period (U.S. Drug Enforcement Administration, 2008). For county-level rates, see Map 9.1, page 167.

[1]Indiana rates are based on annual NSDUH averages from 2002 through 2004.
[2]U.S. rates are based on results from the 2006 NSDUH.

Adult Consumption Patterns

According to NSDUH results (2005–2006), young people between the ages of 18 and 25 had the highest rate of prescription pain medication abuse. Indiana's past-year usage rate of 15.96% (95% CI: 13.35–18.96), or 112,000 residents, was statistically higher than the nation's rate (12.42%) (see Figure 9.1).

Figure 9.1 Prevalence of Past-Year Pain Reliever Use in Indiana and the United States, by Age Group, 2005–2006 (National Survey on Drug Use and Health, 2005–2006)



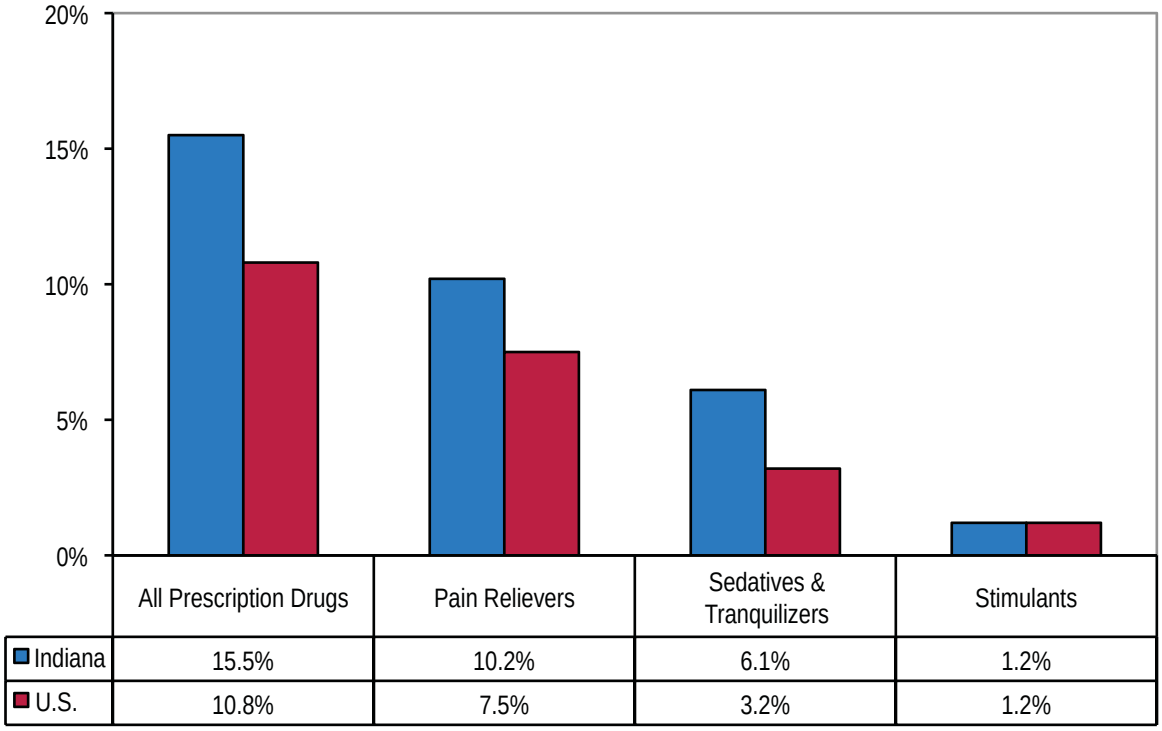
	12 -17	18-25	26 and older
Indiana	7.86%	15.96%	3.83%
U.S.	7.01%	12.42%	3.43%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008

Another method of tracking prescription drug abuse is to examine the Treatment Episode Data Set (TEDS) for individuals who report using pain relievers (opioids),[4] CNS depressants (sedatives and tranquilizers),[5] and stimulants[6] at the time of admission to substance abuse treatment (Substance Abuse and Mental Health Data Archive, 2008). Overall reported use of these drug categories combined is 15.5% in Indiana, which is significantly higher than the nation's rate of 10.8%. A look at the individual drug types shows that Indiana's rates are significantly higher for pain relievers and CNS depressants but the same for stimulants (see Figure 9.2).

[3]Researchers used TEDS variables "non-prescription methadone" and "other opiates/synthetics."
[4]Researchers used TEDS variables "benzodiazepines," "other tranquilizers." "barbiturates," and "other sedatives/hypnotics."
[5]Researchers used TEDS variables "other amphetamines" and "other stimulants."

Figure 9.2 Percentage of Indiana and U.S. Patients Reporting Nonmedical Prescription Drug Use at Treatment Admission, by Drug Category, 2006 (Treatment Episode Data Set, 2006)



Source: Substance Abuse and Mental Health Data Archive, 2008

In Indiana, significant differences in reported prescription drug abuse were seen by gender, race, and age group:

- **Gender** — Women reported higher rates of use across all three drug categories.
- **Race** — Whites had the highest and blacks had the lowest rates across all three drug categories.
- **Age group** — Differences by age group were observed for pain reliever and sedative/tranquilizer use, but not for stimulant use (see Table 9.2).

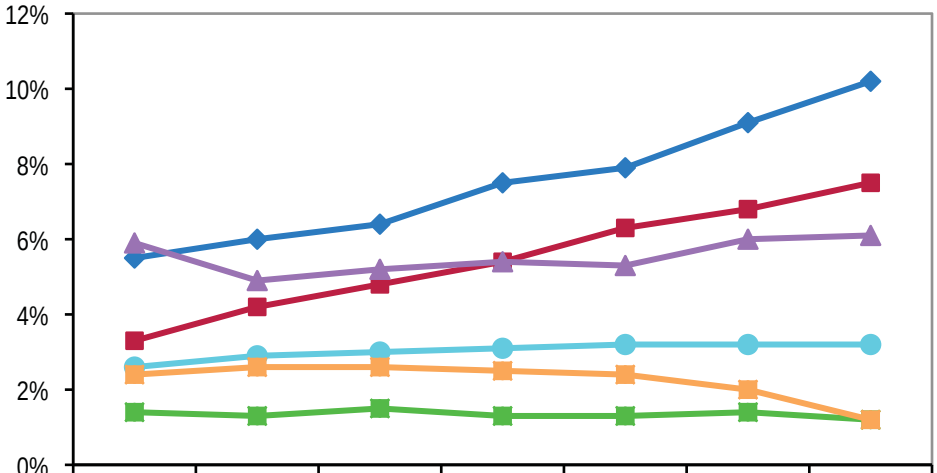
Table 9.2 Percentage of Indiana Patients Reporting Nonmedical Prescription Drug Use at Treatment Admission, by Drug Category, Gender, Race, and Age Group, 2006 (Treatment Episode Data Set, 2006)

		Pain Relievers	Sedatives/Tranquilizers	Stimulants
Gender	Male	8.7%	4.7%	1.0%
	Female	13.2%	8.8%	1.5%
Race	White	12.0%	7.2%	1.4%
	Black	2.0%	1.3%	0.3%
	Other	7.5%	3.6%	1.2%
Age Group	Under 18	6.6%	5.1%	1.2%
	18 to 24	10.8%	7.3%	1.0%
	25 to 34	12.6%	6.5%	1.2%
	35 to 44	9.0%	5.1%	1.3%
	45 to 54	7.5%	5.3%	1.1%
	55 and over	7.0%	3.9%	0.7%

Source: Substance Abuse and Mental Health Data Archive, 2008

A review of TEDS data from 2000 through 2006 shows that rates for pain reliever and sedative/tranquilizer use have increased significantly in both Indiana and the nation. The pattern is different for stimulant use: Indiana's rates remained stable while U.S. rates decreased significantly. However, according to treatment data, stimulant use is still higher in the nation than among Hoosiers ($P < 0.001$) (see Figure 9.3). For county-level information, see Appendix 9A, pages 160-161.

Figure 9.3 Percentage of Indiana and U.S. Patients Reporting Nonmedical Prescription Drug Use at Treatment Admission, by Drug Category, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
IN: Pain Reliever	5.5%	6.0%	6.4%	7.5%	7.9%	9.1%	10.2%
U.S.: Pain Reliever	3.3%	4.2%	4.8%	5.4%	6.3%	6.8%	7.5%
IN: Sedatives/Tranquilizers	5.9%	4.9%	5.2%	5.4%	5.3%	6.0%	6.1%
U.S.: Sedatives/Tranquilizers	2.6%	2.9%	3.0%	3.1%	3.2%	3.2%	3.2%
IN: Stimulants	1.4%	1.3%	1.5%	1.3%	1.3%	1.4%	1.2%
U.S.: Stimulants	2.4%	2.6%	2.6%	2.5%	2.4%	2.0%	1.2%

Source: Substance Abuse and Mental Health Data Archive, 2008

Youth Consumption Patterns

Results from the 2005–2006 NSDUH estimate that 7.86% (95% CI: 6.29–9.77) of Indiana's young people between ages 12 and 17 (approximately 43,000 residents) have used prescription pain medications for nonmedical purposes in the past year. In the rest of the United States, the rate of prescription drug abuse by 12- to 17-year-olds is 7.01%, which is similar to Indiana's rate.

Other prescription drugs with high potential for abuse, especially among young people, are methylphenidate (Ritalin®) and Adderall®. Both substances are stimulants that enhance brain activity and increase alertness and energy. They are used in the treatment of Attention Deficit Hyperactivity Disorder (ADHD), Attention Deficit Disorder (ADD), and narcolepsy. When Ritalin® and Adderall® are taken by an individual without ADD/ADHD, it creates a stimulant-like effect by increasing focus and attentiveness, making them attractive drugs to teenagers. According to the National Institute on Drug Abuse, teenagers of middle- and upper-class socioeconomic status are most likely to abuse these substances by crushing and snorting the tablets. Some injection drug users combine heroin with Ritalin® to strengthen the effect.

According to the Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) survey, the nonmedical use of Ritalin® and Adderall® decreased or remained stable in most grades from 2007 to 2008; use increased only in high school juniors (11th grade) and seniors (12th grade). The rates for nonprescribed tranquilizer and narcotic use decreased

or remained stable in all grades (6 through 12). For Indiana's prevalence rates of lifetime, annual, and current nonmedical use of tranquilizers, narcotics, and Ritalin/Adderall among 12th grade students, see Table 9.3. (For regional prevalence rates, grades 6 through 12, see Appendix 9B, pages 162-164). The mean (average) age of first time use among Indiana's students is 14.0 years for Ritalin®/Adderall®, 13.5 years for tranquilizers, and 14.1 years for narcotics use (Indiana Prevention Resource Center, 2008).

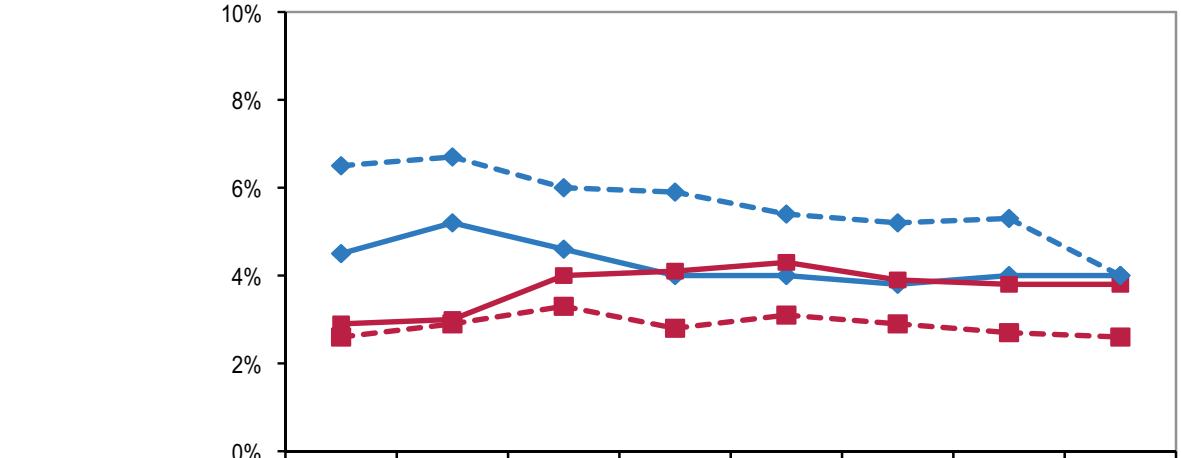
Table 9.3 Percentage of Indiana 12th Grade Students Reporting Lifetime, Annual, and Current Nonmedical Use of Tranquilizers, Narcotics, and Ritalin/Adderall, 2007 and 2008 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2007–2008)[6]

	Lifetime Use		Annual Use		Current Use	
	2007	2008	2007	2008	2007	2008
Tranquilizer	12.9%	12.4%	8.3%	7.9%	4.0%	4.0%
Narcotics	12.1%	12.4%	7.6%	8.1%	3.8%	4.0%
Ritalin®/Adderall®	11.3%	11.8%	7.0%	7.2%	2.9%	3.3%

Source: Indiana Prevention Resource Center, 2008

The Monitoring the Future (MTF) survey collects data on drug use among 8th, 10th, and 12th grade students on the national level (Inter-university Consortium for Political and Social Research, University of Michigan., n.d.). A comparison of Indiana and U.S. consumption patterns in high school seniors, from 2000 through 2007, shows that current (past month) use of tranquilizers in Indiana, even though on the decline, is still higher than in the nation. Past-month use of narcotics has been decreasing among Hoosier students since 2002 and is now similar to U.S. use (see Figure 9.4). However, due to the nature of the data, the statistical significance of the results could not be ascertained.

Figure 9.4 Percentage of Indiana and U.S. 12th Grade Students Reporting Current Use of Narcotics and Tranquilizers, 2000 through 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2000–2007)



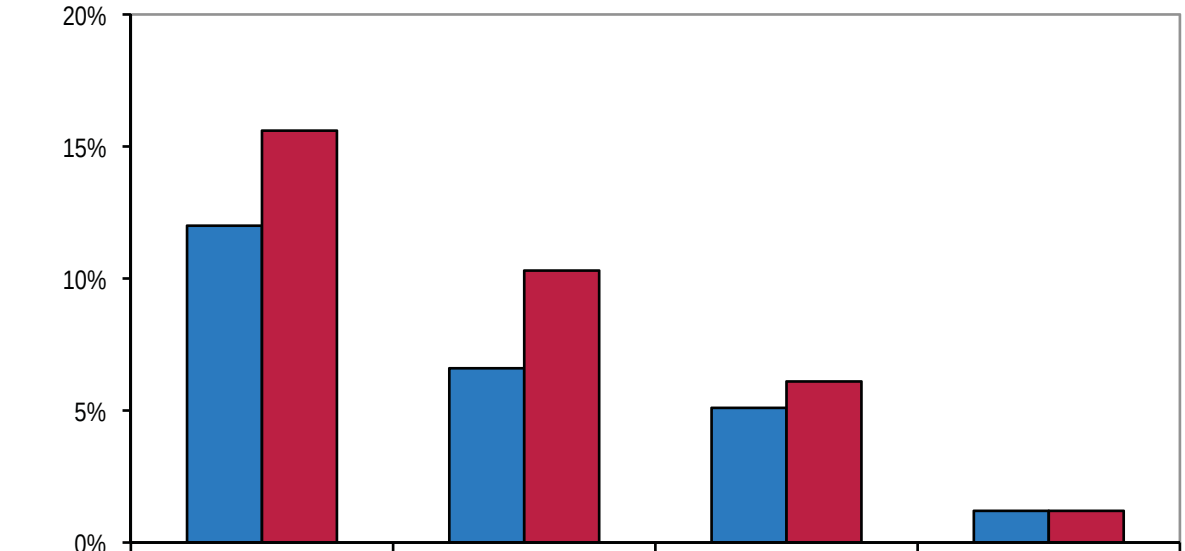
	2000	2001	2002	2003	2004	2005	2006	2007
Indiana Narcotics	4.5%	5.2%	4.6%	4.0%	4.0%	3.8%	4.0%	4.0%
U.S. Narcotics	2.9%	3.0%	4.0%	4.1%	4.3%	3.9%	3.8%	3.8%
Indiana Tranquilizers	6.5%	6.7%	6.0%	5.9%	5.4%	5.2%	5.3%	4.0%
U.S. Tranquilizers	2.6%	2.9%	3.3%	2.8%	3.1%	2.9%	2.7%	2.6%

Source: Indiana Prevention Resource Center, 2008; Inter-university Consortium for Political and Social Research, University of Michigan., n.d.

[6]The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.

Another data source for assessing nonmedical prescription drug use is the Treatment Episode Data Set (TEDS). Young Hoosiers (under the age of 18) in treatment reported significantly less use of psychotherapeutics than adults 18 and older. An examination of use by individual drug category shows that young patients use significantly less pain relievers than their older counterparts. Rates for sedative/tranquilizer and stimulant use were similar between the two groups (see Figure 9.5).

Figure 9.5 Percentage of Indiana Patients Reporting Nonmedical Prescription Drug Use at Treatment Admission, by Drug Category and Underage Status, 2006 (Treatment Episode Data Set, 2006)



	All Prescription Drugs	Pain Relievers	Sedatives & Tranquilizers	Stimulants
Under 18	12.0%	6.6%	5.1%	1.2%
Over 18	15.6%	10.3%	6.1%	1.2%

Source: Substance Abuse and Mental Health Data Archive, 2008

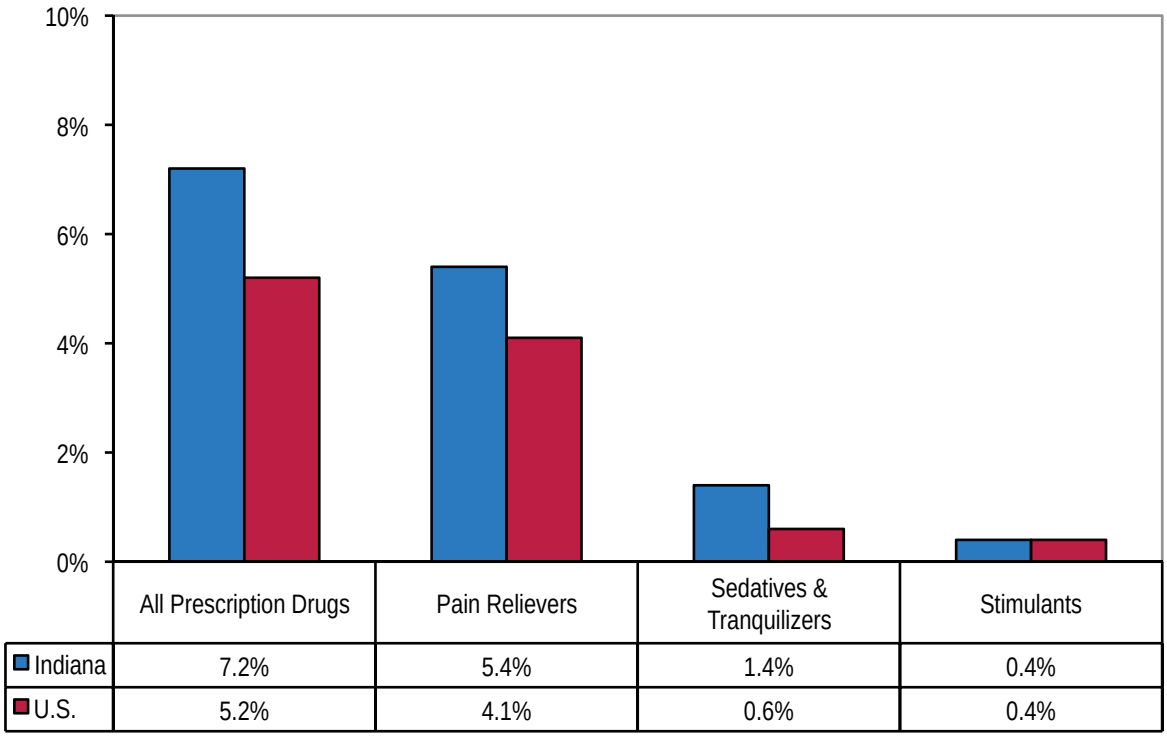
PRESCRIPTION DRUG ABUSE CONSEQUENCES

Prescription Drug Dependence

The most common consequences of prescription drug abuse are addiction and/or dependence.[8] One approach to determining whether prescription drug abuse is a growing problem both nationally and in Indiana is to use the Treatment Episode Data Set (TEDS) to track the percentage of admissions to substance abuse treatment centers that are due to pain relievers, sedatives/tranquilizers, and stimulants. In 2006, overall prescription drug dependence was significantly higher in Indiana than the United States. A larger percentage of Indiana residents reported pain reliever and sedative/tranquilizer dependence, while the rate for stimulant dependence was similar between Indiana and U.S. residents (see Figure 9.6).

[8]We defined prescription drug dependence as "individuals reporting prescription drugs to be their primary substance at the time of their substance abuse treatment admission.

Figure 9.6 Percentage of Indiana and U.S. Patients Reporting Prescription Drugs as Their Primary Substance at Treatment Admission, by Drug Category, 2006 (Treatment Episode Data Set, 2006)



Source: Substance Abuse and Mental Health Data Archive, 2008

The percentage of treatment episodes in which prescription drug dependence was indicated varied significantly by gender, race, and age group in Indiana:

- **Gender** — The rates for females were higher across all three drug categories.
- **Race** — Whites had the highest rates of prescription drug dependence across all three drug categories.
- **Age group** — Significant differences by age category were only found for pain reliever dependence (see Table 9.4).

For county-level information, see Appendix 9A, pages 160-161.

Table 9.4 Percentage of Indiana Patients Reporting Prescription Drugs as Their Primary Substance at Treatment Admission, by Drug Category, Gender, Race, and Age Group, 2006 (Treatment Episode Data Set, 2006)

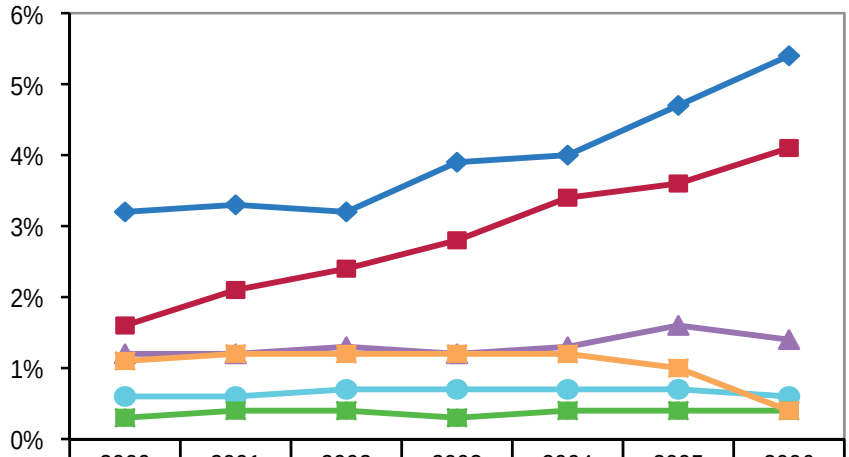
		Pain Relievers	Sedatives/Tranquilizers	Stimulants
Gender	Male	4.2%	0.9%	0.3%
	Female	7.8%	2.5%	0.6%
Race	White	6.4%	1.7%	0.4%
	Black	0.9%	0.1%	0.2%
	Other	2.7%	1.0%	0.2%
Age Group	Under 18	1.5%	1.2%	0.7%
	18 to 24	5.2%	1.6%	0.3%
	25 to 34	7.3%	1.5%	0.4%
	35 to 44	4.7%	1.1%	0.5%
	45 to 54	3.9%	1.4%	0.4%
	55 and over	4.5%	0.9%	0.0%

Source: Substance Abuse and Mental Health Data Archive, 2008

Indiana residents under the age of 18 had significantly lower rates of overall prescription drug dependence than adults 18 years and older (3.3% and 7.3% respectively). This holds true for pain reliever dependence as well (1.5% and 5.5%). However, both groups (under 18 and over 18 years) reported similar rates for sedatives/tranquilizer (1.2% and 1.4%) and stimulant dependence (0.7% and 0.4%).

A review of TEDS data from 2000 through 2006 reveals that dependence on pain relievers and sedatives/tranquilizers increased significantly in Indiana, but dependence on stimulants remained constant (see Figure 9.7).

Figure 9.7 Percentage of Indiana and U.S. Patients Reporting Prescription Drugs as Their Primary Substance at Treatment Admission, by Drug Category, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
IN: Pain Reliever	3.2%	3.3%	3.2%	3.9%	4.0%	4.7%	5.4%
U.S.: Pain Reliever	1.6%	2.1%	2.4%	2.8%	3.4%	3.6%	4.1%
IN: Sedatives/Tranquilizers	1.2%	1.2%	1.3%	1.2%	1.3%	1.6%	1.4%
U.S.: Sedatives/Tranquilizers	0.6%	0.6%	0.7%	0.7%	0.7%	0.7%	0.6%
IN: Stimulants	0.3%	0.4%	0.4%	0.3%	0.4%	0.4%	0.4%
U.S.: Stimulants	1.1%	1.2%	1.2%	1.2%	1.2%	1.0%	0.4%

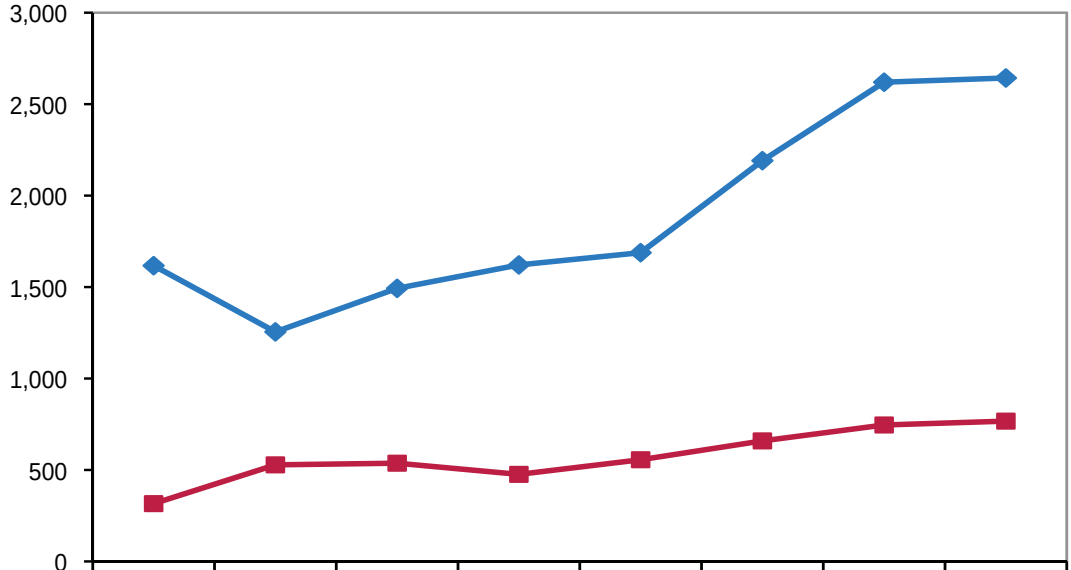
Source: Substance Abuse and Mental Health Data Archive, 2008

Criminal Consequences

Individuals illegally obtain prescription drugs through a variety of means, such as “doctor shopping” (going to a number of doctors to obtain prescriptions for a controlled pharmaceutical) or other prescription fraud; illegal online pharmacies; theft and burglary (from residences and pharmacies); and receiving/purchasing the medication from friends or family members. Patients may also obtain controlled substances when physicians overprescribe, either negligently or intentionally (Office of National Drug Control Policy, n.d.).

The Uniform Crime Reporting (UCR) Program collects information on criminal activities, including possession and sale/manufacture of various drugs (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). The “other drugs” category in the dataset refers to arrests involving barbiturates (sedatives) and Benzedrine® (amphetamine/stimulant). In 2006, over 2,600 arrests were made for possession and almost 800 arrests for sale/manufacture of “other drugs” in Indiana. This represents arrest rates of 0.42 (95% CI: 0.40–0.43) and 0.12 (95% CI: 0.11–0.13) per 1,000 population, respectively. The U.S. rates per 1,000 population were significantly higher, at 0.92 (95% CI: 0.92–0.92) for possession and 0.17 (95% CI: 0.17–0.18) for sale/manufacture of “other drugs” (see Figures 9.8 and 9.9) (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). The distribution of arrest rates for possession and sale/manufacture in Indiana by county for 2006 is depicted on Maps 9.2 and 9.3, pages 168-169, and in Appendix 9C, pages 165-166.

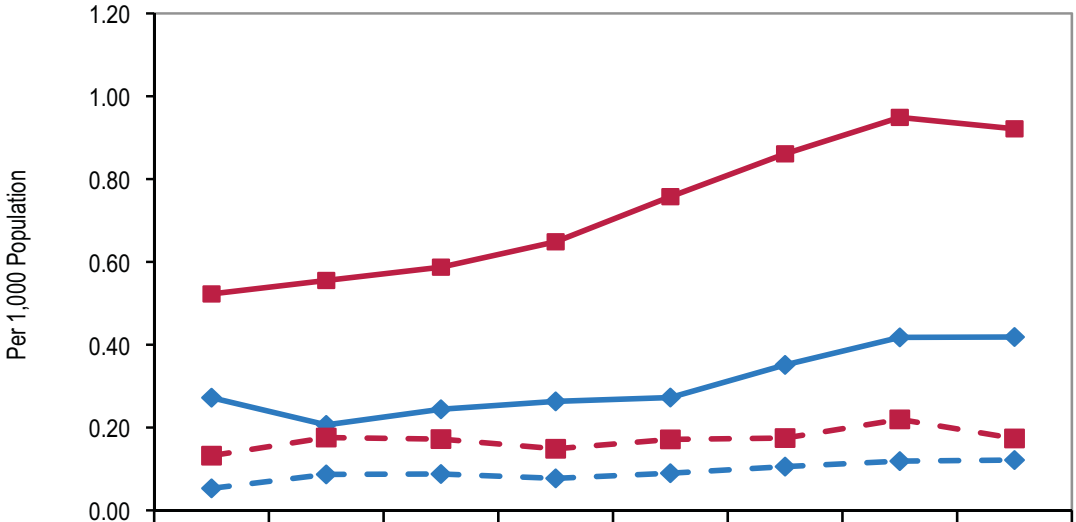
Figure 9.8 Number of Arrests for Possession and Sale/Manufacture of "Other Drugs" (Barbiturates and Benzedrine®) in Indiana, 1999 through 2006 (Uniform Crime Reporting Program, 1999–2006)



	1999	2000	2001	2002	2003	2004	2005	2006
Possession	1,617	1,255	1,493	1,621	1,688	2,191	2,620	2,643
Sale	316	528	537	476	556	659	746	767

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Figure 9.9 Arrest Rates, per 1,000 Population, for Possession and Sale/Manufacture of "Other Drugs" (Barbiturates and Benzedrine®) in Indiana and the United States, 1999 through 2006 (Uniform Crime Reporting Program, 1999–2006)



	1999	2000	2001	2002	2003	2004	2005	2006
Indiana Possession	0.27	0.21	0.24	0.26	0.27	0.35	0.42	0.42
U.S. Possession	0.52	0.56	0.59	0.65	0.76	0.86	0.95	0.92
Indiana Sale	0.05	0.09	0.09	0.08	0.09	0.11	0.12	0.12
U.S. Sale	0.13	0.18	0.17	0.15	0.17	0.17	0.22	0.17

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

APPENDIX 9A

Number of Indiana Residents in Substance Abuse Treatment Who Reported Prescription Drug Abuse and Who Listed Prescription Drugs as their Primary Substance at Admission, by County and Drug Category, 2007 (Substance Abuse Population by County/Treatment Episode Data Set, 2007)

	Prescription Drug Abuse	Pain Reliever Abuse	Sedative & Tranquilizer Abuse	Stimulant Abuse	Prescription Drug Dependence	Pain Reliever Dependence	Sedative & Tranquilizer Dependence	Stimulant Dependence
Adams	7	4	2	2	4	3	0	1
Allen	29	20	5	6	15	12	1	2
Bartholomew	84	63	26	10	39	29	6	4
Benton	4	1	3	0	0	0	0	0
Blackford	43	36	9	1	15	12	3	0
Boone	32	22	12	1	17	13	3	1
Brown	11	8	5	0	5	5	0	0
Carroll	5	4	2	0	2	1	1	0
Cass	18	7	8	4	4	0	2	2
Clark	108	89	37	5	70	61	9	0
Clay	22	8	12	3	5	3	2	0
Clinton	7	6	3	0	4	4	0	0
Crawford	5	5	0	0	4	4	0	0
Daviess	43	28	21	1	18	12	6	0
Dearborn	42	37	9	0	24	21	3	0
Decatur	11	6	4	1	3	2	1	0
DeKalb	9	6	5	0	4	4	0	0
Delaware	210	156	80	4	90	76	14	0
Dubois	43	36	15	1	17	9	7	1
Elkhart	35	24	12	2	17	13	3	1
Fayette	41	33	15	1	24	19	5	0
Floyd	40	29	14	1	20	17	2	1
Fountain	20	8	14	0	7	3	4	0
Franklin	13	6	5	3	7	3	3	1
Fulton	13	3	7	4	2	2	0	0
Gibson	8	7	3	0	3	3	0	0
Grant	79	55	28	7	42	30	10	2
Greene	15	9	8	1	11	7	3	1
Hamilton	109	59	55	13	40	21	15	4
Hancock	30	19	13	2	18	14	4	0
Harrison	11	10	1	1	5	4	1	0
Hendricks	39	27	8	7	21	16	3	2
Henry	120	99	42	5	72	63	8	1
Howard	123	100	45	4	61	54	6	1
Huntington	18	12	9	0	7	7	0	0
Jackson	42	34	11	4	23	20	2	1
Jasper	14	8	8	0	6	3	3	0
Jay	14	8	10	1	8	7	1	0
Jefferson	44	40	15	0	26	26	0	0
Jennings	37	32	8	3	19	19	0	0
Johnson	70	47	23	3	29	22	5	2
Knox	40	29	14	5	21	16	4	1
Kosciusko	13	11	2	0	6	6	0	0
LaGrange	4	3	2	1	2	2	0	0

(continued on next page)

APPENDIX 9A *(Continued from previous page)*

	Prescription Drug Abuse	Pain Reliever Abuse	Sedative & Tranquilizer Abuse	Stimulant Abuse	Prescription Drug Dependence	Pain Reliever Dependence	Sedative & Tranquilizer Dependence	Stimulant Dependence
LaGrange	4	3	2	1	2	2	0	0
Lake	229	176	71	5	118	106	11	1
LaPorte	34	29	5	3	14	12	1	1
Lawrence	40	32	13	0	36	28	8	0
Madison	294	162	163	22	137	87	43	7
Marion	523	336	217	29	248	191	48	9
Marshall	19	11	7	2	8	8	0	0
Martin	12	8	8	0	5	5	0	0
Miami	28	18	6	4	15	12	2	1
Monroe	139	115	35	7	113	95	14	4
Montgomery	46	28	20	2	15	12	2	1
Morgan	68	49	21	3	39	28	8	3
Newton	2	2	1	0	1	1	0	0
Noble	16	7	4	6	7	4	2	1
Ohio	7	5	3	0	3	3	0	0
Orange	15	11	7	0	7	4	3	0
Owen	33	19	17	1	23	15	7	1
Parke	10	4	5	1	3	2	0	1
Perry	10	7	3	0	3	2	1	0
Pike	7	2	4	1	3	1	1	1
Porter	76	54	26	5	40	31	8	1
Posey	23	15	11	1	6	6	0	0
Pulaski	9	5	8	2	7	4	2	1
Putnam	29	18	10	6	14	12	1	1
Randolph	19	18	2	0	8	8	0	0
Ripley	8	7	0	2	4	3	0	1
Rush	12	8	3	2	6	4	1	1
St. Joseph	98	68	30	9	29	23	6	0
Scott	41	35	12	2	28	25	3	0
Shelby	14	11	3	1	10	8	1	1
Spencer	20	17	3	1	7	6	1	0
Starke	46	35	17	2	27	21	5	1
Steuben	2	2	2	0	2	1	1	0
Sullivan	13	8	7	0	7	4	3	0
Switzerland	8	5	5	1	7	4	3	0
Tippecanoe	133	58	79	10	45	30	13	2
Tipton	13	9	7	1	6	6	0	0
Union	6	2	3	1	2	0	2	0
Vanderburgh	251	162	118	11	93	70	21	2
Vermillion	6	3	3	1	3	2	1	0
Vigo	91	48	50	3	35	21	12	2
Wabash	34	27	7	3	13	11	0	2
Warren	3	0	3	0	0	0	0	0
Warrick	45	25	22	3	21	15	6	0
Washington	18	15	7	0	12	10	2	0
Wayne	93	66	30	4	48	41	7	0
Wells	3	0	1	2	1	0	0	1
White	17	6	6	5	2	0	1	1
Whitley	8	7	0	1	4	4	0	0
Total	4,396	3,009	1,715	272	2,122	1,654	391	77

