MARIJUANA

COCAINE

PRESCRIPTION DRUGS

The Consumption and Consequences of Alcohol, Tobacco, and Drugs in Indiana: A State Epidemiological Profile 2007

Indiana State Epidemiology and Outcomes Workgroup

Indiana Family & Social Services Administration

School of Public and Environmental Affairs
Indiana University
IUPUI

Center for Health Policy

TOBACCO

HEROIN

METHAMPHETAMINE

ALCOHOL

THE CONSUMPTION AND CONSEQUENCES OF ALCOHOL, TOBACCO, AND DRUGS IN INDIANA: A STATE EPIDEMIOLOGICAL PROFILE 2007

Developed by the Indiana State Epidemiology and Outcomes Workgroup, 2007

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.

This document and the efforts described herein were funded through a Strategic Prevention Framework State Incentive Grant (SPF SIG) from the Department of Health and Human Services, Public Health Service, Substance Abuse and Mental Health Services Administration (SAMHSA), and the Center for Substance Abuse Prevention (CSAP).

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This document is available via the World Wide Web and can be accessed and downloaded from the Center for Health Policy Web site (http://www.healthpolicy.iupui.edu/SEOW.htm).

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ISBN 978-0-9800562-1-1

Printed in the United States of America by the
Indiana University Center for Health Policy, Indianapolis, Indiana

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

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

The members of the SEOW would like to thank Marilyn Yurk of the Center for Urban Policy and the Environment for editing and producing this report and Dr. Chandana Saha for her research assistance.

TABLE OF CONTENTS

Introduction

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

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

For the first SIG, CSAP required that the Governor form a state advisory council to oversee all of the activities related to the grant. In late 2005, Governor Mitch Daniels appointed Sheriff Mark Frisbie to serve as chair of the Governor's Advisory Council (GAC) for the SPF SIG. A new federal requirement of the SPF SIG initiative, however, was that the state establish a **State Epidemiology and Outcomes Workgroup (SEOW)** to collate and analyze available epidemiological data and report findings to the GAC to facilitate data-based decision-making regarding substance abuse prevention programming across the state. This report represents the second official SEOW report completed 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 on those communities with the greatest need. Twelve communities were funded to initiate the SPF planning process at the local level. Each of these communities has been or is in the process of establishing a Local Epidemiology and Outcomes Workgroup (LEOW) which will parallel, at the local level, the work done by the SEOW.

We have been delighted with the positive comments and helpful suggestions we received regarding our first report. In addition to updating our analyses, this second edition incorporates new features that attempt to respond to the feedback we received, including a summary chapter (Chapter 1: Data Highlights) that provides highlights of our findings, more detailed rankings of the 92 counties across the substances examined, and more detailed tables to enhance the value of the report as a reference tool for state and local community leaders and policymakers. (Both this report and the 2006 report are available on-line via the Center for Health Policy Web site at http://www.healthpolicy.iupui.edu/.) We will continue to expand the scope of our analysis over the next few years and incorporate additional data sources in an effort to more fully understand the consequences and consumption patterns of alcohol, tobacco, and illicit drugs in Indiana. As always, we welcome your feedback on our report.

Questions or comments about this report should be directed to:

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1. Data Highlights

ALCOHOL

Alcohol is the most frequently used drug both in Indiana and the United States. About half of the population 12 years and older reported current (past month) use (U.S.: 51.05%; IN: 49.94%) (Substance Abuse and Mental Health Services Administration, 2007). 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 on one occasion in the past month. The 30-day prevalence for binge drinking in the population 12 years and older is similar between Indiana and the United States (U.S.: 22.70%; IN: 21.99%). The highest rate can be found among 18- to 25-year olds (U.S.: 41.54%; IN: 42.03%) (Substance Abuse and Mental Health Services Administration, 2007).

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 are similar between Indiana and the United States (US: 4.9%; IN: 5.0%). The highest rate can be found among 18- to 24-year olds (US: 7.4%; IN: 12.4%). Hoosiers in the 18 to 24 age category report a significantly higher rate of heavy use than their U.S. counterparts. For all other age groups, Indiana rates are similar to or below the national level (Centers for Disease Control and Prevention, 2007d).

Youth Consumption — Underage Drinking

The rates for underage drinking in Indiana and the nation are statistically similar. In Indiana, 17.12% of 12- to 17-year-old youths currently (in the prior month) consume alcohol (U.S. 17.06%) and 10.80% of Indiana youth in this age group engage in binge drinking (U.S.: 10.49%).

In the age category 12 to 20 years old, the numbers are even higher: 28.53% of young Hoosiers reported current use of alcohol (U.S.: 28.47%), and 10.80% confirmed that they engage in binge drinking (U.S.: 10.49%) (Substance Abuse and Mental Health Services Administration, 2007).

According to a different data source, every four in ten high school students (grades 9 through 12) currently use alcohol (U.S.: 44.9%; IN: 41.4%), and one in four said they binge drank in the past month (U.S.: 25.5%; IN: 24.6%). Indiana and the nation are similar on both measures (Centers for Disease Control and Prevention, 2007b).

In Indiana, a total of 32.03% of 8th, 10th, and 12th grade students combined revealed past-month use of alcohol (U.S.: 32.10%), while 19.40% engaged in binge drinking (U.S.: 19.40%), and 3.60% said they use alcohol daily (U.S.: 1.63%); statistical significance of the differences could not be determined (Indiana Prevention Resource Center, 2007;[1] University of Michigan, n.d.[2])

Alcohol Abuse and Dependence

The population-based rates for alcohol abuse and/or dependence are similar in Indiana (7.87%) and the nation (7.71%). The age group mostly affected is 18- to 25-year-olds (U.S.: 17.47%; IN: 18.26%). The percentages of individuals needing but not receiving treatment for alcohol use in the past year are also comparable (U.S.: 7.35%; IN: 7.52%). Again, young adults between the ages of 18 and 25 have the highest rate (U.S.: 16.92%; IN: 17.08%) (Substance Abuse and Mental Health Services Administration, 2007).

According to treatment data, alcohol was responsible for the largest percentage of admissions

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

[2]At the time of the report, the most recent data available were 2006 results from the MTF survey (national data) and 2007 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, only data up to 2006 were used. However, the 2007 Indiana data is available, by region, as an appendix at the end of the alcohol chapter.

to substance abuse treatment facilities in 2005 (U.S.: 39.0%; IN: 47.0%); the rate difference is significant. However, admissions due to alcohol decreased significantly in Indiana from 54.3% in 2000 to 47.0% in 2005. White individuals and older adults reported the highest rates (Substance Abuse and Mental Health Data Archive, n.d.).

Morbidity and Mortality

It has been estimated that 8.0% of the deaths in Indiana and the nation, are attributable to alcohol (Centers for Disease Control and Prevention, 2004). Between 2000 and 2004, a total of 1,625 Hoosiers died from alcohol-related disease causes; the age group mostly affected was adults 25 years and older (Indiana State Department of Health, 2007). Tables 1.1 and 1.2 show the percentages for diseases that can be attributed to alcohol (caused by 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 are similar on both measures (Centers for Disease Control and Prevention, 2007b).

In Indiana, the number of alcohol-related collisions decreased from 13,911 in 2003 to 11,718 in 2006. However, the number of fatalities in crashes attributable to alcohol increased from 242 to 267 during those same years. The overall annual rate for alcohol-related collisions in Indiana in 2006 was 1.86 per 1,000 population (Indiana Vehicle Crash Record System, 2007).

Legal Consequences

The 2005 annual arrest rates (per 1,000 population) for driving under the influence (U.S.: 4.07; IN: 5.86), public intoxication (U.S.: 1.60; IN: 3.3), and liquor law violations (U.S.: 1.81; IN: 2.73) were similar between Indiana and the nation. Arrests for public intoxication increased significantly from 2004 to 2005 in Indiana (National Archive of Criminal Justice Data, 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,

Table 1.1 Causes and Diseases That Are Completely Attributable to (Caused by) Alcohol (Alcohol-Related Disease Impact Database, 2001)

Cause/Disease	Percentage Directly Attributable to Alcohol
Alcohol abuse/dependence	100%
Alcohol cardiomyopathy	100%
Alcohol polyneuropathy	100%
Alcohol-induced chronic pancreatitis	100%
Alcoholic gastritis	100%
Alcoholic liver disease	100%
Alcoholic myopathy	100%
Alcoholic psychosis	100%
Degeneration of nervous system due to alcohol	100%
Fetal alcohol syndrome/Fetus and newborn affected by maternal alcohol use	100%
Alcohol poisoning	100%
Excessive blood alcohol level	100%
Suicide by and exposure to alcohol	100%

Source: Centers for Disease Control and Prevention, 2004

Table 1.2 Causes and Diseases That Are Partially Attributable to (Caused by) Alcohol (Alcohol-Related Disease Impact Database, 2001)

Cause/Disease	Percentage Directly Attributable to Alcohol
Chronic pancreatitis	84%
Gastroesophageal hemorrhage	47%
Homicide	47%
Fire Injuries	42%
Hypothermia	42%
Esophageal varices	40%
Liver cirrhosis unspecified	40%
Portal hypertension	40%
Drowning	34%
Fall injuries	32%
Poisoning (not alcohol)	29%
Acute pancreatitis	24%
Suicide	23%

Source: Centers for Disease Control and Prevention, 2004

almost one-third of the population 12 years and older (32.72%) said they used a tobacco product in the past month (current use), which is significantly higher than the U.S. rate of 29.31%. The age group with the highest rates is 18- to 25-year-olds (U.S.: 44.44%; IN: 48.24%), and here too, Indiana's rate exceeds the nations significantly. Most tobacco consumers smoke cigarettes, and Indiana's cigarette smoking prevalence among individuals 12 years and older is significantly higher than the nation's (U.S.: 24.90%; IN: 27.96%). Again, the highest rate is found among 18- to 25-year olds (U.S.: 39.27%; IN: 42.18%), but for this group, the difference between Indiana and the nation is not significant (Substance Abuse and Mental Health Services Administration, 2007).

Adult (18 years and older) smoking prevalence in Indiana (24.1%) is the fifth highest in the nation and significantly greater than the U.S. rate (20.1%). Smoking rates are inversely associated with education and income level: very high rates were found for individuals with less than high school education (U.S.: 32.3%; IN: 44.5%) and persons whose household income is below $15K (U.S.: 31.5%; IN: 36.2%) (see Table 1.3). Smoking prevalence among adults in the United States decreased significantly from 27.3% in 2005 to 24.1% in 2006 (Centers for Disease Control and Prevention, 2007d).

Table 1.3 Adult (18 Years and Older) Smoking Prevalence in Indiana, by Education and Income, 2006 (Behavioral Risk Factor Surveillance System, 2006)

Education	Smoking Prevalence	95% Confidence Interval
Less than high school	44.5%	39.3%–49.7%
High school or GED	28.0%	25.7%–30.3%
Some post-high school	23.3%	20.6%–26.0%
College graduate	10.5%	8.8%–12.2%
Income	**Smoking Prevalence**	**95% Confidence Interval**
Less than $15,000	36.2%	30.8%–41.6%
$15,000 – $24,999	32.3%	28.3%–36.3%
$25,000 – $34,999	28.1%	24.2%–32.0%
$35,000 – $49,999	25.1%	21.6%–28.6%
$50,000 and above	17.3%	15.3%–19.3%

Source: Centers for Disease Control and Prevention, 2007d

Youth Consumption

The percentages of young people (12 to 17 years) currently (in the past month) using a tobacco product (U.S.: 13.76%; IN: 14.19%) and currently smoking

cigarettes (U.S.: 11.33%; IN: 12.28%) are similar for Indiana and the nation (Substance Abuse and Mental Health Services Administration, 2007).

Of all Indiana high school students surveyed, 29.2% reported past-month use of a tobacco product, 56.9% had tried smoking a cigarette during their lifetime, and 21.9% currently smoke cigarettes. National rates are statistically similar. Black high school students in Indiana have a significantly lower 30-day smoking prevalence than White students (Black: 9.4%; White: 23.4%) (Centers for Disease Control and Prevention, 2007b).

The rates for current tobacco use in middle school (U.S.: 11.8%; IN: 12.4%) and high school (U.S.: 27.4%; IN: 28.3%) are similar in Indiana and the nation. Likewise, past-month use of cigarettes in middle school (U.S.: 8.4%; IN: 7.8%) and high school (U.S.: 21.7%; IN: 21.3%) is statistically the same among Indiana and U.S. students. No significant differences in cigarette smoking prevalence exist among racial groups during their middle school years. However, this changes in high school: White students (U.S.: 24.8%; IN: 22.0%) have significantly higher smoking rates than Black students (U.S.: 10.9%; IN: 12.7%) (Indiana Youth Tobacco Survey, 2004) (National Youth Tobacco Survey, 2004).[3] A review of Indiana data reveals a significant decrease in current cigarette use among high school students from 31.6% in 2000 to 23.2% in 2006; current use of "any tobacco product" remained stable over the years (Indiana Tobacco Prevention and Cessation, 2007).

In Indiana, the 30-day smoking prevalence for 8th, 10th, and 12th grade students combined decreased from 28.7% in 2000 (U.S.: 23.3%) to 19.7% in 2006 (U.S.: 14.9%). Statistical significance across the years or between Indiana and the nation could not be determined (Indiana Prevention Resource Center, 2007; University of Michigan, n.d.[4])

Morbidity and Mortality

Tobacco kills approximately 10,000 Hoosiers annually, and on average, smoking reduces adult life expectancy by approximately 14 years. It has been shown that tobacco causes serious health consequences, including lung cancer, respiratory illness, and heart disease. The age-adjusted annual mortality rates (per 100,000 population) for lung cancer (U.S.: 53.2; IN: 60.8), chronic lower respiratory disease (U.S.: 41.1; IN: 50.0), and coronary disease (U.S.: 201.0; IN: 219.9) are higher among Hoosiers than the rest of the nation (Centers for Disease Control and Prevention, 2007a).

MARIJUANA

Marijuana is the most commonly used illicit substance. In Indiana, 492,000 residents (9.60%) reported past-year use (U.S.: 10.51%), and 263,000 Hoosiers (5.12%) used the drug in the past month (U.S.: 6.04%); the differences between Indiana and the nation are not significant. The highest rates are found among 18- to 25-year-old Hoosiers (past-year use: 27.60%; past-month use: 14.37%). National rates are similar (Substance Abuse and Mental Health Services Administration, 2007).

Youth Consumption

In Indiana, among 12- to 17-year-olds, 13.21% used marijuana in the past year (U.S.: 13.92%) and 6.54% reported current use (U.S.: 7.20%); the rates do not differ significantly from the nation's rates (Substance Abuse and Mental Health Services Administration, 2007).

Past-month use among high school students is also similar in Indiana and the United States (U.S.: 20.2%; IN: 18.9%). No differences by gender, race, or grade were distinguishable in Indiana (Centers for Disease Control and Prevention, 2007b).

A review of data from 2000 through 2006 shows a decline in current marijuana use among 8th, 10th, and 12th grade students in Indiana and the nation. However, due to the nature of the data, the significance of the results could not be determined (see Table 1.4) (Indiana Prevention Resource Center, 2007; University of Michigan, n.d.)

[3]At the time of the report, the most recent data available were 2004 results from the NYTS (national data) and 2006 results from the IYTS (Indiana data). For comparisons between Indiana and U.S. students, only data up to 2004 were used. However, the 2006 Indiana data is available as an appendix at the end of the tobacco chapter.

[4]At the time of the report, the most recent data available were 2006 results from the MTF survey (national data) and 2007 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, only data up to 2006 were used. However, the 2007 Indiana data is available, by region, as an appendix at the end of the tobacco chapter.

Table 1.4 Percentages of Indiana and U.S. 8th, 10th, and 12th Grade Students Reporting Current Marijuana Use, by Grade, 2002 through 2006 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents; Monitoring the Future Survey, 2002–2006)

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

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

At the time of this report, the most recent data available were 2006 results from the MTF survey (national data) and 2007 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, only data up to 2006 were used. However, the 2007 Indiana data is available, by region, as an appendix at the end of the marijuana chapter.

Source: Indiana Prevention Resource Center, 2007; University of Michigan, n.d.

Marijuana Abuse and Dependence

In 2005, more than half (52.0%) of Indiana residents in substance abuse treatment reported marijuana use at admission (U.S.: 36.6%); from 2000 through 2006, the rate was significantly higher in Indiana than the rest of the nation. In Indiana, the highest rates of reported use were found among males (54.1%) and individuals under the age of 18 (85.9%). About one-fourth of Hoosiers in treatment (23.8%), in 2005 listed marijuana as their primary substance; this is significantly higher than the U.S. rate (15.8%). Younger individuals (under age 18) and Black and White males had statistically higher rates of reporting marijuana as their primary drug (Substance Abuse and Mental Health Data Archive, n.d.).

Legal Consequences

The 2005 annual arrest rates (per 1,000 population) for marijuana possession (U.S.: 2.10; IN: 2.45) and sale/manufacture (U.S.: 0.27; IN: 0.34) were statistically the same in Indiana and the nation. Arrest rates for both marijuana possession and sale/manufacture remained stable from 1999 to 2005 (National Archive of Criminal Justice Data, n.d.).

COCAINE

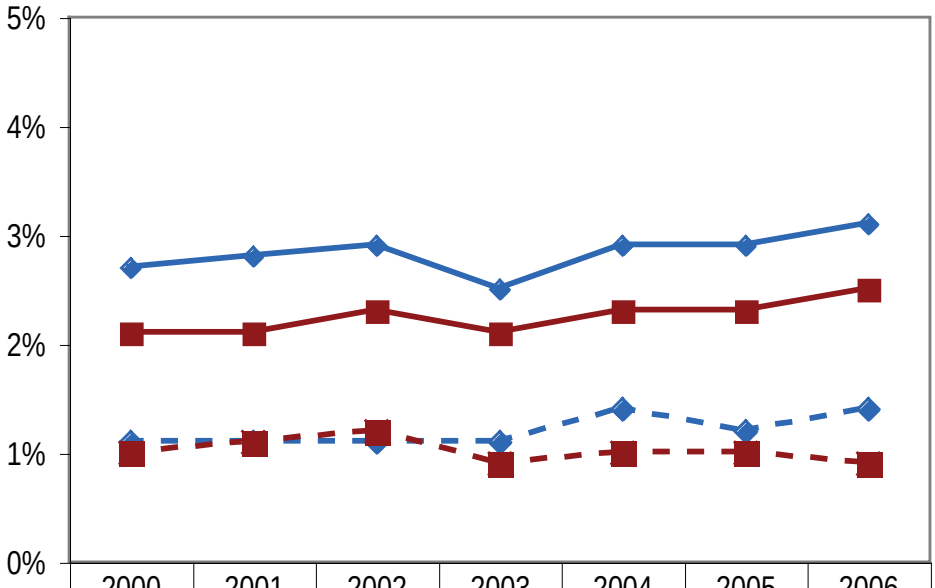
Population-based estimates on past-year cocaine use are similar in Indiana and the nation (U.S.: 2.31%; IN: 2.33%). Young adults ages 18 to 25 display the highest rates (U.S.: 6.77%; IN: 7.46%). Past-year use remained stable in Indiana from 2002 through 2005 (National Survey on Drug Use and Health, 2004—2005). 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%) are current users (Substance Abuse and Mental Health Services Administration, 2007).

Youth Consumption

Past-year cocaine use among 12- to 17-year-olds is statistically similar in Indiana and the United States (U.S.: 1.65%; IN: 1.49%) (Substance Abuse and Mental Health Services Administration, 2007).

High school students' rates for lifetime use (U.S.: 7.6%; IN: 6.8%) and current use (U.S.: 3.4%; IN: 3.0%) are statistically not different in Indiana and the nation; differences by gender, race, or grade were not detected in Indiana (Centers for Disease Control and Prevention, 2007b).

Figure 1.1 Percentage of Indiana and U.S. 12th Grade Students Reporting Current Cocaine and Crack Use, 2000 through 2006 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents; Monitoring the Future, 2000–2006)



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

Source: Indiana Prevention Resource Center, 2007; University of Michigan, n.d.

Data from 2000 through 2006 show that rates for current cocaine and crack use among high school seniors seem to be higher in Indiana than the rest of the nation and remained stable over the years (see Figure 1.1). However, the significance of the results could not be determined (Indiana Prevention Resource Center, 2007; University of Michigan, n.d.[5])

Cocaine Abuse and Dependence

In 2005, almost one-fourth of Indiana residents (23.8%) entering substance abuse treatment said that they use cocaine (U.S.: 31.2%); from 2000 through 2005, the U.S. rates were significantly higher. Gender, age, and race differences in the Indiana treatment population were significant: more women than men reported cocaine use, Blacks displayed higher rates than Whites and other races, and the percentage of 35- to 44-year-olds using cocaine was greater than any other age group (see Table 1.5). Use among Hoosier residents decreased significantly from 25.5% in 2000 to 23.8% in 2005.

The percentage of individuals in substance abuse programs who report cocaine as their primary drug has been significantly lower in Indiana than the nation for the most recent last five years of data reported (2001 through 2005). Furthermore, the percentage in Indiana decreased significantly from 13.6% in 2000 to 12.1% in 2005. 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, n.d.).

Legal Consequences

Arrest rates (per 1,000 population) for cocaine/opiate possession in 2005 were significantly lower in Indiana

[5]At the time of the report, the most recent data available were 2006 results from the MTF survey (national data) and 2007 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, only data up to 2006 were used. However, the 2007 Indiana data is available, by region, as an appendix at the end of the cocaine chapter.

Table 1.5 Percentage of Indiana Residents in Substance Abuse Treatment Who Reported Cocaine Use and Who Listed Cocaine as their Primary Substance at Admission, by Gender, Race, and Age Group, 2005 (Treatment Episode Data Set, 2005)

		Cocaine Use	Cocaine Dependence
Gender	Male	20.9%	9.7%
	Female	29.5%	16.8%
Race	White	19.0%	8.5%
	Black	46.9%	29.0%
	Other	24.6%	10.2%
Age Group	Under 18	5.7%	1.7%
	18-24	14.3%	5.4%
	25-34	25.3%	12.5%
	35-44	32.9%	19.0%
	45-54	28.8%	15.4%
	55 and over	12.7%	5.6%
Total		**23.8%**	**12.1%**

Note: We defined dependence as "individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission".

Source: Substance Abuse and Mental Health Data Archive, n.d.

than the nation as a whole (U.S.: 1.15; IN: 0.80) but increased significantly from 0.47 in 1999 to 0.80 in 2005. Indiana and U.S. arrest rates for sale/manufacture were similar in 2005 (U.S.: 0.41; IN: 0.42, per 1,000 population) (National Archive of Criminal Justice Data, n.d.).[6]

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 are current users of the substance. U.S. data for 2005 are comparable. (Substance Abuse and Mental Health Services Administration, 2007).

Youth Consumption

Lifetime heroin use among high school students has been statistically the same in Indiana and the nation (U.S.: 2.4%; IN: 2.3%). A gender effect in Indiana was observed in 2003 (males reported significantly higher lifetime heroin use than females), but not in 2005. Also, no differences existed in Indiana by race or grade level (Centers for Disease Control and Prevention, 2007b).

A review of data from 2000 through 2006 for lifetime, annual, and monthly heroin use among 8th, 10th, and 12th grade students combined shows that Indiana rates seem slightly higher. However, statistical significance could not be determined (see Table 1.6) (Indiana Prevention Resource Center, 2007; University of Michigan, n.d.[7])

Heroin Abuse and Dependence

In 2005, the percentage of individuals in substance abuse treatment reporting heroin use at admission was significantly lower in Indiana than in the nation (U.S.: 16.4%; IN: 3.3%); this has been true for the past six years. Furthermore, among the Indiana treatment population, heroin use declined significantly from 5.7% in 2000 to 3.3% in 2005. Significant differences in heroin use are seen by gender (more women report use), race (higher rates for Blacks), and age group (adults 45 years and older are primarily affected).

Similarly, from 2000 through 2005, the percentage of heroin-related drug treatment admissions has been significantly lower in Indiana than in the United States as a whole. In 2005, only 2.4% of Hoosiers listed heroin as their primary substance (U.S.: 13.8%), which is a significant difference from the 3.8% in 2000 (U.S.: 15.3%). Also, women, Blacks, and older individuals (45 years and up) in Indiana reported significantly higher rates (Substance Abuse and Mental Health Data Archive, n.d.).

Morbidity and Mortality

A consequence of injected heroin use is sometimes contraction of HIV and/or hepatitis (B or C) from contaminated needles. In 2005, a total of 351 HIV

[6]The UCR dataset combines arrests for cocaine and opiates; this information is not available for cocaine or opiates alone.

[7]At the time of the report, the most recent data available were 2006 results from the MTF survey (national data) and 2007 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, only data up to 2006 were used. However, the 2007 Indiana data is available, by region, as an appendix at the end of the heroin chapter.

Table 1.6 Percentages of Indiana and U.S. Students (8th, 10th, and 12th Grades Combined) Reporting Lifetime, Annual, and Monthly Heroin Use, 2000 through 2006 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents; Monitoring the Future Survey, 2000–2006)

	Lifetime Use		Annual Use		Monthly Use	
	U.S.	Indiana	U.S.	Indiana	U.S.	Indiana
2000	2.17%	1.93%	1.33%	1.40%	0.57%	0.77%
2001	1.73%	2.03%	0.93%	1.47%	0.43%	0.87%
2002	1.70%	1.83%	1.00%	1.13%	0.50%	0.70%
2003	1.53%	2.03%	0.80%	1.37%	0.37%	0.80%
2004	1.53%	1.97%	0.93%	1.40%	0.50%	0.83%
2005	1.50%	1.90%	0.83%	1.27%	0.50%	0.80%
2006	1.40%	1.93%	0.83%	1.27%	0.40%	0.83%

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

Source: Indiana Prevention Resource Center, 2007; University of Michigan, n.d.

infections and 409 AIDS cases were reported in Indiana, and the cumulative total (from the beginning of the epidemic through 2005) has added up to 3,888 HIV infections and 7,963 AIDS cases that have progressed from HIV to AIDS. The calculated annual AIDS rate (per 100,000 population) in Indiana is 6.5 (U.S.: 14.0). However, not all of these cases are caused by injection drug use (IDU). It is estimated that in Indiana, 10% of all reported HIV transmissions (U.S.: 14%) and 11% of all AIDS cases (U.S.: 24%) are attributable to injection drug use (Centers for Disease Control and Prevention, 2007c).

The hepatitis B virus (HBV) and hepatitis C virus (HCV) are usually transmitted via unprotected sex and among injection drug users. The age-adjusted mortality rate (per 100,000 population) attributable to hepatitis B and hepatitis C (acute and chronic) is 0.9 in Indiana (U.S.: 1.7) (Centers for Disease Control and Prevention, 2007a).

Legal Consequences

Annual arrest rates (per 1,000 population) for cocaine/opiate possession in 2005 were significantly lower in Indiana than the rest of the nation (U.S.: 1.15; IN: 0.80) but increased significantly from 0.47 in 1999 to 0.80 in 2005. Indiana and U.S. arrest rates for sale/manufacture were similar in 2005 (U.S.: 0.41; IN: 0.42, per 1,000 population) (National Archive of Criminal Justice Data, n.d.).

METHAMPHETAMINE

In Indiana, 4.5% of the population (225,000 residents) have used meth at least once in their life (U.S.: 4.3%), 0.8% (40,000 residents) used it in the past year (U.S.: 0.5%), and 0.2% (10,000 residents) used it in the past month (U.S.: 0.2%). The rate for past-year use is greatest among 18- to 25-year-olds (U.S.: 1.6%; IN: 1.9%) (Substance Abuse and Mental Health Services Administration, 2007).

Youth Consumption

Lifetime prevalence of methamphetamine use among high school students is similar in Indiana and the nation (U.S.: 6.2%; IN: 7.0%). Rate differences by gender, race, or grade level are not significant in Indiana (Centers for Disease Control and Prevention, 2007b).

Lifetime, annual, and monthly use among high school seniors seem to be higher in Indiana than the nation; however, the significance of the differences could not be determined (see Table 1.7). Indiana usage rates (lifetime, annual, and monthly) among 12th grade students decreased significantly from 2006 to 2007 (Indiana Prevention Resource Center, 2007; University of Michigan, n.d.[9]).

Methamphetamine Abuse and Dependence

In Indiana, data show a significant increase from 4.0% in 2000 (U.S.: 6.5%) to 10.9% in 2005 (U.S.: 11.8%) in

[9]At the time of the report, the most recent data available were 2006 results from the MTF survey (national data) and 2007 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, only data up to 2006 were used. However, the 2007 Indiana data is available, by region, as an appendix at the end of the methamphetamine chapter.

Table 1.7 Percentage of Indiana and U.S. 12th Grade Students Reporting Lifetime, Annual, and Monthly Methamphetamine, 2005 through 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2005—2007; Monitoring the Future Survey, 2005—2006)

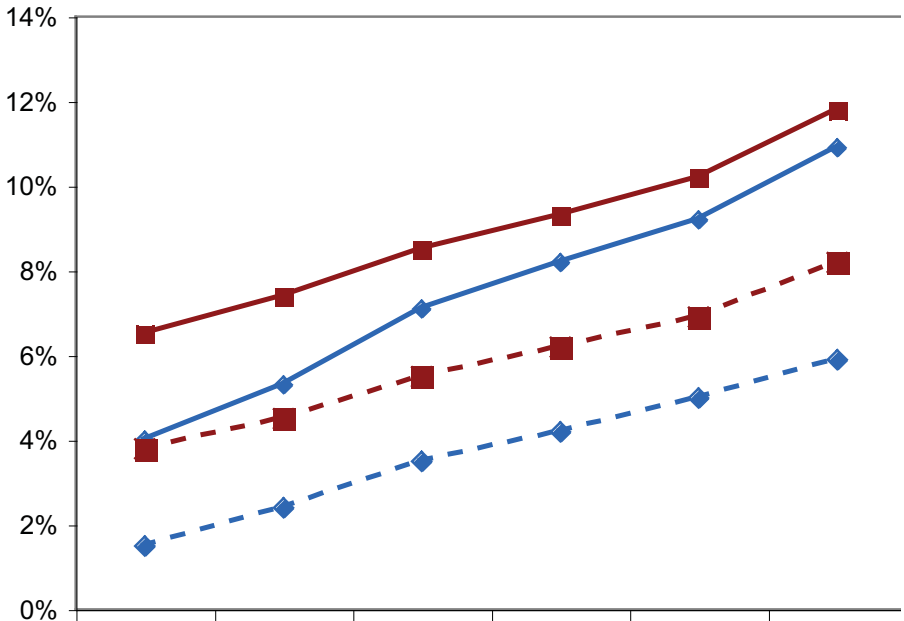
Year	Lifetime Use		Annual Use		Monthly Use	
	U.S.	Indiana	U.S.	Indiana	U.S.	Indiana
2005	4.5%	5.5%	2.5%	3.3%	0.9%	1.7%
2006	4.4%	5.0%	2.5%	3.1%	0.9%	1.5%
2007	n/a	3.4%	n/a	1.9%	n/a	1.0%

Source: Indiana Prevention Resource Center, 2007; University of Michigan, n.d.

the reported rate of methamphetamine use at substance abuse treatment admission; Indiana rates have been significantly lower than U.S. rates during the six-year period (see Figure 1.2). 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 34-year olds were affected).

The percent of admissions for which methamphetamine is indicated as the primary drug[10] has been statistically significantly lower in Indiana than the rest

Figure 1.2 Percentage of Indiana and U.S. Residents in Substance Abuse Treatment Who Reported Methamphetamine Use and Listed Methamphetamine as Their Primary Substance at Admission, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



	2000	2001	2002	2003	2004	2005
Indiana Meth Use	4.0%	5.3%	7.1%	8.2%	9.2%	10.9%
U.S. Meth Use	6.5%	7.4%	8.5%	9.3%	10.2%	11.8%
Indiana Meth Dependence	1.5%	2.4%	3.5%	4.2%	5.0%	5.9%
U.S. Meth Dependence	3.8%	4.5%	5.5%	6.2%	6.9%	8.2%

Note: We defined dependence as "individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission.

Source: Substance Abuse and Mental Health Data Archive, n.d.

[10]Throughout this report, we have defined dependence as "individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission".

of the nation. In Indiana, methamphetamine-related treatment admissions increased significantly from 1.5% in 2000 to 5.9% in 2005 (see Figure 1.2). High-risk groups include women, Whites, and 18- to 44-year olds (Substance Abuse and Mental Health Data Archive, n.d.)

Legal Consequences

In 2006, a total of 15.7 kg (34.6 pounds) of methamphetamine was seized in Indiana. The drug is easily made in clandestine laboratories with over-the-counter ingredients. Meth lab seizures in Indiana peaked in 2004 with 1,549 clandestine lab seizures and declined to 993 in 2006. The number of children affected by meth labs in Indiana rose from 182 in 2002 to 217 in 2004, and fell to 144 in 2006 (U.S. Drug Enforcement Administration/Indiana State Police, 2007).

In Indiana, 2,034 arrests were made for possession and 581 for the sale/manufacture of synthetic drugs in 2005; this represents annual arrest rates (per 1,000 population) of 0.32 (U.S.: 0.19) and 0.09 (U.S.: 0.08) respectively. The differences between Indiana and the nation were not significant (National Archive of Criminal Justice Data, n.d.).

PRESCRIPTION DRUG MISUSE

In Indiana, over a million residents (20.7%) have misused psychotherapeutics at least once in their life (U.S.: 20.0%). Additionally, an estimated 383,000 Hoosiers (7.6%) abused prescription drugs in the past year (U.S.: 6.2%) and 138,000 residents (2.7%) did so in the past month (U.S.: 2.6%). The psychotherapeutics that were primarily abused included pain relievers, tranquilizers, sedatives, and stimulants (see Table 1.8) (Substance Abuse and Mental Health Services Administration, 2007).

Young people between the ages of 18 and 25 have the highest rate of past-year abuse (U.S.: 12.16%; IN: 14.21%); Indiana and national rates are similar (Substance Abuse and Mental Health Services Administration, 2007).

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

Youth Consumption

Approximately 47,000 Hoosiers (8.53%) ages 12 to 17 have used prescription pain medications for non-medical purposes in the past year (U.S.: 7.13%); Indiana's percentage is similar to the nation's (Substance Abuse and Mental Health Services Administration, 2007).

High school seniors in Indiana reported a significant increase in Ritalin[12] use and a significant decrease in

Table 1.8 Lifetime, Past Year, and Current Non-Medical Use of Psychotherapeutics, Indiana and United States (National Survey on Drug Use and Health)

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

Note: U.S. rates are based on results from the 2005 NSDUH. Indiana rates are based on annual NSDUH averages from 2002 through 2004.

Source: Substance Abuse and Mental Health Services Administration, 2007

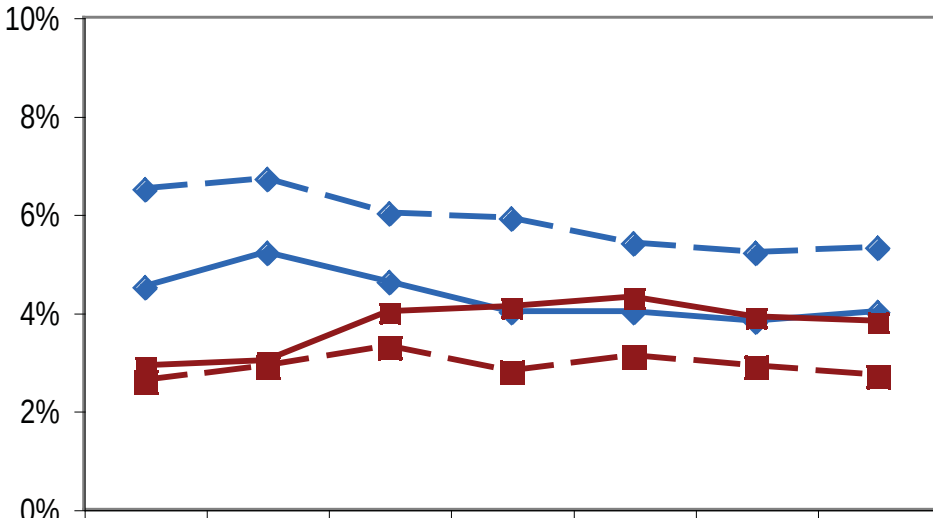
[12]Ritalin (methylphenidate) is a stimulant that enhances brain activity and increases alertness and energy. It is often prescribed to treat Attention Deficit Hyperactivity Disorder (ADHD), Attention Deficit Disorder (ADD) and narcolepsy.

tranquilizer use from 2006 to 2007; the use of narcotics remained stable. In 2006, current use of narcotics was similar among Indiana and U.S. 12th graders, but tranquilizer use seemed higher for Hoosier students; however, due to the nature of the data, significance could not be determined (see Figure 1.3) (Indiana Prevention Resource Center, 2007; University of Michigan, n.d.[13]).

Prescription Drug Abuse and Dependence

Among the Indiana treatment population in 2005, a total of 14.5% reported prescription drug abuse (U.S.: 11.0%). Of these, 9.1% used pain relievers (U.S.: 6.8%), 6% used sedatives and tranquilizers (U.S.: 3.2%), and 1.4% used stimulants (U.S.: 2.1%). (For this report, we defined prescription drug abuse as "individuals reporting the use of pain relievers, sedatives, tranquilizers, or stimulants at the time of substance abuse treatment admission.") Compared to the nation, Indiana's rates were significantly higher for prescription drug, pain reliever, and sedative/tranquilizer abuse, but significantly lower for stimulant abuse. In Indiana, significant differences were seen by gender (women reported higher rates of use across all three drug categories), race (Whites had the highest rates for pain reliever and sedative/tranquilizer use; stimulant use was similar between Whites and "Others," but both groups reported significantly greater use than Blacks), and age group (18- to 34-year olds displayed the highest rates for pain reliever and sedative/tranquilizer use. The differences in stimulant use by age group were not significant. Rates for pain reliever and sedative/tranquilizer use have increased significantly in Indiana but remained stable for stimulant use.

Figure 1.3 Percentage of Indiana and U.S. 12th Grade Students Reporting Current Use of Narcotics and Tranquilizers, 2000 through 2006 (Monitoring the Future Survey; Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents survey, 2006–2007)



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

Source: Indiana Prevention Resource Center, 2007; University of Michigan, n.d.

[13]At the time of the report, the most recent data available were 2006 results from the MTF survey (national data) and 2007 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, only data up to 2006 were used. However, the 2007 Indiana data is available, by region, as an appendix at the end of the prescription drug chapter.

Dividing the Indiana treatment population by underage status reveals that young people (under age 18) in Indiana reported significantly less use of psychotherapeutics than adults 18 and older. An examination of use by individual drug category shows that young Hoosiers use significantly less pain relievers, but more stimulants than their older counterparts. Rates for sedative/tranquilizer use were similar between the two groups.

In 2005, overall prescription drug dependence was significantly higher in Indiana (6.7%) than the United States (5.3%): a larger percentage of Indiana residents reported dependence on pain relievers (U.S.: 3.6%; IN: 4.7%) and sedative/tranquilizer (U.S.: 0.7%; IN: 1.6%), while stimulant dependence was greater among U.S. residents (U.S.: 1.0%; IN: 0.4%). Also, rates in Indiana were related to gender, race, and age (see Table 1.9). Dependence on pain relievers and sedatives/tranquilizers increased significantly in both Indiana and the United States from 2000 through 2005. However, the percentage of individuals reporting stimulants as their primary drug at treatment admission decreased significantly on the national level, but remained stable for Indiana residents (Substance Abuse and Mental Health Data Archive, n.d.).

Legal Consequences

In 2005, the annual arrest rate (per 1,000 population) for possession of barbiturates (sedatives) and Benzedrine (amphetamine, a type of stimulant) in Indiana was 0.42, significantly lower than the U.S. rate of 0.95. The annual arrest rates (per 1,000 population) for sale/manufacture of these drugs differed significantly as well (U.S.: 0.22; IN: 0.12). A comparison of rates from 1999 through 2005 shows a significant increase for both Indiana and the United States (National Archive of Criminal Justice Data, 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 2005 reveals that over half of the individuals seeking substance abuse treatment reported using at least two

Table 1.9 Percentage of Indiana Patients Reporting Prescription Drug Dependence at Treatment Admission, by Drug Category, Gender, Race, and Age Group, 2005 (Treatment Episode Data Set, 2005)

		Pain Relievers	Sedatives/Tranquilizers	Stimulants
Gender				
	Male	3.6%	1.0%	0.3%
	Female	7.0%	2.6%	0.5%
Race				
	White	5.6%	1.9%	0.4%
	Black	0.9%	0.3%	0.1%
	Other	1.7%	1.0%	0.3%
Age Group				
	Under 18	0.8%	1.2%	0.4%
	18 to 24	4.7%	1.6%	0.4%
	25 to 34	6.2%	1.9%	0.4%
	35 to 44	4.0%	1.3%	0.3%
	45 to 54	4.1%	1.5%	0.3%
	55 and over	4.1%	1.7%	0.1%

Note: We defined prescription drug dependence as “individuals listing pain relievers, sedatives, tranquilizers, or stimulants as their primary substance at the time of substance abuse treatment admission.”

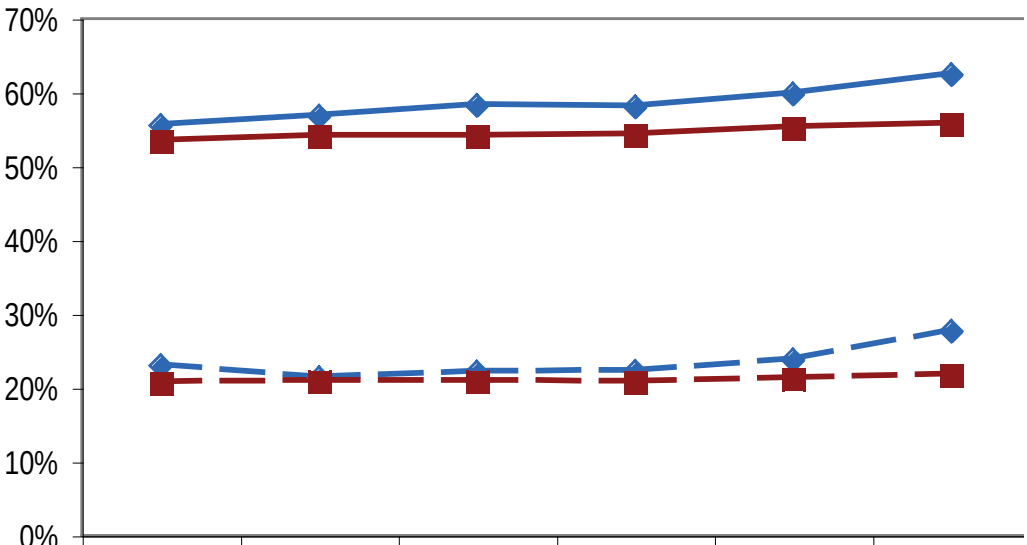
Source: Substance Abuse and Mental Health Data Archive, n.d.

drugs at the time of admission, and Indiana's rates are significantly higher than the nation's. The percentage of Hoosiers in treatment using two or more substances increased significantly from 55.5% in 2000 to 62.4% in 2005 (see Figure 1.4). Furthermore, roughly one-fourth of the Indiana treatment population reported using three or more substances; the difference between Indiana and the nation is significant. Indiana's rate increased significantly from 23.0% in 2000 to 27.7% in 2005 in Indiana (see Figure 1.4).

Significant differences in polysubstance abuse were observed by gender (more women report using two or more substances), race (currently, more Whites report polysubstance abuse; this is a change from the earlier years when Blacks displayed the highest rates), and age group (primarily adults between 18 and 44 said they use two or more drugs).

A cluster analysis shows that the most frequently reported drug clusters in Indiana are clusters 1, 2, 3, and 4. These clusters accounted for more than two-thirds of polysubstance users in the analysis (66.9%). Individuals in cluster 1 reported using a combination of alcohol and marijuana. Polysubstance users in cluster 2 reported using a combination of alcohol, marijuana, and cocaine. Cluster 3 included individuals who reported using alcohol and cocaine, while polysubstance users in cluster 4 reported currently using alcohol, marijuana, and methamphetamine (Substance Abuse and Mental Health Data Archive, n.d.).

Figure 1.4 Percentage of Indiana and U.S. Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at least Two or Three Substances) at Admission, 2000 through 2005 (Treatment Episode Data Set, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

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2. Methods

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

Our research team completed statistical analyses on publicly available local and national data sets using SPSS (Statistical Package for the Social Sciences) 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, statistical comparisons were made 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.

The prevalence rates and other statistics reported in the individual chapters reflect the way these numbers are presented in the data sets, data tables, and documents that contain them. For this reason, prevalence rates and other statistics may be presented somewhat differently across the eight substance chapters.

We used two guidelines to determine potential intervention priorities. The first guideline was statistical significance. 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. Consumption behaviors or drug-use consequences that show a trend toward increased frequency within particular gender, racial, or age groups in Indiana were also used as priority indicators.

DATA

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

All of the data sources have important strengths and weaknesses, and these were factored into the interpretations of the findings. In general, trends evident in multiple sources based on probability samples (rather than on nonrandom samples) were given more weight in the interpretation process. The following sections briefly describe the surveys and data sources used to complete these reports. An overview of these sources is also provided in the SEOW data sources list beginning on page 21 at the end of this chapter.

Alcohol-Related Disease Impact (ARDI) Database.

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

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

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

tobacco, and other drug use by Indiana's middle and high school students. Young people who complete the survey are asked to report on their *lifetime use* (use of the drug at least once in the respondent's life), *annual use* (use of the drug at least once during the year prior to the administration of the survey), *monthly use* (also known as *current use*, defined as use at least once in the 30 days prior to the survey), and for some substances, *daily use* (use of the drug at least once a day) 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 for 15 years, 1993 through 2007.

The ATOD survey results can be compared with results from the Monitoring the Future Survey 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 non-random convenience sample of Indiana students. Additionally, statistically significant differences in prevalence of use are reported only between the years 2006 and 2007.

Behavioral Risk Factor Surveillance System (BRFSS) Survey.

BRFSS is conducted annually by the Centers for Disease Control and Prevention with the assistance of the health departments in all 50 states and the District of Columbia, Puerto Rico, Guam, and the U.S. Virgin Islands. BRFSS asks adults (18 and older) to respond to questions about health-related issues. Included in the BRFSS survey are questions about current alcohol consumption, heavy alcohol use, binge drinking, and current use of tobacco. Data from BRFSS are available at both the national and local levels for all states and U.S. territories. BRFSS data allow for statistical comparisons across gender, age, and racial groups.

Fatality Analysis Reporting System (FARS) Data and Vehicle Crash Record System (VCRS).

The Indiana State Police's Vehicle Crash Records System (VCRS) is a central repository for all collisions reported in the state of Indiana; the data contained in the VCRS is provided to the Fatality Analysis Reporting System (FARS). FARS is a national database of fatal motor vehicle accidents maintained by the National Highway Traffic Safety Administration. It 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.

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. On a local level, the findings from the MTF can be compared with findings from the Indiana Prevention Resource Center's ATOD survey. Comparisons between the two surveys should be interpreted with caution as the ATOD survey is not completed using a random sample of Indiana schools.

National Clandestine Laboratory Seizure System (NCLSS).

The NCLSS database, maintained by the Drug Enforcement Agency, El Paso Intelligence Center, and the Indiana State Police, contains information on illicit drug lab seizures throughout the United States. Information in the database includes types, numbers, and locations of labs seized; precursor and chemical

sources; the number of children involved (if any); and law enforcement officers affected. Data currently available at the local level include the number of labs seized by county and the total number of children affected by year. A total of five years' worth of data are available at the present time, with a one-year delay between the end of the data collection period and the availability of data.

National Survey on Drug Use and Health (NSDUH).

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

From year to year, the NSDUH addresses special topics related to substance abuse such as underage drinking and abuse of prescription pain relievers. Data for these special topic questions are typically available for only one point in time. Prevalence rates for alcohol, tobacco, and other drug use are provided for the nation and each state. State-level prevalence rates are based on statistical algorithms, not on data collected within specific states. Raw files from the NSDUH surveys are publicly available, however, they do not allow for comparisons among states because the NSDUH eliminates state identifiers in the process of preparing public-use data files. Comparisons of specific states to the nation are provided in analysis tables prepared by SAMHSA's Office of Applied Studies. Comparisons can thus be made between Indiana and the nation for overall consumption and consumption by different age groups. Data tables are available for six years. There is usually a two-year delay between the time data are gathered and the time when data are made available to the public.

National Vital Statistics System (NVSS).

NVSS is a data set maintained by the Centers for Disease Control and Prevention (CDC) that provides information on mortality rates by cause of death as coded in the World Health Organization's International Classification of Diseases, 10th Revision (ICD-10). Data on deaths throughout the country are provided to the CDC by health departments in the 50 states, the District of Columbia, and U.S. territories. Using statistical software provided by the CDC, age-adjusted death 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 for the nation and each state, and comparisons can be made across gender and racial groups. There is typically a three-year gap between the time data are collected and the time when national and state death rates are made publicly available.

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

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

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

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

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

Treatment Episode Data Set (TEDS).

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

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

Uniform Crime Reporting Program (UCR).

The UCR is a national database maintained by the FBI that records information on the rates of property crimes, violent crimes, and drug-related crimes throughout the United States. The UCR data are submitted by law enforcement agencies in the 50 states and the District of Columbia annually. Data are reported for each state on a county-by-county basis. UCR data sets are publicly available; however, there is a two-year lag from the time data are collected until they are made publicly available. The format of the UCR data sets allows comparisons of overall crime rates between Indiana and the entire United States, and for comparisons of crime rates for juveniles versus adults. With these data, crime rates cannot be compared by gender or racial groups.

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

Youth Risk Behavior Surveillance System (YRBSS).

The YRBSS is a national survey conducted every two years of the health-related behaviors of young people in the 9th through 12th grades. This survey is conducted by the CDC with the cooperation of state departments of health throughout the United States. Student respondents in the YRBSS are asked to describe whether they have engaged in numerous behaviors that could pose a danger to their health, including the use of alcohol, tobacco, and other drugs. YRBSS respondents are asked about their lifetime and current use of alcohol; their level of binge drinking; their lifetime and current use of tobacco, marijuana, and cocaine; and their lifetime use of methamphetamines, heroin, inhalants, steroids, and injection drugs. Using statistical software from CDC, comparisons can be made between Indiana and the entire United States for gender, racial, and age groups. Data for the YRBSS are available every other year, with a one-year lag between the end of data collection and the publication of results. Though YRBSS data for some areas are available from 1991 through 2005, Indiana participated in YRBSS data collection only in 2003 and 2005.

OVERALL METHODS COMMENTS

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

- Consistent comparisons across data sources are not always possible due to the nature of the survey questions asked and information gathered.
- Inconsistencies may occur within classifications of demographic characteristics (e.g., age ranges, racial categories, grade levels).

- Timeframes may be inconsistent for comparisons across substances and data sources (e.g., some data have longer gaps than others before they are made publicly available).
- State-level prevalence rates presented in national-level surveys are often estimated using statistical algorithms.
- Due to the reporting requirements for national databases, the data may not be representative of the actual population of either the state or the nation.

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

SEOW DATA SOURCES LIST

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

Alcohol-Related Disease Impact (ARDI) Database

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

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

Geographic Level: National and state

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

Trend: 2001 (all are estimates only based on 2001 data)

Strengths/ Weaknesses: ARDI may underestimate the actual number of alcohol-related deaths and years of potential life lost for several reasons: (1) BRFSS data on alcohol use, used to calculate indirect estimates of alcohol-attributable fractions (AAFs), are based on self-reports, which tend to underestimate the true prevalence of alcohol use because of sampling non-coverage (the inability to reach some high-risk populations, such as youth and young adults) and underreporting of alcohol use by survey respondents; (2) BRFSS prevalence estimates are based on alcohol use in the past 30 days; former drinkers who have stopped drinking are not included in calculations of AAFs; (3) ARDI does not include estimates of alcohol-attributable deaths for some conditions (e.g., tuberculosis, pneumonia, hepatitis C) for which alcohol is considered an important risk factor but where the developers were unable to find a suitable pooled risk estimate; (4) ARDI exclusively uses the underlying cause of death from vital statistics to identify alcohol-related conditions and does not consider contributing causes of death that may also be alcohol-related; and (5) age-specific estimates of AAFs are only available for motor vehicle traffic deaths, even though alcohol-involvement varies widely by age, particularly for acute conditions, and is generally much greater for deaths involving young people.

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

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

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

Geographic Level: State and regions

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

Trend: 1993–2007

Strengths/ Weaknesses: School-specific survey results are valuable to participating schools. County-level data are currently not available, but prevalence rates for Indiana or by region are obtainable. Results should be interpreted with caution due to the non-random design.

Behavioral Risk Factor Surveillance System (BRFSS) Survey

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

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

Geographic Level: National and state

Availability: National and state data are available from the CDC at http://apps.nccd.cdc.gov/brfss/.
Trend: 1990–2006

Fatality Analysis Reporting System (FARS) and Vehicle Crash Records System (VCRS)

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

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

Trend: 1994–2005

Monitoring the Future (MTF) Survey

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

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

Geographic Level: National

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

Trend: 1991–2006

Strengths/ Weaknesses: One 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 National Clandestine Laboratory Seizure System includes types, numbers, and locations of labs seized; precursor and chemical sources; and number of children and law enforcement officers affected. Data currently available include number of labs seized by county and total number of children affected by year.

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

Geographic Level: National, state, and county

Availability: 2002–2006 data from EPIC and ISP lab seizure data are available on request.

Trend: 2002–2006

National Survey on Drug Use and Health (NSDUH)

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

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

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

Availability: National and state data tables are available at the NSDUH website at http://oas.samhsa.gov/nsduh.htm.

Trend: National estimates are available for 1994–2005; state estimates for 1999–2005

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

National Vital Statistics System (NVSS) and Indiana Mortality Data

Description: Mortality data by multiple causes of death, including drug- and alcohol-induced factors.

Sponsoring Organization/Source: CDC, ISDH, National Center for Health Statistics (NCHS), and National Vital Statistics System (NVSS)

Geographic Level: National and state

Availability: National data are available from SEDS and NCHS at http://www.cdc.gov/nchs/products/elec_prods/subject/mortmcd.htm and state-level data from ISDH at http://www.in.gov/isdh/dataandstats/mortality/mortality_index.htm, with special reports available as needed. Also, mortality rates by underlying cause of death may be obtained at http://wonder.cdc.gov/mortSQL.html

Trend: 1999–2005 Indiana data are on line. Data for other years are available on request.

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

Description: YTS was developed by the CDC for use by states to design, implement, and evaluate the youth component of comprehensive tobacco control programs. YTS collects data from students in grades 6-12 regarding all types of tobacco use, exposure to secondhand smoke, access to tobacco products, knowledge and attitudes, media and advertising, school curriculum, and cessation. YTS 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; Indiana Tobacco Prevention and Cessation Agency

Geographic Level: National and state
Availability: Detailed reports and highlights are available from ITPC at www.in.gov/itpc/research.asp and on request.

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

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

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

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

Sponsoring Organization/Source: Centers for Disease Control and Prevention

Geographic Level: National and state

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

Trend: Based on 2001 data

Strengths/ Weaknesses: During periods where smoking prevalence is declining, the attributable-fraction methodology tends to understate the number of deaths caused by smoking. Conversely, when smoking prevalence is increasing, the AF formula may overstate the number of deaths. The relative risk estimates in Adult SAMMEC have been adjusted to account for the influence of age, but not for other risk factors, such as alcohol consumption. Although the sample population included 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 because of 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 the demographic and substance abuse characteristics of annual admissions to treatment for abuse of alcohol and drugs in facilities that report to individual state administrative data systems. A treatment episode is defined as the period between the beginning of a treatment service for a drug or alcohol problem (admission) and 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: 1999–2005 TEDS data were acquired from the Inter-university Consortium for Political and Social Research (ICPSR) at http://webapp.icpsr.umich.edu/.

Trend: 1999–2005

Strengths/ Weaknesses: In Indiana, these data are not representative of the state as a whole, as only individuals who are 200% below the 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 State Department of Justice, Federal Bureau of Investigation (FBI)

Geographic Level: National, state, and county

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

Trend: 1994–2005

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

Youth Risk Behavior Surveillance System (YRBSS)

Description: This national survey monitors health risks and behaviors among youth in grades 9 through 12. Sponsoring Organization/Source: Centers for Disease Control (CDC) and 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 and 2005

Strengths/ Weaknesses: At the state level, data by ethnicity (Hispanic) are not available.

3. Alcohol Use in Indiana: Consumption Patterns and Consequences

ALCOHOL CONSUMPTION

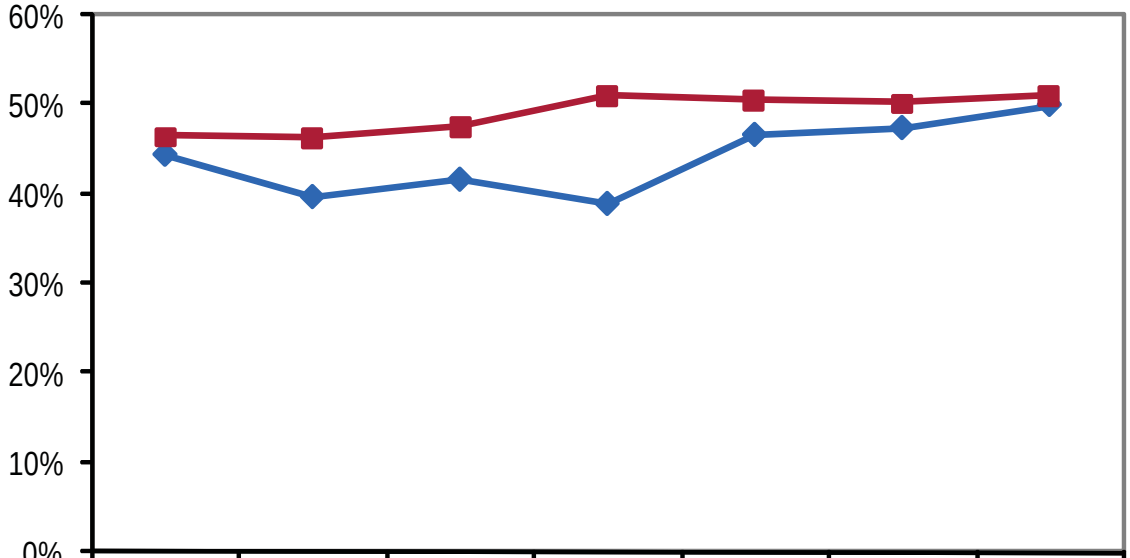
General Alcohol Consumption Patterns

Alcohol is the most frequently used drug in both Indiana and the United States. The per capita ethanol (liquid in alcoholic beverages) consumption in 2004 for Indiana and the nation was 2.02 and 2.23 gallons respectively, for the population 14 years and older. Most of the alcohol consumed in Indiana was beer (1.14 gallons per capita), followed by spirits (0.66 gallons), and wine (0.22 gallons) (National Institute on Alcohol Abuse and Alcoholism, 2007).

Based on 2004–2005 averages calculated from the National Survey on Drug Use and Health (NSDUH), the (Substance Abuse and Mental Health Services Administration (SAMHSA) estimates that 49.94% of Indiana residents 12 years of age or older (2,554,000 residents) had used alcohol during the past month (U.S.: 51.05%, SAMHSA, 2007). SAMHSA estimated that 51.05 percent of the U.S. population had used alcohol in the past month. Although Indiana's current use statistic lies below the national rate, the difference is statistically not significant. Rates of current use increased from 1999 to 2005 in both Indiana and the United States (see Figure 3.1).

One risky alcohol consumption pattern assessed by the NSDUH is binge drinking. According to the NSDUH, *binge drinking* is defined as consumption of five or more alcoholic beverages on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least one day in the past month. Overall, the percentage of the Indiana population reporting binge drinking is similar to that of the national average, 21.99% and 22.70%, respectively, for 2005 (see Figure 3.2, next page).

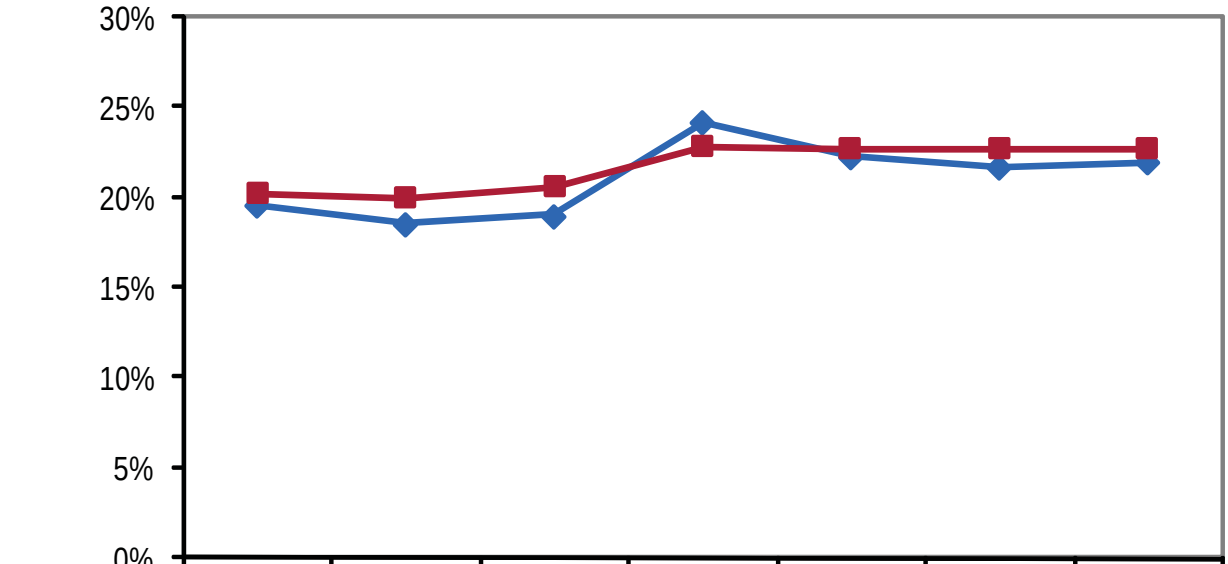
Figure 3.1 Percentage of Indiana and U.S. Population (12 years and older) Reporting Current Alcohol Use, 1999 through 2005 (National Survey on Drug Use and Health, 1999–2005)



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

Source: Substance Abuse and Mental Health Services Administration, 2007

Figure 3.2 Percentage of Indiana and U.S. Population (12 years and older) Reporting Binge Drinking in the Past 30 Days, 1999 through 2005 (National Survey on Drug Use and Health, 1999–2005)



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

Source: Substance Abuse and Mental Health Services Administration, 2007

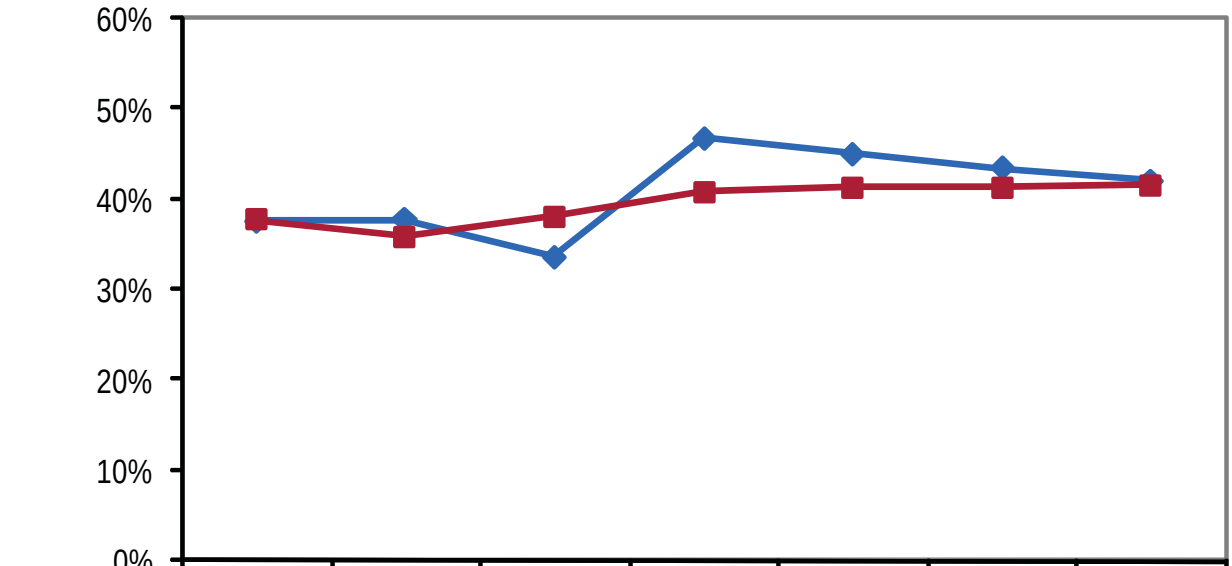
Adult Consumption Patterns

Both the NSDUH (SAMHSA, 2007) and the Behavioral Risk Factor Surveillance System (BRFSS) (Centers for Disease Control and Prevention, CDC, 2007c) provide similar information on adult (individuals age 18 or older) alcohol consumption patterns. According to 2004–2005 NSDUH results, 60.69% of Americans between the ages of 18 and 25 report current alcohol use; the rate for Hoosiers is slightly, but not significantly, higher (61.34%). Past-month consumption of alcohol was lower for adults 26 years and older (U.S.: 54.03%; IN: 52.50%). The 2006 BRFSS (CDC, 2007b) reports that the national prevalence rate for current adult alcohol use (U.S.: 55.4%) is significantly higher than Indiana's rate (48.0%; 95% CI: 46.5%–49.5%). Highest rates were found in these age categories: 25- to 34-year olds (U.S.: 61.7%; IN: 58.0%), 18- to 24-year olds (U.S.: 53.7%; IN: 55.5%), and 35- to 44-year olds (U.S.: 61.2%; IN: 53.8%). The rates for young adults between 18 and 34 years of age were similar between Indiana and the United States. For all other age groups, Indiana rates were significantly lower. When considering gender, it is evident that males currently consume more alcohol (U.S.: 62.1%; IN: 55.4%) than females (U.S.: 49.0%; IN: 41.0%). In regard to race/ethnicity, Whites report the highest use (U.S.: 58.4%; IN: 49.4%), followed by Blacks (U.S.: 41.0%; IN: 42.2%) and Hispanics (U.S.: 43.9%; IN: 38.4%). When current alcohol consumption rates of adults were compared for Indiana and the nation, Hoosiers reported consuming alcohol in the preceding 30 days at a rate similar to or less than adults in the rest of the United States for the last few years (BRFSS, 2002–2006; NSDUH, 1999–2005).

Binge drinking has been particularly popular among young adults. NSDUH results (2004—2005) show that the highest prevalence rate is found in 18- to 25-year olds (U.S.: 41.54%; IN: 42.03%) (see Figure 3.3).

Among adults, binge drinking rates decrease with age; 19.92% of Hoosiers 26 years and older report having consumed five or more drinks on the same occasion during the last 30 days (U.S.: 21.07%). 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*

Figure 3.3 Percentage of Indiana and U.S. 18- to 25-Year Olds Reporting Binge Drinking in the Past 30 Days, 1999 through 2005 (National Survey on Drug Use and Health, 1999–2005)



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

Source: Substance Abuse and Mental Health Services Administration, 2007

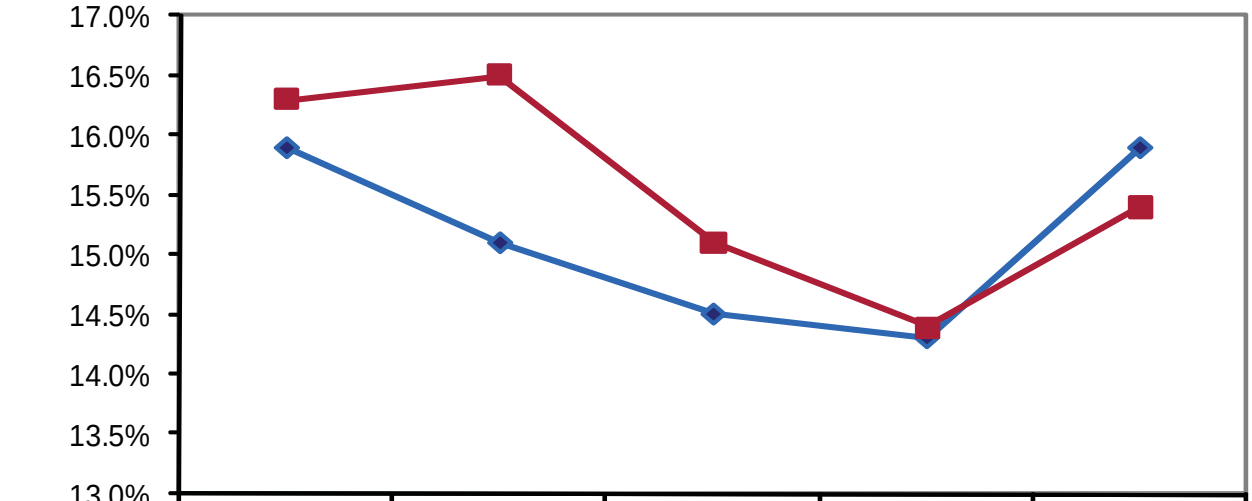
as "males having five or more drinks on one occasion and females having four or more drinks on one occasion" (Centers for Disease Control and Prevention, 2007c). The overall prevalence for adult binge drinking is similar between Indiana and the United States (U.S.: 15.4%; IN: 15.9%) (see Figure 3.4).

The age group most often engaging in binge drinking behavior is 18- to 24-year olds (U.S.: 25.8%; IN: 34.6%), with Hoosiers reporting a significantly higher rate compared to the rest of the nation. Rates for all other age categories are similar to or below the national rate. Males are much more likely to binge drink (U.S.: 20.3%; IN: 22.2%) than females (U.S.: 10.0%; IN: 10.0%). In Indiana, the highest prevalence for binge drinking is found among the Hispanic population with 18.2% (U.S.: 14.6%), followed by Whites (U.S.: 15.8%; IN: 16.3%), Blacks (U.S.: 9.3%; IN: 11.1%), and "Other" races (U.S.: 11.1%; IN: 5.6%).

Both survey instruments, the NSDUH and the BRFSS, used to report on a measure called *heavy drinking*. The 2006 BRFSS continues to collect data on this variable, but the NSDUH replaced it with an item that assesses the survey respondent's perception of the risk of binge alcohol use, called "perceptions of great risk of having five or more drinks of an alcoholic beverage once or twice a week." Based on 2004–2005 NSDUH estimates, 39.90% of Hoosiers 12 years and older (U.S.: 41.19%) perceive binge alcohol use as a great risk. People's perception of risk seems to be inversely related to their actual rates of binge drinking: 18- to 25-year olds who show the highest prevalence of binge drinking display the lowest rate of risk perception (U.S.: 32.11%; IN: 30.40%), followed by 12- to 17-year olds (U.S.: 38.25%; IN: 36.01%) and adults 26 years and older (U.S.: 43.18%; IN: 42.18%).

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 use are similar between Indiana and the United States (U.S.: 4.9%; IN: 5.0%). The highest rate can be found among 18- to 24-year olds (U.S.: 7.4%; IN: 12.4%). Hoosiers in the 18 to 24 age category report a significantly higher rate of heavy use than their U.S. counterparts. For all other age groups, Indiana rates are

Figure 3.4 Percentage of Indiana and U.S. Population (18 years and older) Reporting Binge Drinking in the Past 30 Days, 2002 through 2006 (Behavior and Risk Factor Surveillance System, 2002–2006)



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

Source: Centers for Disease Control and Prevention, 2007b

similar to or below the national level. More men (U.S.: 5.6%; IN: 6.0%) than women (U.S.: 4.4%; IN: 4.1%) report heavy alcohol use, but the gender difference in Indiana is not significant. Similarly, prevalence of heavy use does not seem to differ by race/ethnicity in Indiana: Multiracial individuals report the highest rate with 7.6% (U.S.: 4.9%), followed by Whites (U.S.: 5.3%; IN: 5.1%), Blacks (U.S.: 2.6%; IN: 4.9%), and Hispanics (U.S.: 4.0%; IN: 4.8%).

Youth Alcohol Consumption Patterns

Various patterns of alcohol consumption among youth have been examined using data provided by the Youth Risk Behavior Surveillance System, or YRBSS (CDC, 2007b), the NSDUH (SAMHSA, 2007), the Monitoring the Future Survey, or MTF (University of Michigan, n.d.), and the Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, or ATOD (Indiana Prevention Resource Center, IPRC, 2007), a non-random survey of Indiana students modeled after the MTF. All report on alcohol consumption behaviors in middle and/or high school students ages 12 to 18.

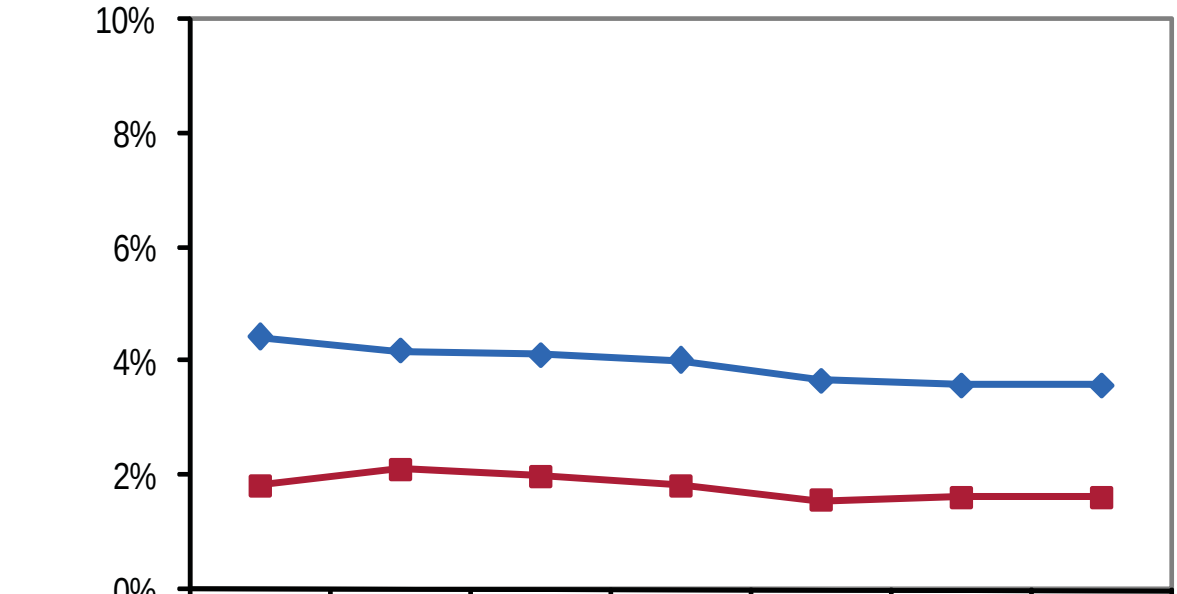
The 2003 and 2005 YRBSS reported that 44.9% and 41.4%, respectively, of high school students in Indiana had consumed at least one alcoholic beverage in the past 30 days. These percentages are similar to those reported for the nation in both 2003 (44.9%) and 2005 (44.9%). The NSDUH also provides an estimate of current alcohol use. For 2004–2005, the NSDUH estimates that 17.12% of Indiana residents between ages 12 and 17 (approximately 94,000 residents) had consumed an alcoholic beverage in the past 30 days. Indiana's rate of current alcohol consumption is statistically not different from the national estimate of 17.06%. This holds true across all years for which NSDUH data is available (NSDUH, 1999–2005). Information on alcohol consumption from the MTF is based on responses by students in the 8th, 10th, and 12th grades. During 2006, a combined national average of 32.10% of the students in the 8th, 10th, and 12th grades reported consuming alcohol in the past 30 days (MTF, 2006). The combined 2006 Indiana average for alcohol consumption in the past month for 8th, 10th, and 12th graders is 32.03% (ATOD, 2006), which is approximately equal to the national average. The average past-month drinking rates in Indiana and the United States are similar across all years reviewed

(MTF,[1] 2000–2006; ATOD,[2] 2000–2006).

We compared the percentages of Indiana and U.S. youth who reported binge drinking using the YRBSS, NSDUH, MTF, and ATOD. The percentages of Indiana youth participating in the YRBSS who reported at least one episode of binge drinking in the past month were 28.9% and 24.6% for 2003 and 2005, respectively. The percentages of binge drinking reported by participants nationally (for 2004: 28.3%; for 2005: 25.5%) were approximately equal to Indiana's percentages. According to 2004–2005 NSDUH results, the binge drinking prevalence among 12- to 17-year-olds was similar in Indiana and the United States (U.S.: 10.49%; IN: 10.80%). We compared the NSDUH's estimated prevalence rates for binge drinking by Indiana youth with the national estimates for the years 1999 through 2005. Across all years, the estimated prevalence of binge drinking for 12- to 17-year-olds in Indiana is statistically identical to the nation's. The 2006 combined average binge drinking rate for students in the 8th, 10th, and 12th grades is 19.4% in both Indiana and the United States. A comparison of MTF and ATOD results from 2000–2006 shows that the rates among Hoosiers and the nation have been similar over the years.

Both the MTF and ATOD also provide information on lifetime, annual, and daily alcohol use for 8th, 10th, and 12th grade students. *Lifetime alcohol use* is defined as a person having consumed at least one alcoholic beverage at any point in their life. *Annual use* is defined as consuming at least one alcoholic beverage in the past year. *Daily alcohol use* is defined as consuming at least one alcoholic beverage on 20 or more days in the last month. Lifetime, annual, and daily use of alcohol by 8th, 10th, and 12th graders have all decreased steadily since

Figure 3.5 Percentage of Indiana and U.S. Middle and High School Students (8th, 10th, and 12th Grades Combined) Reporting Daily Alcohol Use, 2000 through 2006 (Alcohol Tobacco and other Drug Use by Indiana Children and Adolescents Survey and Monitoring the Future Survey, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana	4.43%	4.20%	4.13%	4.03%	3.67%	3.60%	3.60%
U.S.	1.83%	2.13%	2.00%	1.83%	1.57%	1.63%	1.63%

Sources: Indiana Prevention Resource Center, 2007; University of Michigan, n.d.

[1]At the time of the report, the most recent data available were 2006 results from the MTF survey (national data) and 2007 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, data up to 2006 were used.

[2]The results of the ATOD survey should be interpreted with caution as this survey is based on a non-random sample of Indiana students.

2000, both on a local and national level. Indiana is very similar to the nation in the rates of reported lifetime and annual use. Still, over half of Indiana's combined 8th, 10th, and 12th grade students reported having used alcohol at least once in the past year (51.17%), while almost 60% report having used alcohol at least once in their life. In terms of daily alcohol use, the reported rate of use by Indiana's middle and high school students is consistently higher than the nation's rate across the years studied (see Figure 3.5).

When grade levels are considered separately from one another, there are clear differences in alcohol consumption patterns in Indiana when compared with the nation. Indiana's 8th graders report a higher rate of lifetime use, annual use, monthly use, daily use, and binge drinking than do 8th graders in the rest of the nation. For 2005 and 2006, the rates of lifetime, annual, monthly, daily, and binge drinking among Indiana's 8th graders are all higher than for 8th graders in the rest of the nation (see Figure 3.6).

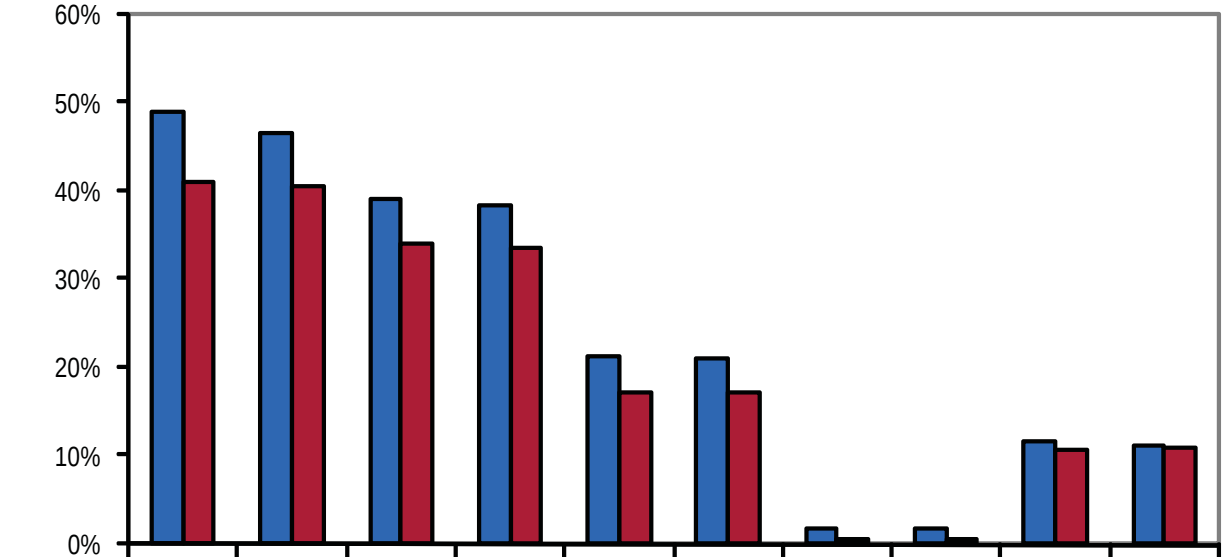
Similarly, Indiana's 10th and 12th graders reported higher rates of daily alcohol use than did their national counterparts (see Figure 3.7) (For lifetime, annual, monthly, daily, and binge use, by Indiana region and grade, for 2007, see Appendix 3A, page 44).

