MARIJUANA

COCAINE

PRESCRIPTION DRUGS

The Consumption and Consequences of Alcohol, Tobacco, and Drugs in Indiana: A State Epidemiological Profile 2009

Indiana State Epidemiology and Outcomes Workgroup

SCHOOL OF PUBLIC AND ENVIRONMENTAL AFFAIRS

INDIANA UNIVERSITY

IUPUI

TOBACCO

HEROIN

METHAMPHETAMINE

ALCOHOL

THE CONSUMPTION AND CONSEQUENCES OF ALCOHOL, TOBACCO, AND DRUGS IN INDIANA: A STATE EPIDEMIOLOGICAL PROFILE 2009

Developed by the Indiana State Epidemiology and Outcomes Workgroup, 2009

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 Health Policy

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 at the School of Public and Environmental Affairs, and associate director of the Indiana Consortium for Mental Health Services Research.

The other members of the SEOW Support Team are analysts at the Center for Health Policy, including:
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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 healthcare 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, healthcare 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 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.

This 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 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 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 Governor's Advisory Council (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.

In 2008, a second cohort of communities was awarded funds to complete a local epidemiological profile and develop a strategic plan. These eight communities, too, have done remarkable work to encourage data-driven prevention planning in their counties.

As we do each year, we have updated the core set of analyses to reflect the most recent data available. In order to make the report most useful for state and local policy makers and service providers, we present detailed information and other descriptive analyses regarding the patterns and consequences of substance use both for the state and, where possible, each of Indiana's 92 counties. This year's report incorporates two significant new features.

First, we included data from a new statewide telephone survey conducted by the Survey Research Center at IUPUI. The survey was designed by members of the SEOW to collect additional information to augment the existing data sources we have relied on for the past several reports. In addition to helping fill in some gaps in our knowledge about what is happening at the state level, the survey design included an oversample of individuals in the SPF SIG funded communities that has allowed us to make new local data available to them to assist in local planning efforts.

Second, we have added a new chapter on the economic impact of substance abuse in Indiana. This chapter pulls together data from a wide array of sources and describes how much we are spending, as a state, to prevent and control substance abuse. It also details the financial consequences of substance abuse in terms of healthcare costs and productivity. The purpose of this new chapter is to enhance our understanding of the broader economic impact substance use has on the state of Indiana.

As with all of our prior reports, our primary aim in preparing this annual report is to provide a useful 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 publish several companion documents, including a chart pack of the graphs and figures in this report and a series of fact sheets on each of the major substances. This report, along with the companion documents and earlier

versions of the report, is available on the Center for Health Policy Web site (www.policyinstitute.iu.edu/health/epi) 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 in both Indiana and the United States. About half of the population 12 years and older reported current (past month) use (IN: 50.05%; U.S.: 51.04%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.). 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 (22.34%) and the United States (23.15%). The highest rate was found among 18- to 25-year-olds (IN: 41.48%; U.S.: 41.99%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

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 (4.5%) and the United States (5.1%). No significant differences by gender, race, or age group were found among Hoosiers (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, 14.83% of 12- to 17-year-old youths reported that they consumed alcohol in the past 30 days (current use) (U.S. 16.28%).

In the age category of 12 to 20 years old, the numbers were even higher: 26.37% of young Hoosiers reported current use of alcohol (U.S.: 28.12%), and 18.46% confirmed that they engaged in binge drinking (U.S.: 18.80%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

An estimated 4 in 10 high school students (grades 9 through 12) reported current alcohol use (IN: 43.9%; U.S.: 44.9%), and one in four admitted to binge drinking in the past month (IN: 28.2%; U.S.: 25.5%). Indiana and the nation were similar on both measures (Centers for Disease Control and Prevention, 2008b).

In Indiana, a small percentage of 8th, 10th, and 12th grade students reported drinking alcohol daily (i.e., on at least 20 occasions during the past month)—1.5%, 2.7%, and 4.0%, respectively. U.S. rates seemed lower (0.7%, 1.0%, and 2.8%), but statistical significance of the differences could not be determined (Indiana Prevention Resource Center, 2009; 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 (7.27%) and the nation (7.58%). The most affected age group encompassed 18- to 25-year-olds (IN: 17.26%; U.S.: 17.23%). The percentages of individuals needing but not receiving treatment for alcohol use in the past year were also comparable (IN: 6.72%; U.S.: 7.23%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

According to treatment data, alcohol was responsible for the largest percentage of admissions to substance abuse treatment facilities in 2007. Indiana's rate (48.1%) was significantly higher than the U.S. rate (40.2%). White individuals and older adults reported the highest rates (Substance Abuse and Mental Health Data Archive, 2008).

Morbidity and Mortality

An estimated 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 ages 25 and older (Epidemiology Resource Center, Data Analysis Team, 2008). Tables 1.1 and 1.2 list conditions 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, 2008b).

In Indiana, the number of alcohol-related collisions decreased from 13,911 in 2003 to 9,411 in 2008. Also, the number of fatalities in crashes attributable to alcohol declined from 242 to 218 during those same years. The 2008 overall annual rate for alcohol-related collisions in Indiana was 1.48 per 1,000 population (Indiana State Police, 2009).

Legal Consequences

Indiana's 2007 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 (IN: 5.08; U.S.: 4.11), public intoxication (IN: 3.50; U.S.: 1.72), and liquor law violations (IN: 2.37; U.S.: 1.83) (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.).

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 (33.49%) said they used a tobacco product in the past month (current use), a rate significantly higher than the U.S. rate of 29.12%. The age group with the highest rate was 18- to 25-year-olds (IN: 49.07%; U.S.: 42.89%), and here too, Indiana's rate exceeded the nation's significantly. Most tobacco consumers smoked cigarettes, and Indiana's current cigarette smoking prevalence among individuals ages 12 years and older was significantly higher than the nation's (IN: 27.96%; U.S.: 24.63%). Again, the highest rate was found among 18- to 25-year-

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

Condition	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 Conditions that are Partially Attributable to Alcohol Use in Indiana (Alcohol-Related Disease Impact Database, Based on Averages from 2001–2005)

Condition	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

olds (IN: 43.17%; U.S.: 37.29%); the difference between Indiana and the nation was significant (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Adult (18 years and older) smoking prevalence in Indiana (26.0%) was the sixth highest in the nation and significantly greater than the U.S. rate (18.4%). Smoking prevalence was inversely associated with education and income level: Very high rates of use were found among individuals with less than a high school education (IN: 50.5%; U.S.: 30.1%) and people whose household income was below $15,000 (IN: 40.3%; U.S.: 31.0%) (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	50.5%	42.8%-58.2%
High school or GED	30.5%	26.9%–34.2%
Some post-high school	27.4%	23.7%–31.1%
College graduate	10.3%	7.8%–12.8%
Income	**Smoking Prevalence**	**95% Confidence Interval**
Less than $15,000	40.3%	31.9%–48.7%
$15,000 – $24,999	38.4%	32.6%–44.2%
$25,000 – $34,999	35.1%	28.0%–42.3%
$35,000 – $49,999	30.2%	24.8%–35.6%
$50,000 and above	17.2%	14.3%–20.1%

Source: Centers for Disease Control and Prevention, 2008a

Youth Consumption

The percentages of young people (12 to 17 years) currently using a tobacco product (IN: 14.70%; U.S.: 12.65%) and currently smoking cigarettes (IN: 11.80%; U.S.: 10.10%) were similar for Indiana and the nation (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

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, 2008b).

Past-month cigarette use decreased significantly from 2000 through 2008 among Indiana students: from 9.8% to 4.1% for middle school students, and from 31.6% to 18.3% for high school students (Indiana Tobacco Prevention and Cessation Agency, 2009).

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)—4.7%, 10.8%, and 15.0%, respectively. U.S. rates seemed lower (3.1%, 5.9%, and 11.4%), but statistical significance of the differences could not be determined (Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.).

Morbidity and Mortality

Tobacco causes serious health consequences, including lung cancer, respiratory illness, and heart disease. Over 9,700 Hoosiers are estimated to die annually from smoking-attributable causes. The age-adjusted annual tobacco-attributable mortality rate (per 100,000 population) was higher among Hoosiers (308.9) than the rest of the nation (263.3) (Centers for Disease Control and Prevention, n.d.).

MARIJUANA

Marijuana is the most commonly used illicit substance. In Indiana, 512,000 residents (9.87%) reported past-year use (U.S.: 10.22%), and 312,000 Hoosiers (6.02%) used the drug in the past month (U.S.: 5.92%); 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: 27.59%; past-month use: 16.19%); national rates were similar (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Youth Consumption

Among youths ages 12 to 17 in Indiana, an estimated 5.95% had used marijuana for the first time during the past year, a rate similar to the national rate of 5.56%. Patterns of current marijuana use among Indiana residents ages 12 to 17 mirrored national rates (IN: 7.36%; U.S.: 6.67%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

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, 2008b).

A review of data shows a decline in current marijuana use from 2002 through 2009 among 8th, 10th, and 12th grade students in Indiana. Indiana rates seem higher than U.S. rates, except among high school seniors; 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, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.)

Marijuana Abuse and Dependence

In 2007, more than half (54.0%) of Indiana residents in substance abuse treatment reported marijuana use at admission (U.S.: 36.0%); 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 (56.7%) and individuals under the age of 18 (83.3%). About one-fourth of Hoosiers in treatment (23.8%) reported marijuana dependence,[1] a rate significantly higher than the U.S. rate (15.7%). Males (25.4%), younger individuals under the age of 18 (63.3%), and blacks (30.2%) had statistically higher rates of marijuana dependence (Substance Abuse and Mental Health Data Archive, 2008).

Legal Consequences

Arrest rates per 1,000 population for marijuana possession were similar in Indiana and the nation (IN: 2.28; U.S.: 2.29). However, Indiana's arrest rate per 1,000 population for marijuana sale/manufacture (0.30) was slightly higher than the U.S. rate (0.27) (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 (IN: 2.19%; U.S.: 2.39%). Young adults ages 18 to 25 displayed the

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

Table 1.4 Percentage of Indiana and U.S. 8th, 10th, and 12th Grade Students Reporting Current Marijuana Use, by Grade (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2002–2009; Monitoring the Future Survey, 2002–2008)

Grade	Geography	2002	2003	2004	2005	2006	2007	2008	2009
8th	Indiana	11.1%	10.6%	9.8%	9.3%	8.2%	8.3%	7.1%	7.8%
	U.S.	8.3%	7.5%	6.4%	6.6%	6.5%	5.7%	5.8%	N/A
10th	Indiana	19.2%	18.2%	17.2%	16.0%	14.6%	14.4%	13.5%	14.6%
	U.S.	17.8%	17.0%	15.9%	15.2%	14.2%	14.2%	13.8%	N/A
12th	Indiana	20.5%	19.8%	18.3%	17.8%	17.2%	15.8%	16.2%	16.7%
	U.S.	21.5%	21.2%	19.9%	19.8%	18.3%	18.8%	19.4%	N/A

Source: Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

highest rates (IN: 6.37%; U.S.: 6.63%). 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, n.d.).

Youth Consumption

Past-year cocaine use among 12- to 17-year-olds was statistically similar in Indiana and the United States (IN: 1.41%; U.S.: 1.57%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

High school students' rates for lifetime use (IN: 8.0%; U.S.: 7.2%) and current use (IN: 3.8%; U.S.: 3.3%) 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, 2008b).

Data from 2000 through 2008 indicate that rates for current cocaine and crack use among high school seniors seemed to be similar between Indiana and the nation; rates remained stable or even declined over the years (see Figure 1.1). However, the significance of the results could not be determined (Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.)

Cocaine Abuse and Dependence

In 2007, almost one-fourth of Indiana's treatment episodes involved cocaine use (23.9%); this figure was significantly lower than the U.S. percentage (30.5%). 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.

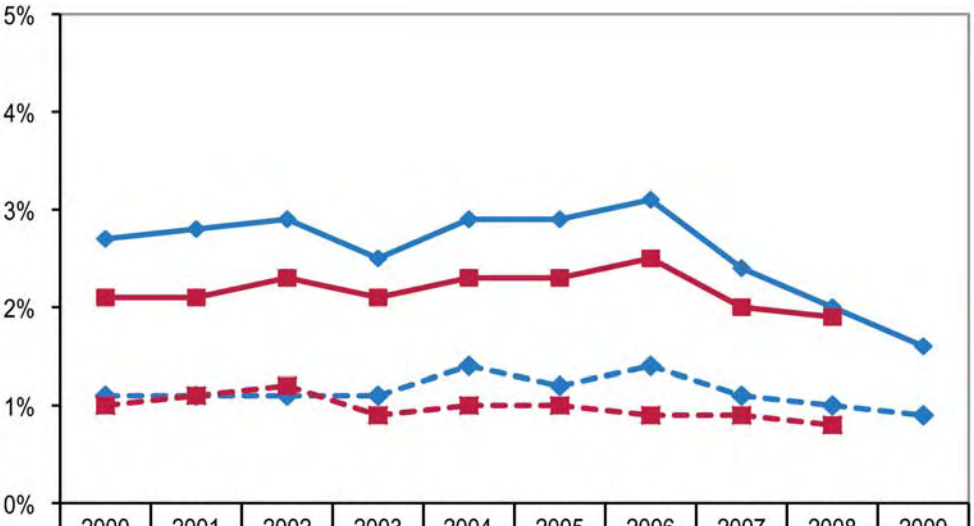
In more than one-tenth (11.8%) of treatment episodes, cocaine was listed as the primary drug; the U.S. percentage (12.9%) was significantly higher. The percentage of treatment episodes with cocaine dependence[2] has been significantly lower in Indiana than the nation for at least the past seven years (2001 through 2007). Significant differences within the Indiana treatment population were seen by gender, race, and age group (see Table 1.5) (Substance Abuse and Mental Health Data Archive, 2008).

Legal Consequences

Indiana law enforcement made over 3,900 arrests for possession and almost 2,700 arrests for sale/manufacture of opiates and cocaine in 2007, representing arrest rates of 0.62 and 0.42 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's (1.09

[2]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 Survey, 2000–2009; Monitoring the Future Surveys, 2000–2008)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Indiana Cocaine	2.7%	2.8%	2.9%	2.5%	2.9%	2.9%	3.1%	2.4%	2.0%	1.6%
U.S. Cocaine	2.1%	2.1%	2.3%	2.1%	2.3%	2.3%	2.5%	2.0%	1.9%	
Indiana Crack	1.1%	1.1%	1.1%	1.1%	1.4%	1.2%	1.4%	1.1%	1.0%	0.9%
U.S. Crack	1.0%	1.1%	1.2%	0.9%	1.0%	1.0%	0.9%	0.9%	0.8%	

Source: Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

and 0.38 per 1,000 population, respectively) (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). [3]

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 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 (IN: 3.6%; U.S.: 2.3%). No significant differences were detected by gender, race, or grade level in Indiana (Centers for Disease Control and Prevention, 2008b).

Table 1.5 Percentage of Treatment Episodes with Cocaine Dependence Reported at Treatment Admission in Indiana (Treatment Episode Data Set, 2007)

		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]The Uniform Crime Reporting Program dataset combines arrests for cocaine and opiates; arrest information is not available for cocaine or opiates alone.

In 2009, among 12th grade students in Indiana, 2.4% reported lifetime use, 1.5% reported annual use, and 0.8% reported monthly use of heroin. Throughout the years, the percentage of Indiana high school seniors reporting heroin use seemed similar or slightly higher compared to the nation. However, statistical significance could not be determined (Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.)

Heroin Abuse and Dependence

In 2007, heroin use was reported in 2.9% of Indiana treatment episodes; this figure was significantly lower than the U.S. percentage (16.5%). In only 2.0% of treatment episodes in Indiana, heroin dependence[4] was reported. Again, the U.S. percentage was significantly higher (13.8%). Significant differences in heroin dependence were seen by gender (more women reported 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 2008, 367 new HIV infections and 146 new AIDS cases were reported in Indiana. A total of 9,253 individuals were living in Indiana with HIV disease,[5] and 781 (or 8.4%) of these cases were attributable to injection drug use (IDU) (Indiana State Department of Health, 2009).

The calculated annual AIDS rate (per 100,000 population) in Indiana was 5.5 (U.S.: 12.9) (Centers for Disease Control and Prevention, 2009a).

The hepatitis B virus (HBV) and hepatitis C virus (HCV) are usually transmitted via unprotected sex and among injection drug users. The incidence rates per 100,000 population for acute hepatitis in Indiana were 1.0 for HBV (U.S.: 1.5) and 0.2 for HCV (U.S.: 0.3) in 2007. Both HBV and HCV incidence rates have dropped in the past decades (Centers for Disease Control and Prevention, 2009b). The age-adjusted mortality rate (per 100,000 population) attributable to hepatitis B and hepatitis C (acute and chronic) was 1.4 in Indiana (U.S.: 2.2) (Centers for Disease Control and Prevention, n.d.). .

Legal Consequences

In 2007, law enforcement made a total of 3,937 arrests for possession and 2,668 arrests for sale/manufacture of opiates and cocaine in Indiana, representing arrest rates of 0.62 and 0.42 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's (1.09 and 0.38 per 1,000 population, respectively) (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, n.d.).[6]

METHAMPHETAMINE

In Indiana, 4.5% of the population (225,000 residents) have used meth at least once in their life (U.S.: 5.0%), 0.8% (40,000 residents) used it in the past year (U.S.: 0.3%), and 0.2% (10,000 residents) used it in the past month (U.S.: 0.1%). The rate for past-year use was greatest among 18- to 25-year-old Hoosiers (1.9%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Youth Consumption Patterns

Lifetime prevalence of methamphetamine use among high school students was similar in Indiana and the nation (IN: 6.2%; U.S.: 4.4%). Rate differences by gender, race, or grade level were not significant in Indiana (Centers for Disease Control and Prevention, 2008b).

Indiana meth prevalence among 12th grade students has remained stable for lifetime, annual and monthly use, from 2008 to 2009 (see Figure 1.2) (Indiana Prevention Resource Center, 2009).

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

Methamphetamine Abuse and Dependence

Between 2000 and 2007, the percentage of treatment admissions in Indiana reporting meth dependence[7] increased significantly from 1.5% to 4.8%, with its peak of 5.9% in 2005. Indiana's percentage was significantly lower compared to the nation's (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

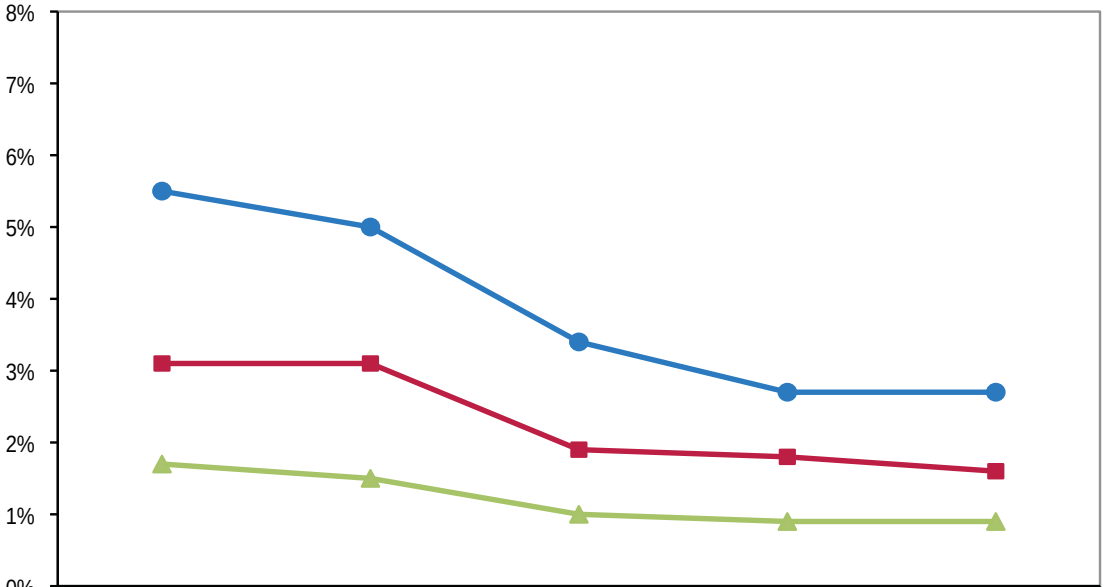
The Indiana State Police seized 1,059 clandestine methamphetamine labs in 2008, an almost 30% increase from the 820 lab seizures in 2007 (Indiana State Police, 2009).

In Indiana, over 1,500 arrests were made for possession and 649 for the sale/manufacture of synthetic drugs[8] in 2007; this represents annual arrest rates (per 1,000 population) of 0.24 (U.S.: 0.19) and 0.10 (U.S.: 0.07), respectively. Indiana's arrest rates for both possession and sale/manufacture were 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%).[9] The psychotherapeutics

Figure 1.2 Percentage of Indiana 12th Grade Students Reporting Lifetime, Annual, and Monthly Methamphetamine Use (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2005–2009)

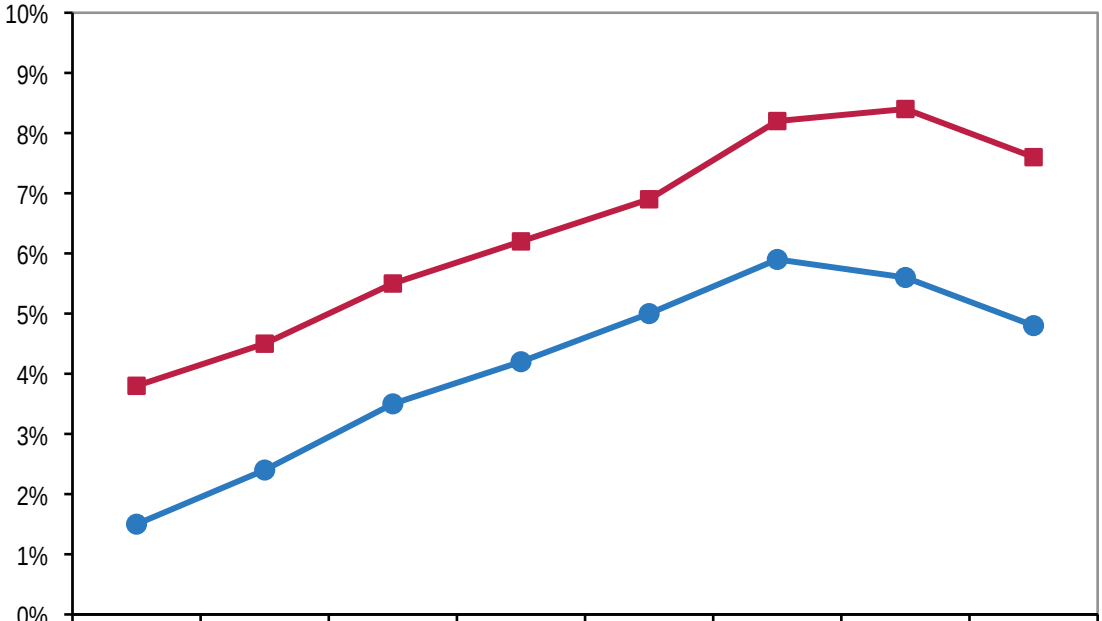


	2005	2006	2007	2008	2009
Lifetime	5.5%	5.0%	3.4%	2.7%	2.7%
Annual	3.1%	3.1%	1.9%	1.8%	1.6%
Monthly	1.7%	1.5%	1.0%	0.9%	0.9%

Source: Indiana Prevention Resource Center, 2009

[7]We defined methamphetamine dependence as "individuals in substance abuse treatment listing methamphetamine as their primary substance at admission."
[8]The Uniform Crime Reporting Program collects arrest information on synthetic drugs. The category includes methamphetamine, methadone, and Demerol.
[9]The terms "prescription drug misuse," "prescription drug abuse," or "nonmedical use of prescription drugs," were used interchangeably.

Figure 1.3 Percentage of Treatment Episodes with Methamphetamine Dependence Reported at Treatment Admission in Indiana and the United States (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	1.5%	2.4%	3.5%	4.2%	5.0%	5.9%	5.6%	4.8%
U.S.	3.8%	4.5%	5.5%	6.2%	6.9%	8.2%	8.4%	7.6%

Source: Substance Abuse and Mental Health Data Archive, 2008

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, n.d.).

Young people between the ages of 18 and 25 had the highest rate of past-year abuse. Indiana's prevalence in that age category, 15.48%, was significantly higher than the nation's, 12.28% (Substance Abuse and Mental Health Services Administration, n.d.).

Youth Consumption

A total of 42,000 Hoosiers (7.74%) ages 12 to 17 used prescription pain medications for nonmedical purposes in the past year; Indiana's percentage was similar to the nation's, 6.91% (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Indiana data on current drug use show that among 12th grade students, 4.0% reported use of narcotics, 3.7% reported use of tranquilizers, and 3.1% reported use of Ritalin®/Adderall® (see Figure 1.4). Nonmedical use of these substances remained stable or decreased among Indiana students from 2008 to 2009 (Indiana Prevention Resource Center, 2009).

Prescription Drug Abuse and Dependence

In 8.2% of Indiana treatment episodes in 2007, prescription drug dependence[10] was indicated (U.S.: 6.1%). Most of these were due to pain relievers

[10]We defined prescription drug dependence as "individuals in substance abuse treatment listing prescription drugs as their primary substance at admission."

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%	20.3%	7.6%	6.6%	2.7%	2.8%
Pain Relievers	15.0%	13.3%	6.1%	5.0%	2.0%	2.1%
OxyContin	2.5%	1.8%	0.8%	0.6%	0.3%	0.1%
Tranquilizers	9.1%	8.2%	2.8%	2.1%	0.8%	0.7%
Sedatives	3.9%	3.4%	0.4%	0.3%	0.1%	0.1%
Stimulants	8.3%	8.7%	1.7%	1.2%	0.8%	0.4%

Note: Indiana rates are based on 2002–2004 averages; U.S. rates are based on the 2007 NSDUH.
Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.

(IN: 6.2%; U.S.: 5.0%), followed by sedatives and tranquilizers (IN: 1.7%; U.S.: 0.8%) and stimulants (IN: 0.3%; U.S.: 0.4%). Compared to the nation's, Indiana's rates were significantly higher for overall prescription drug, pain reliever, and sedative/tranquilizer dependence, but stimulant dependence rates were similar. In Indiana, significant differences were seen by gender, race, and age group (see Table 1.7). Rates for prescription drug dependence have increased significantly in Indiana from 2000 through 2007, only remaining stable for stimulants (Substance Abuse and Mental Health Data Archive, 2008).

Legal Consequences

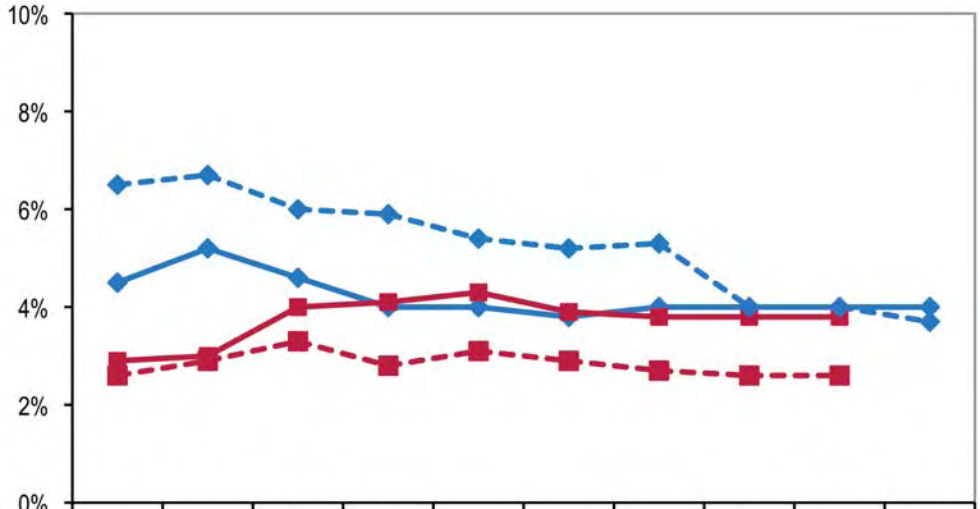
In 2007, law enforcement made over 2,700 arrests for possession and almost 700 arrests for sale/manufacture of "other drugs" in Indiana. This represents arrest rates of 0.43 and 0.11 per 1,000 population, respectively. The U.S. rates were significantly higher, with 0.86 for possession and 0.15 for sale/manufacture (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.).

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 2007 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 treatment episodes with reported substance use of two or more substances increased significantly in Indiana, from 55.5% in 2000 to 58.8% in 2007 (see Figure 1.5). Furthermore, in roughly one-fourth of Indiana treatment episodes, use of three or more substances was indicated; the difference between Indiana and the nation was significant. Indiana's rate increased significantly from 23.0% in 2000 to 25.3% in 2007 in Indiana (see Figure 1.5). Some significant differences were seen by gender, race, and age group (Substance Abuse and Mental Health Data Archive, 2008).

We conducted a cluster analysis of 2006 Indiana TEDS data to determine the combinations of drugs currently used by polysubstance abusers within the state. 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. The drug clusters most frequently reported at substance abuse treatment admission in Indiana were (a) alcohol and marijuana, (b) alcohol, marijuana, and cocaine, and (c) alcohol and cocaine (Substance Abuse and Mental Health Data Archive, 2008).

Figure 1.4 Percentage of Indiana and U.S. 12th Grade Students Reporting Current Nonmedical Use of Narcotics and Tranquilizers (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2000–2009; Monitoring the Future Survey, 2000–2008)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Indiana Narcotics	4.5%	5.2%	4.6%	4.0%	4.0%	3.8%	4.0%	4.0%	4.0%	4.0%
U.S. Narcotics	2.9%	3.0%	4.0%	4.1%	4.3%	3.9%	3.8%	3.8%	3.8%	
Indiana Tranquilizer	6.5%	6.7%	6.0%	5.9%	5.4%	5.2%	5.3%	4.0%	4.0%	3.7%
U.S. Tranquilizer	2.6%	2.9%	3.3%	2.8%	3.1%	2.9%	2.7%	2.6%	2.6%	

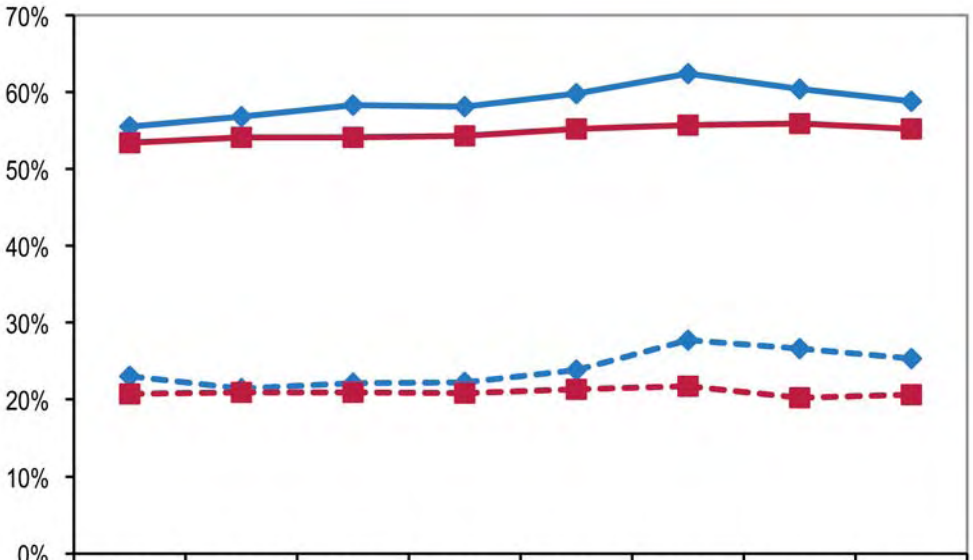
Source: Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Table 1.7 Percentage of Treatment Episodes with Prescription Drug Use and Dependence Reported at Treatment Admission in Indiana, by Drug Category, Gender, Race, and Age Group (Treatment Episode Data Set, 2007)

		All Prescription Drugs	Pain Relievers	Sedatives/Tranquilizers	Stimulants
Gender	Male	5.9%	4.7%	1.0%	0.2%
	Female	12.6%	9.1%	2.9%	0.5%
Race	White	9.9%	7.6%	2.0%	0.3%
	Black	1.0%	0.6%	0.3%	0.1%
	Other	4.2%	2.6%	1.0%	0.6%
Age Group	Under 18	3.6%	1.7%	1.7%	0.3%
	18 to 24	8.4%	6.2%	1.9%	0.3%
	25 to 34	11.2%	9.3%	1.6%	0.3%
	35 to 44	6.6%	4.7%	1.6%	0.4%
	45 to 54	5.2%	3.7%	1.3%	0.2%
	55 and over	6.5%	4.6%	1.8%	0.1%
Total		**8.2%**	**6.2%**	**1.7%**	**0.3%**

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 1.5 Percentage of Indiana and U.S. Treatment Episodes with Polysubstance Abuse (Using at Least Two Substances; Using at Least Three Substances) Reported at Treatment Admission (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Indiana 2+	55.5%	56.8%	58.3%	58.1%	59.8%	62.4%	60.4%	58.8%
U.S. 2+	53.4%	54.1%	54.1%	54.3%	55.2%	55.7%	55.9%	55.2%
Indiana 3+	23.0%	21.4%	22.1%	22.2%	23.8%	27.7%	26.6%	25.3%
U.S. 3+	20.7%	20.9%	20.9%	20.8%	21.3%	21.7%	20.2%	20.6%

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 ages 18 and over) and youth (residents under age 18). We compared 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. We set priority indicators based on consumption behaviors or drug-use consequences trending toward increased frequency within a particular group of Hoosiers, such as gender, race/ethnicity, or age.

DATA SOURCES

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, in most instances, 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, which 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 estimates 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) 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 (CDC) 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) and Automated Reporting Information Exchange System (ARIES)

The Indiana State Police's ARIES is a central repository for all collisions reported in the state of Indiana; information contained in the system is submitted 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.

Indiana Household Survey on Substance Abuse

The SEOW, in collaboration with the Survey Research Center (SRC) at Indiana University-Purdue University

[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.

Indianapolis, designed a statewide survey to measure substance use in Indiana. The instrument incorporated National Outcomes Measures (NOMs) developed by the U.S. Department of Health and Human Services' Substance Abuse and Mental Health Services Administration (SAMHSA). These measures were designed to help SPF SIG-funded communities set performance targets and evaluate program outcomes.

SRC administered the survey by phone, using a landline random-digit-dial sample, supplemented by a cell phone sample. The survey oversampled all 20 SPF SIG-funded communities to provide accurate estimates in these counties. Initially, the instrument was intended to survey Indiana residents ages 12 and older. However, due to an insufficient response rate among youth ages 12 to 17, reliable estimates only exist for adults 18 and older. Data collection began in January 2008 and was completed in November 2008.

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.

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. Comparisons of national findings from the MTF survey with state-level findings from the ATOD survey 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 methamphetamine 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. The Indiana State Police Department collects these data and provides the information to the NCLSS database. Data currently available at the county level include the number of labs seized, number of arrests made during lab seizures, and number of children located at these labs.

National Survey on Drug Use and Health (NSDUH)

NSDUH is a national survey funded by SAMHSA and 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, 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 data files from 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. Tables with prevalence numbers and rates are prepared by SAMHSA's Office of Applied Studies, and can be accessed online. 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) and Indiana Mortality Data

NVSS is a data system maintained by 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 CDC's 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 for 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 CDC 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 gender, race/ethnicity, and grade levels.

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

The CDC'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 SAMHSA that 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. TEDS data become publicly available one to two years after the information is 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 for Indiana are available 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 based is not representative of all individuals in drug and alcohol treatment. For Indiana, TEDS data are limited to information on individuals entering substance abuse treatment who are 200% below the poverty level and receive state-funded treatment.

Uniform Crime Reporting Program (UCR)

The UCR is a national database maintained by the FBI that records the number of arrests for various offenses, including 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 and each county. UCR data sets are publicly available; however, there is a two-year lag from the time data are collected until they are published. The format of the UCR data sets allows for comparisons of arrests between Indiana and the entire United States, and for comparisons between juveniles and 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 information 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, since states are not required to submit crime information to the FBI, the level of reporting varies considerably. Because of these variations, the FBI uses statistical algorithms to estimate arrests for counties in which reporting is less than 100 percent. In Indiana, typically 50% of counties, on average, submit information to the FBI. Because Indiana has a rather low reporting rate, UCR results 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. The CDC conducts

the survey 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.

CONSIDERATIONS

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. 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 on 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 data averages from 2001 through 2005)

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

(1) Behavioral Risk Factor Surveillance System (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 noncoverage (the inability to reach some high-risk populations, such as youth and young adults) and survey respondents' underreporting of alcohol use;

(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 on alcohol, tobacco, and other drug use among children and adolescents (6th through 12th graders) annually 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: 1993–2009

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 an annual state health survey that monitors risk behaviors, including alcohol and tobacco consumption, 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: 1995–2008

Strengths/Weaknesses: The CDC's Behavioral Surveillance Branch (BSB) conducts research and

development efforts to ensure the quality and longevity of the BRFSS. The CDC has conducted a series of scientific experiments to assess the impact of new approaches and protocols for the BRFSS, including the use of multimode designs, the effectiveness of pre-notification efforts, and ways of reaching linguistically isolated individuals. The CDC also conducts methodological research to assess the potential impact on BRFSS of changes in telecommunications and privacy regulations, including the National Do Not Call Registry, the increased use of cellular telephones, and telephone number portability. The results of these experiments and analyses are typically shared with the scientific community in publications and conferences. These and related ongoing research efforts will ensure that the BRFSS continues its use of cutting-edge, scientific data collection methods to reach a broader mix of the population, resulting in more valid and reliable data for public health surveillance.

Fatality Analysis Reporting System (FARS) and Automated Reporting Information Exchange System (ARIES)

Description: FARS and ARIES contain data on fatal traffic crashes, including motor vehicle crashes that result in the death of an occupant of a vehicle or a nonmotorist 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: 1994–2008

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

Hospital Discharge Data

Description: Hospital discharge data are publicly available in aggregate format. Dataset can be queried by primary diagnosis (ICD-9 codes), e.g., alcohol- and drug-induced diseases.

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 aggregate format; comparisons by demographic variables such as age, gender, and race/ethnicity are not possible.

Indiana Household Survey on Substance Abuse

Description: The Indiana Household Survey on Substance Abuse offers prevalence estimates on use of alcohol, tobacco, and other drugs.

Sponsoring Organization/Source: State Epidemiology and Outcomes Workgroup

Geographic Level: Indiana

Availability: Results are available on request from the Indiana University Center for Health Policy (iuchp@iupui.edu).

Trend: 2008

Strengths/Weaknesses: Due to oversampling in SPF SIG-funded communities, the estimates in these counties were more robust.

Monitoring the Future (MTF) Survey

Description: MTF is an ongoing study of youth behaviors, attitudes, and values. Approximately 50,000 students in 8th, 10th, and 12th grades are surveyed annually. 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: 1991–2008

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. Indiana data currently available include number of labs seized, number of arrests made during lab seizures, and number of children located at labs.

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: 1999–2008 data from ISP are available on request.

Trend: 1999–2008

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 in the general population (ages 12 and older).

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

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 1994–2007; state estimates are available for 1999–2007.

Strengths/Weaknesses: Publicly available NSDUH datasets do not allow for comparisons between the states and the nation 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 on 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 (CDC) and the Indiana Tobacco Prevention and Cessation Agency (ITPC)

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 through 2006 (NYTS) / 2008 (IYTS)

Strengths/Weaknesses: The IYTS provides detailed statewide information regarding youth knowledge, attitudes, and behaviors. However, county-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 codes) from CDC at http://wonder.cdc.gov/mortSQL.html; state data are available on request from the Indiana State Department of Health.

Trend: 1999–2006 (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 (CDC)

Geographic Level: National and state

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

Trend: Based on 2004 data

Strengths/ Weaknesses: During periods where smoking prevalence is declining, the attributable-fraction (AF) 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 national and state TEDS data were acquired from the Inter-university Consortium for Political and Social Research at http://webapp.icpsr.umich.edu/.

Trend: 1999–2007; county-level data reported for 2008

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: Data can be downloaded from the National Archive of Criminal Justice Data website (http://www.icpsr.umich.edu/ NACJD/ucr.html).

Trend: 1994–2007

Strengths/Weaknesses: Reporting of UCR data by jurisdictions across the state is often less than 100%, in which case statistical algorithms are employed to estimate arrest numbers.

Youth Risk Behavior Surveillance System (YRBSS)

Description: This biannual 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

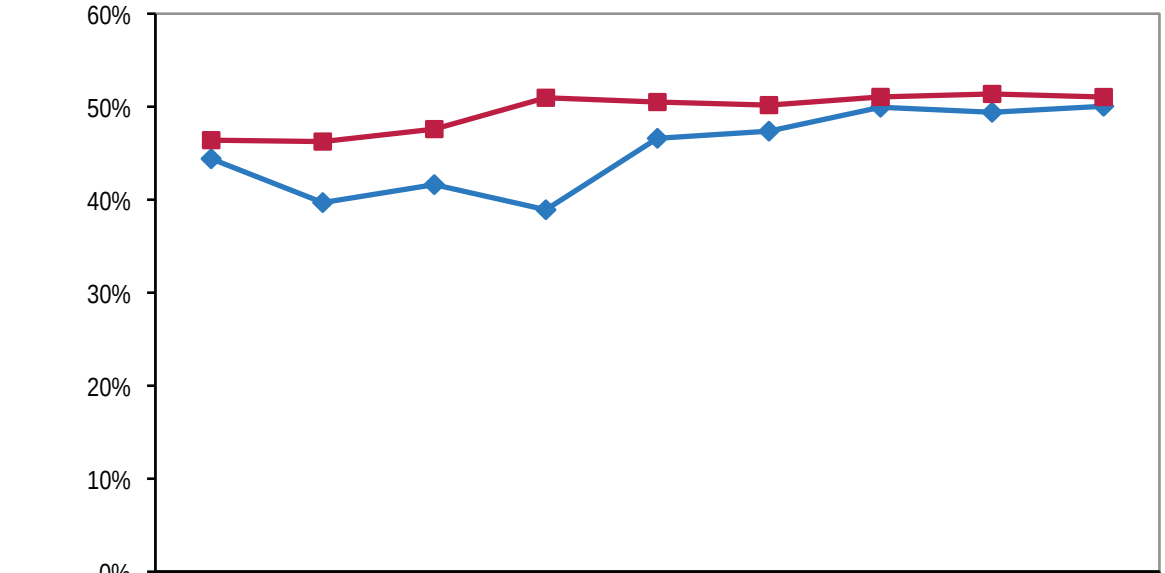
General Consumption Patterns

Alcohol is the most frequently used drug in both Indiana and the United States. In 2006, almost 10.2 million gallons of ethanol (the intoxicating agent in alcoholic beverages) were consumed in Indiana; this included 123.7 million gallons of beer, 9.8 million gallons of wine, and 8.2 million gallons of spirits. The annual per capita consumption of ethanol for the population 14 years and older was 2.00 gallons in Indiana and 2.27 gallons in the nation (National Institute on Alcohol Abuse and Alcoholism, 2009).

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 2006–2007 averages calculated from the National Survey on Drug Use and Health (NSDUH), the Substance Abuse and Mental Health Services Administration (SAMHSA) estimated that 50.05% (95% Confidence Interval [CI]: 47.01–53.09) of Indiana residents 12 years of age or older (2.6 million residents) had used alcohol during the past month. SAMHSA estimated that 51.04% 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 2007 in Indiana; however, the difference is statistically insignificant (see Figure 3.1) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Figure 3.1 Percentage of Indiana and U.S. Population (12 years and older) Reporting Current Alcohol Use (National Survey on Drug Use and Health, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	44.40%	39.69%	41.62%	38.92%	46.60%	47.37%	49.94%	49.40%	50.05%
U.S.	46.40%	46.25%	47.59%	50.96%	50.50%	50.17%	51.05%	51.37%	51.04%

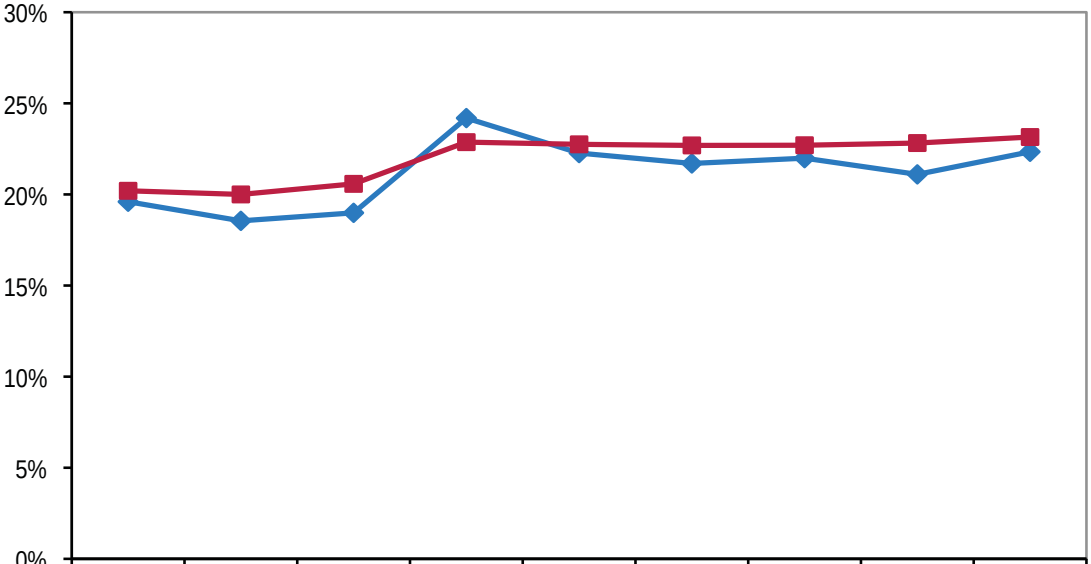
Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.

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

One risky alcohol consumption pattern assessed by the NSDUH is binge drinking. The NSDUH defines 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 was similar to that of the national average, 22.34% (95% CI: 20.20–24.64) and 23.15%, respectively, for 2007 (see Figure 3.2) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Based on 2006–2007 NSDUH estimates, 37.94% (95% CI: 35.16–40.81) of Hoosiers 12 years and older (U.S.: 42.13%) perceived having five or more drinks of an alcoholic beverage once or twice a week to be a great risk. Perception of risk seemed to be inversely related to actual rates of binge drinking among adults: 18- to 25-year-olds who showed the highest prevalence of binge drinking displayed the lowest rate of risk perception (28.34%; 95% CI: 25.42–31.45). Among adults 26 years and older, 39.70% (95% CI: 36.28–43.23) perceived binge drinking to be a great risk (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Figure 3.2 Percentage of Indiana and U.S. Population (12 years and older) Reporting Binge Drinking in the Past 30 Days (National Survey on Drug Use and Health, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	19.60%	18.55%	18.99%	24.19%	22.27%	21.70%	21.99%	21.10%	22.34%
U.S.	20.20%	20.00%	20.58%	22.87%	22.75%	22.69%	22.70%	22.82%	23.15%

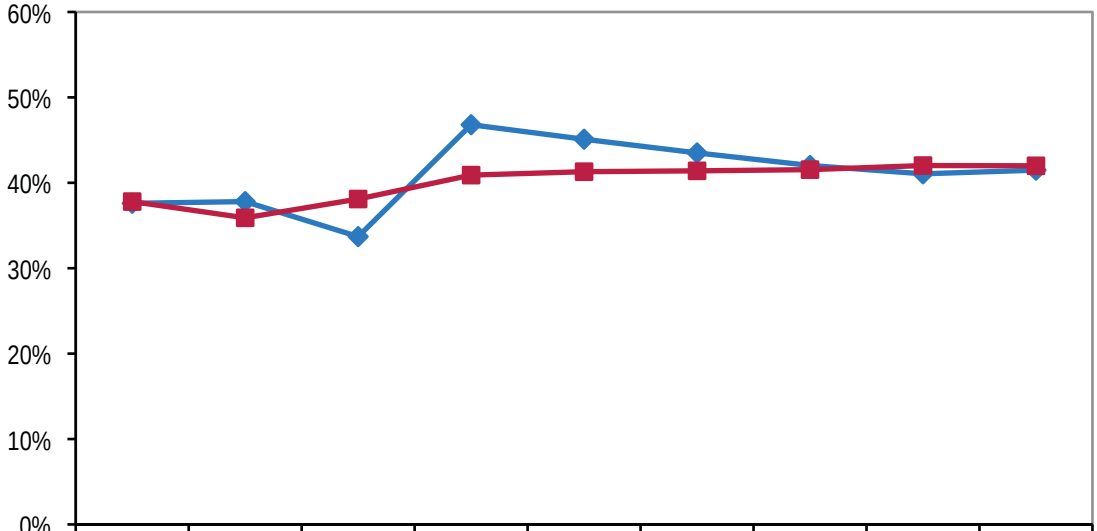
Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.

Adult Alcohol Consumption Patterns

According to 2006–2007 NSDUH results, 60.78% of Hoosiers (95% CI: 57.23–64.21) between the ages of 18 and 25 reported current alcohol use; the U.S. rate was similar at 61.58%. Past-month consumption of alcohol was significantly lower for adults 26 years and older; Indiana's rate (52.96%; 95% CI: 49.14–56.73) and the national rate (53.87%) were similar (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Binge drinking was particularly widespread among young adults. The highest prevalence rate was found among 18- to 25-year-olds, at 41.48% (95% CI: 38.01–45.04); the U.S. rate was similar (41.99%) (see Figure 3.3). Among adults, binge drinking rates decreased with age; 20.73% (95% CI: 18.17–23.56) of Hoosiers 26 years and older reported having consumed five or more drinks on the same occasion during the last 30 days (U.S.: 21.65%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Figure 3.3 Percentage of Indiana and U.S. 18- to 25-Year-Olds Reporting Binge Drinking in the Past 30 Days (National Survey on Drug Use and Health, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	37.60%	37.80%	33.70%	46.80%	45.10%	43.50%	42.03%	41.05%	41.48%
U.S.	37.80%	35.90%	38.10%	40.90%	41.30%	41.40%	41.54%	42.02%	41.99%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.

Table 3.1 Percentage of Indiana and U.S. Adults Having Used Alcohol in the Past 30 Days (Behavioral Risk Factor Surveillance System, 2008)

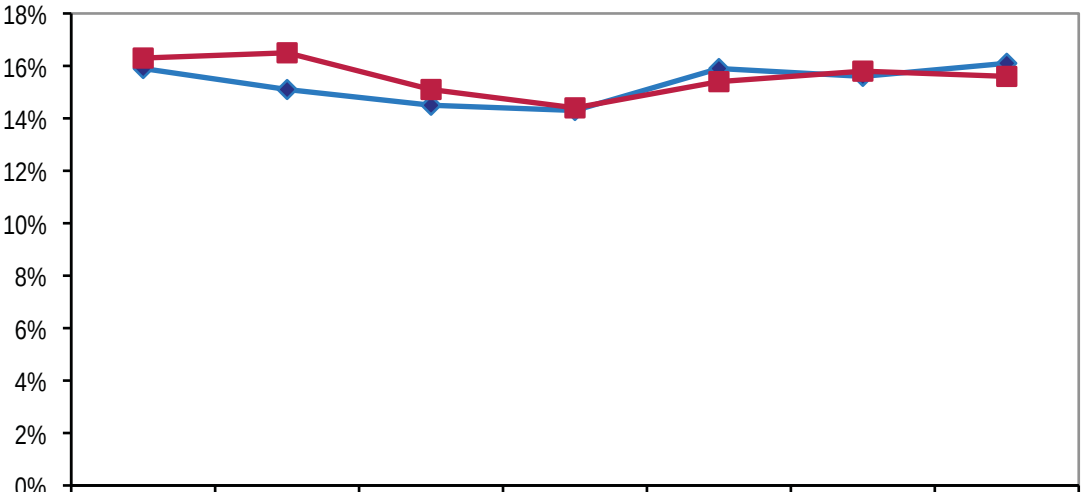
		Indiana	U.S.
Gender	Male	60.4%	61.3%
	95% CI	57.2–63.6	
	Female	42.4%	47.7%
	95% CI	39.7–45.1	
Race/Ethnicity	White	51.9%	59.3%
	95% CI	49.6–54.1	
	Black	53.4%	42.0%
	95% CI	45.5–61.3	
	Hispanic	N/A	41.5%
	95% CI	N/A	
Age Group	18-24	46.9%	49.9%
	95% CI	37.3–56.4	
	25-34	61.7%	60.5%
	95% CI	56.4–67.1	
	35-44	57.7%	60.5%
	95% CI	53.3–62.1	
	45-54	54.8%	58.5%
	95% CI	50.9–58.6	
	55-64	45.4%	53.5%
	95% CI	41.6–49.3	
	65+	37.1%	40.7%
	95% CI	33.9–40.3	
Total		51.2%	54.5%
	95% CI	49.0–53.3	

Source: Centers for Disease Control and Prevention, 2008a

The 2008 Behavioral Risk Factor Surveillance System (BRFSS) reported that Indiana's adult prevalence rate for current alcohol use (51.2%; 95% CI: 49.0–53.3) was significantly lower than the nation's (54.5%). In Indiana, rates were significantly higher among males than females, and among younger age groups; no significant differences were observed by race/ethnicity (see Table 3.1) (Centers for Disease Control and Prevention, 2008a).

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 based on this definition was similar between Indiana (16.1%; 95% CI: 14.3–17.9) and the United States (15.6%), and remained stable from 2002 through 2008 (see Figure 3.4). Binge alcohol use was significantly higher in males than females, and more prevalent in younger individuals; no statistical differences were observed by race/ethnicity (see Table 3.2) (Centers for Disease Control and Prevention, 2008a).

Figure 3.4 Percentage of Indiana and U.S. Adults Reporting Binge Drinking in the Past 30 Days (Behavior and Risk Factor Surveillance System, 2002–2008)



	2002	2003	2004	2005	2006	2007	2008
Indiana	15.9%	15.1%	14.5%	14.3%	15.9%	15.6%	16.1%
U.S.	16.3%	16.5%	15.1%	14.4%	15.4%	15.8%	15.6%

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 were similar between Indiana (4.5%; 95% CI: 3.5–5.5) and the United States (5.1%) in 2008. No significant differences by gender, age, or race/ethnicity were observed (Centers for Disease Control and Prevention, 2008a).

The Indiana State Epidemiology and Outcomes Workgroup (SEOW) conducted a statewide survey on substance use among adults in 2008. The results indicated that:

- 86.1% have had at least one alcoholic beverage in their lifetime
- 62.1% have had five or more drinks within a few hours at least once in their lifetime
- 10.3% have driven a vehicle while under the influence of alcohol in the past 12 months
- 8.3% have been arrested because of drinking at least once in their lifetime
- 2.1% have gotten into trouble at work or school because of drinking at least once in their lifetime

The average age for adult Hoosiers to start drinking alcohol was 18.2 years (Standard Deviation [SD]: 4.3); the average age for adult Hoosiers to initiate binge drinking was 19.3 years (SD: 4.9). Furthermore, most respondents (70.1%) indicated that they found it acceptable, in general, for people to use alcohol (State Epidemiology and Outcomes Workgroup, 2008).

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, 2008)

		Indiana	U.S.
Gender	Male	23.8%	21.0%
	95% CI	20.6–26.9	
	Female	8.9%	10.0%
	95% CI	7.4–10.3	
Race/ Ethnicity	White	16.0%	16.0%
	95% CI	14.2–17.8	
	Black	16.2%	11.0%
	95% CI	10.0–22.5	
	Hispanic	N/A	13.0%
	95% CI	N/A	
Age	18-24	25.3%	24.7%
	95% CI	17.2–33.4	
	25-34	24.8%	23.8%
	95% CI	19.4–30.2	
	35-44	18.9%	18.1%
	95% CI	15.3–22.4	
	45-54	15.4%	14.2%
	95% CI	12.4–18.3	
	55-64	9.1%	8.6%
	95% CI	6.9–11.2	
	65+	3.5%	3.2%
	95% CI	2.2–4.7	
Total		16.1%	15.6%
	95% CI	14.3–17.9	

Source: Centers for Disease Control and Prevention, 2008a

Youth Alcohol Consumption Patterns

We examined various patterns of alcohol consumption among youth 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, n.d.), 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, 2009), 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.

According to the YRBSS, 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 in 2007. The rate has remained stable from 2003 until now, and no significant differences by gender have been observed. However, rates varied by race/ethnicity and grade level. Whites (44.9%; 95% CI: 39.9–50.1) and Hispanics (49.4%; 95% CI: 40.8–58.0) had higher prevalence rates than blacks (29.3%; 95% CI: 22.9–36.6). Also, the rate for past-month alcohol use was greater among 12th grade students (59.1%; 95% CI: 51.1–66.7) than students in lower grades. Past-month alcohol prevalence among high school students was similar between Indiana and the nation (Centers for Disease Control and Prevention, 2008b).

In 2007, 28.2% (95% CI: 23.4–33.6) of high school students in Indiana said they had five or more alcoholic drinks within a couple of hours at least once in the past month. This is statistically similar to the U.S. rate (26.0%; 95% CI: 24.0–28.0). Rates did not differ significantly by gender. Whites (30.0%; 95% CI: 24.9–35.7) and Hispanics (34.9%; 95% CI: 28.0–42.5) had statistically higher rates than blacks (10.7%; 95% CI: 7.3–15.5); and more high school seniors (39.7%; 95% CI: 29.6–50.7) engaged in binge drinking than freshmen (22.1%; 95% CI: 18.0–26.8) (Centers for Disease Control and Prevention, 2008b).

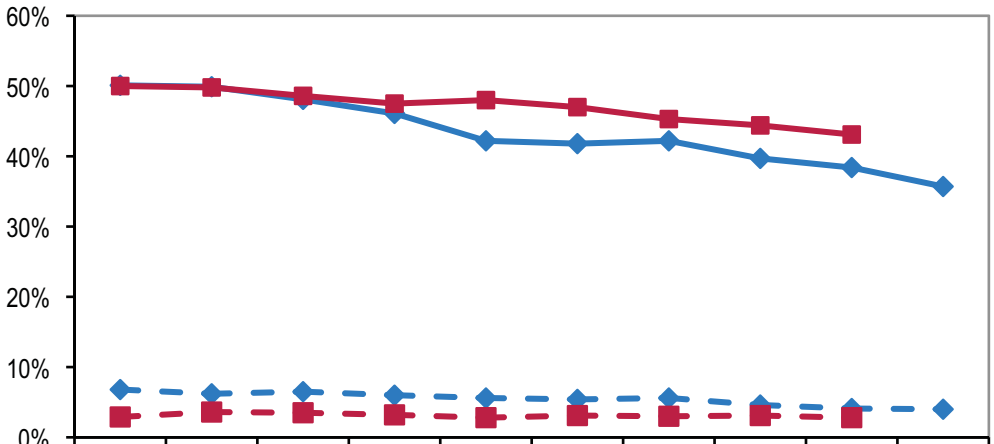
According to the most recent NSDUH estimates, approximately 80,000 young people ages 12 to 17, or 14.83% (95% CI: 12.85–17.06), consumed alcohol in the past 30 days in Indiana; the rate was similar on the national level (16.28%). Additionally, about 51,000 Indiana youths in this age group engaged in binge drinking in the past month; the state's prevalence among 12- to 17-year-olds, 9.51% (95% CI: 7.93–11.36), was similar to the nation's (10.00%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Information on alcohol consumption from the MTF is based on responses by U.S. students in the 8th, 10th, and 12th grades. In 2008, 15.9% of 8th graders, 28.8% of 10th graders, and 44.1% of 12th graders reported they had used alcohol in the past month (Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). Results from Indiana's annual school survey show that 18.8% of 8th graders, 28.4% of 10th

graders, and 38.4% of 12th graders consumed alcohol in the past 30 days (Indiana Prevention Resource Center, 2009).

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. In Indiana, 1.5% of 8th grade students (U.S.: 0.7%), 2.8% of 10th grade students (U.S.: 1.0%), and 4.1% of 12th grade students (U.S.: 2.8%) reported daily alcohol use in 2008 (Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). For trend information on monthly and daily alcohol use among high school seniors, see Figure 3.5, and for 2008 information on Indiana and U.S. 8th, 10th, and 12th grade students, see Figure 3.6.

Figure 3.5 Percentage of Indiana and U.S. High School Seniors (12th Grade) Reporting Monthly and Daily Alcohol Use (Alcohol Tobacco and Other Drug Use by Indiana Children and Adolescents Survey, 2000–2009; and Monitoring the Future Survey, 2000–2008)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
IN Monthly Use	50.1%	49.9%	48.1%	46.1%	42.2%	41.8%	42.2%	39.7%	38.4%	35.7%
U.S. Monthly Use	50.0%	49.8%	48.6%	47.5%	48.0%	47.0%	45.3%	44.4%	43.1%	
IN Daily Use	6.8%	6.2%	6.5%	6.0%	5.6%	5.4%	5.6%	4.6%	4.1%	4.0%
U.S. Daily Use	2.9%	3.6%	3.5%	3.2%	2.8%	3.1%	3.0%	3.1%	2.8%	

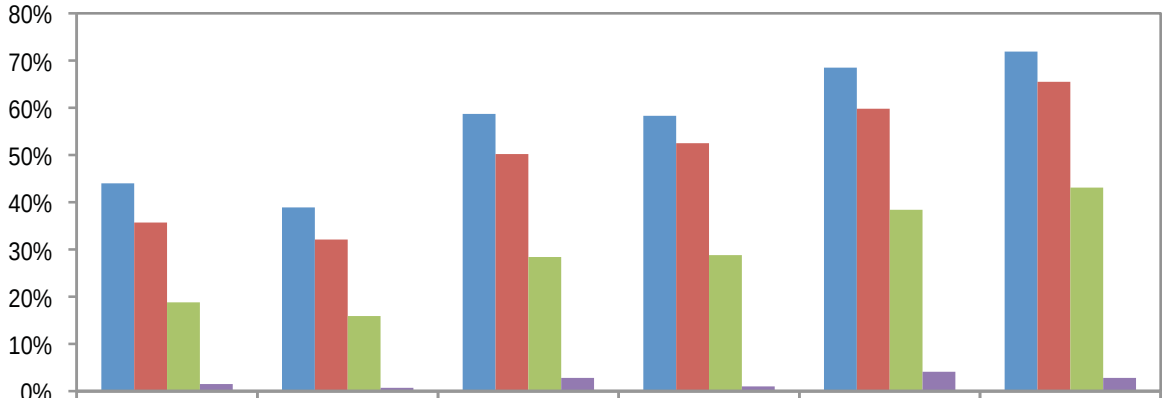
Note: Information for 2009 is not available yet at the national level.
Source: Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Overall alcohol consumption patterns seemed to progress with age; i.e., 8th grade students showed lower prevalence rates than 10th and 12th grade students. Comparisons between students in Indiana and the United States suggested 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 2009, see Appendix 3A, page 42). Indiana students initiated alcohol use, on average, at the age of 13.1 years (Indiana Prevention Resource Center, 2009).

The NSDUH provides additional prevalence estimates for current alcohol use and binge drinking by individuals below the legal drinking age of 21. Based on 2006–2007 estimates, 26.37% (95% CI: 23.93–28.97) of young Hoosiers between 12 and 20 had used alcohol in the past month. Indiana's prevalence rate was similar to the U.S. rate of 28.12%. Also, 18.46% (95% CI: 16.40–20.72) of minors had engaged in binge drinking at least once in the past 30 days (U.S.: 18.80%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

The Core Alcohol and Drug Survey was developed to measure alcohol and other drug usage, attitudes, and perceptions among college students at two- and

Figure 3.6 Percentage of Indiana and U.S. 8th, 10th, and 12th Grade Students Reporting Lifetime, Annual, Monthly, and Daily Alcohol Use (Alcohol, Tobacco, and other Drug Use by Indiana Children and Adolescents Survey and Monitoring the Future Survey, 2008)



	Indiana	U.S.	Indiana	U.S.	Indiana	U.S.
	8th Grade		10th Grade		12th Grade	
Lifetime	44.0%	38.9%	58.7%	58.3%	68.5%	71.9%
Annual	35.7%	32.1%	50.2%	52.5%	59.8%	65.5%
Monthly	18.8%	15.9%	28.4%	28.8%	38.4%	43.1%
Daily	1.5%	0.7%	2.8%	1.0%	4.1%	2.8%

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, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

four-year institutions. In 2008, among Indiana college students ages 16 to 20 (Core Institute, 2008):

- 63.3% consumed alcohol in the past month,
- 3.5% had six or more binges in the past two weeks, and
- 14.3% have driven a car while under the influence during past year.

The Indiana Department of Education collects information on suspensions and expulsions of students from kindergarten through grade 12. During the 2007–2008 school year, a total of 6,023 students were suspended or expelled due to alcohol, drug, or weapon involvement. This represents a suspension/expulsion rate of 5.21 per 1,000 enrolled students (Indiana Department of Education, n.d.). (For county-level rates, see Map 3.1, page 49.)

CONSEQUENCES

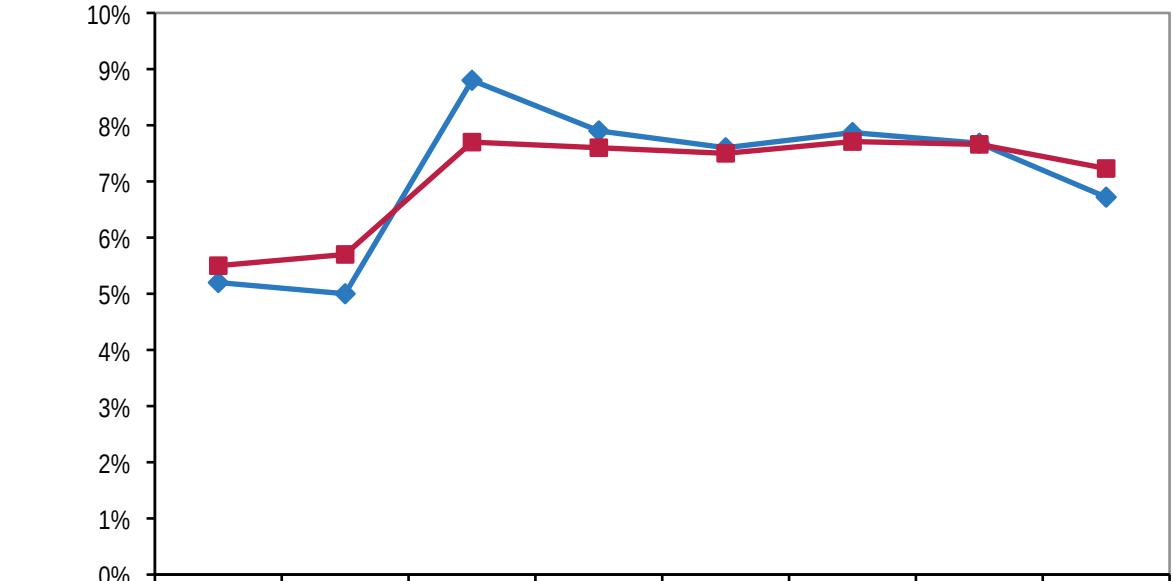
Alcohol use is a major factor in homicides, suicides, violent crimes, and motor vehicle crashes. Heavy alcohol use can lead to serious patterns of abuse and/or dependence and is associated with other unsafe behaviors such as smoking cigarettes, illicit drug use, and risky sex. Chronic alcohol use can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

Alcohol Abuse and Dependence

Based on 2007 NSDUH results, the estimated prevalence for alcohol abuse and/or dependence[2] in the past year in Indiana was 7.27% (95% CI: 6.21–8.49), which was similar to the national estimate (7.58%). 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 6.72% of the general population (95% CI: 5.66–7.97) were in need of but did not receive treatment for alcohol use in Indiana (U.S.: 7.23%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

[2]The NSDUH uses the terms "dependence" and "abuse" based on definitions found in the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV).

Figure 3.7 Percentage of Indiana and U.S. Population with Alcohol Abuse and/or Dependence (National Survey on Drug Use and Health, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	5.20%	5.00%	8.80%	7.90%	7.60%	7.87%	7.68%	6.72%
U.S.	5.50%	5.70%	7.70%	7.60%	7.50%	7.71%	7.66%	7.23%

Note: The NSDUH uses the terms "dependence" and "abuse" based on definitions found in the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV).
Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.

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 (71.7%) of treatment episodes in 2007, 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: 48.1%; U.S.: 40.2%; $P < 0.001$) (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 at least the past eight years (from 2000 to 2007) (Substance Abuse and Mental Health Data Archive, 2008).

Factors associated with alcohol abuse and dependence[3] in Indiana included gender, age, and race/ethnicity (findings from the 2007 TEDS dataset):

Gender—More than half of the males (52.5%) listed alcohol as their primary substance, compared to 39.5% of females ($P < 0.001$).

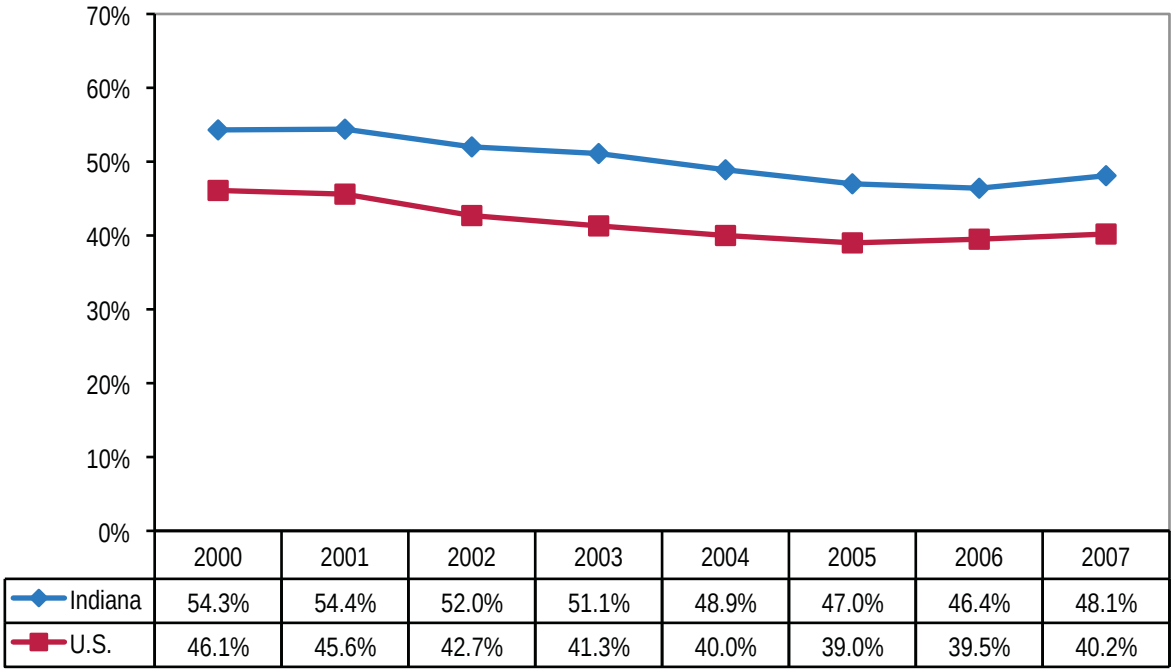
Race/ethnicity—Over one-third of blacks (38.4%) reported alcohol as their primary substance; this percentage was below that for whites (49.9%) and other races (49.6%) ($P < 0.001$). In regard to ethnicity, a significantly higher percentage of Hispanics (55.1%) reported alcohol dependence than non-Hispanics (47.8%) ($P < 0.001$).

Age—Adults ages 18 and older had higher rates of alcohol dependence (48.8%) compared to people 17 years and younger (29.2%) ($P < 0.001$). When looking at individual age groups, it became evident that the percentage reporting alcohol abuse or dependence tended to increase with age ($P < 0.001$). Table 3.3 depicts the percentage of Indiana residents, by gender, race, and age group, seeking treatment for alcohol abuse and dependence.

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

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

Figure 3.8 Percentage of Treatment Episodes in Indiana and the United States with Alcohol Dependence Reported at Treatment Admission (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	54.3%	54.4%	52.0%	51.1%	48.9%	47.0%	46.4%	48.1%
U.S.	46.1%	45.6%	42.7%	41.3%	40.0%	39.0%	39.5%	40.2%

Source: Substance Abuse and Mental Health Data Archive, 2008

Table 3.3 Percentage of Treatment Episodes in Indiana with Alcohol Dependence Reported at Treatment Admission, by Gender, Race, and Age Group (Treatment Episode Data Set, 2007)

		Alcohol Dependence
Gender	Male	52.5%
	Female	39.5%
Race	White	49.9%
	Black	38.4%
	Other	49.6%
Age Group	Under 18	29.2%
	18-24	41.2%
	25-34	41.8%
	35-44	54.2%
	45-54	64.2%
	55 and over	73.6%
Total		48.1%

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).

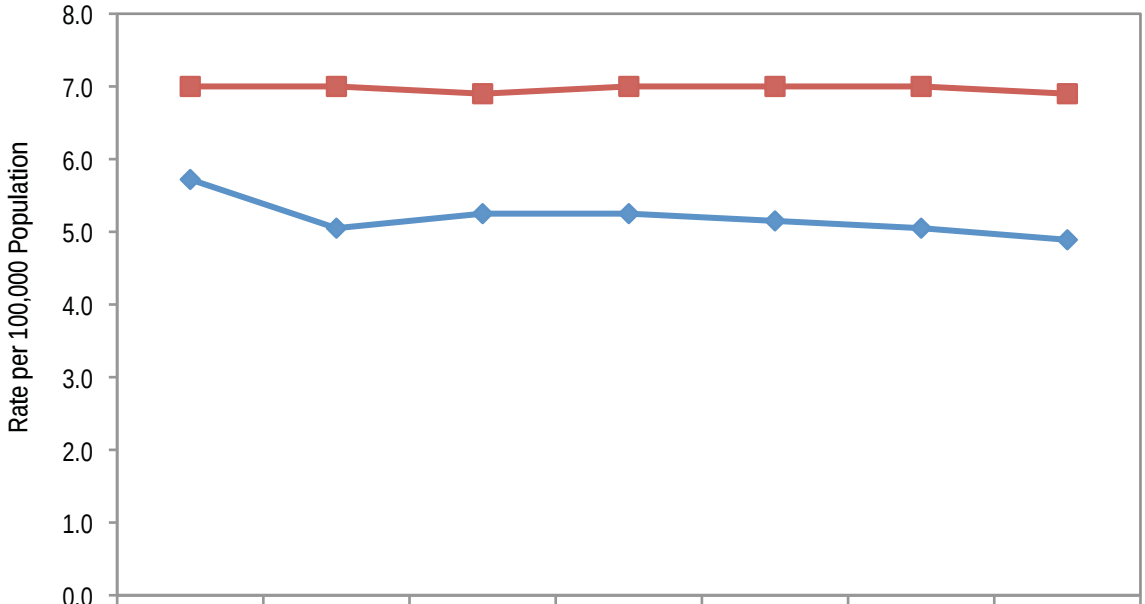
The list of ICD-10[4] codes for alcohol-induced causes of death was expanded in 2003 to be more comprehensive. Causes of death attributable to alcohol include alcohol-induced pseudo-Cushing's syndrome; mental and behavioral disorders due to alcohol use; degeneration of the nervous system due to alcohol; alcoholic polyneuropathy; alcoholic myopathy; alcoholic cardiomyopathy; alcoholic gastritis; alcoholic liver disease; alcohol-induced chronic pancreatitis; finding of alcohol in blood; accidental poisoning by and exposure

[4]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/.

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).[5]

From 2000 to 2006, a total of 2,284 Hoosiers died from alcohol-induced causes. The age-adjusted mortality rate for alcohol-attributable deaths has remained stable throughout this time period in Indiana and the United States. Indiana's age-adjusted rate was 5.0 per 100,000 (95% CI: 4.46–5.54) in 2006, which was significantly lower than the U.S. rate of 6.9 per 100,000 population (95% CI: 6.8–7.0) (see Figure 3.9) (Centers for Disease Control and Prevention, n.d.). (For alcohol-attributable deaths by county, see Map 3.2, page 50.)

Figure 3.9 Age-Adjusted Alcohol-attributable Mortality Rates per 100,000 Population in Indiana and the United States (CDC Wonder, 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	6.9

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

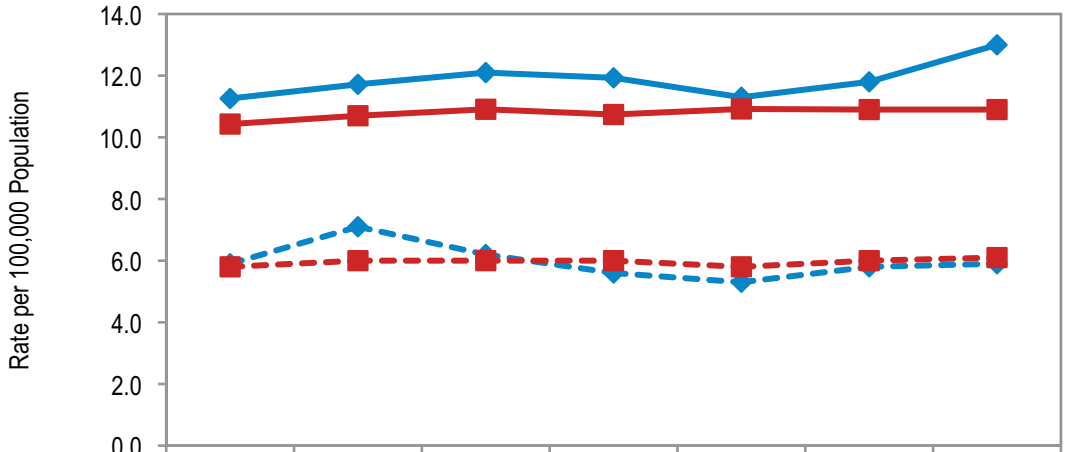
[5]Alcohol-induced causes of death include the following ICD-10 codes: E24.4, F10, G31.2, G62.1, G72.1, I42.6, K29.2, K70, K86.0, R78.0, X45, X65, Y15.

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 44.) For this reason, intentional self-harm (suicide)[6] and assault (homicide)[7] rates may provide additional information on alcohol's impact in a community.

From 2000 through 2006, a total of 5,146 Hoosiers committed suicide. Applying ARDI's alcohol-attributable fraction of 23%, this means that almost 1,184 suicide deaths were attributable to alcohol. Indiana's age-adjusted mortality rate for suicide was 13.0 per 100,000 population (95% CI: 12.1–13.9) in 2006, which was significantly higher than the U.S. rate of 10.9 per 100,000 population (95% CI: 10.8–11.0) (see Figure 3.10). Additionally, rates were significantly higher for males (21.9 per 100,000 population; 95% CI: 20.2–23.6) than for females (4.7 per 100,000 population; 95% CI: 4.0–5.5). Rates were also significantly higher for whites (13.8 per 100,000 population; 95% CI: 12.8–14.8) than for blacks (6.0 per 100,000 population; 95% CI: 4.0–8.1), in Indiana.

From 2000 through 2006, a total of 2,600 homicides were committed in Indiana. Applying ARDI's alcohol-attributable fraction of 47%, this means that 1,222 homicide deaths were attributable to alcohol. Indiana's age-adjusted homicide death rate was 5.9 per 100,000 population (95% CI: 5.3–6.5) in 2006, which was similar to the U.S. rate of 6.1 per 100,000 population (95% CI: 6.0–6.2) (see Figure 3.10). In 2006, rates were significantly higher for males (8.8 per 100,000 population; 95% CI: 7.8–9.8) than for females (2.9 per 100,000 population; 95% CI: 2.3–3.5). Rates were also significantly higher for blacks (32.0 per 100,000 population; 95% CI: 27.5–36.5) 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 (CDC Wonder, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Suicide Indiana	11.3	11.7	12.1	11.9	11.3	11.8	13.0
Suicide U.S.	10.4	10.7	10.9	10.7	10.9	10.9	10.9
Homicide Indiana	5.9	7.1	6.2	5.6	5.3	5.8	5.9
Homicide U.S.	5.8	6.0	6.0	6.0	5.8	6.0	6.1

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.

[6]Intentional self-harm (suicide) includes ICD-10 codes X60-X84.
[7]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, alcohol-related neurodevelopmental disorder, and alcohol-related birth defects. 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).

In Indiana, 396 mothers reported that they used alcohol during their pregnancy in 2006 (Indiana State Department of Health, n.d.-a). 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[8] dropped from 26 in 2003 to 14 in 2006 (Indiana State Department of Health, n.d.-b).

Alcohol-Related Motor Vehicle Accidents

According to the Fatality Analysis Reporting System (FARS), a total of 721 fatal crashes occurred in Indiana in 2008, of which 187 (or 26%) were alcohol-related (U.S.: 10,684 alcohol-related crashes; 31%) (National Highway Traffic Safety Administration, n.d.). Even though most fatal collisions happened in the afternoon between 3:00 and 5:59 p.m., the highest percentage of crashes attributable to alcohol occurred at nighttime, especially between midnight and early morning hours (see Table 3.4).

Table 3.4 Number of Fatal Crashes and Percent Alcohol-Related in Indiana, by Time of Day and Crash Type (Fatality Analysis Reporting System, 2008)

	Single Vehicle			Multiple Vehicle			All Crashes		
Time of Crash	Number	Alcohol-impaired driving	Percent Alcohol-impaired driving	Number	Alcohol-impaired driving	Percent Alcohol-impaired driving	Number	Alcohol-impaired driving	Percent Alcohol-impaired driving
Midnight to 2:59 a.m.	75	50	66%	10	8	81%	85	58	68%
3 a.m. to 5:59 a.m.	46	23	51%	19	5	27%	65	28	44%
6 a.m. to 8:59 a.m.	33	4	12%	42	4	10%	75	8	11%
9 a.m. to 11:59 a.m.	29	2	6%	45	3	6%	74	4	6%
Noon to 2:59 p.m.	32	3	10%	62	3	5%	94	6	7%
3 p.m. to 5:59 p.m.	61	11	18%	85	11	12%	146	22	15%
6 p.m. to 8:59 p.m.	48	15	32%	46	12	26%	94	27	29%
9 p.m. to 11:59 p.m.	66	21	32%	22	12	55%	88	33	38%
Total	**390**	**129**	**33%**	**331**	**58**	**18%**	**721**	**187**	**26%**

Note: National Highway Traffic Safety Administration estimates alcohol involvement when alcohol test results are unknown.
Alcohol-impaired driving – at least one driver or motorcycle rider had a blood alcohol content (BAC) of .08 or higher.
Source: National Highway Traffic Safety Administration, n.d.