Note: We defined prescription drug dependence as “individuals who reported prescription drugs as their primary substance at treatment admission.”
Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2008

APPENDIX 9B - PART 1

Lifetime, Annual, and Monthly Tranquilizer Use, in Indiana, by Region and Grade, 2008 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2008)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	**Lifetime**	3.6	3.7	3.3	3.0	4.5	2.8	3.6	2.9	4.6
	Annual	2.6	2.8	2.3	2.0	3.0	2.1	2.8	1.9	3.2
	Monthly	1.4	1.4	1.4	0.9	2.0	0.8	1.8	1.1	1.8
7th Grade	**Lifetime**	5.5	5.2	5.6	3.6	5.4	4.9	7.8	4.5	6.8
	Annual	4.0	3.8	3.9	2.7	4.1	3.3	5.8	3.0	5.3
	Monthly	2.3	2.1	2.6	1.1	2.5	1.8	3.6	2.0	3.1
8th Grade	**Lifetime**	8.6	9.2	8.9	6.0	7.3	7.7	10	7.1	10.1
	Annual	6.3	6.7	6.6	4.3	5.3	5.6	7.6	5.4	7.5
	Monthly	3.7	3.8	4.1	2.3	3.2	3.2	4.4	3.3	4.3
9th Grade	**Lifetime**	10.4	10.6	11.3	8.2	9.7	9.2	11.3	9.0	12.8
	Annual	7.5	7.6	8.2	5.9	7.2	6.3	8.3	6.2	9.1
	Monthly	4.3	4.5	4.0	3.6	4.4	3.8	4.9	3.8	5.7
10th Grade	**Lifetime**	12.1	12.4	11.3	9.5	12.5	11.0	13.4	9.7	14.1
	Annual	8.6	9.6	8.0	6.7	8.9	7.8	9.1	7.1	9.8
	Monthly	4.5	4.6	4.2	3.0	4.7	3.7	4.8	3.8	5.8
11th Grade	**Lifetime**	12.6	13.9	12.4	9.2	13.0	11.4	16.7	9.3	12.9
	Annual	8.4	9.3	8.6	5.6	8.1	7.4	12.1	6.3	8.2
	Monthly	4.2	4.2	4.0	2.5	4.2	3.8	6.8	2.6	5.0
12th Grade	**Lifetime**	12.4	14.1	10.6	9.6	13.2	10.7	13.4	11.6	13.9
	Annual	7.9	9.8	6.0	6.2	9.2	6.4	8.6	7.8	8.3
	Monthly	4.0	4.9	2.6	3.0	4.1	3.1	5.2	3.9	4.4

Note: The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.
Source: Indiana Prevention Resource Center, 2008

APPENDIX 9B - PART 2

Lifetime, Annual, and Monthly Narcotics Use, in Indiana, by Region and Grade, 2008 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2008)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	**Lifetime**	0.8	0.8	0.4	1.2	0.8	0.5	1.2	0.7	1.2
	Annual	0.6	0.6	0.2	0.8	0.5	0.4	1	0.8	0.7
	Monthly	0.3	0.3	0.2	0.4	0.2	0.3	0.4	0.4	0.3
7th Grade	**Lifetime**	2.1	1.9	1.7	1.4	2.6	1.6	3	1.6	3.0
	Annual	1.5	1.2	1.1	1	1.8	1.2	2.0	1.4	2.1
	Monthly	0.8	0.6	0.6	0.5	1.1	0.7	1.3	0.9	1.3
8th Grade	**Lifetime**	4.5	3.6	5.0	2.9	3.8	3.9	6.2	3.2	6.0
	Annual	3.1	2.6	3.3	2.1	2.7	2.6	4.2	2.2	4.3
	Monthly	1.8	1.4	1.9	1.3	1.7	1.5	2.2	1.2	2.6
9th Grade	**Lifetime**	7.6	7.2	7.1	6.5	6.7	6.9	9.2	5.2	11.0
	Annual	5.4	5.3	5.1	4.9	4.8	4.7	6.3	3.8	8.3
	Monthly	3.2	3.3	2.5	2.9	2.6	3	3.4	2.4	5.2
10th Grade	**Lifetime**	10.3	10	9.5	8.3	10.6	9.7	10.9	7.9	12.8
	Annual	7.1	7.1	6.4	6.1	7.4	6.4	7.4	5.6	8.9
	Monthly	4.0	4.0	3.0	3.7	4.5	3.3	4.3	3.6	5.3
11th Grade	**Lifetime**	11.5	10.7	10.7	8.0	10.8	11.8	16.2	8.1	13.2
	Annual	7.6	7.6	6.8	4.7	7.0	7.9	10.7	5.1	8.9
	Monthly	3.8	3.7	3.2	2.4	3.0	4.2	5.8	2.4	4.9
12th Grade	**Lifetime**	12.4	13.1	10	8.6	12.1	11.4	13.7	11.7	15.2
	Annual	8.1	8.7	6.1	5.5	8.6	7.1	9.4	8.2	9.7
	Monthly	4	3.9	2.7	2.3	4.2	3.8	5.3	4.6	4.2

Note: The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.
Source: Indiana Prevention Resource Center, 2008

APPENDIX 9B - PART 3

Lifetime, Annual, and Monthly Ritalin/Adderall Use, in Indiana, by Region and Grade, 2008 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2008)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	**Lifetime**	.9	0.8	0.8	1.1	1.1	0.6	1.1	0.5	1.1
	Annual	0.5	0.5	0.4	0.6	0.7	0.4	0.9	0.3	0.5
	Monthly	0.4	0.5	0.2	0.1	0.5	0.3	0.6	0.3	0.2
7th Grade	**Lifetime**	1.9	1.9	1.8	1.2	2.2	1.6	2.4	1.6	2.1
	Annual	1.3	1.4	1.3	0.7	1.7	1.1	1.6	1.0	1.5
	Monthly	0.8	0.9	0.8	0.6	1.1	0.7	1.0	0.7	1.0
8th Grade	**Lifetime**	4.1	4.0	4.6	3.7	3.8	3.7	5.2	3.0	4.2
	Annual	2.8	2.6	3.4	2.3	2.4	2.6	3.6	2.2	3.1
	Monthly	1.7	1.4	2.1	1.3	1.7	1.6	1.9	1.4	1.7
9th Grade	**Lifetime**	7.4	8.3	8.0	5.4	6.6	7.2	8	5.0	8.3
	Annual	5.4	6.2	6	3.9	4.7	4.9	5.9	3.4	6.3
	Monthly	3	3.3	2.9	2.4	2.6	2.9	3.4	1.8	3.5
10th Grade	**Lifetime**	10	11.6	10.4	9.9	10.7	9.9	9.1	7	10.2
	Annual	6.9	8.7	7.4	6.2	7.1	6.9	6.1	4.4	6.8
	Monthly	3.5	4.7	3.5	2.7	3.7	3.3	3.1*	2.6	3.6
11th Grade	**Lifetime**	11.6	11.9	12.8	8.9	12	11.4	14.2	8.3	10.2
	Annual	7.5	8.4	8.1	5.7	7.2	7.4	9.9	4.7	6.3
	Monthly	3.4	3.6	3.7	2.6	3.1	3.6	4.8	1.7	3.0
12th Grade	**Lifetime**	11.8	14.4	10.8	9.6	13.1	10.5	14	9.5	11.3
	Annual	7.2	8.9	6.0	5.6	8.6	5.9	8.3	6.6	7
	Monthly	3.3	4.6	2.6	2.3	3.2	3.0	3.7	3.0	3.2

Note: The results of the ATOD survey should be interpreted with caution as this survey is based on a nonrandom sample of Indiana students.
Source: Indiana Prevention Resource Center, 2008

APPENDIX 9C

Number and Rate, per 1,000 Population, of Arrests for Possession and Sale/Manufacture of "Other Drugs" (including Barbiturates and Benzedrine) in Indiana, by County, 2006 (Uniform Crime Reporting Program, 2006)

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Adams	2	*0.06	1	*0.03
Allen	142	0.41	26	0.08
Bartholomew	54	0.73	1	*0.01
Benton	3	*0.33	1	*0.11
Blackford	1	*0.07	0	*0.00
Boone	17	*0.32	7	*0.13
Brown	0	*0.00	0	*0.00
Carroll	4	*0.19	2	*0.10
Cass	12	*0.30	3	*0.07
Clark	21	0.21	3	*0.03
Clay	6	*0.22	3	*0.11
Clinton	13	*0.38	3	*0.09
Crawford	1	*0.09	0	*0.00
Daviess	15	*0.49	3	*0.10
Dearborn	21	0.43	6	*0.12
Decatur	2	*0.08	1	*0.04
DeKalb	14	*0.33	4	*0.10
Delaware	1	*0.01	6	*0.05
Dubois	11	*0.27	2	*0.05
Elkhart	9	*0.05	5	*0.03
Fayette	20	0.80	3	*0.12
Floyd	85	1.17	155	2.14
Fountain	7	*0.40	1	*0.06
Franklin	4	*0.18	0	*0.00
Fulton	5	*0.24	1	*0.05
Gibson	12	*0.36	5	*0.15
Grant	6	*0.08	0	*0.00
Greene	14	*0.42	1	*0.03
Hamilton	26	0.11	33	0.14
Hancock	13	*0.20	6	*0.09
Harrison	8	*0.22	5	*0.13
Hendricks	36	0.28	14	*0.11
Henry	36	0.76	21	0.44
Howard	70	0.82	6	*0.07
Huntington	9	*0.23	3	*0.08
Jackson	9	*0.21	1	*0.02
Jasper	6	*0.19	7	*0.22
Jay	3	*0.14	1	*0.05
Jefferson	4	*0.12	1	*0.03
Jennings	2	*0.07	10	*0.35
Johnson	87	0.67	26	0.20
Knox	13	*0.34	12	*0.31
Kosciusko	9	*0.12	2	*0.03
LaGrange	0	*0.00	0	*0.00
Lake	384	0.77	48	0.10
LaPorte	15	*0.13	1	*0.01
Lawrence	9	*0.19	1	*0.02
Madison	81	0.62	29	0.22
Marion	507	0.58	77	0.09

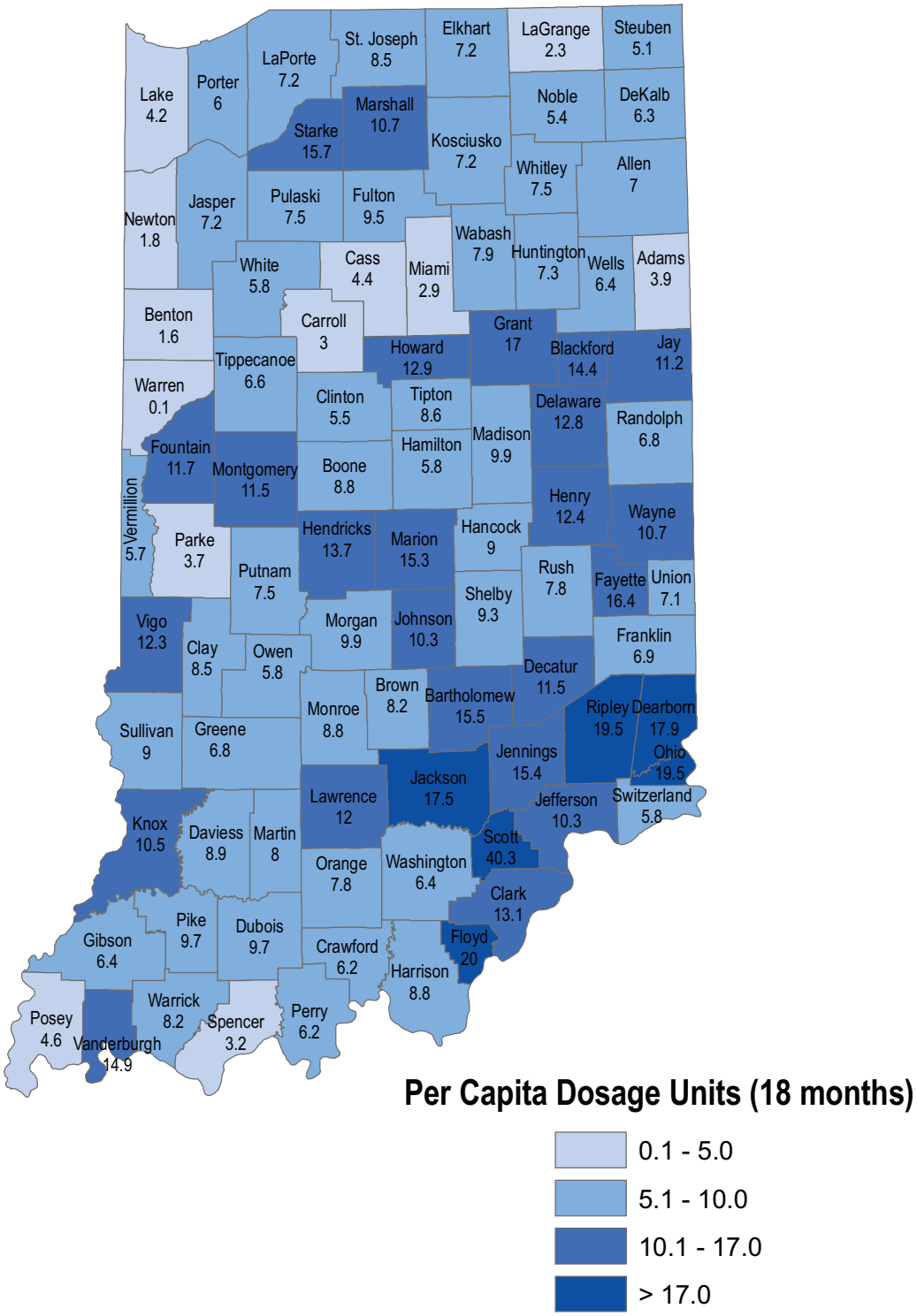
(continued on next page)

APPENDIX 9C *(Continued from previous page)*

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Marshall	20	0.42	7	*0.15
Martin	1	*0.10	0	*0.00
Miami	9	*0.25	3	*0.08
Monroe	63	0.52	12	*0.10
Montgomery	22	0.57	2	*0.05
Morgan	87	1.24	47	0.67
Newton	1	*0.07	0	*0.00
Noble	14	*0.29	7	*0.15
Ohio	1	*0.17	1	*0.17
Orange	2	*0.10	1	*0.05
Owen	0	*0.00	0	*0.00
Parke	2	*0.11	1	*0.06
Perry	4	*0.21	0	*0.00
Pike	2	*0.16	1	*0.08
Porter	27	0.17	4	*0.03
Posey	5	*0.18	3	*0.11
Pulaski	1	*0.07	0	*0.00
Putnam	12	*0.32	4	*0.11
Randolph	7	*0.26	1	*0.04
Ripley	6	*0.20	2	*0.07
Rush	5	*0.28	0	*0.00
Saint Joseph	169	0.63	17	*0.06
Scott	4	*0.17	1	*0.04
Shelby	10	*0.23	3	*0.07
Spencer	2	*0.10	1	*0.05
Starke	1	*0.04	0	*0.00
Steuben	17	*0.50	10	*0.29
Sullivan	4	*0.18	2	*0.09
Switzerland	1	*0.10	0	*0.00
Tippecanoe	54	0.35	15	*0.10
Tipton	3	*0.18	2	*0.12
Union	0	*0.00	2	*0.28
Vanderburgh	101	0.58	41	0.24
Vermillion	4	*0.24	2	*0.12
Vigo	123	1.19	15	*0.15
Wabash	0	*0.00	0	*0.00
Warren	1	*0.11	0	*0.00
Warrick	4	*0.07	3	*0.05
Washington	5	*0.18	3	*0.11
Wayne	9	*0.13	4	*0.06
Wells	0	*0.00	0	*0.00
White	5	*0.20	0	*0.00
Whitley	6	*0.18	3	*0.09
Total	2,643	0.42	767	0.12

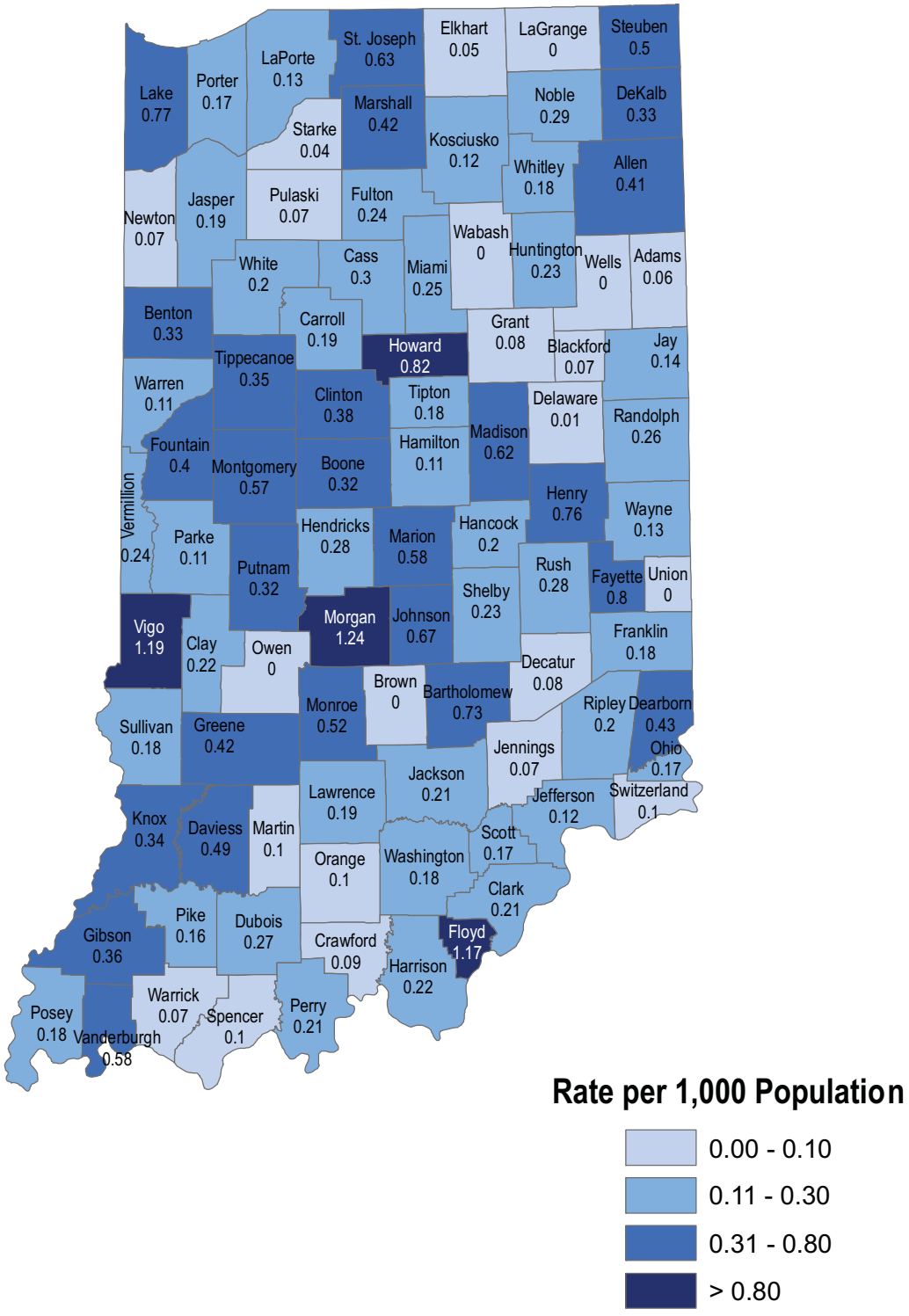
* Rates that are based on arrest numbers lower than 20 are unreliable.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 9.1 Oxycodone Distribution to Indiana Retail Registrants (Pharmacies, Hospitals, and Practitioners), by County, January 1, 2007, through June 30, 2008 (Oxycodone Purchases in Indiana, January 2007 through June 2008)



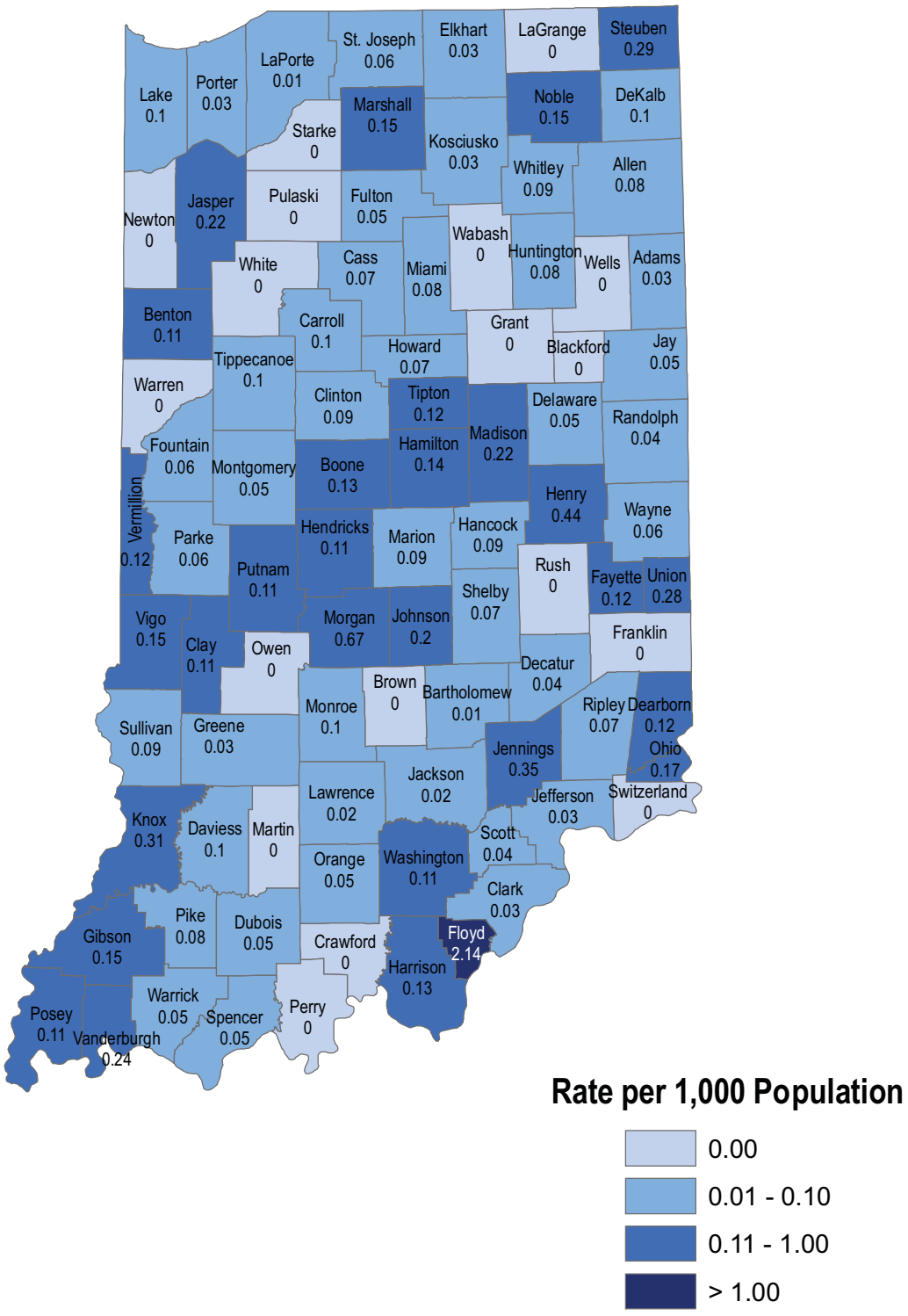
Source: U.S. Drug Enforcement Administration, 2008

Map 9.2 Arrest Rates, per 1,000 Population, for Possession of "Other Drugs" (Barbiturates and Benzedrine) in Indiana, by County, 2006 (Uniform Crime Reporting Program, 2006)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 9C (pages 164-165) for additional information.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan

Map 9.3 Arrest Rates, per 1,000 Population, for Sale/Manufacture of "Other Drugs" (Barbiturates and Benzedrine) in Indiana, by County, 2006 (Uniform Crime Reporting Program, 2006)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 9C (pages 164-165) for additional information.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan

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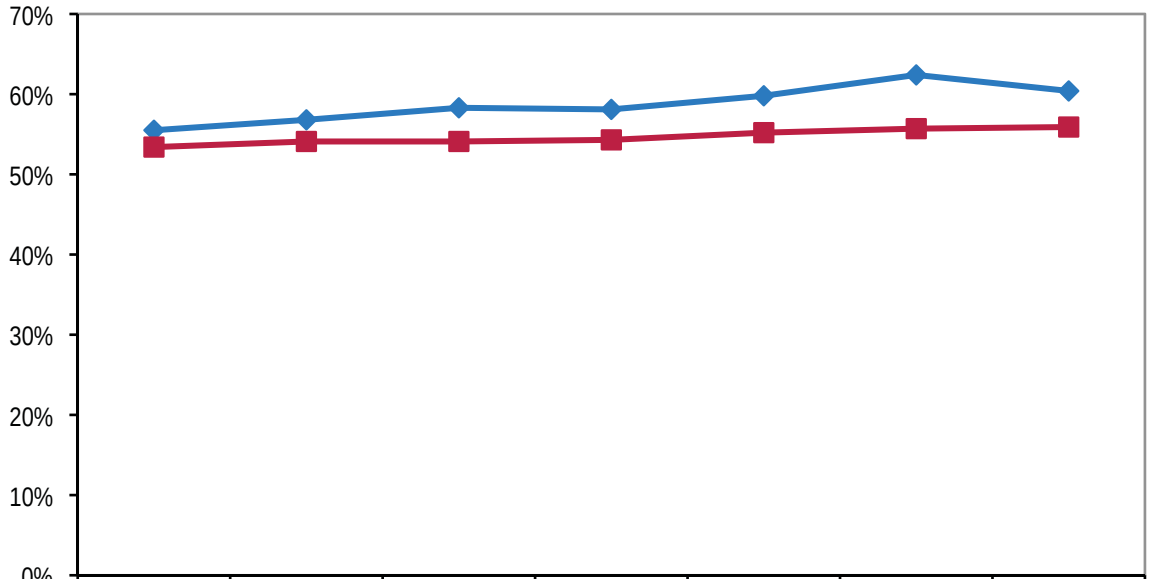
10. Polysubstance Abuse in Indiana: Consumption Patterns

Polysubstance abuse refers to substance abuse during which two or more substances in combination are used. It is a particularly serious pattern of drug abuse that appears to be generally established by late adolescence (Collins, Ellickson, & Bell, 1998).

The primary source of data regarding polysubstance abuse is the Treatment Episode Data Set (TEDS). A review of the TEDS data for Indiana and the United States for the years 2000 through 2006 shows that in over half of the treatment episodes, the use of at least two drugs was reported at the time of treatment admission (Substance Abuse and Mental Health Data Archive, 2008).

When Indiana was compared to the rest of the United States, the percentage of reported polysubstance abuse was significantly higher in Indiana ($P < 0.001$). Also, the percentage of individuals in treatment using two or more substances increased significantly from 2000 to 2006 ($P < 0.001$) (see Figure 10.1). For county-level treatment data on individuals using two or more substances, see Appendix 10A, pages 182.

Figure 10.1 Percentage of Indiana and U.S. Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Two Substances) at Admission, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)

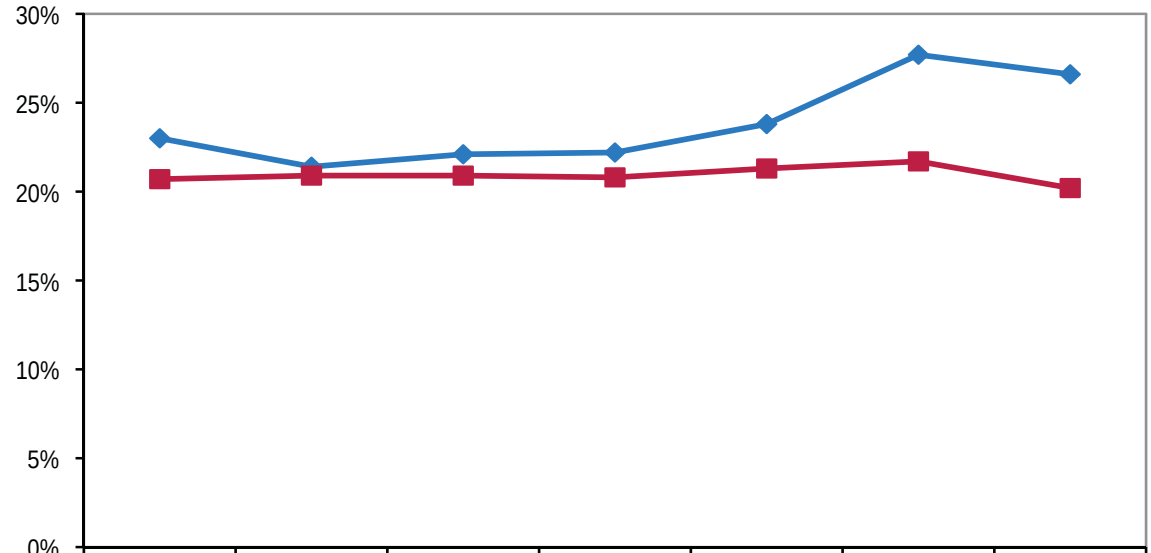


	2000	2001	2002	2003	2004	2005	2006
Indiana	55.5%	56.8%	58.3%	58.1%	59.8%	62.4%	60.4%
U.S.	53.4%	54.1%	54.1%	54.3%	55.2%	55.7%	55.9%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 10.2 illustrates that, from 2000 through 2006, approximately one-fourth of Hoosiers and one-fifth of U.S. residents in treatment reported use of at least three drugs. The difference between the two groups was significant across all years ($P < 0.05$). Furthermore, the percentage increased significantly from 23.0% in 2000 to 26.6% in 2006 in Indiana ($P < 0.001$) (see Figure 10.2). For county-level treatment data on individuals using three or more substances, see Appendix 10A, pages 182.

Figure 10.2 Percentage of Indiana and U.S. Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Three Substances) at Admission, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana	23.0%	21.4%	22.1%	22.2%	23.8%	27.7%	26.6%
U.S.	20.7%	20.9%	20.9%	20.8%	21.3%	21.7%	20.2%

Source: Substance Abuse and Mental Health Data Archive, 2008

Demographic Characteristics of Polysubstance Users

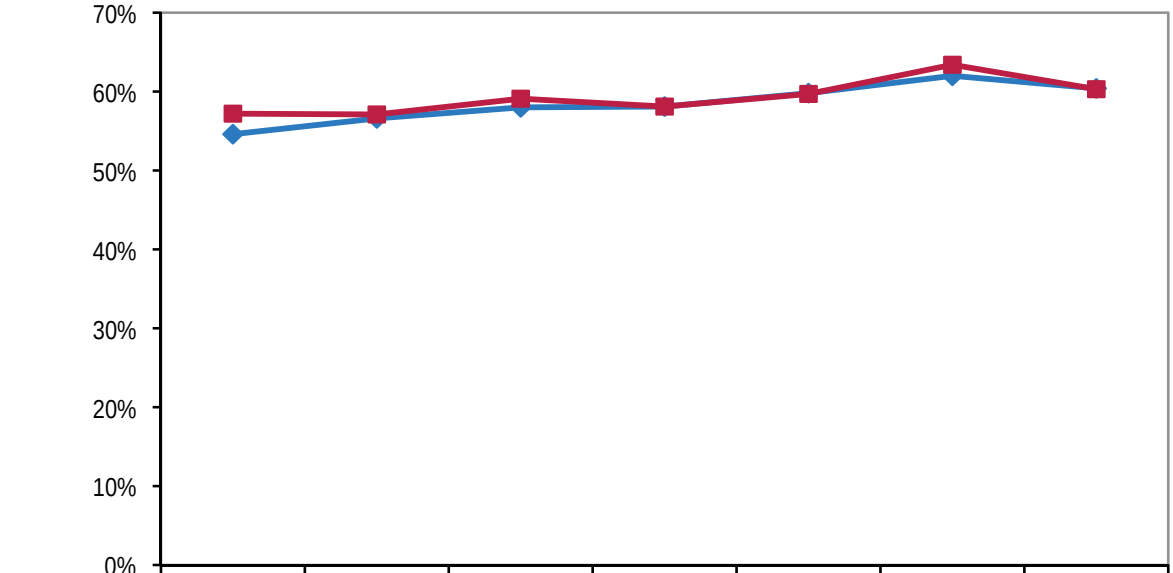
Gender, race, and age are all significantly related to polysubstance use in both Indiana and the rest of the nation.

Gender

For some of the years reviewed, a significant difference by gender could be observed for polysubstance abuse in Indiana. In the years 2000, 2002, and 2005, reported use of two or more substances was higher among women than men ($P < 0.05$). During the other years, no differences by gender were detected (see Figure 10.3).

Additionally, from 2000 through 2006, the percentage of women reporting use of three or more substances was significantly higher than their male counterparts in Indiana ($P < 0.001$) (see Figure 10.4).

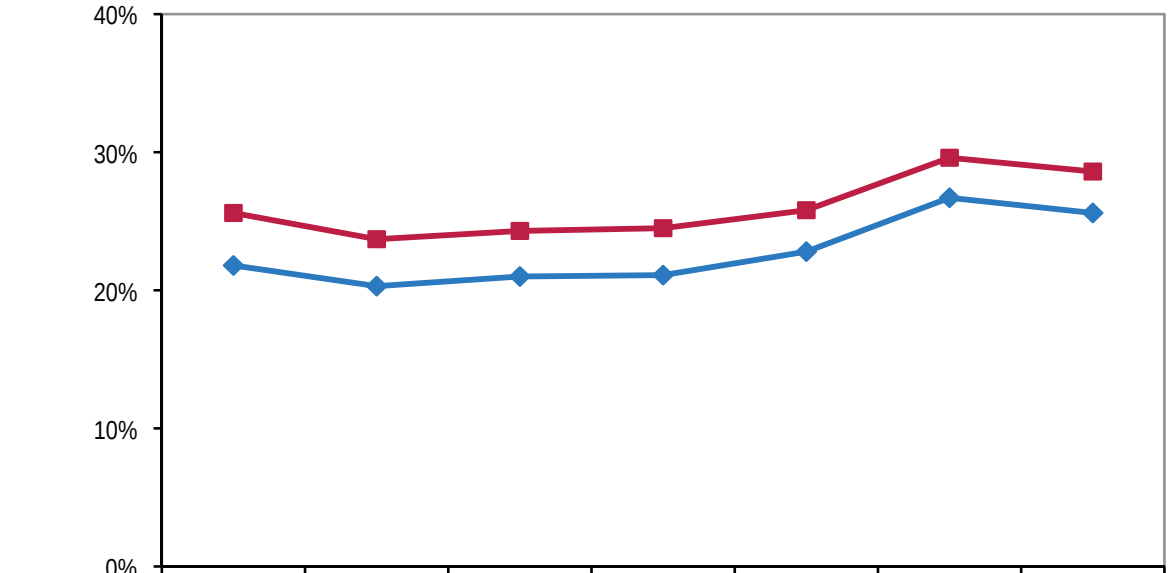
Figure 10.3 Percentage of Indiana Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Two Substances) at Admission, by Gender, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Males	54.6%	56.6%	58.0%	58.1%	59.8%	62.0%	60.4%
Females	57.2%	57.1%	59.1%	58.1%	59.7%	63.4%	60.3%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 10.4 Percentage of Indiana Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Three Substances) at Admission, by Gender, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Males	21.8%	20.3%	21.0%	21.1%	22.8%	26.7%	25.6%
Females	25.6%	23.7%	24.3%	24.5%	25.8%	29.6%	28.6%

Source: Substance Abuse and Mental Health Data Archive, 2008

Race

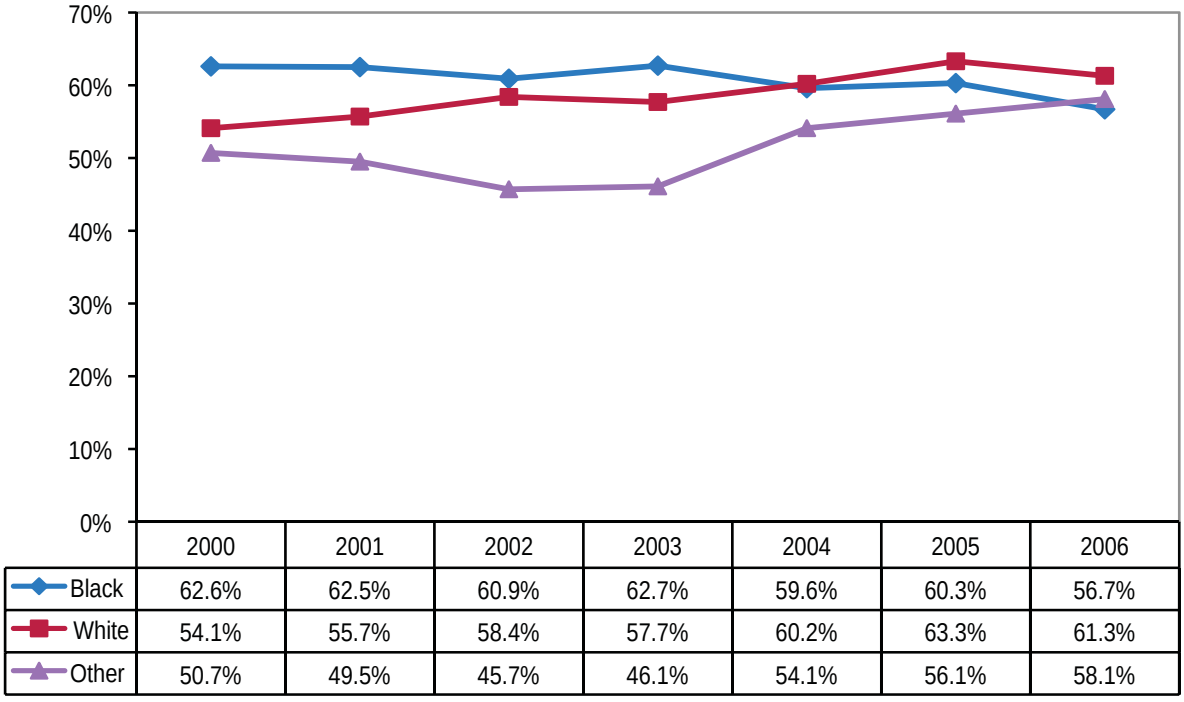
Differences by race were observed for all years reviewed in Indiana ($P < 0.001$). The percentage of blacks reporting polysubstance abuse declined from 2000 to 2006, from 62.6% to 56.7% for use of at least two substances and from 27.5% to 19.4% for use of at least three substances ($P < 0.001$) (see Figures 10.5 and 10.6).