The NSDUH provides additional prevalence estimates for current alcohol use and binge drinking by individuals below the legal drinking age of 21. Based on 2004–2005 estimates, 28.53% (or 241,000) of the young people in Indiana between ages 12 and 20 had used alcohol in the past month (U.S.: 28.47%) and 19.16% (or 162,000) had engaged in binge drinking at least once in the past 30 days (U.S.: 19.19%). The typical Indiana resident first started using alcohol at age 16.2 (C.I. = 15.8 to 16.6 years), which is significantly older than the national average of 15.7 years (NSDUH, 1999).

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.

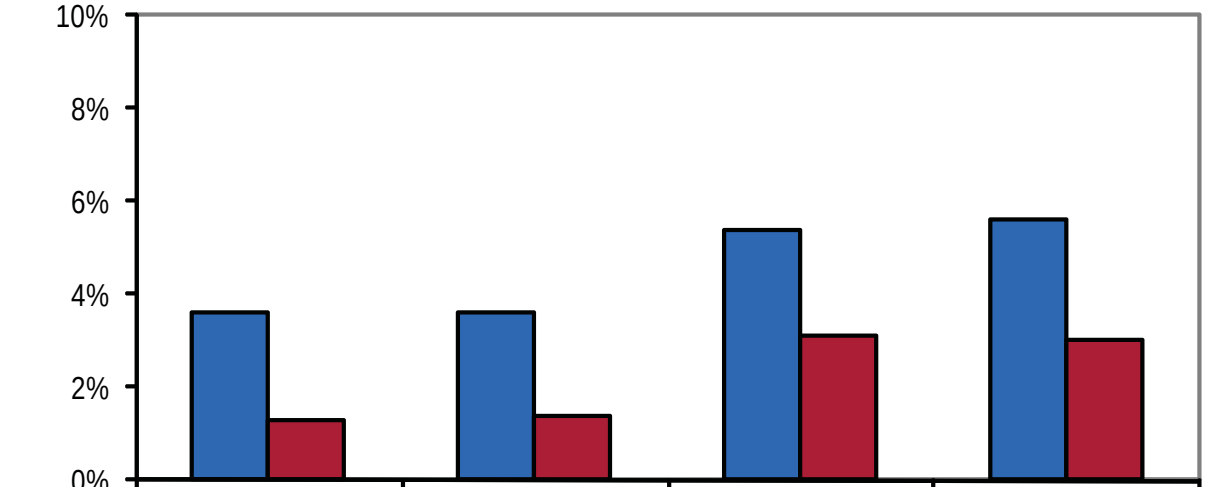
Figure 3.6 Percentage of Indiana and U.S. 8th Grade Students Reporting Alcohol Use, 2005 and 2006 (Alcohol, Tobacco, and other Drug Use by Indiana Children and Adolescents Survey and Monitoring the Future Survey, 2005–2006)



	Life Time 2005	Life Time 2006	Annual 2005	Annual 2006	Monthly 2005	Monthly 2006	Daily 2005	Daily 2006	Binge 2005	Binge 2006
Indiana	49.00%	46.50%	39.00%	38.30%	21.10%	20.90%	1.80%	1.60%	11.60%	11.00%
U.S.	41.00%	40.50%	33.90%	33.60%	17.10%	17.20%	0.50%	0.50%	10.50%	10.90%

Sources: Indiana Prevention Resource Center, 2007; University of Michigan, n.d.

Figure 3.7 Percentage of Indiana and U.S 10th and 12th Grade Students Reporting Daily Alcohol Use, 2005 and 2006 (Alcohol Tobacco and other Drug Use by Indiana Children and Adolescents Survey and Monitoring the Future Survey, 2005–2006)



	2005 10th Grade Daily Use	2006 10th Grade Daily Use	2005 12th Grade Daily Use	2006 12th Grade Daily Use
Indiana	3.60%	3.60%	5.40%	5.60%
U.S.	1.30%	1.40%	3.10%	3.00%

Sources: Indiana Prevention Resource Center, 2007; University of Michigan, n.d.

Alcohol Abuse and Dependence

The estimated prevalence for alcohol abuse and/or alcohol dependence in Indiana for 2004–2005 is 7.87% (or 403,000 residents; C.I. = 6.69% to 9.25%). This estimate is very close to the estimated national average of 7.71% (NSDUH, 2005). Since 1999, the estimated prevalence of alcohol abuse and/or dependence in Indiana has been statistically similar to the estimated national average across all youth and adult age groups (Figure 3.8).

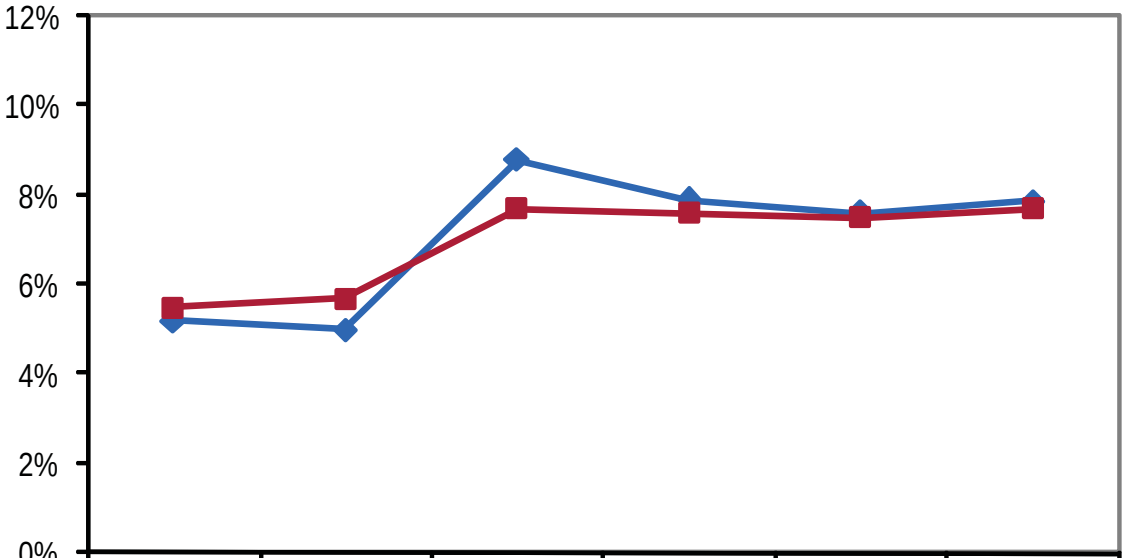
Of all age groups, adults ages 18 to 25 reported the highest rates of lifetime alcohol abuse and/or dependence, both in Indiana and nationally across all years reviewed. Though the local and national rates of abuse and/or dependence were statistically similar, individuals 18 to 25 years of age appear to be at greatest risk for developing problems with alcohol use. Additionally, it is estimated that 385,000 Hoosiers (or 7.52%) are in need of but don't receive treatment for alcohol use.

According to the Treatment Episode Data Set (TEDS) series (Substance Abuse and Mental Health Data Archive, n.d.), alcohol accounted for the largest percentage of admissions to state-supported drug treatment facilities in Indiana over the six-year period from 2000 through 2005. When compared to the rest of the nation, the percentage of substance abuse treatment admissions for alcohol was statistically significantly higher in Indiana across all years reviewed (for 2000: Pearson chi-square = 1021.56, $p < .001$; for 2001: Pearson chi-square = 182.44; $p < .001$; for 2002: Pearson chi-square = 1201.61; $p < .001$; for 2003: Pearson chi-square = 111.20, $p < .001$; for 2004: Pearson chi-square = 1075.36; $p < .001$; for 2005: Pearson chi-square = 971.54, $p < .001$) (see Figure 3.9).

In Indiana, the percentage of individuals entering treatment for alcohol abuse or dependence is related to age. Youth were significantly less likely than adults to report alcohol as their primary drug of abuse. Table 3.1 depicts the percentage of Indiana residents seeking treatment for alcohol abuse and/or dependence.

Among individuals entering treatment in 2005, 47.9% of adults named alcohol as their primary drug as compared to 24.1% of persons under the age of 18. This trend has been continuous for the past six years (for 2000: Pearson chi-square = 690.82, $p < .001$; for 2001: Pearson chi-square = 731.87, $p < .001$; for 2002: Pearson chi-square = 732.28, $p < .001$; for

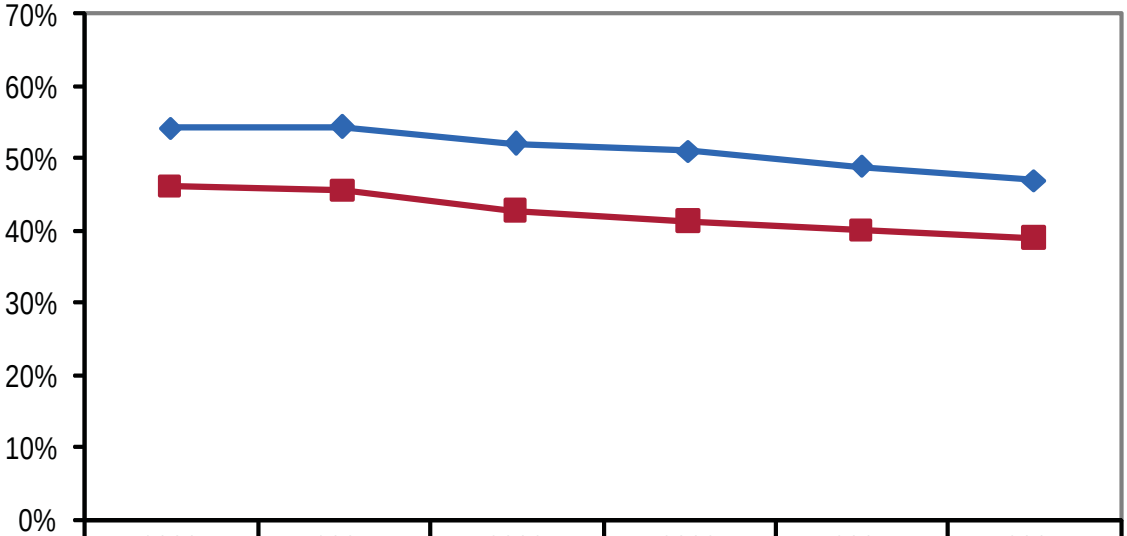
Figure 3.8 Percentage of Indiana and U.S. Population with Alcohol Abuse and/or Dependence, 2000 through 2005 (National Survey on Drug Use and Health, 2000–2005)



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

Source: Substance Abuse and Mental Health Services Administration, 2007.

Figure 3.9 Substance Abuse Treatment Admissions for Alcohol (in Percentages) for Indiana and U.S. Patients, 2000 through 2005 (Treatment Episode Data Set, 2000–2005)



	2000	2001	2002	2003	2004	2005
Indiana	54.30%	54.40%	52.00%	51.10%	48.90%	47.00%
U.S.	46.10%	45.60%	42.70%	41.30%	40.00%	39.00%

Source: Substance Abuse and Mental Health Data Archive, n.d.

2003: Pearson chi-square = 562.13, $p < .001$; for 2004: Pearson chi-square = 553.41, $p < .001$; for 2005: Pearson chi-square = 316.37, $p < .001$). Regardless of age, Indiana residents entering alcohol treatment from 2000 to 2005 were significantly more likely to be White. In 2005, among persons receiving substance abuse treatment primarily for alcohol abuse, 83.8% were White, 12.1% Black, and 4.1% classified themselves as "Other." See Appendix 3B, page 45, for county-level treatment data.

Table 3.1 Percentage of Indiana Residents in Substance Abuse Treatment Who Reported Alcohol Use and Who Listed Alcohol as their Primary Substance at Admission, by Age Group, 2005 (Treatment Episode Data Set, 2005)

Age Group	Alcohol Use	Alcohol Dependence
Under 18	58.3%	24.1%
18-24	67.6%	39.4%
25-34	67.1%	42.1%
35-44	76.1%	53.7%
45-54	78.6%	60.9%
55 and over	83.7%	72.8%

Note: We defined dependence as "individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission."

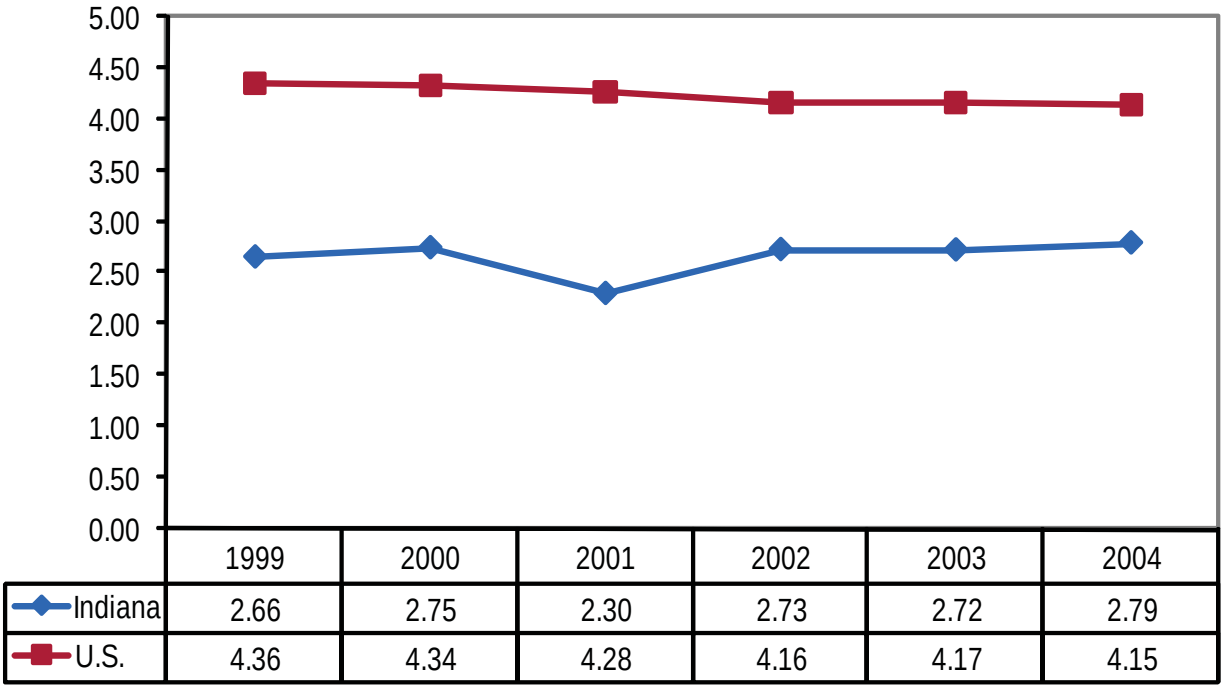
Source: Substance Abuse and Mental health Data Archive, n.d.

Alcohol-Related Morbidity and Mortality

A serious but long-term consequence of chronic alcohol use is liver disease. Indiana's age-adjusted death rate for alcoholic liver diseases (ICD-10 Code K70) in 2004 was 2.792 per 100,000 population. Currently and for the past six years, Indiana's rate has been lower than the national rate (4.148 per 100,000 population) (CDC, 2007a) (see Figure 3.10).

Using the Alcohol-Related Disease Impact (ARDI) database, analysts estimated that in 2001, 8.0% of all deaths from disease in Indiana and the United States were alcohol-related (CDC, 2004). According to Indiana's mortality report for 2005 (Indiana State Department of Health, ISDH, 2007a), 498 Hoosiers died from chronic liver disease and cirrhosis (males: 320; females: 178). Not all of these deaths can be attributed to alcohol; however, the substance is a major risk factor for disease development. Additionally, data from the Indiana State Department of Health (2007b) show that between 2000 and 2004, a total of 1,625 Hoosiers died from alcohol-

Figure 3.10 Age-adjusted Mortality Rates, per 100,000 Population, for Alcoholic Liver Diseases in Indiana and the United States, 1999 through 2004 (CDC WONDER)



	1999	2000	2001	2002	2003	2004
Indiana	2.66	2.75	2.30	2.73	2.72	2.79
U.S.	4.36	4.34	4.28	4.16	4.17	4.15

Source: Centers for Disease Control and Prevention, 2007a

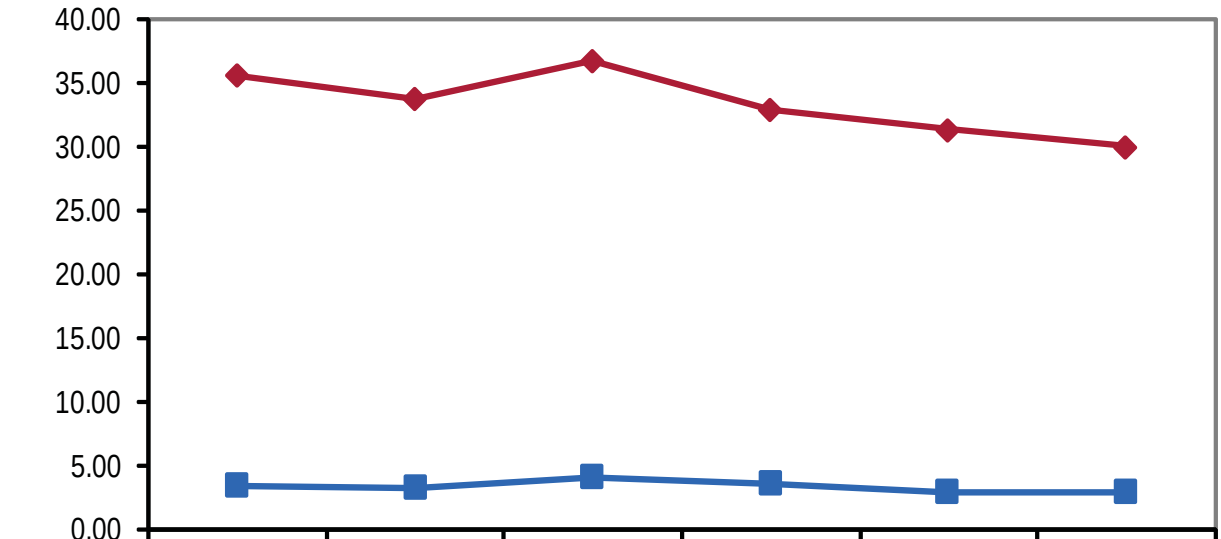
related disease causes; the age group mostly affected was adults 25 years and older (1,614 Hoosiers died from alcohol-related disease causes in this age group) (see Map 3.1, page 39).

Though alcohol use is not associated with every suicide and homicide, these violent acts often involve individuals who have been drinking. According to ARDI, the direct alcohol-attributable fraction for suicides and homicides in Indiana and in the nation is 23% and 47%, respectively (CDC, 2004). For this reason, intentional self-harm and assault rates may provide additional information on alcohol's impact in a community. Indiana's overall age-adjusted mortality rate due to assault (ICD-10 Code X85 – Y09) has remained stable for the past six years and is comparable to the national average (U.S. 2004: 5.813; IN 2004: 5.335 per 100,000 population). When age-adjusted assault rates were evaluated by race, mortality as a result of assault was much greater for Blacks than for any other race (see Figure 3.11; comparison is only between Blacks and Whites because data for racial category "Other" was unreliable).

Overall, age-adjusted rates for intentional self-harm (ICD-10 Code X60 – X84) in Indiana and the United States increased from 1999 through 2004 and is somewhat higher for Hoosiers than the rest of the nation; Whites displayed higher rates than Blacks and "Other" races, and males were much more likely to commit suicide than females (see Figures 3.12 and 3.13) (CDC, 2007a). For a list of diseases that are heavily impacted by alcohol and their alcohol-attributable fraction, see Appendix 3C, page 46.

Alcohol consumption during pregnancy is another major concern since fetal alcohol spectrum disorders (FASD) are a direct result of prenatal exposure to alcohol. FASD is not a clinical diagnosis, but an umbrella term used to describe a range of disorders such as fetal alcohol syndrome (FAS), alcohol-related neurodevelopmental disorder (ARND), and alcohol-related birth defects (ARBD). Possible physical effects include brain damage; facial anomalies; growth deficiencies; defects of heart, kidney, and liver; vision and hearing problems; skeletal defects; and dental abnormalities. In the United States, the prevalence of fetal alcohol spectrum disorders is 10.0 per 1,000 live births (Fetal Alcohol Spectrum Disorders Center for Excellence, 2007).

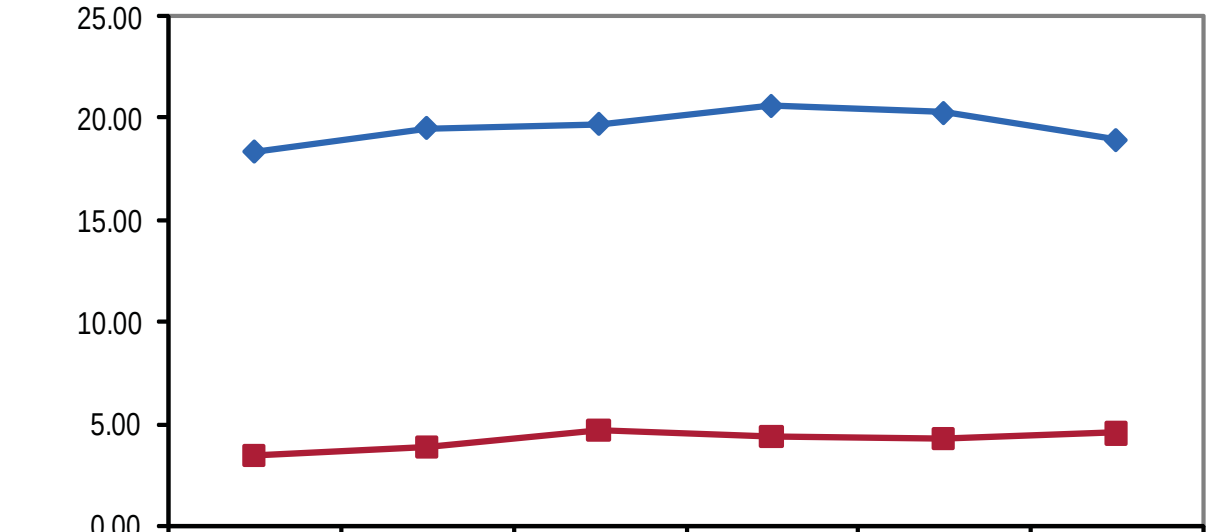
Figure 3.11 Age-Adjusted Mortality Rates, per 100,000 Population, due to Assault, in Indiana, by Race, 1999 through 2004 (CDC WONDER)



	1999	2000	2001	2002	2003	2004
Black	35.537	33.708	36.647	32.854	31.261	29.935
White	3.394	3.218	4.064	3.494	2.928	2.848

Source: Centers for Disease Control and Prevention, 2007a

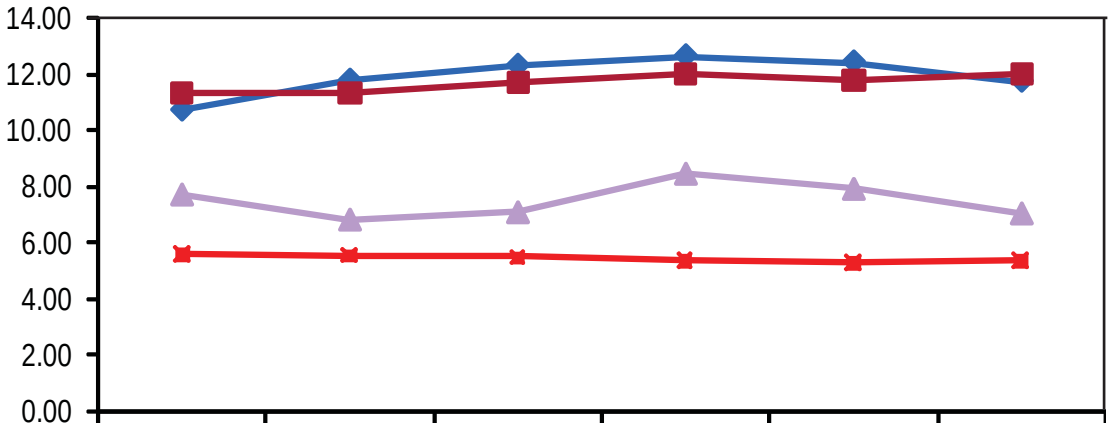
Figure 3.12 Age-Adjusted Mortality Rates, per 100,000 Population, Caused by Intentional Self-Harm, Indiana and the United States, 1999 through 2004 (CDC WONDER)



	1999	2000	2001	2002	2003	2004
Male	18.37	19.53	19.73	20.60	20.26	18.93
Female	3.43	3.80	4.64	4.33	4.25	4.51

Source: Centers for Disease Control and Prevention, 2007a

Figure 3.13 Age-Adjusted Mortality Rates, per 100,000 population, Caused by Intentional Self-Harm, by Race, Indiana and the United States, 1999 through 2004 (CDC WONDER)



	1999	2000	2001	2002	2003	2004
White (IN)	10.68	11.74	12.26	12.60	12.38	11.70
White (US)	11.31	11.32	11.68	11.97	11.77	11.97
Black (IN)	7.69	6.80	7.06	8.43	7.89	7.01
Black (US)	5.57	5.53	5.45	5.33	5.24	5.35

Source: Centers for Disease Control and Prevention, 2007a

Alcohol-Related Motor Vehicle Accidents

Alcohol is often a contributing factor in motor vehicle accidents. In 2005, 11.2% of Indiana high school students reported that once or more during the past month, they had driven a vehicle when they had been drinking alcohol (U.S.: 9.9%); the majority of these were male (U.S.: 11.7%; IN: 15.0%). However, the difference between Indiana and national rates was statistically not significant. Even more students admitted that once or more during the past month, they had ridden with a driver who had been drinking alcohol (U.S.: 28.5%; IN: 24.6%). In the nation, more female students engaged in this type of risk behavior (females: 29.6%; males: 27.2%), while in Indiana, the pattern was reversed (females: 21.6%; males: 27.4%). The only significant difference was found among Indiana and U.S. females (CDC, 2007b).

According to the Fatality Analysis Reporting System (FARS), a total of 855 fatal crashes occurred in Indiana in 2005, of which 286 (or 33%) were alcohol-related (U.S.: 15,238 alcohol-related crashes, 39%) (National Highway Traffic Safety Administration, NHTSA, n.d.). Even though most collisions happened during the late afternoon hours, the highest percentage of crashes attributable to alcohol occurred at night time, especially from midnight to 2:59 a.m. Moreover, 39% of all single-vehicle fatal crashes were alcohol-related as compared to 27% of all multiple-vehicle accidents (see Table 3.2).

Data from the Indiana Vehicle Crash Records System (Indiana State Police, 2007) show a decrease in alcohol-related collisions from 13,911 in 2003 to 11,718 in 2006. However, the number of fatalities in these crashes attributable to alcohol increased from 242 to 267. (For a detailed listing of alcohol-related collisions and fatalities in Indiana, by county, 2003 through 2006, see Appendix 3D, pages 47-50). The overall rate for alcohol-related collisions in Indiana in 2006 was 1.86 per 1,000 population; the lowest rates were found in Lake County (0.11 per 1,000 population) and the highest rates were found in LaPorte County (9.11 per 1,000 population). See Map 3.2 on page 40.

Table 3.2 Number of Fatal Crashes and Percent Alcohol-Related in Indiana, by Time of Day and Crash Type, 2005 (Fatality Analysis Reporting System, 2005)

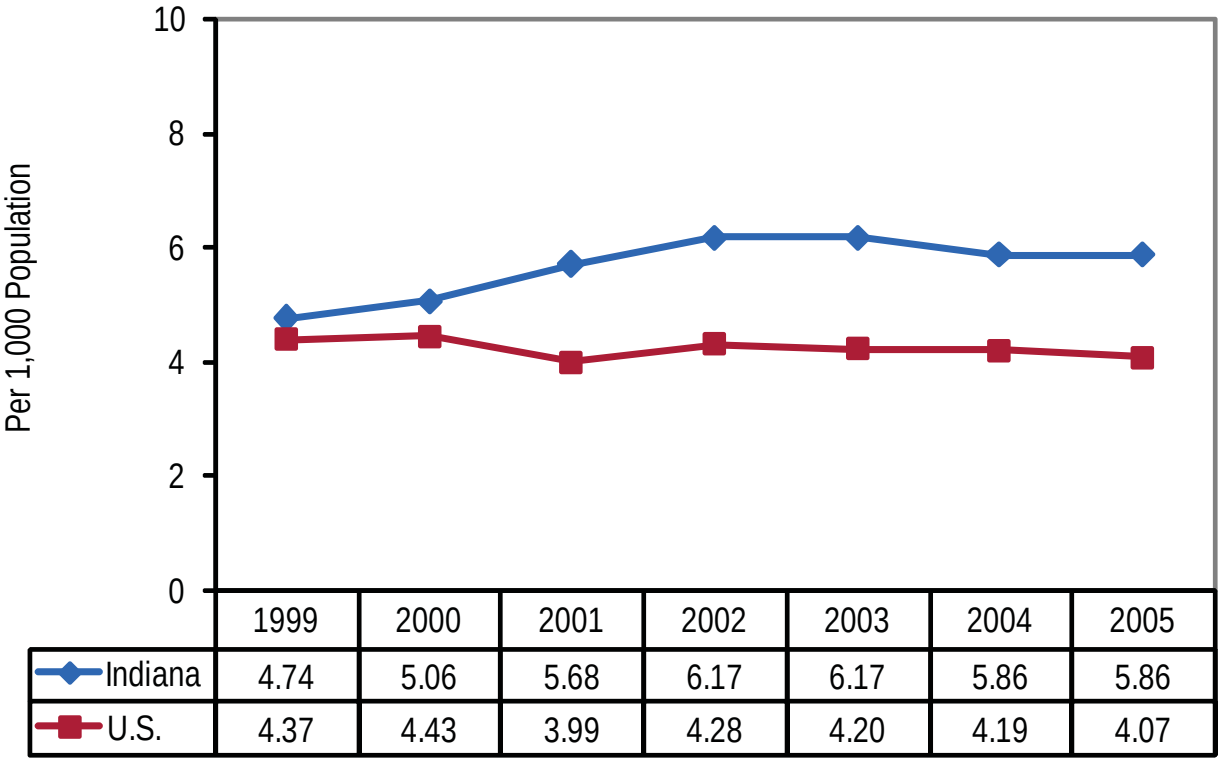
Day	Crash Type						Total		
	Single-Vehicle			Multiple-Vehicle					
	Number	Alcohol-Related	Percent Alcohol-Related	Number	Alcohol-Related	Percent Alcohol-Related	Number	Alcohol-Related	Percent Alcohol-Related
Midnight to 2:59 a.m.	50	30	60	22	15	67	72	45	62
3 a.m. to 5:59 a.m.	68	36	53	26	14	53	94	50	53
6 a.m. to 8:59 a.m.	38	7	19	44	6	13	82	13	16
9 a.m. to 11:59 a.m.	39	1	1	43	3	6	82	3	4
Noon to 2:59 p.m.	41	10	24	65	5	8	106	15	14
3 p.m. to 5:59 p.m.	77	21	28	96	18	18	173	39	22
6 p.m. to 8:59 p.m.	68	29	43	53	22	41	121	51	42
9 p.m. to 11:59 p.m.	76	45	59	47	23	49	123	68	55
Unknown	2	2	95	0	0	0	2	0	0
Total	459	181	39	396	106	27	855	286	33

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

Alcohol-Related Crimes

Using the Uniform Crime Reports (UCR) dataset, we compared alcohol-related misdemeanors between Indiana and the United States (National Archive of Criminal Justice Data, n.d.). In 2005, arrest rates (per 1,000 population) for driving under the influence (U.S.: 4.07; IN: 5.86), public intoxication (U.S.: 1.60; IN: 3.3), and liquor law violations (U.S.: 1.81; IN: 2.73) seemed higher for Indiana than the rest of the nation; however, these differences were statistically not significant. Indiana arrests for public intoxication increased significantly from 2004 to 2005 (see Figures 3.14 through 3.16). Alcohol-related crime rates vary somewhat among Indiana counties. These county differences are presented in Maps 3.3 through 3.5, pages 41-43.

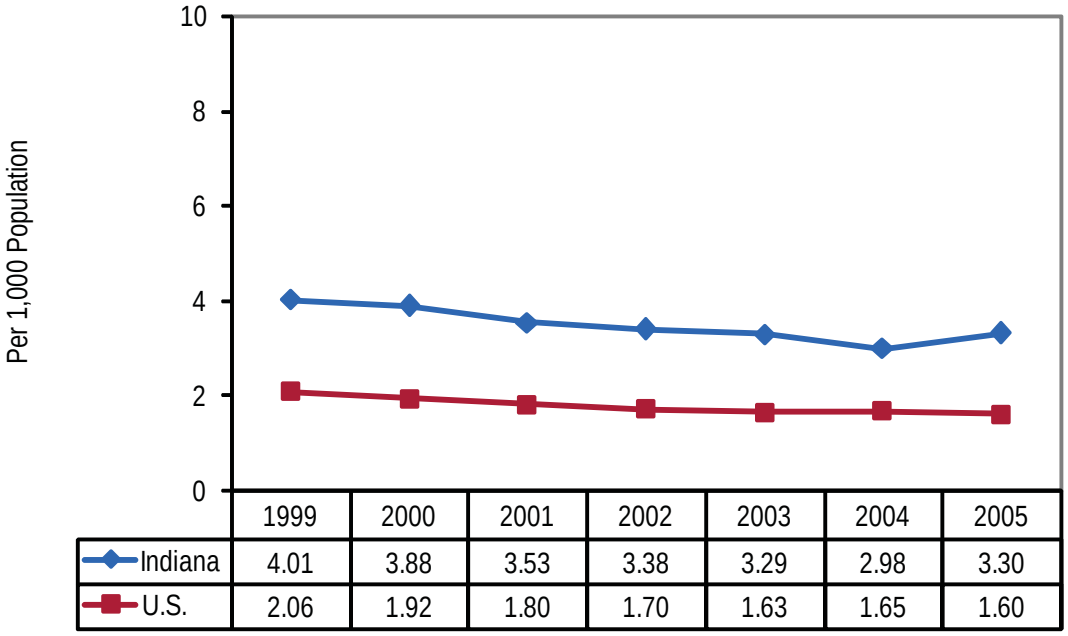
Figure 3.14 Driving Under the Influence of Alcohol (DUI) Arrest Rates per 1,000 Population in Indiana and the United States, 1999 through 2005 (Uniform Crime Reports, 1999–2005)



	1999	2000	2001	2002	2003	2004	2005
Indiana	4.74	5.06	5.68	6.17	6.17	5.86	5.86
U.S.	4.37	4.43	3.99	4.28	4.20	4.19	4.07

Source: National Archive of Criminal Justice Data, n.d.

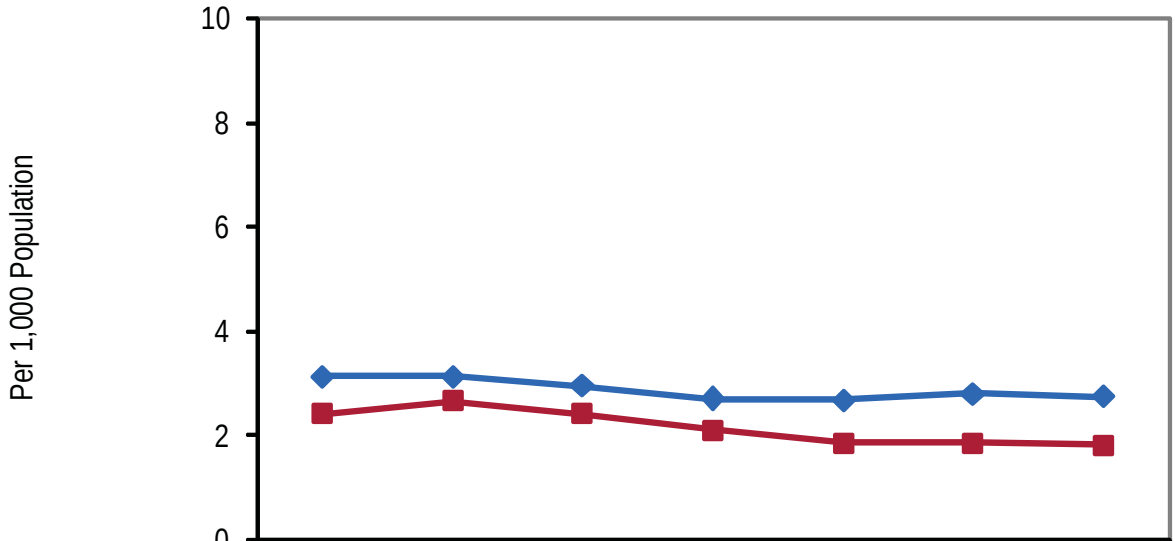
Figure 3.15 Public Intoxication Arrest Rates per 1,000 Population in Indiana and the United States, 1999 through 2005 (Uniform Crime Reports, 1999–2005)



	1999	2000	2001	2002	2003	2004	2005
Indiana	4.01	3.88	3.53	3.38	3.29	2.98	3.30
U.S.	2.06	1.92	1.80	1.70	1.63	1.65	1.60

Source: National Archive of Criminal Justice Data, n.d.

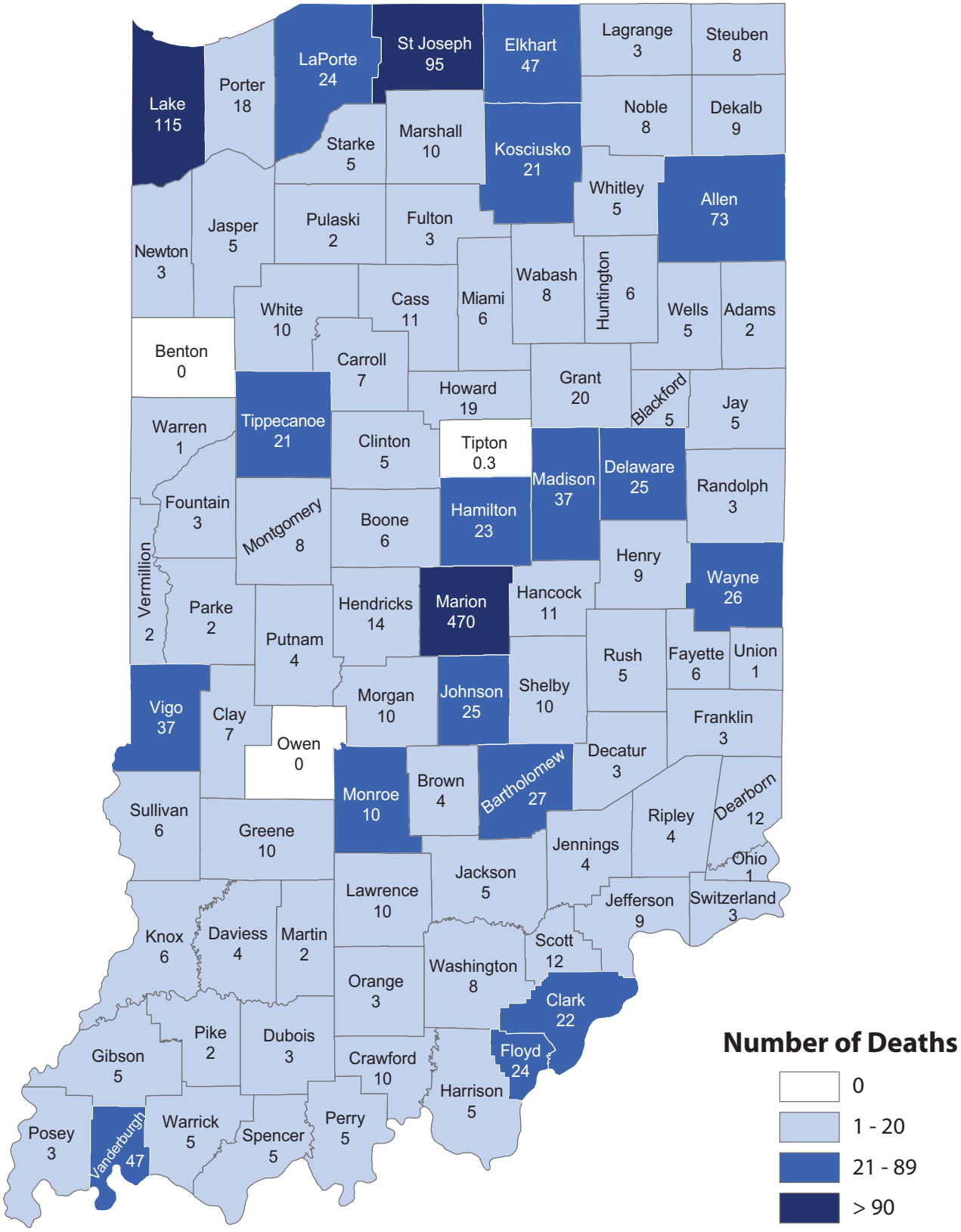
Figure 3.16 Liquor Law Violation Rates per 1,000 Population in Indiana and the United States, 1999 through 2005 (Uniform Crime Reports, 1999–2005)



	1999	2000	2001	2002	2003	2004	2005
Indiana	3.12	3.12	2.94	2.68	2.66	2.78	2.73
U.S.	2.40	2.64	2.39	2.08	1.85	1.84	1.81

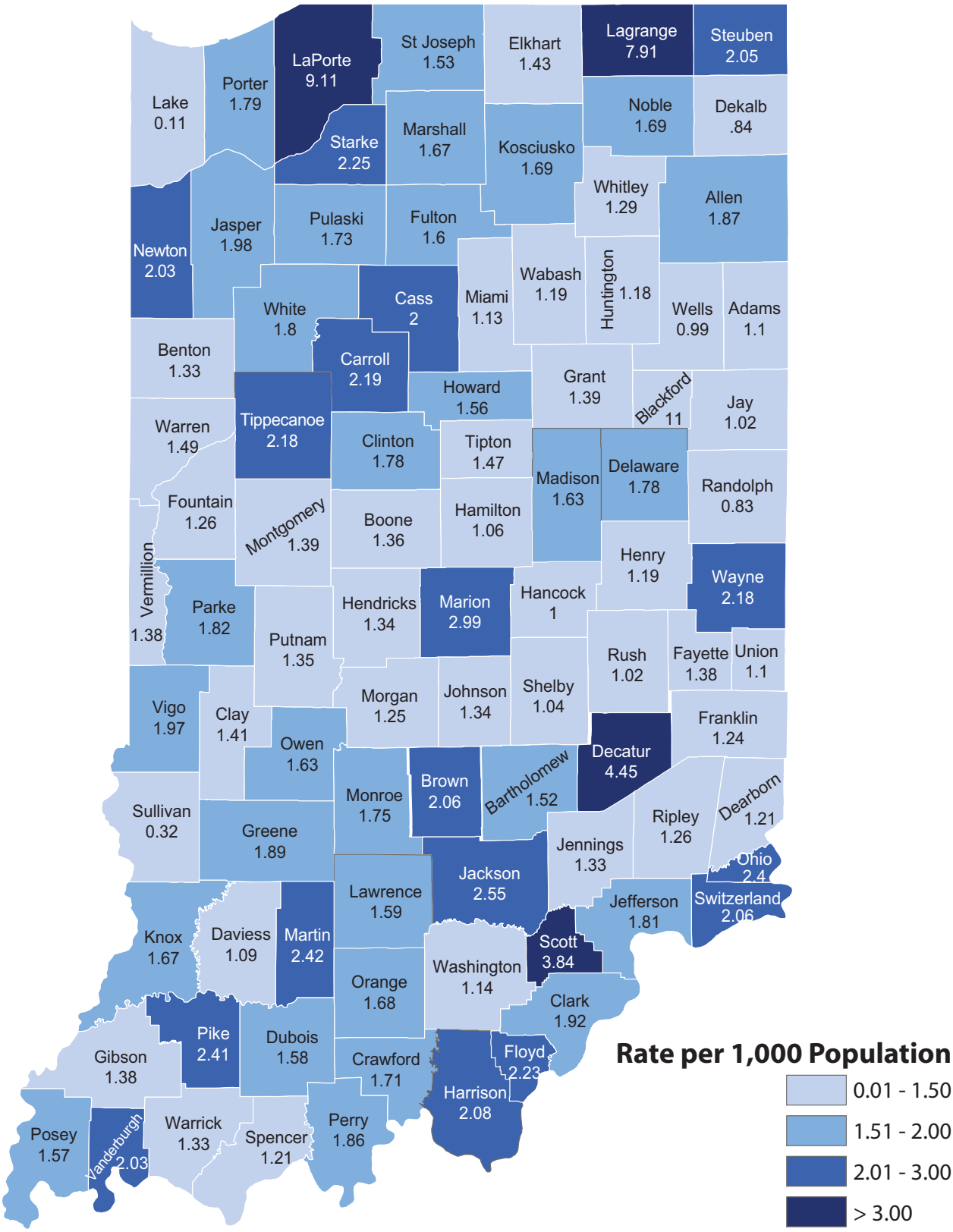
Source: National Archive of Criminal Justice Data, n.d.

Map 3.1 Number of Alcohol-Related Deaths in Indiana by County, from 2000 to 2004 (Alcohol-Attributable Mortality Data 2000-2004)



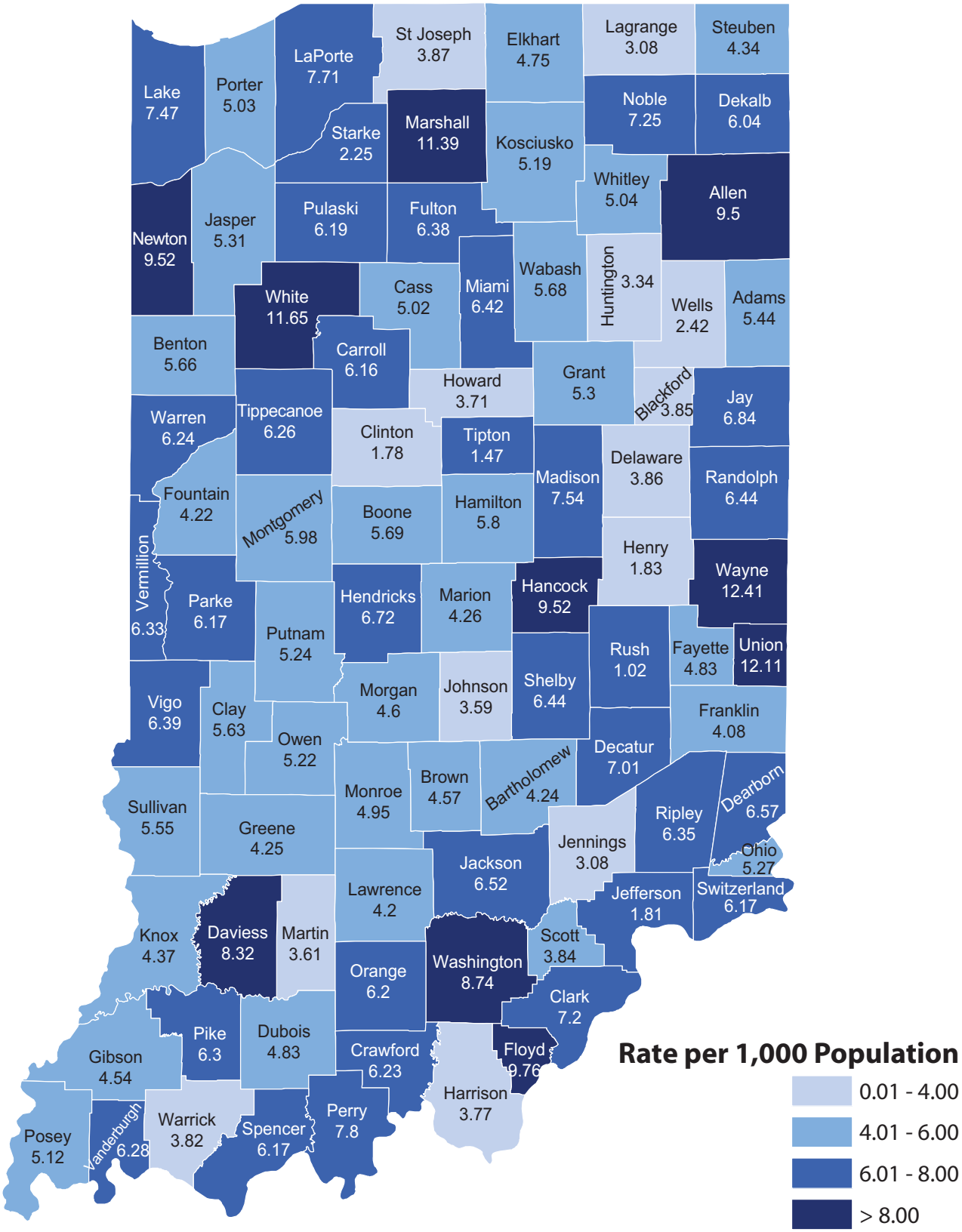
Source: Indiana State Department of Health, Epidemiology Resource Center, 2007b

Map 3.2 Alcohol-Related Collision Rate in Indiana by County, 2006 (Vehicle Crash Records System, 2006)



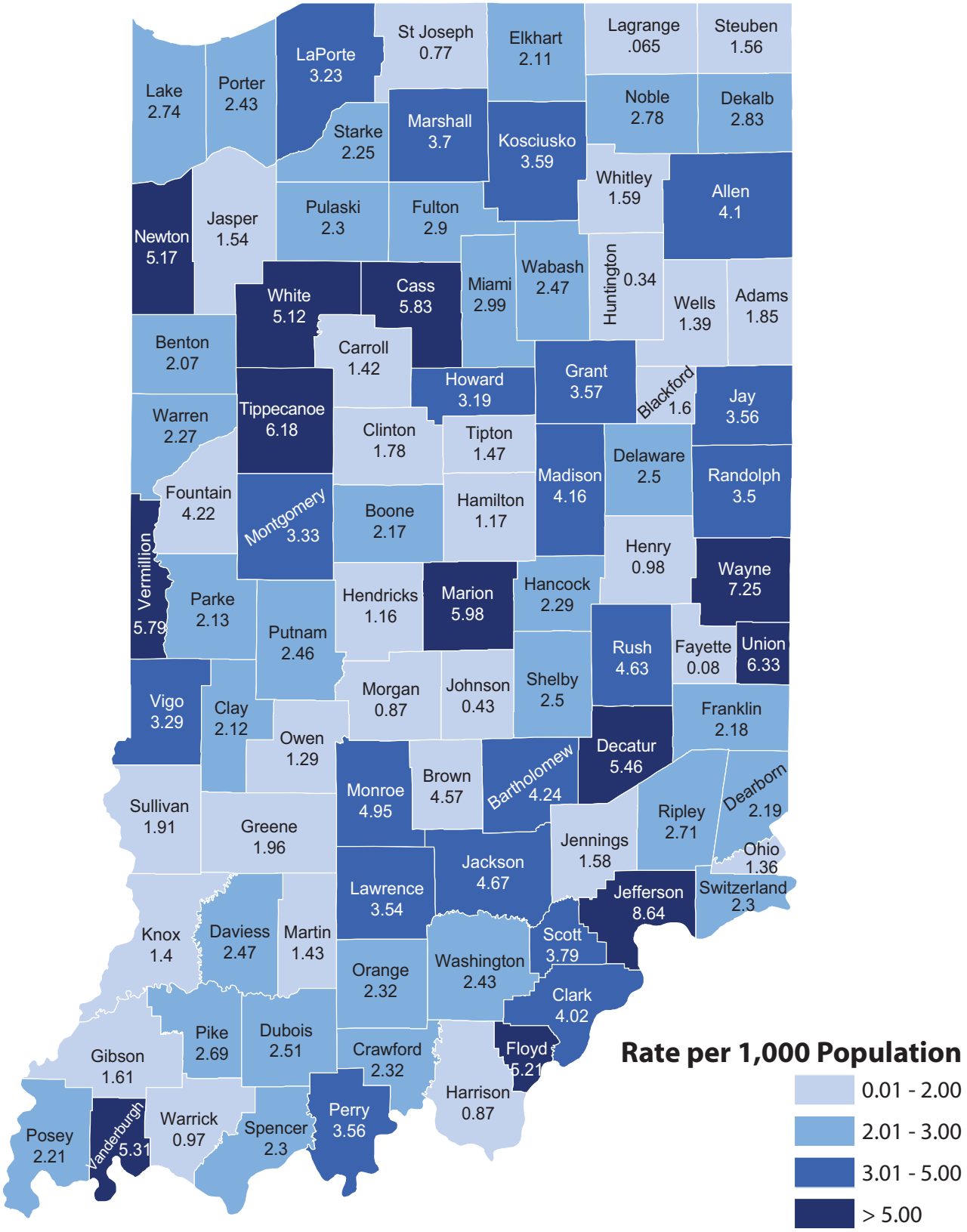
Source: Indiana State Police, 2007

Map 3.3 DUI Arrest Rates in Indiana by County, 2005 (Uniform Crime Reports, 2005)



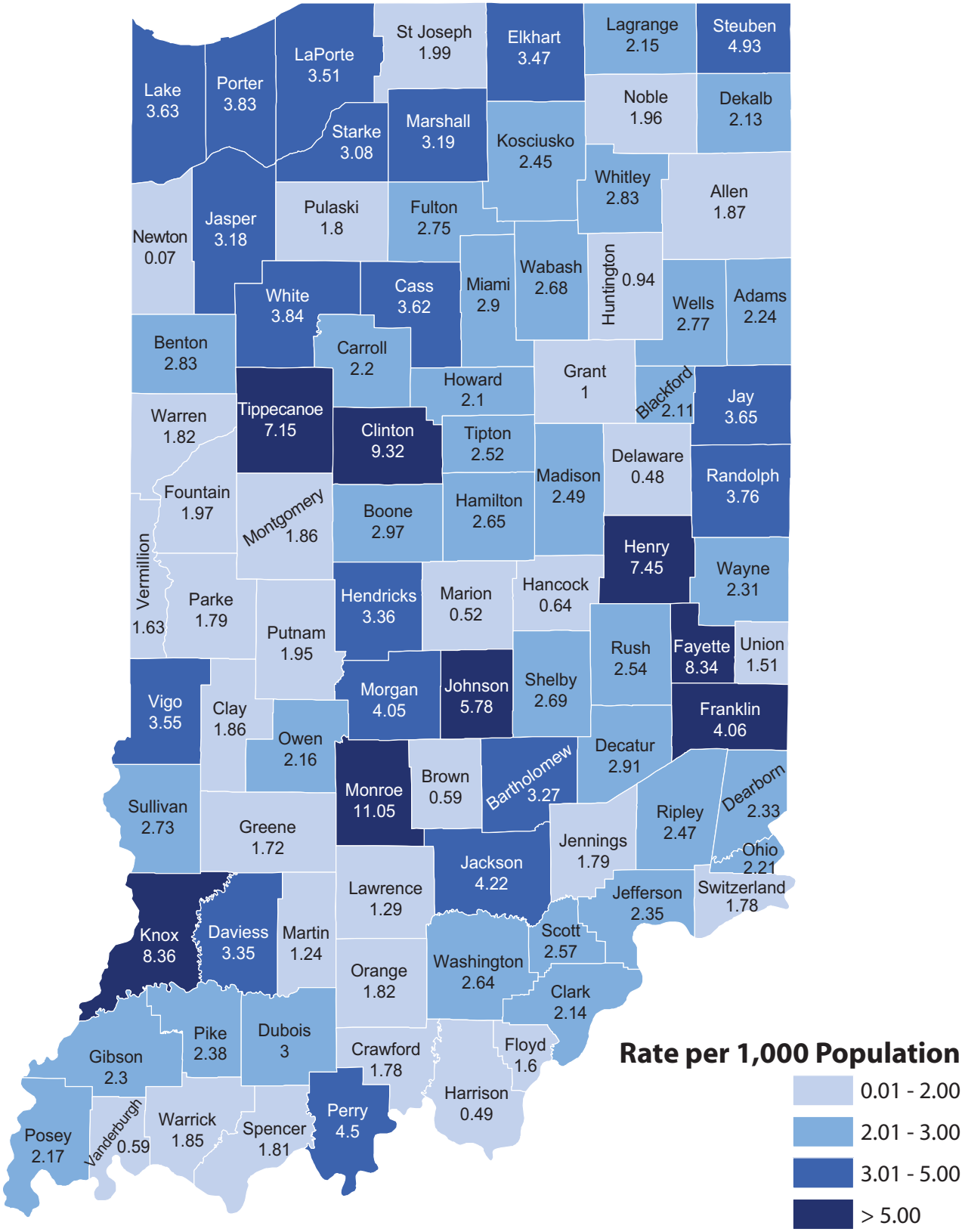
Source: National Archive of Criminal Justice Data, n.d.

Map 3.4 Public Intoxication Arrest Rates in Indiana by County, 2005 (Uniform Crime Reports, 2005)



Source: National Archive of Criminal Justice Data, n.d.

Map 3.5: Liquor Law Violation Arrest Rates in Indiana by County, 2005 (Uniform Crime Reports, 2005)



Source: National Archive of Criminal Justice Data, n.d.

APPENDIX 3A

Percentage of Indiana Students Reporting Lifetime, Annual, Monthly, Daily, and Binge Alcohol Use, by Region and Grade, 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents, 2007)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	22.5	24.4	25.2	19.4	25.0	19.6	25.0	21.0	25.4
	Annual	15.3	17.6	17.1	13.5	16.6	13.2	16.8	14.0	17.8
	Monthly	6.9	7.6	7.9	6.5	6.9	5.8	7.2	6.0	8.8
	Daily	0.3	0.2	0.5	0.1	0.3	0.2	0.5	0.2	0.5
	Binge	4.9	5.3	6.1	4.4	4.7	4.5	4.6	3.9	6.2
7th Grade	Lifetime	32.7	33.6	31.2	28.3	35.8	29.9	34.4	33.8	38.9
	Annual	24.8	26.2	23.1	21.4	27.2	22.7	25.3	25.7	29.7
	Monthly	12.2	13.6	11.7	10.0	13.4	10.4	13.1	12.9	15.8
	Daily	0.9	0.9	0.8	0.5	1.2	0.6	1.1	0.4	1.6
	Binge	8.3	9.3	7.5	7.7	9.9	7.0	8.6	7.9	10.9
8th Grade	Lifetime	45.4	47.4	46.2	40.0	45.8	42.2	48.7	43.1	51.7
	Annual	36.6	38.7	36.1	31.8	37.3	33.4	40.0	34.9	43.0
	Monthly	19.9	22.8	20.2	15.3	19.3	18.1	20.8	18.6	24.1
	Daily	1.8	2.1	1.6	1.3	1.6	1.7	2.4	1.0	2.5
	Binge	13.2	16.6	13.9	9.3	13.4	11.6	15.0	11.4	16.1
9th Grade	Lifetime	51.7	51.4	50.1	48.3	54.7	49.8	55.5	53.3	54.9
	Annual	43.4	43.2	41.6	40.1	46.4	41.5	45.7	46.8	47.0
	Monthly	24.8	24.3	23.9	21.5	25.2	23.2	25.9	28.9	29.3
	Daily	2.3	1.8	2.5	1.9	2.7	2.1	2.4	2.0	3.2
	Binge	16.9	16.5	15.9	14.0	17.3	16.1	18.2	20.7	19.3
10th Grade	Lifetime	61.0	62.8	59.5	56.4	63.2	57.7	63.4	62.1	64.4
	Annual	51.7	54.4	50.1	46.3	54.0	48.5	53.3	53.7	54.8
	Monthly	31.8	33.8	29.2	26.2	32.3	27.9	32.4	33.9	34.6
	Daily	3.4	4.4	2.8	2.7	4.3	2.9	4.5	3.4	3.6
	Binge	21.7	24.5	10.3	17.6	23.2	19.8	23.1	23.5	22.9
11th Grade	Lifetime	64.3	66.4	62.8	62.4	68.0	60.9	66.7	66.6	67.4
	Annual	55.3	57.6	53.6	53.6	57.4	52.3	56.8	58.9	58.6
	Monthly	33.8	36.4	31.4	32.4	33.4	31.4	34.3	39.5	37.2
	Daily	3.6	4.7	2.9	2.2	3.3	3.2	4.5	4.8	4.3
	Binge	23.2	25.4	22.2	21.2	22.3	21.8	23.6	28.9	24.5
12th Grade	Lifetime	69.2	71.7	66.6	64.4	70.1	65.9	68.1	71.0	74.4
	Annual	60.2	63.3	55.8	56.5	59.9	58.3	56.9	61.9	65.3
	Monthly	39.7	42.6	36.2	36.8	36.6	37.6	35.7	42.9	45.3
	Daily	4.6	4.8	3.8	3.3	4.7	4.1	4.2	4.9	6.2
	Binge	28.6	29.8	25.5	27.7	27.1	26.7	24.9	31.5	32.5

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

Source: Indiana Prevention Resource Center, 2007

APPENDIX 3B

Number of Indiana Residents in Substance Abuse Treatment Who Reported Alcohol Use and Who Listed Alcohol as their Primary Substance at Admission, by County and Drug Category, 2005 (Treatment Episode Data Set, 2005)

County	Alcohol Use	Alcohol Dependence
Adams	112	92
Allen	1,142	798
Bartholomew	278	162
Benton	27	20
Blackford	92	69
Boone	116	83
Brown	44	28
Carroll	62	43
Cass	144	103
Clark	402	267
Clay	144	95
Clinton	13	10
Crawford	34	22
Daviess	74	46
Dearborn	187	138
Decatur	52	44
DeKalb	103	82
Delaware	594	384
DuBois	118	84
Elkhart	468	319
Fayette	117	92
Floyd	193	135
Fountain	72	48
Franklin	34	23
Fulton	138	87
Gibson	103	70
Grant	276	194
Greene	70	40
Hamilton	496	306
Hancock	124	96
Harrison	95	60
Hendricks	212	156
Henry	170	114
Howard	284	193
Huntington	99	72
Jackson	59	29
Jasper	71	49
Jay	87	65
Jefferson	186	156
Jennings	109	54
Johnson	279	202
Knox	178	95
Kosciusko	143	119
LaGrange	93	73
Lake	1,510	918
LaPorte	409	284
Lawrence	146	102
Madison	748	575
Marion	3,071	1,713
Marshall	124	76
Martin	34	29
Miami	192	133
Monroe	568	395
Montgomery	185	128
Morgan	169	120
Newton	12	8
Noble	204	153
Ohio	18	12
Orange	27	17
Owen	106	63
Parke	111	75
Perry	84	63
Pike	36	22
Porter	279	195
Posey	140	109
Pulaski	69	45
Putnam	77	49
Randolph	80	63
Ripley	57	39
Rush	111	96
Scott	102	80
Shelby	133	103
Spencer	103	86
St. Joseph	864	507
Starke	95	65
Steuben	114	94
Sullivan	56	31
Switzerland	47	33
Tippecanoe	379	254
Tipton	18	15
Union	20	12
Vanderburgh	1,026	600
Vermillion	63	39
Vigo	646	370
Wabash	122	85
Warren	15	8
Warrick	162	98
Washington	40	29
Wayne	288	203
Wells	114	85
White	71	41
Whitley	63	54
Total	**21,002**	**13,791**

Note: We defined dependence as "individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission."

Source: Substance Abuse and Mental Health Data Archive, n.d.

APPENDIX 3C

Causes/Diseases and their Direct Alcohol-Attributable Fractions, for Indiana (Alcohol-Related Disease Impact, ARDI)

Part 1: Causes and Diseases That Are Completely Attributable to (Caused by) Alcohol

Causes/Disease	Percentage Directly Attributable to Alcohol
Alcohol abuse/dependence	100%
Alcohol cardiomyopathy	100%
Alcohol polyneuropathy	100%
Alcohol-induced chronic pancreatitis	100%
Alcoholic gastritis	100%
Alcoholic liver disease	100%
Alcoholic myopathy	100%
Alcoholic psychosis	100%
Degeneration of nervous system due to alcohol	100%
Fetal alcohol syndrome/Fetus and newborn affected by maternal alcohol use	100%
Alcohol poisoning	100%
Excessive blood alcohol level	100%
Suicide by and exposure to alcohol	100%

Part 2: Causes and Diseases That Are Partially Attributable to (Caused by) Alcohol

Causes/Disease	Percentage Directly Attributable to Alcohol
Chronic pancreatitis	84%
Gastroesophageal hemorrhage	47%
Homicide	47%
Fire Injuries	42%
Hypothermia	42%
Esophageal varices	40%
Liver cirrhosis unspecified	40%
Portal hypertension	40%
Drowning	34%
Fall injuries	32%
Poisoning (not alcohol)	29%
Acute pancreatitis	24%
Suicide	23%

Source: Centers for Disease Control and Prevention, 2004

APPENDIX 3D

Alcohol-Related Collisions and Fatalities in Indiana, by County, 2003 through 2006 (Vehicle Crash Records System, 2003-2006)

	2003				2004			
	Collisions		Fatalities		Collisions		Fatalities	
County	Total	Alcohol related	Total	Alcohol related	Total	Alcohol related	Total	Alcohol related
Adams	820	30	9	3	941	35	7	0
Allen	12,536	937	23	9	12,290	632	31	7
Bartholomew	2,035	134	11	4	2,113	114	11	0
Benton	130	12	4	3	171	11	1	0
Blackford	391	27	2	1	348	11	3	1
Boone	370	25	11	1	336	9	7	1
Brown	479	49	1	1	449	31	12	2
Carroll	614	25	4	1	585	28	4	2
Cass	1,767	87	4	1	1,746	88	7	1
Clark	4,235	252	3	0	4,232	182	13	4
Clay	763	42	4	0	809	36	8	2
Clinton	951	78	10	2	871	78	13	4
Crawford	380	25	3	0	325	16	2	0
Daviess	589	54	8	1	556	29	6	2
De Kalb	1,509	71	16	8	1,423	47	5	0
Dearborn	2,070	125	11	2	1,967	115	9	4
Decatur	861	42	10	2	711	33	5	0
Delaware	5,336	286	10	4	5,096	222	14	4
Dubois	1,134	96	7	3	1,103	58	11	5
Elkhart	7,863	375	21	4	8,270	336	29	3
Fayette	838	53	1	0	775	49	5	2
Floyd	2,997	274	6	1	2,820	174	9	3
Fountain	481	27	3	1	437	24	7	2
Franklin	699	61	7	2	452	45	6	3
Fulton	607	44	4	0	626	46	2	0
Gibson	1,085	61	9	1	1,096	34	5	1
Grant	2,816	139	9	2	2,669	114	8	1
Greene	401	15	1	0	987	47	3	1
Hamilton	5,823	276	22	5	5,853	225	20	3
Hancock	1,450	77	6	2	1,525	86	8	2
Harrison	1,478	77	11	2	1,489	73	8	5
Hendricks	3,631	220	10	2	3,427	172	13	5
Henry	1,562	87	12	1	1,331	74	10	0
Howard	3,011	180	12	3	2,821	141	11	3
Huntington	1,275	48	3	0	1,375	45	7	0
Jackson	1,567	134	8	3	1,331	95	12	4
Jasper	1,254	70	6	2	1,164	48	9	4
Jay	729	43	2	0	694	35	3	0
Jefferson	1,085	76	5	1	1,038	66	5	2
Jennings	1,098	55	9	2	1,075	50	7	4
Johnson	3,716	214	13	5	3,478	197	8	4
Knox	1,021	69	3	1	904	74	5	1
Kosciusko	2,809	147	16	2	2,856	138	17	7
La Porte	3,786	309	29	11	3,546	224	30	5
Lagrange	1,109	50	8	1	1,023	58	12	3
Lake	18,563	1,347	53	14	19,428	1,075	57	21

County list continues on page 49. Data over the years continues on page 48.

APPENDIX 3D, Continued

Alcohol-Related Collisions and Fatalities in Indiana, by County, 2003 through 2006 (Vehicle Crash Records System, 2003-2006)

	2005				2006			
	Collisions		Fatalities		Collisions		Fatalities	
County	Total	Alcohol related	Total	Alcohol related	Total	Alcohol related	Total	Alcohol related
Adams	830	33	4	0	799	37	8	2
Allen	12,685	627	30	13	11,662	651	27	11
Bartholomew	2,174	104	16	1	2,120	113	16	7
Benton	166	10	1	0	118	12	4	2
Blackford	368	12	5	0	379	15	0	0
Boone	1,502	60	16	4	1,719	73	8	1
Brown	495	35	4	1	456	31	4	1
Carroll	646	33	6	0	611	45	2	1
Cass	1,531	58	5	0	1,407	80	8	2
Clark	4,178	205	11	4	4,116	199	15	7
Clay	864	31	8	1	756	38	4	1
Clinton	1,031	59	7	1	901	61	12	6
Crawford	359	21	6	2	419	19	2	1
Daviess	518	52	6	0	447	33	6	4
De Kalb	1,428	48	1	0	1,270	60	6	2
Dearborn	1,970	112	5	1	1,979	111	10	1
Decatur	714	31	3	3	782	35	9	1
Delaware	5,046	194	19	5	4,698	204	9	4
Dubois	1,069	60	3	0	1,083	65	6	1
Elkhart	8,190	299	38	11	7,490	283	35	5
Fayette	696	42	2	1	627	34	3	1
Floyd	2,702	153	11	4	2,682	162	8	1
Fountain	459	32	3	0	378	22	2	0
Franklin	558	46	4	1	490	29	3	0
Fulton	639	29	7	2	556	33	5	3
Gibson	1,146	46	6	0	1,139	46	10	1
Grant	2,624	106	4	2	2,259	97	15	5
Greene	905	46	4	3	937	63	9	2
Hamilton	6,329	238	17	4	6,461	266	12	4
Hancock	1,588	79	15	1	1,520	65	6	0
Harrison	1,278	77	9	3	1,319	77	7	3
Hendricks	3,715	145	17	6	3,826	176	13	1
Henry	1,298	54	16	3	1,201	56	14	4
Howard	2,800	121	8	2	2,490	132	13	3
Huntington	1,336	23	5	3	1,258	45	11	1
Jackson	1,388	88	8	0	1,550	108	11	2
Jasper	1,228	65	13	5	1,126	64	9	5
Jay	663	26	8	2	636	22	4	0
Jefferson	1,086	57	3	0	1,065	59	4	2
Jennings	972	43	6	1	920	38	6	1
Johnson	3,110	148	23	7	3,036	179	14	5
Knox	863	59	10	4	833	64	10	4
Kosciusko	2,914	136	12	3	2,646	129	15	6
La Porte	3,785	247	24	13	3,342	295	23	8
Lagrange	1,145	52	7	3	924	52	8	2
Lake	18,504	1,057	60	27	16,945	1,006	51	23

County list continues on page 50.

APPENDIX 3D, Continued Alcohol-Related Collisions and Fatalities in Indiana, by County, 2003 through 2006 (Vehicle Crash Records System, 2003-2006)

	2003				2004			
	Collisions		Fatalities		Collisions		Fatalities	
County	Total	Alcohol related	Total	Alcohol related	Total	Alcohol related	Total	Alcohol related
Lawrence	1,322	96	8	1	1,215	67	7	3
Madison	5,135	395	18	4	4,668	248	21	6
Marion	32,396	2,097	85	31	32,603	4,051	96	36
Marshall	1,596	79	11	1	1,716	79	11	4
Martin	306	20	4	3	296	15	3	1
Miami	1,131	71	6	1	1,141	69	11	2
Monroe	4,631	282	11	6	4,262	199	12	4
Montgomery	1,195	70	7	1	1,253	51	10	2
Morgan	1,740	127	9	5	1,704	75	12	3
Newton	420	39	4	3	393	20	8	1
Noble	1,621	81	4	2	1,458	72	11	0
Ohio	280	27	1	1	269	21	1	0
Orange	554	27	0	0	571	29	5	0
Owen	494	30	5	0	487	26	13	3
Parke	664	42	3	1	667	48	2	0
Perry	546	48	9	5	563	30	4	1
Pike	217	27	1	0	189	17	1	0
Porter	4,736	353	16	7	4,837	297	32	19
Posey	590	47	2	2	421	31	4	2
Pulaski	562	26	2	0	531	26	4	2
Putnam	510	36	3	0	435	20	6	1
Randolph	599	32	5	0	489	34	3	1
Ripley	808	47	0	0	692	43	3	0
Rush	450	37	9	2	381	19	4	3
St Joseph	9,095	589	30	11	8,900	429	24	12
Shelby	1,363	96	3	1	1,265	75	4	1
Spencer	594	52	4	2	643	43	0	0
Scott	489	32	2	0	577	34	10	3
Starke	601	39	1	0	663	33	8	2
Steuben	1,700	108	15	4	1,727	77	6	1
Sullivan	48	5	2	0	55	6	2	1
Switzerland	217	30	3	0	120	11	6	5
Tippecanoe	7,213	487	15	3	7,018	362	20	11
Tipton	187	13	4	1	146	5	5	1
Union	201	17	0	0	226	12	1	0
Vanderburgh	4,212	544	20	5	4,353	428	15	6
Vermillion	419	37	5	3	350	27	9	4
Vigo	4,294	284	12	6	4,089	207	22	6
Wabash	1,254	55	7	1	1,154	44	7	3
Warren	234	7	2	0	234	16	3	0
Warrick	1,593	97	13	4	1,566	67	5	2
Washington	874	46	5	2	928	28	7	0
Wayne	2,109	145	11	3	2,253	159	7	0
Wells	815	42	2	0	743	38	4	1
White	1,015	83	10	5	974	45	7	2
Whitley	934	38	6	1	882	38	6	1
Z-Unknown	43	4	0	0	14	2	0	0
Totals	211,731	13,911	835	242	208,683	13,293	947	284

Source: Indiana State Police, 2007

APPENDIX 3D, Continued Alcohol-Related Collisions and Fatalities in Indiana, by County, 2003 through 2006 (Vehicle Crash Records System, 2003-2006)

	2005				2006			
	Collisions		Fatalities		Collisions		Fatalities	
County	Total	Alcohol related	Total	Alcohol related	Total	Alcohol related	Total	Alcohol related
Lawrence	1,121	64	7	1	1,196	74	6	2
Madison	4,531	256	24	11	4,019	213	10	3
Marion	32,108	4,535	82	35	26,397	2,585	83	18
Marshall	1,691	81	10	3	1,536	79	12	3
Martin	283	18	2	0	288	25	2	0
Miami	1,139	51	4	2	1,047	40	5	0
Monroe	3,969	200	9	2	3,935	215	15	4
Montgomery	1,285	67	15	3	1,108	53	13	4
Morgan	1,645	77	11	1	1,655	88	12	4
Newton	421	26	8	7	371	29	8	3
Noble	1,586	68	18	2	1,341	81	9	2
Ohio	245	29	2	0	212	14	0	0
Orange	566	36	4	2	634	33	2	1
Owen	542	35	6	1	526	37	5	5
Parke	640	44	8	2	617	31	3	1
Perry	491	26	5	0	556	35	5	4
Pike	195	13	2	0	197	31	5	4
Porter	4,778	290	30	7	4,497	286	15	3
Posey	513	34	9	7	506	42	4	1
Pulaski	510	10	5	2	539	24	6	1
Putnam	402	22	2	0	727	50	5	3
Randolph	559	30	5	1	540	22	3	0
Ripley	751	39	7	2	720	35	5	1
Rush	463	31	4	0	407	18	2	0
St Joseph	8,573	396	27	20	7,541	409	20	5
Shelby	1,283	86	10	4	1,253	91	16	5
Spencer	565	30	5	1	678	46	9	3
Scott	665	36	4	2	646	25	2	0
Starke	688	47	11	2	769	52	10	1
Steuben	1,831	81	9	2	1,504	69	13	10
Sullivan	92	2	2	0	120	7	1	0
Switzerland	120	6	4	1	182	20	4	1
Tippecanoe	7,392	363	14	6	7,245	340	21	10
Tipton	199	11	1	0	306	24	6	2
Union	231	11	3	0	184	8	2	1
Vanderburgh	3,872	416	10	5	3,304	352	24	5
Vermillion	399	46	5	0	354	23	5	1
Vigo	4,007	214	13	4	3,820	203	12	3
Wabash	1,142	45	8	1	1,052	40	5	0
Warren	288	14	5	1	240	13	3	1
Warrick	1,465	77	9	1	1,353	76	3	1
Washington	828	43	1	0	651	32	2	1
Wayne	2,240	111	12	2	2,062	150	10	3
Wells	677	21	4	2	604	28	3	0
White	933	36	3	0	953	44	6	0
Whitley	924	44	3	1	859	42	7	0
Z-Unknown	19	2	0	0	229	0	1	0
Totals	208,362	13,519	938	293	192,858	11,718	897	267

Source: Indiana State Police, 2007

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4. Tobacco Use in Indiana: Consumption Patterns and Consequences

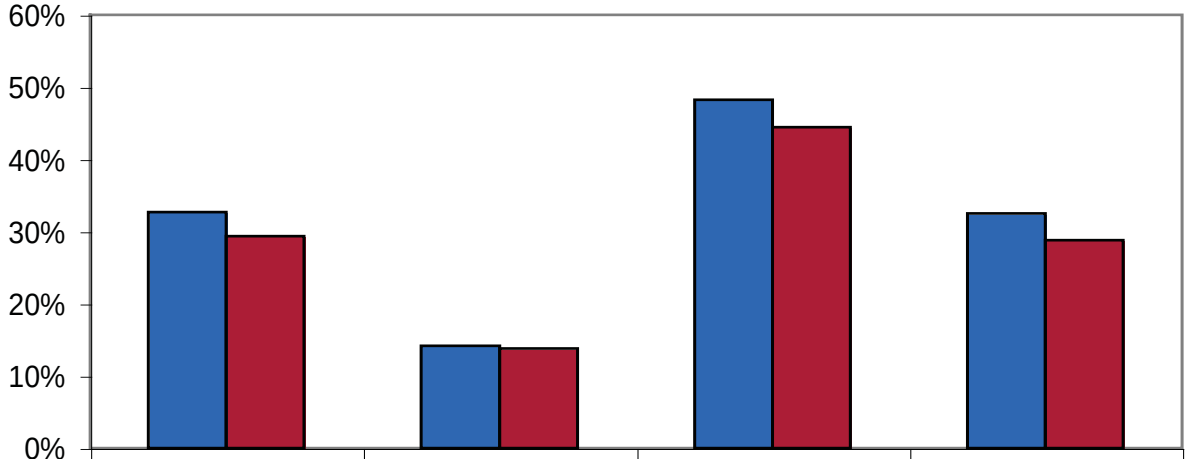
TOBACCO CONSUMPTION

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, CDC, 2007e). The 2004–2005 National Survey on Drug Use and Health, or NSDUH (Substance Abuse and Mental Health Services Administration, SAMHSA, 2007), showed that an estimated 32.72% (95% prediction interval:[1] 30.00%–35.57%) of the Indiana population, or 1,674,000 Hoosiers, 12 years and older, had used a tobacco product (including cigarettes, smokeless tobacco, cigars, or pipe tobacco) in the past month. Indiana's rate was statistically significantly higher than the national rate of 29.31%. The highest rate of tobacco use was among 18- to 25-year-olds (IN: 48.24%; United States: 44.44%); in Indiana 342,000 people in this age group said they currently used a tobacco product (see Figure 4.1).

