

An Epidemiological Profile of Prescription Drug and Opioid Use in Illinois



Developed by:

Illinois Statewide Epidemiological Outcomes Workgroup

100% Funded by:

Substance Abuse and Mental Health Services Administration
through a grant administered by the Illinois Department of
Human Services, Division of Alcoholism and Substance Abuse's
Strategic Prevention Framework-Partnerships for Success

Published:

November 2017

Table of Contents

Introduction/Executive Summary	4
Major Findings	4
Conclusions	5
Chapter 1: Consumption and Prevalence of Prescription Drugs in Illinois	6
Consumption Rates by Type of Drug/Purpose.....	7
Heroin Use.....	10
Frequency of Consumption.....	11
Demographics of Prescription Drug Users.....	12
Prescription Drug Use by Sub-State Area or Strata	16
Poly-Drug Use.....	17
Illinois Youth Survey and Monitoring the Future Comparison	19
NSDUH Data by State - Average Use of Nonmedical Pain Relievers in the Past Year.....	20
Youth Risk Behavior Survey Data (YRBS).....	23
Illinois CORE Survey Data	27
Chapter 2: Contributing Factors for Prescription Drug Use in Illinois.....	29
Disapproval of Using Prescription Drugs “Not Prescribed to You”	30
Perceived Peer Use	32
Perceived Risk of Harm	33
Ease of Access Perception and Access Sources	34
Illinois Youth Survey	34
Illinois CORE Survey.....	38
Depression and Suicidality Among Prescription Drug Users	39
Chapter 3: Consequences of Prescription Drug Abuse	42
Drug Treatment Admissions	43
Reported EMS Events with One or More Naloxone Administrations (IDPH).....	46
Emergency Department Admissions for Prescription-Drug Related Poisonings (IDPH).....	47
Opioid Overdose Deaths	48
Map of Opioid Overdose Deaths by County	51
Appendix A: Description of Data Sources	52
Illinois Youth Survey (IYS).....	52
Monitoring the Future	52
National Survey on Drug Use and Health (NSDUH)	52
Youth Risk Behavior Survey (YRBS)	52
CORE Survey.....	52
Treatment Episode Data Set (TEDS).....	53
Emergency Department Data	53

Drug Overdose Mortality Data.....	53
ICD-10 Code Descriptions	54
Appendix B: Question Wording and Response Options	56
Consumption Survey Questions.....	56
Illinois Youth Survey	56
Youth Risk Behavior Surveillance System (YRBSS)	56
National Survey on Drug Use and Health (NSDUH)	57
CORE Survey	57
Contributing Factors	58
Illinois Youth Survey	58
Youth Risk Behavior Surveillance System (YRBSS)	59
CORE Survey	59
References	61

Introduction/Executive Summary

This epidemiological profile of prescription drug use in Illinois was developed as part of a collaborative effort with the Illinois Statewide Epidemiological Outcomes Workgroup (SEOW). The purpose of this epidemiological profile is to explore and understand the emerging issue of prescription drug misuse in Illinois. The profile provides data from recent years regarding the consumption and prevalence, contributing factors, and consequences related to the misuse of prescription drugs. As part of the Strategic Prevention Framework-Partnerships For Success project, the SEOW was tasked with investigating the current state of prescription drug misuse in the state of Illinois, and the data available to illustrate the issue.

The data sources included in this epidemiological profile are described in depth in the Appendix A, but include primarily survey data from a variety of state and national instruments, as well as other archival sources for mortality and treatment data. Survey question wording varies from instrument to instrument, so the exact question wording and response options are outlined in Appendix B. Each section throughout the profile begins with a brief introduction and related research, followed by a synopsis of the data presented in the charts, tables, and maps. When available, both trend and comparison data were presented.

Prescription drug misuse and opioid abuse have recently become the forefront of many initiatives in the state of Illinois, due in large part to the recent increases in rates of consequences, such as overdose deaths. These issues are often complex and ever-changing. This epidemiological profile cast a wide net in terms of the inclusion of data. The hope was to provide a wide spectrum of information related to the misuse of prescribed drugs and opioids. As a result, a broad range of issues were included, such as related drug use and consequences. Opioid misuse included synthetic, natural, prescribed, or illegally produced whenever available, though these varying types of opioids are not often specified or easily determined via test results. Heroin use was also considered, as research linking prescription drug misuse and subsequent heroin use has been established (Jones, 2013).

Due to the nature of prescription drug and opioid abuse, there are many areas within the data provided that could be further explored. Several agencies around the state of Illinois have recently begun to do this in separate reports (Chicago Department of Public Health, 2017; Illinois Department of Human Services, 2017; Illinois Department of Public Health, 2017). These reports provide a more in-depth analysis of treatment data and locations, Naloxone administrations, and data for the city of Chicago specifically that were beyond the scope of this epidemiological profile.

Major Findings

As expected, the consumption and prevalence data revealed that use of prescription drugs increases with age. Also, those youth who report using prescription drugs are more likely to be using other drugs (poly-drug use) and use more frequently as they age. Overall, the trend data showed a decrease for all grades (8th, 10th, and 12th) regarding prescription painkiller use to get high, but “other” prescription drug use (Ritalin, Adderall, Xanax, etc.) was increasing for all grades. Heroin use was low, comprising only 1-2% of youth. For college students, it appears that stimulants were the most commonly used type of prescription drug, which seemed to align with the “other” prescription drugs in 8th-12th grade youth.

The demographics of prescription drugs users indicated that users are typically Caucasian or Latino, male, have a lower socioeconomic status, and range in age between 18 and 25 years old. Looking across the youth survey data, it also appears that prescription drug misuse occurs more frequently in rural areas.

When compared to national data, it appears that Illinois is lower for prescription drug use across the board. The only exception to this was the Youth Risk Behavior Survey (YRBS) that showed heroin was higher for lifetime use in 9th, 11th, and 12th grades in Illinois, but again the rates were low overall (2.8 to 4.6%).

Contributing factors data showed that the majority of youth still disapprove, and believe their parents and peers disapprove, of misusing prescription drugs. Related, roughly 65% of all youth perceived “great risk” in misusing prescription drugs. The perception of peer use was much higher for college students than actual use, with most students believing 50-65% were using some type of prescription drug, when actually only about 2-6% reported using.

Access to prescription drugs was also examined. Older youth tended to perceive easier access to prescription drugs. The source of prescription drugs for 8th-12th grade youth varied by age. Eighth grade youth reported higher access from parents, while 12th grade students reported higher access from someone other than their parent or purchasing them. The vast majority of college students reported getting access to drugs from legitimate prescriptions, with the exception of stimulants (also the most commonly used type) which they reported getting from friends at school.

Depression and suicidality was higher for prescription drug users for every grade in every scenario on both the Illinois Youth Survey and YRBS, with the exception of the most serious indicator, suicide attempts that resulted in being treated by a doctor or nurse in grades 10th, 11th, and 12th. This suggests a strong relationship between mental health issues and prescription drug misuse.

When looking at the consequences related to prescription drug misuse, drug treatment admission data, emergency room visits, Naloxone administrations, and overdose mortality were considered. Drug treatment admission data for age at admission supported the findings that prescription drug misuse is a young adult problem, with the highest treatment admissions being for the 26-30 age group (just past the 18-25 age group for highest users reported by NSDUH). Heroin showed similar results, with an additional spike in the 41-45 age group. Heroin and marijuana were the most common primary substance of abuse for drug treatment admissions.

Reported Emergency Medical Services (EMS) administration of Naloxone and emergency room visit data are presented as maps by county, and support the IYS strata data that showed prescription drug misuse has more consequences in rural areas. According to Census data, of the 14 counties that had the highest incidences of Naloxone administrations by EMS personnel, all of the counties had small populations ranging from 5,788 to 51,441 with an average population of 23,237. Comparatively, for the 13 counties that had the highest rates of emergency room visits for prescription drug-related poisonings, populations ranged from 5,265 to 52,521 with an average population of 23,149 people. Most of these counties were in the southern half of the state for both Naloxone administrations and emergency department visits. By contrast, the average population of a county in the state of Illinois is 126,078.

Opioid overdose deaths have become a particular point of concern in recent years (Rudd, Aleshire, Zibbell, and Gladden, 2016). The data for Illinois show that opioid deaths comprise a majority of all drug overdose deaths, accounting for 71% of overdose deaths on average for the past 4 years. The rate of prescription opioid overdose deaths per 100,000 has increased every year for the past 3 years. In 2015, the number of prescription opioid deaths in Illinois was in the second highest quartile when compared with other states. Similar to consumption and hospital data, the highest percentage of deaths occurred in the 25-34 age range. Perhaps one of the most alarming findings was overdose deaths by drug type. Between 2010 and 2015 the number of heroin overdose deaths increased from 150 to 844. The largest jump occurred between 2012 and 2013, when the number of deaths tripled. From 2014 to 2015, there was also a sharp increase in overdose deaths from synthetic opioids, which have been increasing in popularity (Lucyk and Nelson, 2017). Overdose deaths by county occurred in various locations around the state (northern, southern, and central). Of the 10 counties with the highest rates of overdose deaths from opioids, two were urban and 8 were rural. The rural counties had an average population of 21,334. Again the problem appears more often in rural counties.

Conclusions

While it appears that overall the problem of prescription drug misuse in Illinois is lower than other states, the problem is increasing. The data revealed that the problem mostly occurs with young adults and the consequences are increasing at a staggering rate. It will be important to monitor prescription drug misuse going forward, and design effective strategies to prevent access to these dangerous drugs.

Chapter 1: Consumption and Prevalence of Prescription Drugs in Illinois

The first chapter of this profile outlines data related to the consumption and prevalence of use. This chapter includes data from surveys of youth in middle school through college to explore past 30 day, past year, and lifetime use of prescription drugs. Data related to the demographics of users, location of users (by sub-state areas and nationally), and poly-drug use are also presented.

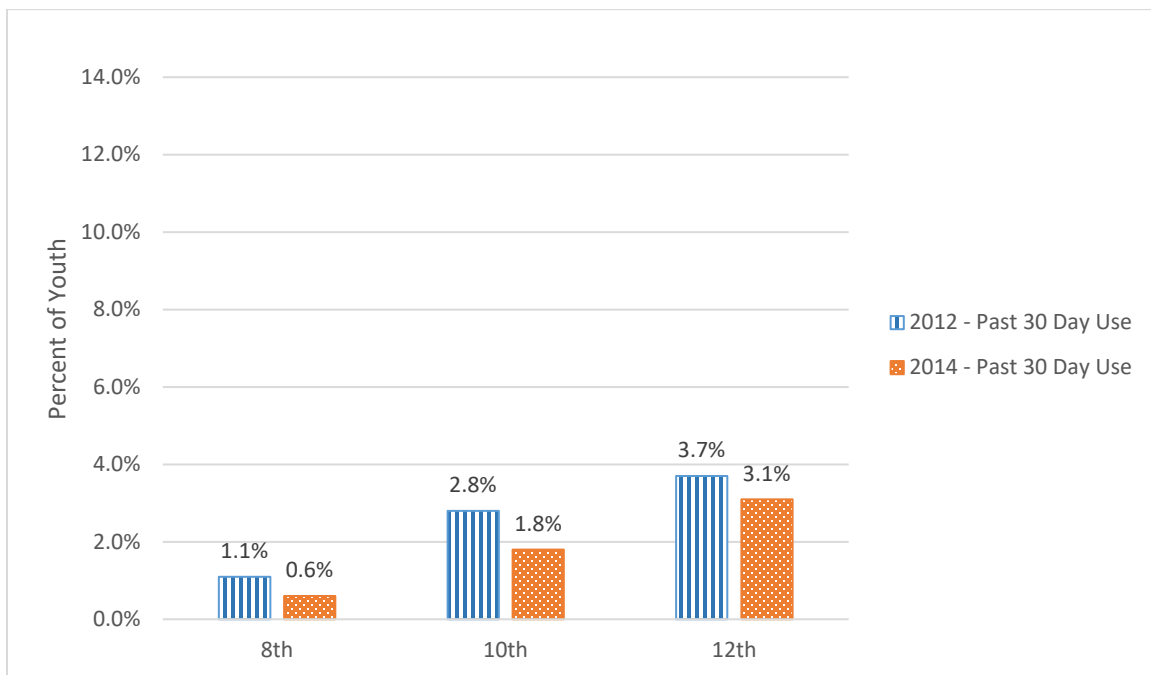
Consumption Rates by Type of Drug/Purpose

These data presented below show the prescription drug consumption rates for youth in 8th, 10th, and 12th grades in Illinois using the Illinois Youth Survey (IYS) state random sample. Data presented below is from the 2012, 2014, and 2016 survey administrations. For a description of the IYS, see Appendix A.