Polysubstance abuse increased among whites and other races (excluding blacks). The percentage of whites reporting use of two or more substances rose from 54.1% in 2000 to 61.3% in 2006. Similarly, the percentage of whites reporting use of three or more substances increased from 21.9% in 2000 to 28.1% in 2006 ($P < 0.001$) (see Figures 10.5 and 10.6). A significant increase occurred among members of other races using at least two substances, from 50.7% in 2000 to 58.1% in 2006 ($P < 0.001$); the percentage of other races using three or more substances remained stable (see Figures 10.5 and 10.6).

Age

Significant differences by age group were observed across all years reviewed for Hoosiers reporting both use of at least two and use of at least three substances ($P < 0.001$). Polysubstance abuse increased from 2000 to 2006 for all age groups ($P < 0.05$) (see Figures 10.7 and 10.8).

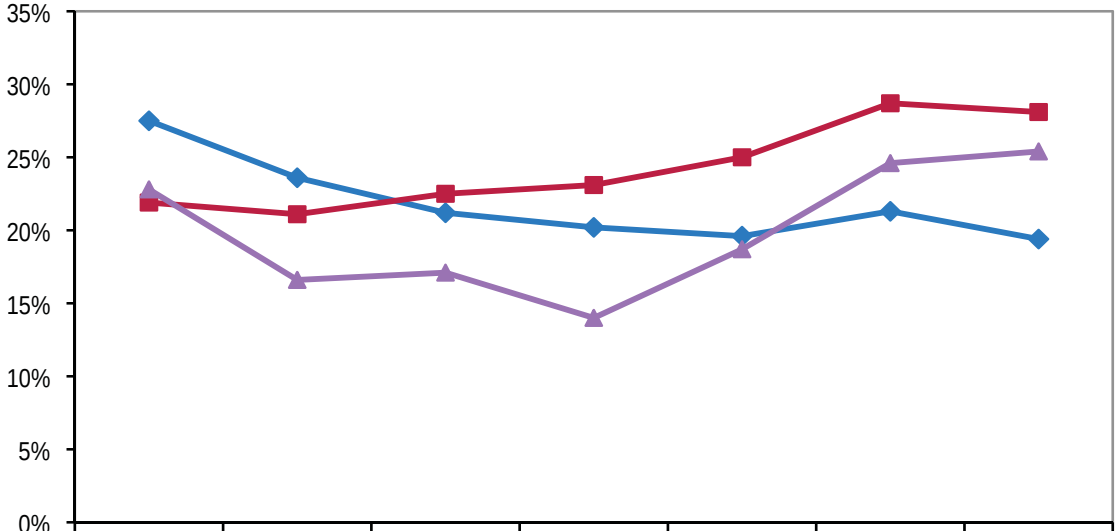
Figure 10.5 Percentage of Indiana Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Two Substances) at Admission, by Race, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Black	62.6%	62.5%	60.9%	62.7%	59.6%	60.3%	56.7%
White	54.1%	55.7%	58.4%	57.7%	60.2%	63.3%	61.3%
Other	50.7%	49.5%	45.7%	46.1%	54.1%	56.1%	58.1%

Source: Substance Abuse and Mental Health Data Archive, 2008

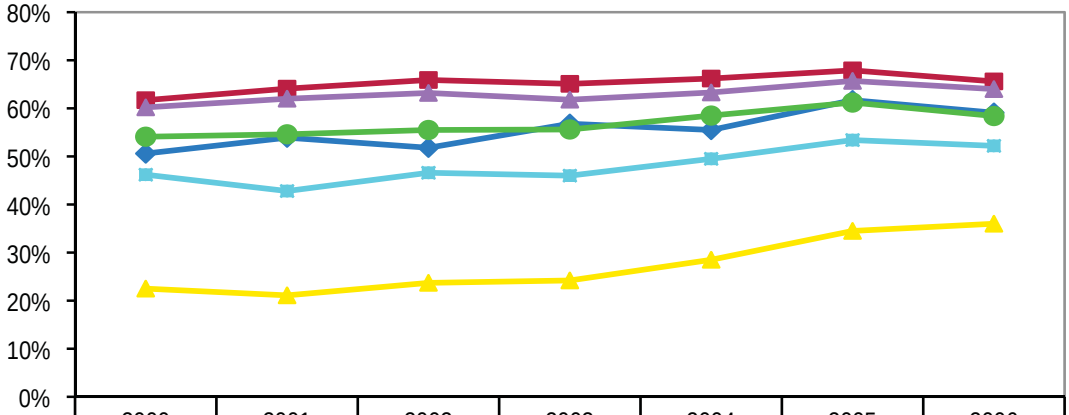
Figure 10.6 Percentage of Indiana Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Three Substances) at Admission, by Race, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Black	27.5%	23.6%	21.2%	20.2%	19.6%	21.3%	19.4%
White	21.9%	21.1%	22.5%	23.1%	25.0%	28.7%	28.1%
Other	22.8%	16.6%	17.1%	14.0%	18.7%	24.6%	25.4%

Source: Substance Abuse and Mental Health Data Archive, 2008

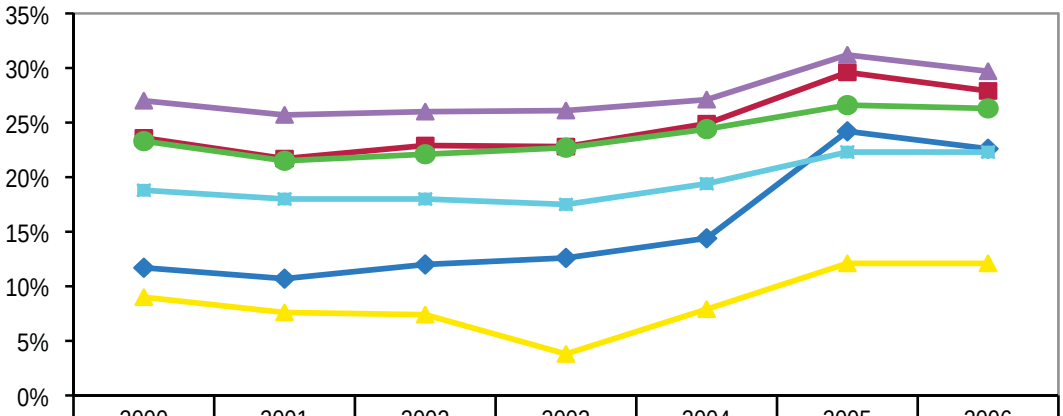
Figure 10.7 Percentage of Indiana Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Two Substances) at Admission, by Age Group, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Under 18	50.6%	53.9%	51.8%	56.8%	55.5%	61.7%	59.1%
18 to 24	61.7%	64.1%	65.9%	65.1%	66.2%	67.9%	65.6%
25 to 34	60.2%	62.0%	63.2%	61.8%	63.3%	65.7%	64.0%
35 to 44	54.1%	54.6%	55.5%	55.6%	58.5%	61.2%	58.4%
45 to 54	46.2%	42.8%	46.6%	46.0%	49.5%	53.4%	52.2%
55 and Over	22.5%	21.1%	23.7%	24.2%	28.5%	34.5%	36.0%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 10.8 Percentage of Indiana Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Three Substances) at Admission, by Age Group, 2000 through 2006 (Treatment Episode Data Set, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Under 18	11.7%	10.7%	12.0%	12.6%	14.4%	24.2%	22.6%
18 to 24	23.6%	21.7%	22.9%	22.8%	24.9%	29.6%	27.9%
25 to 34	27.0%	25.7%	26.0%	26.1%	27.1%	31.2%	29.7%
35 to 44	23.3%	21.5%	22.1%	22.7%	24.4%	26.6%	26.3%
45 to 54	18.8%	18.0%	18.0%	17.5%	19.4%	22.3%	22.3%
55 and Over	9.0%	7.6%	7.4%	3.8%	7.9%	12.1%	12.1%

Source: Substance Abuse and Mental Health Data Archive, 2008

Polysubstance Abuse Clusters in Indiana

We used cluster analysis of Indiana TEDS data for 2006 to determine the combinations of drugs currently used by polysubstance abusers within the state. The cluster analysis was completed in two steps following standardized methods (Hair, Anderson, Tatham, & Black, 1995).

In the first step, we performed a hierarchical cluster analysis specifying solutions with 2 to 20 clusters using Ward's method (Hair et al., 1995). Second, we used the results of the hierarchical cluster analysis to create "seed points" to serve as cluster centroids for follow-up K-Means cluster analyses, specifying 2 to 20 clusters. We selected this two-step method because it produces clusters that are more easily interpretable (Hair et al., 1995).

Then, to select the final classification solution, we compared the cubic clustering criteria (the expected value of the within sum of squares) with the face-validity of the set of drugs across the clusters (Hair et al., 1995). The results of the K-Means cluster analyses indicated that a 16-cluster solution best fit the available data. Table 10.1, pages 178-179, shows the image and identity matrix for the 16-cluster solution. The image matrix represents the percentage of individuals within a cluster that used each specific drug. For example, looking at cluster 6, 92% of the individuals in cluster 6 used alcohol, 27% used cocaine, 4% used heroin, 3% used methadone, 100% used opiates/synthetics, and so on. A specific drug is considered part of a cluster if at least 50% of the individuals within the cluster use the drug. The identity matrix presents the makeup of each cluster using a series of ones and zeros. For each specific drug within a cluster, a one indicates that at least 50% of the people within that cluster report using the drug, hence that drug is considered to be part of the cluster. A zero indicates that less than 50% of the people within the cluster report using the drug, thus the drug is not considered to be part of the cluster.

The most frequently occurring drug clusters in Indiana were clusters 1, 4, and 5. These clusters accounted for more than half of polysubstance users in the analysis (53.6%). Individuals in cluster 1 reported using a combination of alcohol and marijuana.

Polysubstance users in cluster 4 reported using a combination of alcohol and cocaine. Cluster 5 included individuals who reported using alcohol, cocaine, and marijuana. The remaining 13 clusters each accounted for 1.2% to 5.2% of polysubstance users.

Alcohol was the most commonly reported drug, appearing in 11 of the 16 clusters. Marijuana was the second most commonly represented drug, occurring in 10 of the 16 clusters. Cocaine was the third most frequently reported drug, and it was included in 5 of the 16 clusters. Opiates/synthetic drugs appeared in 4 clusters, methamphetamine in 3 clusters, benzodiazepines in 2 clusters, and heroin, hallucinogens and other drugs were each represented in one cluster.

Table 10.2 (pages 180-181) breaks down the clusters by demographic characteristics. In terms of gender, men accounted for 50% or more of the individuals within 15 of the 16 clusters. The difference in the percentages of men to women were smaller in clusters 2, 3, 10, 13, and 15, indicating that women may be more likely to use these combinations of drugs. Clusters 1, 7, and 16 were the most male-oriented clusters. Cluster 12 was the only female-dominant cluster, with the percentage of women present (54.0%) higher than that of men (46.0%). Individuals in cluster 12 report using a combination of marijuana, opiates/synthetics, and barbiturates.

Racially, whites composed the largest percentage of polysubstance abusers within each cluster. Blacks, however, were more strongly represented in clusters 2, 5, and 13. These clusters were similar to one another in that all three included cocaine. Whites represented more than 90% of the population in clusters 3, 6, 10, 11, 12, and 15. These six clusters included less commonly used drugs, such as methamphetamine, opiates/synthetics, or benzodiazepines.

Over 50% of polysubstance abusers within each cluster were between the ages of 21 and 39. The youngest polysubstance users, those between the ages of 12 and 20, were more likely to be found in clusters 1, 8, and 16. Each of these clusters contained both alcohol and marijuana. The oldest polysubstance users, those over 50 years of age, were most strongly represented in cluster 13 (heroin/cocaine).

Polysubstance Abuse Clusters in Indiana Counties

We completed cluster analyses for each county within Indiana using the 2007 county-level TEDS data set. Appendix 10B (pages 183-188) lists the results of the cluster analysis for each county. Similar to the statewide findings, the most common polysubstance cluster was composed of alcohol and marijuana. This cluster was the top ranked cluster in 79 of 92 counties.

Table 10.1 Image and Identity Matrix for Polysubstance Abuse Clusters (Treatment Episode Data Set, 2006)

Image Matrix	C1	C2	C3	C4	C5	C6	C7	C8
Drug								
alcohol	1.0	0.0	0.0	1.0	1.0	0.92	0.89	0.66
cocaine	0.0	1.0	0.26	1.0	1.0	0.27	0.0	0.0
marijuana	1.0	0.94	1.0	0.0	1.0	0.0	0.59	1.0
heroin	0.01	0.0	0.01	0.0	0.0	0.04	0.01	0.03
methadone	0.0	0.02	0.0	0.01	0.0	0.03	0.0	0.02
opiates/synthetics	0.0	0.0	0.09	0.0	0.0	1.0	0.0	1.0
pcp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
hallucinogens	0.0	0.02	0.02	0.0	0.0	0.01	0.0	0.0
methamphetamine	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
amphetamines	0.01	0.02	0.0	0.0	0.0	0.02	0.0	0.0
stimulants	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
benzodiazepines	0.0	0.06	0.0	0.05	0.0	0.14	0.0	0.0
tranquilizers	0.0	0.0	0.0	0.0	0.0	0.01	0.0	0.0
barbiturates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
sedatives/hypnotics	0.01	0.01	0.01	0.0	0.0	0.04	0.0	0.01
inhalants	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
over-the-counter	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
other drug	0.0	0.07	0.08	0.04	0.0	0.04	1.0	0.01

Image Matrix cont.	C9	C10	C11	C12	C13	C14	C15	C16
Drug								
alcohol	1.0	0.75	1.0	0.0	0.29	0.57	0.0	0.84
cocaine	0.0	0.35	0.0	0.05	0.67	0.00	1.0	0.0
marijuana	0.7	0.0	1.0	0.62	0.27	0.39	0.38	0.61
heroin	0.01	0.0	0.0	0.06	1.0	0.0	0.08	0.0
methadone	0.0	0.0	0.0	0.04	0.02	0.11	0.01	0.0
opiates/synthetics	0.0	0.14	0.0	0.53	0.10	0.0	1.0	0.0
pcp	0.0	0.0	0.0	0.0	0.0	0.03	0.0	0.02
hallucinogens	0.0	0.02	0.0	0.0	0.0	0.0	0.0	1.0
methamphetamine	0.0	1.0	1.0	0.17	0.04	0.0	0.11	0.0
amphetamines	0.0	0.02	0.0	0.0	0.0	0.24	0.0	0.0
stimulants	0.0	0.0	0.0	0.0	0.0	0.17	0.0	0.05
benzodiazepines	1.0	0.05	0.0	1.0	0.04	0.0	0.09	0.0
tranquilizers	0.0	0.0	0.0	0.01	0.0	0.10	0.0	0.0
barbiturates	0.0	0.0	0.0	0.0	0.0	0.11	0.0	0.03
sedatives/hypnotics	0.0	0.0	0.0	0.02	0.02	0.20	0.0	0.0
inhalants	0.0	0.0	0.0	0.0	0.0	0.06	0.0	0.01
over-the-counter	0.0	0.0	0.0	0.0	0.0	0.10	0.0	0.0
other drug	0.0	0.13	0.0	0.05	0.03	0.0	0.01	0.0

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Table 10.1 *(continued from previous page)*

Identity Matrix	C1	C2	C3	C4	C5	C6	C7	C8
Drug								
alcohol	1	0	0	1	1	1	1	1
cocaine	0	1	0	1	1	0	0	0
marijuana	1	1	1	0	1	0	1	1
heroin	0	0	0	0	0	0	0	0
methadone	0	0	0	0	0	0	0	0
opiates/synthetics	0	0	0	0	0	1	0	1
pcp	0	0	0	0	0	0	0	0
hallucinogens	0	0	0	0	0	0	0	0
methamphetamine	0	0	1	0	0	0	0	0
amphetamines	0	0	0	0	0	0	0	0
stimulants	0	0	0	0	0	0	0	0
benzodiazepines	0	0	0	0	0	0	0	0
tranquilizers	0	0	0	0	0	0	0	0
barbiturates	0	0	0	0	0	0	0	0
sedatives/hypnotics	0	0	0	0	0	0	0	0
inhalants	0	0	0	0	0	0	0	0
over-the-counter	0	0	0	0	0	0	0	0
other drug	0	0	0	0	0	0	1	0

Identity Matrix cont.	C9	C10	C11	C12	C13	C14	C15	C16
Drug								
alcohol	1	1	1	0	0	1	0	1
cocaine	0	1	0	0	1	0	1	0
marijuana	1	0	1	1	0	0	0	1
heroin	0	0	0	0	1	0	0	0
methadone	0	0	0	0	0	0	0	0
opiates/synthetics	0	0	0	1	0	0	1	0
pcp	0	0	0	0	0	0	0	0
hallucinogens	0	0	0	0	0	0	0	1
methamphetamine	0	1	1	0	0	0	0	0
amphetamines	0	0	0	0	0	0	0	0
stimulants	0	0	0	0	0	0	0	0
benzodiazepines	1	0	0	1	0	0	0	0
tranquilizers	0	0	0	0	0	0	0	0
barbiturates	0	0	0	0	0	0	0	0
sedatives/hypnotics	0	0	0	0	0	0	0	0
inhalants	0	0	0	0	0	0	0	0
over-the-counter	0	0	0	0	0	0	0	0
other drug	0	0	0	0	0	0	0	0

Source: Substance Abuse and Mental Health Data Archive, 2008

Table 10.2 Demographic Characteristics of Polysubstance Abusers within Clusters (Treatment Episode Data Set, 2006)

	Cluster 1		Cluster 2		Cluster 3		Cluster 4	
	n = 6619	%	n=1090	%	n=1053	%	n=1855	%
Gender								
Male	5144	77.7	579	53.1	565	53.7	1135	61.2
Female	1475	22.3	511	46.9	488	46.3	720	38.8
Race								
White	5333	80.6	714	65.5	999	94.9	1038	56.0
Black	995	15.0	339	31.1	15	1.4	717	38.7
Other	203	3.1	27	2.5	24	2.3	52	2.8
Unknown	88	1.3	10	.9	15	1.4	48	2.6
Age								
12 - 20	1432	21.6	120	11.0	116	11.0	32	1.7
21 - 29	2653	40.1	368	33.8	451	42.8	328	17.7
30 - 39	1231	18.6	347	31.8	326	31.0	598	32.2
40 - 49	1023	15.5	213	19.5	134	12.7	712	38.4
50 and Older	270	4.1	37	3.4	23	2.2	178	9.6
Unknown	11	.2	5	.5	3	.3	9	.5
Education								
Less than H.S.	2590	39.1	456	41.8	449	42.6	572	30.8
H.S. Diploma	2718	41.1	438	40.2	447	42.5	819	44.2
Above H.S.	1027	15.5	174	16.0	120	11.4	420	22.6
Unknown	284	4.3	22	2.0	37	3.5	44	2.4
	Cluster 5		Cluster 6		Cluster 7		Cluster 8	
	n =2794	%	n=804	%	n=998	%	n=951	%
Gender								
Male	1917	68.6	459	57.1	715	71.6	662	69.6
Female	877	31.4	345	42.9	283	28.4	289	30.4
Race								
White	1924	68.9	742	92.3	845	84.7	896	94.2
Black	750	26.8	22	2.7	94	9.4	22	2.3
Other	74	2.7	26	3.2	34	3.4	15	1.6
Unknown	46	1.6	14	1.7	25	2.5	18	1.9
Age								
12 - 20	195	7.0	46	5.7	165	16.5	197	20.7
21 - 29	819	29.3	278	34.6	328	32.9	451	47.4
30 - 39	866	31.0	214	26.6	209	20.9	179	18.8
40 - 49	732	26.2	190	23.6	208	20.9	96	10.1
50 and Older	174	6.3	70	8.7	83	8.3	26	2.7
Unknown	8	.3	6	.7	5	.5	2	.2
Education								
Less than H.S.	871	31.2	229	28.5	440	44.1	373	39.2
H.S. Diploma	1263	45.2	339	42.2	375	37.6	404	42.5
Above H.S.	481	17.2	213	26.5	157	15.7	139	14.7
Unknown	79	2.8	23	2.9	26	2.6	35	3.7

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Table 10.2 *(continued from previous page)*

	Cluster 9		Cluster 10		Cluster 11		Cluster 12	
	n =514	%	n=863	%	n=1116	%	n=650	%
Gender								
Male	321	62.5	472	54.7	729	65.3	299	46.0
Female	193	37.5	391	45.3	376	34.7	351	54.0
Race								
White	482	93.8	813	94.2	1046	93.7	622	95.7
Black	16	3.1	9	1.0	12	1.1	15	2.3
Other	7	1.4	30	3.5	37	3.3	10	1.5
Unknown	9	1.8	11	1.3	21	1.9	3	.5
Age								
12 - 20	102	19.8	33	3.8	146	13.1	81	12.5
21 - 29	187	36.4	320	37.1	493	44.2	271	41.7
30 - 39	120	23.3	319	37.0	311	27.9	169	2.6
40 - 49	77	15.0	151	17.5	152	13.6	91	1.4
50 and Older	23	4.5	27	3.1	14	1.3	35	5.4
Unknown	5	1.0	3	.3	0	.0	3	.5
Education								
Less than H.S.	213	41.4	331	38.4	538	48.2	260	40.0
H.S. Diploma	183	35.6	372	43.1	426	38.2	271	41.6
Above H.S.	106	20.6	143	16.6	133	11.9	105	16.2
Unknown	12	2.3	17	2.0	19	1.7	14	2.2

	Cluster 13		Cluster 14		Cluster 15		Cluster 16	
	n =655	%	n=293	%	n=486	%	n=247	%
Gender								
Male	355	54.2	174	59.4	252	51.9	190	76.9
Female	300	45.8	119	40.6	234	48.1	57	23.1
Race								
White	419	64.0	255	87.0	447	92.0	220	89.1
Black	190	29.0	22	7.5	26	5.3	18	7.3
Other	18	2.7	10	3.4	7	1.4	6	2.4
Unknown	14	2.1	6	2.0	6	1.2	3	1.2
Age								
12 – 20	37	5.6	52	17.7	34	7.0	51	20.6
21 - 29	183	27.9	98	33.4	202	41.6	118	47.8
30 - 39	155	23.7	78	26.6	141	29.0	46	18.6
40 - 49	127	19.4	56	19.1	82	16.9	25	10.1
50 and Older	152	23.2	9	3.1	26	5.3	6	2.4
Unknown	1	.2	0	.0	1	.2	1	.4
Education								
Less than H.S.	187	28.5	115	39.2	162	33.3	78	31.6
H.S. Diploma	306	46.7	127	43.3	198	40.7	107	43.3
Above H.S.	147	22.4	43	14.7	125	25.7	46	18.6
Unknown	15	2.3	8	2.7	11	2.3	16	6.5

Source: Substance Abuse and Mental Health Data Archive, 2008

APPENDIX 10A

Number of Indiana Residents in Substance Abuse Treatment Who Reported Using Two or More (2+) and Three or More (3+) Substances at Admission, by County, 2007 (Substance Abuse Population by County/Treatment Episode Data Set, 2007)

County	Use of 2+ Substances	Use of 3+ Substances
Adams	56	34
Allen	518	196
Bartholomew	281	151
Benton	22	13
Blackford	111	75
Boone	99	46
Brown	51	15
Carroll	35	19
Cass	127	49
Clark	249	97
Clay	132	95
Clinton	24	15
Crawford	24	7
Daviess	125	87
Dearborn	107	57
Decatur	47	18
DeKalb	83	28
Delaware	644	333
DuBois	130	79
Elkhart	357	117
Fayette	71	39
Floyd	128	65
Fountain	65	39
Franklin	31	14
Fulton	163	69
Gibson	78	49
Grant	249	123
Greene	55	28
Hamilton	404	176
Hancock	124	47
Harrison	45	26
Hendricks	146	65
Henry	193	95
Howard	289	153
Huntington	100	41
Jackson	102	65
Jasper	60	33
Jay	77	47
Jefferson	109	55
Jennings	83	47
Johnson	187	85
Knox	189	84
Kosciusko	89	48
LaGrange	69	35
Lake	1342	620
LaPorte	268	108
Lawrence	64	1
Madison	737	371
Marion	2581	1164
Marshall	124	74
Martin	50	32
Miami	147	63
Monroe	271	28
Montgomery	148	78
Morgan	164	51
Newton	15	11
Noble	179	72
Ohio	14	9
Orange	27	14
Owen	119	36
Parke	98	53
Perry	53	24
Pike	22	14
Porter	305	143
Posey	142	89
Pulaski	68	37
Putnam	117	58
Randolph	75	49
Ripley	30	13
Rush	46	26
St. Joseph	874	416
Scott	81	45
Shelby	82	9
Spencer	58	27
Starke	132	52
Steuben	63	19
Sullivan	70	48
Switzerland	32	10
Tippecanoe	603	357
Tipton	26	13
Union	21	12
Vanderburgh	1204	730
Vermillion	58	22
Vigo	605	360
Wabash	110	54
Warren	19	10
Warrick	221	165
Washington	38	16
Wayne	247	110
Wells	29	14
White	95	53
Whitley	61	31
Total	18,263	8,870

Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2008

APPENDIX 10B

Combination of Drugs Used among Polysubstance Abusers in Substance Abuse Treatment by County, 2007 (Based on Cluster Analysis of Substance Abuse Population by County/Treatment Episode Data Set, 2007)

County	Cluster #	Cluster Composition	N	%
Adams				
	1	Alcohol, cocaine, marijuana	21	31.3
	3	Alcohol, marijuana	35	26.9
	2	Alcohol, marijuana, unknown drug	11	16.4
			67	
Allen				
	1	Alcohol, marijuana	269	41.0
	4	Alcohol, cocaine	140	21.3
	3	Alcohol, cocaine, marijuana	120	18.3
	2	Cocaine, marijuana	59	9.0
	5	Alcohol, marijuana, unknown drug	44	6.7
	6	Alcohol, opiates/synthetics	24	3.7
			656	
Bartholomew				
	2	Alcohol, marijuana	114	31.1
	4	Marijuana, methamphetamine	75	20.4
	1	Alcohol, cocaine, marijuana	64	17.4
	5	Opiates/synthetics with marijuana and/or alcohol and/or methamphetamine	63	17.2
	3	Alcohol, marijuana, methamphetamine	51	13.9
			367	
Benton				
	1	Alcohol, marijuana	11	42.3
	3	Cocaine, marijuana	8	30.8
	2	Alcohol, marijuana, unknown drug	7	26.9
			26	
Boone				
	1	Alcohol, marijuana	47	51.6
	3	Alcohol, cocaine, marijuana	25	27.5
	2	Alcohol, cocaine	11	12.1
	4	Cocaine, heroin	8	8.8
			91	
Brown				
	1	Alcohol, marijuana	41	85.4
	2	Marijuana, methamphetamine	7	14.6
			48	
Carroll				
	2	Alcohol, marijuana	22	59.5
	1	Cocaine, methamphetamine	15	40.5
			37	
Cass				
	1	Alcohol, marijuana	53	51.0
	2	Alcohol, marijuana, unknown drug	15	14.4
	4	Alcohol, cocaine	15	14.4
	5	Marijuana, methamphetamine	11	10.6
	3	Alcohol, marijuana, methamphetamine	10	9.6
			104	
Clark				
	1	Alcohol, marijuana	101	27.6
	2	Alcohol, cocaine, marijuana	75	20.5
	5	Alcohol, cocaine	63	17.2
	3	Alcohol, marijuana, opiates/ synthetics	59	16.1
	4	Marijuana, methamphetamine	42	11.5
	6	Marijuana, opiates/synthetics, benzodiazepines	26	7.1
			366	

County	Cluster #	Cluster Composition	N	%
Clay				
	1	Alcohol, marijuana, methamphetamine	60	43.8
	4	Marijuana, methamphetamine	35	25.5
	3	Alcohol, marijuana	28	20.4
	2	Alcohol, marijuana, unknown drug	14	10.2
			137	
Clinton				
	1	Alcohol, marijuana	13	59.1
	2	Alcohol, cocaine	9	40.9
			22	
Crawford				
	1	Alcohol, marijuana	11	47.8
	2	Alcohol, opiates/synthetics	7	30.4
	3	Marijuana, methamphetamine	5	21.7
			23	
Daviess				
	3	Marijuana, methamphetamine, unknown drug	25	22.9
	2	Alcohol, marijuana,	20	18.3
	4	Alcohol, marijuana, methamphetamine	19	17.4
	5	Alcohol, marijuana, unknown drug	16	14.7
	6	Alcohol, opiates/synthetics	16	14.7
	1	Alcohol, methamphetamine, unknown drug	13	11.9
			109	
Dearborn				
	1	Alcohol, marijuana	55	53.4
	3	Alcohol, cocaine, marijuana	16	15.5
	4	Alcohol, cocaine	13	12.6
	2	Cocaine, opiates/synthetics, benzodiazepines	10	9.7
	5	Marijuana, opiates/synthetics	9	8.7
			103	
Decatur				
	1	Alcohol, marijuana	26	74.3
	2	Cocaine, marijuana	9	25.7
			35	
DeKalb				
	1	Alcohol, marijuana	28	45.2
	2	Alcohol, cocaine	12	19.4
	3	Marijuana, methamphetamine	11	17.7
	4	Alcohol, marijuana, methamphetamine	11	17.7
			62	
Delaware				
	1	Alcohol, marijuana	197	33.9
	2	Alcohol, cocaine, marijuana	129	22.2
	3	Alcohol, cocaine	58	10.0
	5	Cocaine, marijuana	54	9.3
	7	Alcohol, marijuana, opiates/synthetics	53	9.1
	6	Alcohol, marijuana, benzodiazepines	46	7.9
	4	Alcohol, cocaine, opiates/synthetics	44	7.6
			581	

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APPENDIX 10B *(continued from previous page)*

County	Cluster #	Cluster Composition	N	%
Dubois				
	2	Alcohol, marijuana	50	42.7
	1	Alcohol, marijuana, methamphetamine	35	29.9
	4	Alcohol, marijuana, opiates/synthetics	18	15.4
	3	Marijuana, methamphetamine	14	12.0
			117	
Elkhart				
	1	Alcohol, marijuana	146	39.7
	5	Cocaine, marijuana	82	22.3
	3	Alcohol, cocaine	61	16.6
	4	Marijuana, methamphetamine	47	12.8
	2	Alcohol, marijuana, methamphetamine	32	8.7
			368	
Fayette				
	1	Alcohol, marijuana	39	56.5
	2	Marijuana, opiates/synthetics, methamphetamine	30	43.5
			69	
Floyd				
	2	Alcohol, marijuana	82	42.7
	1	Alcohol, cocaine, marijuana	65	33.9
	3	Alcohol, opiates/synthetics	45	23.4
			192	
Fountain				
	1	Alcohol, marijuana	24	38.7
	3	Alcohol, marijuana, methamphetamine	9	14.5
	4	Cocaine, marijuana, methamphetamine	9	14.5
	5	Alcohol, marijuana, benzodiazepines	8	12.9
	2	Marijuana, opiates/synthetics	6	9.7
	6	Alcohol, cocaine, marijuana	6	9.7
			62	
Franklin				
	1	Alcohol, marijuana	14	48.3
	2	Marijuana, methamphetamine	5	17.2
	3	Alcohol, cocaine, marijuana	6	20.7
	4	Alcohol, opiates/synthetics	4	13.8
			29	
Fulton				
	1	Alcohol, marijuana	89	66.4
	3	Alcohol, marijuana, methamphetamine	20	14.9
	2	Alcohol, cocaine, marijuana	17	12.7
	4	Alcohol, methamphetamine	8	6.0
			134	
Gibson				
	2	Alcohol, marijuana	23	26.4
	4	Marijuana, methamphetamine	22	25.3
	1	Alcohol, marijuana, methamphetamine	18	20.7
	3	Alcohol, methamphetamine	16	18.4
	5	Alcohol, cocaine, marijuana	8	9.2
			87	
Grant				
	1	Alcohol, marijuana	156	54.9
	2	Alcohol, cocaine, marijuana	60	21.1
Grant *(continued)*	3	Alcohol, marijuana, unknown drug	41	14.4
	4	Alcohol, opiates/synthetics	27	9.5
			284	
Greene				
	1	Alcohol, marijuana	25	44.6
	2	Alcohol, methamphetamine	18	32.1
	3	Marijuana, methamphetamine	13	23.2
			56	
Hamilton				
	1	Alcohol, marijuana	163	44.7
	6	Alcohol, hallucinogens	63	17.3
	3	Alcohol, cocaine, marijuana	54	14.8
	4	Alcohol, marijuana, opiates/synthetics	36	9.9
	2	Alcohol, marijuana, benzodiazepines	27	7.4
	5	Cocaine, marijuana	22	6.0
			365	
Hancock				
	2	Alcohol, marijuana	34	41.5
	1	Alcohol, cocaine, marijuana	16	19.5
	3	Alcohol, cocaine	16	19.5
	4	Marijuana, opiates/synthetics	16	19.5
			82	
Harrison				
	1	Alcohol, marijuana	45	59.2
	2	Alcohol, marijuana, methamphetamine	16	21.1
	3	Alcohol, cocaine	15	19.7
			76	
Henry				
	1	Alcohol, marijuana	62	36.9
	6	Alcohol, opiates/synthetics	26	15.5
	3	Alcohol, cocaine, marijuana	25	14.9
	4	Marijuana, opiates/synthetics	25	14.9
	5	Alcohol, opiates/synthetics, benzodiazepines	16	9.5
	2	Cocaine, opiates/synthetics	14	8.3
			168	
Howard				
	1	Alcohol, marijuana	87	31.8
	2	Alcohol, cocaine, opiates/synthetics	43	15.7
	3	Alcohol, cocaine, marijuana	42	15.3
	5	Marijuana, opiates/synthetics	32	11.7
	7	Cocaine, marijuana	25	9.1
	4	Alcohol, marijuana, methamphetamine	23	8.4
	6	Alcohol, marijuana, benzodiazepines	22	8.0
			274	
Huntington				
	1	Alcohol, marijuana	50	57.5
	2	Alcohol, cocaine, marijuana	23	26.4
	3	Alcohol, marijuana, opiates/synthetics	14	16.1
			87	
Jackson				
	2	Alcohol, marijuana, methamphetamine	31	32.0

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APPENDIX 10B *(continued from previous page)*