The majority of tobacco consumers smoke cigarettes. In Indiana, 1,431,000 individuals 12 years and older admitted to having used cigarettes in the past month. The smoking prevalence for Indiana (27.96%; 95% prediction interval: 25.38%–30.71%), was significantly higher than for the United States (24.90%). The highest smoking rate was found among 18 to 25-year-olds, with 42.18% (95% prediction interval: 38.47%–45.97%), followed by the age group 26 or older

Figure 4.1 Percentage of Indiana and U.S. Population (12 Years and Older) Reporting Any Tobacco Use in the Past Month, Average 2004 and 2005 (National Survey on Drug Use and Health, 2004–2005)

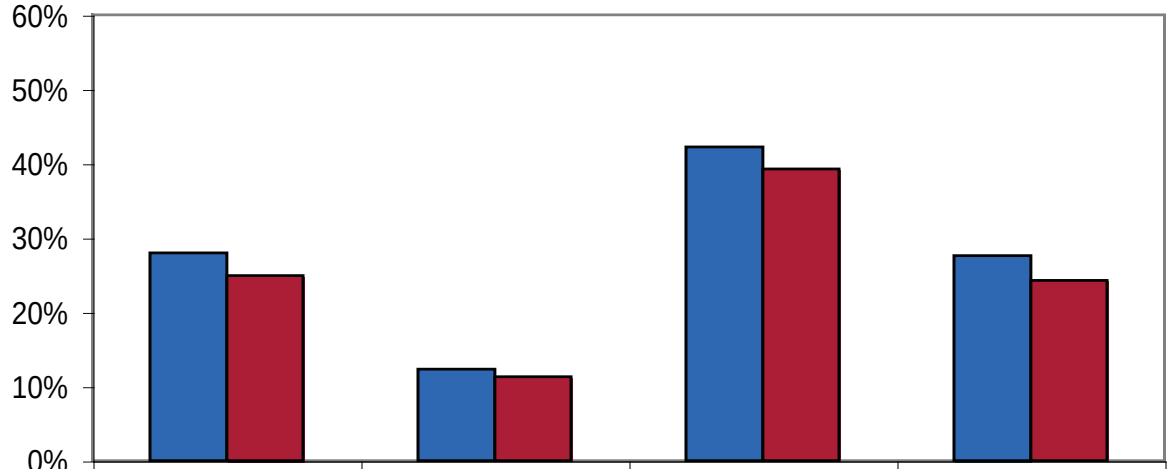


	Total	12-17	18-25	26 and older
Indiana	32.72%	14.19%	48.24%	32.51%
U.S.	29.31%	13.76%	44.44%	28.79%

Source: Substance Abuse and Mental Health Services Administration, 2007

[1]Prediction intervals are based on existing samples and refer to future values. By comparison, confidence intervals, used often in this report, refer to present population values.

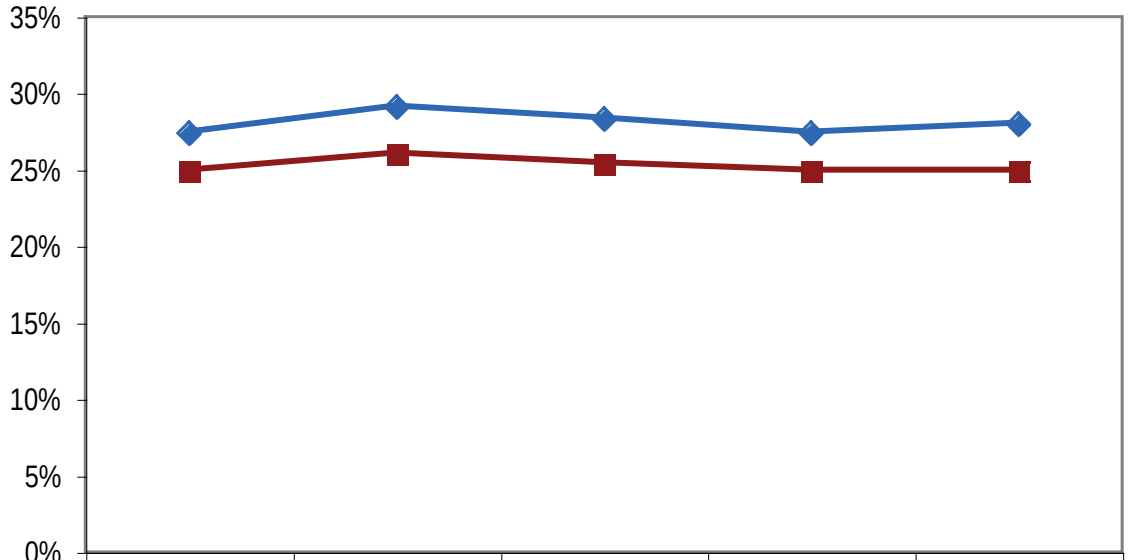
Figure 4.2 Percentage of Indiana and U.S. Population (12 Years and Older) Reporting Cigarette Use in the Past Month, Average 2004 and 2005 (National Survey on Drug Use and Health, 2004–2005)



	Total	12-17	18-25	26 and older
Indiana	27.96%	12.28%	42.18%	27.59%
U. S.	24.90%	11.33%	39.27%	24.23%

Source: Substance Abuse and Mental Health Services Administration, 2007

Figure 4.3 Percentage of Indiana and U.S. Population (12 Years and Older) Reporting Cigarette Use in the Past Month, 2001 through 2005 (National Survey on Drug Use and Health, 2001–2005)



	2001	2002	2003	2004	2005
Indiana	27.40%	29.10%	28.30%	27.40%	27.96%
U. S.	24.90%	26.00%	25.40%	24.90%	24.90%

Source: Substance Abuse and Mental Health Services Administration, 2007

with 27.59% (95% prediction interval: 24.39%–31.04%). National rates were slightly lower (see Figure 4.2).

From 2001 to 2005, past-month cigarette use was consistently higher in Indiana than the United States, but does not seem to have changed significantly over the years (see Figure 4.3).

In Indiana, a total of 3,631,000 individuals 12 years and older, or 70.98% (95% prediction interval: 68.29% –73.53%) of the population, perceive smoking one or more packs of cigarettes per day to be a great risk; the percentage within the nation is significantly higher.

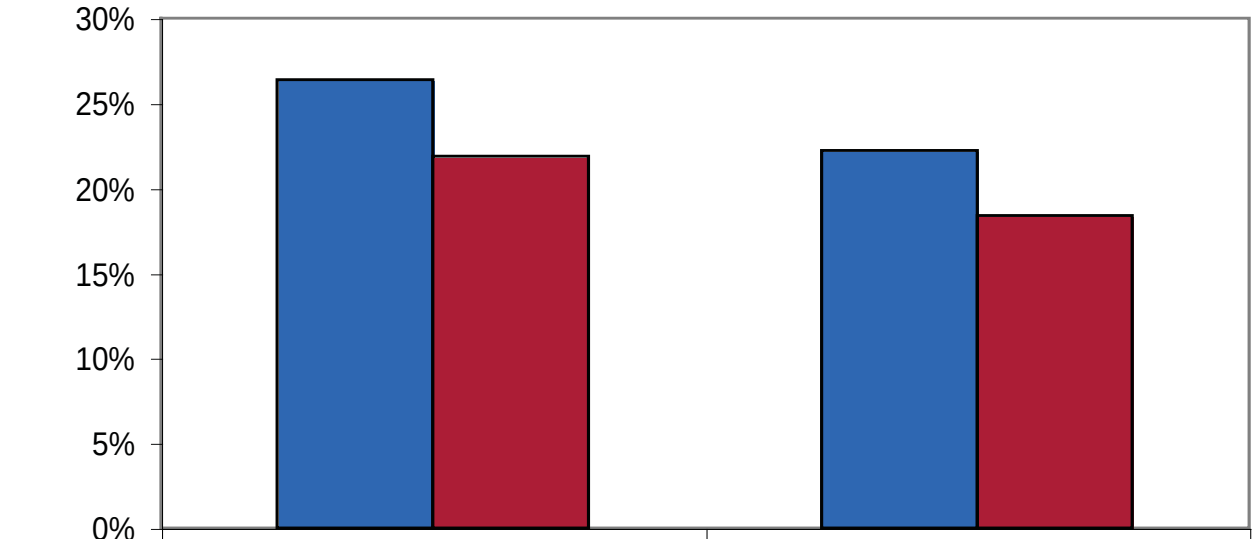
Adult Consumption Patterns

The Behavioral and Risk Factor Surveillance System, or BRFSS (CDC, 2007d) 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 2006 BRFSS, the prevalence rate for adult (people 18 years and older) smoking in Indiana was 24.1% (95% confidence interval: 22.7%–25.5%). Based on this rate, 1,521,558 Hoosiers 18 years and older are current smokers. Moreover, 18.6% of adults used cigarettes every day. Indiana's smoking prevalence is significantly higher than the national rate (20.1%).

Smoking prevalence varies by gender. Males are more likely to smoke than females. In Indiana, the smoking prevalence for males was 26.4% (95% C.I. [Confidence Interval]: 24.1%–28.7%), which was statistically different than the rate for females of 21.9% (95% C.I.: 20.2%–23.6%) (see Figure 4.4).

Race/ethnicity doesn't seem to have an impact on smoking status. Even though Blacks reported the highest rate of current use, 27.0% (95% C.I.: 21.8%-32.2%), followed by Whites, 23.9% (95% C.I.: 22.4%-25.4%), Hispanics, 23.1% (95% C.I.: 15.7%-25.6%), and Others,

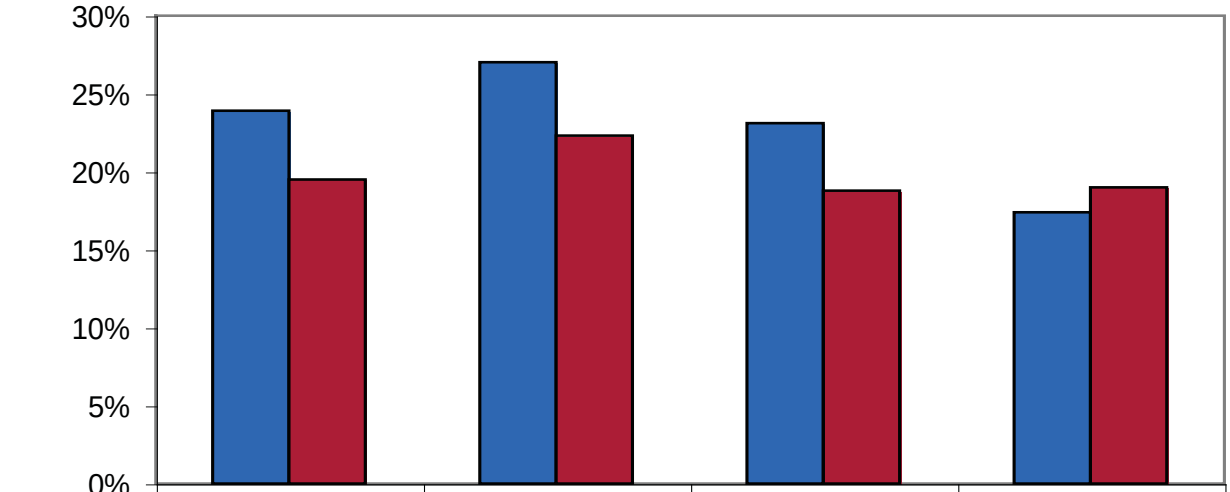
Figure 4.4 Adult (18 Years and Older) Smoking Prevalence in Indiana and the United States, by Gender, 2006 (Behavior and Risk Factor Surveillance System, 2006)



	Indiana	U.S.
Male	26.4%	22.2%
Female	21.9%	18.4%

Source: Centers for Disease Control and Prevention, 2007d

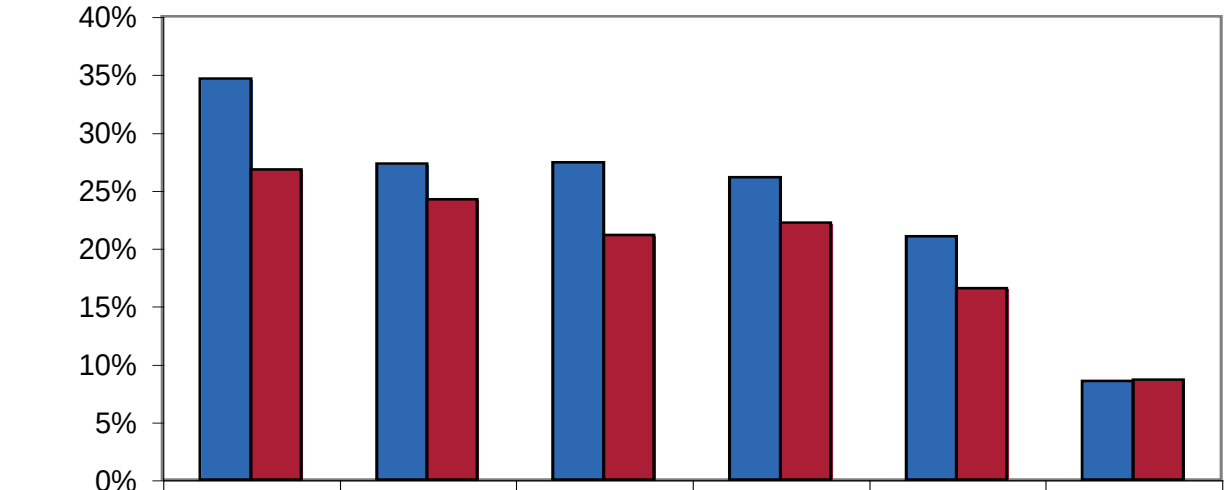
Figure 4.5 Adult (18 Years and Older) Smoking Prevalence in Indiana and the United States, by Race/Ethnicity, 2006 (Behavior and Risk Factor Surveillance System, 2006)



	White	Black	Hispanic	Other
Indiana	23.9%	27.0%	23.1%	17.4%
U.S.	19.5%	22.3%	18.8%	19.0%

Source: Centers for Disease Control and Prevention, 2007d

Figure 4.6 Adult (18 Years and Older) Smoking Prevalence in Indiana and the United States, by Age Group, 2006 (Behavior and Risk Factor Surveillance System, 2006)



	18-24	25-34	35-44	45-54	55-64	65+
Indiana	34.6%	27.3%	27.4%	26.1%	21.0%	8.5%
U.S.	26.8%	24.2%	21.1%	22.2%	16.5%	8.6%

Source: Centers for Disease Control and Prevention, 2007d

17.4% (95% C.I.: 9.2%-25.6%), the differences were not significant (see Figure 4.5).

Age was found to be associated with smoking status: 18- to 24-year-olds exhibited the highest smoking prevalence of all age groups, with 34.6% (95% C.I.: 28.5%–40.7%) in Indiana (U.S.: 26.8%). Rates decline as age increases (see Figure 4.6).

Additionally, smoking rates are inversely associated with education and income level: very high rates were found for individuals with less than high school

education, 44.5% (95% C.I.: 39.3%-49.7%), and persons whose household income is below $15K, 36.2% (95% C.I.: 30.8%-41.6%) (see Tables 4.1 and 4.2).

Smoking prevalence in Indiana among adults has been above the national level for the last five years. Data show a steady decline in smoking rates from 2002 to 2006 for the U.S. population. In Indiana, current cigarette use decreased from 2002 to 2004,increased in 2005, and is now on the decline again (see Figure 4.7). Indiana's adult smoking prevalence fell from second highest (27.3% in 2005) to fifth highest (24.1% in 2006) in the nation.

Youth Consumption Patterns

Using data compiled from the 2004–2005 National Surveys on Drug Use and Health (SAMHSA, 2007), we can estimate that 78,000 Hoosiers between 12 and 17 years of age currently use tobacco. The rates for this age group were similar between Indiana, 14.19% (95% C.I.: 11.94%-16.78%), and the United States, 13.76%.

Most tobacco consumption involves cigarette use. In Indiana, 12.28% (95% C.I.: 10.23%-14.67%) of 12- to 17-year-olds (67,000 Hoosiers) admitted to smoking cigarettes in the past month. This rate is not significantly higher than the nation's (11.33%). Publicly available NSDUH data currently do not include gender or race comparisons at the state level.

According to the 2005 Youth Risk Behavior Surveillance System (YRBSS), 56.9% (95% C.I.: 52.6%–61.2%) of high school students in Indiana have tried smoking at least one cigarette during their lifetime

Table 4.1 Adult (18 Years and Older) Smoking Prevalence in Indiana, by Education, 2006 (Behavioral Risk Factor Surveillance System, 2006)

Education	Smoking Prevalence	95% Confidence Interval
Less than high school	44.5%	39.3%–49.7%
High School or GED	28.0%	25.7%–30.3%
Some post-high school	23.3%	20.6%–26.0%
College graduate	10.5%	8.8%–12.2%

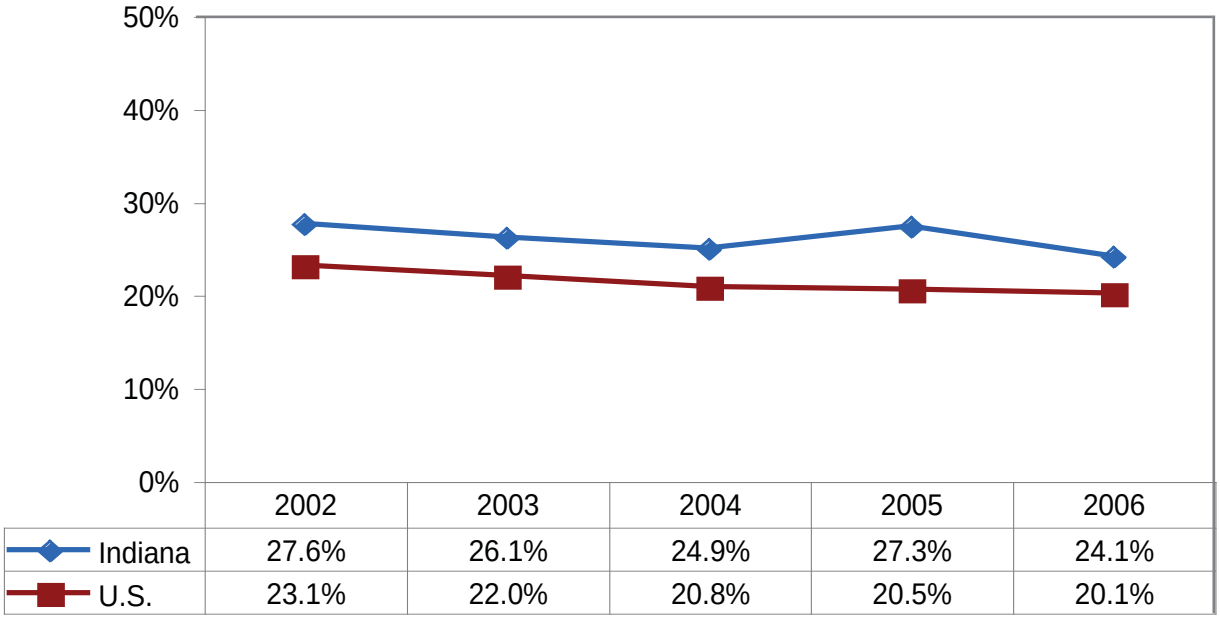
Source: Centers for Disease Control and Prevention, 2007d

Table 4.2 Adult (18 Years and Older) Smoking Prevalence in Indiana, by Household Income, for 2006 (Behavioral Risk Factor Surveillance System, 2006)

Education	Smoking Prevalence	95% Confidence Interval
Less than $15,000	36.2%	30.8%–41.6%
$15,000 – $24,999	32.3%	28.3%–36.3%
$25,000 – $34,999	28.1%	24.2%–32.0%
$35,000 – $49,999	25.1%	21.6%–28.6%
$50,000 and above	17.3%	15.3%–19.3%

Source: Centers for Disease Control and Prevention, 2007d

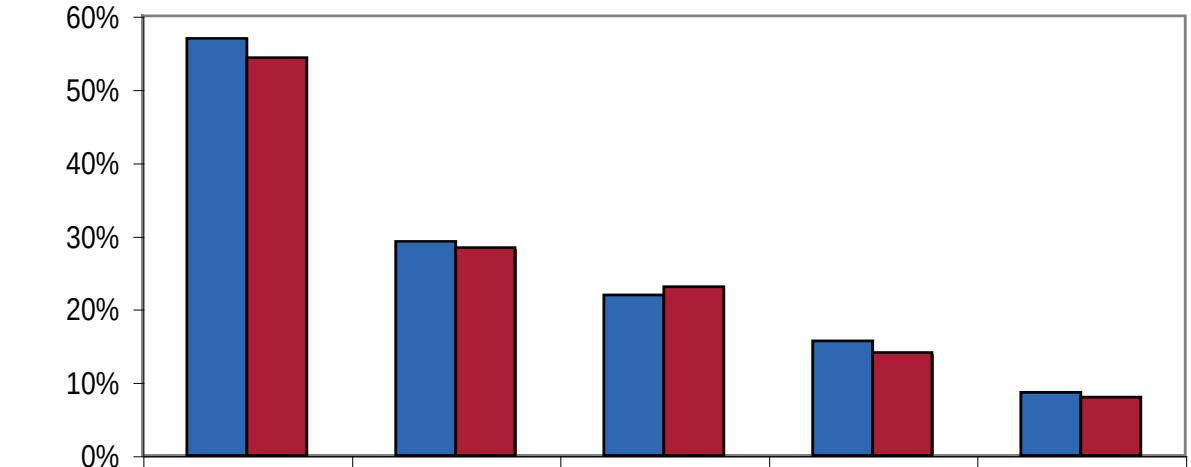
Figure 4.7 Percentage of Indiana and U.S. Population (18 Years and Older) Reporting Current Cigarette Use, 2002 through 2006 (Behavior and Risk Factor Surveillance System, 2002–2006)



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

Source: Centers for Disease Control and Prevention, 2007d

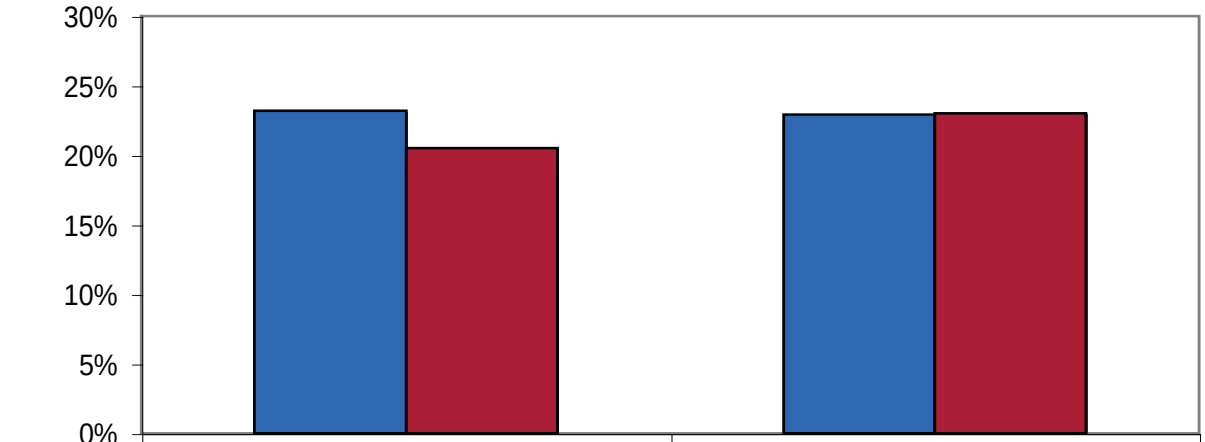
Figure 4.8 Percentage of Indiana and U.S. High School Students (9th–12th grade) Reporting Tobacco Consumption, 2005 (Youth Risk Behavior Surveillance System, 2005)



	Lifetime cigarette use	Current tobacco use	Current cigarette use	Current cigar use	Current smokeless tobacco use
Indiana	56.9%	29.2%	21.9%	15.6%	8.6%
U.S.	54.3%	28.4%	23.0%	14.0%	8.0%

Source: Centers for Disease Control and Prevention, 2007b

Figure 4.9 Smoking Rates in Indiana and U.S. High School Students (9th–12th grade), by Gender, 2005 (Youth Risk Behavior Surveillance System, 2005)



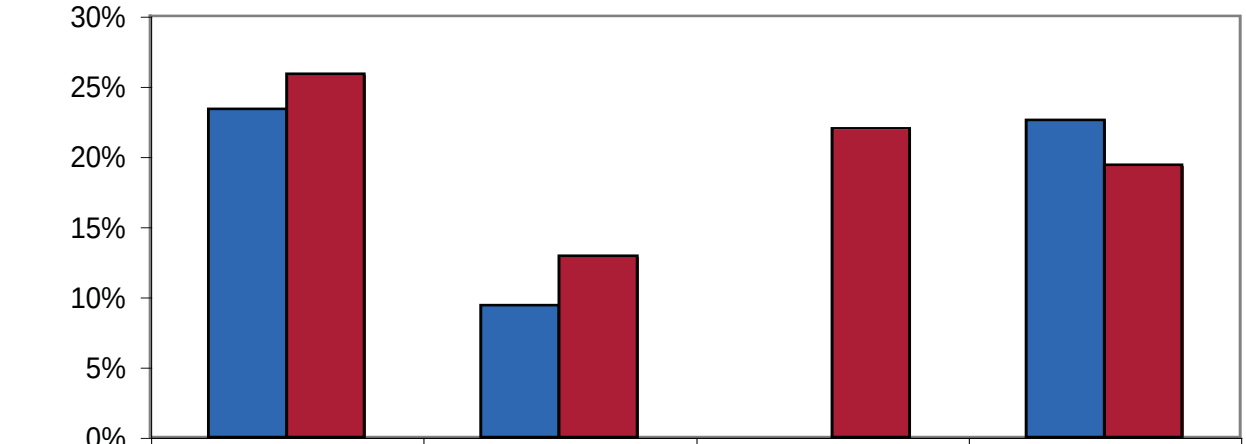
	Indiana	U.S.
Male	23.2%	22.9%
Female	20.5%	23.0%

Source: Centers for Disease Control and Prevention, 2007b

(Centers for Disease Control and Prevention, 2007b). In regard to current use (defined as use in the past 30 days), 29.2% (95% C.I.: 25.1%–33.3%) had used a tobacco product, 21.9% (95% C.I.: 17.9%–25.9%) had smoked cigarettes, 15.6% (95% C.I.: 12.8%–18.4%) had smoked cigars, and 8.6% (95% C.I.: 6.6%–10.6%) had used some type of smokeless tobacco. Indiana rates compare with national rates and are statistically the same (see Figure 4.8).

For the United States, smoking rates among high school students were almost identical for males (22.9%) and females (23.0%). However, in Indiana, male students

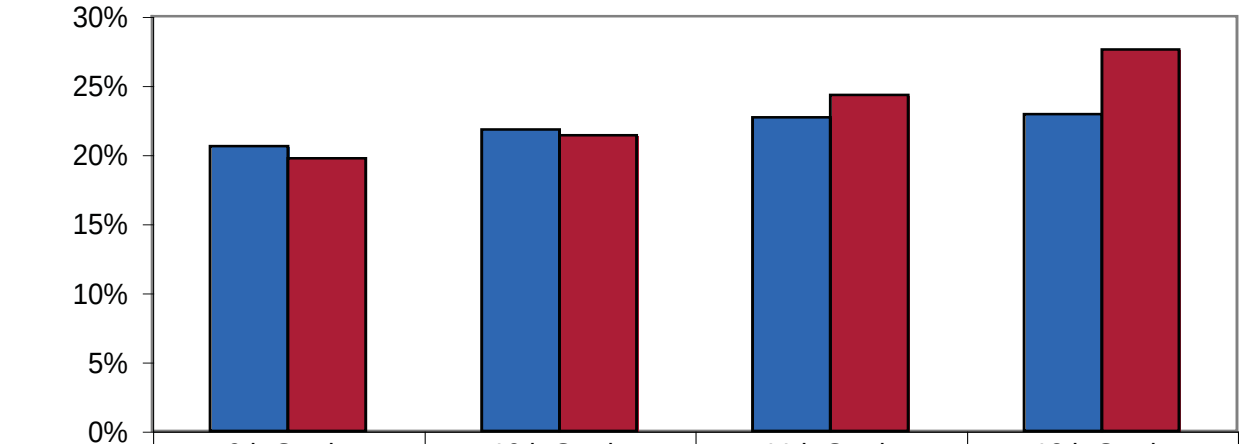
Figure 4.10 Smoking Rates in Indiana and U.S. High School Students (9th–12th grade), by Race/Ethnicity, 2005 (Youth Risk Behavior Surveillance System, 2005)



	White	Black	Hispanic	Other
Indiana	23.4%	9.4%		22.6%
U.S.	25.9%	12.9%	22.0%	19.4%

Source: Centers for Disease Control and Prevention, 2007b

Figure 4.11 Smoking Rates for Indiana and U.S. High School Students (9th–12th grade), by Grade, 2005 (Youth Risk Behavior Surveillance System, 2005)



	9th Grade	10th Grade	11th Grade	12th Grade
Indiana	20.6%	21.8%	22.7%	22.9%
U.S.	19.7%	21.4%	24.3%	27.6%

Source: Centers for Disease Control and Prevention, 2007b

(23.2%) seemed to report higher rates than female students (20.5%) – but the differences among the groups were statistically not significant (see Figure 4.9).

Indiana's smoking rates for high school students seemed below the national rates for White (U.S.: 25.9%; IN: 23.4%) and Black students (U.S.: 12.9%; IN: 9.4%) but above the U.S. rate for students from other races (U.S.: 19.4%; IN: 22.6%); however, the differences between U.S. and Indiana students were statistically not significant. Current use of cigarettes differed by race/ethnicity. In both Indiana and the United States, Black high school students reported current smoking rates far below the rates of their White counterparts. Data for Hispanic students in Indiana are currently not available (see Figure 4.10).

Smoking rates for high school students increase with

age from 9th to12th grade. Indiana rates seem slightly higher for 9th and 10th graders but lower for 11th and 12th graders. However, these differences are statistically not significant (see Figure 4.11).

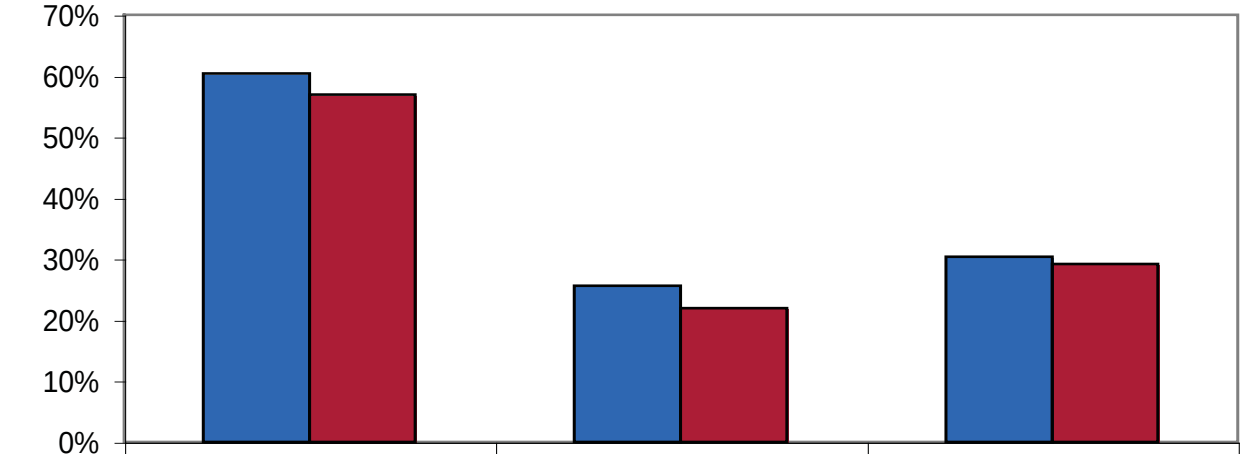
Publicly available YRBSS data for Indiana do not include both gender and race comparisons and is only available for the years 2003 and 2005. Comparisons of tobacco consumption during these two years seem to show a slight decreases in lifetime cigarette use (2003: 60.4%; 2005: 56.9%), current cigarette use (2003: 25.6%; 2005: 21.9%), and current tobacco use (2003: 30.4%; 2005: 29.2%). However, these differences are statistically not significant (see Figure 4.12).

According to the 2004 Indiana Youth Tobacco Survey (IYTS), a total of 7.8% (95% C.I.: 5.8% to 9.8%) of middle school students and 21.3% (95% C.I.: 19.3% to 23.3%) of high school students currently smoke cigarettes (Indiana Tobacco Prevention and Cessation, 2007). National prevalence, as measured by the National Youth Tobacco Survey (NYTS)[2], is similar, 8.4% (95% C.I.: 7.3% to 9.5%) in middle school and 21.7% (95% C.I.: 19.5% to 23.9%) in high school (Centers for Disease Control and Prevention, 2007)[3]. No significant differences in smoking prevalence exist among Whites, Blacks, and Hispanics during their middle school years. However, this changes in high school: White students have significantly higher smoking rates than Black students; both in Indiana and the United States (see Figure 4.13).

A review of IYTS data from 2000 through 2006 reveals that even though cigarette smoking prevalence in Indiana middle school students seems to have declined over the last few years, the difference was statistically not significant. The drop in current cigarette use among high school students from 31.6% in 2000 to 23.2% in 2006, however, was significant (see Figure 4.14). Appendix 4A (pages 66-69) shows the percentages of Indiana middle and high school students who reported lifetime or current use of various tobacco products, grouped by gender, race/ethnicity, and grade, from 2000 through 2006.

The annual Survey of Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) is based on a non-random sample and is, therefore, not truly representative of all 6th to 12th graders in the state

Figure 4.12 Tobacco Use among Indiana High School Students (9th–12th Grade), 2003 and 2005 (Youth Risk Behavior Surveillance System, 2003 and 2005)

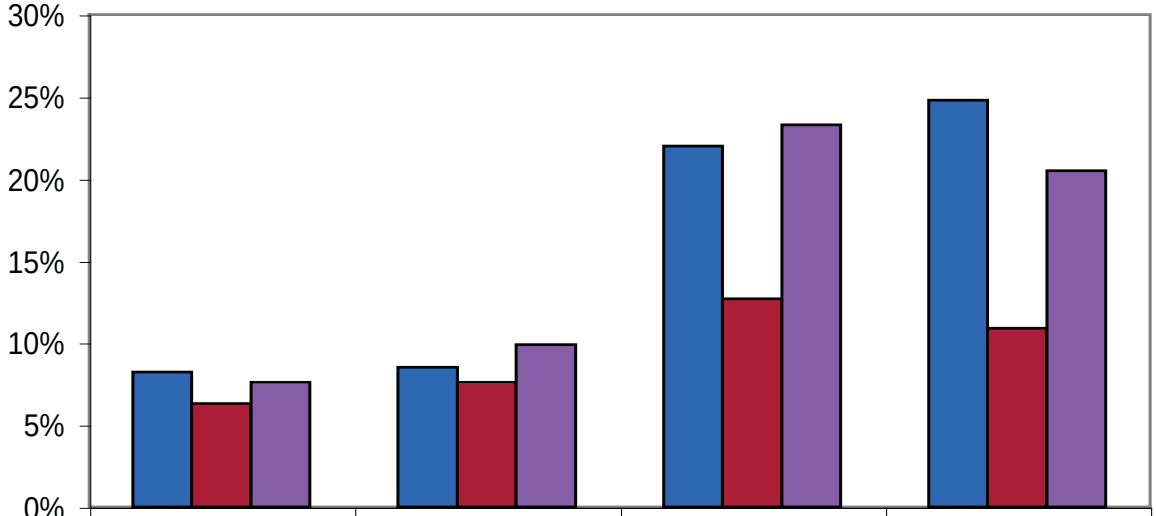


	Lifetime Cigarette Use	Current Cigarette Use	Current Tobacco Use
2003	60.4%	25.6%	30.4%
2005	56.9%	21.9%	29.2%

Source: Centers for Disease Control and Prevention, 2007b

[2]At the time of the report, the most recent data available were 2004 results from the NYTS (national data) and 2006 results from the IYTS (Indiana data). For comparisons between Indiana and U.S. students, only data up to 2004 were used. However, the 2006 Indiana data is available as an appendix at the end of the tobacco chapter.
[3]The Centers for Disease Control and Prevention (2007) stated that an error was made in the computation of the analytic weights for the original 2004 NYTS dataset. The 2004 dataset has since been corrected.

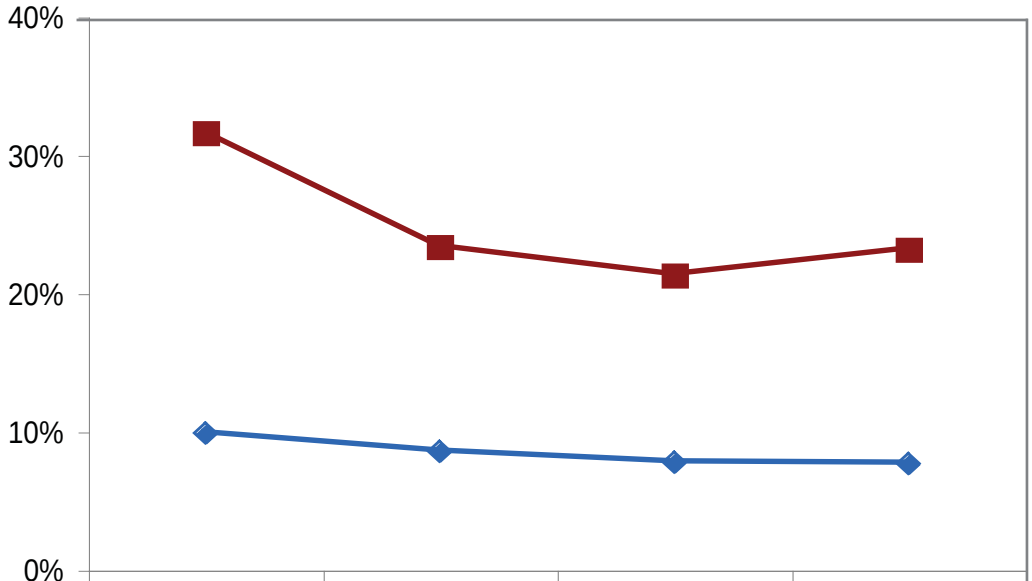
Figure 4.13 Percentage of Middle and High School Students Reporting Current Cigarette Use, Indiana and the United States, 2004 (Indiana Youth Tobacco Survey; National Youth Tobacco Survey, 2004)



	Indiana Middle School	U.S. Middle School	Indiana High School	U.S. High School
White	8.2%	8.5%	22.0%	24.8%
Black	6.3%	7.6%	12.7%	10.9%
Hispanic	7.6%	9.9%	23.3%	20.5%

Source: Indiana Tobacco Prevention and Cessation, n.d.; Centers for Disease Control and Prevention, 2007

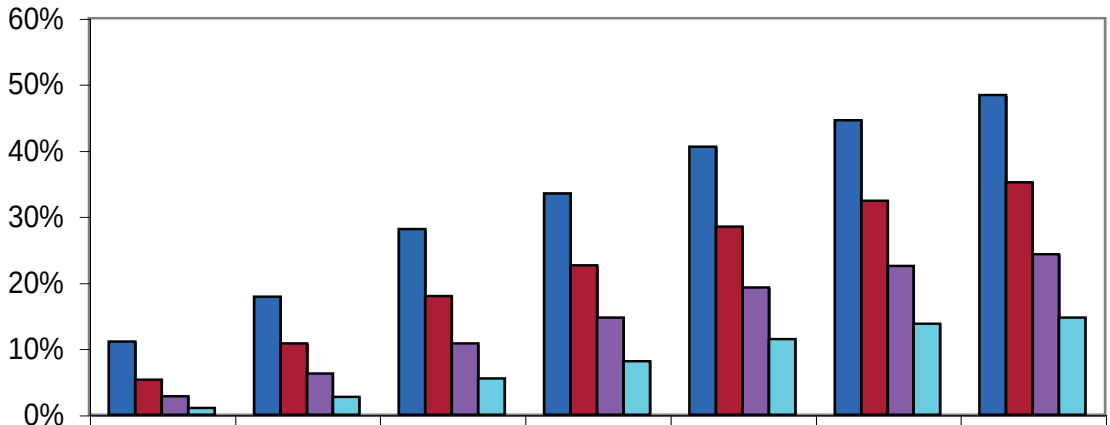
Figure 4.14 Percentage of Middle and High School Students Reporting Current Cigarette Use, Indiana and the United States, 2000 through 2006 (Indiana Youth Tobacco Survey 2000-2006)



	2000	2002	2004	2006
Middle School	9.9%	8.6%	7.8%	7.7%
High School	31.6%	23.4%	21.3%	23.2%

Source: Indiana Tobacco Prevention and Cessation, 2007

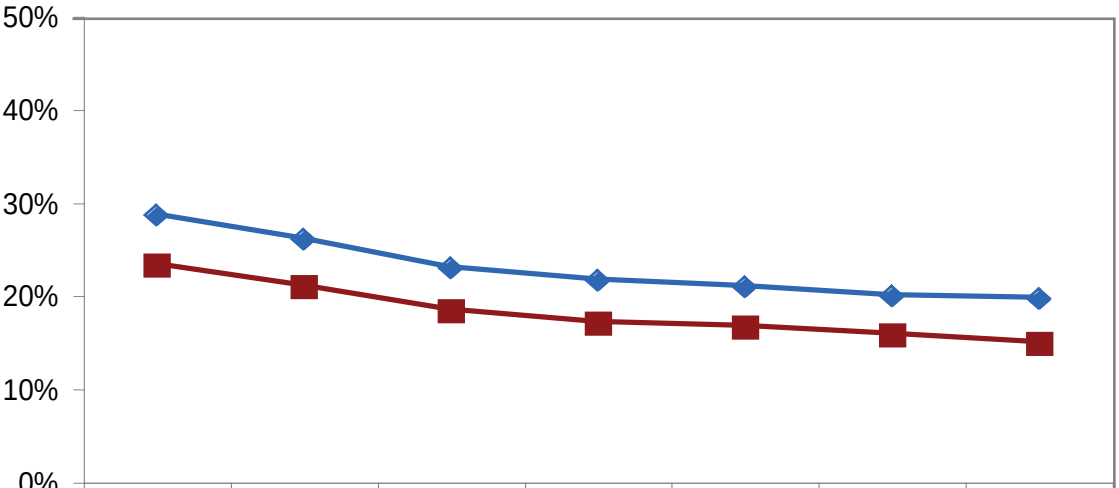
Figure 4.15 Cigarette Use Among Indiana 6th–12th Grade Students, 2007 (Survey of Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents, 2007)



	6th grade	7th grade	8th grade	9th grade	10th grade	11th grade	12th grade
Lifetime Use	11.1%	17.9%	28.1%	33.5%	40.6%	44.6%	48.4%
Annual Use	5.3%	10.8%	18.0%	22.6%	28.5%	32.4%	35.2%
Monthly Use	2.8%	6.2%	10.8%	14.7%	19.3%	22.5%	24.3%
Daily Use	1.0%	2.7%	5.5%	8.1%	11.4%	13.8%	14.7%

Source: Indiana Prevention Resource Center, 2007

Figure 4.16 Average Past-Month Smoking Prevalence for 8th, 10th, and 12th Graders Combined, in Indiana and the United States, 2000 through 2006 (Survey of Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents and Monitoring the Future Surveys, 2000-2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana	28.7%	26.1%	23.0%	21.7%	21.0%	19.9%	19.7%
U.S.	23.3%	21.0%	18.4%	17.1%	16.7%	15.8%	14.9%

Source: Indiana Prevention Resource Center, 2007; University of Michigan, n.d.

(Indiana Prevention Resource Center, 2007). However, it provides a current estimate of substance use for this age group. According to the 2007 survey, the use of cigarettes (lifetime, annual, monthly, and daily use) among students in grades 6 to 12 has remained stable or declined from the previous year. However, the use of cigars and pipes has significantly increased in some grades from 2006 to 2007. Generally, tobacco use increases as students progress in school, and highest smoking rates can be found in 12th grade students (see Figure 4.15). See Appendix 4B (page 70) for lifetime, annual, monthly, and daily cigarette use, by Indiana region and grade for 2007.

Comparisons of national rates, as measured by the Monitoring The Future (MTF)[4] survey (University of Michigan, n.d.), and Indiana rates (ATOD survey) from 2000 through 2006 show that Indiana's 8th, 10th, and 12th grade students combined seem to have higher current smoking rates than U.S. students (see Figures 4.16). Statistical significance could not be determined.

CONSEQUENCES

Health Consequences

Tobacco is the second major cause of death in the world. It is responsible for approximately one in ten deaths among adults worldwide, or about 5 million deaths annually (World Health Organization, WHO, 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, USDHHS, 2000). Indiana ranks fifth highest in adult smoking prevalence among the 50 states; and tobacco kills approximately 10,000 Hoosiers annually (Indiana State Department of Health, ISDH, n.d.). On average, smoking reduces adult life expectancy by approximately 14 years (CDC, 2007e).

Furthermore, even second-hand smoke, also called environmental tobacco smoke (ETS), has serious consequences. An estimated 53,000 deaths are attributable to ETS breathed by nonsmokers, making it the third leading cause of preventable death in the United States (ITPC, n.d.).

Smoking causes cancers of the oral cavity, pharynx, larynx, esophagus, lung, bladder, stomach, cervix, kidney, and pancreas, as well as acute myeloid leukemia. For smoking-attributable cancers, the risk generally increases with the number of cigarettes smoked and the number of years of smoking, and generally decreases after quitting completely. The leading cause of cancer deaths is lung cancer, and cigarette smoking causes most cases. Additionally, ETS is responsible for an estimated 3,000 lung cancer deaths each year among adult nonsmokers (USDHHS, 2000). In 2004, a total of 3,827 Hoosiers died from lung cancer (ICD-10 codes C33 and C34); this represents an age-adjusted mortality rate of 60.8 per 100,000 population per year (U.S.: 53.2) (CDC, 2007a). However, any tobacco use can be detrimental. Smokeless tobacco has been shown to cause oral cancers (National Cancer Institute, 1992).

Coronary heart disease is currently the leading cause of death in the United States, and smoking can cause coronary heart disease. Research has shown that ETS increases the risk of heart disease (USDHHS, 2000) and suggests that smokeless tobacco may be a risk factor for cardiovascular disease as well (NCI, 1992). The age-adjusted mortality rate attributable to coronary heart disease (ICD-10 codes I20-I25, I30-I51) in 2004 was 219.9 per 100,000 population in Indiana (U.S.: 201.0); in other words, 13,680 Hoosiers died from the disease (CDC, 2007a). Cigarettes are also a major risk factor for cerebrovascular disease (stroke), which is the third leading cause of death in the United States. Smoking also contributes to abdominal aortic aneurysms (CDC, 2007e).

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. Moreover, smoking causes chronic lower

[4]At the time of the report, the most recent data available were 2006 results from the MTF survey (national data) and 2007 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, only data up to 2006 were used. However, the 2007 Indiana data is available, by region, as an appendix at the end of the chapter.

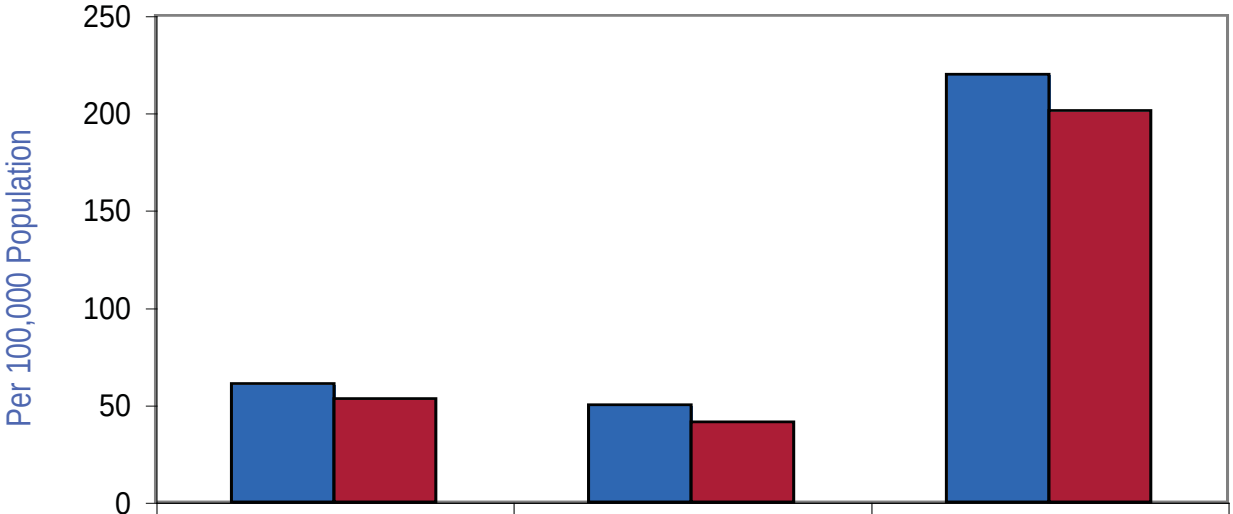
respiratory disease, the fourth leading cause of death in the United States. In 2004, chronic lower respiratory disease (ICD-10 codes J40-J47) caused the death of 3,145 Hoosiers; this translates into a mortality rate of 50.0 per 100,000 population (U.S.: 41.1) (CDC, 2007a) (see Figure 4.17).

The average annual age-adjusted smoking-attributable mortality rate in Indiana is 322.2 per 100,000 population (US: 284.8) (CDC, n.d.). For a list of average annual mortality smoking-attributable mortality rates, by disease category, see Appendix 4C, page 71.

Children are heavily impacted by ETS, which increases their risk of developing significant lung conditions, especially asthma and bronchitis (USDHHS, 2000). Each year, ETS is associated with an estimated 8,000 to 26,000 new asthma cases in children (CDC, 2007e). 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 (CDC, 2007e). About 24% of pregnant women in Indiana smoke cigarettes (ISDH, n.d.). Children of mothers who smoke are twice as likely to have behavioral problems, including attention deficit disorder. Children exposed to ETS also have an increased risk of chronic infections, fluid in the middle ear (which can lead to hearing loss and the need for surgically-implanted tubes to drain excess fluid in the middle ear), sore throats, chronic sore throats, stuffy noses, hoarseness, adenoidectomies, and tonsillectomies (ISDH, n.d.). For a list of smoking-attributable health outcomes of diseases for which maternal smoking is a significant risk factor, in Indiana, see Appendix 4D, page 71.

In addition, there are other health concerns associated with tobacco use. Smoking reduces bone density among postmenopausal women and is related to nuclear cataracts of the lens of the eye, the most common type of cataract in the United States (CDC, 2007e). Furthermore, use of smokeless tobacco can result in oral pathologies including leukoplakia, gingival recession, caries, abrasion, and staining (ISDH, n.d.), as well as tooth loss (CDC, 2007e).

Figure 4.17 Age-Adjusted Mortality Rates for Lung Cancer, Chronic Lower Respiratory Disease, and Coronary Disease, per 100,000 Population, 2004 (CDC WONDER)



	Lung Cancer	Chronic Lower Respiratory Disease	Coronary Disease
Indiana	60.8	50.0	219.9
U.S.	53.2	41.1	201.0

Source: Centers for Disease Control and Prevention, 2007a

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. Teens who smoke are three times more likely than nonsmokers to use alcohol, eight times more likely to use marijuana, and 22 times more likely to use cocaine. Smoking is associated with a host of other risky behaviors, such as fighting and engaging in unprotected sex. Furthermore, smoking is associated with poor overall health and a variety of short-term adverse health effects in young people and may also be a marker for underlying mental health problems, such as depression, among adolescents (CDC, 2007e). The vast majority of smoking begins in adolescence. About 89% of all persons who ever try a cigarette do so by age 18. The highest rate of initiation into daily smoking is among children ages 11 to 14 (ISDH, n.d.).

Economic Consequences

In the United States, the annual costs of smoking are more than $167 billion, including $75.5 billion in smoking-related medical expenditures and an estimated $92 billion in productivity losses from deaths due to smoking. Cigarette smoking results in 5.5 million years of potential life lost annually (CDC, 2007e). In Indiana, more than $1.6 billion in medical costs can be attributed to smoking (among adults ages 18 and over): $501,000,000 for ambulatory services, $419,000,000 for hospital charges, $134,000,000 in prescription drugs, $500,000,000 in nursing home expenses, and $73,000,000 for other smoking-attributable expenditures; this includes roughly $15 million spent on smoking-attributable neonatal expenses (CDC, 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: Lifetime

Percentage of Indiana Middle School and High School Respondents Who Ever Used Any Tobacco Products, Cigarettes, Cigars, Smokeless Tobacco or Bidis/Kreteks, by Gender, Race/Ethnicity, and School Grade (Indiana Youth Tobacco Survey, 2000-2006)

	ANY TOBACCO PRODUCT								CIGARETTES								CIGARS	
	2000		2002		2004		2006		2000		2002		2004		2006		2000	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
MIDDLE SCHOOL																		
Gender																		
Male	43.0	7.1	41.8	5.4	35.7	4.0	34.1	4.6	35.5	6.6	31.9	4.7	24.5	3.0	26.2	4.1	21.5	5.1
Female	37.7	6.6	39.7	4.3	35.2	7.0	30.5	3.5	32.6	7.4	33.5	4.1	27.1	6.0	25.5	3.7	13.9	2.8
Race/ Ethnicity																		
White	37.5	6.5	38.3	3.5	32.8	5.0	30.1	3.9	31.0	6.5	30.7	3.5	24.4	4.2	24.5	4.0	15.8	3.5
Black	51.1	9.0	58.4	5.1	46.2	7.0	40.9	5.3	45.0	10.1	48.6	5.1	29.0	9.2	31.2	5.5	25.9	8.7
Hispanic	59.2	11.3	52.5	7.3	50.8	8.0	36.8	8.2	57.1	9.3	41.4	6.9	40.3	9.0	27.1	8.2	29.4	15.2
Other	62.6	12.7	49.0	8.9	36.2	13.0	39.9	7.4	57.7	14.9	43.1	8.5	24.9	5.0	32.6	8.7	31.3	9.3
Grade																		
6	29.0	9.0	34.8	4.0	28.7	5.5	19.7	4.3	21.1	9.3	25.7	4.4	18.2	5.0	13.8	3.7	11.9	5.6
7	41.9	7.9	37.0	4.4	35.1	3.1	32.1	2.9	36.2	7.8	29.7	4.6	27.5	3.5	25.1	3.3	16.1	4.0
8	50.6	7.6	49.1	6.5	43.1	4.0	44.3	5.3	45.2	7.9	40.7	6.4	37.4	4.0	38.0	6.4	25.7	5.3
Total	**40.4**	**6.0**	**40.7**	**3.3**	**35.7**	**4.5**	**32.4**	**3.5**	**34.1**	**6.3**	**32.7**	**3.1**	**25.9**	**4.0**	**25.9**	**3.6**	**18.0**	**3.4**
HIGH SCHOOL																		
Gender																		
Male	73.4	4.8	65.5	4.4	61.0	2.6	59.9	4.9	67.8	4.5	58.0	5.2	49.6	3.1	53.7	6.1	56.0	6.5
Female	65.1	4.3	61.6	2.9	56.0	3.2	52.6	6.9	62.6	4.9	58.7	3.4	49.8	3.2	49.3	7.4	34.3	3.1
Race/ Ethnicity																		
White	70.0	3.9	63.3	3.8	56.3	2.5	55.1	6.3	65.6	4.4	58.2	4.5	48.4	3.0	50.4	7.0	46.1	4.8
Black	64.0	8.2	65.7	4.2	63.3	6.0	61.1	3.9	61.6	8.0	58.7	4.1	53.3	5.0	55.3	3.9	33.8	8.0
Hispanic	77.0	12.8	64.2	6.7	68.8	7.0	67.9	6.0	71.5	14.7	63.6	6.4	56.5	7.0	63.5	6.7	55.9	12.6
Other	67.8	13.0	63.1	11.4	70.5	7.7	58.6	10.0	70.6	11.9	54.7	13.0	53.3	8.0	53.7	10.7	53.9	14.6
Grade																		
9	57.3	7.5	54.3	5.4	51.3	2.9	44.6	5.4	54.9	7.8	48.3	6.7	41.83	3.5	39.2	5.6	31.1	6.9
10	72.7	5.5	63.4	6.6	56.0	3.2	58.1	7.0	67.6	6.1	58.6	7.4	47.0	3.5	53.2	7.8	44.9	4.7
11	71.3	6.1	68.7	5.8	62.0	6.0	61.6	7.3	65.2	7.1	63.9	6.8	52.4	5.5	59.0	7.3	48.6	6.4
12	78.4	5.9	71.6	6.2	67.5	4.0	64.3	7.9	74.6	7.6	66.9	8.0	60.7	4.0	57.7	10.2	60.3	8.2
Total	**69.4**	**4.1**	**63.5**	**3.1**	**58.6**	**2.1**	**56.4**	**5.5**	**65.3**	**4.1**	**58.3**	**3.9**	**49.6**	**2.3**	**51.6**	**6.1**	**45.4**	**4.5**

Source: Indiana Tobacco Prevention and Cessation, 2007

APPENDIX 4A - Part 1: Lifetime *(continued)*

CIGARS *(continued)*						SMOKELESS TOBACCO								BIDS/KRETEKS							
2002		2004		2006		2000		2002		2004		2006		2000		2002		2004		2006	
%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
22.2	4.0	18.0	3.0	19.4	2.8	14.7	4.0	13.8	3.9	10.5	3.2	11.8	3.3	7.8	2.1	6.2	2.0	6.5	2.5	5.5	1.3
15.6	2.5	4.9	4.0	12.2	2.4	5.7	2.2	6.2	1.5	4.9	2.0	4.4	1.6	5.2	4.0	4.2	1.5	4.7	2.0	4.0	0.9
17.3	2.4	14.5	3.0	13.8	1.9	9.6	2.7	9.7	2.0	6.6	2.0	8.6	2.4	5.8	1.9	4.3	1.4	4.7	1.0	4.0	1.0
31.2	4.4	23.7	4.5	23.7	4.6	8.7	7.5	11.1	2.5	14.1	4.0	5.5	1.7	11.7	6.9	12.3	2.9	9.6	3.0	7.0	1.5
26.5	5.6	20.2	5.0	20.3	5.8	19.6	14.6	12.2	4.2	9.0	5.0	5.2	3.5	7.4	4.7	6.5	5.1	6.0	3.0	5.9	2.3
22.4	7.9	16.2	7.0	24.1	6.5	18.1	8.7	9.8	3.9	9.9	7.0	14.2	5.3	11.7	7.6	10.1	4.7	9.0	5.0	11.2	5.5
14.7	2.3	10.3	3.5	8.2	2.4	9.7	4.6	9.6	2.8	8.5	4.0	4.9	1.4	5.9	3.6	5.5	2.4	6.3	3.5	2.7	1.0
16.6	3.5	15.4	3.0	16.5	1.9	9.4	2.4	9.3	2.6	6.7	2.0	7.2	1.8	6.6	2.6	3.7	7.3	4.9	2.0	5.2	1.1
24.0	3.9	22.0	3.2	22.5	3.0	11.9	4.6	10.7	2.8	8.4	2.0	12.5	5.1	7.1	1.5	6.3	2.4	5.7	2.0	6.2	1.5
18.8	**2.3**	**16.1**	**3.0**	**15.9**	**2.1**	**10.4**	**2.5**	**9.9**	**1.8**	**7.9**	**1.5**	**8.2**	**2.1**	**6.5**	**1.7**	**5.2**	**1.5**	**5.6**	**1.0**	**4.8**	**0.9**
46.5	4.4	42.3	3.0	44.5	4.7	31.8	7.0	27.0	2.7	25.3	3.0	26.1	5.0	16.5	3.2	12.8	2.8	12.2	1.7	11.1	2.4
31.5	3.6	28.2	2.0	28.2	5.1	7.6	2.5	8.5	2.6	9.3	2.5	6.0	12.1	10.4	2.5	5.3	1.3	6.6	1.0	6.5	2.2
39.6	3.2	34.6	2.6	37.1	4.7	22.0	4.7	18.6	2.3	18.3	2.0	17.6	3.7	13.4	2.0	8.4	1.6	8.2	1.0	8.8	2.3
34.9	4.0	35.1	6.0	32.4	4.7	3.5	2.9	11.5	2.5	10.8	2.5	6.8	2.9	11.6	7.1	14.2	2.4	10.6	2.5	7.6	2.9
36.7	7.6	43.1	7.0	35.9	8.1	11.3	6.8	6.5	3.7	17.5	6.1	11.1	3.4	16.5	9.3	5.8	3.5	16.7	5.6	9.8	4.3
25.9	8.8	43.6	7.0	32.1	10.4	16.3	13.0	16.5	8.7	24.3	6.2	15.6	5.0	21.3	11.2	17.5	8.4	26.0	8.0	14.7	7.3
31.2	4.7	28.1	3.2	24.8	3.9	14.1	8.7	14.9	2.5	13.2	2.0	12.5	3.2	7.3	4.0	8.9	3.2	8.4	2.0	7.0	1.4
40.0	5.8	31.9	4.0	38.2	6.8	20.9	4.0	17.7	4.2	18.1	3.0	16.6	5.0	14.2	4.1	7.4	2.7	8.7	2.2	7.6	2.7
41.3	6.0	38.2	6.4	38.8	5.8	20.1	6.1	17.9	6.9	18.8	5.2	17.4	7.0	13.9	4.2	9.0	3.6	9.1	3.5	9.4	4
46.0	4.6	45.4	5.3	47.6	5.4	26.0	9.4	20.9	4.8	19.8	4.4	19.2	3.9	20.6	4.0	11.4	3.2	12.3	5.0	12.4	4.6
38.8	**2.8**	**35.4**	**2.2**	**36.5**	**4.2**	**20.0**	**4.8**	**17.5**	**2.1**	**17.4**	**2.0**	**16.2**	**3.4**	**13.6**	**2.1**	**9.0**	**1.5**	**9.6**	**1.2**	**8.9**	**1.9**

APPENDIX 4A - Part 2: Current

Percentage of Indiana Middle School and High School Respondents Who Currently Use Any Tobacco Products, Cigarettes, Cigars, Smokeless Tobacco or Bidis/Kreteks, by Gender, Race/Ethnicity, and School Grade (Indiana Youth Tobacco Survey, 2000-2006)

	ANY TOBACCO PRODUCT								CIGARETTES								CIGARS	
	2000		2002		2004		2006		2000		2002		2004		2006		2000	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
MIDDLE SCHOOL																		
Gender																		
Male	16.3	3.8	13.6	3.1	10.8	2.0	13.2	2.9	9.3	2.6	6.9	2.0	5.7	2.0	7.1	1.8	6.7	2.3
Female	14.2	4.2	12.6	2.5	14.0	3.0	12.7	2.5	10.4	3.7	10.3	2.2	10.1	2.3	8.3	2.3	3.5	1.6
Race/ Ethnicity																		
White	13.9	3.6	12.0	2.0	12.1	3.0	11.9	2.8	9.0	3.1	8.3	1.6	8.2	3.0	7.6	2.1	4.5	1.5
Black	19.6	8.1	19.9	4.9	14.4	4.1	17.4	4.5	12.3	6.3	10.0	2.6	6.3	3.0	6.4	2.8	6.4	3.2
Hispanic	30.5	13.3	20.6	6.8	13.0	6.0	12.5	4.0	24.6	12.9	11.0	4.8	7.6	7.0	8.1	3.2	12.0	10.8
Other	22.4	7.7	19.2	6.1	9.9	6.0	18.9	7.8	12.4	5.8	10.7	4.8	5.2	4.5	13.0	6.4	8.5	5.7
Grade																		
6	10.4	5.2	9.4	3.8	8.6	3.0	6.2	1.9	5.9	3.8	5.1	2.2	4.9	2.0	2.9	1.4	3.9	2.7
7	11.7	3.8	11.9	2.5	11.0	2.2	10.9	2.0	7.2	3.1	8.0	1.9	8.2	2.0	5.4	1.5	4.5	1.8
8	24.1	5.1	17.0	4.4	16.8	3.0	21.3	5.0	17.1	5.2	11.7	3.5	10.2	2.5	14.6	3.6	7.4	2.6
Total	15.3	3.3	13.1	2.1	12.4	2.2	13.0	2.4	9.9	2.7	8.6	1.5	7.8	2.0	7.7	1.9	5.2	1.4
HIGH SCHOOL																		
Gender																		
Male	41.1	5.4	31.8	4.2	33.0	3.2	35.0	4.7	32.8	4.9	24.0	3.2	22.9	2.6	23.6	3.7	22.3	3.6
Female	32.3	3.7	25.6	3.6	23.2	2.4	26.0	4.8	30.1	4.1	22.8	3.8	19.5	2.2	22.7	4.4	8.2	2.5
Race/ Ethnicity																		
White	38	4.1	29.5	3.7	28.3	3.0	31.9	4.9	32.9	3.5	24.5	3.4	22.0	2.5	24.7	4.2	15.6	2.3
Black	23	5.7	23.6	3.7	23.3	5.0	22.8	5.9	15.2	4.9	14.6	3.1	12.7	4.0	11.4	4.0	10.7	5.4
Hispanic	40.2	12.6	23.1	8.3	34.0	10.0	29.1	6.0	32.7	14.4	17.5	8.3	23.3	9.0	19.1	5.4	19.5	10.4
Other	49.3	14.5	22.7	10.3	39.7	10.0	35.5	9.2	47.2	16.2	20.6	10.6	34.3	11.3	24.3	8.3	21.9	16.6
Grade																		
9	28.4	6.9	25.5	5.2	24.4	3.0	23.8	3.7	23.8	6.6	20.7	4.2	18.5	3.0	16.4	2.6	11.1	4.6
10	38.1	4.9	26.7	6.1	24.7	3.4	30.2	5.8	31.4	4.5	22.1	6.4	19.1	3.0	22.5	4.4	14.7	4.2
11	35.4	7.9	30.8	8.0	31.0	4.0	35.0	5.3	30.5	6.0	24.1	7.0	22.9	5.0	27.5	4.8	15.4	5.0
12	46.6	9.7	33.8	5.5	34.2	6.0	37.2	7.0	41.8	10.1	28.8	5.8	25.6	6.0	28.1	7.5	21.6	6.0
Total	**36.9**	**3.7**	**28.6**	**3.3**	**28.3**	**2.4**	**31.0**	**4.2**	**31.6**	**3.3**	**23.4**	**3.0**	**21.3**	**2.0**	**23.2**	**3.6**	**15.4**	**2.2**

Source: Indiana Tobacco Prevention and Cessation, 2007

APPENDIX 4A - Part 2: Current *(continued)*

CIGARS *(continued)*						SMOKELESS TOBACCO								BIDS/KRETEKS							
2002		2004		2006		2000		2002		2004		2006		2000		2002		2004		2006	
%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
6.9	2.1	4.9	1.5	6.3	1.6	6.3	2.5	3.6	1.3	3.1	1.5	5.2	2.2	5.5	1.1	4.9	1.4	2.9	1.0	3.7	0.9
3.7	1.0	3.9	1.5	5.0	1.5	1.8	1.2	1.6	0.6	1.1	1.0	2.0	0.9	3.1	1.4	2.4	1.3	2.9	2.0	2.4	0.6
4.4	1.1	3.8	1.1	4.2	1.1	3.7	1.5	2.6	0.8	2.3	1.0	3.5	1.6	3.5	1.1	3.0	0.9	2.3	1.0	2.4	0.5
10.4	2.5	6.6	2.3	10.9	3.7	3.8	4.4	2.5	1.3	3.0	2.0	3.1	1.8	7.9	4.6	6.8	2.5	4.9	3.0	4.9	1.6
10.4	5.0	7.0	5.0	8.8	3.4	8.1	8.1	2.7	3.7	0.4	2.0	2.0	1.6	5.6	4.5	8.0	6.6	1.1	1.0	3.4	2.3
11.4	5.4	4.4	2.3	11.2	6.0	8.8	5.8	4.4	2.8	0.8	3.1	9.5	5.4	10.7	6.1	6.9	4.5	5.1	2.0	8.8	6.0
4.1	2.1	2.7	2.0	2.7	1.3	4.2	3.2	2.0	1.0	1.9	2.0	1.5	0.8	4.7	2.7	3.4	1.8	2.6	2.0	2.4	1.0
5.9	2.3	3.4	1.0	5.8	1.7	2.8	1.9	2.2	1.1	1.6	1.0	3.2	1.3	2.8	1.7	3.2	1.2	2.3	1.0	3.5	0.9
5.3	1.8	6.7	2.0	8.6	2.1	5.4	3.2	3.3	1.6	2.6	1.0	6.1	3.2	5.4	1.6	4.3	1.7	3.4	1.1	3.2	0.9
5.3	1.2	4.4	1.0	5.7	1.2	4.1	1.4	2.6	0.7	2.2	1.0	3.6	1.3	4.4	1.0	3.6	1.0	2.9	1.0	3.1	0.5
17.2	3.0	18.3	3.0	22.1	3.9	12.2	3.7	7.9	2.3	11.8	2.2	14.1	3.8	5.3	1.7	3.7	1.1	6.1	1.1	4.0	1.1
7.8	2.0	8.8	1.6	10.9	3.7	1.4	0.7	1.7	0.9	2.5	0.7	1.6		2.6	1.3	2.6	1.9	2.4	0.5	2.5	0.7
12.7	2.1	13.3	2.6	16.8	3.3	7.7	2.4	5.1	1.4	7.7	2.0	8.7	2.5	3.7	1.2	2.9	1.1	3.3	1.0	2.7	0.8
11.8	2.7	12.6	4.3	14.8	5.0	1.2	1.6	2.2	1.5	2.4	2.0	3.0	1.9	4.5	3.4	6.0	2.3	5.2	2.5	3.6	1.8
11.2	4.9	19.1	9.0	14.4	3.8	0.0	0.0	0.0	1.5	7.0	6.0	5.3	3.2	6.5	7.6	0.0	0.0	11.8	6.0	5.9	2.1
4.5	4.9	18.9	8.0	19.6	9.5	11.1	8.4	5.9	1.5	18.7	8.0	8.3	5.3	11.8	10.8	5.8	6.7	14.5	6.0	12.8	4.1
10.7	2.6	9.5	3.0	10.3	2.7	5.4	3.4	4.3	1.5	6.2	1.0	6.9	2.3	4.3	3.0	4.6	2.7	5.2	2.0	3.2	1.3
12.6	2.9	12.4	3.0	15.4	3.7	6.7	2.3	4.1	2.0	7.3	2.0	7.0	3.4	4.8	2.8	2.0	1.1	3.6	2.0	3.2	1.2
12.0	3.6	15.4	3.5	19.2	4.6	6.8	4.4	5.2	3.6	7.8	2.5	7.3	3.7	3.6	2.0	2.8	2.1	3.6	2.0	3.1	1.2
15.3	6.5	18.9	5.0	23.5	4.2	9.0	6.6	5.9	2.6	8.0	2.0	10.9	3.9	3.9	1.8	3.0	1.8	4.9	2.5	3.4	1.2
12.4	**1.8**	**13.7**	**2.0**	**16.6**	**3.1**	**6.9**	**2.2**	**4.7**	**1.2**	**7.3**	**1.3**	**7.9**	**2.2**	**4.1**	**1.3**	**3.1**	**1.1**	**4.4**	**0.6**	**3.2**	**0.6**

APPENDIX 4B

Percentage of Indiana Students Reporting Lifetime, Annual, Monthly, and Daily Cigarette Use, by Region and Grade, 2007 (Alcohol, Tobacco and Other Drug Use by Indiana Children and Adolescents, 2007)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	11.1	10.0	12.9	8.7	13.3	8.9	17.9	8.5	14.5
	Annual	5.3	4.6	6.1	3.9	6.7	4.2	8.5	3.9	7.5
	Monthly	2.8	2.2	3.4	2.4	3.3	2.4	3.7	1.9	3.7
	Daily	1.0	0.7	1.4	0.8	0.9	0.9	1.3	0.8	1.5
7th Grade	Lifetime	17.9	15.9	18.3	16.5	21.8	14.1	26.3	14.6	23.9
	Annual	10.8	9.6	11.2	9.2	12.9	8.3	16.7	8.7	15.1
	Monthly	6.2	5.6	6.8	4.7	7.4	4.4	9.8	4.6	9.9
	Daily	2.7	2.5	2.9	2.2	2.6	2.0	3.6	1.9	4.8
8th Grade	Lifetime	28.1	27.7	30.3	23.4	29.7	25.0	36.5	24.6	33.0
	Annual	18.0	18.3	18.1	15.0	19.1	15.9	22.5	15.2	22.4
	Monthly	10.8	11.1	10.3	8.7	11.3	9.5	14.5	9.2	14.1
	Daily	5.5	5.5	4.6	4.3	5.7	5.1	8.0	4.5	7.4
9th Grade	Lifetime	33.5	30.9	33.2	28.8	37.3	36.1	42.2	31.3	37.6
	Annual	22.6	19.0	22.1	18.7	24.8	21.4	29.1	22.5	26.1
	Monthly	14.7	12.1	14.6	11.7	17.7	12.9	19.6	14.8	18.3
	Daily	8.1	6.1	8.5	6.4	9.8	7.2	11.6	6.3	10.0
10th Grade	Lifetime	40.6	39.9	39.5	34.3	44.7	38.8	46.4	38.8	43.9
	Annual	28.5	27.7	27.1	23.7	31.7	26.4	32.6	28.2	31.8
	Monthly	19.3	18.0	18.3	15.7	21.4	17.6	22.6	19.5	21.9
	Daily	11.4	10.1	10.1	9.0	12.3	10.8	14.7	10.7	13.7
11th Grade	Lifetime	44.6	43.4	45.1	40.4	47.8	41.3	48.1	46.7	49.2
	Annual	32.4	29.6	32.9	30.3	34.7	29.7	34.2	36.9	35.8
	Monthly	22.5	20.3	22.3	21.1	25.2	20.1	25.8	25.6	24.7
	Daily	13.8	11.8	13.1	11.9	16.0	12.7	18.1	14.6	15.1
12th Grade	Lifetime	48.4	46.5	46.6	43.6	51.6	45.2	53.0	48.6	53.3
	Annual	35.2	35.3	30.8	32.9	37.8	33.3	38.4	35.2	39.1
	Monthly	24.3	22.4	21.1	22.0	26.9	23.1	25.4	24.5	27.6
	Daily	14.7	14.1	12.7	11.6	17.7	14.3	16.3	14.1	16.5

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

Source: Indiana Prevention Resource Center, 2007

APPENDIX 4C

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

Disease Category	Male	Female	Total
Malignant Neoplasms			
Lip, Oral Cavity, Pharynx	5	1.4	3
Esophagus	11.7	2	6.2
Stomach	2.7	0.6	1.5
Pancreas	5.7	4.3	4.9
Larynx	3.7	0.7	1.9
Trachea, Lung, Bronchus	159.7	64.4	103.5
Cervix Uteri	0	0.6	0.3
Kidney and Renal Pelvis	5.9	0.3	2.7
Urinary Bladder	7.6	1.3	3.6
Acute Myeloid Leukemia	1.4	0.3	0.8
Sub-total	**203.4**	**75.9**	**128.4**
Cardiovascular Diseases			
Ischemic Heart Disease	102.4	39.6	66.3
Other Heart Disease	31.9	11.8	19.5
Cerebrovascular Disease	17.6	12.5	14.4
Atherosclerosis	3.5	1.1	1.9
Aortic Aneurysm	13.3	4.2	7.8
Other Circulatory Diseases	1.3	1.1	1.1
Sub-total	**170**	**70.3**	**111**
Respiratory Diseases			
Pneumonia, Influenza	12	5.2	7.5
Bronchitis, Emphysema	18.9	10.1	13.4
Chronic Airway Obstruction	85.8	48.5	61.9
Sub-total	116.7	63.8	82.8
Average Annual Total	**490.1**	**210**	**322.2**

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

APPENDIX 4D

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

Smoking-Attributable Fraction (SAF)		
	Males	**Females**
Short Gestation / Low Birth Weight	14.36%	14.36%
Sudden Infant Death Syndrome	20.67%	20.67%
Respiratory Distress (Syndrome) - newborn	5.71%	5.71%
Other Respiratory Conditions - perinatal	7.65%	7.65%

Smoking-Attributable Mortality (SAM)		
	Males	**Females**
Short Gestation / Low Birth Weight	5	7
Sudden Infant Death Syndrome	7	4
Respiratory Distress (Syndrome) - newborn	1	0
Other Respiratory Conditions - perinatal	1	1

Smoking-Attributable Years of Potential Life Lost (YPLL)		
	Males	**Females**
Short Gestation / Low Birth Weight	372	559
Sudden Infant Death Syndrome	521	319
Respiratory Distress (Syndrome) - newborn	74	0
Other Respiratory Conditions - perinatal	74	80

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

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5. Marijuana Use in Indiana: Consumption Patterns and Consequences

MARIJUANA CONSUMPTION

General Consumption Patterns

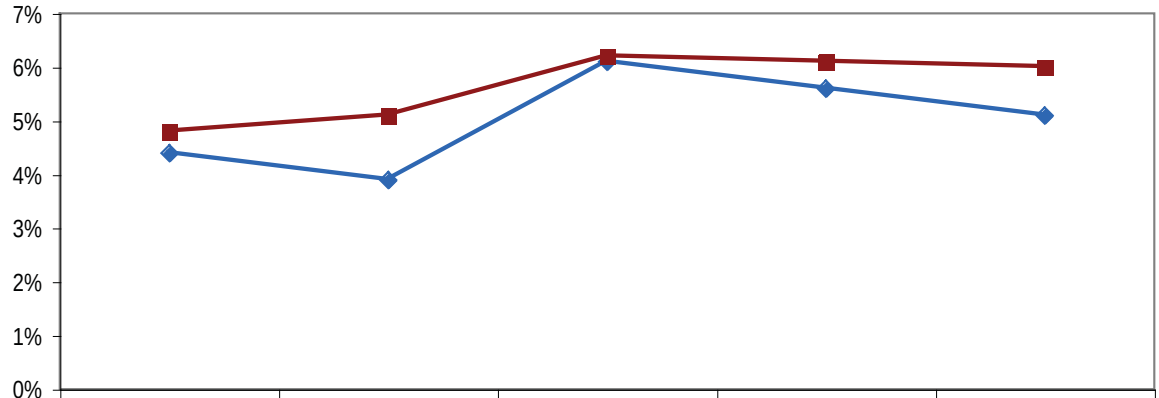
Marijuana is the most commonly used illicit drug, both in the United States and Indiana. According to the 2005 National Survey on Drug Use and Health, or NSDUH (Substance Abuse and Mental Health Services Administration, SAMHSA, 2007), 6.0% (14.6 million) of the nation's population age 12 and older reported current (past 30 days) marijuana use. In Indiana, an estimated 5.1% (or 263,000 Hoosiers) reported current marijuana use, while 3.9% indicated current use of illicit drugs other than marijuana (U.S.: 3.7 %). Approximately one-tenth (9.6%) of Indiana residents reported past year marijuana use.

According to 2002–2004 NSDUH data, approximately 2,015,000 Indiana residents (39.9%) age 12 and older have used marijuana once or more during their lifetime (*lifetime use*); however, lifetime use was not measured in the 2005 survey (SAMHSA, 2007). Trend data from the NSDUH demonstrate that the prevalence of current marijuana users has risen from a rate of 4.8% nationally and 4.4% in Indiana (1999–2000) to 6.0% and 5.1%, respectively (2004–2005) (see Figure 5.1). These use patterns in Indiana, while lower than U.S. levels, do not show a statistically significant difference from those of the nation (SAMHSA, 2007).

Adult Consumption Patterns

Patterns of current marijuana use among Indiana residents age 18 to 25 and 26 or older have been lower than the nation's, with use most widespread among young adults. According to 2004–2005 NSDUH data, 16.4% of 18- to 25-year-olds in the nation reported current marijuana use. Indiana's past month usage rate (14.4%) was below the nation's and showed a continued decrease from 2002–2003 (17.2%) to now. Current use among those 26 years and older is and has been lower for Hoosiers than for Americans overall. Furthermore, the rate decreased from 3.9% in 2002–2003 to 3.2% in 2004–2005 (see Figure 5.2 for Indiana rates; U.S. rates, for 2002-2003: 4.0%; for 2003-2004: 4.1%; for 2004–2005: 4.1%). There is no statistically significant

Figure 5.1 Percentage of Indiana and U.S. Population (Age 12 and Older) Reporting Current (Past Month) Marijuana Use, 1999 through 2005 (National Survey on Drug Use and Health, 1999–2005)



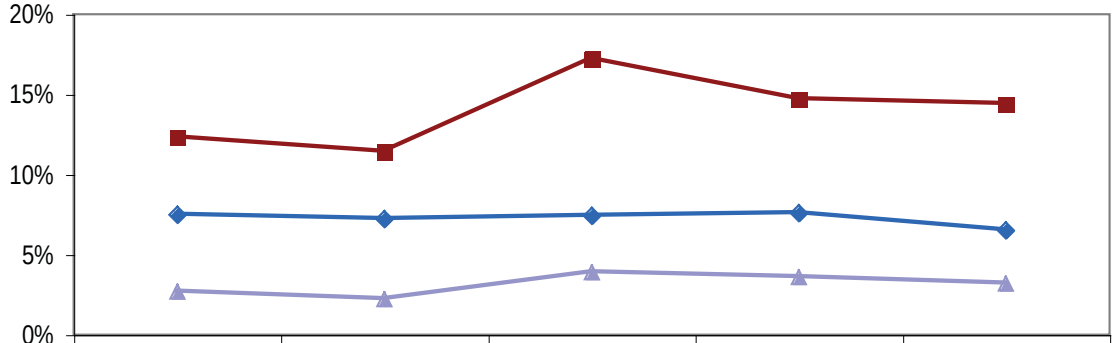
	1999-2000	2000-2001	2002-2003	2003-2004	2004-2005
Indiana	4.4%	3.9%	6.1%	5.6%	5.1%
U.S.	4.8%	5.1%	6.2%	6.1%	6.0%

Source: Substance Abuse and Mental Health Services Administration, 2007

difference between Indiana and U.S. rates. According to average annual rates from the 2005 NSDUH, among 18- to 25-year-old Indiana residents, 5.9% reported their first use during the past year. This rate is statistically similar to the nation's (6.2%) (SAMHSA, 2007).