Questions on the IYS regarding the consumption of prescription drugs have changed throughout the 3 administration time points. The first set of questions below asked youth about use “to get high” and included two types: prescription painkillers (like OxyContin, Vicodin, Lortab, or other), and other prescription drugs (like Ritalin, Adderall, or Xanax). Past 30 day use “to get high” was included on the survey in 2012 and 2014, but was not included in 2016. Past 30 day use had “yes/no” for response options. Past year use was on the survey all of the 3 previous administrations, and the frequency of use was asked (Never, 1-2 times, 3-5 times, 6 or more times). Alternatively, the use of prescription drugs “not prescribed to you” was added to the survey in 2014 for past 30 day use as well as past year use. The use of prescription drugs “not prescribed to you” used “yes/no” as response options. The exact question wording, along with response options, are included in Appendix B. The data presented below shows the trends from 2012 to 2016 and for both 30 day use and past year use, when available.

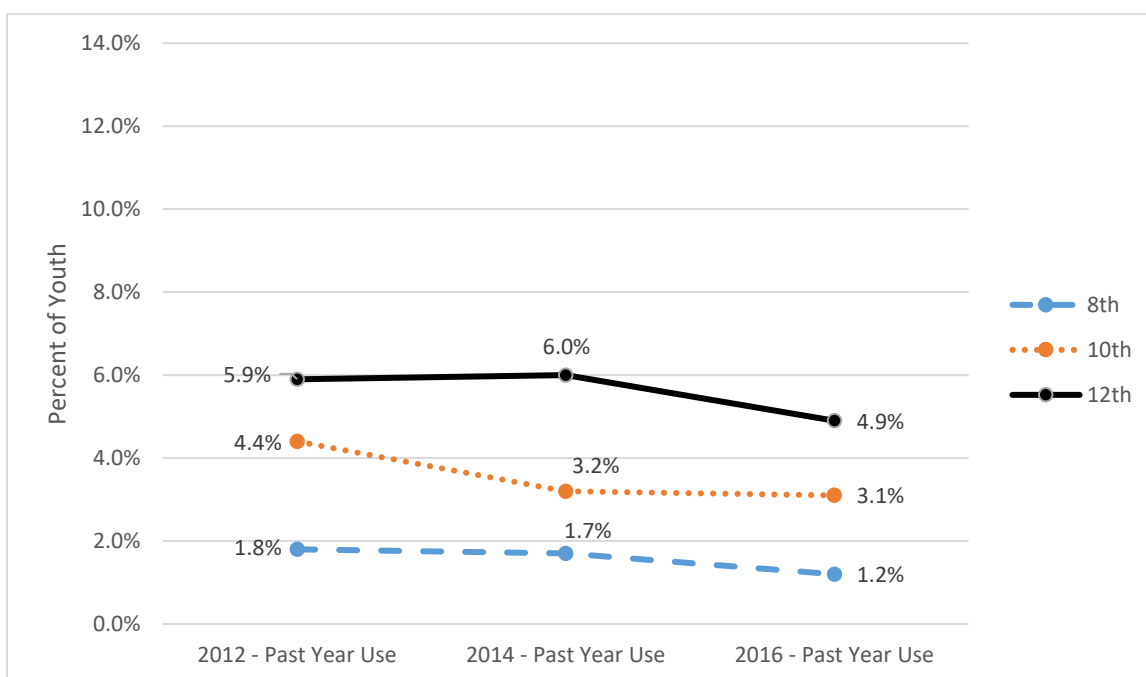
As you will see below, the question wording “not prescribed to you” often yields higher rates of use than the “to get high” wording. Based on trends seen with the “to get high” questions, it appears that prescription painkiller use is decreasing for both past 30 day use as well as past year use, but other prescription drugs (Ritalin, Adderall, Xanax, etc.) appear to be increasing (with the exception of 8th grade 30 day use). Alternatively, the use of prescription drugs “not prescribed to you” are decreasing, with the exception of 8th grade past 30 day use.

Figure 1: Past 30 Day Use of Prescription Painkillers “To Get High”



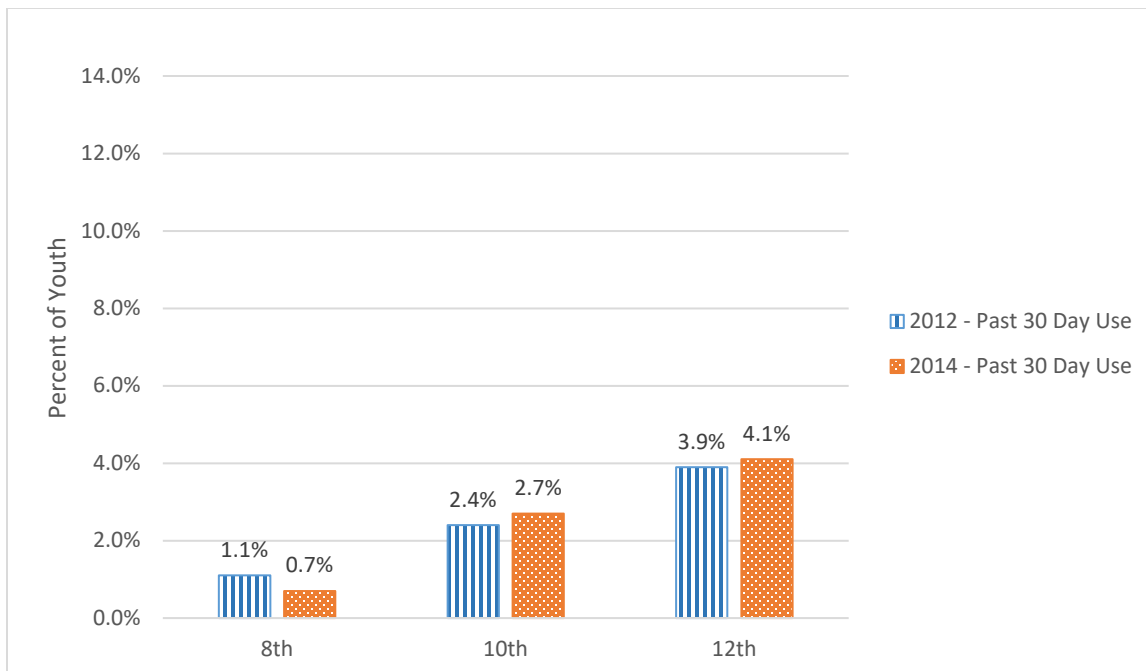
*Data is from the statewide random sample of the 2012 and 2014 Illinois Youth Survey

Figure 2: Past Year Use of Prescription Painkillers “To Get High”



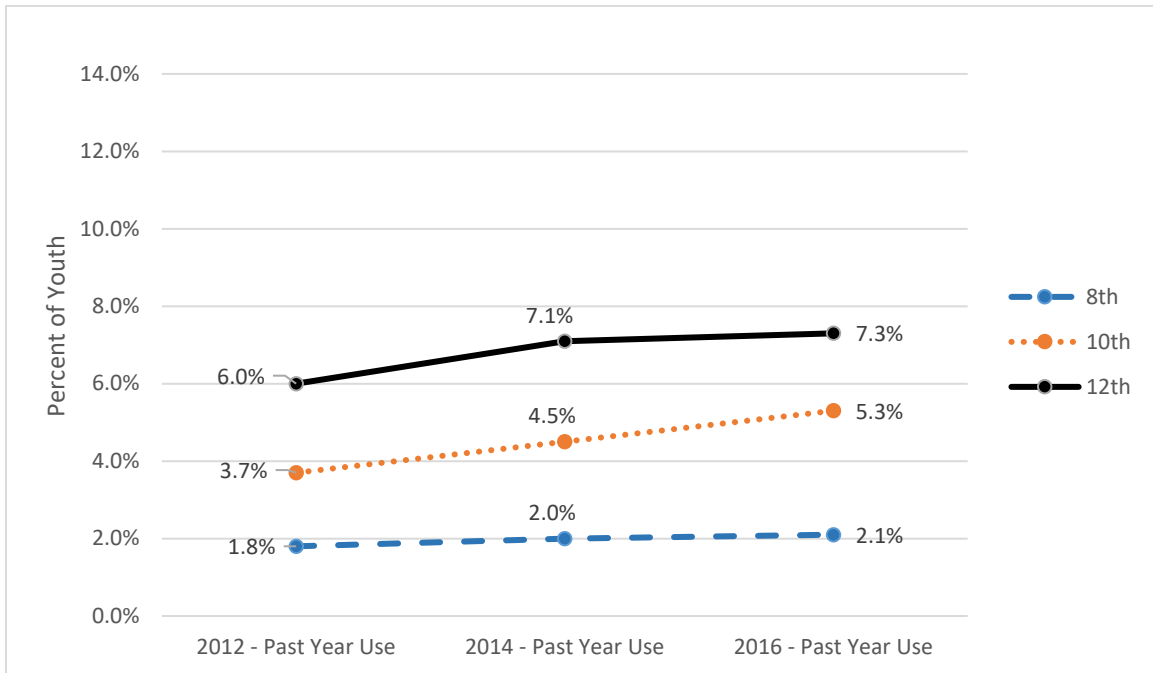
*Data is from the statewide random sample of the 2012, 2014, and 2016 Illinois Youth Survey

Figure 3: Past 30 Day Use of Other Prescription Drugs “To Get High”



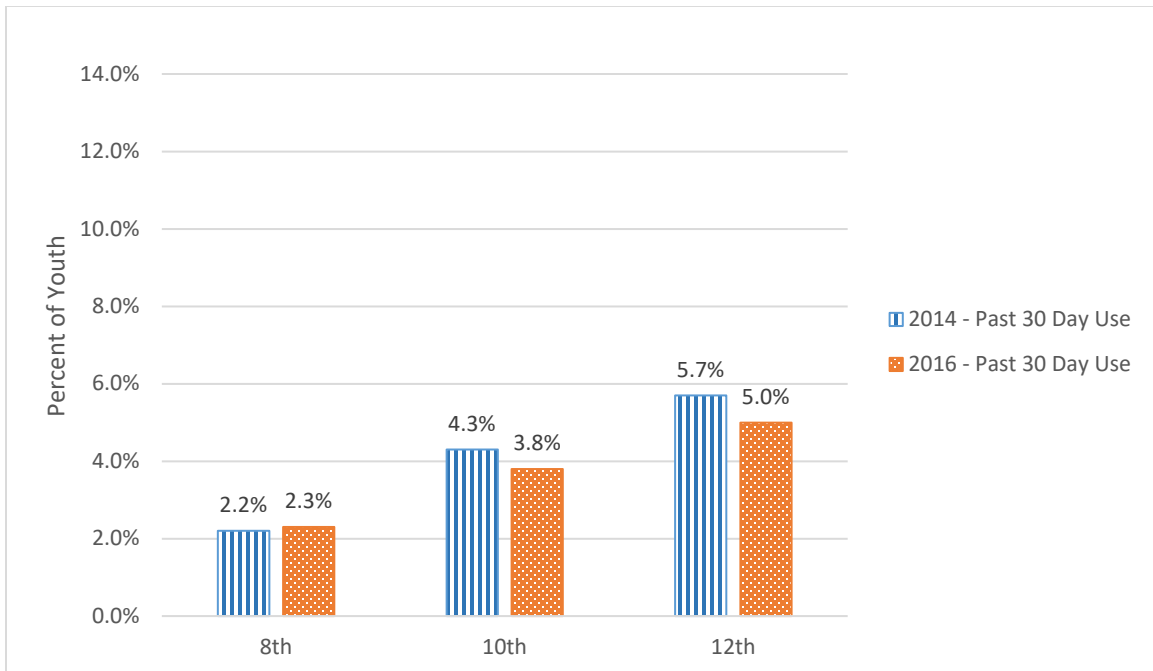
*Data is from the statewide random sample of the 2012 and 2014 Illinois Youth Survey

Figure 4: Past Year Use of Other Prescription Drugs “To Get High”