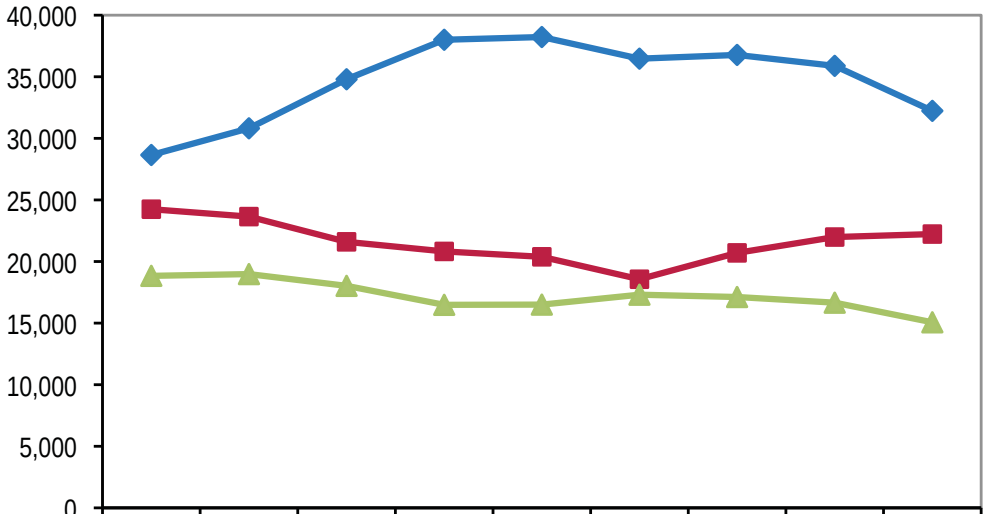
[8]The ICD-9 code for fetal alcohol syndrome is 760.71.

Data from the Automated Reporting Information Exchange System (ARIES), part of the Indiana State Police's Vehicle Crash Records System, showed a decrease in alcohol-related collisions from 13,911 in 2003 to 9,411 in 2008. This represents a 32% drop. The number of fatal crashes with alcohol involvement also decreased from 242 to 218. (For a detailed listing of alcohol-related collisions and fatalities in Indiana by county for 2008, see Appendix 3D, pages 44-46). The overall rate for alcohol-related collisions in Indiana in 2008 was 1.48 per 1,000 population; the lowest rate was found in Switzerland County (0.52 per 1,000 population) and the highest rate was found in Spencer County (2.64 per 1,000 population) (Indiana State Police, 2009).

Alcohol-Related Crimes

Using the Uniform Crime Reporting Program (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, Interuniversity Consortium for Political and Social Research, University of Michigan, n.d.). In 2007, over 32,000 DUI arrests were made in Indiana. The arrest rate was significantly higher among Hoosiers, 5.08 per 1,000 population (95% CI: 5.02–5.13), than among U.S. residents, 4.11 per 1,000 population (95% CI: 4.10–4.12). More than 22,000 Hoosiers were arrested for public intoxication; the arrest rate was twice as high for Indiana, 3.50 per 1,000 population (95% CI: 3.46–3.55), than for the nation, 1.72 per 1,000 population(95% CI: 1.71–1.72). Additionally, over 15,000 arrests occurred for liquor law violations in Indiana, representing an arrest rate of 2.37 per 1,000 population (95% CI: 2.34–2.41), which was significantly higher than the U.S. rate of 1.83 per 1,000 population (95% CI: 1.83–1.84) (see Figures 3.11–3.14). Alcohol-related crimes vary among Indiana counties. These county differences are presented in Maps 3.3 through 3.5 (pages 51-53) and Appendix 3E (pages 47-48).

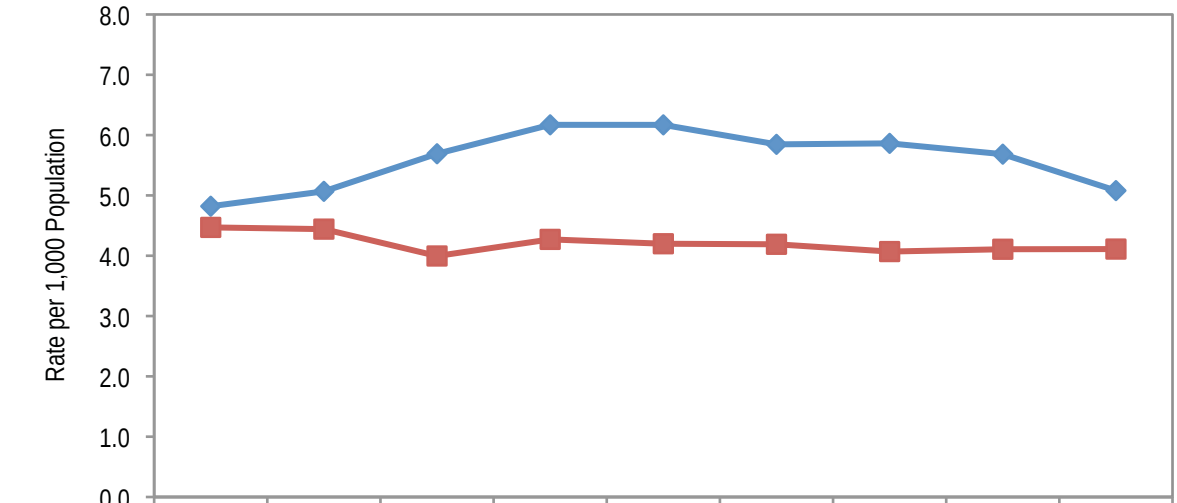
Figure 3.11 Number of Arrests for Driving Under the Influence (DUI), Public Intoxication, and Liquor Law Violations in Indiana (Uniform Crime Reporting Program, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
DUI	28,649	30,814	34,797	38,003	38,226	36,469	36,772	35,884	32,232
Public Intoxication	24,247	23,647	21,598	20,820	20,382	18,562	20,701	21,987	22,229
Liquor Law Violations	18,837	18,980	18,024	16,484	16,502	17,307	17,119	16,659	15,066

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

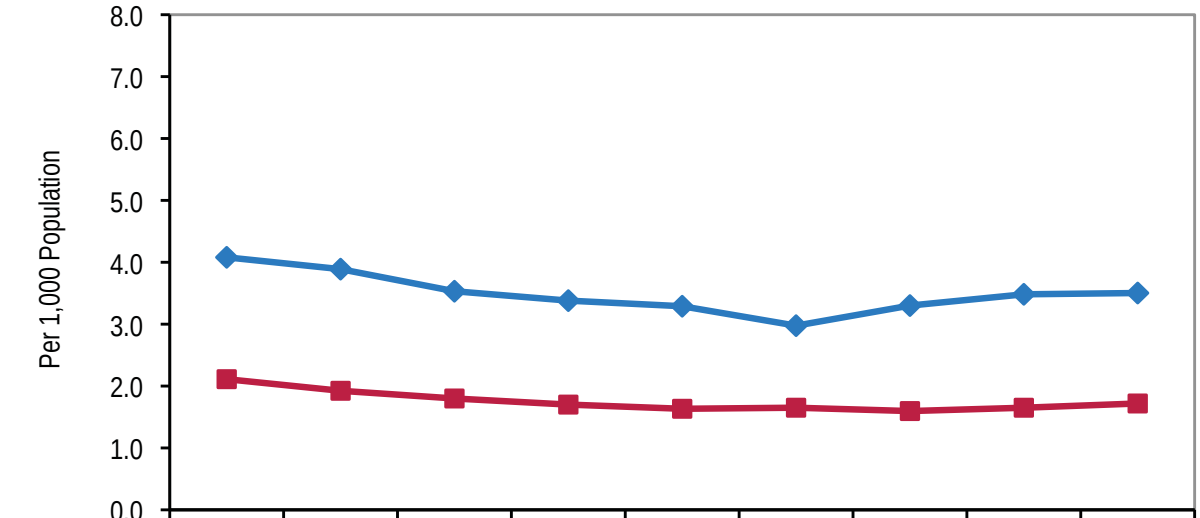
Figure 3.12 Arrest Rates, per 1,000 Population, for Driving Under the Influence (DUI) in Indiana and the United States (Uniform Crime Reporting Program, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	4.82	5.07	5.69	6.17	6.17	5.85	5.86	5.68	5.08
U.S.	4.47	4.44	4.00	4.27	4.20	4.19	4.07	4.11	4.11

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

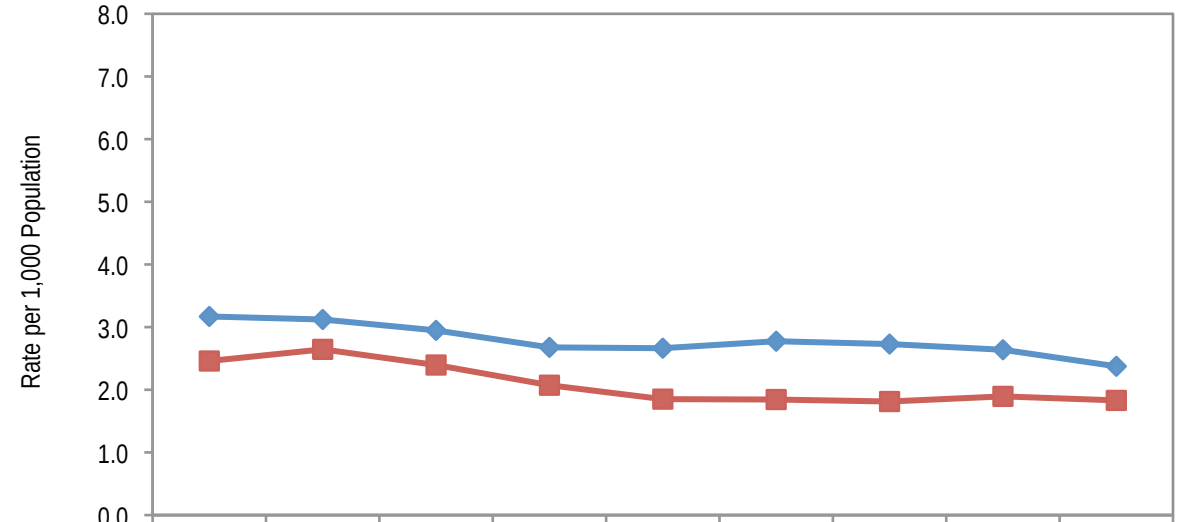
Figure 3.13 Arrest Rates, per 1,000 Population, for Public Intoxication in Indiana and the United States (Uniform Crime Reporting Program, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	4.08	3.89	3.53	3.38	3.29	2.98	3.30	3.48	3.50
U.S.	2.11	1.92	1.80	1.70	1.63	1.65	1.60	1.65	1.72

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 (Uniform Crime Reporting Program, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	3.17	3.12	2.95	2.68	2.66	2.77	2.73	2.64	2.37
U.S.	2.46	2.65	2.40	2.07	1.85	1.84	1.81	1.89	1.83

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

APPENDIX 3A

Percentage of Indiana Students Reporting Lifetime, Annual, Monthly, Daily, and Binge Alcohol Use, by Region and Grade (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents, 2009)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	19.2	21.8	20.5	12.9	18.3	18.2	19.8	17.6	21.9
	Annual	13.0	15.7	14.2	9.2	11.4	11.9	13.2	11.7	15.0
	Monthly	5.6	7.9	5.5	4.2	5.0	4.9	6.1	4.6	6.6
	Daily	0.2	0.3	0.2	0.1	0.2	0.2	0.4	0.2	0.2
	Binge	4.2	6.0	3.8	3.1	3.6	4.2	5.1	3.0	5.3
7th Grade	Lifetime	29.3	33.9	29.0	27.6	33.3	23.9	34.0	29.7	35.8
	Annual	22.0	26.5	21.3	19.9	24.9	17.5	25.3	22.4	27.7
	Monthly	10.8	13.9	10.2	9.7	11.7	8.0	14.2	10.7	14.6
	Daily	0.8	1.1	0.5	1.2	0.8	0.5	1.5	0.7	1.1
	Binge	7.7	10.4	7.7	7.3	8.3	5.3	10.3	7.6	10.1
8th Grade	Lifetime	41.6	44.9	38.8	37.3	43.4	38.2	47.0	40.8	48.3
	Annual	33.8	36.9	31.2	30.1	34.4	30.8	38.5	34.1	39.3
	Monthly	17.5	20.3	16.3	14.4	18.2	15.3	19.7	18.4	20.8
	Daily	1.5	1.8	1.5	1.0	1.9	1.2	2.1	1.3	1.9
	Binge	12.5	14.3	11.7	10.5	12.8	10.8	15.5	12.1	15.5
9th Grade	Lifetime	49.7	55.1	47.9	47.9	49.7	44.9	55.4	49.8	55.7
	Annual	41.0	45.6	38.5	39.6	40.7	37.2	46.1	41.9	46.1
	Monthly	22.1	25.8	19.0	21.8	19.3	19.8	24.4	23.6	26.9
	Daily	1.9	2.7	2.0	1.6	1.5	1.7	1.6	2.2	2.1
	Binge	15.5	19.2	13.5	15.9	14.0	13.1	18.4	15.6	18.4
10th Grade	Lifetime	56.9	62.1	52.4	56.7	56.6	52.8	55.9	57.4	63.4
	Annual	47.9	52.9	43.3	47.7	47.6	43.7	46.5	49.7	53.4
	Monthly	27.3	32.8	23.5	26.0	27.8	23.6	27.1	29.4	30.1
	Daily	2.7	3.5	2.3	2.6	3.2	2.3	3.0	2.5	3.0
	Binge	19.2	23.1	16.7	17.6	19.3	16.9	19.4	21.3	20.7
11th Grade	Lifetime	60.6	65.7	59.3	60.0	59.6	56.4	62.7	61.8	64.4
	Annual	50.6	56.4	48.7	51.2	48.2	46.3	50.3	52.2	54.8
	Monthly	29.4	35.2	27.8	30.6	25.8	25.2	28.7	31.3	32.9
	Daily	3.0	3.6	2.7	3.4	2.6	2.4	3.2	2.4	4.7
	Binge	21.4	25.7	20.5	21.8	18.5	18.6	21.1	21.6	25.7
12th Grade	Lifetime	66.5	71.3	61.4	64.0	66.7	62.8	65.8	68.9	70.6
	Annual	56.3	61.2	50.0	53.8	56.1	52.7	54.8	59.4	60.5
	Monthly	35.7	40.5	30.4	32.2	34.7	33.1	33.2	39.3	39.0
	Daily	4.0	4.3	2.7	3.7	4.7	2.8	4.3	4.6	5.4
	Binge	26.4	28.4	22.2	24.1	25.6	24.0	24.4	29.0	30.8

Source: Indiana Prevention Resource Center, 2009

APPENDIX 3B

Number of Treatment Episodes with Alcohol Use and Dependence Reported at Treatment Admission in Indiana, by County (Substance Abuse Population by County/Treatment Episode Data Set, 2008)

County	Alcohol Use	Alcohol Dependence	County	Alcohol Use	Alcohol Dependence
Adams	86	56	Madison	572	380
Allen	1,107	659	Marion	2,311	1,397
Bartholomew	265	125	Marshall	134	81
Benton	21	14	Martin	30	19
Blackford	90	56	Miami	108	66
Boone	127	89	Monroe	827	661
Brown	54	37	Montgomery	158	102
Carroll	93	71	Morgan	321	260
Cass	144	106	Newton	17	8
Clark	307	203	Noble	213	154
Clay	123	76	Ohio	14	10
Clinton	52	36	Orange	45	29
Crawford	40	26	Owen	134	78
Daviess	105	64	Parke	62	46
Dearborn	109	90	Perry	88	63
Decatur	80	56	Pike	13	5
DeKalb	103	89	Porter	331	195
Delaware	624	377	Posey	147	111
Dubois	131	99	Pulaski	40	29
Elkhart	477	318	Putnam	97	57
Fayette	41	22	Randolph	50	31
Floyd	130	87	Ripley	47	40
Fountain	62	38	Rush	30	25
Franklin	34	22	St. Joseph	850	513
Fulton	133	91	Scott	78	49
Gibson	80	48	Shelby	77	50
Grant	221	146	Spencer	69	52
Greene	93	68	Starke	127	96
Hamilton	536	361	Steuben	104	89
Hancock	126	83	Sullivan	68	39
Harrison	38	22	Switzerland	39	34
Hendricks	252	179	Tippecanoe	536	282
Henry	94	60	Tipton	37	23
Howard	385	253	Union	11	6
Huntington	45	29	Vanderburgh	1,181	735
Jackson	79	42	Vermillion	86	66
Jasper	48	30	Vigo	513	337
Jay	92	66	Wabash	112	72
Jefferson	128	84	Warren	16	13
Jennings	106	71	Warrick	208	152
Johnson	209	148	Washington	52	37
Knox	142	87	Wayne	262	188
Kosciusko	118	96	Wells	84	59
LaGrange	94	62	White	158	99
Lake	1,311	880	Whitley	75	60
LaPorte	372	295			
Lawrence	135	108	**Total**	**19,774**	**13,023**

Note: We defined alcohol dependence as “individuals in substance abuse treatment listing alcohol as their primary substance at admission.”

Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2009

APPENDIX 3C

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

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

Source: Centers for Disease Control and Prevention, 2004

APPENDIX 3D

Alcohol-Related Collisions and Fatalities in Indiana, by County (Automated Reporting Information Exchange System/ Vehicle Crash Records System, 2008)

	Collisions		Fatalities		
County	Total Collisions	Alcohol-Related Collisions	Total Fatal Collisions	Alcohol-Related Fatal Collisions	Alcohol-Related Collision Rate (Per 1,000 population)
Adams	790	27	3	1	0.03
Allen	12,139	591	20	4	0.01
Bartholomew	2,426	95	10	1	0.01
Benton	185	5	3	1	*0.11
Blackford	381	10	2	1	*0.08
Boone	1,830	56	8	2	0.04
Brown	573	38	3	0	0.00
Carroll	648	18	4	1	*0.05
Cass	1,476	58	4	0	0.00
Clark	4,371	222	12	2	0.02
Clay	783	40	4	2	0.07
Clinton	884	42	8	1	0.03
Crawford	322	17	3	2	*0.19
Daviess	391	30	6	2	0.07
Dearborn	2,037	76	3	0	0.00
Decatur	875	41	6	1	0.04
DeKalb	1,507	57	5	2	0.05
Delaware	4,427	190	6	3	0.03
Dubois	899	42	5	2	0.05
Elkhart	6,961	271	25	8	0.04
Fayette	564	30	4	2	0.08
Floyd	2,652	147	10	2	0.03
Fountain	493	23	3	0	0.00

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APPENDIX 3D *(Continued from previous page)*

County	Collisions		Fatalities		
	Total Collisions	Alcohol-Related Collisions	Total Fatal Collisions	Alcohol-Related Fatal Collisions	Alcohol-Related Collision Rate (Per 1,000 population)
Franklin	582	36	7	2	0.09
Fulton	633	36	4	0	0.00
Gibson	1,094	56	5	4	0.12
Grant	2,366	88	6	2	0.03
Greene	847	33	3	0	0.00
Hamilton	6,634	230	13	3	0.01
Hancock	1,646	69	5	3	0.04
Harrison	1,207	70	7	4	0.11
Hendricks	3,802	148	14	4	0.03
Henry	1,230	41	5	0	0.00
Howard	2,513	132	9	5	0.06
Huntington	1,234	39	4	1	0.03
Jackson	1,452	59	6	1	0.02
Jasper	1,441	54	5	0	0.00
Jay	731	24	4	1	0.05
Jefferson	1,032	61	3	1	0.03
Jennings	900	41	9	2	0.07
Johnson	3,143	143	12	3	0.02
Knox	1,062	65	1	0	0.00
Kosciusko	2,770	97	6	3	0.04
LaGrange	992	47	6	0	0.00
Lake	18,562	967	43	17	0.03
LaPorte	3,637	220	18	8	0.07
Lawrence	1,231	60	7	2	0.04
Madison	4,447	219	12	4	0.03
Marion	28,493	1,170	83	35	0.04
Marshall	1,658	68	7	1	0.02
Martin	244	9	2	0	*0.00
Miami	1,136	46	4	0	0.00
Monroe	4,349	210	11	5	0.04
Montgomery	1,177	50	7	0	0.00
Morgan	1,690	88	8	2	0.03
Newton	413	18	6	3	*0.22
Noble	1,368	54	4	3	0.06
Ohio	248	11	1	0	*0.00
Orange	671	26	3	0	0.00
Owen	611	38	9	2	0.09
Parke	686	24	3	1	0.06
Perry	497	31	1	0	0.00
Pike	154	16	2	1	*0.08
Porter	5,407	299	27	9	0.06
Posey	554	40	3	0	0.00
Pulaski	582	20	1	1	0.07
Putnam	743	29	7	0	0.00
Randolph	600	28	2	1	0.04
Ripley	826	25	2	0	0.00
Rush	404	25	4	1	0.06

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APPENDIX 3D *(Continued from previous page)*

County	Collisions		Fatalities		
	Total Collisions	Alcohol-Related Collisions	Total Fatal Collisions	Alcohol-Related Fatal Collisions	Alcohol-Related Collision Rate (Per 1,000 population)
Saint Joseph	8,058	404	21	5	0.02
Scott	606	22	6	0	0.00
Shelby	1,338	77	6	1	0.02
Spencer	663	53	7	2	0.10
Starke	874	43	6	3	0.13
Steuben	1,697	58	6	2	0.06
Sullivan	326	28	5	3	0.14
Switzerland	193	5	2	0	*0.00
Tippecanoe	7,602	335	13	4	0.02
Tipton	433	19	3	1	*0.06
Union	185	11	1	0	*0.00
Vanderburgh	6,044	319	15	5	0.03
Vermillion	439	21	5	0	0.00
Vigo	3,647	182	16	5	0.05
Wabash	1,058	25	5	1	0.03
Warren	284	12	3	2	*0.23
Warrick	1,496	56	9	2	0.03
Washington	700	34	7	0	0.00
Wayne	1,972	120	5	4	0.06
Wells	702	27	2	0	0.00
White	963	27	3	1	0.04
Whitley	856	47	8	2	0.06
(Unknown)	2	0	0	0	
INDIANA	**205,451**	**9,411**	**722**	**218**	**0.03**

* Indicates an unstable rate because number of collisions is less than 20.
Source: Indiana State Police, 2009

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 (Uniform Crime Reporting Program, 2007)

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	183	5.43	63	1.87	79	2.34
Allen	2,132	6.10	789	2.26	185	0.53
Bartholomew	459	6.16	486	6.53	219	2.94
Benton	41	4.56	19	*2.11	19	*2.11
Blackford	66	4.93	32	2.39	33	2.46
Boone	205	3.75	94	1.72	115	2.11
Brown	70	4.64	4	*0.27	16	*1.06
Carroll	137	6.66	49	2.38	36	1.75
Cass	181	4.56	345	8.68	135	3.40
Clark	626	5.99	475	4.54	286	2.74
Clay	110	4.06	85	3.14	28	1.03
Clinton	129	3.77	32	0.93	174	5.08
Crawford	55	4.92	20	1.79	23	2.06
Daviess	200	6.61	94	3.11	90	2.97
Dearborn	269	5.37	125	2.49	109	2.17
Decatur	140	5.60	143	5.72	30	1.20
DeKalb	261	6.20	153	3.63	117	2.78
Delaware	568	4.97	300	2.63	77	0.67
Dubois	168	4.06	117	2.83	121	2.92
Elkhart	886	4.42	437	2.18	481	2.40
Fayette	108	4.41	19	*0.78	197	8.04
Floyd	588	8.08	311	4.27	88	1.21
Fountain	88	5.05	41	2.35	35	2.01
Franklin	86	3.90	27	1.22	31	1.41
Fulton	113	5.48	58	2.81	58	2.81
Gibson	154	4.60	55	1.64	52	1.55
Grant	329	4.75	220	3.17	137	1.98
Greene	159	4.77	75	2.25	52	1.56
Hamilton	902	3.44	246	0.94	575	2.19
Hancock	385	5.79	173	2.60	108	1.62
Harrison	145	3.88	37	0.99	5	*0.13
Hendricks	588	4.35	188	1.39	280	2.07
Henry	201	4.30	119	2.55	117	2.50
Howard	275	3.26	242	2.87	129	1.53
Huntington	165	4.34	25	0.66	115	3.03
Jackson	212	4.99	159	3.74	142	3.34
Jasper	149	4.57	48	1.47	58	1.78
Jay	119	5.48	92	4.24	81	3.73
Jefferson	183	5.58	99	3.02	97	2.96
Jennings	79	2.76	68	2.38	55	1.92
Johnson	724	5.31	203	1.49	578	4.24
Knox	97	2.55	98	2.57	409	10.74
Kosciusko	350	4.57	286	3.74	247	3.23
LaGrange	119	3.16	43	1.14	126	3.35
Lake	3,679	7.43	2,462	4.97	1,333	2.69
LaPorte	1,077	9.75	517	4.68	551	4.99
Lawrence	185	3.98	193	4.15	44	0.95
Madison	526	4.04	568	4.36	395	3.04

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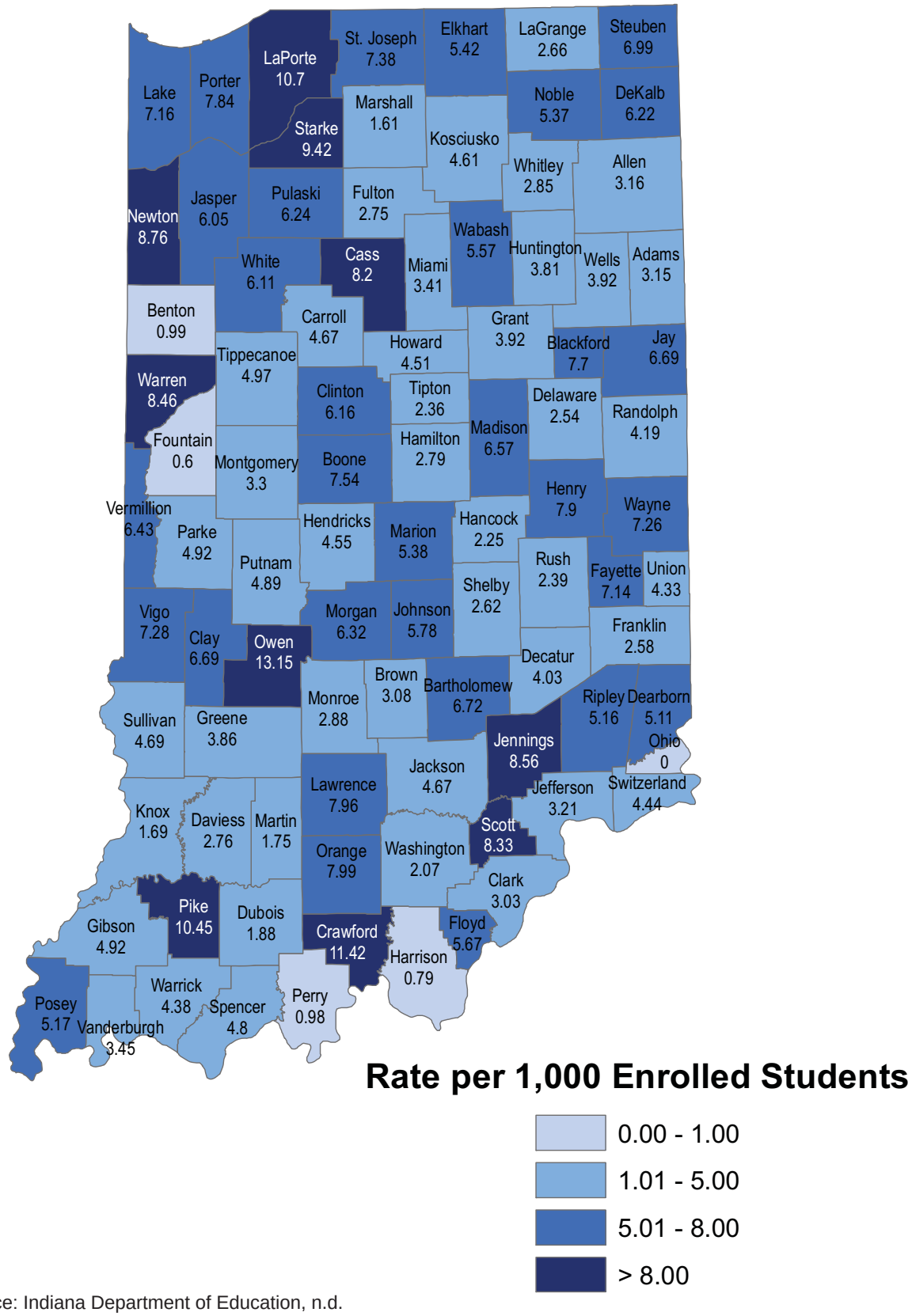
APPENDIX 3E *(Continued from previous page)*

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	3,072	3.55	5,634	6.51	282	0.33
Marshall	440	9.25	203	4.27	157	3.30
Martin	47	4.55	21	2.03	12	*1.16
Miami	196	5.53	104	2.93	103	2.91
Monroe	534	4.35	564	4.59	1,236	10.06
Montgomery	267	6.98	129	3.37	116	3.03
Morgan	246	3.48	60	0.85	278	3.93
Newton	123	8.63	72	5.05	1	*0.07
Noble	307	6.38	102	2.12	140	2.91
Ohio	23	3.93	7	*1.20	8	*1.37
Orange	98	4.98	36	1.83	41	2.08
Owen	89	3.89	28	1.23	32	1.40
Parke	75	4.42	40	2.36	20	1.18
Perry	132	7.01	78	4.14	84	4.46
Pike	68	5.29	31	2.41	33	2.57
Porter	918	5.67	372	2.30	637	3.93
Posey	123	4.61	59	2.21	59	2.21
Pulaski	69	4.97	25	1.80	29	2.09
Putnam	200	5.39	203	5.47	68	1.83
Randolph	99	3.74	50	1.89	72	2.72
Ripley	156	5.31	74	2.52	76	2.59
Rush	100	5.68	79	4.49	54	3.07
Saint Joseph	862	3.23	160	0.60	385	1.44
Scott	102	4.29	103	4.33	57	2.40
Shelby	279	6.32	134	3.04	150	3.40
Spencer	102	4.95	37	1.79	43	2.09
Starke	150	6.52	66	2.87	77	3.35
Steuben	264	7.83	53	1.57	237	7.03
Sullivan	78	3.63	62	2.88	24	1.12
Switzerland	49	5.00	18	*1.84	21	2.14
Tippecanoe	900	5.73	973	6.19	858	5.46
Tipton	77	4.71	32	1.96	7	*0.43
Union	36	4.95	26	3.57	19	*2.61
Vanderburgh	1,031	5.94	719	4.14	103	0.59
Vermillion	77	4.63	33	1.99	16	*0.96
Vigo	739	7.20	348	3.39	320	3.12
Wabash	143	4.29	75	2.25	99	2.97
Warren	43	4.92	16	*1.83	18	*2.06
Warrick	201	3.48	85	1.47	123	2.13
Washington	200	7.10	46	1.63	38	1.35
Wayne	369	5.39	483	7.05	175	2.55
Wells	52	1.84	38	1.34	86	3.04
White	277	11.42	169	6.96	110	4.53
Whitley	148	4.51	48	1.46	94	2.87
Indiana	**32,232**	**5.08**	**22,229**	**3.50**	**15,066**	**2.37**

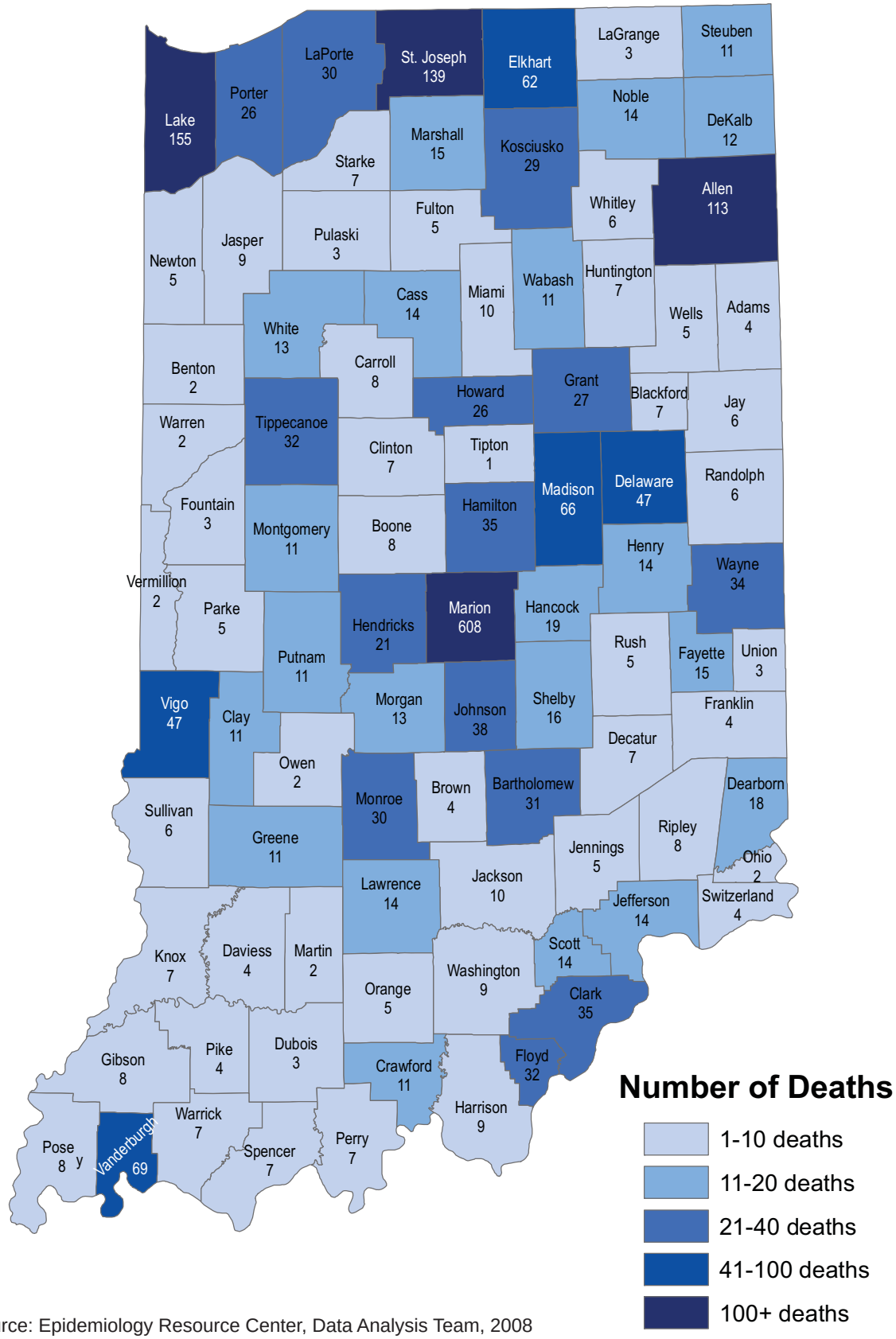
* Indicates an unstable rate because number of arrests is less than 20.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 3.1 Suspension and Expulsion Rates, per 1,000 Enrolled Students, with Alcohol, Drug, or Weapon Involvement in Indiana by County (School Data, 2007–2008)



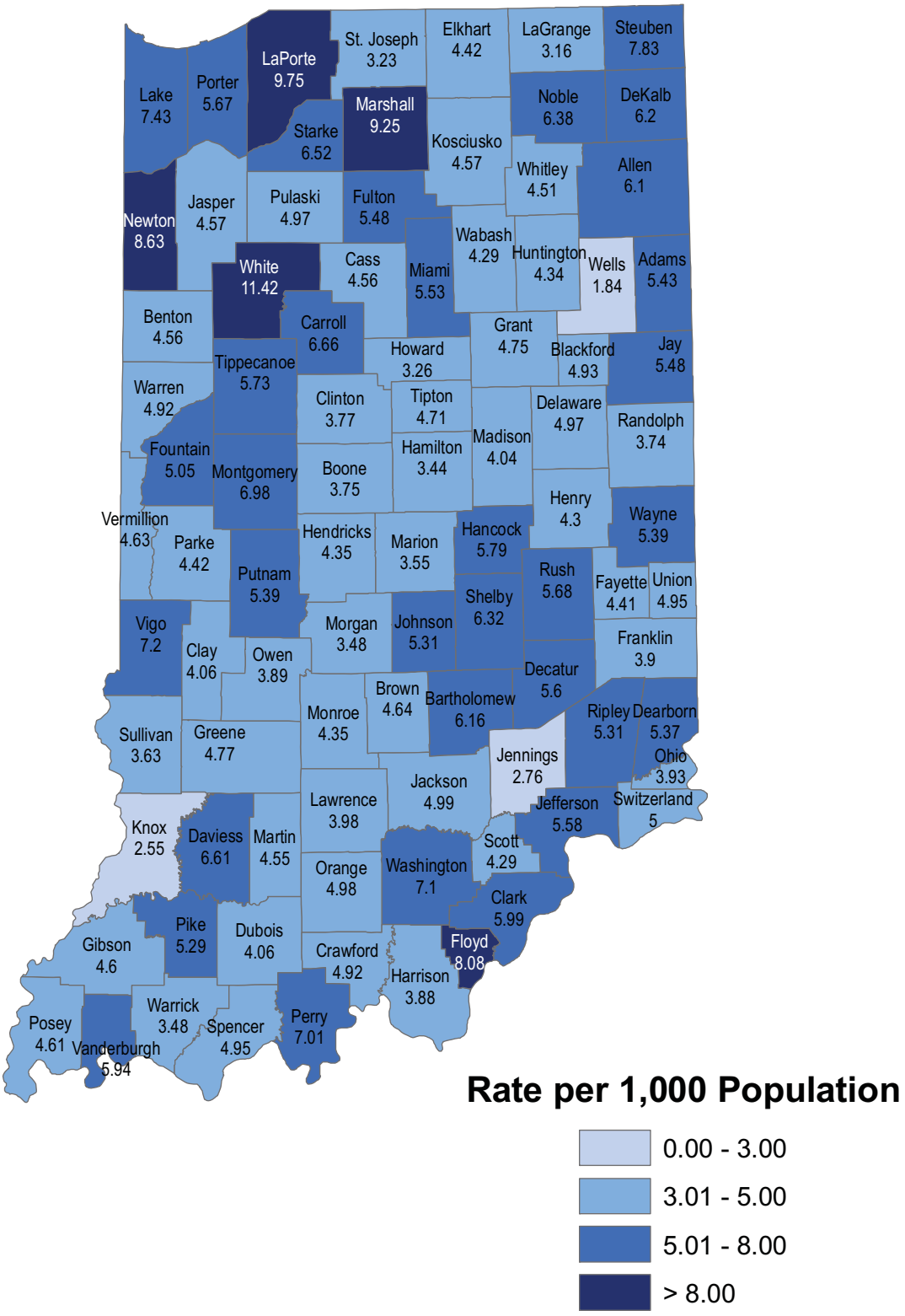
Source: Indiana Department of Education, n.d.

Map 3.2 Number of Alcohol-Related Deaths in Indiana by County (Indiana Mortality Data, 2000–2006)



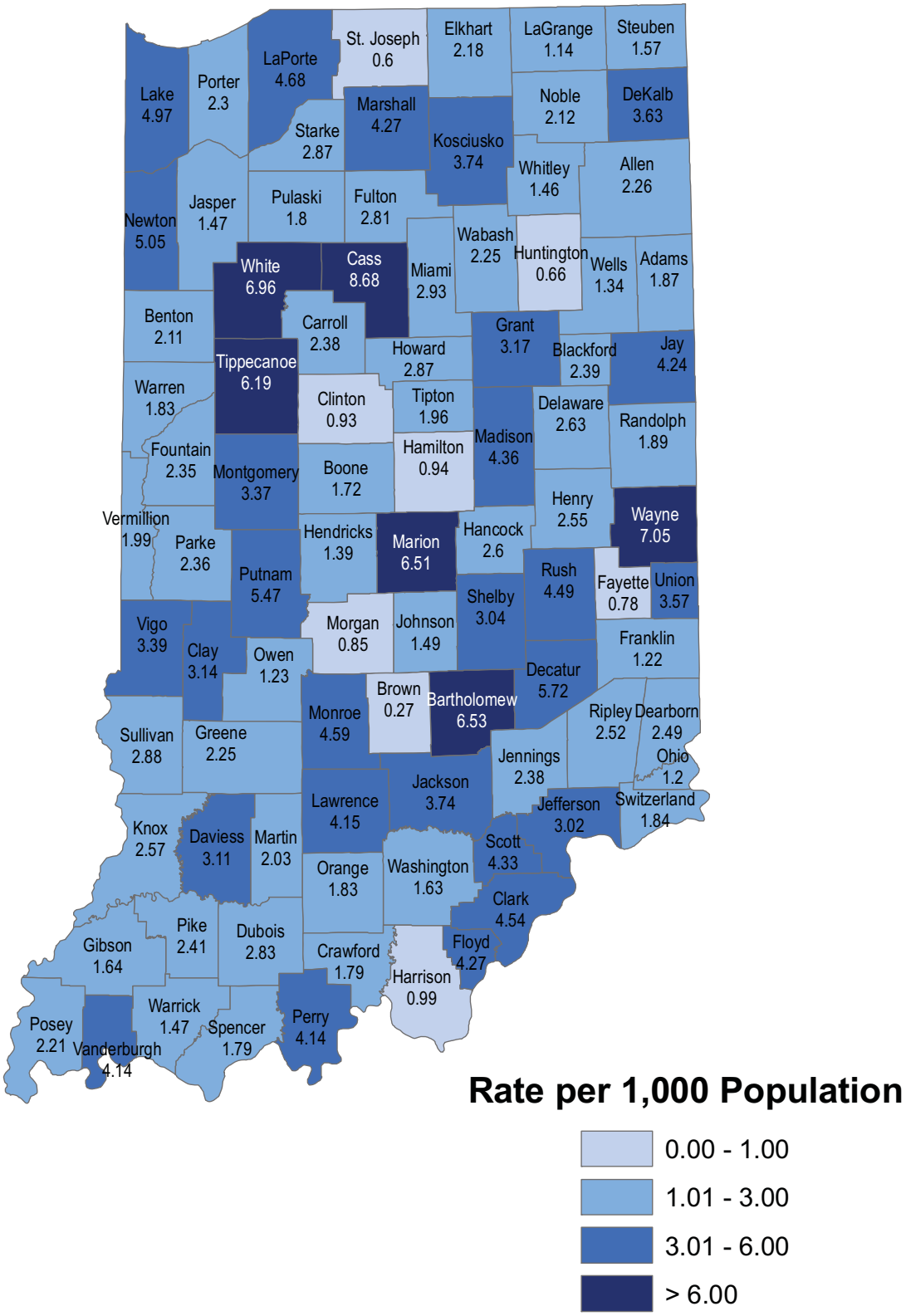
Source: Epidemiology Resource Center, Data Analysis Team, 2008

Map 3.3 DUI Arrest Rates in Indiana by County (Uniform Crime Reporting Program, 2007)



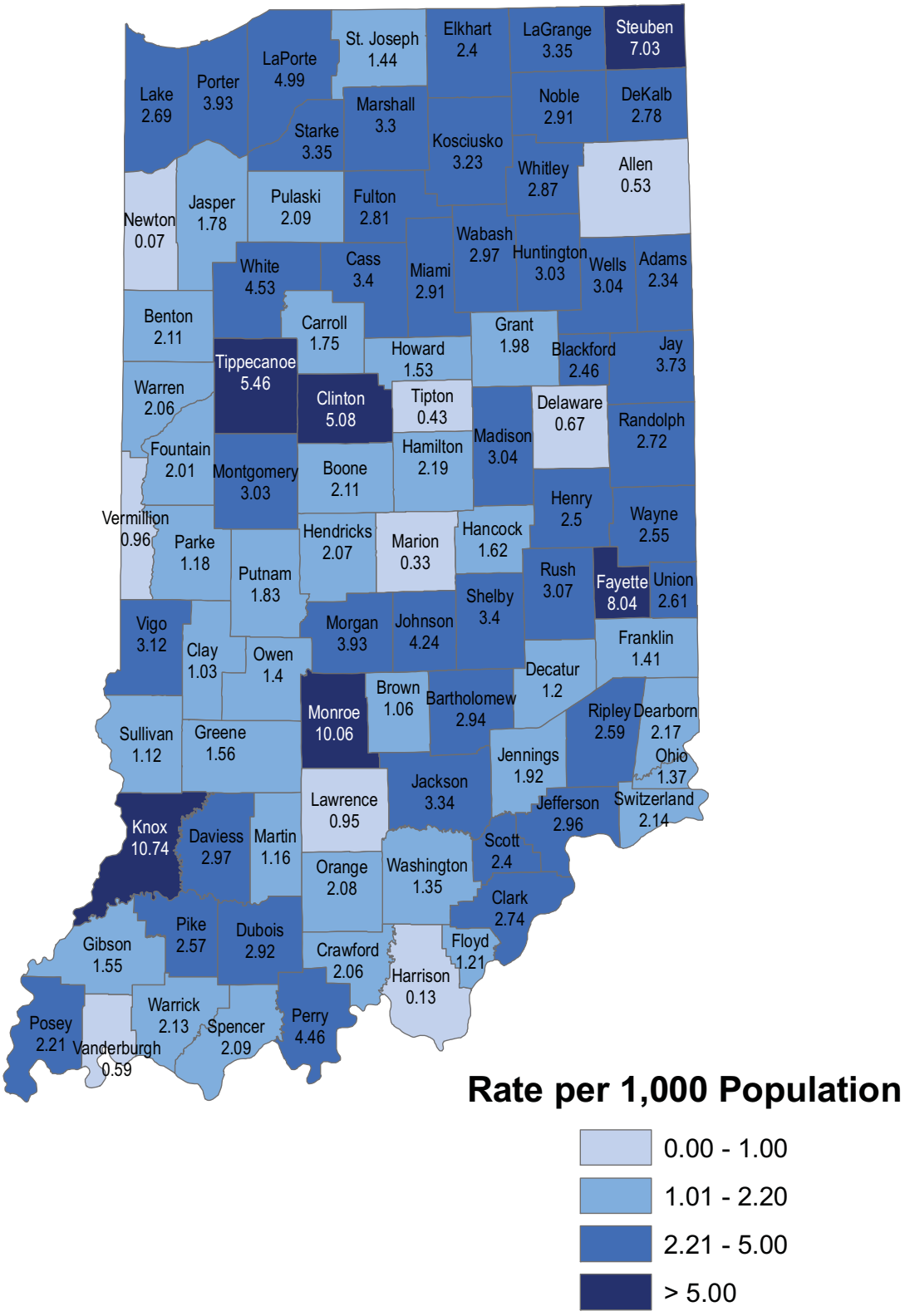
Note: Rates based on arrest numbers below 20 are statistically unstable. Please refer to Appendix 3E (pages 47-48) for additional information.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 3.4 Public Intoxication Arrest Rates in Indiana by County (Uniform Crime Reporting Program, 2007)



Note: Rates based on arrest numbers below 20 are statistically unstable. 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 3.5 Liquor Law Violation Arrest Rates in Indiana by County (Uniform Crime Reporting Program, 2007)



Note: Rates based on arrest numbers below 20 are statistically unstable. 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

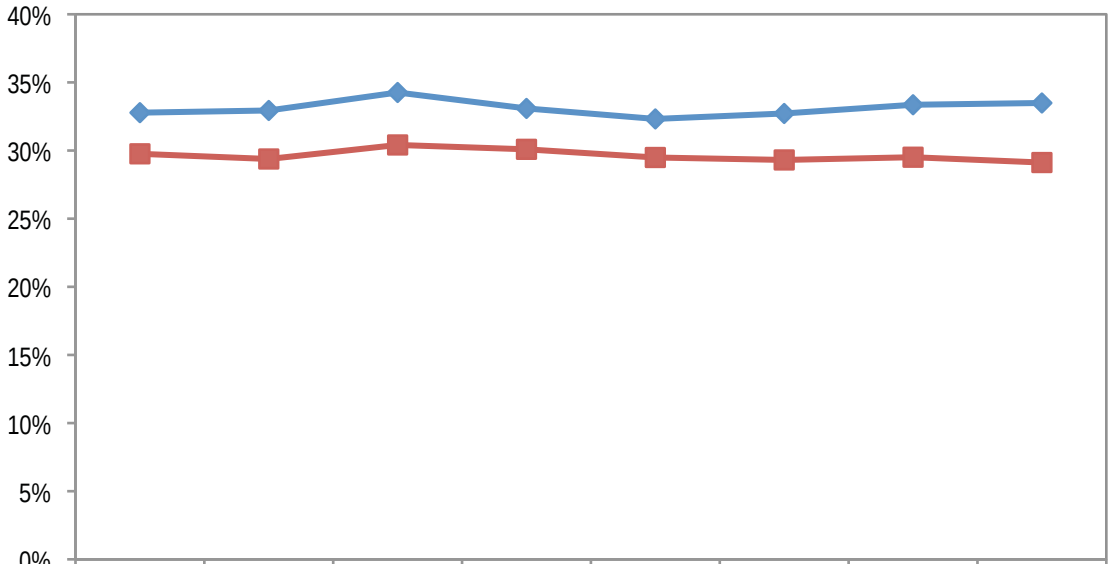
TOBACCO CONSUMPTION

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, 2009b).

The 2007 National Survey on Drug Use and Health (NSDUH) estimates that 33.49% (95% Confidence Interval [CI]: 30.98–36.10) of Indiana residents 12 years and older, or 1.74 million Hoosiers, used a tobacco product in the past month (U.S.: 29.12%). Tobacco products include cigarettes, smokeless tobacco, cigars, and pipe tobacco. Indiana's rate has remained stable and higher than the nation for at least the past eight years, from 2000 through 2007 (see Figure 4.1) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Figure 4.1 Percentage of Indiana and U.S. Population (12 Years and Older) Reporting Any Tobacco Use in the Past Month (National Survey on Drug Use and Health, 2000–2007)

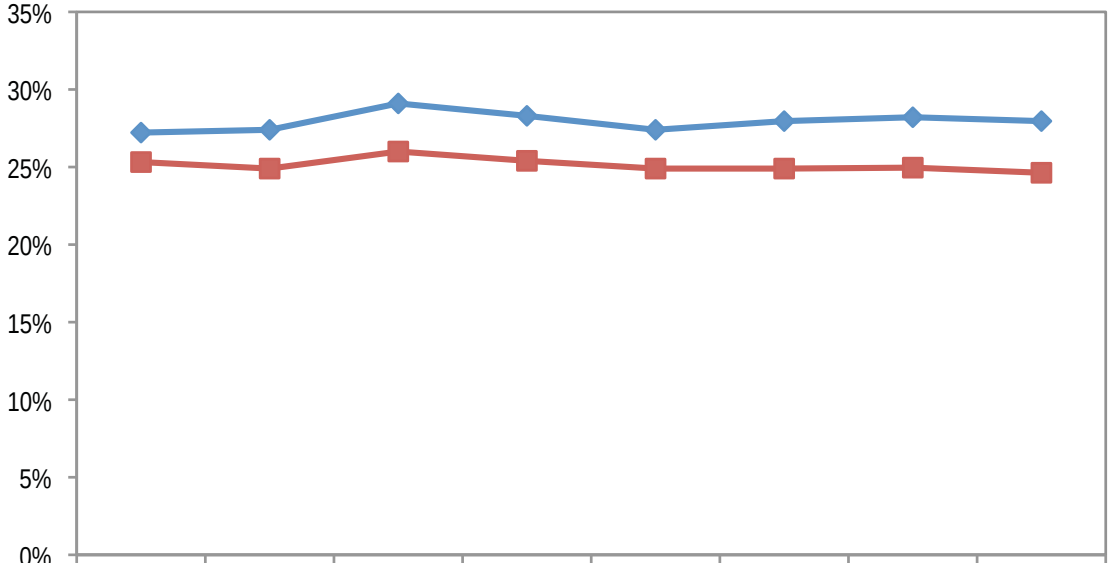


	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	32.78%	32.94%	34.26%	33.09%	32.32%	32.72%	33.36%	33.49%
U.S.	29.76%	29.38%	30.41%	30.09%	29.49%	29.31%	29.51%	29.12%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.

The majority of tobacco consumers smoke cigarettes. In 2007, almost 1.5 million Hoosiers 12 years and older admitted to having used cigarettes in the past month. The prevalence rate of 27.96% (95% CI: 25.64–30.41) was significantly higher than the nation's, 24.63%. The smoking prevalence for Indiana remained stable from 2000 (27.22%; 95% CI: 24.68–29.88) to 2007 (see Figure 4.2).

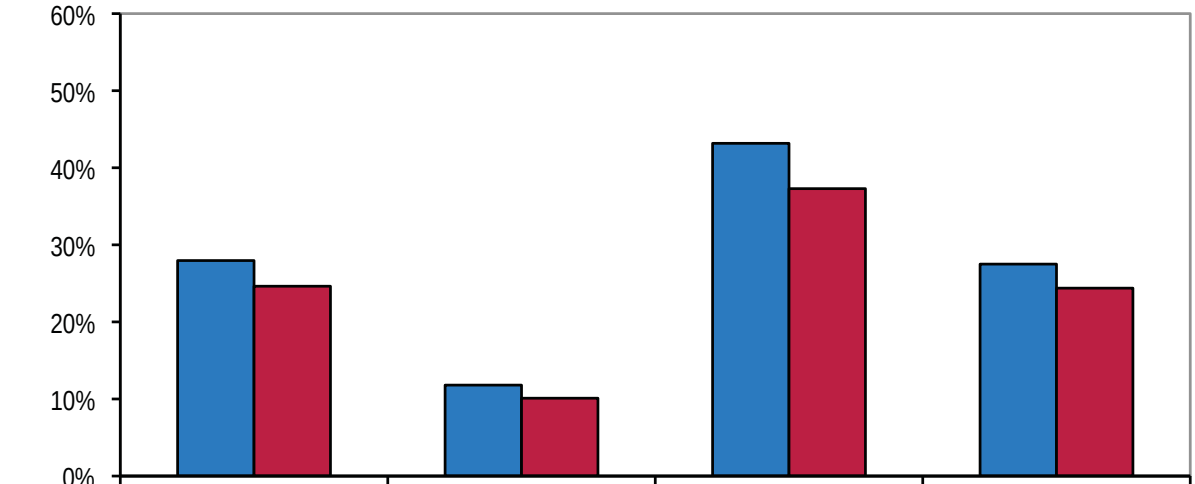
Figure 4.2 Percentage of Indiana and U.S. Population (12 Years and Older) Reporting Cigarette Use in the Past Month (National Survey on Drug Use and Health, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	27.22%	27.40%	29.10%	28.30%	27.40%	27.96%	28.21%	27.96%
U.S.	25.32%	24.90%	26.00%	25.40%	24.90%	24.90%	24.96%	24.63%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.

Figure 4.3 Percentage of Indiana and U.S. Population (12 Years and Older) Reporting Cigarette Use in the Past Month (National Survey on Drug Use and Health, 2007)



	Total	12-17	18-25	26 and older
Indiana	27.96%	11.80%	43.17%	27.50%
U.S.	24.63%	10.10%	37.29%	24.38%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.

In Indiana, 3.6 million residents, or 69.44% (95% CI: 66.79–71.97) 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 (73.86%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Adult Consumption Patterns

The highest rate of tobacco use was among 18- to 25-year-olds. An estimated 49.07% of Hoosiers in this age group (95% CI: 45.47–52.68), or 338,000 residents, reported currently (within the past 30 days) using a tobacco product (U.S.: 42.89%). The 30-day prevalence rate for cigarette smoking among 18- to 25-year-olds was 43.17% (95% CI: 39.60–46.80) in Indiana and a significantly lower 37.29% in the United States (see Figure 4.3). Among Hoosiers ages 26 and older, 33.32% (95% CI: 30.28–36.51) used a tobacco product in the past month and 27.50% (95% CI: 24.64–30.56) smoked cigarettes in the past month; the rates among the U.S. population in that age group were significantly lower, at 28.94% and 24.38% respectively (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

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 2008 BRFSS, the past-month prevalence rate for adult (18 years and older) smoking in Indiana was 26.0% (95% CI: 24.0–28.1). Moreover, 19.7% (95% CI: 17.8–21.7) of Hoosiers used cigarettes every day. Indiana's smoking prevalence rates were significantly higher than national rates: 18.4% of U.S. residents smoked in the past month and 13.4% reported smoking everyday (Centers for Disease Control and Prevention, 2008a).

Statistical differences in current-smoking prevalence were not evident by gender or race, but were observed by age, educational attainment, and income (see Table 4.1):

- Males seemed to have a higher smoking rate than females. The difference was statistically not significant.
- The percentage of black smokers seemed higher compared to whites. The difference was statistically not significant.
- Younger adults displayed higher smoking rates than older adults. The difference was statistically significant.
- Educational attainment was inversely associated with prevalence rate, i.e., individuals who achieved higher levels of education had lower smoking rates. The difference was statistically significant.
- Income level was inversely associated with prevalence rate, i.e., individuals with higher income levels had lower smoking rates. The difference was statistically significant.

Table 4.1 Adult Smoking Prevalence (95% CI) in Indiana and the United States, by Gender, Race, Age Group, Educational Attainment, and Income Level (Behavioral Risk Factor Surveillance System, 2008)

		Indiana	U.S.
Gender	Male	28.3%	20.3%
	95% CI	(25.1–31.5)	
	Female	23.9%	
	95% CI	(21.3–26.5)	16.7%
Race/ Ethnicity	White	24.5%	17.9%
	95% CI	(22.4–26.6)	
	Black	33.3%	
	95% CI	(25.8–40.9)	21.2%
	Hispanic	N/A	15.7%
Age Group	18-24	41.1%	22.3%
	95% CI	(31.5–50.6)	
	25-34	31.0%	23.7%
	95% CI	(25.4–36.6)	
	35-44	23.9%	20.0%
	95% CI	(19.9–27.8)	
	45-54	28.6%	21.0%
	95% CI	(25.0–32.2)	
	55-64	21.9%	16.8%
	95% CI	(18.6–25.1)	
	65+	11.7%	8.2%
	95% CI	(9.6–13.8)	
Education	Less than High School	50.5%	30.1%
	95% CI	(42.8–58.2)	
	High School or GED	30.5%	24.9%
	95% CI	(26.9–34.2)	
	Some Post-High School	27.4%	20.0%
	95% CI	(23.7–31.1)	
	College Graduate	10.3%	8.8%
	95% CI	(7.8–12.8)	
Income	Less than $15,000	40.3%	31.0%
	95% CI	(31.9–48.7)	
	$15,000 – $24,999	38.4%	27.7%
	95% CI	(32.6–44.2)	
	$25,000 – $34,999	35.1%	22.7%
	95% CI	(28.0–42.3)	
	$35,000 – $49,999	30.2%	20.8%
		(24.8–35.6)	
	$50,000 and above	17.2%	13.0%
	95% CI	(14.3–20.1)	
Total		**26.0%**	**18.4%**
	95% CI	**(24.0–28.1)**	

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

Adult smoking prevalence in Indiana has been above the national level for at least the past seven years (see Figure 4.4). While the U.S. has seen a gradual decrease in current consumption, Indiana's rates have been fairly stable and continue to be among the highest in the nation. In 2008, Indiana's adult smoking prevalence ranked second among the 50 U.S. states, only exceeded by West Virginia, at 26.5% (95% CI: (24.8–28.3) (Centers for Disease Control and Prevention, 2008a).

Youth Consumption Patterns

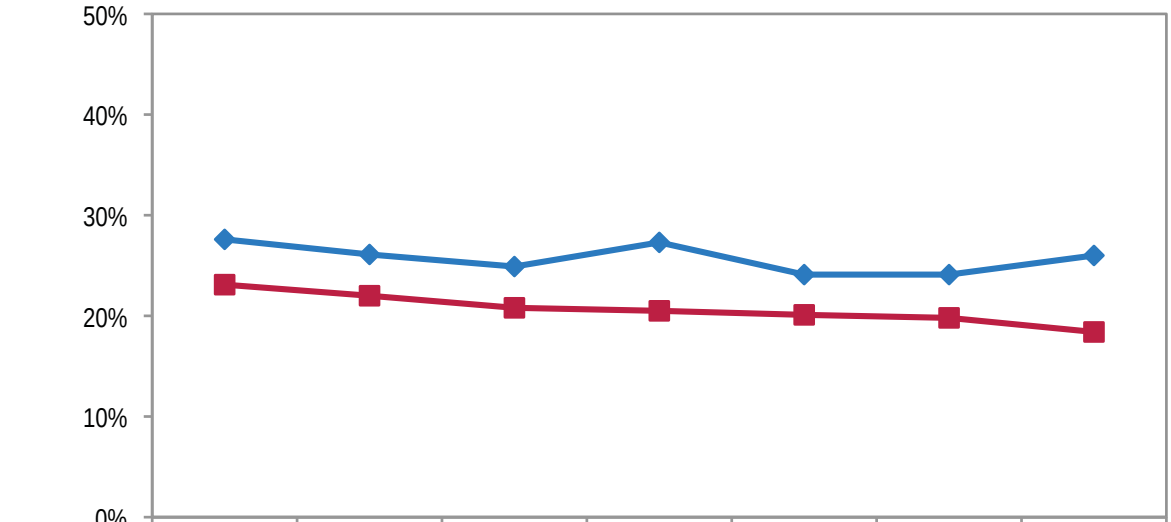
Based on results from the 2007 National Survey on Drug Use and Health (NSDUH), an estimated 79,000 Hoosiers ages 12 to 17 used a tobacco product in the past month; the rate of 14.70% (95% CI: 12.50–17.22) was similar to the U.S. rate of 12.65%. Of these, approximately 64,000 young Hoosiers smoked cigarettes; again, rates in Indiana, 11.80% (95% CI: 9.94–13.95), and the United States, 10.10%, were statistically the same (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

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 (Centers for Disease Control and Prevention, 2008b). 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 the same as 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 4.5; Centers for Disease Control and Prevention, 2008b).

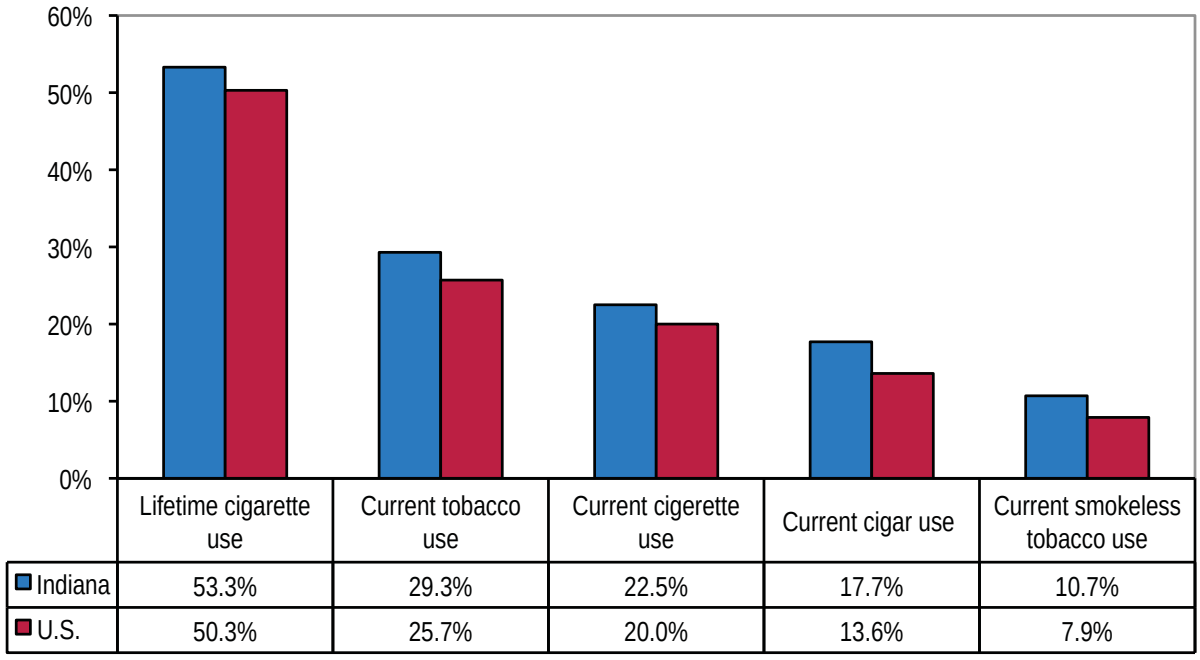
Figure 4.4 Percentage of Indiana and U.S. Population (18 Years and Older) Reporting Current Cigarette Use (Behavioral Risk Factor Surveillance System, 2002–2008)



	2002	2003	2004	2005	2006	2007	2008
Indiana	27.6%	26.1%	24.9%	27.3%	24.1%	24.1%	26.0%
U.S.	23.1%	22.0%	20.8%	20.5%	20.1%	19.8%	18.4%

Source: Centers for Disease Control and Prevention, 2008a

Figure 4.5 Percentage of Indiana and U.S. High School Students Reporting Tobacco Consumption (Youth Risk Behavior Surveillance System, 2007)



	Lifetime cigarette use	Current tobacco use	Current cigerette 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, 2008b

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, 2008b).

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 4.2).

Table 4.2 Smoking Rates in Indiana and U.S. High School Students (9th–12th Grade), by Gender (Youth Risk Behavior Surveillance System, 2003–2007)

Year	Gender	Indiana	U.S.
2003	Females	25.7%	21.9%
	95% CI	(23.2–28.5)	(19.2–24.9)
	Males	25.6%	21.8%
	95% CI	(22.2–29.4)	(19.8–24.1)
	Total	25.6%	21.9%
	95% CI	(23.2–28.2)	(19.8–24.2)
2005	Females	20.5%	23.0%
	95% CI	(16.1–25.8)	(20.4–25.8)
	Males	23.2%	22.9%
	95% CI	(18.7–28.3)	(20.7–25.3)
	Total	21.9%	23.0%
	95% CI	(18.0–26.4)	(20.7–25.5)
2007	Females	19.9%	18.7%
	95% CI	(15.2–25.5)	(16.5–21.1)
	Males	24.6%	21.3%
	95% CI	(19.4–30.6)	(18.3–24.6)
	Total	22.5%	20.0%
	95% CI	(17.8–27.9)	(17.6–22.6)

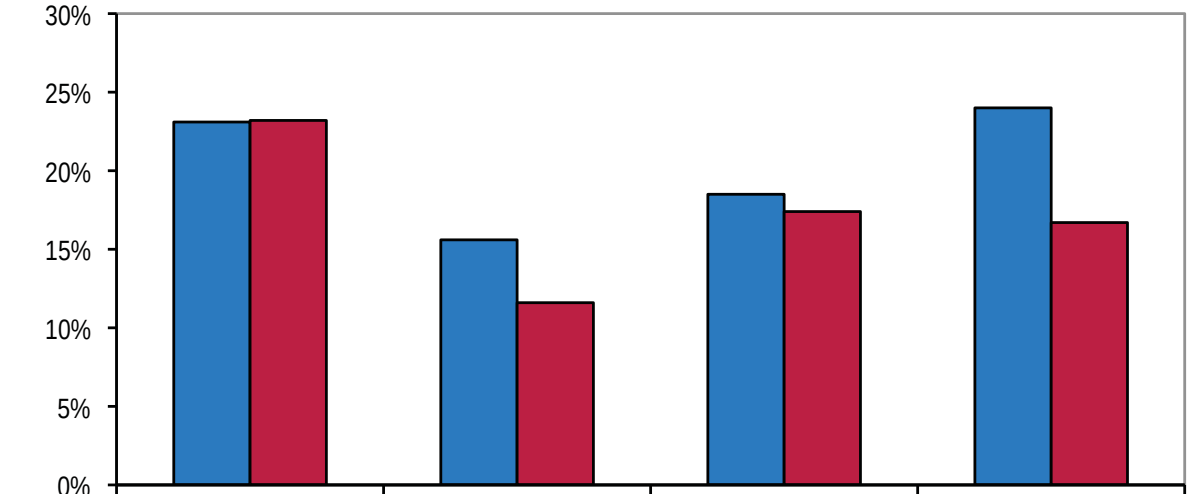
Source: Centers for Disease Control and Prevention, 2008b

Among Indiana high school students, no differences in smoking prevalence were observed by race/ethnicity. 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 were statistically similar between Indiana and the nation (see Figure 4.6).

Smoking prevalence seemed to increase as students progressed through high school. However, these differences were 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 4.7) (Centers for Disease Control and Prevention, 2008b).

The Indiana Youth Tobacco Survey (IYTS) is a statewide school-based survey of middle school (grades 6 through 8) and high school (grades 9 through 12) students that captures information on various tobacco-related issues, such as tobacco use, smoking cessation, tobacco-related attitudes and beliefs, social influences on tobacco use, and secondhand smoke exposure. According to IYTS and YRBSS results, lifetime use of cigarettes and current use of various tobacco products remained fairly stable in Indiana from 2002 to 2008 (see Figure 4.8) (Indiana Tobacco Prevention and Cessation Agency, 2009; Centers for Disease Control and Prevention, 2009a).

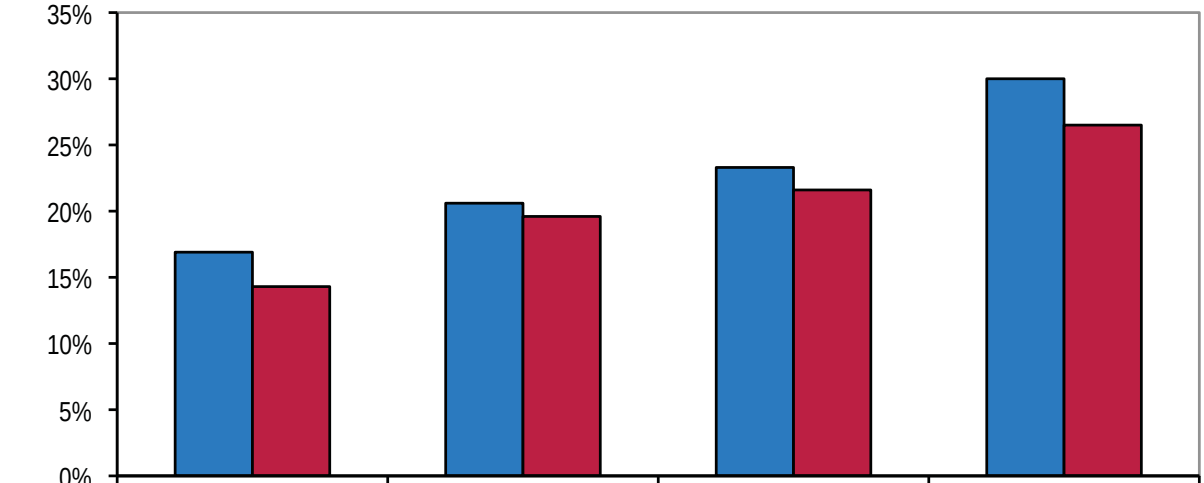
Figure 4.6 Smoking Rates in Indiana and U.S. High School Students (9th–12th Grade), by Race/Ethnicity (Youth Risk Behavior Surveillance System, 2007)



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

Source: Centers for Disease Control and Prevention, 2008b

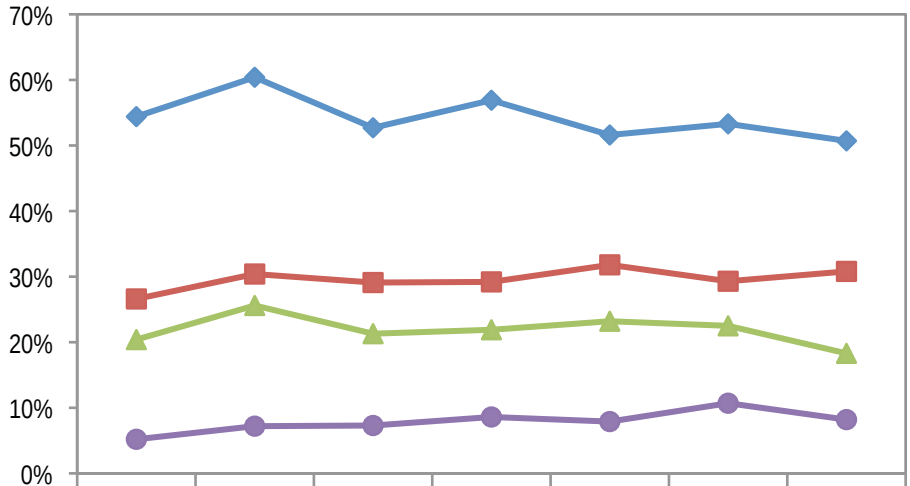
Figure 4.7 Current Smoking Prevalence for Indiana and U.S. High School Students (9th–12th Grade), by Grade (Youth Risk Behavior Surveillance System, 2007)



	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, 2008b

Figure 4.8 Tobacco Use Among Indiana High School Students (9th–12th Grade) (Indiana Youth Tobacco Survey [even years] and Youth Risk Behavior Surveillance System [odd years], 2002–2008)



	2002	2003	2004	2005	2006	2007	2008
Lifetime Cigarette Use	54.4%	60.4%	52.7%	56.9%	51.6%	53.3%	50.7%
Current Tobacco Use	26.6%	30.4%	29.1%	29.2%	31.8%	29.3%	30.8%
Current Cigarette Use	20.4%	25.6%	21.3%	21.9%	23.2%	22.5%	18.3%
Current Smokeless Tobacco Use	5.2%	7.2%	7.3%	8.6%	7.9%	10.7%	8.2%

Source: Indiana Tobacco Prevention and Cessation Agency, 2009; Centers for Disease Control and Prevention, 2009a

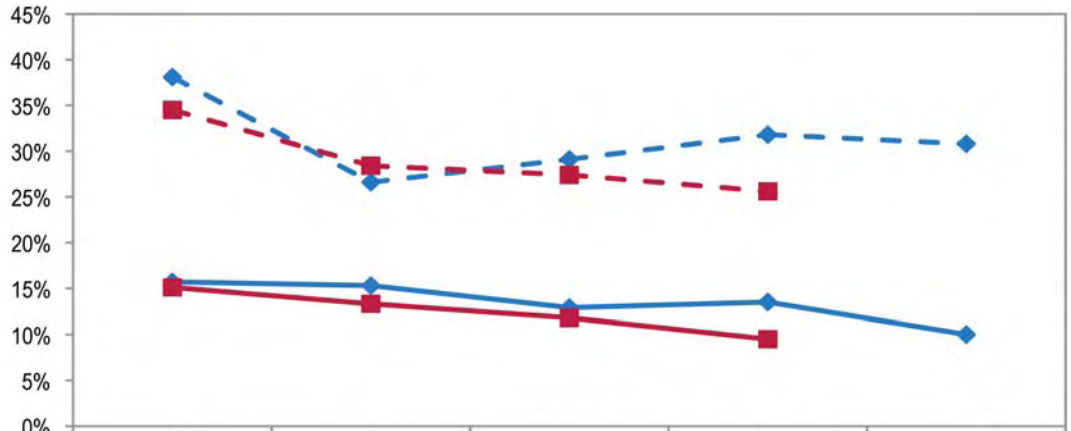
Based on 2008 IYTS results, a total of 10.0% of middle school students (95% CI: 7.5-12.4) and 30.8% of high school students (95% CI: 27.8-33.9) used a tobacco product (any type) in the past month; while 4.1% of middle school students (95% CI: 2.9-5.3) and 18.3% of high school students (95% CI: 16.0-20.5) smoked cigarettes in the past month (Indiana Tobacco Prevention and Cessation Agency, 2009). For trend information and comparisons with U.S. prevalence rates, as measured by the National Youth Tobacco Survey (NYTS), see Figures 4.9 and 4.10 (2008 NYTS results are not available yet).

A review of IYTS data from 2000 through 2008 reveals that even though cigarette smoking prevalence in Indiana middle school students seemed 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 2000 through 2008, however, was statistically significant (see Figure 4.10). Appendix 4A (pages 68-70) shows the percentages, including 95% confidence intervals, 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 2008.

According to the 2009 Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) survey, the mean age of first-time cigarette use among Hoosier 6th through 12th graders was 12.8 years. Initiation of smokeless tobacco occurred on average at the age of 13.5 years, cigar use at 13.6 years, and pipe use at 14.2 years (Indiana Prevention Resource Center, 2009). A comparison of Indiana data (ATOD survey) and national data (Monitoring the Future, or MTF, survey; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.) for 2008 implies that Indiana's smoking prevalence among 8th, 10th, and 12th grade students exceeds the national level. However, due the nature of the data, statistical significance of the differences could not be determined.

Generally, tobacco use seemed to increase as students progressed in school, i.e., higher smoking rates were found in 12th grade students (see Figure 4.11) (Indiana Prevention Resource Center, 2009). See Appendix 4B (page 71) for lifetime, annual, monthly, and daily cigarette use by Indiana region and grade for 2009.

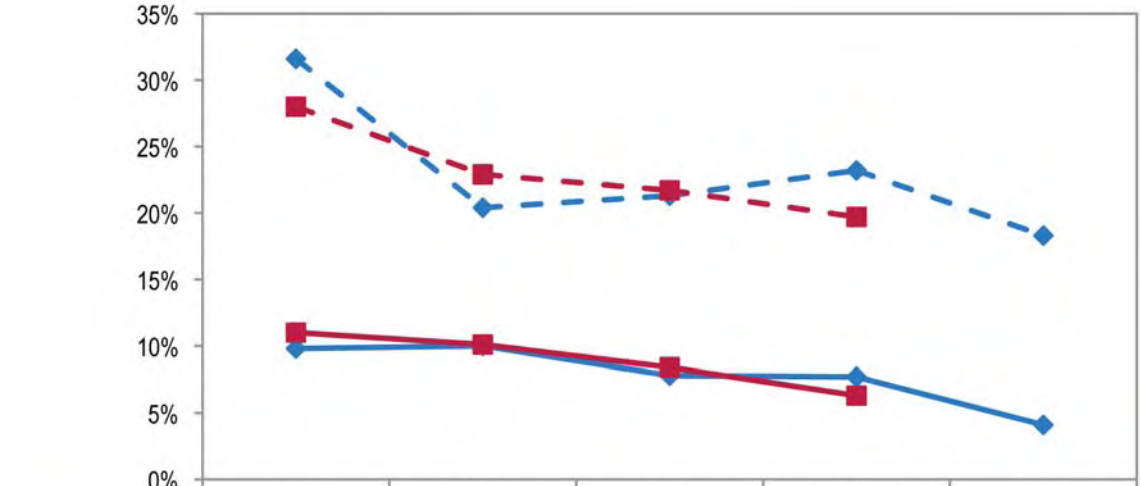
Figure 4.9 Percentage of Indiana and U.S. Middle and High School Students Reporting Current Tobacco Use (Indiana Youth Tobacco Survey, 2000–2008, and National Youth Tobacco Survey, 2000–2006)



	2000	2002	2004	2006	2008
Indiana MS	15.7%	15.3%	12.9%	13.5%	10.0%
U.S. MS	15.1%	13.3%	11.8%	9.5%	
Indiana HS	38.1%	26.6%	29.1%	31.8%	30.8%
U.S. HS	34.5%	28.4%	27.4%	25.6%	

Note: National data for 2008 are not available yet.
Source: Indiana Tobacco Prevention and Cessation Agency, 2009; Centers for Disease Control and Prevention, 2009a

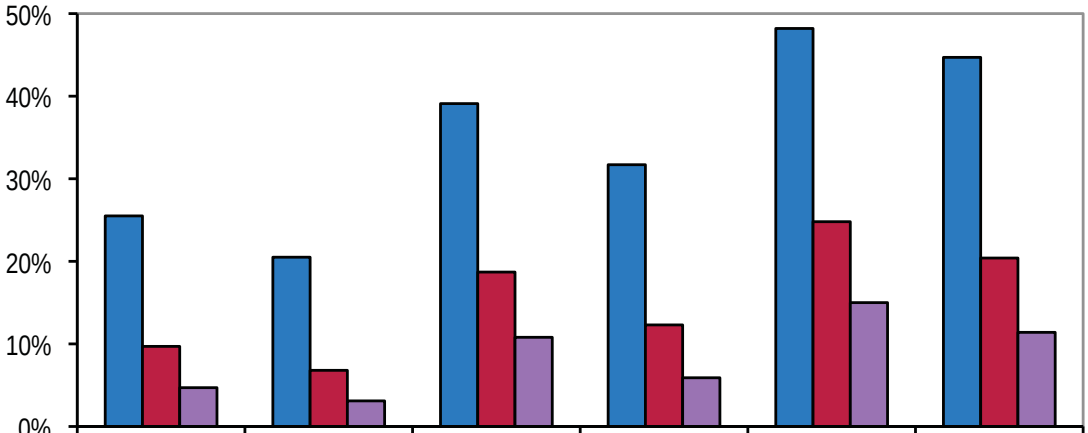
Figure 4.10 Percentage of Indiana and U.S. Middle and High School Students Reporting Current Cigarette Use (Indiana Youth Tobacco Survey, 2000–2008, and National Youth Tobacco Survey, 2000–2006)



	2000	2002	2004	2006	2008
Indiana MS	9.8%	10.0%	7.8%	7.7%	4.1%
U.S. MS	11.0%	10.1%	8.4%	6.3%	
Indiana HS	31.6%	20.4%	21.3%	23.2%	18.3%
U.S. HS	28.0%	22.9%	21.7%	19.7%	

Note: National data for 2008 are not available yet.
Source: Indiana Tobacco Prevention and Cessation Agency, 2009; Centers for Disease Control and Prevention, 2009a

Figure 4.11 Cigarette Use Among 8th, 10th, and 12th Grade Students, Indiana and the United States (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2008)

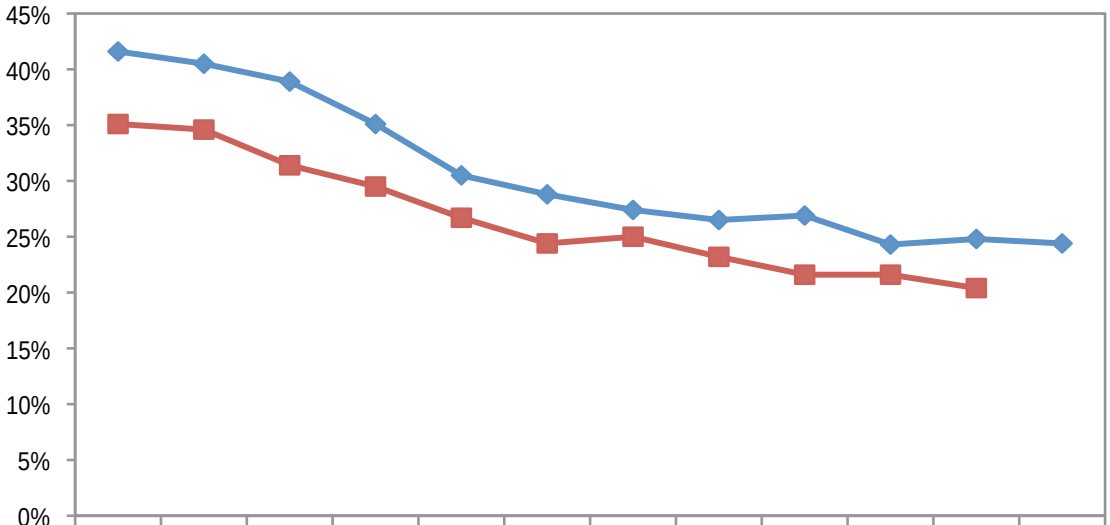


	Indiana 8th Grade	U.S. 8th Grade	Indiana 10th Grade	U.S. 10th Grade	Indiana 12th Grade	U.S. 12th Grade
Lifetime Use	25.5%	20.5%	39.1%	31.7%	48.2%	44.7%
Monthly Use	9.7%	6.8%	18.7%	12.3%	24.8%	20.4%
Daily Use	4.7%	3.1%	10.8%	5.9%	15.0%	11.4%

Source: Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

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 declining for both groups (see Figure 4.12). However, these results need to be interpreted with caution; statistical significance could not be determined.