The SAMHSA Treatment Episode Data System (TEDS) represents information gathered from clients at admission for each episode of substance abuse treatment (Substance Abuse and Mental Health Data Archive, n.d.). TEDS data from 2000 through 2005 show that Indiana residents entering treatment are statistically significantly more likely to report current marijuana use at admission than people in the rest of the nation (for 2000: Pearson chi-square = 3179.45, $p < .001$; for 2001: Pearson chi-square = 4189.92, $p < .001$; for 2002: Pearson chi-square = 4883.75, $p < .001$;

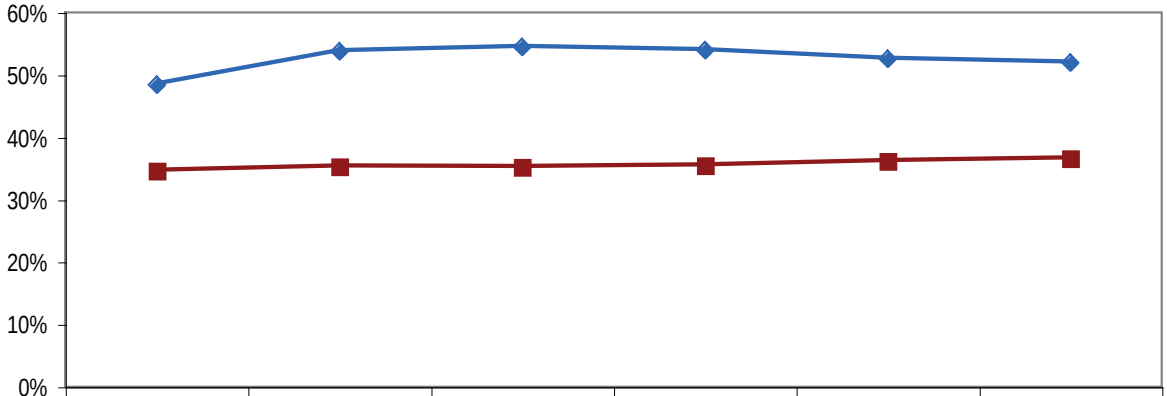
Figure 5.2 Percentage of Indiana Residents Reporting Current (Past Month) Marijuana Use, by Age Group, 1999 through 2005 (National Survey on Drug Use and Health, 1999–2005)



	1999-2000	2000-2001	2002-2003	2003-2004	2004-2005
12 -17	7.5%	7.2%	7.4%	7.6%	6.5%
18-25	12.3%	11.4%	17.2%	14.7%	14.4%
26 and older	2.7%	2.2%	3.9%	3.6%	3.2%

Source: Substance Abuse and Mental Health Services Administration, 2007

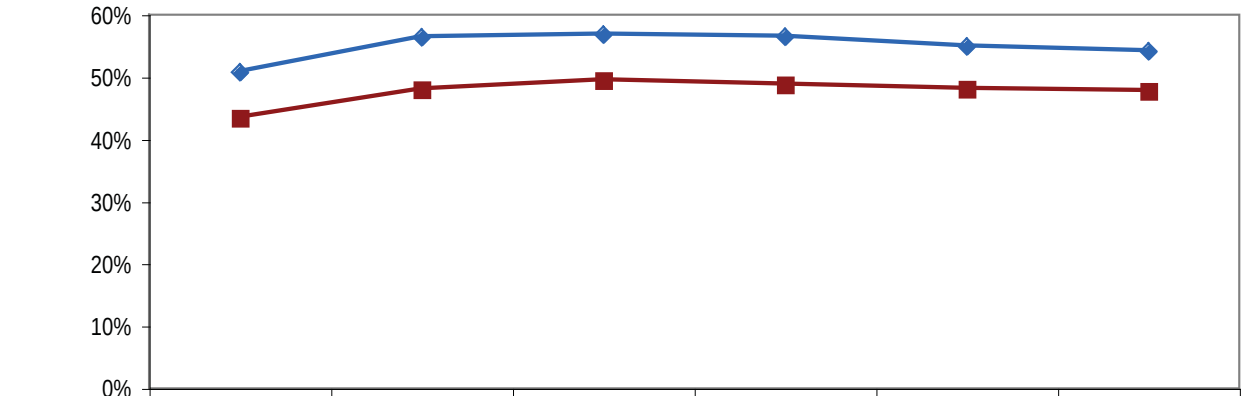
Figure 5.3 Percentage of Indiana and U.S. Treatment Admissions Reporting Marijuana Use at Admission, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

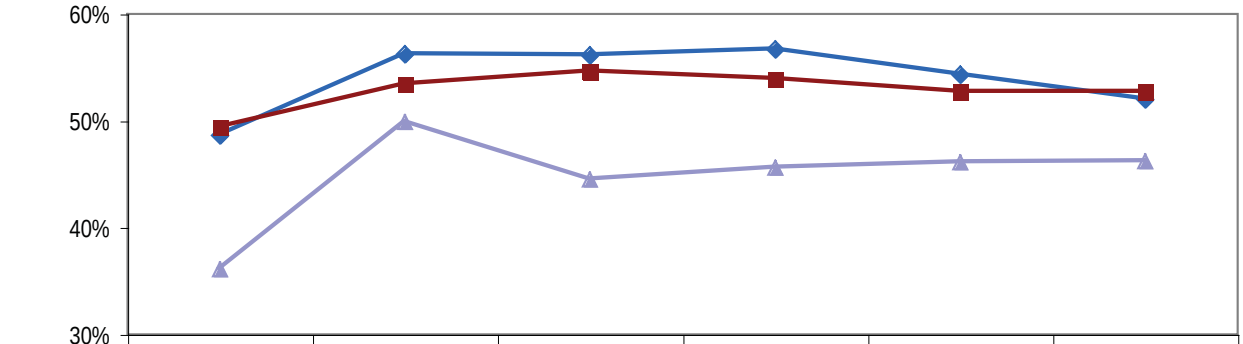
Figure 5.4 Percentage of Indiana Treatment Admissions Reporting Marijuana Use at Admission, by Gender, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

Figure 5.5 Percentage of Indiana Treatment Admissions Reporting Marijuana Use at Admission, by Race, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

for 2003: Pearson chi-square = 4664.50, $p < .001$; for 2004: Pearson chi-square = 4316.84, $p < .001$; for 2005: Pearson chi-square = 3871.87, $p < .001$). Between 2000 and 2005, roughly one-half or more of Indiana individuals entering treatment programs reported marijuana use at admission, compared with approximately one-third of the U.S. patients in this category (see Figure 5.3).

A statistically significant gender effect is 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 (for 2000: Pearson chi-square = 183.56, $p < .001$; for 2001: Pearson chi-square = 174.51, $p < .001$; for 2002: Pearson chi-square = 140.50, $p < .001$; for 2003: Pearson chi-square = 164.29, $p < .001$; for 2004: Pearson chi-square = 155.74, $p < .001$; for 2005: Pearson chi-square = 140.27, $p < .001$) (see Figure 5.4).

As shown in Figure 5.5, race also appears to be related to marijuana use. Minority individuals entering treatment were slightly less likely than Whites to report marijuana use (for 2000: Pearson chi-square = 156.69, $p < .001$; for 2001: Pearson chi-square = 19.41, $p < .001$; for 2002: Pearson chi-square = 52.00, $p < .001$; for 2003: Pearson chi-square = 54.29, $p < .001$; for 2004: Pearson chi-square = 37.68, $p < .001$; for 2005: Pearson chi-square = 15.88, $p < .001$). Both Black and White males are statistically significantly more likely than their female counterparts to report marijuana use at admission.

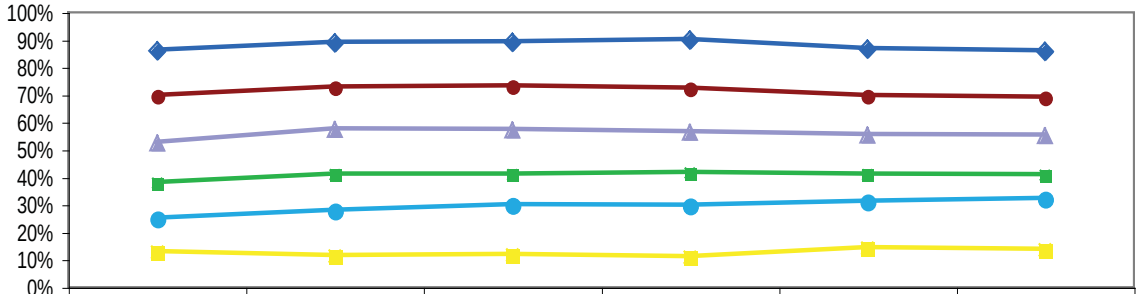
Marijuana use also is associated with age. As shown in Figure 5.6, self-reported marijuana use by individuals entering substance abuse treatment steadily declines with age. Over 85% of admissions for people under age 18 in 2000 through 2005 reported marijuana use. Individuals under 18 were statistically significantly more likely to report marijuana use at admission; (for 2000: Pearson chi-square = 4532.57, $p < .001$; for 2001: Pearson chi-square = 3769.02, $p < .001$; for 2002: Pearson chi-square = 3936.56, $p < .001$; for 2003: Pearson chi-square = 3859.74, $p < .001$; for 2004: Pearson chi-square = 4001.47, $p < .001$; for 2005: Pearson chi-square = 3708.98, $p < .001$). For county-level information on marijuana use, see Appendix 5A, page 86.

Youth Consumption Patterns

According to average annual rates from the 2005 NSDUH, among youths age 12 to 17 in Indiana, an estimated 6.1% had used marijuana for the first time during the past year. These rates are similar to national rates of 5.8% among 12- to 17-year-olds. Patterns of current marijuana use among Indiana residents age 12 to 17 tend to mirror national rates and remained constant between 1999–2000 and 2004–2005 (see Figure 5.2).

According to the 2005 Youth Risk Behavior Surveillance System (YRBSS), among students in 9th through 12th grades, 18.9% in Indiana reported current (past 30 days) marijuana use compared with a national rate of 20.2% (Centers for Disease Control and Prevention, 2005). Rates of use have declined slightly from 2003 levels when 22.1% of Indiana students and 22.4% of U.S. students indicated current use. As Figure 5.7 shows, in 2005, reported current use of marijuana increases with grade level. However, use among students in 9th through 12th grades declined between 2003 and 2005, both at the state and national levels. Indiana's rates of marijuana use in all grades are slightly lower than the nation's, though these differences are not statistically significant. Male students, both nationally and in Indiana, are more likely to report current marijuana

Figure 5.6 Percentage of Indiana Treatment Admissions Reporting Marijuana Use at Admission, by Age, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

use than their female counterparts. Indiana use rates are statistically similar to U.S. rates among both male and female students. Overall, reported rates of current marijuana use among Indiana students fell from 2003 to 2005 for both male and female students, from 25.3% to 21.0% and from 18.9% to 16.7%, respectively. Similar declines were evident at the national level. In Indiana, reported current marijuana use among Black students fell from 28.4% in 2003 to 19.9% in 2005. A similar trend can be observed at the national level, though differences between Indiana and U.S. rates are not statistically significant. Current marijuana use fell among all race categories between 2003 and 2005, both at the national and state levels (see Table 5.1).

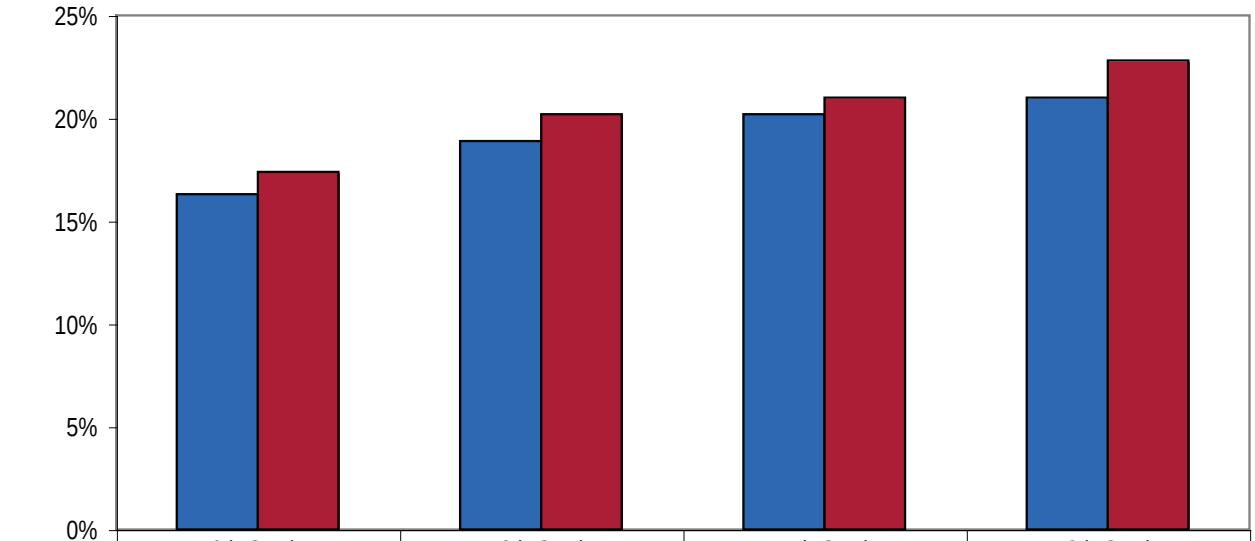
The younger a person is when he or she first uses marijuana, the more likely that individual is to use harder drugs and to become dependent as an adult. Early initiation has been associated with problematic levels of marijuana and other substance use in adolescence and adulthood (SAMHSA, 2002). In 2005, according to the YRBSS, 8.6% of Indiana students reported that they had tried marijuana before the age of 13, a slight decline from 8.8% of students that indicated such activity in 2003. Again, Indiana rates mirror the U.S. pattern (see Table 5.2). In 2005, a higher percentage of 9th graders

Table 5.1 Percentage of Indiana and U.S. High School Students (9th–12th Grades) Reporting Current (Past Month) Marijuana Use, by Grade, Gender, and Race, 2003 and 2005 (Youth Risk Behavior Surveillance System, 2003 and 2005)

Grade	Year	Indiana	U.S.
9th	2003	18.9%	18.5%
	2005	16.3%	17.4%
10th	2003	22.1%	22.0%
	2005	18.9%	20.2 %
11th	2003	23.9%	24.1%
	2005	20.2%	21.0%
12th	2003	24.6%	25.8%
	2005	21.0%	22.8%
Gender	**Year**	**Indiana**	**U.S.**
Male Students	2003	25.3%	25.1%
	2005	21.0%	22.1%
Female Students	2003	18.9%	19.3%
	2005	16.7%	18.2%
Race	**Year**	**Indiana**	**U.S.**
Black Students	2003	28.4%	23.9%
	2005	19.9%	20.4%
White Students	2003	21.1%	21.7%
	2005	18.8%	20.3%
Hispanic Students	2003	N/A	23.8%
	2005	N/A	23.0%
Other	2003	N/A	21.2%
	2005	14.9%	13.9%

Source: Centers for Disease Control and Prevention, 2007

Figure 5.7 Percentage of Indiana and U.S. High School Students (9th–12th Grades) Reporting Current Marijuana Use, by Grade, 2005 (Youth Risk Behavior Surveillance System, 2005)



	9th Grade	10th Grade	11th Grade	12th Grade
Indiana	16.3%	18.9%	20.2%	21.0%
U.S.	17.4%	20.2%	21.0%	22.8%

Source: Centers for Disease Control and Prevention, 2007

Table 5.2 Percentage of Indiana and U.S. High School Students (9th–12th Grades) Who Report Having Tried Marijuana before Age 13, by Grade, Gender, and Race, 2003 and 2005 (Youth Risk Behavior Surveillance System, 2003 and 2005)

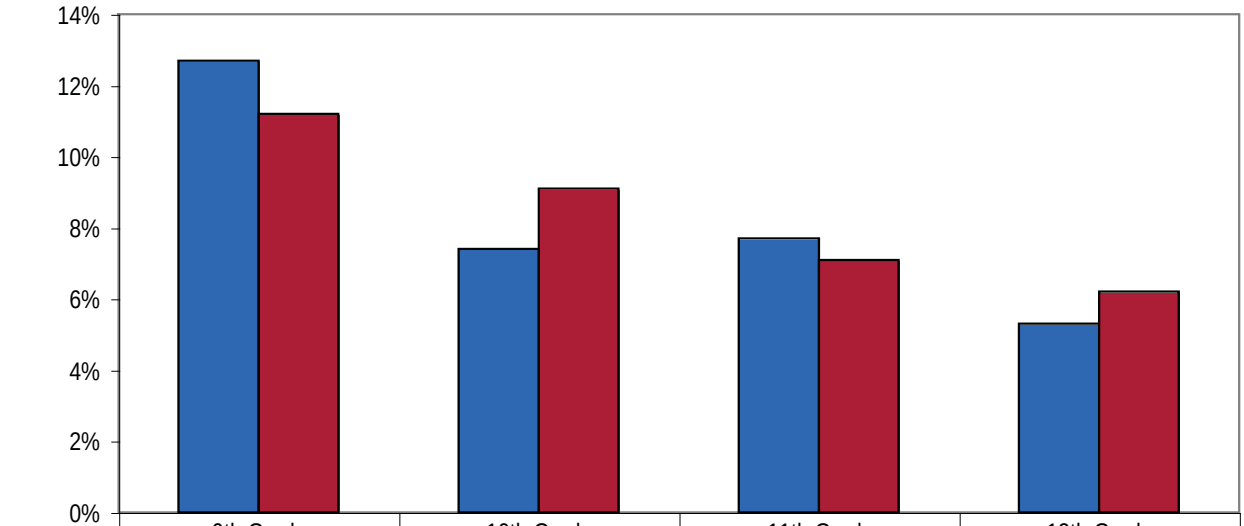
Grade	Year	Indiana	U.S.
9th	2003	9.8%	11.7%
	2005	12.7%	11.2%
10th	2003	7.9%	10.8%
	2005	7.4%	9.1%
11th	2003	11.5%	8.1%
	2005	7.7%	7.1%
12th	2003	5.8%	7.8%
	2005	5.3%	6.2%
Gender	**Year**	**Indiana**	**U.S.**
Male Students	2003	11.6%	12.6%
	2005	10.6%	11.0%
Female Students	2003	5.9%	6.9%
	2005	6.5%	6.3%
Race	**Year**	**Indiana**	**U.S.**
Black Students	2003	14.4%	12.1%
	2005	7.2%	9.1%
White Students	2003	7.5%	8.7%
	2005	8.7%	7.7%
Other	2003	N/A	13.0%
	2005	7.4	8.2

Source: Centers for Disease Control and Prevention, 2007

reported trying marijuana for the first time compared with students in 10th, 11th, and 12th grades, both in Indiana (12.7%) and the United States (11.2%). Male students, both nationally and in Indiana, are more likely to try marijuana before age 13. Approximately one-tenth of the male students in Indiana and 11.0% in the nation reported early use, compared with 6.5% of the female students in Indiana and 6.3% of the female students in the United States (see Figure 5.8).

Results from the Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD)[2] surveys (Indiana Prevention Resource Center, 2007) and the National Institute on Drug Abuse's (NIDA) Monitoring The Future (MTF)[2] surveys (University of Michigan, n.d.), 2002 through 2006, reveal that Indiana students in 8th and 10th grades reported higher current marijuana use than the rest of the nation (see Figure 5.9). From 2002 through 2006, reported lifetime use among students in grades 8, 10, and 12 has declined, both nationally and in Indiana (see Table 5.3). However, it could not be determined if the differences between the years, grades, or geography (for both Indiana and the United States) were statistically significant. For lifetime, annual, monthly,

Figure 5.8 Percentage of Indiana and U.S. High School Students (9th–12th Grades) Who Report Having Tried Marijuana for the First Time before Age 13, by Grade, 2005 (Youth Risk Behavior Surveillance System, 2005)



	9th Grade	10th Grade	11th Grade	12th Grade
Indiana	12.7%	7.4%	7.7%	5.3%
U.S.	11.2%	9.1%	7.1%	6.2%

Source: Centers for Disease Control and Prevention, 2007

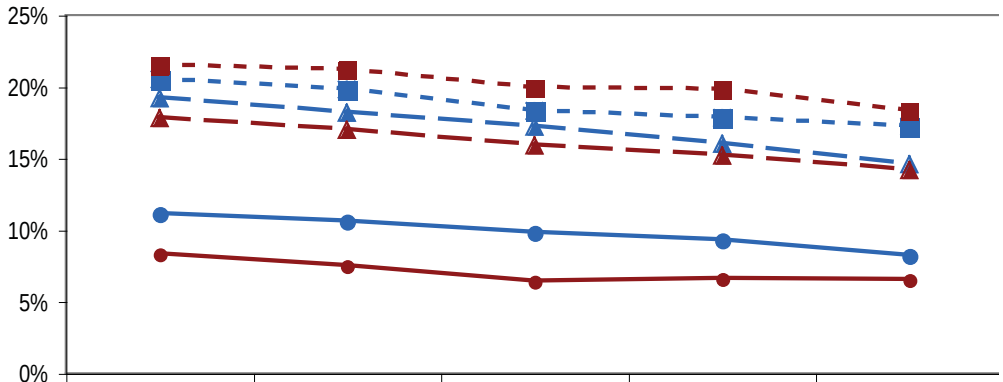
[1]The results of the ATOD survey should be interpreted with caution as this survey is based on a non-random sample of Indiana students.
[2]At the time of the report, the most recent data available were 2006 results from the MTF survey (national data) and 2007 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, data from 2000 through 2006 were used.

Table 5.3 Percentages of Indiana and U.S. 8th, 10th, and 12th Grade Students Reporting Using Marijuana Once or More in Their Life, by Grade, 2002 through 2006 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey and Monitoring the Future Survey, 2002–2006)

Grade	Geography	2002	2003	2004	2005	2006
8th	Indiana	20.00%	19.10%	18.60%	17.60%	15.60%
	U.S.	19.20%	17.50%	16.30%	16.50%	15.70%
10th	Indiana	36.90%	34.80%	33.50%	31.60%	30.10%
	U.S.	38.70%	36.40%	35.10%	34.10%	31.80%
12th	Indiana	44.80%	42.30%	40.50%	40.10%	37.10%
	U.S.	47.80%	46.10%	45.70%	44.80%	42.30%

Source: Indiana Prevention Resource Center, 2007; University of Michigan, n.d.

Figure 5.9 Percentage of Indiana and U.S. 8th, 10th, and 12th Grade Students Reporting Current Marijuana Use, 2002 through 2006 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents; Monitoring The Future, 2002—2006)



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

Source: Indiana Prevention Resource Center, 2007; University of Michigan, n.d.

and daily marijuana use, by Indiana region and grade, for 2007, see Appendix 5B, page 87.

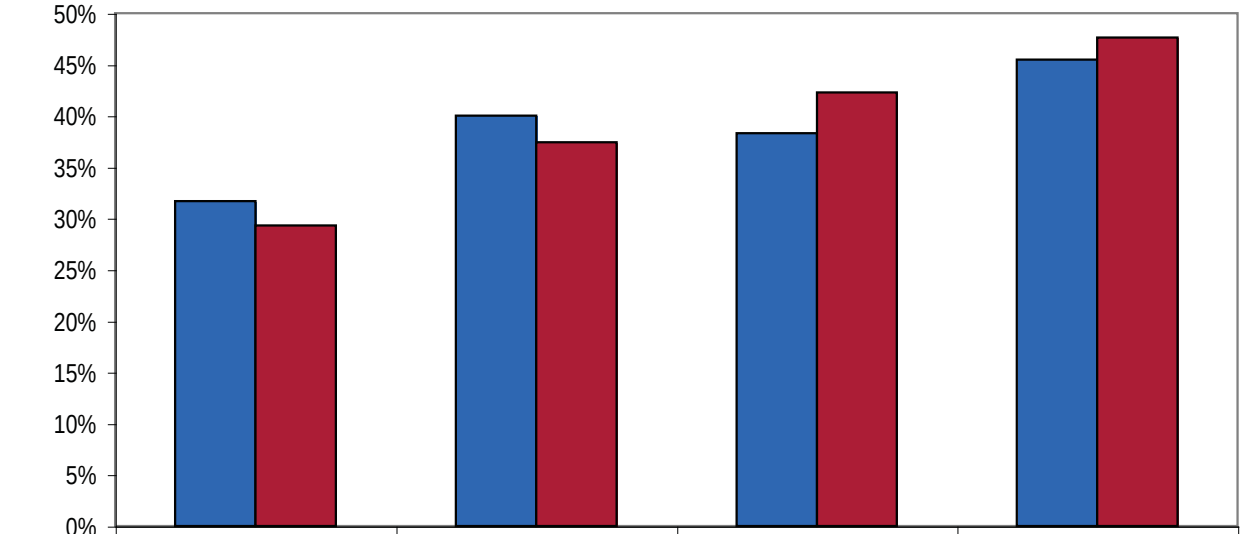
According to the YRBSS, reported lifetime marijuana use among 9th–12th graders seems to have declined from 43.4% in 2003 to 38.2% in 2005; however, the percentage decrease is statistically not significant. Indiana rates of lifetime marijuana use mirror U.S. patterns and are statistically the same. Reported lifetime use seems to increase with grade level, both in Indiana and the United States. However, only on the national level is the increase significant (see Figure 5.10).

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, weakened immune systems, and increased risk of heart attack and cancer. Marijuana use also is associated with

Figure 5.10 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, 2005 (Youth Risk Behavior Surveillance System, 2005)



	9th Grade	10th Grade	11th Grade	12th Grade
Indiana	31.7%	40.0%	38.3%	45.5%
U.S.	29.3%	37.4%	42.3%	47.6%

Source: Centers for Disease Control and Prevention, 2007

risky sexual behavior, and is considered a gateway to teen sex, and 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 (NIDA, 2007).

Marijuana Dependence

Data from the TEDS demonstrate that the percent of admissions to substance abuse treatment programs for which marijuana is indicated as the primary drug[3] has been statistically significantly higher in Indiana than the rest of the nation; (for 2000: Pearson chi-square = 1207.06, $p < .001$; for 2001: Pearson chi-square = 2058.69, $p < .001$; for 2002: Pearson chi-square = 2208.17, $p < .001$; for 2003: Pearson chi-square = 2098.50, $p < .001$; for 2004: Pearson chi-square =

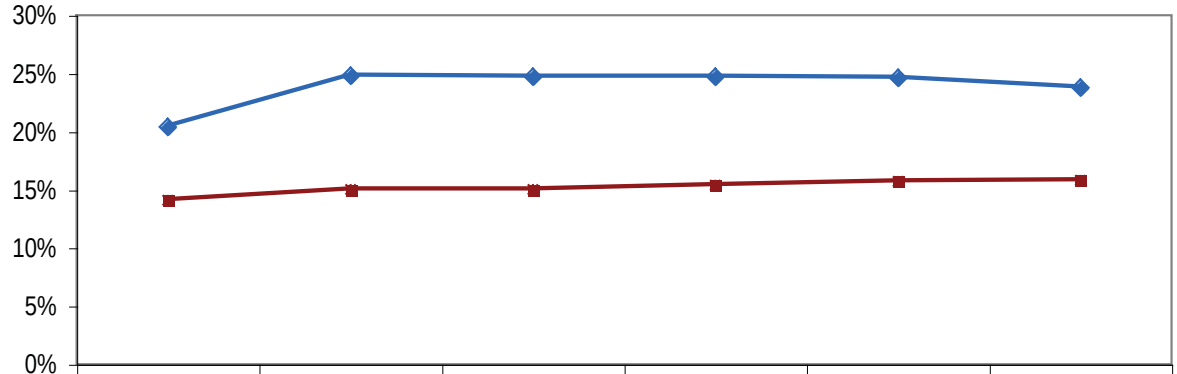
[3]We defined dependence as "individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission

Table 5.4 Percentage of Students Who Have Used Marijuana Once or More during Their Life, by Grade, Gender, and Race, 2003 and 2005 (Youth Risk Behavior Surveillance System, 2003 and 2005)

Grade	Year	Indiana	U.S.
9th	2003	32.4%	30.7%
	2005	31.7%	29.3%
10th	2003	41.4%	40.4%
	2005	40.0%	37.4 %
11th	2003	48.1%	44.5%
	2005	38.3%	42.3%
12th	2003	52.4%	48.5%
	2005	45.5%	47.6%
Gender	**Year**	**Indiana**	**U.S.**
Male Students	2003	48.8%	42.7%
	2005	41.3%	40.9%
Female Students	2003	37.7%	37.6%
	2005	35.1%	35.9%
Race	**Year**	**Indiana**	**U.S.**
Black Students	2003	55.4%	43.3%
	2005	41.0%	40.7%
White Students	2003	41.0%	39.8%
	2005	38.2%	38.0%
Other	2003	N/A	34.2%
	2005	32.2%	30.6%

Source: Centers for Disease Control and Prevention, 2007

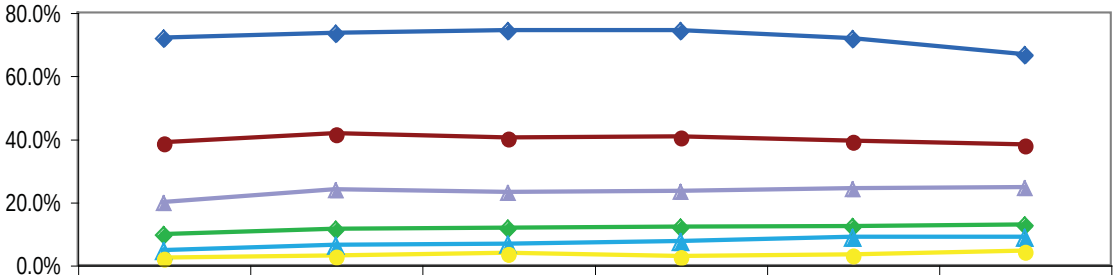
Figure 5.11 Percentage of Indiana and U.S. Treatment Admissions Reporting Marijuana as Their Primary Drug, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

Figure 5.12 Percentage of Indiana Treatment Admissions Reporting Marijuana as Their Primary Drug, by Age, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

2168.17, p < .001; for 2005: Pearson chi-square = 1824.44, p < .001). In Indiana, between 2001 and 2004, nearly one-quarter of the population entering drug abuse treatment reported that marijuana was their primary drug of abuse, compared to roughly 15% in the nation (see Figure 5.11).

Younger individuals are more likely than older people to report marijuana as their primary drug of use at admission; (for 2000: Pearson chi-square = 6164.20, p < .001; for 2001: Pearson chi-square = 4686.69, p < .001; for 2002: Pearson chi-square = 4767.69, p < .001; for 2003: Pearson chi-square = 4581.48, p < .001; for 2004: Pearson chi-square = 4905.87, p < .001; for 2005: Pearson chi-square = 4011.37, p < .001). Rates for all age categories remained fairly constant between 2000 and 2004 (see Figure 5.12).

With regard to race and gender, both Black and White males are statistically significantly more likely than

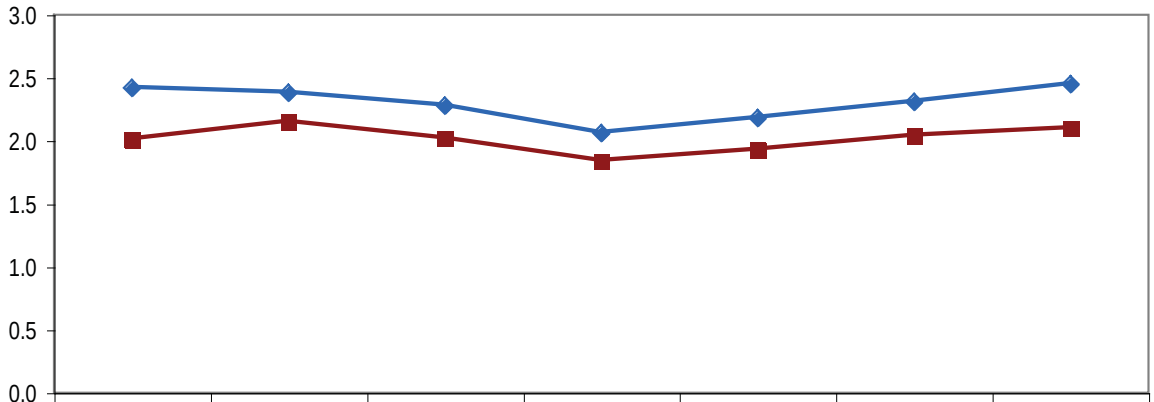
their female counterparts to report marijuana as their primary drug of use at admission. For Indiana county-level information, see Appendix 5A, page 86.

Criminal Consequences

The Uniform Crime Reports (UCR) program collects drug violation arrest data nationwide (National Archive of Criminal Justice Data, n.d.). According to 2005 results, Indiana arrest rates for marijuana possession (2.45 per 1,000 population) and sale/manufacture (0.34 per 1,000 population) seemed higher than U.S. rates (2.10 and 0.27 per 1,000 population), but the differences were statistically not significant. Arrest rates for both marijuana possession and sale/manufacture remained stable in Indiana and the nation from 1999 to 2005 (see Figures 5.13 and 5.14).

Maps 5.1 and 5.2 (pages 84 and 85), portray the distribution by county of 2005 arrest rates (per 1,000

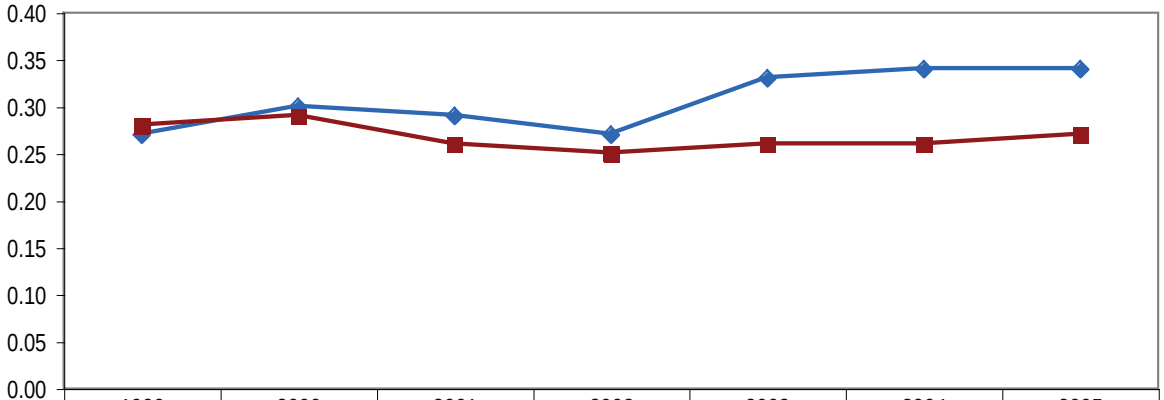
Figure 5.13 Indiana and U.S. Marijuana Possession Arrest Rates, per 1,000 Population, 1999 through 2005 (Uniform Crime Reports, 1999–2005)



	1999	2000	2001	2002	2003	2004	2005
Indiana	2.42	2.38	2.28	2.06	2.18	2.31	2.45
U.S.	2.01	2.15	2.02	1.84	1.93	2.04	2.10

Source: National Archive of Criminal Justice Data, n.d.

Figure 5.14 Indiana and U.S. Marijuana Sale/Manufacture Arrest Rates, per 1,000 Population, 1999 through 2005 (Uniform Crime Reports, 1999–2005)



	1999	2000	2001	2002	2003	2004	2005
Indiana	0.27	0.30	0.29	0.27	0.33	0.34	0.34
U.S.	0.28	0.29	0.26	0.25	0.26	0.26	0.27

Source: National Archive of Criminal Justice Data, n.d.

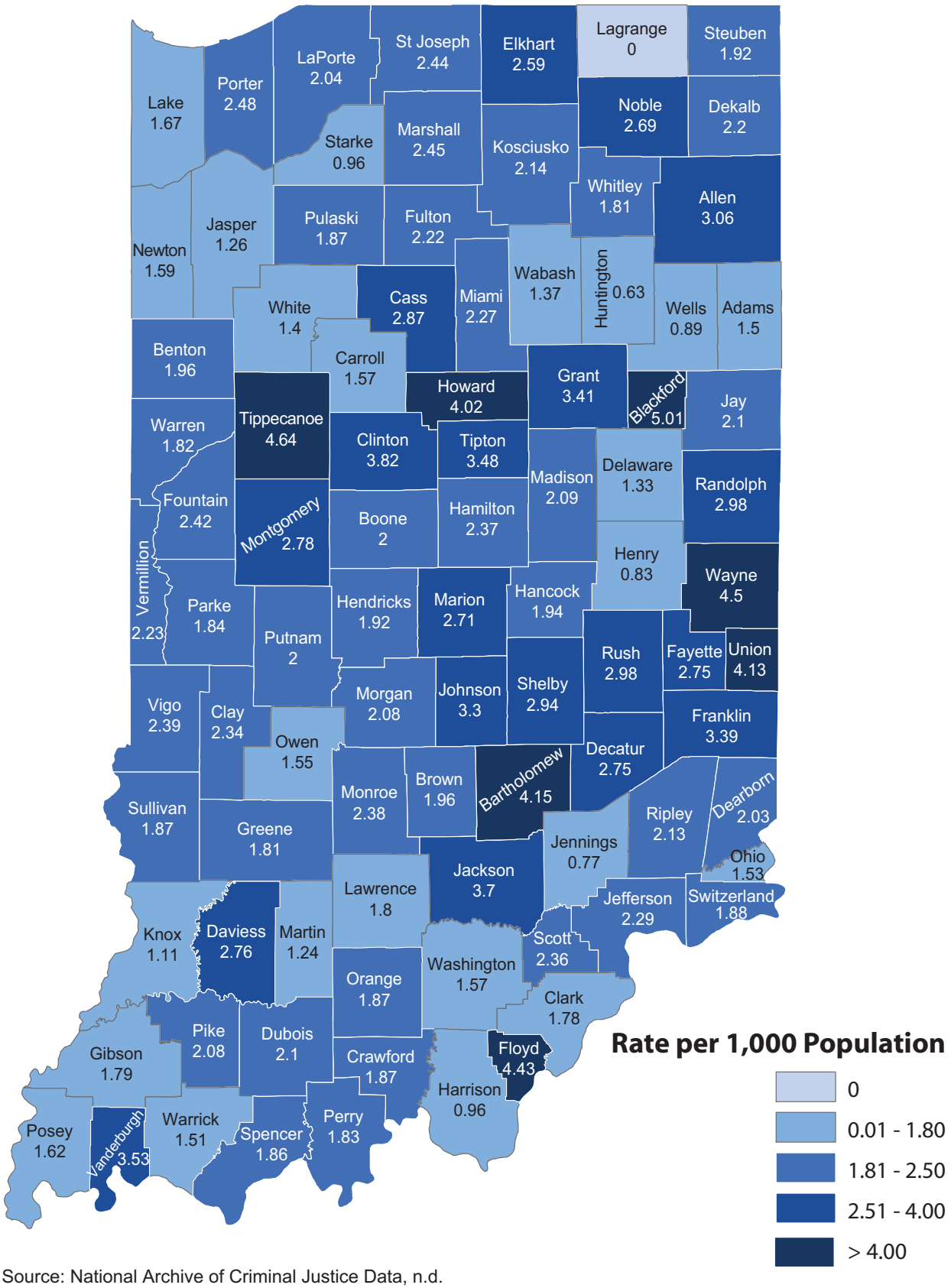
population) due to marijuana possession and dealing (sale/manufacture) and are based on UCR data. While geographic/regional arrest patterns are not immediately apparent, these data demonstrate that arrest rates for possession exceed those for dealing in most counties. Caution should be exercised when interpreting these data due to variations in reporting procedures. In Indiana, reporting coverage by county and local law enforcement jurisdictions is sometimes incomplete, and therefore, a portion of these data are based on estimates. (For further details, see the discussion of UCR data in the methods section on page 20.)

According to the U.S. Sentencing Commission (2003), 47.3% of the people in Indiana who were convicted and sentenced for a federal crime in 2003 had committed a drug offense. Approximately 15% of these offenses involved marijuana (2003). Other legal consequences associated with marijuana pertain to drug-related property crimes, such as burglary and larceny, and other crimes associated with acquiring drugs.

Social Consequences

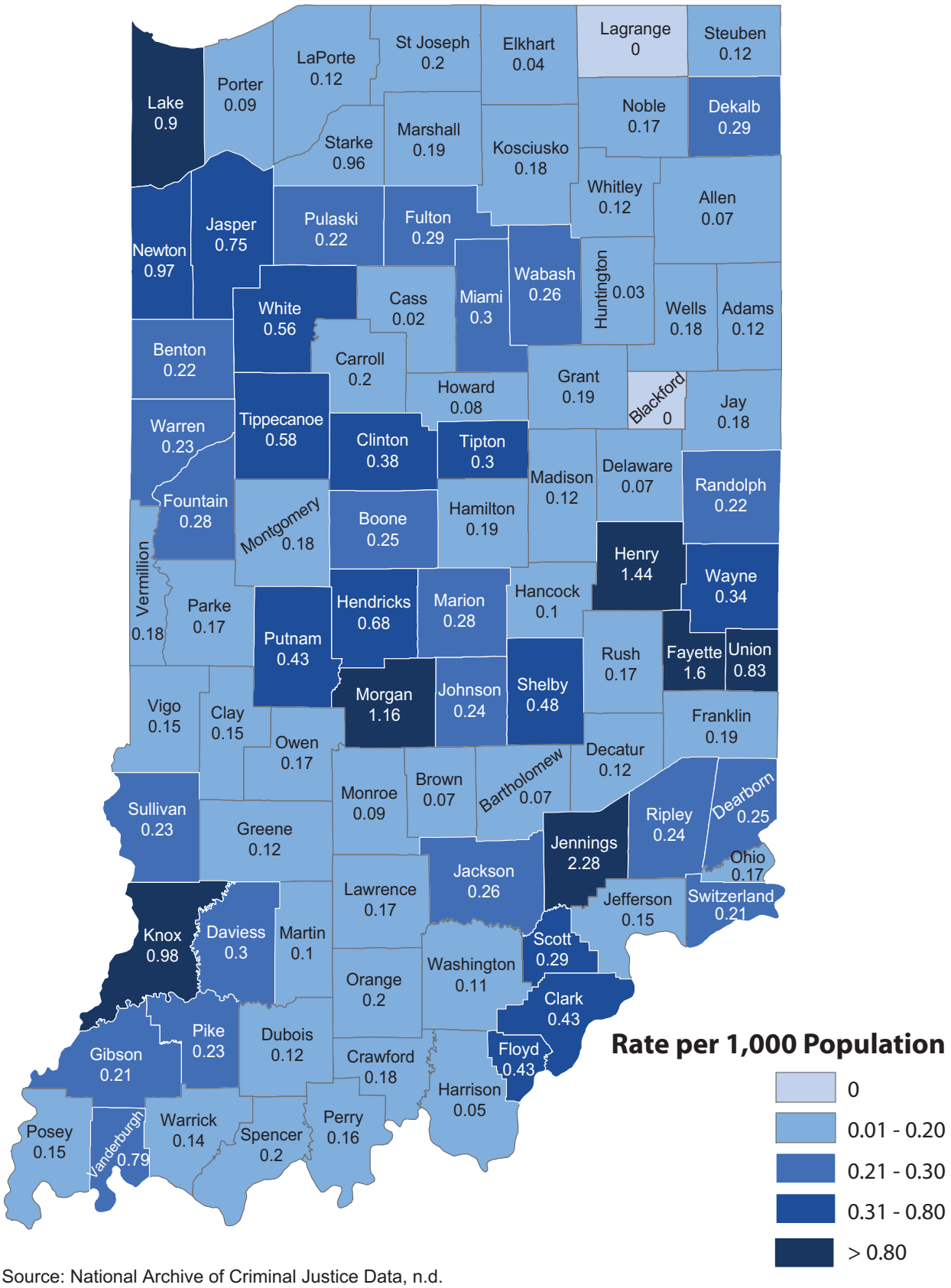
In terms of social consequences, depression, anxiety, and personality disturbances are associated with chronic marijuana use. Marijuana use compromises the ability to learn and retain information, and heavy use leads to loss of critical intellectual, job, and social skills. Students who smoke marijuana exhibit lower academic performance and are less likely to graduate from high school, relative to their nonsmoking peers. Higher rates of absenteeism are also found among students who use marijuana. Individuals who use marijuana are more likely to have problems at work—including accidents, injuries, and absenteeism. 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 (NIDA, 2007)

Map 5.1 Marijuana Possession Arrest Rates in Indiana by County, 2005 (Uniform Crime Reports, 2005)



Source: National Archive of Criminal Justice Data, n.d.

Map 5.2 Marijuana Sale/Manufacture Arrest Rates in Indiana by County, 2005 (Uniform Crime Reports, 2005)



Source: National Archive of Criminal Justice Data, n.d.

APPENDIX 5A

Number of Indiana Residents in Substance Abuse Treatment Who Reported Marijuana Use and Who Listed Marijuana as their Primary Substance at Admission, by County, 2005 (Treatment Episode Data Set, 2005)

County	Marijuana Use	Marijuana Dependence
Adams	64	23
Allen	605	287
Bartholomew	239	74
Benton	19	9
Blackford	68	33
Boone	92	39
Brown	46	24
Carroll	50	30
Cass	97	44
Clark	301	145
Clay	113	41
Clinton	15	8
Crawford	23	14
Daviess	70	29
Dearborn	103	37
Decatur	23	10
DeKalb	58	26
Delaware	484	194
DuBois	66	26
Elkhart	391	208
Fayette	99	29
Floyd	155	69
Fountain	54	30
Franklin	26	10
Fulton	106	43
Gibson	80	34
Grant	203	76
Greene	65	26
Hamilton	217	113
Hancock	92	41
Harrison	72	37
Hendricks	158	81
Henry	146	64
Howard	193	74
Huntington	73	41
Jackson	55	20
Jasper	49	16
Jay	64	23
Jefferson	110	39
Jennings	98	36
Johnson	176	64
Knox	176	78
Kosciusko	101	51
LaGrange	61	16
Lake	954	460
LaPorte	256	94
Lawrence	104	46
Madison	214	133
Marion	2,724	1,494
Marshall	99	41
Martin	22	10
Miami	162	70
Monroe	431	162
Montgomery	164	92
Morgan	149	75
Newton	10	4
Noble	106	46
Ohio	14	4
Orange	29	10
Owen	83	39
Parke	66	32
Perry	57	28
Pike	33	15
Porter	186	69
Posey	83	26
Pulaski	54	23
Putnam	61	36
Randolph	63	28
Ripley	41	19
Rush	45	23
Scott	67	30
Shelby	84	34
Spencer	42	16
St. Joseph	544	186
Starke	81	39
Steuben	58	24
Sullivan	54	19
Switzerland	27	12
Tippecanoe	309	157
Tipton	15	6
Union	22	13
Vanderburgh	914	423
Vermillion	50	28
Vigo	563	252
Wabash	102	52
Warren	11	7
Warrick	132	57
Washington	35	17
Wayne	169	74
Wells	80	38
White	61	31
Whitley	23	12
Total	15,209	7,018

Note: We defined dependence as “individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission.”

Source: Substance Abuse and Mental Health Data Archive, n.d.

APPENDIX 5B

Percentage of Indiana Students Reporting Lifetime, Annual, Monthly, and Daily Marijuana Use, by Region and Grade, 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents, 2007)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	3.0	3.1	3.7	2.3	2.3	3.1	5.1	2.2	3.0
	Annual	2.3	2.3	2.8	1.7	2.0	2.2	3.7	1.7	2.3
	Monthly	1.4	1.6	1.6	1.2	1.1	1.4	2.2	1.0	1.5
	Daily	1.0	0.7	1.4	0.8	0.9	0.9	1.3	0.8	1.5
7th Grade	Lifetime	7.7	7.8	7.6	6.6	7.0	7.2	12.1	3.5	10.3
	Annual	6.3	6.9	5.9	5.5	5.9	5.7	10.7	2.6	8.1
	Monthly	3.9	4.1	3.5	3.1	3.9	3.3	6.6	1.5	5.7
	Daily	2.7	2.5	2.9	2.2	2.6	2.0	3.6	1.9	4.8
8th Grade	Lifetime	16.1	17.0	16.2	12.1	14.6	16.8	20.4	12.3	18.2
	Annual	13.1	14.5	13.7	9.1	11.6	13.5	16.1	9.6	15.3
	Monthly	8.3	9.1	8.6	5.6	6.7	8.6	9.9	6.3	10.1
	Daily	5.5	5.5	4.6	4.3	5.7	5.1	8.0	4.5	7.4
9th Grade	Lifetime	21.2	20.5	19.7	17.5	21.1	22.7	27.3	13.3	21.9
	Annual	17.0	16.3	15.7	13.3	16.6	18.5	21.9	10.5	17.6
	Monthly	10.3	10.1	9.4	8.0	10.5	11.0	14.1	5.7	11.1
	Daily	8.1	6.1	8.5	6.4	9.6	7.2	11.6	6.3	10.0
10th Grade	Lifetime	29.9	31.5	29.6	23.9	29.0	32.0	35.8	27.0	30.3
	Annual	23.5	25.1	23.1	18.4	22.6	24.8	28.0	21.8	24.4
	Monthly	14.4	16.8	13.2	11.8	13.6	15.0	17.2	13.0	15.7
	Daily	11.4	10.1	10.1	9.0	12.3	10.8	14.7	10.7	13.7
11th Grade	Lifetime	32.4	35.3	29.0	30.3	31.7	33.6	38.1	25.2	33.6
	Annual	24.8	27.3	21.4	22.7	23.8	26.6	28.6	16.7	25.3
	Monthly	14.6	16.7	12.5	13.7	13.7	15.5	18.3	9.3	14.9
	Daily	13.8	11.8	13.1	11.9	16.0	12.7	18.1	14.6	15.1
12th Grade	Lifetime	36.5	38.7	35.2	34.4	34.2	37.3	41.5	34.6	38.1
	Annual	26.6	29.4	24.3	25.0	25.0	28.7	29.5	23.8	27.2
	Monthly	15.8	17.7	14.2	14.5	15.2	17.1	17.8	13.6	16.8
	Daily	14.7	14.1	12.7	11.6	17.7	14.3	16.3	14.1	16.5

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

Source: Indiana Prevention Resource Center, 2007

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6. Cocaine Use in Indiana: Consumption Patterns and Consequences

CONSUMPTION

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, [SAMHSA], 2007). According to the most recent estimates, 100,000 Hoosiers, or 2.33% (95% Confidence Interval [CI]: 1.84%–2.96%) of Indiana's population, used cocaine in the past year. This rate is comparable to the nation's (2.31%). Past year cocaine use differed significantly by age group and was highest among 18- to 25-year-olds, 7.46% (95% C.I.: 5.72%–9.68%) (see Figure 6.1).

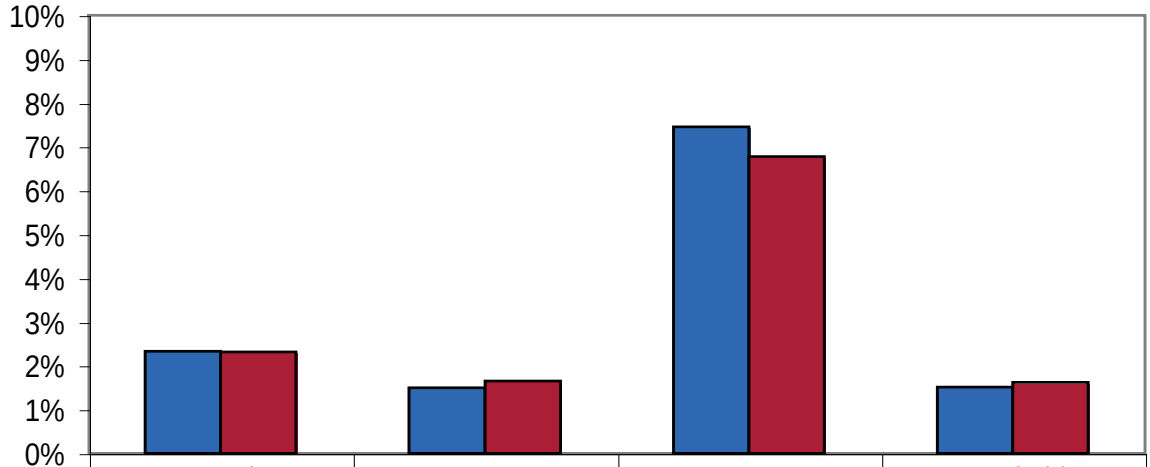
NSDUH data for 2001 through 2005 show that past-year cocaine use was lowest in 2001 (IN: 1.46%; U.S.: 1.70%) and remained fairly stable from 2002 to 2005 (see Figure 6.2, page 90). Additionally, a total of 562,000 Indiana residents (11.1%) reported lifetime use (U.S.: 13.8%) and 33,000 (0.7%) reported current (past month) use (U.S.: 1.0%). Publicly available NSDUH data currently do not include gender or race comparisons on the state level.

Adult Consumption Patterns

According to the latest NSDUH results, young adults ages 18 to 25 reported the highest rate of current (in the past month) cocaine use (U.S.: 6.77%; IN: 7.46%); use by individuals 26 and older was much lower (U.S.: 1.62%; IN: 1.52%). The rate differences between Indiana and the United States were statistically not significant.

The 2005 Treatment Episode Data Set (TEDS) shows that 23.8% of Hoosiers in substance abuse treatment programs conveyed cocaine use at the time of their admission (U.S.: 31.2%) (Substance Abuse and Mental Health Data Archive, n.d.). Gender, age, and race differences in the Indiana treatment population were significant: more women than men reported cocaine use (Pearson chi square = 346.961; $p < 0.001$); Blacks displayed higher rates than Whites and other races (Pearson chi square = 1637.264; $p < 0.001$). In this dataset that considers only individuals in substance abuse treatment, the percentage of 35- to 44-year-olds using cocaine was greater than any other age group (Pearson chi square = 1314.829; $p < 0.001$) (see Table 6.1).

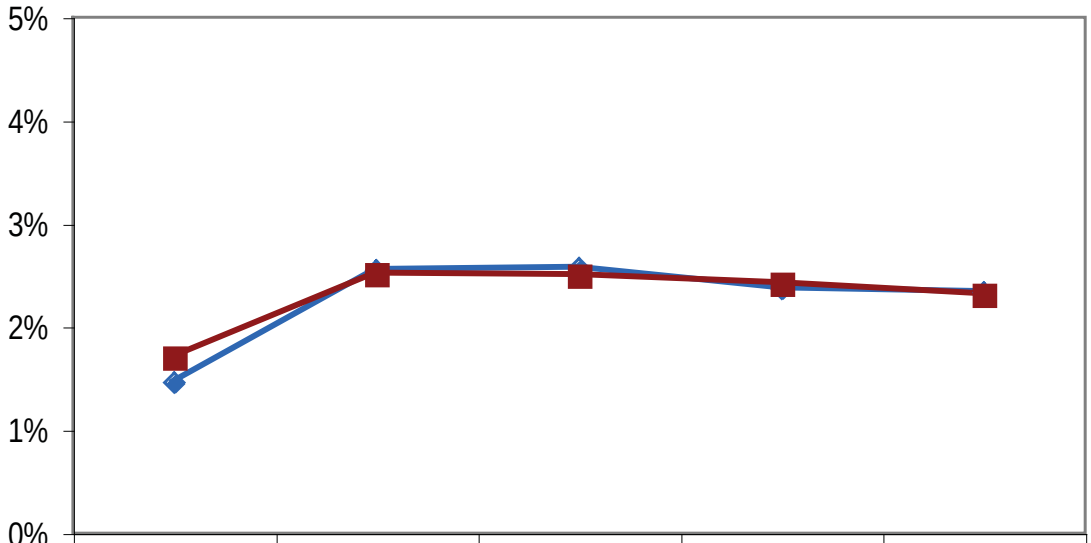
Figure 6.1 Percentage of Indiana and U.S. Population (12 years and older) Reporting Cocaine Use in the Past Year, by Age Group, 2004—2005 (National Survey on Drug Use and Health, 2004–2005)



	Total	12 -17	18-25	26 and older
Indiana	2.33%	1.49%	7.46%	1.52%
U.S.	2.31%	1.65%	6.77%	1.62%

Source: Substance Abuse and Mental Health Services Administration, 2007

Figure 6.2 Percentage of Indiana and U.S. Population (12 years and older) Reporting Cocaine Use in the Past Year, 2001 through 2005 (National Survey on Drug Use and Health, 2001–2005



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

Source: Substance Abuse and Mental Health Services Administration, 2007

Cocaine use reported at admission, from 2000 through 2005, is significantly higher in the nation than in Indiana. Use among Hoosier residents decreased significantly, from 25.5% in 2000 to 23.8% in 2005 (Pearson chi square = 31.540; $p < 0.001$) (see Figure 6.3). For county-level treatment data, see Appendix 6A, page 100.

Table 6.1 Percentage of Indiana Residents in Substance Abuse Treatment Who Reported Cocaine Use at Admission, by Gender, Race, and Age Group, 2005 (Treatment Episode Data Set, 2005)

Gender	Male	20.9%
	Female	29.5%
Race	White	19.0%
	Black	46.9%
	Other	24.6%
Age Group	Under 18	5.7%
	18-24	14.3%
	25-34	25.3%
	35-44	32.9%
	45-54	28.8%
	55 and over	12.7%
Total		**23.8%**

Source: Substance Abuse and Mental Health Data Archive, n.d.

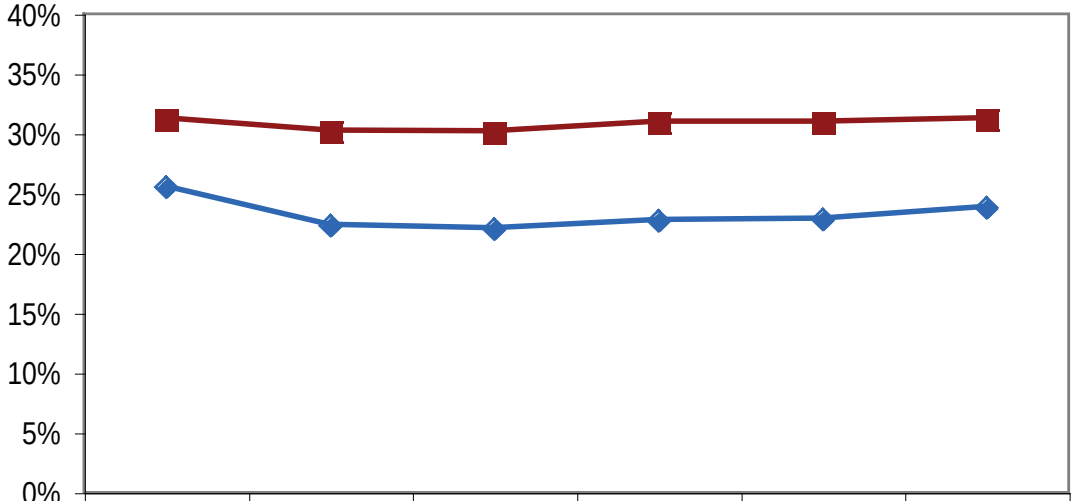
Youth Consumption Patterns

Results of the 2004—2005 National Survey on Drug Use and Health (NSDUH) reveal that 1.49% of Hoosiers ages 12 to 17 have used cocaine in the past year. The corresponding U.S. rate (1.65%) is statistically the same (Substance Abuse and Mental Health Services Administration, 2007).

According to the 2005 Youth Risk Behavior Survey System (YRBSS), 6.8% (95% C.I.: 4.8%–8.8%) of Indiana high school students (grades 9 through 12) reported that they had used some form of cocaine, including powder, crack, or freebase, once or more during their life, and 3.0% (95% C.I.: 1.9%–4.1%) stated that they currently (within the past 30 days) use cocaine (Centers for Disease Control and Prevention, 2007). The national rates for lifetime use and current use seemed slightly higher, 7.6% (95% C.I.: 6.6%–8.6%) and 3.4% (95% C.I.: 2.8%–4.0%), respectively; however, the rate differences were statistically not significant (see Figure 6.4).

Males in Indiana and the entire United States seemed to have higher rates of lifetime and current

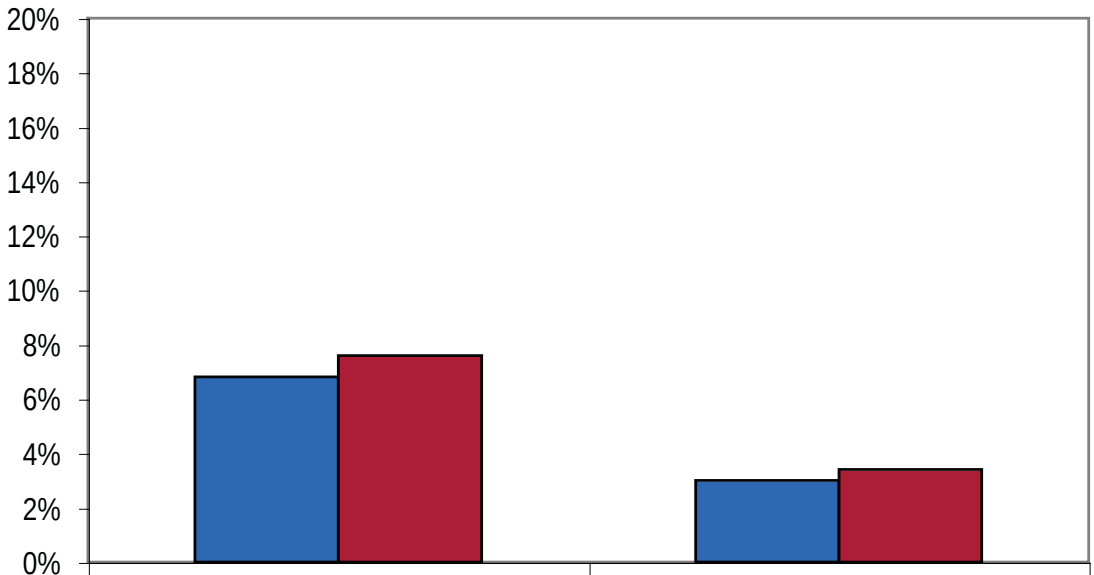
Figure 6.3 Percentage of Indiana and U.S. Substance Abuse Patients Reporting Cocaine Use at Admission to Substance Abuse Treatment, 2000 through 2005 (Treatment Episode Data Set, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

Figure 6.4 Percentage of Indiana and U.S. High School Students (9th–12th Grade) Reporting Cocaine Lifetime (at Least Once) and Current (Past Month) Use, 2005 (Youth Risk Behavior Surveillance System, 2005)



	Lifetime cocaine use	Current cocaine use
Indiana	6.8%	3.0%
U.S.	7.6%	3.4%

Source: Centers for Disease Control and Prevention, 2007

cocaine use than females. In Indiana, 7.8% (95% C.I.: 5.5%–10.1%) of males and 5.8% (95% C.I.: 3.4%–8.2%) of females reported lifetime use, and 3.6% (95% C.I.: 2.1%–5.1%) of males and 2.3% (95% C.I.: 1.1%–3.5%) 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.

Hispanics reported the highest rate of cocaine use in the United States, with 12.2% (95% C.I.: 9.6%–14.8%) reporting lifetime use and 6.1% (95% C.I.: 4.3%–7.9%) reporting current use. These rates were statistically significantly higher than the rates for individuals who identified themselves as White or Black. Unfortunately, no assumptions can be made for Indiana because cocaine use data for Hispanics in Indiana are currently not available. Individuals who described themselves as Black reported the lowest rates of cocaine use. In Indiana, 2.6% (95% C.I.: 0.4%–4.8%) of Blacks reported lifetime use, and 2.6% (95% C.I.: 0.4%–4.8%) reported current use. The differences between Blacks, Whites, and other races in Indiana were statistically not significant.

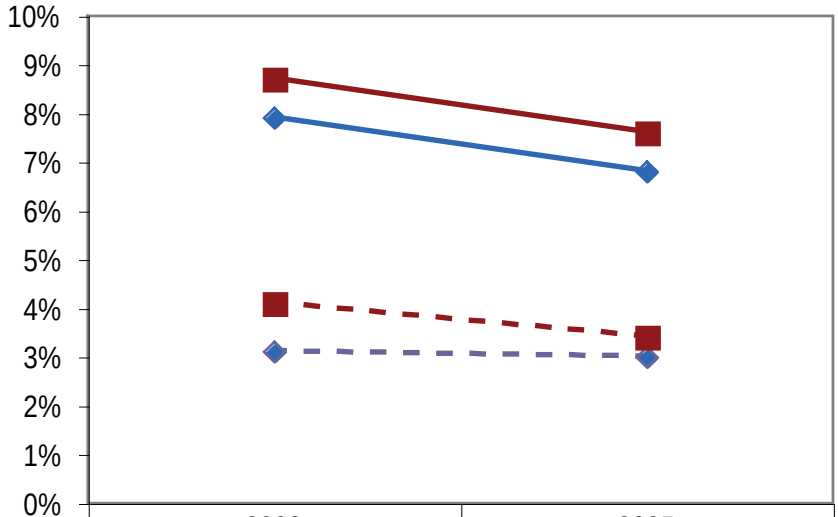
The rates for lifetime and current cocaine use seem to increase as students progress through high school.

Table 6.2 Percentage of Indiana and U.S. High School Students Reporting Lifetime and Current Cocaine Use, by Gender, Race/Ethnicity, and Grade, 2005 (Youth Risk Behavior Surveillance System, 2005)

Geography			Lifetime Use	Current Use
Indiana	Gender	Male	7.8%	3.6%
		Female	5.8%	2.3%
	Race	White	7.3%	3.1%
		Black	2.6%	2.6%
		Hispanic	n/a	n/a
		Other	8.6%	2.6%
	Grade	9	5.2%	2.9%
		10	7.2%	2.9%
		11	6.6%	1.9%
		12	9.0%	4.5%
	Total		**6.8%**	**3.0%**
U.S.	Gender	Male	8.4%	4.0%
		Female	6.8%	2.8%
	Race	White	7.7%	3.2%
		Black	2.3%	1.5%
		Hispanic	12.2%	6.1%
		Other	7.7%	3.1%
	Grade	9	6.0%	3.0%
		10	7.2%	3.1%
		11	8.7%	3.6%
		12	8.9%	3.8%
	Total		**7.6%**	**3.4%**

Source: Centers for Disease Control and Prevention, 2007

Figure 6.5 Percentage of Indiana and U.S. High School Students Reporting Cocaine Lifetime and Current (Past Month) Use, 2003 and 2005 (Youth Risk Behavior Surveillance System, 2003 and 2005)



	2003	2005
Indiana lifetime use	7.9%	6.8%
U.S. lifetime use	8.7%	7.6%
Indiana current use	3.1%	3.0%
U.S. current use	4.1%	3.4%

Source: Centers for Disease Control and Prevention, 2007

However, the differences between the grade levels as well as the differences between Indiana and U.S. high school students are not significant (see Table 6.2).

A comparison of lifetime and current cocaine use among high school students in Indiana between 2003 and 2005 shows that current use remained stable at 3.1% (95% C.I.: 2.1%–4.1%) in 2003 and 3.0% (95% C.I.: 1.9%–4.1%) in 2005, and lifetime use declined—though not significantly—from 7.9% (95% C.I.: 6.5%–9.3%) in 2003 to 6.8% (95% C.I.: 4.8%–8.8%) in 2005 (see Figure 6.5).

The annual survey of Alcohol, Tobacco and Other Drug Use by Children and Adolescents in the State of Indiana (ATOD) is based on a non-random sample and may not be representative (Indiana Prevention Resource Center, 2007). However, the survey provides a good estimate of substance use among Hoosier children in grades 6 to 12. The 2007 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 were found among 6th graders, the youngest students surveyed. Furthermore, crack and cocaine use rates are similar in grades 6 through 8, but cocaine seems to gain popularity as students move on through high school. A comparison of Indiana (ATOD survey) and national data, as measured by the Monitoring the Future (MTF)[1] survey (University of Michigan, n.d.), from 2000 through 2006, reveals that current cocaine and crack use in Indiana and U.S. high school seniors (12th grade students) remained constant over the years (see Figures 6.6 and 6.7). However, the significance of the results could not be determined. For data on lifetime, annual, and monthly use of cocaine and crack, by Indiana region and grade, for 2007, see Appendix 6B, pages 101-102.

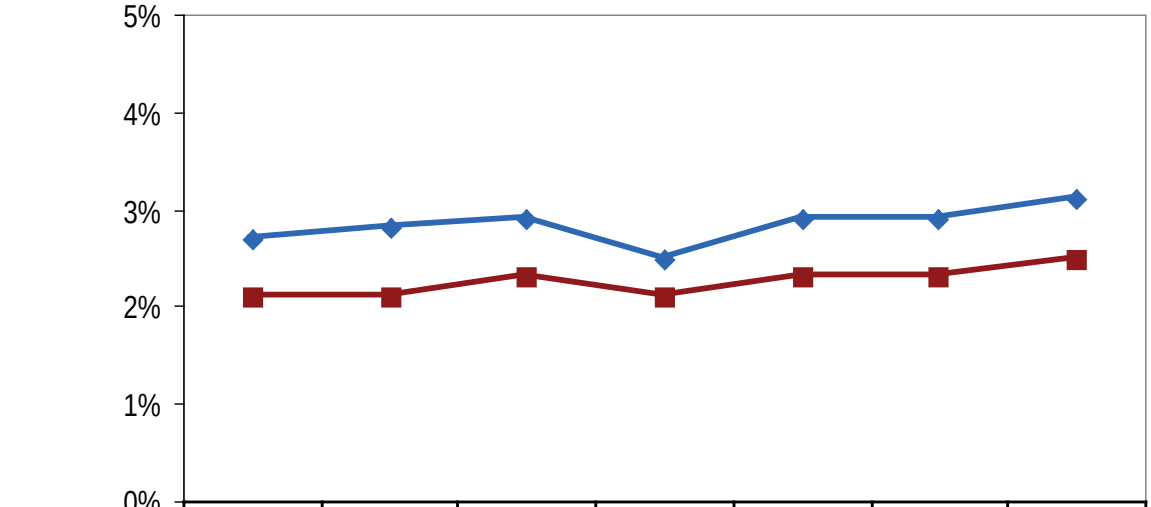
CONSEQUENCES OF COCAINE USE

Health Consequences

Cocaine is an addictive drug and a powerful stimulant. It can be taken orally, intranasally, rubbed onto mucous tissues, dissolved in water and injected intravenously, and smoked in its freebase form (known as crack) (NIDA, 2005).

The effects of cocaine depend on the amount of the drug taken and the route of administration. Taken

Figure 6.6 Percentage of Indiana and U.S. 12th Grade Students Reporting Current Cocaine Use, 2000 through 2006 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents; Monitoring the Future, 2000—2006)

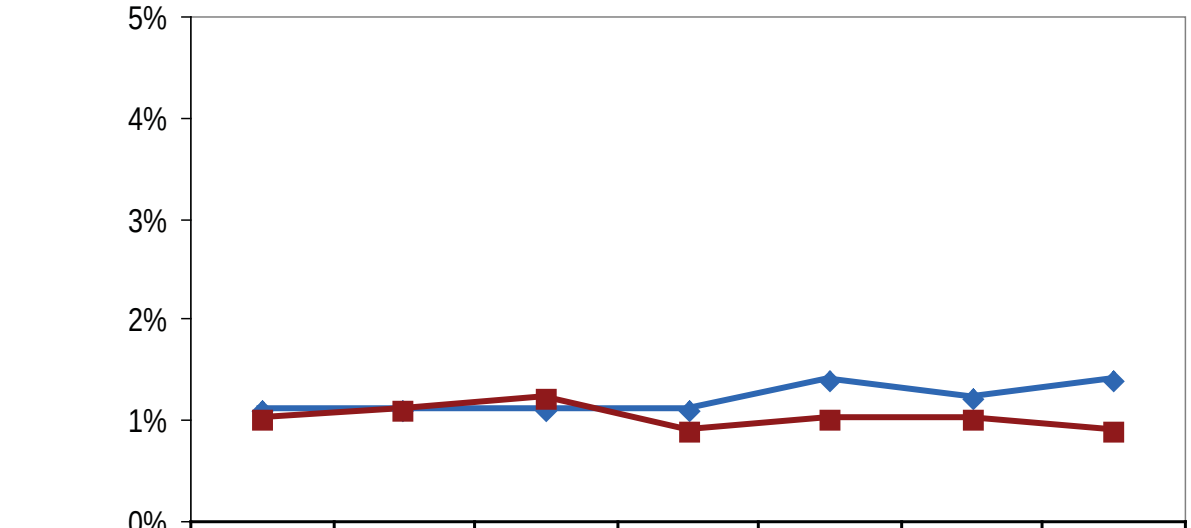


	2000	2001	2002	2003	2004	2005	2006
Indiana	2.7%	2.8%	2.9%	2.5%	2.9%	2.9%	3.1%
U.S.	2.1%	2.1%	2.3%	2.1%	2.3%	2.3%	2.5%

Source: Indiana Prevention Resource Center, 2007; University of Michigan, n.d.

[1]At the time of this report, the most recent data available were 2006 results from the MTF survey (national data) and 2007 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, only data up to 2006 were used. However, the 2007 Indiana data is available, by region, as an appendix at the end of this chapter.

Figure 6.7 Percentage of Indiana and U.S. 12th Grade Students Reporting Current Crack Use, 2000 through 2006 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents; Monitoring the Future, 2000—2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana	1.1%	1.1%	1.1%	1.1%	1.4%	1.2%	1.4%
U.S.	1.0%	1.1%	1.2%	0.9%	1.0%	1.0%	0.9%

Source: Indiana Prevention Resource Center, 2007; University of Michigan, n.d.

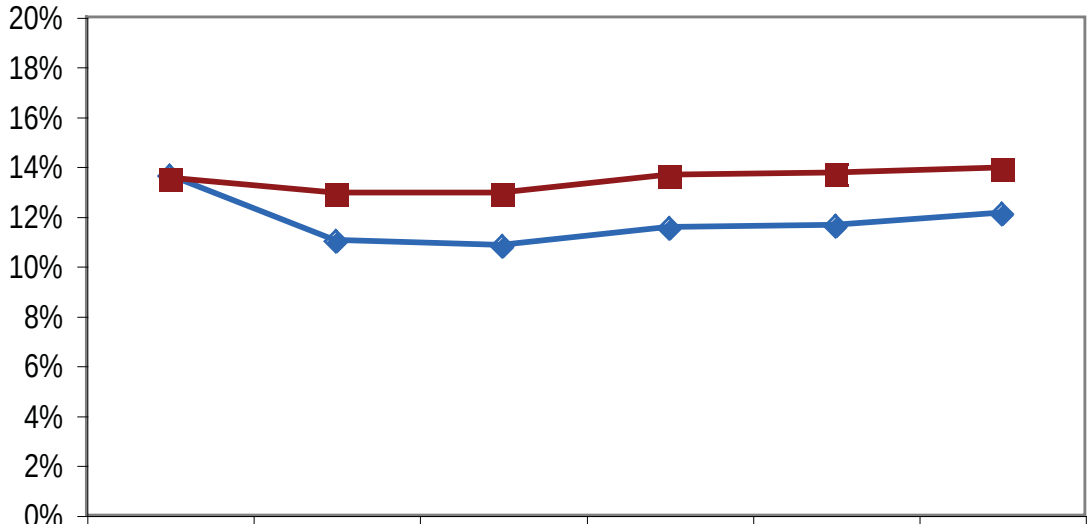
in small amounts, it can make the user feel euphoric, energetic, talkative, mentally alert, and may temporarily decrease the need for food and sleep. Short-term physiological effects of cocaine include constricted blood vessels, dilated pupils, and increased temperature, heart rate, and blood pressure. Large amounts may lead to bizarre, erratic, and violent behavior. Users may experience tremors, vertigo, muscle twitches, paranoia, or, with repeated doses, be subjected to 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 and mood disturbances, restlessness, paranoia, and auditory hallucinations (NIDA, 2005).

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 (NIDA, 2005). 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, 2006).

Cocaine Dependence

For this document, we defined dependence as "individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission." Results from the Treatment Episode Data Set (TEDS) show that the percentage of individuals in substance abuse programs who report cocaine as their primary drug has been significantly lower in Indiana than the nation for the last five years for which data are available (2001 through 2005). Furthermore, the percentage within Indiana decreased significantly from 13.6% in 2000 to 12.1% in 2005 (see Figure 6.8) (Substance Abuse and Mental Health Data Archive, n.d.).

Figure 6.8 Percentage of Indiana and U.S. Residents in Substance Abuse Treatment Who Listed Cocaine as their Primary Substance at Admission, 2000 through 2005 (Treatment Episode Data Set, 2000-2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

According to 2005 TEDS data, gender, race, and age are associated with cocaine dependence. Higher rates can be found for women than for men (Pearson chi-square = 391.995, $p < .001$); in Blacks than in any other race (Pearson chi-square = 1512.425, $p < .001$); and in 35- to 44-year olds (Pearson chi-square = 1060.312, $p < .001$) (see Table 6.3). For county-level treatment data, see Appendix 6A, page 100.

Legal and Criminal Consequences of Cocaine Use

Legal consequences include drug arrests. During federal fiscal year (FFY) 2004, cocaine was the primary drug involved in federal arrests (12,166 federal drug arrests for cocaine). The Drug Enforcement Administration (DEA) made 7,082 arrests for powder cocaine and 3,921 arrests for crack cocaine. During FFY 2006, a total of 5,841 federal offenders were sentenced for powder cocaine-related charges and 5,623 were sentenced for crack cocaine charges in U.S. courts (Office of National Drug Control Policy, 2007).

The Uniform Crime Reports (UCR), which include data that combine arrests for cocaine and opiates, for

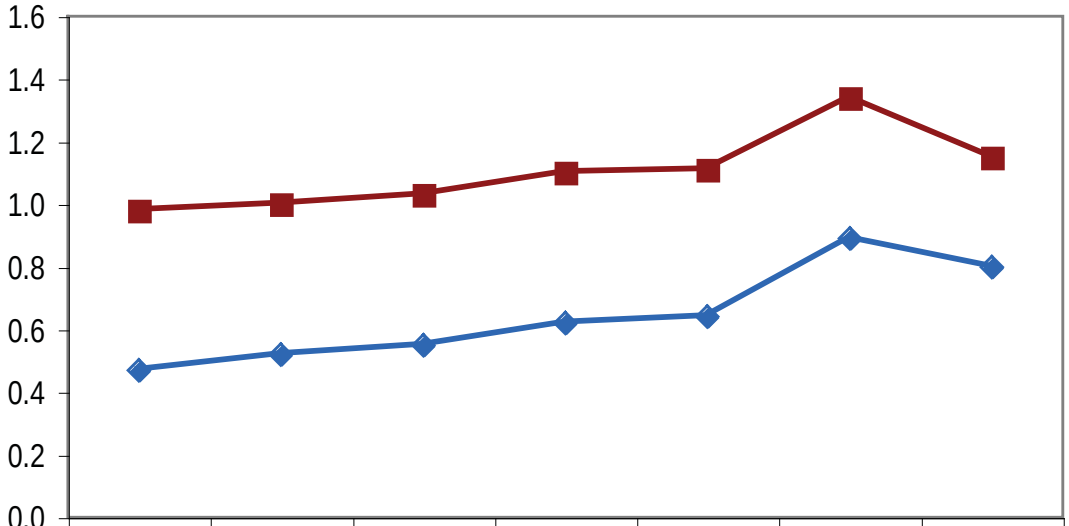
Table 6.3 Percentage of Indiana Residents in Substance Abuse Treatment Who Listed Cocaine as their Primary Substance at Admission, 2005 (Treatment Episode Data Set, 2005)

Gender	Male	9.7%
	Female	16.8%
Race	White	8.5%
	Black	29.0%
	Other	10.2%
Age Group	Under 18	1.7%
	18-24	5.4%
	25-34	12.5%
	35-44	19.0%
	45-54	15.4%
	55 and over	5.6%
Total		**12.1%**

Note: we defined dependence as "individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission."

