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IMPROVING COMMUNITY HEALTH THROUGH
POLICY RESEARCH

SUBSTANCE USE AMONG YOUNG ADULTS IN INDIANA WHO ARE NOT ENROLLED IN COLLEGE

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IU Richard M Fairbanks School of Public Health at IUPUI
Indiana University-Purdue University Indianapolis (IUPUI)
714 N Senate Ave, Suite 200
Indianapolis, IN 46202



**RICHARD M. FAIRBANKS
SCHOOL OF PUBLIC HEALTH**

INDIANA UNIVERSITY
Center for Health Policy
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Please direct all correspondence and questions to: Center for Health Policy, IU Richard M Fairbanks School of Public Health at IUPUI, 714 N Senate Ave, EF 200, Indianapolis, IN 46202; Email: iuchp@iupui.edu; Phone: (317)278-5907.





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Authors:

Harold Kooreman, MA
Lyndy Kouns, BA
Marion Greene, MPH, PhD(c)
Dennis Watson, PhD
Elizabeth Golembiewski, MPH



INTRODUCTION

Alcohol, tobacco, and other drug use are significant public health concerns. Data from the National Survey on Drug Use and Health (NSDUH) indicate that within the general population, young adults ages 18 to 25 have the highest substance use prevalence— significantly higher than younger (ages 12 to 17) or older (26 years or older) age groups.¹ Also, the literature suggests rates and patterns of use differ between college students and young adults who do not attend college.^{2,3} Solid prevalence estimates of alcohol, tobacco, and other drug use are readily available for Indiana’s general population and data on substance use among the state’s college students are available as well. However, there is a lack of information pertaining to young Hoosiers who do not attend college.

The primary purpose of this study was to gather information on patterns and trends of substance use; reasons for using (or not using); and perceptions and beliefs regarding substance use within one’s social circle (peers) from our

target population, i.e., Indiana residents ages 18 to 25 who do not attend, nor have graduated from, college.

This report contains two major components, (1) a *quantitative* assessment of alcohol, tobacco, and other drug use among Indiana’s general population ages 18 to 25 (based on secondary data sources), and (2) a *qualitative* assessment of conversations (e.g., focus groups and phone interviews) about substance use conducted with Hoosiers ages 18 to 25 who do not attend, nor have graduated from, college (based on primary data, including focus groups and individual interviews).

This study was requested and funded by Indiana’s Family and Social Services Administration’s Division of Mental Health and Addiction (DMHA) and served as a pilot project for a larger Partnership for Success (PFS) initiative, which will focus on underage drinking and/or prescription drug abuse among young adults.

PART I: QUANTITATIVE ASSESSMENT

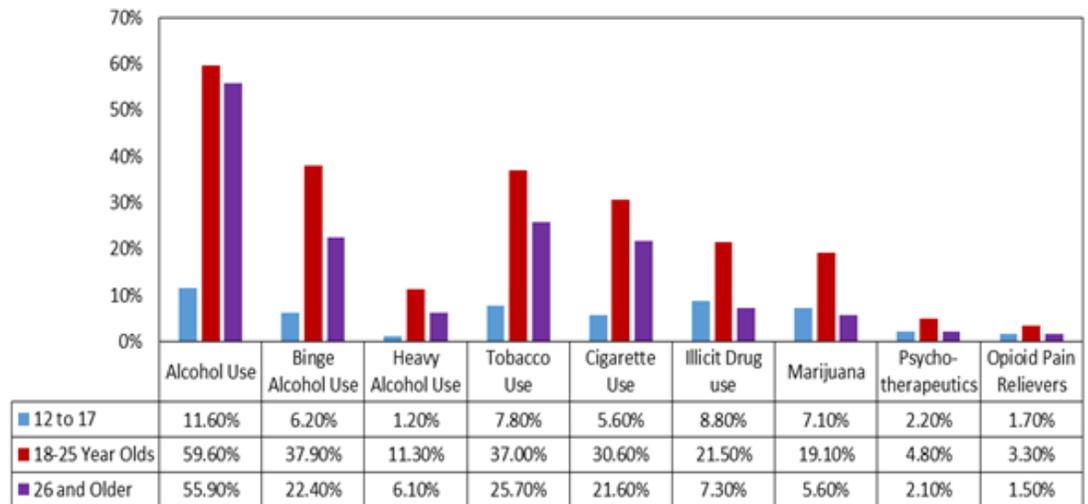
In this section, we provide a description of substance use among Indiana’s general young adult population. The transition from adolescence to adulthood within industrialized countries like the United States has changed dramatically over the past three generations. Specifically it has become longer as young people choose to delay marriage and parenthood and extend their education or career training into their twenties. Arnett (2005)⁴ argues that this transition period has become so long that it constitutes a new developmental period which has been termed emerging adulthood. Emerging adulthood lasts approximately from age 18 to 25, and it is characterized in a number of ways. Emerging adulthood can be seen as a period of identity exploration where young people spend time investigating who they are and what they want in their lives; as a period of instability marked by frequent changes in their living arrangements, their romantic partners, their educational status, and their employment; as a period of self-focus where young people begin to make significant life decisions for themselves; as a period of being in between

adolescence and full adulthood with its own set of norms and values; and as a period of possibilities marked by dramatic life changes and a high level of hope and optimism.⁴

Emerging adulthood is also a period characterized by high levels of substance use.⁴ The 2013 National Household Survey of Drug Use and Health⁵ estimates that nationally, 21.5% of 18-25-year olds are current, past-month users of illicit drugs compared to 8.8% of 12- to 17-year olds and 7.3% of people 26 years of age and older. In terms of specific illicit drugs, the NSDUH indicates that past month marijuana use, past month use of psychotherapeutics, and past month use of opioid pain relievers are all higher for 18-25-year-olds than for any other age group. Alcohol use is also quite prevalent within emerging adults. The NSDUH reports that current use of alcohol, current binge drinking, and current heavy drinking are all higher within 18- to 25-year-olds than within any other age group. Similarly, tobacco and cigarette use is also highest among emerging adults with 37.0% reporting current tobacco use and 30.6% reporting current use of cigarettes (see Figure 1).⁶



Figure 1. Percentage of U.S. Population Reporting Current (Past Month) Use of Alcohol, Tobacco, and Other Drugs by Age Group⁶



Source: Substance Abuse and Mental Health Services Administration, 2013

Methods

For the quantitative part of our study, we collected and analyzed secondary data that provided Indiana-level information on alcohol, tobacco, and other drug use among young adults. We included two data sources in our report, (1) the National Survey on Drug Use and Health (NSDUH), and (2) the Treatment Episode Data Set (TEDS). NSDUH is an annual survey sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). The survey provides national as well as state-level prevalence estimates on the use of various substances and certain mental health indicators within the *general population*. TEDS is an administrative data system of annual admissions to substance abuse treatment facilities. The dataset contains information on substance use and client characteristics of persons admitted to publicly funded treatment services; hence, findings represent the *treatment population*. TEDS records represent admissions rather than individuals, as a person may be admitted to treatment more than once in a given year. All data from these two data sources representing young Hoosiers were included in the analyses.