Figure 4.12 Past-Month Smoking Prevalence for 12th Grade Students in Indiana and the United States (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 1998–2009; Monitoring the Future Survey, 1998–2008)



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Indiana	41.6%	40.5%	38.9%	35.1%	30.5%	28.8%	27.4%	26.5%	26.9%	24.3%	24.8%	24.4%
U.S.	35.1%	34.6%	31.4%	29.5%	26.7%	24.4%	25.0%	23.2%	21.6%	21.6%	20.4%	

Note: National data for 2009 are not available yet.
Source: Indiana Prevention Resource Center, 2009; 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, 2009b).

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 the smoker quits 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 (U.S. Department of Health and Human Services, 2004).

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, 2009b).

The percent of births to mothers who smoked during pregnancy declined in Indiana from 21.3% in 1997 to 17.3% in 2006. Prevalence differed by (a) race and (b) ethnicity:

a) A greater percentage of white mothers (18.1%) smoked during pregnancy than black mothers (13.3%);
b) A greater percentage of non-Hispanic mothers (18.8%) smoked during pregnancy than Hispanic mothers (2.7%)
(Data Analysis Team, Public Health System Development and Data Commission, 2009).

For a list of health outcomes/diseases for which maternal smoking is a significant risk factor, in Indiana, see Appendix 4C, page 72.

Furthermore, even secondhand smoke has serious health consequences. More than 126 million nonsmoking Americans continue to be exposed to secondhand smoke 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, 2009b). Children in particular are heavily impacted by secondhand smoke, 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, 2009b). It 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, 2009b).

It is estimated that over 9,700 Hoosiers die annually from smoking-attributable causes. This represents an age-adjusted mortality rate of 308.9 per 100,000 population (95% CI: 302.8–315.0); which is significantly higher than the U.S. median of 263.3 per 100,000 population (Centers for Disease Control and Prevention, n.d.). For a detailed list of smoking-attributable mortality rates by disease category, see Appendix 4D, page 72.

Economic Consequences

Annual U.S. tobacco industry marketing expenditures were an estimated $12.8 billion in 2006, including Indiana's share of $426.2 million. While total tobacco marketing expenditures in Indiana declined after peaking at $475.4 million in 2003, current spending is still at historically high levels and has increased by almost 80% since the 1998 state tobacco settlement (Campaign for Tobacco-Free Kids, 2009b).

The federal excise tax, as of April 1, 2009, is $1.01 per pack of cigarettes. In addition to the federal tax, tobacco companies are required to pay state and local excise taxes. Currently, the average state cigarette excise tax rate is $1.34 per pack, but varies from 7 cents in South Carolina to $3.46 in Rhode Island; Indiana's tobacco excise tax rate is 99.5 cents (Campaign for Tobacco-Free Kids, 2009a).

During 2000–2004, cigarette smoking was estimated to be responsible for $193 billion in annual health-related economic losses in the United States ($96 billion in direct medical costs and approximately $97 billion in lost productivity) (Centers for Disease Control and Prevention, 2008c).

In Indiana, more than $4.36 billion in medical costs can be attributed to smoking (among adults ages 18 and over): $318 million for ambulatory services; $1,137 million for hospital charges; $372 million in prescription drugs; $215 million in nursing home expenses; and $138 million for other smoking-attributable expenditures (Centers for Disease Control and Prevention, n.d.).

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 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, 2000–2008)

	2000		2002		2004		2006		2008	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
MIDDLE SCHOOL										
Gender										
Male	16.8	(12.9-20.8)	15.9	(12.5-19.3)	11.3	(8.9-13.7)	13.8	(10.4-17.2)	11.5	(8.3-14.7)
Female	14.6	(10.1-19.0)	14.6	(10.8-18.4)	14.6	(11.3-18.0)	13.2	(10.5-15.8)	8.3	(6.2-10.5)
Race/Ethnicity										
White	14.3	(10.5-18.1)	12.2	(9.0-15.5)	12.5	(9.6-15.3)	12.2	(9.3-15.0)	13.5	(9.4-17.6)
Black	22.1	(13.2-30.9)	21.7	(17.0-26.5)	15.9	(10.6-21.3)	19.8	(15.0-24.5)	9.8	(6.4-13.3)
Hispanic	26.0	(14.9-37.2)	20.3	(12.0-28.7)	14.4	(8.0-20.7)	14.2	(10.1-18.2)	9.3	(6.4-12.3)
Grade										
6	10.7	(5.3-16.1)	11.1	(6.2-16.0)	8.9	(4.5-13.4)	6.4	(4.5-8.2)	3.2	(1.5-5.0)
7	12.0	(7.9-16.1)	14.5	(10.8-18.3)	11.5	(8.8-14.3)	11.4	(8.9-13.8)	9.5	(6.9-12.0)
8	24.9	(19.6-30.1)	19.0	(13.0-25.0)	17.7	(13.4-22.0)	22.3	(17.0-27.5)	17.0	(12.4-21.6)
Total	**15.7**	**(12.3-19.2)**	**15.3**	**(12.5-18.1)**	**12.9**	**(10.6-15.3)**	**13.5**	**(10.9-16.2)**	**10.0**	**(7.5-12.4)**
HIGH SCHOOL										
Gender										
Male	42.5	(36.9-48.0)	30.0	(25.7-34.3)	33.9	(30.9-37.0)	36.0	(31.3-40.7)	34.5	(30.7-38.4)
Female	33.2	(29.5-37.0)	23.0	(18.4-27.7)	24.0	(21.2-26.7)	27.4	(22.4-32.3)	26.9	(23.6-30.3)
Race/Ethnicity										
White	39.1	(35.1-43.2)	27.0	(23.1-30.9)	28.9	(25.8-32.0)	32.6	(27.6-37.7)	34.7	(30.4-39.1)
Black	24.7	(18.8-30.7)	26.4	(20.5-32.3)	24.1	(18.8-29.5)	24.8	(18.8-30.9)	29.6	(24.7-34.6)
Hispanic	36.7	(25.7-47.7)	22.8	(14.9-30.7)	34.4	(27.5-41.4)	32.0	(27.4-36.6)	25.5	(20.9-30.0)
Grade										
9	29.5	(22.4-36.5)	23.4	(17.5-29.2)	25.3	(22.4-28.3)	24.3	(20.1-28.5)	22.1	(18.0-26.3)
10	39.0	(34.0-44.0)	24.9	(18.7-31.0)	25.5	(22.3-28.6)	31.1	(25.4-36.8)	28.7	(23.7-33.6)
11	36.5	(28.3-44.7)	27.4	(18.6-36.1)	31.7	(26.9-36.5)	36.4	(30.2-42.5)	36.9	(31.3-42.6)
12	48.2	(37.9-58.5)	32.4	(25.0-39.7)	35.2	(29.3-41.1)	37.6	(30.4-44.8)	37.5	(31.6-43.4)
Total	**38.1**	**(34.3-41.9)**	**26.6**	**(23.1-30.2)**	**29.1**	**(26.5-31.7)**	**31.8**	**(27.6-36.0)**	**30.8**	**(27.8-33.9)**

Source: Indiana Tobacco Prevention and Cessation Agency, 2009

APPENDIX 4A - Part 2

Percentage of Indiana Middle School and High School Respondents Who Currently Use Cigarettes, by Gender, Race/Ethnicity, and School Grade (Indiana Youth Tobacco Survey, 2000–2008)

	2000		2002		2004		2006		2008	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
MIDDLE SCHOOL										
Gender										
Male	9.3	(6.8-11.9)	8.4	(5.6-11.1)	5.7	(3.7-7.6)	7.1	(5.2-9.1)	4.5	(2.9-6.0)
Female	10.4	(6.7-14.2)	11.1	(7.4-14.8)	10.1	(7.5-12.6)	8.3	(6.2-10.5)	3.7	(2.4-4.9)
Race/Ethnicity										
White	9.0	(5.9-12.1)	9.1	(6.1-12.1)	8.2	(5.6-10.7)	7.4	(5.5-9.4)	7.0	(4.8-9.1)
Black	12.3	(6.0-18.6)	10.2	(7.2-13.1)	6.2	(2.9-9.6)	7.8	(4.5-11.1)	2.9	(1.3-4.5)
Hispanic	20.2	(10.3-30.1)	12.1	(5.6-18.6)	7.6	(2.9-12.3)	8.4	(5.3-11.5)	4.2	(2.5-6.0)
Grade										
6	5.9	(2.1-9.7)	5.0	(1.6-8.4)	4.9	(0.6-9.2)	2.9	(1.7-4.1)	1.3	(0.3-2.2)
7	7.2	(4.1-10.4)	10.2	(6.9-13.5)	8.2	(6.2-10.2)	5.4	(3.8-7.0)	4.1	(2.6-5.7)
8	17.1	(11.8-22.3)	13.2	(8.3-18.1)	10.2	(7.1-13.3)	14.6	(10.8-18.5)	6.9	(4.6-9.3)
Total	**9.8**	**(7.1-12.6)**	**10.0**	**(7.6-12.4)**	**7.8**	**(5.9-9.7)**	**7.7**	**(5.9-9.6)**	**4.1**	**(2.9-5.3)**
HIGH SCHOOL										
Gender										
Male	32.8	(27.9-37.7)	21.2	(17.9-24.5)	22.8	(20.1-25.6)	23.6	(20.0-27.1)	19.0	(16.0-21.9)
Female	30.1	(26.0-34.2)	19.7	(15.3-24.2)	19.4	(17.1-21.8)	22.7	(18.0-27.4)	17.5	(15.1-20.0)
Race/Ethnicity										
White	32.8	(29.4-36.3)	20.9	(17.1-24.7)	22.1	(19.4-24.9)	24.8	(20.6-28.9)	21.1	(17.6-24.6)
Black	16.5	(11.5-21.6)	16.4	(11.4-21.5)	12.6	(8.9-16.3)	12.5	(8.3-16.8)	12.5	(9.3-15.7)
Hispanic	28.2	(16.3-40.1)	17.6	(7.8-27.4)	22.6	(17.3-27.9)	19.9	(14.6-25.1)	15.5	(12.4-18.5)
Grade										
9	23.8	(17.1-30.5)	17.0	(11.6-22.5)	18.5	(15.5-21.5)	16.4	(13.5-19.4)	11.5	(8.5-14.5)
10	31.4	(26.9-35.9)	19.5	(14.1-25.0)	19.1	(16.6-21.6)	22.5	(18.1-27.0)	16.9	(13.4-20.3)
11	30.5	(24.5-36.5)	19.7	(13.1-26.3)	22.9	(18.4-27.3)	27.5	(22.1-32.9)	23.4	(18.2-28.6)
12	41.8	(31.7-52.0)	27.3	(20.5-34.1)	25.6	(20.4-30.8)	28.1	(20.6-35.7)	22.7	(18.5-26.9)
Total	**31.6**	**(28.3-34.9)**	**20.4**	**(17.0-23.8)**	**21.3**	**(19.1-23.5)**	**23.2**	**(19.5-26.8)**	**18.3**	**(16.0-20.5)**

Source: Indiana Tobacco Prevention and Cessation Agency, 2009

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, 2000–2008)

	2000		2002		2004		2006		2008	
	%	95% CI	%	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)	5.2	(3.1-7.3)	4.3	(2.7-5.9)
Female	1.8	(0.7-3.0)	1.7	(0.7-2.7)	1.1	(0.3-2.0)	2.0	(1.1-2.8)	2.2	(1.0-3.4)
Race/Ethnicity										
White	3.8	(2.3-5.2)	2.5	(1.4-3.6)	2.3	(1.2-3.4)	3.4	(1.9-4.9)	4.1	(2.0-6.2)
Black	3.8	(-0.5-8.1)	2.0	(0.8-3.2)	3.0	(0.7-5.3)	3.9	(1.4-6.3)	2.6	(1.1-4.1)
Hispanic	7.4	(0.6-14.1)	1.3	(-0.3-3.0)	0.6	(-0.2-1.4)	2.7	(0.8-4.6)	2.7	(1.1-4.2)
Grade										
6	4.2	(1.0-7.4)	1.6	(0.3-3.0)	1.9	(0.2-3.5)	1.5	(0.6-2.3)	0.9	(0.1-1.8)
7	2.8	(0.9-4.7)	2.2	(0.6-3.8)	1.6	(0.6-2.6)	3.2	(1.8-4.5)	2.9	(1.6-4.1)
8	5.4	(2.1-8.6)	3.1	(1.5-4.7)	2.6	(1.1-4.1)	6.1	(2.9-9.3)	6.1	(3.4-8.8)
Total	**4.1**	**(2.7-5.6)**	**2.4**	**(1.6-3.2)**	**2.2**	**(1.2-3.1)**	**3.6**	**(2.4-4.9)**	**3.3**	**(2.0-4.6)**
HIGH SCHOOL										
Gender										
Male	12.2	(8.5-16.0)	8.1	(4.4-11.8)	11.8	(9.4-14.1)	14.1	(10.1-18.1)	13.9	(10.5-17.2)
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)	2.4	(1.5-3.4)
Race/Ethnicity										
White	7.7	(5.3-10.1)	5.9	(3.6-8.2)	7.8	(6.2-9.5)	8.9	(6.3-11.4)	10.3	(7.3-13.3)
Black	1.2	(-0.4-2.8)	3.7	(-1.1-8.5)	2.6	(1.0-4.1)	2.5	(0.9-4.0)	5.5	(3.0-8.1)
Hispanic	0.0	NA	0.5	(-0.1-1.2)	7.6	(4.3-11.0)	7.1	(3.3-10.9)	4.5	(2.5-6.6)
Grade										
9	5.4	(2.0-8.8)	3.9	(2.1-5.7)	6.2	(5.0-7.5)	6.9	(4.3-9.4)	4.6	(3.2-6.0)
10	6.7	(4.4-9.0)	5.6	(3.2-7.9)	7.3	(5.3-9.4)	7.0	(3.5-10.5)	8.5	(5.6-11.4)
11	6.8	(2.4-11.3)	6.5	(0.3-12.6)	7.8	(5.0-10.6)	7.3	(3.6-11.1)	10.9	(5.9-15.9)
12	8.9	(2.3-15.6)	5.2	(1.8-8.6)	8.0	(5.5-10.5)	10.9	(6.9-14.9)	9.4	(6.5-12.4)
Total	**6.9**	**(4.7-9.2)**	**5.2**	**(3.1-7.4)**	**7.3**	**(5.9-8.8)**	**7.9**	**(5.7-10.1)**	**8.2**	**(6.1-10.2)**

Source: Indiana Tobacco Prevention and Cessation Agency, 2009

APPENDIX 4B

Percentage of Indiana Students Reporting Lifetime, Annual, Monthly, and Daily Cigarette Use, by Region and Grade (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2009)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	8.9	9.8	9.3	4.8	10.2	7.8	13.3	7.3	11.1
	Annual	4.6	5.3	4.9	2.5	5.8	3.9	7.2	3.5	5.9
	Monthly	2.3	2.6	2.5	1.5	2.6	2.0	3.4	1.5	3.3
	Daily	0.8	1.2	0.8	0.2	1.0	0.7	1.2	0.6	1.2
7th Grade	Lifetime	16.1	18.9	16.7	14.6	18.9	11.3	23.5	15.8	21.7
	Annual	10.0	11.8	10.0	8.4	12.3	6.6	16.1	10.0	14.3
	Monthly	5.6	6.6	5.6	4.6	7.7	3.5	9.1	5.2	7.8
	Daily	2.3	3.0	2.0	2.3	3.3	1.4	3.5	2.3	3.4
8th Grade	Lifetime	25.0	25.2	24.0	23.2	26.9	21.8	35.0	23.9	30.0
	Annual	16.8	16.0	16.3	15.3	18.3	14.4	23.8	16.9	20.3
	Monthly	9.9	9.5	10.4	8.9	11.1	7.9	14.5	9.5	12.8
	Daily	4.6	4.3	5.1	3.9	5.2	3.6	6.9	4.9	5.8
9th Grade	Lifetime	31.1	33.7	30.8	29.1	30.3	27.8	40.6	28.6	37.5
	Annual	22.0	23.4	20.7	19.8	20.5	20.4	28.8	21.2	27.0
	Monthly	13.8	14.5	12.3	12.0	12.7	12.9	18.2	13.7	17.4
	Daily	7.4	7.6	6.8	5.5	6.7	7.1	11.6	6.7	9.9
10th Grade	Lifetime	37.6	40.8	36.4	35.1	38.6	33.9	41.9	36.6	43.4
	Annual	27.4	29.4	26.3	24.2	28.6	24.7	30.3	27.9	31.1
	Monthly	18.1	20.9	17.1	15.4	18.5	16.6	20.3	17.9	21.0
	Daily	10.3	11.0	9.5	8.0	10.6	9.3	12.7	10.1	12.8
11th Grade	Lifetime	42.0	44.0	42.0	39.1	41.9	38.1	46.4	41.1	50.7
	Annual	31.1	31.1	31.5	29.2	30.1	28.5	32.8	31.1	38.6
	Monthly	21.4	21.4	21.3	19.6	20.3	19.8	24.3	20.6	27.7
	Daily	12.9	13.0	12.8	11.8	12.0	12.1	16.2	11.3	17.3
12th Grade	Lifetime	46.9	47.8	46.2	42.1	51.2	42.3	49.7	48.3	51.1
	Annual	35.3	35.7	34.4	31.0	38.8	30.1	37.0	37.6	39.9
	Monthly	24.4	24.1	23.4	21.2	26.6	20.2	27.0	25.6	29.3
	Daily	14.7	14.5	13.0	12.1	16.4	12.1	18.6	14.8	18.8

Source: Indiana Prevention Resource Center, 2009

APPENDIX 4C

Smoking-Attributable Health Outcomes or Diseases for which Maternal Smoking is a Significant Risk Factor in Indiana (Smoking-Attributable Mortality, Morbidity, and Economic Costs, 2004)

	Smoking-Attributable Fraction (SAF)		Smoking-Attributable Mortality (SAM)*		Smoking-Attributable Years of Potential Life Lost (YPLL)	
	Males	Females	Males	Females	Males	Females
Short Gestation / Low Birth Weight	13.00%	13.00%	10	7	752	563
Sudden Infant Death Syndrome	18.84%	18.84%	4	4	301	322
Respiratory Distress (Syndrome) - newborn	5.12%	5.12%	1	0	75	0
Other Respiratory Conditions - perinatal	6.87%	6.87%	1	1	75	80

* Number of deaths caused by maternal smoking.
Source: Centers for Disease Control and Prevention, n.d.

APPENDIX 4D

Average Annual Age-Adjusted Smoking-Attributable Mortality Rate per 100,000 Population Among Adults 35 Years and Older in Indiana (Smoking-Attributable Mortality, Morbidity, and Economic Costs, 2001–2004)

Disease Category	Male	Female	Total
Malignant Neoplasms			
Lip, Oral Cavity, Pharynx	4.9	1.3	2.9
Esophagus	12.1	2.0	6.4
Stomach	2.3	0.6	1.3
Pancreas	5.6	4.4	5.0
Larynx	3.6	0.7	1.9
Trachea, Lung, Bronchus	152.3	66.7	102.2
Cervix Uteri	0.0	0.6	0.3
Kidney and Renal Pelvis	5.5	0.4	2.6
Urinary Bladder	7.0	1.2	3.5
Acute Myeloid Leukemia	1.6	0.4	0.9
Subtotal	**194.9**	**78.3**	**127.0**
Cardiovascular Diseases			
Ischemic Heart Disease	88.6	34.5	57.8
Other Heart Disease	29.5	11.4	18.4
Cerebrovascular Disease	14.9	11.1	12.5
Atherosclerosis	3.4	1.0	1.8
Aortic Aneurysm	11.4	3.8	6.8
Other Circulatory Diseases	1.1	0.9	1.0
Subtotal	**148.9**	**62.7**	**98.3**
Respiratory Diseases			
Pneumonia, Influenza	10.9	4.8	6.9
Bronchitis, Emphysema	17.5	9.2	12.4
Chronic Airway Obstruction	85.0	52.7	64.3
Subtotal	**113.4**	**66.7**	**83.6**
Average Annual Total	**457.2**	**207.7**	**308.9**

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

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5. Marijuana Use in Indiana: Consumption Patterns and Consequences

MARIJUANA CONSUMPTION

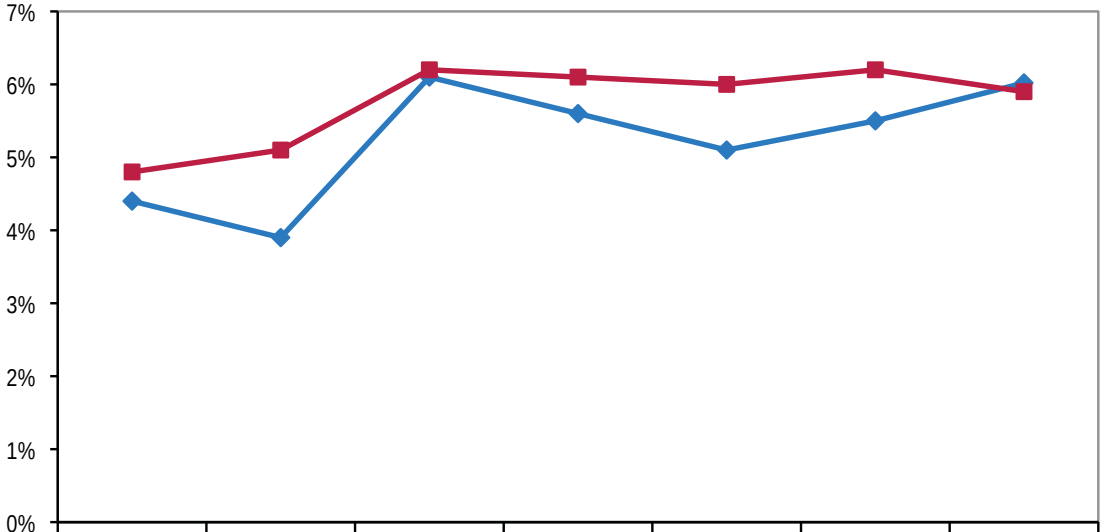
Marijuana is a green, brown, or gray mixture of dried, shredded leaves, stems, seeds, and flowers of the hemp plant (Cannabis sativa). All forms of cannabis are mind-altering (psychoactive) drugs. The main active chemical in marijuana is THC (delta-9-tetrahydrocannabinol). Marijuana is usually smoked 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 2007 National Survey on Drug Use and Health (NSDUH), 5.92% (14.6 million) of the nation's population ages 12 and older reported current (past 30 days) marijuana use. In Indiana, an estimated 6.02% (95% Confidence Interval [CI]: 5.09–7.11) reported current marijuana use, while 4.05% (95% CI: 3.23–5.05) indicated current use of illicit drugs other than marijuana (U.S.: 3.82%). Almost one-tenth (9.87%; 95% CI: 8.60–11.31) of Indiana residents reported past year marijuana use (U.S.: 10.22%). According to averages from the 2002–2004 NSDUH data, approximately 2 million Hoosiers (39.9%) ages 12 and older have used marijuana once or more during their lifetime; this figure is the most recent state-level estimate for lifetime marijuana use. (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Looking at trend data from 2000 through 2007, it seems that the prevalence of current marijuana use has risen from 4.4% to 6.0% in Indiana; however, this increase was statistically not significant (see Figure 5.1). These use patterns were similar in Indiana and the nation (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Figure 5.1 Percentage of Indiana and U.S. Population (Ages 12 and Older) Reporting Current Marijuana Use (National Survey on Drug Use and Health, 2000–2007)



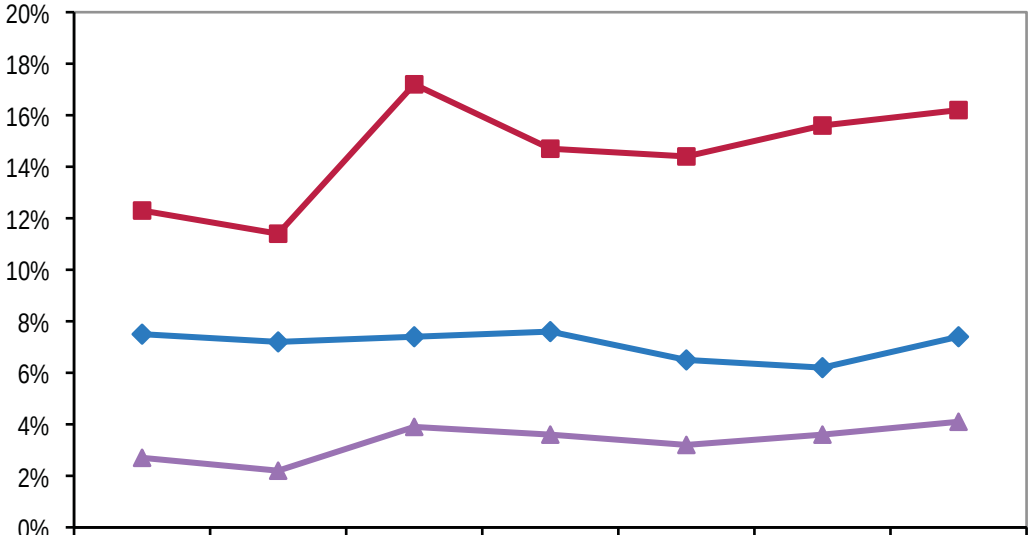
	2000	2001	2003	2004	2005	2006	2007
Indiana	4.4%	3.9%	6.1%	5.6%	5.1%	5.5%	6.0%
U.S.	4.8%	5.1%	6.2%	6.1%	6.0%	6.2%	5.9%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.

Adult Consumption Patterns

Patterns of marijuana use among adults were similar in Indiana and the United States. According to 2007 NSDUH data, past-month marijuana use was highest among individuals ages 18 to 25: In Indiana, 16.19% (95% CI: 13.72–19.02) of Hoosiers in that age group reported current use (U.S.: 16.32%). Among Hoosiers 26 years and older, current use was 4.06% (95% CI: 3.13–5.25), which was also comparable to the national prevalence (U.S.: 4.02%). Although it seems that Indiana's prevalence rose from 2000 through 2007 among adults, the increase was statistically not significant (see Figure 5.2 for Indiana rates by age group) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Figure 5.2 Percentage of Indiana Residents Reporting Current Marijuana Use, by Age Group (National Survey on Drug Use and Health, 2000–2007)



	2000	2001	2003	2004	2005	2006	2007
12 -17	7.5%	7.2%	7.4%	7.6%	6.5%	6.2%	7.4%
18-25	12.3%	11.4%	17.2%	14.7%	14.4%	15.6%	16.2%
26 and older	2.7%	2.2%	3.9%	3.6%	3.2%	3.6%	4.1%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.

Regarding initiation of use in Indiana, 7.63% (95% CI: 6.23–9.32) of 18- to 25-year-olds and 0.11% (95% CI: 0.07–0.18) of individuals 26 years and older reported first use of marijuana during the past year. These rates were statistically similar to the nation's prevalence, 6.28% and 0.11% respectively (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

The Indiana State Epidemiology and Outcomes Workgroup (SEOW) conducted a statewide survey on substance use among adults in 2008 (State Epidemiology and Outcomes Workgroup, 2008). The results indicated significant differences ($P < 0.001$) by gender, race, and age group (see Table 5.1):

- More men than women used marijuana
- Blacks had higher rates of use than whites or other races
- Consumption rates were higher among younger individuals than older ones

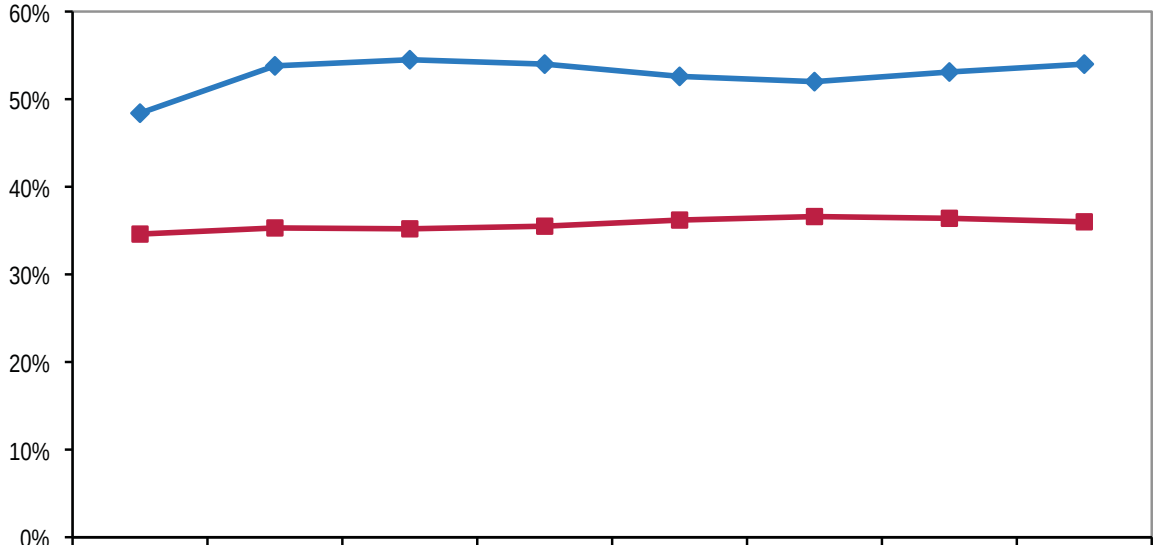
Table 5.1 Patterns of Marijuana Use among Indiana Residents Ages 18 and Older (Indiana Household Survey on Substance Abuse, 2008)

	Lifetime Use	Annual Use	Currect Use
Gender			
Male	40.0%	8.3%	4.4%
Female	24.5%	3.1%	1.7%
Race			
White	31.5%	4.9%	2.4%
Black	39.1%	11.6%	9.1%
Other	32.0%	9.5%	6.9%
Age Group			
18-25	33.9%	17.8%	10.4%
26-34	40.9%	9.2%	4.9%
35-44	39.1%	5.2%	2.1%
45-54	41.0%	2.4%	1.4%
55-64	29.3%	1.7%	1.2%
65+	4.3%	0.1%	0.1%
Total	**32.0%**	**5.6%**	**3.0%**

Source: State Epidemiology and Outcomes Workgroup, 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 2007 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 2007, roughly one-half of Indiana individuals entering treatment programs reported marijuana use at admission, compared to approximately one-third of U.S. patients in this category (see Figure 5.3).

Figure 5.3 Percentage of Indiana and U.S. Treatment Episodes with Marijuana Use Reported at Treatment Admission (Treatment Episode Data Set, 2000–2007)

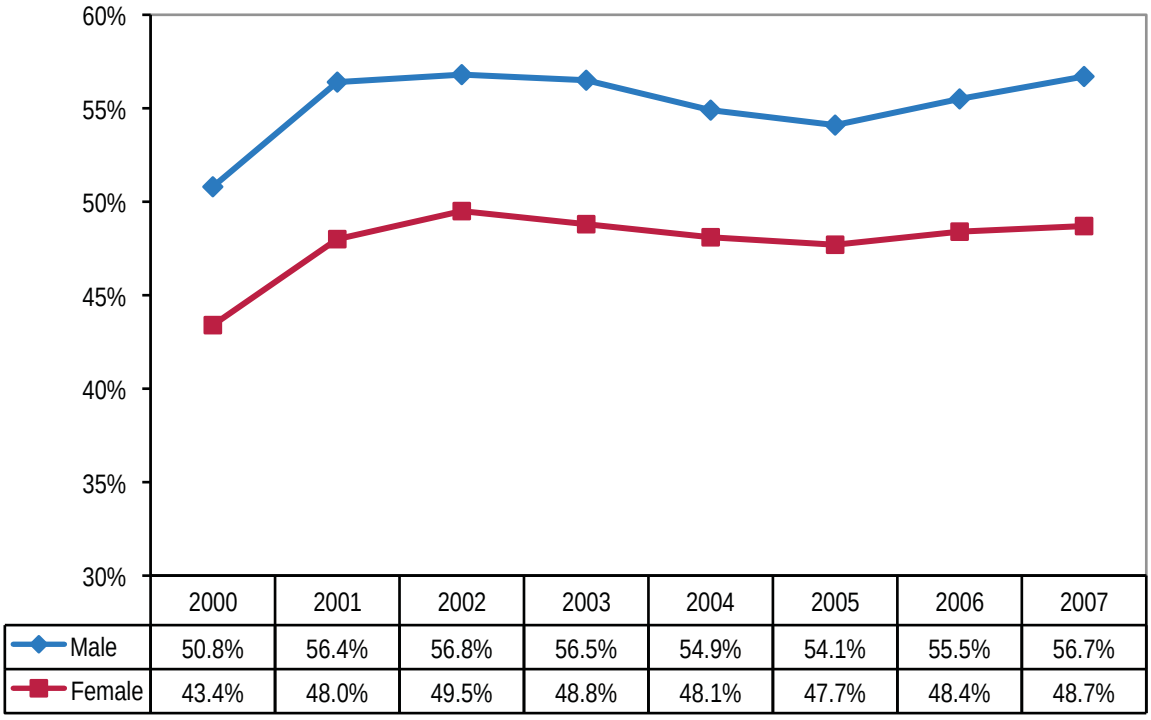


	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	48.4%	53.8%	54.5%	54.0%	52.6%	52.0%	53.1%	54.0%
U.S.	34.6%	35.3%	35.2%	35.5%	36.2%	36.6%	36.4%	36.0%

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 with Marijuana Use Reported at Treatment Admission, by Gender (Treatment Episode Data Set, 2000–2007)



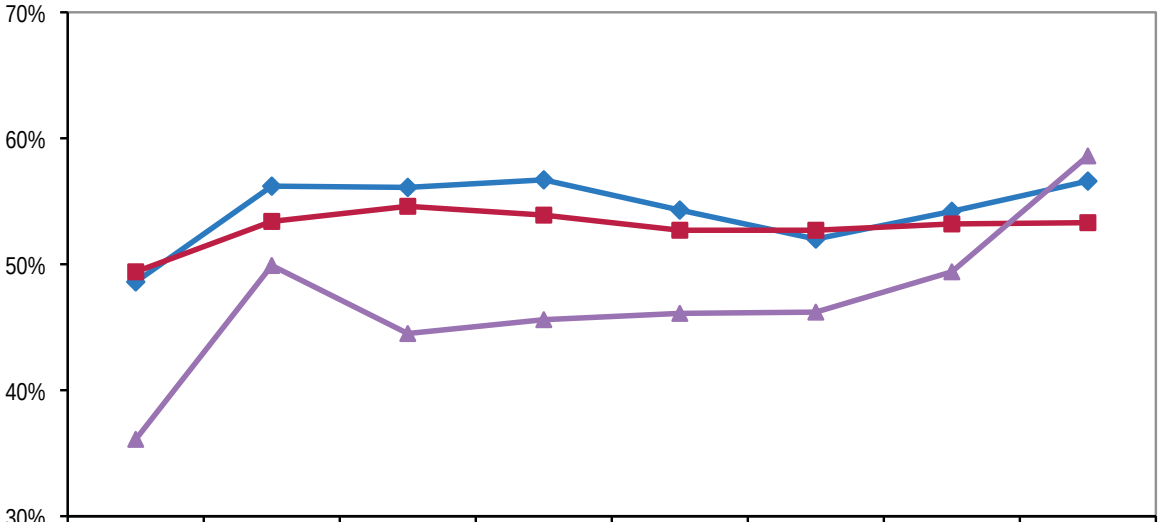
	2000	2001	2002	2003	2004	2005	2006	2007
Male	50.8%	56.4%	56.8%	56.5%	54.9%	54.1%	55.5%	56.7%
Female	43.4%	48.0%	49.5%	48.8%	48.1%	47.7%	48.4%	48.7%

Source: Substance Abuse and Mental Health Data Archive, 2008

According to TEDS data, race was also significantly related to marijuana use ($P < 0.001$). The percentage of whites reporting marijuana use at treatment admission increased from 49.4% in 2000 to 53.3% in 2007 ($P < 0.001$). Similarly, increases in reported marijuana use were also observed for minority races; the rates for blacks and other races rose from 48.6% to 56.6% and from 36.1% to 58.6% ($P < 0.001$), respectively, during that time period (see Figure 5.5).

From 2000 through 2007, 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 2007, in 83% 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 89.

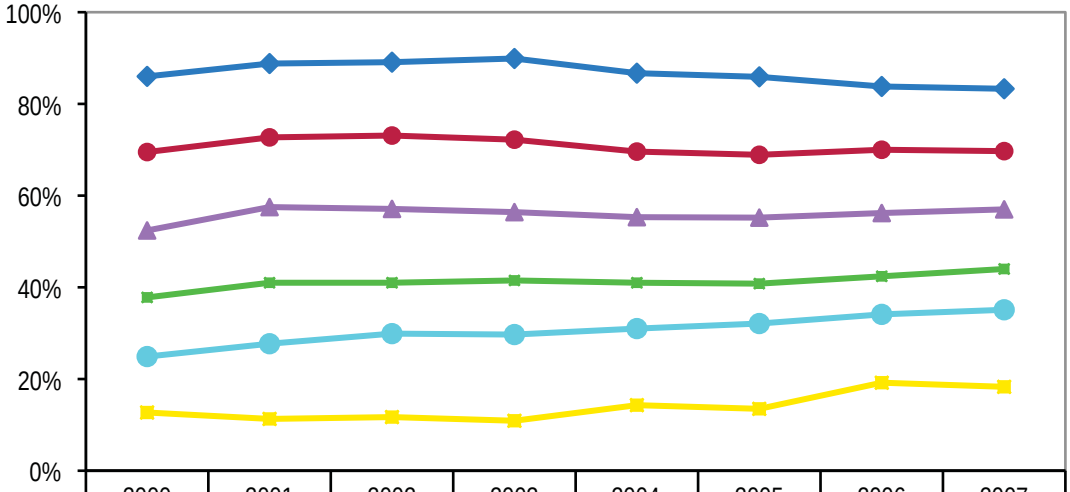
Figure 5.5 Percentage of Indiana Treatment Episodes with Marijuana Use Reported at Treatment Admission, by Race (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Black	48.6%	56.2%	56.1%	56.7%	54.3%	52.0%	54.2%	56.6%
White	49.4%	53.4%	54.6%	53.9%	52.7%	52.7%	53.2%	53.3%
Other	36.1%	49.9%	44.5%	45.6%	46.1%	46.2%	49.4%	58.6%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 5.6 Percentage of Indiana Treatment Episodes with Marijuana Use Reported at Treatment Admission, by Age Group (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
under 18	86.0%	88.8%	89.1%	89.9%	86.7%	85.9%	83.8%	83.3%
18 to 24	69.5%	72.7%	73.1%	72.2%	69.6%	68.9%	70.0%	69.7%
25 to 34	52.4%	57.5%	57.1%	56.4%	55.3%	55.2%	56.2%	57.0%
35 to 44	37.8%	41.0%	41.0%	41.5%	41.0%	40.8%	42.4%	44.0%
45 to 54	24.9%	27.7%	29.9%	29.7%	31.0%	32.1%	34.1%	35.1%
55 and over	12.7%	11.3%	11.7%	10.9%	14.3%	13.5%	19.2%	18.3%

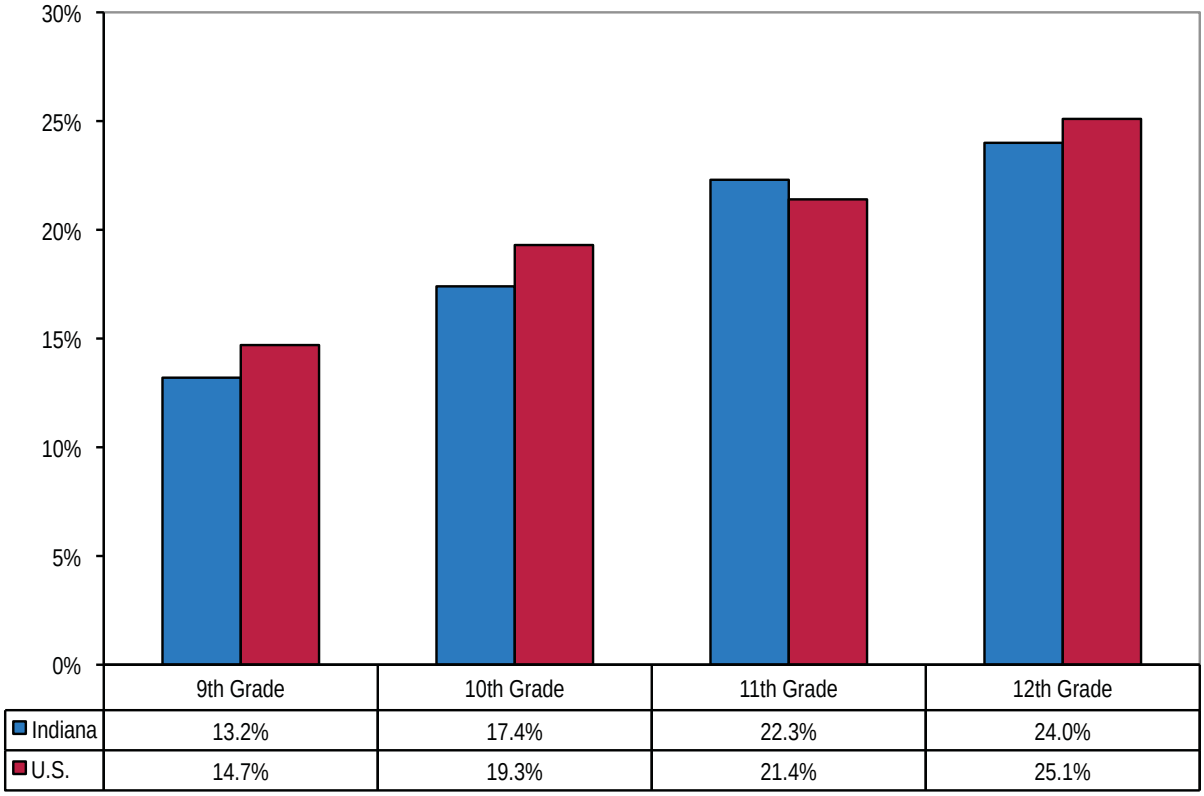
Source: Substance Abuse and Mental Health Data Archive, 2008

Youth Consumption Patterns

According to average annual rates from the 2007 NSDUH, among youths ages 12 to 17, an estimated 5.95% (95% CI: 5.02–7.04) had used marijuana for the first time during the past year in Indiana; the rate was similar to the U.S. rate of 5.56%. Patterns of current marijuana use among Indiana residents ages 12 to 17 tended to mirror national rates, and remained constant between 2000 and 2007 (see Figure 5.2) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

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 2007 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. No statistical differences were observed for Hispanics or other races (see Table 5.2) (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 5.3) (Centers for Disease Control and Prevention, 2008).

Table 5.2 Percentage of Indiana and U.S. High School Students (9th–12th Grades) Reporting Current (Past Month) Marijuana Use, by Grade, Gender, and Race (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			
Male Students	2005	21.0%	22.1%
	2007	21.6%	22.4%
Female Students	2005	16.7%	18.2%
	2007	16.2%	17.0%
Race/Ethnicity			
Black Students	2005	19.9%	20.4%
	2007	31.2%	21.5%
White Students	2005	18.8%	20.3%
	2007	17.0%	19.9%
Other Races	2005	14.9%	13.9%
	2007	20.3%	17.2%
Hispanic Students	2005	N/A	23.0%
	2007	21.9	18.5%

Source: Centers for Disease Control and Prevention, 2008

Table 5.3 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 (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%
Gender	Year	Indiana	U.S.
Male Students	2005	10.6%	11.0%
	2007	11.5%	11.2%
Female Students	2005	6.5%	6.3%
	2007	6.4%	5.2%
Race/Ethnicity			
Black Students	2005	14.4%	12.1%
	2007	14.6%	9.5%
White Students	2005	7.5%	8.7%
	2007	7.6%	7.2%
Other Races	2005	N/A	13.0%
	2007	12.3%	9.9%
Hispanic Students	2005	N/A	12.5%
	2007	15.6%	9.8%

Source: Centers for Disease Control and Prevention, 2008

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

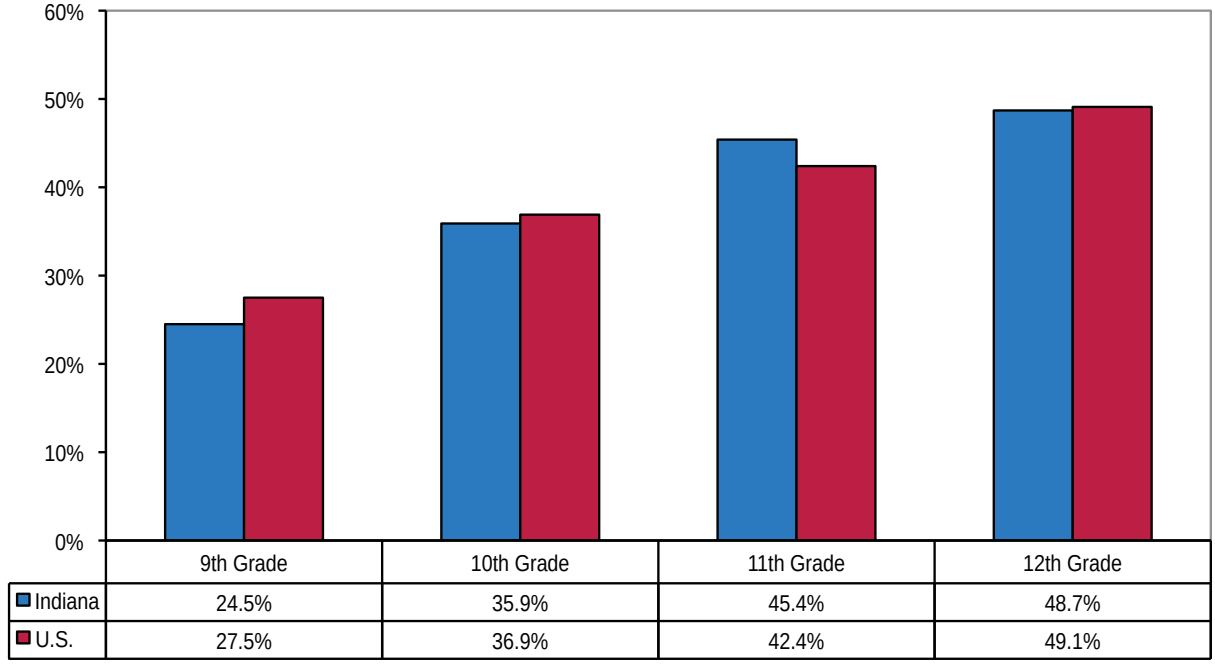
(see Figure 5.8 and Table 5.4) (Centers for Disease Control and Prevention, 2008).

Table 5.4 Percentage of Students Who Have Used Marijuana Once or More during Their Life, by Grade, Gender, and Race (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			
Male Students	2005	41.3%	40.9%
	2007	39.5%	41.6%
Female Students	2005	35.1%	35.9%
	2007	36.1%	34.5%
Race/Ethnicity			
Black Students	2005	41.0%	40.7%
	2007	55.2%	39.6%
White Students	2005	38.2%	38.0%
	2007	34.7%	38.0%
Other Races	2005	32.2%	30.6%
	2007	43.6%	32.9%
Hispanic Students	2005	N/A	42.6%
	2007	45.7%	38.9%

Source: Centers for Disease Control and Prevention, 2008

Figure 5.8 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 (Youth Risk Behavior Surveillance System, 2007)

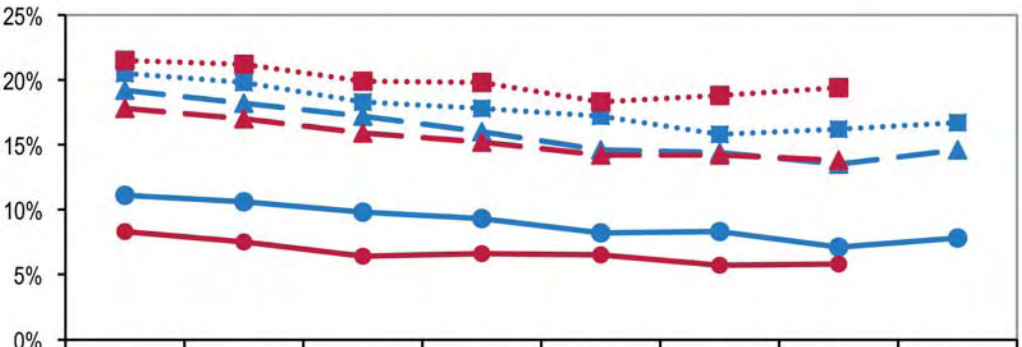


Source: Centers for Disease Control and Prevention, 2008

Results from the Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) survey (Indiana Prevention Resource Center, 2009) and the Monitoring the Future (MTF) survey (Inter-university Consortium for Political and Social Research, University of Michigan, n.d.) reveal that Indiana 8th graders reported higher current marijuana use than 8th graders nationally (see Figure 5.9).

From 2002 until the present, reported lifetime use among students in grades 8, 10, and 12 seems to have declined, both nationally and in Indiana (see Table 5.5). However, it could not be determined if the differences between the years, grades, or geography (Indiana and the United States) were statistically significant. For lifetime, annual, monthly, and daily marijuana use by Indiana region and grade for 2009, see Appendix 5B, page 90.

Figure 5.9 Percentage of Indiana and U.S. 8th, 10th, and 12th Grade Students Reporting Current Marijuana Use (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2002–2009, and Monitoring the Future Survey, 2002–2008)



	2002	2003	2004	2005	2006	2007	2008	2009
Indiana 8th Grade	11.1%	10.6%	9.8%	9.3%	8.2%	8.3%	7.1%	7.8%
U.S. 8th Grade	8.3%	7.5%	6.4%	6.6%	6.5%	5.7%	5.8%	
Indiana 10th Grade	19.2%	18.2%	17.2%	16.0%	14.6%	14.4%	13.5%	14.6%
U.S. 10th Grade	17.8%	17.0%	15.9%	15.2%	14.2%	14.2%	13.8%	
Indiana 12th Grade	20.5%	19.8%	18.3%	17.8%	17.2%	15.8%	16.2%	16.7%
U.S. 12th Grade	21.5%	21.2%	19.9%	19.8%	18.3%	18.8%	19.4%	

Note: National data were unavailable for 2009.
Source: Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Table 5.5 Percentage of Indiana and U.S. 8th, 10th, and 12th Grade Students Reporting Using Marijuana Once or More in Their Life, by Grade (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2002–2009, and Monitoring the Future Survey, 2002–2008)

Grade	Geography	2002	2003	2004	2005	2006	2007	2008	2009
8th	Indiana	20.0%	19.1%	18.6%	17.6%	15.6%	16.1%	14.4%	15.0%
	U.S.	19.2%	17.5%	16.3%	16.5%	15.7%	14.2%	14.6%	n/a
10th	Indiana	36.9%	34.8%	33.5%	31.6%	30.1%	29.9%	28.3%	29.1%
	U.S.	38.7%	36.4%	35.1%	34.1%	31.8%	31.0%	29.9%	n/a
12th	Indiana	44.8%	42.3%	40.5%	40.1%	37.1%	36.5%	36.5%	36.8%
	U.S.	47.8%	46.1%	45.7%	44.8%	42.3%	41.8%	42.6%	n/a

Note: National data were unavailable for 2009.
Source: Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

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, 2009).

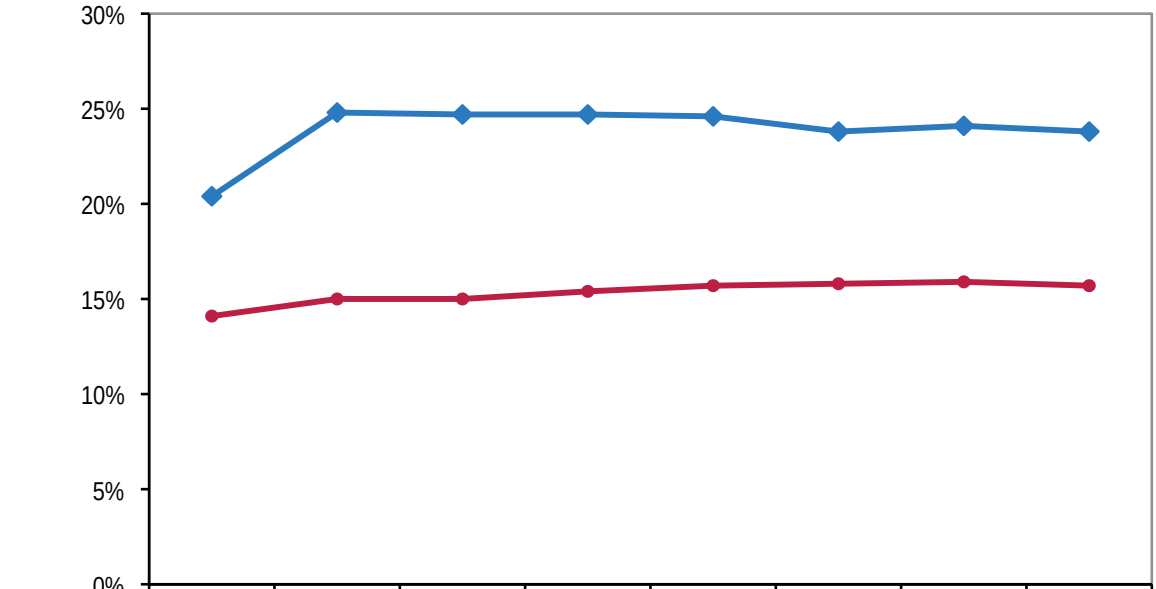
Marijuana Dependence

The Treatment Episode Data Set (TEDS) series indicates that the percent of treatment episodes for which marijuana is indicated as the primary drug[1] is statistically significantly higher in Indiana than the rest of the nation ($P < 0.001$). In 2007, nearly one-quarter of the population entering drug abuse treatment in Indiana reported that marijuana was their primary drug of abuse, compared to 16% in the nation (see Figure 5.10) (Substance Abuse and Mental Health Data Archive, 2008).

Significant differences for marijuana dependence were observed by gender, age, and race (TEDS, 2007):

- More males (25.4%) than females (20.6%) reported marijuana dependency ($P < 0.001$) (see Figure 5.11).
- More blacks (30.2%) reported marijuana dependency than whites (22.2%) or persons from other races (28.8%) ($P < 0.001$) (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 with Marijuana Dependence Reported at Treatment Admission (Treatment Episode Data Set, 2000–2007)

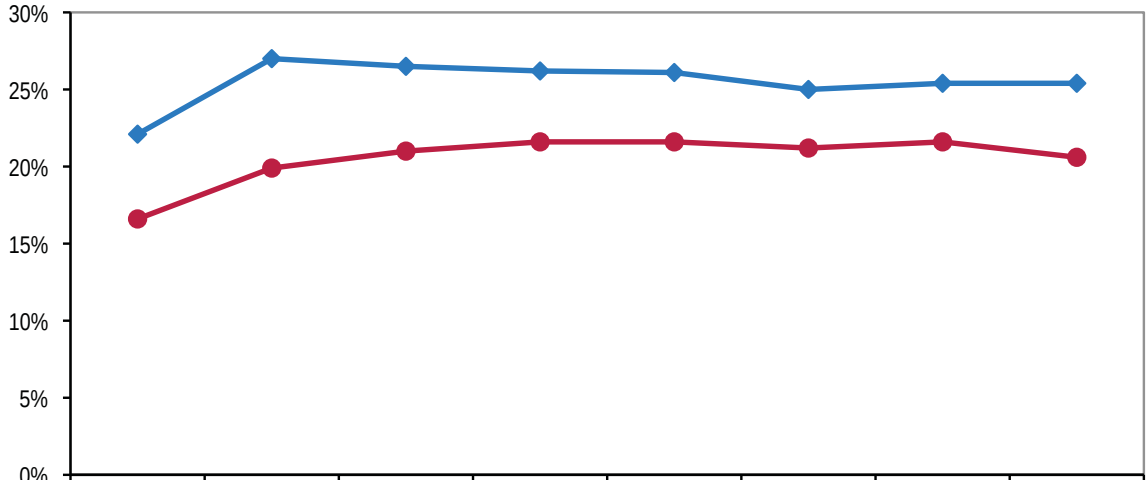


	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	20.4%	24.8%	24.7%	24.7%	24.6%	23.8%	24.1%	23.8%
U.S.	14.1%	15.0%	15.0%	15.4%	15.7%	15.8%	15.9%	15.7%

Source: Substance Abuse and Mental Health Data Archive, 2008

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

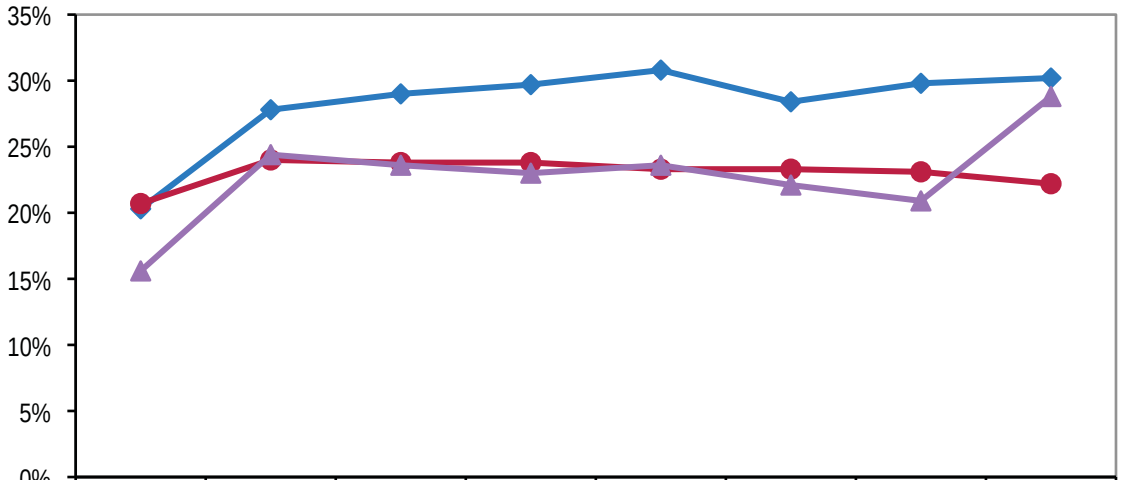
Figure 5.11 Percentage of Indiana Treatment Episodes with Marijuana Dependence Reported at Treatment Admission, by Gender (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Male	22.1%	27.0%	26.5%	26.2%	26.1%	25.0%	25.4%	25.4%
Female	16.6%	19.9%	21.0%	21.6%	21.6%	21.2%	21.6%	20.6%

Source: Substance Abuse and Mental Health Data Archive, 2008

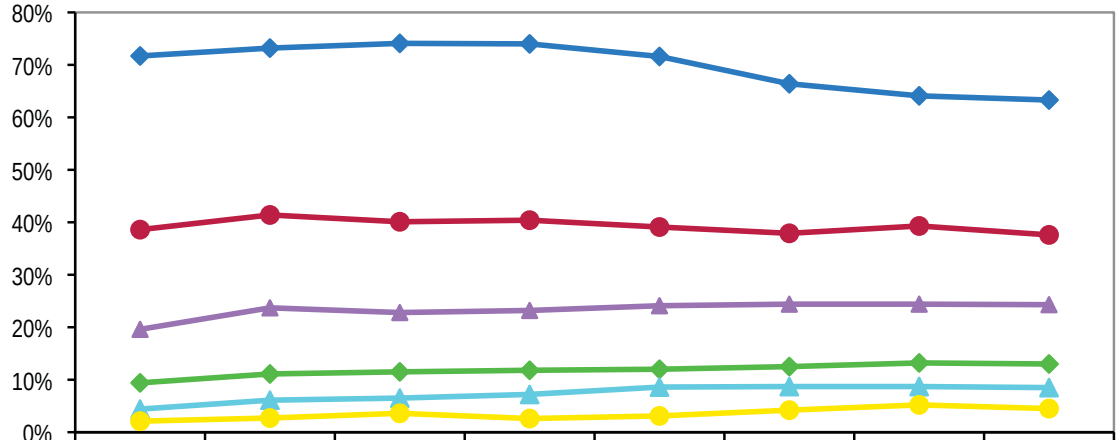
Figure 5.12 Percentage of Indiana Treatment Episodes with Marijuana Dependence Reported at Treatment Admission, by Race (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Black	20.3%	27.8%	29.0%	29.7%	30.8%	28.4%	29.8%	30.2%
White	20.7%	24.0%	23.8%	23.8%	23.3%	23.3%	23.1%	22.2%
Other	15.6%	24.4%	23.6%	23.0%	23.6%	22.1%	20.9%	28.8%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 5.13 Percentage of Indiana Treatment Episodes with Marijuana Dependence Reported at Treatment Admission, by Age Group (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
under 18	71.7%	73.2%	74.1%	74.0%	71.6%	66.4%	64.1%	63.3%
18 to 24	38.6%	41.4%	40.1%	40.4%	39.1%	37.9%	39.3%	37.6%
25 to 34	19.6%	23.7%	22.8%	23.2%	24.1%	24.4%	24.4%	24.3%
35 to 44	9.4%	11.1%	11.5%	11.8%	12.0%	12.5%	13.2%	13.0%
45 to 54	4.4%	6.1%	6.5%	7.2%	8.6%	8.7%	8.7%	8.5%
55 and over	2.1%	2.7%	3.6%	2.6%	3.1%	4.2%	5.2%	4.5%

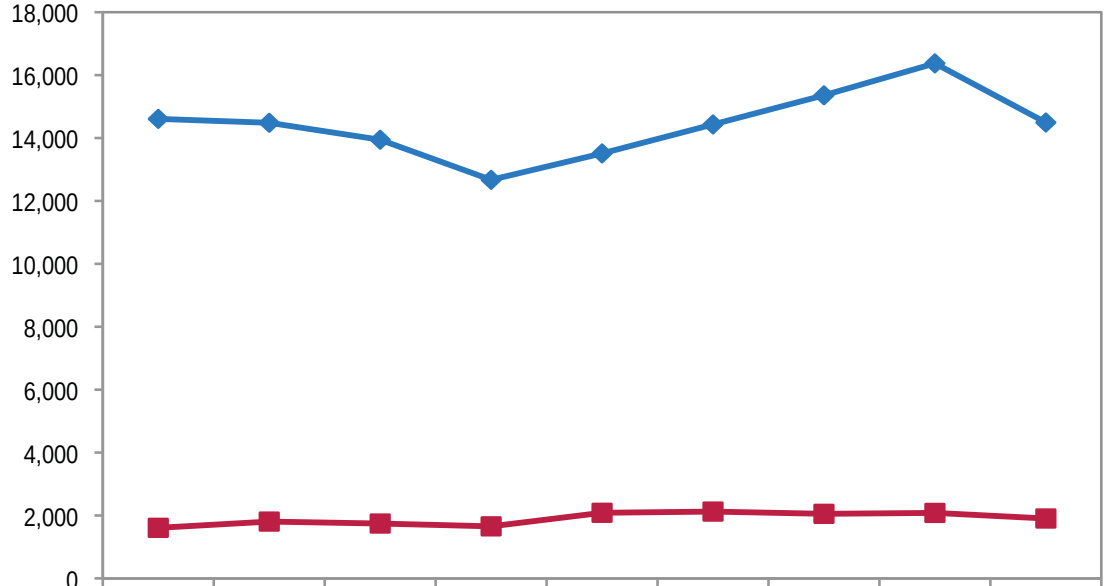
Source: Substance Abuse and Mental Health Data Archive, 2008

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 2008, almost 847 kilograms, or 1,867 pounds, of marijuana were seized in Indiana (U.S. Drug Enforcement Administration, 2009).

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 2007 results, over 14,000 arrests were made in Indiana for the possession of marijuana. This represents an arrest rate of 2.28 (95% CI: 2.25–2.32) per 1,000 population; which is similar to the U.S. rate of 2.29 (95% CI: 2.29–2.30). Additionally, almost 2,000 Hoosiers were arrested for selling and manufacturing marijuana. Indiana's arrest rate for sale/manufacture of the substance was 0.30 per 1,000 population (95% CI: 0.29–0.31), compared to the slightly lower national rate of 0.27 per 1,000 population (95% CI: 0.27–0.27) (see Figures 5.14 and 5.15).

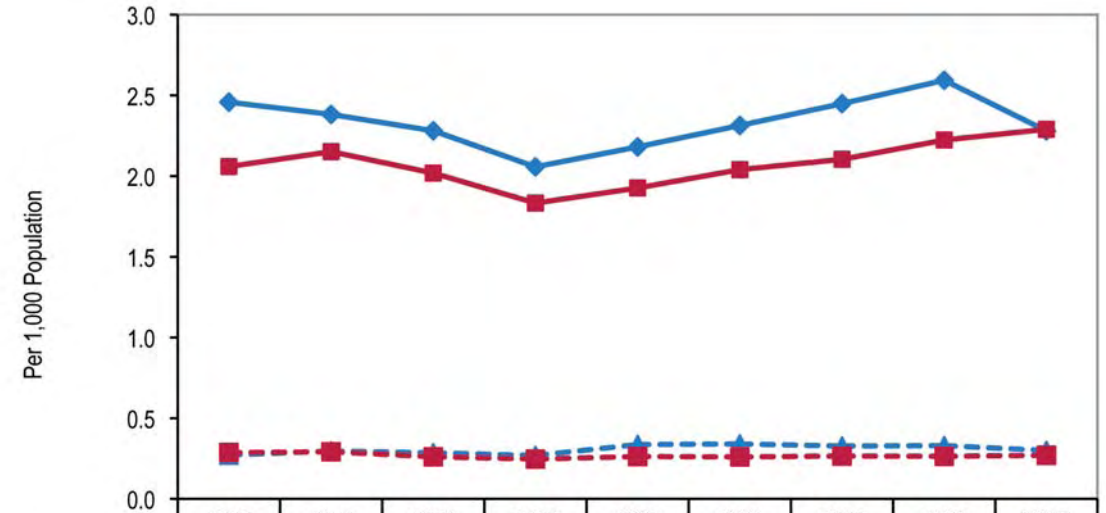
Figure 5.14 Number of Indiana Arrests for Marijuana Possession and Sale/Manufacture (Uniform Crime Reporting Program, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Possession	14,608	14,484	13,945	12,670	13,511	14,431	15,358	16,373	14,493
Sales	1,608	1,806	1,744	1,655	2,086	2,124	2,053	2,082	1,904

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 (Uniform Crime Reporting Program, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Indiana Possession	2.46	2.38	2.28	2.06	2.18	2.31	2.45	2.59	2.28
U.S. Possession	2.06	2.15	2.02	1.83	1.93	2.04	2.10	2.22	2.29
Indiana Sales	0.27	0.30	0.29	0.27	0.34	0.34	0.33	0.33	0.30
U.S. Sales	0.29	0.29	0.26	0.25	0.26	0.26	0.27	0.26	0.27

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 93 and 94) and Appendix 5C (pages 91-92), portray the distribution by county of 2007 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 in most counties arrest rates for possession exceed those for dealing. 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.

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. 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, 2009).

APPENDIX 5A

Number of Treatment Episodes with Marijuana Use and Dependence Reported at Treatment Admission in Indiana (Substance Abuse Population by County/Treatment Episode Data Set, 2008)

County	Marijuana Use	Marijuana Dependence	County	Marijuana Use	Marijuana Dependence
Adams	65	24	Madison	499	183
Allen	822	383	Marion	2,059	1,100
Bartholomew	221	90	Marshall	104	46
Benton	13	7	Martin	25	9
Blackford	67	29	Miami	102	49
Boone	92	32	Monroe	613	332
Brown	40	12	Montgomery	144	65
Carroll	63	29	Morgan	228	136
Cass	99	42	Newton	15	2
Clark	320	153	Noble	163	58
Clay	89	37	Ohio	6	2
Clinton	46	21	Orange	30	10
Crawford	22	9	Owen	108	50
Daviess	114	34	Parke	54	23
Dearborn	68	31	Perry	55	20
Decatur	60	27	Pike	14	5
DeKalb	51	20	Porter	195	76
Delaware	494	193	Posey	94	18
Dubois	86	24	Pulaski	39	20
Elkhart	379	195	Putnam	74	27
Fayette	24	6	Randolph	38	15
Floyd	83	31	Ripley	26	11
Fountain	44	27	Rush	21	11
Franklin	38	17	St. Joseph	603	184
Fulton	92	41	Scott	59	24
Gibson	50	19	Shelby	50	17
Grant	186	82	Spencer	45	15
Greene	55	27	Starke	97	38
Hamilton	386	183	Steuben	53	12
Hancock	90	46	Sullivan	51	27
Harrison	32	16	Switzerland	20	7
Hendricks	182	87	Tippecanoe	421	216
Henry	80	31	Tipton	26	13
Howard	333	147	Union	4	1
Huntington	27	12	Vanderburgh	990	413
Jackson	81	32	Vermillion	49	24
Jasper	38	13	Vigo	425	231
Jay	78	32	Wabash	88	41
Jefferson	92	35	Warren	17	5
Jennings	77	34	Warrick	159	62
Johnson	137	70	Washington	37	15
Knox	123	55	Wayne	190	74
Kosciusko	77	30	Wells	53	26
LaGrange	64	18	White	110	43
Lake	864	420	Whitley	45	17
LaPorte	188	46	**Indiana**	**15,136**	**6,804**
Lawrence	106	82			

Note: We defined marijuana dependence as “individuals in substance abuse treatment listing marijuana as their primary substance at admission.”
Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2009

APPENDIX 5B

Percentage of Indiana Students Reporting Lifetime, Annual, Monthly, and Daily Marijuana Use, by Region and Grade (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2009)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	2.4	3.5	1.7	1.0	2.0	2.8	4.6	1.4	2.6
	Annual	1.8	2.9	1.3	0.8	1.4	2.0	3.4	1.2	1.8
	Monthly	1.1	1.6	1.0	0.4	0.9	1.4	2.0	0.6	1.1
	Daily	0.2	0.2	0.2	0.0	0.2	0.3	0.2	0.1	0.1
7th Grade	Lifetime	6.9	9.8	5.9	6.3	6.7	4.9	12.9	6.0	8.8
	Annual	5.5	7.5	4.9	5.0	5.1	4.0	11.0	4.7	6.8
	Monthly	3.5	4.6	3.0	3.3	3.1	2.4	7.7	3.3	4.3
	Daily	0.7	0.9	0.7	0.8	0.6	0.4	2.3	0.6	1.1
8th Grade	Lifetime	15.0	16.8	12.8	11.1	14.3	15.6	20.7	13.5	15.7
	Annual	12.6	14.2	10.5	8.7	11.7	13.2	16.7	11.8	12.8
	Monthly	7.8	9.0	6.5	5.3	6.8	8.3	10.1	7.1	7.8
	Daily	1.8	2.2	1.4	1.0	2.0	1.7	2.6	1.7	1.9
9th Grade	Lifetime	21.0	27.7	18.2	19.2	19.6	20.7	28.2	17.5	22.2
	Annual	17.0	22.5	14.7	15.4	15.9	16.9	22.5	14.5	17.1
	Monthly	10.5	14.0	9.1	9.5	9.0	10.6	13.6	9.0	10.6
	Daily	2.9	3.7	2.9	2.7	2.3	2.9	4.6	2.0	3.3
10th Grade	Lifetime	29.1	34.2	25.7	26.8	28.4	29.2	32.0	26.7	31.7
	Annual	23.5	27.7	20.7	21.7	22.9	24.0	25.3	22.2	24.8
	Monthly	14.6	18.4	12.5	13.4	13.6	15.1	16.7	13.6	15.1
	Daily	4.6	5.9	3.5	4.5	4.4	4.5	5.7	3.9	5.1
11th Grade	Lifetime	32.7	38.7	29.7	32.7	31.1	32.4	37.2	27.7	35.4
	Annual	25.4	30.6	23.5	26.0	23.1	24.8	27.8	22.1	27.2
	Monthly	15.3	19.8	14.3	16.5	13.3	14.6	17.8	12.7	15.6
	Daily	5.2	6.1	5.0	5.8	4.2	5.1	6.7	4.0	5.7
12th Grade	Lifetime	36.8	41.1	31.1	32.2	37.5	37.3	40.6	35.3	39.2
	Annual	27.5	31.7	22.1	23.6	27.2	28.2	29.4	26.8	29.6
	Monthly	16.7	20.3	12.5	14.0	16.3	16.9	17.0	16.0	18.7
	Daily	5.8	7.0	4.7	5.1	5.8	5.5	7.7	5.1	6.9

Source: Indiana Prevention Resource Center, 2009

APPENDIX 5C

Number and Rate, per 1,000 Population, of Arrests for Marijuana Possession and Sale/Manufacture in Indiana, by County (Uniform Crime Reporting Program, 2007)

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Adams	45	1.33	3	*0.09
Allen	755	2.16	45	0.13
Bartholomew	353	4.74	10	*0.13
Benton	15	*1.67	2	*0.22
Blackford	48	3.58	3	*0.22
Boone	71	1.30	9	*0.16
Brown	8	*0.53	0	*0.00
Carroll	55	2.67	4	*0.19
Cass	85	2.14	9	*0.23
Clark	259	2.48	24	0.23
Clay	51	1.88	4	*0.15
Clinton	66	1.93	17	*0.50
Crawford	17	*1.52	1	*0.09
Daviess	66	2.18	5	*0.17
Dearborn	74	1.48	30	0.60
Decatur	94	3.76	2	*0.08
DeKalb	91	2.16	10	*0.24
Delaware	164	1.44	9	*0.08
Dubois	93	2.25	2	*0.05
Elkhart	385	1.92	16	*0.08
Fayette	58	2.37	6	*0.24
Floyd	202	2.78	24	0.33
Fountain	36	2.07	2	*0.11
Franklin	27	1.22	4	*0.18
Fulton	42	2.04	4	*0.19
Gibson	44	1.31	8	*0.24
Grant	232	3.35	10	*0.14
Greene	48	1.44	4	*0.12
Hamilton	485	1.85	20	0.08
Hancock	122	1.84	8	*0.12
Harrison	45	1.21	3	*0.08
Hendricks	219	1.62	62	0.46
Henry	62	1.33	16	*0.34
Howard	252	2.99	6	*0.07
Huntington	57	1.50	3	*0.08
Jackson	135	3.17	4	*0.09
Jasper	32	0.98	19	*0.58
Jay	45	2.07	2	*0.09
Jefferson	70	2.13	7	*0.21
Jennings	9	*0.31	69	2.41
Johnson	387	2.84	22	0.16
Knox	37	0.97	57	1.50
Kosciusko	160	2.09	7	*0.09
LaGrange	0	*0.00	0	*0.00
Lake	1,137	2.30	426	0.86
LaPorte	302	2.73	16	*0.14
Lawrence	86	1.85	2	*0.04
Madison	202	1.55	16	*0.12
Marion	2,309	2.67	304	0.35

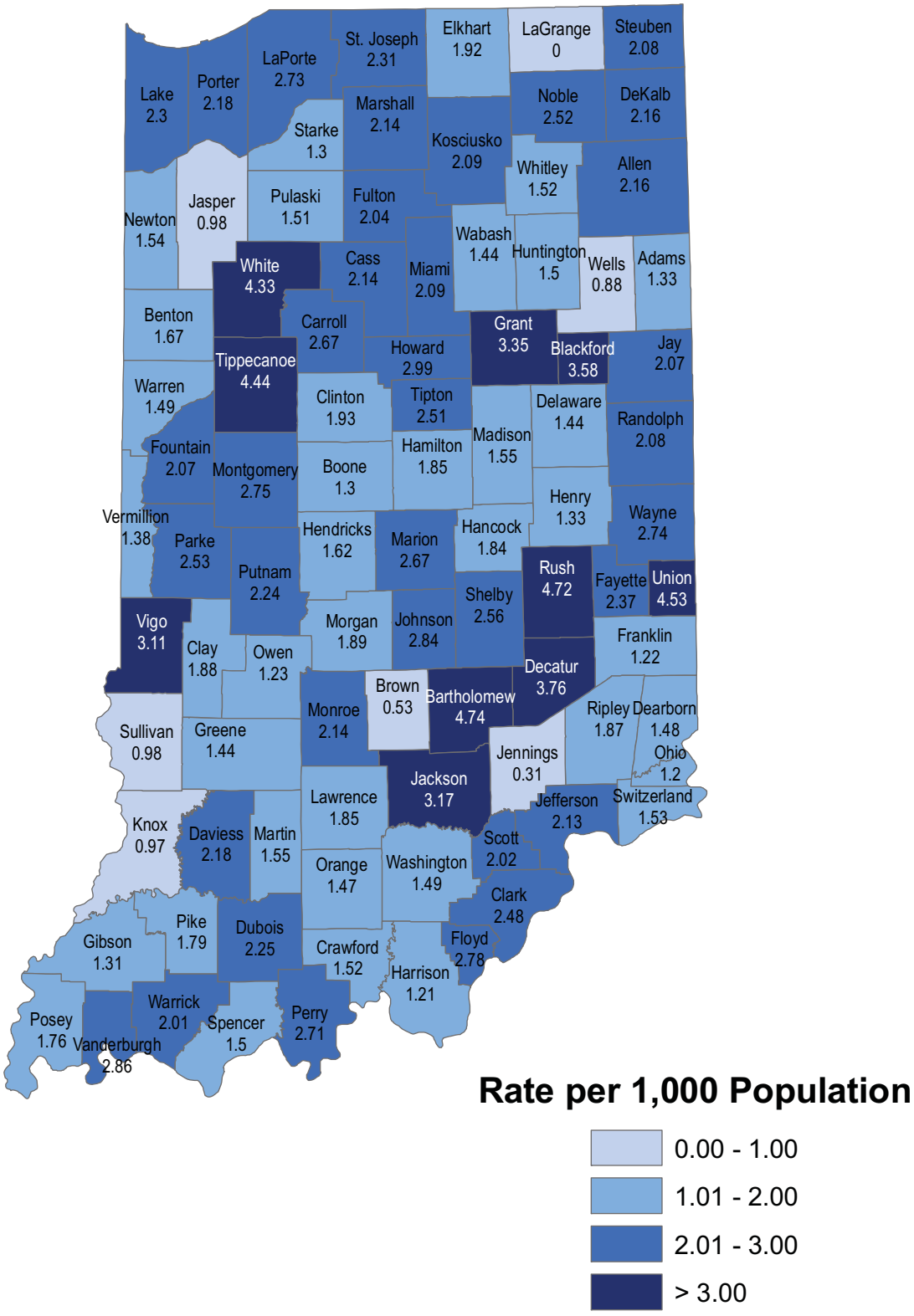
(continued on next page)

APPENDIX 5C *(Continued from previous page)*

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Marshall	102	2.14	6	*0.13
Martin	16	*1.55	1	*0.10
Miami	74	2.09	8	*0.23
Monroe	263	2.14	21	0.17
Montgomery	105	2.75	4	*0.10
Morgan	134	1.89	58	0.82
Newton	22	1.54	15	*1.05
Noble	121	2.52	15	*0.31
Ohio	7	*1.20	1	*0.17
Orange	29	1.47	2	*0.10
Owen	28	1.23	4	*0.18
Parke	43	2.53	8	*0.47
Perry	51	2.71	3	*0.16
Pike	23	1.79	2	*0.16
Porter	353	2.18	24	0.15
Posey	47	1.76	6	*0.22
Pulaski	21	1.51	1	*0.07
Putnam	83	2.24	38	1.02
Randolph	55	2.08	7	*0.26
Ripley	55	1.87	5	*0.17
Rush	83	4.72	2	*0.11
Saint Joseph	615	2.31	25	0.09
Scott	48	2.02	3	*0.13
Shelby	113	2.56	33	0.75
Spencer	31	1.50	2	*0.10
Starke	30	1.30	0	*0.00
Steuben	70	2.08	5	*0.15
Sullivan	21	0.98	5	*0.23
Switzerland	15	*1.53	1	*0.10
Tippecanoe	698	4.44	60	0.38
Tipton	41	2.51	1	*0.06
Union	33	4.53	0	*0.00
Vanderburgh	497	2.86	128	0.74
Vermillion	23	1.38	7	*0.42
Vigo	319	3.11	17	*0.17
Wabash	48	1.44	10	*0.30
Warren	13	*1.49	1	*0.11
Warrick	116	2.01	11	*0.19
Washington	42	1.49	4	*0.14
Wayne	188	2.74	16	*0.23
Wells	25	0.88	0	*0.00
White	105	4.33	4	*0.16
Whitley	50	1.52	4	*0.12
Indiana	**14,493**	**2.28**	**1,904**	**0.30**

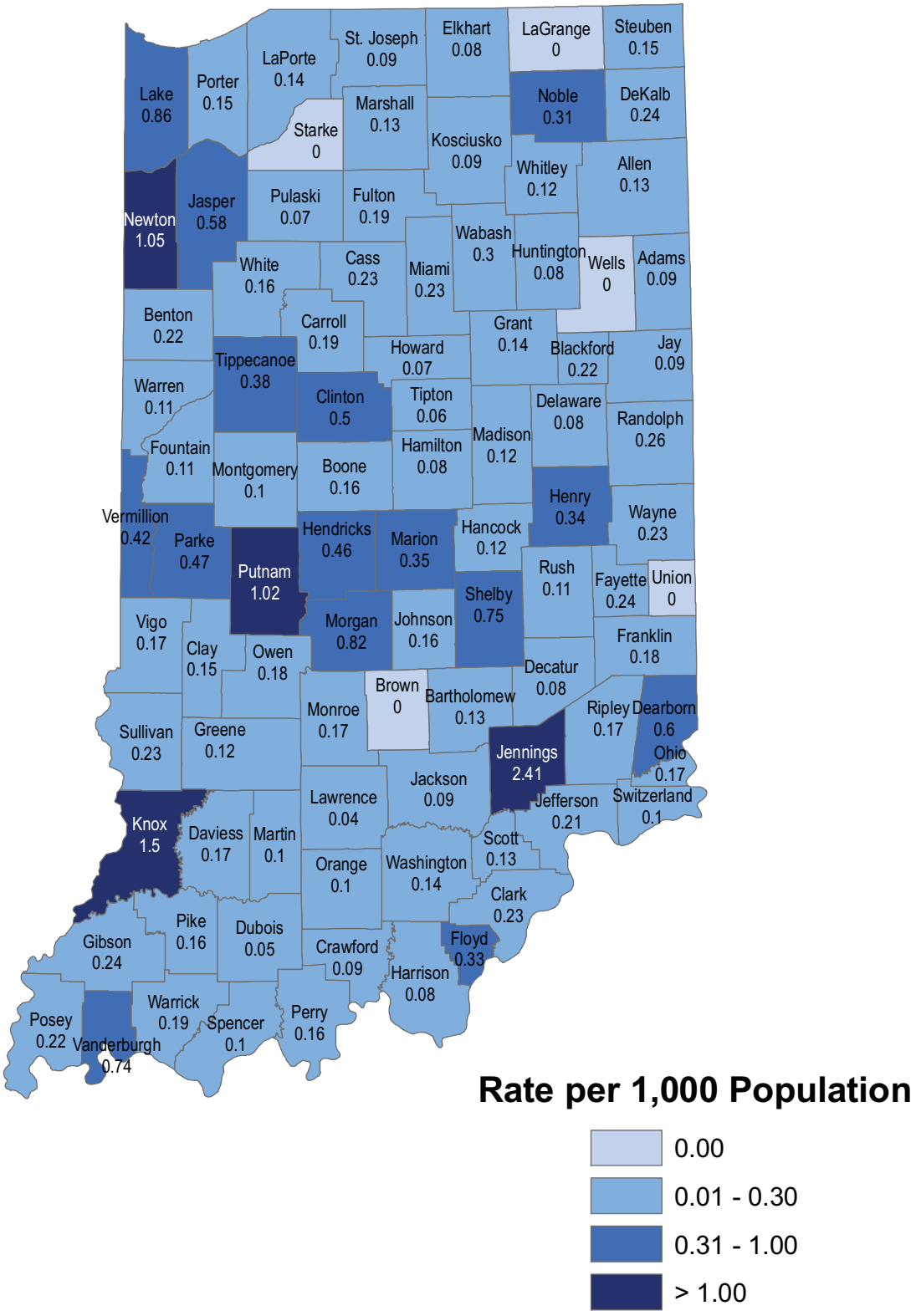
* Rates that are based on arrest numbers lower than 20 are unreliable.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 5.1 Marijuana Possession Arrest Rates in Indiana by County (Uniform Crime Reporting Program, 2007)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 5C (pages 91-92) 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 (Uniform Crime Reporting Program, 2007)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 5C (pages 91-92) 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

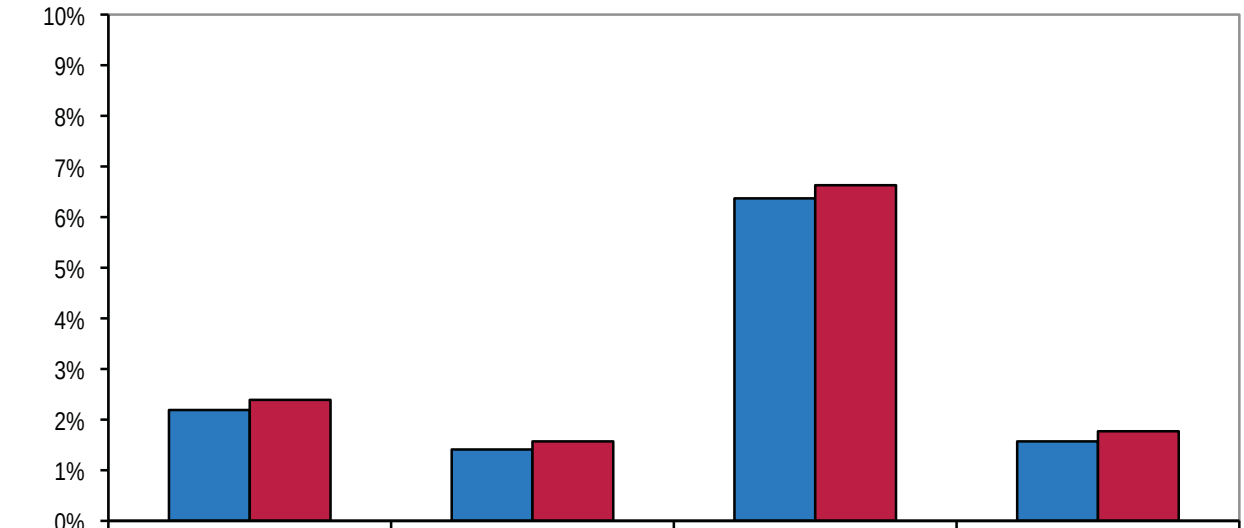
Cocaine is the most potent stimulant of natural origin. It can be snorted, smoked, or injected. When snorted, cocaine powder is inhaled through the nose where it is absorbed into the bloodstream through the nasal tissues. When injected, the user uses a needle to release the drug directly into the bloodstream. 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 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, n.d.). According to 2007 data, the most recent estimates available, 114,000 Hoosiers ages 12 and older used cocaine in the past year, representing 2.19% (95% Confidence Interval [CI]: 1.69–2.85) of Indiana's population. This rate is comparable to the nation's (2.39%). Past-year cocaine use was highest among Hoosiers ages 18 to 25, at 6.37% (95% CI: 4.96–8.16); the rate for U.S. residents in that age group was similar (6.63%) (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 (National Survey on Drug Use and Health, 2007)



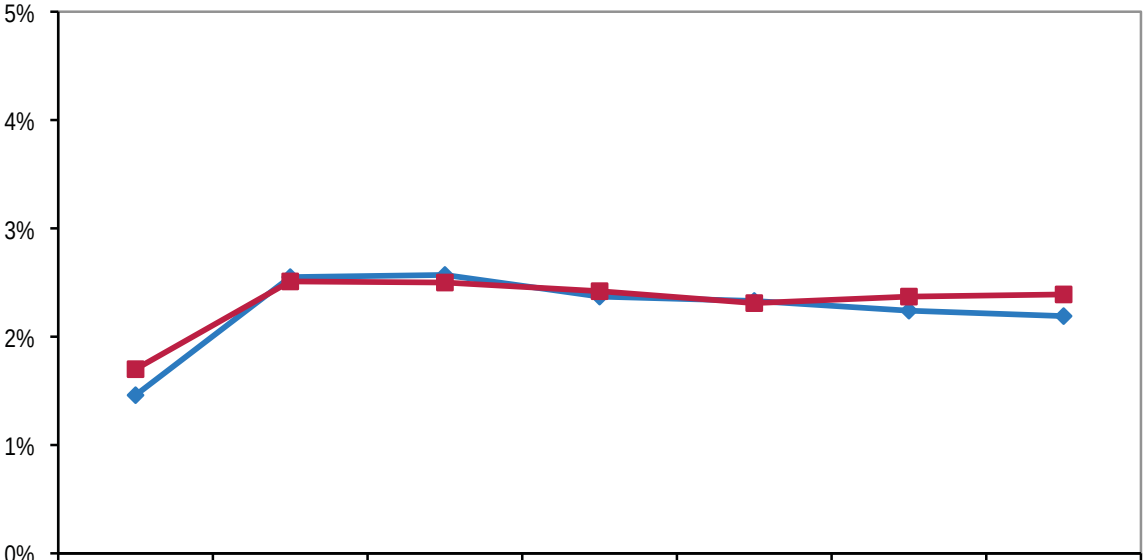
	Total	12 -17	18-25	26 and older
Indiana	2.19%	1.41%	6.37%	1.57%
U.S.	2.39%	1.57%	6.63%	1.77%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.