County	Cluster #	Cluster Composition	N	%
Jackson *(continued)*	4	Alcohol, cocaine	25	25.8
	1	Alcohol, marijuana	22	22.7
	3	Alcohol, marijuana, opiates/synthetics	19	19.6
			97	
Jasper				
	2	Alcohol, marijuana	21	42.9
	3	Alcohol, cocaine, marijuana	14	28.6
	1	Alcohol, opiates/synthetics	8	16.3
	4	Alcohol, marijuana	6	12.2
			49	
Jay				
	1	Alcohol, marijuana	28	50.0
	2	Alcohol, cocaine, marijuana	17	30.4
	4	Alcohol, marijuana, benzodiazepines	6	10.7
	3	Alcohol, marijuana, methamphetamine	5	8.9
			56	
Jefferson				
	1	Alcohol, marijuana	37	37.4
	3	Alcohol, cocaine, marijuana	18	18.2
	2	Cocaine, marijuana	14	14.1
	6	Marijuana, benzodiazepines	12	12.1
	5	Alcohol, marijuana, methamphetamine	10	10.1
	4	Alcohol, marijuana, opiates/synthetics	8	8.1
			99	
Jennings				
	3	Alcohol, marijuana	41	36.9
	2	Alcohol, marijuana, methamphetamine	30	27.0
	1	Alcohol, opiates/synthetics	16	14.4
	4	Alcohol, cocaine, marijuana	15	13.5
	5	Alcohol, cocaine, methamphetamine	9	8.1
			111	
Johnson				
	1	Alcohol, marijuana	89	41.8
	2	Alcohol, cocaine, marijuana	37	17.4
	3	Alcohol, opiates/synthetics	40	18.8
	4	Cocaine, marijuana	27	12.7
	5	Marijuana, opiates/synthetics	20	9.4
			213	
Knox				
	1	Marijuana, methamphetamine	59	29.1
	2	Alcohol, marijuana	55	27.1
	3	Alcohol, marijuana, methamphetamine	42	20.7
	4	Marijuana, opiates/synthetics	18	8.9
	6	Marijuana, benzodiazepines	16	7.9
	5	Cocaine, marijuana, methamphetamine	13	6.4
			203	
Kosciusko				
	3	Alcohol, marijuana	42	48.3
	1	Alcohol, cocaine, marijuana	19	21.8
	4	Cocaine, marijuana	14	16.1
	2	Alcohol, cocaine	12	13.8
			87	
LaGrange				
	2	Alcohol, marijuana	36	52.2
	1	Alcohol, marijuana, methamphetamine	22	31.9
	3	Marijuana, methamphetamine	11	15.9
			69	
Lake				
	1	Alcohol, marijuana	376	28.5
	2	Alcohol, cocaine	272	20.6
	3	Alcohol, cocaine, marijuana	257	19.5
	4	Cocaine, heroin	177	13.4
	6	Alcohol, heroin	130	9.9
	5	Cocaine, marijuana	107	8.1
			1319	
LaPorte				
	1	Alcohol, marijuana	105	39.3
	2	Alcohol, cocaine, marijuana	70	26.2
	3	Alcohol, cocaine	38	14.2
	4	Alcohol, marijuana, unknown drug	19	7.1
	6	Alcohol, opiates/synthetics	19	7.1
	5	Cocaine, marijuana	16	6.0
			267	
Lawrence				
	1	Alcohol, marijuana	70	49.3
	4	Marijuana, opiates/synthetics	23	16.2
	6	Alcohol, cocaine, methamphetamine	16	11.3
	2	Alcohol, marijuana, methamphetamine	13	9.2
	3	Alcohol, cocaine, marijuana	10	7.0
	5	Alcohol, marijuana, benzodiazepines	10	7.0
			142	
Madison				
	1	Alcohol, marijuana	266	41.3
	3	Alcohol, cocaine, marijuana	83	12.9
	6	Alcohol, marijuana, benzodiazepines	69	10.7
	4	Marijuana, opiates/synthetics	67	10.4
	7	Alcohol, hallucinogens	59	9.2
	2	Alcohol, marijuana, opiates/synthetics	54	8.4
	5	Alcohol, cocaine	46	7.1
			644	
Marion				
	1	Alcohol, marijuana	852	35.8
	2	Alcohol, cocaine	455	19.1
	4	Alcohol, cocaine, marijuana	416	17.5
	5	Cocaine, marijuana	260	10.9
	6	Marijuana, opiates/synthetics	213	9.0
	3	Cocaine, heroin	182	7.7
			2378	
Marshall				
	3	Alcohol, marijuana	40	25.6
	2	Alcohol, marijuana	34	21.8
	4	Alcohol, cocaine, marijuana	21	13.5
	7	Alcohol, cocaine	18	11.5
	1	Cocaine, marijuana	15	9.6
	6	Marijuana, methamphetamine	15	9.6
	5	Alcohol, marijuana, methamphetamine	13	8.3
			156	

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APPENDIX 10B *(continued from previous page)*

County	Cluster #	Cluster Composition	N	%
Martin				
	1	Alcohol, marijuana	24	77.4
	2	Opiates/synthetics, benzodiazepines	7	22.6
			31	
Miami				
	1	Alcohol, marijuana	75	53.2
	2	Marijuana, methamphetamine	19	13.5
	4	Alcohol, marijuana, methamphetamine	19	13.5
	3	Cocaine, marijuana	18	12.8
	5	Alcohol, marijuana, opiates/synthetics	10	7.1
			141	
Monroe				
	1	Alcohol, marijuana	212	42.5
	2	Alcohol, cocaine, marijuana	68	13.6
	5	Alcohol, marijuana, opiates/synthetics	66	13.2
	6	Opiates/synthetics, benzodiazepines	54	10.8
	3	Alcohol, marijuana, methamphetamine	51	10.2
	4	Cocaine, marijuana	48	9.6
			499	
Montgomery				
	2	Alcohol, marijuana	59	41.0
	3	Marijuana, methamphetamine	28	19.4
	1	Alcohol, marijuana, opiates/synthetics, methamphetamine	24	16.7
	5	Cocaine, marijuana, methamphetamine	18	12.5
	4	Alcohol, cocaine	15	10.4
			144	
Morgan				
	3	Alcohol, marijuana	62	33.5
	1	Marijuana, methamphetamine	34	18.4
	6	Alcohol, marijuana, methamphetamine	28	15.1
	5	Alcohol, opiates/synthetics	27	14.6
	2	Alcohol, cocaine	19	10.3
	4	Alcohol, cocaine, marijuana	15	8.1
			185	
Newton				
	1	Alcohol, marijuana	6	40.0
	2	Alcohol, cocaine, marijuana	6	40.0
	3	Cocaine, marijuana	3	20.0
			15	
Noble				
	2	Alcohol, marijuana	43	31.6
	1	Alcohol, cocaine, marijuana	21	15.4
	4	Alcohol, marijuana, methamphetamine	19	14.0
	6	Marijuana, methamphetamine	19	14.0
	3	Alcohol, marijuana, unknown drug	18	13.2
	5	Alcohol, cocaine, methamphetamine	16	11.8
			136	
Ohio				
	1	Alcohol, marijuana	8	66.7
Ohio *(continued)*	2	Alcohol, opiates/synthetics	4	33.3
			12	
Orange				
	1	Alcohol, marijuana	11	61.1
	2	Opiates/synthetics with marijuana and/or benzodiazepines	7	38.9
			18	
Owen				
	1	Alcohol, marijuana	65	50.0
	2	Alcohol, marijuana, methamphetamine	25	19.2
	3	Alcohol, methamphetamine	12	9.2
	5	Alcohol, marijuana, opiates/synthetics	10	7.7
	4	Alcohol, cocaine, marijuana	9	6.9
	6	Alcohol, marijuana, benzodiazepines	9	6.9
			130	
Parke				
	2	Alcohol, marijuana, unknown drug	29	35.8
	1	Alcohol, marijuana, methamphetamine	26	32.1
	3	Alcohol, marijuana	26	32.1
			81	
Perry				
	1	Alcohol, marijuana	12	25.5
	4	Alcohol, marijuana, methamphetamine	10	21.3
	3	Alcohol, methamphetamine	7	14.9
	5	Alcohol, methamphetamine, unknown drug	7	14.9
	6	Marijuana, methamphetamine	6	12.8
	2	Alcohol, marijuana, unknown drug	5	10.6
			47	
Pike				
	1	Alcohol, marijuana	8	30.8
	2	Alcohol, marijuana, methamphetamine	6	23.1
	3	Marijuana, opiates/synthetics, methamphetamine	4	15.4
	4	Alcohol, methamphetamine	4	15.4
	5	Marijuana, methamphetamine	4	15.4
			26	
Porter				
	1	Alcohol, marijuana	94	38.1
	4	Alcohol, cocaine	49	19.8
	2	Alcohol, cocaine, marijuana	36	14.6
	5	Cocaine, marijuana, heroin	35	14.2
	3	Alcohol, marijuana, opiates/synthetics	33	13.4
			247	
Posey				
	1	Alcohol, marijuana	32	29.9
	2	Alcohol, marijuana, methamphetamine	25	23.4
	4	Alcohol, marijuana, unknown drug	16	15.0
	3	Marijuana, methamphetamine, unknown drug	14	13.1
	5	Alcohol, methamphetamine	12	11.2
	6	Alcohol, benzodiazepines	8	7.5
			107	

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APPENDIX 10B *(continued from previous page)*

County	Cluster #	Cluster Composition	N	%
Pulaski				
	1	Alcohol, marijuana	41	58.6
	2	Marijuana, methamphetamine	11	15.7
	3	Cocaine, marijuana	11	15.7
	4	Alcohol, marijuana, opiates/synthetics, benzodiazepines	7	10.0
			70	
Putnam				
	1	Alcohol, marijuana	27	28.4
	4	Marijuana, methamphetamine	18	18.9
	3	Alcohol, cocaine, marijuana	16	16.8
	5	Alcohol, marijuana, methamphetamine	14	14.7
	2	Alcohol, marijuana, unknown drug	12	12.6
	6	Marijuana, benzodiazepines	8	8.4
			95	
Randolph				
	1	Alcohol, marijuana	27	39.7
	3	Alcohol, cocaine, marijuana	12	17.6
	2	Alcohol, marijuana, unknown drug	8	11.8
	5	Alcohol, marijuana, opiates/synthetics	8	11.8
	4	Alcohol, marijuana, methamphetamine	7	10.3
	6	Alcohol, opiates/synthetics	6	8.8
			68	
Ripley				
	1	Alcohol, marijuana	15	44.1
	2	Marijuana, opiates/synthetics	10	29.4
	3	Alcohol, cocaine, marijuana	9	26.5
			34	
Rush				
	1	Alcohol, marijuana	17	42.5
	2	Alcohol, cocaine, marijuana	5	12.5
	3	Alcohol, marijuana, opiates/synethics	4	10.0
	4	Alcohol, methamphetamine	6	15.0
	5	Cocaine, marijuana, opiates/synthetics	4	10.0
	6	Marijuana, methamphetamine, opiates/synthetics	4	10.0
			40	
Saint Joseph				
	2	Alcohol, cocaine, marijuana	301	33.3
	1	Alcohol, cocaine	230	25.4
	5	Cocaine, marijuana	139	15.4
	4	Alcohol, marijuana	136	15.0
	3	Alcohol, marijuana, unknown drug	51	5.6
	6	Cocaine, heroin	48	5.3
			905	
Scott				
	6	Marijuana, benzodiazepines	32	20.5
	1	Alcohol, marijuana	30	19.2
	2	Marijuana, methamphetamine, opiates/synthetics	29	18.6
	4	Alcohol, opiates/synthetics	25	16.0
	3	Alcohol, cocaine, marijuana	24	15.4
	5	Alcohol, marijuana, methamphetamine	16	10.3
			156	
Shelby				
	1	Alcohol, marijuana	36	58.1
Shelby *(continued)*	3	Alcohol, cocaine	13	21.0
	2	Marijuana, methamphetamine	8	12.9
	4	Alcohol, heroin, opiates/synthetics	5	8.1
			62	
Starke				
	1	Alcohol, marijuana	47	45.6
	2	Marijuana, methamphetamine	19	18.4
	3	Alcohol, cocaine	16	15.5
	4	Alcohol, opiates/synthetics, methamphetamine	12	11.7
	5	Marijuana, opiates/synthetics, benzodiazepines	9	8.7
			103	
Spencer				
	1	Alcohol, marijuana	19	34.5
	2	Alcohol, marijuana, unknown drug	8	14.5
	3	Alcohol, marijuana, methamphetamine	8	14.5
	4	Alcohol, methamphetamine, unknown drug	8	14.5
	6	Alcohol, cocaine, marijuana	7	12.7
	5	Marijuana, opiates/synthetics	5	9.1
			55	
Steuben				
	1	Alcohol, marijuana	22	50.0
	4	Alcohol, marijuana, methamphetamine	8	18.2
	2	Alcohol, cocaine, marijuana	7	15.9
	3	Marijuana, methamphetamine	7	15.9
			44	
Sullivan				
	1	Alcohol, marijuana	20	44.4
	2	Alcohol, marijuana, methamphetamine	11	24.4
	3	Alcohol, methamphetamine	7	15.6
	4	Alcohol, marijuana, benzodiazepines	7	15.6
			45	
Switzerland				
	1	Alcohol, marijuana	11	55.0
	2	Alcohol, opiates/synthetics	5	25.0
	3	Alcohol, methamphetamine	4	20.0
			20	
Tippecanoe				
	1	Alcohol, marijuana	130	30.1
	3	Marijuana, methamphetamine	74	17.1
	2	Alcohol, cocaine, marijuana	63	14.6
	5	Alcohol, marijuana, unknown drug	51	11.8
	6	Cocaine, marijuana	42	9.7
	4	Alcohol, marijuana, benzodiazepines	39	9.0
	7	Alcohol, cocaine, methamphetamine	33	7.6
			432	
Tipton				
	2	Alcohol, marijuana	7	28.0
	4	Marijuana, opiates/synthetics	7	28.0
	3	Alcohol, cocaine, marijuana	6	24.0
	1	Alcohol, hallucinogens	5	20.0
			25	

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APPENDIX 10B *(continued from previous page)*

County	Cluster #	Cluster Composition	N	%
Union				
	1	Alcohol, marijuana	10	76.9
	2	Alcohol, marijuana, opiates/synthetics	3	23.1
			13	
Vandeburgh				
	4	Alcohol, marijuana	229	23.1
	1	Alcohol, marijuana, methamphetamine	165	16.6
	3	Alcohol, cocaine, marijuana	154	15.5
	2	Alcohol, marijuana, unknown drug	137	13.8
	5	Alcohol, cocaine	133	13.4
	6	Marijuana, methamphetamine	103	10.4
	7	Marijuana, benzodiazepines	70	7.1
			991	
Vigo				
	3	Marijuana, methamphetamine	140	21.4
	5	Alcohol, marijuana, methamphetamine	126	19.2
	2	Alcohol, marijuana	107	16.3
	1	Alcohol, marijuana, unknown drug	87	13.3
	7	Alcohol, cocaine, marijuana	69	10.5
	4	Alcohol, methamphetamine	64	9.8
	6	Marijuana, opiates/synthetics	62	9.5
			655	
Vermillion				
	1	Alcohol, marijuana, methamphetamine	17	30.4
	2	Alcohol, marijuana	15	26.8
	4	Marijuana, methamphetamine	11	19.6
	5	Alcohol, opiates/synthetics	7	12.5
	3	Cocaine, methamphetamine	6	10.7
			56	
Wabash				
	3	Alcohol, marijuana	43	32.6
	1	Alcohol, marijuana, unknown drug	27	20.5
	2	Cocaine, marijuana	22	16.7
	5	Alcohol with opiates/synthetics and/or unknown drug	20	15.2
	4	Alcohol, marijuana, opiates/synthetics	12	9.1
	6	Methamphetamine, opiates/synthetics	8	6.1
			132	
Warrick				
	1	Alcohol, marijuana, methamphetamine	46	26.7
	4	Alcohol, marijuana	43	25.0
	2	Marijuana, methamphetamine	39	22.7
	3	Alcohol, marijuana, unknown drug	24	14.0
	5	Alcohol, opiates/synthetics	20	11.6
			172	
Warren				
	1	Alcohol, marijuana	12	41.4
	2	Alcohol, marijuana, methamphetamine	10	34.5
	3	Cocaine, with alcohol and/or marijuana	7	24.1
			29	
Washington				
	1	Alcohol, marijuana	29	56.9
	2	Alcohol, cocaine, marijuana	13	25.5
	3	Cocaine, opiates/synthetics	9	17.6
			51	
Wayne				
	1	Alcohol, marijuana	77	38.7
	2	Alcohol, cocaine, marijuana	39	19.6
	4	Alcohol, opiates/synthetics	32	16.1
	3	Alcohol, cocaine	31	15.6
	5	Cocaine, marijuana, opiates/synthetics	20	10.1
			199	
Wells				
	1	Alcohol, marijuana	30	63.8
	2	Alcohol, cocaine, marijuana	12	25.5
	3	Alcohol with cocaine and/or amphetamines and/or unknown drug	5	10.6
			47	
White				
	1	Alcohol, marijuana	26	38.2
	4	Alcohol, cocaine, marijuana	19	27.9
	3	Cocaine, marijuana, methamphetamine	12	17.6
	2	Alcohol, marijuana, methamphetamine	11	16.2
			68	
Whitley				
	1	Alcohol, marijuana	14	43.8
	2	Alcohol, marijuana, unknown drug	7	21.9
	3	Alcohol, cocaine, marijuana	7	21.9
	4	Alcohol, opiates/synthetics	4	12.5
			32	

Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2008

REFERENCES, CHAPTER 10

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11. Indicators of Substance Abuse

To measure the severity of substance abuse at the community level, we identified proxy indicators[1] of use for individual drug categories, including alcohol, cocaine, methamphetamine, marijuana, and prescription drugs. We also identified general indicators that are associated with alcohol and illicit drug use, such as drug-related arrests, property crimes, and juvenile runaways. We then ranked the counties on the selected indicators, using a highest-need/highest-contributor model: Counties received a priority score based on their *need* for intervention (measured by the rate of which an indicator occurred) and their overall *contribution* to the problem (measured by the frequency with which an indicator occurred).

For each indicator, counties were given 3 points if they were in the top 10 percent (90th percentile), 2 points if they were in the top 25 percent (75th percentile), 1 point if they were in the top 50 percent (50th percentile), and 0 points if they were in the bottom 50 percent.[2] The points were then summed to an overall priority score. Based on this overall score, the top 10% and 25% of counties were identified. The selection of substance abuse indicators was limited to datasets with county-level data, such as the Uniform Crime Reporting (UCR) Program (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.) and the Vehicle Crash Records System (VCRS) (Indiana State Police, 2008).

(A limitation of the UCR Program is that law enforcement agencies are not required to submit arrest information to the FBI, the agency that is tasked with collecting the data. Therefore, level of reporting varies among individual states and counties. For this reason, a statistical algorithm is used to estimate the number of arrests in counties in which reporting is below 100 percent; see Appendix 11A, pages 198-199, for the coverage indicator by county.)

ALCOHOL INDICATORS

We examined the ranking of communities in terms of 10 indicators for alcohol abuse:

- number of alcohol-related fatal auto accidents
- rate of alcohol-related fatal auto accidents
- number of alcohol-related crashes
- rate of alcohol-related crashes
- number of arrests for public intoxication
- arrest rate for public intoxication
- number of arrests for driving under the influence (DUI)
- arrest rate for DUIs
- number of arrests for liquor law violations
- arrest rate for liquor law violations

We selected these indicators because they represent the best proxy measures of our statewide alcohol prevention priority, which focuses on underage drinking and binge drinking by 18- to 25-year olds. The indicators reflected data from the 2007 VCRS (Indiana State Police, 2008) and the 2006 UCR Program (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). The counties that scored in the top 10 and 25 percent based on the 10 alcohol indicators are shown in Table 11.1. For a complete listing of counties by all alcohol abuse indicators, see Appendix 11B, pages 200-201.

[1]Substance abuse proxy indicators are indirect measures that represent the impact of alcohol and other drug use on the community.
[2]In last year's report, we also identified communities that were in the top 15%. However, this year we eliminated that category, because differences between the top 10 and 15 percent were at times so minimal that distinguishing between the two groups was virtually impossible.

Table 11.1 Counties with Alcohol Priority Scores in the Top 10 and 25 Percent (Vehicle Crash Records System, 2007; Uniform Crime Reporting Program, 2006)

Top 10%	Alcohol Priority Score	Top 25%	Alcohol Priority Score
LaPorte	26	Allen	16
Tippecanoe	24	Johnson	16
Lake	23	Madison	16
Floyd	21	Monroe	16
Vigo	19	Wayne	16
Bartholomew	18	Dubois	15
Vanderburgh	18	Kosciusko	15
Elkhart	17	Rush	15
Marion	17	Clark	14
Porter	17	Jefferson	14
		White	14
		Hamilton	13
		Hendricks	13
		Jackson	13
		Saint Joseph	13

Source: Indiana State Police, 2008; National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Table 11.2 Counties with Cocaine Priority Scores in the Top 10 and 25 Percent (Uniform Crime Reporting Program, 2006)

Top 10%	Cocaine Priority Score	Top 25%	Cocaine Priority Score
Marion	12	Clark	7
Wayne	12	Clinton	7
Allen	11	Knox	7
Howard	10	Kosciusko	7
Lake	10	LaPorte	7
Noble	10	Montgomery	7
Saint Joseph	9	Spencer	7
Tippecanoe	9	Decatur	6
Grant	8	Delaware	6
Vanderburgh	8	Floyd	6
		Fulton	6
		Jefferson	6
		Morgan	6
		Orange	6
		Parke	6
		Ripley	6

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

COCAINE AND METHAMPHETAMINE INDICATORS

For both cocaine and methamphetamine, we applied a similar methodology to ranking counties, using the number and rate of arrests for possession and sale/manufacture of these substances as proxy indicators. Since the UCR program does not provide cocaine-specific information, we had to combine arrests for cocaine and opiates (proxy indicator for cocaine abuse). Nor does the UCR provide methamphetamine-specific information, so we also combined arrests for methamphetamine, methadone, and Demerol in a category called synthetic drugs (proxy indicator for methamphetamine abuse).

Tables 11.2 and 11.3 display the counties whose priority scores were in the top 10 and 25 percent for cocaine- and methamphetamine-related arrests. For a complete listing of counties by cocaine and methamphetamine abuse indicators, see Appendix 11C, pages 202-203.

Table 11.3 Counties with Methamphetamine Priority Scores in the Top 10 and 25 Percent (Uniform Crime Reporting Program, 2006)

Top 10%	Meth Priority Score	Top 25%	Meth Priority Score
Bartholomew	12	Dubois	6
Warrick	12	Kosciusko	6
Daviess	11	Miami	6
Vanderburgh	11	Noble	6
Vigo	11	Posey	6
Grant	10	Spencer	6
Tippecanoe	10	Wayne	6
Rush	9	Decatur	5
Madison	8	Jefferson	5
Brown	7	Jennings	5
Clay	7	Lake	5
Hamilton	7	Orange	5
Jackson	7	Parke	5
Marshall	7	Perry	5
Scott	7	Ripley	5
Shelby	7	Union	5
		Warren	5

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

OTHER DRUG INDICATORS

From the UCR program, we selected the following proxy indicators for marijuana and prescription drug abuse:

- number and rate of arrests for possession of marijuana
- number and rate of arrests for sale/manufacture of marijuana
- number and rate of arrests for possession of "other drugs" (barbiturates and Benzedrine)[3]
- number and rate of arrests for sale/manufacture of "other drugs" (barbiturates and Benzedrine)

Following the methodology of the highest-need/highest-contributor model, priority scores for marijuana and prescription drug abuse were computed for each county. Tables 11.4 and 11.5 show the counties that are in the top 10 and 25 percent for marijuana and prescription drug abuse. For a complete listing of counties by marijuana and prescription drug abuse indicators, see Appendix 11D, pages 204-205.

Table 11.4 Counties with Marijuana Priority Scores in the Top 10 and 25 Percent (Uniform Crime Reporting Program, 2006)

Top 10%	Marijuana Priority Score	Top 25%	Marijuana Priority Score
Tippecanoe	11	Bartholomew	7
Lake	10	Hamilton	7
Vanderburgh	10	Morgan	7
Floyd	9	Noble	7
Grant	9	Fayette	6
Johnson	9	Franklin	6
Marion	9	Henry	6
Wayne	9	Howard	6
Clinton	8	Jackson	6
Hendricks	8	Knox	6
Saint Joseph	8	White	6
Shelby	8	Allen	5
		Clark	5
		Daviess	5
		DeKalb	5
		Dubois	5
		Elkhart	5
		Jennings	5
		Kosciusko	5
		Madison	5
		Miami	5
		Newton	5
		Porter	5
		Putnam	5

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

[3]Barbiturates (central nervous system depressants) and Benzedrine (amphetamine/stimulant) are types of prescription drugs that are frequently used nonmedically for recreational purposes.

Table 11.5 Counties with Prescription Drug (Rx) Priority Scores in the Top 10 and 25 Percent (Uniform Crime Reporting Program, 2006)

Top 10%	Rx Priority Score	Top 25%	Rx Priority Score
Floyd	12	Dearborn	8
Morgan	12	Fayette	8
Henry	11	Howard	8
Johnson	11	Marshall	8
Madison	11	Saint Joseph	8
Vanderburgh	11	Steuben	8
Lake	10	Hamilton	7
Vigo	10	Hendricks	7
Allen	9	Knox	7
Marion	9	Monroe	7
		Boone	6
		Gibson	6
		Noble	6
		Tippecanoe	6

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

OVERALL USE INDICATORS

We identified additional variables from the 2006 UCR program to serve as proxy indicators for overall substance abuse. These indicators included arrests for (a) the possession and sale/manufacture of any illicit substance (see Table 11.6) and (b) property crimes (see Table 11.7). For a complete listing of counties by these two overall abuse indicators, see Appendix 11E, pages 206-207.

Table 11.6 Counties with Drug Arrest Priority Scores in the Top 10 and 25 Percent (Uniform Crime Reporting Program, 2006)

Top 10%	Drug Arrest Priority Score	Top 25%	Drug Arrest Priority Score
Floyd	6	Allen	3
Marion	6	Clinton	3
Tippecanoe	6	Daviess	3
Vanderburgh	6	Decatur	3
Bartholomew	5	Dubois	3
Howard	5	Elkhart	3
Lake	5	Hamilton	3
Noble	5	Jackson	3
Wayne	5	Jennings	3
Grant	4	Kosciusko	3
Johnson	4	Madison	3
Montgomery	4	Marshall	3
Morgan	4	Shelby	3
Rush	4		
Saint Joseph	4		
Vigo	4		

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Research suggests an association between property crimes and drug use. The UCR program collects information on property crimes, including arrests for burglaries, larcenies, motor vehicle thefts, and arsons. We examined the number and rate of such arrests and computed a property crime priority score. Table 11.7 depicts the counties that rank in the top 10 and 25 percent for property crimes.

Table 11.7 Counties with Property Crime Priority Scores in the Top 10 and 25 Percent (Uniform Crime Reporting Program, 2006)

Top 10%	Property Crime Priority Score	Top 25%	Property Crime Priority Score
Floyd	6	Allen	4
Vanderburgh	6	Bartholomew	4
Wayne	6	Elkhart	4
Clark	5	Fayette	4
Grant	5	Jay	4
Johnson	5	Kosciusko	4
Lake	5	LaPorte	4
Marion	5	Scott	4
Saint Joseph	5	Steuben	4
Tippecanoe	5	Daviess	3
Vigo	5	Decatur	3
		Dubois	3
		Howard	3
		Jefferson	3
		Madison	3
		Marshall	3

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

YOUTH SUBSTANCE USE INDICATORS

Studies have shown that runaway and homeless adolescents are at a greater risk to abuse alcohol and other drugs (Greene, Ennett, Ringwalt, 1997; Windle, 1988). Therefore, we selected runaway arrests from the 2006 UCR program dataset as a proxy indicator for youth substance abuse. See Table 11.8 for the counties with runaway priority scores in the top 10 and 25 percent and Appendix 11F for a complete listing of runaway arrests by county, page 208.

Table 11.8 Counties with Runaway Priority Scores in the Top 10 and 25 Percent (Uniform Crime Reporting Program, 2006)

Top 10%	Runaway Priority Score	Top 25%	Runaway Priority Score
Grant	6	Bartholomew	4
LaPorte	6	Clark	4
Madison	6	Hancock	4
Saint Joseph	6	Jackson	4
Tippecanoe	6	Lake	4
Vanderburgh	6	Monroe	4
Vigo	6	Shelby	4
Elkhart	5	Wayne	4
Henry	5	Allen	3
Howard	5	Fayette	3
Noble	5	Jefferson	3
		Miami	3
		Steuben	3

Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

APPENDIX 11A

Annual Coverage Indicator for Uniform Crime Reporting Program, with County Population Estimates, 2006 (Uniform Crime Reporting Program, 2006)

County	Coverage Indicator	Total County Population	Juvenile County Population (0-17 years)
Adams	40.49	34,073	10,200
Allen	96.02	346,285	94,314
Bartholomew	100.00	73,701	19,060
Benton	0.00	9,099	2,356
Blackford	100.00	13,797	3,118
Boone	0.00	52,406	13,823
Brown	100.00	15,254	3,072
Carroll	14.59	20,561	4,987
Cass	52.13	40,396	10,139
Clark	82.33	102,265	24,373
Clay	30.26	27,322	6,536
Clinton	48.20	34,317	9,027
Crawford	0.00	11,290	2,672
Daviess	62.72	30,668	8,503
Dearborn	8.88	49,407	12,247
Decatur	41.84	25,351	6,476
DeKalb	30.45	41,935	10,955
Delaware	100.00	117,125	23,978
Dubois	33.69	41,129	10,403
Elkhart	100.00	196,979	55,806
Fayette	57.74	25,050	5,774
Floyd	100.00	72,474	17,406
Fountain	19.38	17,578	4,295
Franklin	75.00	21,804	5,883
Fulton	0.00	20,802	4,992
Gibson	0.00	33,629	7,804
Grant	78.28	71,024	15,685
Greene	75.16	33,701	7,818
Hamilton	74.46	242,279	71,229
Hancock	26.38	63,556	15,803
Harrison	7.57	37,071	8,552
Hendricks	38.63	128,327	33,090
Henry	100.00	47,557	10,784
Howard	100.00	85,540	20,962
Huntington	55.51	38,489	9,209
Jackson	44.72	42,517	10,531
Jasper	19.56	32,087	8,034
Jay	28.47	21,893	5,707
Jefferson	38.37	32,645	7,379
Jennings	22.63	28,615	7,537
Johnson	95.30	129,650	33,870
Knox	47.12	38,620	8,224
Kosciusko	22.40	76,253	20,045
LaGrange	100.00	37,119	11,970
Lake	75.83	496,565	128,921
LaPorte	92.01	111,244	25,660
Lawrence	84.96	46,710	10,701
Madison	57.76	131,291	30,051

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APPENDIX 11A *(Continued from previous page)*

County	Coverage Indicator	Total County Population	Juvenile County Population (0-17 years)
Marion	84.64	868,851	232,607
Marshall	23.17	47,256	12,395
Martin	8.60	10,455	2,366
Miami	0.00	35,856	8,567
Monroe	100.00	122,211	21,217
Montgomery	39.63	38,492	9,314
Morgan	32.63	70,240	17,518
Newton	100.00	14,552	3,292
Noble	100.00	47,762	13,089
Ohio	0.00	5,913	1,262
Orange	0.00	19,901	4,796
Owen	100.00	22,974	5,240
Parke	0.00	17,477	3,578
Perry	40.41	19,158	3,907
Pike	0.00	12,851	2,945
Porter	91.25	158,817	37,307
Posey	8.99	27,030	6,358
Pulaski	0.00	13,874	3,291
Putnam	72.76	37,202	8,007
Randolph	18.16	26,861	6,301
Ripley	0.00	29,328	7,330
Rush	31.87	17,941	4,483
Saint Joseph	98.94	267,923	67,923
Scott	25.44	23,978	5,819
Shelby	58.69	44,019	10,997
Spencer	0.00	20,664	4,875
Starke	100.00	23,085	5,840
Steuben	100.00	33,997	8,018
Sullivan	13.90	21,907	4,499
Switzerland	0.00	9,782	2,287
Tippecanoe	100.00	154,894	32,919
Tipton	32.08	16,487	3,766
Union	100.00	7,256	1,763
Vanderburgh	100.00	174,334	39,917
Vermillion	29.62	16,672	3,786
Vigo	56.92	103,272	23,177
Wabash	83.60	34,067	7,498
Warren	0.00	8,843	2,014
Warrick	100.00	56,735	13,751
Washington	23.14	28,070	6,872
Wayne	97.07	69,650	15,972
Wells	100.00	28,271	6,917
White	80.58	24,625	5,949
Whitley	30.54	32,537	7,939

Note: The Coverage Indicator represents the proportion of county data that is not imputed for a given year. The indicator ranges from 0.00 (indicating that all data in the county are based on estimates) to 100.00 (indicating complete reporting; no computation).
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

APPENDIX 11B

Alcohol Abuse Indicators and Priority Scores, by County (All Rates per 1,000 Population) (Vehicle Crash Records System, 2007; Uniform Crime Reporting Program, 2006)

	Alcohol-Related Fatal Accidents		Alcohol-Related Collisions		Public Intoxication Arrests		DUI Arrests		Liquor Law Violations Arrests		Alcohol Priority
County	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Score
Adams	0	*0.00	33	0.98	78	2.29	215	6.31	78	2.29	2
Allen	5	*0.01	574	1.64	826	2.39	2,239	6.47	230	0.66	16
Bartholomew	7	*0.09	120	1.61	412	5.59	344	4.67	300	4.07	18
Benton	2	*0.23	17	*1.93	18	1.98	43	4.73	24	2.64	6
Blackford	1	*0.08	18	*1.36	31	2.25	60	4.35	43	3.12	3
Boone	3	*0.06	63	1.16	114	2.18	255	4.87	142	2.71	8
Brown	1	*0.07	37	2.52	14	0.92	59	3.87	49	3.21	6
Carroll	0	*0.00	42	2.10	32	1.56	102	4.96	41	1.99	2
Cass	1	*0.03	63	1.61	165	4.08	222	5.50	89	2.20	6
Clark	2	*0.02	203	1.93	461	4.51	597	5.84	182	1.78	14
Clay	0	*0.00	29	1.09	55	2.01	113	4.14	47	1.72	0
Clinton	0	*0.00	60	1.78	51	1.49	156	4.55	236	6.88	7
Crawford	2	*0.19	24	2.23	32	2.83	83	7.35	25	2.21	10
Daviess	2	*0.07	46	1.53	102	3.33	244	7.96	116	3.78	12
Dearborn	2	*0.04	111	2.23	120	2.43	286	5.79	127	2.57	10
Decatur	3	*0.12	47	1.88	155	6.11	182	7.18	33	1.30	11
DeKalb	1	*0.02	73	1.75	138	3.29	314	7.49	127	3.03	9
Delaware	5	*0.04	230	1.99	285	2.43	409	3.49	89	0.76	12
Dubois	3	*0.07	72	1.75	167	4.06	301	7.32	153	3.72	15
Elkhart	10	*0.05	287	1.45	365	1.85	966	4.90	663	3.37	17
Fayette	2	*0.08	47	1.94	30	1.20	141	5.63	211	8.42	10
Floyd	5	*0.07	176	2.41	385	5.31	714	9.85	129	1.78	21
Fountain	2	*0.12	21	1.22	56	3.19	123	7.00	38	2.16	6
Franklin	2	*0.09	36	1.55	17	0.78	45	2.06	96	4.40	6
Fulton	0	*0.00	26	1.28	71	3.41	149	7.16	62	2.98	3
Gibson	1	*0.03	50	1.53	78	2.32	167	4.97	95	2.82	2
Grant	3	*0.04	103	1.50	266	3.75	493	6.94	101	1.42	11
Greene	4	*0.12	62	1.90	71	2.11	178	5.28	59	1.75	7
Hamilton	3	*0.01	245	0.94	276	1.14	1,337	5.52	639	2.64	13
Hancock	2	*0.03	79	1.19	135	2.12	404	6.36	129	2.03	6
Harrison	3	*0.08	73	1.98	41	1.11	162	4.37	70	1.89	7
Hendricks	5	*0.04	129	0.96	147	1.15	639	4.98	395	3.08	13
Henry	0	*0.00	41	0.87	42	0.88	101	2.12	309	6.50	5
Howard	2	*0.02	118	1.41	245	2.86	299	3.50	112	1.31	8
Huntington	1	*0.03	43	1.14	83	2.16	141	3.66	82	2.13	0
Jackson	2	*0.05	90	2.13	219	5.15	270	6.35	135	3.18	13
Jasper	1	*0.03	58	1.80	44	1.37	145	4.52	81	2.52	2
Jay	0	*0.00	19	*0.88	129	5.89	144	6.58	80	3.65	7
Jefferson	0	*0.00	63	1.93	351	10.75	249	7.63	139	4.26	14
Jennings	3	*0.11	40	1.42	94	3.28	202	7.06	81	2.83	10
Johnson	5	*0.04	136	1.00	112	0.86	755	5.82	750	5.78	16
Knox	4	*0.11	65	1.71	66	1.71	193	5.00	359	9.30	12
Kosciusko	3	*0.04	116	1.52	335	4.39	481	6.31	211	2.77	15
LaGrange	1	*0.03	59	1.59	40	1.08	106	2.86	109	2.94	4
Lake	19	*0.04	990	2.01	2,152	4.33	3,712	7.48	1,635	3.29	23
LaPorte	10	*0.09	235	2.14	466	4.19	1,015	9.12	461	4.14	26
Lawrence	2	*0.04	62	1.35	135	2.89	159	3.40	57	1.22	5
Madison	5	*0.04	208	1.58	575	4.38	641	4.88	327	2.49	16

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APPENDIX 11B *(Continued from previous page)*