Patterns of Substance Use in Indiana's Emerging Adults

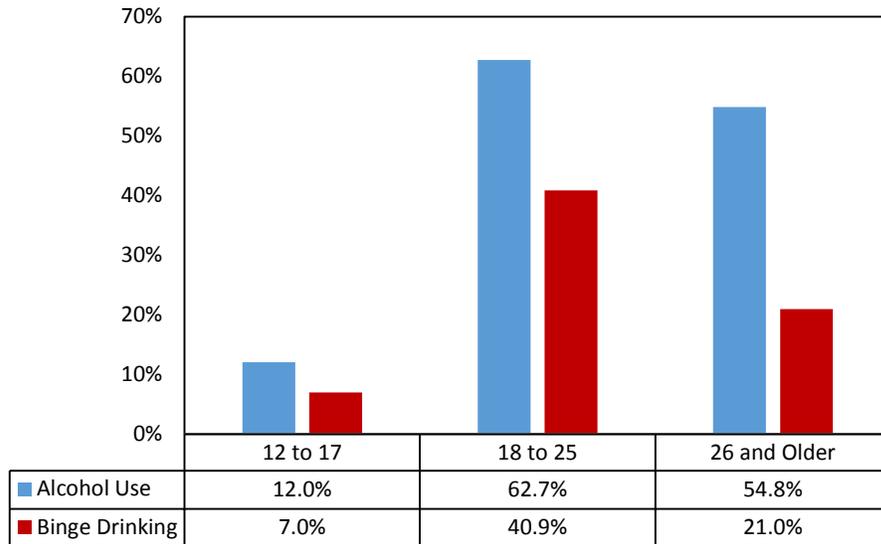
Alcohol

Alcohol is the most widely used and abused substance both nationally and in Indiana. The National Institute on Alcohol Abuse and

Alcoholism⁵ estimated that in 2011, 10.7 million gallons of ethanol (the intoxicating agent in alcoholic beverages) were consumed in Indiana; this included, by volume, 119.2 million gallons of beer, 11.2 million gallons of wine, and 9.4 million gallons of spirits. Within Indiana, the per capita consumption of ethanol for the population 14 years and older was 2.0 gallons. 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 health compromising behaviors, such as cigarette smoking, illicit drug use, and risky sex. Chronic alcohol use can lead to the development of cirrhosis and other serious liver diseases. The NSDUH estimates that in 2013, Hoosiers between the ages of 18 to 25 had the highest rate of current alcohol use (62.7%; see Figure 2). The percentage of Indiana's 18- to 25-year olds who are estimated to be current users of alcohol has remained relatively stable since 2004 (see Figure 3). Binge drinking is a risky alcohol consumption pattern defined by the NSDUH as consuming 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. During 2013, the NSDUH estimated that across age groups, the highest rate of past-month binge drinking occurred in 18- to 25-year-old Hoosiers (40.9%; see Figure 2). The percentage of 18- to 25-year old Indiana residents engaging in past-month binge drinking has been stable since 2004 (see Figure 3).

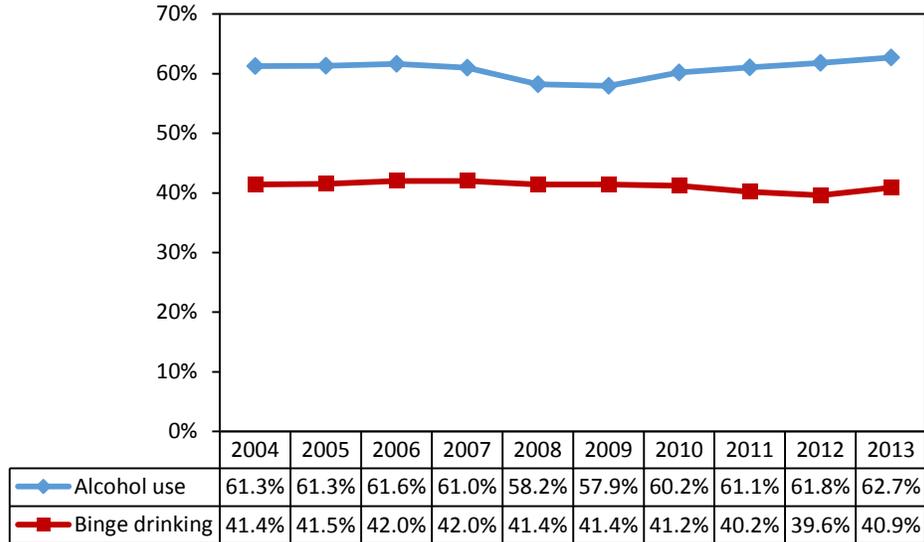


Figure 2. Past-Month Alcohol and Past-Month Binge Drinking among Hoosiers by Age Group⁶



Source: Substance Abuse and Mental Health Services Administration, 2013

Figure 3. Past-month Alcohol and Past-month Binge Drinking among Hoosiers ages 18-25⁶



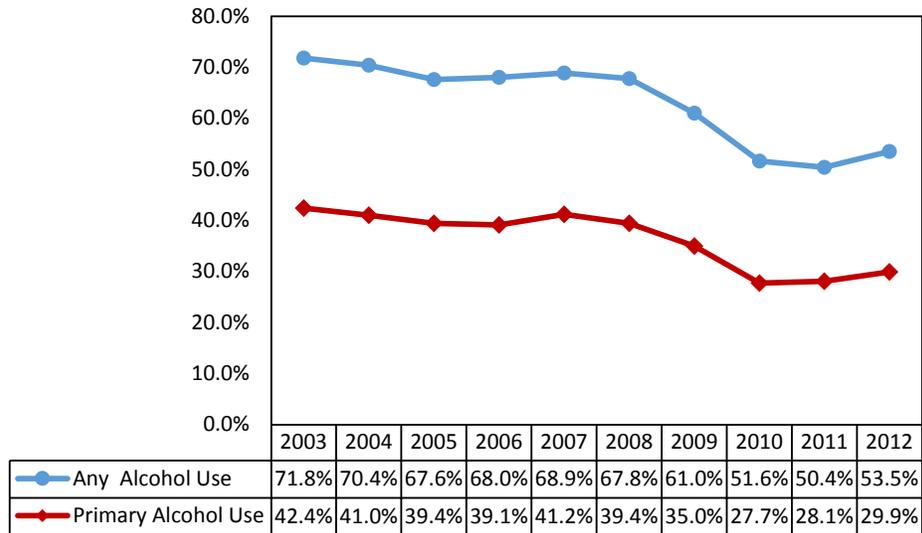
Source: Substance Abuse and Mental Health Services Administration, 2013