NSDUH data from 2001 through 2007 show that past-year cocaine use remained stable in Indiana from 1.46% (95% CI: 1.06–1.96) in 2001 to 2.19% (95% CI: 1.69–2.85) in 2007, 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, n.d.).

Figure 6.2 Percentage of Indiana and U.S. Population (12 Years and Older) Reporting Cocaine Use in the Past Year (National Survey on Drug Use and Health, 2001–2007)



	2001	2002	2003	2004	2005	2006	2007
Indiana	1.46%	2.55%	2.57%	2.37%	2.33%	2.24%	2.19%
U.S.	1.70%	2.51%	2.50%	2.42%	2.31%	2.37%	2.39%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.

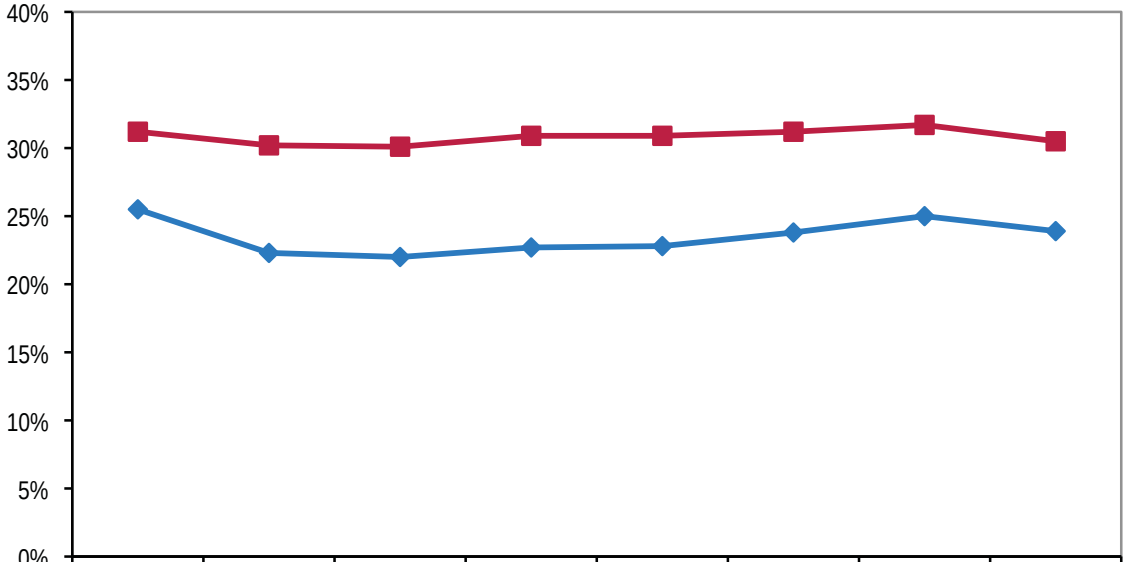
Adult Consumption Patterns

According to 2007 NSDUH estimates, past-year prevalence rates for cocaine use were highest among 18- to 25-year-olds; 6.37% (95% CI: 4.96–8.16) of Hoosiers in that age group have used cocaine in the past year. The rate for Indiana residents ages 26 and older was significantly lower (1.57%; 95% CI: 1.07–2.30) (see Figure 6.1). Indiana and U.S. rates were statistically the same.

The 2007 Treatment Episode Data Set (TEDS) shows that cocaine use was reported in 23.9% of treatment episodes in Indiana; the U.S. percentage was significantly higher with 30.5% ($P < 0.001$) (see Figure 6.3) (Substance Abuse and Mental Health Data Archive, 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.

Figure 6.3 Percentage of Treatment Episodes in Indiana and the United States with Cocaine Use Reported at Treatment Admission (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	25.5%	22.3%	22.0%	22.7%	22.8%	23.8%	25.0%	23.9%
U.S.	31.2%	30.2%	30.1%	30.9%	30.9%	31.2%	31.7%	30.5%

Source: 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 (29.7%) than men (21.0%) reported cocaine use; blacks displayed drastically higher rates (42.6%) than whites (20.3%) and other races (23.0%); and the percentage of 35- to 44-year-olds (32.4%) using cocaine was greater than any other age group (see Table 6.1). (For county-level information, see Appendix 6A, page 105.)

Table 6.1 Percentage of Treatment Episodes in Indiana with Cocaine Use Reported at Treatment Admission (Treatment Episode Data Set, 2007)

		Cocaine Use
Gender	Male	21.0%
	Female	29.7%
Race	White	20.3%
	Black	42.6%
	Other	23.0%
Age Group	Under 18	3.8%
	18-24	14.8%
	25-34	24.7%
	35-44	32.4%
	45-54	31.6%
	55 and over	17.9%
Total		**23.9%**

Source: Substance Abuse and Mental Health Data Archive, 2008

Youth Consumption Patterns

Findings from the 2007 NSDUH survey show that 1.41% (95% CI: 0.97–2.06) of 12- to 17-year-old Hoosiers used cocaine in the past year (see Figure 6.1). The national rate is similar, at 1.57% (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

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 tended to increase with age. High school seniors displayed the highest rates, with 10.4% (95% CI: 5.8–18.1) 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/Ethnicity	White	8.0%	3.2%
		Black	2.4%	2.4%
		Other Race	9.9%	7.1%
		Hispanic	12.4%	8.0%
	Grade	9	4.4%	2.7%
		10	8.7%	3.3%
		11	8.6%	3.2%
		12	10.4%	5.4%
	Total		**8.0%**	**3.8%**
U.S.	Gender	Male	7.8%	4.0%
		Female	6.5%	2.5%
	Race/Ethnicity	White	7.4%	3.0%
		Black	1.8%	1.1%
		Other Race	6.5%	4.0%
		Hispanic	10.9%	5.3%
	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

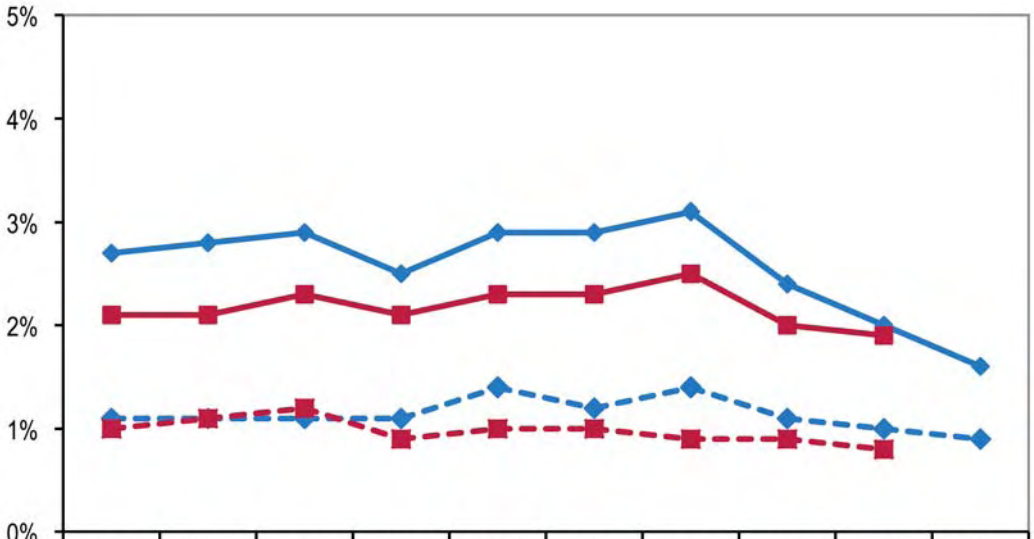
lifetime use and 5.4% (95% CI: 2.5–11.4) reporting current use. However, rates for lifetime and current cocaine use between Indiana and the United States were statistically the same, as were rates among individual grades (9 through 12) (see Table 6.2).

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, 2009). However, the survey provides a good estimate of substance use among Hoosier children in grades 6 through 12. The 2009 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.

Current cocaine and crack use among high school seniors has remained fairly stable in Indiana and the nation (see Figure 6.4) (Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). For regional data, see Appendix 6B, parts 1 and 2, pages 106-107.

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 Survey, 2000–2009, and Monitoring the Future Survey, 2000–2008)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Indiana Cocaine	2.7%	2.8%	2.9%	2.5%	2.9%	2.9%	3.1%	2.4%	2.0%	1.6%
U.S. Cocaine	2.1%	2.1%	2.3%	2.1%	2.3%	2.3%	2.5%	2.0%	1.9%	
Indiana Crack	1.1%	1.1%	1.1%	1.1%	1.4%	1.2%	1.4%	1.1%	1.0%	0.9%
U.S. Crack	1.0%	1.1%	1.2%	0.9%	1.0%	1.0%	0.9%	0.9%	0.8%	

Note: Information for 2009 is not available yet at the national level.
Source: Indiana Prevention Resource Center, 2009; 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 or 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).

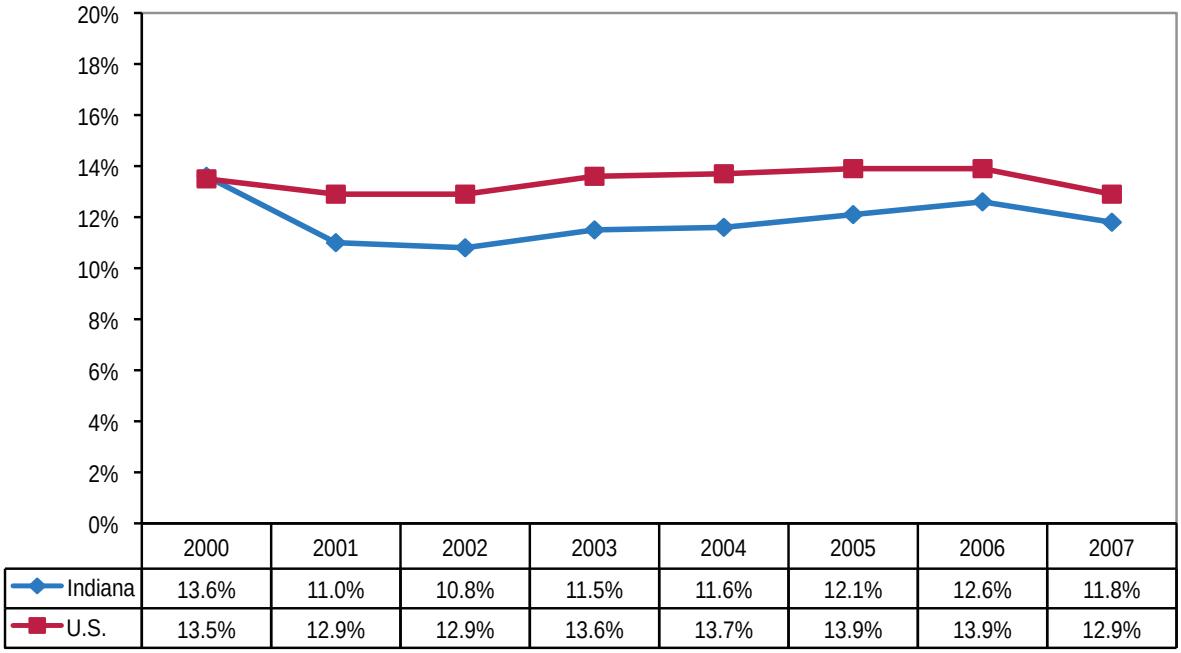
The effects of cocaine depend on the amount of the drug taken and the route of administration. Taken in small amounts, it can make the user feel euphoric, energetic, talkative, and mentally alert; and it may temporarily decrease the need for food and sleep. Short-term physiological effects of cocaine 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 at least the past seven years (2001 through 2007) ($P < 0.001$). Furthermore, the percentage within Indiana decreased significantly from 13.6% in 2000 to 11.8% in 2007 ($P < 0.001$) (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 with Cocaine Dependence[3] Reported at Treatment Admssion (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	13.6%	11.0%	10.8%	11.5%	11.6%	12.1%	12.6%	11.8%
U.S.	13.5%	12.9%	12.9%	13.6%	13.7%	13.9%	13.9%	12.9%

Source: Substance Abuse and Mental Health Data Archive, 2008

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

According to 2007 TEDS data, gender, race, and age are associated with cocaine dependence[2] in Indiana ($P < 0.001$). Higher rates were found in women (16.5%) than in men (9.4%); in blacks (27.0%) than in whites (8.8%) or other races (10.7%); and in 35- to 44-year-olds (17.8%) (see Table 6.3) (Substance Abuse and Mental Health Data Archive, 2008). (For county-level information, see Appendix 6A, page 105.)

Legal and Criminal Consequences

During fiscal year 2008, there were 5,889 federal offenders sentenced for powder cocaine-related charges and 6,168 sentenced for crack cocaine charges in U.S. Courts. Approximately 98.0% of the powder cocaine cases and 95.9% of the crack cocaine cases involved trafficking; only 0.5% of both powder and crack cocaine cases involved simple possession (Office of National Drug Control Policy, n.d.). In 2008, almost 44 kilograms, or 96 pounds, of cocaine were seized in Indiana by federal law enforcement agencies. This is less than half of the amount that was seized in the previous year (91 kilograms) (U.S. Drug Enforcement Administration, 2009).

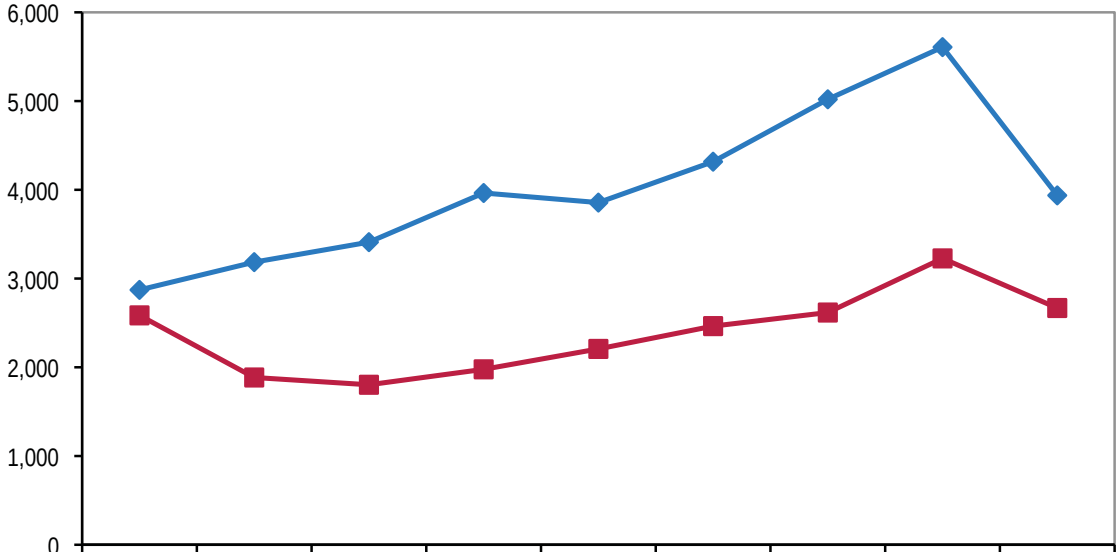
Legal consequences associated with cocaine use include arrests for possession and sale or manufacture of the substance. The Uniform Crime Reporting (UCR) Program provides the number of arrests for offenses regarding cocaine and opiates combined; data on either drug category individually are currently not available (National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). According to 2007 results, over 3,900 arrests were made in Indiana for possession of cocaine/opiates. However, Indiana's arrest rate, 0.62 (95% CI: 0.60–0.64) per 1,000 population, was below the nation's, 1.09 (95% CI: 1.09–1.10) per 1,000 population. The number of arrests for sale and manufacture of cocaine/opiates in Indiana was almost 2,700, representing an arrest rate of 0.42 per 1,000 population (95% CI: 0.40–0.44). The U.S. rate was lower at 0.38 per 1,000 population (95% CI: 0.38–0.39) (see Figures 6.6 and 6.7). Maps 6.1 and 6.2 (pages 110-111) and Appendix 6C (pages 108-109) show Indiana's cocaine/opiates possession and sale/manufacture arrests by county for 2007.

Table 6.3 Percentage of Treatment Episodes in Indiana with Cocaine Dependence Reported at Treatment Admission (Treatment Episode Data Set, 2007)

		Cocaine Dependence
Gender	Male	9.4%
	Female	16.5%
Race	White	8.8%
	Black	27%
	Other	10.7%
Age Group	Under 18	0.8%
	18-24	5.7%
	25-34	11.8%
	35-44	17.8%
	45-54	16.3%
	55 and over	8.2%
Total		**11.8%**

Source: Substance Abuse and Mental Health Data Archive, 2008

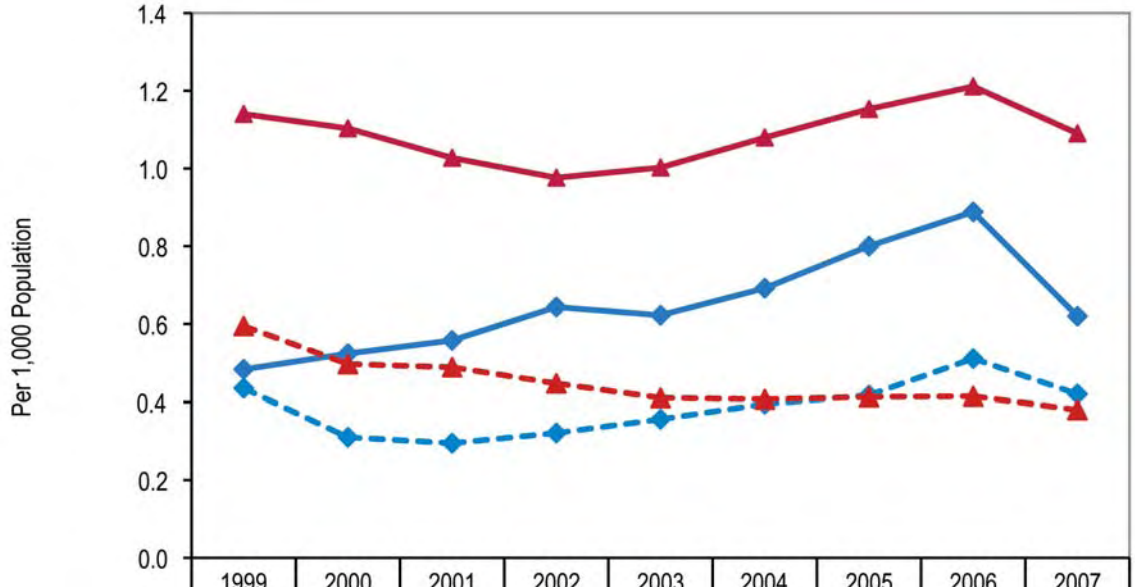
Figure 6.6 Number of Arrests for Cocaine and Opiates Possession and Sale/Manufacture in Indiana (Uniform Crime Reporting Program, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Possession	2,872	3,185	3,410	3,964	3,856	4,317	5,020	5,608	3,937
Sale	2,585	1,885	1,803	1,977	2,207	2,464	2,617	3,227	2,668

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 (Uniform Crime Reporting Program, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
IN Possession	0.48	0.52	0.56	0.64	0.62	0.69	0.80	0.89	0.62
U.S. Possession	1.14	1.10	1.03	0.98	1.00	1.08	1.15	1.21	1.09
IN Sale	0.43	0.31	0.29	0.32	0.36	0.40	0.42	0.51	0.42
U.S. Sale	0.59	0.50	0.49	0.45	0.41	0.41	0.41	0.41	0.38

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

APPENDIX 6A

Number of Treatment Episodes with Cocaine Use and Dependence Reported at Treatment Admission in Indiana (Substance Abuse Population by County/Treatment Episode Data Set, 2008)

County	Cocaine Use	Cocaine Dependence	County	Cocaine Use	Cocaine Dependence
Adams	22	7	Lawrence	14	9
Allen	417	187	Madison	169	64
Bartholomew	104	45	Marion	1428	755
Benton	4	2	Marshall	31	11
Blackford	19	6	Martin	2	1
Boone	31	13	Miami	23	5
Brown	6	3	Monroe	225	126
Carroll	12	2	Montgomery	43	17
Cass	23	9	Morgan	45	23
Clark	174	75	Newton	11	3
Clay	11	3	Noble	32	9
Clinton	17	9	Ohio	2	0
Crawford	9	5	Orange	6	4
Daviess	14	7	Owen	6	4
Dearborn	19	10	Parke	8	3
Decatur	17	7	Perry	7	0
DeKalb	10	4	Pike	4	0
Delaware	255	122	Porter	105	44
Dubois	9	2	Posey	17	8
Elkhart	183	100	Pulaski	9	3
Fayette	10	8	Putnam	13	6
Floyd	60	22	Randolph	6	3
Fountain	11	1	Ripley	13	3
Franklin	13	5	Rush	2	0
Fulton	15	3	St. Joseph	686	418
Gibson	10	2	Scott	37	10
Grant	45	13	Shelby	14	10
Greene	3	2	Spencer	7	0
Hamilton	127	43	Starke	25	9
Hancock	29	28	Steuben	15	5
Harrison	12	6	Sullivan	2	0
Hendricks	69	42	Switzerland	6	2
Henry	39	17	Tippecanoe	202	93
Howard	135	66	Tipton	6	0
Huntington	5	2	Union	0	0
Jackson	32	8	Vanderburgh	329	178
Jasper	22	8	Vermillion	1	1
Jay	17	2	Vigo	82	38
Jefferson	42	17	Wabash	12	5
Jennings	19	7	Warren	3	0
Johnson	54	25	Warrick	27	9
Knox	11	4	Washington	15	4
Kosciusko	17	6	Wayne	85	42
LaGrange	14	1	Wells	14	2
Lake	584	253	White	33	4
LaPorte	95	30	Whitley	6	3
			Indiana	**6,674**	**3,173**

Note: We defined cocaine dependence as “individuals in substance abuse treatment listing cocaine as their primary substance at admission.”
Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2009

APPENDIX 6B - PART 1

Lifetime, Annual, and Monthly Cocaine Use, by Region and Grade (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2009)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	0.4	0.6	0.4	0.1	0.6	0.4	0.2	0.2	0.6
	Annual	0.3	0.3	0.4	0.1	0.2	0.3	0.3	0.1	0.3
	Monthly	0.2	0.2	0.3	0.1	0.1	0.2	0.3	0.1	0.2
7th Grade	Lifetime	1.3	1.8	1.2	1.5	1.5	1.0	2.0	1.1	1.2
	Annual	1.0	1.6	0.7	1.1	1.1	0.8	1.8	0.8	0.8
	Monthly	0.6	1.1	0.5	0.8	0.5	0.5	1.1	0.5	0.7
8th Grade	Lifetime	2.2	2.8	2.3	1.5	2.1	2.1	2.3	1.9	2.5
	Annual	1.6	2.2	1.6	1.3	1.5	1.6	1.8	1.4	1.7
	Monthly	0.9	1.1	0.9	0.6	0.9	0.9	1.2	0.7	1.0
9th Grade	Lifetime	3.1	4.1	3.4	2.1	3.1	3.1	3.1	3.0	3.4
	Annual	2.2	3.1	2.2	1.4	2.1	2.1	2.3	2.2	2.1
	Monthly	1.2	1.8	1.2	0.8	1.0	1.3	1.1	1.0	1.0
10th Grade	Lifetime	4.2	6.3	4.3	3.1	4.1	4.0	4.2	3.6	5.0
	Annual	2.8	4.5	2.8	2.1	2.7	2.6	2.4	2.3	3.5
	Monthly	1.4	2.1	1.3	0.9	1.1	1.4	1.7	1.1	1.8
11th Grade	Lifetime	5.4	6.6	5.3	5.0	5.2	5.4	6.1	4.0	6.3
	Annual	3.3	4.4	3.4	3.0	3.3	3.1	3.3	2.5	3.7
	Monthly	1.4	2.0	1.6	1.2	1.4	1.4	1.3	0.9	2.0
12th Grade	Lifetime	6.6	7.2	6.6	5.1	6.7	6.2	6.8	5.6	8.7
	Annual	3.5	4.2	3.3	2.4	3.5	3.1	4.2	2.8	5.1
	Monthly	1.6	1.9	1.5	1.1	1.9	1.3	1.2	1.3	2.5

Source: Indiana Prevention Resource Center, 2009

APPENDIX 6B - PART 2

Lifetime, Annual, and Monthly Crack Use, by Region and Grade (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2009)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	0.6	0.7	0.6	0.3	0.8	0.5	0.5	0.3	0.8
	Annual	0.4	0.4	0.4	0.2	0.5	0.4	0.3	0.2	0.6
	Monthly	0.2	0.3	0.4	0.2	0.2	0.2	0.3	0.1	0.3
7th Grade	Lifetime	1.4	2.3	1.0	1.8	1.5	1.0	1.5	1.4	1.6
	Annual	1.0	1.9	0.7	1.3	1.0	0.8	1.0	1.1	1.2
	Monthly	0.7	1.1	0.5	0.9	0.5	0.6	0.6	0.6	0.8
8th Grade	Lifetime	1.9	2.0	1.8	1.8	1.7	1.8	2.3	1.8	2.3
	Annual	1.4	1.7	1.3	1.3	1.3	1.4	1.4	1.3	1.4
	Monthly	0.7	0.9	0.7	0.5	0.6	0.7	1.0	0.6	0.9
9th Grade	Lifetime	2.2	2.4	2.4	1.7	2.3	2.5	2.1	2.0	2.2
	Annual	1.5	1.6	1.6	1.1	1.4	1.7	1.6	1.4	1.3
	Monthly	0.9	1.2	0.7	0.7	0.8	1.1	1.2	0.8	0.7
10th Grade	Lifetime	2.4	2.6	2.2	1.9	2.2	2.6	2.6	2.2	2.8
	Annual	1.5	1.6	1.5	1.2	1.4	1.7	1.6	1.1	1.7
	Monthly	0.8	0.9	0.9	0.6	0.7	1.0	0.9	0.6	0.8
11th Grade	Lifetime	2.8	2.9	3.0	2.8	2.9	2.7	3.0	1.8	3.6
	Annual	1.5	1.7	1.6	1.5	1.6	1.5	2.1	1.0	2.0
	Monthly	0.9	1.1	1.1	0.7	1.0	1.0	1.1	0.5	1.0
12th Grade	Lifetime	2.9	3.1	2.6	2.2	3.7	2.7	3.6	2.5	3.8
	Annual	1.6	1.5	1.4	1.0	2.2	1.2	1.9	1.2	2.5
	Monthly	0.9	1.1	0.9	0.5	1.6	0.7	1.0	0.7	1.2

Source: Indiana Prevention Resource Center, 2009

APPENDIX 6C

Number and Rate, per 1,000 Population, of Arrests for Cocaine/Opiates Possession and Sale/Manufacture in Indiana by County (Uniform Crime Reporting Program, 2007)

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Adams	4	*0.12	6	*0.18
Allen	341	0.98	162	0.46
Bartholomew	66	0.89	6	*0.08
Benton	3	*0.33	3	*0.33
Blackford	6	*0.45	4	*0.30
Boone	10	*0.18	7	*0.13
Brown	0	*0.00	0	*0.00
Carroll	12	*0.58	6	*0.29
Cass	0	*0.00	13	*0.33
Clark	42	0.40	31	0.30
Clay	5	*0.18	5	*0.18
Clinton	5	*0.15	14	*0.41
Crawford	2	*0.18	3	*0.27
Daviess	7	*0.23	9	*0.30
Dearborn	14	*0.28	14	*0.28
Decatur	30	1.20	9	*0.36
DeKalb	14	*0.33	9	*0.21
Delaware	77	0.67	24	0.21
Dubois	8	*0.19	6	*0.14
Elkhart	111	0.55	16	*0.08
Fayette	9	*0.37	4	*0.16
Floyd	3	*0.04	149	2.05
Fountain	4	*0.23	7	*0.40
Franklin	5	*0.23	6	*0.27
Fulton	6	*0.29	7	*0.34
Gibson	6	*0.18	7	*0.21
Grant	36	0.52	77	1.11
Greene	4	*0.12	3	*0.09
Hamilton	56	0.21	101	0.39
Hancock	17	*0.26	14	*0.21
Harrison	1	*0.03	0	*0.00
Hendricks	42	0.31	24	0.18
Henry	9	*0.19	8	*0.17
Howard	110	1.30	104	1.23
Huntington	1	*0.03	1	*0.03
Jackson	5	*0.12	13	*0.31
Jasper	6	*0.18	8	*0.25
Jay	7	*0.32	5	*0.23
Jefferson	10	*0.30	11	*0.34
Jennings	0	*0.00	0	*0.00
Johnson	25	0.18	12	*0.09
Knox	14	*0.37	5	*0.13
Kosciusko	15	*0.20	17	*0.22
LaGrange	0	*0.00	0	*0.00
Lake	274	0.55	311	0.63
LaPorte	64	0.58	115	1.04
Lawrence	3	*0.06	2	*0.04
Madison	57	0.44	20	0.15
Marion	1,642	1.90	756	0.87

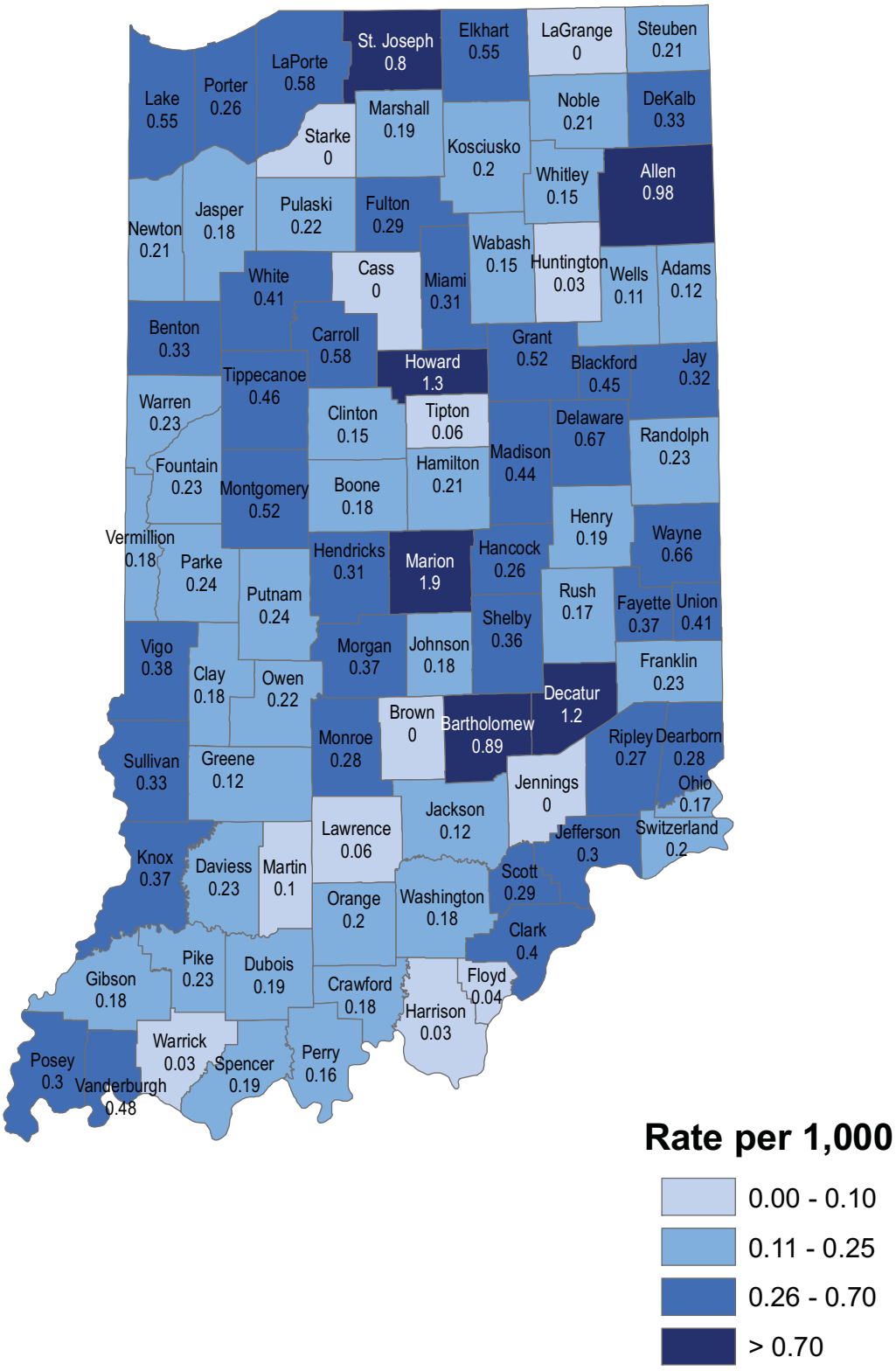
(continued on next page)

APPENDIX 6C *(Continued from previous page)*

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Marshall	9	*0.19	11	*0.23
Martin	1	*0.10	1	*0.10
Miami	11	*0.31	12	*0.34
Monroe	35	0.28	53	0.43
Montgomery	20	0.52	9	*0.24
Morgan	26	0.37	17	*0.24
Newton	3	*0.21	1	*0.07
Noble	10	*0.21	11	*0.23
Ohio	1	*0.17	2	*0.34
Orange	4	*0.20	6	*0.30
Owen	5	*0.22	6	*0.26
Parke	4	*0.24	2	*0.12
Perry	3	*0.16	3	*0.16
Pike	3	*0.23	4	*0.31
Porter	42	0.26	7	*0.04
Posey	8	*0.30	8	*0.30
Pulaski	3	*0.22	4	*0.29
Putnam	9	*0.24	10	*0.27
Randolph	6	*0.23	2	*0.08
Ripley	8	*0.27	9	*0.31
Rush	3	*0.17	3	*0.17
Saint Joseph	213	0.80	58	0.22
Scott	7	*0.29	7	*0.29
Shelby	16	*0.36	47	1.07
Spencer	4	*0.19	6	*0.29
Starke	0	*0.00	0	*0.00
Steuben	7	*0.21	16	*0.47
Sullivan	7	*0.33	5	*0.23
Switzerland	2	*0.20	3	*0.31
Tippecanoe	72	0.46	68	0.43
Tipton	1	*0.06	0	*0.00
Union	3	*0.41	0	*0.00
Vanderburgh	84	0.48	62	0.36
Vermillion	3	*0.18	3	*0.18
Vigo	39	0.38	32	0.31
Wabash	5	*0.15	6	*0.18
Warren	2	*0.23	2	*0.23
Warrick	2	*0.03	3	*0.05
Washington	5	*0.18	6	*0.21
Wayne	45	0.66	23	0.34
Wells	3	*0.11	0	*0.00
White	10	*0.41	0	*0.00
Whitley	5	*0.15	6	*0.18
Indiana	3,937	0.62	2,668	0.42

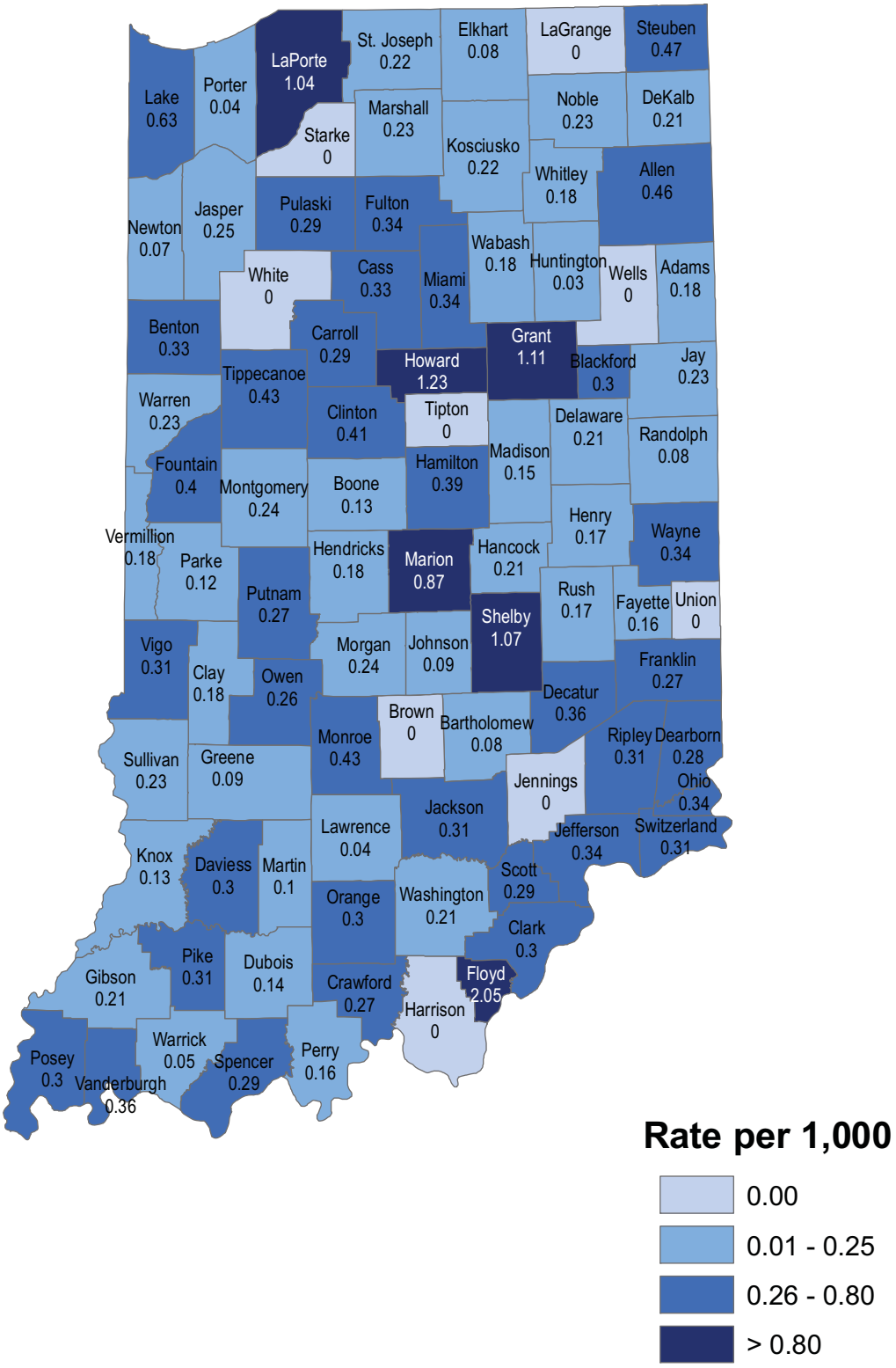
* Rates that are based on arrest numbers lower than 20 are unreliable.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d

Map 6.1 Indiana Cocaine/Opiate Possession Arrest Rates, by County (Uniform Crime Reporting Program, 2007)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 6C (pages 108-109) 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 (Uniform Crime Reporting Program, 2007)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 6C (pages 108-109) 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 (National Institute on Drug Abuse, 2005). 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". Heroin is also known by different names on the streets, including "smack," "junk," or "China White" (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 2008, 1.5% of all U.S. citizens ages 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 heroin use, based on 2002–2004 NSDUH data,[1] were as follows:

- lifetime use: 1.1% (54,000 residents)
- past year use: 0.2% (9,000 residents)
- current use: 0.0% (1,000 residents)

(Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

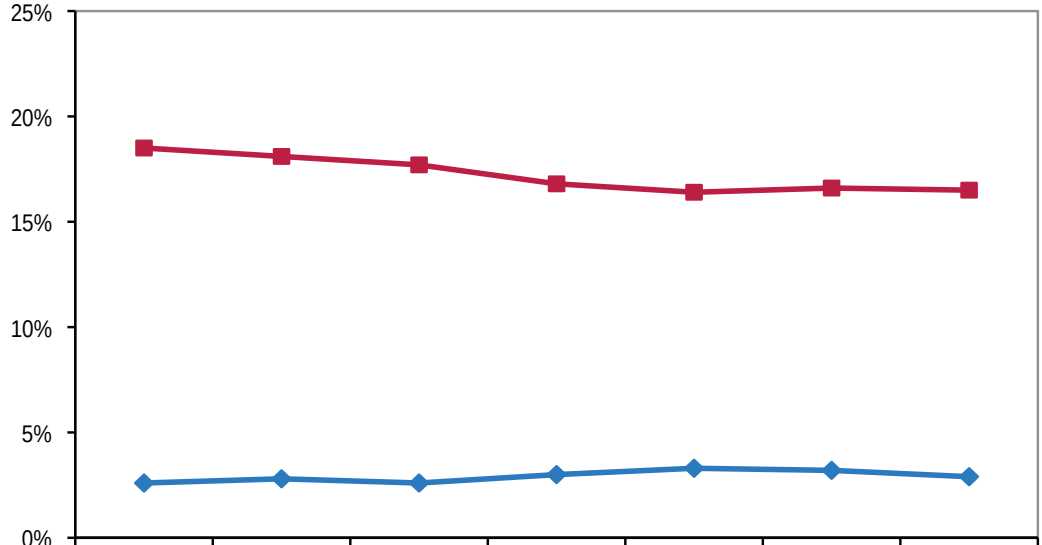
Adult Consumption Patterns

Heroin use prevalence in the general population is very low. Based on 2008 NSDUH results, current use was an estimated 0.2% among 18- to 25-year-old U.S. residents and 0.1% among those ages 26 and older (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.). 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 2007, 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 2007, 2.9% of Hoosiers in treatment reported heroin use, as compared to 16.5% of Americans. Reported heroin use increased in Indiana from 2.6% in 2001 to 2.9% in 2007; the opposite was true for the nation, which showed a rate decrease from 18.5% to 16.5% 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 2008, see Appendix 7A, page 122.

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

Figure 7.1 Percentage of Treatment Episodes in Indiana and the United States with Heroin Use Reported at Treatment Admission (Treatment Episode Data Set, 2001–2007)



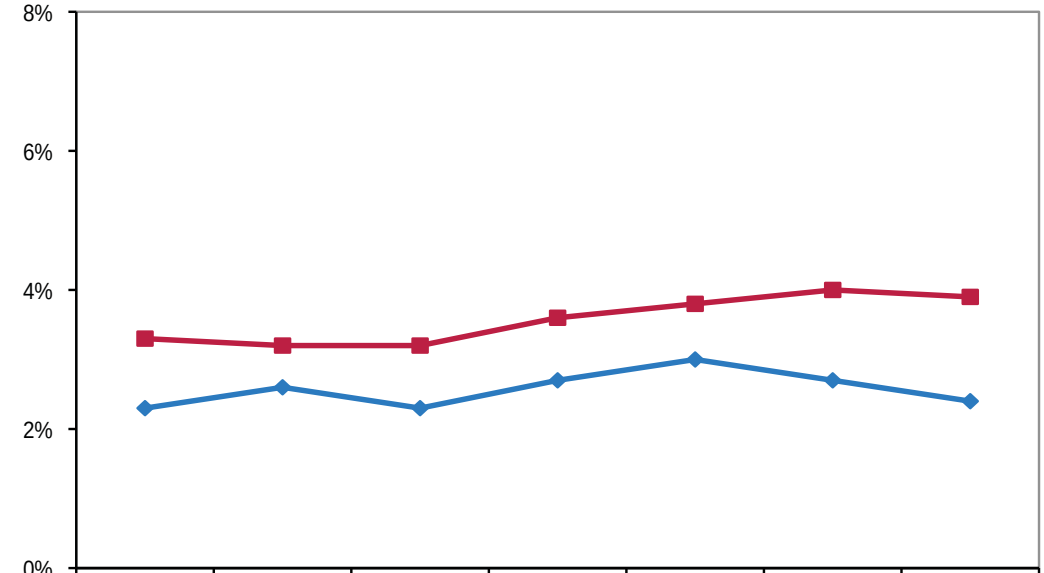
	2001	2002	2003	2004	2005	2006	2007
Indiana	2.6%	2.8%	2.6%	3.0%	3.3%	3.2%	2.9%
U.S.	18.5%	18.1%	17.7%	16.8%	16.4%	16.6%	16.5%

Source: Substance Abuse and Mental Health Data Archive, 2008

Reported heroin use differed by gender in Indiana's treatment population. From 2001 through 2007, females were significantly more likely to report use of the drug than males ($P < 0.001$) (see Figure 7.2).

In 2007, reported heroin use did not differ by race in Indiana. However, results in previous years showed significant differences ($P < .001$) (see Figure 7.3).

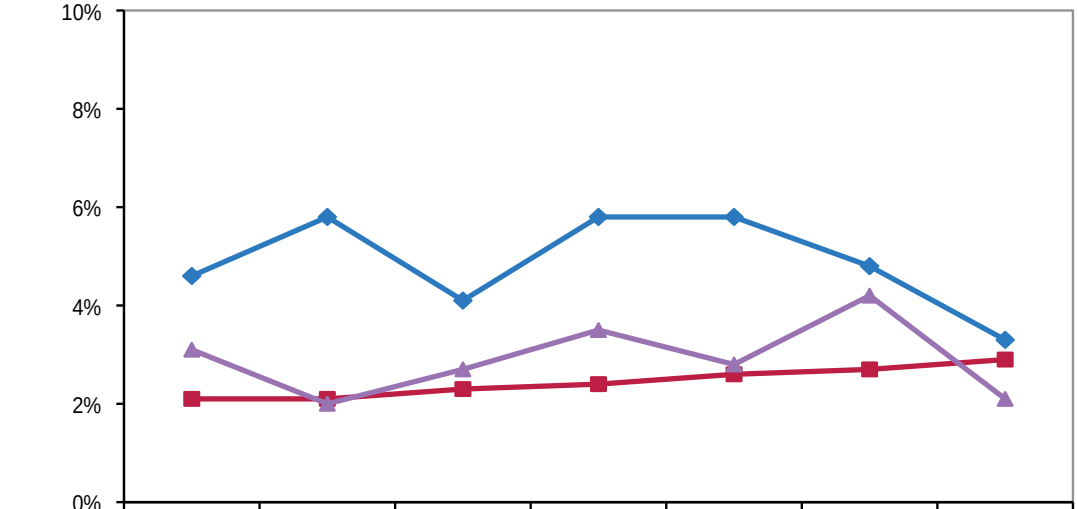
Figure 7.2 Percentage of Treatment Episodes in Indiana with Heroin Use Reported at Treatment Admission, by Gender (Treatment Episode Data Set, 2001–2007)



	2001	2002	2003	2004	2005	2006	2007
Male	2.3%	2.6%	2.3%	2.7%	3.0%	2.7%	2.4%
Female	3.3%	3.2%	3.2%	3.6%	3.8%	4.0%	3.9%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 7.3 Percentage of Treatment Episodes in Indiana with Heroin Use Reported at Treatment Admission, by Race (Treatment Episode Data Set, 2001–2007)

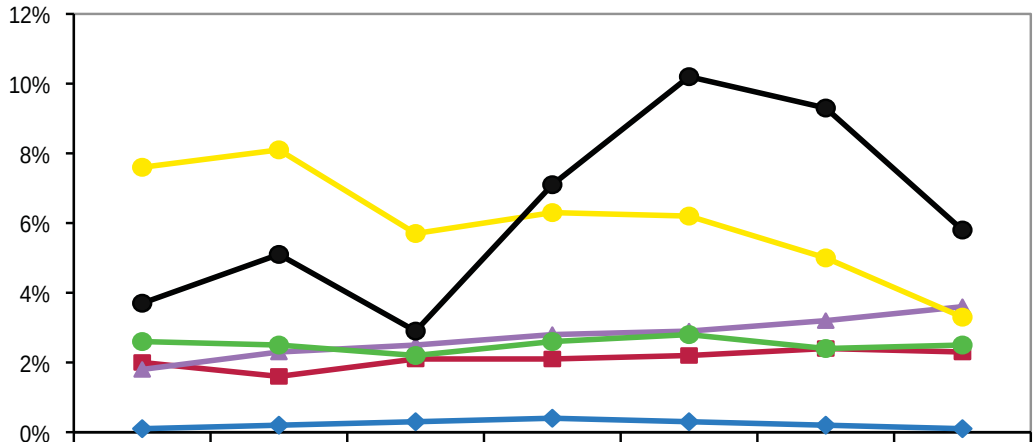


	2001	2002	2003	2004	2005	2006	2007
Black	4.6%	5.8%	4.1%	5.8%	5.8%	4.8%	3.3%
White	2.1%	2.1%	2.3%	2.4%	2.6%	2.7%	2.9%
Other	3.1%	2.0%	2.7%	3.5%	2.8%	4.2%	2.1%

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 54) reported use of the substance. The difference in heroin use across age groups was statistically significant for all years reviewed (2001–2007; $P < 0.001$) (see Figure 7.4) (Substance Abuse and Mental Health Data Archive, 2008).

Figure 7.4 Percentage of Treatment Episodes in Indiana with Heroin Use Reported at Treatment Admission, by Age (Treatment Episode Data Set, 2001–2007)



	2001	2002	2003	2004	2005	2006	2007
Under 18	0.1%	0.2%	0.3%	0.4%	0.3%	0.2%	0.1%
18 to 24	2.0%	1.6%	2.1%	2.1%	2.2%	2.4%	2.3%
25 to 34	1.8%	2.3%	2.5%	2.8%	2.9%	3.2%	3.6%
35 to 44	2.6%	2.5%	2.2%	2.6%	2.8%	2.4%	2.5%
45 to 54	7.6%	8.1%	5.7%	6.3%	6.2%	5.0%	3.3%
55 and over	3.7%	5.1%	2.9%	7.1%	10.2%	9.3%	5.8%

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) (see Figure 7.5). 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).

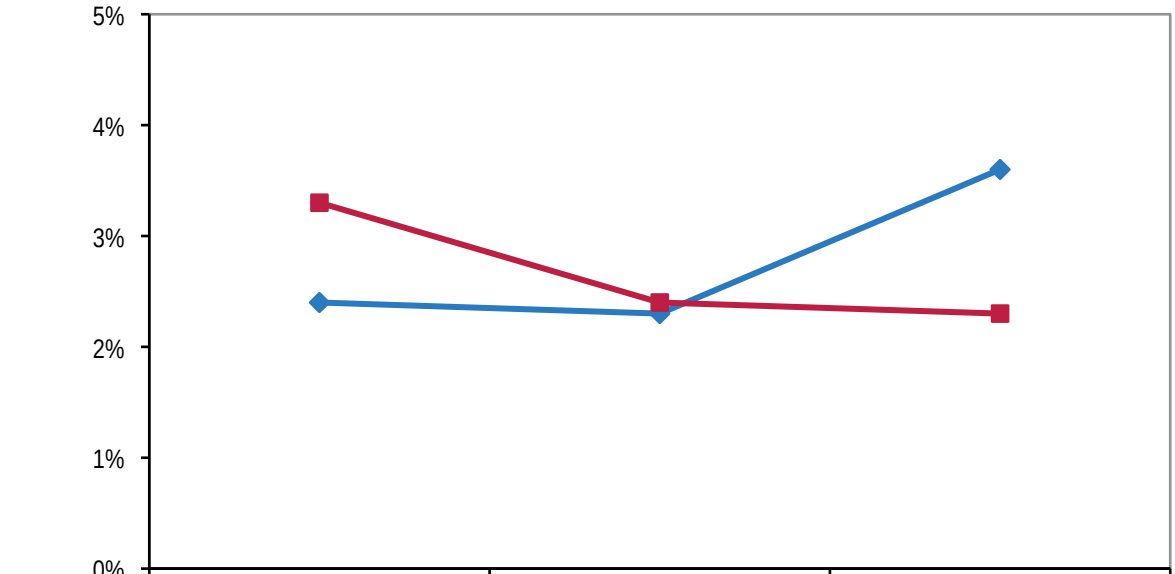
Lifetime heroin prevalence in Indiana for 2007 seemed to be lower for whites (2.8%; 95% CI: 2.4–3.3) and blacks (2.8%; 95% CI: 1.2–6.7), but the rates were not statistically different from rates for Hispanics (6.4%; 95% CI: 2.8–13.9) and other races (7.5%; 95% CI: 3.1–17.2) (Centers for Disease Control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

As noted previously, a common method for heroin usage is by needle injection. According to the 2007 YRBSS, the percentage of students who used a needle to inject any illegal drug into their body one or more times during their lifetime was statistically similar in Indiana (2.7%; 95% CI: 2.0–3.7) and the nation (2.0%; 95% CI: 1.5–2.7) (Centers for Disease Control and Prevention, 2008c).

Based on results from the 2008 Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) survey, 2.0% of Hoosier 12th grade students reported lifetime use; 1.4% reported annual use; and 0.8% reported monthly (current) heroin use (Indiana Prevention Resource Center, 2009). National rates, as measured by the 2008 Monitoring the Future (MTF) survey, seem similar for 12th grade students (lifetime use: 1.3%; annual use: 0.7%; monthly use: 0.4%) (Inter-university Consortium for Political and Social Research, University of Michigan-university Consortium for Political and Social Research, University of Michigan, n.d.).

Across most years from 2000 through 2008, 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; however, statistical significance could not be determined (Indiana Prevention Resource Center, 2009). For lifetime, annual, and monthly heroin use rates in Indiana by region and grade, see Appendix 7B, page 123.

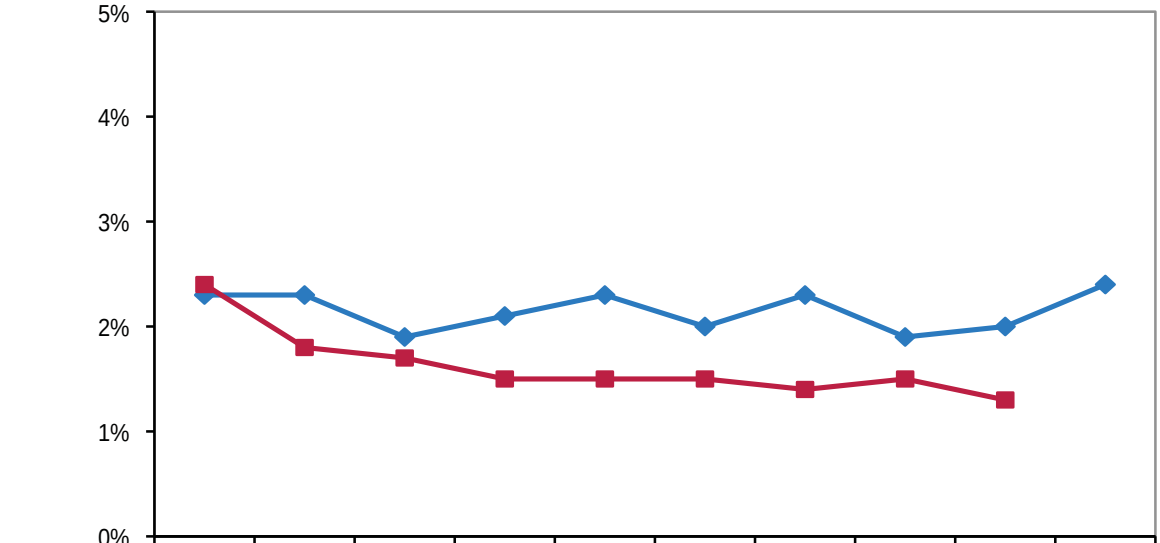
Figure 7.5 Percentage of Indiana and U.S. High School Students (Grades 9 through 12) Who Have Used Heroin at Least Once During their Lifetime (Youth Risk Behavior Surveillance System, 2003–2007)



	2003	2005	2007
Indiana	2.4%	2.3%	3.6%
U.S.	3.3%	2.4%	2.3%

Source: Centers for Disease Control and Prevention, 2008c

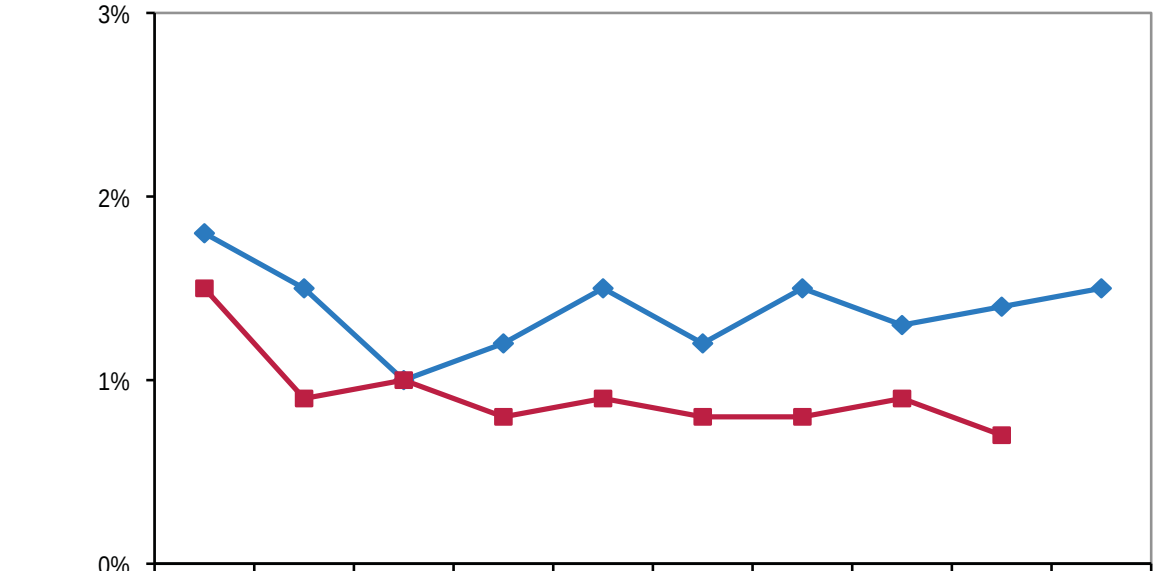
Figure 7.6 Percentage of Indiana and U.S. 12th Grade Students Reporting Lifetime Heroin Use (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2000–2009, and Monitoring the Future Survey, 2000–2008)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Indiana	2.3%	2.3%	1.9%	2.1%	2.3%	2.0%	2.3%	1.9%	2.0%	2.4%
U.S.	2.4%	1.8%	1.7%	1.5%	1.5%	1.5%	1.4%	1.5%	1.3%	

Note: Information for 2009 is not available yet at the national level.
Source: Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

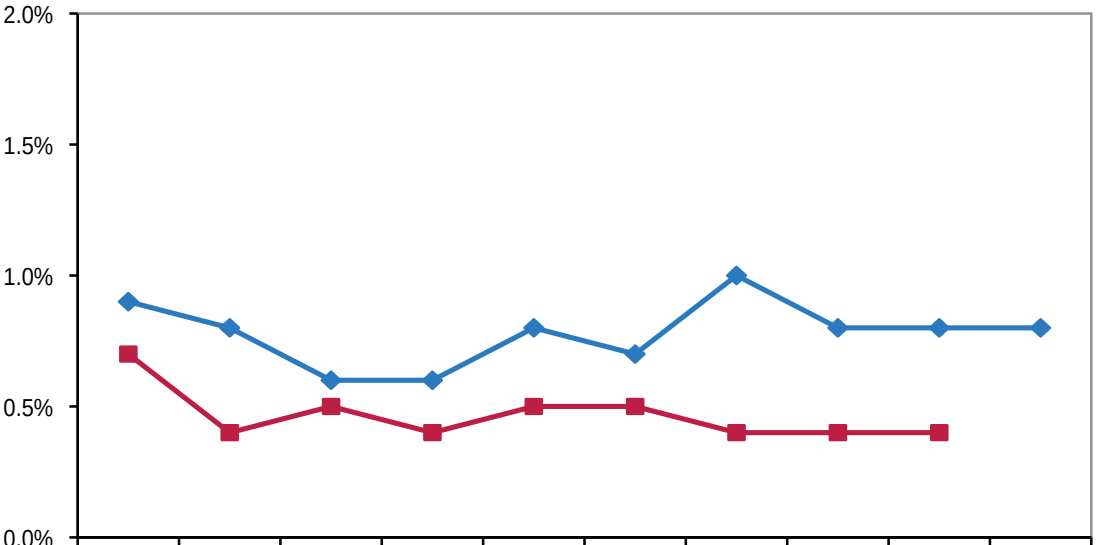
Figure 7.7 Percentage of Indiana and U.S. 12th Grade Students Reporting Annual Heroin Use (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2000–2009, and Monitoring the Future Survey, 2000–2008)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Indiana	1.8%	1.5%	1.0%	1.2%	1.5%	1.2%	1.5%	1.3%	1.4%	1.5%
U.S.	1.5%	0.9%	1.0%	0.8%	0.9%	0.8%	0.8%	0.9%	0.7%	

Note: Information for 2009 is not available yet at the national level.
Source: Indiana Prevention Resource Center, 2009; 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 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2000–2009, and Monitoring the Future Survey, 2000–2008)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Indiana	0.9%	0.8%	0.6%	0.6%	0.8%	0.7%	1.0%	0.8%	0.8%	0.8%
U.S.	0.7%	0.4%	0.5%	0.4%	0.5%	0.5%	0.4%	0.4%	0.4%	

Note: Information for 2009 is not available yet at the national level.
Source: Indiana Prevention Resource Center, 2009; 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 reported in heroin abusers are infections of the heart lining and valves, abscesses, liver disease, and pulmonary complications (National Institute on Drug Abuse, 2005). In addition, various types of pneumonia may surface in the user (Office of National Drug Control Policy, n.d.).

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). The Drug Abuse Warning Network reports that nationwide, approximately 11% of all 2006 drug-related emergency room visits involved heroin (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008).

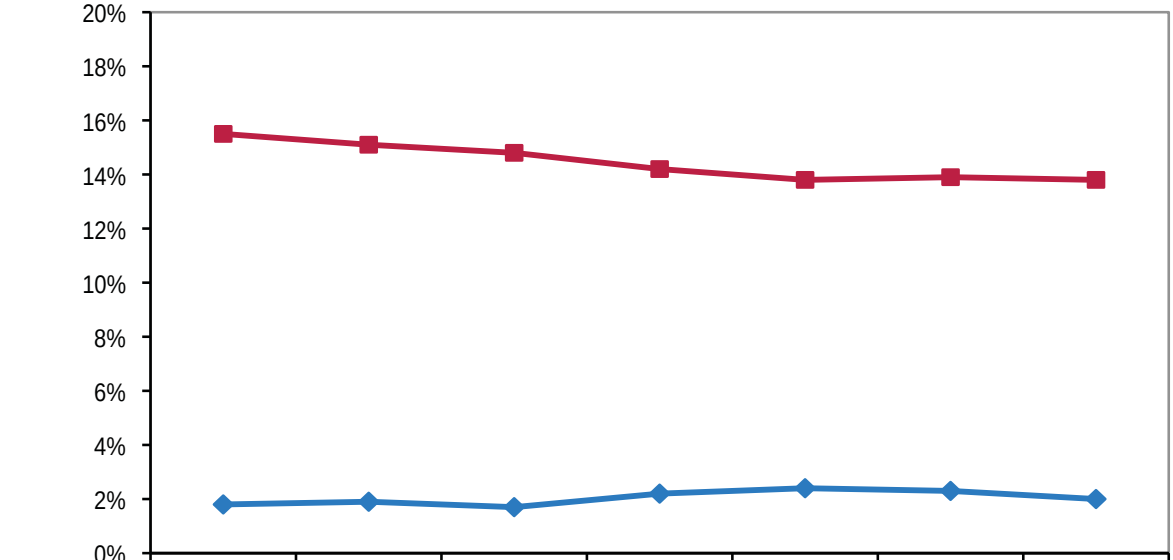
Heroin Dependence

A comparison of data from the Treatment Episode Data Set (TEDS) from 2001 through 2007 shows that the percentage of drug treatment admissions for heroin dependence[2] 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 were observed in Indiana by gender, race, and age group:

- The percentage of women reporting heroin dependence was greater than the percentage of men, 2.8% and 1.7% respectively ($P < 0.001$) (see Figure 7.10).
- The percentage of patients in treatment for heroin dependence was highest for blacks (2.5%), followed by whites (2.0%) and then the "other" race category (1.2%) ($P < 0.01$) (see Figure 7.11).
- Heroin dependence was reported exclusively by individuals 18 years of age or older. Highest rates were found among older patients, especially those 55 and over (5.0%) ($P < 0.001$) (see Figure 7.12). (For county-level information on heroin dependence, see Appendix 7A, page 122.)

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

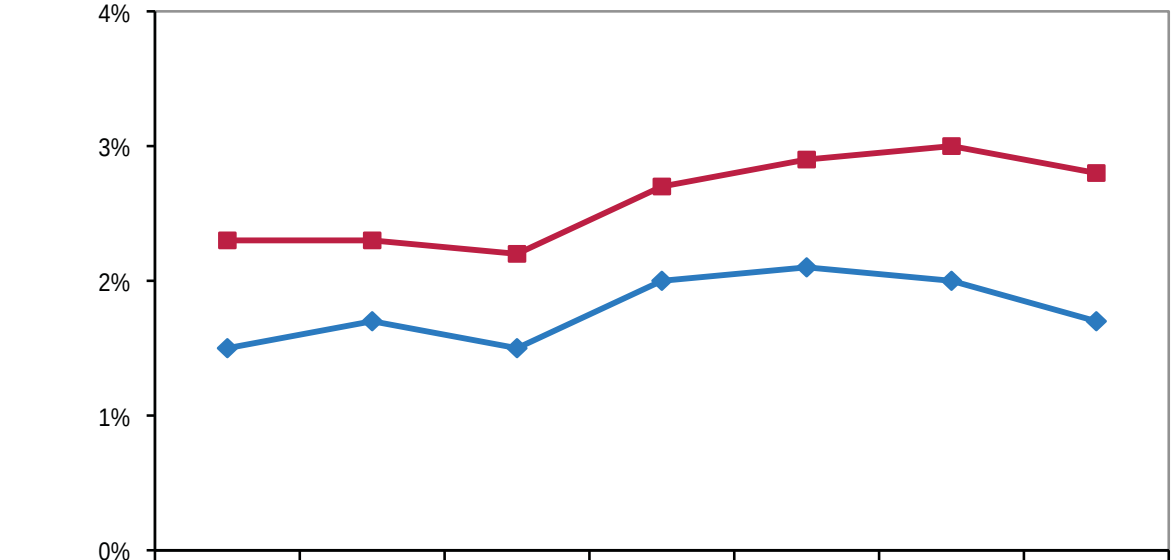
Figure 7.9 Percentage of Treatment Episodes in Indiana and the United States with Heroin Dependence Reported at Treatment Admission (Treatment Episode Data Set, 2001–2007)



	2001	2002	2003	2004	2005	2006	2007
Indiana	1.8%	1.9%	1.7%	2.2%	2.4%	2.3%	2.0%
U.S.	15.5%	15.1%	14.8%	14.2%	13.8%	13.9%	13.8%

Source: Substance Abuse and Mental Health Data Archive, 2008

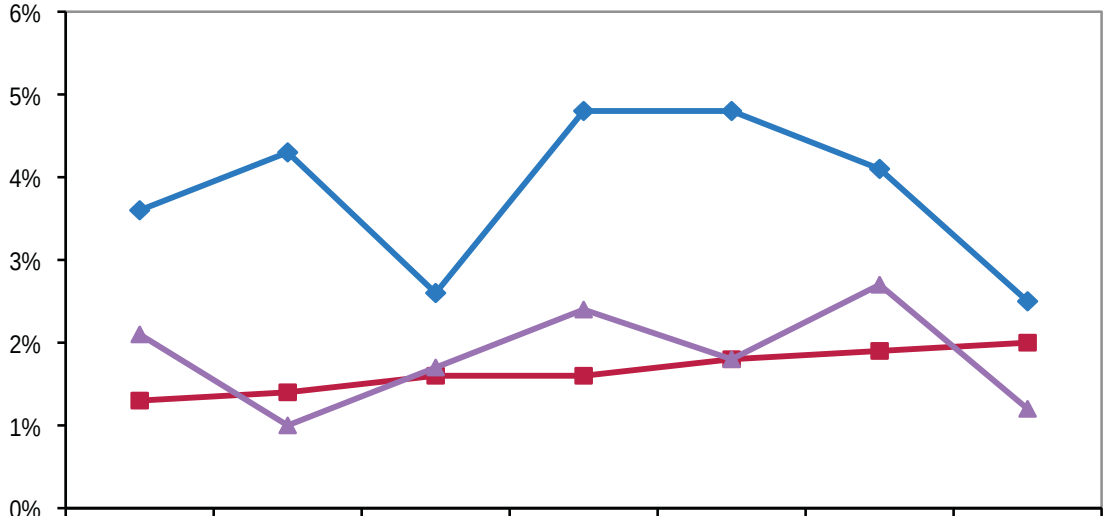
Figure 7.10 Percentage of Treatment Episodes in Indiana with Heroin Dependence Reported at Treatment Admission, by Gender (Treatment Episode Data Set, 2001–2007)



	2001	2002	2003	2004	2005	2006	2007
Male	1.5%	1.7%	1.5%	2.0%	2.1%	2.0%	1.7%
Female	2.3%	2.3%	2.2%	2.7%	2.9%	3.0%	2.8%

Source: Substance Abuse and Mental Health Data Archive, 2008

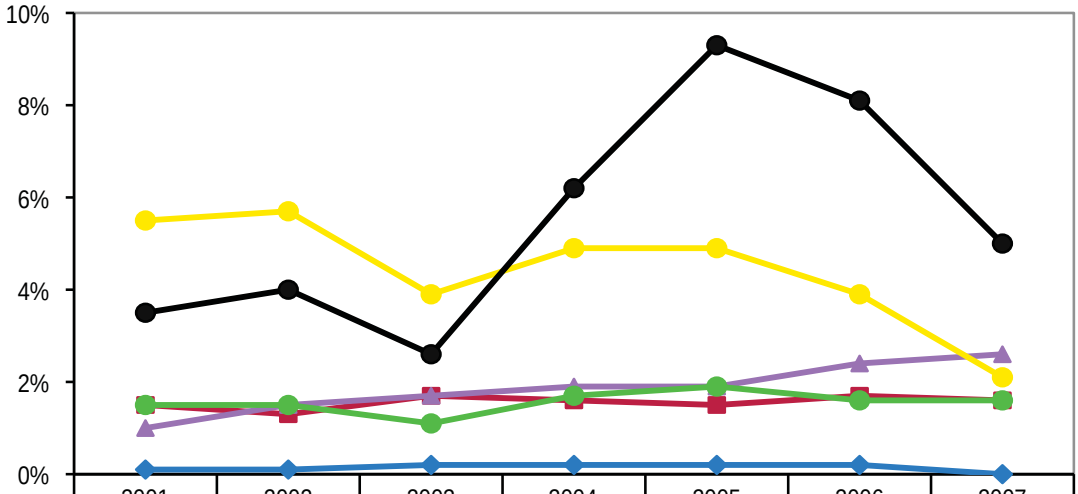
Figure 7.11 Percentage of Treatment Episodes in Indiana with Heroin Dependence Reported at Treatment Admission, by Race (Treatment Episode Data Set, 2001–2007)



	2001	2002	2003	2004	2005	2006	2007
Black	3.6%	4.3%	2.6%	4.8%	4.8%	4.1%	2.5%
White	1.3%	1.4%	1.6%	1.6%	1.8%	1.9%	2.0%
Other	2.1%	1.0%	1.7%	2.4%	1.8%	2.7%	1.2%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 7.12 Percentage of Treatment Episodes in Indiana with Heroin Dependence Reported at Treatment Admission, by Age Group (Treatment Episode Data Set, 2001–2007)



	2001	2002	2003	2004	2005	2006	2007
Under 18	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%	0.0%
18 to 24	1.5%	1.3%	1.7%	1.6%	1.5%	1.7%	1.6%
25 to 34	1.0%	1.5%	1.7%	1.9%	1.9%	2.4%	2.6%
35 to 44	1.5%	1.5%	1.1%	1.7%	1.9%	1.6%	1.6%
45 to 54	5.5%	5.7%	3.9%	4.9%	4.9%	3.9%	2.1%
55 and over	3.5%	4.0%	2.6%	6.2%	9.3%	8.1%	5.0%

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 2008, 367 new HIV infections and 146 new AIDS cases were reported in Indiana. Twelve of the new HIV infections and nine of the new AIDS cases were transmitted through injection drug use (IDU). By the end of 2008, a total of 9,253 individuals were living in Indiana with HIV disease;[3] 781 (or 8.44%) of these cases were attributed to IDU (Indiana State Department of Health, 2009). The Centers for Disease Control and Prevention calculated the annual AIDS rate in 2006 to be 5.5 per 100,000 population in Indiana and 12.9 per 100,000 population in the United States (Centers for Disease Control and Prevention, 2009a).

The age-adjusted 2006 HIV/AIDS mortality rate[4] in Indiana was 2.3 per 100,000 population (95% CI: 1.9–2.7), which was significantly lower than the U.S. rate of 4.0 per 100,000 population (95% CI: 3.9–4.1) (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, 2009). The 2007 incidence rates per 100,000 for acute hepatitis in Indiana were 1.0 for HBV (U.S.: 1.5) and 0.2 for HCV (U.S.: 0.3). Both HBV and HCV incidence rates have dropped in the past decades. The decline in HBV incidence began in the mid-1980s and has coincided with the stepwise implementation of the national vaccination strategy to eliminate transmission of the virus. After peaking in the late 1980s, the incidence of HCV declined steadily through the 1990s. However, since 2003, hepatitis C rates have plateaued, with IDU remaining the most commonly identified risk factor for infection (Centers for Disease Control and Prevention, 2009b).

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 2006 age-adjusted mortality rate attributable to HBV and HCV[5] was 1.4 per 100,000 population (95% CI: 1.1–1.7) in Indiana, which was significantly lower than the national rate of 2.2 per 100,000 population (95% CI: 2.1–2.3) (Centers for Disease Control and Prevention, n.d.).

Self-Injury

A potential consequence of heroin use is the increased risk of harming oneself. Suicidal intentions and behaviors have been reported in large numbers of illicit drug users, especially those who use heroin (Gossop, Marsden, Stewart, Lehmann, Edwards, Wilson, & Segar, 1998). Suicide is reported to be one of the four major causes of death of heroin users; the other three are accidental overdose, disease, and trauma (Darke, Williamson, Ross, & Teesson, 2005). According to a statewide survey, 98.3% of Hoosiers believe that using heroin once or twice a week is a great risk and can cause people to harm themselves physically and in other ways (State Epidemiology and Outcomes Workgroup, 2008).

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 2008, the DEA seized 11.4 kilograms, or 25.1 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, 2009).

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 2007 dataset, a total of 3,937 arrests were made for possession, and 2,668 arrests for sale/manufacture of opiates and cocaine in Indiana. This represents arrest rates of 0.62 per 1,000 population (95% CI: 0.60–0.64) and 0.42 per 1,000 population (95% CI: 0.40–0.44), respectively. For trend information and comparisons with the United States, refer to Chapter 6, Cocaine, on pages 97-112; for county-level data, see Maps 6.1 and 6.2 (pages 110 and 111) and Appendix 6C (pages 108-109).