Source: Substance Abuse and Mental Health Data Archive, n.d.

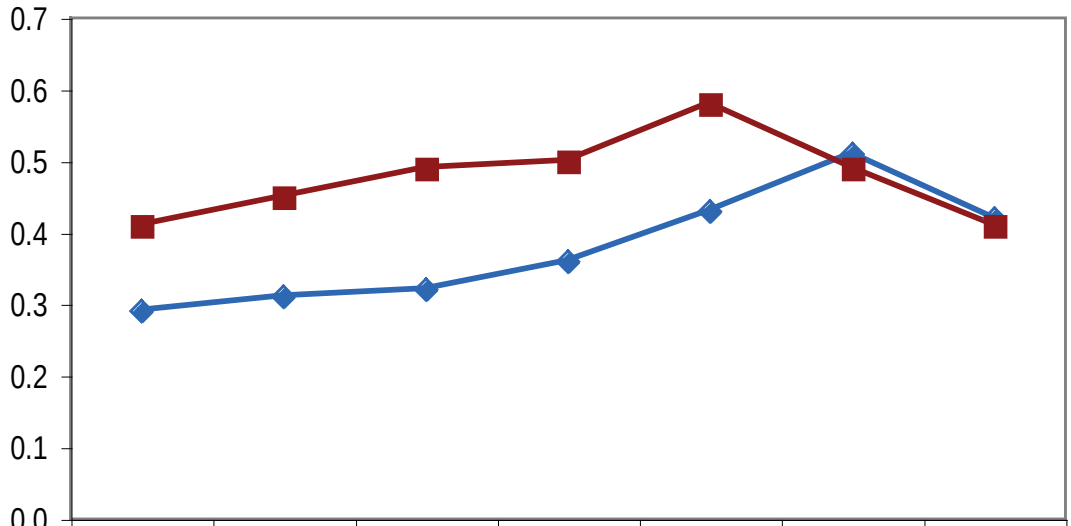
Figure 6.9 Indiana and U.S. Arrest Rates for Cocaine and Opiates Possession Offenses, 1999 through 2005 (Uniform Crime Reports, 1999–2005)



	1999	2000	2001	2002	2003	2004	2005
Indiana	0.47	0.52	0.55	0.62	0.64	0.89	0.80
U.S.	0.98	1.00	1.03	1.10	1.11	1.34	1.15

Source: National Archive of Criminal Justice Data, n.d.

Figure 6.10 Indiana and U.S. Arrest Rates for Cocaine and Opiates Sale/Production Offenses, from 1999 through 2005 (Uniform Crime Reports, 1999–2005)



	1999	2000	2001	2002	2003	2004	2005
Indiana	0.29	0.31	0.32	0.36	0.43	0.51	0.42
U.S.	0.41	0.45	0.49	0.50	0.58	0.49	0.41

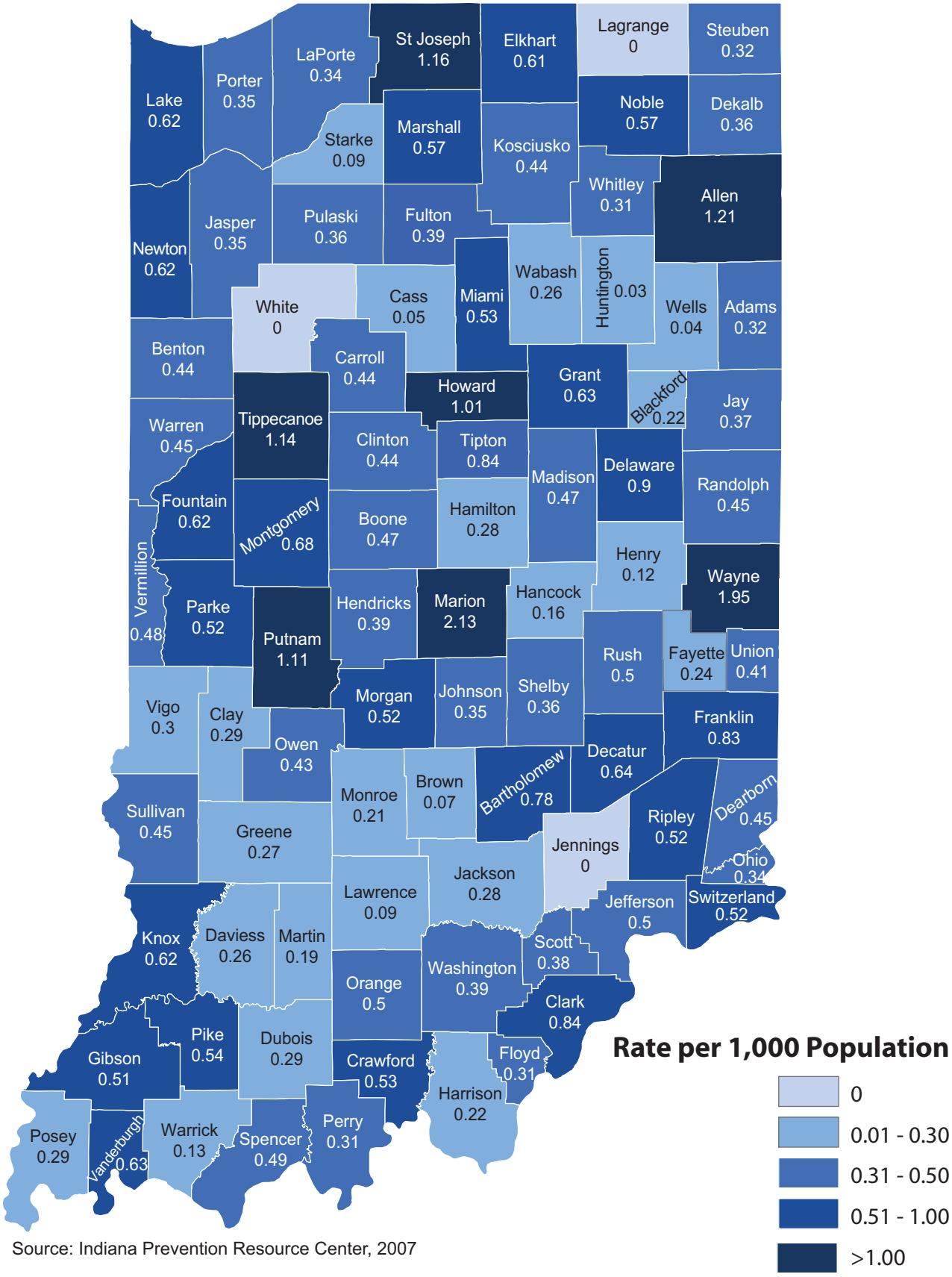
Source: National Archive of Criminal Justice Data, n.d.

the years show an increase in Indiana and U.S. arrest rates for cocaine and opiates possession from 1999 to 2005 (U.S.: 0.98 to 1.15 per 1,000 population; IN: 0.47 to 0.80 per 1,000 population). In 2005, arrest rates were significantly lower for Indiana than the rest of the nation (see Figure 6.9).

The arrest rates for production/sale of cocaine and opiates in Indiana was 0.29 in 1999, peaked in 2004 at 0.51, and declined to 0.42 in 2005 (per 1,000 population); the decline from 2004 to 2005 almost reached a level of significance ($p = .058$) (see Figure 6.10, page 96) (National Archive of Criminal Justice Data, n.d.).

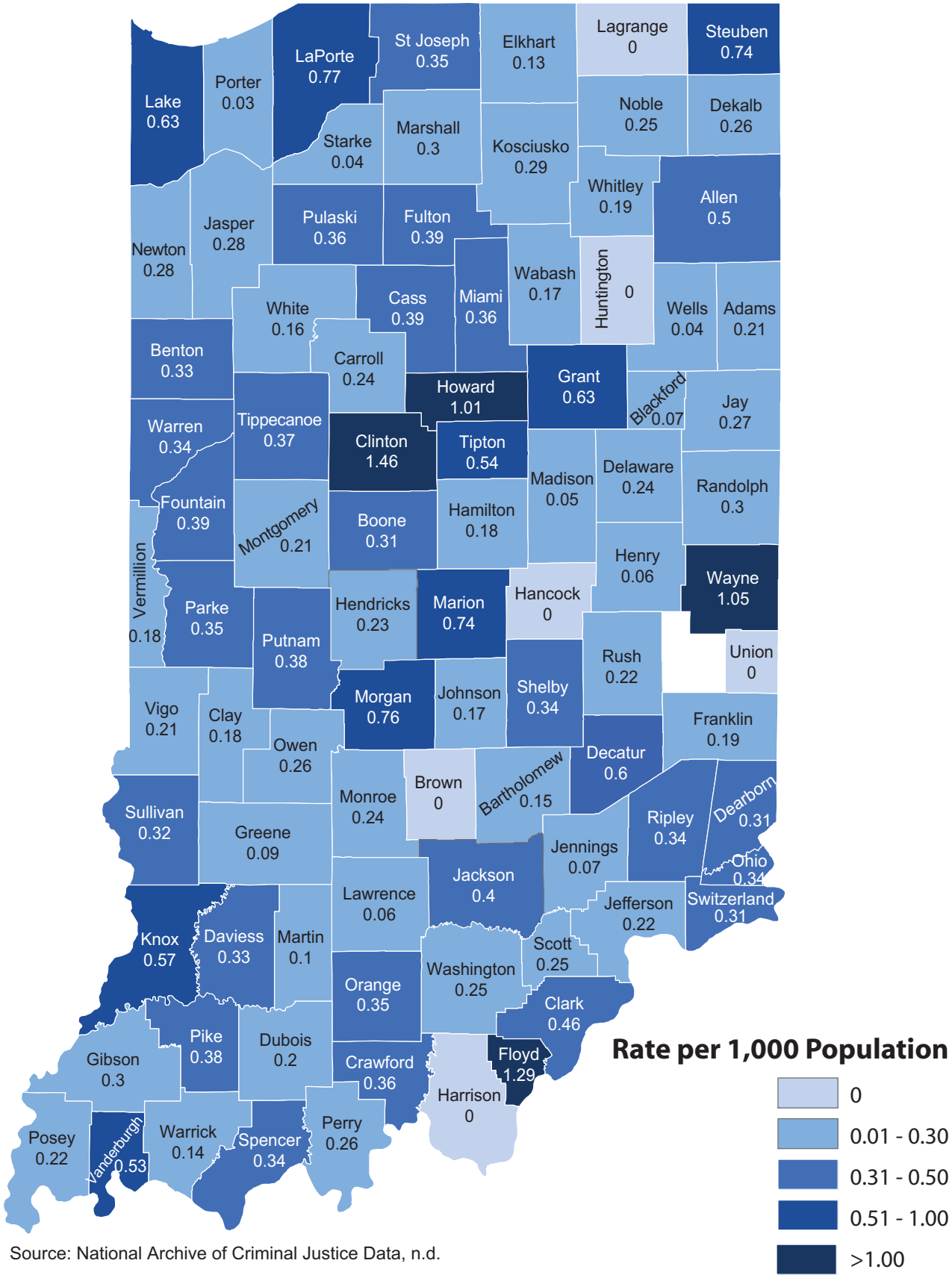
The UCR dataset only reports arrest rates for cocaine and opiates offenses combined; individual data on either drug category were not available. Maps 6.1 and 6.2, pages 98 and 99, show Indiana cocaine/opiates possession arrest rates and sales arrest rates by county for 2005.

Map 6.1 Indiana Cocaine/Opiate Possession Arrest Rates, by County, 2005 (Uniform Crime Reports, 2005)



Source: Indiana Prevention Resource Center, 2007

Map 6.2 Indiana Cocaine/Opiate Sales Arrest Rates, by County, 2005 (Uniform Crime Reports, 2005)



Source: National Archive of Criminal Justice Data, n.d.

APPENDIX 6A

Number of Indiana Residents in Substance Abuse Treatment Who Reported Cocaine Use and Who Listed Cocaine as their Primary Substance at Admission, by County and Drug Category, 2005 (Treatment Episode Data Set, 2005)

County	Cocaine Use	Cocaine Dependence	County	Cocaine Use	Cocaine Dependence
Adams	8	2	Madison	45	19
Allen	513	345	Marion	1,640	950
Bartholomew	81	49	Marshall	46	22
Benton	8	3	Martin	3	1
Blackford	8	1	Miami	24	8
Boone	30	12	Monroe	157	57
Brown	7	1	Montgomery	24	8
Carroll	9	3	Morgan	37	19
Cass	20	8	Newton	5	2
Clark	171	87	Noble	25	10
Clay	8	1	Ohio	6	1
Clinton	7	3	Orange	2	1
Crawford	2	1	Owen	17	5
Daviess	8	1	Parke	9	4
Dearborn	35	11	Perry	8	3
Decatur	7	5	Pike	3	1
DeKalb	23	14	Porter	104	51
Delaware	241	101	Posey	8	2
DuBois	10	3	Pulaski	16	5
Elkhart	195	100	Putnam	13	5
Fayette	17	1	Randolph	11	4
Floyd	81	36	Ripley	12	3
Fountain	11	3	Rush	5	1
Franklin	5	2	Scott	27	5
Fulton	15	2	Shelby	30	14
Gibson	11	5	Spencer	9	5
Grant	49	23	St. Joseph	746	456
Greene	9	1	Starke	9	4
Hamilton	46	22	Steuben	8	4
Hancock	37	22	Sullivan	2	1
Harrison	16	4	Switzerland	7	2
Hendricks	49	30	Tippecanoe	139	55
Henry	38	18	Tipton	5	3
Howard	121	76	Union	6	2
Huntington	17	6	Vanderburgh	373	216
Jackson	14	6	Vermillion	9	4
Jasper	17	3	Vigo	75	33
Jay	15	2	Wabash	14	3
Jefferson	43	22	Warren	1	1
Jennings	34	16	Warrick	24	12
Johnson	80	38	Washington	10	6
Knox	14	3	Wayne	98	54
Kosciusko	37	15	Wells	18	6
LaGrange	13	1	White	12	4
Lake	814	434	Whitley	13	3
LaPorte	138	50			
Lawrence	18	7	Total	7,005	3,674

Note: We defined dependence as “individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission”.

Source: Substance Abuse and Mental Health Data Archive, n.d.

APPENDIX 6B Part 1: Cocaine

Percentage of Indiana Students Reporting Lifetime, Annual, and Monthly Cocaine Use, by Region and Grade, 2007
(Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents, 2007)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	0.5	0.4	0.5	0.4	0.5	0.5	0.9	0.3	0.5
	Annual	0.4	0.3	0.4	0.2	0.1	0.4	0.9	0.3	0.3
	Monthly	0.2	0.1	0.2	0.3	0.1	0.2	0.4	0.1	0.2
7th Grade	Lifetime	1.2	1.0	1.6	1.4	1.0	1.1	1.4	0.9	1.7
	Annual	1.0	1.2	1.3	1.2	0.6	0.8	1.2	0.7	1.4
	Monthly	0.7	0.6	0.9	0.9	0.5	0.5	1.0	0.3	0.8
8th Grade	Lifetime	2.4	3.3	2.5	2.4	2.1	2.3	3.0	1.7	2.7
	Annual	1.8	2.6	1.8	1.7	1.6	1.7	2.4	1.4	2.1
	Monthly	1.1	1.8	1.0	0.8	0.9	1.0	1.2	0.8	1.2
9th Grade	Lifetime	3.7	3.7	4.4	2.6	3.3	3.9	4.6	2.6	3.9
	Annual	2.6	2.5	3.2	1.7	2.3	2.6	3.2	1.7	2.7
	Monthly	1.4	1.4	1.8	1.1	1.1	1.5	1.8	0.8	1.3
10th Grade	Lifetime	5.8	6.0	5.4	5.2	6.0	5.8	7.1	5.1	6.3
	Annual	4.0	4.3	3.7	3.3	4.3	4.0	5.1	3.5	4.3
	Monthly	1.9	2.1	1.8	1.5	2.3	2.2	1.9	1.5	1.9
11th Grade	Lifetime	6.9	7.8	6.3	6.6	6.8	7.0	8.1	5.0	7.1
	Annual	4.6	5.8	4.3	4.6	4.1	4.8	5.6	3.1	4.5
	Monthly	2.1	2.9	1.8	2.2	1.9	2.2	2.2	1.9	2.0
12th Grade	Lifetime	7.8	9.0	7.1	7.7	8.5	7.7	8.5	7.1	8.0
	Annual	5.3	6.3	5.0	5.3	5.9	5.4	5.2	4.3	5.3
	Monthly	2.4	3.3	2.7	2.7	2.7	2.5	2.1	1.4	2.1

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

Source: Indiana Prevention Resource Center, 2007

APPENDIX 6B Part 2: Crack

Percentage of Indiana Students Reporting Lifetime, Annual, and Monthly Crack Use, by Region and Grade, 2007
(Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents, 2007)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	0.7	0.6	0.6	0.4	0.9	0.7	1.6	0.4	0.7
	Annual	0.5	0.3	0.5	0.5	0.6	0.4	1.2	0.4	0.4
	Monthly	0.3	0.3	0.2	0.3	0.3	0.3	0.7	0.2	0.3
7th Grade	Lifetime	1.3	0.9	1.5	1.6	0.9	1.1	2.0	0.8	1.9
	Annual	0.9	0.9	1.0	1.2	0.8	0.8	1.2	0.4	1.3
	Monthly	0.6	0.6	0.6	0.6	0.4	0.6	0.5	0.3	0.6
8th Grade	Lifetime	2.0	2.5	1.9	1.7	1.9	2.1	2.2	1.5	2.3
	Annual	1.5	1.8	1.5	1.1	1.6	1.4	1.7	1.3	1.7
	Monthly	0.9	1.3	0.8	0.7	0.8	0.9	0.8	0.8	0.9
9th Grade	Lifetime	2.4	2.1	3.4	1.4	2.0	2.6	3.4	1.7	1.8
	Annual	1.6	1.2	2.1	0.9	1.3	1.7	2.2	1.0	1.6
	Monthly	0.9	0.9	1.3	0.4	0.6	1.0	1.0	0.7	0.7
10th Grade	Lifetime	3.1	2.7	3.2	2.3	3.3	3.0	4.3	2.7	3.5
	Annual	2.0	2.0	1.9	1.2	2.4	2.0	2.9	1.6	2.2
	Monthly	1.0	0.8	1.2	0.8	1.3	1.1	1.3	0.8	1.0
11th Grade	Lifetime	3.3	3.2	2.9	3.1	3.2	3.5	3.5	3.1	3.5
	Annual	2.2	1.9	1.4	2.2	2.0	2.3	2.5	2.1	2.4
	Monthly	1.1	1.1	0.7	1.4	1.0	1.2	0.8	1.2	1.2
12th Grade	Lifetime	3.2	3.6	3.2	2.2	4.6	3.2	4.1	2.7	3.0
	Annual	2.0	2.4	2.0	1.4	2.7	2.2	2.3	1.4	1.9
	Monthly	1.1	1.6	1.2	0.8	1.4	1.1	1.2	0.5	0.9

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

Source: Indiana Prevention Resource Center, 2007

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7. Heroin Use in Indiana: Consumption Patterns and Consequences

Heroin is an illegal, highly addictive drug. It is a rapidly acting opiate-type drug that is typically sold as a white or brown powder or as a black, sticky substance known on the streets as "black tar heroin" (Office of National Drug Control Policy, 2007).

According to the Drug Enforcement Agency (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 2006, the DEA seized approximately 5.5 kilograms of heroin in Indiana, considerably less than the amount seized in the surrounding states of Ohio, Illinois, Kentucky, or Michigan (U.S. DEA, 2007).

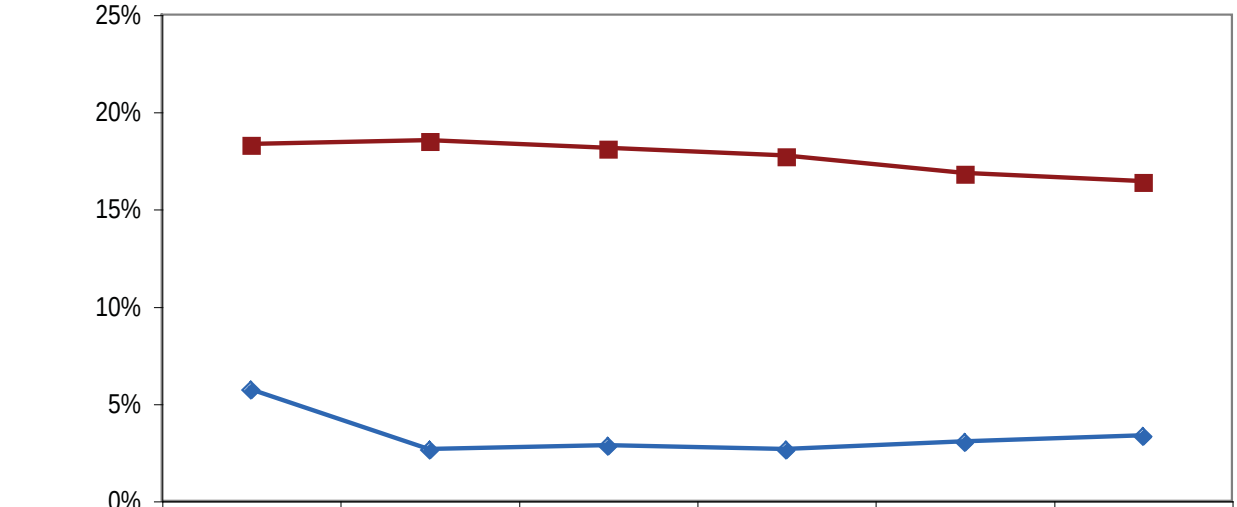
CONSUMPTION

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 2005, 1.5% of all U.S. citizens age 12 or older had tried heroin at least once in their lifetime; 0.2% had used it in the past year; and 0.1% were current (past month) users (Substance Abuse and Mental Health Services Administration, 2007). The annual averages in Indiana for lifetime, past year, and current heroin use, based on 2002–2004 NSDUH data,[1] were 1.1% (54,000 residents), 0.2% (9,000 residents), and 0.0% (1,000 residents) respectively.

Data from the Treatment Episode Data System (TEDS), for 2000 through 2005, show that a significantly smaller percentage of Indiana residents entering substance abuse treatment reported current heroin use, compared to the rest of the United States ($t = -170.36$; $p < .001$). In 2005, 3.3% of Hoosiers in treatment reported heroin use as compared to 16.4% of Americans (Substance Abuse and Mental Health Data Archive, n.d.), (see Figure 7.1). For county-level treatment data, see Appendix 7A, page 115.

Figure 7.1 Percentage of Indiana and U.S. Residents in Substance Abuse Treatment Who Reported Heroin Use at Admission, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



	2000	2001	2002	2003	2004	2005
Indiana	5.7%	2.6%	2.8%	2.6%	3.0%	3.3%
U.S.	18.3%	18.5%	18.1%	17.7%	16.8%	16.4%

Source: Substance Abuse and Mental Health Data Archive, n.d.

[1]The most current state-level NSDUH data available on this variable are annual averages based on 2002-2004 data.

Adult Consumption Patterns

Based on 2005 NSDUH results, people using heroin in the past month were primarily young adults, ages 18 to 24 (U.S.: 0.2%). The number of Americans 26 and older who currently use heroin is extremely low (statistically 0.0%). Prevalence rates by age group are not available for Indiana.

A review of the Treatment Episode Data Set (TEDS) shows that nearly all of the individuals locally and nationally who report currently using heroin at the time of their admission for substance abuse treatment are 18 or older (Substance Abuse and Mental Health Data Archive, SAMHDA, n.d.). Age is associated with heroin use reported at admission. The highest rates in Indiana can be found among older adults (45 years and older). The difference in heroin use across age groups was statistically significant over all years reviewed (for 2000: Pearson chi-square = 1194.71, $p < .001$; for 2001: Pearson chi-square = 375.34, $p < .001$; for 2002: Pearson chi-square = 448.432, $p < .001$; for 2003: Pearson chi-square = 184.23, $p < .001$; for 2004: Pearson chi-square = 308.80, $p < .001$; for 2005: Pearson chi-square = 389.20, $p < .001$) (see Figure 7.2).

A gender effect was also observed for heroin use among adults entering substance abuse treatment. From 2000 through 2005, females were significantly more likely to report current use of heroin than males (for 2000: Pearson chi-square = 29.45, $p < .001$; for 2001: Pearson chi-square = 21.74, $p < .001$; for 2002: Pearson chi-square =10.28, $p < .01$; for 2003: Pearson chi-square = 20.24, $p < .001$; for 2004: Pearson chi-square = 19.51, $p < .001$; for 2005: Pearson chi-square = 19.86, $p < .001$) (see Figure 7.3).

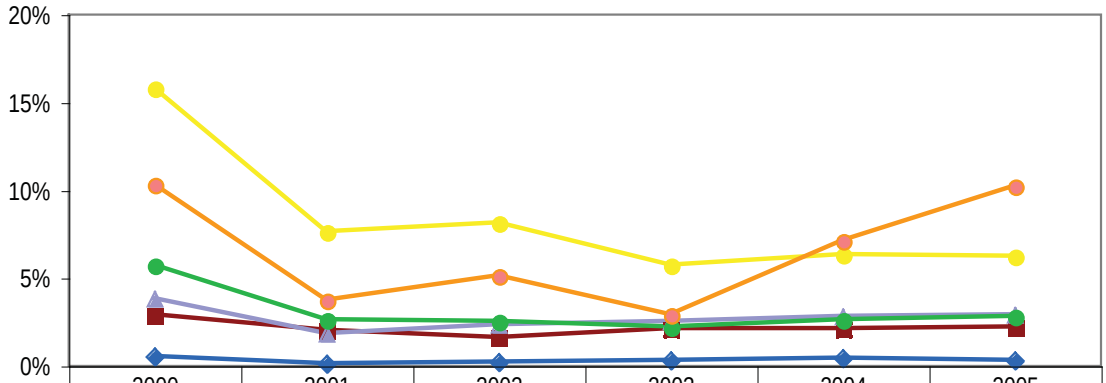
Significant differences were seen by racial group (for 2001: Pearson chi-square = 104.27, $p < .001$; for 2002: Pearson chi-square = 217.97, $p < .001$; for 2003: Pearson chi-square = 55.05, $p < .001$; for 2004: Pearson chi-square = 206.73, $p < .001$; for 2005: Pearson chi-square = 125.18, $p < .001$): Blacks reported the highest rate of heroin use from 2001 through 2005[2] (see Figure 7.4).

Youth Consumption Patterns

Information on the consumption patterns of youth (middle and high school students) is available from three sources:

- Youth Risk Behavior Surveillance System, or YRBSS (Centers for Disease Control and Prevention, 2007b),
- Monitoring the Future survey, or MTF (University of Michigan, n.d.), and

Figure 7.2 Percentage of Indiana Residents in Substance Abuse Treatment Who Reported Heroin Use at Admission, by Age Group, 2000 through 2005 (Treatment Episode Data System, 2000–2005)

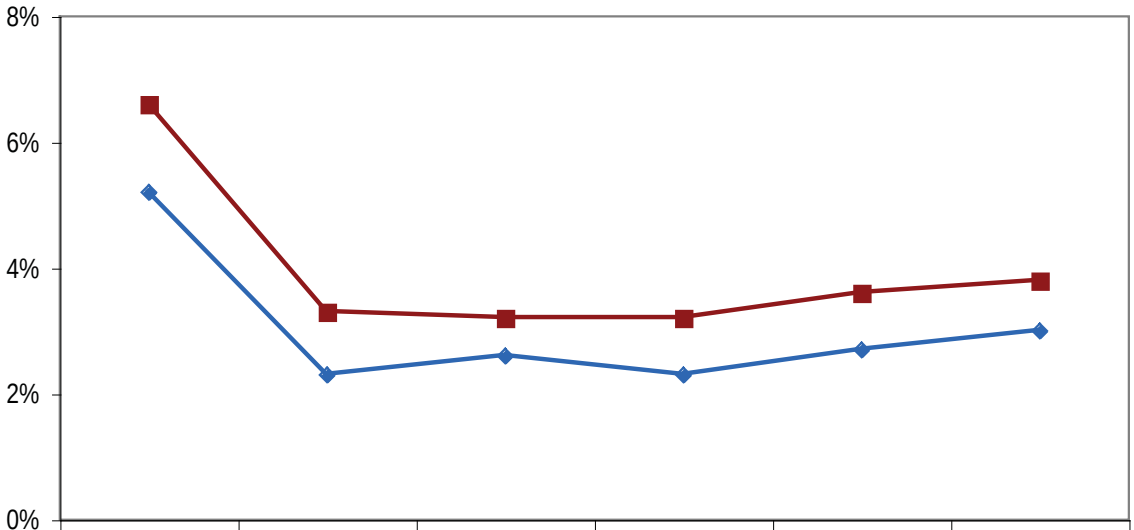


	2000	2001	2002	2003	2004	2005
Under 18	0.5%	0.1%	0.2%	0.3%	0.4%	0.3%
18 to 24	2.9%	2.0%	1.6%	2.1%	2.1%	2.2%
25 to 34	3.8%	1.8%	2.3%	2.5%	2.8%	2.9%
35 to 44	5.7%	2.6%	2.5%	2.2%	2.6%	2.8%
45 to 54	15.8%	7.6%	8.1%	5.7%	6.3%	6.2%
55 and over	10.3%	3.7%	5.1%	2.9%	7.1%	10.2%

Source: Substance Abuse and Mental Health Data Archive, n.d.

[2]Due to possible problems related to the coding of race in the 2000 TEDS, the data for 2000 were not included in this part of the analysis.

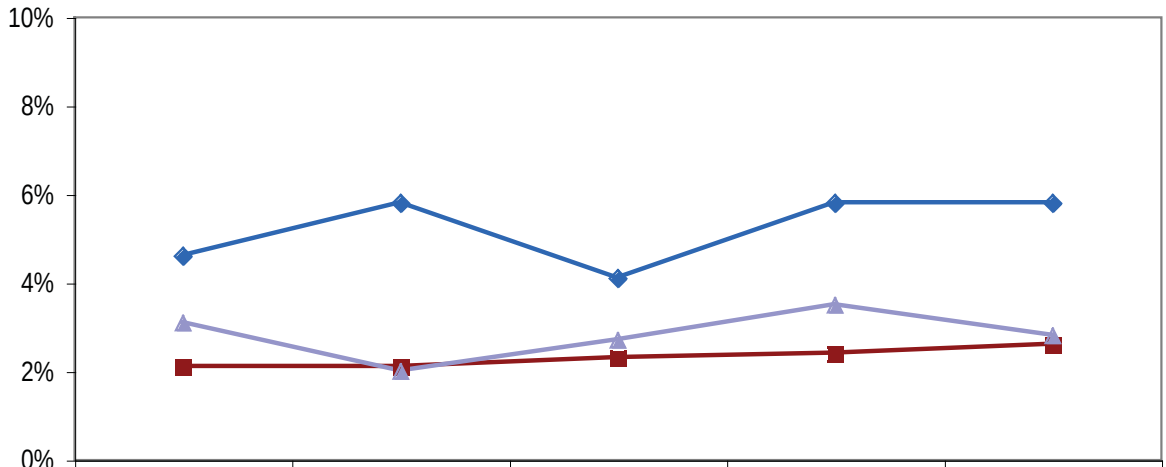
Figure 7.3 Percentages of Indiana Residents in Substance Abuse Treatment Who Reported Heroin Use at Admission, by Gender, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



	2000	2001	2002	2003	2004	2005
Male	5.2%	2.3%	2.6%	2.3%	2.7%	3.0%
Female	6.6%	3.3%	3.2%	3.2%	3.6%	3.8%

Source: Substance Abuse and Mental Health Data Archive, n.d.

Figure 7.4 Percentage of Indiana Residents in Substance Abuse Treatment Who Reported Heroin Use at Admission, by Race, 2001 through 2005 (Treatment Episode Data System, 2001–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

- Alcohol, Tobacco, and Other Drug Use of Indiana Children and Adolescents Survey, or ATOD (Indiana Prevention Resource Center, IPRC, 2007), an Indiana-specific non-random survey modeled after the MTF.

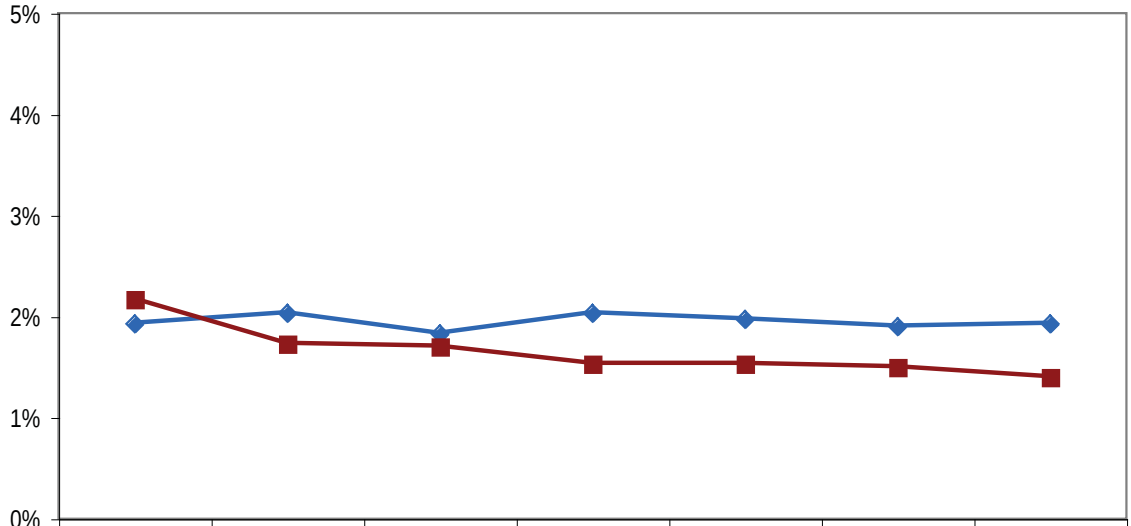
Two years of data are available from the YRBSS for the state of Indiana. In 2003 and 2005, 2.4% (C.I. = 1.6% to 3.2%) and 2.3% (C.I. = 1.2% to 3.4%), respectively, of YRBSS participants in Indiana reported having tried heroin at least once in their life. Indiana's percentages were statistically identical to those reported for lifetime heroin use by YRBSS participants in the rest of the nation (for 2003: 3.3%, C.I. = 2.6% to 4.0%; for 2005: 2.4%, C.I. = 2.0% to 2.8%).

A gender effect in Indiana can be observed for 2003 (males reported significantly higher lifetime heroin use than females), but not for 2005. The percentages of both males and females in Indiana reporting lifetime use is statistically similar to males and females in the rest of the United States.

According to YRBSS results, race is not related to heroin use in Indiana. The difference between the percentages of White and Black high school students who had tried heroin at least once in their lifetime, as reported by Indiana's YRBSS participants in both 2003 and 2005, were statistically not significant. Also, lifetime heroin use among Black and White respondents is similar for Indiana and the nation. Similarly, no differences were detected by grade level.

Based on 2006 ATOD results, 1.93% of 8th, 10th, and 12th grade students combined reported lifetime use, 1.27% confirmed annual use, and 0.83% reported current heroin use. When we compare these rates to the average national rates for the consumption patterns reported by the 2006 MTF[3] (lifetime use: 1.40%; annual use: 0.83%; monthly use 0.40%), Indiana is found to be higher on all three use indicators (see Figures 7.5 through 7.7). Because of the nature of the currently available data, it is not possible to determine whether Indiana's average rates for lifetime, annual, or monthly use are statistically higher than the rest of the United States. (For lifetime, annual, and monthly heroin use rates in Indiana by region and grade, see Appendix 7B, page 116).

Figure 7.5 Percentages of Indiana and U.S. Students (8th, 10th, and 12th Graders Combined) Reporting Lifetime Heroin Use, 2000 through 2006 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents; Monitoring the Future, 2000–2006)



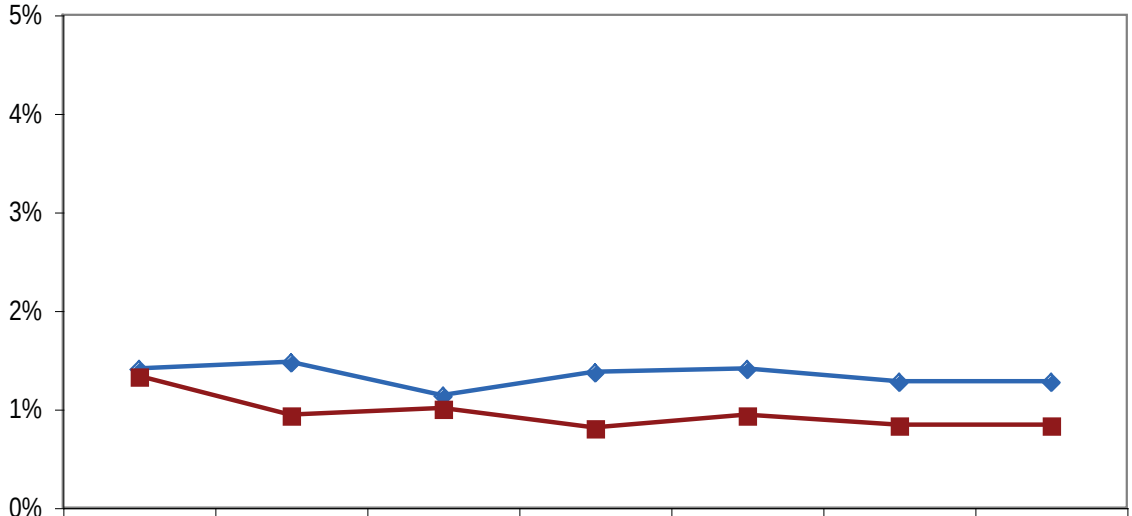
	2000	2001	2002	2003	2004	2005	2006
Indiana	1.93%	2.03%	1.83%	2.03%	1.97%	1.90%	1.93%
U.S.	2.17%	1.73%	1.70%	1.53%	1.53%	1.50%	1.40%

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

Source: Indiana Prevention Resource Center, 2007; University of Michigan, n.d

[3]At the time of the report, the most recent data available were 2006 results from the MTF survey (national data) and 2007 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, only data up to 2006 were used. However, the 2007 Indiana data is available, by region, as an appendix at the end of the chapter.

Figure 7.6 Percentages of Indiana and U.S. Students (8th, 10th, and 12th Graders Combined) Reporting Annual Heroin Use, 2000 through 2006 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents; Monitoring the Future, 2000–2006)

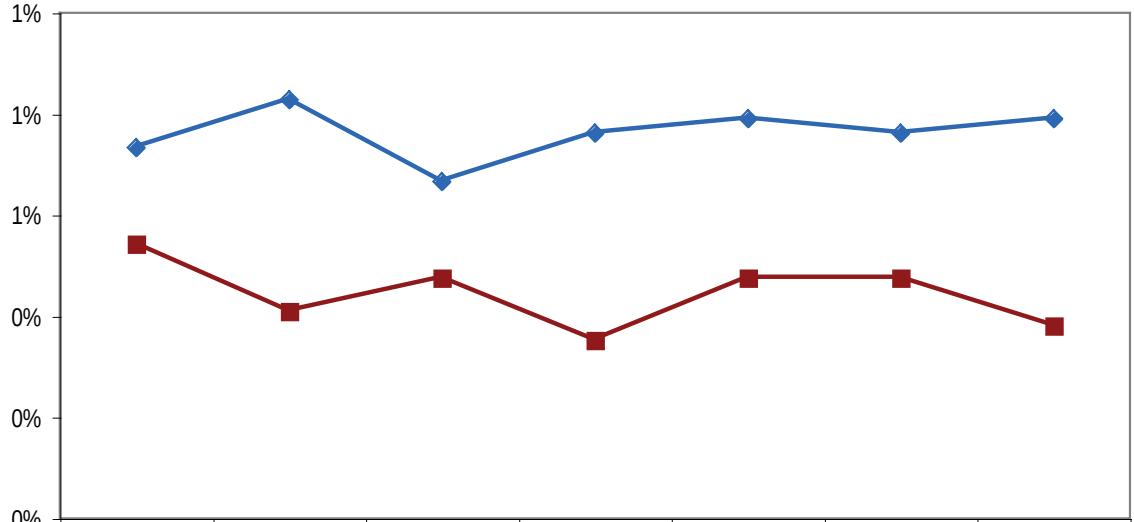


	2000	2001	2002	2003	2004	2005	2006
Indiana	1.40%	1.47%	1.13%	1.37%	1.40%	1.27%	1.27%
U.S.	1.33%	0.93%	1.00%	0.80%	0.93%	0.83%	0.83%

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

Source: Indiana Prevention Resource Center, 2007; University of Michigan, n.d

Figure 7.7 Percentages of Indiana and U.S. Students (8th, 10th, and 12th Graders Combined) Reporting Monthly Heroin Use, from 2000 through 2006 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents; Monitoring the Future, 2000–2006)



	2000	2001	2002	2003	2004	2005	2006
Indiana	0.77%	0.87%	0.70%	0.80%	0.83%	0.80%	0.83%
U.S.	0.57%	0.43%	0.50%	0.37%	0.50%	0.50%	0.40%

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

Source: Indiana Prevention Resource Center, 2007; University of Michigan, n.d

Use among Hoosier students increases with age, displaying the lowest prevalence among 8th graders and highest rates among 12th graders. However, this pattern doesn't seem to be the same on the national level, with prevalence rates very similar among the age groups (see Table 7.1). The results of the ATOD survey, however, should be interpreted with caution as they are based on a non-random sample of Indiana students.

Table 7.1 Lifetime, Annual, and Monthly Heroin Use Rates among 8th, 10th, and 12th Grade Students, for 2006 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents, Monitoring the Future Survey, 2006)

Lifetime Use	8th Grade	10th Grade	12th Grade
ATOD	1.5%	2.0%	2.3%
MTF	1.4%	1.4%	1.4%
Annual Use	**8th Grade**	**10th Grade**	**12th Grade**
ATOD	1.0%	1.3%	1.5%
MTF	0.8%	0.9%	0.8%
Monthly Use	**8th Grade**	**10th Grade**	**12th Grade**
ATOD	0.7%	0.8%	1.0%
MTF	0.3%	0.5%	0.4%

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

Source: Indiana Prevention Resource Center, 2007; 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, including HIV/AIDS and Hepatitis C. Other health problems that have been reported in heroin abusers are infections of the heart lining and valves, abscesses, cellulitis, liver disease, and pulmonary complications. Because street heroin often contains toxic additives that do not easily dissolve, blood vessels leading to the heart, lungs, liver, kidneys, or brain can get clogged. Clogs of this nature can lead to infection or death of small parts of cells in vital organs (National Institute on Drug Abuse, 2005; Office of National Drug Control Policy, 2007). The Drug Abuse Warning Network reports that approximately 11% of drug-related emergency room visits nationally in 2005 involved heroin (Office of Applied Studies, 2005).

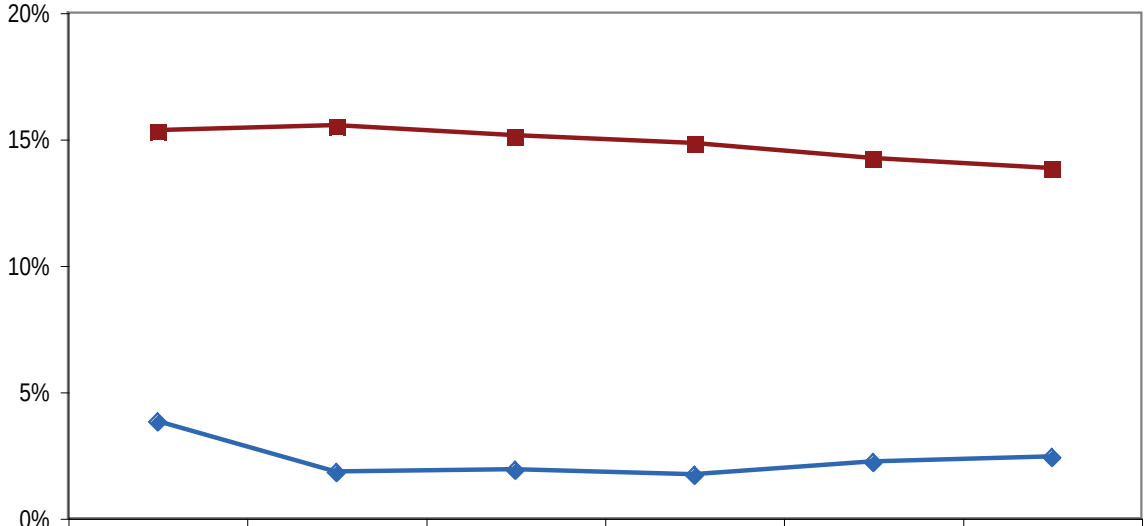
Heroin Dependence

For this document, we defined dependence as "individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission." A comparison of data from the Treatment Episode Data Set (TEDS), 2000 through 2005, shows that the percentage of heroin-related drug treatment admissions has consistently been significantly lower in Indiana than the rest of the United States (for 2000: Pearson chi-square = 4013.19, $p < .001$; for 2001: Pearson chi-square = 4160.67, $p < .001$; for 2002: Pearson chi-square = 4206.36, $p < .001$; for 2003: Pearson chi-square = 4351.16, $p < .001$; for 2004: Pearson chi-square = 4543.86, $p < .001$; for 2005: Pearson chi-square = 4165.66, $p < .001$) (see Figure 7.8).

As with heroin consumption, heroin dependence is reported almost exclusively by individuals 18 years of age or older. In Indiana, heroin dependence accounted for 0.3% of admissions to substance abuse treatment programs for residents under age 18 in 2005; in the United States overall, the rate was 0.5%. As with heroin use among individuals entering treatment, heroin dependence is also affected by age, gender, and race. As age increases, so does the percentage of heroin-related admissions. Indiana residents ages 45 and older had the highest percentage of admissions for heroin dependence. These patterns are consistent across all years reviewed (for 2000: Pearson chi-square = 640.46, $p < .001$; for 2001: Pearson chi-square = 147.09, $p < .001$; for 2002: Pearson chi-square = 106.43, $p < .001$; for 2003: Pearson chi-square = 92.37, $p < .001$; for 2004: Pearson chi-square = 119.13, $p < .001$; for 2005: Pearson chi-square = 119.13, $p < .001$) (see Figure 7.9).

Because only a very small number of individuals under age 18 are admitted for heroin treatment in Indiana (5 or fewer admissions per year), analyses of race and gender rates for this group would not be statistically valid.

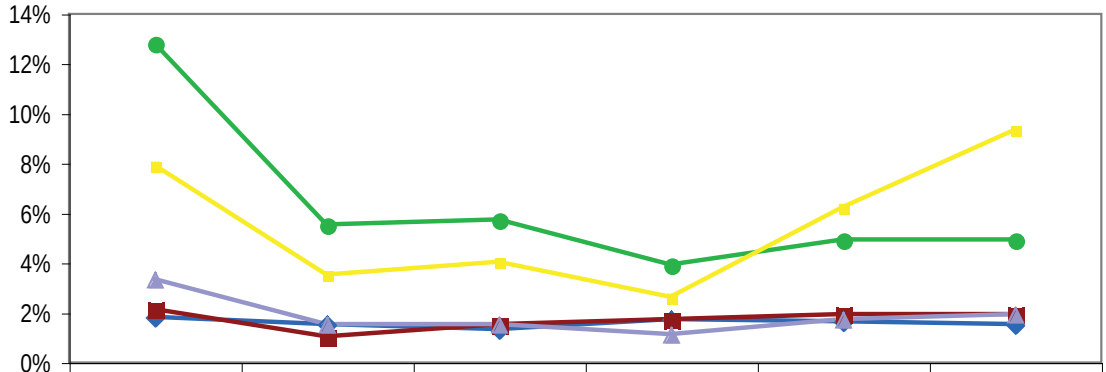
Figure 7.8 Percentage of Indiana and U.S. Residents in Substance Abuse Treatment Who Listed Heroin as their Primary Substance at Admission, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



	2000	2001	2002	2003	2004	2005
Indiana	3.8%	1.8%	1.9%	1.7%	2.2%	2.4%
U.S.	15.3%	15.5%	15.1%	14.8%	14.2%	13.8%

Source: Substance Abuse and Mental Health Data Archive, n.d.

Figure 7.9 Percentage of Indiana Residents in Substance Abuse Treatment Who Listed Heroin as their Primary Substance at Admission, by Age Group, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



	2000	2001	2002	2003	2004	2005
18 to 24	1.8%	1.5%	1.3%	1.7%	1.6%	1.5%
25 to 34	2.1%	1.0%	1.5%	1.7%	1.9%	1.9%
35 to 44	3.3%	1.5%	1.5%	1.1%	1.7%	1.9%
45 to 54	12.8%	5.5%	5.7%	3.9%	4.9%	4.9%
55 and over	7.9%	3.5%	4.0%	2.6%	6.2%	9.3%

Note: We defined dependence as “individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission.”

Source: Substance Abuse and Mental Health Data Archive, n.d.

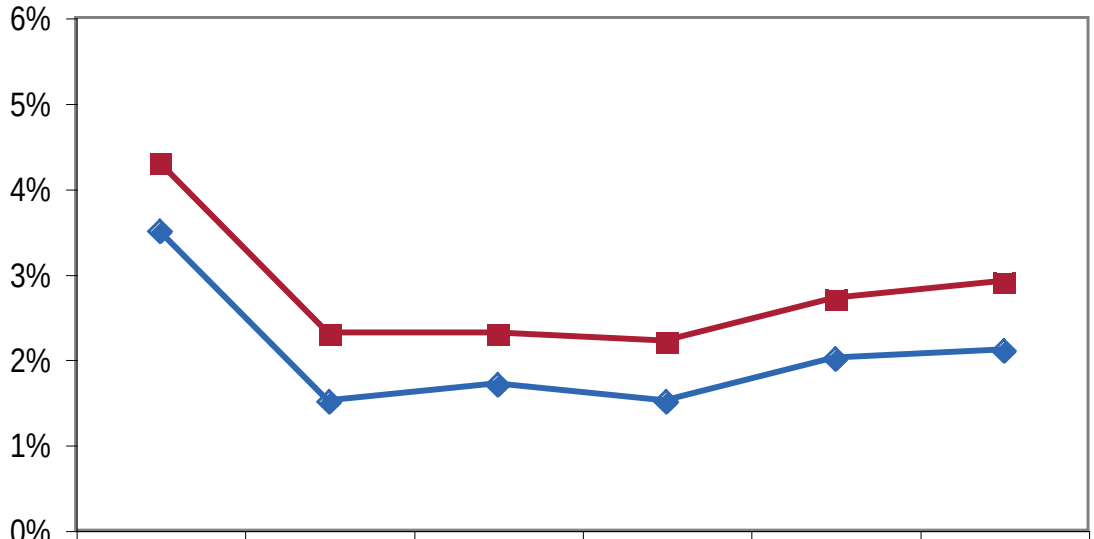
Gender is significantly associated with heroin-related treatment admissions. Regardless of the year, Indiana women are more likely to enter treatment for heroin dependence than men (for 2000: Pearson chi-square = 12.37, p = .001; for 2001: Pearson chi-square = 19.67, p < .001; for 2002: Pearson chi-square = 10.27, p < .01; for 2003: Pearson chi-square = 20.69, p < .001; for 2004: Pearson chi-square = 20.01, p < .001; for 2005: Pearson chi-square = 19.06, p < .001) (see Figure 7.10).

Significant differences in admission rates for heroin dependency have been identified by racial group (for 2001: Pearson chi-square = 130.56, p < .001; for 2002: Pearson chi-square = 199.19, p < .001; for 2003: Pearson chi-square = 28.57, p < .001; for 2004: Pearson chi-square = 250.91, p < .001; for 2005: Pearson chi-square = 153.43, p < .001). From 2001 through 2005, Blacks in Indiana entering substance abuse treatment were significantly more likely to report heroin as their primary drug then Whites or individuals from other races (the rates for Whites and "Others" were statistically the same over the years) (see Figure 7.11[5]). For county-level treatment data, see Appendix 7A, pages 115.

HIV/AIDS

One of the most serious consequences of heroin abuse is contraction of HIV from contaminated needles. In 2005, a total of 351 HIV infections and 409 AIDS cases were reported in Indiana, and the cumulative total (from the beginning of the epidemic through 2005) adds up to 3,888 HIV infections and 7,963 AIDS cases. The Centers for Disease Control and Prevention calculated the annual AIDS rate to be 6.5 in Indiana and 14.0 in the United States, per 100,000 population (CDC, 2007c). However,

Figure 7.10 Percentage of Indiana Residents in Substance Abuse Treatment Who Listed Heroin as their Primary Substance at Admission, by Gender, 2000 through 2005 (Treatment Episode Data System, 2000—2005)



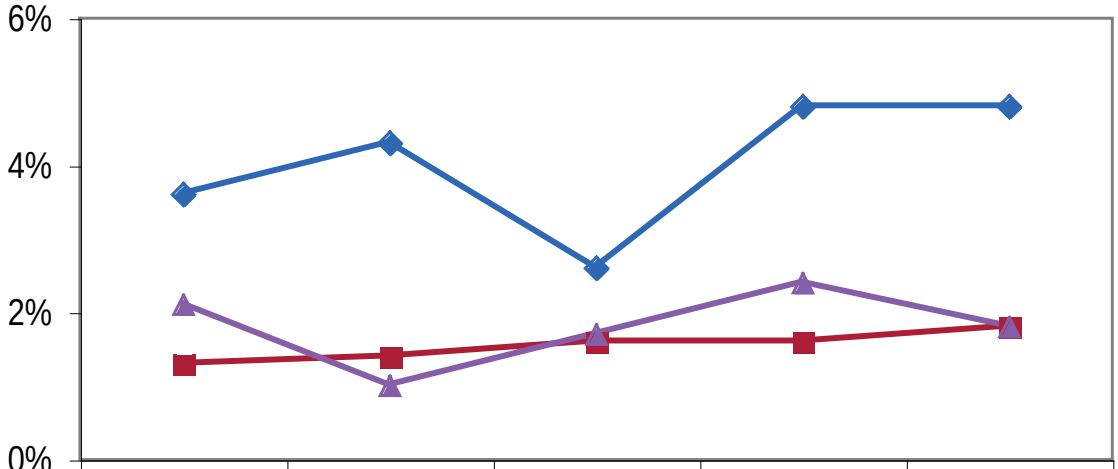
	2000	2001	2002	2003	2004	2005
Male	3.5%	1.5%	1.7%	1.5%	2.0%	2.1%
Female	4.3%	2.3%	2.3%	2.2%	2.7%	2.9%

Note: We defined dependence as "individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission."

Source: Substance Abuse and Mental Health Data Archive, n.d.

[5]Due to possible problems related to the coding of race in the 2000 TEDS, the data for 2000 were not included in this part of the analysis.

Figure 7.11 Percentage of Indiana Residents in Substance Abuse Treatment Who Listed Heroin as their Primary Substance at Admission, by Race, 2001 through 2005 (Treatment Episode Data System, 2001–2005)



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

Note: We defined dependence as "individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission."

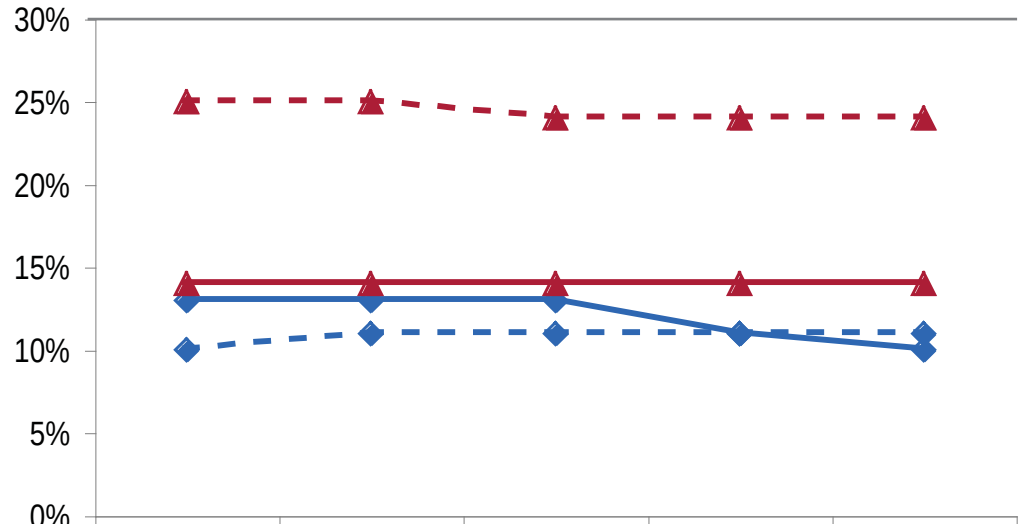
Source: Substance Abuse and Mental Health Data Archive, n.d.

not all of these cases are caused by injection drug use (IDU). According to the Indiana State Department of Health, 10% of all reported HIV transmissions and 11% of all AIDS cases are attributable to IDU (ISDH, n.d.). The numbers are somewhat higher for the nation: 14% (HIV) and 24% (AIDS) (CDC, 2007c). Figure 7.12 on page 114 depicts the percentage of cumulative HIV and AIDS cases attributable to IDU in Indiana and the United States from 2001 to 2005. Comparisons for age, race, and gender could not be made due to the nature of the data currently available. Additionally, it could not be determined whether the differences observed are statistically significant (see Figure 7.12). The age-adjusted HIV/AIDS mortality rate (ICD-10 code B20-B24) in Indiana in 2004 was 1.8 per 100,000 population (U.S.: 4.5) (CDC, 2007a).

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 (IDUs) (CDC, 2006b). The incidence rates per 100,000 for acute hepatitis in Indiana were 1.3 for HBV (U.S.: 2.1) and 0.2 for HCV (U.S.: 0.3) in 2004. Both HBV and HCV incidence rates have been declining since the mid- to late 1980s; but continue to be higher for males than females (CDC, 2006a). IDU has been identified as a risk factor, and of all the patients with acute hepatitis B in 2004, 15.9% injected drugs 6 weeks to 6 months prior to onset of the disease; this proportion is even higher for patients with acute hepatitis C (41.8%). 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 (CDC, 2006a). The age-adjusted mortality rate attributable to HBV and HCV (acute and chronic) is 0.9 per 100,000 population in Indiana and 1.7 per 100,000 population in the United States (ICD-10 codes B16, B17.0, B17.1, B18.0-B18.2) (CDC, 2007a).

Figure 7.12 Percentage of Cumulative HIV and AIDS Cases in Indiana and the United States, Attributable to Injection Drug Use, 2001 through 2005



	2001	2002	2003	2004	2005
Indiana HIV	13.0%	13.0%	13.0%	11.0%	10.0%
Indiana AIDS	10.0%	11.0%	11.0%	11.0%	11.0%
U.S. HIV	14.0%	14.0%	14.0%	14.0%	14.0%
U.S. AIDS	25.0%	25.0%	24.0%	24.0%	24.0%

Source: Indiana State Department of Health, n.d.; Centers for Disease Control and Prevention, 2007c

Legal Consequences

During federal fiscal year (FFY) 2004, a total of 32,980 arrests were made nationally for drug violations, of which 1,881 were due to heroin. Additionally, the Drug Enforcement Administration (DEA) reported 2,273 arrests for opiates. During FFY 2006, there were 1,576 offenders sentenced for heroin-related charges in U.S. Courts (Office of National Drug Control Policy, 2007).

The Uniform Crime Reports (UCR) program collects information on arrests for possession and manufacture/sale of opium and cocaine combined (National Archive of Criminal Justice Data, n.d.). According to the 2005 dataset, 5,020 arrests were made for possession, and 2,617 arrests for sale/manufacture of opium and cocaine in Indiana; this represents an arrest rate of 0.80 and 0.42 respectively per 1,000 population (for county-level data, refer to Maps 6.1 and 6.2, pages 98 and 99, in the cocaine chapter).

APPENDIX 7A

Number of Indiana Residents in Substance Abuse Treatment Who Reported Heroin Use and Who Listed Heroin as their Primary Substance at Admission, by County and Drug Category, 2005 (Treatment Episode Data Set, 2005)

County	Heroin Use	Heroin Dependence
Adams	1	0
Allen	24	8
Bartholomew	2	1
Benton	0	0
Blackford	0	0
Boone	3	1
Brown	0	0
Carroll	0	0
Cass	2	2
Clark	8	6
Clay	1	0
Clinton	0	0
Crawford	0	0
Daviess	0	0
Dearborn	3	2
Decatur	1	0
DeKalb	3	1
Delaware	8	4
DuBois	0	0
Elkhart	5	1
Fayette	4	3
Floyd	2	2
Fountain	1	0
Franklin	0	0
Fulton	0	0
Gibson	1	0
Grant	4	2
Greene	0	0
Hamilton	21	10
Hancock	2	1
Harrison	1	0
Hendricks	5	2
Henry	3	2
Howard	10	6
Huntington	0	0
Jackson	2	0
Jasper	2	2
Jay	1	1
Jefferson	0	0
Jennings	3	2
Johnson	6	4
Knox	0	0
Kosciusko	0	0
LaGrange	1	1
Lake	357	316
LaPorte	14	7
Lawrence	3	2
Madison	7	2
Marion	236	184
Marshall	5	4
Martin	1	0
Miami	2	0
Monroe	43	28
Montgomery	3	2
Morgan	4	3
Newton	0	0
Noble	0	0
Ohio	1	1
Orange	1	1
Owen	1	1
Parke	1	0
Perry	0	0
Pike	0	0
Porter	55	43
Posey	1	1
Pulaski	0	0
Putnam	2	2
Randolph	1	1
Ripley	3	1
Rush	1	0
Scott	3	2
Shelby	2	2
Spencer	2	0
St. Joseph	32	23
Starke	1	1
Steuben	2	1
Sullivan	0	0
Switzerland	0	0
Tippecanoe	9	6
Tipton	0	0
Union	0	0
Vanderburgh	6	4
Vermillion	0	0
Vigo	4	2
Wabash	12	7
Warren	0	0
Warrick	0	0
Washington	1	0
Wayne	10	6
Wells	0	0
White	2	0
Whitley	1	0
Total	959	717

Note: We defined dependence as “individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission.”

Source: Substance Abuse and Mental Health Data Archive, n.d.

APPENDIX 7B

Percentage of Indiana Students Reporting Lifetime, Annual, and Monthly Heroin Use, by Region and Grade, 2007
(Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents, 2007)

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

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

Source: Indiana Prevention Resource Center, 2007

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8. Methamphetamine Use in Indiana: Consumption Patterns and Consequences

CONSUMPTION

General Consumption Patterns

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. The drug is easily made in clandestine laboratories with over-the-counter ingredients.

Meth's relative ease of manufacture and highly addictive potential are thought to contribute to its increased use across the nation.

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, SAMHSA, 2007). The latest prevalence estimates for the nation are based on the 2005 survey. However, state-level rates are the annual averages calculated with data from 2002 through 2004 (the most recent data now available). In Indiana, 4.5% of the population (225,000 residents) used meth at least once in their life, 0.8% (40,000 residents) used it in the past year, and 0.2% (10,000 residents) used it in the past month. The rates for the nation are similar, with 4.3% lifetime use, 0.5% past-year use, and 0.2% current use. Prevalence of past-year use varies by region within the United States: highest rates are found in the West (1.2%), followed by the Midwest (0.5%) and South (0.5%), and the Northeast (0.1%). Young Americans ages 18 to 25 years reported the highest rate of current (past month) use (0.6%). The numbers of citizens who first tried meth in the past year decreased from 318,000 in 2004 to 192,000 in 2005 (an estimate is not available for Indiana).

Overall, meth use in the United States decreased between 2002 and 2005: self-reported rates of lifetime use (for 2002: 5.3%; for 2003: 5.2%; 2004: 4.9%; for 2005: 4.3%), past year use (for 2002: 0.7%; for 2003: 0.6%; for 2004: 0.6%; for 2005: 0.5%), and current use (for 2002: 0.3%; for 2003: 0.3%; for 2004: 0.2%; for 2005: 0.2%) among individuals 12 years and older lessened. However, only lifetime use declined significantly (at the 0.01 level).

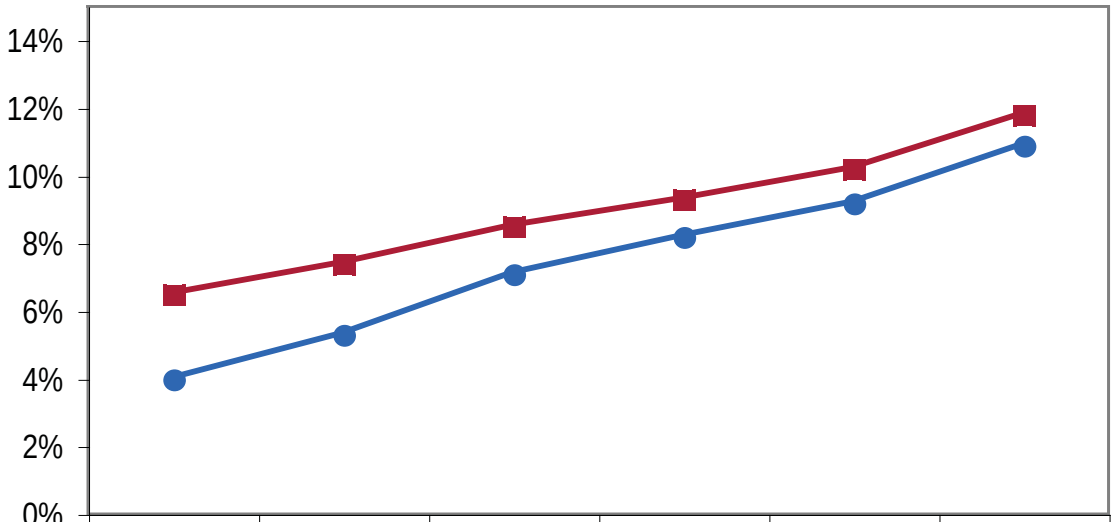
Adult Consumption Patterns

According to NSDUH results, almost 1.3 million Americans, including 40,000 Hoosiers, used methamphetamine in the past year. As mentioned before, the age group mostly affected is 18- to 25-year olds (US: 1.6%; IN: 1.9%); adults 26 and older report much lower past year use (U.S.: 0.4%; IN: not available). Among 18- to 25-year-old Americans, meth use (lifetime, past year, and past month) remained stable between 2004 and 2005. Adults 26 years and older decreased their lifetime meth usage rate significantly (on the 0.01 level) from 5.3% in 2004 to 4.5% in 2005 (SAMHSA, 2007).

The SAMHSA Treatment Episode Data System (TEDS) includes information gathered from patients at admission for each episode of substance abuse treatment (Substance Abuse Mental Health Data Archive, SAMHDA, n.d.). TEDS data from 2000 through 2005 show a steady increase, both nationally and in Indiana, in the reported rate of meth use at admission (see Figure 8.1). However, Indiana treatment admissions are statistically significantly less likely to report current meth use at admission than patients in the United States (for 2000: Pearson chi-square = 387.14, $p < .001$; for 2001: Pearson chi-square = 174.62, $p < .001$; for 2002: Pearson chi-square = 73.35, $p < .001$; for 2003: Pearson chi-square = 46.52, $p < .001$; for 2004: Pearson chi-square = 40.60, $p < .001$; for 2005: Pearson chi-square = 32.28, $p < .001$). From 2000 to 2005, the rate of treatment admissions reporting meth use in Indiana more than doubled from 4.0% to 10.9%.

Meth use also appears to be associated with age. As shown in Figure 8.2, with the exception of individuals under 18, younger individuals tend to have higher rates of use than older persons, with the highest rates among adults age 25 to 34. The differences among the age categories are statistically significant (for 2000: Pearson chi-square = 185.01, $p < .001$; for 2001: Pearson chi-square = 226.17, $p < .001$; for 2002: Pearson chi-square = 265.49, $p < .001$; for 2003: Pearson chi-square = 313.88, $p < .001$; for 2004: Pearson chi-square = 489.75, $p < .001$; for 2005: Pearson chi-square = 509.95, $p < .001$).

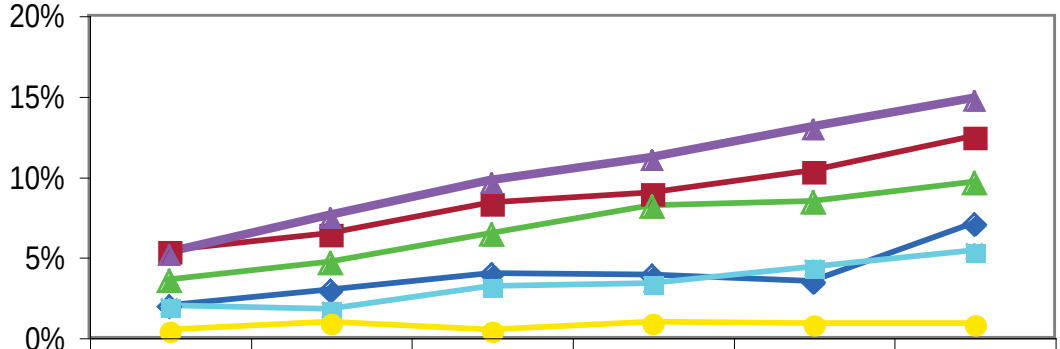
Figure 8.1 Percentages of Indiana and U.S. Residents in Substance Abuse Treatment Who Reported Methamphetamine Use at Admission, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

Figure 8.2 Percentages of Indiana Residents in Substance Abuse Treatment Who Reported Methamphetamine Use at Admission, by Age Group, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



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

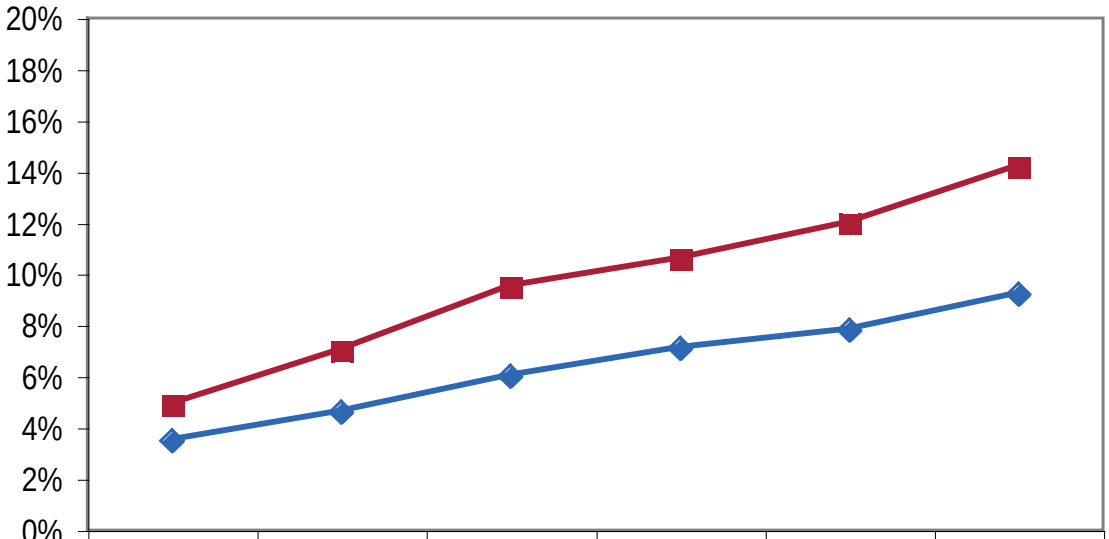
Source: Substance Abuse and Mental Health Data Archive, n.d.

TEDS data from 2000 through 2005 tend to bear this out (see Figure 8.3). A statistically significant gender effect is observed with meth use among individuals entering substance abuse treatment in Indiana. Across all data points, female clients were statistically significantly more likely to report meth use at admission than males (for 2000: Pearson chi-square = 43.01, $p < .001$; for 2001: Pearson chi-square = 72.97, $p < .001$; for 2002: Pearson

chi-square = 117.99, p < .001; for 2003: Pearson chi-square = 109.79, p < .001; for 2004: Pearson chi-square = 175.13, p < .001; for 2005: Pearson chi-square = 213.87, p < .001).

A statistically significant race effect also is observed for meth use among individuals entering substance abuse treatment (see Figure 8.4). White persons were more likely than Black or other minority individuals to

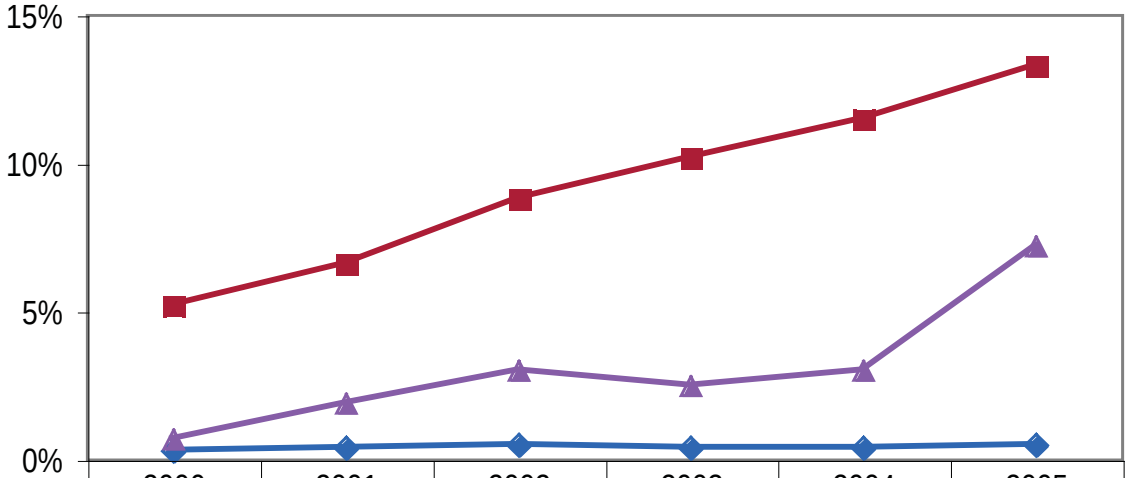
Figure 8.3 Percentages of Indiana Residents in Substance Abuse Treatment Who Reported Methamphetamine Use at Admission, by Gender, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

Figure 8.4 Percentages of Indiana Residents in Substance Abuse Treatment Who Reported Methamphetamine Use at Admission, by Race, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

report meth use at admission; (for 2000: Pearson chi-square = 429.28, p < .001; for 2001: Pearson chi-square = 345.09, p < .001; for 2002: Pearson chi-square = 491.19, p < .001; for 2003: Pearson chi-square = 616.48, p < .001; for 2004: Pearson chi-square = 858.46, p < .001; for 2005: Pearson chi-square = 653.74, p < .001). While rates of use among White patients at treatment admission increased between 2000 and 2005, from 5.2% to 13.3%, reported rates of meth use by Black individuals in treatment has remained steady at 0.5% or less (SAMHDA, n.d.). For county-level treatment data, see Appendix 8A, page 134.

Youth Consumption Patterns

Findings from the NSDUH demonstrate that reported rates of meth use (lifetime, past-year, and past-month) among 12- to 17-year-old Americans remained constant or increased slightly between 2004 and 2005. Reported lifetime use was 1.2% in both 2004 and 2005. Past-year use rose slightly from 0.6% in 2004 to 0.7% in 2005, and current use also rose from 0.2% in 2004 to 0.3% in 2005 (SAMHSA, 2007).

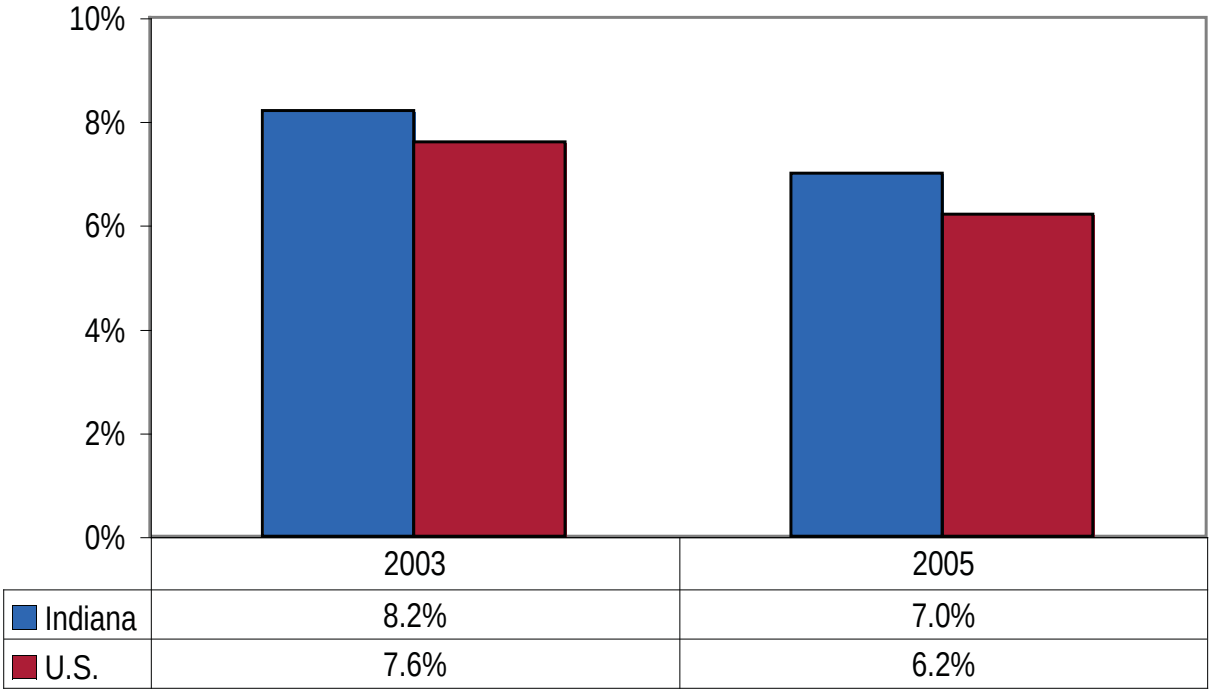
According to the 2005 Youth Risk Behavior Surveillance System (YRBSS), among students in the

Table 8.1 Percentage of High School Students (9th–12th Grades) Reporting Lifetime Methamphetamine Use, by Grade, Gender, and Race, Indiana and United States, 2003 and 2005 (Youth Risk Behavior Surveillance System, 2003 and 2005)

Grade	Year	Indiana	U.S.
9th	2003	7.0%	6.7%
	2005	5.7%	5.7%
10th	2003	6.6%	7.5%
	2005	6.9%	5.9%
11th	2003	8.0%	8.0%
	2005	7.0%	6.7%
12th	2003	12.0%	8.0%
	2005	9.0%	6.4%
Gender	**Year**	**Indiana**	**U.S.**
Male Students	2003	9.4%	8.3%
	2005	7.9%	6.3%
Female Students	2003	7.0%	6.8%
	2005	6.1%	6.0%
Race	**Year**	**Indiana**	**U.S.**
Black Students	2003	2.7%	3.1%
	2005	3.7%	1.7%
White Students	2003	8.6%	8.1%
	2005	7.7%	6.5%
Other	2003	12.8%	10.4%
	2005	4.6%	6.4%

Source: Centers for Disease Control and Prevention, 2007

Figure 8.5 Percentage of Indiana and U.S. High School Students (9th–12th Grade) Reporting Lifetime Methamphetamine Use, 2003 and 2005, (Youth Risk Behavior Surveillance System, 2003 and 2005)



Source: Centers for Disease Control and Prevention, 2007

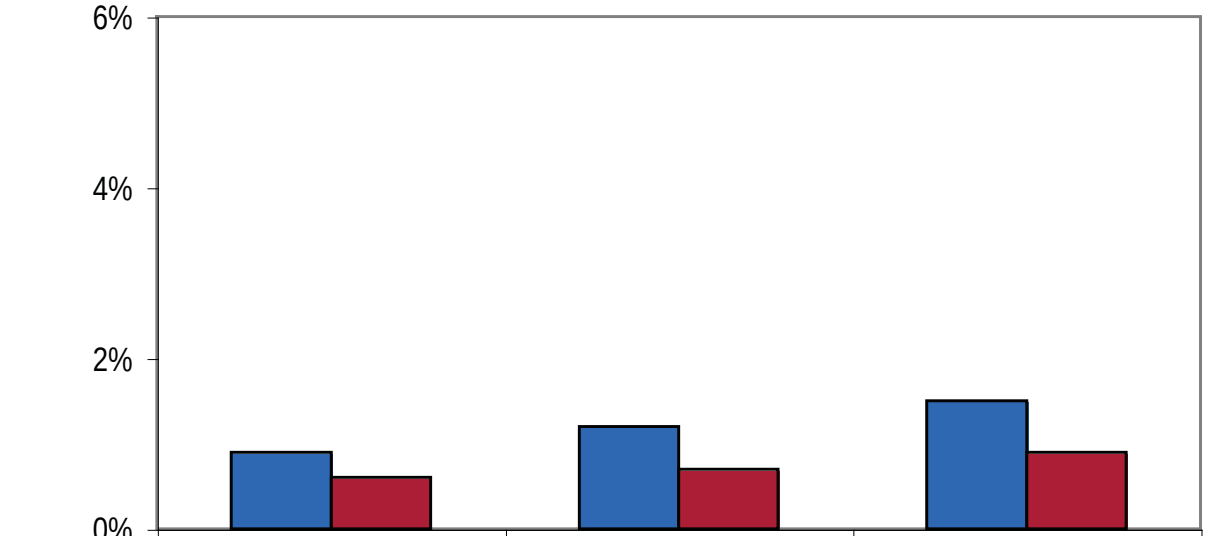
9th through the 12th grades, 7.0% in Indiana reported having used meth once or more in their lifetime, compared with a statistically similar national rate of 6.2% (Centers for Disease Control and Prevention, CDC, 2007). Lifetime prevalence seems to have decreased from 2003 (U.S.: 7.6%; IN: 8.2%) to 2005, but the differences are not significant (see Figure 8.5).