Based on findings from Indiana's Treatment Episode Data Set (TEDS),⁷ alcohol has played a significant but declining role in admissions to substance abuse treatment for Indiana's emerging adults. In 2012, 53.5% of 18-24-year-olds entering substance abuse treatment reported using alcohol contrasted with 71.8% who reported alcohol use in 2003 (see Figure 4). There has been a similar drop in the percentage of 18-24-year-old Hoosiers entering substance abuse treatment who report that alcohol is their primary drug of abuse

from 42.4% in 2003 to just under 30.0% in 2012 (see Figure 4). The percentage of Indiana residents considered to be dependent on alcohol or dependent or abusing alcohol in 2013 was highest for 18 to 25-year-old Hoosiers (5.9% and 14.5% respectively; see Figure 5). The rate of young adult Hoosiers dependent upon alcohol has declined slightly from 7.5% in 2004 to just under 6.0% in 2013 with a similar decline noted in the percentage of young adult Hoosiers who are either dependent on or abusing alcohol (see Figure 6).⁶

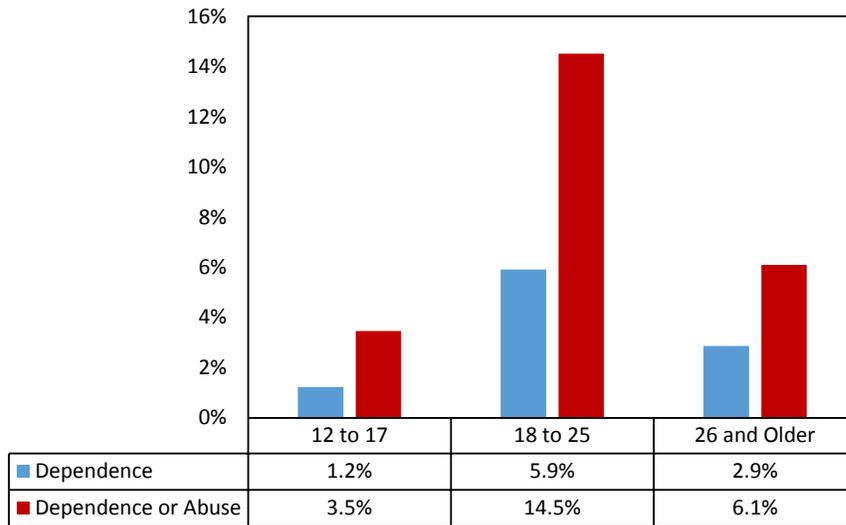


Figure 4. Reported Use and Primary Use of Alcohol among Hoosiers 18-24 at Treatment Admission⁷



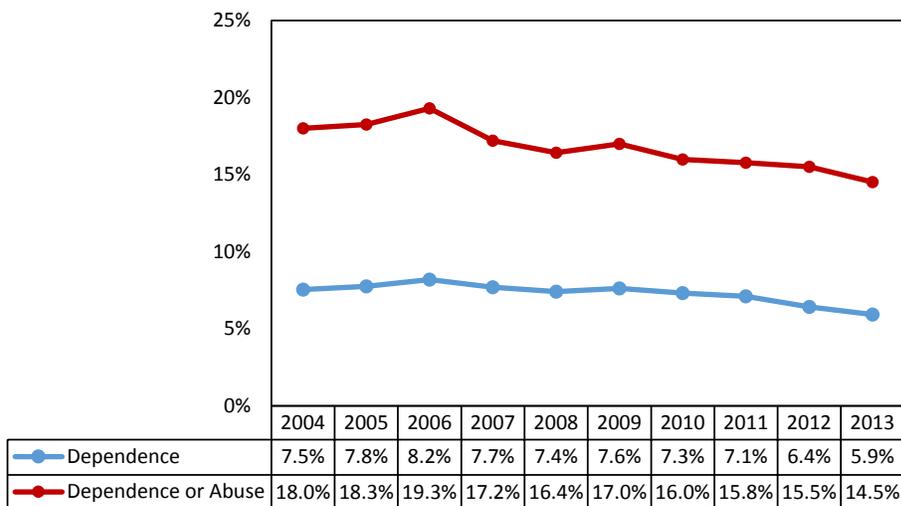
Source: Substance Abuse and Mental Health Data Archive, 2012

Figure 5. Percentage of Hoosiers with Alcohol Dependence or Alcohol Dependence or Alcohol Abuse by Age Group⁶



Source: Substance Abuse and Mental Health Services Administration, 2013

Figure 6. Percentage of 18- to 25-Year-Old Hoosiers with Alcohol Dependence or Alcohol Dependence or Alcohol Abuse⁶



Source: Substance Abuse and Mental Health Services Administration, 2013

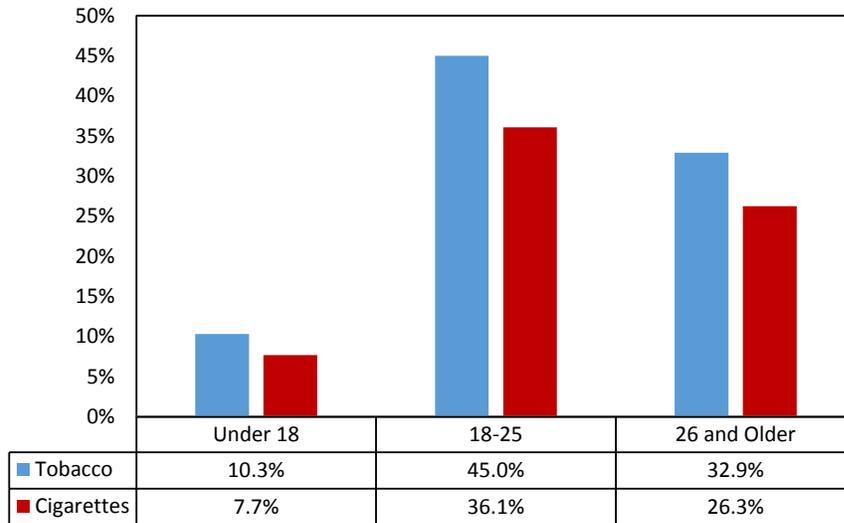


Tobacco Use

Tobacco, primarily in the form of cigarettes, is the second most frequently used substance in both Indiana and the nation. In the United States, tobacco use is responsible for more than 480,000 deaths per year among adults age 35 and older. Additionally, 16 million adults are suffering from smoking-related health conditions. On average smoking reduces life expectancy by at least 10 years and contributes greatly to the number of deaths from lung

cancer, heart disease, chronic lung diseases, and other illnesses. Nationally, the current use of any form of tobacco and specifically of cigarettes was found to be highest for the emerging adult population (37.0%, any tobacco; 30.6% cigarettes). The pattern for Indiana is similar to the nation with 45.0% of 18-25-year-old Hoosiers reporting some form of current tobacco use and 36.1% reporting current cigarette use (see Figures 7 and 8).