[3]HIV disease includes both HIV infections and AIDS cases.
[4]Mortality rates for HIV/AIDS are based on the following ICD-10 codes: B20–B24 (Human immunodeficiency virus [HIV] disease).
[5]Mortality rates for hepatitis B and C infections are based on the following ICD-10 codes: B16 (Acute hepatitis B), 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 Treatment Episodes with Heroin Use and Dependence Reported at Treatment Admission in Indiana (Substance Abuse Population by County/Treatment Episode Data Set, 2008)

County	Heroin Use	Heroin Dependence	County	Heroin Use	Heroin Dependence
Adams	2	1	Lawrence	2	2
Allen	16	8	Madison	6	2
Bartholomew	2	1	Marion	346	289
Benton	0	0	Marshall	6	2
Blackford	0	0	Martin	0	0
Boone	12	10	Miami	0	0
Brown	0	0	Monroe	49	39
Carroll	0	0	Montgomery	8	7
Cass	1	0	Morgan	6	5
Clark	22	12	Newton	4	4
Clay	2	2	Noble	2	0
Clinton	0	0	Ohio	0	0
Crawford	0	0	Orange	1	0
Daviess	0	0	Owen	5	4
Dearborn	11	9	Parke	0	0
Decatur	0	0	Perry	0	0
DeKalb	5	1	Pike	0	0
Delaware	5	3	Porter	77	65
Dubois	0	0	Posey	0	0
Elkhart	11	9	Pulaski	2	1
Fayette	1	0	Putnam	2	0
Floyd	8	6	Randolph	0	0
Fountain	2	0	Ripley	2	1
Franklin	2	2	Rush	1	1
Fulton	0	0	St. Joseph	48	26
Gibson	0	0	Scott	4	2
Grant	6	3	Shelby	17	14
Greene	0	0	Spencer	1	0
Hamilton	19	12	Starke	9	5
Hancock	5	5	Steuben	0	0
Harrison	2	2	Sullivan	0	0
Hendricks	18	11	Switzerland	1	1
Henry	7	6	Tippecanoe	26	15
Howard	7	3	Tipton	1	1
Huntington	0	0	Union	1	1
Jackson	8	5	Vanderburgh	9	2
Jasper	6	4	Vermillion	0	0
Jay	2	1	Vigo	4	3
Jefferson	1	0	Wabash	15	12
Jennings	0	0	Warren	1	1
Johnson	12	9	Warrick	0	0
Knox	2	0	Washington	2	0
Kosciusko	0	0	Wayne	27	17
LaGrange	2	1	Wells	1	0
Lake	229	204	White	3	2
LaPorte	25	20	Whitley	0	0
			Indiana	**1,142**	**874**

Note: We defined heroin dependence as “individuals in substance abuse treatment listing heroin as their primary substance at admission.”
Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2009

APPENDIX 7B

Lifetime, Annual, and Monthly Heroin Use Rates in Indiana, by Region and Grade (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2009)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	0.4	0.5	0.2	0.1	0.5	0.4	0.3	0.2	0.7
	Annual	0.3	0.4	0.2	0.1	0.2	0.3	0.4	0.1	0.4
	Monthly	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
7th Grade	Lifetime	0.9	1.5	0.8	0.8	1.1	0.6	1.4	0.8	1.2
	Annual	0.7	1.4	0.4	0.7	0.8	0.5	1.2	0.7	0.7
	Monthly	0.4	0.8	0.4	0.4	0.5	0.3	0.6	0.4	0.6
8th Grade	Lifetime	1.5	1.7	1.8	1.2	1.3	1.5	2.1	1.2	1.6
	Annual	1.1	1.2	1.5	0.9	0.9	1.1	1.3	0.9	1.2
	Monthly	0.6	0.6	0.9	0.4	0.5	0.5	1.0	0.5	0.9
9th Grade	Lifetime	1.8	2.2	1.6	1.4	1.7	1.9	1.6	1.8	1.9
	Annual	1.2	1.7	1.0	0.8	1.3	1.5	1.2	1.2	1.0
	Monthly	0.8	0.9	0.5	0.5	0.7	1.0	0.8	0.9	0.6
10th Grade	Lifetime	1.8	2.3	2.0	1.0	1.6	1.8	2.7	1.7	2.1
	Annual	1.2	1.7	1.3	0.7	1.0	1.2	1.8	1.2	1.3
	Monthly	0.8	1.2	0.8	0.4	0.6	0.8	1.5	0.8	0.6
11th Grade	Lifetime	2.2	2.1	2.4	1.8	2.2	2.6	3.0	1.3	2.5
	Annual	1.4	1.4	1.8	1.1	1.5	1.6	1.5	0.7	1.9
	Monthly	0.8	0.9	1.0	0.5	0.8	1.0	1.2	0.4	1.1
12th Grade	Lifetime	2.4	2.8	1.8	1.3	3.1	2.5	2.6	1.7	3.4
	Annual	1.5	2.1	1.1	0.8	2.0	1.2	2.0	1.1	2.3
	Monthly	0.8	1.2	0.5	0.4	1.4	0.7	0.8	0.7	1.2

Source: Indiana Prevention Resource Center, 2009

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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 (OTC) ingredients. Meth's relative ease of manufacture and highly addictive potential are thought to contribute to its use across the nation. Meth is also known by different names on the streets, including "speed," "crystal," "crank," or "ice" (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, n.d.). The latest prevalence estimates for the nation are based on results from the 2008 survey. However, state-level rates were calculated using annual averages from 2002 through 2004. Therefore, comparisons between Indiana and U.S. rates should be made with caution, especially since national rates were higher between 2002 and 2004 than they are today. According to NSDUH findings:

- 4.5% of Hoosiers (225,000 residents) used meth at least once in their life (U.S.: 5.0%)
- 0.8% of Hoosiers (40,000 residents) used meth in the past year (U.S.: 0.3%)
- 0.2% of Hoosiers (10,000 residents) used meth in the past month (U.S.: 0.1%).

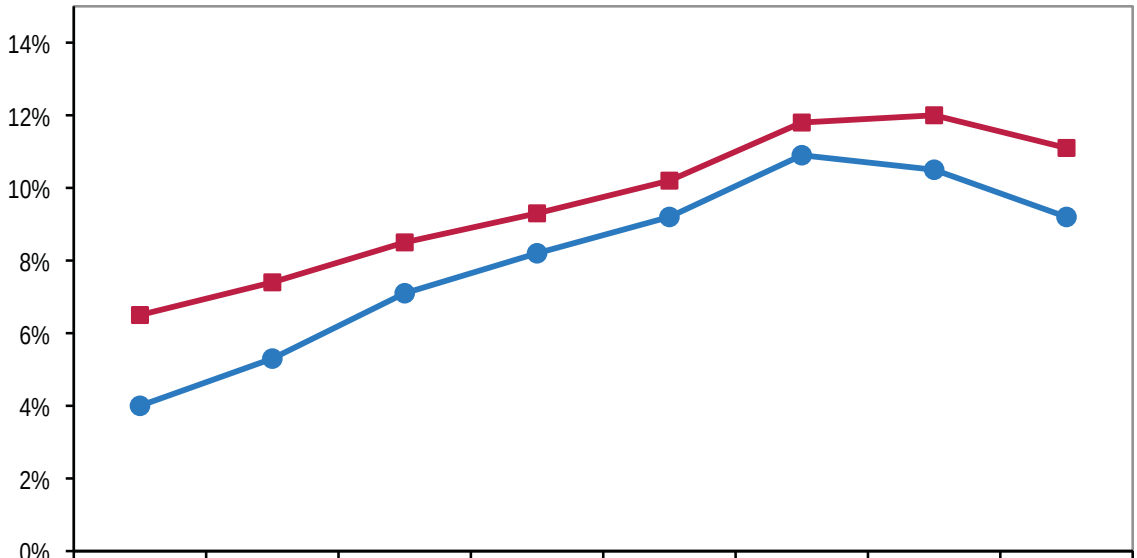
(Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.).

Adult Consumption Patterns

According to NSDUH results from 2002 through 2005, 1.90% of Indiana residents ages 18 to 25 used meth in the past year. During this time period, Nevada had the highest prevalence rate (2.02%) and Connecticut displayed the lowest rate (0.06%) (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2006).

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). Indiana TEDS data show a steady increase in the rate of meth use reported at admission, from 4.0% in 2000 to 10.9% in 2005, but the rate dropped to 9.2% by 2007. The percentage of treatment admissions with reported meth use was significantly lower in Indiana than the United States ($P < 0.001$) (see Figure 8.1).

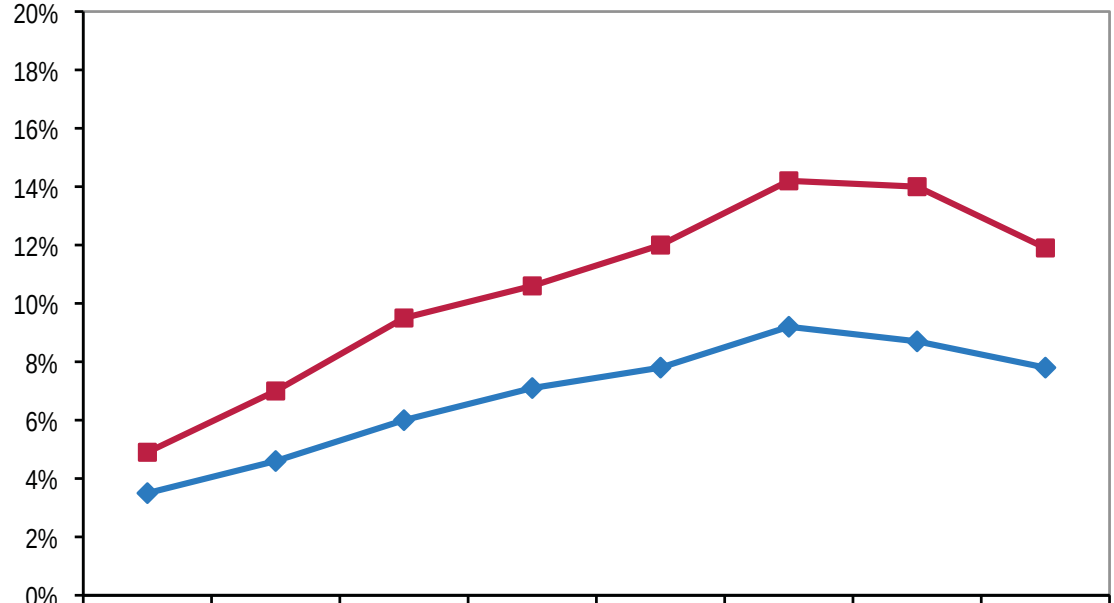
Figure 8.1 Percentage of Treatment Episodes with Meth Use Reported at Treatment Admission in Indiana and the United States (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	4.0%	5.3%	7.1%	8.2%	9.2%	10.9%	10.5%	9.2%
U.S.	6.5%	7.4%	8.5%	9.3%	10.2%	11.8%	12.0%	11.1%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 8.2 Percentage of Treatment Episodes with Meth Use Reported at Treatment Admission in Indiana, by Gender (Treatment Episode Data Set, 2000–2007)



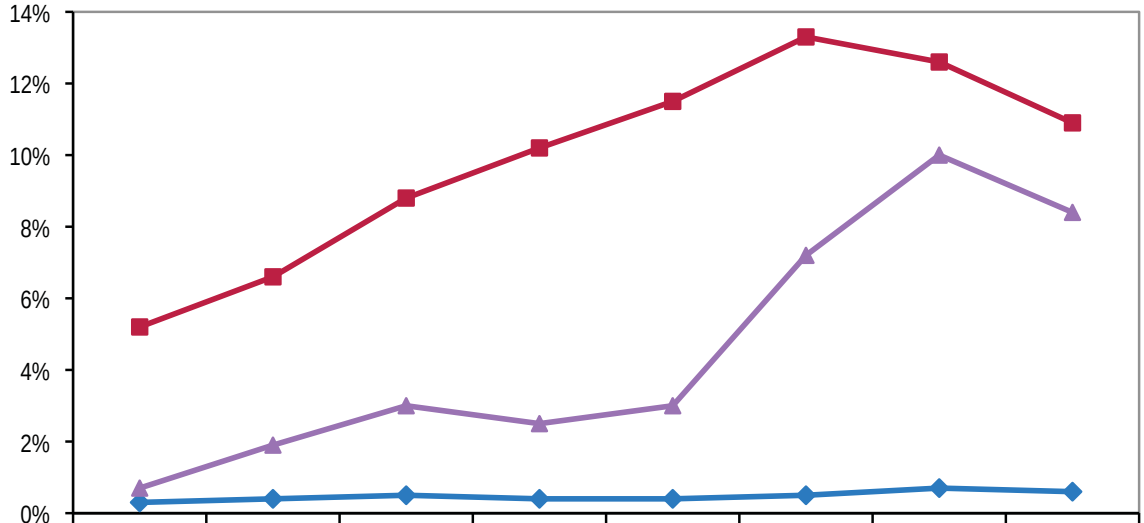
	2000	2001	2002	2003	2004	2005	2006	2007
Male	3.5%	4.6%	6.0%	7.1%	7.8%	9.2%	8.7%	7.8%
Female	4.9%	7.0%	9.5%	10.6%	12.0%	14.2%	14.0%	11.9%

Source: Substance Abuse and Mental Health Data Archive, 2008

A statistically significant gender effect was observed with meth use among individuals entering substance abuse treatment in Indiana: Across all data points, the percentage of female clients reporting meth use at admission was greater than the percentage of male clients ($P < 0.001$) (see Figure 8.2).

A statistically significant race effect was also observed for meth use among individuals entering substance abuse treatment ($P < 0.001$). The percentage of white people reporting meth use at admission was greater than the percentage of black or other minority individuals. Rates of use increased significantly from 2000 to 2007 in all three race categories ($P < 0.001$): Reported use for whites more than doubled from 5.2% to 10.9%; even though blacks consistently had the lowest rate, reported use increased significantly from 0.3% to 0.6%; and the greatest increase was found among other races, whose rates rose from 0.7% to 8.4% (see Figure 8.3) (Substance Abuse and Mental Health Data Archive, 2008). For county-level treatment data, see Appendix 8A, page 138.

Figure 8.3 Percentage of Treatment Episodes with Meth Use Reported at Treatment Admission in Indiana, by Race (Treatment Episode Data Set, 2000–2007)

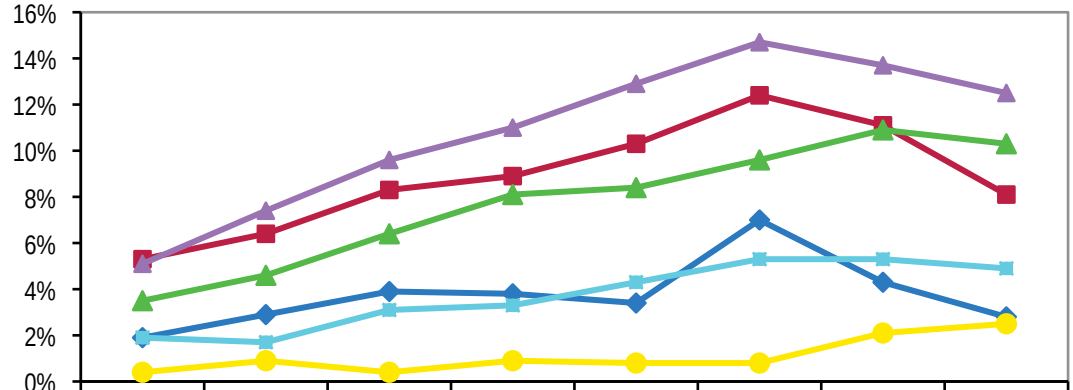


	2000	2001	2002	2003	2004	2005	2006	2007
Black	0.3%	0.4%	0.5%	0.4%	0.4%	0.5%	0.7%	0.6%
White	5.2%	6.6%	8.8%	10.2%	11.5%	13.3%	12.6%	10.9%
Other	0.7%	1.9%	3.0%	2.5%	3.0%	7.2%	10.0%	8.4%

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 the age of 18, younger adults had higher rates of use than older people, with the highest rates among those ages 25 to 34. The differences among the age categories were statistically significant for all years reviewed ($P < 0.001$).

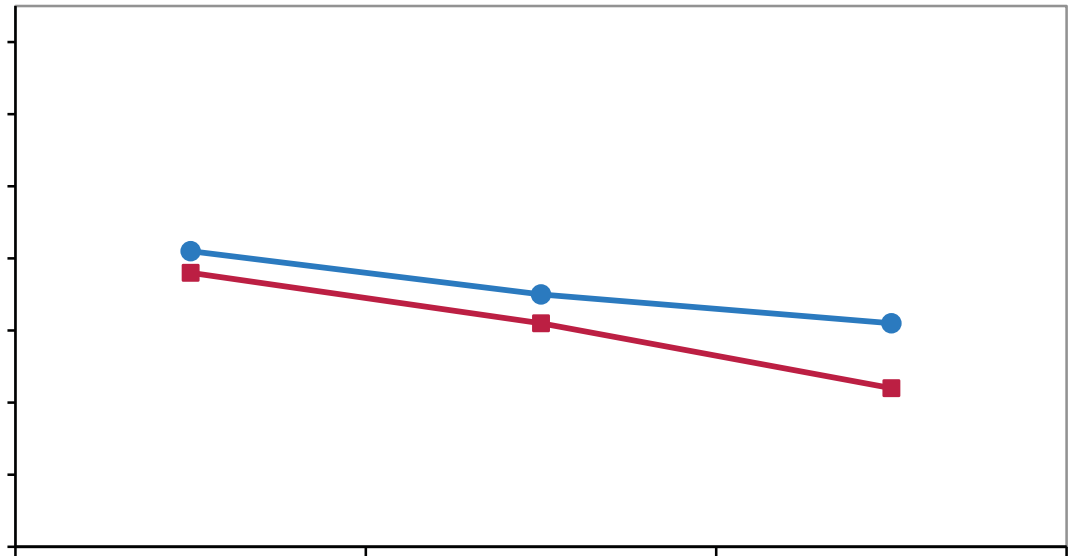
Figure 8.4 Percentage of Treatment Episodes with Meth Use Reported at Treatment Admission in Indiana, by Age Group (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Under 18	1.9%	2.9%	3.9%	3.8%	3.4%	7.0%	4.3%	2.8%
18 to 24	5.3%	6.4%	8.3%	8.9%	10.3%	12.4%	11.1%	8.1%
25 to 34	5.1%	7.4%	9.6%	11.0%	12.9%	14.7%	13.7%	12.5%
35 to 44	3.5%	4.6%	6.4%	8.1%	8.4%	9.6%	10.9%	10.3%
45 to 54	1.9%	1.7%	3.1%	3.3%	4.3%	5.3%	5.3%	4.9%
55 and over	0.4%	0.9%	0.4%	0.9%	0.8%	0.8%	2.1%	2.5%

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 (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: Centers for Disease Control and Prevention, 2008

The Indiana State Epidemiology and Outcomes Workgroup (SEOW) conducted a statewide survey on substance use among adults in 2008. The results indicated that virtually all respondents (98.7%) believe that it is unacceptable for a person to use crystal meth, and 98.2% stated that people who use crystal meth once or twice a week are at great risk of harming themselves physically and in other ways (State Epidemiology and Outcomes Workgroup, 2008).

Youth Consumption Patterns

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 among Indiana high school students seemed to have dropped from 8.2% (95% CI: 6.5–10.3) in 2003 to 6.2% (95% CI: 4.7–8.2) in 2007, but the decrease was statistically not significant (see Figure 8.5) (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).

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

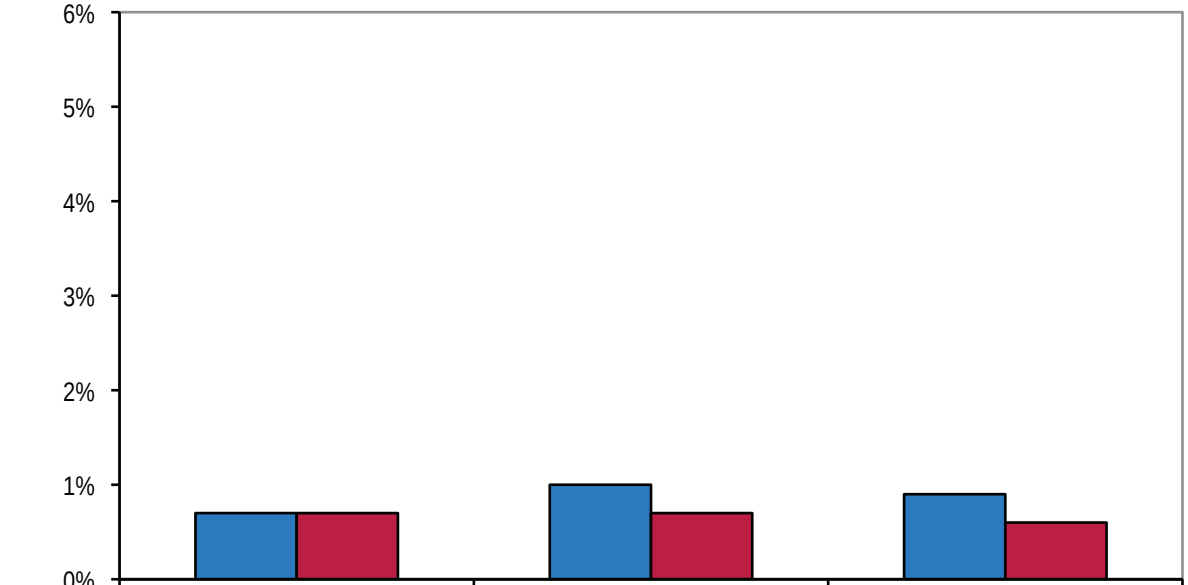
Gender	Year	Indiana	U.S.
Male	2005	7.9%	6.3%
	2007	4.6%	6.8%
Female	2005	6.1%	6.0%
	2007	4.1%	5.1%
Race	**Year**	**Indiana**	**U.S.**
Black	2005	3.7%	1.7%
	2007	1.9%	3.4%
White	2005	7.7%	6.5%
	2007	4.5%	5.9%
Other	2005	4.6%	6.4%
	2007	5.2%	11.1%
Grade	**Year**	**Indiana**	**U.S.**
9th	2005	5.7%	5.7%
	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%

Source: Centers for Disease Control and Prevention, 2008

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) survey, conducted among Indiana students in grades 6 through 12 by the Indiana Prevention Resource Center (Indiana Prevention Resource Center, 2009), and the Monitoring the Future (MTF) survey, administered nationally among 8th, 10th, and 12th graders (Inter-university Consortium for Political and Social Research, University of Michigan, n.d.). Comparable results for 2008 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; therefore, 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. However, 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 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2008)

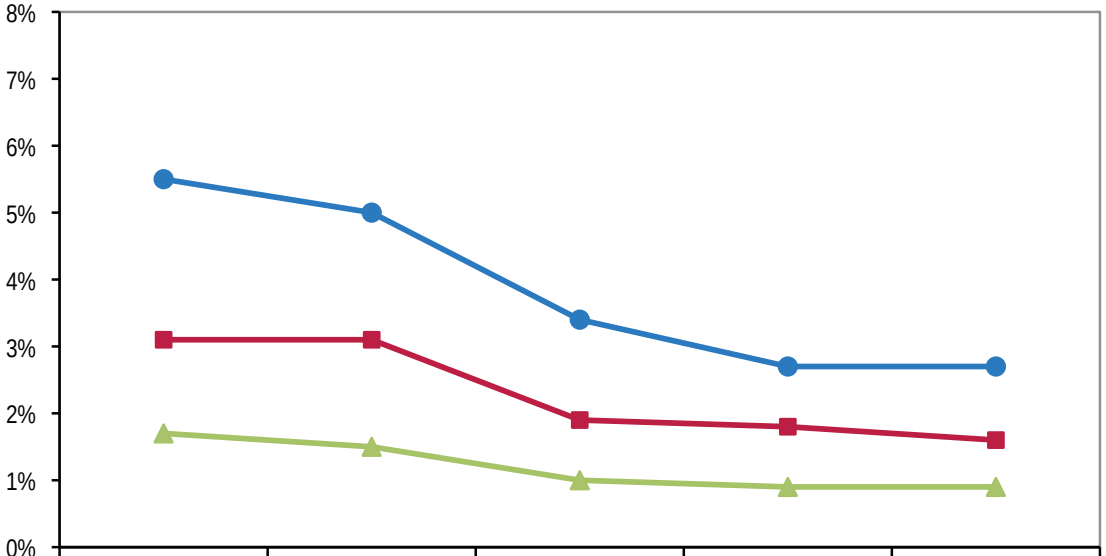


	8th	10th	12th
Indiana	0.7%	1.0%	0.9%
U.S.	0.7%	0.7%	0.6%

Source: Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

In Indiana, rates of meth use (lifetime, annual, and monthly) have remained stable from 2008 to 2009 (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 in Indiana, by region and grade, see Appendix 8B, page 139.

Figure 8.7 Percentage of Indiana 12th Grade Students Reporting Lifetime, Annual, and Monthly Methamphetamine Use (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2005–2009)



	2005	2006	2007	2008	2009
Lifetime	5.5%	5.0%	3.4%	2.7%	2.7%
Annual	3.1%	3.1%	1.9%	1.8%	1.6%
Monthly	1.7%	1.5%	1.0%	0.9%	0.9%

Source: Indiana Prevention Resource Center, 2009

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 (elevated body temperature), 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, 2008).

Meth labs and parental addiction pose serious risks to children due to the highly toxic fumes generated during production. Additionally, 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, and consumption can easily result in drug dependence.[1] TEDS data demonstrate that the percent of treatment admissions in which meth was 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).

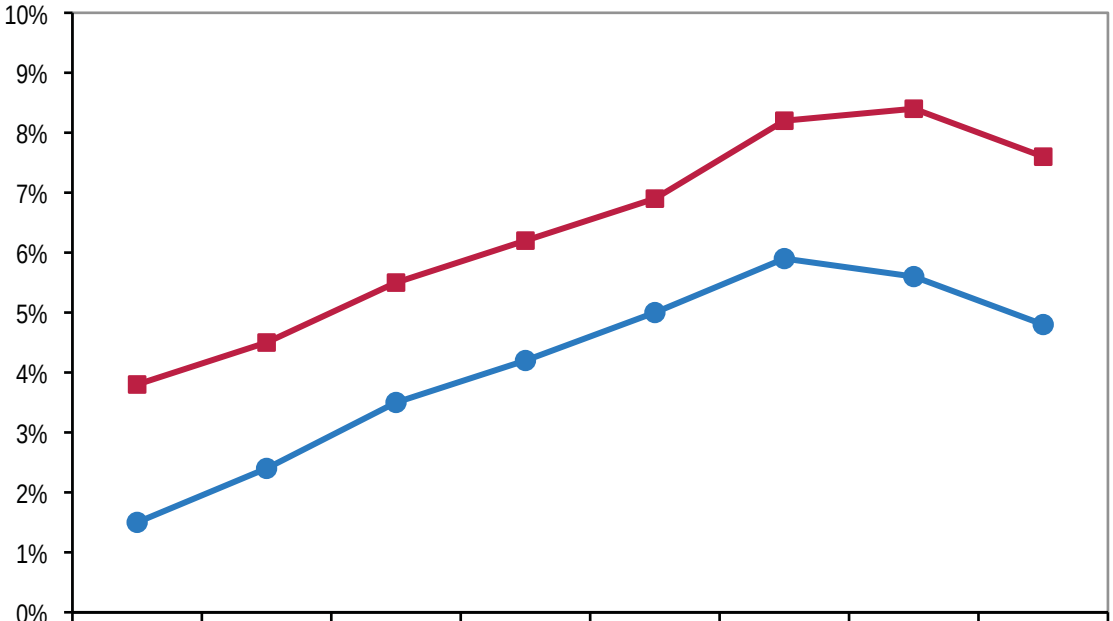
Between 2000 and 2007, the percentage of treatment admissions in Indiana in which meth was reported as the primary substance increased significantly from 1.5% to 4.8%, with its peak of 5.9% in 2005 (see Figure 8.8).

Reported methamphetamine dependence in Indiana's treatment population differed significantly by gender, race, and age group:

- More women (6.7%) than men (3.8%) listed meth as their primary drug at treatment admission ($P < 0.001$) (see Figure 8.9).
- The highest rate was found among the white treatment population (5.7%) and the lowest rate among the black treatment population (0.3%) ($P < 0.001$) (see Figure 8.10).
- Younger adults (18 to 44 years old) reported higher rates of meth dependence than older individuals; Hoosiers under the age of 18 had the lowest rates, at 0.6% ($P < 0.001$) (see Figure 8.11).

For county-level treatment data, see Appendix 8A, page 138.

Figure 8.8 Percentage of Treatment Episodes with Meth Dependence Reported at Treatment Admission in Indiana and the United States (Treatment Episode Data Set, 2000–2007)

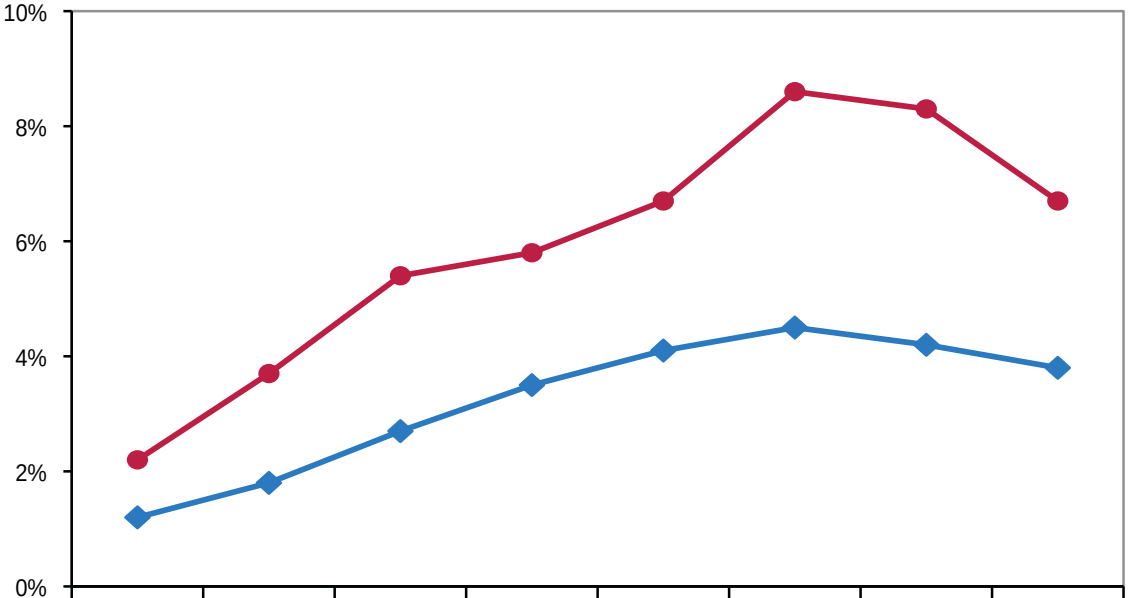


	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	1.5%	2.4%	3.5%	4.2%	5.0%	5.9%	5.6%	4.8%
U.S.	3.8%	4.5%	5.5%	6.2%	6.9%	8.2%	8.4%	7.6%

Source: Substance Abuse and Mental Health Data Archive, 2008

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

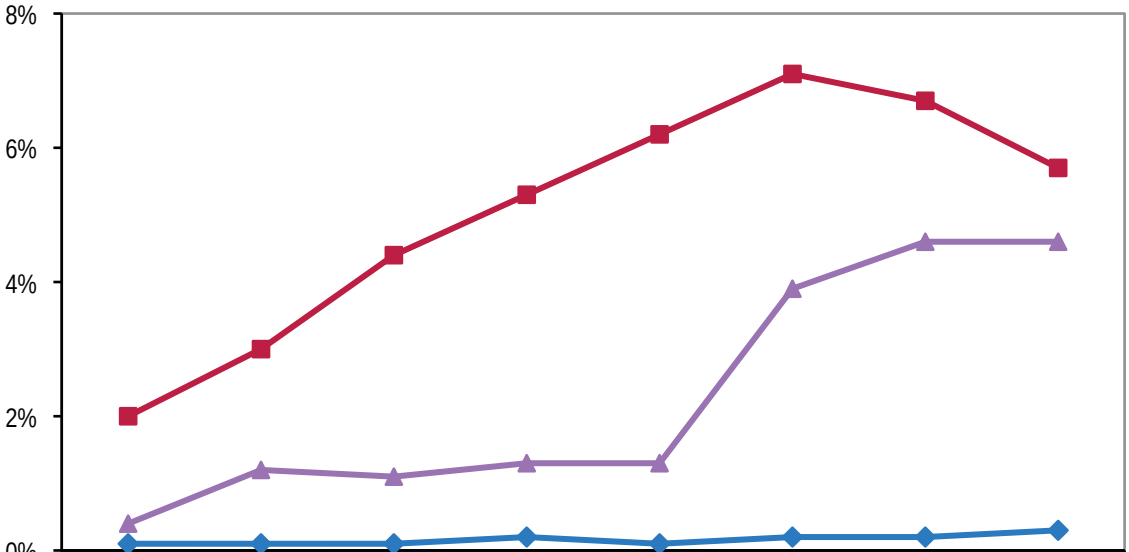
Figure 8.9 Percentage of Treatment Episodes with Meth Dependence Reported at Treatment Admission in Indiana, by Gender (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Male	1.2%	1.8%	2.7%	3.5%	4.1%	4.5%	4.2%	3.8%
Female	2.2%	3.7%	5.4%	5.8%	6.7%	8.6%	8.3%	6.7%

Source: Substance Abuse and Mental Health Data Archive, 2008

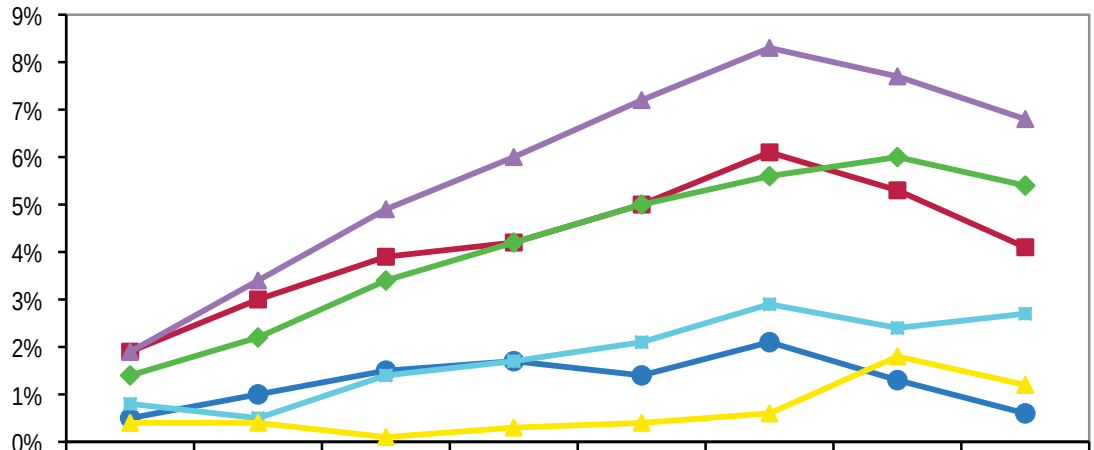
Figure 8.10 Percentage of Treatment Episodes with Meth Dependence Reported at Treatment Admission in Indiana, by Race (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Black	0.1%	0.1%	0.1%	0.2%	0.1%	0.2%	0.2%	0.3%
White	2.0%	3.0%	4.4%	5.3%	6.2%	7.1%	6.7%	5.7%
Other	0.4%	1.2%	1.1%	1.3%	1.3%	3.9%	4.6%	4.6%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 8.11 Percentage of Treatment Episodes with Meth Dependence Reported at Treatment Admission in Indiana, by Age (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Under 18	0.5%	1.0%	1.5%	1.7%	1.4%	2.1%	1.3%	0.6%
18 to 24	1.9%	3.0%	3.9%	4.2%	5.0%	6.1%	5.3%	4.1%
25 to 34	1.9%	3.4%	4.9%	6.0%	7.2%	8.3%	7.7%	6.8%
35 to 44	1.4%	2.2%	3.4%	4.2%	5.0%	5.6%	6.0%	5.4%
45 to 54	0.8%	0.5%	1.4%	1.7%	2.1%	2.9%	2.4%	2.7%
55 and over	0.4%	0.4%	0.1%	0.3%	0.4%	0.6%	1.8%	1.2%

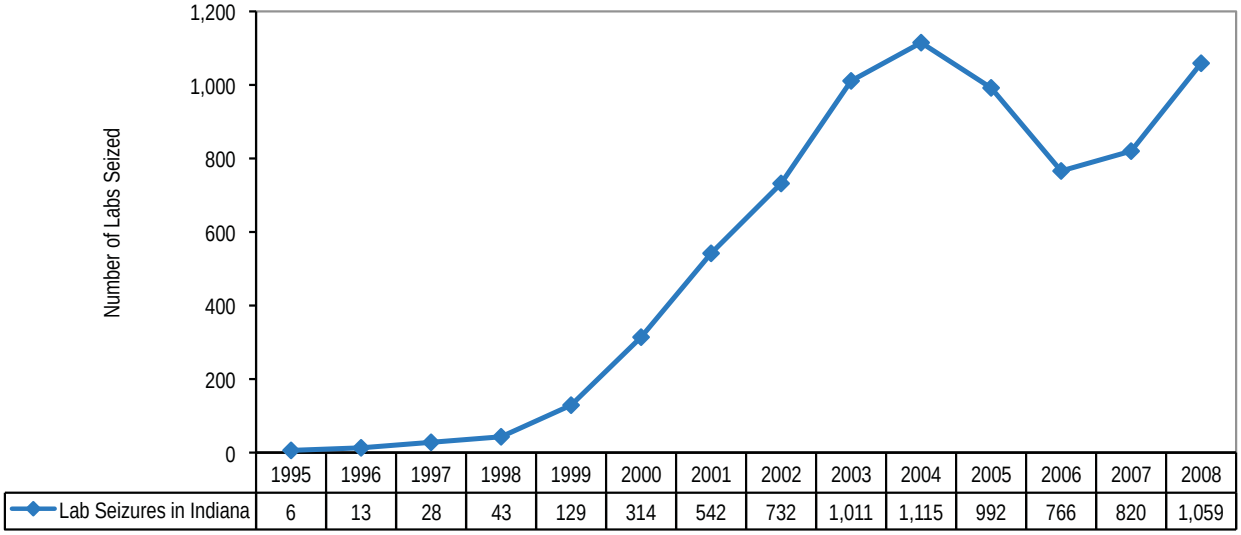
Source: Substance Abuse and Mental Health Data Archive, 2008

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 2008, 9.7 kg (21.4 pounds) of meth were seized in the state (in 2007, roughly 13 kg, or almost 29 pounds, of methamphetamine were seized). Meth labs in Indiana are typically "small, toxic laboratories, usually constructed in barns or residential homes," that produce higher purity (30% to 80%) meth, but do not generate large quantities for distribution, (U.S. Drug Enforcement Administration, 2009).

From January 1 to July 31, 2009, the Indiana State Police (ISP) seized 794 clandestine methamphetamine labs and made 558 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 2008 (Indiana State Police, 2009). Map 8.1 (page 142) shows the number of meth labs seized by ISP in each county in 2008.

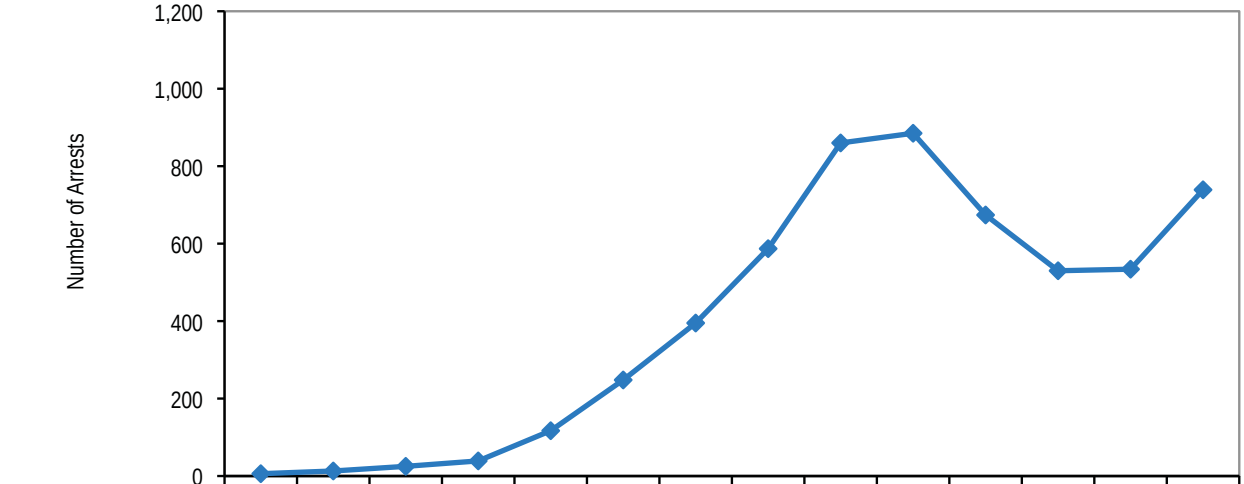
Figure 8.12 Number of Clandestine Methamphetamine Labs Seized in Indiana by the Indiana State Police (Indiana Meth Lab Statistics, 1995–2008)



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Lab Seizures in Indiana	6	13	28	43	129	314	542	732	1,011	1,115	992	766	820	1,059

Source: Indiana State Police, 2009

Figure 8.13 Number of Arrests Made at Methamphetamine Labs in Indiana by the Indiana State Police (Indiana Meth Lab Statistics, 1995–2008)



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Number of Arrests	6	13	25	39	117	248	395	587	860	885	674	530	534	739

Source: Indiana State Police, 2009

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 2007 results, over 1,500 Hoosiers were arrested for possession of synthetic drugs. This represents an arrest rate of 0.24 (95% CI: 0.22–0.26) per 1,000 population, which is statistically higher than the nation's, at 0.18 (95% CI: 0.18–0.18). Additionally, 649 arrests were made in Indiana for the sale and manufacture of synthetic drugs; Indiana's arrest rate of 0.10 (95% CI: 0.08–0.12) per 1,000 population was statistically significantly higher than the U.S. rate of 0.07 (95% CI: 0.07–0.07) per 1,000 population (see Figures 8.14 and 8.15).

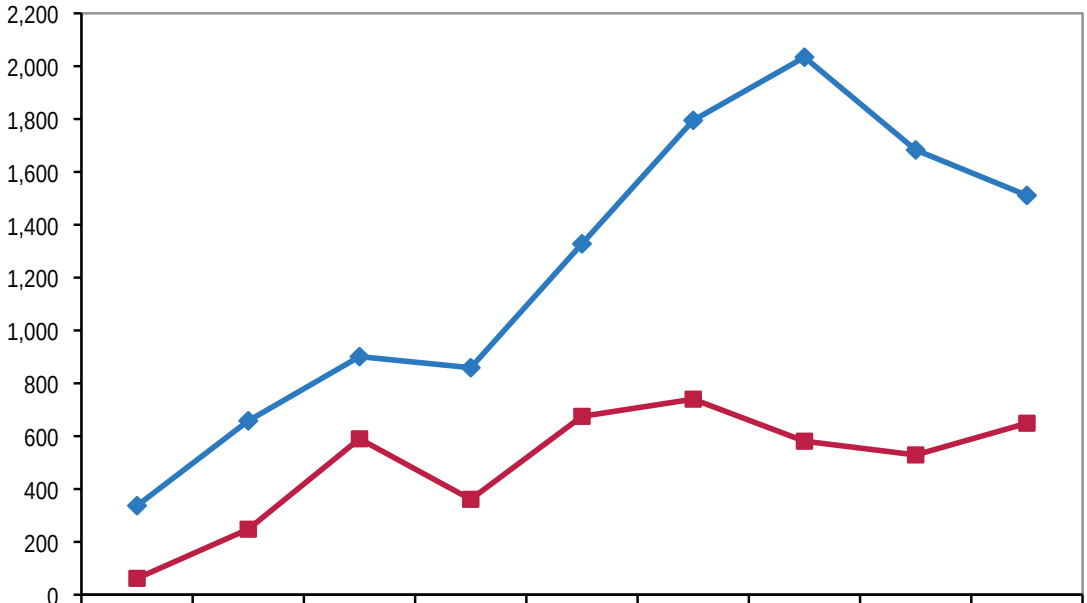
Maps 8.2 and 8.3 (pages 143 and 144), and Appendix 8C (pages 140–141) show arrest data for synthetic drug possession and sale/manufacture by county. Caution should be exercised when interpreting these data due to variations in reporting procedures and a lack of data to identify meth-specific arrests. In Indiana, reporting by county and local law enforcement jurisdictions is sometimes incomplete; therefore, a portion of these data are based on estimates.

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 148 in 2008 (see Figure 8.16) (Indiana State Police, 2009).

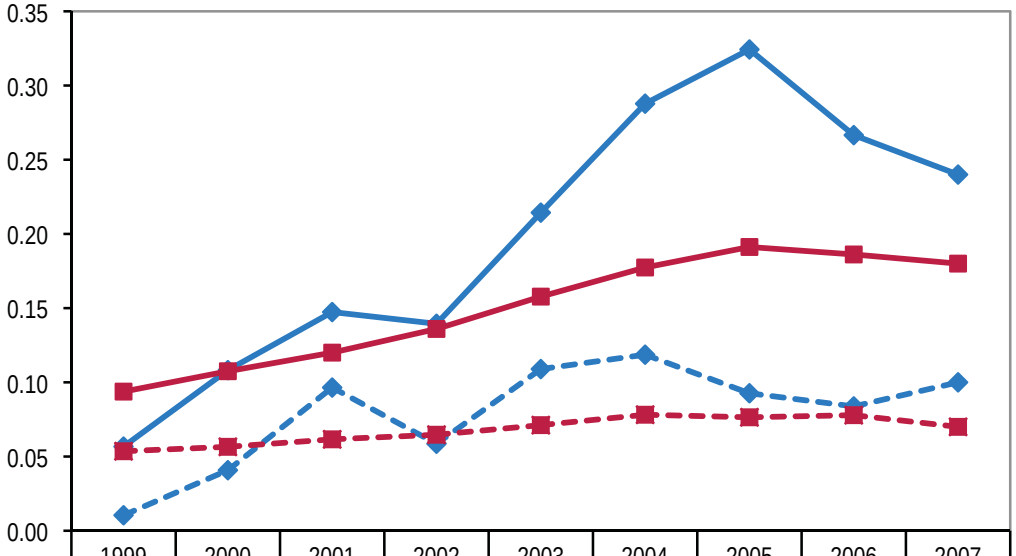
Figure 8.14 Number of Arrests for Synthetic Drug Possession and Sale/Manufacture in Indiana (Uniform Crime Reporting Program, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Possession	337	658	901	859	1,328	1,795	2,034	1,683	1,511
Sale	62	248	590	361	675	740	581	529	649

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

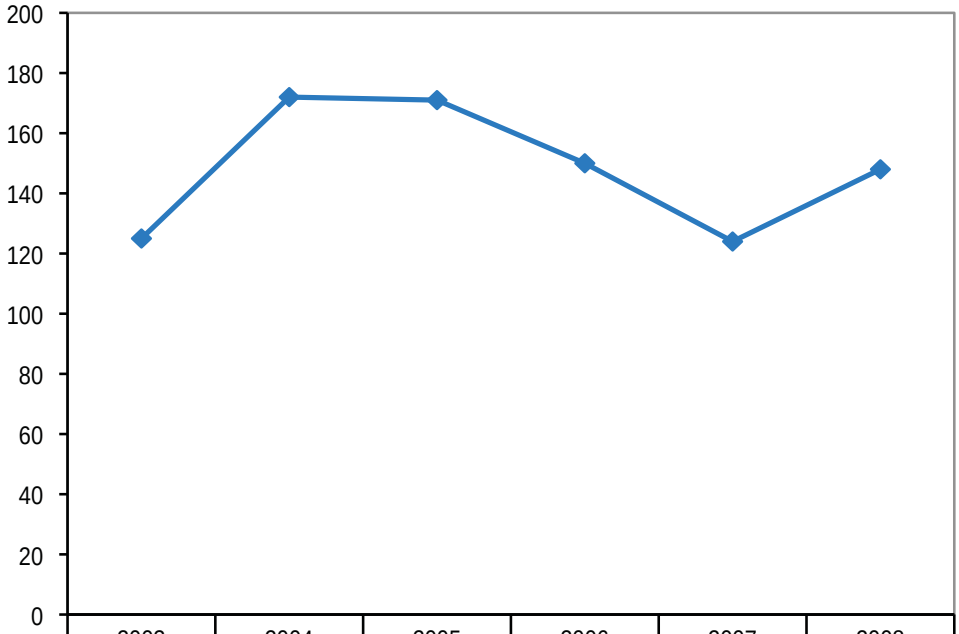
Figure 8.15 Arrest Rates for Synthetic Drug Possession and Sale/Manufacture per 1,000 Population, Indiana and United States (Uniform Crime Reporting Program, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
IN Possession	0.06	0.11 0	.15	0.14	0.21	0.29	0.32	0.27	0.24
U.S. Possession	0.09	0.11 0	.12	0.14	0.16	0.18	0.19	0.19	0.18
IN Sale	0.01	0.04	0.10 0	.06	0.11 0	.12	0.09	0.08	0.10
U.S. Sale	0.05	0.06	0.06 0	.06	0.07	0.08	0.08	0.08	0.07

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 (Indiana Meth Lab Statistics, 2003–2008)



	2003	2004	2005	2006	2007	2008
Number of Children	125	172	171	150	124	148

Source: Indiana State Police, 2009

APPENDIX 8A

Number of Treatment Episodes with Methamphetamine Use and Dependence Reported at Treatment Admission in Indiana, by County (Substance Abuse Population by County/Treatment Episode Data Set, 2008)

County	Meth Use	Meth Dependence	County	Meth Use	Meth Dependence
Adams	1	0	Madison	20	5
Allen	22	9	Marion	86	45
Bartholomew	122	78	Marshall	29	17
Benton	1	0	Martin	14	5
Blackford	1	1	Miami	31	21
Boone	11	5	Monroe	48	32
Brown	11	8	Montgomery	47	23
Carroll	14	10	Morgan	71	51
Cass	10	4	Newton	0	0
Clark	40	27	Noble	88	57
Clay	49	23	Ohio	0	0
Clinton	5	1	Orange	13	6
Crawford	11	5	Owen	40	17
Daviess	54	26	Parke	23	16
Dearborn	7	2	Perry	27	12
Decatur	15	6	Pike	7	5
DeKalb	20	14	Porter	10	5
Delaware	13	3	Posey	45	16
Dubois	42	18	Pulaski	5	1
Elkhart	50	29	Putnam	27	18
Fayette	0	0	Randolph	2	2
Floyd	13	3	Ripley	5	2
Fountain	9	3	Rush	4	4
Franklin	3	2	St. Joseph	26	11
Fulton	18	12	Scott	23	13
Gibson	38	24	Shelby	11	4
Grant	2	0	Spencer	25	13
Greene	25	17	Starke	20	14
Hamilton	12	1	Steuben	7	3
Hancock	1	0	Sullivan	38	22
Harrison	15	9	Switzerland	1	1
Hendricks	24	14	Tippecanoe	77	41
Henry	4	0	Tipton	2	0
Howard	37	17	Union	0	0
Huntington	0	0	Vanderburgh	378	184
Jackson	44	22	Vermillion	17	6
Jasper	3	0	Vigo	228	138
Jay	5	0	Wabash	8	2
Jefferson	19	11	Warren	2	1
Jennings	31	10	Warrick	77	35
Johnson	18	7	Washington	5	3
Knox	92	47	Wayne	15	7
Kosciusko	16	11	Wells	3	1
LaGrange	36	24	White	18	7
Lake	6	1	Whitley	4	3
LaPorte	5	3			
Lawrence	11	8	**Total**	**2,613**	**1,384**

Note: We defined methamphetamine dependence as “individuals in substance abuse treatment listing methamphetamine as their primary substance at admission.”
Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2009

APPENDIX 8B

Percentage of Indiana Students Reporting Lifetime, Annual, and Monthly Methamphetamine Use, by Region and Grade (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2009)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	0.4	0.6	0.3	0.1	0.4	0.3	0.5	0.3	0.5
	Annual	0.2	0.3	0.3	0.1	0.2	0.3	0.3	0.2	0.2
	Monthly	0.2	0.2	0.3	0.1	0.2	0.2	0.1	0.1	0.1
7th Grade	Lifetime	0.9	1.4	0.6	1.1	1.2	0.6	1.5	1.0	1.1
	Annual	0.7	1.2	0.3	0.8	1.0	0.4	1.2	0.7	0.8
	Monthly	0.5	0.8	0.2	0.5	0.6	0.3	0.6	0.5	0.4
8th Grade	Lifetime	1.5	1.6	1.5	1.4	1.5	1.4	2.1	1.2	1.7
	Annual	1.1	1.3	1.1	0.7	1.3	1.0	1.2	1.0	1.2
	Monthly	0.6	0.8	0.6	0.6	0.6	0.5	1.1	0.6	0.8
9th Grade	Lifetime	2.1	2.5	2.0	1.6	1.9	2.1	1.7	2.6	2.2
	Annual	1.4	1.6	1.3	0.9	1.1	1.6	1.4	1.8	1.3
	Monthly	0.8	0.9	0.8	0.6	0.5	1.0	0.6	1.1	0.7
10th Grade	Lifetime	2.3	2.8	2.1	1.4	2.3	2.1	3.0	2.5	2.7
	Annual	1.5	2.0	1.6	0.9	1.7	1.4	2.1	1.6	1.6
	Monthly	0.9	1.1	0.9	0.4	0.9	0.8	1.2	1.0	0.8
11th Grade	Lifetime	2.6	2.2	3.2	2.4	3.0	2.5	2.5	2.2	3.4
	Annual	1.6	1.4	2.3	1.6	1.6	1.4	1.9	1.3	2.3
	Monthly	0.9	1.0	1.3	0.8	0.8	0.9	1.0	0.7	0.9
12th Grade	Lifetime	2.7	2.1	2.6	1.7	3.2	2.5	2.4	3.1	3.4
	Annual	1.6	1.6	1.5	0.9	2.1	1.4	1.0	1.8	1.9
	Monthly	0.9	1.0	0.7	0.4	1.6	0.7	0.4	1.1	1.2

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, 2009

APPENDIX 8C

Number and Rate, per 1,000 Population, of Arrests for Synthetic Drug Possession and Sale/Manufacture in Indiana by County (Uniform Crime Reporting Program, 2007)

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Adams	6	*0.18	4	*0.12
Allen	1	*0.00	1	*0.00
Bartholomew	104	1.40	31	0.42
Benton	2	*0.22	1	*0.11
Blackford	11	*0.82	2	*0.15
Boone	6	*0.11	1	*0.02
Brown	5	*0.33	5	*0.33
Carroll	13	*0.63	6	*0.29
Cass	3	*0.08	0	*0.00
Clark	41	0.39	21	0.20
Clay	15	*0.55	2	*0.07
Clinton	5	*0.15	4	*0.12
Crawford	3	*0.27	2	*0.18
Daviess	21	0.69	22	0.73
Dearborn	12	*0.24	8	*0.16
Decatur	14	*0.56	3	*0.12
DeKalb	9	*0.21	5	*0.12
Delaware	37	0.32	1	*0.01
Dubois	21	0.51	4	*0.10
Elkhart	25	0.12	10	*0.05
Fayette	4	*0.16	3	*0.12
Floyd	12	*0.16	0	*0.00
Fountain	4	*0.23	4	*0.23
Franklin	3	*0.14	2	*0.09
Fulton	7	*0.34	3	*0.15
Gibson	17	*0.51	5	*0.15
Grant	52	0.75	20	0.29
Greene	6	*0.18	1	*0.03
Hamilton	74	0.28	8	*0.03
Hancock	27	0.41	5	*0.08
Harrison	8	*0.21	4	*0.11
Hendricks	40	0.30	9	*0.07
Henry	7	*0.15	2	*0.04
Howard	2	*0.02	3	*0.04
Huntington	0	*0.00	5	*0.13
Jackson	25	0.59	7	*0.16
Jasper	4	*0.12	4	*0.12
Jay	5	*0.23	3	*0.14
Jefferson	11	*0.34	5	*0.15
Jennings	0	*0.00	7	*0.24
Johnson	4	*0.03	1	*0.01
Knox	4	*0.11	16	*0.42
Kosciusko	17	*0.22	16	*0.21
LaGrange	0	*0.00	0	*0.00
Lake	53	0.11	10	*0.02
LaPorte	11	*0.10	4	*0.04
Lawrence	22	0.47	4	*0.09
Madison	30	0.23	9	*0.07
Marion	11	*0.01	61	0.07

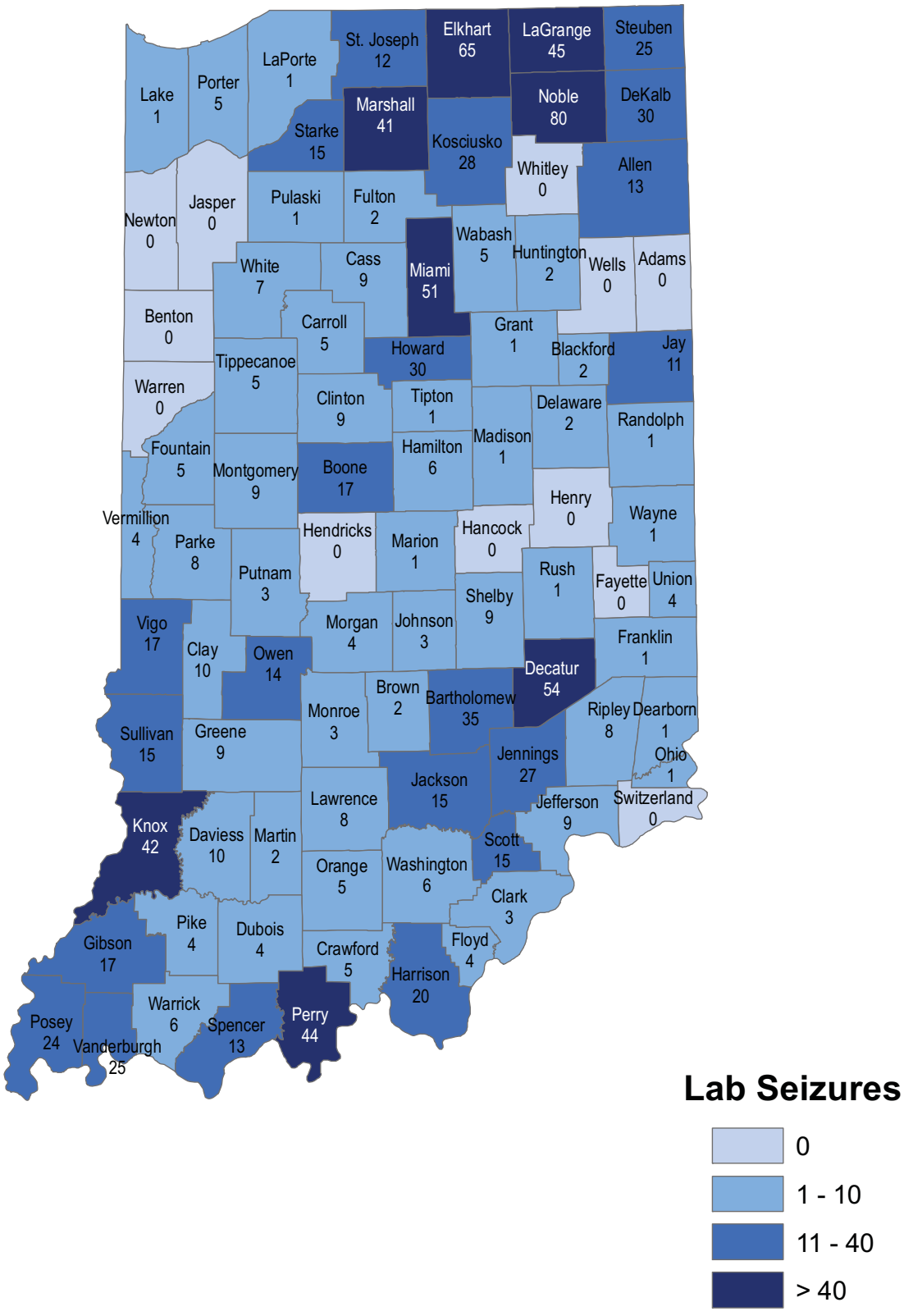
(continued on next page)

APPENDIX 8C *(Continued from previous page)*

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Marshall	26	0.55	6	*0.13
Martin	5	*0.48	2	*0.19
Miami	12	*0.34	6	*0.17
Monroe	13	*0.11	0	*0.00
Montgomery	7	*0.18	5	*0.13
Morgan	7	*0.10	4	*0.06
Newton	1	*0.07	4	*0.28
Noble	23	0.48	8	*0.17
Ohio	1	*0.17	1	*0.17
Orange	6	*0.30	4	*0.20
Owen	4	*0.18	2	*0.09
Parke	1	*0.06	1	*0.06
Perry	18	*0.96	2	*0.11
Pike	4	*0.31	2	*0.16
Porter	26	0.16	7	*0.04
Posey	6	*0.22	2	*0.07
Pulaski	4	*0.29	3	*0.22
Putnam	7	*0.19	17	*0.46
Randolph	3	*0.11	2	*0.08
Ripley	9	*0.31	5	*0.17
Rush	13	*0.74	4	*0.23
St. Joseph	24	0.09	4	*0.02
Scott	19	*0.80	6	*0.25
Shelby	16	*0.36	4	*0.09
Spencer	6	*0.29	4	*0.19
Starke	3	*0.13	2	*0.09
Steuben	1	*0.03	4	*0.12
Sullivan	3	*0.14	2	*0.09
Switzerland	3	*0.31	2	*0.20
Tippecanoe	125	0.80	22	0.14
Tipton	10	*0.61	0	*0.00
Union	0	*0.00	7	*0.96
Vanderburgh	94	0.54	73	0.42
Vermillion	3	*0.18	1	*0.06
Vigo	103	1.00	22	0.21
Wabash	9	*0.27	4	*0.12
Warren	3	*0.34	2	*0.23
Warrick	40	0.69	32	0.55
Washington	7	*0.25	4	*0.14
Wayne	19	*0.28	11	*0.16
Wells	5	*0.18	0	*0.00
White	2	*0.08	0	*0.00
Whitley	6	*0.18	2	*0.06
Indiana	**1,511**	**0.24**	**649**	**0.10**

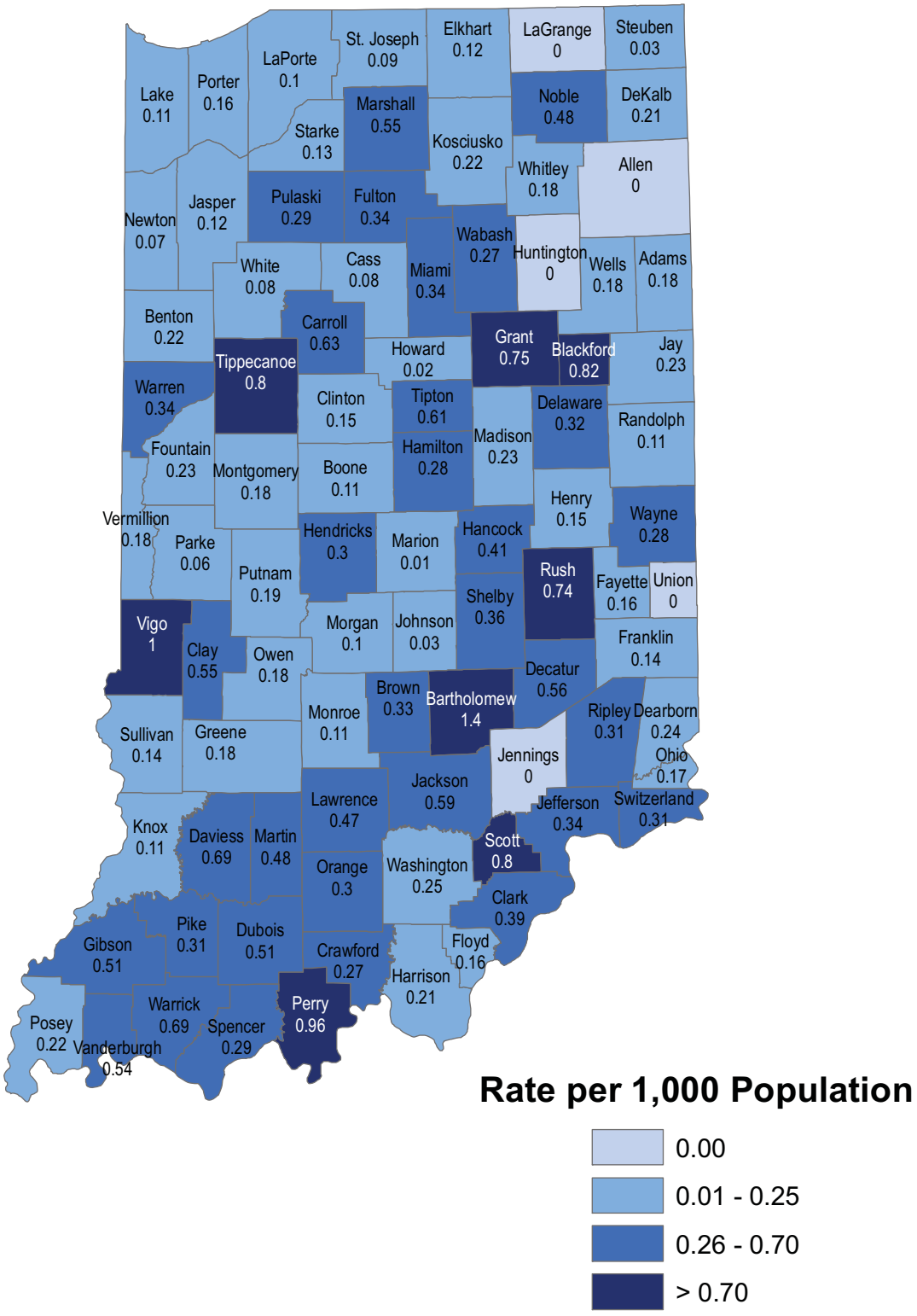
* Rates that are based on arrest numbers lower than 20 are unreliable.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 8.1 Number of Clandestine Methamphetamine Labs Seized by the Indiana State Police in Indiana, by County, (Indiana Lab Statistics, 2008)



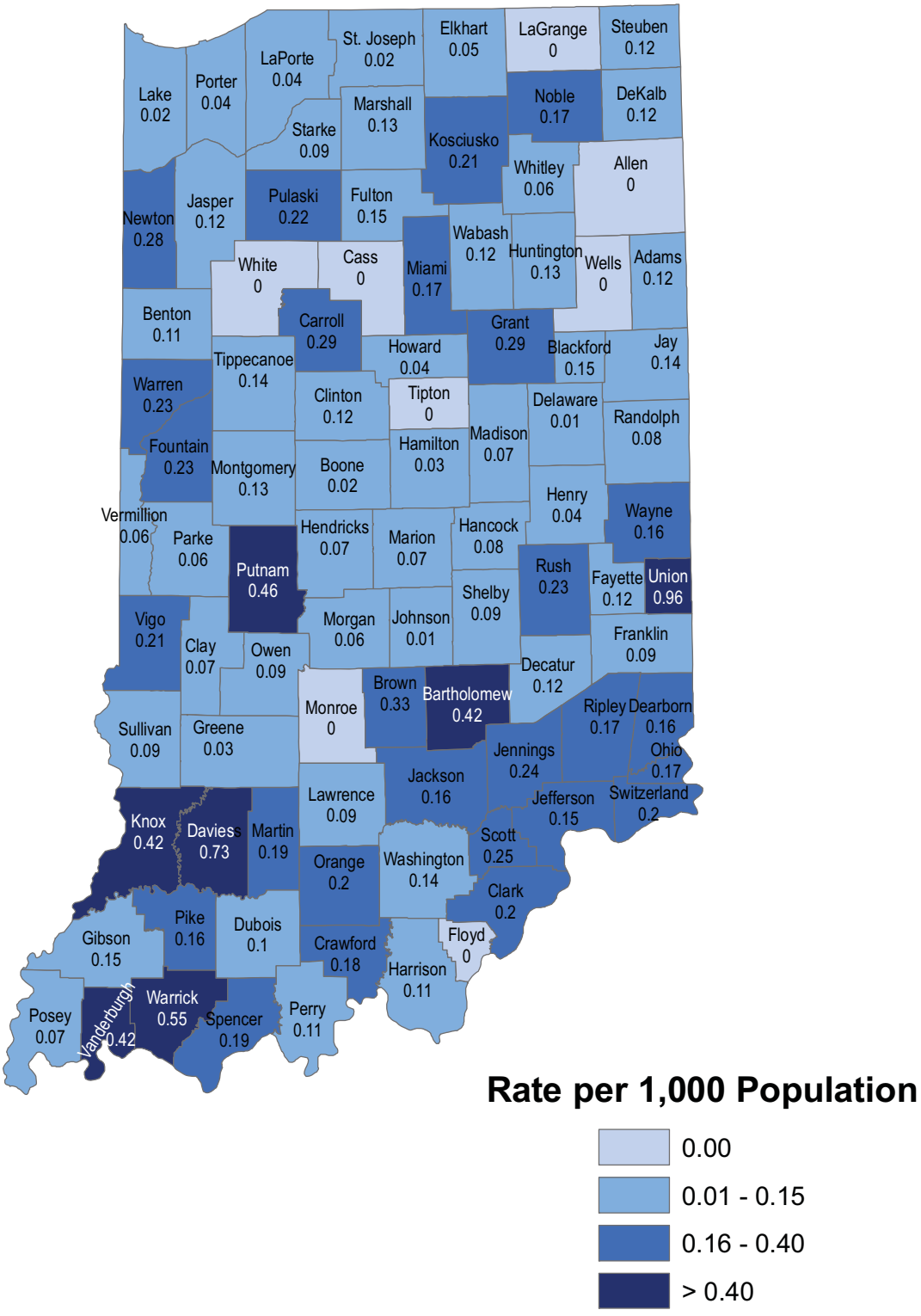
Source: Indiana State Police, 2009

Map 8.2 Arrest Rates for Synthetic Drug Possession, per 1,000 Population, by County (Uniform Crime Reporting Program, 2007)



Note: Rates that are based on arrest numbers lower than 20 are unreliable. Please refer to Appendix 8C (pages 140–141) 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 (Uniform Crime Reporting Program, 2007)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 8C (pages 140–141) 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

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 50.4 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 2007. In Indiana alone, over a million Hoosiers reported that they misused psychotherapeutics at least once in their life (20.7%)[1] (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2008). The National Institute on Drug Abuse (NIDA) 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 dextroamphetamine (Dexedrine and Adderall) and methylphenidate (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, n.d.).

Table 9.1 Lifetime, Past Year, and Current Nonmedical Use of Psychotherapeutics, Indiana[2] and United States[3] (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%	20.3%	7.6%	6.6%	2.7%	2.8%
Pain Relievers	15.0%	13.3%	6.1%	5.0%	2.0%	2.1%
OxyContin	2.5%	1.8%	0.8%	0.6%	0.3%	0.1%
Tranquilizers	9.1%	8.2%	2.8%	2.1%	0.8%	0.7%
Sedatives	3.9%	3.4%	0.4%	0.3%	0.1%	0.1%
Stimulants	8.3%	8.7%	1.7%	1.2%	0.8%	0.4%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.

Based on 2007 NSDUH results, a total of 6.22% (95% Confidence Interval [CI]: 5.20–7.43) of the Indiana population 12 and older (or 323,000 residents) reported nonmedical use of pain relievers in the past year (U.S.: 5.09); the difference between Indiana and the nation was statistically significant.

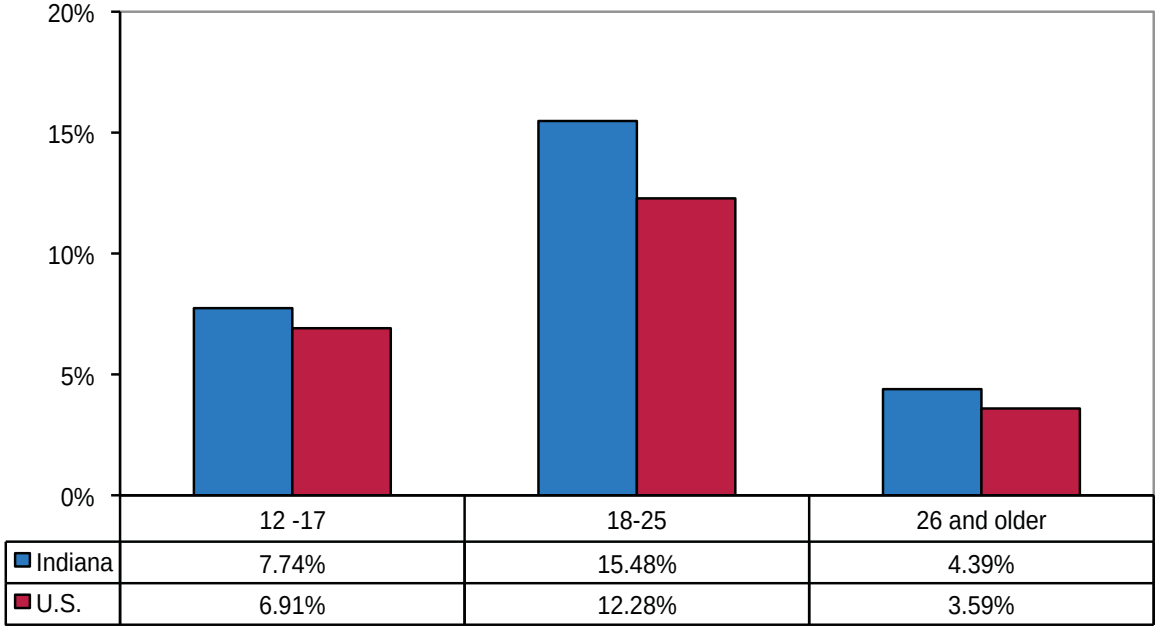
Furthermore, between January 1, 2007, and June 30, 2008, close to 63 million dosage units of oxycodone (pain reliever) were purchased by retail registrants (pharmacies, hospitals, and practitioners) in Indiana. This represents a per capita rate of 9.9 dosage units for the 18-month period (U.S. Drug Enforcement Administration, 2008). For information on per capita dosage units by county, see Map 9.1, page163.

[1]Indiana rates are based on annual NSDUH averages from 2002 through 2004.
[2]Indiana rates are based on annual NSDUH averages from 2002 through 2004.
[3]U.S. rates are based on 2007 NSDUH survey results.

Adult Consumption Patterns

According to 2007 NSDUH results, young people between the ages of 18 and 25 have the highest rate of prescription pain medication abuse. Indiana's past-year usage rate of 15.48% (95% CI: 13.12–18.17), or 107,000 residents, was statistically higher than the nation's rate (12.28%) (see Figure 9.1).

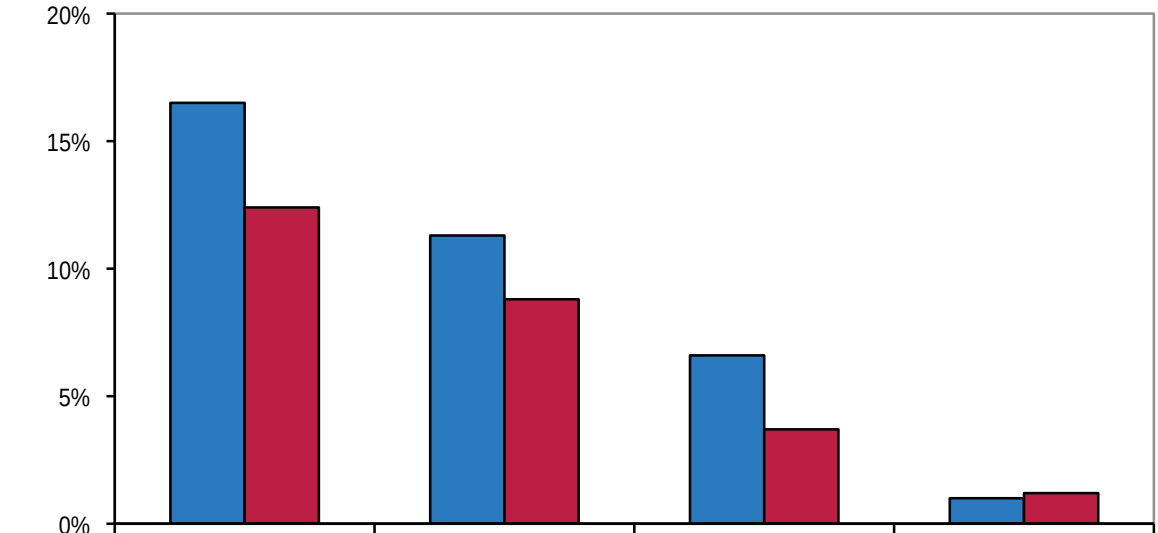
Figure 9.1 Prevalence of Past-Year Pain Reliever Use in Indiana and the United States, by Age Group (National Survey on Drug Use and Health, 2007)



	12 -17	18-25	26 and older
Indiana	7.74%	15.48%	4.39%
U.S.	6.91%	12.28%	3.59%

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, n.d.

Figure 9.2 Percentage of Indiana and U.S. Treatment Episodes with Nonmedical Prescription Drug Use Reported at Treatment Admission, by Drug Category (Treatment Episode Data Set, 2007)



	All Prescription Drugs	Pain Relievers	Sedatives & Tranquilizers	Stimulants
Indiana	16.5%	11.3%	6.6%	1.0%
U.S.	12.4%	8.8%	3.7%	1.2%

Source: Substance Abuse and Mental Health Data Archive, 2008

The State Epidemiology and Outcomes Workgroup survey (2008) collected information on the nonmedical use of prescription drugs among Hoosiers ages 18 and older. Lifetime prevalence for all prescription drug abuse was 4.6% and involved mostly abuse of pain pills (4.1%). We found significant differences in prevalence of nonmedical prescription drug use by gender, race, and age group (see Table 9.2). Furthermore, 97.1% of survey respondents found it unacceptable for people to use prescription drugs to get high, and 86.2% said that people put themselves at great risk when they misuse prescription pain pills to get high once or twice a week (State Epidemiology and Outcomes Workgroup, 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 in 2007 was 16.5% in Indiana, which was significantly higher than the nation's rate of 12.4%. A look at the individual drug types shows that Indiana's rates were significantly higher for pain relievers and CNS depressants, but not for stimulants (see Figure 9.2).

In Indiana, significant differences in reported prescription drug abuse were seen by gender, race, and age group (see Table 9.3):

- **Gender**—Women reported higher rates of use across all prescription drug categories.
- **Race**—Whites had the highest and blacks had the lowest rates across all prescription drug categories.
- **Age group**—Differences by age group were observed for all prescription drug categories.

Table 9.2 Prevalence Estimates for Nonmedical Use of Prescription Medication among Adults in Indiana (Indiana Household Survey on Substance Abuse, 2008)

		Lifetime Use	Past-Year Use	Past-Month Use
Gender	Male	6.6%	2.4%	1.2%
	Female	2.8%	0.4%	0.1%
Race	White	4.5%	1.2%	0.5%
	Black	4.0%	1.8%	1.4%
	Other	7.3%	3.9%	2.2%
Age Group	18-25	12.5%	6.1%	2.8%
	26-34	5.9%	1.8%	1.0%
	35-44	3.8%	0.9%	0.5%
	45-54	3.6%	0.3%	0.0%
	55-64	3.1%	0.1%	0.1%
	65+	0.6%	0.0%	0.0%
Total		**4.6%**	**1.4%**	**0.7%**

Source: State Epidemiology and Outcomes Workgroup, 2008

Table 9.3 Percentage of Indiana and U.S. Treatment Episodes with Nonmedical Prescription Drug Use Reported at Treatment Admission, by Drug Category, Gender, Race, and Age Group (Treatment Episode Data Set, 2007)

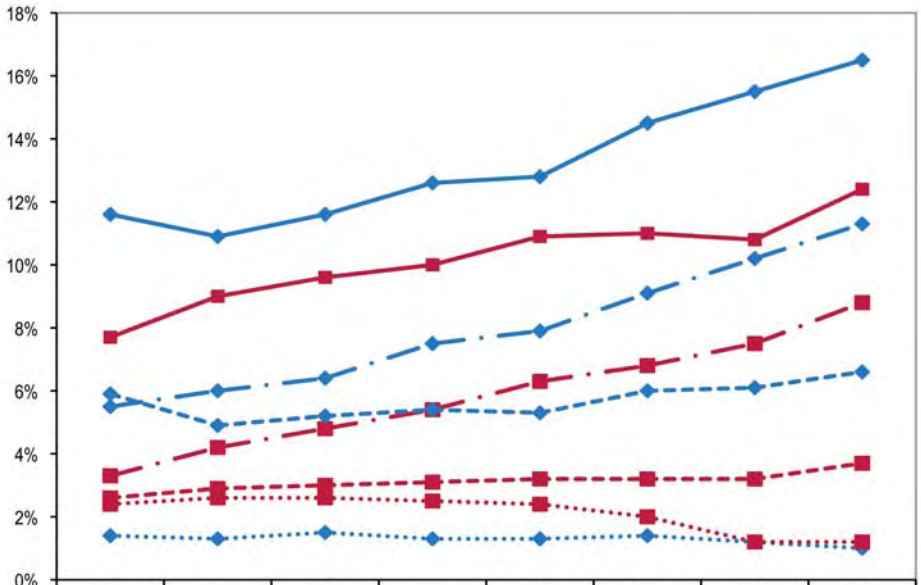
		All Prescription Drugs	Pain Relievers	Sedatives/Tranquilizers	Stimulants
Gender	Male	13.5%	9.2%	5.2%	0.8%
	Female	22.3%	15.3%	9.3%	1.4%
Race	White	19.4%	13.5%	7.7%	1.2%
	Black	3.7%	1.8%	1.6%	0.5%
	Other	11.0%	6.6%	4.6%	1.0%
Age Group	Under 18	12.3%	5.9%	7.4%	1.1%
	18 to 24	18.9%	12.2%	8.2%	1.1%
	25 to 34	20.4%	15.1%	7.2%	1.3%
	35 to 44	12.9%	8.6%	5.3%	0.9%
	45 to 54	11.0%	7.8%	4.5%	0.7%
	55 and over	11.6%	8.0%	4.6%	0.6%

Source: Substance Abuse and Mental Health Data Archive, 2008

[4]We used TEDS variables "nonprescription methadone" and "other opiates/synthetics" to define pain reliever use.
[5]We used TEDS variables "benzodiazepines", "other tranquilizers", "barbiturates", and "other sedatives/hypnotics" to define CNS depressant use.
[6]We used TEDS variables "other amphetamines" and "other stimulants" to define stimulant use.