Rate differences by gender, race, and grade level are not significant within Indiana. Also, usage rates for Indiana high school students parallel U.S. rates and, even though they seem slightly higher, are statistically the same (see Table 8.1).

Two other surveys of young people that include questions about lifetime, annual, and current (past month) methamphetamine use are the Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD)[1] survey, which is conducted among Indiana students in the 6th through 12th grades by the Indiana Prevention Resource Center (Indiana Prevention Resource Center, 2007) and the Monitoring The Future (MTF)[2] survey, which is administered nationally among 8th, 10th, and 12th graders (University of Michigan, n.d.). Comparable results for 2006 are shown in Figure 8.6. MTF has tracked methamphetamine use for a number of years, but a meth question was first added to the ATOD survey in 2005, thus comparisons using these datasets are possible only for 2005 and 2006. For all grades in Indiana, reported rates of current methamphetamine use surpass U.S. rates; but due to the nature of the data, the significance of these differences could not be determined.

In Indiana, rates of use (lifetime, annual, and monthly) has in most grades decreased among 6th through 12th graders from 2006 to 2007 and has remained stable in the other grades. Caution should be exercised when interpreting the ATOD survey results, as these are based on a non-randomized sample of respondents. For lifetime, annual, and monthly

Figure 8.6 Percentage of Indiana and U.S. 8th, 10th, and 12th Grade Students Reporting Current (Past Month) Methamphetamine Use, by Grade, 2006 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey and Monitoring the Future Survey, 2006)



	8th	10th	12th
Indiana	0.90%	1.20%	1.50%
U.S.	0.60%	0.70%	0.90%

Sources: Indiana Prevention Resource Center, 2007; University of Michigan, n.d.

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

[2]At the time of the report, the most recent data available were 2006 results from the MTF survey (national data) and 2007 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, data from 2000 through 2006 were used.

methamphetamine use, by Indiana region and grade, see Appendix 8B, page 135.

CONSEQUENCES

Health-Related Consequences

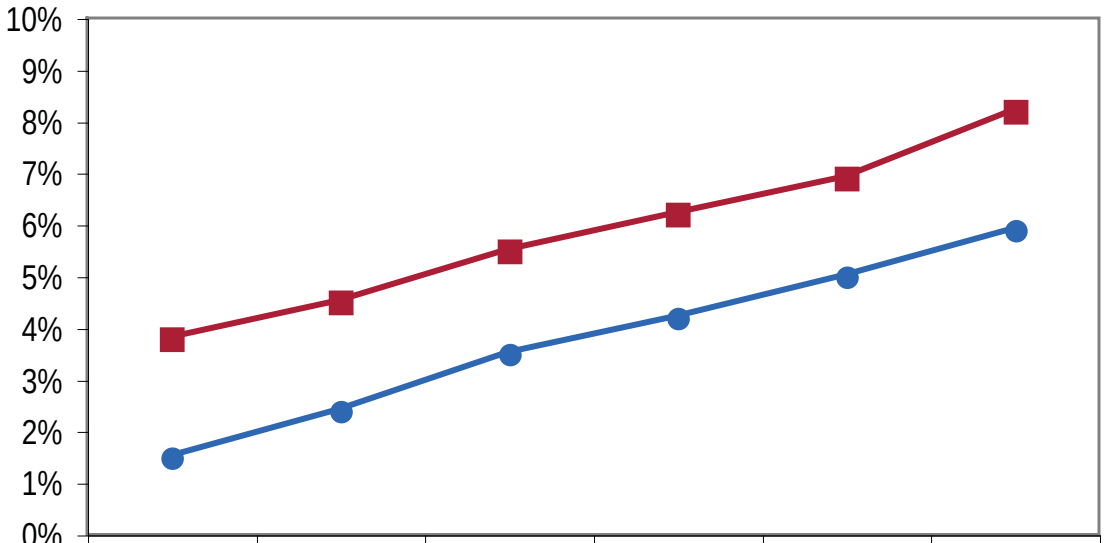
The health consequences of meth use include both short-term and chronic impacts. Short-term effects include increased wakefulness, physical activity, and decreased appetite, as well as cardiac problems, hyperthermia, depression, and confusion. When used chronically, meth causes long-term changes that result in impaired memory, mood alterations, diminished motor coordination, and psychiatric problems. Chronic, long-term use can 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 (U.S. Office of National Drug Control Policy, ONDCP, 2005; NIDA, 2002 and 2005).

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

Methamphetamine Dependence

As previously mentioned, meth is considered a highly addictive substance resulting in drug dependence. For this report, we defined dependence as "individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission." Data from the TEDS (SAMHDA, n.d.) demonstrate that the percent of admissions for which meth is indicated as the primary drug has been statistically significantly lower in Indiana than the rest of the nation; (for 2000: Pearson

Figure 8.7 Percentages of Indiana and U.S. Residents in Substance Abuse Treatment Who Listed Methamphetamine as their Primary Substance at Admission, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



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

Note: We defined dependence as "individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission."

Source: Substance Abuse and Mental Health Data Archive, n.d.

chi-square = 540.65, p < .001; for 2001: Pearson chi-square = 294.30, p < .001; for 2002: Pearson chi-square = 222.21, p < .001; for 2003: Pearson chi-square = 212.38, p < .001; for 2004: Pearson chi-square = 219.97, p < .001; for 2005: Pearson chi-square = 288.89, p < .001). In Indiana, between 2000 and 2005, the percentage of admissions for which meth was reported as the primary substance of use increased significantly from 1.5% to 5.9% (t [Students t test] = -31.96; p < .001) (see Figure 8.7).

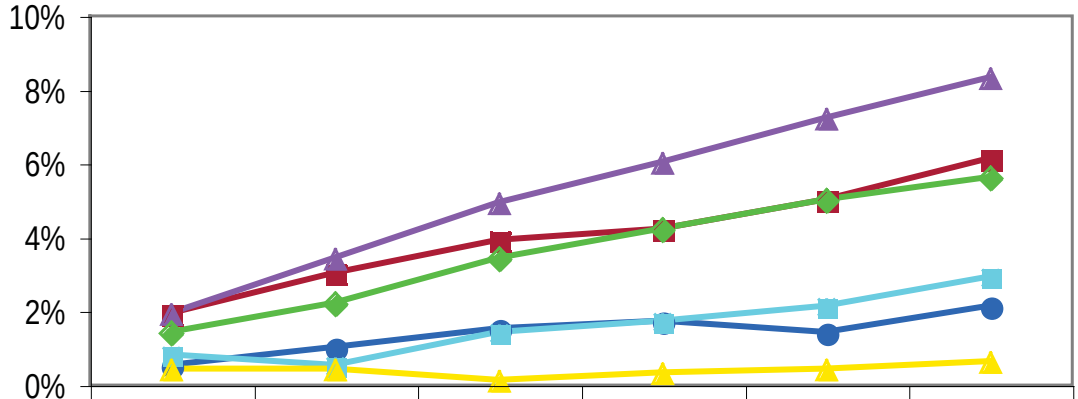
Age appears to be significantly associated with reporting methamphetamine as the primary substance at admission in Indiana (for 2000: Pearson chi-square = 59.43, p < .001; for 2001: Pearson chi-square = 120.26, p < .001; for 2002: Pearson chi-square = 141.59, p < .001; for 2003: Pearson chi-square =185.58, p < .001; for 2004: Pearson chi-square = 285.73, p < .001; for 2005: Pearson chi-square = 296.10, p < .001). Younger adults (18 to 44 years old) had higher rates of reporting meth as their primary drug. Rates increased from 2000 through 2005, especially among 18-to 24-year-olds (from 1.9% to 6.1%), 25- to 34-year-olds (from 1.9% to 8.3%), and 35- to 44-year-olds (from 1.4% to 5.6%—see Figure 8.8).

Race and gender combined also have a significant effect (for 2000: Pearson chi-square = 55.14, p < .001; for 2001: Pearson chi-square = 80.06, p < .001; for 2002: Pearson chi-square =132.13, p < .001; for 2003: Pearson chi-square = 89.23, p < .001; for 2004: Pearson chi-square =111.44, p < .001; for 2005: Pearson chi-square = 574.85, p < .001) (see Figure 8.9). White women are more likely than White men to report meth as their primary drug of use at admission for substance abuse treatment, with rates for both gender groups showing a steady increase from 2002 to 2005. Rates for Black men and Black women do not differ, are extremely low compared to other groups, and remained constant during the six-year period (2000–2005) (SAMHDA, n.d.). For county-level treatment data, see Appendix 8A, page 134.

Criminal Consequences

According to the U.S. Drug Enforcement Agency (DEA), Indiana has become an area of high drug trafficking and distribution. Meth manufactured in Mexico and the southwestern states is increasingly being transported into Indiana. In 2006 alone, 15.7 kg (34.6 pounds) of

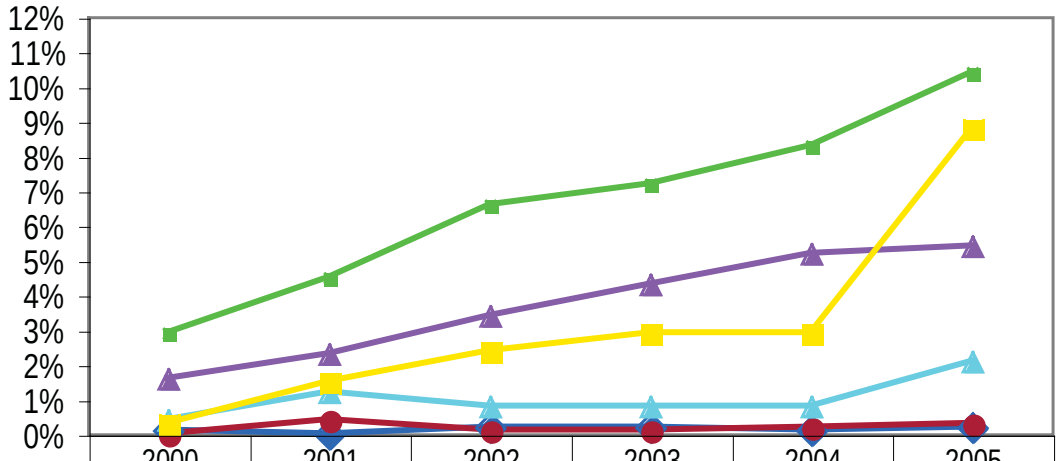
Figure 8.8 Percentages of Indiana Treatment Admissions Reporting Methamphetamine as their Primary Drug, by Age, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

Figure 8.9 Percentages of Indiana Treatment Admissions Reporting Methamphetamine as their Primary Drug, by Race and Gender, 2000 through 2005 (Treatment Episode Data System, 2000–2005)



	2000	2001	2002	2003	2004	2005
Black males	0.1%	0.0%	0.2%	0.2%	0.1%	0.2%
Black females	0.0%	0.4%	0.1%	0.1%	0.2%	0.3%
White males	1.6%	2.3%	3.4%	4.3%	5.2%	5.4%
White females	2.9%	4.5%	6.6%	7.2%	8.3%	10.4%
Other males	0.4%	1.2%	0.8%	0.8%	0.8%	2.1%
Other females	0.3%	1.5%	2.4%	2.9%	2.9%	8.8%

Source: Substance Abuse and Mental Health Data Archive, n.d.

meth were seized in the state. Meth labs in Indiana produce higher purity (30 to 40 percent) meth, but do not generate large quantities for distribution, (U.S. DEA, 2007).

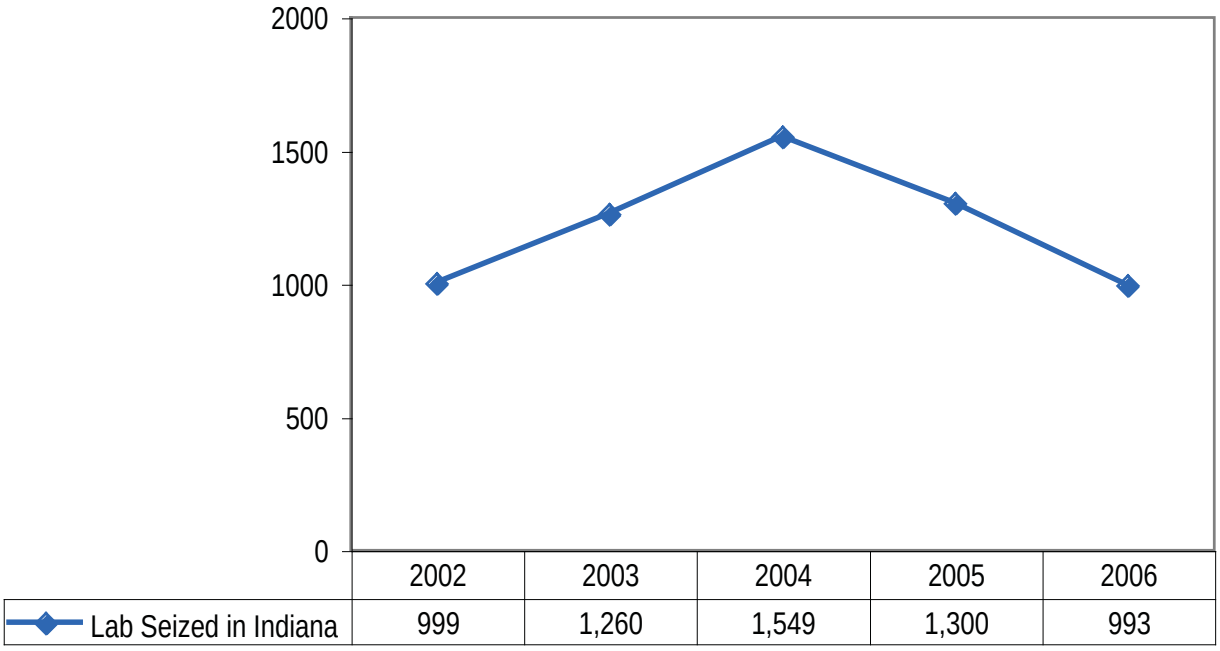
The DEA El Paso Intelligence Center (EPIC) National Clandestine Laboratory Seizure System houses the central repository for data pertaining to clandestine labs seized in the United States by local, state, and federal law enforcement agencies. The National Clandestine Laboratory Seizure report (from the El Paso Intelligence Center) includes types, numbers, and locations of labs seized; precursor and chemical sources; and number of children and law enforcement officers affected. The Indiana State Police (ISP) and a few local law enforcement agencies report clandestine meth lab seizures directly to EPIC. These data describe seizures of drug labs in the state and lab-related arrest rates. ISP responded to 993 labs in 2006, down from 1,549 clandestine labs in 2004 (see Figure 8.10).

Map 8.1 (page 130) shows the number of meth labs seized per county in 2006; five counties had more than 50 lab seizures during the year.

Map 8.2 (page 131) presents the change from 2004 to 2006 in the number of meth labs seized; 26 counties experienced an increase in lab seizures from 2004 to 2006, 8 counties remained stable, and in 58 counties the number of meth labs seized decreased.

Meth is considered a synthetic stimulant. The Uniform Crime Reports (UCR) series 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, n.d.) According to UCR data, 2,034 individuals were arrested for synthetic drug possession and 581 for the sale/manufacture of these drugs in Indiana in 2005. The arrest rates for synthetic drug possession rose from 1999 to 2005 for both Indiana and the United States, with Indiana's rates first exceeding the nation's in 2001 (U.S.: 0.12; IN: 0.15 per 1,000 population). In 2005, possession arrest rates were 0.32 in Indiana and 0.19 in the United States (per 1,000 population); even though Indiana's rate seems higher than the nation's, the difference is not significant (see Figure 8.11).

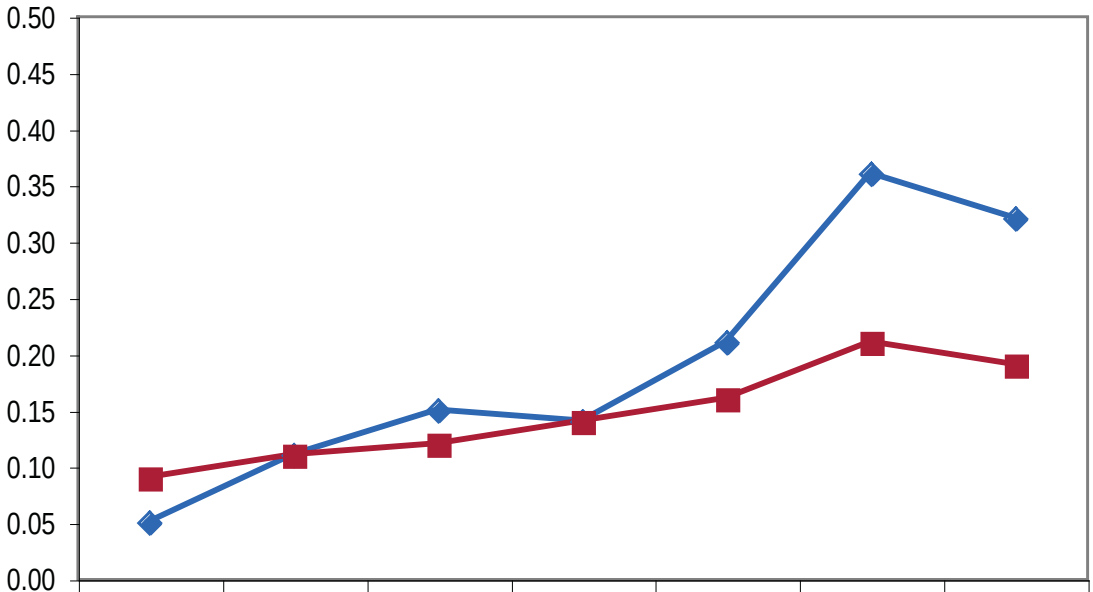
Figure 8.10 Number of Clandestine Labs Seized in Indiana, 2002 through 2006 (El Paso Intelligence Center, 2002–2006)



	2002	2003	2004	2005	2006
Lab Seized in Indiana	999	1,260	1,549	1,300	993

Source: U.S. Drug Enforcement Agency/Indiana State Police, 2007

Figure 8.11 Arrest Rates for Synthetic Drug Possession per 1,000 Population, Indiana and United States, 1999 through 2005, (Uniform Crime Reports, 1999–2005)



	1999	2000	2001	2002	2003	2004	2005
Indiana	0.05	0.11	0.15	0.14	0.21	0.36	0.32
U.S.	0.09	0.11	0.12	0.14	0.16	0.21	0.19

Source: National Archive of Criminal Justice Data, n.d.

While U.S. arrest rates for synthetic drug sale/manufacture remained relatively stable, from 0.05 in 1999 to 0.08 in 2005 (per 1,000 population), Indiana rates were low in 1999 (0.01), spiked in 2001 (0.10) and 2004 (0.15), and declined again in 2005 (0.09) (per 1,000 population) (see Figure 8.12).

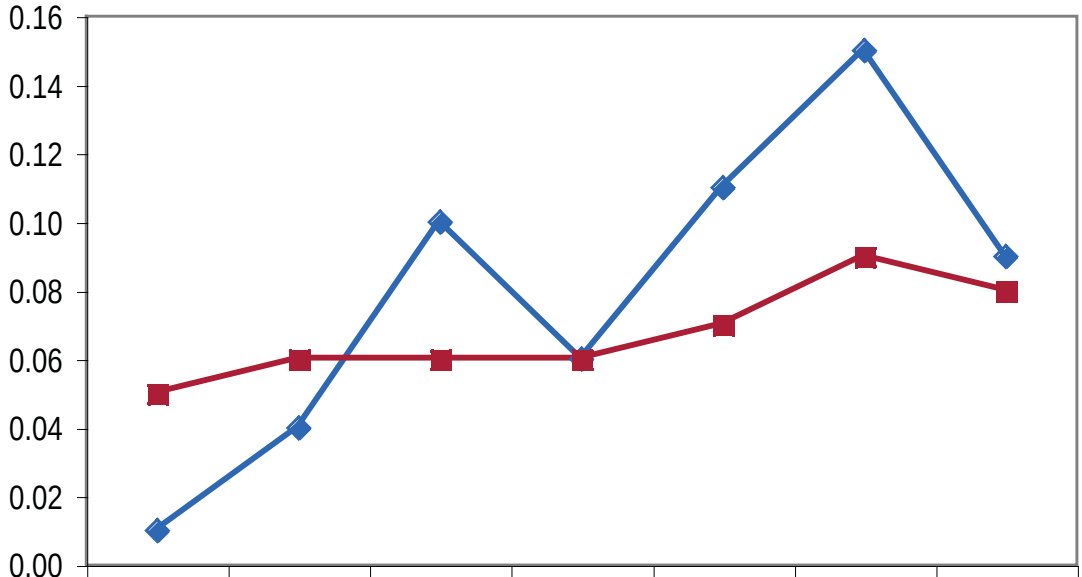
Maps 8.3 and 8.4 (pages 132 and 133) show the distribution, by county, of the arrest rates for synthetic drug possession and sale/manufacture.

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, and therefore, a portion of these data are based on estimates. (For more details, see the discussion of UCR data in the Methodology section.)

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 (NIDA, 2005). According to data from ISP and EPIC, the number of children affected by meth labs in Indiana rose from 182 in 2002 to 217 in 2004, and fell to 144 in 2006 (see Figure 8.13).

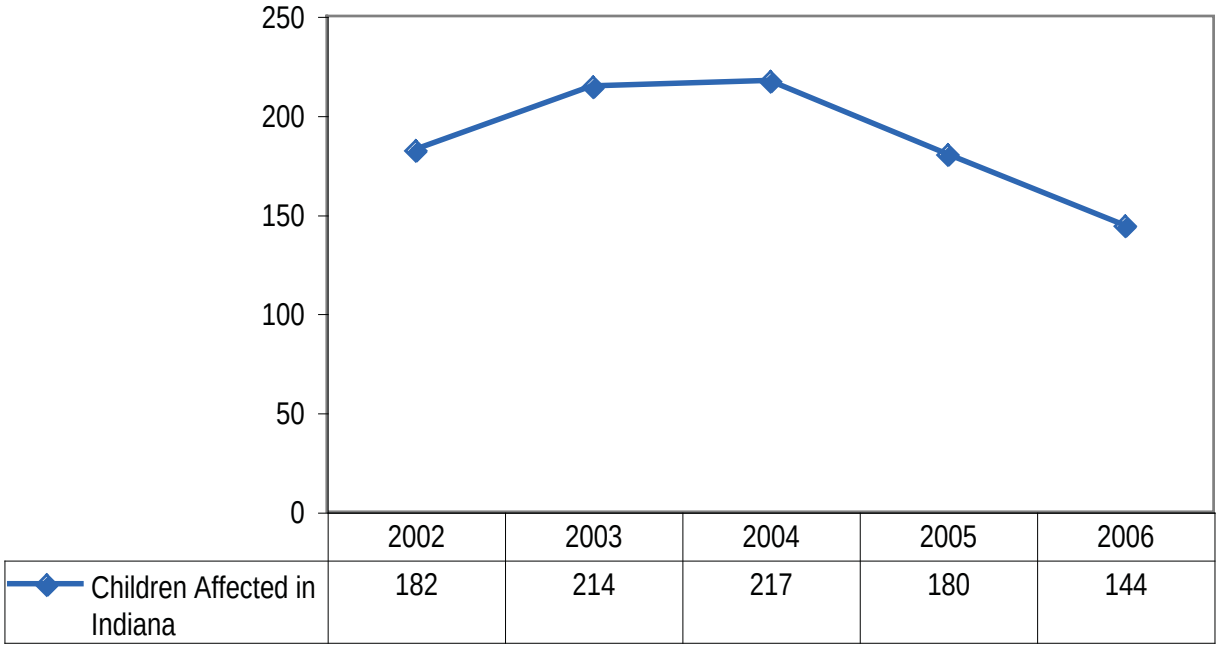
Figure 8.12 Arrest Rates for Synthetic Drug Sale/Manufacture, per 1,000 Population, Indiana and United States, 1999 through 2005 (Uniform Crime Reports, 1999–2005)



	1999	2000	2001	2002	2003	2004	2005
Indiana	0.01	0.04	0.10	0.06	0.11	0.15	0.09
U.S.	0.05	0.06	0.06	0.06	0.07	0.09	0.08

Source: Archive of Criminal Justice Data, n.d

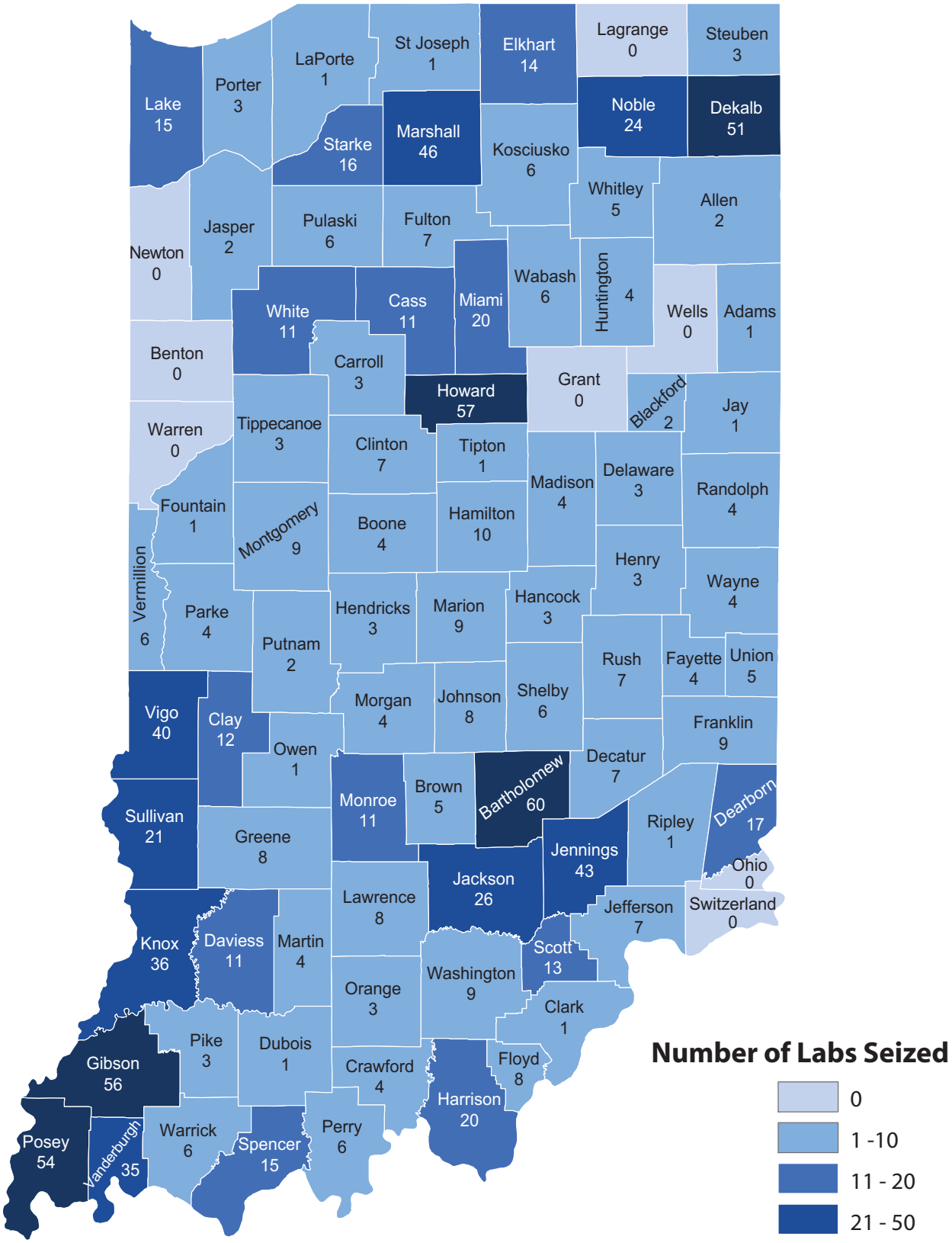
Figure 8.13 Number of Indiana Children Affected by Meth, 2002 through 2006 (El Paso Intelligence Center, 2002–2006)



	2002	2003	2004	2005	2006
Children Affected in Indiana	182	214	217	180	144

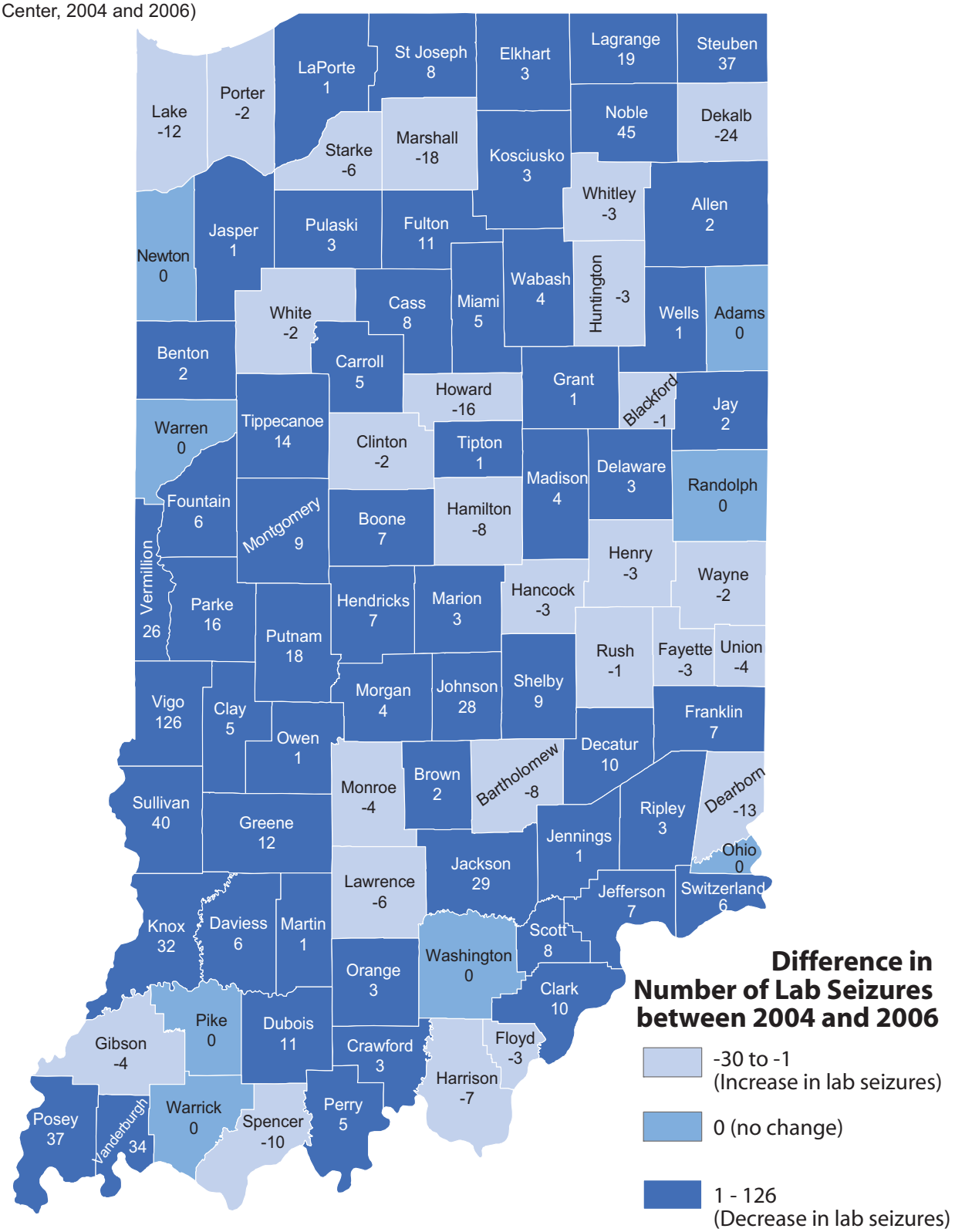
Source: U.S. Drug Enforcement Agency/Indiana State Police, 2007

Map 8.1 Number of Clandestine Meth Labs Seized in Indiana, by County, 2006 (El Paso Intelligence Center, 2006)



Source: U.S. Drug Enforcement Agency/Indiana State Police, 2007

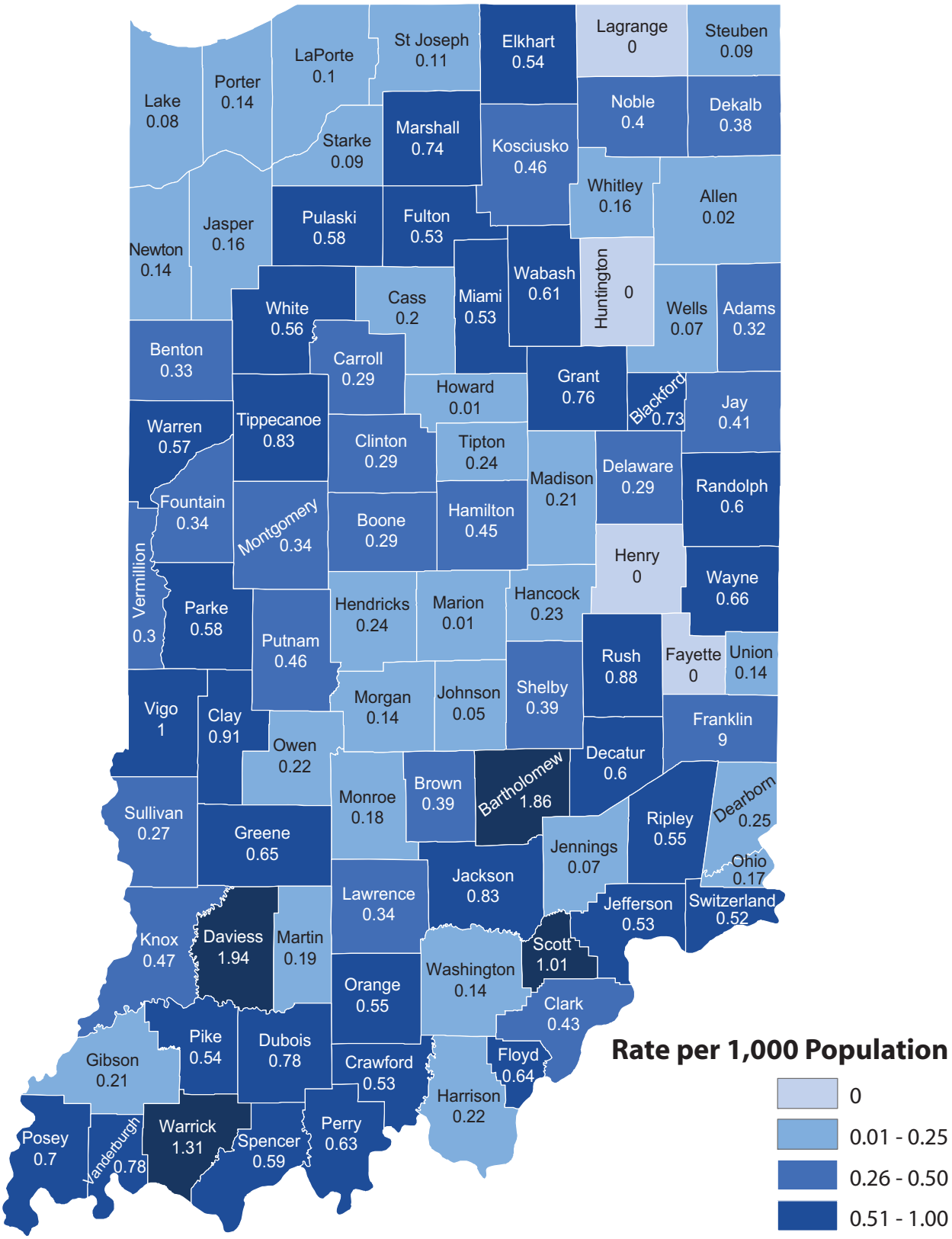
Map 8.2 Change in Number of Meth Labs Seized in Indiana, by County, 2004 and 2006 (El Paso Intelligence Center, 2004 and 2006)



Note: The numbers shown were calculated by subtracting the number of labs seized in 2006 from the number of labs seized in 2004. If more labs were seized in 2006, the difference is negative.

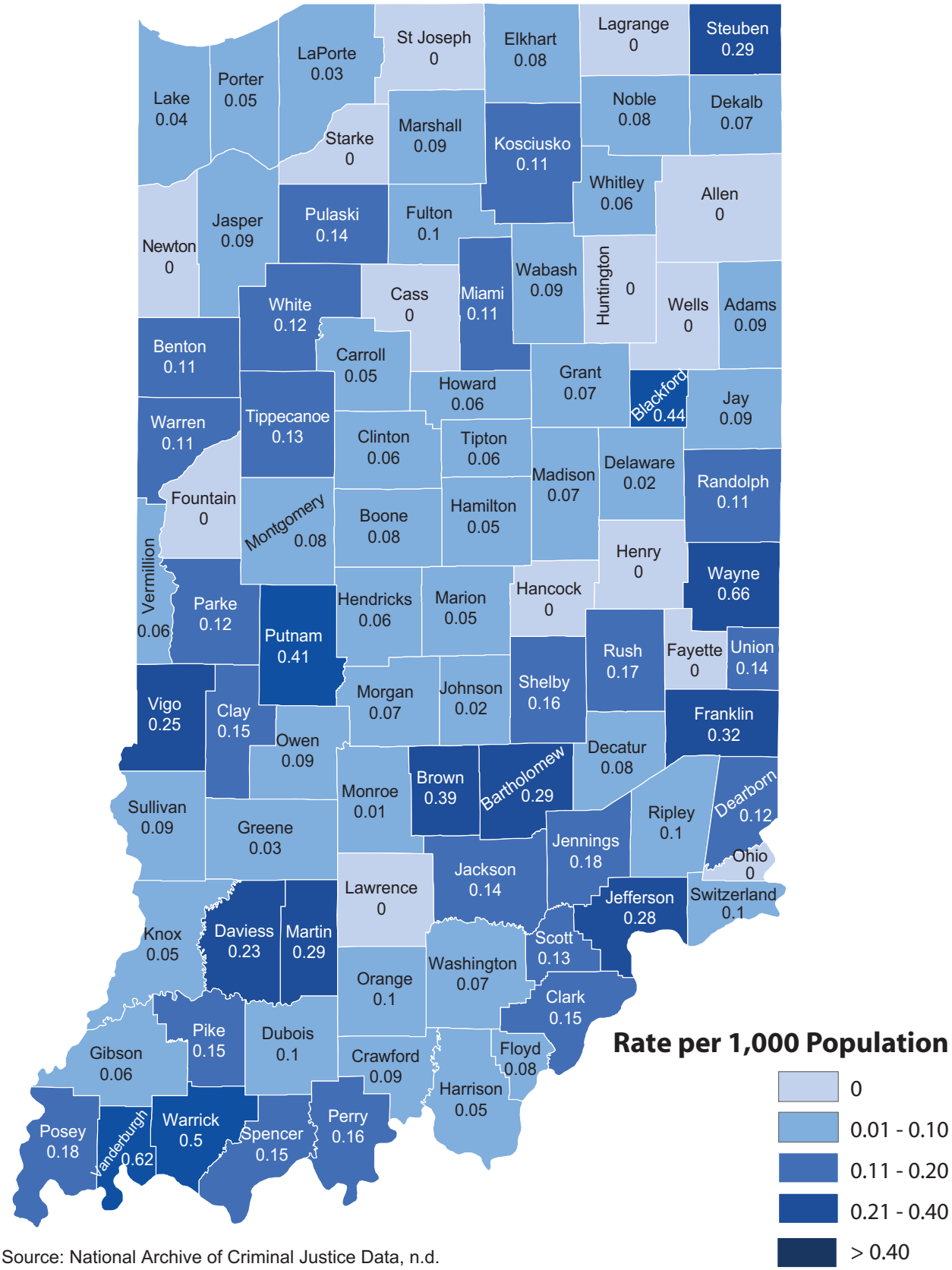
Source: U.S. Drug Enforcement Agency/Indiana State Police, 2007

Map 8.3 Arrest Rates for Synthetic Drug Possession, per 1,000 Population, by County, 2005 (Uniform Crime Reports, 2005)



Source: National Archive of Criminal Justice Data, n.d.

Map 8.4 Arrest Rates for Synthetic Drug Sale/Manufacture Arrest, per 1,000 Population, by County, 2005 (Uniform Crime Reports, 2005)



Source: National Archive of Criminal Justice Data, n.d.

APPENDIX 8A

Number of Indiana Residents in Substance Abuse Treatment Who Reported Methamphetamine Use and Who Listed Methamphetamine as their Primary Substance at Admission, by County, 2005 (Treatment Episode Data Set, 2005)

County	Methamphetamine Use	Methamphetamine Dependence
Adams	5	2
Allen	16	6
Bartholomew	109	67
Benton	4	0
Blackford	1	0
Boone	20	7
Brown	6	3
Carroll	15	12
Cass	23	14
Clark	38	20
Clay	89	51
Clinton	3	1
Crawford	15	6
Daviess	47	24
Dearborn	9	2
Decatur	6	4
DeKalb	22	12
Delaware	20	8
DuBois	28	17
Elkhart	79	39
Fayette	5	3
Floyd	18	8
Fountain	24	12
Franklin	3	2
Fulton	23	10
Gibson	55	37
Grant	5	1
Greene	37	24
Hamilton	8	5
Hancock	5	3
Harrison	21	10
Hendricks	22	12
Henry	9	4
Howard	27	9
Huntington	2	0
Jackson	24	12
Jasper	5	3
Jay	4	0
Jefferson	25	12
Jennings	42	24
Johnson	20	11
Knox	160	106
Kosciusko	22	10
LaGrange	27	24
Lake	11	5
LaPorte	6	1
Lawrence	17	9
Madison	5	1
Marion	85	44
Marshall	24	12
Martin	12	5
Miami	44	19
Monroe	55	23
Montgomery	53	21
Morgan	42	22
Newton	1	0
Noble	43	27
Ohio	0	0
Orange	14	10
Owen	29	16
Parke	35	21
Perry	42	18
Pike	31	19
Porter	12	7
Posey	45	24
Pulaski	4	2
Putnam	24	10
Randolph	5	1
Ripley	4	0
Rush	3	3
Scott	21	8
Shelby	15	10
Spencer	22	12
St. Joseph	21	6
Starke	19	9
Steuben	16	13
Sullivan	47	32
Switzerland	3	3
Tippecanoe	84	46
Tipton	3	1
Union	1	0
Vanderburgh	351	195
Vermillion	32	22
Vigo	393	244
Wabash	6	2
Warren	4	2
Warrick	65	34
Washington	4	1
Wayne	9	5
Wells	2	2
White	16	10
Whitley	2	2
Total	2,930	1,616

Note: We defined dependence as “individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission.”

Source: Substance Abuse and Mental Health Data Archive, n.d.

APPENDIX 8B

Percentage of Indiana Students Reporting Lifetime, Annual, and Monthly Methamphetamine Use, by Region and Grade, 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents, 2007)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	0.4	0.4	0.3	0.4	0.5	0.4	0.9	0.1	0.3
	Annual	0.2	0.2	0.1	0.3	0.2	0.2	0.7	0.1	0.2
	Monthly	0.1	0.2	0.1	0.1	0.1	0.1	0.3	0.1	0.1
7th Grade	Lifetime	1.0	0.9	1.1	0.8	0.9	0.9	1.1	0.7	1.7
	Annual	0.7	0.7	0.6	0.9	0.7	0.6	0.8	0.5	1.2
	Monthly	0.5	0.5	0.5	0.4	0.5	0.4	0.5	0.4	0.7
8th Grade	Lifetime	1.6	2.1	1.2	1.6	1.6	1.6	2.1	1.2	2.1
	Annual	1.2	1.7	0.9	0.8	1.0	1.3	1.7	1.0	1.3
	Monthly	0.7	0.9	0.5	0.6	0.6	0.7	1.0	0.7	0.6
9th Grade	Lifetime	2.2	1.6	2.4	0.9	2.0	2.4	2.9	1.9	2.5
	Annual	1.4	1.0	1.8	0.7	1.1	1.6	1.8	1.1	1.8
	Monthly	0.8	0.8	0.9	0.4	0.7	0.8	1.3	0.9	0.9
10th Grade	Lifetime	3.0	2.3	3.3	2.3	3.1	2.9	3.0	3.2	3.1
	Annual	1.9	1.5	1.9	1.0	2.2	1.9	2.3	1.9	1.9
	Monthly	1.0	0.6	1.0	0.5	1.2	1.2	1.5	0.9	1.0
11th Grade	Lifetime	3.3	3.0	2.9	3.4	3.6	3.1	3.2	3.8	4.1
	Annual	2.0	2.0	1.6	2.0	2.0	1.9	2.3	1.9	2.5
	Monthly	1.1	1.2	1.1	1.4	1.0	9.0	1.1	1.1	1.3
12th Grade	Lifetime	3.4	2.6	2.6	2.9	5.5	2.7	2.4	4.1	3.4
	Annual	1.9	1.9	1.7	1.6	3.4	1.7	1.8	1.7	1.8
	Monthly	1.0	1.2	0.8	1.0	1.6	1.0	1.0	0.9	1.0

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

Source: Indiana Prevention Resource Center, 2007

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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) conducted in 2005, a total of 48.7 million Americans (20.0%) aged 12 years and older reported that at least once in their lifetime, they had engaged in non-medical use of prescription-type psychotherapeutics, including pain relievers, sedatives, tranquilizers, and stimulants. In Indiana alone, over a million Hoosiers (20.7%) reported to have misused psychotherapeutics at least once in their life (Substance Abuse and Mental Health Services Administration, 2007). The National Institute on Drug Abuse (NIDA) lists the three most commonly abused types of prescription medicine:

- *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 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, 2007).

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 non-medical use of psychotherapeutics in the past year, and 2.7% (138,000 residents) reported use in the past month (current 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, 2007).

Based on 2004–2005 annual NSDUH averages, a total of 5.43% (C.I. [confidence interval]: 4.58%-6.43%) of the Indiana population 12 and older (or 278,000 residents) reported non-medical use of pain relievers in the past year (U.S.: 4.77); the difference between Indiana and the nation is not significant.

The consumption of the pain reliever oxycodone has increased in Indiana. In 2006, a total of 43,231,016 dosage units were sold to pharmacies, hospitals, and practitioners; this represents a rate of 6.85 dosage units per Indiana resident. Figure 9.1 shows the oxycodone distribution to retail registrants (pharmacies, hospitals, and practitioners), by dosage unit from 2002 through 2007. The number for the 2007 dosage units purchased is a projection based on preliminary data from January

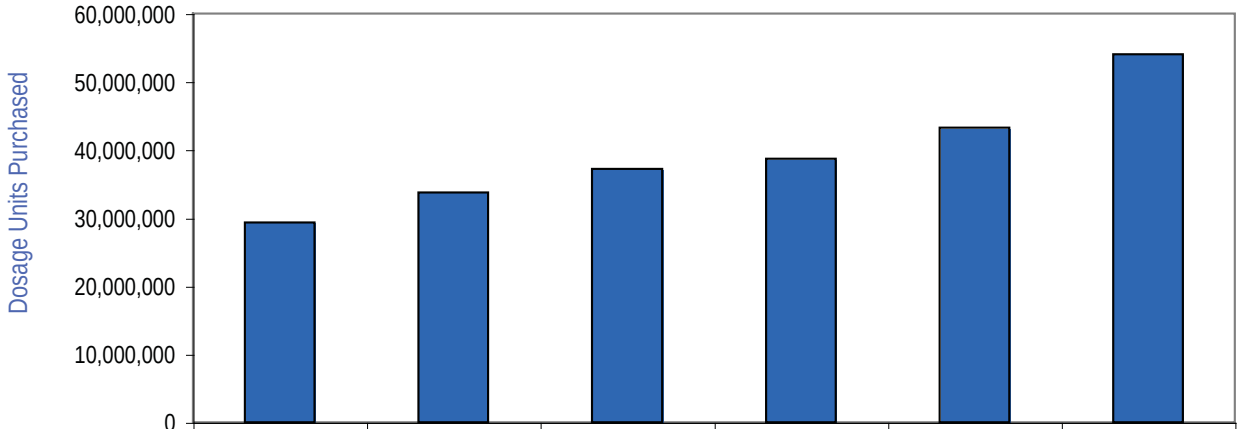
Table 9.1 Lifetime, Past Year, and Past Month (Current) Non-Medical Use of Psychotherapeutics, Indiana and United States (National Survey on Drug Use and Health)

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

Note: Indiana rates are based on annual NSDUH averages from 2002 through 2004, and U.S. rates are based on results from the 2005 NSDUH.

Source: Substance Abuse and Mental Health Services Administration, 2007

Figure 9.1 Indiana Oxycodone Distribution to Retail Registrants (Pharmacies, Hospitals, and Practitioners), by Dosage Units Purchased, 2002 through 2007 (Projected)



	2002	2003	2004	2005	2006	2007
Indiana	29,322,679	33,735,301	37,230,740	38,713,240	43,231,016	53,999,860

Source: Drug Enforcement Agency, 2007

1 through June 30, 2007; during the first half of 2007, a total of 26,999,930 dosage units of oxycodone were purchased (Drug Enforcement Administration, 2007). For county-level information, see Appendix 9A, page 149, and Map 9.1, page 146.

Adult Consumption Patterns

According to NSDUH results (2004–2005), 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 14.21% (C.I.: 11.76%--17.08%) (101,000 residents) seems higher than the nation's (12.16%), but is statistically the same (see Figure 9.2).

Another method of tracking prescription drug abuse is to examine the Treatment Episode Data Set (TEDS) for individuals who report using pain relievers (opioids),[1] CNS depressants (sedatives and tranquilizers),[2] and stimulants[3] at the time of admission to substance abuse treatment (Substance Abuse and Mental Health Data Archive, n.d.). Overall reported use of these drug categories combined is 14.5% in Indiana, which is significantly higher than the nation's rate of 11.0%. A look at the individual drug types shows that Indiana's rates are significantly higher for pain relievers and CNS depressants but lower for stimulants (see Figure 9.3).

In Indiana, significant differences in reported prescription drug abuse were seen by:

- gender—women reported higher rates of use across all three drug categories.
- race—Whites had the highest rates for pain reliever and sedative/tranquilizer use. Stimulant use was similar between Whites and "Others"; both groups reported significantly greater use than Blacks
- age group—adults (18 to 34 years) displayed the highest rates for pain reliever and sedative/tranquilizer use. The differences in stimulant use by age group were not significant (see Table 9.2).

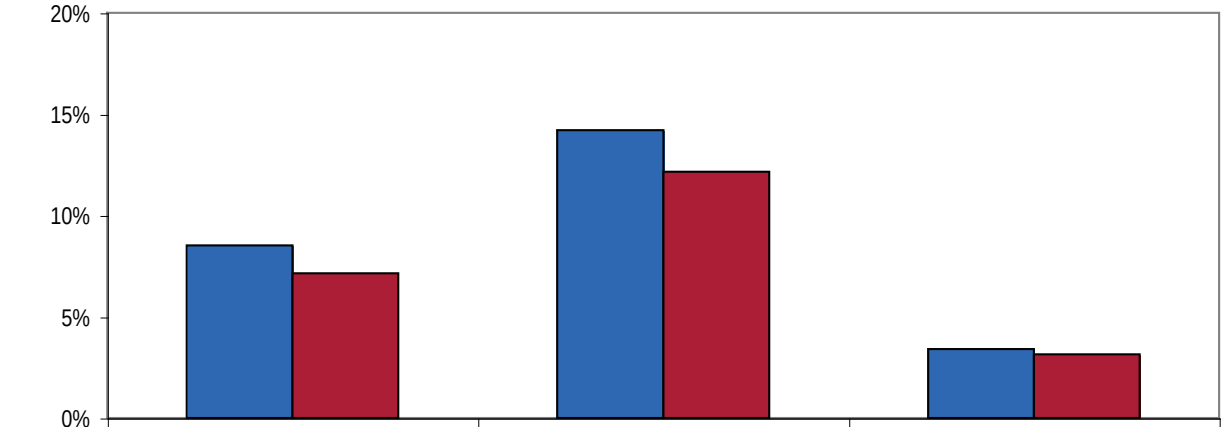
A review of TEDS data from 2000 through 2005 shows that rates for pain reliever and sedative/tranquilizer use have increased significantly in both Indiana and the nation. The pattern is different for stimulant use: Indiana's rates remained stable while U.S. rates decreased significantly. However, according to treatment data, stimulant use is still higher in the nation than among Hoosiers ($p < 0.001$) (see Figure 9.4). For county-level information, see Appendix 9B, pages 150.

Youth Consumption Patterns

The 2005 NSDUH estimates that 8.53% (C.I. = 6.85 to 10.57) of Indiana's young people between ages 12 and

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

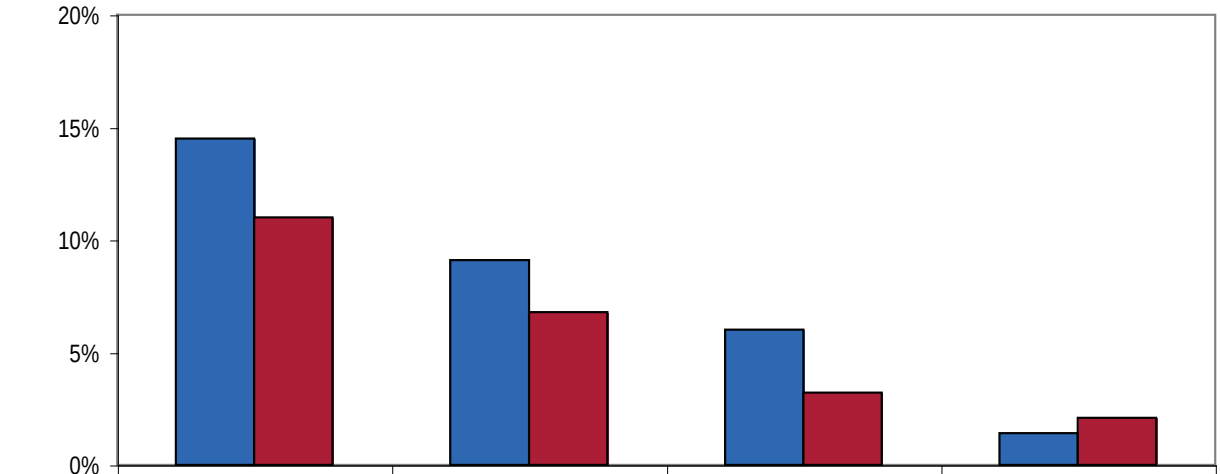
Figure 9.2 Prevalence of Past Year Pain Reliever Use in Indiana and the United States, by Age Group, 2004-2005 (National Survey on Drug Use and Health, 2004–2005)



	12 -17	18-25	26 and older
Indiana	8.53%	14.21%	3.39%
U.S.	7.13%	12.16%	3.15%

Source: Substance Abuse and Mental Health Services Administration, 2007

Figure 9.3 Percentage of Indiana and U.S. Patients Reporting Non-Medical Prescription Drug Use at Treatment Admission, by Drug Category, 2005 (Treatment Episode Data Set, 2005)



	All Prescription Drugs	Pain Relievers	Sedatives & Tranquilizers	Stimulants
Indiana	14.5%	9.1%	6.0%	1.4%
U.S.	11.0%	6.8%	3.2%	2.1%

Source: Substance Abuse and Mental Health Data Archive, n.d.

17 (approximately 47,000 residents) used prescription pain medications for non-medical purposes in the past year. In the entire United States, the rate of prescription drug use by 12- to 17-year-olds was 7.13%, which is similar to the Indiana rate.

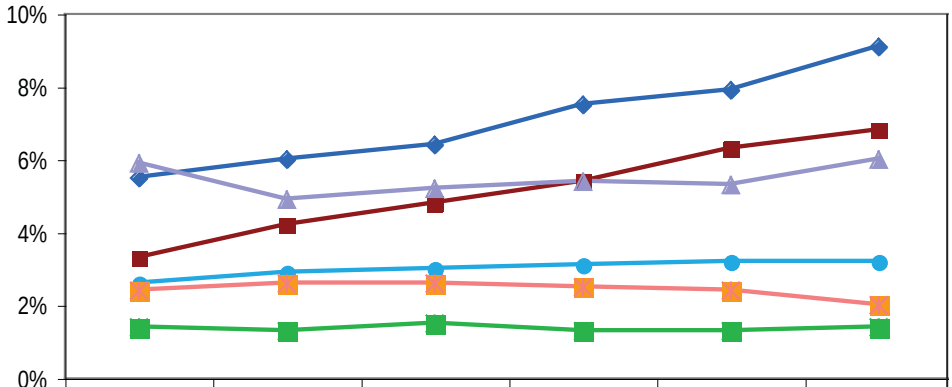
Another prescription drug with high potential for abuse, especially among young people, is methylphenidate (Ritalin). Ritalin is a stimulant that enhances brain activity and increases alertness and energy. It is used in the treatment of attention deficit hyperactivity disorder (ADHD), attention deficit disorder (ADD), and narcolepsy. When Ritalin is taken by an individual who does not have ADD/ADHD, it creates a stimulant-like effect by increasing focus and attentiveness, making it an attractive drug to teenagers. According to the National Institute on Drug Abuse,

Table 9.2 Percentage of Indiana Patients Reporting Non-Medical Prescription Drug Use at Treatment Admission, by Drug Category, Gender, Race, and Age Group, 2005 (Treatment Episode Data Set, 2005)

		Pain Relievers	Sedatives/Tranquilizers	Stimulants
Gender				
	Male	7.4%	4.7%	1.2%
	Female	12.4%	8.6%	1.8%
Race				
	White	10.8%	7.1%	1.6%
	Black	1.9%	1.1%	0.5%
	Other	4.1%	3.7%	1.8%
Age Group				
	Under 18	4.4%	6.2%	2.1%
	18 to 24	10.0%	6.9%	1.4%
	25 to 34	10.7%	6.5%	1.5%
	35 to 44	7.8%	5.0%	1.3%
	45 to 54	7.8%	5.3%	1.2%
	55 and over	7.6%	5.6%	1.0%

Source: Substance Abuse and Mental Health Data Archive, n.d.

Figure 9.4 Percentage of Indiana and U.S. Patients Reporting Non-Medical Prescription Drug Use at Treatment Admission, by Drug Category, 2000 through 2005 (Treatment Episode Data Set, 2000-2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

teenagers of middle- and upper-class socioeconomic status are most likely to abuse the drug by crushing and snorting the tablets. Some intravenous drug users combine heroin with Ritalin to strengthen the effect.

According to the Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) survey, Hoosier high school seniors reported a significant increase in Ritalin use and a significant decrease in

tranquilizer use from 2006 to 2007 (for lifetime, annual, and current use); the use of narcotics remained stable (Indiana Prevention Resource Center, 2007). For Indiana prevalence rates of lifetime, annual, and current use among 12th grade students, see Table 9.3 (for regional prevalence rates, grades 6 through 12, see Appendix 9C, pages 152-154).

The Monitoring the Future (MTF) survey collects data on drug use among 8th, 10th, and 12th grade students on the national level (University of Michigan, n.d.). A comparison of Indiana and U.S. consumption patterns in high school seniors, from 2000 through 2006,[4] 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 9.5). However, due to the nature of the data, we could not determine whether results were statistically significant.

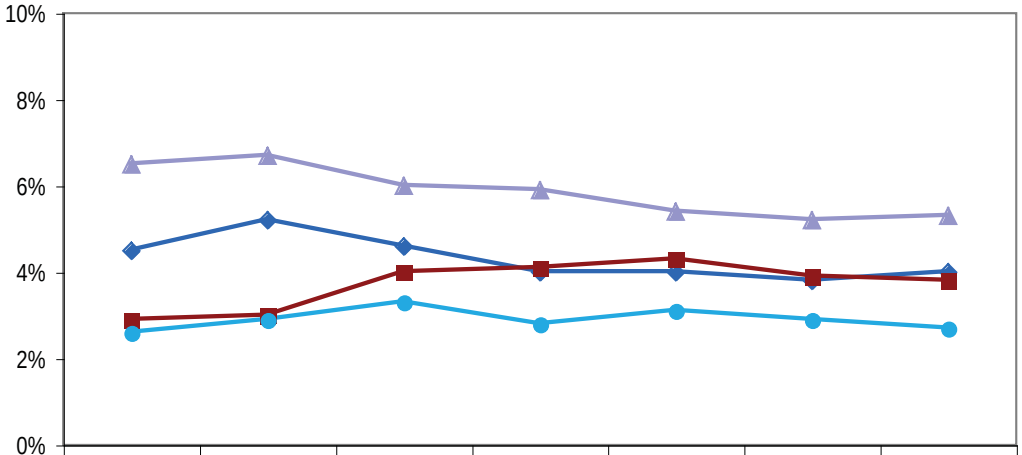
Table 9.3 Percentage of Indiana 12th Grade Students Reporting Lifetime, Annual, and Current Use of Tranquilizers, Narcotics, and Ritalin, 2006 and 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2006-2007)

	Lifetime Use		Annual Use		Current Use	
	2006	2007	2006	2007	2006	2007
Tranquilizer	14.5%	12.9%	9.8%	8.3%	5.3%	4.0%
Narcotics	12.0%	12.1%	7.5%	7.6%	4.0%	3.8%
Ritalin	7.0%	11.3%	3.8%	7.0%	1.8%	2.9%

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

Source: Indiana Prevention Resource Center, 2007

Figure 9.5 Percentage of Indiana and U.S. 12th Grade Students Reporting Current Use of Narcotics and Tranquilizers, 2000 through 2006 (Monitoring the Future Survey; Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey, 2006—2007)



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

Source: University of Michigan, n.d.; Indiana Prevention Resource Center, 2007

[4]At the time of the report, the most recent data available were 2006 results from the MTF survey (national data) and 2007 results from the IPRC/ATOD survey (Indiana data). For comparisons between Indiana and U.S. students, data from 2000 through 2006 were used.

Another available data source for assessing non-medical prescription drug use is the Treatment Episode Data Set (TEDS). Young people (under age 18) in Indiana reported significantly less use of psychotherapeutics than adults 18 and older. An examination of use by individual drug category shows that young Hoosiers use significantly less pain relievers but more stimulants than their older counterparts. Rates for sedative/tranquilizer use were similar between the two groups (see Figure 9.6). Gender and race was associated with prescription drug abuse among the under-18 year olds: females and Whites reported highest rates of use.

PRESCRIPTION DRUG ABUSE CONSEQUENCES

Prescription Drug Dependence

The most common consequences of prescription drug misuse are addiction and/or dependence. (For this report, we defined dependence as "individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission."

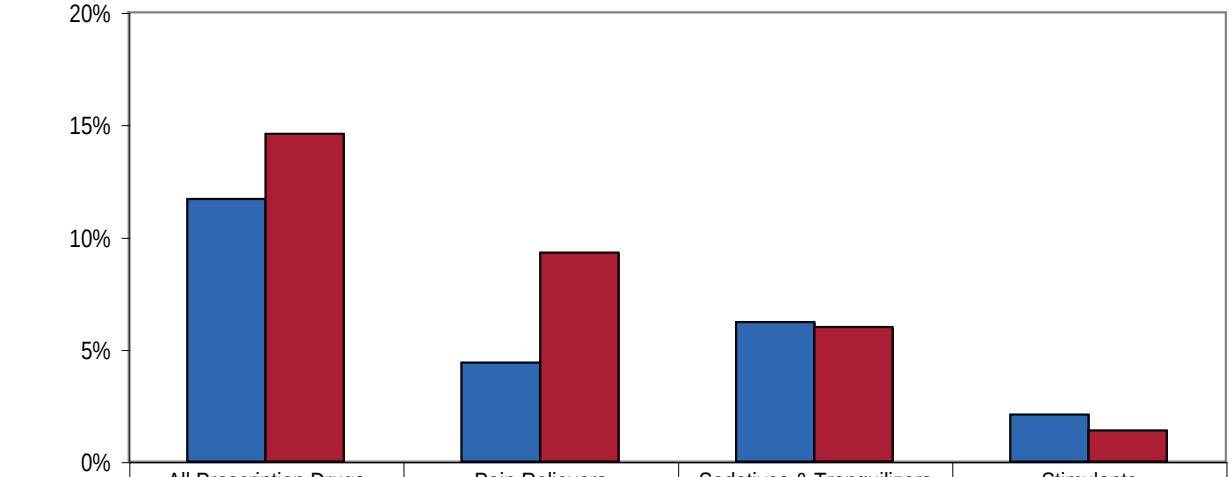
One approach to determining whether prescription drug abuse is a growing problem both nationally and in Indiana is to use the Treatment Episode Data System (TEDS) to track the percentage of admissions to substance abuse treatment centers that are due to pain relievers, sedatives/tranquilizers, and stimulants. In 2005, overall prescription drug dependence was significantly higher in Indiana than the United States: a larger percentage of Indiana residents reported pain reliever and sedative/tranquilizer dependence, while stimulant dependence was greater among U.S. residents (see Figure 9.7).

Significant differences were observed by gender, race, and age group in Indiana:

- *Gender*—the rates for females were higher across all three drug categories.
- *Race*—Whites had the highest rates of pain reliever and sedative/tranquilizer dependence. Additionally, more Whites than Blacks reported stimulant dependence (the percentages for Whites and "Others" were statistically similar).
- *Age group*—Significant differences by age category were found for pain reliever and sedative/tranquilizer dependence; highest rates were displayed by 25- to 34-year olds (see Table 9.4). For county-level information, see Appendix 9B, pages 150-151.

Indiana residents under the age of 18 had significantly lower rates of overall prescription drug dependence than adults 18 years and older (2.5% and

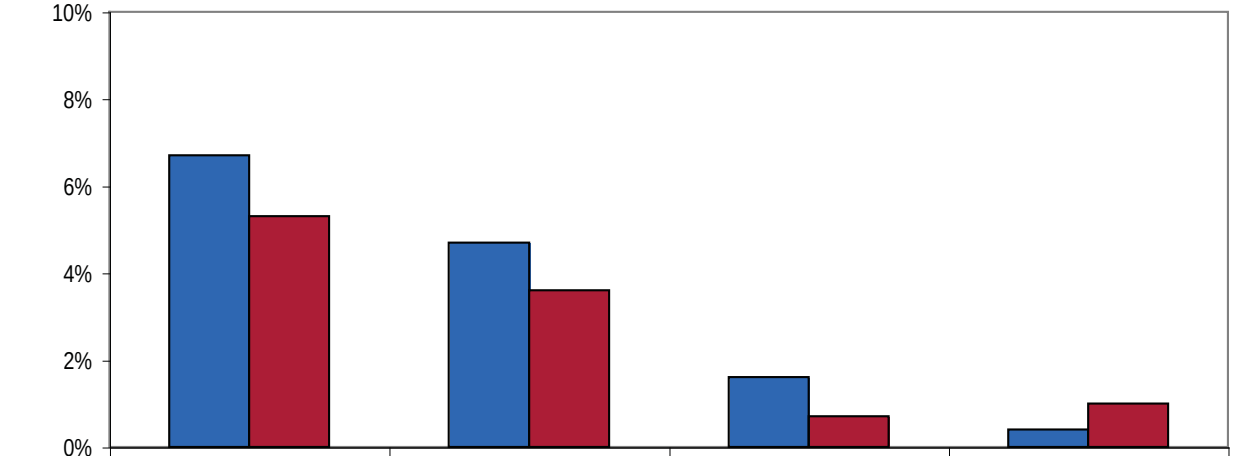
Figure 9.6 Percentage of Indiana and U.S. Patients Reporting Non-Medical Prescription Drug Use at Treatment Admission, by Drug Category and Underage Status, 2005 (Treatment Episode Data Set, 2005)



	All Prescription Drugs	Pain Relievers	Sedatives & Tranquilizers	Stimulants
Under 18	11.7%	4.4%	6.2%	2.1%
Over 18	14.6%	9.3%	6.0%	1.4%

Source: Substance Abuse and Mental Health Data Archive, n.d.

Figure 9.7 Percentage of Indiana and U.S. Patients Reporting Prescription Drugs as Their Primary Substance (Dependence) at Treatment Admission, by Drug Category, 2005 (Treatment Episode Data Set, 2005)



	All Prescription Drugs	Pain Relievers	Sedatives & Tranquilizers	Stimulants
Indiana	6.7%	4.7%	1.6%	0.4%
U.S.	5.3%	3.6%	0.7%	1.0%

Source: Substance Abuse and Mental Health Data Archive, n.d.

Table 9.4 Percentage of Indiana Patients Reporting Prescription Drug Dependence at Treatment Admission, by Drug Category, Gender, Race, and Age Group, 2005 (Treatment Episode Data Set, 2005)

Demographic	Pain Relievers	Sedatives/Tranquilizers	Stimulants
Gender			
Male	3.6%	1.0%	0.3%
Female	7.0%	2.6%	0.5%
Race			
White	5.6%	1.9%	0.4%
Black	0.9%	0.3%	0.1%
Other	1.7%	1.0%	0.3%
Age Group			
Under 18	0.8%	1.2%	0.4%
18 to 24	4.7%	1.6%	0.4%
25 to 34	6.2%	1.9%	0.4%
35 to 44	4.0%	1.3%	0.3%
45 to 54	4.1%	1.5%	0.3%
55 and over	4.1%	1.7%	0.1%

Source: Substance Abuse and Mental Health Data Archive, n.d.

6.8% respectively). This holds true for pain reliever dependence as well (0.8% and 4.9%). However, both groups (under 18 and over 18 years) reported similar rates for sedatives/tranquilizer (1.2% and 1.6%) and stimulant dependence (0.4% for both groups).

A review of TEDS data from 2000 through 2005 reveals that dependence on pain relievers and sedatives/tranquilizers increased significantly in both Indiana and the United States. However, the percentage of individuals reporting stimulants as their primary drug

at treatment admission decreased significantly on the national level but remained stable for Indiana residents (see Figure 9.8).

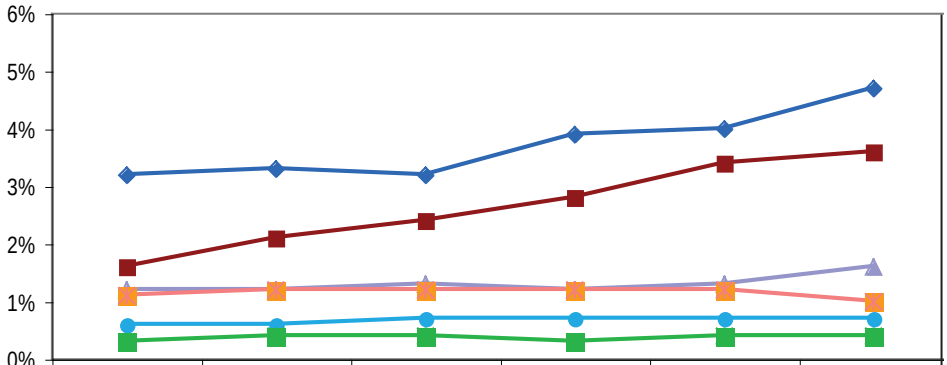
Criminal Consequences

Individuals illegally obtain prescription drugs through a variety of means, such as "doctor shopping" (going to multiple doctors to obtain prescriptions for a controlled pharmaceutical) or other prescription fraud; illegal online pharmacies; theft and burglary (from residences and pharmacies); receiving/purchasing from friends or family; and over-prescribing (negligently or intentionally) by physicians (Office of National Drug Control Policy, 2007).

During federal fiscal year (FFY) 2004, a total of 5,556 federal drug arrests were made for "other" drugs, which included barbiturates, hallucinogens, opiates other than heroin, and synthetic drugs (Office of National Drug Control Policy, 2007).

The Uniform Crime Reports (UCR) program collects information on criminal activities, including possession and sale/manufacture of various drugs (National Archive of Criminal Justice Data, n.d.). The category "other drugs" in the dataset refers to arrests that were made involving barbiturates (sedatives) and Benzedrine (amphetamine/stimulant). In 2005, the arrest rate for possession of these substances in Indiana was 0.42 per 1,000 population, which is significantly lower than the U.S. rate of 0.95 per 1,000 population. Similarly, arrest rates for sale/manufacture of "other drugs" differed significantly as well, with Indiana displaying an arrest rate of 0.12 versus the national rate of 0.22 (per 1,000 population). A comparison of these rates across time, from 1999 through 2005, shows a significant increase for both the United States and Indiana (see Figure 9.9). The distribution of arrest rates for possession and sale/manufacture in Indiana by county for 2005 is depicted on Maps 9.2 and 9.3, pages 147-148.

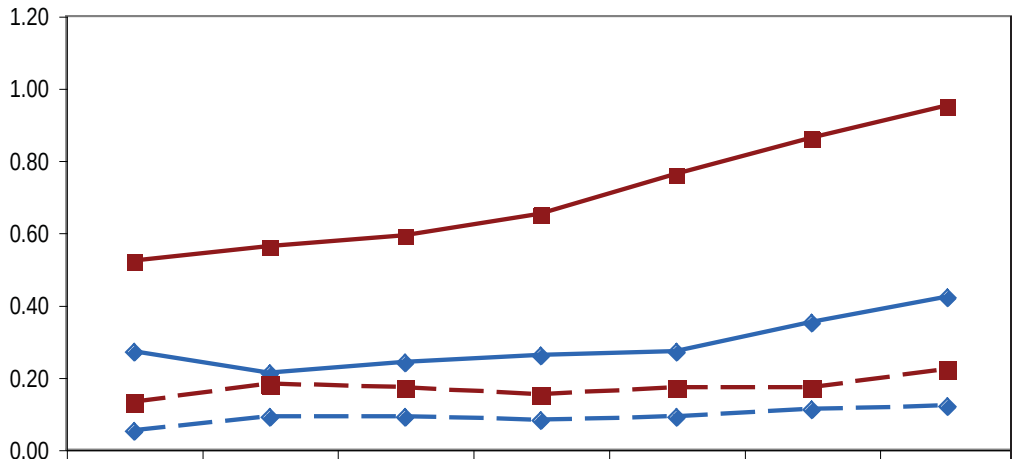
Figure 9.8 Percentage of Indiana Patients Reporting Prescription Drug Dependence at Treatment Admission, by Drug Category, 2000 through 2005 (Treatment Episode Data Set, 2000—2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

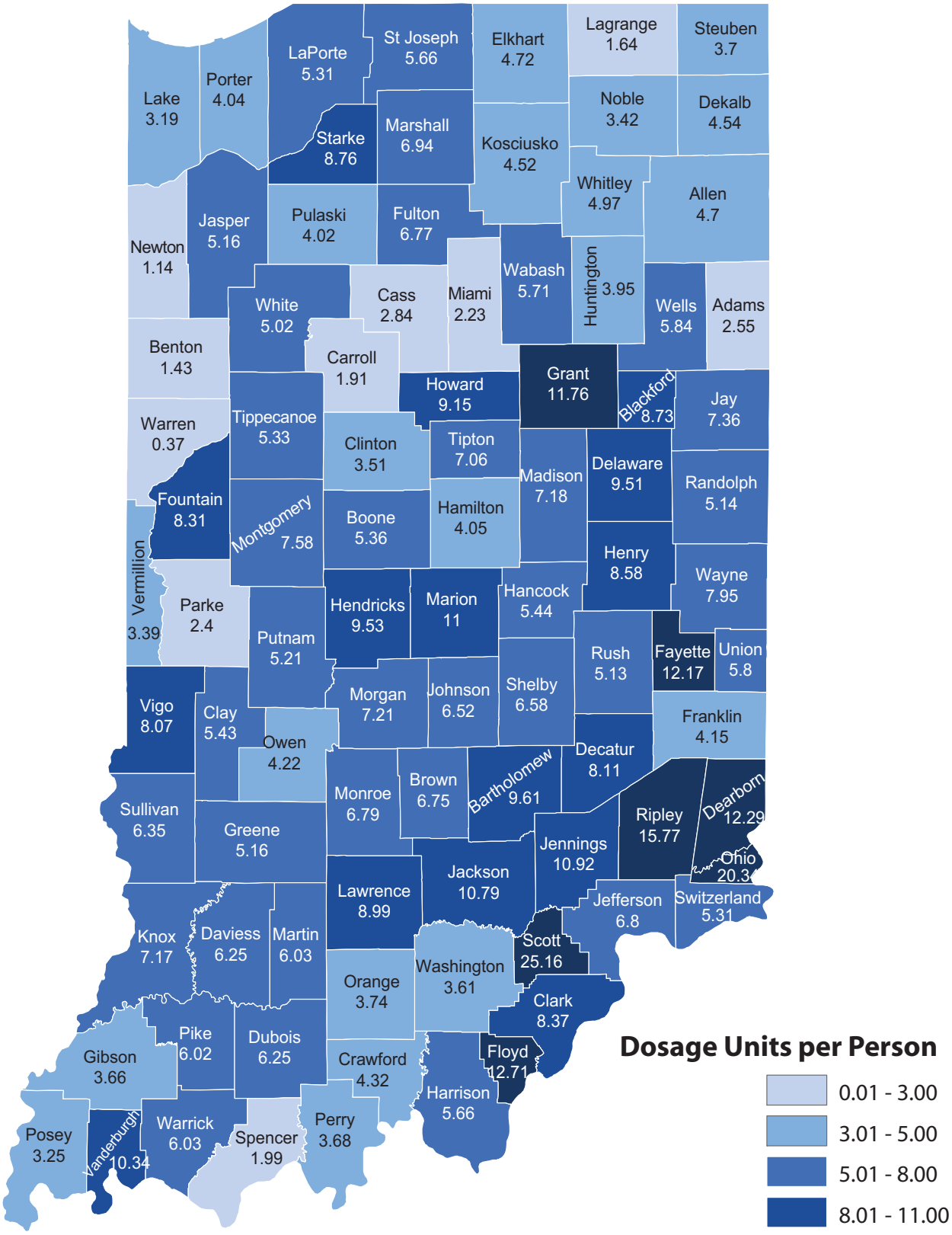
Figure 9.9 Arrest Rates for Possession and Sale/Manufacture of "Other Drugs" (Barbiturates and Benzedrine), Indiana and the United States, 1999 through 2005 (Uniform Crime Reports, 1999—2005)



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

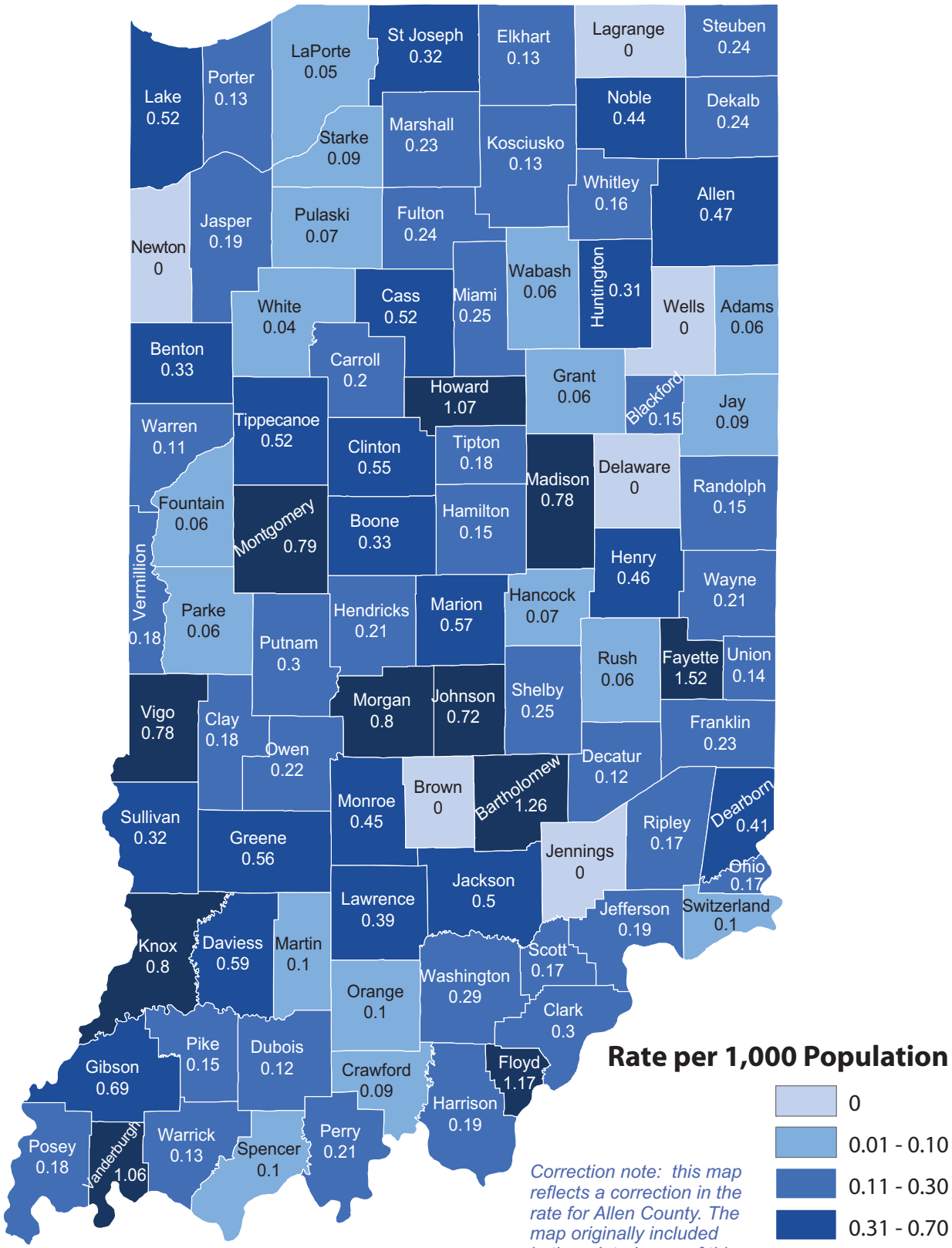
Source: National Archive of Criminal Justice Data, n.d.