Figure 7. Past-Month Tobacco and Past-Month Cigarette Use among Hoosiers by Age Group⁶

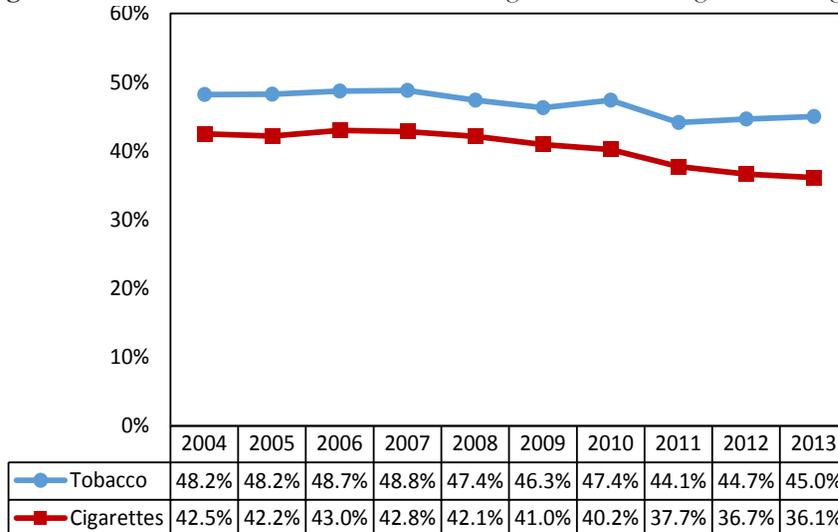


Source: Substance Abuse and Mental Health Services Administration, 2013

The use of both tobacco generally and of cigarettes specifically has declined slightly

within the 18- to 25-year age group from 2004 through 2013 (see Figure 8).⁶

Figure 8. Past-Month Tobacco and Past-Month Cigarette Use Among Hoosiers Ages 18-25⁶



Source: Substance Abuse and Mental Health Services Administration, 2013

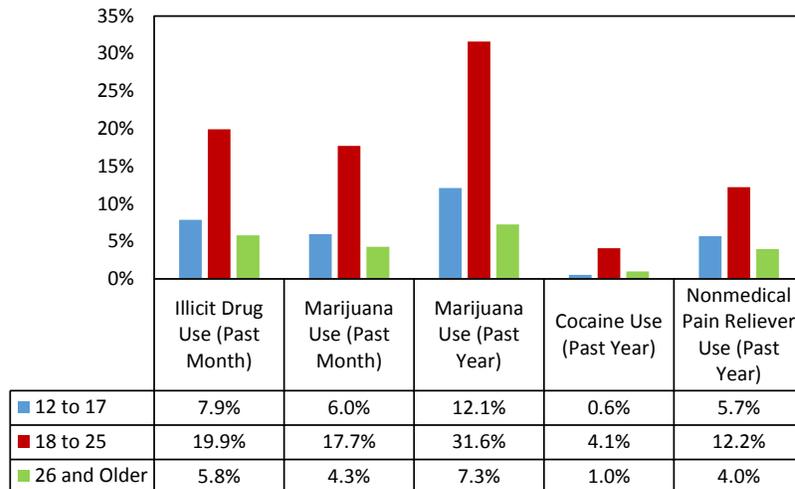


Illicit Drugs

According to the NSDUH, illicit drug use refers to the use of drugs which federal laws have ruled as being illegal to possess and use as well as the inappropriate use of various categories of controlled prescription drugs. The drugs which the NSDUH categorizes as illicit drugs are: marijuana, cocaine, heroin, hallucinogens (e.g., LSD, PCP, MDMA), inhalants (e.g., nitrous oxide, amyl nitrite, gasoline), as well as the nonmedical use of prescription-type pain relievers, tranquilizers, stimulants, and sedatives. The NSDUH estimated that nationally, the percentage of current users of illicit drugs was highest for emerging adults (21.5%) compared to other age groups. Indiana's pattern of illicit drug use in 2013 was consistent with the nation. The percentage of current illicit drug users was highest for 18 to 25-year-old Hoosiers (19.9%; see Figure 9). The percentage of emerging adults using illicit substances has remained stable in Indiana since 2004 (see Figure 10).

The NSDUH provides state-level prevalence estimates for a subset of illicit drugs which are past year and past month marijuana use, past year cocaine use, and past year nonmedical use of prescription-type pain relievers. In 2013, the NSDUH estimated that for Indiana, the percentage of 18- to 25-year-olds using marijuana in the past month (17.73%) and in the past year (31.58%), using cocaine in the past year (4.11%) and using prescription pain relievers for nonmedical purposes in the past year (12.23%) was higher than in any other age group (see Figure 10). There have been some small changes over time in the percentage of 18- to 25-year-olds who are using specific illicit substances. Since 2004, the percentage of 18- to 25-year-olds using marijuana in the past year and in the past month has increased slightly. Past year cocaine use and past year nonmedical use of prescription pain relievers within 18- to 25-year-old Hoosiers have both decreased slightly since 2004 (see Figure 10).

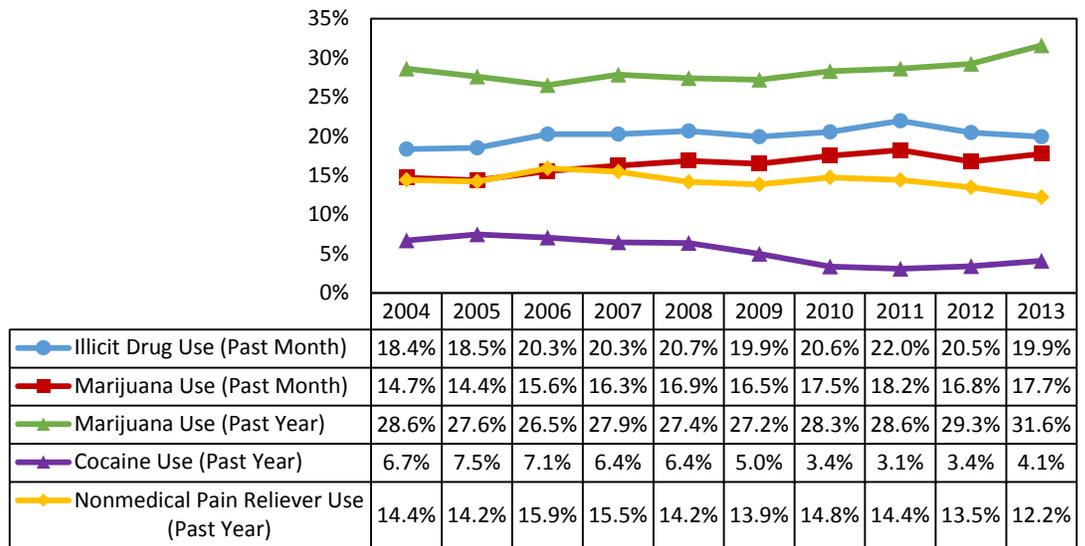
Figure 9. Past Month and Past Year Use of Illicit Drugs among Hoosiers by Age⁶