A review of TEDS data from 2000 through 2007 shows that rates for use of certain nonmedical prescription drugs have increased significantly in both Indiana and the nation; this trend includes pain reliever and sedative/tranquilizer use. However, the pattern was different for stimulant use, rates of which decreased for the years reviewed ($P < 0.001$) (see Figure 9.3). For county-level information, see Appendix 9A, pages 156-157.

Figure 9.3 Percentage of Indiana and U.S. Treatment Episodes with Nonmedical Prescription Drug Use Reported at Treatment Admission, by Drug Category (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
IN: Rx	11.6%	10.9%	11.6%	12.6%	12.8%	14.5%	15.5%	16.5%
US: Rx	7.7%	9.0%	9.6%	10.0%	10.9%	11.0%	10.8%	12.4%
IN: Pain Reliever	5.5%	6.0%	6.4%	7.5%	7.9%	9.1%	10.2%	11.3%
US: Pain Reliever	3.3%	4.2%	4.8%	5.4%	6.3%	6.8%	7.5%	8.8%
IN: Sedatives/Tranquilizers	5.9%	4.9%	5.2%	5.4%	5.3%	6.0%	6.1%	6.6%
US: Sedatives/Tranquilizers	2.6%	2.9%	3.0%	3.1%	3.2%	3.2%	3.2%	3.7%
IN: Stimulants	1.4%	1.3%	1.5%	1.3%	1.3%	1.4%	1.2%	1.0%
US: Stimulants	2.4%	2.6%	2.6%	2.5%	2.4%	2.0%	1.2%	1.2%

Source: Substance Abuse and Mental Health Data Archive, 2008

Youth Consumption Patterns

Estimates from the 2007 NSDUH state that 7.74% (95% CI: 6.29–9.77) of Indiana's young people between ages 12 and 17 (approximately 42,000 residents) used prescription pain medications for nonmedical purposes in the past year. The national rate of prescription drug abuse by 12- to 17-year-olds was similar at 6.91%.

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, they create a stimulating 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 2009 Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) survey, with a few exceptions, the nonmedical use of Ritalin® and Adderall® held steady compared to last year. However, lifetime, past-year, and past-month use of these drugs decreased among youth in Grade 9 (Indiana Prevention Resource Center, 2009).

Lifetime, past-year, and past-month use of non-prescribed narcotics (opioids) remained stable or decreased for students in all grades, as did nonmedical use of

tranquilizers (Indiana Prevention Resource Center, 2009).

For Indiana prevalence rates of lifetime, annual, and current nonmedical use of tranquilizers, narcotics, and Ritalin®/Adderall® among 12th grade students, see Table 9.4. (For regional prevalence rates, grades 6 through 12, see Appendix 9B, pages 158-160). The mean (average) age of first time use among Indiana's students was 14.1 years for Ritalin®/Adderall®, 13.5 years for tranquilizers, and 14.2 years for narcotics use (Indiana Prevention Resource Center, 2009).

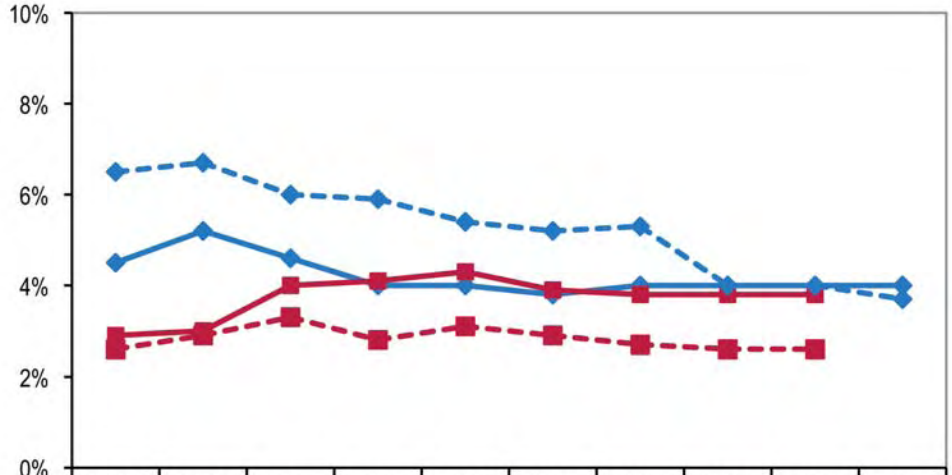
Table 9.4 Percentage of Indiana 12th Grade Students Reporting Lifetime, Annual, and Current Nonmedical Use of Tranquilizers, Narcotics, and Ritalin®/Adderall® (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2007–2009)

	Lifetime Use			Annual Use			Current Use		
	2007	2008	2009	2007	2008	2009	2007	2008	2009
Tranquilizer	12.9%	12.4%	12.0%	8.3%	7.9%	7.4%	4.0%	4.0%	3.7%
Narcotics	12.1%	12.4%	12.5%	7.6%	8.1%	7.8%	3.8%	4.0%	4.0%
Ritalin®/Adderall®	11.3%	11.8%	11.6%	7.0%	7.2%	7.0%	2.9%	3.3%	3.1%

Source: Indiana Prevention Resource Center, 2009

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 2008, 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, 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 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2000–2009, and Monitoring the Future Survey, 2000–2008)

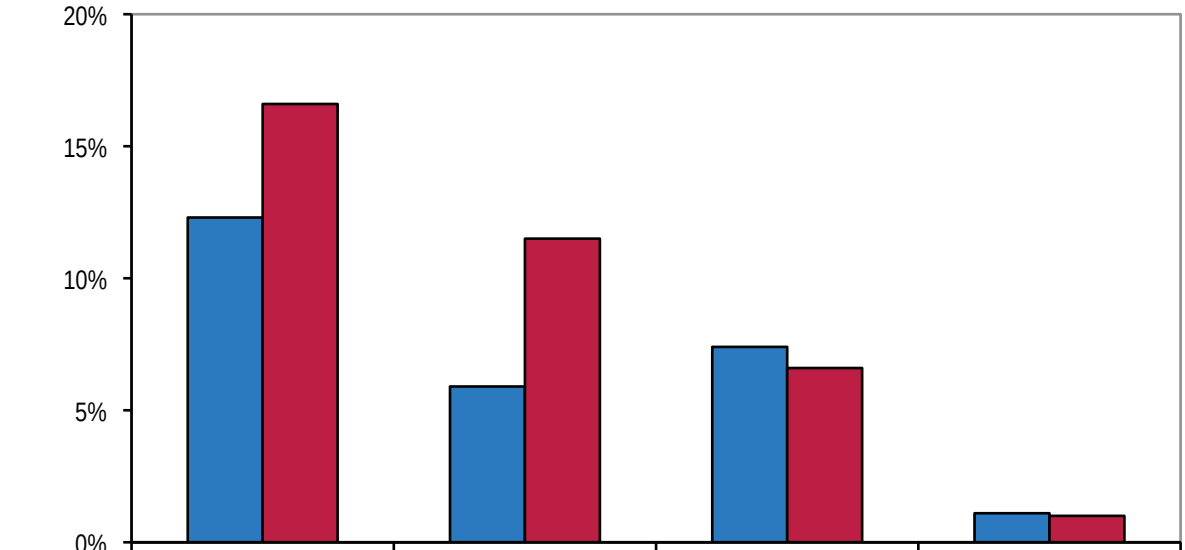


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Indiana Narcotics	4.5%	5.2%	4.6%	4.0%	4.0%	3.8%	4.0%	4.0%	4.0%	4.0%
U.S. Narcotics	2.9%	3.0%	4.0%	4.1%	4.3%	3.9%	3.8%	3.8%	3.8%	
Indiana Tranquilizer	6.5%	6.7%	6.0%	5.9%	5.4%	5.2%	5.3%	4.0%	4.0%	3.7%
U.S. Tranquilizer	2.6%	2.9%	3.3%	2.8%	3.1%	2.9%	2.7%	2.6%	2.6%	

Note: Information for 2009 is not available yet at the national level.
Source: Indiana Prevention Resource Center, 2009; Inter-university Consortium for Political and Social Research, University of Michigan., n.d.

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 used significantly less pain relievers than their older counterparts. However, rates for sedative/tranquilizer and stimulant use were similar between the two groups (see Figure 9.5).

Figure 9.5 Percentage of Treatment Episodes with Nonmedical Prescription Drug Use Reported at Treatment Admission in Indiana, by Drug Category and Underage Status (Treatment Episode Data Set, 2007)



	All Prescription Drugs	Pain Relievers	Sedatives & Tranquilizers	Stimulants
Under 18	12.3%	5.9%	7.4%	1.1%
Over 18	16.6%	11.5%	6.6%	1.0%

Source: Substance Abuse and Mental Health Data Archive, 2008

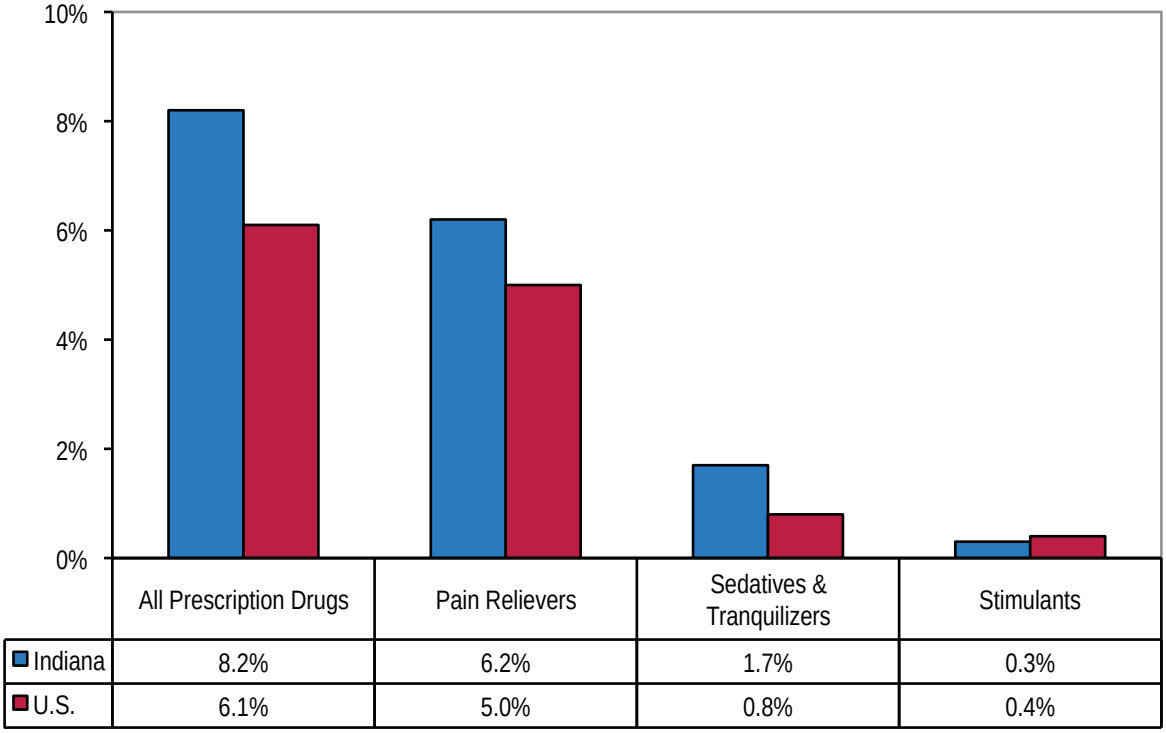
PRESCRIPTION DRUG ABUSE CONSEQUENCES

Prescription Drug Dependence[7]

The most common consequences of prescription drug abuse are addiction and/or dependence. 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 2007, overall prescription drug dependence was significantly higher in Indiana than the United States: The percentage of treatment episodes with reported pain reliever and sedative/tranquilizer dependence was significantly higher for Indiana, while the percentage with reported stimulant dependence was greater for the nation (see Figure 9.6).

[7]We defined prescription drug dependence as "individuals in substance abuse treatment listing prescription drugs as their primary substance at admission."

Figure 9.6 Percentage of Indiana and U.S. Treatment Episodes with Nonmedical Prescription Drug Dependence Reported at Treatment Admission, by Drug Category (Treatment Episode Data Set, 2007)



	All Prescription Drugs	Pain Relievers	Sedatives & Tranquilizers	Stimulants
Indiana	8.2%	6.2%	1.7%	0.3%
U.S.	6.1%	5.0%	0.8%	0.4%

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 prescription drug categories.
- **Race** — Blacks had the lowest rates across all prescription drug categories; whites had the highest rates, except for stimulant dependence where "other races" claimed the highest rate.
- **Age group** — Significant differences by age category were only found for overall prescription drug dependence and pain reliever dependence (see Table 9.5). For county-level information, see Appendix 9A, pages 156-157.

Table 9.5 Percentage of Treatment Episodes with Prescription Drug Dependence Reported at Treatment Admission in Indiana, by Drug Category, Gender, Race, and Age Group (Treatment Episode Data Set, 2007)

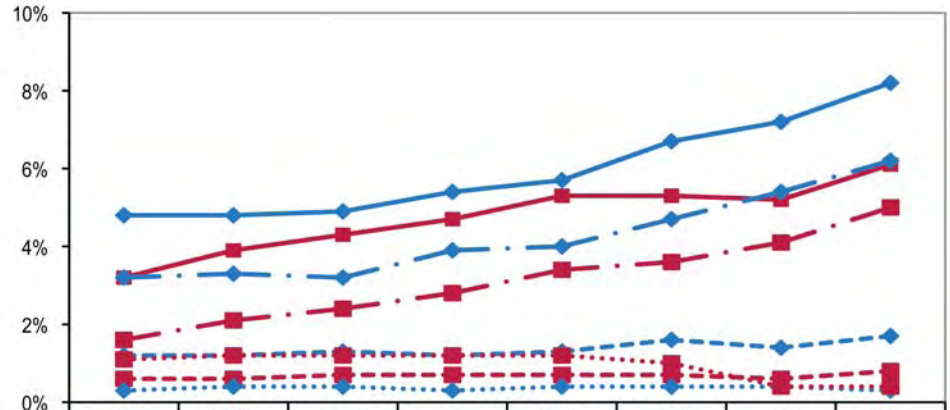
		All Prescription Drugs	Pain Relievers	Sedatives/Tranquilizers	Stimulants
Gender	Male	5.9%	4.7%	1.0%	0.2%
	Female	12.6%	9.1%	2.9%	0.5%
Race	White	9.9%	7.6%	2.0%	0.3%
	Black	1.0%	0.6%	0.3%	0.1%
	Other	4.2%	2.6%	1.0%	0.6%
Age Group	Under 18	3.6%	1.7%	1.7%	0.3%
	18 to 24	8.4%	6.2%	1.9%	0.3%
	25 to 34	11.2%	9.3%	1.6%	0.3%
	35 to 44	6.6%	4.7%	1.6%	0.4%
	45 to 54	5.2%	3.7%	1.3%	0.2%
	55 and over	6.5%	4.6%	1.8%	0.1%

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 (3.6% and 8.3% respectively). This holds true for pain reliever dependence as well (1.7% and 6.4%). However, both groups (under 18 and over 18 years) reported the same rates for dependence of sedatives/tranquilizers (1.7%) and stimulants (0.3%).

A review of TEDS data from 2000 through 2007 reveals that dependence on all prescription drugs increased significantly in Indiana and the United States. This holds true for pain relievers and sedatives/tranquilizers. Stimulant dependence, however, remained constant in Indiana and decreased in the nation (see Figure 9.7).

Figure 9.7 Percentage of Indiana and U.S. Treatment Episodes with Prescription Drug Dependence Reported at Treatment Admission, by Drug Category (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
IN: Rx	4.8%	4.8%	4.9%	5.4%	5.7%	6.7%	7.2%	8.2%
U.S.: Rx	3.2%	3.9%	4.3%	4.7%	5.3%	5.3%	5.2%	6.1%
IN: Pain Reliever	3.2%	3.3%	3.2%	3.9%	4.0%	4.7%	5.4%	6.2%
U.S.: Pain Reliever	1.6%	2.1%	2.4%	2.8%	3.4%	3.6%	4.1%	5.0%
IN: Sedatives/Tranquilizers	1.2%	1.2%	1.3%	1.2%	1.3%	1.6%	1.4%	1.7%
U.S.: Sedatives/Tranquilizers	0.6%	0.6%	0.7%	0.7%	0.7%	0.7%	0.6%	0.8%
IN: Stimulants	0.3%	0.4%	0.4%	0.3%	0.4%	0.4%	0.4%	0.3%
U.S.: Stimulants	1.1%	1.2%	1.2%	1.2%	1.2%	1.0%	0.4%	0.4%

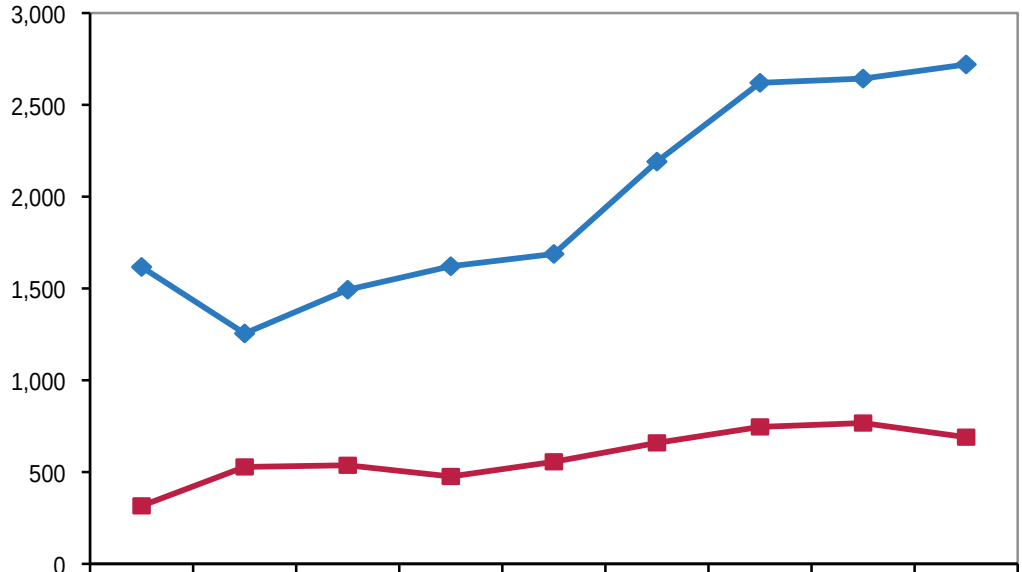
Source: Substance Abuse and Mental Health Data Archive, 2008

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 2007, over 2,700 arrests were made for possession and almost 700 arrests for sale/manufacture of “other drugs” in Indiana. This represents arrest rates of 0.43 (95% CI: 0.41–0.44) and 0.11 (95% CI: 0.10–0.12) per 1,000 population, respectively. The U.S. rates per 1,000 population were significantly higher, with 0.86 (95% CI: 0.86–0.86) for possession and 0.15 (95% CI: 0.15–0.15) 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 2007 is depicted on Maps 9.2 and 9.3, pages 164-165, and in Appendix 9C, pages 161-162.

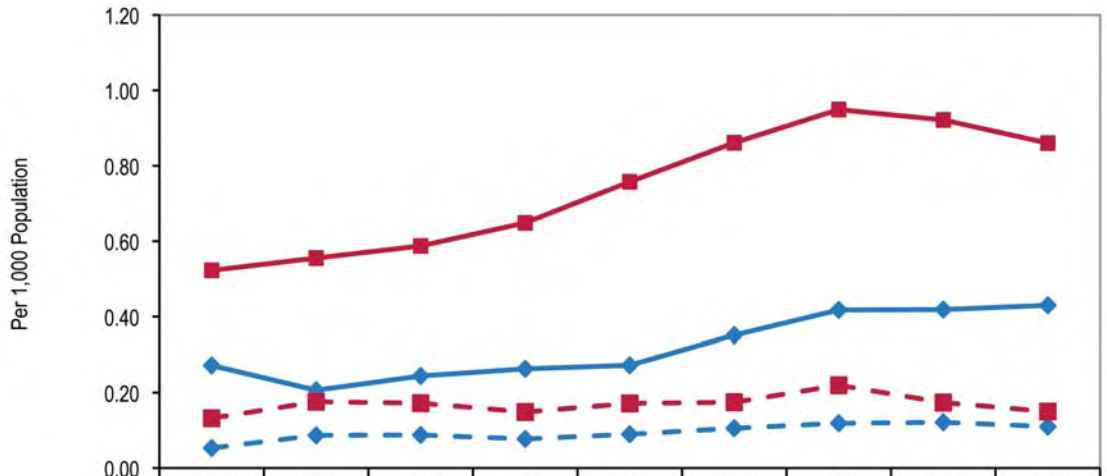
Figure 9.8 Number of Arrests for Possession and Sale/Manufacture of "Other Drugs" (Barbiturates and Benzedrine) in Indiana (Uniform Crime Reporting Program, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Possession	1,617	1,255	1,493	1,621	1,688	2,191	2,620	2,643	2,720
Sale	316	528	537	476	556	659	746	767	690

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 (Uniform Crime Reporting Program, 1999–2007)



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Indiana Possession	0.27	0.21	0.24	0.26	0.27	0.35	0.42	0.42	0.43
U.S. Possession	0.52	0.56	0.59	0.65	0.76	0.86	0.95	0.92	0.86
Indiana Sale	0.05	0.09	0.09	0.08	0.09	0.11	0.12	0.12	0.11
U.S. Sale	0.13	0.18	0.17	0.15	0.17	0.17	0.22	0.17	0.15

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 Treatment Episodes with Prescription Drug Abuse and Dependence Reported at Treatment Admission, by County and Drug Category (Substance Abuse Population by County/Treatment Episode Data Set, 2008)

County	Prescription Drug Abuse	Pain Reliever Abuse	Sedative & Tranquilizer Abuse	Stimulant Abuse	Prescription Drug Dependence	Pain Reliever Dependence	Sedative & Tranquilizer Dependence	Stimulant Dependence
Adams	8	8	1	0	5	5	0	0
Allen	72	49	21	11	30	23	4	3
Bartholomew	114	92	50	1	64	55	9	0
Benton	2	1	1	0	0	0	0	0
Blackford	19	17	6	1	13	12	0	1
Boone	24	21	2	2	12	12	0	0
Brown	14	13	6	0	8	8	0	0
Carroll	10	6	4	0	6	5	1	0
Cass	21	12	9	3	10	8	2	0
Clark	246	195	95	9	136	104	28	4
Clay	11	7	2	2	4	4	0	0
Clinton	12	9	3	1	3	3	0	0
Crawford	13	13	3	0	9	9	0	0
Daviess	44	31	22	0	14	12	2	0
Dearborn	52	43	14	2	34	29	5	0
Decatur	17	16	4	0	7	6	1	0
DeKalb	12	8	5	2	7	5	2	0
Delaware	225	171	90	4	113	102	11	0
Dubois	47	25	32	1	18	13	5	0
Elkhart	33	26	5	4	13	12	0	1
Fayette	24	22	9	0	16	15	1	0
Floyd	83	62	37	2	51	38	11	2
Fountain	17	12	11	0	11	9	2	0
Franklin	16	9	9	1	8	5	3	0
Fulton	22	8	13	3	5	3	1	1
Gibson	23	14	9	2	11	8	3	0
Grant	67	45	19	10	35	27	6	2
Greene	29	14	16	3	15	10	3	2
Hamilton	124	83	53	8	47	35	11	1
Hancock	31	17	17	0	19	13	6	0
Harrison	20	18	2	1	9	9	0	0
Hendricks	56	35	22	4	35	22	12	1
Henry	81	69	34	3	54	49	5	0
Howard	154	129	46	4	75	70	5	0
Huntington	13	10	3	1	9	8	1	0
Jackson	47	41	5	4	22	22	0	0
Jasper	13	6	6	1	2	1	1	0
Jay	22	16	7	4	10	6	3	1
Jefferson	60	44	22	1	41	35	6	0
Jennings	47	41	11	0	29	29	0	0
Johnson	81	56	32	4	40	32	5	3
Knox	54	37	28	2	32	20	10	2
Kosciusko	20	15	3	3	7	4	1	2
LaGrange	10	6	4	0	4	4	0	0

(continued on next page)

APPENDIX 9A *(Continued from previous page)*

County	Prescription Drug Abuse	Pain Reliever Abuse	Sedative & Tranquilizer Abuse	Stimulant Abuse	Prescription Drug Dependence	Pain Reliever Dependence	Sedative & Tranquilizer Dependence	Stimulant Dependence
Lake	197	154	55	7	116	108	5	3
LaPorte	39	32	10	1	20	16	3	1
Lawrence	67	42	31	1	48	33	15	0
Madison	255	159	126	12	120	90	29	1
Marion	632	455	245	26	335	282	43	10
Marshall	26	14	10	3	9	7	2	0
Martin	11	7	6	0	6	4	2	0
Miami	35	24	12	3	16	10	5	1
Monroe	256	216	68	8	193	173	17	3
Montgomery	67	38	36	7	38	22	12	4
Morgan	94	69	30	6	67	51	13	3
Newton	5	3	2	0	2	1	1	0
Noble	18	8	9	3	6	4	0	2
Ohio	5	5	0	0	4	4	0	0
Orange	18	16	8	1	13	12	1	0
Owen	25	20	5	0	14	12	2	0
Parke	11	8	7	0	7	6	1	0
Perry	15	9	9	0	3	2	1	0
Pike	8	8	3	0	7	7	0	0
Porter	97	69	32	2	52	42	8	2
Posey	34	24	15	0	12	11	1	0
Pulaski	12	7	8	0	8	4	4	0
Putnam	36	17	15	8	12	11	1	0
Randolph	10	8	3	0	6	5	1	0
Ripley	15	11	7	2	10	8	2	0
Rush	8	5	2	2	1	1	0	0
Saint Joseph	123	80	23	29	46	39	4	3
Scott	53	47	20	0	35	29	6	0
Shelby	11	5	5	1	5	2	3	0
Spencer	17	9	10	1	7	5	2	0
Starke	38	29	22	2	24	19	5	0
Steuben	5	2	2	1	2	1	1	0
Sullivan	21	14	10	0	8	7	1	0
Switzerland	14	10	5	0	6	4	2	0
Tippecanoe	160	73	96	17	46	28	16	2
Tipton	17	12	8	1	10	6	4	0
Union	4	1	3	0	3	0	3	0
Vanderburgh	352	222	176	22	145	111	27	7
Vermillion	9	4	6	0	5	3	2	0
Vigo	110	68	52	3	47	33	11	3
Wabash	38	29	12	3	20	17	2	1
Warren	6	5	2	0	2	2	0	0
Warrick	48	27	19	5	12	8	3	1
Washington	29	19	14	2	15	11	3	1
Wayne	95	84	20	2	54	51	3	0
Wells	8	4	2	2	0	0	0	0
White	33	15	18	2	13	10	2	1
Whitley	4	3	0	1	3	3	0	0
Indiana	**5,301**	**3,762**	**2,072**	**290**	**2,726**	**2,216**	**435**	**75**

Note: We defined prescription drug dependence as “individuals in substance abuse treatment listing prescription drugs as their primary substance at admission.”

Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2009

APPENDIX 9B - PART 1

Percentage of Indiana Students Reporting Lifetime, Annual, and Monthly Tranquilizer Use, by Region and Grade (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2009)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	3.4	4.1	2.9	2.1	3.8	3.5	4.2	2.7	3.8
	Annual	2.4	3.1	2.2	1.3	2.7	2.4	2.8	2.0	2.8
	Monthly	1.3	1.6	1.2	0.7	1.5	1.2	2.0	1.1	1.6
7th Grade	Lifetime	5.9	6.9	5.4	5.7	7.4	4.7	8.4	5.2	7.0
	Annual	4.3	5.3	4.2	4.2	5.7	3.4	6.2	3.6	5.0
	Monthly	2.6	3.2	2.5	2.6	3.6	2.0	3.8	2.3	2.7
8th Grade	Lifetime	8.5	9.2	8.1	5.8	8.6	8.0	11.7	8.2	9.7
	Annual	6.3	6.9	6.3	3.9	6.4	5.9	8.3	6.3	7.2
	Monthly	3.6	4.0	3.7	2.3	4.0	3.1	4.6	3.5	4.3
9th Grade	Lifetime	10.2	12.2	10.2	8.1	9.6	10.3	11.9	10.2	10.6
	Annual	7.4	8.7	7.6	5.4	7.1	7.5	8.6	7.5	7.6
	Monthly	4.0	4.6	3.7	3.4	3.5	4.1	4.4	4.1	4.1
10th Grade	Lifetime	12.0	14.4	11.7	9.3	11.9	11.4	12.7	12.1	13.5
	Annual	8.4	10.7	8.4	6.4	8.3	7.8	9.0	8.4	9.1
	Monthly	4.3	5.4	4.4	3.3	4.6	4.1	4.9	4.0	4.5
11th Grade	Lifetime	11.8	14.5	11.3	10.5	10.5	11.6	12.8	11.2	13.1
	Annual	7.6	9.5	7.3	7.3	6.2	7.2	8.8	7.5	8.0
	Monthly	3.8	5.2	4.1	3.4	2.7	3.4	4.9	3.7	4.2
12th Grade	Lifetime	12.0	13.5	10.0	9.1	13.4	11.5	13.1	12.8	12.8
	Annual	7.4	8.7	5.5	5.1	8.6	6.9	8.8	8.3	7.8
	Monthly	3.7	4.5	2.9	2.6	4.6	3.4	4.3	3.9	3.5

Source: Indiana Prevention Resource Center, 2009

APPENDIX 9B - PART 2

Percentage of Indiana Students Reporting Lifetime, Annual, and Monthly Narcotics Use, by Region and Grade (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2009)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	0.7	0.8	0.4	0.5	1.2	0.7	1.0	0.3	1.1
	Annual	0.5	0.4	0.3	0.2	0.6	0.5	0.7	0.3	0.8
	Monthly	0.3	0.4	0.1	0.2	0.3	0.3	0.4	0.1	0.5
7th Grade	Lifetime	2.2	2.4	1.6	2.4	2.8	1.3	3.8	2.1	3.7
	Annual	1.5	1.9	1.0	1.7	1.9	0.9	2.4	1.7	2.5
	Monthly	0.9	1.1	0.5	0.7	1.1	0.5	1.4	0.9	1.5
8th Grade	Lifetime	4.7	4.5	4.6	2.6	5.1	4.1	6.4	4.6	6.3
	Annual	3.4	3.7	3.3	1.5	3.7	2.9	4.8	3.5	4.4
	Monthly	2.0	2.1	2.0	0.8	2.0	1.6	2.7	2.2	2.5
9th Grade	Lifetime	7.3	7.9	6.7	5.1	7.3	7.6	9.7	6.8	8.3
	Annual	5.0	5.1	4.5	3.4	4.7	5.7	6.4	5.1	5.6
	Monthly	2.7	2.5	2.2	1.9	2.3	3.2	3.2	2.8	3.0
10th Grade	Lifetime	10.3	12.0	10.0	7.2	10.0	10.3	11.0	10.4	12.2
	Annual	7.2	8.1	6.6	5.0	7.2	7.1	7.2	7.7	8.5
	Monthly	3.7	4.4	3.6	2.4	3.6	3.8	3.4	3.0	4.0
11th Grade	Lifetime	11.3	11.2	11.2	9.5	10.2	12.3	13.4	10.9	12.6
	Annual	7.5	7.9	7.4	6.5	6.2	7.8	9.2	7.4	8.3
	Monthly	3.9	4.2	4.3	3.2	3.2	3.7	4.6	3.6	5.2
12th Grade	Lifetime	12.5	11.5	10.3	8.2	13.5	13.1	14.5	12.8	14.9
	Annual	7.8	7.6	5.7	4.6	8.8	8.2	9.6	8.2	9.4
	Monthly	4	4	2.9	2.2	4.7	4.1	4.8	4.3	4.9

Source: Indiana Prevention Resource Center, 2009

APPENDIX 9B - PART 3

Percentage of Indiana Students Reporting Lifetime, Annual, and Monthly Ritalin®/Adderall® Use, by Region and Grade (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2009)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	0.9	0.9	0.7	1.0	1.1	0.8	1.4	0.7	1.1
	Annual	0.5	0.6	0.4	0.1	0.5	0.6	0.8	0.5	0.5
	Monthly	0.3	0.3	0.3	0.0	0.4	0.4	0.7	0.3	0.4
7th Grade	Lifetime	1.9	2.4	1.7	1.9	2.4	1.4	2.7	1.8	2.6
	Annual	1.4	1.9	1.2	1.2	1.8	1.4	2.0	1.4	1.5
	Monthly	0.8	1.2	0.8	0.9	1.3	0.5	1.3	0.7	1.0
8th Grade	Lifetime	4.2	4.6	4.2	2.4	5.3	3.5	5.8	4.2	4.9
	Annual	3.1	3.3	3.2	1.5	4.2	2.7	3.2	3.2	3.2
	Monthly	1.8	1.7	2.0	0.8	2.4	1.5	2.2	1.9	1.9
9th Grade	Lifetime	6.9	8.8	7.5	4.8	6.8	7.3	8.3	5.8	6.6
	Annual	4.9	6.8	5.6	3.2	5.0	5.2	5.5	4.0	3.9
	Monthly	2.6	3.9	3.2	1.9	2.4	3.0	2.4	2.2	1.8
10th Grade	Lifetime	9.6	12.6	11.3	6.9	8.9	9.2	9.5	10.2	8.8
	Annual	6.8	9.2	8.2	4.9	6.2	6.6	6.2	7.3	5.9
	Monthly	3.3	4.7	4.3	2.4	2.9	3.3	3.6	3.4	2.7
11th Grade	Lifetime	11.1	13.7	12.5	9.5	9.9	12.2	11.3	9.1	10.7
	Annual	7.4	9.7	9.2	6.5	5.8	7.9	7.3	6.2	6.7
	Monthly	3.4	4.8	4.6	2.9	3.2	3.5	3.7	2.2	3.3
12th Grade	Lifetime	11.6	13.8	12.3	8.3	11.9	11.2	11.4	12.3	11.5
	Annual	7.0	8.4	6.7	4.8	7.0	7.2	6.4	7.6	6.9
	Monthly	3.1	3.8	3.1	2.1	3.4	3.0	2.8	3.4	2.9

Source: Indiana Prevention Resource Center, 2009

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 (Uniform Crime Reporting Program, 2007)

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	158	0.45	27	0.08
Bartholomew	49	0.66	0	*0.00
Benton	3	*0.33	1	*0.11
Blackford	1	*0.07	1	*0.07
Boone	9	*0.16	3	*0.05
Brown	0	*0.00	0	*0.00
Carroll	12	*0.58	2	*0.10
Cass	16	*0.40	21	0.53
Clark	36	0.34	9	*0.09
Clay	5	*0.18	2	*0.07
Clinton	16	*0.47	1	*0.03
Crawford	1	*0.09	0	*0.00
Daviess	9	*0.30	1	*0.03
Dearborn	14	*0.28	7	*0.14
Decatur	2	*0.08	0	*0.00
DeKalb	9	*0.21	3	*0.07
Delaware	1	*0.01	3	*0.03
Dubois	3	*0.07	3	*0.07
Elkhart	20	0.10	3	*0.01
Fayette	22	0.90	3	*0.12
Floyd	89	1.22	102	1.40
Fountain	3	*0.17	1	*0.06
Franklin	6	*0.27	2	*0.09
Fulton	5	*0.24	1	*0.05
Gibson	16	*0.48	2	*0.06
Grant	4	*0.06	2	*0.03
Greene	12	*0.36	1	*0.03
Hamilton	24	0.09	11	*0.04
Hancock	13	*0.20	5	*0.08
Harrison	2	*0.05	0	*0.00
Hendricks	29	0.21	9	*0.07
Henry	12	*0.26	2	*0.04
Howard	52	0.62	14	*0.17
Huntington	18	*0.47	1	*0.03
Jackson	14	*0.33	4	*0.09
Jasper	7	*0.21	20	0.61
Jay	7	*0.32	1	*0.05
Jefferson	9	*0.27	2	*0.06
Jennings	1	*0.03	34	1.19
Johnson	73	0.54	10	*0.07
Knox	15	*0.39	15	*0.39
Kosciusko	9	*0.12	3	*0.04
LaGrange	0	*0.00	0	*0.00
Lake	441	0.89	57	0.12
LaPorte	9	*0.08	1	*0.01
Lawrence	14	*0.30	1	*0.02
Madison	77	0.59	11	*0.08
Marion	587	0.68	101	0.12

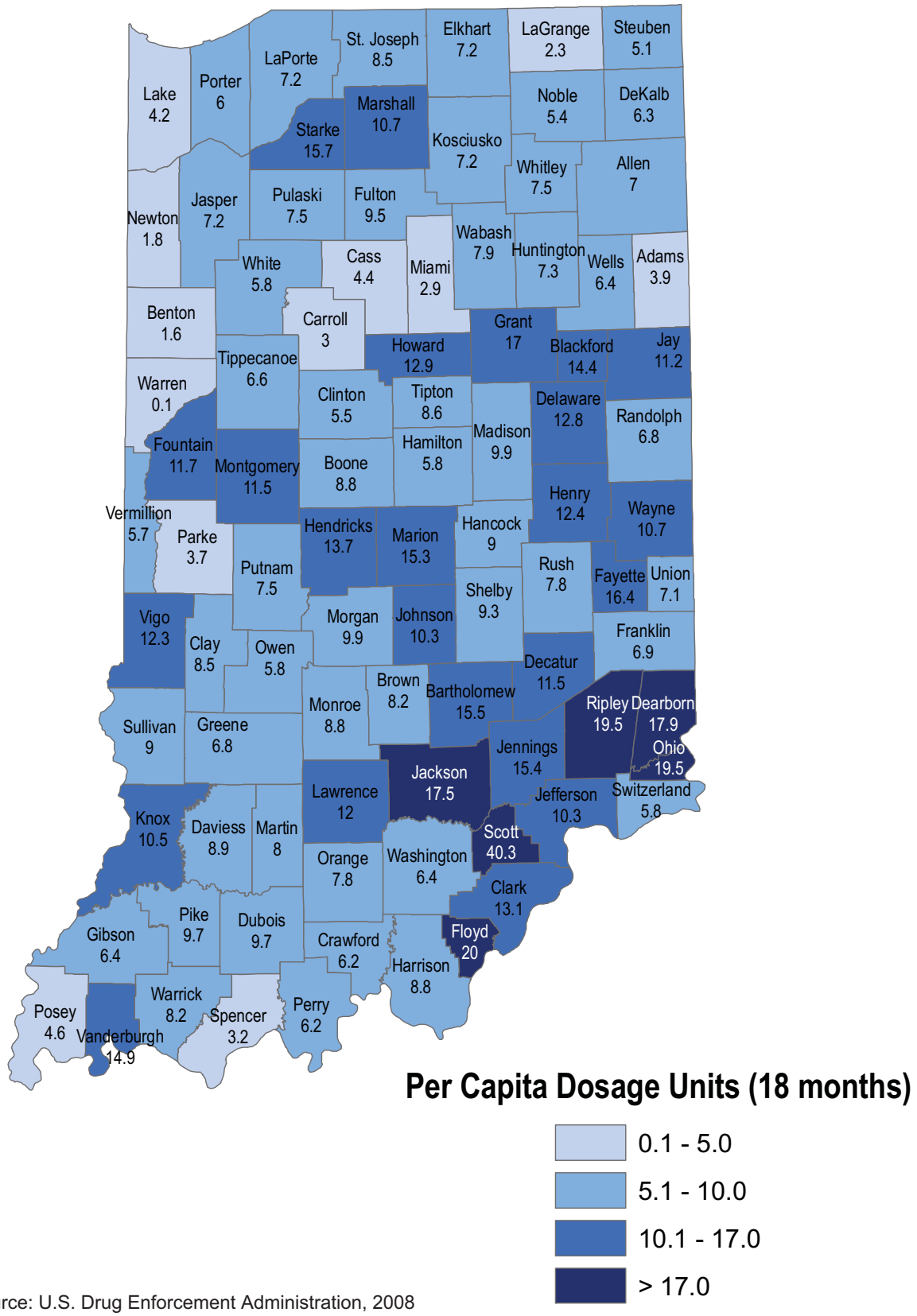
(continued on next page)

APPENDIX 9C *(Continued from previous page)*

County	Number of Arrests for Possession	Possession Arrest Rate	Number of Arrests for Sale	Sale Arrest Rate
Marshall	15	*0.32	2	*0.04
Martin	1	*0.10	0	*0.00
Miami	9	*0.25	2	*0.06
Monroe	70	0.57	11	*0.09
Montgomery	11	*0.29	1	*0.03
Morgan	68	0.96	14	*0.20
Newton	0	*0.00	0	*0.00
Noble	13	*0.27	1	*0.02
Ohio	1	*0.17	1	*0.17
Orange	2	*0.10	1	*0.05
Owen	6	*0.26	2	*0.09
Parke	0	*0.00	0	*0.00
Perry	13	*0.69	4	*0.21
Pike	2	*0.16	1	*0.08
Porter	26	0.16	6	*0.04
Posey	9	*0.34	3	*0.11
Pulaski	2	*0.14	0	*0.00
Putnam	10	*0.27	3	*0.08
Randolph	3	*0.11	2	*0.08
Ripley	6	*0.20	2	*0.07
Rush	1	*0.06	0	*0.00
Saint Joseph	129	0.48	20	0.08
Scott	5	*0.21	1	*0.04
Shelby	13	*0.29	4	*0.09
Spencer	2	*0.10	1	*0.05
Starke	4	*0.17	1	*0.04
Steuben	23	0.68	14	*0.42
Sullivan	4	*0.19	2	*0.09
Switzerland	1	*0.10	0	*0.00
Tippecanoe	26	0.17	19	*0.12
Tipton	3	*0.18	0	*0.00
Union	0	*0.00	0	*0.00
Vanderburgh	133	0.77	43	0.25
Vermillion	3	*0.18	1	*0.06
Vigo	133	1.30	9	*0.09
Wabash	3	*0.09	1	*0.03
Warren	1	*0.11	0	*0.00
Warrick	3	*0.05	4	*0.07
Washington	7	*0.25	2	*0.07
Wayne	8	*0.12	6	*0.09
Wells	1	*0.04	0	*0.00
White	6	*0.25	0	*0.00
Whitley	8	*0.24	2	*0.06
Indiana	**2,720**	**0.43**	**690**	**0.11**

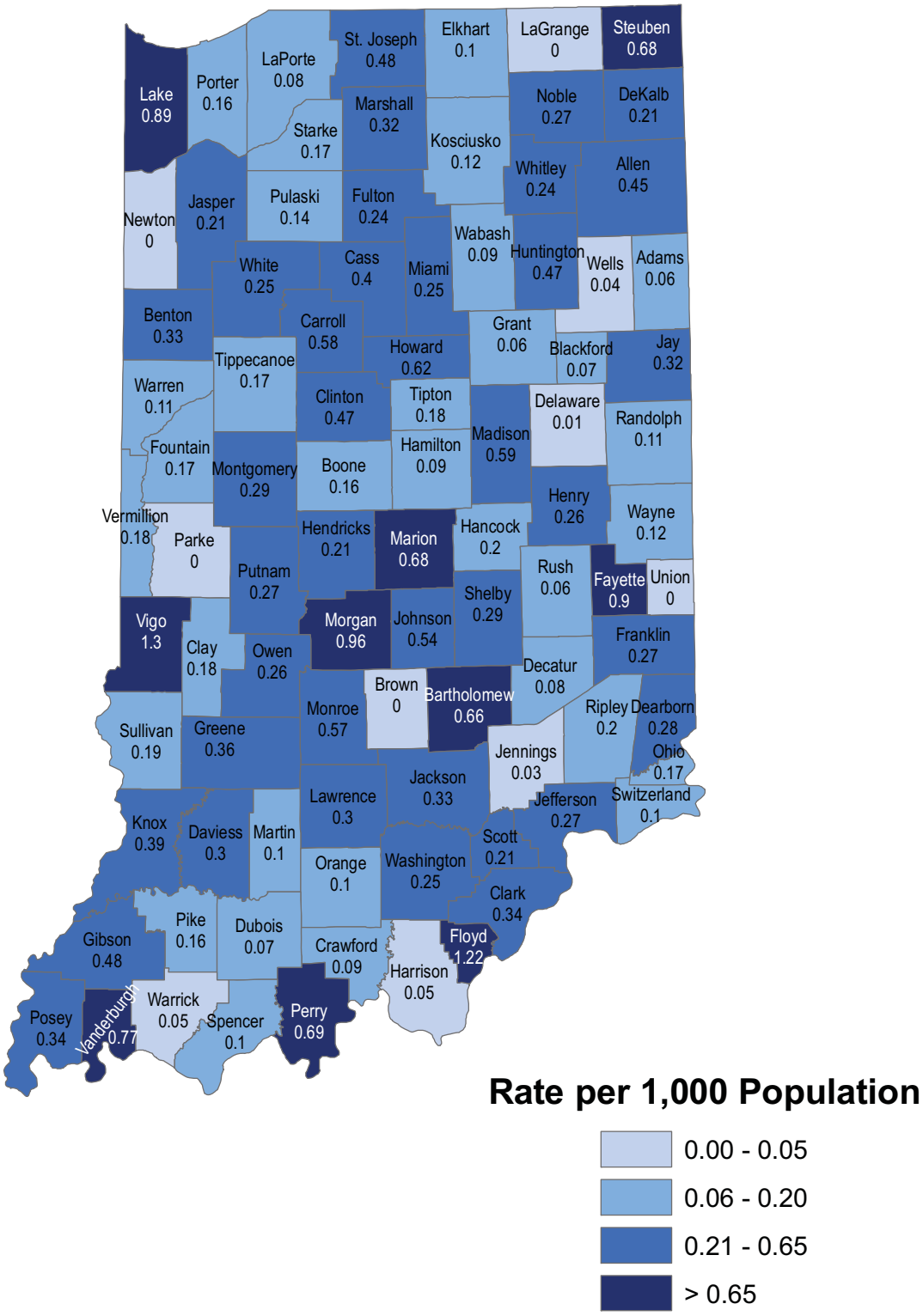
* Rates that are based on arrest numbers lower than 20 are unreliable.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

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)



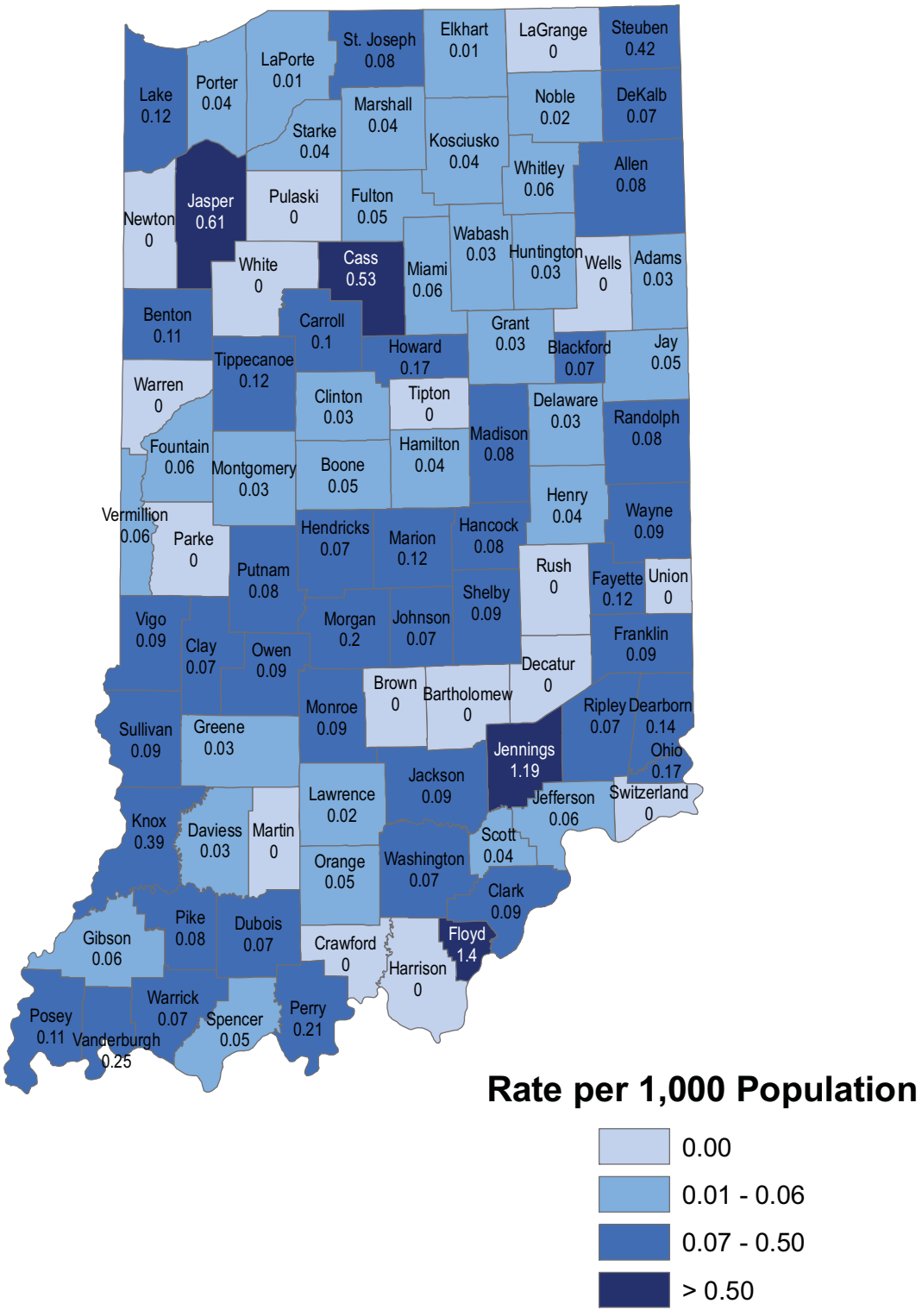
Source: U.S. Drug Enforcement Administration, 2008

Map 9.2 Arrest Rates, per 1,000 Population, for Possession of "Other Drugs" (Barbiturates and Benzedrine) in Indiana, by County (Uniform Crime Reporting Program, 2007)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 9C (pages 161-162) for additional information.
Source: National Archive of Criminal Justice Data, Inter-university Consortium for Political and Social Research, University of Michigan, n.d.

Map 9.3 Arrest Rates, per 1,000 Population, for Sale/Manufacture of "Other Drugs" (Barbiturates and Benzedrine) in Indiana, by County (Uniform Crime Reporting Program, 2007)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 9C (pages 161-162) 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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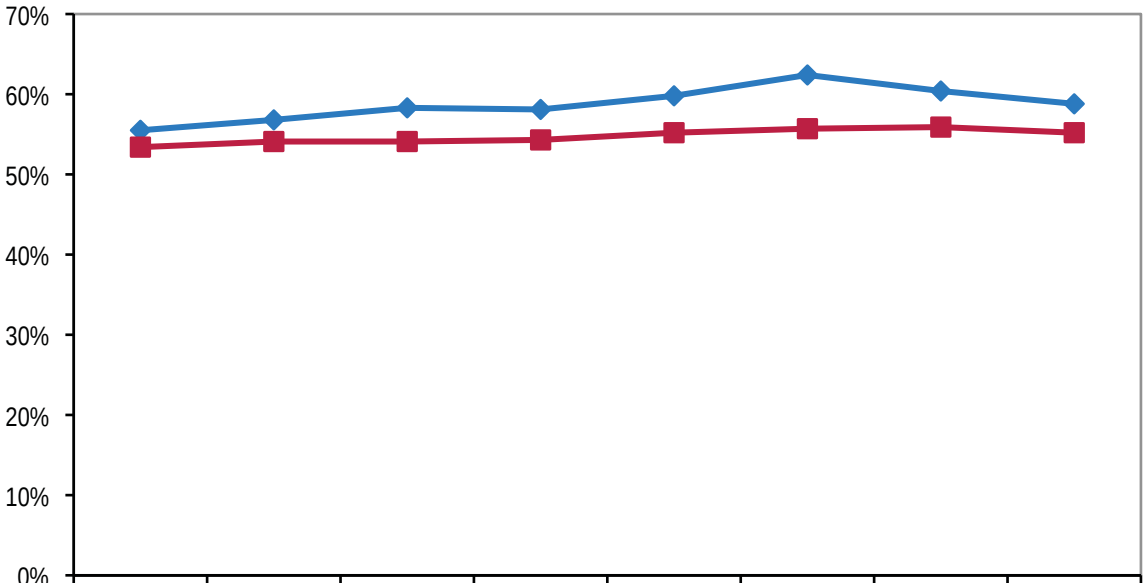
10. Polysubstance Abuse in Indiana: Consumption Patterns

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 2000 through 2007 TEDS data for Indiana and the United States 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 treatment episodes indicating the use of two or more substances increased significantly from 2000 to 2007 in Indiana, peaking at 62.4% in 2005 (see Figure 10.1). For county-level treatment data on individuals using two or more substances, see Appendix 10A, page 179.

Figure 10.1 Percentage of Indiana and U.S. Treatment Episodes with Polysubstance Abuse (Use of at least Two Substances) Reported at Treatment Admission (Treatment Episode Data Set, 2000–2007)



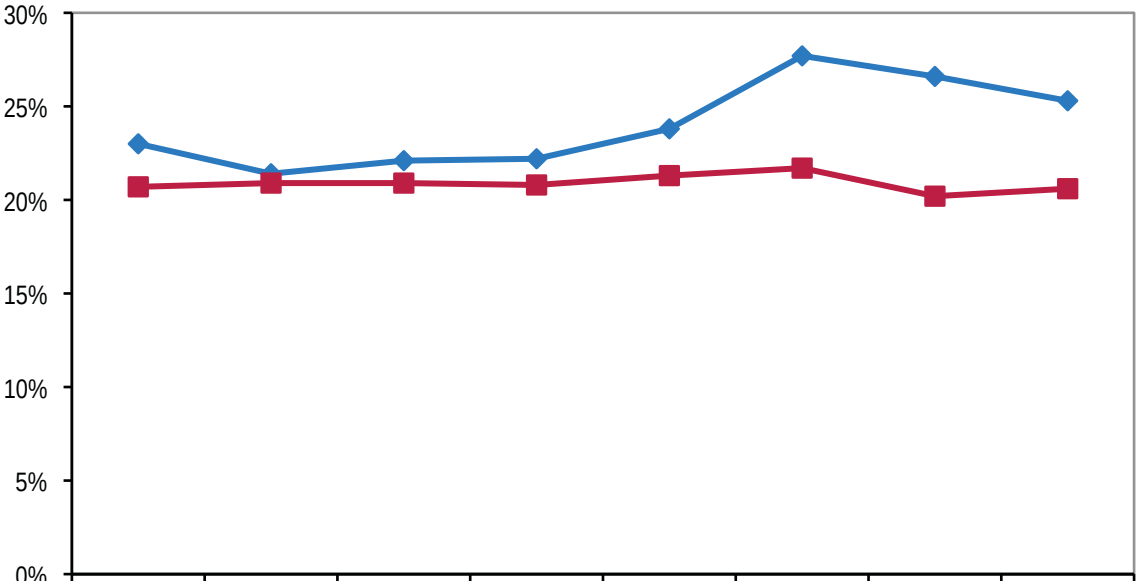
	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	55.5%	56.8%	58.3%	58.1%	59.8%	62.4%	60.4%	58.8%
U.S.	53.4%	54.1%	54.1%	54.3%	55.2%	55.7%	55.9%	55.2%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 10.2 illustrates that, from 2000 through 2007, in approximately one-fourth of Indiana treatment episodes and one-fifth of U.S. treatment episodes, the use of three or more drugs was indicated. The differences between the two groups were statistically significant across all years reviewed ($P < 0.05$).

Furthermore, the percentage increased in Indiana, from 23.0% in 2000 to 25.3% in 2007 ($P < 0.001$), peaking at 27.7% in 2005 (see Figure 10.2). For county-level treatment data on individuals using three or more substances, see Appendix 10A, page 179.

Figure 10.2 Percentage of Indiana and U.S. Treatment Episodes with Polysubstance Abuse (Use of at least Three Substances) Reported at Treatment Admission (Treatment Episode Data Set, 2000–2007)



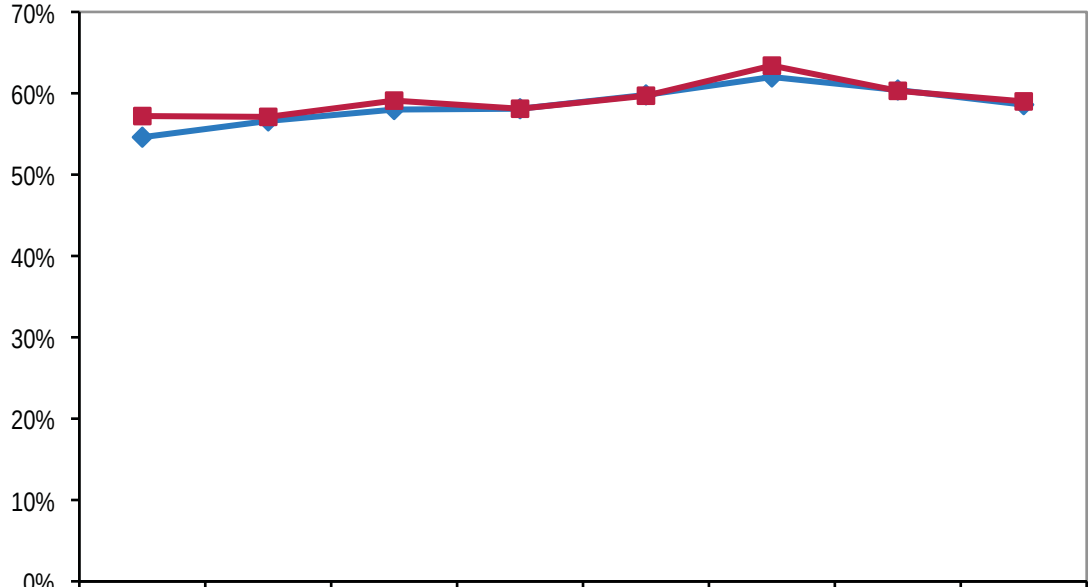
	2000	2001	2002	2003	2004	2005	2006	2007
Indiana	23.0%	21.4%	22.1%	22.2%	23.8%	27.7%	26.6%	25.3%
U.S.	20.7%	20.9%	20.9%	20.8%	21.3%	21.7%	20.2%	20.6%

Source: Substance Abuse and Mental Health Data Archive, 2008

Demographic Characteristics of Polysubstance Users

Gender — No significant difference were observed by gender for use of two or more substances, during the most recent years (see Figure 10.3). However, the percentage of treatment episodes in Indiana with indicated use of three or more substances was significantly higher for women than men ($P < 0.001$) (see Figure 10.4).

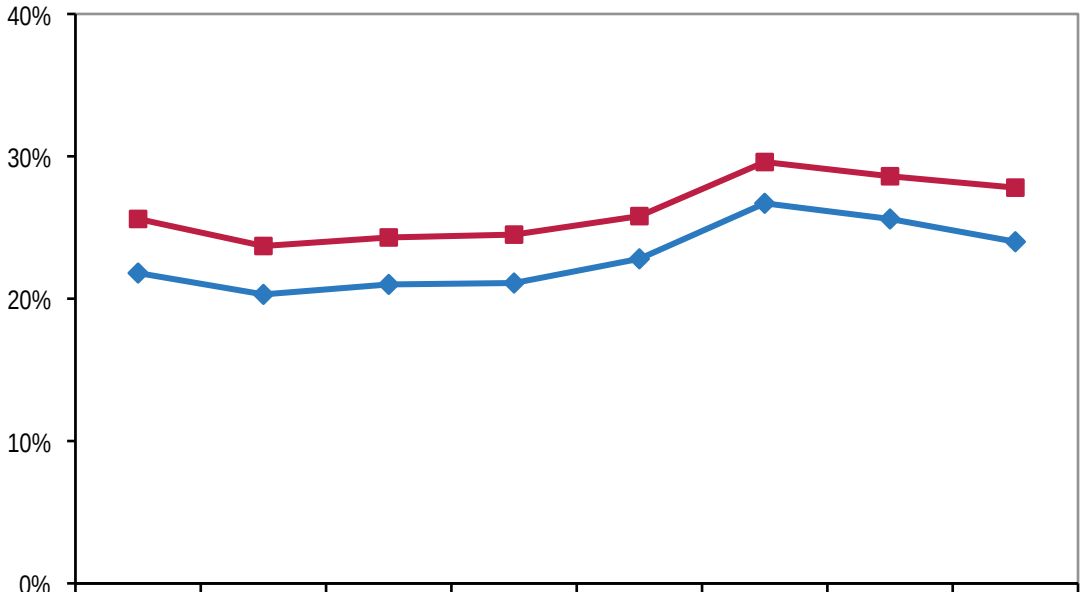
Figure 10.3 Percentage of Indiana Treatment Episodes with Polysubstance Abuse (Use of at least Two Substances) Reported at Treatment Admission, by Gender (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Males	54.6%	56.6%	58.0%	58.1%	59.8%	62.0%	60.4%	58.6%
Females	57.2%	57.1%	59.1%	58.1%	59.7%	63.4%	60.3%	59.0%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 10.4 Percentage of Indiana Treatment Episodes with Polysubstance Abuse (Use of at least Three Substances) Reported at Treatment Admission, by Gender (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Males	21.8%	20.3%	21.0%	21.1%	22.8%	26.7%	25.6%	24.0%
Females	25.6%	23.7%	24.3%	24.5%	25.8%	29.6%	28.6%	27.8%

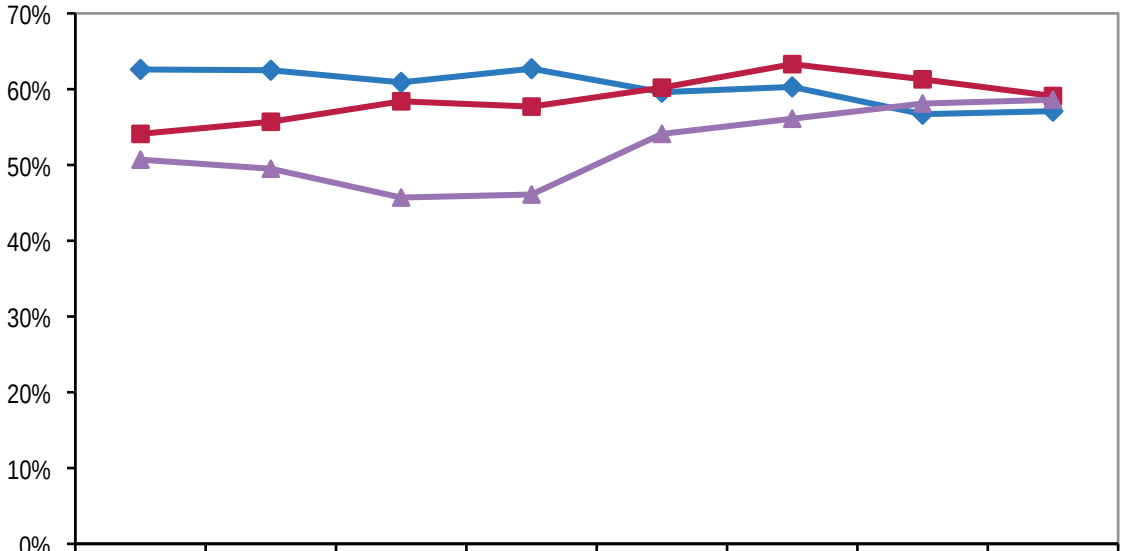
Source: Substance Abuse and Mental Health Data Archive, 2008

Race — Differences by race were observed for all years reviewed in Indiana ($P < 0.05$):

- The percentage of blacks reporting polysubstance abuse declined from 2000 to 2007 ($P < 0.001$) from 62.6% to 57.1% for use of at least two substances and from 27.5% to 19.0% for use of at least three substances (see Figures 10.5 and 10.6).
- The percentage of whites reporting polysubstance abuse increased from 2000 to 2007 ($P < 0.001$) from 54.1% to 59.1% for use of at least two substances and from 21.9% to 26.6% for use of at least three substances (see Figures 10.5 and 10.6).
- The percentage of other races reporting polysubstance abuse increased from 2000 to 2007 only for use of two or more substances, from 50.7% to 58.6% ($P < 0.001$); 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 Indiana treatment episodes with indicated polysubstance abuse ($P < 0.001$). The highest percentage was among Hoosiers ages 18 to 44. Polysubstance abuse increased from 2000 to 2007 for all age groups ($P < 0.05$) with one exception: Use of three or more substances remained stable among the treatment population ages 55 and older (see Figures 10.7 and 10.8).

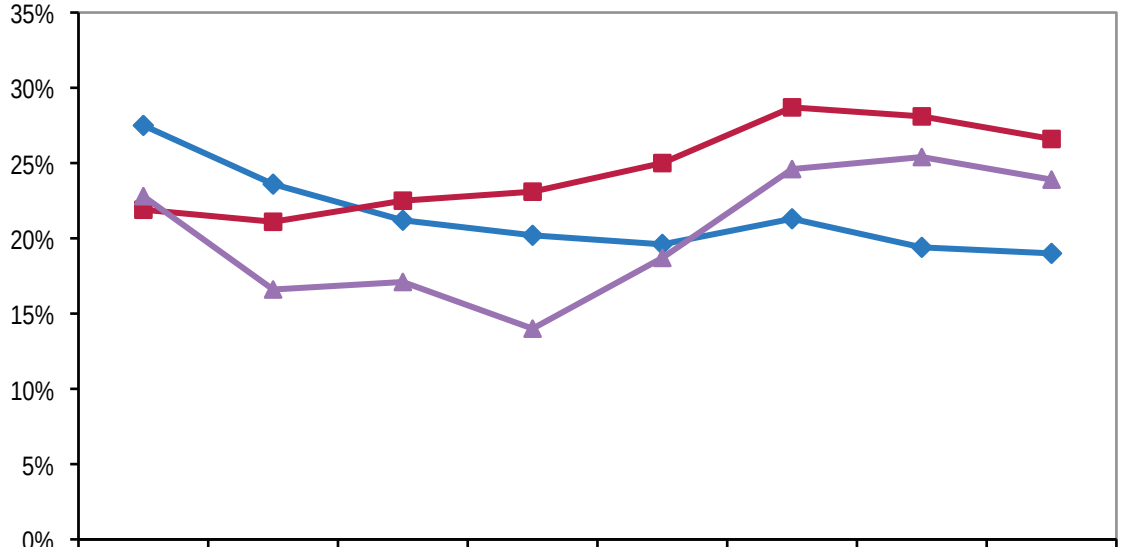
Figure 10.5 Percentage of Indiana Treatment Episodes with Polysubstance Abuse (Use of at least Two Substances) Reported at Treatment Admission, by Race (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Black	62.6%	62.5%	60.9%	62.7%	59.6%	60.3%	56.7%	57.1%
White	54.1%	55.7%	58.4%	57.7%	60.2%	63.3%	61.3%	59.1%
Other	50.7%	49.5%	45.7%	46.1%	54.1%	56.1%	58.1%	58.6%

Source: Substance Abuse and Mental Health Data Archive, 2008

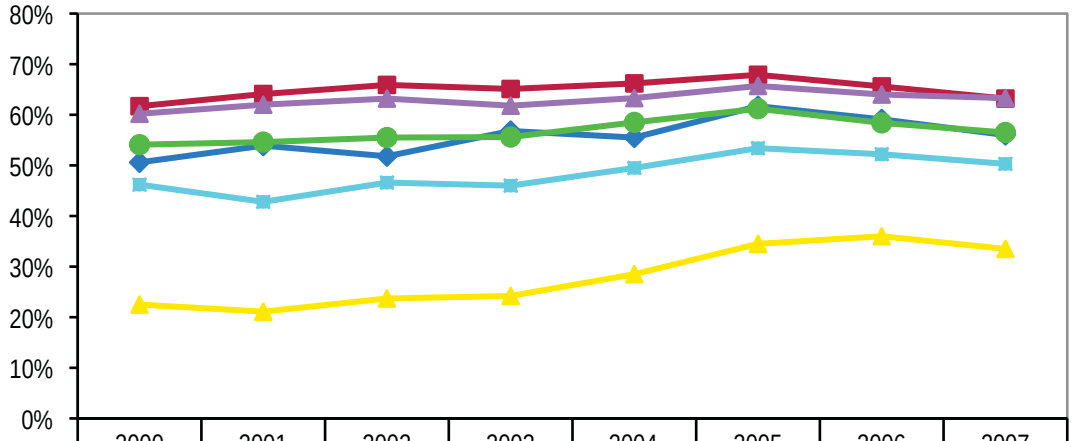
Figure 10.6 Percentage of Indiana Treatment Episodes with Polysubstance Abuse (Use of at least Three Substances) Reported at Treatment Admission, by Race (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Black	27.5%	23.6%	21.2%	20.2%	19.6%	21.3%	19.4%	19.0%
White	21.9%	21.1%	22.5%	23.1%	25.0%	28.7%	28.1%	26.6%
Other	22.8%	16.6%	17.1%	14.0%	18.7%	24.6%	25.4%	23.9%

Source: Substance Abuse and Mental Health Data Archive, 2008

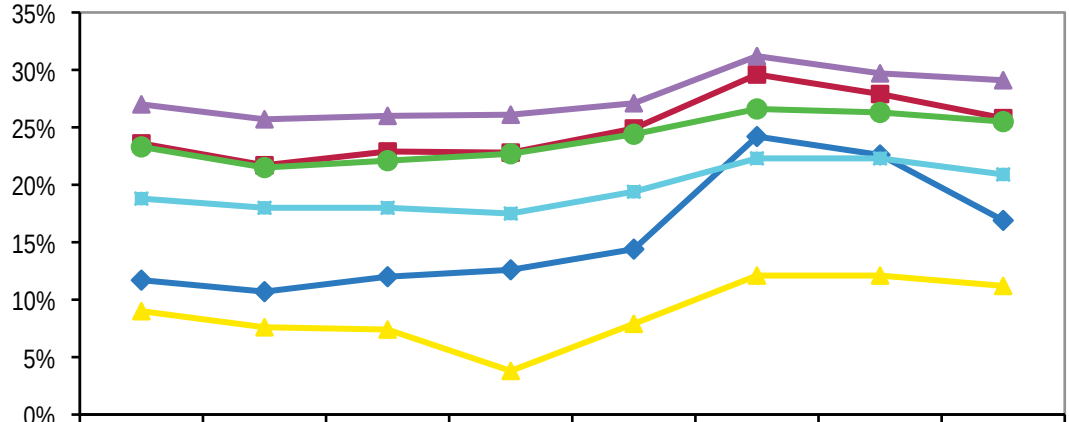
Figure 10.7 Percentage of Indiana Treatment Episodes with Polysubstance Abuse (Use of at least Two Substances) Reported at Treatment Admission, by Age Group (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Under 18	50.6%	53.9%	51.8%	56.8%	55.5%	61.7%	59.1%	56.0%
18 to 24	61.7%	64.1%	65.9%	65.1%	66.2%	67.9%	65.6%	63.2%
25 to 34	60.2%	62.0%	63.2%	61.8%	63.3%	65.7%	64.0%	63.3%
35 to 44	54.1%	54.6%	55.5%	55.6%	58.5%	61.2%	58.4%	56.5%
45 to 54	46.2%	42.8%	46.6%	46.0%	49.5%	53.4%	52.2%	50.3%
55 and Over	22.5%	21.1%	23.7%	24.2%	28.5%	34.5%	36.0%	33.5%

Source: Substance Abuse and Mental Health Data Archive, 2008

Figure 10.8 Percentage of Indiana Treatment Episodes with Polysubstance Abuse (Use of at least Three Substances) Reported at Treatment Admission, by Age Group (Treatment Episode Data Set, 2000–2007)



	2000	2001	2002	2003	2004	2005	2006	2007
Under 18	11.7%	10.7%	12.0%	12.6%	14.4%	24.2%	22.6%	16.9%
18 to 24	23.6%	21.7%	22.9%	22.8%	24.9%	29.6%	27.9%	25.8%
25 to 34	27.0%	25.7%	26.0%	26.1%	27.1%	31.2%	29.7%	29.1%
35 to 44	23.3%	21.5%	22.1%	22.7%	24.4%	26.6%	26.3%	25.5%
45 to 54	18.8%	18.0%	18.0%	17.5%	19.4%	22.3%	22.3%	20.9%
55 and Over	9.0%	7.6%	7.4%	3.8%	7.9%	12.1%	12.1%	11.2%

Source: Substance Abuse and Mental Health Data Archive, 2008

Polysubstance Abuse Clusters in Indiana

Statewide Analysis—We conducted a cluster analysis of 2006 Indiana TEDS data 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.

Tables 10.1 and 10.2, pages 174-175, show the image and identity matrices for the 16-cluster solution. The image matrix represents the percentage of individuals within a cluster that used each specific drug. Using cluster 6 as an example, 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 "1" 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 "0" 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, 5, and 4. 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 5 reported using a combination of alcohol, cocaine, and marijuana. Cluster 4 included individuals who reported using alcohol and cocaine. The remaining 13 clusters each accounted for 1.2% to 5.3% 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 five of the 16 clusters. Opiates/synthetic drugs appeared in four clusters, methamphetamine in three clusters, benzodiazepines in two clusters, and heroin, hallucinogens and other drugs were each represented in one cluster. For detailed information on all 16 clusters, see Table 10.3 (page 176).

Table 10.4 (pages 177-178) 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 reported 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).

County-Level Analyses—We completed cluster analyses for each county within Indiana using the 2008 county-level TEDS data set. Appendix 10B (pages 180-185) lists the results of the cluster analysis for each county. Similar to the statewide findings, the most common polysubstance cluster was composed of both alcohol and marijuana. This cluster was the top-ranked cluster in 65 of 92 counties.