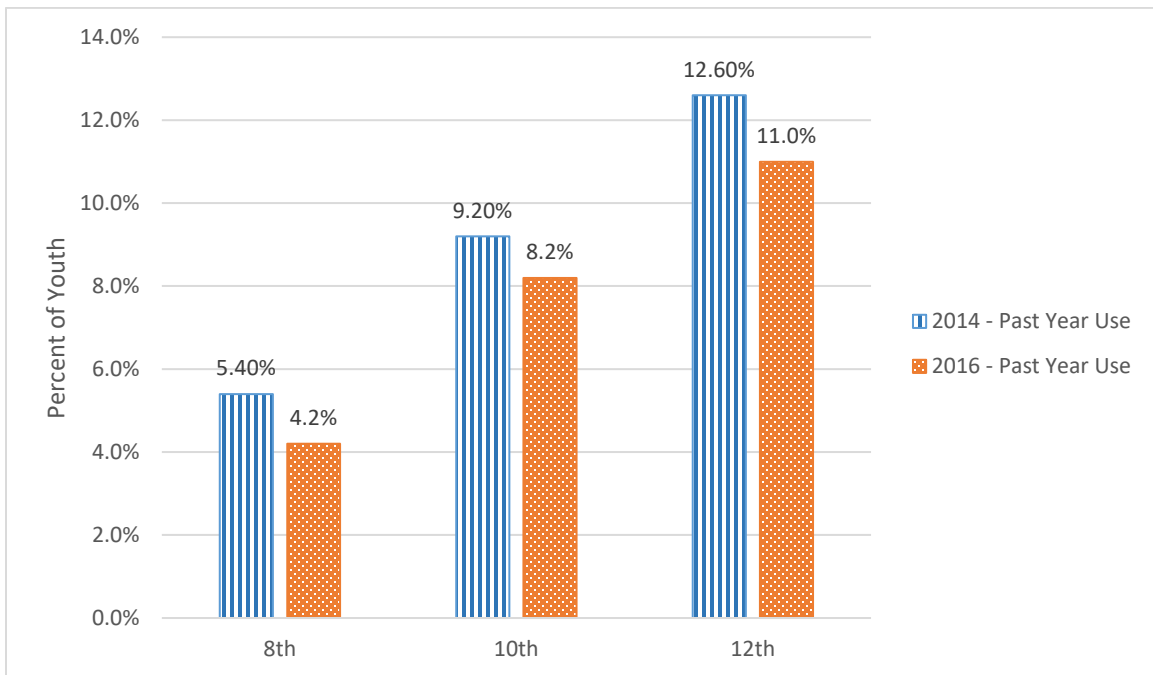
*Data is from the statewide random sample of the 2012, 2014, and 2016 Illinois Youth Survey

Figure 5: Past 30 Day Use of Prescription Drugs “Not Prescribed to You”



*Data is from the statewide random sample of the 2014 and 2016 Illinois Youth Survey

Figure 6: Past Year Use of Prescription Drugs “Not Prescribed to You”

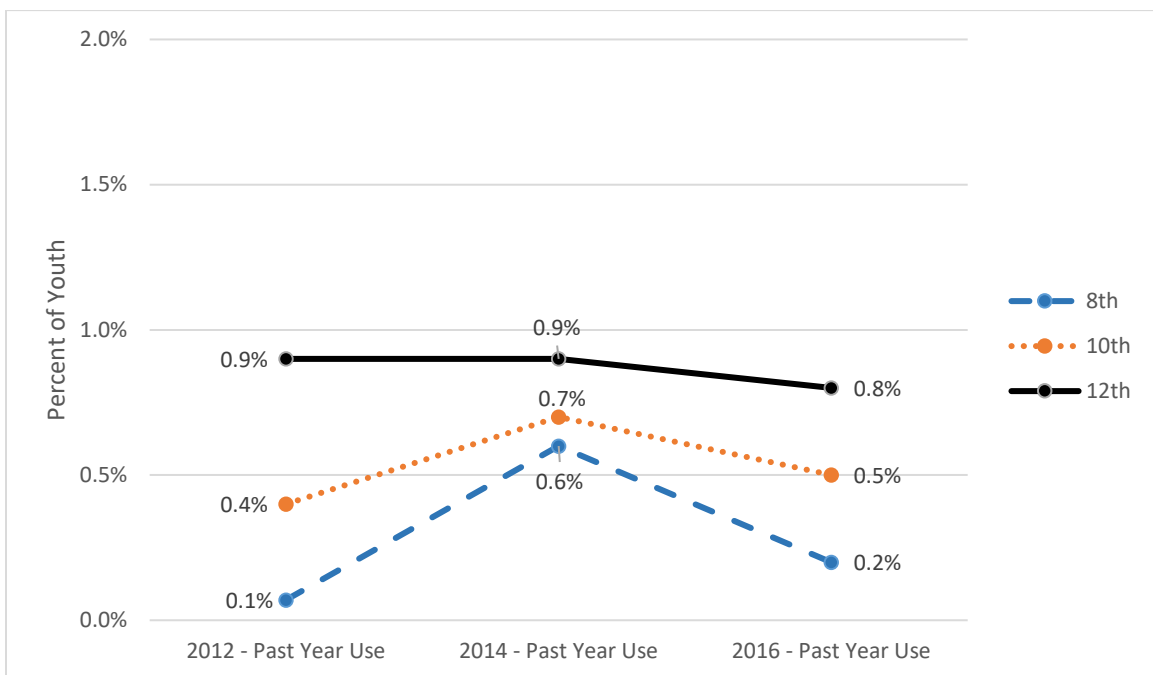


*Data is from the statewide random sample of the 2014 and 2016 Illinois Youth Survey

Heroin Use

Some research suggests that there may be a link between early nonmedical use of opioid pain relievers with later heroin use (Jones, 2013). As shown in the data below across 3 IYS administrations, it appears heroin use increased slightly in 2014 for 8th and 10th grades, but remained steady for 12th grade. Overall, heroin use appears to be small, making up less than 1% of youth.

Figure 7: Heroin Use in the Past Year

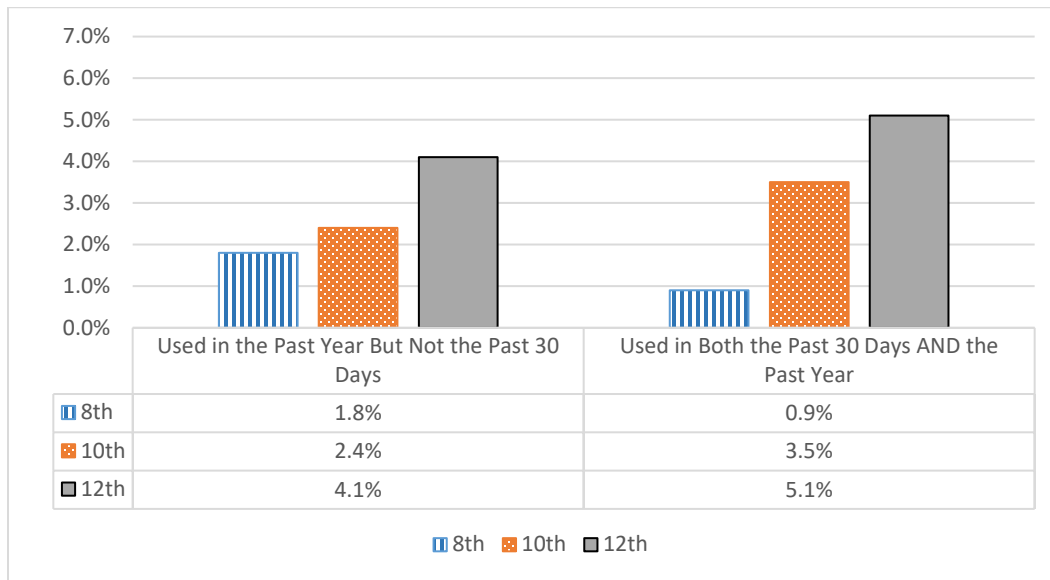


*Data is from the statewide random sample of the 2012, 2014, and 2016 Illinois Youth Survey

Frequency of Consumption

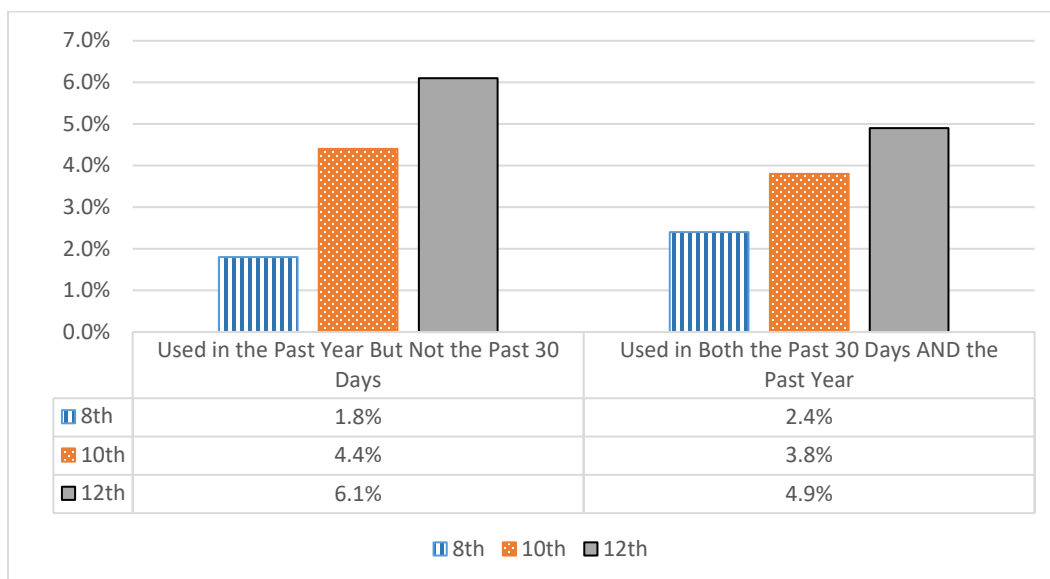
Frequent consumption, poly-drug use, and early onset of substance use in adolescents have been linked to a multitude of developmental problems, such as mental health issues, educational underachievement, health problems, and social difficulties (Lubman, Hides, Yucel, and Toumbourou, 2007). Examining those who report using frequently may be more indicative of those who are problem users, as opposed to recreational or noncompliance users. Presented below are two charts that outline IYS data from those who reported using only in the past year compared with those who reported using in the past year **and** the past 30 days. Use of prescription drugs “to get high” (painkillers or other prescription drugs) from 2014 is shown in the first chart (30 day use was removed in 2016), and drugs “not prescribed to you” from 2016 is shown in the second chart. While not significant, it appears that the frequency of consumption “to get high” appears to increase with age, while using drugs “not prescribed to you” is most frequent with 8th grade youth.