Source: Substance Abuse and Mental Health Services Administration, 2013



Figure 10. Past Month and Past Year Use of Illicit Drugs among Hoosiers 18-25⁶

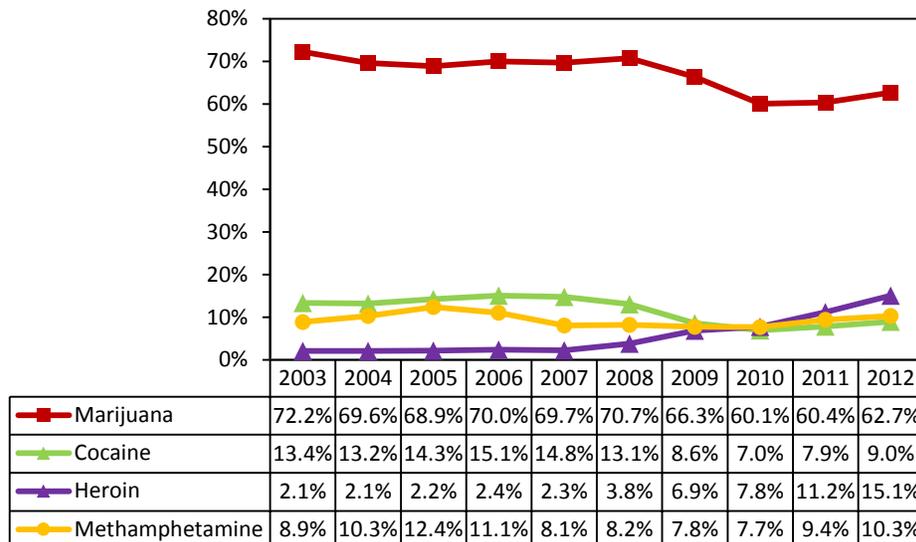


Source: Substance Abuse and Mental Health Services Administration, 2013

Indiana’s TEDS data provides additional information on illicit substance use trends within emerging adults who are entering substance abuse treatment. In 2012, marijuana was by far the most frequently used illicit drug by emerging adults entering substance abuse treatment in Indiana with nearly 63.0% reporting use at the time of admission. Fifteen percent of emerging adults entering substance use treatment in 2012 reported heroin use, 10.3% reported using methamphetamine at admission, and 9.0% indicated that they

were currently using cocaine (see Figure 11). Since 2003, the percentage of 18-24-year olds reporting marijuana use at admission has declined so too has the percentage of 18-24-year olds endorsing cocaine use. The use of methamphetamine by 18-24-year olds entering substance abuse treatment has been relatively stable since 2003. The percentage of 18-24-year olds using heroin at admission to substance abuse treatment has increased steadily from 2.1% in 2003 to 15.1% in 2012 (see Figure 11).

Figure 11. Reported Use of Illicit Drugs by Hoosiers 18-24 at Treatment Admission⁷



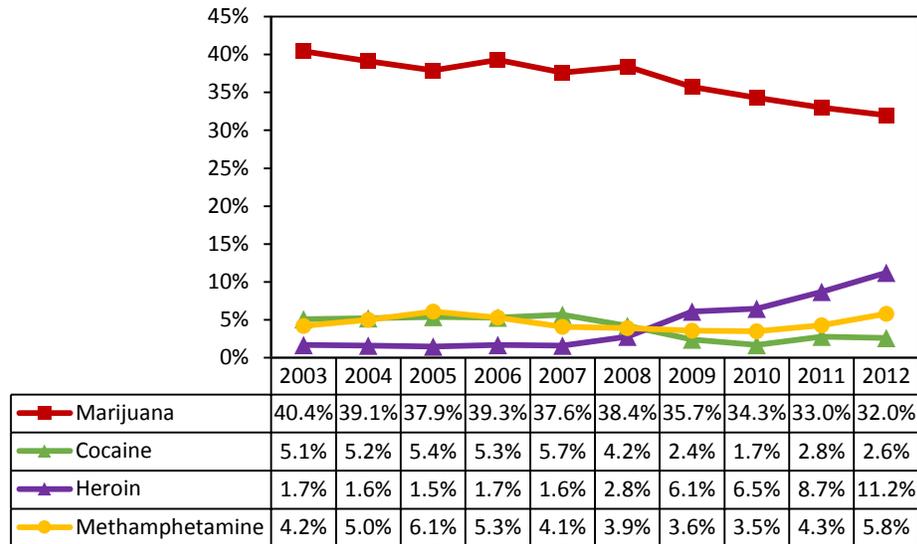
Source: Substance Abuse and Mental Health Data Archive, 2012



In terms of the drug for which 18-24-year olds are seeking treatment, TEDS data indicate that in 2012, 32.0% of 18-24-year olds entered treatment for marijuana use, 11.2% for heroin use, 5.8% for methamphetamine use, and 2.6% for the use of cocaine (see Figure 13). Treatment admissions for marijuana and cocaine within 18-24-year olds have

declined steadily since 2003. The percentage of 18-24-year olds seeking treatment for methamphetamine use has remained relatively stable since 2003 while the percentage of 18-24-year olds entering treatment for the use of heroin has increased steadily from 1.7% in 2003 to 11.2% in 2012 (see Figure 12).

Figure 12. Primary Use of Illicit Drugs by Hoosiers 18-24 at Treatment Admission⁷



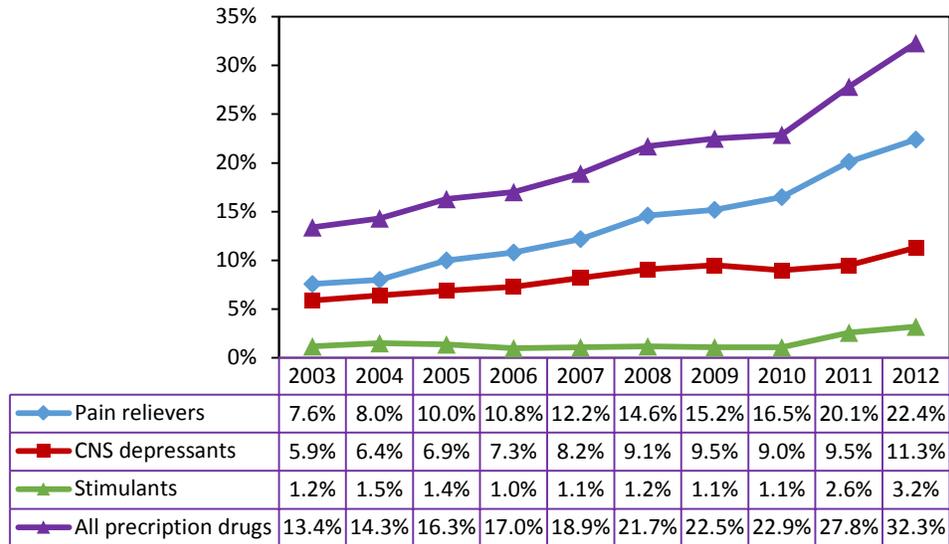
Source: Substance Abuse and Mental Health Data Archive, 2012

As indicated previously, compared to other age groups, emerging adults are more likely to misuse prescription drugs particularly pain relievers, stimulants, and CNS depressants. Unlike other illicit drugs, individuals can obtain prescription drugs legally if they have a physician's prescription. Data from Indiana's TEDS indicate that for 2012, 32.3% of Hoosiers between the ages of 18 to 24 who were seeking substance abuse treatment reported misusing some type of prescription drug. The most commonly used type of prescription drug at admission was prescription pain relievers reported by 22.4% of 18 to 24

year olds seeking treatment. Eleven percent of 18-24 year olds seeking treatment reported using CNS depressants at admission and 3.2% indicated use of prescription stimulants (see Figure 14). Since 2003 there has been a steady increase in the percentage of 18- to 24-year-olds reporting the use of prescription drugs upon admission for treatment from 13.4% in 2003 to 32.3% in 2012. The use of prescription pain relievers has shown the most significant increase within this age group from 7.6% reporting use at admission in 2003 to 22.4% reporting use upon treatment entry in 2012 (see Figure 13).