County	Alcohol-Related Fatal Accidents		Alcohol-Related Collisions		Public Intoxication Arrests		DUI Arrests		Liquor Law Violations Arrests		Alcohol Priority Score
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Marion	19	*0.02	1,087	1.24	5,317	6.12	3,523	4.05	377	0.43	17
Marshall	1	*0.02	60	1.28	229	4.85	587	12.42	155	3.28	12
Martin	0	*0.00	17	*1.69	22	2.10	60	5.74	23	2.20	1
Miami	2	*0.05	49	1.34	126	3.51	256	7.14	110	3.07	8
Monroe	0	*0.00	210	1.63	483	3.95	514	4.21	1,002	8.20	16
Montgomery	2	*0.05	59	1.56	186	4.83	366	9.51	129	3.35	12
Morgan	2	*0.03	86	1.23	54	0.77	291	4.14	336	4.78	8
Newton	1	*0.07	16	*1.14	52	3.57	77	5.29	20	1.37	3
Noble	0	*0.00	74	1.56	186	3.89	583	12.21	208	4.35	12
Ohio	0	*0.00	13	*2.25	7	*1.18	24	4.06	11	*1.86	3
Orange	0	*0.00	38	1.94	57	2.86	146	7.34	44	2.21	5
Owen	1	*0.04	27	1.21	53	2.31	45	1.96	7	*0.30	1
Parke	1	*0.06	42	2.45	50	2.86	128	7.32	39	2.23	7
Perry	0	*0.00	28	1.48	81	4.23	166	8.66	78	4.07	7
Pike	0	*0.00	19	*1.51	41	3.19	93	7.24	34	2.65	2
Porter	4	*0.02	264	1.64	406	2.56	864	5.44	702	4.42	17
Posey	0	*0.00	28	1.07	61	2.26	161	5.96	59	2.18	1
Pulaski	2	*0.15	24	1.74	39	2.81	102	7.35	31	2.23	7
Putnam	1	*0.03	32	0.86	94	2.53	202	5.43	60	1.61	2
Randolph	1	*0.04	28	1.08	96	3.57	185	6.89	76	2.83	5
Ripley	2	*0.07	41	1.50	95	3.24	212	7.23	80	2.73	8
Rush	2	*0.11	37	2.12	108	6.02	141	7.86	65	3.62	15
Saint Joseph	5	*0.02	416	1.56	183	0.68	1,045	3.90	503	1.88	13
Scott	2	*0.08	15	*0.63	92	3.84	151	6.30	80	3.34	6
Shelby	2	*0.05	81	1.84	124	2.82	290	6.59	144	3.27	9
Spencer	1	*0.05	32	1.57	59	2.86	152	7.36	46	2.23	5
Starke	2	*0.08	54	2.29	62	2.69	145	6.28	79	3.42	9
Steuben	0	*0.00	77	2.30	64	1.88	227	6.68	228	6.71	11
Sullivan	1	*0.05	25	1.17	30	1.37	70	3.20	33	1.51	1
Switzerland	0	*0.00	20	2.07	28	2.86	72	7.36	22	2.25	5
Tippecanoe	7	*0.04	337	2.06	926	5.98	884	5.71	884	5.71	24
Tipton	0	*0.00	16	*1.00	28	1.70	68	4.12	28	1.70	0
Union	1	*0.14	10	*1.39	25	3.45	54	7.44	31	4.27	8
Vanderburgh	5	*0.03	361	2.07	758	4.35	1,014	5.82	108	0.62	18
Vermillion	1	*0.06	38	2.31	53	3.18	75	4.50	24	1.44	5
Vigo	7	*0.07	217	2.07	347	3.36	648	6.27	347	3.36	19
Wabash	1	*0.03	27	0.82	54	1.59	77	2.26	110	3.23	2
Warren	2	*0.24	15	*1.77	25	2.83	65	7.35	20	2.26	8
Warrick	1	*0.02	77	1.35	98	1.73	197	3.47	144	2.54	4
Washington	3	*0.11	40	1.43	54	1.92	209	7.45	53	1.89	8
Wayne	2	*0.03	124	1.82	598	8.59	850	12.20	140	2.01	16
Wells	5	*0.18	35	1.25	56	1.98	72	2.55	84	2.97	7
White	1	*0.04	63	2.64	154	6.25	292	11.86	74	3.01	14
Whitley	3	*0.09	45	1.38	44	1.35	146	4.49	85	2.61	4

* Rates that are based on numbers lower than 20 are unreliable.
Note: Higher priority scores indicate a more severe problem.
Source: Indiana State Police, 2008; National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

APPENDIX 11C

Cocaine and Methamphetamine Abuse Indicators and Priority Scores, by County (all rates per 1,000 population) (Uniform Crime Reporting Program, 2006)

	Cocaine Possession Arrests		Cocaine Sale Arrests			Meth Possession Arrests		Meth Sale Arrests		
County	Number	Rate	Number	Rate	Cocaine Priority Score	Number	Rate	Number	Rate	Meth Priority Score
Adams	17	*0.50	15	*0.44	3	10	*0.29	4	*0.12	4
Allen	422	1.22	216	0.62	11	5	*0.01	1	*0.00	0
Bartholomew	70	0.95	5	*0.07	5	91	1.23	24	0.33	12
Benton	4	*0.44	3	*0.33	0	2	*0.22	1	*0.11	1
Blackford	11	*0.80	9	*0.65	4	6	*0.43	2	*0.14	3
Boone	23	0.44	18	*0.34	2	12	*0.23	4	*0.08	2
Brown	1	*0.07	2	*0.13	0	7	*0.46	6	*0.39	7
Carroll	8	*0.39	5	*0.24	0	4	*0.19	1	*0.05	0
Cass	13	*0.32	9	*0.22	0	8	*0.20	1	*0.02	0
Clark	118	1.15	22	0.22	7	27	0.26	2	*0.02	2
Clay	7	*0.26	6	*0.22	0	26	0.95	3	*0.11	7
Clinton	21	0.61	35	1.02	7	8	*0.23	3	*0.09	1
Crawford	8	*0.71	8	*0.71	3	5	*0.44	2	*0.18	3
Daviess	19	*0.62	5	*0.16	2	40	1.30	16	*0.52	11
Dearborn	24	0.49	16	*0.32	2	13	*0.26	3	*0.06	2
Decatur	29	1.14	13	*0.51	6	12	*0.47	3	*0.12	5
DeKalb	24	0.57	20	0.48	4	13	*0.31	4	*0.10	4
Delaware	93	0.79	33	0.28	6	27	0.23	2	*0.02	2
Dubois	26	0.63	18	*0.44	4	28	0.68	4	*0.10	6
Elkhart	127	0.64	21	0.11	5	37	0.19	7	*0.04	4
Fayette	10	*0.40	13	*0.52	2	6	*0.24	2	*0.08	0
Floyd	0	*0.00	162	2.24	6	27	0.37	0	*0.00	3
Fountain	11	*0.63	10	*0.57	2	7	*0.40	2	*0.11	2
Franklin	8	*0.37	1	*0.05	0	3	*0.14	1	*0.05	0
Fulton	15	*0.72	13	*0.62	6	9	*0.43	3	*0.14	4
Gibson	15	*0.45	12	*0.36	1	8	*0.24	2	*0.06	0
Grant	56	0.79	50	0.70	8	50	0.70	11	*0.15	10
Greene	6	*0.18	4	*0.12	0	9	*0.27	1	*0.03	0
Hamilton	77	0.32	80	0.33	5	77	0.32	16	*0.07	7
Hancock	22	0.35	16	*0.25	2	28	0.44	3	*0.05	4
Harrison	14	*0.38	10	*0.27	0	8	*0.22	3	*0.08	1
Hendricks	43	0.34	37	0.29	4	23	0.18	10	*0.08	3
Henry	1	*0.02	13	*0.27	1	0	*0.00	0	*0.00	0
Howard	119	1.39	56	0.65	10	1	*0.01	2	*0.02	0
Huntington	10	*0.26	8	*0.21	0	6	*0.16	1	*0.03	0
Jackson	17	*0.40	26	0.61	4	26	0.61	5	*0.12	7
Jasper	10	*0.31	8	*0.25	0	4	*0.12	5	*0.16	4
Jay	11	*0.50	11	*0.50	1	7	*0.32	3	*0.14	4
Jefferson	27	0.83	18	*0.55	6	16	*0.49	4	*0.12	5
Jennings	16	*0.56	19	*0.66	5	10	*0.35	4	*0.14	5
Johnson	52	0.40	36	0.28	4	3	*0.02	2	*0.02	0
Knox	24	0.62	29	0.75	7	10	*0.26	3	*0.08	2
Kosciusko	58	0.76	46	0.60	7	28	0.37	10	*0.13	6
LaGrange	0	*0.00	0	*0.00	0	0	*0.00	0	*0.00	0
Lake	326	0.66	364	0.73	10	63	0.13	9	*0.02	5
LaPorte	79	0.71	68	0.61	7	13	*0.12	3	*0.03	2
Lawrence	5	*0.11	4	*0.09	0	7	*0.15	1	*0.02	0
Madison	92	0.70	38	0.29	5	45	0.34	17	*0.13	8

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APPENDIX 11C *(Continued from previous page)*

County	Cocaine Possession Arrests		Cocaine Sale Arrests		Cocaine Priority Score	Meth Possession Arrests		Meth Sale Arrests		Meth Priority Score
	Number	Rate	Number	Rate		Number	Rate	Number	Rate	
Marion	2,049	2.36	733	0.84	12	20	0.02	26	0.03	4
Marshall	27	0.57	25	0.53	5	29	0.61	6	*0.13	7
Martin	6	*0.57	6	*0.57	2	4	*0.38	1	*0.10	2
Miami	25	0.70	22	0.61	4	15	*0.42	5	*0.14	6
Monroe	40	0.33	18	*0.15	3	15	*0.12	4	*0.03	2
Montgomery	31	0.81	25	0.65	7	11	*0.29	4	*0.10	4
Morgan	39	0.56	34	0.48	6	8	*0.11	3	*0.04	1
Newton	5	*0.34	3	*0.21	0	0	*0.00	2	*0.14	2
Noble	81	1.70	59	1.24	10	40	0.84	3	*0.06	6
Ohio	2	*0.34	2	*0.34	0	1	*0.17	0	*0.00	0
Orange	15	*0.75	14	*0.70	6	9	*0.45	3	*0.15	5
Owen	0	*0.00	0	*0.00	0	0	*0.00	0	*0.00	0
Parke	13	*0.74	13	*0.74	6	8	*0.46	3	*0.17	5
Perry	9	*0.47	11	*0.57	1	16	*0.84	2	*0.10	5
Pike	9	*0.70	9	*0.70	3	6	*0.47	2	*0.16	4
Porter	59	0.37	10	*0.06	2	40	0.25	12	*0.08	4
Posey	7	*0.26	9	*0.33	0	15	*0.55	4	*0.15	6
Pulaski	10	*0.72	10	*0.72	5	6	*0.43	2	*0.14	3
Putnam	21	0.56	19	*0.51	4	15	*0.40	3	*0.08	3
Randolph	18	*0.67	15	*0.56	4	10	*0.37	3	*0.11	4
Ripley	21	0.72	20	0.68	6	13	*0.44	4	*0.14	5
Rush	13	*0.72	9	*0.50	3	20	1.11	6	*0.33	9
Saint Joseph	374	1.40	98	0.37	9	53	0.20	2	*0.01	3
Scott	14	*0.58	12	*0.50	2	28	1.17	3	*0.13	7
Shelby	24	0.55	24	0.55	3	17	*0.39	13	*0.30	7
Spencer	15	*0.73	15	*0.73	7	10	*0.48	4	*0.19	6
Starke	2	*0.09	0	*0.00	0	3	*0.13	0	*0.00	0
Steuben	13	*0.38	16	*0.47	2	1	*0.03	4	*0.12	2
Sullivan	7	*0.32	5	*0.23	0	3	*0.14	1	*0.05	0
Switzerland	7	*0.72	7	*0.72	5	5	*0.51	2	*0.20	4
Tippecanoe	116	0.75	66	0.43	9	122	0.79	17	*0.11	10
Tipton	4	*0.24	4	*0.24	0	2	*0.12	2	*0.12	1
Union	6	*0.83	1	*0.14	3	0	*0.00	5	*0.69	5
Vanderburgh	115	0.66	77	0.44	8	96	0.55	92	0.53	11
Vermillion	4	*0.24	3	*0.18	0	7	*0.42	1	*0.06	1
Vigo	40	0.39	39	0.38	4	66	0.64	30	*0.29	11
Wabash	2	*0.06	8	*0.23	0	7	*0.21	0	*0.00	0
Warren	7	*0.79	6	*0.68	4	4	*0.45	2	*0.23	5
Warrick	6	*0.11	9	*0.16	0	45	0.79	18	*0.32	12
Washington	11	*0.39	7	*0.25	0	6	0.21	2	*0.07	0
Wayne	120	1.72	125	1.79	12	19	0.27	14	*0.20	6
Wells	6	*0.21	0	*0.00	0	1	0.04	0	*0.00	0
White	15	*0.61	1	*0.04	2	7	0.28	0	*0.00	0
Whitley	11	*0.34	7	*0.22	0	5	0.15	3	*0.09	1

* Rates that are based on numbers lower than 20 are unreliable.
Note: Higher priority scores indicate a more severe problem.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

APPENDIX 11D

Marijuana and Prescription Drug Abuse Indicators and Priority Scores, by County (all rates per 1,000 population) (Uniform Crime Reporting Program, 2006)

County	Marijuana Possession Arrests		Marijuana Sale Arrests		Marijuana Priority Score	Prescription Drug Possession Arrests		Prescription Drug Sale Arrests		Pres.Drug Priority Score
	Number	Rate	Number	Rate		Number	Rate	Number	Rate	
Adams	66	1.94	3	*0.09	0	2	*0.06	1	*0.03	0
Allen	720	2.08	38	0.11	5	142	0.41	26	0.08	9
Bartholomew	370	5.02	13	*0.18	7	54	0.73	1	*0.01	5
Benton	17	*1.87	2	*0.22	1	3	*0.33	1	*0.11	3
Blackford	32	2.32	3	*0.22	1	1	*0.07	0	*0.00	0
Boone	103	1.97	14	*0.27	3	17	*0.32	7	*0.13	6
Brown	21	1.38	2	*0.13	0	0	*0.00	0	*0.00	0
Carroll	38	1.85	3	*0.15	0	4	*0.19	2	*0.10	1
Cass	65	1.61	10	*0.25	2	12	*0.30	3	*0.07	4
Clark	204	1.99	19	*0.19	5	21	0.21	3	*0.03	4
Clay	66	2.42	3	*0.11	0	6	*0.22	3	*0.11	4
Clinton	113	3.29	24	0.70	8	13	*0.38	3	*0.09	5
Crawford	30	2.66	2	*0.18	2	1	*0.09	0	*0.00	0
Daviess	95	3.10	7	*0.23	5	15	*0.49	3	*0.10	5
Dearborn	108	2.19	14	*0.28	4	21	0.43	6	*0.12	8
Decatur	80	3.16	3	*0.12	2	2	*0.08	1	*0.04	0
DeKalb	119	2.84	12	*0.29	5	14	*0.33	4	*0.10	4
Delaware	155	1.32	4	*0.03	1	1	*0.01	6	*0.05	2
Dubois	133	3.23	8	*0.19	5	11	*0.27	2	*0.05	2
Elkhart	448	2.27	22	0.11	5	9	*0.05	5	*0.03	2
Fayette	81	3.23	7	*0.28	6	20	0.80	3	*0.12	8
Floyd	273	3.77	32	0.44	9	85	1.17	155	2.14	12
Fountain	42	2.39	5	*0.28	2	7	*0.40	1	*0.06	2
Franklin	24	1.10	64	2.94	6	4	*0.18	0	*0.00	0
Fulton	59	2.84	6	*0.29	3	5	*0.24	1	*0.05	1
Gibson	69	2.05	9	*0.27	2	12	*0.36	5	*0.15	6
Grant	255	3.59	24	0.34	9	6	*0.08	0	*0.00	0
Greene	57	1.69	5	*0.15	0	14	*0.42	1	*0.03	3
Hamilton	464	1.92	47	0.19	7	26	0.11	33	0.14	7
Hancock	138	2.17	10	*0.16	2	13	*0.20	6	*0.09	5
Harrison	59	1.59	6	*0.16	0	8	*0.22	5	*0.13	5
Hendricks	224	1.75	88	0.69	8	36	0.28	14	*0.11	7
Henry	44	0.93	78	1.64	6	36	0.76	21	0.44	11
Howard	360	4.21	10	*0.12	6	70	0.82	6	*0.07	8
Huntington	54	1.40	8	*0.21	2	9	*0.23	3	*0.08	4
Jackson	157	3.69	8	*0.19	6	9	*0.21	1	*0.02	2
Jasper	38	1.18	20	0.62	4	6	*0.19	7	*0.22	5
Jay	71	3.24	4	*0.18	3	3	*0.14	1	*0.05	0
Jefferson	95	2.91	3	*0.09	3	4	*0.12	1	*0.03	0
Jennings	59	2.06	36	1.26	5	2	*0.07	10	*0.35	5
Johnson	425	3.28	36	0.28	9	87	0.67	26	0.20	11
Knox	57	1.48	47	1.22	6	13	*0.34	12	*0.31	7
Kosciusko	242	3.17	12	*0.16	5	9	*0.12	2	*0.03	1
LaGrange	0	*0.00	0	*0.00	0	0	*0.00	0	*0.00	0
Lake	1,234	2.49	417	0.84	10	384	0.77	48	0.10	10
LaPorte	270	2.43	7	*0.06	3	15	*0.13	1	*0.01	1
Lawrence	84	1.80	5	*0.11	1	9	*0.19	1	*0.02	1
Madison	322	2.45	22	0.17	5	81	0.62	29	0.22	11

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APPENDIX 11D *(Continued from previous page)*

County	Marijuana Possession Arrests		Marijuana Sale Arrests		Marijuana Priority Score	Prescription Drug Possession Arrests		Prescription Drug Sale Arrests		Pres.Drug Priority Score
	Number	Rate	Number	Rate		Number	Rate	Number	Rate	
Marion	2,448	2.82	274	0.32	9	507	0.58	77	0.09	9
Marshall	160	3.39	8	*0.17	4	20	0.42	7	*0.15	8
Martin	21	2.01	1	*0.10	0	1	*0.10	0	*0.00	0
Miami	102	2.84	10	*0.28	5	9	*0.25	3	*0.08	4
Monroe	263	2.15	11	*0.09	3	63	0.52	12	*0.10	7
Montgomery	163	4.23	5	*0.13	4	22	0.57	2	*0.05	4
Morgan	154	2.19	75	1.07	7	87	1.24	47	0.67	12
Newton	13	*0.89	24	1.65	5	1	*0.07	0	*0.00	0
Noble	323	6.76	10	*0.21	7	14	*0.29	7	*0.15	6
Ohio	9	*1.52	1	*0.17	0	1	*0.17	1	*0.17	2
Orange	53	2.66	3	*0.15	1	2	*0.10	1	*0.05	0
Owen	33	1.44	0	*0.00	0	0	*0.00	0	*0.00	0
Parke	46	2.63	3	*0.17	1	2	*0.11	1	*0.06	0
Perry	53	2.77	3	*0.16	1	4	*0.21	0	*0.00	1
Pike	35	2.72	3	*0.23	2	2	*0.16	1	*0.08	1
Porter	432	2.72	18	*0.11	5	27	0.17	4	*0.03	3
Posey	44	1.63	3	*0.11	0	5	*0.18	3	*0.11	3
Pulaski	37	2.67	2	*0.14	1	1	*0.07	0	*0.00	0
Putnam	90	2.42	19	*0.51	5	12	*0.32	4	*0.11	5
Randolph	66	2.46	5	*0.19	2	7	*0.26	1	*0.04	1
Ripley	81	2.76	7	*0.24	4	6	*0.20	2	*0.07	2
Rush	88	4.90	3	*0.17	4	5	*0.28	0	*0.00	1
Saint Joseph	699	2.61	57	0.21	8	169	0.63	17	*0.06	8
Scott	66	2.75	5	*0.21	2	4	*0.17	1	*0.04	0
Shelby	142	3.23	29	0.66	8	10	*0.23	3	*0.07	4
Spencer	55	2.66	3	*0.15	1	2	*0.10	1	*0.05	0
Starke	18	0.78	2	*0.09	0	1	*0.04	0	*0.00	0
Steuben	86	2.53	5	*0.15	2	17	*0.50	10	*0.29	8
Sullivan	26	1.19	3	*0.14	0	4	*0.18	2	*0.09	1
Switzerland	26	2.66	2	*0.20	2	1	*0.10	0	*0.00	0
Tippecanoe	664	4.29	86	0.56	11	54	0.35	15	*0.10	6
Tipton	34	2.06	2	*0.12	0	3	*0.18	2	*0.12	2
Union	20	2.76	4	*0.55	3	0	*0.00	2	*0.28	3
Vanderburgh	603	3.46	97	0.56	10	101	0.58	41	0.24	11
Vermillion	28	1.68	2	*0.12	0	4	*0.24	2	*0.12	3
Vigo	263	2.55	16	*0.15	4	123	1.19	15	*0.15	10
Wabash	31	0.91	3	*0.09	0	0	*0.00	0	*0.00	0
Warren	24	2.71	1	*0.11	1	1	*0.11	0	*0.00	0
Warrick	100	1.76	6	*0.11	1	4	*0.07	3	*0.05	1
Washington	44	1.57	4	*0.14	0	5	*0.18	3	*0.11	3
Wayne	336	4.82	32	0.46	9	9	*0.13	4	*0.06	2
Wells	19	*0.67	2	*0.07	0	0	*0.00	0	*0.00	0
White	82	3.33	7	*0.28	6	5	*0.20	0	*0.00	1
Whitley	53	1.63	4	*0.12	0	6	*0.18	3	*0.09	2

* Rates that are based on numbers lower than 20 are unreliable.
Note: Higher priority scores indicate a more severe problem.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

APPENDIX 11E

Overall Substance Abuse Indicators (Arrests for Drug Possession and Sale/Manufacture, and for Property Crimes) and Priority Scores, by County (all rates per 1,000 population) (Uniform Crime Reporting Program, 2006)

	Total Drug Possession and Sale Arrests			Property Crime Arrests		
County	Number	Rate	Total Drug Priority Score	Number	Rate	Property Crime Priority Score
Adams	126	3.70	0	128	3.76	0
Allen	1,571	4.54	3	1,741	5.03	4
Bartholomew	628	8.52	5	435	5.90	4
Benton	33	3.63	0	34	3.74	0
Blackford	64	4.64	0	62	4.49	0
Boone	199	3.80	1	204	3.89	1
Brown	39	2.56	0	12	*0.79	0
Carroll	66	3.21	0	54	2.63	0
Cass	121	3.00	0	188	4.65	2
Clark	416	4.07	1	836	8.17	5
Clay	120	4.39	0	59	2.16	0
Clinton	227	6.61	3	113	3.29	0
Crawford	62	5.49	1	55	4.87	1
Daviess	200	6.52	3	176	5.74	3
Dearborn	205	4.15	1	168	3.40	1
Decatur	149	5.88	3	154	6.07	3
DeKalb	218	5.20	2	188	4.48	1
Delaware	321	2.74	1	512	4.37	2
Dubois	238	5.79	3	253	6.15	3
Elkhart	680	3.45	3	925	4.70	4
Fayette	146	5.83	2	186	7.43	4
Floyd	735	10.14	6	935	12.90	6
Fountain	89	5.06	1	89	5.06	1
Franklin	105	4.82	0	28	1.28	0
Fulton	116	5.58	1	115	5.53	1
Gibson	132	3.93	0	137	4.07	0
Grant	452	6.36	4	501	7.05	5
Greene	97	2.88	0	101	3.00	0
Hamilton	822	3.39	3	663	2.74	2
Hancock	236	3.71	1	204	3.21	1
Harrison	112	3.02	0	99	2.67	0
Hendricks	486	3.79	2	570	4.44	2
Henry	200	4.21	1	142	2.99	1
Howard	624	7.29	5	397	4.64	3
Huntington	100	2.60	0	133	3.46	0
Jackson	259	6.09	3	133	3.13	0
Jasper	98	3.05	0	105	3.27	0
Jay	116	5.30	1	170	7.77	4
Jefferson	176	5.39	2	194	5.94	3
Jennings	165	5.77	3	135	4.72	1
Johnson	668	5.15	4	878	6.77	5
Knox	201	5.20	2	137	3.55	0
Kosciusko	431	5.65	3	495	6.49	4
LaGrange	89	2.40	0	57	1.54	0
Lake	2,846	5.73	5	3,241	6.53	5
LaPorte	457	4.11	2	709	6.37	4
Lawrence	116	2.48	0	75	1.61	0
Madison	646	4.92	3	723	5.51	3

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County	Total Drug Possession and Sale Arrests		Total Drug Priority Score	Property Crime Arrests		Property Crime Priority Score
	Number	Rate		Number	Rate	
Marion	6,134	7.06	6	5,254	6.05	5
Marshall	294	6.22	3	282	5.97	3
Martin	42	4.02	0	44	4.21	0
Miami	201	5.61	2	202	5.63	2
Monroe	426	3.49	2	425	3.48	2
Montgomery	272	7.07	4	179	4.65	2
Morgan	447	6.36	4	288	4.10	1
Newton	48	3.30	0	30	2.06	0
Noble	537	11.24	5	248	5.19	2
Ohio	17	*2.88	0	15	*2.54	0
Orange	109	5.48	1	97	4.87	1
Owen	33	1.44	0	92	4.00	0
Parke	96	5.49	1	85	4.86	1
Perry	104	5.43	1	104	5.43	1
Pike	71	5.52	1	68	5.29	1
Porter	603	3.80	2	677	4.26	2
Posey	91	3.37	0	86	3.18	0
Pulaski	76	5.48	1	67	4.83	1
Putnam	183	4.92	2	151	4.06	1
Randolph	132	4.91	0	143	5.32	2
Ripley	163	5.56	2	157	5.35	2
Rush	149	8.30	4	86	4.79	1
Saint Joseph	1,470	5.49	4	1,713	6.39	5
Scott	137	5.71	1	172	7.17	4
Shelby	261	5.93	3	164	3.73	1
Spencer	113	5.47	1	100	4.84	1
Starke	41	1.78	0	92	3.99	0
Steuben	152	4.47	1	270	7.94	4
Sullivan	51	2.33	0	46	2.10	0
Switzerland	54	5.52	1	47	4.80	1
Tippecanoe	1,140	7.36	6	1,034	6.68	5
Tipton	52	3.15	0	59	3.58	0
Union	38	5.24	1	14	*1.93	0
Vanderburgh	1,222	7.01	6	1,230	7.06	6
Vermillion	52	3.12	0	39	2.34	0
Vigo	593	5.74	4	757	7.33	5
Wabash	52	1.53	0	34	1.00	0
Warren	48	5.43	1	43	4.86	1
Warrick	191	3.37	1	118	2.08	0
Washington	81	2.89	0	63	2.24	0
Wayne	660	9.48	5	864	12.40	6
Wells	28	0.99	0	69	2.44	0
White	117	4.75	0	32	1.30	0
Whitley	90	2.77	0	76	2.34	0

* Rates that are based on numbers lower than 20 are unreliable.
Note: Higher priority scores indicate a more severe problem.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

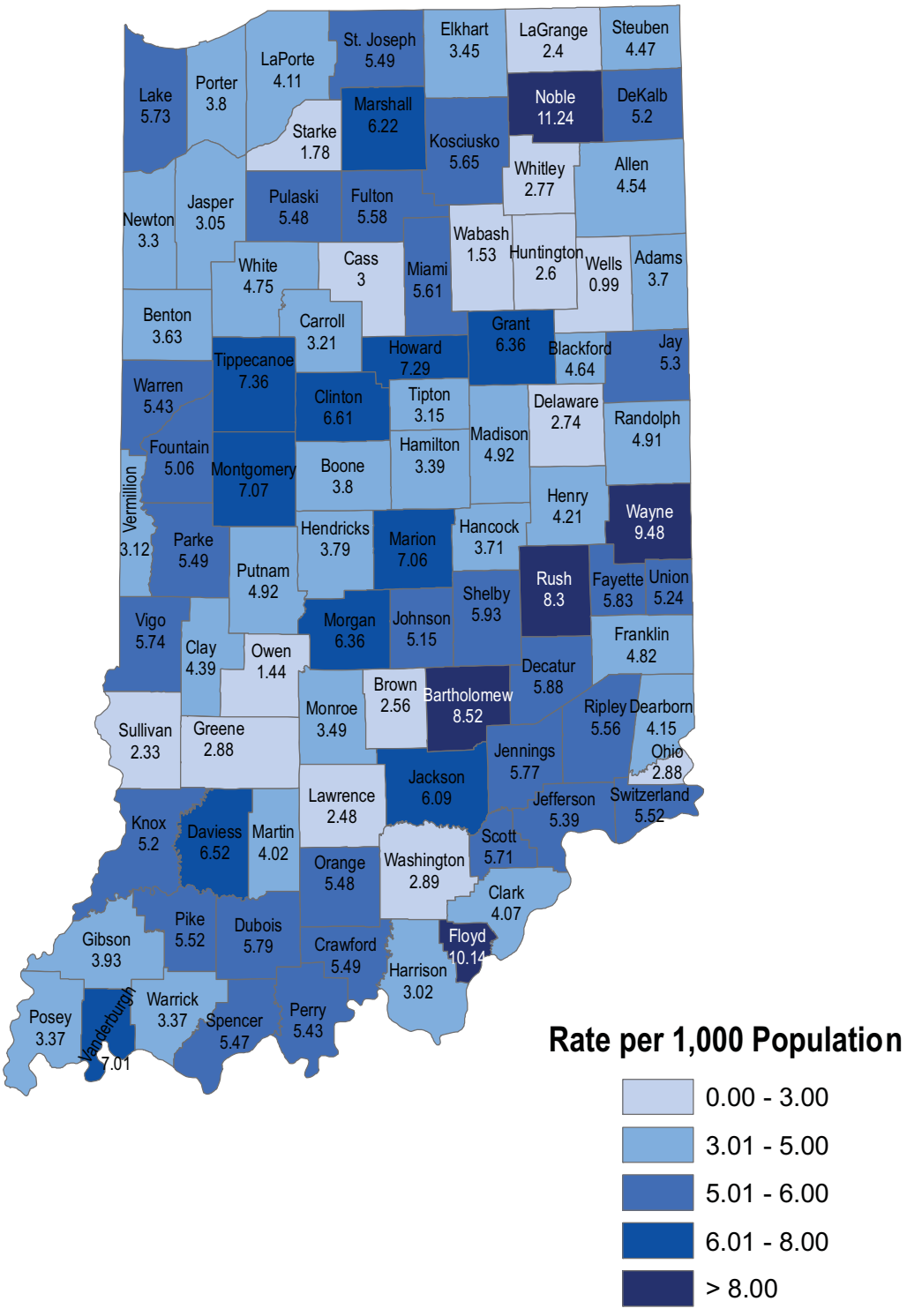
APPENDIX 11F

Numbers, Rates, and Priority Scores for Runaway Arrests (Proxy Indicator for Youth Substance Use), by County (all rates per 1,000 population) (Uniform Crime Reporting Program, 2006)

County	Runaway Arrests (Juveniles Only) Number	Rate	Runaway Priority Score
Adams	13	*1.27	0
Allen	170	1.80	3
Bartholomew	98	5.14	4
Benton	5	*2.12	0
Blackford	3	*0.96	0
Boone	31	2.24	1
Brown	7	*2.28	0
Carroll	7	*1.40	0
Cass	22	2.17	1
Clark	83	3.41	4
Clay	9	*1.38	0
Clinton	10	*1.11	0
Crawford	7	*2.62	1
Daviess	15	*1.76	0
Dearborn	25	2.04	1
Decatur	12	*1.85	0
DeKalb	20	1.83	1
Delaware	16	*0.67	0
Dubois	21	2.02	1
Elkhart	253	4.53	5
Fayette	19	*3.29	3
Floyd	36	2.07	1
Fountain	9	*2.10	0
Franklin	1	*0.17	0
Fulton	15	*3.00	2
Gibson	21	2.69	2
Grant	123	7.84	6
Greene	8	*1.02	0
Hamilton	114	1.60	2
Hancock	46	2.91	4
Harrison	24	2.81	2
Hendricks	38	1.15	2
Henry	70	6.49	5
Howard	111	5.30	5
Huntington	23	2.50	2
Jackson	50	4.75	4
Jasper	11	*1.37	0
Jay	11	*1.93	0
Jefferson	33	4.47	3
Jennings	13	*1.72	0
Johnson	77	2.27	2
Knox	21	2.55	2
Kosciusko	38	1.90	2
LaGrange	0	*0.00	0
Lake	324	2.51	4
LaPorte	246	9.59	6
Lawrence	7	*0.65	0
Madison	275	9.15	6
Marion	36	0.15	1
Marshall	34	2.74	2
Martin	5	*2.11	0
Miami	26	3.03	3
Monroe	69	3.25	4
Montgomery	17	*1.83	1
Morgan	28	1.60	1
Newton	1	*0.30	0
Noble	68	5.20	5
Ohio	2	*1.58	0
Orange	12	*2.50	1
Owen	0	*0.00	0
Parke	10	*2.79	1
Perry	10	*2.56	1
Pike	8	*2.72	1
Porter	36	0.96	1
Posey	17	*2.67	2
Pulaski	8	*2.43	1
Putnam	14	*1.75	0
Randolph	16	*2.54	1
Ripley	20	2.73	2
Rush	12	*2.68	1
Saint Joseph	702	10.34	6
Scott	16	*2.75	1
Shelby	42	3.82	4
Spencer	12	*2.46	1
Starke	16	*2.74	1
Steuben	25	3.12	3
Sullivan	7	*1.56	0
Switzerland	6	*2.62	1
Tippecanoe	176	5.35	6
Tipton	6	*1.59	0
Union	0	*0.00	0
Vanderburgh	425	10.65	6
Vermillion	9	*2.38	1
Vigo	188	8.11	6
Wabash	2	*0.27	0
Warren	5	*2.48	1
Warrick	6	*0.44	0
Washington	9	*1.31	0
Wayne	53	3.32	4
Wells	4	*0.58	0
White	2	*0.34	0
Whitley	19	*2.39	2

* Rates that are based on numbers lower than 20 are unreliable.
Note: Higher priority scores indicate a more severe problem.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 11.1
Indiana Total Drug Possession and Sale/Manufacture Arrest Rates, by County, 2006 (Uniform Crime Reporting Program, 2006)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 11E (pages 206-207) for additional information.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

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12. Capacity Assessment

ASSESSING INDIANA'S CAPACITY FOR SUBSTANCE ABUSE PREVENTION

An essential component of the Strategic Prevention Framework State Incentive Grant (SPF SIG) process is building the state's capacity to deliver effective substance abuse prevention services. The concept of capacity building involves financial, human, and organizational resources that work together to meet SPF SIG goals of reducing substance abuse in Indiana. The nature of Indiana's prevention infrastructure is varied and comprises a number of resources, including the following:

- federal and state funding to develop and implement prevention efforts
- community support and coalitions to address substance abuse issues
- programs and curricula supporting prevention activities
- research and data collection to monitor alcohol, tobacco, and other drug use
- policies, law enforcement strategies, and judiciary programs to intervene at the environmental level
- agencies and organizations to support communities in their prevention efforts
- social marketing/media campaigns to increase awareness and change community norms
- community-level activities to promote a drug-free lifestyle

Federal and State Funding

The majority of available resources for prevention in Indiana come from federal government grants and/or from block grants. Among all state prevention agencies, the Division of Mental Health and Addiction (DMHA) is the recipient of the greatest amount of federal prevention funding dollars, including the prevention portion of the Substance Abuse Prevention and Treatment (SAPT) block grant and SIG funds from the Substance Abuse and Mental Health Services Administration. Regulations of the block grant require that a minimum of 20 percent of available funds be set aside for substance abuse prevention.

The current federal funding to support Indiana's prevention infrastructure is an estimated annual amount of $70,132,239 (see Table 12.1). However, this is just a rough estimate because some of the grant programs that are not primarily designed to address alcohol, tobacco, and other drug abuse issues, but have a substance abuse prevention component, may not be listed here. Additionally, some of the funding covers prevention as well as treatment efforts.