Figure 8: Used Any Prescription Drug “To Get High” only in the Past Year vs. the Past 30 Days and Past Year



**Data is from the statewide random sample of the 2014 Illinois Youth Survey

Figure 9: Used Drugs “Not Prescribed to You” only in the Past Year vs. the Past 30 Days and Past Year

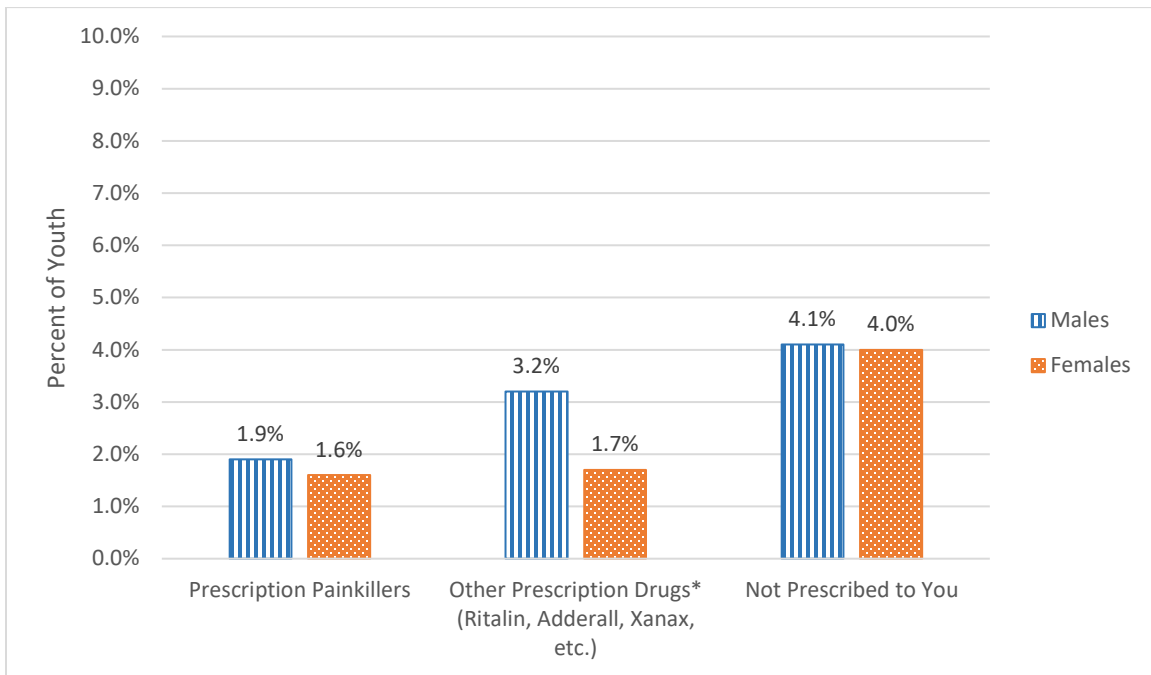


**Data is from the statewide random sample of the 2016 Illinois Youth Survey

Demographics of Prescription Drug Users

Understanding the characteristics of youth who report misusing prescription drugs is key information needed to target prevention efforts. Presented below are the gender, race, and socioeconomic status of those youth who responded “yes” to prescription drug use questions on the 2014 IYS. Significance testing revealed that males were more likely to use prescription drugs “to get high” in both the past 30 days and the past year, African-American youth were significantly less likely to report using “other prescription drugs to get high” than White/Caucasian or Latino youth, and those eligible for free or reduced priced lunch were more likely to report using drugs “not prescribed to you.”

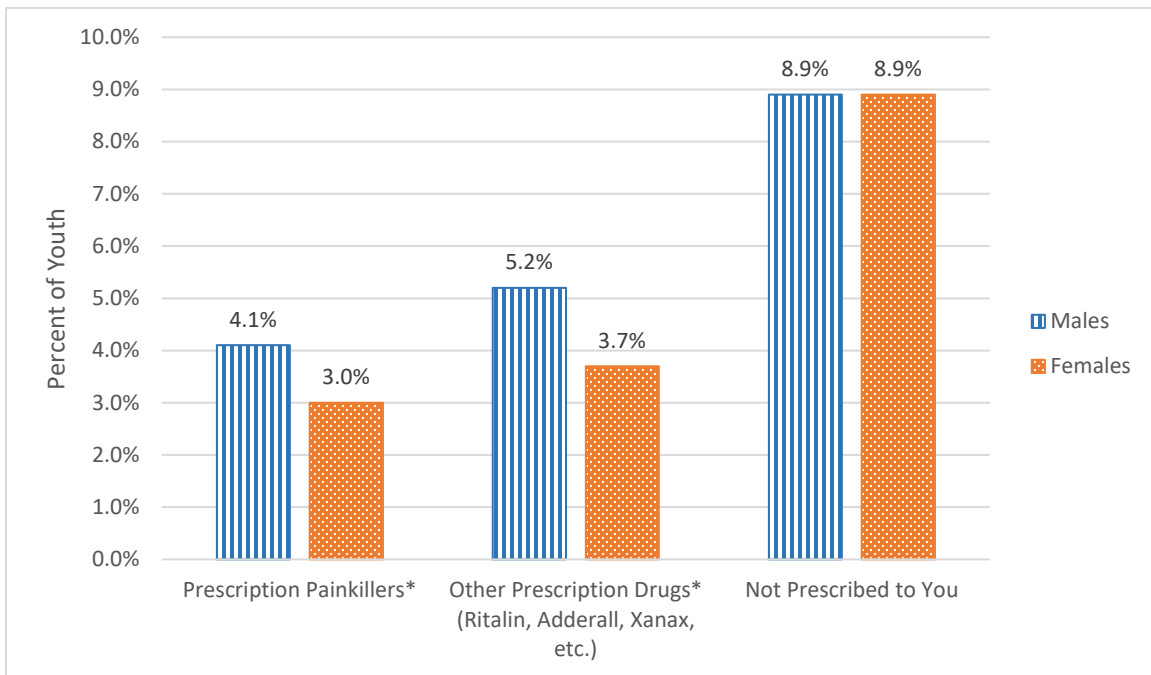
Figure 10: Prescription Drug Use in the Past 30 Days by Gender



*Statistical significance of $p < 0.05$ (Males were higher than females)

**Data is from the statewide random sample of the 2014 Illinois Youth Survey

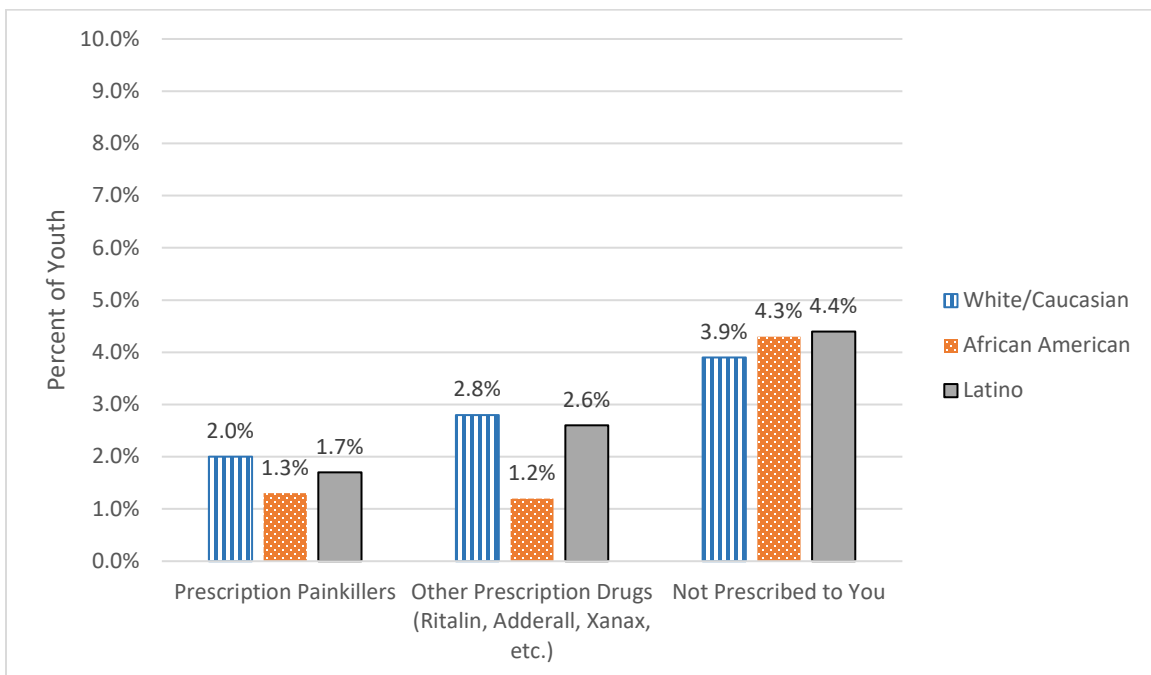
Figure 11: Prescription Drug Use in the Past Year by Gender



*Statistical significance of $p < 0.05$ (Males were higher than females)

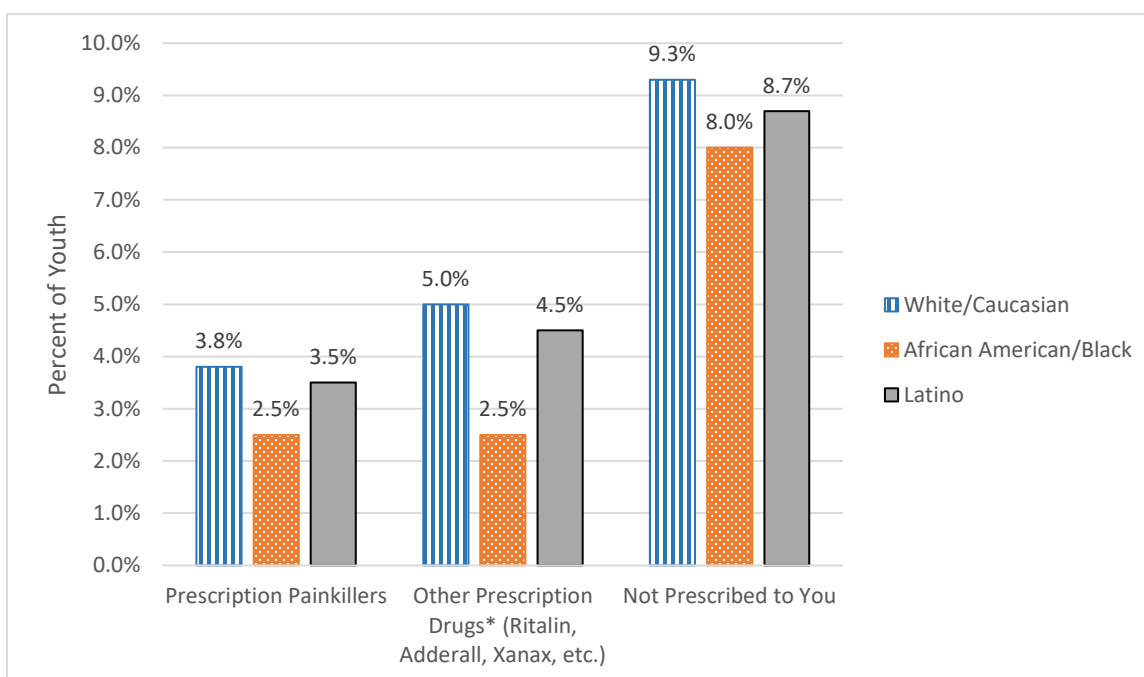
**Data is from the statewide random sample of the 2014 Illinois Youth Survey

Figure 12: Prescription Drug Use in the Past 30 Days by Race/Ethnicity



*Data is from the statewide random sample of the 2014 Illinois Youth Survey

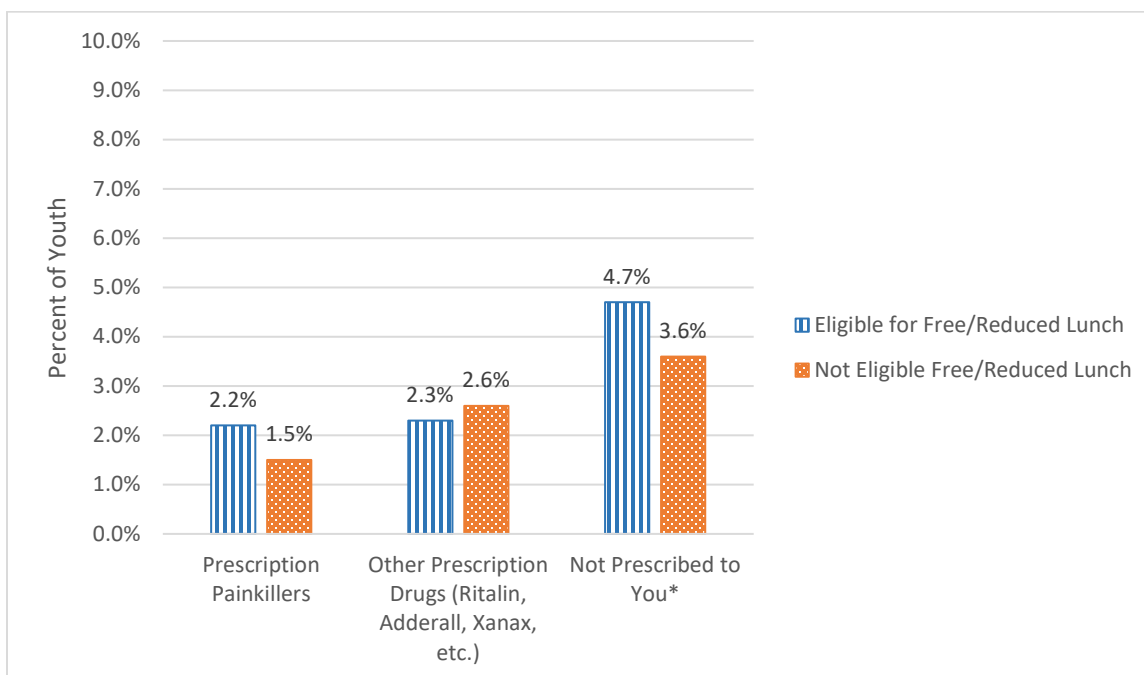
Figure 13: Prescription Drug Use in the Past Year by Race/Ethnicity