Figure 13. Reported Use of Prescription Drugs by Hoosiers 18-24 at Treatment Admission⁷

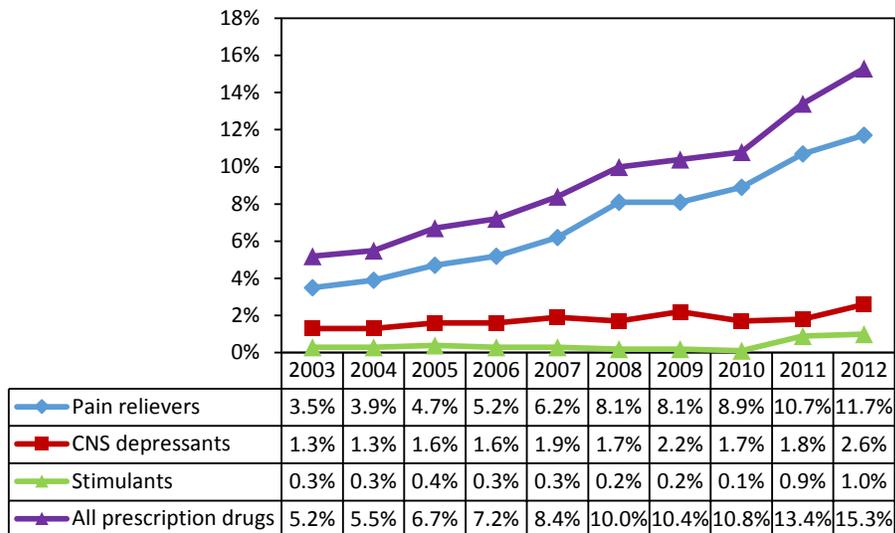


Source: Substance Abuse and Mental Health Data Archive, 2012

Hoosiers between the ages of 18 to 24 entering treatment for the misuse of prescription medications has also been increasing. In 2003, 5.2% of 18 to 24-year-olds entering substance abuse treatment were seeking help for misusing prescription medications. By 2012, the percentage of 18-

to 24-year-olds seeking treatment for misusing prescription medication had risen to 15.3% (see Figure 14). This trend is being driven primarily by 18- to 24-year old Hoosiers entering treatment for dependence on prescription pain relievers with the percentage rising from 7.6% in 2003 to 22.4% in 2012 (see Figure 14).

Figure 14. Primary Use of Prescription Drugs by Hoosiers 18-24 at Treatment Admission⁷



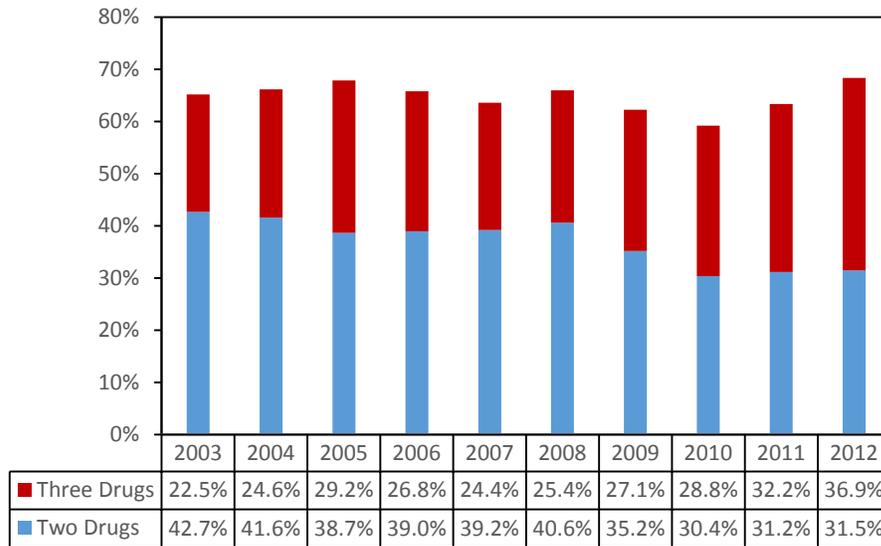
Source: Substance Abuse and Mental Health Data Archive, 2012



Polysubstance abuse refers to substance use during which two or more substances are used in combination. Polysubstance abuse is a particularly serious pattern of drug abuse which is typically established by late adolescence.⁹ Data on polysubstance abuse within emerging Hoosier adults are limited to the TEDS. According to Indiana's 2012 TEDS, 68.4% of 18- to 24-year-olds entering substance abuse treatment were polysubstance abusers with 31.5% reporting using two drugs

at admission and 36.9% reporting the use of three substances at admission to treatment (see Figure 15). The percentage of 18- to 24-year-old entrants into substance abuse treatment reporting polysubstance use has remained stable since 2003; however, the percentage reporting two substances has decreased from 42.7% in 2003 to 31.5% in 2012 while the percentage reporting three substances at admission has increased from 22.5% in 2003 to 36.9% in 2012 (see Figure 15).

Figure 15. Percentage of Hoosiers 18-24 Using Two or Three Substances at Treatment Admission⁷



Source: Substance Abuse and Mental Health Data Archive, 2012

**PART II:
QUALITATIVE
ASSESSMENT**

Introduction

The primary purpose of the qualitative component of the study was to speak with Indiana residents ages 18 to 25 who do not attend, nor have graduated from, college in order to learn more about substance use among this group. The focus groups and interviews sought to gather such information as: patterns of alcohol, drug, and tobacco use; preferred substance, or “drug of choice”; reasons for using or not using alcohol, drugs, or tobacco; and prevalence of alcohol, drug, and tobacco use among social circle (see Informant Interview in Appendix). Additionally, key informant interviews were designed to add relevant information from a prevention provider’s perspective to “fill in the gaps”.

Prior to collecting qualitative data for our assessment, we conducted a literature review to identify potential challenges in recruiting and engaging young adults into research studies and to determine strategies that could help us

mitigate these barriers.