Table 12.1 Federal Substance Abuse Prevention Funding for the State of Indiana

From Federal Source	To State Agency/Program	Current Annual Dollars	Details
Centers for Disease Control and Prevention	Indiana State Department of Health	$71,825	Adult Viral Hepatitis (identify illegal drug users for hepatitis C)
Centers for Disease Control and Prevention	Indiana State Department of Health	$932,561	Behavioral Risk Factor Surveillance System (tobacco surveillance)
Centers for Disease Control and Prevention/Office on Smoking and Health	Indiana Tobacco Prevention and Cessation Agency	$1,100,000	Memorandum of Understanding (MOU) with ISDH
U.S. Drug Enforcement Administration	Indiana State Police	$652,000	Marijuana Eradication
Department of Education	Indiana Department of Education	$3,981,566	Safe and Drug Free Schools & Communities
Substance Abuse and Mental Health Services Administration	Family and Social Services Administration/Division of Mental Health and Addiction	$23,900,000 $7,634,300	Substance Abuse Prevention and Treatment (SAPT) Block Grant (treatment) SAPT Block Grant (prevention)

(continued on next page)

Table 12.1 *(continued from previous page)*

From Federal Source	To State Agency/Program	Current Annual Dollars	Details
Substance Abuse and Mental Health Services Administration	Family and Social Services Administration/Division of Mental Health and Addiction	$230,000	DASIS Revenue (treatment)
Substance Abuse and Mental Health Services Administration	Family and Social Services Administration/Division of Mental Health and Addiction	$8,793,110	Access to Recovery (ATR) grant (treatment)
Substance Abuse and Mental Health Services Administration	Family and Social Services Administration/Division of Mental Health and Addiction	$4,904,134	Prevention Coalitions (SIG) (prevention)
Health Resources and Services Administration	Indiana State Department of Health	$2,932,743	Maternal Child Health Services Title V (studies in alcohol, drugs, and tobacco for various populations (e.g., Youth Risk Behavior Survey, Indiana Youth Tobacco Survey, etc.)
Tobacco Master Settlement Agreement (MSA)	Indiana Tobacco Prevention and Cessation Agency	$15,000,000	The Tobacco Master Settlement Agreement is an agreement, originally between the four largest U.S. tobacco companies and the Attorneys General of 46 states, that restricts the companies' practices and requires them to make compensatory payments to the states for the cost of providing healthcare for persons with smoking-related illnesses. In exchange, the state settled existing litigation on these matters, and the companies are protected from most forms of future litigation regarding harm caused by tobacco use.

Source: Indiana State Department of Health (2008); Indiana Tobacco Prevention and Cessation Agency (2008); Indiana Department of Education (2008); and Indiana Division of Mental Health and Addiction (2008)

The State of Indiana and/or state agencies provide an annual estimated $23,093,574 in prevention funds to address substance abuse issues (see Table 12.2). Over 70% of the funds target the abuse of alcohol, tobacco, and other drugs (ATOD); 9% are specifically used for tobacco prevention and cessation; and 18% of the money is allocated to prevent and treat gambling addictions (see Figure 12.1).

[The information included in these tables was provided by a number of state agency representatives with knowledge of state and federal funding streams and substance abuse prevention programming (see References, page 221.]

Table 12.2 State Level Funding/Inter-agency Transfer of Funds in Indiana for Substance Abuse Prevention

From Federal Source	To State Agency/Program	Current Annual Dollars	Details
Cigarette Tax	Indiana Tobacco Prevention	$1,200,000	Tobacco prevention and cessation programs
Family and Social Services Administration	Indiana State Excise Police	$20,000	Survey of Alcohol Compliance (SAC)
Family and Social Services Administration/Division of Mental Health and Addiction	Indiana State Department of Health	$400,600	Prenatal Substance Use Prevention Program (PSUPP)
Governor's Council on Impaired & Dangerous Driving	Indiana State Police	$192,000	DUI Enforcement
Indiana Criminal Justice Institute	Indiana State Excise Police	$10,000	Cops in Shops (CIS)
Indiana Criminal Justice Institute	Indiana State Excise Police	$87,500	Stop Underage Drinking and Sales (SUDS)
Indiana Criminal Justice Institute	Indiana State Police	$345,258	Drug Enforcement Grant (to upgrade equipment, train, and help control the sale and possession of drugs)
Indiana Criminal Justice Institute	Indiana State Police	$276,782	Meth Suppression Grant (to defray the costs of proactively and aggressively responding to the meth problem throughout the state)
Indiana Tobacco Prevention and Cessation Agency	Indiana State Excise Police	$500,000	Tobacco Retailer Inspection Program (TRIP)
State Dedicated Funds	Family and Social Services Administration/Division of Mental Health and Addiction	$2,946,936	State Dedicated Alcoholic Beverage Tax Receipts
State Dedicated Funds	Family and Social Services Administration/Division of Mental Health and Addiction	$251,016	Opioid Treatment Program: State Dedicated Provider Fees Receipts
State Dedicated Funds	Family and Social Services Administration/Division of Mental Health and Addiction	$250,000	FDA Tobacco Investigation: State Dedicated Alcoholic Beverage Tax
State Dedicated Funds	Family and Social Services Administration/Division of Mental Health and Addiction	$4,250,000	Gamblers Assistance Fund: Riverboat Admission Tax Receipts & Slot Machine Tax Revenue
State Dedicated Funds	Indiana Department of Education	$70,000	Drug Free Schools
State General Funds	Family and Social Services Administration/Division of Mental Health and Addiction	$5,006,000	Substance Abuse Treatment: State funds
State General Funds	Family and Social Services Administration/Division of Mental Health and Addiction	$50,000	Research & QA (treatment)

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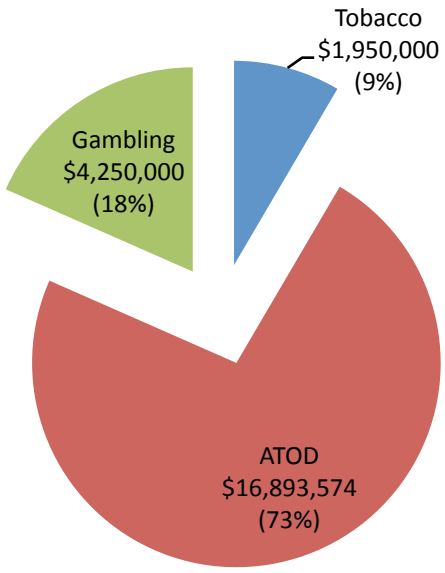
Table 12.2 *(continued from previous page)*

From Federal Source	To State Agency/Program	Current Annual Dollars	Details
Indiana Criminal Justice Institute	12 Drug Courts	$823,523	The Edward Byrne Memorial Justice Assistance Grant (JAG) Program is a federal initiative by the U.S. Department of Justice assisting states and units of local government in developing and implementing activities to prevent and control crime and to improve the criminal justice system with an emphasis on violent crime, drug offenses, and serious offenders.
Indiana Criminal Justice Institute	Two local jail-based programs; one state correctional facility	$243,758	Residential Substance Abuse Treatment (RSAT) Program is a federal grant awarded by the U.S. Department of Justice to assist state and local governments in developing and implementing substance abuse treatment programs in state and local correctional/detention facilities and to create and maintain community-based aftercare services for offenders.
Indiana Criminal Justice Institute	Community-based organizations	$448,201	18 Safe and Drug Free Schools Grantees
Indiana Criminal Justice Institute	Drug-Free Communities	$5,722,000	Funding of Local Coordinating Councils (LCCs) and Drug-Free Communities (DFCs) in all 92 counties.

Source: Indiana Tobacco Prevention and Cessation Agency (2008); Indiana State Excise Police (2008); Indiana State Department of Health (2008); Indiana Division of Mental Health and Addiction (2008); Indiana Department of Education (2008); and Indiana Criminal Justice Institute (2008)

Figure 12.1 Percentage of State Allocations for Prevention and Treatment of Alcohol, Tobacco, and Other Drug Use (ATOD); Tobacco Use Only; and Gambling



Source: Indiana Tobacco Prevention and Cessation Agency (2008); Indiana State Excise Police (2008); Indiana State Department of Health (2008); Indiana Division of Mental Health and Addiction (2008); Indiana Department of Education (2008); and Indiana Criminal Justice Institute (2008)

Community Support and Coalitions

Designated Service Areas (DSAs)

There are 14 DSAs in Indiana, which serve as local prevention service coalitions that bring the Afternoons R.O.C.K. in Indiana program to targeted youth in each of Indiana's 92 counties. The Division of Mental Health and Addiction (DMHA) is the funding source.

Drug-Free Communities

The Drug-Free Communities program provides grants to community coalitions that mobilize their communities to prevent or reduce substance abuse among youth.

Indiana Coalition to Reduce Underage Drinking (ICRUD)

Through policy change, this non-profit, advocacy coalition addresses the way alcohol is marketed to, sold to, and bought by underage persons.

Indiana Collegiate Action Network

Indiana Collegiate Action Network is a statewide coalition of campuses committed to leading Indiana in reducing alcohol misuse, tobacco use, and violence through environmental[1] strategies.

Local Coordinating Councils (LCCs)

A statewide system of county-based prevention, treatment, and enforcement coordinating bodies funded through local court fees, LCCs identify alcohol, tobacco, and other drug abuse problems. The councils plan, promote, and coordinate community efforts and resources to reduce the abuse.

Mothers Against Drunk Driving (MADD)

MADD's mission is to stop drunk driving, support the victims of this violent crime, and prevent underage drinking. MADD is a 501(c)(3) charity with approximately 400 affiliate offices and 2 million members and supporters nationwide. Founded in 1980, MADD has helped save more than 300,000 lives.

Server Training Programs, Indiana State Excise Police (ISEP)

The Indiana State Excise Police offer statewide public information programs targeted at increasing public and industry awareness regarding alcohol and tobacco sales. ISEP officers conduct server training programs to educate those who serve alcoholic beverages and/or sell tobacco products. The server training program provides an overview of the criminal, civil, and administrative liabilities connected with the sale of alcoholic beverages and tobacco products.

Smoke Free Indiana

The mission of Smoke Free Indiana is to improve the quality of life in Indiana by promoting tobacco-free, healthy lifestyles through community action and advocacy to prevent tobacco use; providing assistance to tobacco users who want to quit; and protecting nonsmokers from secondhand smoke.

Students Against Destructive Decisions (SADD; founded as Students Against Drunk Driving)

SADD's mission is to provide students with the best prevention and intervention tools to deal with the issues of underage drinking, other drug use, impaired driving, and other destructive decisions.

Programs and Curricula

Afternoons R.O.C.K. in Indiana

DMHA and its community-based partners provide programs statewide such as Afternoons R.O.C.K. in Indiana. Afternoons R.O.C.K. in Indiana is an after school drug prevention program for youth aged 10-14 years. The acronym "R.O.C.K." represents the mission of the program to provide Recreation, Object lessons, Culture and values, and Knowledge via active and entertaining "focused and supportive prevention activities." Programming is designed to teach youth about social and media influences, conflict resolution and refusal/resistance skills, gang and violence prevention, and the structuring of leisure time to be free of alcohol, tobacco, and other drug use (http://www.rock.indiana.edu/).

D.A.R.E. (Drug Abuse Resistance Education)

Drug Abuse Resistance Education is an effort in which D.A.R.E.-certified law enforcement officers collaborate with educators, students, parents, and community members to offer classroom educational programs to reduce drug abuse and violence among children and youth. The emphasis of D.A.R.E. is to help students

[1]Environmental strategies are designed to change aspects of the environment that contribute to the use of alcohol and other drugs. They can change public laws, policies and practices to create environments that decrease the probability of substance abuse.

recognize and resist the many direct and subtle pressures that influence them to experiment with alcohol, tobacco, marijuana, inhalants, or other drugs, or to engage in violence.

Drug Demand Reduction Program (DDRP), Indiana National Guard

The Drug Demand Reduction Program (DDRP) is authorized and funded annually by the Congress of the United States as part of the National Guard Counter-drug Program. The Indiana National Guard DDRP is staffed by soldiers and airmen who serve as role models and mentors for the drug-free life for Indiana youth. The program supports community drug-free coalitions, schools, and community organizations with Drug Demand Reduction programs and literature.

Healthy Families, Family and Social Services Administration (FSSA)/Division of Family and Children

The Healthy Families Program is a voluntary, multifaceted home visitation program designed to promote healthy families and healthy children administered by the Indiana Department of Child Services. Services are provided at no cost and include child development, access to healthcare, parent education, family incentives, staff training and community coordination/education. The program model includes screening, assessment, and home visiting. Services can begin for eligible families either prior to or at the time of birth and can continue until the child is five years of age. This program is open to all Hoosier families regardless of income, but TANF state and federal funds will only be used for families with incomes below 250% of the federal poverty level.

Indiana Problem Gambling Awareness Program (IPGAP)

IPGAP is a project funded by the Indiana Division of Mental Health Addiction, with additional funds through the Indiana Problem Gamblers' Assistance Fund, to raise the awareness of problem gambling and promote treatment options in Indiana. This project is being led by the Indiana Prevention Resource Center.

Indiana Point of Youth (IPOY)

IPOY is a youth-led, adult-guided advisory group that lends advice to the Governor's Commission for a Drug-Free Indiana on matters affecting young people. The program was created to engage Indiana youth in the legislative process of shaping policy for underage drinking, substance abuse, and traffic safety initiatives.

L.E.A.D (Leading and Educating Across Domains) Initiative

The goal of the L.E.A.D program is to strengthen youth leadership across Indiana by providing opportunities for youth, including training, resources, and networking.

Prenatal Substance Use Prevention Program (PSUPP), Indiana State Department of Health (ISDH)

This program is designed to help prevent birth defects and other negative birth outcomes. PSUPP supports pregnant women in decreasing or eliminating alcohol, tobacco, and other drug use during pregnancy.

Safe and Drug-Free Schools Program (SDFS), Indiana Department of Education (IDOE)

SDFS is the federal government's primary vehicle for reducing substance use and violence through education and school-based prevention activities. This program is designed to prevent violence in and around schools and strengthen programs that prevent the illegal use of alcohol, tobacco, and other drugs. Initiatives under this program involve parents and are coordinated with related federal, state, and community efforts and resources. SDFS provides funding for the National Prevention Coordinator initiative and the Training and Technical Assistance Center.

Safe Haven School Program

The Safe Haven Education Program ensures that Indiana schools are safe and free from violence and drugs. The Indiana Safe Schools fund was established as part of Indiana's commitment to making local schools safer. The Indiana Criminal Justice Institute was charged with administering and overseeing the implementation of the fund.

Research and Data Collection

The systematic collection of data is essential in establishing a statewide surveillance system. The following data systems are in place to track indicators of substance abuse in Indiana.

Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) Survey

The annual school-based survey of substance use among Indiana 6th through 12th grade students is coordinated by the Indiana Prevention Resource Center (http://www.drugs.indiana.edu/data-survey_monograph.html).

Automated Reporting Information Exchange System (ARIES)/Vehicle Crash Records System (VCRS)

The Indiana State Police (ISP) collects information on motor vehicle collisions. Datasets can be requested from ISP and reports are available at http://www.in.gov/cji/2572.htm.

Mortality Data

Mortality data, such as alcohol-, smoking-, and drug-related deaths, can be requested from ISDH.

Behavioral Risk Factor Surveillance System (BRFSS)

The BRFSS collects information on health conditions and risk behaviors, including alcohol consumption and tobacco use. Prevalence data for Indiana available are at http://apps.nccd.cdc.gov/brfss/index.asp.

Hospital Discharge Database

Aggregated data from hospital discharge records are publicly available at ISDH's website (http://www.in.gov/isdh/20624.htm) and can be analyzed by primary diagnosis (e.g., substance abuse related illness).

Indiana Clandestine Methamphetamine Laboratory Seizures

Data on clandestine meth lab seizures in Indiana, compiled by the Indiana State Police (ISP), are available on request from ISP.

National Survey on Drug Use and Health (NSDUH)

The annual survey on drug use, sponsored by the Substance Abuse and Mental Health Services Administration, provides state-level estimates of alcohol, tobacco, illicit drug, and nonmedical prescription drug use (https://nsduhweb.rti.org/).

Indiana Youth Tobacco Survey (IYTS)

The IYTS is a school-based survey of middle and high school students in Indiana. The instrument, which is coordinated by the Indiana Tobacco Prevention and Cessation Agency (ITPC), provides information on various tobacco-related issues. Reports can be accessed at http://www.in.gov/itpc/2954.htm or data can be requested from ITPC.

School-related Variables

School-related variables, including suspensions and expulsions of enrolled students K-12 due to alcohol, drugs, or weapons, can be accessed at the Indiana Department of Education website at http://dew4.doe.state.in.us/htbin/sas1.sh.

State Emergency Department Database (SEDD)

The SEDD database captures discharge information on all emergency department visits that do not result in an admission. Data reports may be requested from ISDH.

Treatment Episode Data Set (TEDS)

The TEDS series provides annual data on the number and characteristics of people admitted to substance abuse treatment programs receiving public funding. County-level data can be requested from the Indiana DMHA.

Uniform Crime Reporting Program (UCR)

This data collection contains county-level counts of arrests and offenses for Part I offenses (murder, rape, robbery, aggravated assault, burglary, larceny, auto theft, and arson) and counts of arrests for Part II offenses (forgery, fraud, embezzlement, vandalism, weapons violations, sex offenses, drug and alcohol abuse violations, gambling, vagrancy, curfew violations, and runaways). Data can be downloaded from the National Archive of Criminal Justice Data at http://www.icpsr.umich.edu/NACJD/.

Youth Risk Behavior Surveillance System (YRBSS)

The YRBSS includes a national school-based survey to determine the prevalence of health-risk behaviors among high school students. Findings are available at the state level and can be accessed at http://apps.nccd.cdc.gov/yrbss/.

Policies, Law Enforcement, and Judiciary Programs

Cops in Shops (CIS), Indiana State Excise Police (ISEP)

CIS is an enforcement program where ISEP officers pose as employees or customers at licensed dealer establishments. As the program grows and expands, people under the legal age of twenty-one who enter licensed premises with the intent of purchasing alcoholic beverages will never know if or when the person behind the counter is an Excise officer. Upon attempting to purchase alcoholic beverages, the minor will be arrested by the officer. Officers also watch for intoxicated patrons attempting to make purchases and take appropriate enforcement action. Funding for the program is provided by the Governor's Council on Impaired and Dangerous Driving.

Stop Underage Drinking & Sales (SUDS), Indiana State Excise Police (ISEP)

SUDS is a federally funded program that pays officers overtime for working in areas where there is a high concentration of underage drinking. The primary goal of SUDS is to reduce the acquisition of alcoholic beverages by those individuals who are not legally entitled to possess them. By reducing access to alcoholic beverages through education and enforcement, the program greatly reduces the number of injuries and deaths of young people.

Survey of Alcohol Compliance (SAC), Indiana State Excise Police (ISEP)

The Survey of Alcohol Compliance is conducted by the Indiana State Excise Police to evaluate the availability of alcoholic beverages to people under the age of 21. SAC inspections consist of ISEP officers and 18- to 20-year-old youths who attempt to obtain alcohol at licensed retail establishments. Conducted in phases, the survey's primary goal is to reduce access and availability of alcoholic beverages to Indiana youth.

SYNAR Amendment Compliance and Tobacco Retailer Inspection Program (TRIP), Indiana State Excise Police (ISEP)

The SYNAR amendment requires states to enforce laws prohibiting any manufacturer, retailer, or distributor from selling or distributing tobacco products to individuals under the age of 18. States must maintain a noncompliance rate lower than 20% or risk losing millions in federal block grant funding. TRIP is designed to systematically monitor the effectiveness of tobacco retail compliance. The purpose is to enforce Indiana laws restricting the sale of tobacco products to minors. ISEP contracts with off-duty officers to lead three-member inspection teams in conducting unannounced inspections of retail outlets that sell tobacco.

Agencies and Organizations

Governor's Commission for a Drug-Free Indiana (GCDFI)

GCDFI was established by legislative statute to coordinate drug policy throughout the state. It supports planning, training, and technical assistance provided to the state's Local Coordinating Councils (LCCs), a statewide system of county-based prevention, treatment, and enforcement coordinating bodies funded through local court fees.

Indiana Criminal Justice Institute (ICJI)

The Substance Abuse Services Division of ICJI promotes resource sharing, advocacy, collaboration, and coordination among state agencies, regions, localities, and citizens of Indiana to create a safer, healthier place to live.

Indiana Prevention Resource Center (IPRC)

The IPRC at Indiana University is a statewide clearinghouse for alcohol, tobacco, and other drug prevention resources for those working on drug prevention in Indiana. The IPRC coordinates the annual survey of Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD).

Indiana State Epidemiology and Outcomes Workgroup (SEOW)

Indiana's SEOW consists of representatives from various state agencies and organizations with an interest in substance abuse prevention. The group collates and analyzes available epidemiological data, reporting findings to facilitate data-based decision-making regarding substance abuse prevention programming across the state. The SEOW publishes the state's annual epidemiological profile on substance abuse (*The Consumption and Consequences of Alcohol, Tobacco, and Other Drugs in Indiana: A State Epidemiological Profile*).

Indiana Tobacco Prevention and Cessation Agency (ITPC)

ITPC exists to prevent and reduce the use of all tobacco products in Indiana and to protect citizens from exposure to tobacco smoke. Following the Centers for Disease Control and Prevention (CDC) Best Practices for Tobacco Control, Indiana established a coordinated, comprehensive, and accountable tobacco control program. In addition, guidance is provided through recommendations outlined in the Guide to Community Preventive Services for Tobacco Control Programs.[2] This guide provides evidence of the effectiveness of community-based tobacco interventions within three areas of tobacco use prevention and control: 1) Preventing tobacco product use initiation; 2) Increasing cessation; and 3) Reducing exposure to secondhand smoke. The Hoosier Model for tobacco control incorporates all elements recommended by the CDC and has five major categories for funding: Evaluation and Surveillance; Community Based Programs; Statewide Media Campaign; Enforcement; and Administration and Management.

Social Marketing and Media Campaigns

Above the Influence

Above the Influence is sponsored by the National Youth Anti-Drug Media Campaign. The website and TV and print ads are designed to educate parents and the public on the influences in young people's lives that make them more vulnerable to drug use. Information is available at http://www.abovetheinfluence.com/the-ads/default.aspx?path=nav#.

Ad Council

As a producer of public service advertisements (PSAs), the Ad Council addresses critical social issues. Current campaigns include PSAs on steroid use, drunk driving prevention, and underage drinking prevention. Materials for TV, radio, and magazines can be accessed at http://www.adcouncil.org/default.aspx?id=15.

Campaign for Tobacco-Free Kids

The Campaign for Tobacco-Free Kids invited youth across the country to create original video PSAs, and enter them in the first annual Kicking Butts on Film contest. The winning PSAs are available at the campaign's website (http://kickbuttsday.org/psa_contest/) and on YouTube.

Free Vibe

Free Vibe is sponsored by the National Youth Anti-Drug Media Campaign. TV ads of real teens who speak out against drug use are featured. Materials can be accessed at http://www.freevibe.com/Share/realteens/ads.asp?Shacoya

Media Campaign

The National Youth Anti-Drug Media Campaign by the Office of National Drug Control Policy targets youth ages 9 to 18, their parents, and other adults who influence the choices young people make. Anti-drug messages for TV, radio, or print can be accessed at http://www.mediacampaign.org/.

Project Voice

Project Voice is a youth movement dedicated to exposing the tobacco industry and empowering young people with the truth about tobacco (http://www.voice.tv). The campaign is funded by ITPC. Promotional videos are available on YouTube, and web pages have been created for MySpace and Facebook.

White Lies Anti-Tobacco Campaign

White Lies is an initiative by ITPC designed to educate the public on the dangers of tobacco use and tactics used by the tobacco industry. The campaign's PSAs for television, print, and billboards are available at http://www.whitelies.tv/industrylies_CAMPAIGN.ASP#.

Community-Level Activities

In addition to the statewide prevention initiatives mentioned above, the following community-level activities are being implemented.

4-H

This organization is committed to teaching leadership, citizenship, and life skills to young people across America.

[2]The Centers for Disease Control and Prevention's Community Guide to reduce and prevent tobacco use is available at the CDC website at http://www.thecommunityguide.org/tobacco/#initiation.

Boys and Girls Clubs

Boys and Girls Clubs aim to inspire and empower all young people, especially those from disadvantaged circumstances, to realize their full potential as productive, responsible, and caring individuals.

Boys Scouts of America (BSA)

BSA provides an educational program for boys and young adults to build character, to train in the responsibilities of participating citizenship, and to develop personal fitness.

Girl Scouts of America (GSA)

GSA is dedicated to building girls of courage, confidence, and character, who make the world a better place.

PRIDE Youth Programs

PRIDE is a national peer-to-peer organization devoted to drug abuse and violence prevention through education. This program is celebrating its 30th anniversary.

Young Men's Christian Association (YMCA)

The YMCA is focused on putting Christian principles into practice through programs that build healthy spirits, minds and bodies for all.

REFERENCES, CHAPTER 12

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13. SPF SIG Funded Communities — Local Drug Fact Sheets

INDIANA'S PREVENTION PRIORITIES

As part of the Strategic Prevention Framework State Incentive Grant (SPF SIG), the Indiana State Epidemiology and Outcomes Workgroup (SEOW) identified six prevention priorities in its original epidemiological profile on substance abuse in 2006. These included three statewide and three local/regional priorities:

Statewide Prevention Priorities

- Prevent and reduce underage drinking and binge drinking among 18- to 25-year-olds
- Prevent the first use of tobacco among 12- to 17-year-olds and reduce tobacco use among 18- to 24-year-olds, blacks, and individuals with lower incomes and/or less than a high school education
- Prevent the first use of marijuana among 12- to 17-year-olds and reduce the use of marijuana among 18- to 25-year-olds

Local/Regional Prevention Priorities

- Prevent the first use and reduce the use of cocaine among 18- to 25-year-olds
- Prevent and reduce the abuse of prescription drugs among individuals 12 to 25 years
- Prevent and reduce the use of methamphetamine among black youth and among white women and men 18 to 44 years of age

Because of limited SPF SIG funding, the Governor's Advisory Council (GAC) asked the SEOW to develop additional criteria. Based on the criteria, SPF SIG funding would be made available for a subset of the six priorities. With the advice and counsel of the Center for Substance Abuse Prevention (CSAP), three additional criteria were selected:

A) existing capacity and resources;
B) preventability and changeability; and
C) community readiness and political will.

Based on an assessment of the available data on capacity and funding, the intervention science literature, and the political situation across the state, the SEOW developed a matrix to guide the selection of SPF SIG funding priorities.

Table 13.1 Prevention Matrix

Priority	Existing Capacity/ Resources	Preventability and Changeability	Community Readiness/ Political Will
Alcohol	Weak	High	High
Tobacco	Strong	High	High
Marijuana	Weak	Low	Low
Cocaine	Weak	Modest/Low	High
Methamphetamine	Weak to Moderate	Modest	High
Prescription Drugs	Weak	Low	Low

Since one of the primary concerns was improving the state's capacity, it was determined that tobacco should not be a focus of SPF SIG funding, because approximately 85% of the prevention dollars in Indiana were already dedicated to reducing tobacco use. It was also decided that marijuana and prescription drug abuse should not be the focus of SPF SIG funding because of their relatively low preventability/changeability and the low levels of political will and community readiness to address these substances. Consequently, the GAC decided to use SPF SIG funding for the three remaining priorities: alcohol (60% of funding), cocaine (20% of funding), and methamphetamine (20% of funding). Upon recommendations by the SEOW, the GAC allocated funds to high need/high contributor communities based on a discrete set of indicators.

INDIANA'S FUNDED COMMUNITIES

In 2007, Indiana's Family and Social Services Administration (FSSA), Division of Mental Health and Addiction (DMHA) awarded funding to 12 community organizations representing 13 high need/high contributor counties, to implement the strategic prevention framework model. Eight of the communities were funded for alcohol prevention, three were funded for cocaine prevention, and one was funded for methamphetamine prevention.

Alcohol Prevention

Drug and Alcohol Consortium of Allen County
Delaware County Coordinating Council
Lake County Drug Free Alliance
Drug Free Marion County
Monroe County Asset Building Coalition
Porter-Starke Services, Inc.
Drug-Free Coalition of Tippecanoe County
Substance Abuse Council of Vigo County

Cocaine Prevention

East Chicago Intervention Council
Healthy Communities Initiative of St. Joseph County
Partnership for a Drug Free Wayne County

Methamphetamine Prevention

Southwest Indiana Methamphetamine Alliance (Daviess-Greene Methamphetamine Alliance)

These communities completed a local epidemiological profile, developed a strategic plan, and are now in the process of implementing evidence-based prevention efforts to reduce substance abuse in their communities. The following pages contain local drug fact sheets to provide a snapshot of alcohol and other drug abuse epidemiology within the 13 counties.

The Consumption and Consequences of Alcohol in Allen County

**Binge Drinking* *is defined as having five or more drinks for men and four or more drinks for women during one occasion.*

**Youth who obtained alcohol in Allen County reported that they received it primarily from someone older than 21 or had someone else buy it.*

Contact us for meeting schedules and volunteer opportunities.

www.dacac.org
Ph: 260-422-8412
Fax: 260-423-1733

Jerri Lerch
Executive Director

Kellie Turner
Program Director SPF-SIG

Prevalence of Underage Drinking

- 11.2% of 12th graders surveyed drank alcohol 40 or more times in the past year
- 18.4% of 12th graders surveyed drank alcohol 40 or more times in their lifetime
- 18.3% of 6th graders surveyed drank alcohol at some time in their life
- 29% of 8th graders surveyed drank alcohol in the last year
- 28.7% of 12th graders surveyed binge drink
- 17.4% of all of those surveyed say the age of their first use of alcohol was 7 years or younger

Impact: Health

- Treatment episodes for detoxification, rehabilitation/residential, and ambulatory peaked from 2001-2003 in the 35-44 age category, but in 2006 peaked in the 25-34 age category.
- The highest number of treatment episodes was in 2005 in the 25-34 age category at just under 450.
- Treatment episodes for duplicated clients where alcohol was the primary drug of choice peaked in 2004 with females at 334 and males at 961.
- From 2001-2005, 88 Allen County individuals suffered alcohol-induced deaths.

Impact: Criminal Justice

- In 2006, 36% of Allen County car fatalities were alcohol related.
- Drug and alcohol-related arrests account for almost half of the total arrests in Allen County.
- During a survey of 100 blood tests collected from individuals arrested for operating a motor vehicle while intoxicated, 68% of the tests were positive for alcohol and two or more drugs.

Perceptions:

- 25.7% of 12th graders surveyed feel that their peers approve of or strongly approve of binge drinking weekly
- 67.7% of 12th graders surveyed perceive that their parents would disapprove or strongly disapprove of 1-2 drinks occasionally

Drug & Alcohol Consortium
Justice • Public Policy
Prevention • Research
D
A
C
Intervention • Treatment
Of Allen County

Just The Facts on Methamphetamine in Daviess/Greene Counties

Southwest Indiana Methamphetamine Alliance

The Southwest Indiana Methamphetamine Alliance (SIMA) is a collaborative effort of two community-based coalitions, Meth Awareness Is Necessary (MAIN) in Daviess County and Greene United Against Meth (GUAM) in Greene County. They have come together to increase their impact on the methamphetamine problem in their communities.

Daviess and Greene Counties are neighboring rural counties in southwestern Indiana, with a combined population of 63,580. The land area of the two counties is over 970 square miles. The small towns and communities are nestled among rolling, fertile farmlands that stretch to the horizons.

Coalition Members

LAC
Dan Murrie –Chair
Nancy Cummings
Cindy Barber
Ron Morgan
Christa Turpin
Jennifer Stefancik
Beth Davis
Polly Gettinger
Jean Anne Sanders
Nancy Steiner

LEOW
Jonus Uland
Jean Graham
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SPF-SIG Grant

In July 2007, the Southwest Indiana Methamphetamine Alliance was awarded a grant from the State to address methamphetamine use in Greene and Daviess Counties. The Strategic Prevention Framework State Incentive Grant is a cooperative agreement from the Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Prevention (SAMHSA/CSAP) awarded to the Office of the Governor to reduce substance use and abuse across the lifespan of Indiana citizens. The vision of the State's SPF-SIG is to Imagine Indiana Together- with a network of grassroots organizations collaborating to develop "healthy, safe, and drug-free environments that nurture and assist all Indiana citizens to thrive". One of the priorities identified by the State was the prevention and reduction of the use of methamphetamine among Black youth and among White women and men 18 to 44 years of age.

Our Vision

The vision of the Southwest Indiana Methamphetamine Alliance is to reduce substance abuse and its impact on individuals, families, and communities.

Our Mission

The mission is to instill hope and change beliefs, behaviors and social norms related to substance abuse.

Our Epidemiological Findings

Through our Epidemiological Profile, the Southwest Indiana Methamphetamine Alliance documented the substance-abuse-related problems in the two counties. With regard to methamphetamine, the following key findings were reported:

- 4.2% of high school seniors in Daviess and Greene Counties have used methamphetamine in their lifetime, exceeding the state rate of 3.4%.
- 52% of students who reported using methamphetamine were females.
- The average age of first use of methamphetamine reported by students was 14.1 years.
- Nearly all individuals initiate methamphetamine use after having used alcohol and marijuana.
- 38% of individuals receiving DMHA-funded addiction treatment in Daviess County and 25% in Greene County used methamphetamine as the primary or secondary drug of choice.
- Methamphetamine use has had devastating consequences to the individual users and their families, and has created significant burdens on the law enforcement, judicial, child welfare, and health care systems in both counties.

The Epidemiological Profile also documented the prevalence of other substance use among school-aged youth in Daviess and Greene Counties.

- Alcohol is the most commonly used substance in all grades.
- Cigarettes are second most common.
- Over-the-counter drugs were the third most commonly used substance in the past 30 days by 6th-, 7th-, and 9th-graders.
- Marijuana was the third most commonly used substance in the past month by 8th-, 10th-, 11th-, and 12th-graders.

Almost three-fourths (72.2%) of high school seniors had used alcohol at least once in their life, half (50.9%) had used cigarettes, and almost one-third (29.2%) had used marijuana. Thirty percent of high school seniors reported having binge drank (defined as having five or more drinks in one setting in the past two weeks).

Epidemiological Identified Risk Factors:

Family management and conflict

School failure

Antisocial behavior

Perceptions of Risk of Harm and Peer Disapproval

Unsupervised Activities

Delaware County Coordinating Council To Prevent Alcohol and Other Drug Abuse

To Prevent Alcohol
And Other Drug Abuse

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DMHA Deputy Director:
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SPF SIG State Project Director:
Kim Manlove

SPF SIG State Project
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Marcia French

Our Vision:
Working toward a safer, drug-free Delaware County

Our Mission:
To plan, strengthen, and coordinate community efforts
to prevent and reduce alcohol and binge drinking among youth and adults.

Local Priorities Regarding Underage and Binge Drinking

The primary focus of the Delaware County SPF SIG grant is the reduction of alcohol abuse in Delaware County with particular emphasis on reducing underage drinking and binge drinking for 18-25 year olds. Three local priorities have been identified: The amount and/or frequency of alcohol use in the previous 30-days by middle school, high school and college students, community readiness and capacity building. It has been determined that the root causes for the amount and/or frequency of alcohol use in the previous 30 days include accessibility, and family, school, environmental and peer influences and that some of the conditions contributing to these causes were low compliance ratings and a low level of perceived personal risk by youth. Some of our strategies for combating these root causes include: Educating the community on the consequences of underage drinking, particularly the effects of alcohol on adolescent brain development, as well as working with law enforcement agencies to increase enforcement of underage drinking laws and to conduct ongoing compliance checks. Our community readiness survey suggests it is the belief of many adults that underage drinking is simply a "rite of passage" for our youth. Therefore further strategies to impact our community readiness include media advocacy to increase community awareness about underage drinking, encouraging community involvement regarding legislative issues and educating the community on the negative consequences associated with underage drinking and binge drinking.

Delaware County Data on Underage Drinking & Binge Drinking

Prevalence of Usage Among Delaware County Youth

- Delaware County 7th, 9th and 10th grade students surveyed have a higher monthly alcohol usage rate than the state (IPRC, ATOD Survey, 2006).
- 37.1% of 9th grade students surveyed believe there is no risk in drinking alcohol regularly (IPRC, ATOD Survey, 2006).
- Monthly usage rates for 7th grade students surveyed increases from 18.9% to 34% in 9th grade, and increases again in 10th grade to 37.2% (IPRC, ATOD Survey, 2006).

Availability

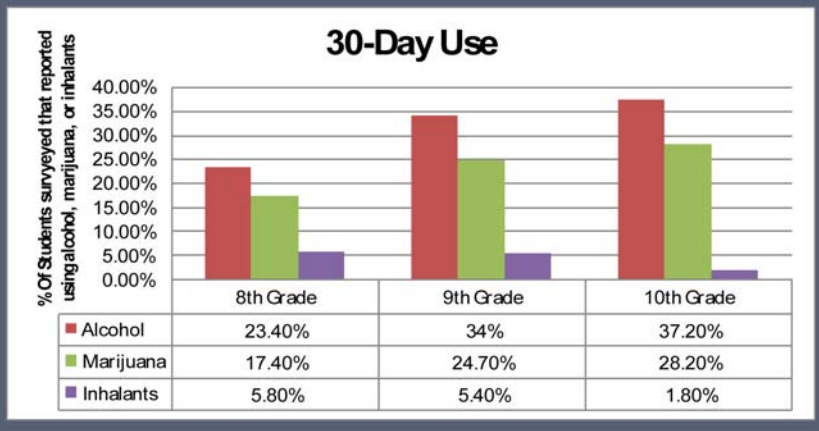
- In 2006, Delaware County reported 1.86 outlets per 1,000 residents, compared to the state average of 1.74 outlets.
- .7% of the surveyed 12th grade students in 2007 reported purchasing alcohol at a restaurant, bar or club (IPRC, ATOD Survey, 2006).
- According to the Delaware County Fair Survey 42% of youth (20 and under) reported drinking in clubs and hangouts (DCCC, 2008).
- Of the adults surveyed at the 2008 Red Ribbon Community breakfast 35% believe that minors get their alcohol from friends the same age (DCCC, 2008).