Map 9.1 Indiana Rate for Oxycodone Dosage Units Purchased by Registrants (Pharmacies, Hospitals, and Practitioners), per Person, by County, 2006



Source: Drug Enforcement Agency, 2007

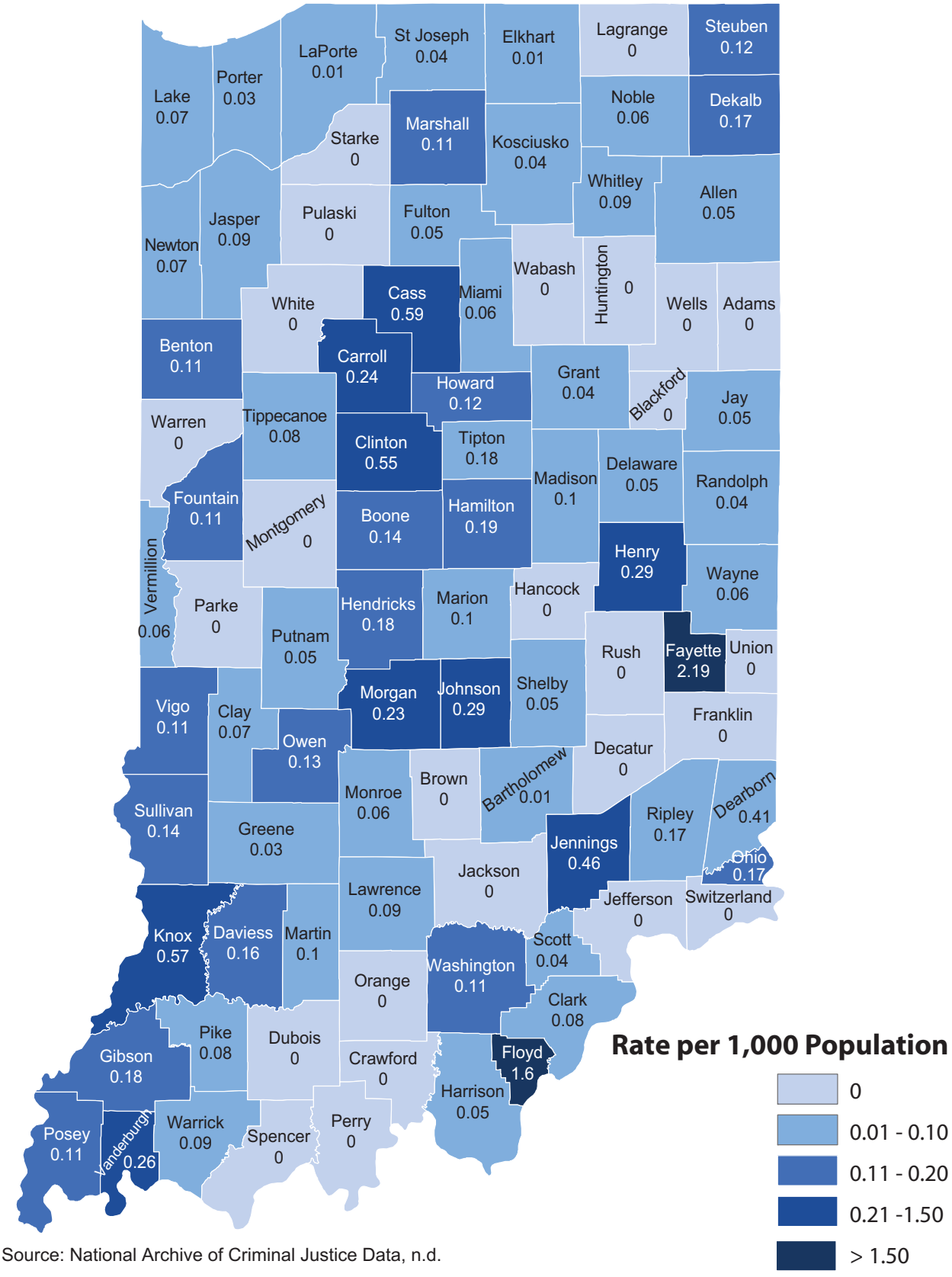
Map 9.2 Indiana "Other Drugs" (Barbiturates and Benzedrine) Possession Arrest Rates, per 1,000 Population, by County, 2005 (Uniform Crime Reports, 2005)



Correction note: this map reflects a correction in the rate for Allen County. The map originally included in the printed copy of this book was incorrect.

Source: National Archive of Criminal Justice Data, n.d.

Map 9.3 Indiana "Other Drugs" (Barbiturates and Benzedrine) Sale/Manufacture Arrest Rates, per 1,000 Population, by County, 2005 (Uniform Crime Reports, 2005)



Source: National Archive of Criminal Justice Data, n.d.

APPENDIX 9A

State of Indiana: Purchases of Oxycodone by Registrants (Pharmacies, Hospitals, and Practitioners), by Indiana County, 2006

County	Registrant	Dosage Units	Average
Adams	6	86,100	14,350
Allen	66	1,633,285	24,747
Bartholomew	15	715,700	47,713
Benton	2	12,900	6,450
Blackford	4	118,780	29,695
Boone	11	286,700	26,064
Brown	1	101,800	101,800
Carroll	2	39,200	19,600
Cass	8	113,480	14,185
Clark	24	866,865	36,119
Clay	6	146,600	24,433
Clinton	5	120,020	24,004
Crawford	1	48,100	48,100
Daviess	8	188,800	23,600
Dearborn	8	610,400	76,300
Decatur	5	202,355	40,471
DeKalb	8	190,200	23,775
Delaware	28	1,092,000	39,000
Dubois	12	278,295	23,191
Elkhart	37	935,155	25,274
Fayette	5	299,945	59,989
Floyd	23	922,660	40,116
Fountain	3	145,300	48,433
Franklin	2	97,000	48,500
Fulton	7	139,650	19,950
Gibson	9	122,200	13,578
Grant	19	821,480	43,236
Greene	5	172,300	34,460
Hamilton	58	1,017,460	17,542
Hancock	8	353,900	44,238
Harrison	6	209,400	34,900
Hendricks	28	1,250,560	44,663
Henry	14	402,640	28,760
Howard	21	773,390	36,828
Huntington	7	150,100	21,443
Jackson	6	457,395	76,233
Jasper	10	166,555	16,656
Jay	4	158,965	39,741
Jefferson	6	222,085	37,014
Jennings	7	310,865	44,409
Johnson	24	869,100	36,213
Knox	8	274,020	34,253
Kosciusko	15	345,840	23,056
LaGrange	5	61,100	12,220
Lake	101	1,576,475	15,609
LaPorte	23	586,830	25,514
Lawrence	14	417,050	29,789
Madison	30	937,152	31,238
Marion	228	9,524,398	41,774
Marshall	13	328,425	25,263
Martin	2	62,300	31,150
Miami	4	79,416	19,854
Monroe	30	832,540	27,751
Montgomery	9	289,360	32,151
Morgan	12	506,920	42,243
Newton	2	16,300	8,150
Noble	7	163,640	23,377
Ohio	2	118,500	59,250
Orange	5	73,600	14,720
Owen	3	95,900	31,967
Parke	3	40,800	13,600
Perry	4	69,320	17,330
Pike	4	77,400	19,350
Porter	30	647,005	21,567
Posey	3	87,100	29,033
Pulaski	3	55,790	18,597
Putnam	5	192,660	38,532
Randolph	6	136,580	22,763
Ripley	7	437,700	62,529
Rush	5	90,640	18,128
Saint Joseph	53	1,508,248	28,458
Scott	7	596,365	85,195
Shelby	9	290,400	32,267
Spencer	4	40,900	10,225
Starke	4	202,060	50,515
Steuben	6	124,600	20,767
Sullivan	4	136,700	34,175
Switzerland	1	51,600	51,600
Tippecanoe	39	832,560	21,348
Tipton	4	115,660	28,915
Union	1	42,300	42,300
Vanderburgh	58	1,792,032	30,897
Vermillion	3	56,420	18,807
Vigo	24	831,455	34,644
Wabash	8	191,760	23,970
Warren	2	3,200	1,600
Warrick	13	344,490	26,499
Washington	5	101,260	20,252
Wayne	16	545,400	34,088
Wells	4	164,760	41,190
White	7	122,500	17,500
Whitley	8	161,900	20,238
Total	1,392	43,231,016	31,057

Note: Average is calculated by dividing the dosage units by the number of registrants (pharmacies, hospitals, and practitioners) in the county.

Source: Drug Enforcement Agency, 2007

APPENDIX 9B

Number of Indiana Residents in Substance Abuse Treatment who Reported Prescription Drug Abuse and Who Listed Prescription Drugs as Their Primary Substance at Admission, by County and Drug Category, 2005 (Treatment Episode Data Set, 2005)

County	Prescription Drug Abuse	Pain Reliever Abuse	Sedative & Tranquilizer Abuse	Stimulant Abuse	Prescription Drug Dependence	Reliever Dependence	Sedative & Tranquilizer Dependence	Stimulant Dependence
Adams	5	3	2	1	3	2	0	1
Allen	48	36	12	6	32	24	6	2
Bartholomew	96	52	27	26	50	29	5	16
Benton	0	0	0	0	0	0	0	0
Blackford	17	11	8	2	9	5	3	1
Boone	23	11	11	4	13	9	3	1
Brown	10	1	7	3	1	1	0	0
Carroll	7	2	4	1	3	1	2	0
Cass	13	6	7	1	4	1	2	1
Clark	126	82	43	17	60	43	13	4
Clay	21	3	16	2	4	2	1	1
Clinton	4	3	0	1	1	1	0	0
Crawford	6	4	2	2	3	3	0	0
Daviess	34	21	16	1	22	14	7	1
Dearborn	43	34	14	1	22	21	1	0
Decatur	5	5	1	0	3	2	1	0
DeKalb	9	6	2	1	2	1	1	0
Delaware	192	132	82	13	78	63	15	0
DuBois	30	19	14	1	10	8	2	0
Elkhart	38	23	12	8	16	12	2	2
Fayette	54	39	25	2	24	16	7	1
Floyd	64	42	34	3	32	23	9	0
Fountain	15	4	12	1	4	3	1	0
Franklin	16	7	8	3	7	4	2	1
Fulton	6	1	4	1	2	1	0	1
Gibson	10	3	7	0	3	2	1	0
Grant	61	42	20	5	30	19	9	2
Greene	19	9	10	3	9	6	1	2
Hamilton	98	41	42	24	35	19	12	4
Hancock	23	14	10	1	10	8	1	1
Harrison	11	8	3	1	4	4	0	0
Hendricks	40	26	13	3	20	14	4	2
Henry	98	79	40	2	57	47	10	0
Howard	89	74	21	3	46	42	3	1
Huntington	13	9	4	1	4	2	2	0
Jackson	19	14	6	2	6	5	1	0
Jasper	12	6	5	1	4	4	0	0
Jay	13	6	6	2	4	4	0	0
Jefferson	40	33	10	4	24	17	6	1
Jennings	28	21	7	2	11	11	0	0
Johnson	62	34	31	2	37	26	10	1
Knox	45	28	17	4	18	14	3	1
Kosciusko	11	7	1	3	7	5	0	2
LaGrange	10	8	1	2	5	5	0	0
Lake	166	123	52	2	77	64	13	0
LaPorte	35	23	10	4	14	12	2	0
Lawrence	54	30	25	8	22	12	6	4
Madison	211	51	120	66	109	34	58	17
Marion	491	298	221	32	211	160	44	7

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County	Pain Prescription Drug Abuse	Sedative & Reliever Abuse	Tranquilizer Abuse	Prescription Stimulant Abuse	Drug Dependence	Sedative & Reliever Dependence	Tranquilizer Dependence	Stimulant Dependence
Marshall	20	4	11	5	4	0	3	1
Martin	22	10	16	0	12	6	6	0
Miami	13	9	6	0	6	6	0	0
Monroe	180	134	72	14	80	64	13	3
Montgomery	45	23	23	2	18	12	6	0
Morgan	35	28	9	1	19	15	4	0
Newton	4	1	3	1	2	1	1	0
Noble	9	3	4	2	4	2	2	0
Ohio	4	3	1	0	4	3	1	0
Orange	16	11	8	1	9	6	2	1
Owen	24	15	9	3	8	8	0	0
Parke	10	6	6	1	3	2	1	0
Perry	6	2	2	2	2	0	1	1
Pike	9	6	1	3	4	3	0	1
Porter	69	47	26	4	35	28	6	1
Posey	16	7	9	2	3	3	0	0
Pulaski	4	2	2	1	2	0	1	1
Putnam	24	14	11	2	12	9	2	1
Randolph	14	11	6	1	7	7	0	0
Ripley	17	13	6	1	8	6	2	0
Rush	5	2	3	1	2	2	0	0
Scott	64	57	16	3	42	39	2	1
Shelby	10	6	5	0	4	2	2	0
Spencer	17	11	5	2	4	3	1	0
St. Joseph	92	50	36	12	31	21	7	3
Starke	17	9	10	1	7	5	2	0
Steuben	5	3	1	1	4	2	1	1
Sullivan	16	11	5	1	8	5	2	1
Switzerland	12	9	2	1	4	4	0	0
Tippecanoe	81	38	40	10	24	17	7	0
Tipton	11	5	6	1	6	3	3	0
Union	7	5	2	0	5	4	1	0
Vanderburgh	202	107	90	23	80	55	19	6
Vermillion	4	3	2	0	4	3	1	0
Vigo	88	45	43	9	29	24	5	0
Wabash	30	22	6	4	8	5	0	3
Warren	3	1	3	0	1	0	1	0
Warrick	20	12	11	2	11	8	2	1
Washington	11	8	3	1	8	6	1	1
Wayne	74	59	26	1	33	26	7	0
Wells	8	4	0	4	4	3	0	1
White	8	1	6	1	3	1	2	0
Whitley	4	4	1	0	3	3	0	0
Total	3,871	2,355	1,598	402	1,739	1,247	386	106

Note: We defined dependence as “individuals reporting a certain drug to be their primary substance at the time of their substance abuse treatment admission.”

Source: Substance Abuse and Mental Health Data Archive, n.d.

APPENDIX 9C Part 1: Tranquilizer

Lifetime, Annual, and Monthly Tranquilizer Use, by Region and Grade, 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents, 2007)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	4.0	3.0	4.5	3.7	3.5	4.1	4.7	3.5	4.5
	Annual	2.8	2.2	3.3	2.6	2.4	2.9	3.5	2.5	3.0
	Monthly	1.5	1.3	1.6	1.5	1.3	1.7	2.0	1.4	1.5
7th Grade	Lifetime	5.6	5.9	5.1	4.3	5.0	5.2	8.1	3.9	7.7
	Annual	4.2	4.2	3.6	3.3	3.8	3.8	6.4	3.3	5.9
	Monthly	2.5	2.4	1.9	2.0	2.6	2.1	3.5	2.4	3.8
8th Grade	Lifetime	9.1	9.3	8.1	7.2	9.3	8.9	10.8	8.5	10.4
	Annual	6.7	6.3	6.1	5.4	6.7	6.7	8.0	6.5	7.8
	Monthly	3.9	3.8	3.8	2.7	3.9	3.8	4.2	3.7	4.6
9th Grade	Lifetime	10.9	9.5	11.1	8.1	11.1	11.4	13.2	8.5	11.9
	Annual	7.9	6.7	7.9	5.8	8.2	8.3	9.2	6.2	9.1
	Monthly	4.4	4.0	4.3	2.7	5	4.7	5.2	3.7	4.6
10th Grade	Lifetime	13.6	12.9	12.3	10.7	15.1	13.2	16.1	14.1	14.6
	Annual	9.5	8.8	8.4	6.7	11.1	9.1	11.7	10.2	10.5
	Monthly	5.0	4.6	4.0	3.6	6.0	4.6	6.7	5.2	5.6
11th Grade	Lifetime	13.4	12.8	12.8	10.5	14.9	13.7	16.1	11.2	14.0
	Annual	8.9	8.2	7.9	6.4	10.4	9.2	11.0	7.1	9.7
	Monthly	4.3	3.9	4.1	2.8	5.0	4.4	5.5	3.2	4.8
12th Grade	Lifetime	12.9	13.3	10.3	9.2	15.1	13.3	14.3	12.3	14.3
	Annual	8.3	8.0	6.7	6.4	10.4	8.7	9.6	7.2	8.9
	Monthly	4.0	4.3	3.1	3.3	4.7	4.1	5.5	3.3	4.2

Source: Indiana Prevention Resource Center, 2007

APPENDIX 9C Part 2: Narcotics

Lifetime, Annual, and Monthly Narcotics Use, by Region and Grade, 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents, 2007)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	0.8	0.5	0.7	0.6	0.9	0.7	1.4	0.6	1.2
	Annual	0.5	0.4	0.4	0.4	0.5	0.4	0.7	0.4	0.6
	Monthly	0.3	0.2	0.2	0.3	0.4	0.2	0.6	0.3	0.3
7th Grade	Lifetime	2.2	1.9	1.9	1.3	2.2	1.9	3.4	1.7	3.6
	Annual	1.6	1.2	1.3	0.8	1.8	1.4	2.5	1.7	2.8
	Monthly	1.0	0.6	0.7	0.4	1.1	0.8	1.4	1.3	1.7
8th Grade	Lifetime	5.0	4.8	3.7	3.8	5.0	5.1	6.9	4.1	6.6
	Annual	3.6	3.5	2.6	2.8	3.4	3.6	5.2	2.8	4.8
	Monthly	2.1	2.1	1.5	1.4	1.8	2.2	2.9	1.6	2.7
9th Grade	Lifetime	7.6	6.2	7.4	4.3	8.8	7.7	10.5	5.6	8.9
	Annual	5.3	4.0	5.3	2.6	6.3	5.6	7.0	3.5	6.6
	Monthly	2.9	2.3	2.9	1.3	3.5	3.3	3.9	2.0	3.1
10th Grade	Lifetime	10.9	9.1	9.4	8.2	11.5	11.5	14.1	10.2	12.3
	Annual	7.5	6.4	6.0	5.5	8.3	7.6	10.9	7.2	8.5
	Monthly	3.9	3.2	2.9	3.0	4.3	4.2	5.9	3.3	4.4
11th Grade	Lifetime	11.7	10.4	9.9	9.7	11.9	12.8	15.6	9.1	12.8
	Annual	7.7	6.8	6.1	6.4	7.8	8.3	11.1	6.1	8.6
	Monthly	3.9	3.9	3.3	3.2	4.1	4.1	5.4	2.6	4.5
12th Grade	Lifetime	12.1	11.4	9.3	9.7	13.2	12.6	15.0	10.9	14.5
	Annual	7.6	6.8	5.6	7.1	8.1	8.0	9.3	6.2	9.6
	Monthly	3.8	3.5	2.5	3.3	4.1	3.7	6.1	3.3	4.9

Source: Indiana Prevention Resource Center, 2007

APPENDIX 9C Part 3: Ritalin

Lifetime, Annual, and Monthly Ritalin Use, by Region and Grade, 2007 (Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents, 2007)

		Indiana	Northwest	North Central	Northeast	West	Central	East	Southwest	Southeast
6th Grade	Lifetime	1	0.8	1.2	0.6	0.9	0.9	2.2	1	1.2
	Annual	0.7	0.5	0.7	0.3	0.7	0.6	1.4	0.9	0.7
	Monthly	0.4	0.4	0.4	0.4	0.4	0.3	0.9	0.6	0.4
7th Grade	Lifetime	2.2	2.3	2	1.4	2.3	2.1	3.2	1.8	2.7
	Annual	1.6	1.4	1.5	0.8	1.7	1.4	2.1	1.4	2.1
	Monthly	1	0.9	1.1	0.5	1	0.9	1.4	0.8	1.2
8th Grade	Lifetime	4.5	5.3	4	3.7	4.1	4.2	5.6	4.7	5
	Annual	3.3	3.9	3.1	2.8	3.1	2.8	4.1	3.7	3.7
	Monthly	1.9	2.5	1.6	1.5	1.8	1.8	2.2	1.9	2.2
9th Grade	Lifetime	7.3	6.3	8	5.4	8	7.7	9	5.1	7.4
	Annual	5.3	4.1	6	3.9	5.9	5.7	6.4	4	5.2
	Monthly	2.8	2.3	3.3	2	3.2	2.9	3.7	1.9	2.8
10th Grade	Lifetime	10.6	10.7	11.4	8	10	10.1	12.9	12	10
	Annual	7.4	8	8	5.5	6.6	6.8	9.1	8.5	7.1
	Monthly	3.7	3.6	4.7	2.9	3.2	3.5	4.2	3.9	3.3
11th Grade	Lifetime	10.7	11.2	12	10.4	12	10.9	11.2	8	8.8
	Annual	6.9	6.8	7.6	7.3	7.1	7.2	7.7	4.6	5.9
	Monthly	3.2	3.6	3.7	3.7	3.3	3.2	3.5	2.2	2.4
12th Grade	Lifetime	11.3	11.6	11.5	10.8	10.9	11.1	10.8	12.2	11.3
	Annual	7	6.7	7.1	7.4	6.5	6.9	6	7	7
	Monthly	2.9	2.8	3.1	3.2	2.5	2.4	4.2	3.2	3.1

Source: Indiana Prevention Resource Center, 2007

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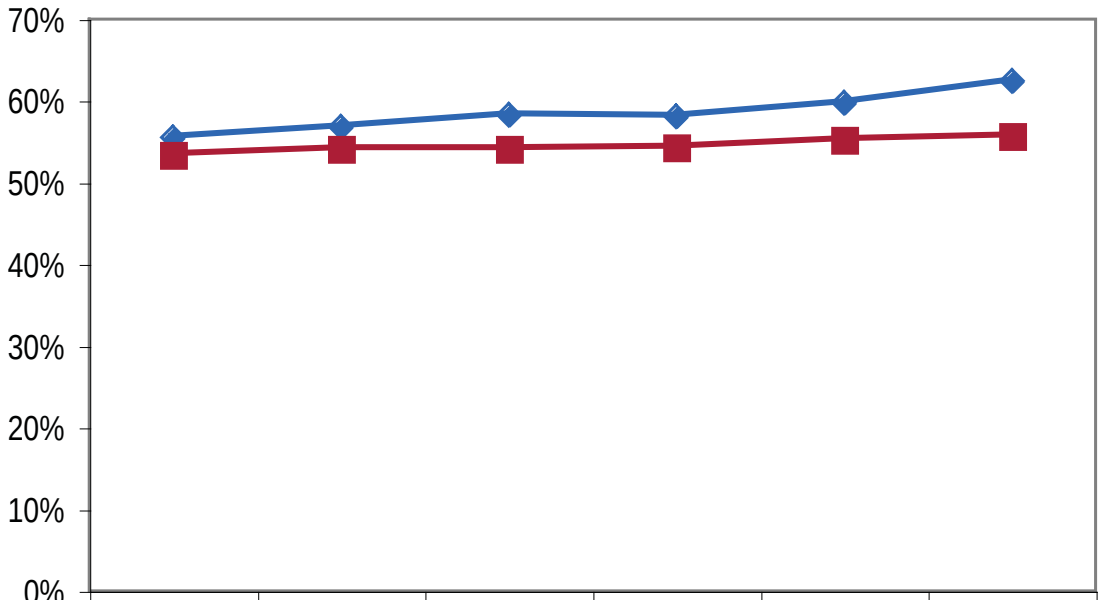
10. Polysubstance Abuse in Indiana: Consumption Patterns

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, 1999).

The primary source of data regarding polysubstance abuse is the Treatment Episode Data Set (TEDS). A review of the TEDS data for Indiana and the United States for the years 2000 through 2005 shows that over 50% of the individuals seeking substance abuse treatment reported using at least two drugs at the time they entered treatment (Substance Abuse and Mental Health Data Archive, n.d.). When Indiana is compared to the rest of the United States, the percentage of indi¬viduals reporting polysubstance abuse is significantly higher in Indiana (for 2000: Pearson chi-square = 64.55, $p < .001$; for 2001: Pearson chi-square = 81.05, $p < .001$; for 2002: Pearson chi-square = 226.34, $p < .001$; for 2003: Pearson chi-square = 184.814; $p < .001$; for 2004: Pearson chi-square = 332.30, $p < .001$; for 2005: Pearson chi-square = 711.29, $p < .001$). Also, the percentage of individuals in treatment using two or more substances increased significantly from 2000 to 2005 (t [Student t test]= -19.54; $p < .001$) (see Figure 10.1). For county-level treatment data on individuals using two or more substances, see Appendix 10A, page 166.

Figure 10.2 illustrates that from 2000 through 2005, approximately one-fourth of Hoosiers and one-fifth of U.S. residents in treatment reported that they used at least three drugs. The difference between the U.S. and Indiana groups is significant across all years (for 2000: Pearson chi-square = 123.89, $p < .001$; for 2001: Pearson chi-square = 4.84, $p < .05$; for 2002: Pearson chi-square = 25.73, $p < .001$; for 2003: Pearson chi-

Figure 10.1 Percentage of Indiana and U.S. Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Two Substances) at Admission, 2000 through 2005 (Treatment Episode Data Set, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

square = 39.01; p < .001; for 2004: Pearson chi-square = 141.61, p < .001; for 2005: Pearson chi-square = 811.81, p < .001). Furthermore, the percentage increased significantly from 23.0% in 2000 to 27.7% in 2005 in Indiana (t = -14.77; p < .001) (see Figure 10.2). For county-level treatment data on individuals using three or more substances, see Appendix 10A, page 166.

Demographic Characteristics of Polysubstance Users

Gender, race, and age are all significantly related to polysubstance use in both Indiana and the nation.

Gender

In Indiana, a significantly higher percentage of women reported using two or more drugs during some of the years reviewed (for 2000: Pearson chi-square = 22.99, p < .001; for 2002: Pearson chi-square = 3.51, p < .05; for 2005: Pearson chi-square = 6.94, p < .01). During the other years, no differences by gender were detected (see Figure 10.3).

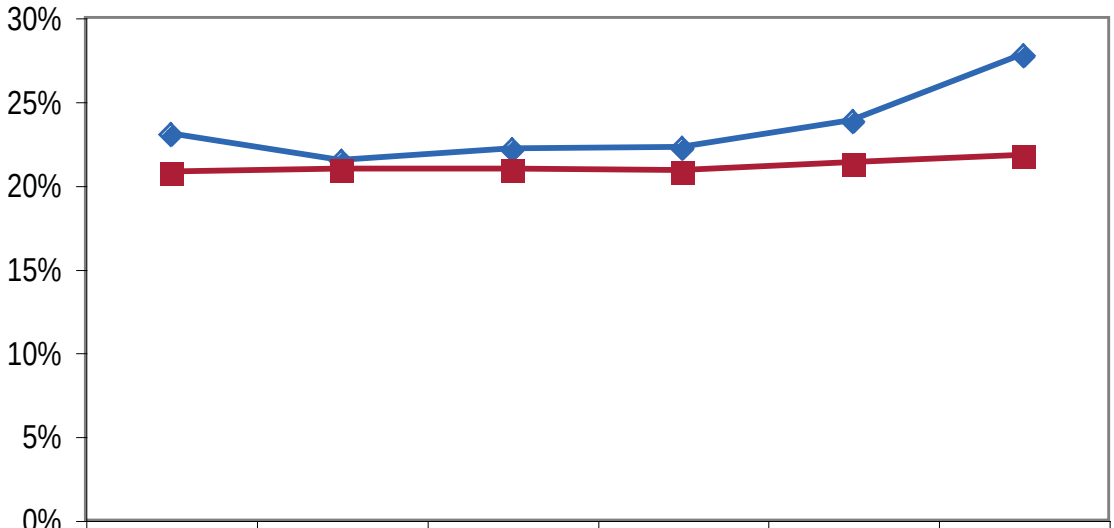
Additionally, from 2000 through 2005, significantly more women used three or more substances (for 2000: Pearson chi-square = 68.62, p < .001; for 2001: Pearson chi-square = 40.54, p < .001; for 2002: Pearson chi-square = 41.60, p < .001; for 2003: Pearson chi-square = 44.42; p < .001; for 2004: Pearson chi-square = 41.79, p < .001; for 2005: Pearson chi-square = 34.95, p < .001) (see Figure 10.4).

Race

Averaging the combined years from 2000 through 2005, Blacks have a significantly higher rate of using two or more substances than Whites (t = 11.21; p < .001) or other races (t = 18.30; p < .001). However, in 2005, Whites reported a higher rate of use than Blacks (t = 3.78; p < .001) and "Others" (t = 4.41; p < .001) (see Figure 10.5).

Over all years combined (2000–2005), significantly more Whites than Blacks (t = 4.89; p < .001) and other races (t = 9.99; p < .001) reported using three or more substances at treatment admission in Indiana. A review

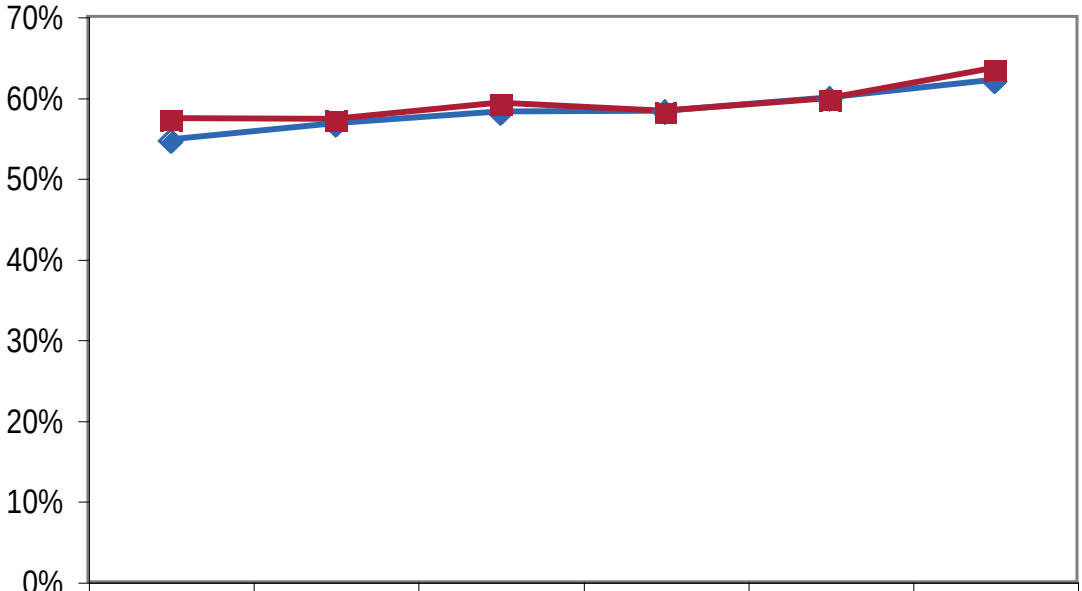
Figure 10.2 Percentage of Indiana and U.S. Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Three Substances) at Admission, 2000 through 2005 (Treatment Episode Data Set, 2000–2005)



	2000	2001	2002	2003	2004	2005
Indiana	23.0%	21.4%	22.1%	22.2%	23.8%	27.7%
U.S.	20.7%	20.9%	20.9%	20.8%	21.3%	21.7%

Source: Substance Abuse and Mental Health Data Archive, n.d.

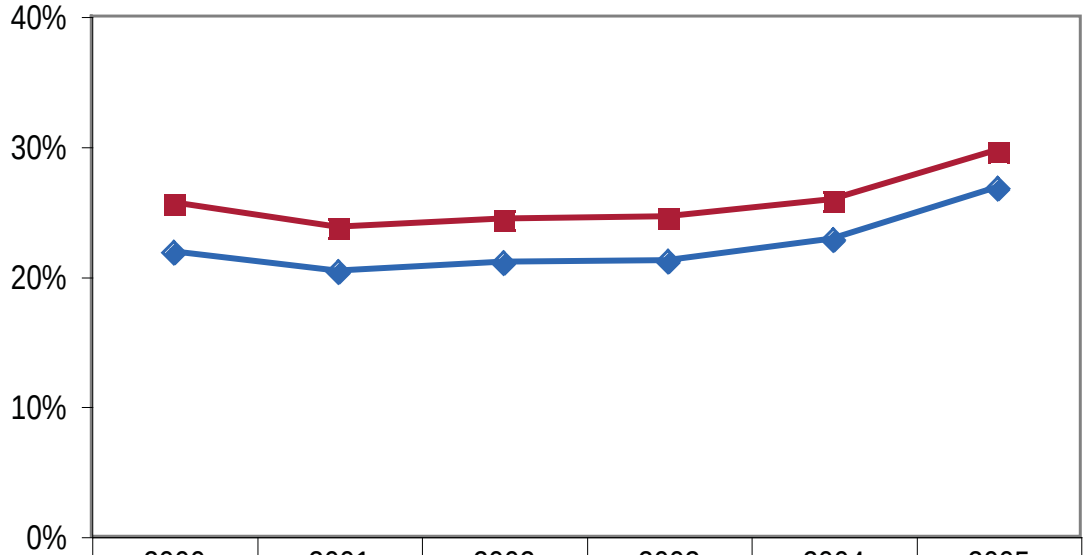
Figure 10.3 Percentages of Indiana Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Two Substances) at Admission, by Gender, 2000 through 2005 (Treatment Episode Data Set, 2000–2005)



	2000	2001	2002	2003	2004	2005
Males	54.6%	56.6%	58.0%	58.1%	59.8%	62.0%
Females	57.2%	57.1%	59.1%	58.1%	59.7%	63.4%

Source: Substance Abuse and Mental Health Data Archive, n.d.

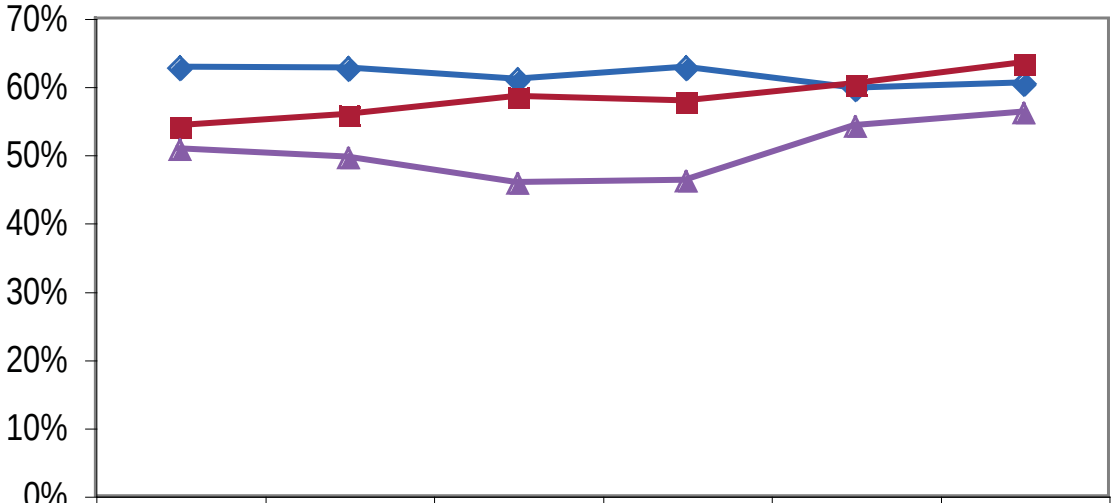
Figure 10.4 Percentages of Indiana Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using At Least Three Substances) at Admission, by Gender, 2000 through 2005 (Treatment Episode Data Set, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

Figure 10.5 Percentage of Indiana Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using At Least Two Substances) at Admission, by Race, 2000 through 2005 (Treatment Episode Data Set, 2000–2005)



	2000	2001	2002	2003	2004	2005
Black	62.6%	62.5%	60.9%	62.7%	59.6%	60.3%
White	54.1%	55.7%	58.4%	57.7%	60.2%	63.3%
Other	50.7%	49.5%	45.7%	46.1%	54.1%	56.1%

Source: Substance Abuse and Mental Health Data Archive, n.d.

of individual years shows that Blacks used to have the highest rates in 2000 and 2001 (comparison with Whites: $t = 9.92$, $p < .001$; comparison with "Others": $t = 5.98$, $p < .001$), but their reported use of three or more substances has been exceeded since 2002 by individuals who are categorized as "White" (see Figure 10.6).

Age

A significant difference by age group can be observed across all years reviewed, 2000 through 2005, for Indiana residents reporting on their use of two or more substances (for 2000: Pearson chi-square = 904.81, $p < .001$; for 2001: Pearson chi-square = 894.61, $p < .001$; for 2002: Pearson chi-square = 912.69, $p < .001$; for 2003: Pearson chi-square = 819.65, $p < .001$; for 2004: 889.98, $p < .001$; for 2005: 725.36; $p < .001$) as well as for individuals using three or more substances (for 2000: Pearson chi-square = 391.42, $p < .001$; for 2001: Pearson chi-square = 308.95, $p < .001$; for 2002: Pearson chi-square = 312.79, $p < .001$; for 2003: Pearson chi-square = 361.28, $p < .001$; for 2004: 362.55, $p < .001$; for 2005: 311.36; $p < .001$). Individuals using two or more substances were primarily between the ages of 18 and 34 (see Figure 10.7). Hoosiers who reported using three or more substances were, for the most part, between 18 and 44 years old (see Figure 10.8).

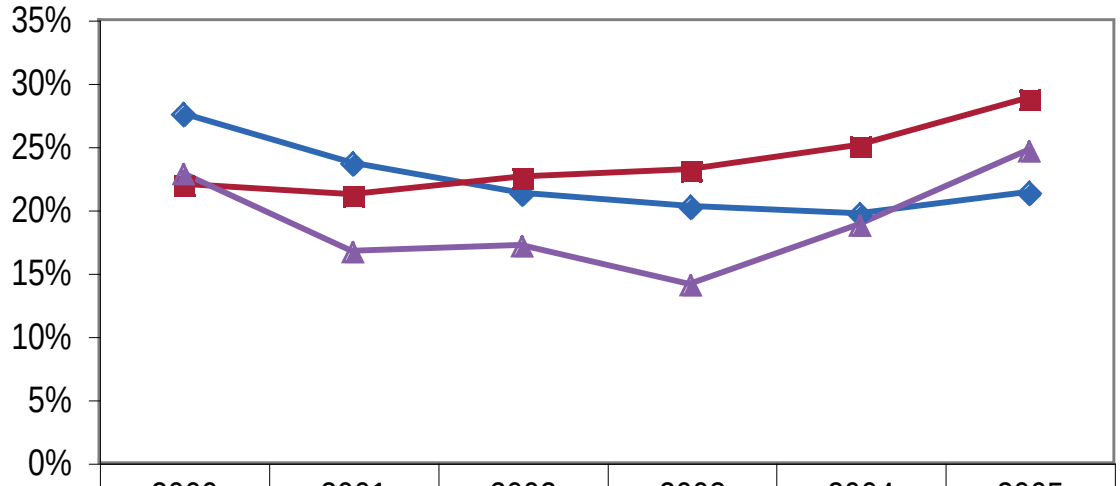
Polysubstance Abuse Clusters in Indiana

We used cluster analysis of Indiana TEDS data for 2005, the most recent data set, to determine the combinations of drugs that polysubstance abusers within the state are currently using. The cluster analysis was completed in two steps following standardized methods (Hair, Anderson, Tatham, & Black, 1995).

In the first step, hierarchical cluster analysis specifying solutions with 2 to 20 clusters was done using Ward's method (Hair et al., 1995). Second, the results of the hierarchical cluster analysis were used to create "seed points" to serve as cluster centroids for follow-up K-Means cluster analyses, specifying 2 to 20 clusters. This two-step method was used as it produces clusters that are more easily interpretable (Hair et al., 1995).

We next compared the cubic clustering criteria (the expected value of the within-sum of squares, with a value

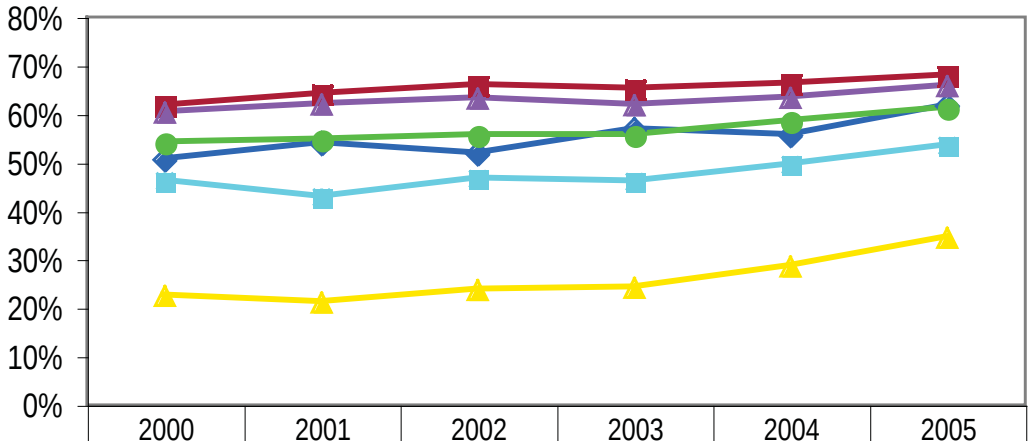
Figure 10.6 Percentages of Indiana Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Three Substances) at Admission, by Race, 2000 through 2005 (Treatment Episode Data Set, 2000–2005)



	2000	2001	2002	2003	2004	2005
Black	27.5%	23.6%	21.2%	20.2%	19.6%	21.3%
White	21.9%	21.1%	22.5%	23.1%	25.0%	28.7%
Other	22.8%	16.6%	17.1%	14.0%	18.7%	24.6%

Source: Substance Abuse and Mental Health Data Archive, n.d.

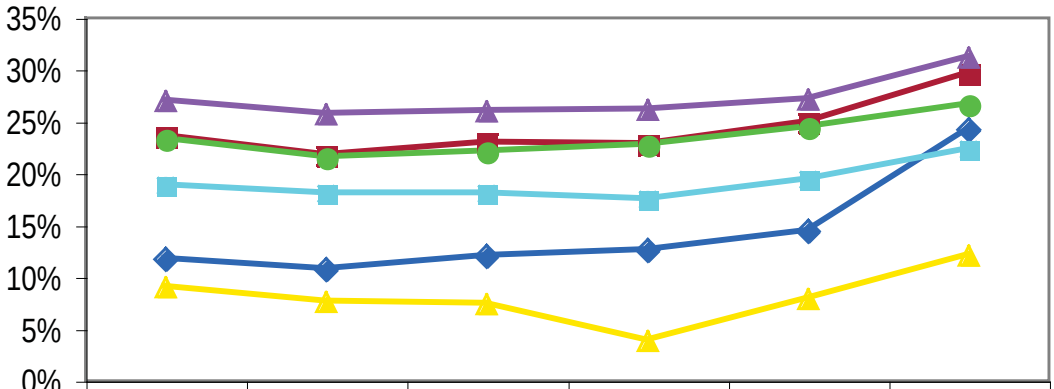
Figure 10.7 Percentages of Indiana Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Two Substances) at Admission, by Age Group, 2000 through 2005 (Treatment Episode Data Set, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

Figure 10.8 Percentage of Indiana Residents in Substance Abuse Treatment Reporting Polysubstance Abuse (Using at Least Three Substances) at Admission, by Age Group, 2000 through 2005 (Treatment Episode Data Set, 2000–2005)



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

Source: Substance Abuse and Mental Health Data Archive, n.d.

greater than 3, indicating good structure in the data, and the face-validity of the set of drugs across the clusters to select the final classification solution (Hair et al., 1995). An examination of the results of the K-Means cluster analyses indicated that an 11-cluster solution best fit the available data. Table 10.1 shows the image and identity matrix for the 11-cluster solution.

The most frequently occurring drug clusters in Indiana were clusters 1, 2, 3, and 4. These clusters accounted for more than two-thirds of polysubstance users in the analysis (66.9%). Individuals in cluster 1 reported using a combination of alcohol and marijuana. Polysubstance users in cluster 2 reported using a combination of alcohol, marijuana, and cocaine. Cluster 3 included individuals who reported using alcohol and cocaine, while polysubstance users in cluster 4 reported currently using alcohol, marijuana, and methamphetamine.

Alcohol and marijuana were the most commonly reported drugs, each appearing in 7 of the 11 clusters. Cocaine was the third most frequently reported drug, and it was included in 4 of the 11 clusters. Methamphetamines and opiates/synthetic drugs each appeared in two clusters, while heroin, benzodiazepines, and hallucinogens were each represented in one cluster.

Table 10.2 (pages 164-165) breaks down the clusters by demographic characteristics. In terms of gender, men accounted for 50% or more of the individuals within each cluster. The difference in the percentages of men to women were smaller, however, in clusters 3 (alcohol/cocaine), 7 (marijuana/cocaine), 9 (marijuana/opiates and synthetics), 10 (marijuana/methamphetamine), and 11 (alcohol, marijuana, benzodiazepines), indicating that women may be more likely to use these combinations of drugs. Clusters 1 (alcohol/marijuana) and 6 (alcohol/hallucinogens) were the most male-oriented clusters.

Racially, Whites comprised the largest percentage of polysubstance abusers within each cluster. Blacks, however, were more strongly represented in clusters 2 (alcohol/marijuana/cocaine), 3, 7, and 8. These four clusters were similar in that all included cocaine. Whites represented more than 90% of the population in clusters 4 (alcohol/marijuana/methamphetamine), 5 (alcohol/opiates

and synthetics), 9, 10, and 11. These five clusters included less commonly used drugs, including methamphetamine, opiates/synthetics, or benzodiazepines.

Polysubstance abuse was primarily reported by individuals 18 years of age or older. Younger polysubstance users were more likely to be found in clusters 1, 5, 6, 9, 10, and 11. These six clusters contained potentially more easily available drugs such as alcohol, marijuana, methamphetamine, hallucinogens, opiates/synthetics, and benzodiazepines. Clusters 2, 3, and 8 included the largest percentages of older polysubstance users. The common drug within these three clusters was cocaine.

Table 10.1 Image and Identity Matrix for Polysubstance Abuse Clusters

Image Matrix	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**	**C9**	**C10**	**C11**
Drug											
Alcohol	1	1	.97	1	1	.86	0	.33	0	0	.77
Marijuana	1	1	0	.78	.44	.18	1	.23	.61	.93	.71
Cocaine	0	1	1	0	.15	.01	.93	.68	.32	.27	0
Methamphetamine	0	0	.10	1	.03	.01	0	.03	.17	1	.06
Opiates/synthetics	0	0	0	0	1	0	0	.13	1	0	0
Heroin	.01	0	0	.01	.02	.01	0	1	.05	.01	.02
Benzodiazepines	0	0	.04	.0	.10	.01	.05	.04	.28	.07	1
Hallucinogens	0	0	.01	0	0	.74	.02	.01	.01	.02	.01
Identity Matrix	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**	**C9**	**C10**	**C11**
Drug											
Alcohol	1	1	1	1	1	1	0	0	0	0	1
Marijuana	1	1	0	1	0	0	1	0	1	1	1
Cocaine	0	1	1	0	0	0	1	1	0	0	0
Methamphetamine	0	0	0	1	0	0	0	0	0	1	0
Opiates/synthetics	0	0	0	0	1	0	0	0	1	0	0
Heroin	0	0	0	0	0	0	0	1	0	0	0
Benzodiazepines	0	0	0	0	0	0	0	0	0	0	1
Hallucinogens	0	0	0	0	0	1	0	0	0	0	0

Table 10.2 Demographic Characteristics of Polysubstance Abusers within Clusters

	Cluster 1		Cluster 2		Cluster 3		Cluster 4	
	n = 5573	%	n = 2263	%	n = 1787	%	n = 1152	%
Gender								
Male	4334	77.8	1533	67.7	1039	58.1	747	64.8
Female	1239	22.2	730	32.3	748	41.9	405	35.2
Race								
White	4496	80.7	1431	63.2	978	54.7	1124	97.6
Black	834	15.0	723	31.9	731	40.9	8	.7
Other	243	4.4	109	4.8	78	4.4	20	1.7
Race by Gender								
White male	3465	62.2	955	42.2	548	30.7	728	63.2
Black male	663	11.9	493	21.8	442	24.7	5	.4
Other male	206	3.7	85	3.8	49	2.7	14	1.2
White female	1031	18.5	476	21.0	430	24.1	396	34.4
Black female	171	3.1	230	10.2	289	16.2	3	.3
Other female	37	.7	24	1.1	29	1.6	6	.5
Age								
Under 18	482	8.6	33	1.5	7	.4	21	1.8
18 – 24	2166	38.9	418	18.5	139	7.8	358	31.1
25 – 34	1450	26.0	781	34.5	476	26.6	430	37.3
35 – 44	988	17.7	732	32.3	795	44.5	273	23.7
45 – 54	429	7.7	272	12.0	345	19.3	68	5.9
55 – 64	54	1.0	25	1.1	23	1.3	2	.2
65 and over	4	.1	2	.1	2	.1	0	.0

	Cluster 5		Cluster 6		Cluster 7		Cluster 8	
	n = 900	%	n = 759	%	n = 779	%	n = 606	%
Gender								
Male	564	62.7	558	73.5	401	51.5	368	60.7
Female	336	37.3	201	26.5	378	48.5	238	39.3
Race								
White	843	93.7	636	83.8	481	61.7	360	59.4
Black	39	4.3	65	8.6	273	35.0	213	35.1
Other	18	2.0	58	7.6	25	3.2	33	5.4
Race by Gender								
White male	529	58.8	465	61.3	240	30.8	208	34.3
Black male	20	2.2	51	6.7	147	18.9	138	22.8
Other male	15	1.7	42	5.5	14	1.8	22	3.6
White female	314	34.9	171	22.5	241	30.9	152	25.1
Black female	19	2.1	14	1.8	126	16.2	75	12.4
Other female	3	.3	16	2.1	11	1.4	11	1.8
Age								
Under 18	28	3.1	26	3.4	13	1.7	4	.7
18 – 24	232	25.8	284	37.4	191	24.5	92	15.2
25 – 34	283	31.4	205	27.0	312	40.1	171	28.2
35 – 44	206	22.9	159	20.9	195	25.0	135	22.3
45 – 54	135	15.0	72	9.5	64	8.2	170	28.1
55 – 64	11	1.2	11	1.4	4	.5	29	4.8
65 and over	5	.6	2	.3	0	.0	5	.8

Continued on next page

Table 10.2 continued

	Cluster 9		Cluster 10		Cluster 11	
	n = 810	%	n = 954	%	n = 515	%
Gender						
Male	431	53.2	504	52.8	301	58.4
Female	379	46.8	450	47.2	214	41.6
Race						
White	772	95.3	936	98.1	505	98.1
Black	24	3.0	5	.5	5	1.0
Other	14	1.7	13	1.4	5	1.0
Race by Gender						
White male	415	51.2	498	52.2	295	57.3
Black male	11	1.4	2	.2	4	.8
Other male	5	.6	4	.4	2	.4
White female	357	44.1	438	45.9	210	40.8
Black female	13	1.6	3	.3	1	.2
Other female	9	1.1	9	.9	3	.6
Age						
Under 18	17	2.1	21	2.2	42	8.2
18 – 24	258	31.9	308	32.3	191	37.1
25 – 34	315	38.9	408	42.8	141	27.4
35 – 44	154	19.0	172	18.0	104	20.2
45 – 54	61	7.5	44	4.6	33	6.4
55 – 64	5	.6	1	.1	4	.8
65 and over	0	.0	0	.0	0	.0

APPENDIX 10A

Number of Indiana Residents in Substance Abuse Treatment Who Reported Polysubstance Abuse (Using Two or More Drugs; Using Three or More Drugs) at Admission, by County, 2005 (Treatment Episode Data Set, 2005)

County	Using 2+ Substances	Using 3+ Substances	Total (in Treatment)
Adams	90	45	123
Allen	863	233	1512
Bartholomew	281	141	405
Benton	21	8	32
Blackford	86	50	112
Boone	93	43	155
Brown	41	17	58
Carroll	40	13	91
Cass	102	35	181
Clark	351	144	599
Clay	134	69	193
Clinton	14	6	24
Crawford	27	15	48
Daviess	104	68	123
Dearborn	133	60	222
Decatur	22	7	66
DeKalb	64	19	138
Delaware	565	266	775
DuBois	84	42	142
Elkhart	384	124	690
Fayette	110	55	154
Floyd	176	78	292
Fountain	60	28	97
Franklin	29	15	44
Fulton	105	43	158
Gibson	99	45	151
Grant	229	101	340
Greene	72	42	114
Hamilton	407	123	611
Hancock	92	25	174
Harrison	78	25	117
Hendricks	145	48	301
Henry	165	74	262
Howard	273	65	407
Huntington	63	24	124
Jackson	62	45	74
Jasper	61	29	78
Jay	67	32	96
Jefferson	116	44	255
Jennings	107	68	145
Johnson	230	91	361
Knox	208	89	302
Kosciusko	87	31	204
LaGrange	61	27	120
Lake	1,267	486	2,219
LaPorte	330	151	452
Lawrence	116	52	189
Madison	462	152	1082
Marion	2,811	1062	4,613
Marshall	107	69	159
Martin	47	29	58
Miami	163	47	239
Monroe	524	224	746
Montgomery	159	68	271
Morgan	133	51	260
Newton	13	7	17
Noble	114	47	241
Ohio	15	8	23
Orange	35	17	49
Owen	94	42	135
Parke	89	46	137
Perry	71	35	129
Pike	41	20	61
Porter	259	109	402
Posey	102	54	166
Pulaski	57	15	80
Putnam	64	35	116
Randolph	67	28	104
Ripley	48	23	71
Rush	39	11	127
Scott	86	50	170
Shelby	88	24	170
Spencer	62	31	124
St. Joseph	821	364	1214
Starke	81	27	126
Steuben	52	12	140
Sullivan	62	35	97
Switzerland	38	10	55
Tippecanoe	360	185	547
Tipton	19	6	32
Union	17	8	32
Vanderburgh	1133	597	1525
Vermillion	55	20	98

Source: Substance Abuse and Mental Health Data Archive, n.d.

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11. Identification of Communities with Significant Substance Abuse Challenges

To measure the severity of substance use at the community level, we identified proxy indicators of use for individual drug categories, including alcohol, cocaine, methamphetamine, marijuana, and prescription drugs, as well as general indicators that are associated with alcohol and illicit drug use, such as drug-related arrests and property crimes. Additionally, we selected arrests of juvenile runaways to indicate substance use among youths. We then rank-ordered the counties on these selected indicators, using a greatest-need/highest-contributor model. Counties received a priority score based on their need for substance abuse prevention (measured by the rate at which an indicator occurred) and their overall involvement in the problem (measured by the number of times an indicator occurred).

For each indicator, counties were given 4 points if they were in the top most severe 10% of all Indiana counties, 3 points if they were in the top 15%, 2 points if they were in the top 25%, 1 point if they were in the top 50%, and 0 points if they ranked below. The points were then summed to an overall priority score; a higher priority score indicates a more severe problem. The selection of substance abuse indicators was limited to datasets that provide county-level data.

ALCOHOL INDICATORS

In 2006, we examined the ranking of communities in terms of six indicators for alcohol abuse, including:

1. number of alcohol-related fatal auto accidents;
2. rate of alcohol-related fatal auto accidents;
3. number of alcohol-related crashes;
4. rate of alcohol-related crashes;
5. number of arrests for public intoxication; and
6. rate of public intoxication arrests.

These indicators were selected because they represent the best proxy measures of our alcohol priority which is focused on underage drinking and binge drinking by 18- to 25-year-olds at the county level. The indicators used here reflect data from the 2005 Uniform Crime Reports (UCR) series and 2006 data provided by the Indiana State Police. (A limitation of the Uniform Crime Reports program is variation among the individual states and counties in the level of crime data being reported to the FBI; for this reason, a statistical algorithm is used to estimate arrests for counties in which reporting is particularly poor; see Appendix 11A, page 175, for the coverage index by county.) Following last year's methodology, the counties whose alcohol priority scores are in the top most severe 25% are listed in Table 11.1.

We expanded the list of alcohol abuse indicators for this year's State Epidemiological Profile to also include:

7. number of arrests for driving under the influence (DUI);
8. rate of DUI arrests;
9. number of arrests for liquor law violations; and

Table 11.1 Counties with Alcohol Priority Scores in the Top 25% of Indiana Counties– Based on Six Alcohol Abuse Indicators (Vehicle Crash Records System, 2006; Uniform Crime Reports, 2005)

County	Alcohol Priority Score	County	Alcohol Priority Score
LaPorte	20	Monroe	12
Marion	20	Cass	11
Tippecanoe	20	Elkhart	11
Vanderburgh	17	Jackson	11
LaGrange	16	Madison	11
Allen	15	Pike	11
Clark	15	Steuben	11
Scott	15	Clinton	10
Wayne	15	Jefferson	10
Kosciusko	13	Newton	10
Bartholomew	12	Porter	10
Decatur	12	Vigo	10
Floyd	12		

Source: Indiana State Police, 2007; National Archive of Criminal Justice Data, n.d.

10. rate of liquor law violation arrests.

The counties that scored in the top most severe 25% based on the 10-indicator system are shown in Table 11.2. For a complete list of counties by all alcohol abuse indicators, see Appendix 11B, pages 179-181.

COCAINE AND METHAMPHETAMINE INDICATORS

For both cocaine and methamphetamine, we used a similar methodology in 2006 to rank counties, using total number and rates of arrests for possession of these substances as proxy indicators. Unfortunately, the Uniform Crime Reports dataset does not provide cocaine- and methamphetamine-specific information, so the variables "arrests for cocaine and opiates possession" and "arrests for synthetic drugs (including methamphetamine)" were used. Tables 11.3 and 11.4 list the counties whose priority scores (based on the number and rate of arrests due to possession of cocaine or methamphetamine) are in the top 25 percent.

However, for the 2007 State Epidemiology and Outcomes Workgroup Report we decided to also include the number and rate of arrests for cocaine and methamphetamine sale/manufacture. The counties with priority scores in the top 25% are presented in Tables 11.5 and 11.6. For a complete list of counties by cocaine and methamphetamine abuse indicators, see Appendix 11C, pages 182-187.

Table 11.2 Counties with Alcohol Priority Scores in the Top 25% of Indiana Counties – Based on 10 Alcohol Abuse Indicators (Vehicle Crash Records System, 2006; Uniform Crime Reports, 2005)

County	Alcohol Priority Score	County	Alcohol Priority Score
Tippecanoe	33	Jackson	19
LaPorte	31	Hamilton	18
Marion	28	Kosciusko	18
Allen	27	Vigo	18
Wayne	24	Perry	17
Vanderburgh	23	Saint Joseph	17
Clark	22	Bartholomew	16
Monroe	22	Clinton	16
Elkhart	21	Johnson	16
Madison	21	LaGrange	16
Lake	20	Scott	16
Porter	20	Steuben	16
Floyd	19		

Source: National Archive of Criminal Justice Data, n.d.

Table 11.3 Counties with Cocaine Priority Scores in the Top 25% of all Indiana Counties – Based on the Number and Rate of Arrests due to Cocaine and Opiates Possession (Uniform Crime Reports, 2005)

County	Cocaine Priority Score	County	Cocaine Priority Score
Allen	8	Bartholomew	5
Delaware	8	Tipton	5
Howard	8	Franklin	4
Marion	8	Madison	4
Saint Joseph	8	Montgomery	4
Tippecanoe	8	Decatur	3
Wayne	8	Fountain	3
Clark	7	Hamilton	3
Grant	7	Knox	3
Elkhart	6	Kosciusko	3
Lake	6	Marshall	3
Putnam	6	Morgan	3
Vanderburgh	6	Noble	3

Source: National Archive of Criminal Justice Data, n.d.

Table 11.4 Counties with Methamphetamine Priority Scores in the Top 25% of all Indiana Counties—Based on the Number and Rate of Arrests due to Synthetic Drug Possession (Uniform Crime Reports, 2005)

County	Methamphetamine Priority Score	County	Methamphetamine Priority Score
Bartholomew	8	Elkhart	5
Daviess	8	Hamilton	5
Tippecanoe	8	Rush	5
Vanderburgh	8	Clark	4
Vigo	8	Kosciusko	4
Warrick	8	Blackford	3
Grant	7	Decatur	3
Jackson	7	Greene	3
Clay	6	Lake	3
Dubois	6	Perry	3
Floyd	6	Posey	3
Marshall	6	Randolph	3
Scott	6	Spencer	3
Wayne	6	Wabash	3

Source: National Archive of Criminal Justice Data, n.d.

Table 11.5 Counties with Cocaine Priority Scores in the Top 25% of all Indiana Counties – Based on the Number and Rate of Arrests due to Cocaine and Opiates Possession and Sale/Manufacture (Uniform Crime Reports, 2005)

County	Cocaine Priority Score	County	Cocaine Priority Score
Howard	16	Floyd	9
Marion	16	Putnam	9
Wayne	16	Tipton	9
Allen	14	Elkhart	8
Grant	14	Knox	8
Lake	14	Decatur	7
Tippecanoe	14	Steuben	7
Saint Joseph	13	Bartholomew	6
Vanderburgh	13	Kosciusko	6
Clark	12	Fountain	5
Delaware	10	Fulton	5
LaPorte	10	Hamilton	5
Morgan	10	Marshall	5
Clinton	9	Montgomery	5

Source: National Archive of Criminal Justice Data, n.d.

Table 11.6 Counties with Methamphetamine Priority Scores in the Top 25% of All Indiana Counties—Based on the Number and Rate of Arrests due to Synthetic Drug Possession and Sale/Manufacture (Uniform Crime Reports, 2005)

County	Methamphetamine Priority Score	County	Methamphetamine Priority Score
Vanderburgh	16	Clay	9
Bartholomew	16	Grant	8
Warrick	16	Floyd	8
Vigo	15	Hamilton	8
Wayne	13	Marshall	8
Tippecanoe	13	Dubois	8
Daviess	13	Rush	8
Jackson	11	Scott	8
Clark	10	Lake	7
Putnam	10	Steuben	7
Elkhart	9	Kosciusko	7
Jefferson	9	Brown	7
Blackford	9	Posey	7

Source: National Archive of Criminal Justice Data, n.d.

OTHER DRUG USE INDICATORS

Previously, we identified only indicators for alcohol, cocaine, and methamphetamine abuse for the purpose of county priority rankings. We decided to extend the scope of the examination to include other proxy indicators for which adequate county-level information are available. The Uniform Crime Reports dataset also provides information on arrests for marijuana and "other drugs," such as barbiturates and Benzedrine (used as a proxy for prescription drug abuse). Using the highest-need/highest-contributor model, based on number and rates of arrests for possession and sale/manufacture, the priority scores for marijuana and prescription drug abuse were computed for each county. Tables 11.7 and 11.8 show the counties whose scores are in the top 25 percent. For a complete listing of counties by marijuana and prescription drug abuse indicators, see Appendix 11D, pages 188-193.

OVERALL USE INDICATORS

We also identified other variables from the 2005 Uniform Crime Reports to serve as indicators for overall substance use. These indicators include arrests for the possession or sale/manufacture of any illicit substance and arrests for property crimes. In 2005, a total of 31,504 individuals were arrested for the possession or sale/manufacture of drugs in Indiana; this represents an annual arrest rate of 5.02 per 1,000 population (see Map

Table 11.7 Counties with Marijuana Priority Scores in the Top 25% of all Indiana Counties – Based on the Number and Rate of Arrests due to Marijuana Possession and Sale/Manufacture (Uniform Crime Reports, 2005)

County	Marijuana Priority Score	County	Marijuana Priority Score
Vanderburgh	16	Henry	8
Tippecanoe	15	Union	8
Lake	12	Shelby	8
Floyd	12	Clinton	8
Wayne	11	Jackson	8
Marion	11	Grant	8
Johnson	11	Howard	8
Fayette	10	Allen	8
Morgan	10	Knox	7
Saint Joseph	10	Clark	7
Hamilton	10	Porter	7
Hendricks	9	Bartholomew	7
Jennings	8		

Source: National Archive of Criminal Justice Data, n.d.

Table 11.8 Counties with Prescription Drug Priority Scores in the Top 25% of All Indiana Counties Based on the Number and Rate of Arrests due to "Other Drugs (such as Barbiturates and Benzedrine)" Possession and Sale/Manufacture (Uniform Crime Reports, 2005)

County	Prescription Drug Priority Score	County	Prescription Drug Priority Score
Knox	16	Miami	10
Whitley	16	Morgan	10
Noble	15	Tippecanoe	10
Randolph	15	Fountain	9
Fulton	14	Newton	8
Pike	14	Elkhart	8
Marshall	13	Lake	8
Ripley	13	Union	7
DeKalb	12	Scott	6
Ohio	11	Benton	6
Tipton	11	Henry	6
Vermillion	11	Hendricks	6
Steuben	11	Lawrence	6
Allen	11	Wabash	6

Source: National Archive of Criminal Justice Data, n.d.

11.1 for the distribution of arrest rates by county, page 200). Table 11.9 shows the counties whose drug arrest priority scores are in the top 25 percent.

Information gathered on property crimes in the Uniform Crime Reports series includes arrests for burglaries, larcenies, motor vehicle thefts, and arsons. In 2005, a total of 33,229 individuals in Indiana were arrested for committing a property crime; this represents an annual arrest rate of 5.30 per 1,000 population. Table 11.10 depicts the counties whose property crime arrest priority scores are in the top 25 percent. For a complete listing of counties by overall use indicators, see Appendix 11E, pages 194-197.

YOUTH SUBSTANCE USE INDICATORS

Studies have shown that runaway and homeless adolescents are at a greater risk for abusing alcohol and other drugs (Greene, Ennett, Ringwalt, 1997; Windle, 1988). Therefore, we selected runaway arrests from the 2005 Uniform Crime Reports dataset as a proxy indicator for youth substance use. In 2005, a total of 4,764 juveniles (individuals under age 18) were arrested for running away from home in Indiana; the corresponding rate is 0.76 per 1,000 population (under age 18). See Table 11.11 for the counties with runaway priority scores in the top 25 percent and Appendix 11F for a complete list of runaway arrests by county, pages 194-197.

Table 11.9 Counties with Drug Arrest Priority Scores (Proxy Indicator for Overall Substance Use) in the Top 25% of All Indiana Counties—Based on the Number and Rate of Arrests for Drug Possession and Sale/Manufacture (Uniform Crime Reports, 2005)

County	Drug Arrests Priority Score	County	Drug Arrests Priority Score
Floyd	8	Saint Joseph	5
Tippecanoe	8	Lake	5
Vanderburgh	8	Elkhart	5
Marion	8	Blackford	4
Wayne	7	Daviess	4
Bartholomew	7	Jackson	4
Howard	7	Vigo	4
Allen	6	Madison	4
Johnson	6	Hamilton	4
Fayette	5	Knox	3
Clinton	5	Montgomery	3
Grant	5	Clark	3
Morgan	5		

Source: National Archive of Criminal Justice Data, n.d.

Table 11.10 Counties with Property Crime Arrest Priority Scores (Proxy Indicator for Overall Substance Use) in the Top 25% of All Indiana Counties– Based on the Number and Rate of Arrests (Uniform Crime Reports, 2005)

County	Property Crime Priority Score	County	Property Crime Priority Score
Wayne	8	Marshall	5
Vigo	8	Steuben	5
Allen	8	Kosciusko	5
Tippecanoe	8	Elkhart	5
Floyd	7	Fayette	4
Clark	7	Bartholomew	4
Vanderburgh	7	Howard	4
Johnson	7	Madison	4
Grant	6	Jefferson	3
Saint Joseph	6	Dubois	3
Marion	6	LaPorte	3
Lake	6	Hendricks	3
Scott	5	Hamilton	3

Source: National Archive of Criminal Justice Data, n.d.

Table 11.11 Counties with Runaway Priority Scores (Proxy Indicator for Youth Substance Use) in the Top 25% of All Indiana Counties – Based on the Number and Rate of Arrests (Uniform Crime Reports, 2005)

County	Runaway Priority Score	County	Runaway Priority Score
Saint Joseph	8	Lake	5
Vanderburgh	8	Brown	4
LaPorte	8	Fayette	4
Vigo	8	Shelby	4
Madison	8	Jefferson	3
Tippecanoe	8	Rush	3
Grant	7	Steuben	3
Noble	7	Jackson	3
Howard	7	Knox	3
Elkhart	7	Clark	3
Henry	6	Wayne	3
Cass	6	Johnson	3
Bartholomew	5	Monroe	3
Allen	5	Hamilton	3

Source: National Archive of Criminal Justice Data, n.d.

APPENDIX 11A

Coverage Indicator (Percentage of County Data Reported to and not Imputed by the FBI) for Uniform Crime Reports and County Population Estimates, 2005 (Uniform Crime Reports, 2005)

County	Coverage Indicator (%)	County Population (all)	County Population (0-17 yrs old)
Adams	40.44	34,002	10,247
Allen	96.01	344,055	93,840
Bartholomew	100.00	73,072	18,954
Benton	0.00	9,189	2,343
Blackford	100.00	13,773	3,188
Boone	0.00	51,127	13,637
Brown	100.00	15,312	3,178
Carroll	14.67	20,443	4,986
Cass	100.00	40,640	10,264
Clark	93.96	101,261	24,034
Clay	30.30	27,360	6,632
Clinton	24.07	34,336	9,039
Crawford	0.00	11,229	2,703
Daviess	62.63	30,412	8,522
Dearborn	11.72	48,851	12,213
Decatur	41.90	25,108	6,503
DeKalb	30.49	41,753	11,014
Delaware	100.00	118,416	24,421
Dubois	47.64	40,996	10,461
Elkhart	100.00	193,143	55,180
Fayette	78.97	25,072	5,811
Floyd	100.00	71,938	17,430
Fountain	52.66	17,768	4,300
Franklin	83.33	21,562	5,899
Fulton	0.00	20,695	5,017
Gibson	26.01	33,470	7,870
Grant	85.64	71,938	15,924
Greene	75.15	33,685	7,921
Hamilton	68.98	233,038	69,513
Hancock	100.00	61,251	15,535
Harrison	46.11	36,577	8,674
Hendricks	37.33	124,157	32,658
Henry	100.00	48,073	10,940
Howard	100.00	85,082	21,095
Huntington	66.48	38,334	9,270
Jackson	44.58	42,190	10,537
Jasper	19.63	31,798	8,000
Jay	28.67	21,917	5,700
Jefferson	38.41	32,287	7,404
Jennings	67.80	28,558	7,538
Johnson	95.22	126,911	33,362
Knox	47.10	38,654	8,242
Kosciusko	16.82	75,767	20,090
LaGrange	100.00	36,716	11,875
Lake	73.54	493,551	128,540
LaPorte	91.74	110,360	25,855
Lawrence	89.98	46,654	10,734
Madison	100.00	131,337	30,161
Marion	100.00	868,361	229,715
Marshall	22.96	46,990	12,469
Martin	74.09	10,525	2,388
Miami	0.00	36,153	8,669
Monroe	100.00	121,680	21,010
Montgomery	39.77	38,146	9,397
Morgan	32.50	69,807	17,612
Newton	100.00	14,501	3,397
Noble	18.12	47,558	13,123
Ohio	0.00	5,881	1,285
Orange	0.00	19,827	4,852
Owen	0.00	23,201	5,386
Parke	0.00	17,349	3,705
Perry	40.52	19,104	3,957
Pike	0.00	13,009	2,929
Porter	92.53	155,816	37,210
Posey	27.12	27,139	6,536
Pulaski	0.00	13,901	3,328
Putnam	72.79	36,989	8,123
Randolph	18.19	26,844	6,374
Ripley	0.00	29,117	7,367
Rush	32.09	18,127	4,569
Saint Joseph	99.30	267,901	67,834
Scott	25.56	23,734	5,876
Shelby	59.14	43,923	10,984
Spencer	0.00	20,422	4,970
Starke	84.25	23,029	5,868
Steuben	100.00	33,908	8,113
Sullivan	0.00	21,983	4,587
Switzerland	0.00	9,560	2,322
Tippecanoe	100.00	152,881	32,282
Tipton	32.15	16,690	3,821
Union	100.00	7,266	1,791
Vanderburgh	100.00	174,112	39,613
Vermillion	29.76	16,591	3,791
Vigo	57.67	103,764	23,208
Wabash	50.89	34,357	7,646
Warren	0.00	8,808	2,072
Warrick	100.00	55,771	13,866
Washington	23.01	28,036	6,887
Wayne County	97.05	70,163	16,146
Wells	100.00	28,117	6,993
White	100.00	24,983	6,021
Whitley	29.91	32,131	8,000
Total		**6,271,973**	**1,573,346**

Source: Substance Abuse and Mental Health Data Archive, n.d.

APPENDIX 11B - Part 1

Part 1: Alcohol Abuse Indicators by Number, Rate (All Rates Are Annual Rates per 1,000 Population), Percentile Group, and Priority Score, by Indiana County (Vehicle Crash Records System, 2006; Uniform Crime Reports, 2005)

	Alcohol-Related Fatal Auto Accidents				Alcohol-Related Collisions				Public Intoxication Arrests			
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group
Adams	2	50th	0.06	50th	37	25th	1.09	< 25th	63	25th	1.85	25th
Allen	11	90th	0.03	25th	651	90th	1.89	50th	1409	90th	4.10	75th
Bartholomew	7	90th	0.10	75th	113	75th	1.55	25th	332	75th	4.54	75th
Benton	2	50th	0.22	90th	12	< 25th	1.31	25th	19	< 25th	2.07	25th
Blackford	0	< 25th	0.00	< 25th	15	< 25th	1.09	< 25th	22	< 25th	1.60	25th
Boone	1	25th	0.02	25th	73	50th	1.43	25th	111	50th	2.17	25th
Brown	1	25th	0.07	50th	31	< 25th	2.02	75th	9	< 25th	0.59	< 25th
Carroll	1	25th	0.05	50th	45	25th	2.20	85th	29	< 25th	1.42	< 25th
Cass	2	50th	0.05	50th	80	50th	1.97	75th	237	75th	5.83	90th
Clark	7	90th	0.07	50th	199	75th	1.97	75th	407	90th	4.02	75th
Clay	1	25th	0.04	50th	38	25th	1.39	25th	58	25th	2.12	25th
Clinton	6	90th	0.17	90th	61	50th	1.78	50th	41	< 25th	1.19	< 25th
Crawford	1	25th	0.09	75th	19	< 25th	1.69	50th	26	< 25th	2.32	25th
Daviess	4	75th	0.13	85th	33	25th	1.09	< 25th	75	25th	2.47	50th
Dearborn	2	50th	0.04	50th	60	50th	1.23	< 25th	107	50th	2.19	25th
Decatur	1	25th	0.04	50th	111	75th	4.42	90th	137	50th	5.46	90th
DeKalb	1	25th	0.02	25th	35	25th	0.84	< 25th	118	50th	2.83	50th
Delaware	4	75th	0.03	25th	204	85th	1.72	50th	296	75th	2.50	50th
Dubois	1	25th	0.02	25th	65	50th	1.59	50th	103	50th	2.51	50th
Elkhart	5	85th	0.03	25th	283	90th	1.47	25th	407	90th	2.11	25th
Fayette	1	25th	0.04	50th	34	25th	1.36	25th	2	< 25th	0.08	< 25th
Floyd	1	25th	0.01	< 25th	162	75th	2.25	85th	375	85th	5.21	90th
Fountain	0	< 25th	0.00	< 25th	22	< 25th	1.24	< 25th	32	< 25th	1.80	25th
Franklin	0	< 25th	0.00	< 25th	29	< 25th	1.34	25th	47	25th	2.18	25th
Fulton	3	50th	0.14	85th	33	25th	1.59	50th	60	25th	2.90	50th
Gibson	1	25th	0.03	25th	46	25th	1.37	25th	54	25th	1.61	25th
Grant	5	85th	0.07	50th	97	50th	1.35	25th	257	75th	3.57	75th
Greene	2	50th	0.06	50th	63	50th	1.87	50th	66	25th	1.96	25th
Hamilton	4	75th	0.02	25th	266	90th	1.14	< 25th	272	75th	1.17	< 25th
Hancock	0	< 25th	0.00	< 25th	65	50th	1.06	< 25th	140	50th	2.29	25th

continued on next page

Notes: Measures were arranged in percentile groups: 90th, 85th, 75th, 50th, 25th, and < 25th percentile. Belonging to a higher percentile group indicates a more severe problem. Higher priority scores indicate a more severe problem.