Findings from the literature review suggest that recruitment and retention of human participants into health studies pose a variety of challenges for researchers regardless of the population of interest. Young adulthood in particular is a period filled with a series of transitions in location, employment, educational status, and housing that may impact the ability of researchers to find and retain participants from this age group.¹⁰ Conventional recruitment contact strategies may not yield sufficient response rates among young adults aged 18-25, and young adults are less likely than those in other age groups to respond to recruitment into health behavior research studies in traditional settings.^{11,12}

Nearly half of young U.S. adults between the ages of 18-29 have no college experience.¹³ This population of ‘non-college’ young adults poses unique challenges to recruitment efforts. Young adults not enrolled in college comprise a highly



diverse and mobile group employed in a variety of settings—and therefore more difficult for research teams to identify and reach.¹⁴ Racial and ethnic minority youth in particular may be deterred from participation in research due to factors related to distrust in the medical establishment, concerns about the provision of sensitive information such as sexual behavior and drug use, and racial discordance between the research investigator or institution and the participant.¹⁵

The increasing prevalence of young adults who use mobile phones only may impact their inclusion in telephone-based recruitment efforts. Data from January-June 2014 iteration of the National Health Interview Survey (NHIS) indicate that 57.8% of young adults aged 18-24 years live in households with only mobile phones, a proportion that has steadily grown since the start of this decade.¹⁶ The use of random digit dialing (RDD) in landline-only samples may result in under-coverage of wireless-only young adults and a bias in estimates of health status and behaviors.¹⁷ Additionally, features common in mobile phones (e.g., caller ID and voicemail) facilitate the screening of calls and may hinder the ability of research team to successfully reach participants.¹⁰

Recruitment approaches gaining traction in recent years have involved use of the Internet and social media to engage potential participants. The vast majority of young Americans ages 18 to 29 reported using the Internet, and 89% of online young adults conveyed using at least one social media platform.¹⁸ Research suggests that email-based recruitment may yield higher response rates than traditional contact methods¹⁹ and that follow-up emails can increase study retention among young adults.²⁰ However, the gains in recruitment demonstrated from the use of online platforms such as Craigslist²¹ and Google advertising²² to recruit young adults have been offset by the difficulties of targeting a specific age group using these media and the need for increased eligibility screening. Additionally, the use of Internet-based recruitment strategies may fail to yield a representative proportion of racial and ethnic minorities and socioeconomically disadvantaged young adults²³, since disparities in access may influence when and for how long different subgroups can use the Internet.²⁴

Social network sites such as Facebook have shown more promise in targeted recruitment of young adults for research studies. Several studies have honed in on Facebook as a means to recruit young adults, for health issues ranging

from sexual health^{25,26} to substance abuse²⁷ and smoking cessation^{28,29}. However, most studies reporting success in using Facebook to yield sufficient participation numbers have involved the use of cross-sectional online surveys to collect data; for longitudinal studies, Facebook may be less effective in recruiting and retaining study participants.^{19,30} Additionally, considerations related to sampling bias arise from the use of Facebook, as exposure to targeted advertisements hinges on the user supplying the correct gender and age in their profile³¹ and possibly information about involvement in activities related to the health behavior of interest.²⁸

Methods

For recruitment purposes, we contacted various community-based agencies and organizations that provide services to our target population; advertised on Craigslist under multiple categories (Event Gigs, Volunteers, Groups, and Activity Partners); and posted on Facebook. Agencies and organizations collaborating with us on this project, posted our recruitment fliers in their offices. Interested individuals were encouraged to phone us and/or contact us electronically via e-mail. Those who contacted us were screened for eligibility (i.e., Indiana resident, ages 18 to 25, not currently in college, no prior college degree). Eligible respondents were scheduled to attend a focus group or participate in an individual interview. All participants received a \$25 Walmart gift card as a token of appreciation. Recruitment occurred in Indianapolis, Ft. Wayne, Bloomington, and Evansville.

Two focus groups were held; one in Indianapolis (2 participants) and one in Ft Wayne (5 participants). Several focus groups were scheduled in Bloomington; however, no participants attended on either date (no-show). Fourteen individual interviews were conducted via telephone. The recruitment rate per target region is as follows:

Bloomington	
Responded	15
Screened	7
Participated:	
Focus Group	0
Interviewed	3
Evansville	
Responded	5
Screened	2
Participated:	
Focus Group	0
Interviewed	0



Ft Wayne	
Responded	18
Screened	10
Participated:	
Focus Group	5
Interviewed	3

Indianapolis	
Responded	42
Screened	22
Participated:	
Focus Group	2
Interviewed	8

Results

Target Population: The majority of study participants indicated that their *social group consisted of non-college friends*, with only a few indicating a small number of friends enrolled in college or having a college degree. These friends were primarily from high school or co-workers within their own age range. Our interviewer questions focused on non-college, non-degree relationships and we reminded participants to think of these friends when answering our questions.

Alcohol use was predominant among all study participant social circles, with stress and peer pressure most frequently cited as the reasons for consumption. One respondent stated, “What else to do other than drink and party?” All indicated drinking primarily takes place at a club or at home with friends; however, the amount consumed varied greatly, from three to four drinks to a 24-pack case at one event. There was considerable variability regarding the number of drinks thought to be excessive, with numbers ranging from three to fifteen drinks. Most respondents indicated it is inappropriate to drink before or while at work, though few other occasions or locations were considered taboo. The role of alcohol in social interactions was not viewed as important by the majority of individuals with whom we spoke; yet more than half reported having friends who drink more than they should or do so for the wrong reasons.

Many of the same reasons for drinking alcohol were also applied to drug use; i.e., stress, anxiety, and peer pressure. A few individuals stated drugs are relatively easy to access. For instance, marijuana was considered to be accessible to people under 21 when

alcohol is not available. Respondents primarily felt drug use begins at a young age, in middle or high school, when youth are “curious and bored with everyday life” so they experiment with drugs and it becomes a habit or an escape. All participants felt drugs are predominately used in the privacy of the home. *Marijuana was the most popular drug*, with one individual elaborating on synthetic marijuana because “... can pass drug testing, not actually marijuana but gives you the sensation.” Misuse of prescription medications, such as Vicodin and Percocet, were not considered as prevalent; however, were more common than heroin or meth.

Traditional cigarettes are the preferred type of tobacco product and smoking was quite prevalent among social circles, according to self-reports. Cigarillos and chewing tobacco were both gaining some popularity, but were not yet considered mainstream. Only one individual stated that none of his/her friends use tobacco of any kind.

When asked to compare alcohol and/or drug use patterns among their non-college and college social circles, perceptions were evenly divided. Participants who believed use to be more prevalent among those not enrolled in college cited more opportunities to drink and use drugs, while those in college are more likely to binge-

*“What else to do other than drink and party?”
(Interviewee)*

drink because they have other obligations and cannot enjoy the “party life” all the time. The negative consequences observed among friends using alcohol and drugs included: arrest (driving

under the influence); risky activity (sexual or accidents); addiction; loss of job or relationships; and overdosing. However, the consequences of drug use in college were perceived as riskier by the focus group participants. Drugs are not acceptable at college parties, “it is too risky if they were to get caught...you’ve got your college life on the line right there.” Alcohol, however, does not have these same risks.

Key Informants: Research interviewers also talked with key informants who provide services to our target population. Individuals were selected geographically to coincide with interview participants: two from central Indiana, two from the northern region, and two from southern Indiana.

The 18-25 age group was described as “a defining age for alcohol use” in general, almost a rite of passage. However, youth not enrolled in college were perceived as having more time to “hang out with friends, go to bars, rather than



focusing” on college coursework. Additionally, society is more likely to treat those not in college as adults, even though often not prepared for the decisions or pressures they will encounter.

In general, providers believed drugs are far too accessible and they most frequently encounter prescription drug, meth, and marijuana abuse among clients. While there was an acknowledgement that drug use does exist on college campuses and experimentation frequently begins in middle or high school, many of the providers interviewed felt drug addiction may be why many youth do not enroll or drop out of college.