Table 10.1 Image Matrix for Polysubstance Abuse Clusters (Treatment Episode Data Set, 2006)

Image Matrix	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6	Cluster 7	Cluster 8
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.	Cluster 9	Cluster 10	Cluster 11	Cluster 12	Cluster 13	Cluster 14	Cluster 15	Cluster 16
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

Note: Each number in the image matrix represents the percentage of individuals within a cluster that used each individual drug. For example, in cluster 1, 100% used alcohol, 0% used cocaine, 100% used marijuana, 10% used heroin, and so on.
Source: Substance Abuse and Mental Health Data Archive, 2008

Table 10.2 Identity Matrix for Polysubstance Abuse Clusters (Treatment Episode Data Set, 2006)

Identity Matrix	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6	Cluster 7	Cluster 8
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.	Cluster 9	Cluster 10	Cluster 11	Cluster 12	Cluster 13	Cluster 14	Cluster 15	Cluster 16
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

Note: The identity matrix simplifies the information from the image matrix by using the percentages to assign a “1” or “0” to each drug. A “1” indicates that at least 50% of people in a cluster used the drug, and a “0” indicates that less than 50% of people in a cluster used the drug. The binary use of “1” and “0” provides a clearer picture of the drugs most commonly used within each cluster.
Source: Substance Abuse and Mental Health Data Archive, 2008

Table 10.3 Combination of Drugs Used among Polysubstance Abusers in Substance Abuse Treatment in Indiana (Based on Cluster Analysis of Treatment Episode Data Set, 2006)

Cluster	N	(%)
1 – alcohol/marijuana	6,619	(31.5)
5 – alcohol/cocaine/marijuana	2,794	(13.3)
4 – alcohol/cocaine	1,855	(8.8)
11 – alcohol/marijuana/methamphetamine	1,116	(5.3)
2 – cocaine/marijuana	1,090	(5.2)
3 – marijuana/methamphetamine	1,053	(5.0)
7 – alcohol/marijuana/other drug	998	(4.8)
8 – alcohol/marijuana/opiates-synthetics	951	(4.5)
10 – alcohol/cocaine/methamphetamine	863	(4.1)
6 – alcohol/opiates-synthetics	804	(3.8)
13 – cocaine/heroin/benzodiazepines	655	(3.1)
12 – marijuana/opiates-synthetics/benzodiazepines	650	(3.1)
9 – alcohol/marijuana/benzodiazepines	514	(2.4)
15 – cocaine/opiates-synthetics	486	(2.3)
14 – alcohol with no other clear drug	293	(1.4)
16 – alcohol/cocaine/hallucinogens	248	(1.2)

Source: Substance Abuse and Mental Health Data Archive, 2008

Table 10.4 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

(continued on next page)

Table 10.4 *(continued from previous page)*

	Cluster 9		Cluster 10		Cluster 11		Cluster 12	
	n = 6619	%	n=1090	%	n=1053	%	n=1855	%
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 =2794	%	n=804	%	n=998	%	n=951	%
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 Treatment Episodes with Polysubstance Abuse (Use of Two or more Substances, and Use of Three or more Substances) Reported at Treatment Admission in Indiana, by County

County	Use of 2+ Substances	Use of 3+ Substances	County	Use of 2+ Substances	Use of 3+ Substances
Adams	74	36	Madison	541	345
Allen	893	442	Marion	2380	1052
Bartholomew	303	165	Marshall	127	74
Benton	21	6	Martin	31	24
Blackford	80	37	Miami	108	60
Boone	96	47	Monroe	620	72
Brown	42	21	Montgomery	173	93
Carroll	56	21	Morgan	192	52
Cass	113	50	Newton	20	18
Clark	386	196	Noble	182	70
Clay	110	74	Ohio	10	5
Clinton	46	26	Orange	43	24
Crawford	33	14	Owen	121	46
Daviess	133	101	Parke	66	38
Dearborn	80	36	Perry	71	38
Decatur	65	26	Pike	17	16
DeKalb	61	18	Porter	287	145
Delaware	632	365	Posey	134	99
DuBois	119	70	Pulaski	53	29
Elkhart	378	111	Putnam	98	44
Fayette	44	33	Randolph	50	28
Floyd	130	85	Ripley	33	15
Fountain	64	39	Rush	30	11
Franklin	38	18	St. Joseph	856	404
Fulton	121	68	Scott	89	51
Gibson	83	62	Shelby	58	25
Grant	206	116	Spencer	60	35
Greene	65	33	Starke	112	47
Hamilton	428	191	Steuben	65	30
Hancock	87	23	Sullivan	80	45
Harrison	39	18	Switzerland	28	12
Hendricks	174	73	Tippecanoe	559	353
Henry	118	57	Tipton	36	16
Howard	349	179	Union	9	5
Huntington	29	15	Vanderburgh	1389	899
Jackson	100	71	Vermillion	77	29
Jasper	54	41	Vigo	515	235
Jay	93	64	Wabash	108	47
Jefferson	100	67	Warren	21	14
Jennings	91	48	Warrick	211	150
Johnson	169	81	Washington	53	27
Knox	148	94	Wayne	227	114
Kosciusko	98	45	Wells	64	28
LaGrange	77	41	White	135	76
Lake	1111	483	Whitley	43	23
LaPorte	256	107	**Total**	**18,255**	**9,083**
Lawrence	80	6			

Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2009

APPENDIX 10B

Combination of Drugs Used among Polysubstance Abusers in Substance Abuse Treatment by County (Based on Cluster Analysis of Substance Abuse Population by County/Treatment Episode Data Set, 2008)

County	Cluster #	Cluster Composition	N	%
Adams				
	2	marijuana, alcohol	33	44.0
	1	cocaine, alcohol, marijuana	22	29.3
	3	unknown, alcohol, marijuana	20	26.7
	Total		75	100.0
Allen				
	1	alcohol, marijuana	349	38.9
	2	alcohol, marijuana, cocaine	255	28.4
	3	alcohol, cocaine	85	9.5
	4	marijuana, unknown, alcohol	77	8.6
	5	alcohol, unknown	52	5.8
	6	cocaine, marijuana	48	5.3
	7	other opiates/synthetics, alcohol, marijuana	32	3.6
	Total		898	100.0
Bartholomew				
	1	methamphetamine, other opiates/synthetics	121	38.2
	3	alcohol, marijuana	121	38.2
	2	cocaine, alcohol, marijuana	75	23.7
	Total		317	100.0
Benton				
	1	marijuana, alcohol	11	52.4
	2	alcohol, unknown	10	47.6
	Total		21	100.0
Blackford				
	4	alcohol, marijuana	31	38.8
	2	unknown, alcohol, marijuana	20	25.0
	3	alcohol, cocaine, marijuana	16	20.0
	1	other opiates/synthetics, alcohol	13	16.3
	Total		80	100.0
Boone				
	3	marijuana, alcohol	44	45.8
	1	cocaine, marijuana, alcohol	20	20.8
	5	alcohol, cocaine, heroin	14	14.6
	2	marijuana, other opiates/synthetics, alcohol	10	10.4
	4	alcohol, methamphetamine, marijuana	8	8.3
	Total		96	100.0
Brown				
	2	alcohol, marijuana	16	38.1
	3	marijuana, methamphetamine, alcohol	11	26.2
	1	other opiates/synthetics, alcohol, benzodiazepines	10	23.8
	4	alcohol, cocaine, marijuana	5	11.9
	Total		42	100.0
Carroll				
	1	marijuana, alcohol	40	71.4
	2	methamphetamine, marijuana, alcohol	8	14.3
	3	cocaine, alcohol, marijuana	8	14.3
	Total		56	100.0
Cass				
	2	alcohol, marijuana	61	54.0
	1	marijuana, unknown, alcohol	20	17.7
	4	cocaine, alcohol, marijuana	12	10.6
	3	alcohol, unknown	10	8.8
	5	methamphetamine, cocaine, other opiates/synthetics	10	8.8
	Total		113	100.0
Clark				
	2	marijuana, alcohol	82	21.2
	1	alcohol, cocaine, marijuana	78	20.2
	5	other opiates/synthetics, marijuana	66	17.1
	3	cocaine, other opiates/synthetics	44	11.4
	4	alcohol, other opiates/synthetics, marijuana	44	11.4
	6	cocaine, marijuana	37	9.6
	7	marijuana, benzodiazepines	35	9.1
	Total		386	100.0
Clay				
	1	marijuana, alcohol	25	22.7
	3	alcohol, marijuana, methamphetamine	25	22.7
	4	alcohol, marijuana, unknown	21	19.1
	6	marijuana, methamphetamine, unknown	14	12.7
	5	alcohol, unknown	13	11.8
	2	alcohol, methamphetamine	12	10.9
	Total		110	100.0
Clinton				
	2	alcohol, marijuana	26	56.5
	1	alcohol, cocaine, marijuana	7	15.2
	4	cocaine, marijuana	7	15.2
	3	alcohol, other opiates/synthetics, marijuana	6	13.0
	Total		46	100.0
Crawford				
	1	marijuana, alcohol	12	36.4
	2	methamphetamine, alcohol	11	33.3
	4	alcohol, other opiates/synthetics	7	21.2
	3	other opiates/synthetics, benzodiazepines	3	9.1
	Total		33	100.0
Daviess				
	4	alcohol, marijuana	29	21.8
	1	alcohol, unknown, marijuana	27	20.3
	2	alcohol, marijuana, methamphetamine	24	18.0
	5	other opiates/synthetics, marijuana	24	18.0
	3	marijuana, methamphetamine	21	15.8
	6	methamphetamine, benzodiazepines, alcohol, other opiates/synthetics	8	6.0
	Total		133	100.0
Dearborn				
	1	alcohol, marijuana	50	63.3
	2	other opiates/synthetics, marijuana	29	36.7
	Total		79	100.0
Decatur				
	3	alcohol, marijuana	25	38.5
	1	cocaine, marijuana	10	15.4
	2	methamphetamine, marijuana, alcohol	8	12.3
	4	alcohol, methamphetamine	7	10.8
	6	marijuana, other opiates/synthetics, alcohol	6	9.2
	5	alcohol, unknown, marijuana	5	7.7
	7	cocaine, other opiates/synthetics	4	6.2
	Total		65	100.0

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APPENDIX 10B *(continued from previous page)*

County	Cluster #	Cluster Composition	N	%
DeKalb				
	1	alcohol, marijuana	32	57.1
	3	cocaine, marijuana	10	17.9
	2	methamphetamine, marijuana, alcohol	8	14.3
	4	marijuana, other opiates/synthetics, benzodiazepines	6	10.7
	Total		56	100.0
Delaware				
	1	alcohol, marijuana	181	28.7
	2	cocaine, alcohol, marijuana	181	28.7
	3	other opiates, alcohol, marijuana	146	23.1
	4	unknown, alcohol, marijuana	123	19.5
	Total		631	100.0
DuBois				
	1	alcohol, marijuana	34	28.3
	2	methamphetamine, alcohol, marijuana	34	28.3
	5	other opiates/synthetics	23	19.2
	3	alcohol, unknown	17	14.2
	4	alcohol, benzodiazepines, marijuana	12	10.0
	Total		120	100.0
Elkhart				
	1	alcohol, marijuana	164	43.3
	4	alcohol, cocaine	67	17.7
	2	alcohol, cocaine, marijuana	57	15.0
	3	methamphetamine, marijuana	42	11.1
	5	cocaine, marijuana	26	6.9
	6	other opiates/synthetics, alcohol, marijuana	23	6.1
	Total		379	100.0
Fayette				
	1	alcohol, unknown, marijuana	17	38.6
	3	other opiates/synthetics, alcohol	15	34.1
	2	alcohol, marijuana	12	27.3
	Total		44	100.0
Floyd				
	4	alcohol, marijuana	25	19.2
	3	alcohol, cocaine, marijuana	24	18.5
	5	other opiates/synthetics, cocaine	17	13.1
	6	marijuana, other opiates/synthetics	16	12.3
	2	other opiates/synthetics, benzodiazepines, alcohol	14	10.8
	1	alcohol, other opiates/synthetics	12	9.2
	8	cocaine, alcohol	12	9.2
	7	marijuana, methamphetamine	10	7.7
	Total		130	100.0
Fountain				
	1	alcohol, marijuana, unknown	15	23.4
	2	alcohol, marijuana	13	20.3
	4	marijuana, unknown	11	17.2
	3	alcohol, unknown	9	14.1
	5	benzodiazepines, alcohol	9	14.1
	6	alcohol, cocaine, methamphetamine	7	10.9
	Total		64	100.0
Franklin				
	1	alcohol, marijuana	16	41.0
	2	cocaine, marijuana	12	30.8
	3	marijuana, other opiates/synthetics, benzodiazepines	11	28.2
	Total		39	100.0
Fulton				
	3	marijuana, alcohol	42	34.7
	1	marijuana, unknown, alcohol	33	27.3
	2	unknown, alcohol	29	24.0
	4	alcohol, marijuana, methamphetamine	17	14.0
	Total		121	100.0
Gibson				
	2	alcohol, unknown	27	32.5
	1	methamphetamine, marijuana, unknown	20	24.1
	3	alcohol, marijuana, methamphetamine	14	16.9
	5	alcohol, marijuana	13	15.7
	4	alcohol, methamphetamine, unknown	9	10.8
	Total		83	100.0
Grant		No Data		
Greene				
	3	marijuana, alcohol	21	32.3
	1	alcohol, marijuana, methamphetamine	11	16.9
	2	methamphetamine, alcohol, unknown	11	16.9
	6	benzodiazepines, marijuana	9	13.8
	5	alcohol, unknown	8	12.3
	4	marijuana, other opiates/synthetics, unknown	5	7.7
	Total		65	100.0
Hamilton				
	1	alcohol, marijuana	208	48.5
	2	alcohol, cocaine, marijuana	73	17.0
	3	other opiates/synthetics, alcohol	39	9.1
	6	cocaine, marijuana	35	8.2
	5	marijuana, other opiates/synthetics, alcohol	30	7.0
	4	unknown, marijuana, alcohol	22	5.1
	7	benzodiazepines, marijuana, alcohol	22	5.1
	Total		429	100.0
Hancock				
	1	marijuana, alcohol	50	57.5
	2	alcohol, cocaine, marijuana	12	13.8
	4	benzodiazepines, marijuana, alcohol	11	12.6
	3	cocaine, marijuana	7	8.0
	5	alcohol, other opiates/synthetics	7	8.0
	Total		87	100.0
Harrison				
	1	alcohol, marijuana	20	51.3
	2	methamphetamine, marijuana	19	48.7
	Total		39	100.0
Hendricks				
	1	marijuana, alcohol	75	43.1
	2	alcohol, cocaine, marijuana	24	13.8
	4	other opiates/synthetics, marijuana	18	10.3
	7	alcohol, cocaine	17	9.8
	3	heroin	15	8.6
	5	cocaine, marijuana	14	8.0
	6	marijuana, methamphetamine, alcohol	11	6.3
	Total		174	100.0
Henry				
	3	marijuana, alcohol	31	26.3
	1	benzodiazepines, other opiates/synthetics	29	24.6
	4	cocaine, alcohol, marijuana	21	17.8
	2	other opiates/synthetics, marijuana	19	16.1
	5	alcohol, other opiates/synthetics	18	15.3
	Total		118	100.0
Howard				
	1	alcohol, marijuana	119	34.2
	6	alcohol, cocaine, marijuana	54	15.5
	2	other opiates/synthetics, alcohol, marijuana	44	12.6

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APPENDIX 10B *(continued from previous page)*

County	Cluster #	Cluster Composition	N	%
Howard (cont.)	3	cocaine, alcohol	37	10.6
	4	marijuana, other opiates/synthetics, cocaine	36	10.3
	7	methamphetamine, marijuana, alcohol	31	8.9
	5	benzodiazepines, other opiates/synthetics	27	7.8
	Total		348	100.0
Huntington				
	2	alcohol, marijuana	18	62.1
	1	alcohol, other opiates/synthetics, marijuana	7	24.1
	3	cocaine, alcohol	4	13.8
	Total		29	100.0
Jackson				
	3	other opiates/synthetics, alcohol	29	27.9
	4	alcohol, marijuana	23	22.1
	2	alcohol, marijuana, methamphetamine	19	18.3
	1	methamphetamine, marijuana	17	16.3
	5	cocaine, alcohol, marijuana	16	15.4
	Total		104	100.0
Jasper				
	1	alcohol, cocaine, marijuana	13	24.1
	2	marijuana, unknown, alcohol	12	22.2
	4	alcohol, unknown	12	22.2
	5	alcohol, marijuana	9	16.7
	3	marijuana, cocaine, heroin	8	14.8
	Total		54	100.0
Jay				
	2	alcohol, marijuana, unknown	25	26.9
	3	alcohol, marijuana	21	22.6
	1	alcohol, unknown	13	14.0
	6	marijuana	13	14.0
	4	alcohol, cocaine, marijuana	11	11.8
	5	other opiates/synthetics, alcohol, marijuana	10	10.8
	Total		93	100.0
Jefferson				
	3	alcohol, marijuana	27	26.2
	6	alcohol, cocaine, marijuana	19	18.4
	1	alcohol, other opiates/synthetics	17	16.5
	4	methamphetamine, marijuana, alcohol	15	14.6
	2	marijuana, benzodiazepines, other opiates/synthetics	14	13.6
	5	cocaine, marijuana, other opiates/synthetics	11	10.7
	Total		103	100.0
Jennings				
	3	marijuana, alcohol	43	43.0
	2	other opiates/synthetics, alcohol	39	39.0
	1	cocaine, alcohol, marijuana	18	18.0
	Total		100	100.0
Johnson				
	1	alcohol, marijuana	57	33.7
	2	other opiates/synthetics	25	14.8
	4	alcohol, cocaine, marijuana	22	13.0
	3	marijuana, cocaine	20	11.8
	6	alcohol, other opiates/synthetics	19	11.2
	5	unknown, alcohol, marijuana	13	7.7
	7	methamphetamine, alcohol, marijuana	13	7.7
	Total		169	100.0
Knox				
	1	alcohol, methamphetamine, marijuana	39	26.4
	5	methamphetamine, marijuana	35	23.6
	3	marijuana, alcohol	27	18.2
	2	alcohol, other opiates/synthetics	18	12.2
	6	alcohol, unknown	15	10.1
	4	marijuana, other opiates/ synthetics, benzodiazepines	14	9.5
	Total		148	100.0
Kosciusko				
	2	alcohol, marijuana	40	40.8
	1	marijuana, unknown, alcohol	22	22.4
	3	unknown, alcohol	20	20.4
	4	other opiates/synthetics, marijuana	16	16.3
	Total		98	100.0
LaGrange				
	2	alcohol, marijuana	26	33.3
	1	alcohol, marijuana, methamphetamine	20	25.6
	4	methamphetamine, alcohol	8	10.3
	3	alcohol, cocaine, marijuana	6	7.7
	5	unknown, alcohol, marijuana	6	7.7
	6	marijuana, methamphetamine, cocaine	6	7.7
	7	other opiates/synthetics, alcohol	6	7.7
	Total		78	100.0
Lake				
	2	alcohol, marijuana	334	30.0
	1	alcohol, cocaine, marijuana	303	27.2
	3	unknown, alcohol	176	15.8
	4	heroin, cocaine	155	13.9
	5	marijuana, cocaine	144	12.9
	Total		1,112	100.0
LaPorte				
	3	alcohol, marijuana	93	36.3
	4	alcohol, cocaine, marijuana	50	19.5
	2	alcohol, unknown	29	11.3
	1	alcohol, cocaine	25	9.8
	6	other opiates/synthetics, alcohol, marijuana	19	7.4
	7	marijuana, unknown, alcohol	17	6.6
	8	heroin, marijuana, other opiates/synthetics	13	5.1
	5	cocaine, heroin, marijuana	10	3.9
	Total		256	100.0
Lawrence				
	3	alcohol, marijuana	35	43.8
	2	benzodiazepines, other opiates/synthetics	11	13.8
	5	other opiates/synthetics, marijuana, alcohol	11	13.8
	4	alcohol, cocaine	9	11.3
	1	methamphetamine, marijuana	8	10.0
	6	marijuana, benzodiazepines	6	7.5
	Total		80	100.0
Madison				
	1	alcohol, marijuana	143	26.4
	4	alcohol, cocaine, marijuana	84	15.5
	3	alcohol, other opiates/synthetics	77	14.2
	2	marijuana, other opiates/synthetics	74	13.7
	6	alcohol, benzodiazepines, marijuana	60	11.1

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APPENDIX 10B *(continued from previous page)*

County	Cluster #	Cluster Composition	N	%
Madison (cont.)	5	unknown, alcohol, marijuana	58	10.7
	7	alcohol, marijuana, other opiates/synthetics	46	8.5
	Total		542	100.0
Marion				
	1	alcohol, marijuana	740	31.3
	5	alcohol, cocaine, marijuana	341	14.4
	4	cocaine, alcohol	320	13.6
	2	cocaine, marijuana	267	11.3
	3	other opiates/synthetics	257	10.9
	7	unknown, alcohol	239	10.1
	6	heroin, cocaine	197	8.3
	Total		2,361	100.0
Marshall				
	1	alcohol, marijuana	47	35.6
	2	unknown, alcohol, marijuana	43	32.6
	3	cocaine, alcohol, marijuana	28	21.2
	4	other opiates/synthetics	14	10.6
	Total		132	100.0
Martin				
	1	methamphetamine, alcohol, marijuana	13	41.9
	2	alcohol, unknown, marijuana	9	29.0
	3	marijuana, alcohol, benzodiazepines	9	29.0
	Total		31	100.0
Miami				
	2	marijuana, alcohol	33	30.8
	5	methamphetamine, marijuana	25	23.4
	3	other opiates/synthetics, alcohol, marijuana	19	17.8
	4	unknown, alcohol, marijuana	16	15.0
	1	cocaine, marijuana, alcohol	14	13.1
	Total		107	100.0
Monroe				
	1	alcohol, marijuana	276	44.5
	4	marijuana, cocaine	125	20.2
	3	other opiates/synthetics	117	18.9
	2	alcohol, cocaine	102	16.5
	Total		620	100.0
Montgomery				
	1	alcohol, marijuana	54	31.6
	3	methamphetamine, marijuana, cocaine	40	23.4
	2	unknown, alcohol, marijuana	37	21.6
	4	other opiates/synthetics, marijuana	27	15.8
	5	benzodiazepines, marijuana, alcohol	13	7.6
	Total		171	100.0
Morgan				
	1	alcohol, marijuana	75	39.3
	3	methamphetamine, marijuana	35	18.3
	4	alcohol, other opiates/synthetics	31	16.2
	5	marijuana, other opiates/ synthetics	28	14.7
	2	cocaine, marijuana	22	11.5
	Total		191	100.0
Newton				
	1	marijuana, alcohol, cocaine	10	50.0
	2	marijuana, unknown, alcohol	5	25.0
	3	alcohol, cocaine, unknown	5	25.0
	Total		20	100.0
Noble				
	3	alcohol, marijuana	72	39.3
	4	marijuana, methamphetamine	35	19.1
	2	alcohol, marijuana, methamphetamine	27	14.8
	1	cocaine, alcohol, marijuana	20	10.9
	5	alcohol, methamphetamine	17	9.3
	6	unknown, alcohol, marijuana	12	6.6
	Total		183	100.0
Ohio				
	2	alcohol, marijuana, other opiates/synthetics	6	60.0
	1	alcohol, unknown	4	40.0
	Total		10	100.0
Orange	2	alcohol, marijuana	31	72.1
	1	other opiates/synthetics, marijuana	12	27.9
	Total		43	100.0
Owen				
	2	alcohol, marijuana	50	41.3
	1	methamphetamine, marijuana	37	30.6
	3	alcohol, unknown, marijuana	34	28.1
	Total		121	100.0
Parke				
	1	alcohol, unknown	17	25.4
	3	alcohol, methamphetamine, marijuana	10	14.9
	4	alcohol, marijuana	10	14.9
	2	other opiates/synthetics, marijuana	9	13.4
	6	marijuana, methamphetamine, unknown	8	11.9
	7	alcohol, marijuana, unknown	7	10.4
	5	marijuana, unknown	6	9.0
	Total		67	100.0
Perry				
	1	alcohol, marijuana	26	36.6
	2	alcohol, methamphetamine, marijuana	19	26.8
	3	alcohol, unknown	10	14.1
	5	marijuana, methamphetamine	10	14.1
	4	alcohol, cocaine, marijuana	6	8.5
	Total		71	100.0
Pike				
	1	methamphetamine, marijuana, alcohol	7	38.9
	2	alcohol, marijuana	7	38.9
	3	other opiates/synthetics, benzodiazepines, alcohol, unknown	4	22.2
	Total		18	100.0
Porter	1	alcohol, marijuana	82	27.9
	5	heroin, alcohol	54	18.4
	2	other opiates/synthetics, alcohol	51	17.3
	4	cocaine, marijuana, alcohol	45	15.3
	3	unknown, alcohol	41	13.9
	6	alcohol, cocaine	21	7.1
	Total		294	100.0
Posey				
	5	unknown, alcohol	28	20.9
	3	marijuana, methamphetamine, alcohol	25	18.7
	1	alcohol, marijuana, unknown	24	17.9
	7	alcohol, marijuana	23	17.2

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APPENDIX 10B *(continued from previous page)*

County	Cluster #	Cluster Composition	N	%
Posey (cont.)	4	alcohol, methamphetamine	12	9.0
	2	cocaine, marijuana, alcohol	11	8.2
	6	marijuana, other opiates/synthetics	11	8.2
	Total		134	100.0
Pulaski				
	1	alcohol, unknown	22	41.5
	2	marijuana, unknown	16	30.2
	3	alcohol, marijuana	15	28.3
	Total		53	100.0
Putnam				
	1	marijuana	61	62.2
	2	unknown, alcohol	37	37.8
	Total		98	100.0
Randolph				
	1	marijuana, unknown, alcohol	20	40.0
	2	alcohol, marijuana	15	30.0
	3	alcohol, unknown	15	30.0
	Total		50	100.0
Ripley				
	3	alcohol, marijuana	13	39.4
	2	other opiates/synthetics, benzodiazepines	7	21.2
	4	cocaine, marijuana, alcohol	7	21.2
	1	alcohol, methamphetamine, cocaine	6	18.2
	Total		33	100.0
Rush				
	3	unknown, marijuana	10	33.3
	1	alcohol, unknown	8	26.7
	2	alcohol, marijuana	7	23.3
	4	other opiates/synthetics, marijuana	5	16.7
	Total		30	100.0
Saint Joseph				
	4	alcohol, cocaine, marijuana	228	25.4
	2	unknown, alcohol	187	20.9
	5	alcohol, cocaine	167	18.6
	1	alcohol, marijuana	159	17.7
	3	cocaine, marijuana	155	17.3
	Total		896	100.0
Scott				
	2	alcohol, marijuana	52	58.4
	1	other opiates/synthetics, cocaine	37	41.6
	Total		89	100.0
Shelby				
	1	marijuana, alcohol	38	63.3
	2	heroin, alcohol, marijuana	12	20.0
	3	cocaine, marijuana, alcohol	10	16.7
	Total		60	100.0
Spencer				
	1	alcohol, marijuana	27	45.0
	2	methamphetamine, marijuana, alcohol	20	33.3
	3	unknown, alcohol	13	21.7
	Total		60	100.0
Starke				
	1	alcohol, marijuana	50	44.2
	4	marijuana, other opiates/ synthetics	18	15.9
	6	other opiates/synthetics, methamphetamine, benzodiazepines, cocaine	15	13.3
	5	unknown, alcohol	14	12.4
	3	heroin, cocaine	9	8.0
Starke (cont.)	2	marijuana, methamphetamine, alcohol	7	6.2
	Total		113	100.0
Steuben				
	1	alcohol, marijuana	24	36.9
	2	cocaine, alcohol, marijuana	15	23.1
	3	alcohol, marijuana, unknown	13	20.0
	5	alcohol, unknown	8	12.3
	4	alcohol, marijuana, methamphetamine	5	7.7
	Total		65	100.0
Sullivan				
	5	marijuana, methamphetamine, alcohol	12	15.0
	1	unknown, marijuana, methamphetamine	11	13.8
	3	alcohol, marijuana	11	13.8
	4	alcohol, unknown	11	13.8
	6	alcohol, methamphetamine	11	13.8
	2	alcohol, marijuana, unknown	10	12.5
	7	other opiates/synthetics, alcohol	8	10.0
	8	marijuana, other opiates/synthetics	6	7.5
	Total		80	100.0
Switzerland				
	1	marijuana, alcohol	13	46.4
	2	unknown, alcohol	9	32.1
	3	other opiates/synthetics, alcohol, cocaine	6	21.4
	Total		28	100.0
Tippecanoe				
	1	marijuana, alcohol	148	26.4
	5	marijuana, unknown, alcohol	87	15.5
	4	benzodiazepines, alcohol, marijuana	73	13.0
	3	alcohol, cocaine, marijuana	72	12.9
	6	unknown, alcohol	61	10.9
	7	alcohol, cocaine	60	10.7
	2	cocaine, marijuana	59	10.5
	Total		560	100.0
Tipton				
	1	alcohol, marijuana	22	61.1
	2	other opiates/synthetics, alcohol, marijuana, benzodiazepines	8	22.2
	3	cocaine, alcohol	6	16.7
	Total		36	100.0
Union		No Data		
Vanderburgh				
	3	methamphetamine, marijuana, alcohol	236	17.0
	4	unknown, alcohol	228	16.4
	1	alcohol, marijuana	217	15.6
	2	alcohol, marijuana, unknown	180	12.9
	7	other opiates/synthetics, alcohol	154	11.1
	5	cocaine, marijuana, alcohol	126	9.1
	6	marijuana, unknown	125	9.0
	8	cocaine, alcohol	124	8.9
	Total		1,390	100.0
Vermillion				
	3	alcohol, unknown	19	24.7
	4	alcohol, marijuana	17	22.1
	2	alcohol, marijuana, unknown	16	20.8
	1	unknown, marijuana	13	16.9

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APPENDIX 10B *(continued from previous page)*

County	Cluster #	Cluster Composition	N	%
Vermillion (cont.)	5	methamphetamine, alcohol	12	15.6
	Total		77	100.0
Vigo				
	3	unknown, alcohol, marijuana	167	32.4
	2	marijuana, alcohol	145	28.1
	1	methamphetamine, marijuana	137	26.6
	4	alcohol, other opiates/synthetics	67	13.0
	Total		516	100.0
Wabash				
	1	alcohol, marijuana	69	63.9
	3	unknown, alcohol, marijuana	24	22.2
	2	nonmedical methadone	15	13.9
	Total		108	100.0
Warren				
	1	marijuana, alcohol	11	52.4
	2	unknown, alcohol, marijuana	10	47.6
	Total		21	100.0
Warrick				
	3	alcohol, marijuana	44	20.8
	2	alcohol, unknown	41	19.3
	5	alcohol, marijuana, unknown	38	17.9
	4	alcohol, methamphetamine, marijuana	31	14.6
	6	unknown, marijuana, methamphetamine	23	10.8
	1	marijuana, methamphetamine	18	8.5
	7	other opiates/synthetics, alcohol, marijuana	17	8.0
	Total		212	100.0
Washington				
	1	alcohol, marijuana	19	35.8
	4	alcohol, cocaine	15	28.3
	2	benzodiazepines, alcohol, marijuana, other opiates/synthetics	10	18.9
	3	marijuana, cocaine, other opiates/synthetics	9	17.0
	Total		53	100.0
Wayne				
	1	alcohol, marijuana	64	28.2
	3	alcohol, cocaine, marijuana	39	17.2
	4	unknown, alcohol, marijuana	28	12.3
	7	other opiates/synthetics, marijuana	28	12.3
	2	marijuana, cocaine	26	11.5
	5	other opiates/synthetics, alcohol	24	10.6
	6	alcohol, marijuana, other opiates/synthetics	18	7.9
	Total		227	100.0
Wells				
	1	alcohol, marijuana	33	50.0
	2	marijuana, unknown, alcohol	10	15.2
	5	cocaine, marijuana, alcohol	9	13.6
	4	unknown, alcohol	8	12.1
	3	alcohol, cocaine	6	9.1
	Total		66	100.0
White				
	1	alcohol, marijuana	50	37.0
	2	cocaine, marijuana, alcohol	23	17.0
	3	alcohol, marijuana, unknown	14	10.4
	4	marijuana, benzodiazepines, alcohol	13	9.6
	5	other opiates/synthetics, alcohol, marijuana	13	9.6
	7	unknown, alcohol	12	8.9
	6	alcohol, cocaine, methamphetamine	10	7.4
	Total		135	100.0
Whitley				
	1	marijuana, alcohol	20	45.5
	2	alcohol, marijuana, unknown	11	25.0
	3	alcohol, unknown	7	15.9
	4	cocaine, marijuana, alcohol	6	13.6
	Total		44	100.0

Source: Indiana Family and Social Services Administration, Revenue Enhancement and Data, 2009

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11. Communities with Significant Substance Abuse Challenges

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[2] at 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 three points if they were in the top 10 percent (90th percentile), two points if they were in the top 25 percent (75th percentile), one point if they were in the top 50 percent (50th percentile), and zero points if they fell below the 50th percentile. The points were then added up 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 Indiana Automated Reporting Information Exchange System (ARIES) (Indiana State Police, 2009).

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 charged 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 194-195, for the coverage indicator by county.

Alcohol Indicators

We examined the ranking of communities based on 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 2008 ARIES database (Indiana State Police, 2009) and the 2007 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 196-197.

[1]Substance abuse proxy indicators are indirect measures that represent the impact of alcohol and drug use on the community.
[2]The rate was calculated by taking the number of an event (e.g., number of arrests), dividing it by the specified population (e.g., county population), and multiplying the result by 1,000. This represents the rate per 1,000 population.

Table 11.1 Counties with Alcohol Priority Scores in the Top 10 and 25 Percent (Automated Reporting Information Exchange System, 2008; Uniform Crime Reporting Program, 2007)

Top 10%	Alcohol Priority Score	Top 25%	Alcohol Priority Score
LaPorte	27	Allen	17
Lake	26	Elkhart	17
Tippecanoe	25	Floyd	16
Porter	21	Bartholomew	15
Monroe	20	Johnson	15
Vanderburgh	20	Kosciusko	15
Vigo	20	Steuben	15
Wayne	20	Marshall	14
Madison	19	Delaware	13
Clark	18	Hamilton	13
Marion	18	Howard	13
		Saint Joseph	13
		White	13

Note: Alcohol priority scores ranged from 0 to 27; higher scores indicate a more severe problem.
Source: Indiana State Police, 2009; 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. For a complete listing of counties by cocaine and methamphetamine abuse indicators, see Appendix 11C, pages 198-199.

Table 11.2 Counties with Cocaine Priority Scores in the Top 10 and 25 Percent (Uniform Crime Reporting Program, 2007)

Top 10%	Cocaine Priority Score	Top 25%	Cocaine Priority Score
Allen	12	Clark	7
Howard	12	Elkhart	7
Marion	12	Hamilton	7
Lake	11	Morgan	7
LaPorte	11	Shelby	7
Tippecanoe	11	Vigo	7
Grant	10	Bartholomew	6
Vanderburgh	10	Floyd	6
Wayne	9	Madison	6
Decatur	8	Steuben	6
Delaware	8	Carroll	5
Monroe	8	Hendricks	5
Saint Joseph	8	Jefferson	5
		Miami	5
		Montgomery	5

Note: Cocaine priority scores ranged from 0 to 12; higher 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.

Table 11.3 Counties with Methamphetamine Priority Scores in the Top 10 and 25 Percent (Uniform Crime Reporting Program, 2007)

Top 10%	Meth Priority Score	Top 25%	Meth Priority Score
Bartholomew	12	Hamilton	6
Grant	12	Hendricks	6
Warrick	12	Marshall	6
Daviess	11	Wayne	6
Vanderburgh	11	Blackford	5
Vigo	11	Brown	5
Tippecanoe	10	Dearborn	5
Clark	9	Dubois	5
Scott	8	Gibson	5
Carroll	7	Hancock	5
Jackson	7	Knox	5
Noble	7	Kosciusko	5
Putnam	7	Lake	5
Rush	7	Lawrence	5
		Madison	5
		Union	5

Note: Methamphetamine priority scores ranged from 0 to 12; higher 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.

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 200-201.

Overall Use Indicators

Drugs are related to crime in multiple ways. Most directly, it is a crime to use, possess, manufacture, or distribute drugs classified as having a potential for abuse. But drugs are also associated with crime due to the effects they have on the user's behavior and by generating violence and other illegal activity. Drug users in the general population are more likely to commit crimes than nonusers (U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, 1994).

We identified additional variables from the 2007 UCR program to serve as proxy indicators for overall substance abuse. These indicators included arrests for the possession and sale/manufacture of any illicit substance (see Table 11.6) and for property crimes (see Table 11.7).

For a complete listing of counties by these two overall abuse indicators, see Appendix 11E, pages 202-203. Also, see Map 11.1, page 205, for drug-related arrest rates by county.

Table 11.4 Counties with Marijuana Priority Scores in the Top 10 and 25 Percent (Uniform Crime Reporting Program, 2007)

Top 10%	Marijuana Priority Score	Top 25%	Marijuana Priority Score
Tippecanoe	11	Clark	6
Vanderburgh	11	Dearborn	6
Lake	10	Grant	6
Marion	10	Jennings	6
Floyd	8	Knox	6
Johnson	8	LaPorte	6
Putnam	8	Monroe	6
Shelby	8	Noble	6
Vigo	8	Porter	6
Allen	7	Saint Joseph	6
Bartholomew	7		
Hendricks	7		
Morgan	7		
Wayne	7		

Note: Marijuana priority scores ranged from 0 to 11; higher 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.

[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 Priority Scores in the Top 10 and 25 Percent (Uniform Crime Reporting Program, 2007)

Top 10%	Rx Priority Score	Top 25%	Rx Priority Score
Floyd	12	Fayette	8
Vanderburgh	12	Johnson	8
Lake	11	Knox	8
Marion	11	Madison	8
Cass	10	Perry	8
Morgan	10	Clark	7
Steuben	10	Jasper	7
Vigo	10	Tippecanoe	7
Allen	9	Carroll	6
Howard	9	Dearborn	6
Monroe	9	Gibson	6
Saint Joseph	9	Hendricks	6
		Jennings	6

Note: Prescription drug priority scores ranged from 0 to 12; higher 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.

Table 11.6 Counties with Drug Arrest Priority Scores in the Top 10 and 25 Percent (Uniform Crime Reporting Program, 2007)

Top 10%	Drug Arrests Priority Score	Top 25%	Drug Arrests Priority Score
Bartholomew	6	Clark	3
Floyd	6	Hamilton	3
Marion	6	Jackson	3
Tippecanoe	6	Johnson	3
Vanderburgh	6	Monroe	3
Vigo	6	Noble	3
Grant	5	Putnam	3
Howard	5	Rush	3
Lake	5	Shelby	3
Allen	4	White	3
Decatur	4		
LaPorte	4		
Morgan	4		
Saint Joseph	4		
Wayne	4		

Note: Drug arrest priority scores ranged from 0 to 6; higher 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.

Research suggests an association between property crimes and substance use, in part because these crimes provide a venue for users to pay for drugs (U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, 1994). 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, 2007)

Top 10%	Property Crime Priority Score	Top 25%	Property Crime Priority Score
Clark	6	Bartholomew	4
Floyd	6	Elkhart	4
Lake	6	Fayette	4
Marion	6	Kosciusko	4
Tippecanoe	6	Madison	4
Allen	5	Scott	4
Grant	5	Steuben	4
Johnson	5	Vigo	4
LaPorte	5	Wayne	4
Saint Joseph	5	Cass	3
Vanderburgh	5	Decatur	3
		Delaware	3
		Dubois	3
		Hendricks	3
		Howard	3
		Jay	3
		Monroe	3
		Porter	3

Note: Property crime priority scores ranged from 0 to 6; higher 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.

Youth Substance Use Indicators

Studies have shown that runaway and homeless adolescents are at a greater risk for abuse of alcohol and other drugs (Greene, Ennett, Ringwalt, 1997; Windle, 1988). Therefore, we selected runaway arrests from the 2007 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, page 204, for a complete listing of runaway arrests by county.

Table 11.8 Counties with Runaway Priority Scores in the Top 10 and 25 Percent (Uniform Crime Reporting Program, 2007)

Top 10%	Runaway Priority Score	Top 25%	Runaway Priority Score
LaPorte	6	Allen	4
Madison	6	Bartholomew	4
Saint Joseph	6	Brown	4
Tippecanoe	6	Cass	4
Vigo	6	Clark	4
Elkhart	5	Lake	4
Grant	5	Monroe	4
Henry	5	Noble	4
Howard	5	Wayne	4
Shelby	5	Fayette	3
Vanderburgh	5	Hamilton	3
		Hancock	3
		Huntington	3
		Jackson	3
		Johnson	3
		Knox	3
		Vermillion	3

Note: Runaway priority scores ranged from 0 to 6; higher 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 11A

Annual Coverage Indicator for Uniform Crime Reporting Program, with County Population Estimates (Uniform Crime Reporting Program, 2007)

County	Coverage Indicator	Total County Population	Juvenile County Population (0-17 years)
Adams	40.38	33,716	10,117
Allen	100.00	349,275	94,619
Bartholomew	100.00	74,459	19,056
Benton	0.00	8,999	2,247
Blackford	100.00	13,401	2,975
Boone	70.61	54,605	14,376
Brown	100.00	15,074	2,890
Carroll	100.00	20,568	4,726
Cass	53.25	39,730	9,815
Clark	27.28	104,524	25,356
Clay	30.43	27,073	6,437
Clinton	28.00	34,234	8,844
Crawford	0.00	11,180	2,539
Daviess	62.77	30,261	8,403
Dearborn	8.76	50,131	12,445
Decatur	42.30	24,990	6,453
DeKalb	35.86	42,099	10,931
Delaware	100.00	114,285	23,764
Dubois	48.79	41,412	10,312
Elkhart	95.61	200,505	56,395
Fayette	57.52	24,510	5,644
Floyd	100.00	72,776	17,614
Fountain	19.30	17,415	4,093
Franklin	0.00	22,053	5,841
Fulton	0.00	20,621	4,890
Gibson	8.66	33,501	7,750
Grant	100.00	69,312	14,879
Greene	75.17	33,364	7,596
Hamilton	70.27	261,991	78,009
Hancock	26.90	66,484	16,764
Harrison	100.00	37,343	8,612
Hendricks	46.89	135,315	35,339
Henry	55.21	46,710	10,497
Howard	100.00	84,391	20,602
Huntington	100.00	37,996	8,885
Jackson	45.26	42,526	10,430
Jasper	19.26	32,591	8,119
Jay	28.33	21,702	5,610
Jefferson	0.00	32,789	7,315
Jennings	48.28	28,572	7,389
Johnson	95.48	136,319	35,146
Knox	87.76	38,089	8,031
Kosciusko	22.83	76,511	19,861
LaGrange	100.00	37,619	11,954
Lake	77.30	495,334	128,179
LaPorte	92.07	110,465	25,578
Lawrence	79.90	46,456	10,505
Madison	100.00	130,139	29,947

(continued on next page)

APPENDIX 11A *(Continued from previous page)*

County	Coverage Indicator	Total County Population	Juvenile County Population (0-17 years)
Marion	97.97	865,796	234,486
Marshall	24.59	47,570	12,229
Martin	74.25	10,333	2,304
Miami	0.00	35,446	8,240
Monroe	100.00	122,838	22,510
Montgomery	39.64	38,234	9,102
Morgan	33.14	70,753	17,304
Newton	100.00	14,249	3,112
Noble	28.37	48,109	12,785
Ohio	0.00	5,849	1,283
Orange	0.00	19,697	4,756
Owen	0.00	22,853	5,070
Parke	100.00	16,982	3,555
Perry	40.16	18,828	3,895
Pike	0.00	12,854	2,841
Porter	91.00	161,951	38,135
Posey	0.00	26,708	6,029
Pulaski	0.00	13,870	3,281
Putnam	72.74	37,085	7,972
Randolph	82.99	26,454	6,037
Ripley	0.00	29,370	7,213
Rush	31.65	17,600	4,288
Saint Joseph	99.88	266,662	67,584
Scott	25.15	23,786	5,806
Shelby	58.26	44,121	10,724
Spencer	0.00	20,613	4,748
Starke	100.00	22,994	5,684
Steuben	100.00	33,720	7,941
Sullivan	19.10	21,502	4,462
Switzerland	0.00	9,809	2,228
Tippecanoe	100.00	157,120	34,524
Tipton	100.00	16,336	3,664
Union	58.33	7,279	1,730
Vanderburgh	100.00	173,484	40,545
Vermillion	29.46	16,618	3,706
Vigo	57.33	102,578	23,142
Wabash	49.24	33,344	7,170
Warren	0.00	8,734	1,952
Warrick	100.00	57,738	13,898
Washington	23.29	28,163	6,725
Wayne	56.60	68,503	15,621
Wells	100.00	28,269	6,733
White	100.00	24,266	5,708
Whitley	30.76	32,806	8,017
Indiana		**6,345,289**	**1,586,518**

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 (Automated Reporting Information Exchange System, 2008; Uniform Crime Reporting Program, 2007)

	Alcohol-Related Collisions		Alcohol-Related Fatal Collisions		DUI Arrests		Public Intoxication		Liquor Law Violations Arrests		Alcohol Priority Score
County	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Adams	27	0.79	1	*0.03	183	5.43	63	1.87	79	2.34	3
Allen	591	1.69	4	*0.01	2,132	6.10	789	2.26	185	0.53	17
Bartholomew	95	1.26	1	*0.01	459	6.16	486	6.53	219	2.94	15
Benton	5	*0.57	1	*0.11	41	4.56	19	*2.11	19	*2.11	3
Blackford	10	*0.76	1	*0.08	66	4.93	32	2.39	33	2.46	4
Boone	56	1.02	2	*0.04	205	3.75	94	1.72	115	2.11	6
Brown	38	2.61	0	*0.00	70	4.64	4	*0.27	16	*1.06	3
Carroll	18	*0.91	1	*0.05	137	6.66	49	2.38	36	1.75	3
Cass	58	1.48	0	*0.00	181	4.56	345	8.68	135	3.40	11
Clark	222	2.08	2	*0.02	626	5.99	475	4.54	286	2.74	18
Clay	40	1.50	2	*0.07	110	4.06	85	3.14	28	1.03	6
Clinton	42	1.23	1	*0.03	129	3.77	32	0.93	174	5.08	6
Crawford	17	*1.60	2	*0.19	55	4.92	20	1.79	23	2.06	6
Daviess	30	1.00	2	*0.07	200	6.61	94	3.11	90	2.97	9
Dearborn	76	1.52	0	*0.00	269	5.37	125	2.49	109	2.17	7
Decatur	41	1.64	1	*0.04	140	5.60	143	5.72	30	1.20	7
DeKalb	57	1.36	2	*0.05	261	6.20	153	3.63	117	2.78	11
Delaware	190	1.66	3	*0.03	568	4.97	300	2.63	77	0.67	13
Dubois	42	1.01	2	*0.05	168	4.06	117	2.83	121	2.92	7
Elkhart	271	1.36	8	*0.04	886	4.42	437	2.18	481	2.40	17
Fayette	30	1.24	2	*0.08	108	4.41	19	*0.78	197	8.04	8
Floyd	147	1.99	2	*0.03	588	8.08	311	4.27	88	1.21	16
Fountain	23	1.35	0	*0.00	88	5.05	41	2.35	35	2.01	1
Franklin	36	1.54	2	*0.09	86	3.90	27	1.22	31	1.41	5
Fulton	36	1.77	0	*0.00	113	5.48	58	2.81	58	2.81	5
Gibson	56	1.71	4	*0.12	154	4.60	55	1.64	52	1.55	8
Grant	88	1.28	2	*0.03	329	4.75	220	3.17	137	1.98	9
Greene	33	1.01	0	*0.00	159	4.77	75	2.25	52	1.56	0
Hamilton	230	0.85	3	*0.01	902	3.44	246	0.94	575	2.19	13
Hancock	69	1.03	3	*0.04	385	5.79	173	2.60	108	1.62	11
Harrison	70	1.89	4	*0.11	145	3.88	37	0.99	5	*0.13	9
Hendricks	148	1.08	4	*0.03	588	4.35	188	1.39	280	2.07	10
Henry	41	0.87	0	*0.00	201	4.30	119	2.55	117	2.50	5
Howard	132	1.58	5	*0.06	275	3.26	242	2.87	129	1.53	13
Huntington	39	1.04	1	*0.03	165	4.34	25	0.66	115	3.03	3
Jackson	59	1.40	1	*0.02	212	4.99	159	3.74	142	3.34	10
Jasper	54	1.66	0	*0.00	149	4.57	48	1.47	58	1.78	3
Jay	24	1.12	1	*0.05	119	5.48	92	4.24	81	3.73	7
Jefferson	61	1.86	1	*0.03	183	5.58	99	3.02	97	2.96	11
Jennings	41	1.46	2	*0.07	79	2.76	68	2.38	55	1.92	4
Johnson	143	1.03	3	*0.02	724	5.31	203	1.49	578	4.24	15
Knox	65	1.71	0	*0.00	97	2.55	98	2.57	409	10.74	11
Kosciusko	97	1.27	3	*0.04	350	4.57	286	3.74	247	3.23	15
LaGrange	47	1.26	0	*0.00	119	3.16	43	1.14	126	3.35	4
Lake	967	1.96	17	*0.03	3,679	7.43	2,462	4.97	1,333	2.69	26
LaPorte	220	1.98	8	*0.07	1,077	9.75	517	4.68	551	4.99	27
Lawrence	60	1.31	2	*0.04	185	3.98	193	4.15	44	0.95	7
Madison	219	1.67	4	*0.03	526	4.04	568	4.36	395	3.04	19
Marion	1,170	1.33	35	0.04	3,072	3.55	5,634	6.51	282	0.33	18
Marshall	68	1.46	1	*0.02	440	9.25	203	4.27	157	3.30	14
Martin	9	*0.90	0	*0.00	47	4.55	21	2.03	12	*1.16	0
Miami	46	1.27	0	*0.00	196	5.53	104	2.93	103	2.91	7

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APPENDIX 11B *(Continued from previous page)*

County	Alcohol-Related Collisions		Alcohol-Related Fatal Collisions		DUI Arrests		Public Intoxication		Liquor Law Violations Arrests		Alcohol Priority Score
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Monroe	210	1.63	5	*0.04	534	4.35	564	4.59	1,236	10.06	20
Montgomery	50	1.32	0	*0.00	267	6.98	129	3.37	116	3.03	8
Morgan	88	1.25	2	*0.03	246	3.48	60	0.85	278	3.93	9
Newton	18	*1.29	3	*0.22	123	8.63	72	5.05	1	*0.07	11
Noble	54	1.13	3	*0.06	307	6.38	102	2.12	140	2.91	11
Ohio	11	*1.91	0	*0.00	23	3.93	7	*1.20	8	*1.37	3
Orange	26	1.33	0	*0.00	98	4.98	36	1.83	41	2.08	1
Owen	38	1.70	2	*0.09	89	3.89	28	1.23	32	1.40	6
Parke	24	1.40	1	*0.06	75	4.42	40	2.36	20	1.18	3
Perry	31	1.64	0	*0.00	132	7.01	78	4.14	84	4.46	9
Pike	16	*1.27	1	*0.08	68	5.29	31	2.41	33	2.57	5
Porter	299	1.84	9	*0.06	918	5.67	372	2.30	637	3.93	21
Posey	40	1.53	0	*0.00	123	4.61	59	2.21	59	2.21	1
Pulaski	20	1.46	1	*0.07	69	4.97	25	1.80	29	2.09	4
Putnam	29	0.78	0	*0.00	200	5.39	203	5.47	68	1.83	7
Randolph	28	1.09	1	*0.04	99	3.74	50	1.89	72	2.72	2
Ripley	25	0.91	0	*0.00	156	5.31	74	2.52	76	2.59	3
Rush	25	1.45	1	*0.06	100	5.68	79	4.49	54	3.07	8
Saint Joseph	404	1.51	5	*0.02	862	3.23	160	0.60	385	1.44	13
Scott	22	0.93	0	*0.00	102	4.29	103	4.33	57	2.40	4
Shelby	77	1.74	1	*0.02	279	6.32	134	3.04	150	3.40	11
Spencer	53	2.64	2	*0.10	102	4.95	37	1.79	43	2.09	9
Starke	43	1.82	3	*0.13	150	6.52	66	2.87	77	3.35	12
Steuben	58	1.74	2	*0.06	264	7.83	53	1.57	237	7.03	15
Sullivan	28	1.31	3	*0.14	78	3.63	62	2.88	24	1.12	6
Switzerland	5	*0.52	0	*0.00	49	5.00	18	*1.84	21	2.14	1
Tippecanoe	335	2.04	4	*0.02	900	5.73	973	6.19	858	5.46	25
Tipton	19	*1.19	1	*0.06	77	4.71	32	1.96	7	*0.43	2
Union	11	*1.54	0	*0.00	36	4.95	26	3.57	19	*2.61	4
Vanderburgh	319	1.83	5	*0.03	1,031	5.94	719	4.14	103	0.59	20
Vermillion	21	1.29	0	*0.00	77	4.63	33	1.99	16	*0.96	0
Vigo	182	1.72	5	*0.05	739	7.20	348	3.39	320	3.12	20
Wabash	25	0.76	1	*0.03	143	4.29	75	2.25	99	2.97	3
Warren	12	*1.40	2	*0.23	43	4.92	16	*1.83	18	*2.06	6
Warrick	56	0.97	2	*0.03	201	3.48	85	1.47	123	2.13	6
Washington	34	1.22	0	*0.00	200	7.10	46	1.63	38	1.35	4
Wayne	120	1.77	4	*0.06	369	5.39	483	7.05	175	2.55	20
Wells	27	0.97	0	*0.00	52	1.84	38	1.34	86	3.04	2
White	27	1.13	1	*0.04	277	11.42	169	6.96	110	4.53	13
Whitley	47	1.44	2	*0.06	148	4.51	48	1.46	94	2.87	7
Indiana	**9,411**	**1.48**	**218**	**0.03**	**32,232**	**5.08**	**22,229**	**3.50**	**15,066**	**2.37**	
Minimum	5	0.52	0	0.00	23	1.84	4	0.27	1	0.07	0
Maximum	1,170	2.64	35	0.23	3,679	11.42	5,634	8.68	1,333	10.74	27

* Rates that are based on numbers lower than 20 are unreliable.

Note: Priority scores were computed using a highest need/highest contributor model; i.e., they were based on a county's need for intervention (measured by the rate at 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 three points if they were in the top 10 percent (90th percentile), two points if they were in the top 25 percent (75th percentile), one point if they were in the top 50 percent (50th percentile), and zero points if they fell below the 50th percentile. The points were then added up to an overall priority score. The alcohol priority score was based on 10 indicators: number and rate of alcohol-related collisions; number and rate of alcohol-related fatal collisions; number and rate of DUI arrests; number and rate of arrests for public intoxication; and number and rate of arrests for liquor law violations. The highest possible alcohol priority score was 30 (3 points for being in the top 10 percent, multiplied by 10 indicators). Higher priority scores indicate a more severe problem.

Source: Indiana State Police, 2009; 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, 2007)

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	
Adams	4	*0.12	6	*0.18	0	6	*0.18	4	*0.12	2
Allen	341	0.98	162	0.46	12	1	*0.00	1	*0.00	0
Bartholomew	66	0.89	6	*0.08	6	104	1.40	31	0.42	12
Benton	3	*0.33	3	*0.33	3	2	*0.22	1	*0.11	0
Blackford	6	*0.45	4	*0.30	3	11	*0.82	2	*0.15	5
Boone	10	*0.18	7	*0.13	2	6	*0.11	1	*0.02	0
Brown	0	*0.00	0	*0.00	0	5	*0.33	5	*0.33	5
Carroll	12	*0.58	6	*0.29	5	13	*0.63	6	*0.29	7
Cass	0	*0.00	13	*0.33	3	3	*0.08	0	*0.00	0
Clark	42	0.40	31	0.30	7	41	0.39	21	0.20	9
Clay	5	*0.18	5	*0.18	0	15	*0.55	2	*0.07	3
Clinton	5	*0.15	14	*0.41	3	5	*0.15	4	*0.12	2
Crawford	2	*0.18	3	*0.27	1	3	*0.27	2	*0.18	2
Daviess	7	*0.23	9	*0.30	4	21	0.69	22	0.73	11
Dearborn	14	*0.28	14	*0.28	4	12	*0.24	8	*0.16	5
Decatur	30	1.20	9	*0.36	8	14	*0.56	3	*0.12	4
DeKalb	14	*0.33	9	*0.21	3	9	*0.21	5	*0.12	3
Delaware	77	0.67	24	0.21	8	37	0.32	1	*0.01	3
Dubois	8	*0.19	6	*0.14	1	21	0.51	4	*0.10	5
Elkhart	111	0.55	16	*0.08	7	25	0.12	10	*0.05	4
Fayette	9	*0.37	4	*0.16	3	4	*0.16	3	*0.12	1
Floyd	3	*0.04	149	2.05	6	12	*0.16	0	*0.00	1
Fountain	4	*0.23	7	*0.40	4	4	*0.23	4	*0.23	4
Franklin	5	*0.23	6	*0.27	2	3	*0.14	2	*0.09	0
Fulton	6	*0.29	7	*0.34	4	7	*0.34	3	*0.15	3
Gibson	6	*0.18	7	*0.21	1	17	*0.51	5	*0.15	5
Grant	36	0.52	77	1.11	10	52	0.75	20	0.29	12
Greene	4	*0.12	3	*0.09	0	6	*0.18	1	*0.03	0
Hamilton	56	0.21	101	0.39	7	74	0.28	8	*0.03	6
Hancock	17	*0.26	14	*0.21	3	27	0.41	5	*0.08	5
Harrison	1	*0.03	0	*0.00	0	8	*0.21	4	*0.11	2
Hendricks	42	0.31	24	0.18	5	40	0.30	9	*0.07	6
Henry	9	*0.19	8	*0.17	2	7	*0.15	2	*0.04	1
Howard	110	1.30	104	1.23	12	2	*0.02	3	*0.04	0
Huntington	1	*0.03	1	*0.03	0	0	*0.00	5	*0.13	2
Jackson	5	*0.12	13	*0.31	2	25	0.59	7	*0.16	7
Jasper	6	*0.18	8	*0.25	2	4	*0.12	4	*0.12	2
Jay	7	*0.32	5	*0.23	3	5	*0.23	3	*0.14	2
Jefferson	10	*0.30	11	*0.34	5	11	*0.34	5	*0.15	4
Jennings	0	*0.00	0	*0.00	0	0	*0.00	7	*0.24	4
Johnson	25	0.18	12	*0.09	3	4	*0.03	1	*0.01	0
Knox	14	*0.37	5	*0.13	3	4	*0.11	16	*0.42	5
Kosciusko	15	*0.20	17	*0.22	3	17	*0.22	16	*0.21	5
LaGrange	0	*0.00	0	*0.00	0	0	*0.00	0	*0.00	0
Lake	274	0.55	311	0.63	11	53	0.11	10	*0.02	5
LaPorte	64	0.58	115	1.04	11	11	*0.10	4	*0.04	2
Lawrence	3	*0.06	2	*0.04	0	22	0.47	4	*0.09	5
Madison	57	0.44	20	0.15	6	30	0.23	9	*0.07	5
Marion	1,642	1.90	756	0.87	12	11	*0.01	61	0.07	4
Marshall	9	*0.19	11	*0.23	3	26	0.55	6	*0.13	6
Martin	1	*0.10	1	*0.10	0	5	*0.48	2	*0.19	4
Miami	11	*0.31	12	*0.34	5	12	*0.34	6	*0.17	4
Monroe	35	0.28	53	0.43	8	13	*0.11	0	*0.00	1

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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	
Montgomery	20	0.52	9	*0.24	5	7	*0.18	5	*0.13	3
Morgan	26	0.37	17	*0.24	7	7	*0.10	4	*0.06	2
Newton	3	*0.21	1	*0.07	0	1	*0.07	4	*0.28	3
Noble	10	*0.21	11	*0.23	3	23	0.48	8	*0.17	7
Ohio	1	*0.17	2	*0.34	2	1	*0.17	1	*0.17	1
Orange	4	*0.20	6	*0.30	1	6	*0.30	4	*0.20	4
Owen	5	*0.22	6	*0.26	1	4	*0.18	2	*0.09	0
Parke	4	*0.24	2	*0.12	1	1	*0.06	1	*0.06	0
Perry	3	*0.16	3	*0.16	0	18	*0.96	2	*0.11	4
Pike	3	*0.23	4	*0.31	2	4	*0.31	2	*0.16	2
Porter	42	0.26	7	*0.04	4	26	0.16	7	*0.04	4
Posey	8	*0.30	8	*0.30	4	6	*0.22	2	*0.07	0
Pulaski	3	*0.22	4	*0.29	1	4	*0.29	3	*0.22	3
Putnam	9	*0.24	10	*0.27	4	7	*0.19	17	*0.46	7
Randolph	6	*0.23	2	*0.08	1	3	*0.11	2	*0.08	0
Ripley	8	*0.27	9	*0.31	4	9	*0.31	5	*0.17	4
Rush	3	*0.17	3	*0.17	0	13	*0.74	4	*0.23	7
Saint Joseph	213	0.80	58	0.22	8	24	0.09	4	*0.02	3
Scott	7	*0.29	7	*0.29	4	19	*0.80	6	*0.25	8
Shelby	16	*0.36	47	1.07	7	16	*0.36	4	*0.09	3
Spencer	4	*0.19	6	*0.29	1	6	*0.29	4	*0.19	4
Starke	0	*0.00	0	*0.00	0	3	*0.13	2	*0.09	0
Steuben	7	*0.21	16	*0.47	6	1	*0.03	4	*0.12	2
Sullivan	7	*0.33	5	*0.23	3	3	*0.14	2	*0.09	0
Switzerland	2	*0.20	3	*0.31	1	3	*0.31	2	*0.20	3
Tippecanoe	72	0.46	68	0.43	11	125	0.80	22	0.14	10
Tipton	1	*0.06	0	*0.00	0	10	*0.61	0	*0.00	3
Union	3	*0.41	0	*0.00	2	0	*0.00	7	*0.96	5
Vanderburgh	84	0.48	62	0.36	10	94	0.54	73	0.42	11
Vermillion	3	*0.18	3	*0.18	0	3	*0.18	1	*0.06	0
Vigo	39	0.38	32	0.31	7	103	1.00	22	0.21	11
Wabash	5	*0.15	6	*0.18	0	9	*0.27	4	*0.12	4
Warren	2	*0.23	2	*0.23	2	3	*0.34	2	*0.23	3
Warrick	2	*0.03	3	*0.05	0	40	0.69	32	0.55	12
Washington	5	*0.18	6	*0.21	0	7	*0.25	4	*0.14	4
Wayne	45	0.66	23	0.34	9	19	*0.28	11	*0.16	6
Wells	3	*0.11	0	*0.00	0	5	*0.18	0	*0.00	0
White	10	*0.41	0	*0.00	3	2	*0.08	0	*0.00	0
Whitley	5	*0.15	6	*0.18	0	6	*0.18	2	*0.06	0
Indiana	**3,937**	**0.62**	**2,668**	**0.42**		**1,511**	**0.24**	**649**	**0.10**	
Minimum	0	0.00	0	0.00	0	0	0.00	0	0.00	0
Maximum	1,642	1.90	756	2.05	12	125	1.40	73	0.96	12

* Rates that are based on numbers lower than 20 are unreliable.

Note: Priority scores were computed using a highest need/highest contributor model; i.e., they were based on a county's need for intervention (measured by the rate at 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 three points if they were in the top 10 percent (90th percentile), two points if they were in the top 25 percent (75th percentile), one point if they were in the top 50 percent (50th percentile), and zero points if they fell below the 50th percentile. The points were then added up to an overall priority score. The cocaine priority score was based on four indicators: number and rate of arrests for cocaine possession; and number and rate of arrests for cocaine sale/manufacture. The highest possible cocaine priority score was 12 (3 points for being in the top 10 percent, multiplied by four indicators).

The methamphetamine priority score was based on four indicators: number and rate of arrests for methamphetamine possession; and number and rate of arrests for methamphetamine sale/manufacture. The highest possible methamphetamine priority score was 12 (3 points for being in the top 10 percent, multiplied by four indicators).

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, 2007)

County	Marijuana Possession Arrests		Marijuana Sale Arrests		Marijuana Priority Score	Prescription Drug Possession Arrests		Prescription Drug Sale Arrests		Presc. Drug Priority Score
	Number	Rate	Number	Rate		Number	Rate	Number	Rate	
Adams	45	1.33	3	*0.09	0	2	*0.06	1	*0.03	0
Allen	755	2.16	45	0.13	7	158	0.45	27	0.08	9
Bartholomew	353	4.74	10	*0.13	7	49	0.66	0	*0.00	5
Benton	15	*1.67	2	*0.22	1	3	*0.33	1	*0.11	3
Blackford	48	3.58	3	*0.22	4	1	*0.07	1	*0.07	1
Boone	71	1.30	9	*0.16	3	9	*0.16	3	*0.05	2
Brown	8	*0.53	0	*0.00	0	0	*0.00	0	*0.00	0
Carroll	55	2.67	4	*0.19	3	12	*0.58	2	*0.10	6
Cass	85	2.14	9	*0.23	4	16	*0.40	21	0.53	10
Clark	259	2.48	24	0.23	6	36	0.34	9	*0.09	7
Clay	51	1.88	4	*0.15	0	5	*0.18	2	*0.07	2
Clinton	66	1.93	17	*0.50	5	16	*0.47	1	*0.03	4
Crawford	17	*1.52	1	*0.09	0	1	*0.09	0	*0.00	0
Daviess	66	2.18	5	*0.17	3	9	*0.30	1	*0.03	2
Dearborn	74	1.48	30	0.60	6	14	*0.28	7	*0.14	6
Decatur	94	3.76	2	*0.08	4	2	*0.08	0	*0.00	0
DeKalb	91	2.16	10	*0.24	5	9	*0.21	3	*0.07	4
Delaware	164	1.44	9	*0.08	3	1	*0.01	3	*0.03	1
Dubois	93	2.25	2	*0.05	2	3	*0.07	3	*0.07	2
Elkhart	385	1.92	16	*0.08	5	20	0.10	3	*0.01	3
Fayette	58	2.37	6	*0.24	4	22	0.90	3	*0.12	8
Floyd	202	2.78	24	0.33	8	89	1.22	102	1.40	12
Fountain	36	2.07	2	*0.11	1	3	*0.17	1	*0.06	1
Franklin	27	1.22	4	*0.18	1	6	*0.27	2	*0.09	4
Fulton	42	2.04	4	*0.19	2	5	*0.24	1	*0.05	1
Gibson	44	1.31	8	*0.24	3	16	*0.48	2	*0.06	6
Grant	232	3.35	10	*0.14	6	4	*0.06	2	*0.03	1
Greene	48	1.44	4	*0.12	0	12	*0.36	1	*0.03	3
Hamilton	485	1.85	20	0.08	5	24	0.09	11	*0.04	4
Hancock	122	1.84	8	*0.12	2	13	*0.20	5	*0.08	3
Harrison	45	1.21	3	*0.08	0	2	*0.05	0	*0.00	0
Hendricks	219	1.62	62	0.46	7	29	0.21	9	*0.07	6
Henry	62	1.33	16	*0.34	4	12	*0.26	2	*0.04	3
Howard	252	2.99	6	*0.07	5	52	0.62	14	*0.17	9
Huntington	57	1.50	3	*0.08	0	18	*0.47	1	*0.03	4
Jackson	135	3.17	4	*0.09	4	14	*0.33	4	*0.09	5
Jasper	32	0.98	19	*0.58	5	7	*0.21	20	0.61	7
Jay	45	2.07	2	*0.09	1	7	*0.32	1	*0.05	1
Jefferson	70	2.13	7	*0.21	4	9	*0.27	2	*0.06	4
Jennings	9	*0.31	69	2.41	6	1	*0.03	34	1.19	6
Johnson	387	2.84	22	0.16	8	73	0.54	10	*0.07	8
Knox	37	0.97	57	1.50	6	15	*0.39	15	*0.39	8
Kosciusko	160	2.09	7	*0.09	4	9	*0.12	3	*0.04	2
LaGrange	0	*0.00	0	*0.00	0	0	*0.00	0	*0.00	0
Lake	1,137	2.30	426	0.86	10	441	0.89	57	0.12	11
LaPorte	302	2.73	16	*0.14	6	9	*0.08	1	*0.01	1
Lawrence	86	1.85	2	*0.04	1	14	*0.30	1	*0.02	2
Madison	202	1.55	16	*0.12	4	77	0.59	11	*0.08	8
Marion	2,309	2.67	304	0.35	10	587	0.68	101	0.12	11
Marshall	102	2.14	6	*0.13	3	15	*0.32	2	*0.04	3
Martin	16	*1.55	1	*0.10	0	1	*0.10	0	*0.00	0
Miami	74	2.09	8	*0.23	4	9	*0.25	2	*0.06	4
Monroe	263	2.14	21	0.17	6	70	0.57	11	*0.09	9

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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		Presc. Drug Priority Score
	Number	Rate	Number	Rate		Number	Rate	Number	Rate	
Montgomery	105	2.75	4	*0.10	3	11	*0.29	1	*0.03	2
Morgan	134	1.89	58	0.82	7	68	0.96	14	*0.20	10
Newton	22	1.54	15	*1.05	4	0	*0.00	0	*0.00	0
Noble	121	2.52	15	*0.31	6	13	*0.27	1	*0.02	2
Ohio	7	*1.20	1	*0.17	1	1	*0.17	1	*0.17	3
Orange	29	1.47	2	*0.10	0	2	*0.10	1	*0.05	0
Owen	28	1.23	4	*0.18	1	6	*0.26	2	*0.09	4
Parke	43	2.53	8	*0.47	5	0	*0.00	0	*0.00	0
Perry	51	2.71	3	*0.16	3	13	*0.69	4	*0.21	8
Pike	23	1.79	2	*0.16	1	2	*0.16	1	*0.08	1
Porter	353	2.18	24	0.15	6	26	0.16	6	*0.04	4
Posey	47	1.76	6	*0.22	2	9	*0.34	3	*0.11	5
Pulaski	21	1.51	1	*0.07	0	2	*0.14	0	*0.00	0
Putnam	83	2.24	38	1.02	8	10	*0.27	3	*0.08	4
Randolph	55	2.08	7	*0.26	4	3	*0.11	2	*0.08	2
Ripley	55	1.87	5	*0.17	1	6	*0.20	2	*0.07	2
Rush	83	4.72	2	*0.11	4	1	*0.06	0	*0.00	0
Saint Joseph	615	2.31	25	0.09	6	129	0.48	20	0.08	9
Scott	48	2.02	3	*0.13	1	5	*0.21	1	*0.04	1
Shelby	113	2.56	33	0.75	8	13	*0.29	4	*0.09	5
Spencer	31	1.50	2	*0.10	0	2	*0.10	1	*0.05	0
Starke	30	1.30	0	*0.00	0	4	*0.17	1	*0.04	0
Steuben	70	2.08	5	*0.15	2	23	0.68	14	*0.42	10
Sullivan	21	0.98	5	*0.23	1	4	*0.19	2	*0.09	3
Switzerland	15	*1.53	1	*0.10	0	1	*0.10	0	*0.00	0
Tippecanoe	698	4.44	60	0.38	11	26	0.17	19	*0.12	7
Tipton	41	2.51	1	*0.06	2	3	*0.18	0	*0.00	0
Union	33	4.53	0	*0.00	3	0	*0.00	0	*0.00	0
Vanderburgh	497	2.86	128	0.74	11	133	0.77	43	0.25	12
Vermillion	23	1.38	7	*0.42	3	3	*0.18	1	*0.06	1
Vigo	319	3.11	17	*0.17	8	133	1.30	9	*0.09	10
Wabash	48	1.44	10	*0.30	3	3	*0.09	1	*0.03	0
Warren	13	*1.49	1	*0.11	0	1	*0.11	0	*0.00	0
Warrick	116	2.01	11	*0.19	4	3	*0.05	4	*0.07	2
Washington	42	1.49	4	*0.14	0	7	*0.25	2	*0.07	3
Wayne	188	2.74	16	*0.23	7	8	*0.12	6	*0.09	4
Wells	25	0.88	0	*0.00	0	1	*0.04	0	*0.00	0
White	105	4.33	4	*0.16	5	6	*0.25	0	*0.00	1
Whitley	50	1.52	4	*0.12	0	8	*0.24	2	*0.06	3
Indiana	**14,493**	**2.28**	**1,904**	**0.30**		**2,720**	**0.43**	**690**	**0.11**	
Minimum	0	0.00	0	0.00	0	0	0.00	0	0.00	0
Maximum	2,309	4.74	426	2.41	11	587	1.30	102	1.40	12

* Rates that are based on numbers lower than 20 are unreliable.

Note: Priority scores were computed using a highest need/highest contributor model; i.e., they were based on a county's need for intervention (measured by the rate at 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 three points if they were in the top 10 percent (90th percentile), two points if they were in the top 25 percent (75th percentile), one point if they were in the top 50 percent (50th percentile), and zero points if they fell below the 50th percentile. The points were then added up to an overall priority score. The marijuana priority score was based on four indicators: number and rate of arrests for marijuana possession; and number and rate of arrests for marijuana sale/manufacture. The highest possible marijuana priority score was 12 (three points for being in the top 10 percent, multiplied by four indicators).

The prescription drug priority score was based on four indicators: number and rate of arrests for prescription drug possession; and number and rate of arrests for prescription drug sale/manufacture. The highest possible prescription drug priority score was 12 (three points for being in the top 10 percent, multiplied by four indicators).

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, 2007)

County	Total Drug Possession and Sale Arrests		Total Drug Priority Score	Property Crime Arrests		Property Crime Priority Score
	Number	Rate		Number	Rate	
Adams	79	2.34	0	83	2.46	0
Allen	1,490	4.27	4	1,864	5.34	5
Bartholomew	619	8.31	6	466	6.26	4
Benton	30	3.33	0	34	3.78	1
Blackford	76	5.67	2	56	4.18	1
Boone	117	2.14	0	129	2.36	1
Brown	18	*1.19	0	13	*0.86	0
Carroll	110	5.35	2	76	3.70	0
Cass	148	3.73	2	270	6.80	3
Clark	465	4.45	3	940	8.99	6
Clay	90	3.32	0	97	3.58	0
Clinton	135	3.94	2	98	2.86	0
Crawford	35	3.13	0	28	2.50	0
Daviess	140	4.63	2	150	4.96	2
Dearborn	175	3.49	1	174	3.47	1
Decatur	160	6.40	4	140	5.60	3
DeKalb	159	3.78	2	123	2.92	0
Delaware	316	2.77	2	457	4.00	3
Dubois	149	3.60	1	221	5.34	3
Elkhart	587	2.93	2	903	4.50	4
Fayette	114	4.65	2	201	8.20	4
Floyd	616	8.46	6	849	11.67	6
Fountain	65	3.73	1	68	3.90	1
Franklin	56	2.54	0	56	2.54	0
Fulton	81	3.93	1	86	4.17	1
Gibson	107	3.19	0	130	3.88	2
Grant	433	6.25	5	507	7.31	5
Greene	80	2.40	0	82	2.46	0
Hamilton	782	2.98	3	552	2.11	2
Hancock	211	3.17	1	215	3.23	1
Harrison	63	1.69	0	51	1.37	0
Hendricks	437	3.23	2	679	5.02	3
Henry	141	3.02	1	191	4.09	2
Howard	543	6.43	5	431	5.11	3
Huntington	86	2.26	0	157	4.13	2
Jackson	215	5.06	3	78	1.83	0
Jasper	103	3.16	0	92	2.82	0
Jay	79	3.64	0	144	6.64	3
Jefferson	135	4.12	2	148	4.51	2
Jennings	120	4.20	1	79	2.76	0
Johnson	534	3.92	3	912	6.69	5
Knox	163	4.28	2	73	1.92	0
Kosciusko	270	3.53	1	432	5.65	4
LaGrange	90	2.39	0	38	1.01	0
Lake	2,712	5.48	5	3,531	7.13	6
LaPorte	521	4.72	4	839	7.60	5
Lawrence	134	2.88	1	127	2.73	1
Madison	422	3.24	2	702	5.39	4
Marion	5,770	6.66	6	7,320	8.45	6
Marshall	190	3.99	2	206	4.33	2
Martin	29	2.81	0	35	3.39	0
Miami	143	4.03	2	155	4.37	2

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APPENDIX 11E *(Continued from previous page)*

County	Total Drug Possession and Sale Arrests		Total Drug Priority Score	Property Crime Arrests		Property Crime Priority Score
	Number	Rate		Number	Rate	
Monroe	466	3.79	3	525	4.27	3
Montgomery	172	4.50	2	113	2.96	0
Morgan	331	4.68	4	351	4.96	2
Newton	46	3.23	0	15	*1.05	0
Noble	223	4.64	3	177	3.68	1
Ohio	15	*2.56	0	15	*2.56	0
Orange	62	3.15	0	50	2.54	0
Owen	58	2.54	0	58	2.54	0
Parke	59	3.47	0	50	2.94	0
Perry	103	5.47	2	95	5.05	1
Pike	47	3.66	1	46	3.58	0
Porter	491	3.03	2	803	4.96	3
Posey	90	3.37	0	104	3.89	1
Pulaski	43	3.10	0	35	2.52	0
Putnam	178	4.80	3	161	4.34	2
Randolph	80	3.02	0	78	2.95	0
Ripley	108	3.68	1	108	3.68	0
Rush	116	6.59	3	63	3.58	0
Saint Joseph	1,088	4.08	4	1,628	6.11	5
Scott	101	4.25	1	172	7.23	4
Shelby	246	5.58	3	199	4.51	2
Spencer	65	3.15	0	52	2.52	0
Starke	46	2.00	0	88	3.83	1
Steuben	140	4.15	2	248	7.35	4
Sullivan	49	2.28	0	50	2.33	0
Switzerland	31	3.16	0	25	2.55	0
Tippecanoe	1,090	6.94	6	1,193	7.59	6
Tipton	56	3.43	0	52	3.18	0
Union	43	5.91	2	17	*2.34	0
Vanderburgh	1,114	6.42	6	1,224	7.06	5
Vermillion	45	2.71	0	38	2.29	0
Vigo	679	6.62	6	680	6.63	4
Wabash	93	2.79	0	72	2.16	0
Warren	27	3.09	0	22	2.52	0
Warrick	211	3.65	2	127	2.20	1
Washington	77	2.73	0	60	2.13	0
Wayne	327	4.77	4	456	6.66	4
Wells	34	1.20	0	60	2.12	0
White	127	5.23	3	47	1.94	0
Whitley	84	2.56	0	86	2.62	0
Indiana	**29,004**	**4.57**		**34,931**	**5.51**	
Minimum	15	1.19	0	13	0.86	0
Maximum	5,770	8.46	6	7,320	11.67	6

* Rates that are based on numbers lower than 20 are unreliable.

Note: Priority scores were computed using a highest need/highest contributor model; i.e., they were based on a county's need for intervention (measured by the rate at 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 three points if they were in the top 10 percent (90th percentile), two points if they were in the top 25 percent (75th percentile), one point if they were in the top 50 percent (50th percentile), and zero points if they fell below the 50th percentile. The points were then added up to an overall priority score. The total drug priority score was based on two indicators: number of arrests for drug possession and sale/manufacture and rate of arrests for drug possession and sale/manufacture. The highest possible total drug priority score was 6 (three points for being in the top 10 percent, multiplied by two indicators).

The property crime priority score was based on two indicators: number of property crime arrests and rate of property crime arrests. The highest possible property crime priority score was 6 (three points for being in the top 10 percent, multiplied by two indicators).

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

Youth Substance Use Indicator (Juvenile Runaway Arrests) and Priority Scores by County, All Rates per 1,000 Population (Uniform Crime Reporting Program, 2007)

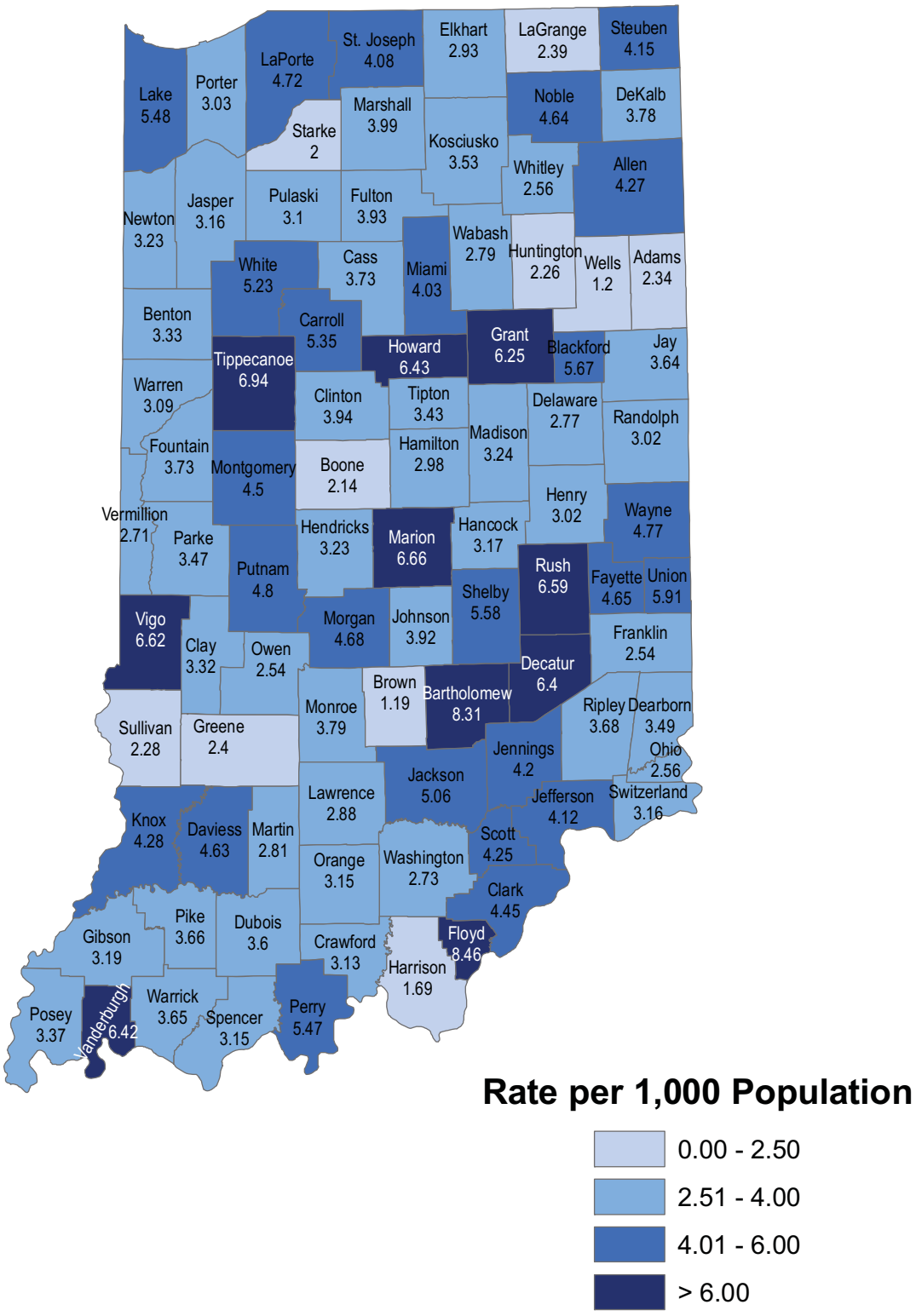
County	Runaway Arrests (Juveniles Only)		Runaway Priority Score
	Number	Rate	
Adams	9	*0.89	0
Allen	207	2.19	4
Bartholomew	86	4.51	4
Benton	5	*2.23	1
Blackford	0	*0.00	0
Boone	17	*1.18	1
Brown	28	9.69	4
Carroll	2	*0.42	0
Cass	43	4.38	4
Clark	84	3.31	4
Clay	16	*2.49	2
Clinton	5	*0.57	0
Crawford	3	*1.18	0
Daviess	14	*1.67	1
Dearborn	24	1.93	2
Decatur	11	*1.70	1
DeKalb	15	*1.37	1
Delaware	16	*0.67	1
Dubois	9	*0.87	0
Elkhart	253	4.49	5
Fayette	21	3.72	3
Floyd	29	1.65	1
Fountain	6	*1.47	0
Franklin	9	*1.54	0
Fulton	10	*2.04	1
Gibson	12	*1.55	0
Grant	96	6.45	5
Greene	9	*1.18	0
Hamilton	122	1.56	3
Hancock	51	3.04	3
Harrison	9	*1.05	0
Hendricks	36	1.02	1
Henry	80	7.62	5
Howard	115	5.58	5
Huntington	37	4.16	3
Jackson	38	3.64	3
Jasper	11	*1.35	0
Jay	6	*1.07	0
Jefferson	18	*2.46	2
Jennings	0	*0.00	0
Johnson	86	2.45	3
Knox	28	3.49	3
Kosciusko	18	*0.91	1
LaGrange	0	*0.00	0
Lake	344	2.68	4
LaPorte	227	8.87	6
Lawrence	25	2.38	2
Madison	271	9.05	6
Marion	34	0.14	1
Marshall	16	*1.31	1
Martin	3	*1.30	0
Miami	19	*2.31	2
Monroe	78	3.47	4
Montgomery	8	*0.88	0
Morgan	23	1.33	1
Newton	3	*0.96	0
Noble	41	3.21	4
Ohio	2	*1.56	0
Orange	5	*1.05	0
Owen	9	*1.78	1
Parke	1	*0.28	0
Perry	4	*1.03	0
Pike	5	*1.76	1
Porter	50	1.31	2
Posey	15	*2.49	2
Pulaski	4	*1.22	0
Putnam	12	*1.51	0
Randolph	8	*1.33	0
Ripley	13	*1.80	1
Rush	11	*2.57	1
Saint Joseph	701	10.37	6
Scott	11	*1.89	1
Shelby	51	4.76	5
Spencer	5	*1.05	0
Starke	16	*2.81	2
Steuben	25	3.15	2
Sullivan	7	*1.57	0
Switzerland	2	*0.90	0
Tippecanoe	167	4.84	6
Tipton	2	*0.55	0
Union	0	*0.00	0
Vanderburgh	180	4.44	5
Vermillion	15	*4.05	3
Vigo	146	6.31	6
Wabash	5	*0.70	0
Warren	2	*1.02	0
Warrick	16	*1.15	1
Washington	9	*1.34	0
Wayne	54	3.46	4
Wells	4	*0.59	0
White	11	*1.93	1
Whitley	22	2.74	2
Indiana	**4,376**	**2.76**	
Minimum	0	0.00	0
Maximum	701	10.37	6

* Rates that are based on numbers lower than 20 are unreliable.

Note: Priority scores were computed using a highest need/highest contributor model; i.e., they were based on a county's need for intervention (measured by the rate at 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 three points if they were in the top 10 percent (90th percentile), two points if they were in the top 25 percent (75th percentile), one point if they were in the top 50 percent (50th percentile), and zero points if they fell below the 50th percentile. The points were then added up to an overall priority score. The runaway priority score was based on two indicators: number of runaway arrests and rate of runaway arrests. The highest possible runaway priority score was 6 (three points for being in the top 10 percent, multiplied by two indicators). 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 (Uniform Crime Reporting Program, 2007)



Note: Rates based on arrest numbers below 20 are unreliable. Please refer to Appendix 11E (pages 202-203) 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. Economic Impact of Substance Abuse in Indiana

Background

The impact of substance abuse and addiction on our society is prevalent in all public sectors, contributing to domestic violence, child abuse and neglect, crimes, morbidity and mortality, as well as diminished workforce capacity due to lost productivity. Actual economic costs are difficult to ascertain due to the nature of the burden: It is hard to compartmentalize each direct and indirect effect of alcohol, tobacco, and other drug use, not to mention the cost of pain and suffering inflicted upon families and friends, or the cost of lost opportunities.

The consequences of substance abuse are enormous, from a social as well as a financial perspective. A few studies have tried to quantify the economic impact of substance abuse on the nation. A cost-benefit analysis that was conducted for the Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Substance Abuse Prevention (CSAP) estimated that in 1999 the national resource and productivity cost of substance abuse was $510.8 billion. Alcohol abuse accounted for $191.6 billion, tobacco use $167.8 billion, and drug abuse $151.4 billion. According to the report, lost productivity, i.e., lifetime wages and household work lost due to premature death, was responsible for two-thirds of the costs of substance abuse, followed closely by work lost to chronic illness and injury (Miller & Hendrie, 2009).

In 2001, Columbia University's National Center on Addiction and Substance Abuse (CASA) released a study that measured the financial burden of alcohol, tobacco, and other drug abuse/addiction on individual states (National Center on Addiction and Substance Abuse at Columbia University, 2001). An updated report released in 2009 included federal and local government costs in addition to state spending for a more comprehensive analysis (National Center on Addiction and Substance Abuse at Columbia University, 2009). However, Indiana was one of five states that did not participate in either study.

According to the 2009 CASA study, an estimated total of $467.7 billion (federal, state, and local) was spent on substance abuse and addiction in 2005. This is 10.7 percent of the entire national budget. More than half of the amount ($238.2 billion) came from federal sources; state and local spending added up to $135.8 billion and $93.8 billion, respectively. For every state and federal dollar spent on alcohol, tobacco, and other drug abuse, 95.6 cents went to "cleaning up" the consequences of substance abuse, while only 2.3 cents supported prevention, treatment, and research. The remainder, 2.1 cents, covered taxation, regulation, and interdiction (National Center on Addiction and Substance Abuse at Columbia University, 2009).

Since Indiana did not participate in the CASA study, and an estimate of costs attributable to substance abuse is critical in guiding prevention planning and allocation of funding, the State Epidemiology and Outcomes Workgroup (SEOW) decided to replicate CASA's methodology and assess Indiana's expenditures related to alcohol, tobacco, and drug abuse.

For this purpose, we (SEOW) followed CASA's methodology whenever possible. We attempted to identify federal, state, and local budget information for fiscal year (FY) 2008. In instances where we could not retrieve detailed data from state departments, we relied on the as-passed state budget for FY 2008, House Enrolled Act (HEA) No. 1001 (Indiana State Budget Agency, n.d.). The appendices at the end of this chapter provide detailed budget information for programs and services. Allocations are designated as federal, state, local, or transferred funds:

- *Federal funds*
  Federal funds are received directly from an agency of the federal government.
- *State funds (general or dedicated)*
  The General Fund is the predominant fund for financing state government programs. It is used to account for revenues which are not specifically designated to be accounted for by any other fund. Dedicated funds have been set aside for a limited object or purpose.
- *Local funds*
  Some state programs or projects may expect or require that part of the funding comes from local

units of government. To distinguish this additional funding from other funding sources, this contribution is reflected as "local".