Binge Drinking at Ball State University

- 48.9% of students reported consuming 5 or more alcohol drinks the last time they partied.
- 43.1% reported doing something they later regretted
- 37.6% reported forgetting where they were or what they had done
- 26.3% reported being physically injured.
- 20.4% reported having unprotected sex, after binge drinking

(National College Health Assessment, 2006).

Percentage of Delaware County Students Surveyed that reported past month use by grade level



	8th Grade	9th Grade	10th Grade
Alcohol	23.40%	34%	37.20%
Marijuana	17.40%	24.70%	28.20%
Inhalants	5.80%	5.40%	1.80%

Source: Indiana Prevention Resource Center, 2006, Prevalence and Usage Survey. Collected March & April 2006 Reported August 2006.

OTHER DRUG USE

Inhalant Abuse

11.2% of 8th graders surveyed reported using inhalants in the past 30 days, compared to the states average of 7.2% in 2006. (IPRC, ATOD Survey, 2006).

Marijuana

In 2006, 6425 residents were treated for marijuana abuse problems (CLEI). 28% of surveyed 10th graders reported using Marijuana in the past 30-days, compared with the state average of 14.6% (IPRC, ATOD Survey, 2006).

Tobacco

In 2006, Delaware County passed an indoor smoking ban prohibiting smoking inside public buildings, offices, and establishments (Ordinance 2006-004). The number of tobacco outlets has decreased since 2004. 78% of 8th graders surveyed reported that smoking one or more packs a day is harmful to a person (IPRC, ATOD Survey, 2006).

DELAWARE COUNTY COUNCIL COORDINATING DCCC

To Prevent Alcohol And Other Drug

East Chicago Intervention Council

Strategies for a Healthy Community

Our Vision

A united, healthy and safe drug- free community

Our Mission

To reduce substance use, especially Cocaine, among youth and young adults in East Chicago.

ADMINISTRATVE AGENCY

GEMINUS
"Partnering for the Future"
PREVENTION

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Introduction

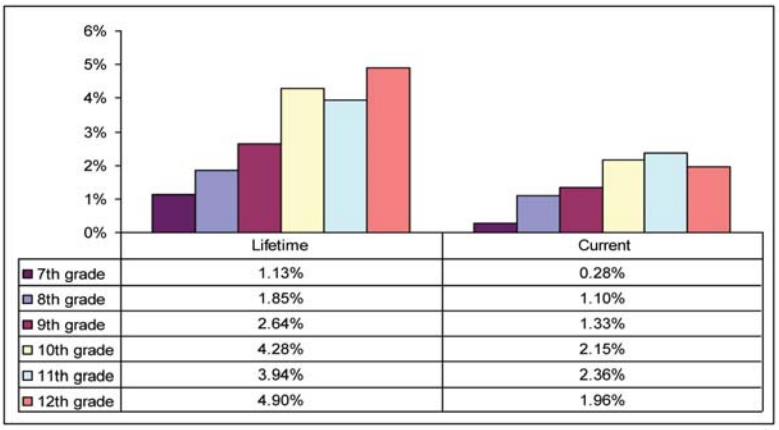
In July 2007, Geminus Corporation received a block grant from SAMHSA/CSAP and administered by Family & Social Services Administration and Division of Mental Health and Addiction (FSSA/DMHA). This block grant was named the Strategic Prevention Framework State Incentive Grant (SPF-SIG). "The SPF-SIG grant program represents a continuation of ongoing CSAP initiatives to encourage states to engage in data-based decision-making in the area of substance abuse prevention planning and grant making." (Indiana Prevention Resource Center, 2008). Geminus Corporation is the administrative agent for this grant. At the end of the five years, the goal for the LAC and LEOW is to become independent, self-supportive and continue the work of the newly established East Chicago Intervention Council.

The SPF-SIG uses a five-step process know to promote youth development, reduce risk-taking behaviors, build assets and resilience, and prevent problem behaviors across the life span. This five step process includes: Assessment, Capacity Building, Planning, Implementation, and Evaluation, with Sustainability and Cultural Competence woven in throughout the entire process. A Local Advisory Council (LAC) together with a Local Epidemiology Outcomes Workgroup (LEOW) drive the five step process. Efforts of the SPF-SIG will be directed at reducing cocaine use among 18-25 year olds in East Chicago, IN.

Prevalence of Cocaine Use Among East Chicago Youth

- **3.73% of high school students reported they had used cocaine at some point in their lifetime.**
- **1.87% of high school students are currently using cocaine (past 30 days)**

Percentage of East Chicago Students (7th-12th Grade) Reporting Lifetime (at Least Once) and Current (Past Month) Cocaine use, by Grade (CTCS, 2007)



	Lifetime	Current
7th grade	1.13%	0.28%
8th grade	1.85%	1.10%
9th grade	2.64%	1.33%
10th grade	4.28%	2.15%
11th grade	3.94%	2.36%
12th grade	4.90%	1.96%

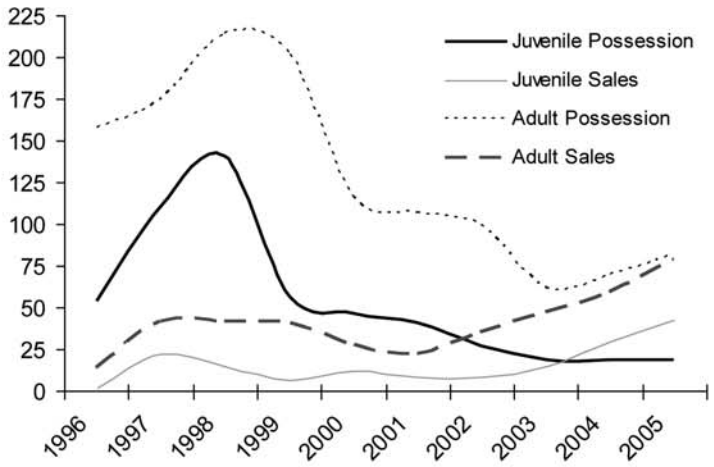
Availability

The following data was collected from National Archive of Criminal Justice Data (NACJD).

- **Cocaine possession arrest rates (arrests per 100,000) have dropped in Lake County since 1996. Juvenile rate in 1996 was 118.08 *arrests compared to 18.17 *arrests in 2005.**
- **Adults possession rates dropped from 185.07 *arrests in 1996 to 81.42 *arrests in 2005.**
- **Cocaine Sale arrest rates (arrests per 100,000) have conversely risen in Lake County since 1996.**
- **Juvenile cocaine sale rate in 1996 was 1.65 *arrests, compared to 42.94 *arrests in 2005.**
- **Sales rates have also increased in adults from 27.21 *arrests in 1996 to 78.38 *arrests in 2005**

(* arrests per 100,000)

Figure 1.0 Lake County Cocaine Arrest Rates for Juveniles and Adults



The following data was collected from Treatment Episode Data (TEDS).

- **The overall percentage of cocaine treatment cases for Lake County was 20.41%, while the state of Indiana was lower at 13.06%.**
- **More Lake County women 23%, than men at 18.42% were treated primarily for cocaine substance abuse.**
- **The 35-44 age group had the highest of all age groups for cocaine treatment in Lake County at 30.77% and Indiana at 20.41%.**
- **The 18-24 age group under examination for this SPF-SIG had a cocaine treatment percentage of 12.89 for Lake County , compared to just 5.70% for the state of Indiana.**

The following data was collected from the Communities That Care Survey.

Youth Substance Use

- **East Chicago high school students appear to use cocaine more often than any other illicit drug.**
- **3.73% of high school students reported they had used cocaine at some point in their lifetime.**
- **1.87% are currently using cocaine (in the past 30 days)**
- **6.86% of East Chicago males reported lifetime use, whereas 1.39% of females reported lifetime use.**
- **Hispanic students reported higher rates of lifetime and current cocaine use than Black students. Approximately 5.61% of sampled Hispanic students reported lifetime use compared to 0.00% of Black students.**
- **Hispanic males reported a higher lifetime cocaine use 10.64% than Hispanic females at 1.72%.**

Community Risk Factors

East Chicago (EC) is plagued by high unemployment rates, high crime rates, neighborhood disorganization, high teen alcohol use, a high number of single parent homes, criminal gangs, an overrepresentation of bars and liquor stores, and low academic achievement.

- **East Chicago Schools are currently on probation, expulsion rates are high, and the graduation level is 55% compared to the State level of 76%.**
- **Poverty levels were high with over 93% free text books and lunches. (Department of Education, 2007)**
- **In East Chicago 22.5% of families live below poverty, compared to the National 9.2% below poverty.**
- **Unemployment rate in East Chicago for 2006 was 6.7%, compared to Lake County at 5.8%, Indiana at 5%, and the National rate of 4.6%.**

Legal and Criminal Consequences of Cocaine Use:

- **The East Chicago Police Department has identified 9 different criminal gangs that operate in East Chicago.**
- **Lake County's High Intensity Drug Trafficking Area, HIDTA reports that many gang members have moved to East Chicago due to lenient gun laws, access to major crossroads, access to easy storage, and a central redistribution location.**
- **Area gangs use innovative means of financing their operations to appear legitimate to the authorities. Three tactics are specifically mentioned in this report.**
    1. **Gangs buy government "project" homes and renovate them for resale at a profit.**
    2. **Gangs in East Chicago are purchasing legitimate small cash based businesses so that they can commingle legitimate and illegitimate funds.**
    3. **Gang members will use drug monies to purchase gaming chips which they later turn in as winnings which appear legitimate.**

Area Casinos:

- **About 8 percent of the crime in counties with casinos is due to the presence of the casinos and 1.4% of total bankruptcies.**
- **Gamblers at the East Chicago Casino ranked third in the amount of money lost ($310 million) and third in admissions for addiction issues.**

The burden of cocaine and crack use on East Chicago citizens: This burden can be viewed both directly and indirectly. Direct costs include: drug treatment, health care costs, costs of goods and services lost to crime, law enforcement, incarceration, and the taxing of the judicial system. Indirect costs are incurred as a loss of productivity from death, negative health consequences, drug-abuse related illnesses and victims of crimes. (Drug Enforcement Agency website, 2007, www.justthinktwice.com/costs/)

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For more information; electronic copies of the East Chicago Local Epidemiological Profile 2008 are available upon request

THE FACTS

ABOUT YOUTH & SUBSTANCE ABUSE IN NORTHWEST INDIANA

Produced by the

Lake County, Indiana
Strategic Prevention Framework (SPF)
State Incentive Grant (SIG)

A Division of the
Lake County Drug Free Alliance
2900 West 93rd Avenue
Crown Point, Indiana 46307

Sheriff Roy Dominguez, Co-Chair
Prosecutor Bernard A. Carter, Co-Chair
Louisa Montemayor, Executive Director

With Support From

Calumet College of Saint Joseph's
Public Safety Institute

What is SPF-SIG?

The Strategic Prevention Framework (SPF) utilizes the Substance Abuse and Mental Health Services Administration (SAMHSA) approach to evidenced-based prevention and is built on a community-based risk and protective factors perspective to prevention. SPF requires States and communities to systematically:

- Assess their prevention needs based on epidemiological data and the development of comprehensive Local Epidemiological Report,
- Build their prevention capacity based on the funded resources in the target community,
- Develop a comprehensive community Strategic Plan,
- Implement effective community prevention programs, policies and practices, and
- Evaluate their efforts for outcomes that are sustainable and culturally competent.

SAMHSA awarded the State of Indiana SPF-SIG funding based on key contributing factors identified through the Indiana Governor's State Epidemiological Outcomes Workgroup. A list of prevention targets of significant epidemiological concern were highlighted in several communities, but alcohol, the most frequently used substance in Indiana, was chosen as the principal focus for these initial efforts in Lake County.

Lake County's SPF-SIG program functions under the authority of the Lake County Drug Free Alliance and has as its principle foci the following areas:

- Prevent the onset and reduce the progression of substance abuse, including childhood and underage drinking
- Reduce substance abuse-related problems in Lake County; and
- Build prevention capacity and infrastructure at the county and community levels

Under this recognized function and authority, Lake County through the Drug Free Alliance has sought to leverage and coordinate all prevention-related programs and sources of funding, and to develop a local epidemiological study which will continually examine the impact of substance abuse in Lake County.

This fact sheet represents a brief but comprehensive summary of the substance use and abuse patterns among the youth and young adult population living in Lake County. A more complete detailing of these findings can be found in the *2008 Lake County Epidemiological Profile: The Consumption and Consequences of Alcohol and other Drugs in Lake County, Indiana.* Copies of the epidemiological profile are available through the Lake County Drug Free Alliance.

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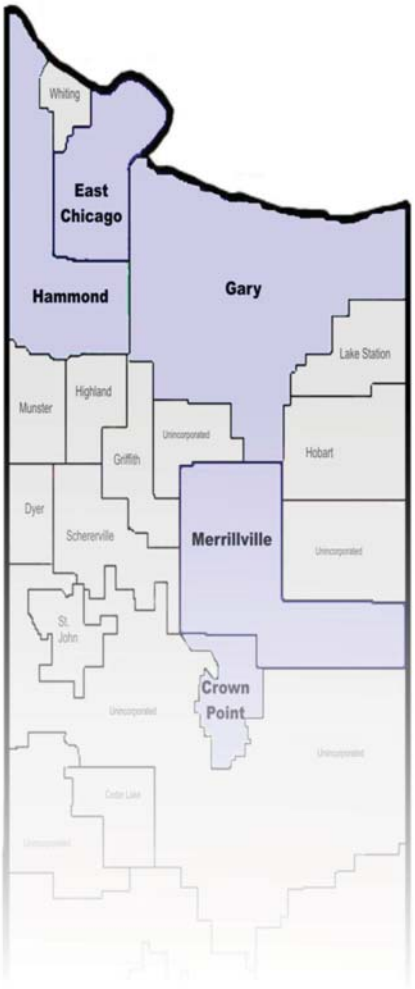
Marcia French

Our Vision:
Creating a Positive, Healthy, Safe and Drug-Free Lake County by Encouraging and Enhancing Creativity and Productivity Among All Populations

Our Mission:
To Eliminate Substance Use and Abuse in Lake County

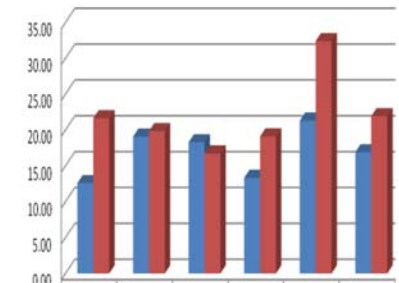


The Prevalence of Alcohol

- Alcohol is the most frequently used drug in Indiana and the United States.
- The first exposure to illegal substance use – and the greatest percentage of change in lifetime use – is between 6th and 8th grades (57.4%).
- Lake County youth, specifically in south county, are averaging alcohol lifetime exposure levels of nearly 50% in regional middle schools, and as high as 70% in regional high schools.
- Lake County youth ages 12-17, as a whole, ranked significantly lower than both state (43.63) and national (49.94) indexes when reporting current (usage within the last 30 days) alcohol consumption patterns.
- The number of Lake County youth that report current use of alcohol peaks in 11th grade, followed closely by 10th and 12th graders, then 9th graders.
- In reporting lifetime usage, Lake County middle school students had the greatest percentage of reported change (57.4%) from non-use to use.
- An unusually high introduction rate was reported between the 10th and 12th grades (33.6%).
- Lake County high schools report an average of 65.41% of students have had at least one drink in their lifetime.
- Lake County youth reported lower binge drinking statistics than their state and national counterparts.
- The middle and high school years are essentially the launching pad for regional alcohol abuse. According to Uniform Crime Record statistics:
    - Of DUI arrests, 28% of the offenders are 18-24 years of age in South County, compared to 11% up north.
    - An average of 15% of public intoxication arrests in the north are young adults 18-24 years of age, 30% of this same demographic in the south.
    - Liquor law violations are committed overwhelmingly by Lake County young people at an average of 88% of the total arrests. The majority of those arrests are males (80%).

The Prevalence of Drugs

Current Use Comparison between Tobacco and Marijuana Reported by area High Schools (YRBSS Survey: CDC 2007)



	Hammond	Calumet	Merrillville	Gary	East Chicago	Avg.
Tobacco	12.59	19.08	18.30	13.33	21.30	16.92
Marijuana	21.64	19.85	16.72	19.12	32.41	21.95

- Marijuana use (18.54%) has surpassed tobacco use (15.04%) by Lake County youth.
- From the 9th to the 12th grade, there is an epidemic rise in exposure to and consumption of marijuana (9th -28.18 to 12th – 41.78).
- Although modest usage increases in alcohol and tobacco occurs between 9th and 12th grades, this same time period experiences a significant rise in exposure to and consumption of marijuana, and a steady incline in the introduction of cocaine, an average increase of 58.7%.
- For cocaine, current usage rates among Lake County youth (4.48) outnumbered state (3.0) and national (3.40) usage levels.
- Cocaine usage peaks between the 10th and 11th grades.
- The area of significant rise in marijuana is from 8th grade to 9th grade, a reported 627% increase.
- These formative years also affect the future of regional drug use. According to Uniform Crime Record data:
  - Southern offenders of drug laws were predominately young adults (62.5%) between the ages of 18 and 24 while the majority offenders in north county communities were over the age of 25 (60.3%).
  - 71.5% of offenders accused of marijuana possession in southern communities were young adults between the ages of 18 and 24, versus a less severe 60% for northern communities.

September 2008

JUST THE FACTS
Substance Abuse in Marion County

A quick summary on the use of alcohol, in Marion County

DRUG free Marion County

Underage and Binge Drinking Prevention Initiative

Mission Statement:
Drug Free Marion County, a not for profit organization, plans, promotes, implements, and coordinates efforts to prevent and reduce the abuse of alcohol, tobacco and other drugs among youth and adults.

Vision Statement:
The Local Advisory Council promotes healthier lifestyles by supporting prevention efforts and educating the community about the consequences associated with underage alcohol consumption and binge drinking among young adults.

Prepared by: Members of the Local Epidemiological Outcomes Workgroup

Local Epidemiological Outcomes Workgroup

David Crabb M.D.– Indiana University Medical School, Director of Alcohol Research Center
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Gabrielle Campo-Indiana Youth Institute
Susan Rees-Marion Co. Probation Dept.
Charlotte Pontius-Fairbanks
Lt. Dan Rose-Excise Police
Jay Colbert-SAVI Center
Amanda Slaten-Community Addiction Services of Indiana

Underage and Binge Drinking Prevention Initiative
Drug Free Marion County (DFMC)

Drug Free Marion County as the county's Local Coordinating Council has long identified the need to reduce youth substance use and to increase parental awareness and prevention skills. The process of gathering and reviewing local data on the specific topics of underage and binge drinking have lead to a robust knowledge and concern about the impact of such use. It has also lead to a better understanding of the need to make changes in our local communities

The state generated report "The Consumption and Consequences of Alcohol, Tobacco, and Drugs in Indiana: A State Epidemiological Profile" identifies Marion County as having a high rate of use for cocaine, alcohol, and marijuana based on the uniform crime report data. The state prioritized funding under this project for alcohol, cocaine and methamphetamine.

Drug Free Marion County submitted a proposal and received funding to address underage and binge drinking. Drug Free Marion County (DFMC) created a Local Advisory Council (LAC) to direct this project and used the strategic prevention framework to guide and organize its efforts. This fact sheet is a summary of key data points illuminating the issue of underage and binge drinking in Marion County.

The Local Advisory Council is implementing the following **action plan:**

- Increase public awareness, by sharing data and information on prevention strategies
- Reduce social availability by increasing knowledge of legal penalties, party patrols, reduce third party sales, stop loss measures

  Increase perception of risk or harm through prevention education programs

For questions and additional information please contact:

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(317) 254-2094
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Or visit our website
www.drugfreemc.org

Drug Free Marion County
Executive Director
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Board Chair
Fran Safford

Local Advisory Council

Captain Phil Burton-Indianapolis Metropolitan Police Dept.
Scott Allen-Prosecutor's office
Sarah Barnes-Butler University
Steven Chen-Community Addiction Services of Indiana
Dorothy Campbell-Marion County Purdue Extension
June Davis-John Boner Center
Kitty Greene-Mothers Against Drunk Drivers
Bridgette Harper-Wishard Midtown Community Mental Health Center
Anna Urias-Hail-Treatment Intervention Plus Program
Debra Henderson-Marion County Health Dept.
Morgan Hudson-Minority Health Coalition of Marion County
Maggie Lewis-Governor's Center
Leanne Malloy-Marian College
Bridgette McLauren-Damien Center
Natalie Miller-Clarian Health Center
Cynthia Oda-Common Concern For Youth
Al Polin-Mapleton Fallcreek Neighborhood
Lizzie Preddie-Afternoons R.O.C.K. in Indianapolis
Liza Sumpter-Marion Co Health Dept.
Valarie Taulman-Step-Up
Unchana Thamasak-IUPUI Counseling Center
Dytra Waire-Smokefree Indy, Health Dept.
Brenda Walls-Kaleidoscope
David Waldman-Jewish Community Center

Youth Advisory Council

Kandace Hoosier-Warren Central High School
Shandes Hoosier-Warren Central High School
Krystal Porter-Warren Central High School
Kourtney Sterling-North Central High School
Aaron Bradley-Broad Ripple High School
Hannah Barker-Roncalli High School
Christina Dammann-Scecina Memorial High School
Andrea Williams– Key Learning Center High School
Asjian Cotton-West Clay Middle School
James Fair-New Horizons High School

Collegiate Advisory Council

Lauren Waggle-IUPUI
Kelly Fritz– Butler University
Bryan Oversbey– IUPUI

Marion County Data on Underage Drinking

DRUG free Marion County

***Binge Drinking** is defined as having four or more drinks for women; five or more drinks for men during one occasion.

Be part of the solution, help make lasting change by participating in the Underage and Binge Drinking Prevention Initiative.

Contact us for information on meeting schedules and volunteer opportunities.

DRUG FREE MARION COUNTY
www.drugfreemc.org

2506 Willowbrook Parkway, Suite 100
Indianapolis, IN 46205

Ph: 317-254-2815
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Prevalence of Use Among Marion County Youth: [1]

- 48% of 8th grade students report having drunk alcohol
- On average 8% of area 6th grade students report having used alcohol in the last 30 days. (Actual range 5.9% to 13.7%)
- 30 day alcohol use rates increase between the 6th and 8th grade going from 8% to 21.5%. A change of 62%.
- 18% of 11 to 18 years olds report binge drinking in the last two weeks*

Availability: [2]

- 71.7% of area teens report getting alcohol from friends or relatives who are of legal age.
- 52.8% of teens report that they know of parents who allow teens to drink in their home
- Marion County has 1, 576 licensed liquor establishments
- 75% of Marion County middle and high schools lie within a half mile radius of a licensed liquor establishment

Impact of use: [3]

- A person who begins drinking as a young teen is four times more likely to develop alcohol dependence than someone who waits until adulthood to use alcohol.
- During adolescence significant changes occur in the body, including the formation of new networks in the brain. Alcohol use during this time may affect brain development.
- Motor vehicle crashes are the leading cause of death among youth ages 15 to 20, and the rate of fatal crashes among alcohol-involved drivers between 16 and 20 years old is more than twice the rate for alcohol-involved drivers 21 and older. Alcohol use also is linked with youthful deaths by drowning, suicide, and homicide.
- Alcohol use is associated with many adolescent risk behaviors, including other drug use and delinquency, weapon carrying and fighting, and perpetrating or being the victim of date rape.

Data sources

1) Alcohol Tobacco and other Drug Use by Indiana Children and Adolescents Survey, 2007 Indiana Prevention Resource Center (http://www.drugs.indiana.edu/)
2) Drug Free Marion County's Youth Advisory Council, Teen Alcohol Survey April 2008
State Excise Police registry of Marion County liquor license establishments
SAVI data mapping, Polis Center
3) NIAAA The Facts about Youth and Alcohol. http://pubs.niaaa.nih.gov/publications/PSA/factsheet.pdf

Drug Free Marion County Data on Binge Drinking

DRUG free Marion County

In 2006, Marion County had **2,585 alcohol-related car collisions, 5,194 public intoxication arrests, and 3,701 DUI arrests**, the highest of any county in the state. We ranked fifth in the state for the number of public intoxication arrests per 1,000 people. We also had the second highest number of alcohol related fatal car crashes resulting in 18 deaths.

***Binge Drinking** is defined as having four or more drinks for women; five or more drinks for men during one occasion.

Be part of the solution, help make lasting change by participating in the Underage and Binge Drinking Prevention Initiative.

Contact us for information on meeting schedules and volunteer opportunities.

Adult use

Countywide 41.5% of DWI arrestees are between the ages of 21and 30.
Marion County has a very active downtown with many conventions, restaurants, bars, professional and collegiate sporting events. Unfortunately, some of those events result in high-risk alcohol use. The downtown zip code (46202) is one of the top five zip codes in the county for alcohol related arrests. The other areas of concern in the county include the near east 46201, southeast 46203, 46227 and the west side 46222. High risk drinking in these communities seems to be driven by the personality of the neighborhood.
The concentration of incidents on the southeast side has lead to it being identified as a target community for our prevention efforts.

High-risk or binge drinking impacts the health of our citizens

38% of blood alcohol draws at area hospitals resulted in blood alcohol levels over the legal limit. Nearly 3000 results exceeded 200mg/dl, demonstrating evidence of alcohol abuse. Approximately 2/3rds of the blood levels were measured came from men.
In 2006 over 1,650 patients were diagnosed with an alcohol or drug related disease.

Collegiate use

Marion County has six major institutions of higher education (Butler University, Indiana University Purdue University at Indianapolis, Ivy Tech, Marian College, Martin University, and the University of Indianapolis) Data from the 2006 Indiana College Alcohol Use Survey shows that each university has a distinct drinking pattern. Students from one institution reported higher than state average rates for binge drinking in the last two weeks 54% while another reported a lower rate of binge drinking 37%. The state average is 44%. Likewise we see variances in the number of campus alcohol violations.
Prevention efforts to address campus culture relative to alcohol use and high risk activities are part of the strategic plan.

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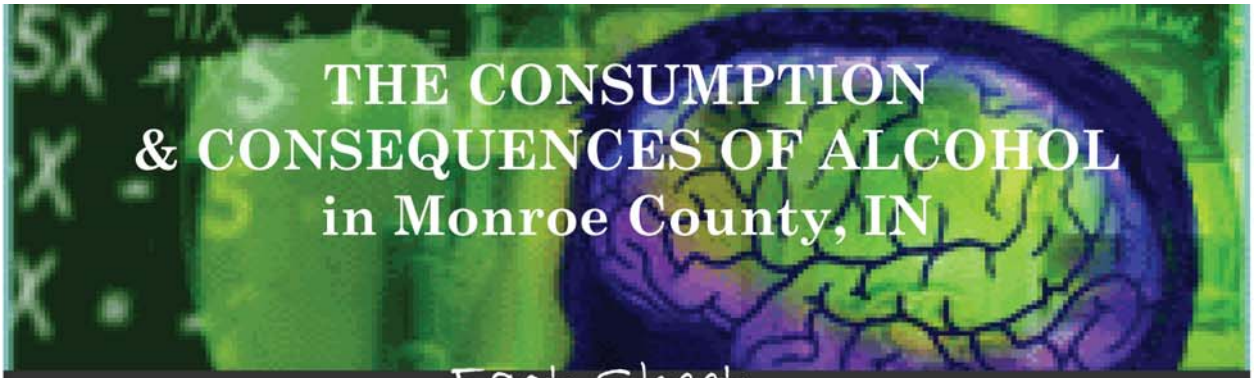
1) Indiana University Center for Health Policy. (2007) "The Consumption and Consequences of Alcohol, Tobacco and Drugs in Indiana: A State Epidemiological Profile 2007"(pg 176-181)
2) Drug Free Marion County (2007) Local Epidemiological Report on Underage and Binge Drinking March 2008" pg 38
3) Ibid page 19-20
4) Ibid page 28



THE CONSUMPTION & CONSEQUENCES OF ALCOHOL in Monroe County, IN

Fact Sheet

OWI has been the number 1 offense in Monroe County for the last 18 years.

2007: INState Excise Police issued more summonses in Monroe County than in any other county.

2007: The most prevalent adult offense type in Monroe County (per Probation Dept.) was substance-related, accounting for 57% of all offenses committed by adult offenders:

- **45% of offenders had prior convictions**
- **34% were assessed as alcohol and/or drug dependant**
- **29% were IU students**

The 18-25 yr. old demographic is responsible for 83% of all substance related offenses scripted by Bloomington Police Dept. and Indiana University Police Dept. (2006-2007):

- **97% of the illegal consumption arrests**
- **63% of the OWI arrests**
- **67% of the public intoxication arrests**

2007: Pre-Trial Diversion citations for illegal consumption/possession and public intox.= 1,642.

40% of crash fatalities in Monroe County were alcohol related.

Monroe County Coroner's office reported 11 drug overdose deaths in 2007.

Monroe County has 2.07 alcohol sales outlets for every 1,000 persons compared to state rates of 1.74.

Bloomington Hospital reported in 9 month period from Jan. to Sept. 2007, there were 645 Emergency Room visits/admits of 18-25 yr. olds with alcohol as primary or secondary diagnosis.

2006: Monroe County Health Dept. cited 427 cases of Chlamydia & 416 cases of Gonorrhea among 15-24 yr. olds.

According to the Indiana Prevention Resource Center Survey of Monroe County Comm. School Corp. Students:

- MCCSC students who self report being involved in school sports showed higher rates of alcohol use than the general population. 40.4% reported alcohol use within past 30 days.
- 75% of junior high students report spending time at home without adult supervision.
- 15.2% of MCCSC 8th graders reported first use of alcohol at ages 12-13.
- 29.9% of MCCSC 10th graders reported first use of alcohol at ages 14-15.
- 39.8% of MCCSC 11th graders believe there is no risk of harm due to occasional alcohol consumption and 43.1% believe there to be only slight risk.
- Survey results indicate that as students grow older, the perception of peer approval of weekly binge drinking also grows.

For complete epidemiological profile of Monroe County go to www.monroecountyabc.com and click on "Young Adults"

A Summary of Substance Abuse in Porter County

In August 2007, Porter County was funded through the Strategic Prevention Framework State Incentive Grant program to **enhance substance abuse prevention** planning and grant making at the local level. A requirement of this initiative was to collect and analyze data to help our community make solid, data-driven decisions in order to reduce the negative consequences of alcohol and other drugs.

This fact sheet provides a brief overview of the preliminary findings obtained in the first year of the four-year process. All information is from 2007 unless it states otherwise. For a more detailed analysis, refer to *The Porter County Local Epidemiology Report: The Consumption and Consequences of Alcohol, Tobacco and Other Drugs, 2008.*

Alcohol

- Eighth graders in the Northwest Region had significantly higher rates than their Indiana state cohorts for alcohol use within their lifetime (47.4%), use within the past year (38.7%), use within the past month (22.8%) and binge use (16.6%).
- Tenth graders in the Northwest Region also exceeded their state cohorts for lifetime use of alcohol (54.4%), monthly use (33.8%), daily use (4.4%) and binge use (24.5%).
- Minor possession charges made up 20.4% of total alcohol charges in Porter County.
- Thirty-six percent of all accidental deaths among the 18-25 year old age group in Porter County were attributed to alcohol.
- Only 45.2% of Porter County residents between the ages of 18-24 believed underage drinking to be a concern, compared to 56.2% of 35-44 year olds and 60.5% of 45-54 year olds.
- In 2004, over forty percent (42.91%) of individuals between the ages of 18-25 in the Northwest Region (Jasper, Lake, Newton, Porter, Pulaski and Starke Counties) reported binge drinking on a monthly basis.
- Porter County residents spent a higher percentage (1.1%) of their disposable income on alcohol than the state (0.7%) and national average (0.8%) in 2006.

Heroin, Marijuana, and Other Drugs

- Northwest Region eighth graders had a significantly higher percentage of heroin use than did 8th graders throughout the state of Indiana for lifetime use (1.9%), annual use (1.5%) and monthly use (1.1%).
- Eighth graders in the Northwest Region had significantly higher rates of cocaine use than their state cohorts for lifetime use (3.3%), annual use (2.67%) and monthly use (1.8%).
- The Northwest Region had higher rates of monthly use than the Indiana state average among 10th graders (16.8%), 11th graders (16.7%) and 12th graders (17.7%).
- Thirty-eight percent of all accidental deaths among the 18-25 year old age group in Porter County were attributed to drugs.
- Tobacco, methamphetamine, and prescription drug use were similar to or lower than the state average.

References

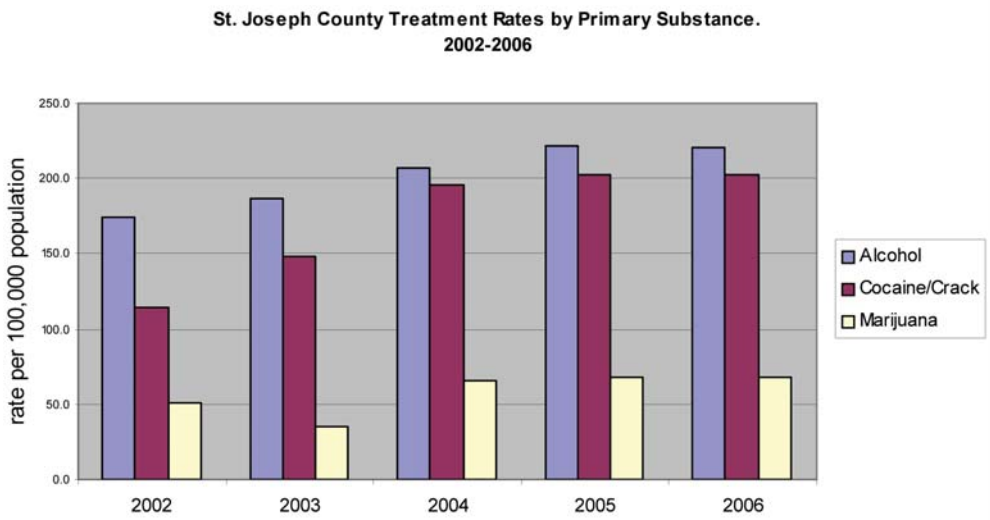
1. Indiana Prevention Resource Center, Indiana University. (2007). *Alcohol, tobacco, and other drug use by Indiana children and adolescents.* Retrieved from http://www.drugs.indiana.edu/data-survey_monograph.html
2. Substance Abuse and Mental Health Data Archive (2007) *National Survey on Drug Use and Health (NSDUH).* Retrieved from: http://www.oas.samhsa.gov/substate2k6/html/IN.htm
3. United Way of Porter County & Porter County Community Foundation. (2008) *Porter County Needs Assessment.*
4. Porter County Coroner's Office.
5. Porter County Sheriff's Department

PORTER COUNTY SPF SIG

To unite the residents of Porter County to prevent and reduce the negative consequences of substance abuse.

For more information, contact Elliott Miller at 219/476-4590.

Drug Fact Sheet



A Quick Summary on the Use of Alcohol, Tobacco, Marijuana and Cocaine in St. Joseph County, Indiana, 2007

Prepared by the St. Joseph County
Local Epidemiology and Outcomes Workgroup
Drug Free Community Council
Healthy Communities Initiative
401 East Colfax Ave., Suite 310
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Introduction

In 2007, through a grant made available to Indiana as part of its Strategic Prevention Framework State Incentive Grant (SPF SIG) Program, St. Joseph County's Drug Free Community Council established a Local Epidemiology and Outcomes Workgroup (LEOW) to collate and analyze available epidemiological data and report findings regarding substance abuse prevention programming in St. Joseph County.

The State recommended that St. Joseph County focus on the use and abuse of cocaine as the priority drug of concern. This fact sheet provides a brief overview of cocaine as well as the consequences and consumption patterns of alcohol, tobacco, and marijuana in St. Joseph County. For a more detailed analysis, refer to *The Consumption and Consequences of Alcohol, Tobacco And Drugs In St. Joseph County: An Epidemiological Profile, 2007*

Workgroup

John Hagen, Ph.D.
(Chair)

George Adler
City of South Bend

Capt Robert Hammer
South Bend Police

Jeremy Linton, Ph.D.
IU South Bend

John Ritzler, Ph. D.
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Lory Timmer
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Mishawaka Police

Chris Nowak
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Staff
Beth Baker
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St. Joseph County SPF SIG

Our Vision

Healthy, safe, and drug-free environments
that nurture and assist all County citizens to thrive.

Our Mission

To reduce substance abuse
across the lifespan of St. Joseph County citizens.