*Statistical significance of $p < 0.05$ (African American youth were lower than White/Caucasian and Latino)

**Data is from the statewide random sample of the 2014 Illinois Youth Survey

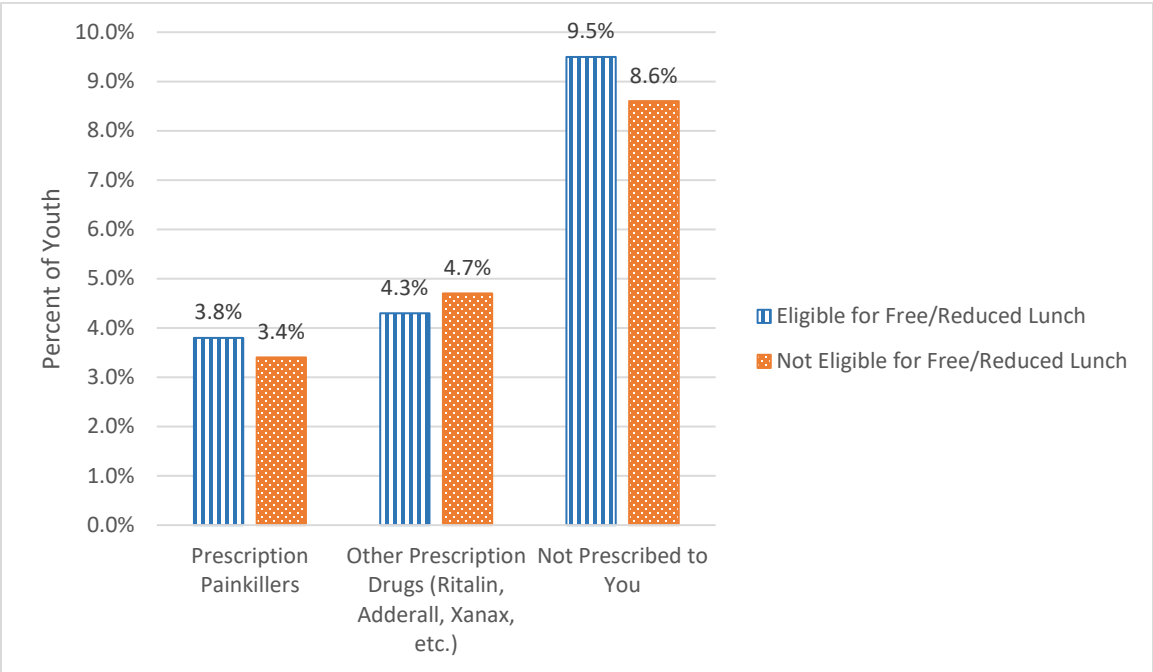
Figure 14: Prescription Drug Use in the Past 30 Days by Socioeconomic Status (Free and Reduced Priced Lunch)



*Statistical significance of $p < 0.05$ (Those eligible for free/reduced lunch were more likely to use)

**Data is from the statewide random sample of the 2014 Illinois Youth Survey

Figure 15: Prescription Drug Use in the Past Year by Socioeconomic Status (Free and Reduced Priced Lunch)

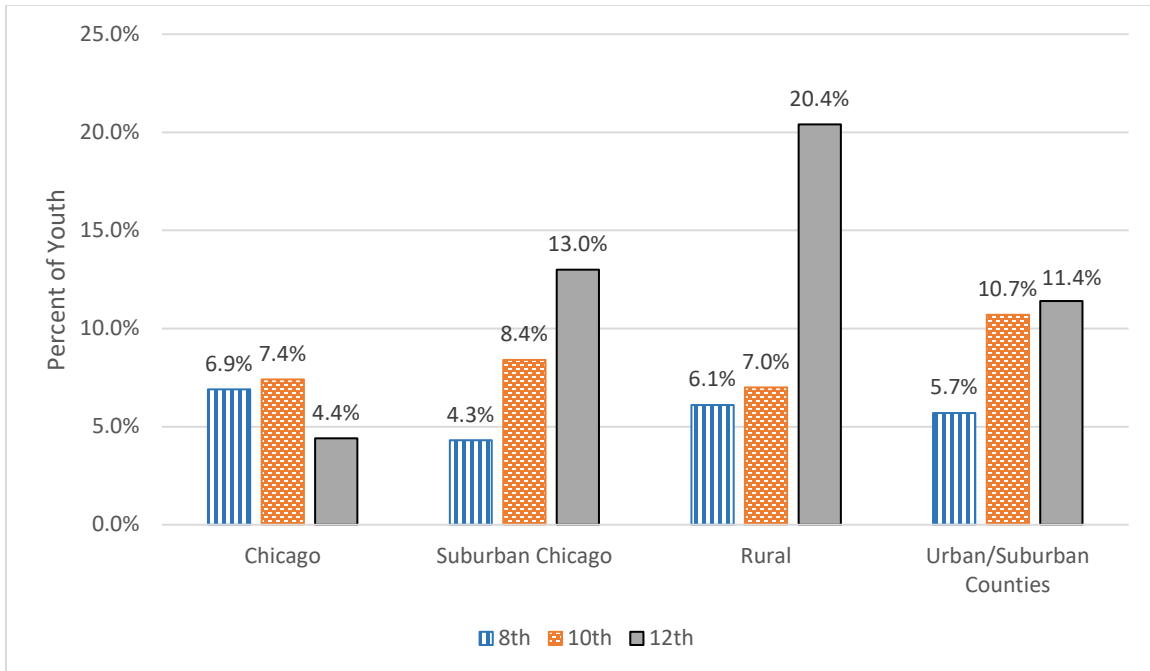


*Data is from the statewide random sample of the 2014 Illinois Youth Survey

Prescription Drug Use by Sub-State Area or Strata

The IYS data is also analyzed and reported by four sub-state areas: Chicago, suburban Chicago, other urban/suburban, and rural counties. Understanding the percent of youth who report misusing prescription drugs by strata, or the type of area in which they live, is key information needed to target prevention efforts. Presented below are the percent of youth who responded “yes” to prescription drug use questions on the 2014 IYS (“not prescribed to you”). Chicago, the most urban location, had the lowest percent of 12th grade users, while rural counties had the highest percent of users.

Figure 16: Percent of Prescription Drug Users by Strata

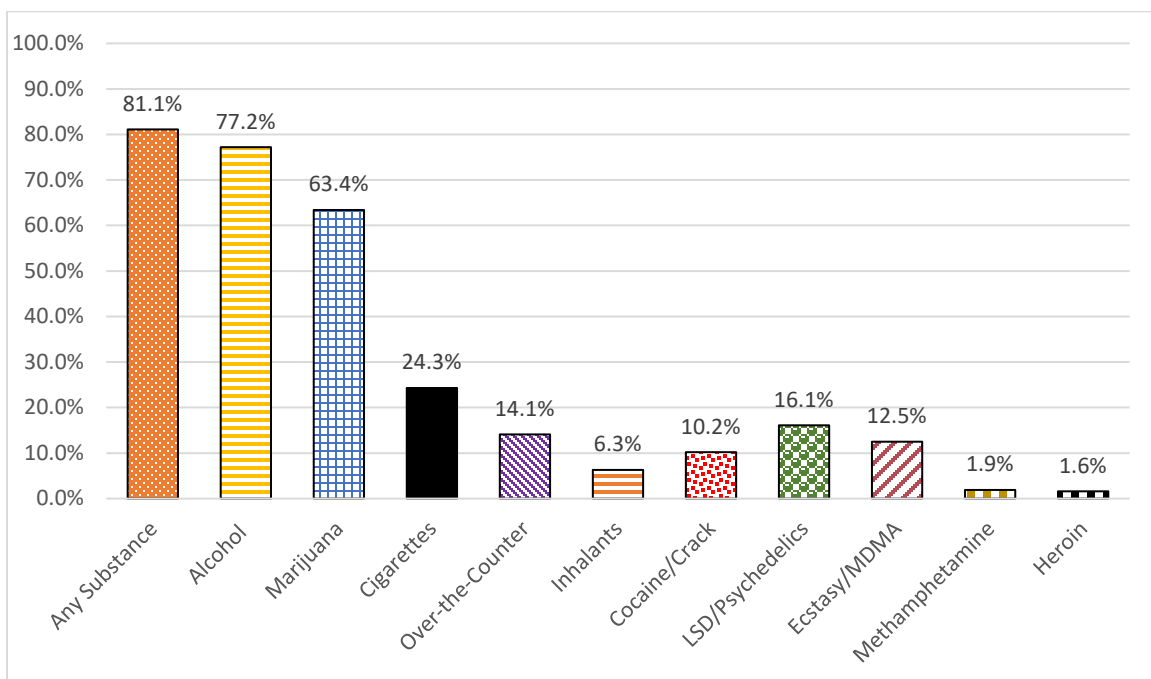


*Data is from the statewide random sample of the 2014 Illinois Youth Survey

Poly-Drug Use

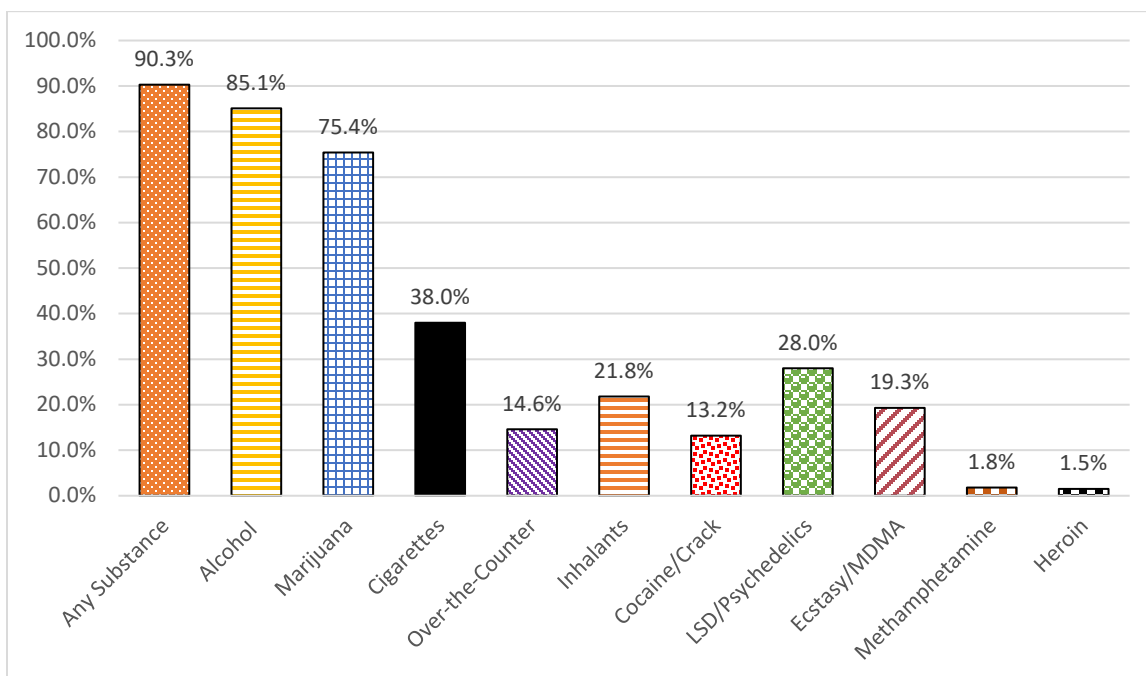
It has long been known that youth who are using one drug are more likely to be using other drugs as well (Single, Kandel, and Faust, 1974). Regarding prescription drug misuse among teenagers, poly-drug use is one of the strongest predictors of nonmedical use of prescription drugs (Sung, Richter, Vaughan, Johnson, and Thom, 2004). Below, data from the 2016 IYS outlines the other types of drugs that prescription drug users (those who reported using prescription drugs “not prescribed to you”) were also using over the past year. Alcohol and marijuana were the mostly commonly used other drugs. “Any Substance” is also included to illustrate the percentage of youth using prescription drugs that were also using any form of tobacco, alcohol, marijuana, or inhalants. The majority of youth in 10th and 12th grades using prescription drugs also reported using another substance, which places them at high risk for a number of problem behaviors.