- *Transferred funds*
  Transfers reflect the movement of resources from one fund to another based on statutory authorization or specific legislative transfer authority.

The following analysis provides a general sense of substance abuse-related expenditures for the state of Indiana. Due to the nature of the study, findings need to be treated as estimates rather than precise values.

Substance-Related Prevention, Treatment, and Research

Almost $70 million were allocated for substance abuse prevention/intervention programs and research in Indiana, FY 2008 (Indiana State Budget Agency, n.d.). The state agencies primarily associated with developing, implementing, and/or overseeing these services are:

- ***Family and Social Services Administration (FSSA) / Division of Mental Health and Addiction (DMHA)***
  FSSA, which was established by the General Assembly in 1991, is a healthcare and social service funding agency. FSSA is divided into five divisions: Division of Aging; Division of Disability and Rehabilitative Services (DDRS); Division of Family Resources (DFR); Division of Mental Health and Addiction (DMHA); and the Office of Medicaid Policy and Planning (OMPP). These five care divisions administer services to approximately one million Hoosiers.
  DMHA tries to ensure that all Hoosiers have access to appropriate mental health and addiction services. Its responsibilities include certifying all community mental health centers, addiction treatment services, and managed care providers; administering federal funds earmarked for substance abuse prevention projects; licensing inpatient psychiatric hospitals; operating Indiana's state mental health hospitals; and providing financial support for mental health and addiction services to target populations with financial need. Almost $51 million dollars were budgeted for DMHA to fund substance abuse programs in FY 2008; most of the funding was allocated from federal sources ($38 million) (see Table 12.1).
- ***Indiana Tobacco Prevention and Cessation Agency (ITPC)***
  ITPC was created to oversee funding from Indiana's share of the 1998 Master Settlement Agreement from the tobacco industry. The agency oversees the state's tobacco prevention campaign, which encompasses media components, special youth features, enforcement, cessation initiatives, and community programs to prevent and reduce the use of all tobacco products in Indiana and to protect residents from exposure to tobacco smoke. More than $16 million dollars were allocated to support ITPC's mission in FY 2008; ITPC's entire budget was derived from state funds (see Table 12.1).
- ***Indiana State Department of Health (ISDH)***
  ISDH supports Indiana's economic prosperity and quality of life by promoting, protecting, and providing for the health of Hoosiers in their communities. More than $2.6 million were allocated to ISDH to fund various services, including prenatal substance use prevention (PSUPP) and HIV substance abuse programs in FY 2008; most of the funding was transferred to ISDH from other agencies ($1.3 million) and from federal sources ($1.1 million) (see Table 12.1).

Since these programs and services are directly and completely attributable to substance use, 100 percent of the costs will be added to the economic impact analysis. (For a detailed list of funded programs and services, see Appendix 12A, page 218.)

Table 12.1 Budget Allocations for Substance Abuse Prevention/Intervention Programs and Research in Indiana, FY 2008 (HEA No. 1001)

Agency	Net Allocation
Division of Mental Health and Addiction	$50,925,976
Indiana Tobacco Prevention and Cessation Agency	$16,200,000
Indiana State Department of Health	$2,616,262
Total (100% Attributable to Substance Use)	***$69,742,238***

Source: Indiana State Budget Agency, n.d.

Criminal Justice and Juvenile Justice

The massive impact of substance abuse costs on the criminal justice system has been extensively

documented (National Center on Addiction and Substance Abuse at Columbia University, 1998, 2001, 2009; Office of National Drug Control Policy, 2001). To determine costs of substance abuse by adult inmates, CASA's methodology defines substance-involved prisoners as: Using illegal drugs regularly; convicted of a drug or alcohol violation; under the influence of drugs or alcohol at the time of the crime leading to imprisonment; having illegally acquired money to purchase drugs; and/or presenting a history of drug abuse. By this definition, CASA established that substance abuse is a factor in over 80 percent of adult corrections cases[1]. For juvenile corrections, CASA established that substance abuse is a factor in 79.5 percent of cases (National Center on Addiction and Substance Abuse at Columbia University, 2004, 2009).

Overall expenditures for Indiana's correctional system covered running and maintaining correctional facilities (including personnel costs), rehabilitation and reentry programs, and probation for adult and juvenile offenders. Based on CASA's substance-related percentages above, the economic effect of substance abuse and addiction on the Indiana's criminal system was approximately $942 million; the state incurred most of the burden at $861.1 million (see Table 12.2).

Estimated correctional costs are based on information from the FY 2007 probation report (Indiana Judicial Center, 2009); FY 2008 correction costs and funding (Indiana Department of Corrections, 2009); and Byrne-JAG[2] awards for calendar year (CY) 2008 (Indiana Criminal Justice Institute, 2009).

Every effort has been made to accurately categorize expenditures for adult and juvenile corrections; however, due to the limitations of the data, total spending is an approximation. (For estimates of funded programs and services, see Appendix 12B, pages 219-220.)

Table 12.2 Estimated Substance-Attributable Criminal and Juvenile Justice Costs in Indiana

Justice System	Spending
Local Funding for Criminal Justice	$45,867,971
Attributable to Substance Use (85.3%)	*$39,125,380*
State Funding for Criminal Justice	$1,063,118,684
Attributable to Substance Use (81.0%)	*$861,126,134*
Federal Funding for Criminal Justice	$4,603,870
Attributable to Substance Use (82.2%)	*$3,784,381*
Funding for Juvenile Justice	$49,585,625
Attributable to Substance Use (75.5%)	*$37,437,147*
Funding for Substance Abuse Programs in the Justice System	$552,119
Attributable to Substance Use (100%)	*$552,119*
Total Justice Funding	$1,163,728,269
Total Attributable to Substance Use	***$942,025,161***

Source: Indiana Judicial Center, 2009; Indiana Department of Corrections, 2009; Indiana Criminal Justice Institute, 2009

Judiciary

To date, there have been no comprehensive studies documenting the impact of abuse and addiction on the court systems (National Center on Addiction and Substance Abuse, 2009), although studies exist on prevalence and characteristics of drug offenders (Brown and Langan, 1998; Stahl et al., 1999).

The CASA study divided the courts into four sections: criminal, family, civil, and drug courts. To estimate the economic burden on the judicial system, CASA determined that 86.3 percent of criminal court costs are related to substance abuse, and 74.1 percent of family court costs are attributable to substance abuse.

Table 12.3 Estimated Substance-Attributable Judiciary Costs in Indiana

Courts	Federal Funding	State Funding	Local Funding	Total
Drug Courts	$942,623	$402,446	NA	$1,345,069
Attributable to Substance Use (100%)	*$942,623*	*$402,446*	*NA*	*$1,345,069*
General/Not Distinguished Courts	$937,651	$158,557,284	$42,381,462	$201,876,397
Attributable to Substance Use (65.1%)	*$610,411*	*$103,220,792*	*$27,590,332*	*$131,421,534*
Family Courts (74.1%)	$500,000	$2,920,248	$309,530,726	$312,950,974
Attributable to Substance Use (74.1%)	*$370,500*	*$2,163,904*	*$229,362,268*	*$231,896,672*
Total Judiciary Funding	$2,380,274	$161,879,978	$351,912,188	$516,172,440
Total Attributable to Substance Use	***$1,923,534***	***$105,787,142***	***$256,952,600***	***$364,663,275***

Note: The substance abuse share of 65.1% for general/not distinguished courts is an average of the shares for the four court types, as identified by CASA: Drug courts (100.0%) + criminal courts (86.3%) + family courts (74.1%) + civil courts (0.0%) / 4 = 65.1%

Source: Indiana State Budget Agency, n.d.; Indiana Judicial Center, 2009; Indiana Criminal Justice Institute, 2009

[1]CASA established that the substance abuse shares for federal, state, and local adult corrections are 82.2%, 81.0% and 85.3%, respectively.

[2]The U.S. Department of Justice's Edward Byrne Memorial Justice Assistance Grant (JAG) Program allows state and local governments to support a broad range of activities to prevent and control crime and to improve the criminal justice system.

One hundred percent of drug court costs are related to substance abuse. In civil courts, the study could not identify a substance abuse link to tort, estate, property rights, or small claims (National Center on Addiction and Substance Abuse, 2009). Indiana does not necessarily compartmentalize funding for each type of court system; funds that could not be ascribed to a specific court were assigned a substance-related percentage of 65.1 percent, i.e., the average of the four before-mentioned percentages.

We estimated that $365 million of judiciary costs were related to substance abuse and addiction (see Table 12.3). This estimate was based on:

- the approved FY 2008 Indiana state budget (Indiana State Budget Agency, n.d.),
- local spending from the FY 2007 state probation report, encompassing costs for general, and child and family courts (Indiana Judicial Center, 2009), and
- Byrne-JAG federal grants (Indiana Criminal Justice Institute, 2009).

A significant portion of the financial burden fell on local budgets, accounting for $257 million, or 70 percent of the total cost. The State of Indiana covered $106 million in substance-related costs, followed by federal spending of $1.9 million. (Differences in reported financial data and inability to distinguish court types are limitations of our estimates.)

A breakdown of federal, state, and local funding for the Indiana judiciary system is shown in Table 12.3. (For a detailed list of funded programs and services, see Appendix 12C, pages 221-224.)

Education

Substance abuse can affect schools in several ways: Faculty and staff use can affect the learning environment; student use can affect the individual's academic capacity as well as school security; and parental use can affect the students' capacity and readiness to learn. CASA identified cost areas that can be linked to substance abuse (National Center on Addiction and Substance Abuse at Columbia University, 2009). These include:

- Lost productivity of staff and added costs for additional staffing
- Higher health insurance costs for substance-involved staff
- Employee assistance programs for substance abusers
- Employee training, policy and staff development to increase awareness of and cope with substance abuse
- Special programs for children at risk
- Special education programs for those with substance-related retardation or learning disabilities
- Student assistance programs
- Alcohol- and drug-related truancy
- Drug testing costs
- Administration costs linked to coping with alcohol and other drug problems
- Property damage and liability insurance costs driven by alcohol and other drugs
- Legal expenses linked to alcohol and other drugs
- Capital outlays for special facilities needed for substance using students

Table 12.4 Budget Allocations for Primary and Secondary Education in Indiana, FY 2008 (HEA No. 1001)

Agency	Net Allocation
Education Funding for Substance Abuse Programs	
Department of Education	$1,376,719
Total (100% Attributable to Substance Use)	*$1,376,719*
All Other Education Funding	
Department of Education	$4,766,519,467
Indiana State Teachers' Retirement Fund	$648,776,985
State Library	$10,880,490
Arts Commission	$4,768,599
Indiana Criminal Justice Institute	$1,156,938
School Lunch Division	$954,612
Commission on Proprietary Education	$844,971
Education Employment Relations Board	$719,136
Historical Bureau	$469,762
Indiana State Department of Health	$73,866
Total	$5,435,164,826
Attributable to Substance Use (11.4%)	*$619,608,790*
Grand Total Attributable to Substance Use	***$620,985,509***

Source: Indiana State Budget Agency, n.d.

CASA estimated that the aggregate of these costs would add up to 11.4 percent of the annual expenditures for elementary and secondary education (National Center on Addiction and Substance Abuse at Columbia University, 2009). To assess the economic burden of substance abuse in the educational setting (K-12) in Indiana, we combined 100 percent of the funding for substance use-related programs and 11.4 percent of all other educational funding from the 2008 as-passed budget. For FY 2008, expenditures of nearly $621 million can be attributed to substance abuse in Indiana (see

Table 12.5 Total Healthcare Spending and Substance-Attributable Healthcare Spending in Indiana, FY 2008

	Total Healthcare Spending*	Substance-Attributable Healthcare Spending
Medicaid Total	$5,473,000,000	$1,735,000,000
State Funds	*$2,047,000,000*	*$649,000,000*
Federal Funds	*$3,426,000,000*	*$1,086,000,000*
Medicare Total	$8,030,000,000	$3,065,000,000
Public Funding (Medicaid and Medicare Total)	**$13,503,000,000**	**$4,800,000,000**
All additional healthcare spending**	$36,278,000,000	$8,498,000,000
Total Healthcare Spending**	$49,781,000,000	$13,298,000,000

* Total FY 2008 spending was projected based on CMS national growth rate projection.
** The figure for all additional health spending was computed by subtracting Medicaid and Medicare spending from total health spending; it primarily encompasses spending from private insurances and out-of-pocket expenses. Neither the "all additional health spending" nor "total health spending" figures were included in the impact analysis of Indiana's cost burden.
Source: Centers for Medicare and Medicaid Services, 2009

Table 12.4) (Indiana State Budget Agency, n.d.). (For a detailed list of funded programs and services, see Appendix 12D, pages 225-232.)

Healthcare

The basis for calculating state healthcare costs attributable to substance abuse is found in epidemiological studies linking substance abuse to diseases. Alcohol abuse, smoking, and illicit drug use have been shown to be associated with over 80 diseases and injuries (Rehm, Taylor, & Room, 2006), imposing a substantial cost to our healthcare system (Single, Robson, Xie, & Rehm, 1998).

Our general approach for calculating healthcare costs attributable to substance abuse is similar to the one used by CASA (National Center on Addiction and Substance Abuse at Columbia University, 1994, 2001, 2009) and Fox et al. (Fox, Merrill, Chang, & Califano Jr, 1995). For each disease identified in the literature, the reported relative risk can be converted to the population-attributable risk (PAR) using the prevalence rate of substance abuse in the population. The substance-attributable healthcare spending for that disease can then be calculated by aggregating the healthcare costs of individuals with that disease from national surveys and multiplying by the corresponding PAR. Adding across all related diseases and dividing by total healthcare costs of all individuals in the national surveys yields the substance attributable fractions (SAF). These fractions can then be applied to state health spending to determine the amount attributable to substance abuse.

For this study, we used the national SAFs estimated by CASA (National Center on Addiction and Substance Abuse at Columbia University, 2009). We converted these SAFs to Indiana SAFs using the ratio of substance abuse prevalence rates in Indiana to that of the nation. Since the prevalence rates differed between the Medicaid, Medicare, and other subpopulations, we calculated the Indiana SAFs for each of the three categories. Population-specific SAFs were then applied to the corresponding state-level spending data obtained from the CMS National Health Expenditure data to calculate the amount attributable to substance abuse for each of the three categories. Based on our analysis, almost $13.3 billion of healthcare costs in FY 2008 were attributable to substance abuse, of which $4.8 billion were covered by Medicaid and Medicare funds (See Table 12.5).

Child Welfare Programs

There is a well-documented link between substance abuse and child abuse and neglect (Denton & Kampfe, 1994; Downs & Harrison, 1998; Finkelhor & Dziuba-Leatherman, 1994; Harrison, Fulkerson, & Beebe, 1997; Sher, Gershuny, Peterson, & Raskin, 1997; Widom, 1989; Widom & Hiller-Sturmhofel, 2001) which often results in the placement of children into protective services. Studies place the rate of substance abuse between 40 and 80 percent among the parents of children in child protective services (Gardner & Young, 1996; Gelles, 1997; Mowbray & Oyserman, 2003; Murphy et al., 1991; Semidei, Radel, & Nolan, 2001; U. S. General Accounting Office, 1994). CASA's research finds that substance abuse and addiction contributed to 73.1 percent of child welfare cases nationally in 2005 (National Center on Addiction and Substance Abuse at Columbia University, 2001). Total child welfare spending was estimated using the 2008 as-passed budget (Indiana State Budget Agency, n.d.).

An itemized list of the budget areas and the net amount of allocations to each is shown in Table 12.6. The total cost of child welfare programs is approximately $937 million. By attributing 73.1 percent of the total cost to substance abuse and addiction problems, we estimate that substance abuse and addiction is a contributing factor in $685 million of child welfare spending. (For a detailed list of funded programs and services, see Appendix 12E, pages 233-235.)

Table 12.6 Budget Allocations for Child Welfare Programs in Indiana, FY 2008 (HEA No. 1001)

Agency	Net Allocation
Department of Child Services	$775,068,042
Division of Family Resources	$161,911,113
Total	$936,979,155
Attributable to Substance Use (73.1%)	***$684,931,762***

Source: Indiana State Budget Agency, n.d.

Income Support Programs

Substance abuse and addiction may interfere with a person's ability to be self-sufficient, increasing use of income assistance programs such as Temporary Assistance to Needy Families (TANF), general assistance (GA), and supplemental programs: Supplemental Security Income Program (SSI), housing and homeless assistance, employment, food and nutrition, and other assistance (National Center on Addiction and Substance Abuse at Columbia University, 2009). Many studies conducted on welfare have demonstrated that recipients often have problems with substance abuse (Olson & Pavetti, 1996), although there is little data on the effect on general assistance programs (National Center on Addiction and Substance Abuse at Columbia University, 2009).

To calculate the substance–linked costs, we identified funding appropriated to Health and Social Service's income assistance programs from Indiana's approved budget for FY 2008 (Indiana State Budget Agency, n.d.) and applied substance-related percentage shares as follows:

- TANF/GA—23.4 percent attributable to substance abuse
- Housing and homeless assistance—66.0 percent attributable to substance abuse
- Other assistance, including employment/food and nutrition—23.5 percent attributable to substance abuse (National Center on Addiction and Substance Abuse at Columbia University, 2009)

Based on the approved state budget, we estimated that $132.7 million of all income support allocations were associated with substance abuse and addiction: $75 million for TANF/GA; $10.9 million for housing and homeless programs; and $46.7 million for other assistance (See Table 12.7). (For a detailed list of funded programs and services, see Appendix 12F, pages 236-238.)

Table 12.7 Budget Allocations for Income Support Programs in Indiana, FY 2008 (HEA No. 1001)

Program	Net Allocation
TANF/GA	$320,579,878
Attributable to Substance Use (23.4%)	*$75,015,691*
Housing/Homeless	$16,583,378
Attributable to Substance Use (66.0%)	*$10,945,029*
Other Income Support Services	$198,834,320
Attributable to Substance Use (23.5%)	*$46,726,065*
Total	$535,997,576
Attributable to Substance Use	***$132,686,786***

Source: Indiana State Budget Agency, n.d.

Mental Health

Prevalence of substance use varies by population; however, higher rates of use among the severely mentally ill (SMI) have been confirmed by various studies (Grant et al., 2004; RachBeisel, Scott, & Dixon, 1999; Regier et al., 1990). Data from a nationally representative sample of the civilian, noninstitutionalized U.S. population indicate that 51 percent of those with a lifetime mental disorder also have a lifetime addictive disorder, i.e., alcohol or other drug abuse or dependence (National Center on Addiction and Substance Abuse at Columbia University, 2009).

Based on CASA's methodology (National Center on Addiction and Substance Abuse at Columbia University, 2009), we attributed 55.9 percent of Indiana's mental health budget for FY 2008 (Indiana State Budget Agency, n.d.) to costs related to substance abuse (see Table 12.8). According to our analysis, almost $121 million of Indiana's annual mental health budget were attributed to substance use. (For a detailed list of funded programs and services, see Appendix 12G, pages 239-240.)

Developmental Disabilities

With regard to developmental disabilities, the CASA studies (National Center on Addiction and Substance Abuse at Columbia University, 2001, 2009) served as a model for forecasting Indiana's substance abuse-related costs. The authors of the CASA study used methodology from a 1992 report, *The Economic Costs of Alcohol and Drug Abuse in*

the United States (Office of National Drug Control Policy, 2001), to measure the costs of treating persons with Fetal Alcohol Syndrome (FAS). In this study, researchers examined the costs of institutionalizing and housing people with developmental disabilities and divided those costs by the percentage of developmentally disabled people with fetal alcohol syndrome.

Table 12.8 Budget Allocations for Mental Health Programs in Indiana, FY 2008 (HEA No. 1001)

Agency	Net Allocation
Division of Mental Health and Addiction	$42,749,141
Family and Social Services Administration	$32,794,005
Logansport State Hospital	$39,817,278
Richmond State Hospital	$28,391,428
Madison State Hospital	$24,310,970
Larue Carter Memorial Hospital	$21,286,117
Evansville State Hospital	$22,965,697
Evansville Psychiatric Children's Center	$3,854,163
Total	$216,168,799
Attributable to Substance Use (55.9%)	***$120,838,359***

Source: Indiana State Budget Agency, n.d.

There have been a number of clinical advances in diagnostics since the completion of these earlier studies. Fetal Alcohol Spectrum Disorder (FASD) has replaced the nomenclature FAS. FASD incorporates a broad range of conditions, including partial fetal alcohol syndrome, fetal alcohol effects, and alcohol-related neurodevelopmental disorder (Clarren & Smith, 2003; Hoyme et al., 2005). Collectively, the incidence and prevalence rates for these conditions are higher than those just for FAS. The data for FASD should be used instead of FAS in calculating state expenditures since those in the broader category also use state services.

Since the completion of that study, there has been a significant movement to deinstitutionalize people with disabilities (Lord, Zupko, & Hutchinson, 2000; McDonald & Oxford, 2002). While this allows more person-centered treatment of people with disabilities, it creates difficulties in tracking state spending for these programs. Researchers can no longer use a single line item in state budgets for institutions to calculate FASD expenditures. As a result, our analysis focuses on funding levels for several key programs: First Steps, the Medicaid Waiver program, day services for people with disabilities, supported employment, residential services for people with developmental disabilities, and vocational rehabilitation.

We used the prevalence of the disabilities in question to calculate the number of Indiana residents eligible to be served by each program. A study conducted by the University of North Dakota estimated the number of people with specific disabilities who also have FASD from each state (Burd, n.d.; Lupton, Burd, & Harwood, 2004). These data were used to calculate the maximum possible amount of the Indiana state budget that could be used to support people with FASD.

While the figures in Table 12.9 represent an overestimation of the budget portion dedicated to these programs, these programs are not an exhaustive list

Table 12.9 Spending on Fetal Alcohol Spectrum Disorders in Indiana, FY 2008 (HEA No. 1001)

Program	Prevalence Rate per 1,000	Prevalence in Indiana (Number of Hoosiers Affected)	Percentage of Population who are Eligible for Program and have FASD	Number of Hoosiers who are Eligible for Program and have FASD	Budget Allocation	Budget Share for FASD
Medicaid Waiver					$316,333	
Aged and Disabled	*				$63,267	$0
Traumatic Brain Injury	*				$63,267	$0
Autism	3.5	22,056	4.7%	1,038	$63,267	$2,974
Developmental Disabilities	3.9	24,577	40.0%	9,720	$63,267	$25,307
Support Services	7.4	46,633	23.0%	10,758	$63,267	$14,551
Day Services-DD**	7.4	46,633	23.0%	10,758	$5,100,000	$1,173,000
Supported Employment	14.2	895,010	2.1%	18,805	$4,000,000	$84,000
Residential Services-DD	7.4	46,633	23.0%	10,758	$41,209,124	$9,478,099
Vocational Rehabilitation	14.2	895,010	2.1%	18,805	$15,748,926	$330,727
Total						***$11,108,658***

* Not Related to FASD
** DD = developmental disabilities
Note: We calculated the budget share for FASD by multiplying the budget allocation with the percentage of population who are eligible for a program and have FASD.
Source: Indiana State Budget Agency, n.d.

of services for people with FASD. A study by Lupton et al. (2004) suggests that states spent an average of $80 million to care for those with FASD in 2002. The methodology used in the CASA report grossly underestimates the budget. These data represent a more accurate picture of the budget for programs serving people with FASD. Further studies should survey each program to determine the exact percentage of their clients with FASD.

Public Safety

Public safety is addressed by various agencies and programs, including homeland security, criminal justice, law enforcement, drug interdiction, corrections, and others. This segment excludes public safety programs and expenditures that have been identified in previous sections of the chapter, such as the justice and judiciary sections.

CASA estimated that 19.7 percent of highway traffic accidents were alcohol-involved, and applied this fraction to assess the substance-attributable share of public safety expenditures (National Center on Addiction and Substance Abuse at Columbia University, 2009).

For the analysis, we included 100 percent of funding for programs and services that directly target alcohol, tobacco, or other drug use, and 19.7 percent of all other public safety costs. Based on the as-passed FY 2008 budget, 60.3 million public safety dollars were attributed to substance abuse (see Table 12.10) (Indiana State Budget Agency, n.d.). (For a detailed list of funded programs and services, see Appendix 12H, pages 241-243.)

Table 12.10 Budget Allocations for Public Safety Programs in Indiana, FY 2008 (HEA No. 1001)

Agency	Net Allocation
Public Safety Funding for Substance Abuse Programs	
Alcohol and Tobacco Commission	$11,439,612
Indiana Criminal Justice Institute	$9,737,638
Indiana State Police	$1,204,307
Indiana Professional Licensing Agency	$191,202
Total (100% Attributable to Substance Use)	*$22,572,759*
Additional Public Safety Funding	
Indiana State Police	$174,876,535
Indiana Criminal Justice Institute	$11,425,386
Law Enforcement Training Academy	$4,909,281
State Budget Agency	$150,000
Total	$191,361,202
Attributable to Substance Use (19.7%)	*$37,698,157*
Grand Total Attributable to Substance Abuse	***$60,270,916***

Source: Indiana State Budget Agency, n.d.

State Workforce

In 2008, the Indiana state government spent approximately $1.26 billion in payroll in addition to $558 million in fringe benefits for state workers (Indiana State Personnel Department, 2009). Substance abuse and dependence compromises workforce productivity by contributing to absenteeism, lost productivity, an increase in workplace accidents, higher turnover rates, and higher health insurance costs, thus increasing the cost of business (Ames, Grube, & Moore, 1997; French, Zarkin, Hartwell, & Bray, 1995; Frone, 2006; Larson, Eyerman, Foster, & Gfroerer, 2007; Mangione, Howland, & Lee, 1998; McFarlin & Fals-Stewart, 2002).

Due to limitations of the data, we were only able to estimate the financial burden of absenteeism due to substance abuse and addiction. State workforce data were requested from and provided by the Indiana State Personnel Department. We applied the CASA substance-related share of 0.37 percent to the total cost of payroll and fringe benefits, and 100 percent to substance-related programs (National Center on Addiction and Substance Abuse at Columbia University, 2009) for an estimated total of $6.9 million attributable to substance abuse and addiction. While this estimate does not provide total costs of other adverse effects of substance abuse on the state workforce, it presents information that would otherwise not be available.

A breakdown of payroll, fringe benefits, and substance-related program costs is shown in Table 12.11.

Table 12.11 Estimated Substance-Attributable Workforce Costs in Indiana, CY 2008

State Workforce 2008	Net Allocation
Total Payroll	$1,255,324,841
Attributable to Substance Use (0.37%)	*$4,644,702*
Total Fringe Benefits	$558,124,864
Attributable to Substance Use (0.37%)	*$2,065,062*
Substance Abuse Share of Employee Assistance Programs (100%)	$179,852
Total Attributable to Substance Use	***$6,889,616***

Source: Indiana State Personnel Department, 2009

Capital Costs

We also included in the analysis state spending on construction and rehabilitation in three categories: adult prisons, juvenile correctional facilities, and mental health facilities. These figures were compiled from the as-passed state budget (Indiana State Budget Agency, n.d.) and included both general funds and dedicated funds spending. For each category, we applied the respective

substance abuse share to calculate capital costs attributable to substance abuse, and then added it to other costs in that category. Of the almost $29 million capital costs for the aforementioned facilities, nearly $21 million can be attributed to substance use (see Table 12.12). (For a detailed list, see Appendix 12I, pages 244-246.)

Table 12.12 Budget Allocations for Capital Costs for Mental Health, Criminal Justice, and Juvenile Justice Facilities in Indiana, FY 2008 (HEA No. 1001)

Capital Costs	Net Allocation
Mental Health Facilities	$9,356,264
Attributable to Substance Use (55.9%)	*$5,230,152*
Juvenile Justice Facilities	$349,699
Attributable to Substance Use (79.5%)	*$278,011*
Criminal Justice Facilities	$19,075,005
Attributable to Substance Use (81.0%)	*$15,450,754*
Total Capital Costs	$28,780,968
Total Attributable to Substance Use	***$20,944,928***

Source: Indiana State Personnel Department, 2009

Regulation and Compliance

Excise tax is an indirect tax charged on the sale of a particular good or service, such as alcohol, tobacco, gasoline, airfare, or telecommunications. The State of Indiana collects the following excise taxes related to substance use: alcoholic beverages tax, cigarette and tobacco products tax, and a controlled substances tax.

In FY 2008, Indiana collected $570 million in substance-related excise taxes: $525.3 million for tobacco, $44.7 million for alcohol, and $27,005 for controlled substances. This total of $570 million represented four percent of Indiana's overall revenue from state taxes ($14.01 billion). In order to calculate the net gain from the sale of these products, we subtracted four percent of the overall budget for the Department of Revenue from the revenue brought in by tobacco, alcohol, and controlled substances. The net gain from substance-related excise taxes in Indiana was $566.9 million in FY 2008 (see Table 12.13) (Indiana General Assembly, n.d.; Indiana State Budget Agency, n.d.).

Burden of Substance Abuse on the State of Indiana

To analyze the economic impact of substance abuse in Indiana, we tried to replicate CASA's methodology whenever possible, but due to limited availability of data, our study design differed to some extent.

CASA Methodology—CASA collected data from state, local, and federal sources. To assess state-level spending, CASA requested information from state budget officers in all 50 states, the District of Columbia (D.C.) and Puerto Rico. Forty-five states, D.C., and Puerto Rico completed the survey. Indiana was one of the five states that did not participate. To estimate local costs, CASA examined census data on state and local governments; totals were adjusted to reflect local spending only. For federal spending estimates, CASA collected FY 2005 federal expenditure data using 2006 and 2007 agency-specific Congressional budget requests documenting actual agency expenditures in 2005. (For more information on CASA methodology, see *Shoveling Up II: The Impact of Substance Abuse on Federal, State, and Local Budgets* [National Center on Addiction and Substance Abuse at Columbia University, 2009].)

Table 12.13 State Revenue from Substance-Related Excise Taxes and Budget Allocations for the Department of Revenue (DOR) in Indiana, FY 2008 (Indiana Handbook of Taxes, Revenues, and Appropriations; HEA No. 1001)

State Revenue and DOR Budget Allocations	Dollar Amount
Revenue from Substance-Related Excise Taxes	
Tobacco	$525,272,438
Alcohol	$44,707,807
Controlled Substances	$27,005
Total	*$570,007,250*
Total Budget Appropriated for Department of Revenue	$77,472,571
Estimated Budget to Cover Costs to Collect Substance-Related Excise Taxes (4.07% of Total DOR Budget)	$3,153,134
Net Gain from Substance-Related Excise Taxes	***$566,854,116***

Note: Revenue from substance-related excise taxes made up 4.07% of all revenue for FY 2008 in Indiana. Therefore, a cost share of 4.07% was applied to the DOR budget, and the corresponding amount ($3.2 million) was subtracted from the revenue to calculate the net gain from substance-related excise taxes.
Source: Indiana General Assembly, n.d.; Indiana State Budget Agency, n.d.

SEOW Methodology—To assess the burden of alcohol, tobacco, and other drugs in Indiana, we relied primarily on expenditures as reported in the FY 2008 budget (Indiana State Budget Agency, n.d.), but we also included supplementary information we received from state agencies. Methodology and results of the analyses were reviewed by the SEOW, which represents a wide variety of state organizations and agencies. Our estimates included state and federal appropriations, but due to a lack of information on local spending, these costs or allocations were greatly underestimated in the analysis.

According to our findings, a total of $7.3 billion of Indiana's FY 2008 state budget can be attributed directly and indirectly to substance abuse. This represents a per-capita share of $1,145 for each Hoosier. Most of these costs accrued through healthcare spending ($756 per capita).

Comparisons with surrounding states show that our neighbors' per-capita costs ranged from $1,425 in Kentucky to $1,617 in Michigan for FY 2005. Again, healthcare spending took the lion's share, encompassing roughly half of all costs related to substance abuse. To provide a better basis for comparisons between Indiana and neighboring states, we calculated the average per-capita costs for Illinois, Michigan, Ohio, and Kentucky, and applied the Consumer Price Index (CPI) to adjust for the effects of inflation from 2005 to 2008. Based on the adjustment, the four-state average per-capita share was $1,688, which is 47 percent higher than Indiana's per-capita share of $1,145. As mentioned before, most spending attributable to substance abuse occurred through the healthcare system. However, while healthcare costs made up 49 percent of the spending related to substance abuse in Illinois, Michigan, Ohio, and Kentucky, it contributed to 66 percent of the expenditures in Indiana.

Table 12.14 provides a summary of the financial burden of substance abuse on Indiana and four other Midwestern states. However, caution needs to be exercised when comparing estimates between Indiana and states that participated in the CASA study:

- ***Different study design***
  CASA's study was largely based on actual cost information provided by the states' Budget Offices, while Indiana's analysis was primarily based on appropriations as passed by the General Assembly.
- ***Different year of data collection***
  Findings from the CASA study derived from FY 2005 information, while Indiana results were based on FY 2008 data. However, to provide some basis of comparison, we adjusted FY 2005 data for inflation to represent FY 2008 values.
- ***Lack of local data***
  Indiana's estimate greatly underestimated local costs due to unavailability of data.

Based on our analysis, Indiana seemed to allocate less funding for substance abuse related costs (per capita) than our neighboring states. Perhaps more important, while two-thirds of the expenditures addressed the long-term consequences of alcohol, tobacco, and other drug use by paying for healthcare, only one percent was allocated for prevention, treatment, and research.

Table 12.14 Summary of Federal, State, and Local Spending and/or Expenditures (Per Capita) Attributable to Substance Abuse in Indiana, Illinois, Michigan, Ohio, and Kentucky

	Indiana FY 2008	Illinois FY 2005	Michigan FY 2005	Ohio FY 2005	Kentucky FY 2005	Surrounding 4-State Average FY 2005	4-State Average Adjusted for Inflation* FY 2008	Details
Healthcare	$756.47	$743.75	$733.62	$749.54	$720.01	$736.73	$830.74	Includes Medicaid and Medicare spending.
Income Support, Child Welfare	$128.85	$219.65	$175.90	$159.76	$167.65	$180.74	$197.52	Includes TANF/GA, housing & homeless assistance; other supplemental programs; and child welfare funding.
Justice, Judiciary, Regulation + Compliance	$119.07	$200.72	$328.47	$314.13	$221.02	$266.09	$290.79	Includes funding for adult criminal justice programs; juvenile justice programs; drug, general, and family courts (plus capital costs for facilities). It also includes net gain from excise taxes for alcohol, tobacco, and controlled substances.
Education	$97.87	$144.87	$231.40	$172.91	$174.34	$180.88	$197.67	Includes funding for K-12 education.
Mental Health, Developmental Disabilities	$21.62	$41.14	$33.89	$47.91	$11.90	$33.71	$38.01	Includes funding for mental health services (plus capital costs for facilities) and for services related to FASD
Prevention, Intervention, Research	$10.99	$32.26	$23.19	$28.61	$42.49	$31.64	$35.67	Includes funding for prevention, treatment, and research of alcohol, tobacco, and other drug use.
Public Safety, Interdiction	$9.50	$81.01	$81.81	$81.58	$79.05	$80.86	$88.37	Includes funding for public safety programs and interdiction.
Workforce	$1.09	$9.14	$9.10	$8.46	$8.76	$8.87	$9.69	Includes payroll and fringe benefits of Indiana's workforce.
TOTAL	**$1,145.46**	**$1,472.54**	**$1,617.38**	**$1,562.90**	**$1,425.22**	**$1,519.51**	**$1,688.46**	

* To compare FY 2005 to FY 2008 data, we applied the Consumer Price Index (CPI) to adjust for the effects of inflation. For this purpose, we calculated the average substance abuse related costs for Illinois, Michigan, Ohio, and Kentucky (FY 2005), and multiplied each category by the Midwest Urban CPI. The categories "healthcare," "mental health and developmental disabilities," and "prevention, intervention, and research" were multiplied by the Midwest Urban CPI for medical care (1.13); all other fields were multiplied by the general Midwest Urban CPI (1.09).

Source: Centers for Medicare and Medicaid Services, 2009; Indiana State Budget Agency, n.d.; Indiana Judicial Center, 2009; Indiana Department of Corrections, 2009; Indiana Criminal Justice Institute, 2009; Indiana General Assembly, n.d; Indiana State Personnel Department, 2009; National Center on Addiction and Substance Abuse at Columbia University, 2009

APPENDIX 12A

Budget Allocations for Substance Abuse Prevention/Intervention Programs and Research in Indiana, FY 2008 (HEA No. 1001)

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
Division of Mental Health and Addiction	Substance Abuse, Prevention and Treatment (SAPT) Block Grant*	$0	$0	$34,623,200	-$788,022	$33,835,178
	Mental Health Administration	$0	$0	$0	$6,176,667	$6,176,667
	Substance Abuse Treatment	$5,006,000	$0	$0	-$900,000	$4,106,000
	Prevention	$2,946,936	$0	$0	$0	$2,946,936
	Prevention Coalitions (SIG)	$0	$0	$2,300,000	$0	$2,300,000
	DMHA Disaster Relief Grants	$0	$0	$901,388	-$123,420	$777,968
	Methadone Diversion Control and Oversight (MDCO) Program	$470,000	$0	$0	-$20,773	$449,227
	Drug and Alcohol Services Information System (DASIS)	$0	$0	$230,000	$0	$230,000
	DMHA Youth Tobacco Reduction Support Program	$54,000	$0	$0	$0	$54,000
	Special Projects	$50,000	$0	$0	$0	$50,000
Indiana Tobacco Prevention and Cessation Agency	Tobacco Use Prevention and Cessation Program	$16,200,000	$0	$0	$0	$16,200,000
Indiana State Department of Health	Tobacco Use Prevention and Control Program	$0	$0	$1,140,166	$0	$1,140,166
	HIV Substance Abuse Program	$0	$0	$0	$900,000	$900,000
	Prenatal Substance Use Prevention	$0	$0	$0	$363,600	$363,600
	Prenatal Substance Use & Prevention	$150,000	$0	$0	$0	$150,000
	Test for Drug Afflicted Babies	$62,496	$0	$0	$0	$62,496
Total (100% Attributable to Substance Use)		*$24,939,432*	*$0*	*$39,194,754*	*$5,608,052*	*$69,742,238*

Note: Funding type is designated as federal, state, local, or transferred. Transferred funding reflects the movement of resources from one fund to another based on statutory authorization or specific legislative transfer authority. A positive dollar amount implies that an agency received money through a transfer; a negative dollar amount means that an agency transferred money to another agency.
* SAPT block grant provides funding for various substance abuse prevention and treatment programs.
Source: Indiana State Budget Agency, n.d.

APPENDIX 12B

Estimated Substance-Attributable Criminal and Juvenile Justice Costs in Indiana

Program	State Funding	Federal Funding	Local Funding
1. Total Prison Costs			
Administration	$58,464,801		
Custody/Security Staff	$194,882,668		
Inmate Healthcare	$82,495,949		
Institutional Services	$63,980,033		
Physical Operations	$48,749,581		
State Criminal Alien Assistance Program			
		$871,218	
Comprehensive Approaches to Sex Offender Management (CASOM) Training grant		$250,000	
SMART Office/Adam Walsh Act 2008		$245,000	
SMART Office/Adam Walsh Act 2008-II		$300,000	
Statewide Automated Victim Identification and Notification (SAVIN) 2008		$499,450	
Adult Corrections	$531,559,342		
2. Parole/Early Release/Other			
Parole	$7,950,540		
Community Programs	$27,839,937		
Adult Basic Education		$348,734	
Department of Workforce Development grant		$150,000	
Library Services and Technology Act 2008		$79,758	
Bulletproof Vest Partnership		$8,000	
Maternal and Child Health Grant		$78,000	
Prisoner Reentry Initiative 2008		540,000	
Byrne-JAG: Restorative Justice project		$65,196	
Fatherhood Initiative		$249,896	
Fatherhood Initiative--Marriage		$400,000	
Byrne-JAG: Family and Community Reintegration project*		$206,509	
Residential Substance Abuse Treatment*		$199,074	
Residential Substance Abuse Treatment-Addendum*		$9,700	

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APPENDIX 12B *(Continued from previous page)*

Program	State Funding	Federal Funding	Local Funding
3. Probation			
4. Aid to Localities			
Cass/Pulaski Community Corrections		$10,000	
West Central Regional Community Corrections		$10,000	
St. Joseph County Police Department		$17,262	
St. Joseph County Community Corrections		$129,567	
Indiana Department of Correction		$300,000	
St. Joe County Board of Commissioners		$51,789	
Marion County Community Corrections*		$136,836	
5. State Other	**$93,923,341**		
6. Local Other			**$45,867,971**
7. Juvenile Programs			
Social Services Block Grant		$752,199	
Juvenile Accountability Block Grant: Performance-based Standards project		$108,217	
Title I (Juvenile Education)		$1,132,263	
Youth Offenders		$418,932	
Special Education (Juvenile)		$446,506	
Juvenile Corrections	$46,727,508		

Note: Funding type is designated as federal, state, or local.
*Program/Service is 100% attributable to substance use.
Source: Indiana Judicial Center, 2009; Indiana Department of Corrections, 2009; Indiana Criminal Justice Institute, 2009

APPENDIX 12C

Estimated Substance-Attributable Judiciary Costs in Indiana

Program	Federal Funding	State Funding	Local Funding	Total	Grant Details
Drug Courts					
Hendricks County Prosecutor's Office	$8,631				2008 Byrne/JAG Award: United Drug Task Force
Tippecanoe County Prosecutor	$8,524				2008 Byrne/JAG Award: Tippecanoe/Clinton Co. Drug Task Force
Harrison County Prosecutor's Office	$16,220				2008 Byrne/JAG Award: Harrison County Drug Prosecutor
Scott County Prosecutor's Office	$16,220				2008 Byrne/JAG Award: Scott County Drug Prosecutor
Cass County Prosecutor's Office	$104,680				2008 Byrne/JAG Award: Cass, White, Carroll, and Pulaski Counties Drug Task Force
Hancock Circuit Court	$13,999				2008 Byrne/JAG Award: Hancock County OVWI Drug Court
Marion County Superior Court	$225,719				2008 Byrne/JAG Award: Marion County Drug Court
Vigo Superior Court Division 5	$49,361				2008 Byrne/JAG Award: Vigo County Drug Court
Monroe County Government	$72,632				2008 Byrne/JAG Award: Monroe County Drug Court
Vanderburgh County Board of Commissioners	$48,429				2008 Byrne/JAG Award: Vanderburgh County Drug Court
Clark Superior Court II	$48,430				2008 Byrne/JAG Award: Clark County Drug Court
Dubois County Drug Court	$24,500				2008 Byrne/JAG Award: Dubois County Drug Court
Parke County Drug Court	$22,194				2008 Byrne/JAG Award: Park County Drug Court
Madison County Unified Courts	$48,430				2008 Byrne/JAG Award: Madison County Drug Court
Lawrence County Government	$104,500				2008 Byrne/JAG Award: Lawrence County OVWI Drug Court
Warrick County Superior Court	$99,885				2008 Byrne/JAG Award: Warrick County Drunk Driving and Drug Court

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APPENDIX 12C *(Continued from previous page)*

Program	Federal Funding	State Funding	Local Funding	Total	Grant Details
Tippecanoe County Drug Court	$30,269				2008 Byrne/JAG Award: Tippecanoe County Drug Court
Judicial Center: Drug and Alcohol Programs Fund		$299,010			As-Passed State Budget
Prosecuting Attorneys' Council: Drug Prosecution		$103,436			As-Passed State Budget
Drug Court Total (100% Attributable to Substance Use)	*$942,623*	*$402,446*	*$0*	*$1,345,069*	
Aid to Localities/ General Courts/Not Distinguished Courts					
Crawford County Prosecutor	$10,000				JAG $10K and Under Equipment Grant
Marion Superior Court	$8,712				JAG $10K and Under Equipment Grant
White County Prosecutor	$10,000				JAG $10K and Under Equipment Grant
Marion County Prosecutor's Office	$266,667				Community Prosecution
Washington County Prosecutor's Office	$15,062				2008 Byrne/JAG Award: Washington Co. Pros
Marion County Public Defender	$38,493				2008 Byrne/JAG Award: Juvenile Disposition
Marion County Public Defender	$63,131				2008 Byrne/JAG Award: Forensic Diversion
Indiana Public Defender Council	$69,246				2008 Byrne/JAG Award: Indiana Public Defender Council
Greenwood Superior Court	$67,341				2008 Byrne/JAG Award: Greenwood Recovery Court
Marion County Superior Court	$76,234				2008 Byrne/JAG Award: Community Court
Supreme Court		$9,635,219			As-Passed State Budget
Supreme Court: Local Judges' Salaries		$50,713,246			As-Passed State Budget
Supreme Court: County Prosecutors' Salaries		$23,852,199			As-Passed State Budget
Supreme Court: Trial Court Operations		$591,575			As-Passed State Budget

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APPENDIX 12C *(Continued from previous page)*

Program	Federal Funding	State Funding	Local Funding	Total	Grant Details
Supreme Court: Judicial Branch Insurance Adjustment		$1,501,560			As-Passed State Budget
Supreme Court: Indiana Conference for Legal Education Opportunity		$778,750			As-Passed State Budget
Supreme Court: Public Defender Commission		$14,500,000			As-Passed State Budget
Supreme Court: Civil Legal Aid		$1,500,000			As-Passed State Budget
Supreme Court: Special Judges - County Courts		$149,000			As-Passed State Budget
Supreme Court: Commission on Race and Gender Fairness		$370,996			As-Passed State Budget
Supreme Court: National CASA Association Grant	$50,000	$0			As-Passed State Budget
Supreme Court: Disciplinary Commission		$1,410,279			As-Passed State Budget
Supreme Court: Indiana Continuing Legal Education Commission		$295,485			As-Passed State Budget
Supreme Court: Judges' and Lawyers' Assistance Commission		$196,066			As-Passed State Budget
Supreme Court: Judicial Technology & Automation Project		$14,916,780			As-Passed State Budget
Supreme Court: GAL/ CASA Conference Account		$20,000			As-Passed State Budget
Court of Appeals		$10,369,636			As-Passed State Budget
Tax Court		$645,674			As-Passed State Budget
Judicial Center		$2,941,582			As-Passed State Budget
Judicial Center: Interstate Compact for Adult Offender Supervision		$200,000			As-Passed State Budget
Public Defender		$6,927,034			As-Passed State Budget
Public Defender Council		$1,378,510			As-Passed State Budget

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APPENDIX 12C *(Continued from previous page)*

Program	Federal Funding	State Funding	Local Funding	Total	Grant Details
Public Defender Council: Litigation Support	$60,000	$0			As-Passed State Budget
Prosecuting Attorneys' Council		$1,214,087			As-Passed State Budget
Prosecuting Attorneys' Council: OWI and Traffic Safety Project	$202,765	$0			As-Passed State Budget
Public Employees' Retirement Fund: Judges' Retirement Fund		$15,914,356			As-Passed State Budget
Public Employees' Retirement Fund: Prosecutors' Retirement Fund		$170,000			As-Passed State Budget
FY 2007 Local Support			$42,381,462		As-Passed State Budget
TRANSFERRED - deduct from state funding		-$1,634,750			As-Passed State Budget
Total General Courts	$937,651	$158,557,284	$42,381,462	$201,876,397	
General Court Total Attributable to Substance Use (65.1%)	*$610,411*	*$103,220,792*	*$27,590,332*	*$131,421,534*	
Family Courts					
Supreme Court: Guardian ad Litem		$2,920,248			As-Passed State Budget
Supreme Court: Child Abuse Prevention & Treatment	$500,000	$0			As-Passed State Budget
FY Local Funding Child & Family			$309,530,726		2007 Probation Report
Total Family Courts	$500,000	$2,920,248	$309,530,726	$312,950,974	
Family Court Total Attributable to Substance Use (74.1%)	*$370,500*	*$2,163,904*	*$229,362,268*	*$231,896,672*	
Grand Total Attributable to Substance Use	***$1,923,534***	***$105,787,142***	***$256,952,600***	***$364,663,275***	

Note: Funding type is designated as federal, state, or local.
Source: Indiana State Budget Agency, n.d.; Indiana Judicial Center, 2009; Indiana Criminal Justice Institute, 2009

APPENDIX 12D

Budget Allocations for Primary and Secondary Education in Indiana, FY 2008 (HEA No. 1001)

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
Education Funding for Substance Abuse Programs						
Department of Education	Administration - Drug Free Schools Grant	$0	$0	$329,266	$0	$329,266
	Drug Free Schools	$72,453	$0	$0	$0	$72,453
	Governor's Portion—Safe and Drug Free Schools and Communities Fund*	$0	$0	$0	$975,000	$975,000
Total (100% Attributable to Substance Use)		*$72,453*	*$0*	*$329,266*	*$975,000*	*$1,376,719*
Additional Education Funding						
Arts Commission	Arts Commission Administration	$4,002,959	$0	$0	$0	$4,002,959
	Basic State Grant	$0	$0	$578,540	$0	$578,540
	Challenge America	$0	$0	$101,700	$0	$101,700
	Underserved	$0	$0	$61,200	$0	$61,200
	Arts in Education	$0	$0	$24,200	$0	$24,200
Criminal Justice Institute	Indiana Safe Schools	$2,060,352	$0	$0	-$903,414	$1,156,938
Commission on Proprietary Education	Commission on Proprietary Education Administration	$454,671	$0	$0	$0	$454,671
	Career College Student Assurance Fund	$250,000	$0	$0	$0	$250,000
	Veterans Education Fund	$0	$0	$118,000	$0	$118,000
	Institutional Surety Bonds	$20,000	$0	$0	$0	$20,000
	On-Site Evaluation	$2,300	$0	$0	$0	$2,300

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APPENDIX 12D *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
Department of Education	Distribution for Tuition Support	$3,886,700,000	$0	$0	-$36,318,355	$3,850,381,645
	Individuals with Disabilities Education Improvement Act - Distribution	$0	$0	$225,707,741	$0	$225,707,741
	ECIA Chapter I, LEA Distribution	$0	$0	$175,026,955	$0	$175,026,955
	Marion County Desegregation Court Order	$18,200,000	$0	$0	$34,318,355	$52,518,355
	Title II A Teacher Quality	$0	$0	$45,124,496	$0	$45,124,496
	Testing and Remediation	$41,000,000	$0	$0	$0	$41,000,000
	Textbook Reimbursement	$39,000,000	$0	$0	$0	$39,000,000
	Full-Day Kindergarten	$33,500,000	$0	$0	$0	$33,500,000
	Special Education Preschool	$32,400,000	$0	$0	$0	$32,400,000
	Special Education (S-5)	$24,750,000	$0	$0	$0	$24,750,000
	Adult Education Distribution	$14,000,000	$0	$9,478,458	$0	$23,478,458
	Distribution for Summer School	$18,360,000	$0	$0	$0	$18,360,000
	Perkins Career and Technical Education	$0	$0	$15,225,459	$0	$15,225,459
	Professional Development Distribution	$13,812,500	$0	$0	$0	$13,812,500
	Gifted and Talented Education Program	$13,000,000	$0	$0	$0	$13,000,000
	21st Century Learning Centers - LEA Distributions	$0	$0	$12,141,052	$0	$12,141,052
	No Child Left Behind	$0	$0	$11,610,741	$0	$11,610,741
	Title III Language Acquisition	$0	$0	$10,249,639	$0	$10,249,639

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APPENDIX 12D *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
	Preschool Special Education	$0	$0	$8,610,968	$0	$8,610,968
	Assessments and Related Activities	$0	$0	$8,202,110	$0	$8,202,110
	Title I Program Improvement Audit	$0	$0	$7,369,556	$0	$7,369,556
	Non-English Speaking Program	$6,929,246	$0	$0	$0	$6,929,246
	Alternative Education	$6,380,059	$0	$0	$0	$6,380,059
	National School Lunch Program	$5,400,000	$0	$0	$0	$5,400,000
	Graduation Exam Remediation	$4,958,910	$0	$0	$0	$4,958,910
	Early Intervention Program and Reading Diagnostic Assessment	$4,720,000	$0	$0	$0	$4,720,000
	Drug Free Schools and Communities	$0	$0	$4,374,535	$0	$4,374,535
	Public Charter Schools	$0	$0	$4,032,450	$0	$4,032,450
	Enhancing Education through Technology	$0	$0	$3,585,081	$0	$3,585,081
	Public Television Distribution	$3,500,000	$0	$0	$0	$3,500,000
	Title I Migrant Distribution	$0	$0	$3,357,149	$0	$3,357,149
	State Board of Education	$3,152,112	$0	$0	$0	$3,152,112
	Reading First - State Administration	$0	$0	$2,902,685	$0	$2,902,685
	Individuals with Disabilities Education Improvement Act - Administration	$0	$0	$2,736,822	$0	$2,736,822
	Center for School Improvement and Performance	$2,679,509	$0	$0	$0	$2,679,509

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APPENDIX 12D *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
	Superintendent's Office	$2,674,724	$0	$0	$0	$2,674,724
	Administration and Financial Management	$2,563,334	$0	$0	$0	$2,563,334
	Math and Science Partnerships Program, Title II Part B	$0	$0	$2,509,881	$0	$2,509,881
	Technology Plan Grant Program	$2,500,000	$0	$0	$0	$2,500,000
	Teachers' Social Security and Retirement Distribution	$2,403,792	$0	$0	$0	$2,403,792
	Education Service Centers	$2,321,287	$0	$0	$0	$2,321,287
	Education Technology Fund	$2,109,031	$0	$0	$0	$2,109,031
	Additional Tuition Support Distribution	$2,000,000	$0	$0	$0	$2,000,000
	ESEA Chapter I, SAE Admin.	$0	$0	$1,842,487	$0	$1,842,487
	Title V LEA Distribution	$0	$0	$1,759,638	$0	$1,759,638
	Even Start	$0	$0	$1,691,403	$0	$1,691,403
	Title I, Migrant, SEA Administration	$0	$0	$1,620,508	$0	$1,620,508
	Professional Standards Board Licensing Fund	$1,500,000	$0	$0	$0	$1,500,000
	Career and Technical Education	$1,358,911	$0	$0	$0	$1,358,911
	Professional Standards Division	$1,316,502	$0	$0	$0	$1,316,502
	Title II - Subpart 2 - State Activities	$0	$0	$1,187,487	$0	$1,187,487
	Motorcycle Operator Safety Education Fund	$1,024,480	$0	$0	$0	$1,024,480
	Center for School Assessment	$1,016,802	$0	$0	$0	$1,016,802

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APPENDIX 12D *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
	Accreditation System	$960,937	$0	$0	$0	$960,937
	Advanced Placement Program	$953,284	$0	$0	$0	$953,284
	Chapter I, Delinquent	$0	$0	$852,445	$0	$852,445
	McKinney Homeless Assistance Grant	$0	$0	$828,924	$0	$828,924
	Title V - Innovative Programs - State Administration	$0	$0	$810,891	$0	$810,891
	School Safety Training	$0	$0	$0	$750,000	$750,000
	PSAT Program	$717,449	$0	$0	$0	$717,449
	21st Century Learning Centers - SEA Expense	$0	$0	$639,003	$0	$639,003
	Special Education Program Improvement Grants	$0	$0	$497,683	$0	$497,683
	Adult Basic Education/ Teacher Training	$0	$0	$479,358	$0	$479,358
	Principal Leadership Academy	$462,832	$0	$0	$0	$462,832
	Title II - Section 2113 (2) - State Administration	$0	$0	$418,982	$0	$418,982
	Research and Development Programs	$387,348	$0	$0	$0	$387,348
	Special Education Excise	$344,177	$0	$0	$0	$344,177
	Consolidated School Health Programs	$0	$0	$399,900	-$73,866	$326,034
	Center For Community Relations and Special Populations	$313,455	$0	$0	$0	$313,455
	Learn and Serve Indiana	$0	$0	$311,884	$0	$311,884

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APPENDIX 12D *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
	School Traffic Safety	$273,218	$0	$0	$0	$273,218
	Best Buddies	$250,000	$0	$0	$0	$250,000
	Distribution for Adult Vocational Education	$250,000	$0	$0	$0	$250,000
	GED-On-TV Program	$229,500	$0	$0	$0	$229,500
	Indiana Promise	$0	$225,000	$0	$0	$225,000
	PrimeTime	$207,031	$0	$0	$0	$207,031
	Enhancing Education through Technology-Administration	$0	$0	$188,689	$0	$188,689
	Workshops/In-Service Training	$0	$170,650	$0	$0	$170,650
	School Business Officials Academy	$150,000	$0	$0	$0	$150,000
	Aids School Health Education	$0	$0	$149,935	$0	$149,935
	Refugee Children School Impact	$0	$0	$144,931	$0	$144,931
	Education License Plate Fees	$141,200	$0	$0	$0	$141,200
	Reading Excellence-Administration	$0	$0	$133,827	$0	$133,827
	School Corporation Consolidation Studies	$100,000	$0	$0	$0	$100,000
	Rural and Low Income Schools	$0	$0	$89,898	$0	$89,898
	Chapter I, Neglected	$0	$0	$70,121	$0	$70,121
	Transfer Tuition (State Employees' Children and Eligible MH Children)	$50,000	$0	$0	$0	$50,000
	Riley Hospital	$27,900	$0	$0	$0	$27,900
	Advanced Placement	$0	$0	$17,401	$0	$17,401

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APPENDIX 12D *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
	Professional Teachers Project	$0	$12,000	$0	$0	$12,000
	National Commission on Teaching and America's Future	$0	$2,500	$0	$0	$2,500
	IHSAA Review Panel	$0	$2,480	$0	$0	$2,480
	Byrd Scholarship	$0	$0	$874,500	-$874,500	$0
	Chapter II SEA Support	$0	$0	$0	$0	$0
	DOE Professional Library	$0	$0	$0	$0	$0
	Title II Standards	$0	$0	$0	$0	$0
	Title II Teacher Quality Enhancement	$0	$0	$0	$0	$0
Education Employment Relations Board	Education Employment Relations Board	$686,586	$0	$0	$0	$686,586
	Public Employee Relations Board	$32,550	$0	$0	$0	$32,550
Historical Bureau	Historical Bureau Administration	$399,458	$0	$0	$0	$399,458
	Historic Marker Donations	$27,525	$0	$0	$0	$27,525
	Publications Fund	$25,575	$0	$0	$0	$25,575
	Historical Marker Program	$15,949	$0	$0	$0	$15,949
	Governors' Portrait Fund	$1,255	$0	$0	$0	$1,255
Indiana State Teachers' Retirement Fund	Teachers' Retirement Fund Distribution	$583,800,000	$0	$0	$0	$583,800,000
	Postretirement Pension Increases	$61,300,000	$0	$0	$0	$61,300,000
	Teachers' Retirement Fund - Administration	$3,676,985	$0	$0	$0	$3,676,985
School Lunch Division	Nutrition Support Networks	$0	$0	$954,612	$0	$954,612

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APPENDIX 12D *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
Indiana State Department of Health	Coordinated School Health Programs & Reduction of Chronic Disease Risk	$0	$0	$0	$73,866	$73,866
State Library	State Library	$3,786,938	$0	$0	$0	$3,786,938
	LSCA Extension Services	$0	$0	$3,270,157	$0	$3,270,157
	Statewide Library Services	$1,996,228	$0	$0	$0	$1,996,228
	Local Library Connectivity Grant	$0	$0	$0	$1,196,000	$1,196,000
	Statewide Library Card Program	$235,906	$0	$0	$0	$235,906
	Publications Fund	$203,000	$0	$0	$0	$203,000
	Darrach Genealogy Fund	$109,500	$0	$0	$0	$109,500
	Library Services for the Blind - Electronic Newslines	$40,000	$0	$0	$0	$40,000
	Robert Kraft Estate	$30,600	$0	$0	$0	$30,600
	Academy of Science	$8,811	$0	$0	$0	$8,811
	Indiana Center for the Book	$3,350	$0	$0	$0	$3,350
Additional Education Total		$4,864,220,028	$412,630	$572,364,082	-$1,831,914	$5,435,164,826
Additional Education Total Attributable to Substance Use (11.4%)						*$619,608,790*
Grand Total Attributable to Substance Use						***$620,985,509***

Note: Funding type is designated as federal, state, local, or transferred. Transferred funding reflects the movement of resources from one fund to another based on statutory authorization or specific legislative transfer authority. A positive dollar amount implies that an agency received money through a transfer; a negative dollar amount means that an agency transferred money to another agency.
* Information received from Sonya Cleveland, Director, Substance Abuse Services Division, Indiana Criminal Justice Institute, November 24, 2009
Source: Indiana State Budget Agency, n.d.

APPENDIX 12E

Budget Allocations for Child Welfare Programs in Indiana, FY 2008 (HEA No. 1001)

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
Department of Child Services (DCS)	Child Support Custody Payments ZBA Account	$356,000,000	$0	$0	$0	$356,000,000
	Department of Child Services - Administration	$103,648,254	$0	$26,628,765	$12,660,204	$142,937,223
	Adoption Assistance	$12,159,147	$0	$45,042,735	$1,470,239	$58,672,121
	Title IV-D of the Federal Social Security Act (State Match)	$7,482,841	$0	$47,584,338	-$16,431	$55,050,748
	Foster Care	$0	$0	$52,214,721	$0	$52,214,721
	Department of Child Services - State Administration	$9,252,093	$0	$4,574,351	$4,077,654	$17,904,098
	Indiana Support Enforcement Tracking (ISETS)	$4,972,285	$0	$9,652,081	$0	$14,624,366
	Emergency Assistance	$0	$0	$0	$12,795,123	$12,795,123
	SSBG - Division of Family & Children, Child Welfare	$12,168,423	$0	$433,612	$0	$12,602,035
	Child Welfare Services State Grants	$16,323,884	$0	$0	-$4,063,984	$12,259,900
	Child Protection Automation Project (ICWIS)	$5,421,817	$0	$2,793,057	$0	$8,214,874
	Child Welfare Training	$1,537,864	$0	$2,700,491	$1,863,454	$6,101,809
	Child Welfare IV-B Part II	$0	$0	$6,387,596	-$500,000	$5,887,596
	SSBG - Division of Mental Health	$0	$0	$4,069,830	$0	$4,069,830
	Independent Living Program	$0	$0	$3,242,221	$181,071	$3,423,292
	SSBG - Department of Correction	$1,295,350	$0	$880,420	$0	$2,175,770

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APPENDIX 12E *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
	Community-Based Family Resource & Support	$0	$0	$1,960,000	$0	$1,960,000
	Kids First Trust	$1,687,761	$0	$0	$0	$1,687,761
	Youth Service Bureau	$1,650,000	$0	$0	$0	$1,650,000
	Special Needs Adoption II	$719,678	$0	$719,681	$0	$1,439,359
	Non-Recurring Adoption Assistance	$625,000	$0	$625,000	$0	$1,250,000
	SSBG - Division of Aging	$687,396	$0	$0	$0	$687,396
	Child Abuse Prevention and Treatment Grant	$0	$0	$568,398	-$68,398	$500,000
	SSBG - Division of Family & Children, Family Protection	$6,072,726	$0	$7,592,057	-$13,194,594	$470,189
	Project Safeplace	$250,000	$0	$0	$0	$250,000
	Access & Visitation (Title IV-D)	$0	$0	$164,289	$16,431	$180,720
	Disproportionate Youth Commission	$82,500	$0	$0	$0	$82,500
	SSBG - State Dept. of Health	$296,504	$0	$162,523	-$482,416	-$23,389
Total DCS		$542,333,523	$0	$217,996,166	$14,738,353	$775,068,042
DCS Attributable to Substance Use (73.1%)						*$566,574,739*
Division of Family Resources (DRF)	Child Care & Development Fund (CCDF)_	$35,056,200	$0	$100,688,531	$0	$135,744,731
	CCDF Administration Fund	$0	$0	$25,216,382	$0	$25,216,382
	School Age Child Care Project Fund	$850,000	$0	$0	$0	$850,000
	Child Care Licensing Fund	$100,000	$0	$0	$0	$100,000

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APPENDIX 12E *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
Total DFR		$36,006,200	$0	$125,904,913	$0	$161,911,113
DFR Attributable to Substance Use (73.1%)						*$118,357,024*
Total Child Welfare Funding		$578,339,723	$0	$343,901,079	$14,738,353	$936,979,155
Grand Total Attributable to Substance Use						***$684,931,762***

Note: Funding type is designated as federal, state, local, or transferred. Transferred funding reflects the movement of resources from one fund to another based on statutory authorization or specific legislative transfer authority. A positive dollar amount implies that an agency received money through a transfer; a negative dollar amount means that an agency transferred money to another agency.
Source: Indiana State Budget Agency, n.d.

APPENDIX 12F

Budget Allocations for Income Support Programs in Indiana, FY 2008 (HEA No. 1001)

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
TANF/General Assistance						
Division of Family Resources	Temporary Assistance to Needy Families (TANF)	$30,457,943	$0	$136,844,012	-$45,376,618	$121,925,337
	Temporary Assistance for Needy Families - Administration	$0	$0	$28,480,413	$0	$28,480,413
	IMPACT - TANF	$5,768,527	$0	$8,652,791	$0	$14,421,318
	IMPACT Program	$2,449,580	$0	$6,298,920	$0	$8,748,500
	Electronic Benefit Transfer Program	$2,568,096	$0	$3,404,220	$0	$5,972,316
	State Welfare - County Administration	$71,671,317	$0	$68,860,677	$500,000	$141,031,994
Total TANF/GA		$112,915,463	$0	$252,541,033	-$44,876,618	$320,579,878
TANF Attributable to Substance Abuse (23.4%)						*$75,015,691*
Housing/ Homeless						
Division of Disability & Rehabilitation Services	Independent Living Center of Eastern Indiana	$479,130	$0	$0	$0	$479,130
	Independent Living for the Blind Elderly	$0	$0	$640,921	$64,868	$705,789
	Indianapolis Resource Center for Independent Living	$265,651	$0	$0	$0	$265,651
	Southern Indiana Center for Independent Living	$265,651	$0	$0	$0	$265,651
	The Wabash Independent Living and Learning Center, Inc.	$479,130	$0	$0	$0	$479,130

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APPENDIX 12F *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
	Aid to Independent Living	$46,927	$0	$422,343	$0	$469,270
Indiana Department of Aging Administration	Room and Board Assistance (R-CAP)	$11,421,472	$0	$0	$0	$11,421,472
	Title V Employment Grant (Older Workers)	$228,256	$0	$2,269,029	$0	$2,497,285
Total Housing/ Homeless		$13,186,217	$0	$3,332,293	$64,868	$16,583,378
Housing/Homeless Attributable to Substance Abuse (66.0%)						*$10,945,029*
Other Income Support Services						
Department of Child Services	Assisted Guardianship	$0	$0	$0	$1,200,000	$1,200,000
	Child Support Government Share	$37,200,000	$0	$0	$0	$37,200,000
	Child Welfare Assistance	$0	$0	$780,259	-$2,976,631	-$2,196,372
	Healthy Families Indiana	$6,223,086	$0	$0	$35,482,480	$41,705,566
Department of Veterans' Affairs	Military Family Relief Fund	$450,000	$0	$0	$0	$450,000
	Veterans' Education Fund	$0	$0	$101,999	$0	$101,999
Division of Disability & Rehabilitation Services	Federal Early Intervention	$0	$0	$8,641,192	$0	$8,641,192
Indiana Department of Aging Administration	Nutrition Services Incentive Program	$0	$0	$1,106,221	$0	$1,106,221
Indiana State Department of Health	Farmers' Market Nutrition	$0	$0	$227,561	$0	$227,561
	WIC Peer Counselor Grant	$0	$0	$221,453	$0	$221,453

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APPENDIX 12F *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
	WIC Program Grant (Women, Infants, and Children)	$0	$0	$110,000,000	$0	$110,000,000
	Women, Infants, and Children Supplement	$176,700	$0	$0	$0	$176,700
Total Other Services		$44,049,786	$0	$121,078,685	$33,705,849	$198,834,320
Other Services Attributable to Substance Abuse (23.5%)						*$46,726,065*
Total Funding for Income Support Programs						$535,997,576
Grand Total Attributable to Substance Use						***$132,686,786***

Note: Funding type is designated as federal, state, local, or transferred. Transferred funding reflects the movement of resources from one fund to another based on statutory authorization or specific legislative transfer authority. A positive dollar amount implies that an agency received money through a transfer; a negative dollar amount means that an agency transferred money to another agency.
Source: Indiana State Budget Agency, n.d.

APPENDIX 12G

Budget Allocations for Mental Health Programs in Indiana, FY 2008 (HEA No. 1001)

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
Division of Mental Health and Addiction	Community Mental Health Centers	$7,000,000	$0	$0	-$2,000,000	$5,000,000
	Mental Health Administration	$4,164,368	$0	$0	-$4,164,368	$0
	Mental Health Services Block Grant	$0	$0	$8,462,400	-$971,200	$7,491,200
	Mental Health Services for the Homeless (PATH)	$0	$0	$846,000	$0	$846,000
	Mental Health Transformation	$0	$0	$0	$604,000	$604,000
	Mental Illness (MI) DIG	$0	$0	$147,380	$0	$147,380
	MHFR - Outreach Administration	$0	$0	$29,385,605	-$1,034,740	$28,350,865
	Patient Payroll	$294,624	$0	$0	$0	$294,624
	Quality Assurance/ Research	$838,000	$0	$0	$0	$838,000
	Seriously Emotionally Disturbed	$16,469,493	$0	$0	$0	$16,469,493
	Seriously Mentally Ill	$98,307,579	$0	$0	-$115,600,000	-$17,292,421
Evansville Psychiatric Children's Center (EPCC)	EPCC Federal School Lunch	$0	$0	$24,000	$0	$24,000
	Evansville Psychiatric Children's Center	$0	$0	$2,374,702	$1,455,461	$3,830,163
Evansville State Hospital	Evansville State Hospital	$20,890,463	$0	$4,864,099	-$2,788,865	$22,965,697
Family and Social Services Administration	Family and Social Services Administration	$23,653,777	$0	$9,198,691	-$58,463	$32,794,005
Larue Carter Memorial Hospital	Larue Carter Federal School Lunch	$0	$0	$54,000	$0	$54,000
	Larue Carter Memorial Hospital	$20,155,094	$0	$4,400,438	-$3,323,415	$21,232,117

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APPENDIX 12G *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
Logansport State Hospital	Farm Revenue	$53,857	$0	$0	$0	$53,857
	Logansport State Hospital	$40,278,358	$0	$6,571,347	-$7,086,284	$39,763,421
Madison State Hospital	Madison State Hospital	$25,050,254	$0	$3,439,048	-$4,178,332	$24,310,970
Richmond State Hospital	Richmond Federal School Lunch Reimbursement	$0	$0	$27,000	$0	$27,000
	Richmond State Hospital	$31,331,064	$0	$4,459,531	-$7,426,167	$28,364,428
Total Mental Health Budget		$288,486,931	$0	$74,254,241	-$146,572,373	$216,168,799
Total Attributable to Substance Use (55.9%)						***$120,838,359***

Note: Funding type is designated as federal, state, local, or transferred. Transferred funding reflects the movement of resources from one fund to another based on statutory authorization or specific legislative transfer authority. A positive dollar amount implies that an agency received money through a transfer; a negative dollar amount means that an agency transferred money to another agency.
Source: Indiana State Budget Agency, n.d.

APPENDIX 12H

Budget Allocations for Public Safety Programs in Indiana, FY 2008 (HEA No. 1001)

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
Public Safety Funding for Substance Abuse Programs						
Alcohol and Tobacco Commission	Alcohol and Tobacco Commission	$10,773,582	$0	$0	$0	$10,773,582
	Alcoholic Beverage Enforcement Officers' Training	$3,500	$0	$0	$0	$3,500
	Tobacco Enforcement Grant - AG	$534,530	$0	$0	$0	$534,530
	Youth Tobacco Education and Enforcement	$128,000	$0	$0	$0	$128,000
Criminal Justice Institute	2006 COPS Methamphetamine WX0498	$0	$0	$296,168	$0	$296,168
	2006 COPS Methamphetamine WX0557	$0	$0	$39,489	$0	$39,489
	Alcohol and Drug Countermeasures	$386,000	$0	$0	$0	$386,000
	Drug Enforcement Match	$2,846,955	$0	$0	-$70,452	$2,776,503
	Drug Free Indiana - Local Regional Plan, Administration Expenses	$0	$0	$0	$0	$0
	State Drug Free Communities Fund	$527,477	$0	$51,300	$0	$578,777
	Local Drug Free Communities Fund*	$0	$5,660,701	$0	$0	$5,660,701
Indiana State Police	2005 COPS Methamphetamine 2005-CK-WX-0403	$0	$0	$246,661	$0	$246,661
	Drug Interdiction	$273,420	$0	$0	$0	$273,420
	Marijuana Erad/ Suppress (FDEA)	$0	$0	$684,226	$0	$684,226
	Meth Suppression Grant 05-DJ-01	$0	$0	$0	$0	$0
Professional Licensing Agency	Controlled Substance Data Fund	$0	$0	$191,202	$0	$191,202

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APPENDIX 12H *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
Total (100% Attributable to Substance Use)		*$15,473,464*	*$5,660,701*	*$1,509,046*	*-$70,452*	*$22,572,759*
All Other Public Safety Funding						
Indiana State Police (ISP)	2005 DNA Backlog Reduction 2005-DN-BX-K082	$0	$0	$508,371	$0	$508,371
	2005 DNA Capacity Enhancement 2005-DA-BX-K054	$0	$0	$585,725	$0	$585,725
	Accident Reporting	$84,760	$0	$0	$0	$84,760
	Airport Task Force	$61,500	$0	$0	$0	$61,500
	Benefit Fund	$3,426,302	$0	$0	$0	$3,426,302
	Crimes Against Children Program	$0	$0	$400,000	$0	$400,000
	Criminal Justice Planning	$0	$0	$0	$0	$0
	DNA Sample Processing Fund	$669,889	$0	$0	$0	$669,889
	Enforcement Aid	$80,000	$0	$0	$0	$80,000
	Excess Handgun License Fees	$905,000	$0	$0	$0	$905,000
	Fingerprint (FBI Print)	$548,748	$0	$0	$0	$548,748
	Forensic and Health Sciences Laboratories	$11,047,360	$0	$0	$0	$11,047,360
	Forensic Science	$0	$0	$0	$0	$0
	Highway Safety Plan 100	$0	$0	$0	$0	$0
	Homeland Security	$0	$0	$316,333	$0	$316,333
	Indiana State Police	$9,192,500	$0	$0	$0	$9,192,500
	Insurance Recovery	$160,971	$0	$0	$0	$160,971
	ISP Youth Education, Museum & Memorial	$16,545	$0	$0	$0	$16,545
	Motor Carrier Safety Assistance (MCSAP) New Entrant 2005 HN05-18	$0	$0	$912,871	$0	$912,871

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APPENDIX 12H *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
	MCSAP	$0	$0	$6,376,396	$0	$6,376,396
	Odometer Fraud Investigation	$25,000	$0	$0	$0	$25,000
	Pension Fund	$9,472,493	$0	$0	$0	$9,472,493
	Project Income/ Grant	$232,077	$0	$0	$0	$232,077
	Solving Cold Cases with DNA	$0	$0	$364,485	$0	$364,485
	State Homeland Security Programs	$0	$0	$0	$0	$0
	State Police	$125,128,898	$0	$0	$0	$125,128,898
	State Police Training	$300,100	$0	$0	$0	$300,100
	Supplemental Pension	$3,801,506	$0	$0	$0	$3,801,506
	US Attorney General Forfeited	$258,705	$0	$0	$0	$258,705
Criminal Justice Institute	Office of Traffic Safety	$11,641,120	$0	$0	-$215,734	$11,425,386
Law Enforcement Training Academy	Law Enforcement Training Academy	$4,410,981	$0	$0	$0	$4,410,981
	Law Enforcement Training Board	$498,300	$0	$0	$0	$498,300
State Budget Agency	Northwest Indiana Law Enforcement Training Academy	$150,000	$0	$0	$0	$150,000
Total Other Public Safety		$0	$9,464,181	-$215,734	$191,361,202	$182,112,755
Other Public Safety Attributable to Substance Use (19.7%)						*$37,698,157*
Grand Total Attributable to Substance Use						***$60,270,916***

Note: Funding type is designated as federal, state, local, or transferred. Transferred funding reflects the movement of resources from one fund to another based on statutory authorization or specific legislative transfer authority. A positive dollar amount implies that an agency received money through a transfer; a negative dollar amount means that an agency transferred money to another agency.
* Information received from Sonya Cleveland, Director, Substance Abuse Services Division, Indiana Criminal Justice Institute, November 24, 2009
Source: Indiana State Budget Agency, n.d.

APPENDIX 12I

Budget Allocations for Public Safety Programs in Indiana, FY 2008 (HEA No. 1001)

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
Capital Costs for Mental Health (MH) Facilities						
Evansville Psychiatric Children's Center	Evansville Psychiatric Children's Center	$22,500	$0	$0	$0	$22,500
Evansville State Hospital	Evansville State Hospital	$1,158,000	$0	$0	$0	$1,158,000
Madison State Hospital	Madison State Hospital	$485,705	$0	$0	$0	$485,705
Logansport State Hospital	Logansport State Hospital	$2,253,572	$0	$0	$0	$2,253,572
Richmond State Hospital	Richmond State Hospital	$2,936,487	$0	$0	$0	$2,936,487
Larue Carter Memorial Hospital	Larue Carter Memorial Hospital	$2,500,000	$0	$0	$0	$2,500,000
Total MH Facilities		$9,356,264	$0	$0	$0	$9,356,264
MH Facilities Attributable to Substance Use (55.9%)		*$5,230,152*	*$0*	*$0*	*$0*	*$5,230,152*
Capital Costs for Juvenile Justice (JJ) Facilities						
Indianapolis Juvenile Correctional Facility	Indianapolis Juvenile Correctional Facility	$158,204	$0	$0	$0	$158,204
Indianapolis Juvenile Correctional Facility	Indianapolis Juvenile Correctional Facility	$100,000	$0	$0	$0	$100,000
Pendleton Juvenile Correctional Facility	Pendleton Juvenile Correctional Facility	$91,495	$0	$0	$0	$91,495
Total JJ Facilities		$349,699	$0	$0	$0	$349,699
JJ Facilities Attributable to Substance Use (75.5%)		*$264,023*	*$0*	*$0*	*$0*	*$264,023*

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APPENDIX 12I *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
Capital Costs for Criminal Justice (CJ) Facilities						
State Prison	State Prison	$381,797	$0	$0	$0	$381,797
State Prison	State Prison	$4,000,000	$0	$0	$0	$4,000,000
Pendleton Correctional Facility	Pendleton Correctional Facility	$502,826	$0	$0	$0	$502,826
Pendleton Correctional Facility	Pendleton Correctional Facility	$950,000	$0	$0	$0	$950,000
New Castle Correctional Facility	New Castle Correctional Facility	$140,155	$0	$0	$0	$140,155
Putnamville Correctional Facility	Putnamville Correctional Facility	$345,929	$0	$0	$0	$345,929
Putnamville Correctional Facility	Putnamville Correctional Facility	$440,000	$0	$0	$0	$440,000
Wabash Valley Correctional Facility	Wabash Valley Correctional Facility	$243,528	$0	$0	$0	$243,528
Wabash Valley Correctional Facility	Wabash Valley Correctional Facility	$2,800,000	$0	$0	$0	$2,800,000
Branchville Correctional Facility	Branchville Correctional Facility	$109,173	$0	$0	$0	$109,173
Branchville Correctional Facility	Branchville Correctional Facility	$1,800,000	$0	$0	$0	$1,800,000
Plainfield Education Re-entry Facility	Plainfield Education Re-entry Facility	$129,122	$0	$0	$0	$129,122
Plainfield Correctional Facility	Plainfield Correctional Facility	$265,482	$0	$0	$0	$265,482
Plainfield Correctional Facility	Plainfield Correctional Facility	$420,000	$0	$0	$0	$420,000
Miami Correctional Facility	Miami Correctional Facility	$265,824	$0	$0	$0	$265,824
Correctional Industrial Facility	Correctional Industrial Facility	$233,669	$0	$0	$0	$233,669

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APPENDIX 12I *(Continued from previous page)*

Agency	Program	State Funding	Local Funding	Federal Funding	Transferred Funding	Total Funding
Correctional Industrial Facility	Correctional Industrial Facility	$750,000	$0	$0	$0	$750,000
Westville Correctional Facility	Westville Correctional Facility	$322,532	$0	$0	$0	$322,532
Westville Correctional Facility	Westville Correctional Facility	$3,500,000	$0	$0	$0	$3,500,000
Department of Correction	Work Release Centers	$30,731	$0	$0	$0	$30,731
Reception and Diagnostic Center	Reception-Diagnostic Center	$85,786	$0	$0	$0	$85,786
Reception and Diagnostic Center	Reception-Diagnostic Center	$400,000	$0	$0	$0	$400,000
Women's Prison	Women's Prison	$215,533	$0	$0	$0	$215,533
Women's Prison	Women's Prison	$100,000	$0	$0	$0	$100,000
Rockville Correctional Facility for Women	Rockville Correctional Facility	$142,918	$0	$0	$0	$142,918
Rockville Correctional Facility for Women	Rockville Correctional Facility	$500,000	$0	$0	$0	$500,000
Total CJ Facilities		$19,075,005	$0	$0	$0	$19,075,005
CJ Facilities Attributable to Substance Use (81.0%)		*$15,450,754*	*$0*	*$0*	*$0*	*$15,450,754*
Total Capital Costs for MH, JJ, and CJ Facilities						$28,780,968
Grand Total Capital Costs Attributable to Substance Use						***$20,944,928***

Note: Funding type is designated as federal, state, local, or transferred. Transferred funding reflects the movement of resources from one fund to another based on statutory authorization or specific legislative transfer authority. A positive dollar amount implies that an agency received money through a transfer; a negative dollar amount means that an agency transferred money to another agency.
Source: Indiana State Budget Agency, n.d.

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Appendix I: 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)	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/ or data on request	Indiana	Adults
Indiana Clandestine Meth Lab Seizures	ISP	Annual	Data on request from ISP	Indiana and counties	General population
Indiana Youth Tobacco Survey (IYTS)	ITPC	Bi-annual 2000-present	http://www.in.gov/itpc/ 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

Appendix I (continued)

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)	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.)	Indiana 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 2004 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 I (continued)
Data Packages and Reports

Data Package	Source	How to Access	Coverage	Target
Traffic Safety Reports	ICJI/ISP	Annual	http://www.in.gov/cji/2572.htm	Indiana & counties
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; DOE = Department of Education; FBI = Federal Bureau of Investigations; HHS = Department of Health and Human Services; ICJI = Indiana Criminal Justice Institute; 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.

MARIJUANA COCAINE PRESCRIPTION DRUGS

The Consumption and Consequences of Alcohol, Tobacco, and Drugs in Indiana: A State Epidemiological Profile 2009

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

TOBACCO HEROIN METHAMPHETAMINE ALCOHOL

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-C48