While the majority of clinicians we interviewed do not provide tobacco cessation services, one individual does focus primarily on second-hand smoke educational programs and shared that there is a relationship between economics and smoking, “more education, less likelihood to smoke”. Big tobacco targets the low income population, consequently those individuals are more likely to smoke and view the habit as acceptable, with no negative outcomes.

Overall, youth and service providers shared the same perceptions and assumptions of alcohol and drug use in the 18-25 non-college population. Marijuana was most frequently mentioned in all interviews, and though it is not considered a problem by the young adults interviewed, providers observed it is a gateway drug leading to other drugs, such as meth. The target population more readily recognize a correlation between substance use and non-college experience; however, practitioners acknowledged this is likely an accurate assessment.

Discussion

This project is a first step in developing an understanding of substance use and abuse among non-college 18-25 year olds in Indiana. While the quantitative results demonstrate patterns of use among Indiana’s emerging adult population, it is not possible to know to what extent these general trends are representative of the non-college population. However, the qualitative findings suggest alcohol and marijuana are the most highly used substances within the general and non-college populations of 18-25 year olds. While patterns of substance use may be similar among these groups, the qualitative data suggest reasons, place, and

timing of use may differ between college and non-college individuals. Both groups may be likely to use due to peer pressure and stress. However, the sources of stress is different in that those in college are more likely to worry about academic issues, while non-college individuals are more likely to have stress related to work obligations. Whereas college students may use at times that are less likely to interfere with studies (e.g., weekends), non-college individuals may time their drinking around work activities. Non-college individuals also may be more likely to use in secure locations like their home. Finally, qualitative data suggest the social networks of non-college individuals do not include large numbers of friends in college. Considering the connection between social networks and substance use, these differences in network composition may be an important factor guiding individual behavior.

Both components of this study have limitations that are important to discuss. Our quantitative analysis was limited in that the secondary data only allowed us to look at patterns of use and treatment among all Hoosiers 18-25 years old. Thus, we were not able to make any specific comparisons between college and non-college groups. While the qualitative data do provide some understanding of possible differences between these groups, generalizability is limited. Additionally, we encountered a number of issues recruiting the non-college population to participate in qualitative data collection activities that likely enhanced our sampling bias. Given the exploratory nature of this project, these limitations are not concerning.

Findings from this project will help inform the creation of a phone survey researchers will utilize to collect more detailed information on 18-25 year olds in Indiana, which will allow us to make comparisons between college and non-college individuals. In addition to asking about college enrollment status and use of specific drugs, questions regarding reasons, place, and timing of use will likely be included. Difficulties with recruiting non-college individuals for participation in interviews will also inform this future work. We expect a phone survey will provide a better approach considering the difficulty we had scheduling focus groups and interviews and the success we had upon changing our approach to a phone interview conducted at the time of initial contact with the individual.



CONCLUSIONS

The information we collected from these interviews clearly indicate the need to further explore patterns, trends, and dynamics of alcohol, tobacco, and other drug use among the young non-college population more systematically. The current study served as a pilot project to help us identify challenges and barriers in recruiting young adults (particularly, non-college adults) to collect health behavior data. These “lessons learned” will be beneficial when setting up new data collection efforts for

the PFS project, which utilizes a random phone survey design to capture underage drinking and/or prescription drug abuse among young adults within 10 funded Indiana communities. From this experience we learned that we are more likely to receive a good response rate if we administer the interview or survey directly while participants are on the phone (as opposed to having to schedule a different time to collect the information).



Target Population Interview

- Think of the people around your age who you hang out with. Are most of them in college or not?
 - Describe who you typically hang out with (probe: people from work, friends you went to high school with, age)
 - Tell me about alcohol and drug use among the people you hang out with.

For the rest of the questions, I am going to ask about alcohol and substance use among people who are 18-25 and who are not in college and who do not have a college degree. Please try to keep this group in mind as you answer the questions.

- Alcohol
 - What do you believe are some of the reasons people 18-25 who are not in college drink?
 - When and where do they usually drink?
 - How much do they drink on average?
 - What do they usually drink?
 - How many drinks do you think this group considers too many?
 - When does this group consider drinking is inappropriate?
 - When you hang out with any of your friends, how much of a role does alcohol play?
 - Do you have friends who you think drink more than they should or for the wrong reasons?
- Drugs
 - What do you believe are some of the reasons for drug use among 18-25 year olds who are not in college?
 - When and why do you think they start using drugs?
 - When and where do they usually use drugs?
 - What drugs do you think are commonly used within this group?
 - What do you think is a favorite drug among this group?
- Tobacco
 - What kind of tobacco product, if any, do people 18-25 year olds not in college use?
 - How many of your friends use tobacco?
- If you have friends in college, do you see differences in their drinking and/or drug use patterns compared to you and your friends who are not in college?
- Describe some of the negative consequences of alcohol and drug use you have witnessed among individuals who are 18-25 and not in college?



Key Informant Interview

- Background
 - What is your job title?
 - What is the organization you work for?
 - Does the organization serve individuals who are 18-25 and who are not enrolled in college?
 - Is this a target group for your organization?
 - Do you serve other groups? If so, who? (Probe specifically for 18-25 year olds in college.)
 - What is the mission of this organization?
 - What sort of work does it do?
 - How long have you worked for this organization?
 - How long have you worked in your current position?
 - How long have you worked in this field?

For the rest of the interview, I am going to ask you questions about alcohol and substance use among people who are 18-25, not enrolled in college, and do not have a college degree. Please try to keep this group in mind as you answer the questions.

- Alcohol
 - Based on your experience how common do you think alcohol use is among the 18-25 year olds who are not in college?
 - Do you think problem drinking is a significant issue among 18-25 year olds who are not in college?
 - Why do you think this is?
 - Describe some of the reasons you think people in this group drink?
 - How does their alcohol use affect your ability to provide services to this group?
 - How does their alcohol use compare to other groups you serve? (Probe specifically for 18-25 year olds in college.)
- Drugs
 - Based on your experience how common do you think drug use is among the 18-25 year olds who are not in college?
 - Do you think drug use is a significant issue among 18-25 year olds who are not in college?
 - Why do you think this is?
 - Describe some of the reasons you think people in this group use drugs?
 - How does their drug use affect your ability to provide services to this group?
 - Based on your experience, what are the most popular drugs among this group?



- Why do you think this is?
- How does their drug use compare to other groups you serve? (Probe specifically for 18-25 year olds in college)
- Tobacco
 - How prevalent do you think tobacco use is among the 18-25 year olds not in college?
 - Why do you think this is?
 - What kind of tobacco products, if any, do people 18-25 year olds not in college use?
 - Does tobacco use among this group differ from other groups? (Probe specifically for 18-25 year olds in college.)
- Describe some of the negative consequences of alcohol and drug use you have witnessed among individuals who are 18-25 and not in college
 - Based on your experience, do these consequences differ from other groups you serve? (Probe specifically for 18-25 year olds in college.)
- Do 18-25 year olds who are not in college require specific services or supports related to alcohol and other drug abuse?
 - Such as?
 - Does the need for these supports differ from those of other groups? (Probe specifically for 18-25 year olds in college.)



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