Figure 17: 10th Grade Poly-Drug Use
Among those who used prescription drugs in the past year, they also reported using...



*Data is from the statewide random sample of the 2016 Illinois Youth Survey

Figure 18: 12th Grade Poly-Drug Use
Among those who used prescription drugs in the past year, they also reported using...

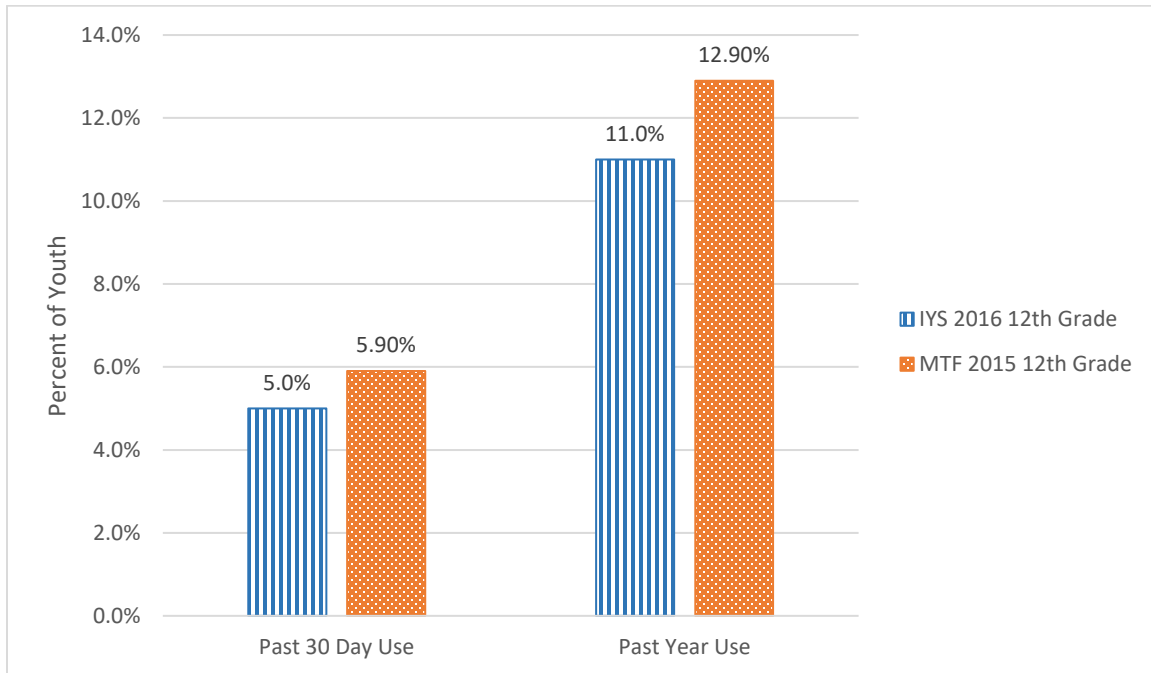


*Data is from the statewide random sample of the 2016 Illinois Youth Survey

Illinois Youth Survey and Monitoring the Future Comparison

The IYS uses the same question wording as the national Monitoring the Future survey (for a description of Monitoring the Future, see Appendix A) for past 30 day and past year use of prescription drugs “not prescribed to you.” This provides an opportunity to use IYS data and Monitoring the Future data for a comparison between the state of Illinois and national use rates within the same population. In the figure below, data from the 2015 nationwide Monitoring the Future survey is presented alongside 2016 IYS data. As shown below, Illinois remains lower than the national sample for both past 30 day and past year use.

Figure 19: Past 30 Day and Past Year Use of Prescription Drugs “Not Prescribed to You”
2016 Illinois Youth Survey and 2015 Monitoring the Future Comparison

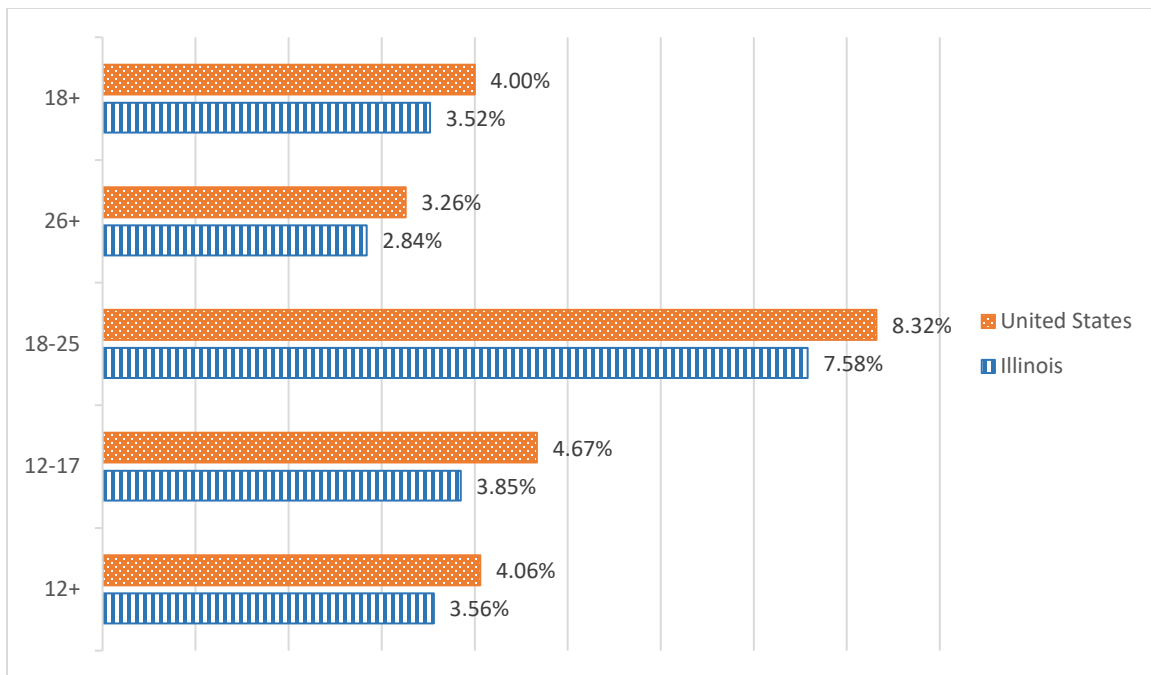


*Data is from the statewide random sample of the 2016 Illinois Youth Survey and the nationwide 2015 Monitoring the Future survey

NSDUH Data by State - Average Use of Nonmedical Pain Relievers in the Past Year

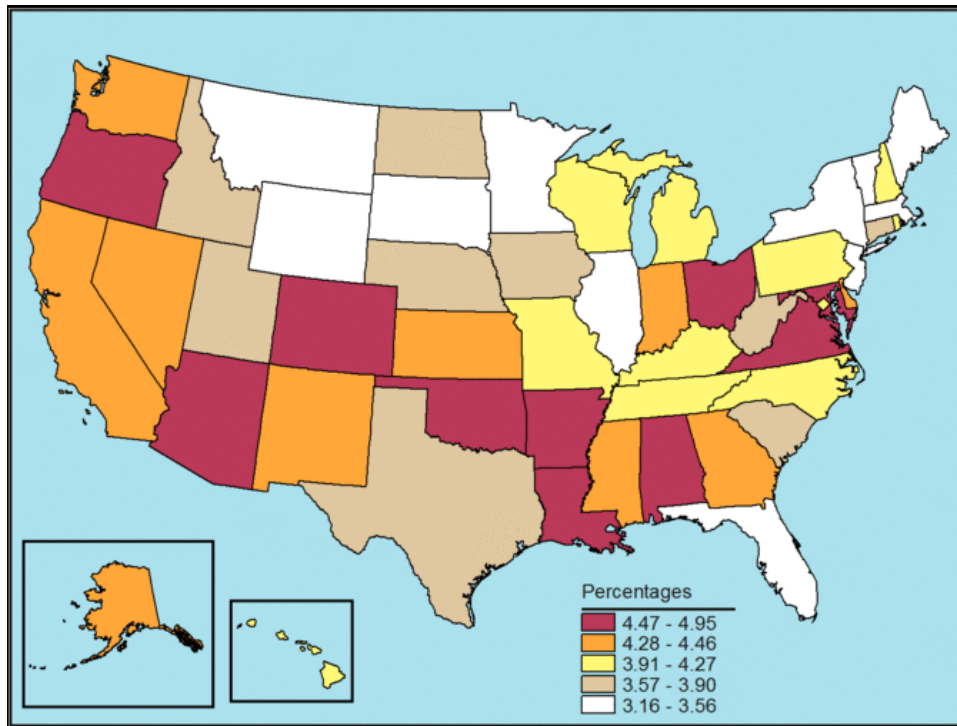
The National Survey on Drug Use and Health (NSDUH) is a short interview-based survey of youth that collects prescription drug use for each state (for a description, see Appendix A). The data presented below represent the results of the 2013 and 2014 NSDUH surveys for both national data and data specific to Illinois. In the chart shown below it appears those with the highest use of nonmedical pain relievers fall in the 18-25 year age range. The maps on the following pages show use for age ranges, and Illinois is relatively low when compared with other states, falling in the lowest or second lowest percentile for each age group.

Figure 20: Nonmedical Use of Pain Relievers in the Past Year by Age, Illinois and U.S. Percentages, Annual Averages Based on 2013-2014 NSDUHs



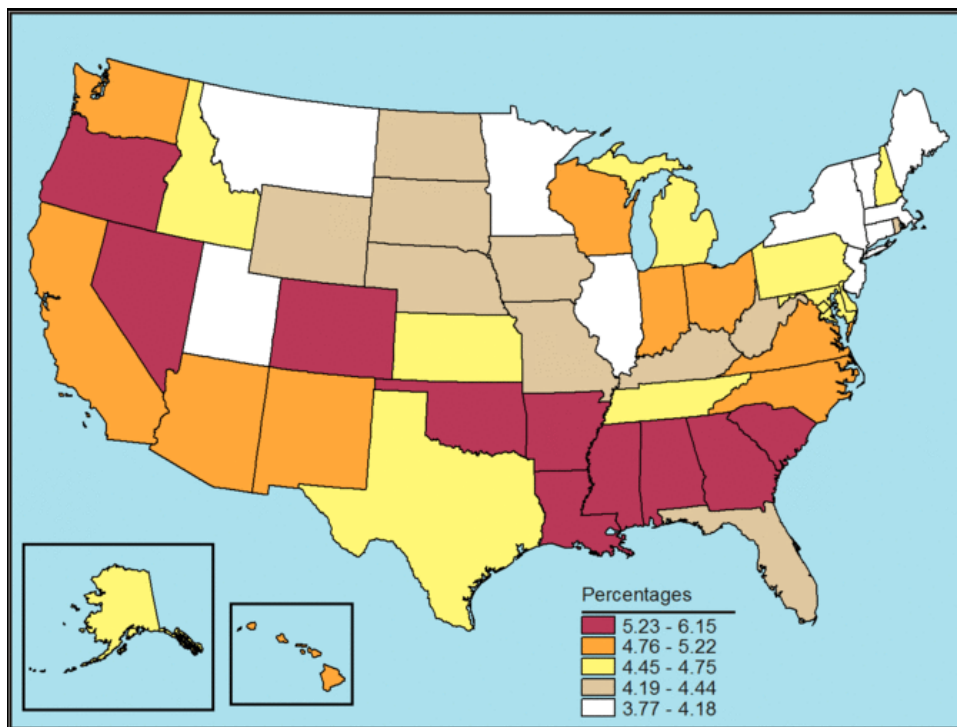
*Data is from the state estimates of the 2013-2014 National Survey on Drug Use and Health

Figure 21: Nonmedical Use of Pain Relievers in the Past Year among Individuals Aged 12 or Older, by State:
Percentages, Annual Averages Based on 2013 and 2014 NSDUHs