St. Joseph County
SPG SIG

Drug Facts

Cocaine

Prevalence

- For all persons ages 12 and older, the North Central Indiana region's past year cocaine use rates were lower in both 1999-2001 and 2002-2004 compared to either Indiana or the U.S. (2.1% vs. 2.4% and 2.5% respectively). However, rates in North Central Indiana were higher for persons ages 18-25 in 1999- 2001 compared to the State and higher for ages 12-17 in 2002-2004 than either the State or the U.S.

Youth Consumption

- In St. Joseph County schools in 2007, students in the 9th grade reported higher cocaine and crack lifetime, annual, and 30-day use rates than their peers in the State; students in the 10th grade showed lower than expected annual cocaine and lifetime and annual crack use rates compared to North Central regional rates; and, annual use rates for 11th graders were statistically significantly higher than 11th graders in the State.
- In 2007, the mean age of first time use for St. Joseph County students was 14.2 and 12.7 years for cocaine and crack respectively. State mean ages of first use were 14.2 years for cocaine and 13.3 years for crack.

Impact: Health

- Between 2001 and 2005, over 39% of substance abuse clients were treated for cocaine use or abuse in St. Joseph County compared to a State rate of 12%. While the overall substance abuse treatment rate in the County was 90% of the State rate, St. Joseph County's cocaine treatment rate per 100,000 population was 2.9 times higher than the State as a whole,
- The percent of general hospital inpatient discharges for cocaine use/abuse were higher in St. Joseph County than in the State over the years 2002-2006 The percent of cocaine discharges for abuse (compared to dependence) were higher in St. Joseph County than in the State.
- Of the total number of newborns screened for drugs in St. Joseph County over the years 2002-2006, 13.9 percent indicated the presence of cocaine/metabolite in their meconium. This compared unfavorably to the State rate of 6.5 percent. In the County, cocaine represented a larger proportion of all positive screens for drugs (37.7%) compared to the State (27.6%) – about 36 percent higher.
- Cocaine dependence accounted for 17.4 percent of all drug dependence visits to area hospital emergency departments, while cocaine abuse comprised 3.1 percent of visits for non-dependent abuse of drugs.

Impact: Criminal Justice

- Drug possession arrests for cocaine in St. Joseph County were 75% higher than the State for all ages and 27% higher than the State in 2003-05 for juveniles. Compared to other large counties in the State, overall drug abuse violation arrests in St. Joseph County in 2003-05 trailed those in Allen, Marion, and Vanderburgh Counties. However, arrest rates for opium/cocaine possession in St. Joseph County were second to Marion County.
- Trends in arrest rates show that rates were higher in St. Joseph County compared to the State as a whole for all ages and juveniles for total drug abuse violations, drug possession, and possession of opium/cocaine. For adults, trends were up and rates higher for total drug abuse violation and opium/cocaine possession.

St. Joseph County
SPG SIG

Drug Facts

Alcohol

Prevalence

- Alcohol is the most frequently used drug in the County, the State, and the Nation.
- Adults (18 and older) in North Central Indiana were slightly less likely to have used alcohol in the past month. Average annual use based on 2002-2004 data indicate that 58.7 percent of adults ages 18-25 in the St. Joseph County regional area used alcohol in the month before the survey compared to 61.6 and 60.6 for Indiana and the U.S. respectively.
- The proportion of adults that drink has increased. In Indiana and the North Central region, past month use for those over 25 rose from 46.3 to 50 and from 42.6 to 49.4 percent respectively. The proportion of adults engaging in binge drinking has increased as well, although rates of binge drinking were comparable for the region, the State and Nation.

Youth Consumption

- Youth ages 12 to 17 in North Central Indiana were slightly more likely than their counterparts in the State or Nation to have used alcohol in the past month. Binge drinking among youth appears to be up in Indiana and the Region between two recent three-year time periods, rising 3.6 percentage points in the Region and 2.2 percentage points in the State. Survey estimates indicate that 28.5 percent of underage youth (12 to 20) used alcohol in the month prior to the survey, and that 19 percent had engaged in binge drinking at least once in the past 30 days.
- Students surveyed in 2007 from St. Joseph County Schools reported prevalence rates higher than the State rates for alcohol use: monthly prevalence rates were higher than State rates for alcohol in the 6th, 8th, and 12th grades; and, daily prevalence rates were higher than State rates for binge drinking (6th, 8th, and 12th).

Impact: Health

- The majority of drug-related admissions to treatment programs in the County are for alcohol abuse or dependence. In 2003, 53.5 percent of clients were admitted for alcohol as the primary drug of abuse or dependence. Those between the ages of 35 and 44 represented the highest proportion of treatment episodes for alcohol at 42 percent.
- The age-adjusted alcohol-related mortality rate for St. Joseph County covering the years 1994-2000 was 263 per 100,000 population compared to the State rate of 259. From 2002 to 2006, 51.6 percent of all fatal traffic accidents in St. Joseph County were alcohol-related. St. Joseph County, with an alcohol-related fatality rate of 24.5 deaths per 100,000 population, ranked 6th highest among counties in the State
- St. Joseph County hospitals discharge about 275 persons each year for alcohol abuse, dependence, or psychoses. Alcohol dependence syndrome accounted for nearly two-thirds (63.4%) of County alcohol-related discharges during 2002-2006.
- There has been a notable and consistent increase in the use of emergency department (ED) visits for alcohol-related diagnoses. Currently, about 12 percent of emergency department visits to the County's two area hospitals are for drug-related conditions. Of those visits, 17 percent were for alcohol-related diagnoses.

Impact: Criminal Justice

- St. Joseph County authorities have been arresting a considerably smaller proportion of the population for alcohol-related violations in comparison to the rest of Indiana. During the three-year period, 2003-2005, the rate for DUI in the County was 371.3 per 100,000 compared to the rest of the State at 606 – or, about 60 percent of the rate of the State. Similarly, the liquor law violation rate was 67.3 compared to State at 277.4, while the arrest rate for public intoxication in St. Joseph County was only 20 percent of that of the rest of the State.
- For juveniles, the arrest rate for DUI was 13.8 per 100,000 population 0-17, about two-thirds of that of the rest of the State. For liquor law violations, St. Joseph County youth were arrested at a rate of about 85 percent of the rest of Indiana, and for public intoxication, the County rate was only about 9 percent of the State rate.

St. Joseph County
SPG SIG

Drug Facts

Tobacco

Prevalence

- The North Central region, that includes St. Joseph County, registered higher tobacco product and cigarette smoking rates along with lower risk perception than either the State or the Nation across all age groups for the years 2002-2004.
- Over the years 2002-2004, St. Joseph County was among Indiana counties with the lowest smoking rates for women that are pregnant. Overall, the prevalence of smoking during pregnancy has declined significantly regardless of race or Hispanic origin, and the County's rates are notably lower than those in the State.

Youth Consumption

- In 2007, the prevalence of smoking among St. Joseph County students was highest in the early grades and notably lower in later ones. Lifetime, annual, monthly, and daily cigarette use and lifetime, annual and monthly cigar use rates were higher than State rates for students in the 6th grade, as were lifetime cigarette and cigar use rates for 8th graders. However, in both the 10th and 12th grades, all measures were significantly lower for both cigarette and cigar use.
- On nearly all measures and in all grades use rates for smokeless tobacco were significantly lower in St. Joseph County than State rates.

Impact: Health

- The preeminent effect of tobacco use is on rates of lung cancer, and Indiana's cancer death rate of the lung and bronchus has been about 16 percent higher than national figures.
- Age-adjusted death rates in St. Joseph County from malignant neoplasm of the trachea, bronchus, and lung have declined more rapidly than rates for the State. Over the six years – 2000 to 2005 – the death rate in the County fell 18.1 percent compared to the decline in the State of 4.1 percent. By 2005, the rate in St. Joseph County was 84 percent of the rate for the State.
- Incidence and mortality rates by gender show little difference between County and State rates. Roughly the same proportion of new cases of lung and bronchus malignancies was present for both the County and the State for both sexes.

Impact: Criminal Justice

- Non-compliance rates under the Tobacco Retailer Inspection Program (TRIP) have declined considerably over the 2002-2007 period in the State – from 19 percent to 13 percent non-compliance. St. Joseph County's rate has varied – from a high of 22.2 percent to a low of 8.1 percent. In 2007, 19 percent of the 210 businesses inspected, failed the TRIP inspections - matching highs in 2004 and 2005.
- The tobacco outlet density (outlets per 100,000 population) in St. Joseph County was about 87 percent of the rate for the State in 2004 and appears to have remained notably below that rate through 2007.

St. Joseph County
SPG SIG

Drug Facts

Marijuana

Prevalence

- Nearly 11 percent of persons ages 12 and older used marijuana in the past year while past month use was higher in the North Central region of the State compared to the State or Nation, and the trend was toward higher prevalence rates in the Region as well.
- The incidence rate of marijuana use (rate of new users) was higher in the North Central Region than in either the State or the Nation, and would appear to indicate higher prevalence rates in the near future. There are about two new users for every 100 persons ages 12 and older in the Region.

Youth Consumption

- Higher past year use rates for marijuana were reported by those ages 12 to 25 in the Region compared to the State or Nation, and similar patterns emerged for past month use as well. Higher prevalence rates in the North Central region of Indiana were driven by higher incidence of first use rates in the face of and despite no lower levels of risk perception than either State or national populations.
- National data indicate declining rates of regular use of marijuana. School surveys in St. Joseph County conducted in 2007 show reported higher prevalence rates for marijuana use than for the State. Lifetime prevalence rates were higher in grades 6,8,10, and 12; annual prevalence rates were higher in grades 8, 10, and 12; and, monthly use rates were higher in grades 6, 8, and 12.

Impact: Health

- About 13 percent of substance abuse clients in St. Joseph County were treated for marijuana use/abuse over the years 2001-2006 compared to the overall State rate of nearly 27 percent. While all drug admission rates to facilities in St. Joseph County have been about 87 percent of total State rates, treatment rates for marijuana/ hashish in St. Joseph County were, on average over the six year period 2001-2006, only 42 percent of State rates.
- While the admission rate to treatment facilities for marijuana use/abuse for 2001-2006 in Indiana was 2.4 times higher than the rate in St. Joseph County, the admission rate in Indiana has increased over 37.5 percent between 2001 and 2006 and the rate in St. Joseph County has risen over 50 percent)
- Over three– fourths of all persons admitted in St. Joseph County for treatment of marijuana were under 35 years of age. In St. Joseph County, less than four percent of admissions were under 18 years of age compared to the State 3-year average of 17 percent.

Impact: Criminal Justice

- Arrests for drug abuse violations for both the sale and possession of marijuana were 57.1 percent of all drug violations in St. Joseph County. About six of ten arrests for drug possession in the County were for possession of marijuana – about the same as the proportion for the State but considerably higher than the Nation.
- The St. Joseph County arrest rate for sales/manufacture of marijuana was about 60 percent of the State rate while for possession, the rate in the County was comparable to the State rate.
- Marijuana sales arrest rates in the County increased at a faster clip than the State against a decline at the national level. Over the years 2000 to 2005, the County's marijuana possession rates increased 14.4 percent while the State's rates were nearly flat at a 2.8 percent increase and the national rate declined 2.2 percent.
- Arrest rates for juveniles in the County rose dramatically between the years 2000 and 2005– from 113 per 100,000 under 18 years of age in 2000-2002 to 161.2 in 2003-2005. This was in stark contrast to juvenile arrest rates in the State and Nation that declined 5.1 and 8.3 percent respectively.

St. Joseph County
SPG SIG

Drug Facts

Major Data Sources

Alcohol-Related Hospitalizations

Indiana State Department of Health, "Indiana Hospital Discharge Data."
Available at: http://www.in.gov/isdh/dataandstats/hosp_disch_data/2005/index.htm

Alcohol-Related Mortality

Data on alcohol-related mortality was gathered from the Indiana State Department of Health, "Mortality Reports," for 2001-2005. Reports are available at: http://www.in.gov/isdh/dataandstats/mortality/mortality_index.htm

Alcohol, Tobacco and Other Drug Use by Indiana Children and Adolescents (ATOD)

The ATOD has been conducted for the past 17 years and the Indiana Prevention Resource Center (IPRC) has managed and reported the resulting data since 1991. The project is administered through a contract with the Division of Mental Health and Addiction of the Indiana Family and Social Services Administration to provide data for State and local planning groups with respect to the use of alcohol, tobacco, and other drugs (ATOD), gambling behaviors, and risk and protective factors. The ATOD includes data addressing the NSDUH's national outcomes measures (NOMs) as well as additional information. Data tables and graphs for the current survey can be downloaded from the IPRC website: http://www.drugs.indiana.edu/data-survey_monograph.html

Fatality Analysis Reporting System (FARS)

National Highway Traffic Safety Administration's database on fatal traffic crashes, including motor vehicle crashes that result in the death of an occupant of a vehicle or a non-motorist within 30 days of the crash. Variables include crashes and deaths involving alcohol.
Available at: http://www-fars.nhtsa.dot.gov/Main/index.aspx

Monitoring the Future (MTF)

National Institute on Drug Abuse's annual national survey of 8th, 10, and 12th grade students' behaviors, attitudes, and values.
http://www.monitoringthefuture.org/data/data.html

National Survey of Drug Use and Health (NSDUH)

The NSDUH (formerly known as the National Household Survey on Drug Abuse) is an annual survey of Americans age 12 and older conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA). NDSUH data are used to report the status of National Outcomes Measures (NOMs) for SAMHSA as required under the Government Performance and Results Act of 1993. The Indiana
Survey (see below, "ATOD") collects data on the majority of the NOMs. The latest NSDUH survey is available at: https://nsduhweb.rti.org/.

Prevalence of Chronic Diseases

Indiana Division of Mental Health and Addiction, Indiana Family and Social Services Administration. Available at: http://www.in.gov/fssa/dmha/4575.htm

Treatment Episode Data Set (TEDS)

Annual survey of populations treated for drug and alcohol conditions maintained by the Substance Abuse and Mental Health Services Administration (SAMHSA) which records information about individuals entering treatment for substance abuse and/or dependence. Data are submitted to TEDS by State mental health departments on an annual basis.
http://webapp.icpsr.umich.edu/cocoon/

Uniform Crime Reports (UCR)

A national database maintained by the FBI that records information on the rates of property crimes, violent crimes, and drug-related reported crimes throughout the United States, and arrests for sale and possession of drugs.
Available at: http://webapp.icpsr.umich.edu/cocoon/SAMHDA-SERIes/00056.xml

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Tippecanoe County Alcohol Data 2008

dangerous drinking PREVENTION PROJECT
TIPPECANOE COUNTY SPF-SIG

Prevalence

- 83.2 % of college students 18-25 years of age consumed alcohol in the past year.
- 85.7% of non-college students 18-25 years of age consumed alcohol in the past year.
- 43.7% of college students reported binge drinking the previous two weeks. A binge is defined s consuming 5 or more drinks in one sitting.
- According to the 2007 Purdue Wellness Survey, binge drinking peaks (57.5%) at age 21 and then tapers off over time.
- Binge drinking by non-college students peaks (75.1%) at age 21 and fluctuates between ages 22 and 25.

Impact: Health

- People in treatment for substance abuse in Tippecanoe County report an average age of 12 for first use of alcohol.
- In only 11 months of 2007, of the 559 admissions for drug-related substance abuse treatment at one local hospital, 425 were for alcohol treatment.
- More 21-25 year olds than any other age group were admitted to a local hospital for drug-related treatment from January 1, 2007 through November 30, 2007.
- 57.5% of college students reported experiencing hangovers.
- 48.6% of non-college persons reported experiencing hangovers.

Impact: Criminal Justice

- Tippecanoe County has seen a consistent number of Operating While Intoxicated (OWI) arrests for the past 7 years for 21-25 year-olds (between 300 to 350 arrests) annually.
- In 2006, 52 youth ages 16 years and under were arrested for minor consumption. The youngest of these arrests was age 11.
- 16% of OWI arrests involve someone who is a repeat offender.

Personal Consequences

- 41.5% of 21 year-old college students missed class after drinking.
- 20% of 22 year-old non-college students missed work after drinking.
- 40.4% of 22 year-old college students did something they later regretted after alcohol use.

Availability of Alcohol

- In 2008, 55.5% of businesses checked for Alcohol Compliance Enforcement sold alcohols to minors.
- The average age of people arrested for furnishing alcohol to a minor is between 21 and 22 years old across the years 2000-2006.

DRUG-FREE COALITION
OF TIPPECANOE COUNTY

Download or order the full report at
www.drugfreetippecanoe.org

For more information contact:
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Vigo County Fact Sheet On Underage Drinking & Binge Drinking In 18 to 25 Year Olds

Overview: Underage Drinking & Binge Drinking In 18 to 25 Year Olds

"Imagine Vigo County Together: Healthy, safe and drug-free environments that nurture and assist all Vigo County citizens to thrive."

If you have questions about this fact sheet or would like to obtain a complete report, please contact:

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Prevalence of Alcohol Use Among Vigo County Youth:

- According to the Indiana Alcohol, Tobacco, and Other Drug survey conducted annually by the Indiana Prevention Resource Center (IPRC) in Bloomington, Indiana, the percentage of Vigo County students at several grade levels who report weekly binge drinking (meaning consuming 5 or more drinks in one occasion) was higher than the state average in 2005 and 2007.
- By the time youth reach 8th grade, more than half of Vigo County Youth will have tried alcohol at least once in their lifetime.
- Sixth graders in Vigo County may be somewhat less likely to use alcohol than the typical Indiana 6th grader. However, at the higher grade levels the percentage of Vigo County students who drink is often higher than the average for the state of Indiana.
- The majority of underage college students in Vigo County (60-80%) drink alcohol at least occasionally.
- Between 2004-05 and 2006-07, various sources show a slight decrease in the percentage of middle school, high school, and college youth who drink. However, it is not yet clear if this represents an actual change in the behavior or is merely an artifact of inaccuracies in measurement.

Impact of Alcohol Use Among Vigo County Youth:

- The rate of alcohol related automobile collisions in Vigo County was among the highest 25% of Indiana Counties. At least 69 more counties had lower rates of alcohol related collisions than Vigo County.
- In 2007, more than 120 youth under the age of 18 were arrested for minor consumption of alcohol. Between 2000 and 2007, the greatest number of youth alcohol arrests occurs in the month of June.
- In 2006, over $1.2M was spent on alcohol and drug related hospital visits in Vigo County.
- In 2003 more people were treated for alcohol problems in Vigo County than any other type of drug problem.
- In 2006, nearly 200 Indiana State University (ISU) students were arrested or referred to the ISU Student Judicial Program for alcohol violations on the ISU campus.
- In the 2002-2003 school year, over half of the ISU Freshman reported having a hangover at least once. Around half indicated that they had been sick or thrown up after drinking at least once that school year. Around 20% indicated that they had driven a car when they knew they were too drunk to drive and a similar percentage reported having had relationship problems related to their alcohol use.

Substance Abuse Council of Vigo County, Inc.

Strategic Prevention Framework • State Incentive Grant

Availability of Alcohol to Vigo County Youth:

- Some Vigo County youth report greater access to alcohol than reported by youth from other Indiana counties. However, there also seems to be a group of youth in Vigo County who report less access to alcohol than youth from other countries.
- Vigo county has more alcohol sales outlets per person than most counties in the state of Vigo County ranked third in the state in terms of percentage of household income spent on alcohol.

Be apart of the solution and help make a difference in Vigo County by participating in our Underage Drinking and Binge Drinking prevention efforts.

Consequences of Alcohol Use in Vigo County

- Large numbers of Vigo County Middle School, High School, and College students report experiencing various negative consequences of alcohol use, with hangovers being most common, but rates of driving under the influence being unacceptably high at virtually all age levels.
- Youth arrests peak in the month of June. Additional information is needed to help see hoe that peak may occur and what specific prevention efforts might be able to reduce problem drinking and/or arrests during the month of June.
- The periods from age 15 to age 17 or between the 8th and 10th grades seem to be important times for transitioning into alcohol use and problems among Vigo County youth.
- Based on several sources of data, alcohol dependencies is the most frequently occurring diagnosis leading to substance abuse treatment in Vigo County.
- The largest groups of alcohol dependent individuals receiving subsidized treatment in Vigo County are white males between the ages of 35 and 44.
- The total cost of hospital treatment of substance abuse related medical problems in Vigo County increased annually since 2003, topping $1M in 2006.

Substance Abuse in Wayne County, Indiana

A summary of alcohol, tobacco, and other drugs used in Wayne County, Indiana.

Prepared for by
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A New Day Dawning on a Drug Free Wayne County

Introduction

The Partnership for a Drug Free Wayne County received funding for the SPF-SIG grant, received for the prevention and intervention of cocaine use in youth and young adults ages 18-25 in our community. We obtained this grant in part because we had the second highest arrest rate for cocaine per capita in the State of Indiana according to the 2005 Unified Crime Report. We are looking to see where the problems are geographically as well as the county environment that appears to encourage substance abuse. We will also be looking at programs which are evidence based for implementation in the second year of the grant. The Epidemiological report (statistical analysis) is complete and has been released to the public. The grant has two full-time staff members, as well as a large amount of volunteers.

This is a four year grant with the possibility of rollover funding. Staff was hired in August of 2007 and the assessment process was begun. The purpose of the grant is to prevent and reduce first time use of cocaine in 18-25 year olds. Our motto is "A New Day Dawning". We believe that each day can bring new horizons and the Strategic Planning Framework (SPF) is a way in which we can make positive change and measure our progress. The grant was awarded to the Local Coordinating Council (LCC) also known as the Partnership for a Drug Free Wayne County and they appointed a Local Advisory Council (LAC) to guide the process in Wayne County. Next, the Local Epidemiological and Outcomes Workgroup (LEOW) was formed, and data gathering and analysis began. Twelve focus groups were conducted to get more information than the public data would render.

Wayne County is located on the state line on I-70 mid-way between Indianapolis, Indiana and Dayton, Ohio. The population is approximately 68,900. One half of the population resides in the city of Richmond, and the remainder lives in the county outside of Richmond. Since the 1970's the population has remained steady. Wayne County used to consist of a manufacturing and farming base. The county now supports a service industry base and still has a significant amount of farmland.

Wayne County SPF~SIG

Vision

Establish a strategic layout and time frame to implement the phases of the SPF~SIG project.

Mission

Identify specific time frames to accomplish the tasks detailed in the SPF~SIG benchmarks, acquire the resources necessary for technical assistance with focus on community, stability, and infrastructure development, and identify those with whom the stewardship lies to accomplish the tasks. Wayne County will reduce substance abuse (with a focus on cocaine) in the 18-25 year old age bracket.

For questions, additional information, or comments; please contact:

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Alcohol

- Alcohol abuse rates were not significantly higher than the state average according to the 2006-2007 ATOD survey taken by Wayne County high-schools.
- Most illicit drug users that we spoke to in focus groups in Wayne County stated that they used alcohol with illicit drugs.
- 91% of respondents to our community readiness survey stated that alcohol caused problems in our county.
- According to the GIS in Prevention County Profiles, Wayne County has 117 alcohol outlets. This makes the outlets per 1,000 persons 1.67 in Wayne County
- According to the FBI UCR from 2002-2005, Wayne County had 1,953 alcohol related arrests. 102 of them were juveniles.
- According to the Indiana State Police National Archive of Criminal Justice Data for 2007, Wayne County had 871 DUI arrests, 509 public intoxication arrests, and 172 liquor law violation arrests.

Tobacco

- Cigarette usage was significantly higher in the 8th grade in the urban schools.
- Smokeless tobacco use was significantly higher in the 7th grade in rural areas.
- Focus groups stated that tobacco was usually the first step in substance abuse and that it was readily available. Some users stated that they used tobacco as early as 4 years old.
- According to the 2006, 2007 IPRC ATOD survey; 17.7 % of all high school seniors in Wayne County smoke at least at least 10 cigarettes a day.
- According to the PREV-STAT, the average yearly amount spent on tobacco per household in Wayne County is $428.

Cocaine

(funded priority)

- Wayne County had over 100 arrests for cocaine/crack according to the 2005 UCR report among 18-25 year olds.
- Wayne County is in the top 10th percentile for cocaine use of those who were admitted for treatment in a community mental health center in 18-25 year olds.
- Wayne County is in the top 10th percentile for cocaine abuse among 18-25 year olds.
- Medicaid is paying for less then half of the cost of cocaine abuse treatment in Wayne County.
- Racially, Caucasians have the highest treatment episodes for primary and secondary drug of choice for cocaine/crack.
- The Wayne County Department of Child Services data indicated that 22 cases were open in the last 90 days that included cocaine abuse.
- According to the UCR data, Wayne County ranks in the top 10th percentile for:
    - Cocaine possession arrests (adult)
    - Cocaine sales arrests (adult)
    - Cocaine possession arrests (juvenile)
    - Cocaine sales arrests (juvenile)
- The data from the ATOD survey states that cocaine/crack usage is starting as young as the 6th grade and slowly progresses to younger ages each year.
- Self reporting usage of crack/cocaine peaked in the 11th grade on the ATOD survey.
- The State Epidemiology and Outcomes Workgroup ranked the top Indiana counties with significant substance abuse challenges. Wayne County fell in the top 25% of all Indiana counties as having a high cocaine priority.
- According to the TEDS 2005 data, Wayne County had 98 patients who listed cocaine as their primary substance at admission, of those, 54 of them reported total dependency

Other substances

- The Social Indicator Systems data from the Adult Household Survey in 2005 shows that illicit drug use among females was greater than use among males in the span of one month. The highest illicit drug usages were in the 18-25 year old age range.
- Wayne County arrest data shows that more males were arrested than females for illicit drug use.
- Wayne County data indicates that 25% of the population has used illicit drugs at some point in their lifetime, according to the 2005 Adult Household Survey. The highest illicit drug usage was between the ages of 18-25 for females and 25-44 for males.
- Racially, Caucasians used at a greater rate than any other race in Wayne County.
- The ATOD survey for Wayne County reported that marijuana usage was significantly higher in the 9th and 10th grades.
- Wayne County's usage of marijuana among students exceeds the state in three out of four grades (9th, 11th, and 12th).
- The Wayne County drug task force made controlled buys for various substances in 2007. Prescription drug buys were the largest contributing category for controlled buys.
- According to the 2007 DEA report, Wayne County has a dosage rate per person of 7.95 for Oxycodone units.
- The 2005 UCR reports that Wayne County has a rate per 1,000 people of 1.95 for cocaine/opiate possession arrest rates.
- According to the ATOD survey from 2006-2007, over 8% of 8th grade students have missed school due to substance use.
- According to the 2005 UCR data, more than 9 out of every 1,000 people in Wayne County have been arrested for drug possession or sale/manufacturing. This statistic puts Wayne County in the top 10 percent in the entire state.
- 35% of respondents to our community readiness survey believed the community thinks substance abuse should be tolerated.

The following data sources were used for our analysis:

- Adult Household Survey
- Alcohol, Tobacco and Other Drugs Survey (ATOD) of all five school districts in Wayne County
- GIS data and block group mapping provided by IPRC (Indiana Prevention Resource Center)
- 2000 Census data with current estimates provided by IPRC
- Department of Child Services (DCS) data
- Court filings data
- Wayne County Drug Task Force data
- State Department of Health
- TEDS (Treatment Episode Data)
- Private treatment center data
- Focus groups (twelve focus groups were conducted in December 2007 & January 2008)
- Community Readiness Survey
- Kids Count data
- SIS (Social Indicator System)
- Maps from the State Epidemiological Report
- Aurora Treatment Center data
- TRIP (Tobacco Retailer Inspection Programs)

Appendix I: Acronyms

ADD	Attention Deficit Disorder
ADHD	Attention Deficit Hyperactivity Disorder
ARDI	Alcohol-Related Disease Impact database
ARIES	Automated Reporting Information Exchange System
ATOD	Alcohol, tobacco, and other drugs. Often refers to the annual school survey *Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents.*
BRFSS	Behavioral Risk Factor Surveillance System
CDC	Centers for Disease Control and Prevention
CSAP	Center for Substance Abuse and Prevention
DEA	U.S. Drug Enforcement Administration
DMHA	Division of Mental Health and Addiction
EPIC	El Paso Intelligence Center
ETS	Environmental Tobacco Smoke
FARS	Fatality Analysis Reporting System
FSSA	U.S. Family and Social Services Administration
GAC	Governor's Advisory Council
HBV	Hepatitis B Virus infection
HCV	Hepatitis C Virus infection
ICD-10	International Classification of Diseases, 10th Revision
ICPSR	Inter-University Consortium for Political and Social Research
ICJI	Indiana Criminal Justice Institute
IDOE	Indiana Department of Education
IDU	Injection Drug Use
IPRC	Indiana Prevention Resource Center
ISDH	Indiana State Department of Health
ISEP	Indiana State Excise Police
ISP	Indiana State Police
ITPC	Indiana Tobacco Prevention and Cessation Agency
IYTS	Indiana Youth Tobacco Survey
MTF	Monitoring the Future Survey
NCLSS	National Clandestine Laboratory Seizure System
NHTSA	National Highway Traffic Safety Administration
NIDA	National Institute on Drug Abuse
NIH	National Institutes of Health
NSDUH	National Survey on Drug Use and Health
NVSS	National Vital Statistics System
NYTS	National Youth Tobacco Survey
OAS	Office of Applied Studies
SAMMEC	Smoking-Attributable Mortality, Morbidity, and Economic Costs
SAMHSA	U.S. Substance Abuse and Mental Health Services Administration
SEDS	State Epidemiological Data System
SEOW	State Epidemiology and Outcomes Workgroup
SIDS	Sudden Infant Death Syndrome
SPF SIG	Strategic Prevention Framework State Incentive Grant
SPSS	Statistical Package for the Social Sciences
STD	Sexually Transmitted Disease
TEDS	Treatment Episode Data Set
UCR	Uniform Crime Reports
USDHHS	U.S. Department of Health and Human Services
VCRS	Vehicle Crash Record System
WHO	World Health Organization
YRBSS	Youth Risk Behavior Surveillance System

Appendix II: Data Sources Recommended by the State Epidemiology and Outcomes Workgroup (SEOW)

Data Set	Source	Years	How to Access	Coverage	Target
Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) Survey	IPRC	Annual 1993-present	http://www.drugs.indiana.edu/data-survey_monograph.html or contact drugprc@indiana.edu	Indiana and regions; County-level possibly on request	6th – 12th grade students in Indiana
Alcohol-Related Disease Impact (ARDI) Database	CDC	Based on averages 2001-2005	http://apps.nccd.cdc.gov/ardi/Homepage.aspx	U.S. and states	General population
Automated Reporting Information Exchange System (ARIES), Vehicle Crash Records System (VCRS)	ISP	Annual	On request from ISP	Indiana and counties	Vehicle collisions in general population
Behavioral Risk Factor Surveillance System (BRFSS)	CDC	Annual 1990-present	http://apps.nccd.cdc.gov/brfss/	U.S. and states	Adults 18 and older
Behavioral Risk Factor Surveillance System: Selected Metropolitan/Micropolitan Area Risk Trends (BRFSS SMART)	CDC	Annual 2002-present	http://apps.nccd.cdc.gov/brfss-smart/index.asp	Selected Metropolitan and Micropolitan Areas	Adults 18 and older
Fatality Analysis Reporting System (FARS)	NHTSA	Annual 1994-present	http://www-fars.nhtsa.dot.gov/	U.S., states, and counties	General population
Hospital Discharge Database	ISDH/Indiana Hospital & Health Association	Annual	ISDH at http://www.in.gov/isdh/reports/hosp_disch_data/2006/index.htm or on request	Indiana and counties	General population
Indiana Adult Tobacco Survey (IATS)	ITPC	Bi-annual 2002-present	Reports at http://www.in.gov/itpc/2949.htm, or data on request	Indiana	Adults
Indiana Clandestine Meth Lab Seizures population	ISP	Annual	Data on request from ISP	Indiana and counties	General
Indiana Youth Tobacco Survey (IYTS)	ITPC	Bi-annual 2000-present	http://www.in.gov/itpc/2954.htm or on request	Indiana	6th – 12th grade students in Indiana
Monitoring the Future (MTF) Survey	NIDA	Annual 1999-present	http://www.monitoringthefuture.org/data/data.html	U.S.	8th, 10th, and 12th grade students
Mortality data (e.g., alcohol-, smoking-, and drug-related mortality)	ISDH	Annual	On request from ISDH	Indiana and counties	General population

Data Set	Source	Years	How to Access	Coverage	Target
Mortality data (e.g., alcohol-, smoking-, and drug-related mortality)	CDC	Annual 1999-2005	CDC WONDER at http://wonder.cdc.gov/mortSQL.html	U.S., states, and counties	General population
National Survey on Drug Use and Health (NSDUH)	SAMHSA	Annual 1994-present	https://nsduhweb.rti.org/	U.S., states, and some sub-state estimates	Population 12 years and older
National Youth Tobacco Survey (NYTS) and	CDC	Bi-annual 2000-present	http://www.cdc.gov/tobacco/data_statistics/surveys/nyts/index.htm	U.S.	6th – 12th grade students
Newborn Screening Program/Meconium Screening Program	ISDH	Annual	On request from ISDH (see http://www.in.gov/isdh/20215.htm)	Indiana and counties	Infants
Population Estimates	U.S. Census Bureau	Annual	http://www.census.gov/	U.S., states, and counties	General population
School-related variables (e.g., suspensions & expulsions, drop-outs, ISTEP scores, etc.)	IDOE	Annual	http://dew4.doe.state.in.us/htbin/sas1.sh or on request	Indiana and counties	K-12 students in Indiana
Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC)	CDC	Based on 2001 data	http://apps.nccd.cdc.gov/sammec/index.asp	U.S. and states	General population
State Emergency Department Database (SEDD)	AHRQ/ISDH	Annual	Report on request from ISDH	Indiana and counties	General population
Treatment Episode Data Set (TEDS)	SAMHSA	Annual 1992-present	http://webapp.icpsr.umich.edu/cocoon/SAMHDA-SERIES/00056.xml	U.S. and states; for county-level data contact Indiana DMHA	Treatment population eligible for public services (200% FPL)
Uniform Crime Reporting Program (UCR)	FBI/NACJD	Annual	http://www.icpsr.umich.edu/NACJD/ucr.html	U.S., states, and counties	Arrests within general population
Youth Risk Behavior Surveillance System	CDC	Bi-annual	http://apps.nccd.cdc.gov/yrbss/	U.S. and states	High school students

Appendix II (continued)
Data Packages and Reports

Data Set	Source	How to Access	Coverage	Target
Traffic Safety Reports	ICJI/ISP	http://www.in.gov/cji/2572.htm	Indiana and counties	General population
Indiana Alcohol and Other Drugs County Level Epidemiological Indicators (CLEI)	IPRC	Access to various data sources http://www.sis.indiana.edu/	Indiana and counties	Youth and general population
Prev-Stat County Profiles	IPRC	County profiles can be accessed at http://www.drugs.indiana.edu/data-prev stat-county01.html	Indiana counties	General population
State Epidemiological Data System (SEDS)	HHS/CSAP	A “data packet” can be downloaded containing various datasets http://www.epidcc.samhsa.gov/	U.S. and states	General population

“Data Packages” are websites that contain a variety of data sources.

Abbreviations used: AHRQ = Agency for Healthcare Research and Quality; ARIES = Automated Reporting Information Exchange System; CDC = Centers for Disease Control and Prevention; CLEI = County-level Epidemiological Indicators (previously SIS, or Social Indicator System); CSAP = Center for Substance Abuse Prevention; FBI = Federal Bureau of Investigations; HHS = Department of Health and Human Services; ICJI = Indiana Criminal Justice Institute; IDOE = Indiana Department of Education; IPRC = Indiana Prevention Resource Center; ISDH = Indiana State Department of Health; NACJD = National Archive of Criminal Justice Data; SAMMEC = Smoking-Attributable Mortality, Morbidity, and Economic Costs; ISP = Indiana State Police; ITPC = Indiana Tobacco Prevention and Cessation Agency; NHTSA = National Highway Traffic Safety Administration; NIDA = National Institute on Drug Abuse; SAMHSA = Substance Abuse and Mental Health Services Administration; SEDS = State Epidemiological Data System; VCRS = Vehicle Crash Records System.

The Consumption and Consequences of Alcohol, Tobacco, and Drugs in Indiana: A State Epidemiological Profile 2008

Indiana State Epidemiology and Outcomes Workgroup

The Indiana State Epidemiology and Outcomes Workgroup (SEOW) was established in April 2006 to review epidemiological data on the patterns and consequences of substance use and abuse in Indiana and to make recommendations to the Governor's Strategic Prevention Framework (SPF) Advisory Council regarding priorities for prevention funding for the following year. The priorities were developed based on a systematic analysis of available data, the results of which are detailed in this report.

Indiana Family & Social Services Administration

School of Public and Environmental Affairs
Indiana University
IUPUI

Center for Health Policy

Our Vision

"Healthy, safe, and drug-free environments that nurture and assist all Indiana citizens to thrive."

Our Mission

"To reduce substance use and abuse across the lifespan of Indiana citizens."

09-C04