	Alcohol-Related Fatal Auto Accidents				Alcohol-Related Collisions				Public Intoxication Arrests			
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group
Harrison	3	50th	0.08	75th	77	50th	2.11	75th	32	< 25th	0.87	< 25th
Hendricks	1	25th	0.01	< 25th	176	75th	1.42	25th	144	50th	1.16	< 25th
Henry	4	75th	0.08	75th	56	50th	1.16	< 25th	47	25th	0.98	< 25th
Howard	3	50th	0.04	50th	132	75th	1.55	25th	271	75th	3.19	50th
Huntington	1	25th	0.03	25th	45	25th	1.17	< 25th	13	< 25th	0.34	< 25th
Jackson	2	50th	0.05	50th	108	50th	2.56	90th	197	50th	4.67	85th
Jasper	5	85th	0.16	85th	64	50th	2.01	75th	49	25th	1.54	< 25th
Jay	0	< 25th	0.00	< 25th	22	< 25th	1.00	< 25th	78	50th	3.56	75th
Jefferson	2	50th	0.06	50th	59	50th	1.83	50th	279	75th	8.64	90th
Jennings	1	25th	0.04	50th	38	25th	1.33	25th	45	< 25th	1.58	25th
Johnson	5	85th	0.04	50th	179	75th	1.41	25th	55	25th	0.43	< 25th
Knox	4	75th	0.10	75th	64	50th	1.66	50th	54	25th	1.40	< 25th
Kosciusko	6	90th	0.08	75th	129	75th	1.70	50th	272	75th	3.59	75th
LaGrange	8	90th	0.22	90th	295	90th	8.03	90th	24	< 25th	0.65	< 25th
Lake	2	50th	0.00	< 25th	52	50th	0.11	< 25th	1350	90th	2.74	50th
LaPorte	23	90th	0.21	90th	1006	90th	9.12	90th	357	85th	3.23	50th
Lawrence	2	50th	0.04	50th	74	50th	1.59	50th	165	50th	3.54	50th
Madison	3	50th	0.02	25th	213	85th	1.62	50th	546	90th	4.16	75th
Marion	18	90th	0.02	25th	2585	90th	2.98	90th	5194	90th	5.98	90th
Marshall	3	50th	0.06	50th	79	50th	1.68	50th	174	50th	3.70	75th
Martin	0	< 25th	0.00	< 25th	25	< 25th	2.38	90th	15	< 25th	1.43	< 25th
Miami	0	< 25th	0.00	< 25th	40	25th	1.11	< 25th	108	50th	2.99	50th
Monroe	4	75th	0.03	25th	215	85th	1.77	50th	517	90th	4.25	75th
Montgomery	4	75th	0.10	75th	53	50th	1.39	25th	127	50th	3.33	50th
Morgan	4	75th	0.06	50th	88	50th	1.26	25th	61	25th	0.87	< 25th
Newton	3	50th	0.21	90th	29	< 25th	2.00	75th	75	25th	5.17	85th
Noble	2	50th	0.04	50th	81	50th	1.70	50th	132	50th	2.78	50th
Ohio	0	< 25th	0.00	< 25th	14	< 25th	2.38	90th	8	< 25th	1.36	< 25th
Orange	1	25th	0.05	50th	33	25th	1.66	50th	46	25th	2.32	25th
Owen	5	85th	0.22	90th	37	25th	1.59	50th	30	< 25th	1.29	< 25th
Parke	1	25th	0.06	50th	31	< 25th	1.79	50th	40	< 25th	2.31	25th
Perry	4	75th	0.21	90th	35	25th	1.83	50th	68	25th	3.56	75th
Pike	4	75th	0.31	90th	31	< 25th	2.38	90th	35	< 25th	2.69	50th
Porter	3	50th	0.02	25th	286	90th	1.84	50th	378	85th	2.43	50th
Posey	1	25th	0.04	50th	42	25th	1.55	25th	60	25th	2.21	25th
Pulaski	1	25th	0.07	50th	24	< 25th	1.73	50th	32	< 25th	2.30	25th

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APPENDIX 11B - Part 1 *(continued)*

	Alcohol-Related Fatal Auto Accidents				Alcohol-Related Collisions				Public Intoxication Arrests			
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group
Putnam	3	50th	0.08	75th	50	25th	1.35	25th	91	50th	2.46	50th
Randolph	0	< 25th	0.00	< 25th	22	< 25th	0.82	< 25th	94	50th	3.50	50th
Ripley	1	25th	0.03	25th	35	25th	1.20	< 25th	79	50th	2.71	50th
Rush	0	< 25th	0.00	< 25th	18	< 25th	0.99	< 25th	84	50th	4.63	85th
Saint Joseph	5	85th	0.02	25th	409	90th	1.53	25th	207	75th	0.77	< 25th
Scott	5	85th	0.21	90th	91	50th	3.83	90th	90	50th	3.79	75th
Shelby	3	50th	0.07	50th	46	25th	1.05	< 25th	110	50th	2.50	50th
Spencer	0	< 25th	0.00	< 25th	25	< 25th	1.22	< 25th	47	25th	2.30	25th
Starke	1	25th	0.04	50th	52	50th	2.26	90th	60	25th	2.61	50th
Steuben	10	90th	0.29	90th	69	50th	2.03	75th	53	25th	1.56	< 25th
Sullivan	0	< 25th	0.00	< 25th	7	< 25th	0.32	< 25th	42	< 25th	1.91	25th
Switzerland	1	25th	0.10	75th	20	< 25th	2.09	75th	22	< 25th	2.30	25th
Tippecanoe	10	90th	0.07	50th	340	90th	2.22	85th	945	90th	6.18	90th
Tipton	2	50th	0.12	85th	24	< 25th	1.44	25th	26	< 25th	1.56	< 25th
Union	1	25th	0.14	85th	8	< 25th	1.10	< 25th	46	25th	6.33	90th
Vanderburgh	5	85th	0.03	25th	352	90th	2.02	75th	925	90th	5.31	90th
Vermillion	1	25th	0.06	50th	23	< 25th	1.39	25th	96	50th	5.79	90th
Vigo	3	50th	0.03	25th	203	85th	1.96	75th	341	85th	3.29	50th
Wabash	0	< 25th	0.00	< 25th	40	25th	1.16	< 25th	85	50th	2.47	50th
Warren	1	25th	0.11	75th	13	< 25th	1.48	25th	20	< 25th	2.27	25th
Warrick	1	25th	0.02	25th	76	50th	1.36	25th	54	25th	0.97	< 25th
Washington	1	25th	0.04	50th	32	25th	1.14	< 25th	68	25th	2.43	50th
Wayne	3	50th	0.04	50th	150	75th	2.14	85th	509	90th	7.25	90th
Wells	0	< 25th	0.00	< 25th	28	< 25th	1.00	< 25th	39	< 25th	1.39	< 25th
White	0	< 25th	0.00	< 25th	44	25th	1.76	50th	128	50th	5.12	85th
Whitley	0	< 25th	0.00	< 25th	42	25th	1.31	25th	51	25th	1.59	25th
Total	267		0.04		11,718		1.87		20,701		3.30	
Minimum	0		0		7		0		2		0	
Maximum	23		0		2,585		9		5,194		9	
Mean	2.90		0.06		127.37		1.77		225.01		2.79	
Standard Deviation	3.57		0.07		294.81		1.18		580.41		1.64	

Source: Indiana State Police, 2007; National Archive of Criminal Justice Data, n.d.

APPENDIX 11B - Part 2

Part 2: Alcohol Abuse Indicators by Number, Rate (All Rates Are Annual Rates per 1,000 Population), Percentile Group, and Priority Score, by Indiana County (Vehicle Crash Records System, 2006; Uniform Crime Reports, 2005)

	DUI Arrests				Liquor Law Violation Arrests				Overall Alcohol Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Alcohol Priority Score	Percentile Group
Adams	185	50th	5.44	25th	76	25th	2.24	25th	2	25th
Allen	3267	90th	9.50	90th	642	90th	1.87	25th	15	90th
Bartholomew	310	50th	4.24	< 25th	239	75th	3.27	50th	12	85th
Benton	52	< 25th	5.66	25th	26	< 25th	2.83	50th	5	25th
Blackford	53	< 25th	3.85	< 25th	29	< 25th	2.11	25th	0	< 25th
Boone	291	50th	5.69	25th	152	50th	2.97	50th	2	25th
Brown	70	< 25th	4.57	25th	9	< 25th	0.59	< 25th	3	25th
Carroll	126	25th	6.16	50th	45	< 25th	2.20	25th	4	25th
Cass	204	50th	5.02	25th	147	50th	3.62	75th	11	85th
Clark	729	85th	7.20	75th	217	75th	2.14	25th	15	90th
Clay	154	25th	5.63	25th	51	25th	1.86	25th	1	< 25th
Clinton	112	< 25th	3.26	< 25th	320	75th	9.32	90th	10	75th
Crawford	70	< 25th	6.23	50th	20	< 25th	1.78	< 25th	3	25th
Daviess	253	50th	8.32	90th	102	50th	3.35	75th	6	50th
Dearborn	321	50th	6.57	75th	114	50th	2.33	25th	4	25th
Decatur	176	25th	7.01	75th	73	25th	2.91	50th	12	85th
DeKalb	252	50th	6.04	50th	89	50th	2.13	25th	2	25th
Delaware	457	75th	3.86	< 25th	57	25th	0.48	< 25th	9	50th
Dubois	198	50th	4.83	25th	123	50th	3.00	50th	4	25th
Elkhart	918	90th	4.75	25th	670	90th	3.47	75th	11	85th
Fayette	121	25th	4.83	25th	209	75th	8.34	90th	1	< 25th
Floyd	702	75th	9.76	90th	115	50th	1.60	< 25th	12	85th
Fountain	75	< 25th	4.22	< 25th	35	< 25th	1.97	25th	0	< 25th
Franklin	88	< 25th	4.08	< 25th	109	50th	5.06	90th	0	< 25th
Fulton	132	25th	6.38	50th	57	25th	2.75	50th	6	50th
Gibson	152	25th	4.54	< 25th	77	25th	2.30	25th	0	< 25th
Grant	381	75th	5.30	25th	72	25th	1.00	< 25th	9	50th
Greene	143	25th	4.25	< 25th	58	25th	1.72	< 25th	4	25th
Hamilton	1351	90th	5.80	50th	617	90th	2.65	50th	8	50th
Hancock	583	75th	9.52	90th	39	< 25th	0.64	< 25th	2	25th

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Notes: Measures were arranged in percentile groups: 90th, 85th, 75th, 50th, 25th, and < 25th percentile. Belonging to a higher percentile group indicates a more severe problem. Higher priority scores indicate a more severe problem.

APPENDIX 11B - Part 2 *(continued)*

	DUI Arrests				Liquor Law Violation Arrests				Overall Alcohol Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Alcohol Priority Score	Percentile Group
Harrison	138	25th	3.77	< 25th	18	< 25th	0.49	< 25th	6	50th
Hendricks	834	85th	6.72	75th	417	85th	3.36	75th	3	25th
Henry	88	< 25th	1.83	< 25th	358	85th	7.45	90th	5	25th
Howard	316	50th	3.71	< 25th	179	75th	2.10	25th	7	50th
Huntington	128	25th	3.34	< 25th	36	< 25th	0.94	< 25th	0	< 25th
Jackson	275	50th	6.52	75th	178	75th	4.22	85th	11	85th
Jasper	169	25th	5.31	25th	101	50th	3.18	50th	9	50th
Jay	150	25th	6.84	75th	80	25th	3.65	75th	3	25th
Jefferson	221	50th	6.84	75th	76	25th	2.35	25th	10	75th
Jennings	88	< 25th	3.08	< 25th	51	25th	1.79	< 25th	1	< 25th
Johnson	456	75th	3.59	< 25th	733	90th	5.78	90th	6	50th
Knox	169	25th	4.37	< 25th	323	75th	8.36	90th	6	50th
Kosciusko	393	75th	5.19	25th	186	75th	2.45	50th	13	90th
LaGrange	113	< 25th	3.08	< 25th	79	25th	2.15	25th	16	90th
Lake	3685	90th	7.47	85th	1793	90th	3.63	75th	7	50th
LaPorte	851	85th	7.71	85th	387	85th	3.51	75th	20	90th
Lawrence	196	50th	4.20	< 25th	60	25th	1.29	< 25th	6	50th
Madison	990	90th	7.54	85th	327	75th	2.49	50th	11	85th
Marion	3701	90th	4.26	< 25th	450	90th	0.52	< 25th	20	90th
Marshall	535	75th	11.39	90th	150	50th	3.19	50th	7	50th
Martin	38	< 25th	3.61	< 25th	13	< 25th	1.24	< 25th	4	25th
Miami	232	50th	6.42	50th	105	50th	2.90	50th	2	25th
Monroe	602	75th	4.95	25th	1345	90th	11.05	90th	12	85th
Montgomery	228	50th	5.98	50th	71	25th	1.86	25th	7	50th
Morgan	321	50th	4.60	25th	283	75th	4.05	85th	4	25th
Newton	138	25th	9.52	90th	1	< 25th	0.07	< 25th	10	75th
Noble	345	50th	7.25	75th	93	50th	1.96	25th	6	50th
Ohio	31	< 25th	5.27	25th	13	< 25th	2.21	25th	4	25th
Orange	123	25th	6.20	50th	36	< 25th	1.82	< 25th	2	25th
Owen	121	25th	5.22	25th	50	25th	2.16	25th	8	50th
Parke	107	< 25th	6.17	50th	31	< 25th	1.79	< 25th	2	25th
Perry	149	25th	7.80	85th	86	50th	4.50	90th	9	50th
Pike	82	< 25th	6.30	50th	31	< 25th	2.38	25th	11	85th

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	DUI Arrests				Liquor Law Violation Arrests				Overall Alcohol Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Alcohol Priority Score	Percentile Group
Porter	784	85th	5.03	25th	597	90th	3.83	85th	10	75th
Posey	139	25th	5.12	25th	59	25th	2.17	25th	1	< 25th
Pulaski	86	< 25th	6.19	50th	25	< 25th	1.80	< 25th	2	25th
Putnam	194	50th	5.24	25th	72	25th	1.95	25th	5	25th
Randolph	173	25th	6.44	75th	101	50th	3.76	75th	2	25th
Ripley	185	50th	6.35	50th	72	25th	2.47	50th	2	25th
Rush	115	< 25th	6.34	50th	46	< 25th	2.54	50th	4	25th
Saint Joseph	1036	90th	3.87	< 25th	532	90th	1.99	25th	9	50th
Scott	134	25th	5.65	25th	61	25th	2.57	50th	15	90th
Shelby	283	50th	6.44	75th	118	50th	2.69	50th	4	25th
Spencer	126	25th	6.17	50th	37	< 25th	1.81	< 25th	0	< 25th
Starke	142	25th	6.17	50th	71	25th	3.08	50th	7	50th
Steuben	147	25th	4.34	< 25th	167	50th	4.93	90th	11	85th
Sullivan	122	25th	5.55	25th	60	25th	2.73	50th	0	< 25th
Switzerland	59	< 25th	6.17	50th	17	< 25th	1.78	< 25th	4	25th
Tippecanoe	957	90th	6.26	50th	1093	90th	7.15	90th	20	90th
Tipton	102	< 25th	6.11	50th	42	< 25th	2.52	50th	4	25th
Union	88	< 25th	12.11	90th	11	< 25th	1.51	< 25th	7	50th
Vanderburgh	1093	90th	6.28	50th	102	50th	0.59	< 25th	17	90th
Vermillion	105	< 25th	6.33	50th	27	< 25th	1.63	< 25th	6	50th
Vigo	663	75th	6.39	50th	368	85th	3.55	75th	10	75th
Wabash	195	50th	5.68	25th	92	50th	2.68	50th	2	25th
Warren	55	< 25th	6.24	50th	16	< 25th	1.82	< 25th	2	25th
Warrick	213	50th	3.82	< 25th	103	50th	1.85	25th	1	< 25th
Washington	245	50th	8.74	90th	74	25th	2.64	50th	2	25th
Wayne	871	90th	12.41	90th	162	50th	2.31	25th	15	90th
Wells	68	< 25th	2.42	< 25th	78	25th	2.77	50th	0	< 25th
White	291	50th	11.65	90th	96	50th	3.84	85th	5	25th
Whitley	162	25th	5.04	25th	91	50th	2.83	50th	0	< 25th
Total	36,772		5.86		17,119		2.73		588	
Minimum	31		2		1		0		0	
Maximum	3,701		12		1,793		11		20	
Mean	399.70		5.90		186.08		2.84		6.39	
Standard Deviation	647.84		2.01		283.35		1.88		5.07	

Source: Indiana State Police, 2007; National Archive of Criminal Justice Data, n.d.

APPENDIX 11C - Part 1

Part 1: Cocaine Use Indicators by Number, Rate (All Rates Are Annual Rates per 1,000 Population), Percentile Group, and Priority Score, by Indiana County (Uniform Crime Reports, 2005)

	Cocaine Possession Arrests				Cocaine Sale Arrests				Overall Cocaine Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Cocaine Priority Score	Percentile Group
Adams	11	50th	0.32	25th	7	25th	0.21	25th	1	25th
Allen	417	90th	1.21	90th	171	90th	0.50	75th	14	90th
Bartholomew	57	75th	0.78	85th	11	50th	0.15	< 25th	6	75th
Benton	4	< 25th	0.44	50th	3	< 25th	0.33	50th	2	25th
Blackford	3	< 25th	0.22	< 25th	1	< 25th	0.07	< 25th	0	< 25th
Boone	24	50th	0.47	50th	16	50th	0.31	50th	4	50th
Brown	1	< 25th	0.07	< 25th	0	< 25th	0.00	< 25th	0	< 25th
Carroll	9	25th	0.44	50th	5	25th	0.24	25th	1	25th
Cass	2	< 25th	0.05	< 25th	16	50th	0.39	75th	3	50th
Clark	85	85th	0.84	90th	47	85th	0.46	75th	12	90th
Clay	8	25th	0.29	25th	5	25th	0.18	25th	0	< 25th
Clinton	15	50th	0.44	50th	50	85th	1.46	90th	9	85th
Crawford	6	< 25th	0.53	50th	4	25th	0.36	50th	2	25th
Daviess	8	25th	0.26	< 25th	10	50th	0.33	50th	2	25th
Dearborn	22	50th	0.45	50th	15	50th	0.31	50th	4	50th
Decatur	16	50th	0.64	75th	15	50th	0.60	85th	7	75th
DeKalb	15	50th	0.36	25th	11	50th	0.26	25th	2	25th
Delaware	107	90th	0.90	90th	29	75th	0.24	25th	10	85th
Dubois	12	50th	0.29	25th	8	50th	0.20	25th	2	25th
Elkhart	117	90th	0.61	75th	26	75th	0.13	< 25th	8	75th
Fayette	6	< 25th	0.24	< 25th	14	50th	0.56	85th	4	50th
Floyd	22	50th	0.31	25th	93	90th	1.29	90th	9	85th
Fountain	11	50th	0.62	75th	7	25th	0.39	75th	5	75th
Franklin	18	50th	0.83	85th	4	25th	0.19	25th	4	50th
Fulton	11	50th	0.53	50th	8	50th	0.39	75th	5	75th
Gibson	17	50th	0.51	50th	10	50th	0.30	50th	4	50th
Grant	81	85th	1.13	90th	45	85th	0.63	90th	14	90th
Greene	9	25th	0.27	< 25th	3	< 25th	0.09	< 25th	0	< 25th
Hamilton	65	85th	0.28	< 25th	43	75th	0.18	25th	5	75th
Hancock	10	25th	0.16	< 25th	0	< 25th	0.00	< 25th	0	< 25th
Harrison	8	25th	0.22	< 25th	0	< 25th	0.00	< 25th	0	< 25th

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Notes: Measures were arranged in percentile groups: 90th, 85th, 75th, 50th, 25th, and < 25th percentile. Belonging to a higher percentile group indicates a more severe problem. Higher priority scores indicate a more severe problem.

	Cocaine Possession Arrests				Cocaine Sale Arrests				Overall Cocaine Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Cocaine Priority Score	Percentile Group
Hendricks	48	75th	0.39	25th	28	75th	0.23	25th	4	50th
Henry	6	< 25th	0.12	< 25th	3	< 25th	0.06	< 25th	0	< 25th
Howard	102	90th	1.20	90th	86	90th	1.01	90th	16	90th
Huntington	1	< 25th	0.03	< 25th	0	< 25th	0.00	< 25th	0	< 25th
Jackson	12	50th	0.28	< 25th	17	50th	0.40	75th	4	50th
Jasper	11	50th	0.35	25th	9	50th	0.28	50th	3	50th
Jay	8	25th	0.37	25th	6	25th	0.27	25th	0	< 25th
Jefferson	16	50th	0.50	50th	7	25th	0.22	25th	2	25th
Jennings	0	< 25th	0.00	< 25th	2	< 25th	0.07	< 25th	0	< 25th
Johnson	44	75th	0.35	25th	22	75th	0.17	< 25th	4	50th
Knox	24	50th	0.62	75th	22	75th	0.57	85th	8	75th
Kosciusko	33	75th	0.44	50th	22	75th	0.29	50th	6	75th
LaGrange	0	< 25th	0.00	< 25th	0	< 25th	0.00	< 25th	0	< 25th
Lake	306	90th	0.62	75th	309	90th	0.63	90th	14	90th
LaPorte	38	75th	0.34	25th	85	90th	0.77	90th	10	85th
Lawrence	4	< 25th	0.09	< 25th	3	< 25th	0.06	< 25th	0	< 25th
Madison	62	85th	0.47	50th	7	25th	0.05	< 25th	4	50th
Marion	1853	90th	2.13	90th	644	90th	0.74	90th	16	90th
Marshall	27	50th	0.57	75th	14	50th	0.30	50th	5	75th
Martin	2	< 25th	0.19	< 25th	1	< 25th	0.10	< 25th	0	< 25th
Miami	19	50th	0.53	50th	13	50th	0.36	50th	4	50th
Monroe	25	50th	0.21	< 25th	29	75th	0.24	25th	3	50th
Montgomery	26	50th	0.68	85th	8	50th	0.21	25th	5	75th
Morgan	36	75th	0.52	50th	53	85th	0.76	90th	10	85th
Newton	9	25th	0.62	75th	4	25th	0.28	50th	3	50th
Noble	27	50th	0.57	75th	12	50th	0.25	25th	4	50th
Ohio	2	< 25th	0.34	25th	2	< 25th	0.34	50th	1	25th
Orange	10	25th	0.50	50th	7	25th	0.35	50th	2	25th
Owen	10	25th	0.43	25th	6	25th	0.26	25th	0	< 25th
Parke	9	25th	0.52	50th	6	25th	0.35	50th	2	25th
Perry	6	< 25th	0.31	25th	5	25th	0.26	25th	0	< 25th
Pike	7	< 25th	0.54	50th	5	25th	0.38	75th	3	50th
Porter	55	75th	0.35	25th	5	25th	0.03	< 25th	2	25th
Posey	8	25th	0.29	25th	6	25th	0.22	25th	0	< 25th
Pulaski	7	< 25th	0.50	50th	5	25th	0.36	50th	2	25th

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APPENDIX 11C - Part 1 *(continued)*

	Cocaine Possession Arrests				Cocaine Sale Arrests				Overall Cocaine Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Cocaine Priority Score	Percentile Group
Putnam	41	75th	1.11	90th	14	50th	0.38	75th	9	85th
Randolph	12	50th	0.45	50th	8	50th	0.30	50th	4	50th
Ripley	15	50th	0.52	50th	10	50th	0.34	50th	4	50th
Rush	9	25th	0.50	50th	4	25th	0.22	25th	1	25th
Saint Joseph	312	90th	1.16	90th	95	90th	0.35	50th	13	90th
Scott	9	25th	0.38	25th	6	25th	0.25	25th	0	< 25th
Shelby	16	50th	0.36	25th	15	50th	0.34	50th	3	50th
Spencer	10	25th	0.49	50th	7	25th	0.34	50th	2	25th
Starke	2	< 25th	0.09	< 25th	1	< 25th	0.04	< 25th	0	< 25th
Steuben	11	50th	0.32	25th	25	75th	0.74	90th	7	75th
Sullivan	10	25th	0.45	50th	7	25th	0.32	50th	2	25th
Switzerland	5	< 25th	0.52	50th	3	< 25th	0.31	50th	2	25th
Tippecanoe	174	90th	1.14	90th	57	90th	0.37	75th	14	90th
Tipton	14	50th	0.84	90th	9	50th	0.54	85th	9	85th
Union	3	< 25th	0.41	25th	0	< 25th	0.00	< 25th	0	< 25th
Vanderburgh	109	90th	0.63	75th	92	90th	0.53	85th	13	90th
Vermillion	8	25th	0.48	50th	3	< 25th	0.18	25th	1	25th
Vigo	31	75th	0.30	25th	22	75th	0.21	25th	4	50th
Wabash	9	25th	0.26	< 25th	6	25th	0.17	< 25th	0	< 25th
Warren	4	< 25th	0.45	50th	3	< 25th	0.34	50th	2	25th
Warrick	7	< 25th	0.13	< 25th	8	50th	0.14	< 25th	1	25th
Washington	11	50th	0.39	25th	7	25th	0.25	25th	1	25th
Wayne	137	90th	1.95	90th	74	90th	1.05	90th	16	90th
Wells	1	< 25th	0.04	< 25th	1	< 25th	0.04	< 25th	0	< 25th
White	0	< 25th	0.00	< 25th	4	25th	0.16	< 25th	0	< 25th
Whitley	10	25th	0.31	25th	6	25th	0.19	25th	0	< 25th
Total	5,020		0.80		2,617		0.42		384	
Minimum	0		0.00		0		0.00		0	
Maximum	1,853		2.13		644		1.46		16	
Mean	54.57		0.48		28.45		0.32		4.17	
Standard Deviation	200.84		0.36		76.74		0.26		4.47	

Source: National Archive of Criminal Justice Data, n.d.

APPENDIX 11C - Part 2

Part 2: Methamphetamine Use Indicators by Number, Rate (All Rates Are Annual Rates per 1,000 Population), Percentile Group, and Priority Score, by Indiana County (Uniform Crime Reports, 2005)

	Methamphetamine Possession Arrests				Methamphetamine Sale Arrests				Overall Methamph. Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Methamph. Priority Score	Percentile Group
Adams	11	25th	0.32	25th	3	50th	0.09	50th	2	25th
Allen	7	25th	0.02	< 25th	1	25th	0.00	< 25th	0	< 25th
Bartholomew	136	90th	1.86	90th	21	90th	0.29	90th	16	90th
Benton	3	< 25th	0.33	25th	1	25th	0.11	50th	1	25th
Blackford	10	25th	0.73	85th	6	75th	0.44	90th	9	85th
Boone	15	50th	0.29	25th	4	50th	0.08	25th	2	25th
Brown	6	25th	0.39	50th	6	75th	0.39	90th	7	75th
Carroll	6	25th	0.29	25th	1	25th	0.05	25th	0	< 25th
Cass	8	25th	0.20	25th	0	< 25th	0.00	< 25th	0	< 25th
Clark	44	85th	0.43	50th	15	90th	0.15	75th	10	90th
Clay	25	75th	0.91	90th	4	50th	0.15	75th	9	85th
Clinton	10	25th	0.29	25th	2	25th	0.06	25th	0	< 25th
Crawford	6	25th	0.53	50th	1	25th	0.09	50th	2	25th
Daviess	59	90th	1.94	90th	7	75th	0.23	85th	13	90th
Dearborn	12	50th	0.25	25th	6	75th	0.12	50th	4	50th
Decatur	15	50th	0.60	75th	2	25th	0.08	25th	3	50th
DeKalb	16	50th	0.38	50th	3	50th	0.07	25th	3	50th
Delaware	34	75th	0.29	25th	2	25th	0.02	< 25th	2	25th
Dubois	32	75th	0.78	90th	4	50th	0.10	50th	8	85th
Elkhart	105	90th	0.54	50th	16	90th	0.08	25th	9	85th
Fayette	0	< 25th	0.00	< 25th	0	< 25th	0.00	< 25th	0	< 25th
Floyd	46	90th	0.64	75th	6	75th	0.08	25th	8	85th
Fountain	6	25th	0.34	25th	0	< 25th	0.00	< 25th	0	< 25th
Franklin	7	25th	0.32	25th	7	75th	0.32	90th	6	50th
Fulton	11	25th	0.53	50th	2	25th	0.10	50th	2	25th
Gibson	7	25th	0.21	25th	2	25th	0.06	25th	0	< 25th
Grant	55	90th	0.76	85th	5	50th	0.07	25th	8	85th
Greene	22	50th	0.65	75th	1	25th	0.03	< 25th	3	50th
Hamilton	106	90th	0.45	50th	12	85th	0.05	25th	8	85th
Hancock	14	50th	0.23	25th	0	< 25th	0.00	< 25th	1	25th

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Notes: Measures were arranged in percentile groups: 90th, 85th, 75th, 50th, 25th, and < 25th percentile. Belonging to a higher percentile group indicates a more severe problem. Higher priority scores indicate a more severe problem.

APPENDIX 11C - Part 2 *(continued)*

	Methamphetamine Possession Arrests				Methamphetamine Sale Arrests				Overall Methamph. Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Methamph. Priority Score	Percentile Group
Harrison	8	25th	0.22	25th	2	25th	0.05	25th	0	< 25th
Hendricks	30	75th	0.24	25th	8	75th	0.06	25th	4	50th
Henry	0	< 25th	0.00	< 25th	0	< 25th	0.00	< 25th	0	< 25th
Howard	1	< 25th	0.01	< 25th	5	50th	0.06	25th	1	25th
Huntington	0	< 25th	0.00	< 25th	0	< 25th	0.00	< 25th	0	< 25th
Jackson	35	85th	0.83	90th	6	75th	0.14	75th	11	90th
Jasper	5	< 25th	0.16	< 25th	3	50th	0.09	50th	2	25th
Jay	9	25th	0.41	50th	2	25th	0.09	50th	2	25th
Jefferson	17	50th	0.53	50th	9	85th	0.28	90th	9	85th
Jennings	2	< 25th	0.07	< 25th	5	50th	0.18	85th	4	50th
Johnson	6	25th	0.05	< 25th	2	25th	0.02	< 25th	0	< 25th
Knox	18	50th	0.47	50th	2	25th	0.05	25th	2	25th
Kosciusko	35	85th	0.46	50th	8	75th	0.11	50th	7	75th
LaGrange	0	< 25th	0.00	< 25th	0	< 25th	0.00	< 25th	0	< 25th
Lake	40	85th	0.08	< 25th	21	90th	0.04	< 25th	7	75th
LaPorte	11	25th	0.10	< 25th	3	50th	0.03	< 25th	1	25th
Lawrence	16	50th	0.34	25th	0	< 25th	0.00	< 25th	1	25th
Madison	27	75th	0.21	25th	9	85th	0.07	25th	5	50th
Marion	13	50th	0.01	< 25th	43	90th	0.05	25th	5	50th
Marshall	35	85th	0.74	85th	4	50th	0.09	50th	8	85th
Martin	2	< 25th	0.19	25th	3	50th	0.29	90th	5	50th
Miami	19	50th	0.53	50th	4	50th	0.11	50th	4	50th
Monroe	22	50th	0.18	25th	1	25th	0.01	< 25th	1	25th
Montgomery	13	50th	0.34	25th	3	50th	0.08	25th	2	25th
Morgan	10	25th	0.14	< 25th	5	50th	0.07	25th	1	25th
Newton	2	< 25th	0.14	< 25th	0	< 25th	0.00	< 25th	0	< 25th
Noble	19	50th	0.40	50th	4	50th	0.08	25th	3	50th
Ohio	1	< 25th	0.17	< 25th	0	< 25th	0.00	< 25th	0	< 25th
Orange	11	25th	0.55	50th	2	25th	0.10	50th	2	25th
Owen	5	< 25th	0.22	25th	2	25th	0.09	50th	1	25th
Parke	10	25th	0.58	75th	2	25th	0.12	50th	3	50th
Perry	12	50th	0.63	75th	3	50th	0.16	75th	6	50th
Pike	7	25th	0.54	50th	2	25th	0.15	75th	3	50th

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	Methamphetamine Possession Arrests				Methamphetamine Sale Arrests				Overall Methamph. Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Methamph. Priority Score	Percentile Group
Porter	22	50th	0.14	< 25th	9	85th	0.06	25th	4	50th
Posey	19	50th	0.70	75th	5	50th	0.18	85th	7	75th
Pulaski	8	25th	0.58	75th	2	25th	0.14	75th	4	50th
Putnam	17	50th	0.46	50th	15	90th	0.41	90th	10	90th
Randolph	16	50th	0.60	75th	3	50th	0.11	50th	5	50th
Ripley	16	50th	0.55	50th	3	50th	0.10	50th	4	50th
Rush	16	50th	0.88	90th	3	50th	0.17	75th	8	85th
Saint Joseph	30	75th	0.11	< 25th	0	< 25th	0.00	< 25th	2	25th
Scott	24	75th	1.01	90th	3	50th	0.13	50th	8	85th
Shelby	17	50th	0.39	50th	7	75th	0.16	75th	6	50th
Spencer	12	50th	0.59	75th	3	50th	0.15	75th	6	50th
Starke	2	< 25th	0.09	< 25th	0	< 25th	0.00	< 25th	0	< 25th
Steuben	3	< 25th	0.09	< 25th	10	85th	0.29	90th	7	75th
Sullivan	6	25th	0.27	25th	2	25th	0.09	50th	1	25th
Switzerland	5	< 25th	0.52	50th	1	25th	0.10	50th	2	25th
Tippecanoe	127	90th	0.83	90th	20	90th	0.13	50th	13	90th
Tipton	4	< 25th	0.24	25th	1	25th	0.06	25th	0	< 25th
Union	1	< 25th	0.14	< 25th	1	25th	0.14	75th	2	25th
Vanderburgh	135	90th	0.78	90th	108	90th	0.62	90th	16	90th
Vermillion	5	< 25th	0.30	25th	1	25th	0.06	25th	0	< 25th
Vigo	104	90th	1.00	90th	27	90th	0.26	85th	15	90th
Wabash	21	50th	0.61	75th	3	50th	0.09	50th	5	50th
Warren	5	< 25th	0.57	50th	1	25th	0.11	50th	2	25th
Warrick	73	90th	1.31	90th	28	90th	0.50	90th	16	90th
Washington	4	< 25th	0.14	< 25th	2	25th	0.07	25th	0	< 25th
Wayne	46	90th	0.66	75th	15	90th	0.21	85th	13	90th
Wells	2	< 25th	0.07	< 25th	0	< 25th	0.00	< 25th	0	< 25th
White	14	50th	0.56	50th	3	50th	0.12	50th	4	50th
Whitley	5	< 25th	0.16	< 25th	2	25th	0.06	25th	0	< 25th
Total	2,034		0.32		581		0.09		396	
Minimum	0		0.00		0		0.00		0	
Maximum	136		1.94		108		0.62		16	
Mean	22.11		0.43		6.32		0.11		4.30	
Standard Deviation	29.46		0.35		12.81		0.11		4.26	

Source: National Archive of Criminal Justice Data, n.d.

APPENDIX 11D - Part 1

Part 1: Marijuana Use Indicators by Number, Rate (All Rates Are Annual Rates per 1,000 Population), Percentile Group, and Priority Score, by Indiana County (Uniform Crime Reports, 2005)

	Marijuana Possession Arrests				Marijuana Sale Arrests				Overall Marijuana Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Marijuana Priority Score	Percentile Group
Adams	51	25th	1.50	< 25th	4	25th	0.12	25th	0	< 25th
Allen	1,052	90th	3.06	75th	23	75th	0.07	< 25th	8	85th
Bartholomew	303	85th	4.15	90th	5	25th	0.07	< 25th	7	75th
Benton	18	< 25th	1.96	25th	2	< 25th	0.22	50th	1	25th
Blackford	69	50th	5.01	90th	0	< 25th	0.00	< 25th	5	50th
Boone	102	50th	2.00	25th	13	50th	0.25	50th	3	50th
Brown	30	< 25th	1.96	25th	1	< 25th	0.07	< 25th	0	< 25th
Carroll	32	< 25th	1.57	< 25th	4	25th	0.20	50th	1	25th
Cass	76	50th	1.87	25th	1	< 25th	0.02	< 25th	1	25th
Clark	180	75th	1.78	< 25th	44	85th	0.43	75th	7	75th
Clay	64	25th	2.34	50th	4	25th	0.15	25th	1	25th
Clinton	131	50th	3.82	90th	13	50th	0.38	75th	8	85th
Crawford	21	< 25th	1.87	25th	2	< 25th	0.18	25th	0	< 25th
Daviess	84	50th	2.76	75th	9	50th	0.30	75th	6	50th
Dearborn	99	50th	2.03	25th	12	50th	0.25	50th	3	50th
Decatur	69	50th	2.75	75th	3	< 25th	0.12	25th	3	50th
DeKalb	92	50th	2.20	50th	12	50th	0.29	75th	5	50th
Delaware	157	75th	1.33	< 25th	8	50th	0.07	< 25th	3	50th
Dubois	86	50th	2.10	50th	5	25th	0.12	25th	2	25th
Elkhart	500	90th	2.59	50th	7	50th	0.04	< 25th	6	50th
Fayette	69	50th	2.75	75th	40	85th	1.60	90th	10	90th
Floyd	319	85th	4.43	90th	31	85th	0.43	75th	12	90th
Fountain	43	25th	2.42	50th	5	25th	0.28	50th	2	25th
Franklin	73	50th	3.39	85th	4	25th	0.19	50th	5	50th
Fulton	46	25th	2.22	50th	6	25th	0.29	75th	3	50th
Gibson	60	25th	1.79	25th	7	50th	0.21	50th	2	25th
Grant	245	75th	3.41	85th	14	75th	0.19	50th	8	85th
Greene	61	25th	1.81	25th	4	25th	0.12	25th	0	< 25th
Hamilton	553	90th	2.37	50th	45	90th	0.19	50th	10	90th
Hancock	119	50th	1.94	25th	6	25th	0.10	< 25th	1	25th
Harrison	35	< 25th	0.96	< 25th	2	< 25th	0.05	< 25th	0	< 25th

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Notes: Measures were arranged in percentile groups: 90th, 85th, 75th, 50th, 25th, and < 25th percentile. Belonging to a higher percentile group indicates a more severe problem. Higher priority scores indicate a more severe problem.

	Marijuana Possession Arrests				Marijuana Sale Arrests				Overall Marijuana Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Marijuana Priority Score	Percentile Group
Hendricks	239	75th	1.92	25th	84	90th	0.68	85th	9	85th
Henry	40	25th	0.83	< 25th	69	90th	1.44	90th	8	85th
Howard	342	85th	4.02	90th	7	50th	0.08	< 25th	8	85th
Huntington	24	< 25th	0.63	< 25th	1	< 25th	0.03	< 25th	0	< 25th
Jackson	156	75th	3.70	90th	11	50th	0.26	50th	8	85th
Jasper	40	25th	1.26	< 25th	24	75th	0.75	90th	6	50th
Jay	46	25th	2.10	50th	4	25th	0.18	25th	1	25th
Jefferson	74	50th	2.29	50th	5	25th	0.15	25th	2	25th
Jennings	22	< 25th	0.77	< 25th	65	90th	2.28	90th	8	85th
Johnson	419	90th	3.30	85th	30	85th	0.24	50th	11	90th
Knox	43	25th	1.11	< 25th	38	85th	0.98	90th	7	75th
Kosciusko	162	75th	2.14	50th	14	75th	0.18	25th	5	50th
LaGrange	0	< 25th	0.00	< 25th	0	< 25th	0.00	< 25th	0	< 25th
Lake	825	90th	1.67	< 25th	445	90th	0.90	90th	12	90th
LaPorte	225	75th	2.04	25th	13	50th	0.12	25th	3	50th
Lawrence	84	50th	1.80	25th	8	50th	0.17	25th	2	25th
Madison	275	75th	2.09	50th	16	75th	0.12	25th	5	50th
Marion	2,354	90th	2.71	75th	247	90th	0.28	50th	11	90th
Marshall	115	50th	2.45	50th	9	50th	0.19	50th	4	50th
Martin	13	< 25th	1.24	< 25th	1	< 25th	0.10	< 25th	0	< 25th
Miami	82	50th	2.27	50th	11	50th	0.30	75th	5	50th
Monroe	290	75th	2.38	50th	11	50th	0.09	< 25th	4	50th
Montgomery	106	50th	2.78	75th	7	50th	0.18	25th	4	50th
Morgan	145	50th	2.08	50th	81	90th	1.16	90th	10	90th
Newton	23	< 25th	1.59	< 25th	14	75th	0.97	90th	6	50th
Noble	128	50th	2.69	50th	8	50th	0.17	25th	3	50th
Ohio	9	< 25th	1.53	< 25th	1	< 25th	0.17	25th	0	< 25th
Orange	37	25th	1.87	25th	4	25th	0.20	50th	1	25th
Owen	36	< 25th	1.55	< 25th	4	25th	0.17	25th	0	< 25th
Parke	32	< 25th	1.84	25th	3	< 25th	0.17	25th	0	< 25th
Perry	35	< 25th	1.83	25th	3	< 25th	0.16	25th	0	< 25th
Pike	27	< 25th	2.08	50th	3	< 25th	0.23	50th	2	25th
Porter	387	90th	2.48	50th	14	75th	0.09	< 25th	7	75th
Posey	44	25th	1.62	< 25th	4	25th	0.15	25th	0	< 25th
Pulaski	26	< 25th	1.87	25th	3	< 25th	0.22	50th	1	25th

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APPENDIX 11D - Part 1 *(continued)*

	Marijuana Possession Arrests				Marijuana Sale Arrests				Overall Marijuana Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Marijuana Priority Score	Percentile Group
Putnam	74	50th	2.00	25th	16	75th	0.43	75th	5	50th
Randolph	80	50th	2.98	75th	6	25th	0.22	50th	4	50th
Ripley	62	25th	2.13	50th	7	50th	0.24	50th	3	50th
Rush	54	25th	2.98	75th	3	< 25th	0.17	25th	2	25th
Saint Joseph	653	90th	2.44	50th	53	90th	0.20	50th	10	90th
Scott	56	25th	2.36	50th	7	50th	0.29	75th	4	50th
Shelby	129	50th	2.94	75th	21	75th	0.48	85th	8	85th
Spencer	38	25th	1.86	25th	4	25th	0.20	50th	1	25th
Starke	22	< 25th	0.96	< 25th	2	< 25th	0.09	< 25th	0	< 25th
Steuben	65	25th	1.92	25th	4	25th	0.12	25th	0	< 25th
Sullivan	41	25th	1.87	25th	5	25th	0.23	50th	1	25th
Switzerland	18	< 25th	1.88	25th	2	< 25th	0.21	50th	1	25th
Tippecanoe	710	90th	4.64	90th	88	90th	0.58	85th	15	90th
Tipton	58	25th	3.48	85th	5	25th	0.30	75th	5	50th
Union	30	< 25th	4.13	90th	6	25th	0.83	90th	8	85th
Vanderburgh	614	90th	3.53	90th	138	90th	0.79	90th	16	90th
Vermillion	37	25th	2.23	50th	3	< 25th	0.18	25th	1	25th
Vigo	248	75th	2.39	50th	16	75th	0.15	25th	5	50th
Wabash	47	25th	1.37	< 25th	9	50th	0.26	50th	2	25th
Warren	16	< 25th	1.82	25th	2	< 25th	0.23	50th	1	25th
Warrick	84	50th	1.51	< 25th	8	50th	0.14	25th	2	25th
Washington	44	25th	1.57	< 25th	3	< 25th	0.11	< 25th	0	< 25th
Wayne	316	85th	4.50	90th	24	75th	0.34	75th	11	90th
Wells	25	< 25th	0.89	< 25th	5	25th	0.18	25th	0	< 25th
White	35	< 25th	1.40	< 25th	14	75th	0.56	85th	5	50th
Whitley	58	25th	1.81	25th	4	25th	0.12	25th	0	< 25th
Total	15,358		2.45		2,053		0.33		386	
Minimum	0		0.00		0		0.00		0	
Maximum	2,354		5.01		445		2.28		16	
Mean	166.93		2.24		22.32		0.31		4.20	
Standard Deviation	299.26		0.93		55.54		0.36		3.87	

Source: National Archive of Criminal Justice Data, n.d.

APPENDIX 11D - Part 2

Part 2: Prescription Drug Abuse Indicators by Number, Rate (All Rates Are Annual Rates per 1,000 Population), Percentile Group, and Priority Score, by Indiana County (Uniform Crime Reports, 2005)

	Prescription Drugs (Rx) Possession Arrests				Rx Sale Arrests				Overall Rx Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Rx Priority Score	Percentile Group
Adams	2	25th	0.06	< 25th	0	25th	0.00	25th	0	25th
Allen	38	75th	1.52	90th	55	90th	0.16	50th	11	90th
Bartholomew	5	25th	0.24	50th	1	25th	0.01	25th	1	25th
Benton	21	75th	0.13	25th	5	50th	0.54	85th	6	75th
Blackford	6	25th	0.19	50th	0	25th	0.00	25th	1	25th
Boone	6	25th	0.05	< 25th	1	25th	0.02	25th	0	25th
Brown	15	50th	0.21	50th	4	50th	0.26	75th	5	50th
Carroll	5	25th	0.17	25th	1	25th	0.05	50th	1	25th
Cass	2	25th	0.10	< 25th	0	25th	0.00	25th	0	25th
Clark	1	< 25th	0.06	< 25th	2	50th	0.02	25th	1	25th
Clay	4	25th	0.17	25th	1	25th	0.04	25th	0	25th
Clinton	10	50th	0.24	50th	7	75th	0.20	50th	5	50th
Crawford	2	25th	0.09	< 25th	0	25th	0.00	25th	0	25th
Daviess	19	50th	0.56	75th	1	25th	0.03	25th	3	50th
Dearborn	18	50th	0.39	50th	4	50th	0.08	50th	4	50th
Decatur	11	50th	0.23	50th	5	50th	0.20	50th	4	50th
DeKalb	91	90th	1.07	90th	10	75th	0.24	75th	12	90th
Delaware	9	50th	0.25	50th	2	50th	0.02	25th	3	50th
Dubois	1	< 25th	0.06	< 25th	0	25th	0.00	25th	0	25th
Elkhart	34	75th	0.15	25th	45	90th	0.23	75th	8	75th
Fayette	4	25th	0.20	50th	5	50th	0.20	50th	3	50th
Floyd	3	25th	0.33	50th	1	25th	0.01	25th	1	25th
Fountain	55	85th	0.45	75th	7	75th	0.39	75th	9	75th
Franklin	12	50th	0.31	50th	0	25th	0.00	25th	2	25th
Fulton	258	90th	0.52	75th	35	90th	1.69	90th	14	90th
Gibson	0	< 25th	0.00	< 25th	1	25th	0.03	25th	0	25th
Grant	5	25th	0.12	25th	0	25th	0.00	25th	0	25th
Greene	3	25th	0.18	25th	1	25th	0.03	25th	0	25th
Hamilton	5	25th	0.18	25th	2	50th	0.01	25th	1	25th
Hancock	11	50th	0.25	50th	2	50th	0.03	25th	3	50th

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Notes: Measures were arranged in percentile groups: 90th, 85th, 75th, 50th, 25th, and < 25th percentile. Belonging to a higher percentile group indicates a more severe problem. Higher priority scores indicate a more severe problem.

APPENDIX 11D - Part 2 *(continued)*

	Prescription Drugs (Rx) Possession Arrests				Rx Sale Arrests				Overall Rx Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Rx Priority Score	Percentile Group
Harrison	0	< 25th	0.00	< 25th	0	25th	0.00	25th	0	25th
Hendricks	19	50th	0.55	75th	8	75th	0.06	50th	6	75th
Henry	18	50th	0.59	85th	5	50th	0.10	50th	6	75th
Howard	25	75th	0.13	25th	1	25th	0.01	25th	2	25th
Huntington	1	< 25th	0.04	< 25th	0	25th	0.00	25th	0	25th
Jackson	0	< 25th	0.00	< 25th	6	50th	0.14	50th	2	25th
Jasper	4	25th	0.06	< 25th	3	50th	0.09	50th	2	25th
Jay	1	< 25th	0.06	< 25th	0	25th	0.00	25th	0	25th
Jefferson	2	25th	0.10	< 25th	0	25th	0.00	25th	0	25th
Jennings	1	< 25th	0.09	< 25th	0	25th	0.00	25th	0	25th
Johnson	0	< 25th	0.00	< 25th	0	25th	0.00	25th	0	25th
Knox	84	90th	1.17	90th	115	90th	2.98	90th	16	90th
Kosciusko	21	75th	0.50	75th	0	25th	0.00	25th	4	50th
LaGrange	5	25th	0.16	25th	3	50th	0.08	50th	2	25th
Lake	92	90th	1.26	90th	1	25th	0.00	25th	8	75th
LaPorte	1	< 25th	0.10	< 25th	1	25th	0.01	25th	0	25th
Lawrence	21	75th	0.44	75th	3	50th	0.06	50th	6	75th
Madison	2	25th	0.09	< 25th	1	25th	0.01	25th	0	25th
Marion	17	50th	0.33	50th	7	75th	0.01	25th	4	50th
Marshall	31	75th	0.80	90th	22	90th	0.47	85th	13	90th
Martin	7	50th	0.13	25th	5	50th	0.48	85th	5	50th
Miami	26	75th	0.21	50th	22	90th	0.61	85th	10	85th
Monroe	0	< 25th	0.00	< 25th	0	25th	0.00	25th	0	25th
Montgomery	10	50th	0.13	25th	3	50th	0.08	50th	3	50th
Morgan	21	75th	0.52	75th	24	90th	0.34	75th	10	85th
Newton	23	75th	0.69	85th	6	50th	0.41	75th	8	75th
Noble	498	90th	0.57	85th	83	90th	1.75	90th	15	90th
Ohio	79	85th	0.52	75th	12	75th	2.04	90th	11	90th
Orange	11	50th	0.30	50th	2	50th	0.10	50th	4	50th
Owen	1	< 25th	0.10	< 25th	0	25th	0.00	25th	0	25th
Parke	7	50th	0.32	50th	3	50th	0.17	50th	4	50th
Perry	3	25th	0.18	25th	1	25th	0.05	50th	1	25th
Pike	56	85th	0.80	90th	16	85th	1.23	90th	14	90th

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	Prescription Drugs (Rx) Possession Arrests				Rx Sale Arrests				Overall Rx Rating	
County	Number	Percentile Group	Rate	Percentile Group	Number	Percentile Group	Rate	Percentile Group	Rx Priority Score	Percentile Group
Porter	5	25th	0.23	50th	0	25th	0.00	25th	1	25th
Posey	1	< 25th	0.14	25th	0	25th	0.00	25th	0	25th
Pulaski	5	25th	0.18	25th	3	50th	0.22	75th	3	50th
Putnam	7	50th	0.19	50th	2	50th	0.05	50th	4	50th
Randolph	92	90th	0.72	85th	37	90th	1.38	90th	15	90th
Ripley	103	90th	0.78	90th	13	85th	0.45	75th	13	90th
Rush	1	< 25th	0.17	25th	1	25th	0.06	50th	1	25th
Saint Joseph	30	75th	0.30	50th	8	75th	0.03	25th	5	50th
Scott	0	< 25th	0.00	< 25th	13	85th	0.55	85th	6	75th
Shelby	3	25th	0.12	25th	0	25th	0.00	25th	0	25th
Spencer	4	25th	0.15	25th	1	25th	0.05	50th	1	25th
Starke	8	50th	0.29	50th	3	50th	0.13	50th	4	50th
Steuben	81	85th	0.78	90th	11	75th	0.32	75th	11	90th
Sullivan	4	25th	0.21	50th	0	25th	0.00	25th	1	25th
Switzerland	1	< 25th	0.07	< 25th	0	25th	0.00	25th	0	25th
Tippecanoe	160	90th	0.47	75th	17	85th	0.11	50th	10	85th
Tipton	22	75th	0.46	75th	14	85th	0.84	90th	11	90th
Union	20	50th	0.41	50th	5	50th	0.69	90th	7	75th
Vanderburgh	2	25th	0.06	< 25th	0	25th	0.00	25th	0	25th
Vermillion	85	90th	0.32	50th	11	75th	0.66	90th	11	90th
Vigo	6	25th	0.19	50th	3	50th	0.03	25th	2	25th
Wabash	30	75th	0.79	90th	0	25th	0.00	25th	6	75th
Warren	2	25th	0.15	25th	1	25th	0.11	50th	1	25th
Warrick	5	25th	0.22	50th	3	50th	0.05	50th	3	50th
Washington	1	< 25th	0.11	25th	0	25th	0.00	25th	0	25th
Wayne	2	25th	0.15	25th	0	25th	0.00	25th	0	25th
Wells	8	50th	0.24	50th	4	50th	0.14	50th	4	50th
White	4	25th	0.07	< 25th	0	25th	0.00	25th	0	25th
Whitley	185	90th	1.06	90th	45	90th	1.40	90th	16	90th
Total	2,620		0.42		746		0.12		390	
Minimum	0		0.00		0		0.00		0	
Maximum	498		1.52		115		2.98		16	
Mean	28.48		0.31		8.11		0.25		4.24	
Standard Deviation	64.80		0.30		17.39		0.50		4.65	

Source: National Archive of Criminal Justice Data, n.d.

APPENDIX 11E - PART 1

Part 1: Overall Drug Abuse Indicators by Number, Rate (All Rates Are Annual Rates per 1,000 Population), Percentile Group, and Priority Score, by Indiana County (Uniform Crime Reports, 2005)

	Drug Possession and Sale/ Manufacture Arrests				Overall Drug Possession/ Sale Rating	
County	Number	Percentile Group	Rate	Percentile Group	Drug Arrest Priority Score	Percentile Group
Adams	97	25th	2.85	< 25th	0	25th
Allen	1,847	90th	5.37	75th	6	95th
Bartholomew	626	85th	8.57	90th	7	95th
Benton	35	< 25th	3.81	25th	0	25th
Blackford	91	25th	6.61	90th	4	75th
Boone	200	50th	3.91	25th	1	50th
Brown	44	< 25th	2.87	< 25th	0	25th
Carroll	67	< 25th	3.28	< 25th	0	25th
Cass	148	50th	3.64	25th	1	50th
Clark	452	75th	4.46	50th	3	75th
Clay	119	25th	4.35	50th	1	50th
Clinton	257	50th	7.48	90th	5	95th
Crawford	46	< 25th	4.10	50th	1	50th
Daviess	199	50th	6.54	85th	4	75th
Dearborn	193	50th	3.95	25th	1	50th
Decatur	130	25th	5.18	75th	2	50th
DeKalb	175	50th	4.19	50th	2	50th
Delaware	343	75th	2.90	< 25th	2	50th
Dubois	160	50th	3.90	25th	1	50th
Elkhart	805	90th	4.17	50th	5	95th
Fayette	222	50th	8.85	90th	5	95th
Floyd	716	90th	9.95	90th	8	95th
Fountain	77	< 25th	4.33	50th	1	50th
Franklin	118	25th	5.47	75th	2	50th
Fulton	96	25th	4.64	50th	1	50th
Gibson	133	25th	3.97	25th	0	25th
Grant	451	75th	6.27	85th	5	95th
Greene	119	25th	3.53	25th	0	25th
Hamilton	909	90th	3.90	25th	4	75th
Hancock	153	50th	2.50	< 25th	1	50th
Harrison	65	< 25th	1.78	< 25th	0	25th
Hendricks	490	75th	3.95	25th	2	50th
Henry	154	50th	3.20	< 25th	1	50th
Howard	644	85th	7.57	90th	7	95th
Huntington	38	< 25th	0.99	< 25th	0	25th
Jackson	269	50th	6.38	85th	4	75th
Jasper	104	25th	3.27	< 25th	0	25th
Jay	83	25th	3.79	25th	0	25th
Jefferson	142	50th	4.40	50th	2	50th
Jennings	109	25th	3.82	25th	0	25th
Johnson	653	90th	5.15	75th	6	95th
Knox	207	50th	5.36	75th	3	75th
Kosciusko	311	50th	4.10	50th	2	50th
LaGrange	95	25th	2.59	< 25th	0	25th
Lake	2,239	90th	4.54	50th	5	95th
LaPorte	382	75th	3.46	< 25th	2	50th

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Notes: Measures were arranged in percentile groups: 90th, 85th, 75th, 50th, 25th, and < 25th percentile. Belonging to a higher percentile group indicates a more severe problem. Higher priority scores indicate a more severe problem.

continued from previous page

	Drug Possession and Sale/ Manufacture Arrests				Overall Drug Possession/ Sale Rating	
County	Number	Percentile Group	Rate	Percentile Group	Drug Arrest Priority Score	Percentile Group
Lawrence	137	50th	2.94	< 25th	1	50th
Madison	583	85th	4.44	50th	4	75th
Marion	5,735	90th	6.60	90th	8	95th
Marshall	233	50th	4.96	50th	2	50th
Martin	26	< 25th	2.47	< 25th	0	25th
Miami	170	50th	4.70	50th	2	50th
Monroe	440	75th	3.62	25th	2	50th
Montgomery	202	50th	5.30	75th	3	75th
Morgan	405	75th	5.80	85th	5	95th
Newton	53	< 25th	3.65	25th	0	25th
Noble	235	50th	4.94	50th	2	50th
Ohio	18	< 25th	3.06	< 25th	0	25th
Orange	81	25th	4.09	25th	0	25th
Owen	72	< 25th	3.10	< 25th	0	25th
Parke	71	< 25th	4.09	25th	0	25th
Perry	74	< 25th	3.87	25th	0	25th
Pike	58	< 25th	4.46	50th	1	50th
Porter	517	75th	3.32	< 25th	2	50th
Posey	94	25th	3.46	< 25th	0	25th
Pulaski	57	< 25th	4.10	50th	1	50th
Putnam	189	50th	5.11	50th	2	50th
Randolph	137	50th	5.10	50th	2	50th
Ripley	130	25th	4.46	50th	1	50th
Rush	95	25th	5.24	75th	2	50th
Saint Joseph	1,237	90th	4.62	50th	5	95th
Scott	115	25th	4.85	50th	1	50th
Shelby	218	50th	4.96	50th	2	50th
Spencer	84	25th	4.11	50th	1	50th
Starke	63	< 25th	2.74	< 25th	0	25th
Steuben	130	25th	3.83	25th	0	25th
Sullivan	81	25th	3.68	25th	0	25th
Switzerland	39	< 25th	4.08	25th	0	25th
Tippecanoe	1,267	90th	8.29	90th	8	95th
Tipton	96	25th	5.75	75th	2	50th
Union	42	< 25th	5.78	75th	2	50th
Vanderburgh	1,426	90th	8.19	90th	8	95th
Vermillion	62	< 25th	3.74	25th	0	25th
Vigo	544	75th	5.24	75th	4	75th
Wabash	104	25th	3.03	< 25th	0	25th
Warren	36	< 25th	4.09	25th	0	25th
Warrick	220	50th	3.94	25th	1	50th
Washington	84	25th	3.00	< 25th	0	25th
Wayne	632	85th	9.01	90th	7	95th
Wells	34	< 25th	1.21	< 25th	0	25th
White	71	< 25th	2.84	< 25th	0	25th
Whitley	94	25th	2.93	< 25th	0	25th
Total	31,504		5.02		188	
Minimum	18		0.99		0	
Maximum	5,735		9.95		8	
Mean	342.43		4.49		2.04	
Standard Deviation	685.44		1.66		2.30	

Source: National Archive of Criminal Justice Data, n.d.

APPENDIX 11E PART 2

Part 2: Overall Drug Abuse Indicators by Number, Rate (All Rates Are Annual Rates per 1,000 Population), Percentile Group, and Priority Score, by Indiana County (Uniform Crime Reports, 2005)

	Property Crime Arrests				Overall Property Crime Rating	
County	Number	Percentile Group	Rate	Percentile Group	Property Crime Priority Score	Percentile Group
Adams	118	25th	3.47	25th	0	25th
Allen	2,587	90th	7.52	90th	8	90th
Bartholomew	443	75th	6.06	75th	4	75th
Benton	36	< 25th	3.92	25th	0	25th
Blackford	75	< 25th	5.45	50th	1	50th
Boone	211	50th	4.13	25th	1	50th
Brown	2	< 25th	0.13	< 25th	0	25th
Carroll	77	< 25th	3.77	25th	0	25th
Cass	197	50th	4.85	50th	2	50th
Clark	781	85th	7.71	90th	7	90th
Clay	76	< 25th	2.78	< 25th	0	25th
Clinton	122	25th	3.55	25th	0	25th
Crawford	52	< 25th	4.63	50th	1	50th
Daviess	144	50th	4.73	50th	2	50th
Dearborn	168	50th	3.44	25th	1	50th
Decatur	133	50th	5.30	50th	2	50th
DeKalb	190	50th	4.55	25th	1	50th
Delaware	491	75th	4.15	25th	2	50th
Dubois	232	50th	5.66	75th	3	75th
Elkhart	956	90th	4.95	50th	5	85th
Fayette	160	50th	6.38	85th	4	75th
Floyd	762	85th	10.59	90th	7	90th
Fountain	57	< 25th	3.21	25th	0	25th
Franklin	18	< 25th	0.83	< 25th	0	25th
Fulton	112	25th	5.41	50th	1	50th
Gibson	115	25th	3.44	25th	0	25th
Grant	595	75th	8.27	90th	6	90th
Greene	101	25th	3.00	< 25th	0	25th
Hamilton	669	85th	2.87	< 25th	3	75th
Hancock	179	50th	2.92	< 25th	1	50th
Harrison	58	< 25th	1.59	< 25th	0	25th
Hendricks	584	75th	4.70	50th	3	75th
Henry	216	50th	4.49	25th	1	50th
Howard	497	75th	5.84	75th	4	75th
Huntington	118	25th	3.08	< 25th	0	25th
Jackson	136	50th	3.22	25th	1	50th
Jasper	95	25th	2.99	< 25th	0	25th
Jay	132	25th	6.02	75th	2	50th
Jefferson	195	50th	6.04	75th	3	75th
Jennings	62	< 25th	2.17	< 25th	0	25th
Johnson	823	90th	6.48	85th	7	90th
Knox	137	50th	3.54	25th	1	50th
Kosciusko	477	75th	6.30	85th	5	85th
LaGrange	120	25th	3.27	25th	0	25th
Lake	2,763	90th	5.60	75th	6	90th
LaPorte	609	75th	5.52	50th	3	75th

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Notes: Measures were arranged in percentile groups: 90th, 85th, 75th, 50th, 25th, and < 25th percentile. Belonging to a higher percentile group indicates a more severe problem. Higher priority scores indicate a more severe problem.

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	Property Crime Arrests				Overall Property Crime Rating	
County	Number	Percentile Group	Rate	Percentile Group	Property Crime Priority Score	Percentile Group
Lawrence	98	25th	2.10	< 25th	0	25th
Madison	675	85th	5.14	50th	4	75th
Marion	5,021	90th	5.78	75th	6	90th
Marshall	341	50th	7.26	90th	5	85th
Martin	30	< 25th	2.85	< 25th	0	25th
Miami	200	50th	5.53	50th	2	50th
Monroe	369	75th	3.03	< 25th	2	50th
Montgomery	183	50th	4.80	50th	2	50th
Morgan	297	50th	4.25	25th	1	50th
Newton	40	< 25th	2.76	< 25th	0	25th
Noble	248	50th	5.21	50th	2	50th
Ohio	17	< 25th	2.89	< 25th	0	25th
Orange	92	25th	4.64	50th	1	50th
Owen	65	< 25th	2.80	< 25th	0	25th
Parke	80	25th	4.61	50th	1	50th
Perry	107	25th	5.60	75th	2	50th
Pike	67	< 25th	5.15	50th	1	50th
Porter	538	75th	3.45	25th	2	50th
Posey	82	25th	3.02	< 25th	0	25th
Pulaski	64	< 25th	4.60	50th	1	50th
Putnam	147	50th	3.97	25th	1	50th
Randolph	129	25th	4.81	50th	1	50th
Ripley	151	50th	5.19	50th	2	50th
Rush	82	25th	4.52	25th	0	25th
Saint Joseph	1,620	90th	6.05	75th	6	90th
Scott	220	50th	9.27	90th	5	85th
Shelby	155	50th	3.53	25th	1	50th
Spencer	94	25th	4.60	50th	1	50th
Starke	92	25th	3.99	25th	0	25th
Steuben	241	50th	7.11	90th	5	85th
Sullivan	82	25th	3.73	25th	0	25th
Switzerland	44	< 25th	4.60	50th	1	50th
Tippecanoe	1,113	90th	7.28	90th	8	90th
Tipton	79	25th	4.73	50th	1	50th
Union	37	< 25th	5.09	50th	1	50th
Vanderburgh	1,183	90th	6.79	85th	7	90th
Vermillion	52	< 25th	3.13	25th	0	25th
Vigo	797	90th	7.68	90th	8	90th
Wabash	102	25th	2.97	< 25th	0	25th
Warren	41	< 25th	4.65	50th	1	50th
Warrick	116	25th	2.08	< 25th	0	25th
Washington	67	< 25th	2.39	< 25th	0	25th
Wayne	912	90th	13.00	90th	8	90th
Wells	64	< 25th	2.28	< 25th	0	25th
White	21	< 25th	0.84	< 25th	0	25th
Whitley	93	25th	2.89	< 25th	0	25th
Total	33,229		5.30		187	
Minimum	2		0.13		0	
Maximum	5,021		13.00		8	
Mean	361.18		4.58		2.03	
Standard Deviation	676.12		2.02		2.39	

Source: National Archive of Criminal Justice Data, n.d.

APPENDIX 11F

Youth Substance Use Indicators by Number, Rate (All Rates Are Annual Rates per 1,000 Population), Percentile Group, and Priority Score, by Indiana County (Uniform Crime Reports, 2005)

	Runaway Arrests (Juveniles Only)				Overall Runaway Rating	
County	Number	Percentile Group	Rate	Percentile Group	Runaway Priority Score	Percentile Group
Adams	8	< 25th	0.78	< 25th	0	25th
Allen	247	90th	2.63	50th	5	85th
Bartholomew	92	85th	4.85	75th	5	85th
Benton	6	< 25th	2.56	50th	1	50th
Blackford	0	< 25th	0.00	< 25th	0	25th
Boone	32	50th	2.35	50th	2	50th
Brown	19	50th	5.98	85th	4	75th
Carroll	10	25th	2.01	50th	1	50th
Cass	65	75th	6.33	90th	6	85th
Clark	70	75th	2.91	50th	3	75th
Clay	15	25th	2.26	50th	1	50th
Clinton	7	< 25th	0.77	< 25th	0	25th
Crawford	5	< 25th	1.85	25th	0	25th
Daviess	20	50th	2.35	50th	2	50th
Dearborn	25	50th	2.05	50th	2	50th
Decatur	9	25th	1.38	< 25th	0	25th
DeKalb	17	50th	1.54	25th	1	50th
Delaware	24	50th	0.98	< 25th	1	50th
Dubois	21	50th	2.01	50th	2	50th
Elkhart	298	90th	5.40	85th	7	90th
Fayette	31	50th	5.33	85th	4	75th
Floyd	31	50th	1.78	25th	1	50th
Fountain	3	< 25th	0.70	< 25th	0	25th
Franklin	1	< 25th	0.17	< 25th	0	25th
Fulton	13	25th	2.59	50th	1	50th
Gibson	19	50th	2.41	50th	2	50th
Grant	115	85th	7.22	90th	7	90th
Greene	9	25th	1.14	< 25th	0	25th
Hamilton	104	85th	1.50	25th	3	75th
Hancock	22	50th	1.42	< 25th	1	50th
Harrison	11	25th	1.27	< 25th	0	25th
Hendricks	46	75th	1.41	< 25th	2	50th
Henry	73	75th	6.67	90th	6	85th
Howard	118	90th	5.59	85th	7	90th
Huntington	17	50th	1.83	25th	1	50th
Jackson	36	50th	3.42	75th	3	75th
Jasper	12	25th	1.50	25th	0	25th
Jay	8	< 25th	1.40	< 25th	0	25th
Jefferson	36	50th	4.86	75th	3	75th
Jennings	9	25th	1.19	< 25th	0	25th
Johnson	82	75th	2.46	50th	3	75th
Knox	28	50th	3.40	75th	3	75th
Kosciusko	31	50th	1.54	25th	1	50th
LaGrange	0	< 25th	0.00	< 25th	0	25th
Lake	274	90th	2.13	50th	5	85th
LaPorte	248	90th	9.59	90th	8	90th

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Notes: Measures were arranged in percentile groups: 90th, 85th, 75th, 50th, 25th, and <25th percentile. Belonging to a higher percentile group indicates a more severe problem. Higher priority scores indicate a more severe problem.

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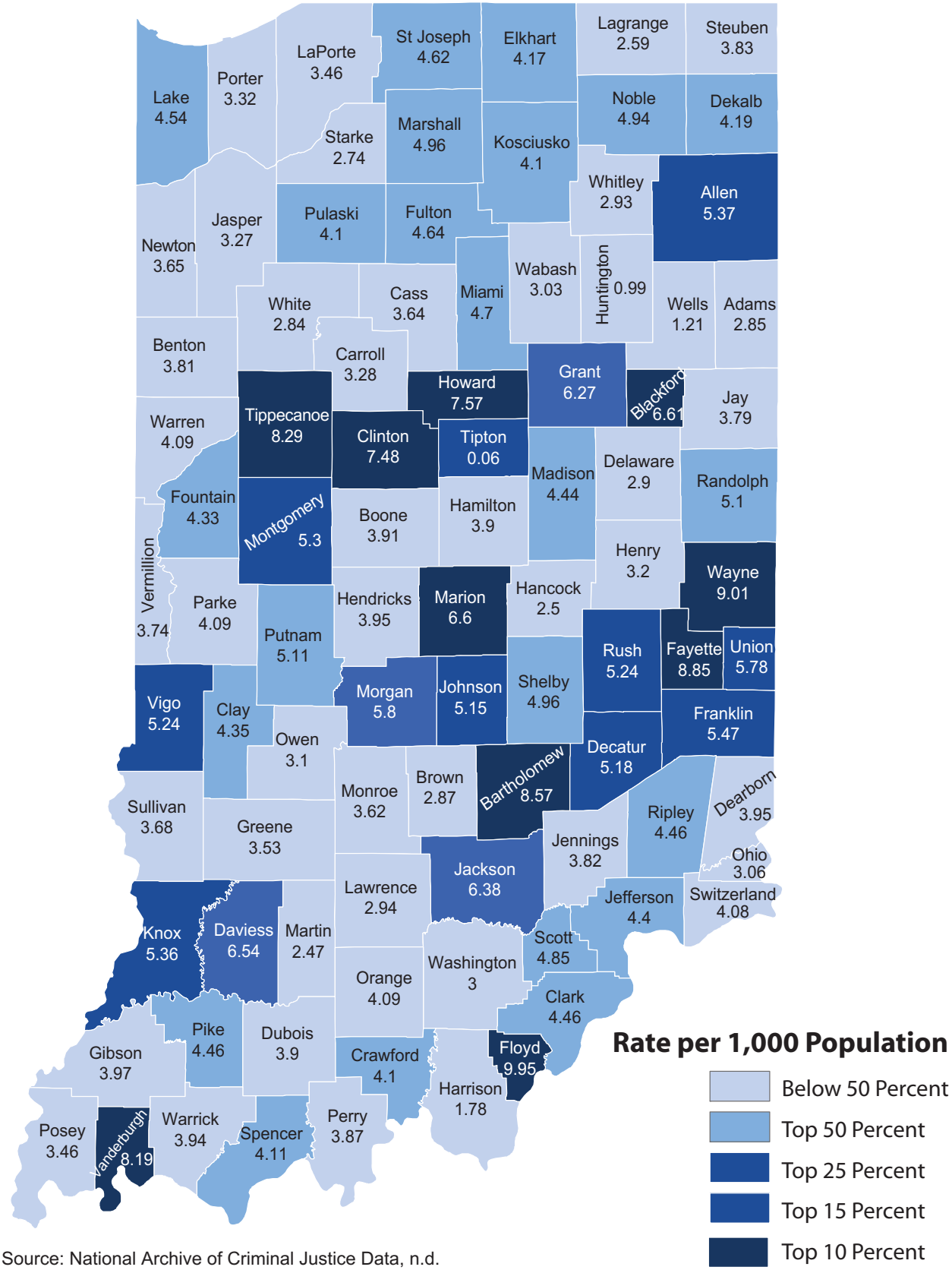
	Runaway Arrests (Juveniles Only)				Overall Runaway Rating	
County	Number	Percentile Group	Rate	Percentile Group	Runaway Priority Score	Percentile Group
Lawrence	16	25th	1.49	25th	0	25th
Madison	214	90th	7.10	90th	8	90th
Marion	67	75th	0.29	< 25th	2	50th
Marshall	32	50th	2.57	50th	2	50th
Martin	3	< 25th	1.26	< 25th	0	25th
Miami	23	50th	2.65	50th	2	50th
Monroe	48	75th	2.28	50th	3	75th
Montgomery	14	25th	1.49	25th	0	25th
Morgan	26	50th	1.48	25th	1	50th
Newton	2	< 25th	0.59	< 25th	0	25th
Noble	86	85th	6.55	90th	7	90th
Ohio	3	< 25th	2.33	50th	1	50th
Orange	8	< 25th	1.65	25th	0	25th
Owen	11	25th	2.04	50th	1	50th
Parke	7	< 25th	1.89	25th	0	25th
Perry	14	25th	3.54	75th	2	50th
Pike	7	< 25th	2.39	50th	1	50th
Porter	27	50th	0.73	< 25th	1	50th
Posey	11	25th	1.68	25th	0	25th
Pulaski	6	< 25th	1.80	25th	0	25th
Putnam	14	25th	1.72	25th	0	25th
Randolph	14	25th	2.20	50th	1	50th
Ripley	16	25th	2.17	50th	1	50th
Rush	19	50th	4.16	75th	3	75th
Saint Joseph	706	90th	10.41	90th	8	90th
Scott	11	25th	1.87	25th	0	25th
Shelby	42	75th	3.82	75th	4	75th
Spencer	9	25th	1.81	25th	0	25th
Starke	17	50th	2.90	50th	2	50th
Steuben	28	50th	3.45	75th	3	75th
Sullivan	13	25th	2.83	50th	1	50th
Switzerland	4	< 25th	1.72	25th	0	25th
Tippecanoe	203	90th	6.29	90th	8	90th
Tipton	6	< 25th	1.57	25th	0	25th
Union	0	< 25th	0.00	< 25th	0	25th
Vanderburgh	384	90th	9.69	90th	8	90th
Vermillion	15	25th	3.96	75th	2	50th
Vigo	182	90th	7.84	90th	8	90th
Wabash	7	< 25th	0.92	< 25th	0	25th
Warren	4	< 25th	1.93	25th	0	25th
Warrick	2	< 25th	0.14	< 25th	0	25th
Washington	10	25th	1.45	25th	0	25th
Wayne	40	75th	2.48	50th	3	75th
Wells	9	25th	1.29	< 25th	0	25th
White	1	< 25th	0.17	< 25th	0	25th
Whitley	16	25th	2.00	25th	0	25th
Total	4,764		0.76		187	
Minimum	0		0.00		0	
Maximum	706		10.41		8	
Mean	51.78		2.70		2.03	
Standard Deviation	100.15		2.21		2.46	

Source: National Archive of Criminal Justice Data, n.d.

Map 11.1 Indiana Total Drug Possession and Sale/Manufacture Arrest Rates, by County, 2005 (Uniform Crime Reports, 2005)



Source: National Archive of Criminal Justice Data, n.d.

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Appendix I: Acronyms

ADD	Attention Deficit Disorder
ADHD	Attention Deficit Hyperactivity Disorder
ARDI	Alcohol-Related Disease Impact database
ATOD	Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents Survey
BRFSS	Behavioral Risk Factor Surveillance System
CDC	Centers for Disease Control and Prevention
CHD	Coronary Heart Disease
COPD	Chronic Obstructive Pulmonary Disease
CSAP	Center for Substance Abuse and Prevention
DOE	U.S. Department of Education
DEA	U.S. Drug Enforcement Agency
DMHA	Division of Mental Health and Addiction
EPIC	El Paso Intelligence Center
ETS	Environmental Tobacco Smoke
FARS	Fatality Analysis Reporting System
FSSA	U.S. Family and Social Services Administration
GAC	Governor's Advisory Council
HBV	Hepatitis B Virus infection
HCV	Hepatitis C Virus infection
ICD-10	International Classification of Diseases, 10th Revision
ICPSR	Inter-University Consortium for Political and Social Research
IDU	Injection Drug User
IPRC	Indiana Prevention Resource Center
ISDH	Indiana State Department of Health
ISP	Indiana State Police
ITPC	Indiana Tobacco Prevention and Cessation Agency
IYTS	Indiana Youth Tobacco Survey
MTF	Monitoring the Future Survey
NCHS	National Center for Health Statistics
NCI	National Cancer Institute
NCLSS	National Clandestine Laboratory Seizure System
NDIC	National Drug Intelligence Center
NHTSA	National Highway Traffic Safety Administration
NIDA	National Institute on Drug Abuse
NIH	National Institutes of Health
NSDUH	National Survey on Drug Use and Health
NVSS	National Vital Statistics System
NYTS	National Youth Tobacco Survey
OAS	Office of Applied Studies
ONDCP	U.S. Office of National Drug Control Policy
SAMMEC	Smoking-Attributable Mortality, Morbidity, and Economic Costs
SAMHSA	U.S. Substance Abuse and Mental Health Services Administration
SEDS	State Epidemiological Data System
SEOW	State Epidemiology and Outcomes Workgroup
SIDS	Sudden Infant Death Syndrome
SPF SIG	Strategic Prevention Framework State Incentive Grant
SPSS	Statistical Package for the Social Sciences
STD	Sexually Transmitted Disease
TEDS	Treatment Episode Data Set
UCR	Uniform Crime Reports
USDHHS	U.S. Department of Health and Human Services
WHO	World Health Organization
YRBSS	Youth Risk Behavior Surveillance System

APPENDIX II: State Epidemiology and Outcomes Workgroup (SEOW) Data Sources

Data Set	Source	Years	Coverage	Alc	Tob	Mj	Coc	Meth	Heroin	Prescr Abuse	Poly Abuse	Target
Alcohol, Tobacco, and Other Drug Use by Indiana Children and Adolescents (ATOD) Survey http://www.drugs.indiana.edu/data-survey_monograph.html	IPRC	Annual 1993–2007	IN Regions	X	X	X	X	X	X	X		6th – 12th grade students in Indiana
Alcohol-Related Disease Impact (ARDI) Database http://apps.nccd.cdc.gov/ardi/Homepage.aspx	CDC	Based on 2001 data	U.S. States	X								
Alcohol-Related Mortality (upon request)	ISDH/CDC	Combined 2000–2004	IN Counties	X								
Behavioral Risk Factor Surveillance System (BRFSS) http://apps.nccd.cdc.gov/brfss/	CDC	Annual 1990–2006	U.S. States	X	X							Adults 18 and older
Behavioral Risk Factor Surveillance System: Selected Metropolitan/Micropolitan Area Risk Trends (BRFSS SMART) http://apps.nccd.cdc.gov/brfss-smart/index.asp	CDC	Annual 2002 - 2006	Areas Some counties	X	X							Adults 18 and older
Fatality Analysis Reporting System (FARS) http://www-fars.nhtsa.dot.gov/	NHTSA	Annual 1994–2005	U.S. States Counties	X								
Monitoring the Future (MTF) Survey http://www.monitoringthefuture.org/data/data.html	NIDA	Annual 199– 2006	U.S.	X				X	X	X		8th, 10th, and 12th grade students
Mortality http://www.in.gov/isdh/dataandstats/mortality/mortality_index.htm	ISDH	Annual 1999–2005	IN Counties									
National Clandestine Laboratory Seizure System (NCLSS) (upon request)	EPIC/ISP	Annual	IN Counties					X				
National Survey on Drug Use and Health (NSDUH) https://nsduhweb.rti.org/	SAMHSA	Annual 1994–2006	U.S. States	X	X	X	X			X	X	Population 12 years and older
National Youth Tobacco Survey (NYTS) and Indiana Youth Tobacco Survey (IYTS) http://www.in.gov/itpc/research.asp	CDC ITPC	Bi-annual 2000–2006	U.S. IN		X							
School Suspensions & Expulsions (upon request)	DOE	Annual	IN Counties	X	X							K-12

Data Set	Source	Years	Coverage	Alc	Tob	Mj	Coc	Meth	Heroin	Prescr Abuse	Poly Abuse	Target
Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC) http://apps.nccd.cdc.gov/sammec/index.asp	CDC	Based on 2001 data	U.S. States		X							
Smoking-Related Mortality (upon request)	ISDH/SAMMEC	2000	IN Counties		X							
Treatment Episode Data Set (TEDS) http://webapp.icpsr.umich.edu/cocoon/SAMHDA-SERIES/00056.xml	SAMHSA	Annual 1992–2005	U.S. States Counties	X		X	X	X	X	X		Treatment population
Underlying Causes of Death (CDC WONDER) http://wonder.cdc.gov/mortSQL.html	CDC	Annual 1999–2004	U.S. States Some Co.									
Uniform Crime Reports (UCR) http://www.icpsr.umich.edu/NACJD/ucr.html	FBI; National Archive of Criminal Justice Data	Annual	U.S. States Counties	X		X	X	X	X			
Vehicle Crash Records System (VCRS) (upon request)	ISP	Annual	IN Counties	X								
Youth Risk Behavior Surveillance System http://apps.nccd.cdc.gov/yrbss/	CDC	Bi-annual U.S.: 1991-2005 Indiana: 2003–2005	U.S. States	X	X	X	X	X				High School students

Note: Uniform Crime Reports data provide arrest rates for possession and sale/manufacture of cocaine and opiates combined, and arrest rates for possession and sale/manufacture of synthetic drugs combined, including but not limited to methamphetamine.

Abbreviations used: Alc = alcohol; Tob = tobacco; Mj = Marijuana; Coc = cocaine; Meth = Methamphetamine; Prescr Abuse = Prescription drug abuse; Poly Abuse = abuse of two or more substances during the same time period; CDC = Centers for Disease Control and Prevention; DOE = U.S. Department of Education; EPIC = El Paso Intelligence Center; FBI = Federal Bureau of Investigations; IPRC = Indiana Prevention Resource Center; ISDH = Indiana State Department of Health; 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.