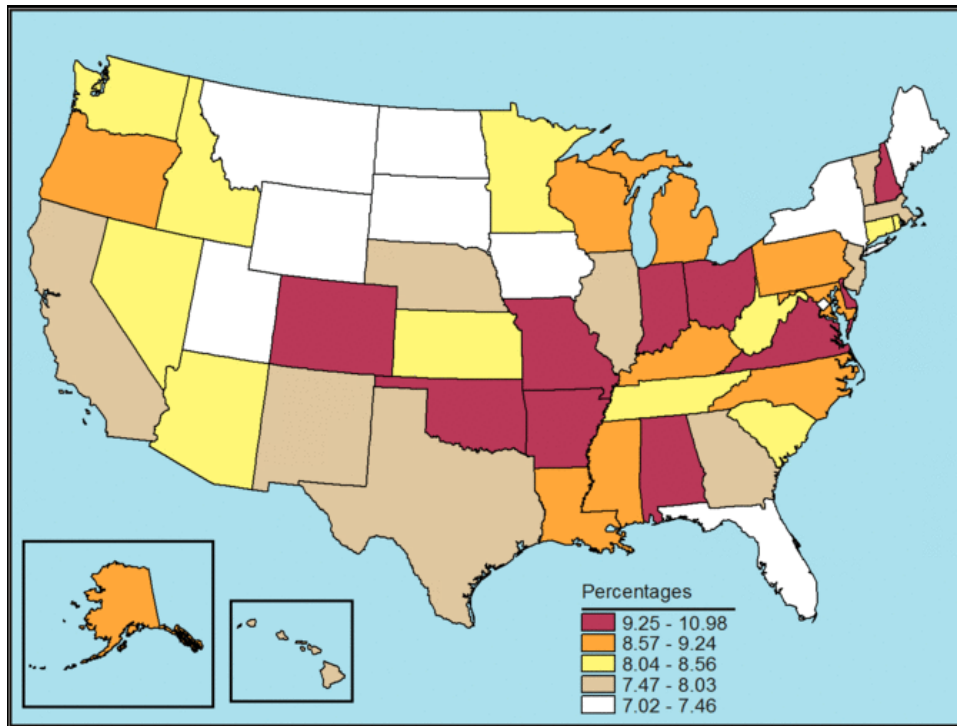
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2013 and 2014.

Figure 22: Nonmedical Use of Pain Relievers in the Past Year among Youths Aged 12 to 17, by State:
Percentages, Annual Averages Based on 2013 and 2014 NSDUHs



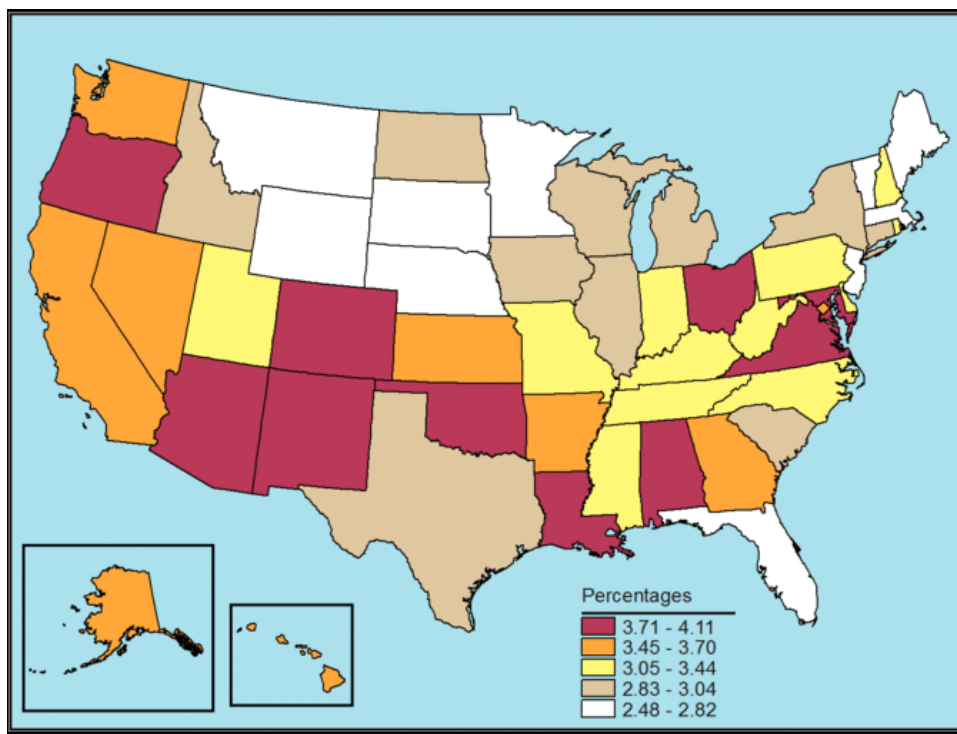
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2013 and 2014.

Figure 23: Nonmedical Use of Pain Relievers in the Past Year among Adults Aged 18 to 25, by State:
Percentages, Annual Averages Based on 2013 and 2014 NSDUHs



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2013 and 2014.

Figure 24: Nonmedical Use of Pain Relievers in the Past Year among Adults Aged 26 or Older, by State:
Percentages, Annual Averages Based on 2013 and 2014 NSDUHs

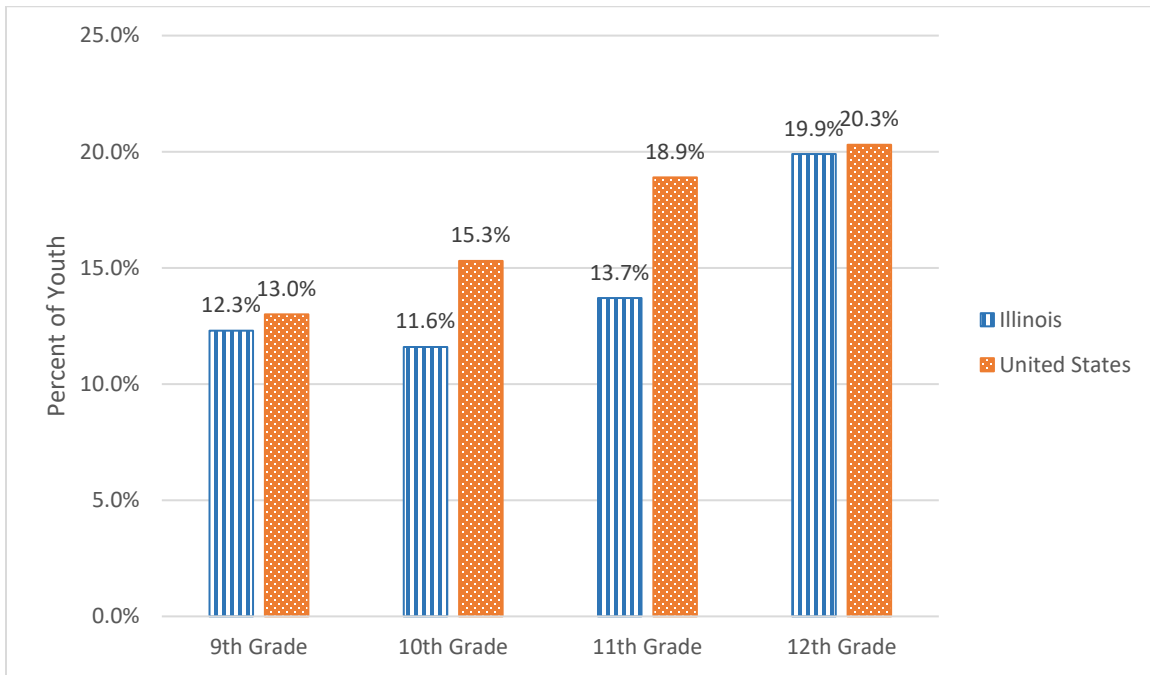


Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH, 2013 and 2014.

Youth Risk Behavior Survey Data (YRBS)

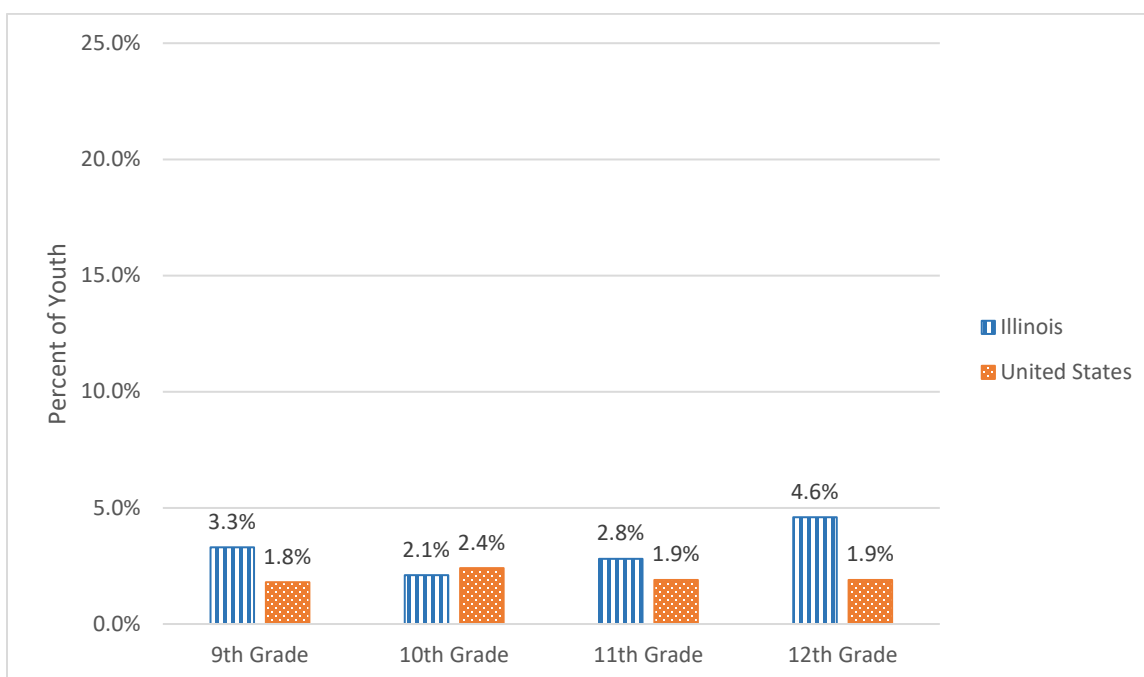
The Youth Risk Behavior Survey gathers data from high school youth across the United States (for a description, see Appendix A). This provides an opportunity to compare YRBS data from Illinois with the rest of the country. The data presented below are from the 2009, 2011, 2013, and 2015 surveys. A national comparison is provided for the most current year, followed by trends for Illinois with regard to using prescription drugs (without a doctor's prescription) and heroin use (for question wording, see Appendix B). Overall, it appears that Illinois is lower when it comes to lifetime prescription drug use for all grades, but slightly higher for lifetime heroin use in all but 10th grade. Within Illinois, older youth appear to have higher use rates for prescription drugs, but not necessarily for heroin. Use of both types saw a spike in 2013, but has since stabilized.

Figure 25: 2015 Illinois and National Data - Lifetime Prescription Drug Use



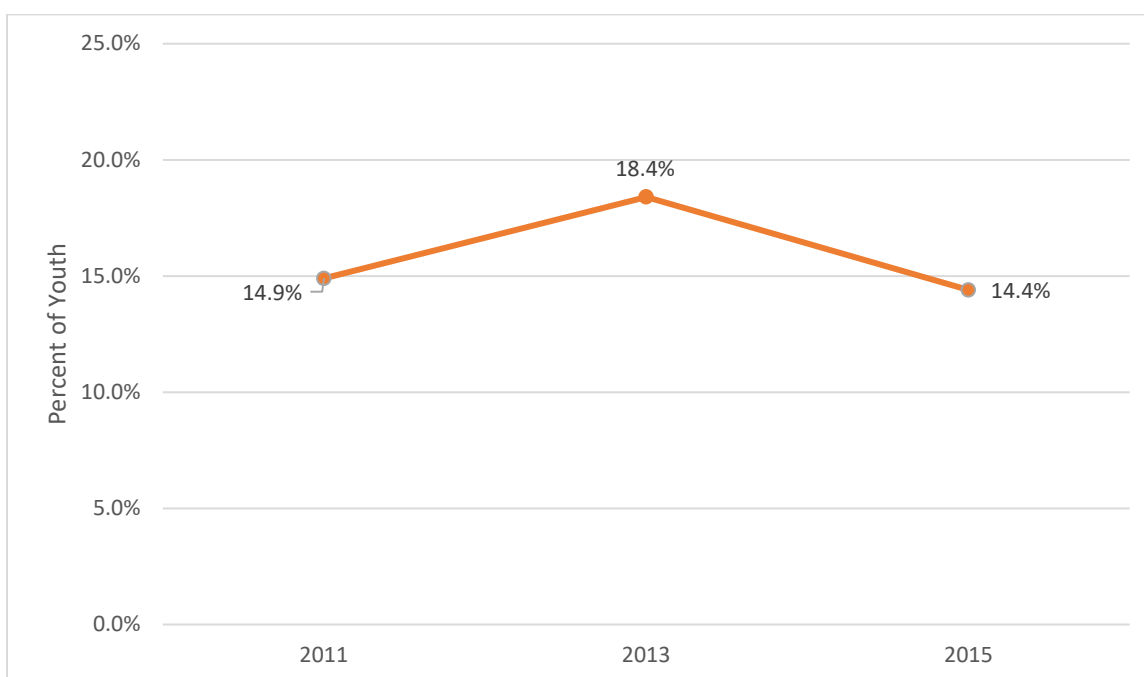
*Data is from the 2015 Youth Risk Behavior Surveillance System survey for the state of Illinois and the national sample

Figure 26: Illinois Compared to United States – Lifetime Heroin Use



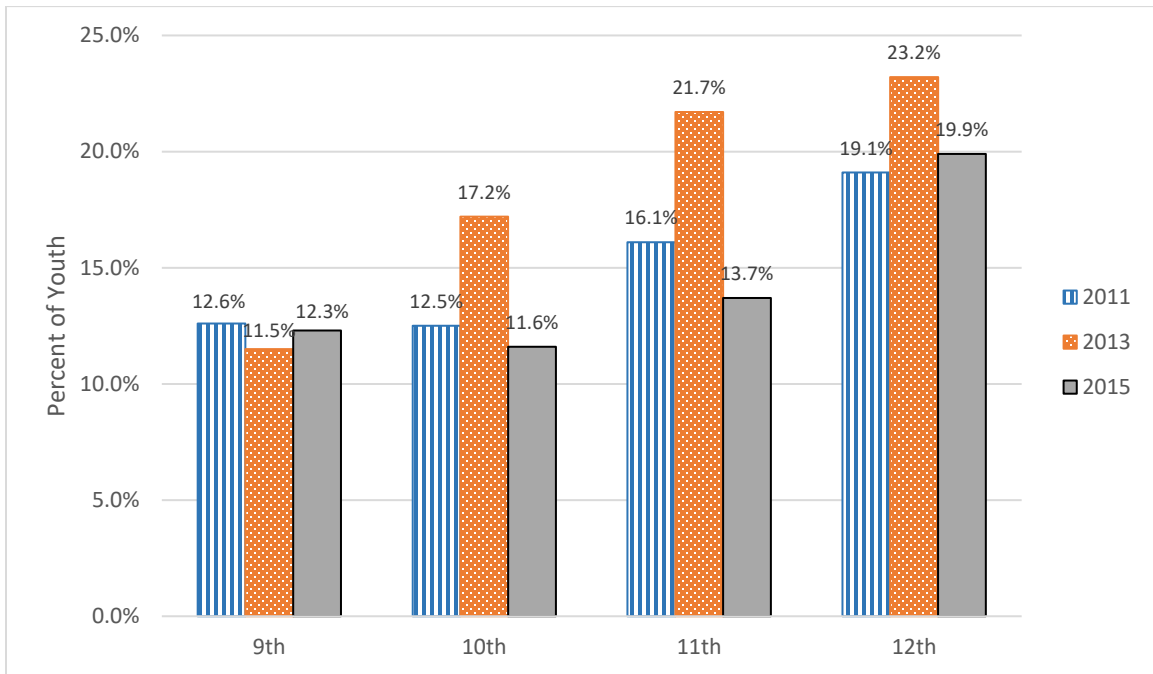
*Data is from the 2015 Youth Risk Behavior Surveillance System survey for the state of Illinois and the national sample

Figure 27: Illinois - Lifetime Prescription Drug Use



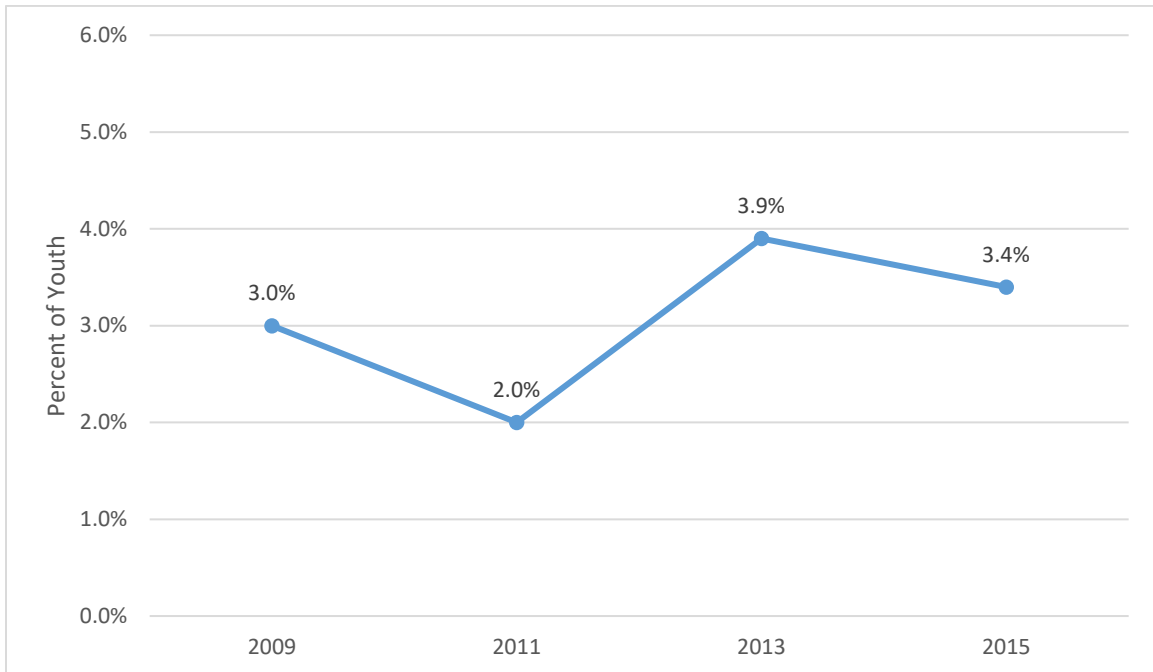
*Data is from the 2015 Youth Risk Behavior Surveillance System survey for the state of Illinois

Figure 28: Illinois - Lifetime Prescription Drug Use By Grade



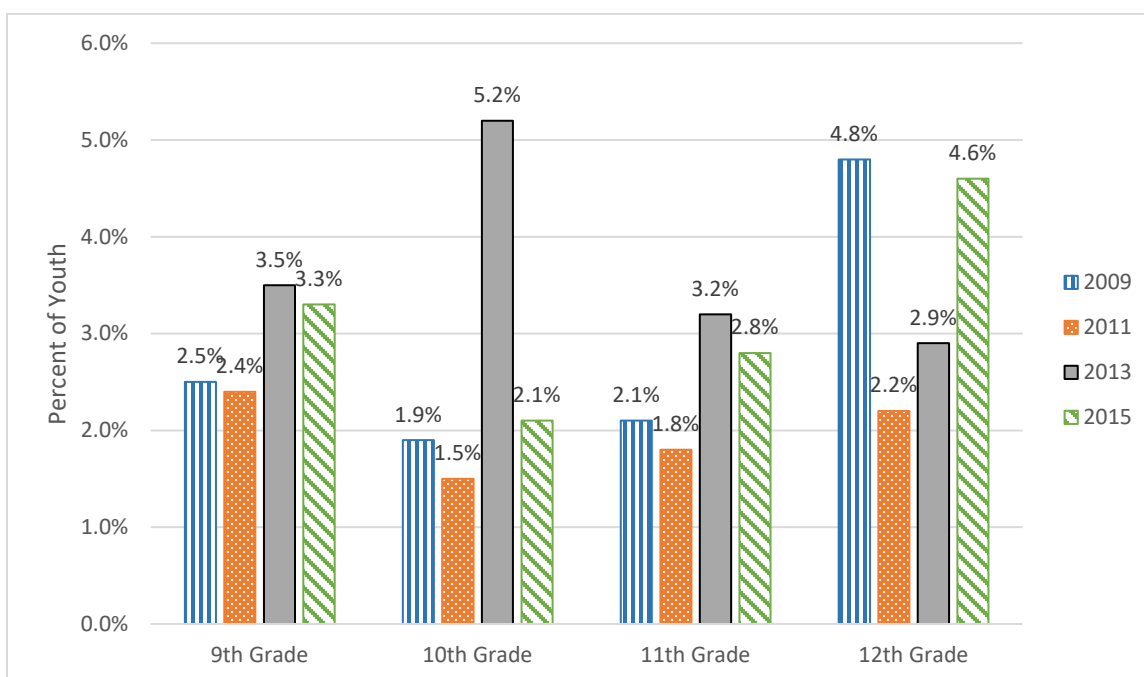
*Data is from the 2015 Youth Risk Behavior Surveillance System survey for the state of Illinois

Figure 29: Illinois – Lifetime Heroin Use



*Data is from the 2015 Youth Risk Behavior Surveillance System survey for the state of Illinois

Figure 30: Illinois – Lifetime Heroin Use by Grade

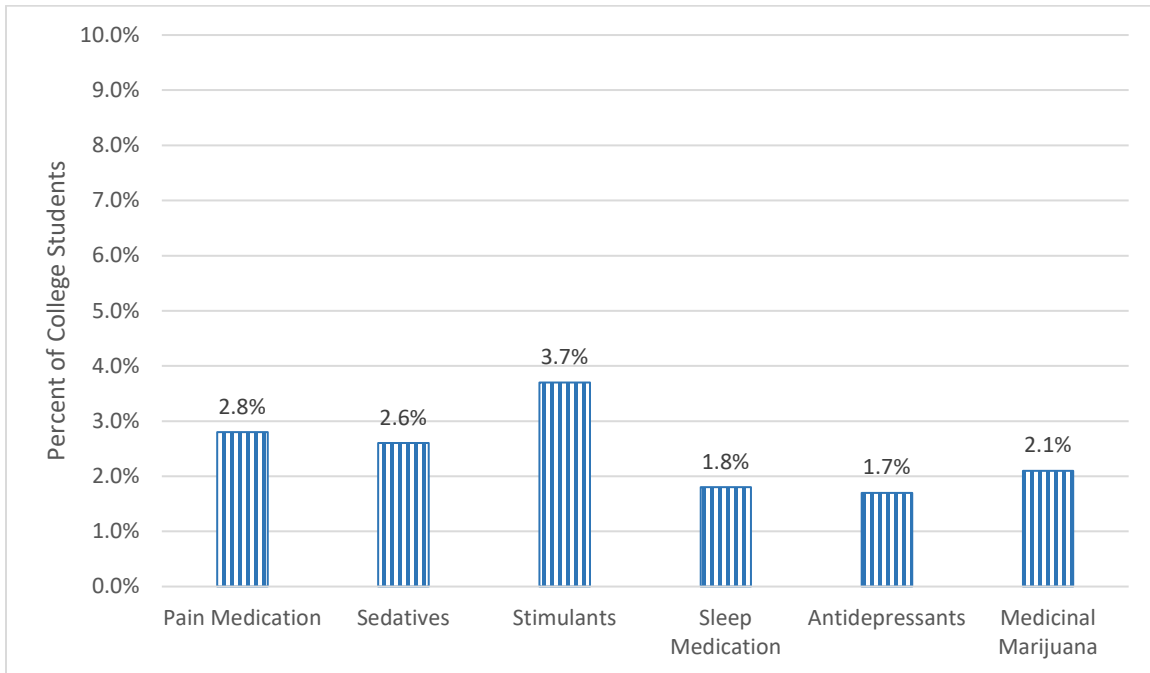


*Data is from the 2015 Youth Risk Behavior Surveillance System survey for the state of Illinois

Illinois CORE Survey Data

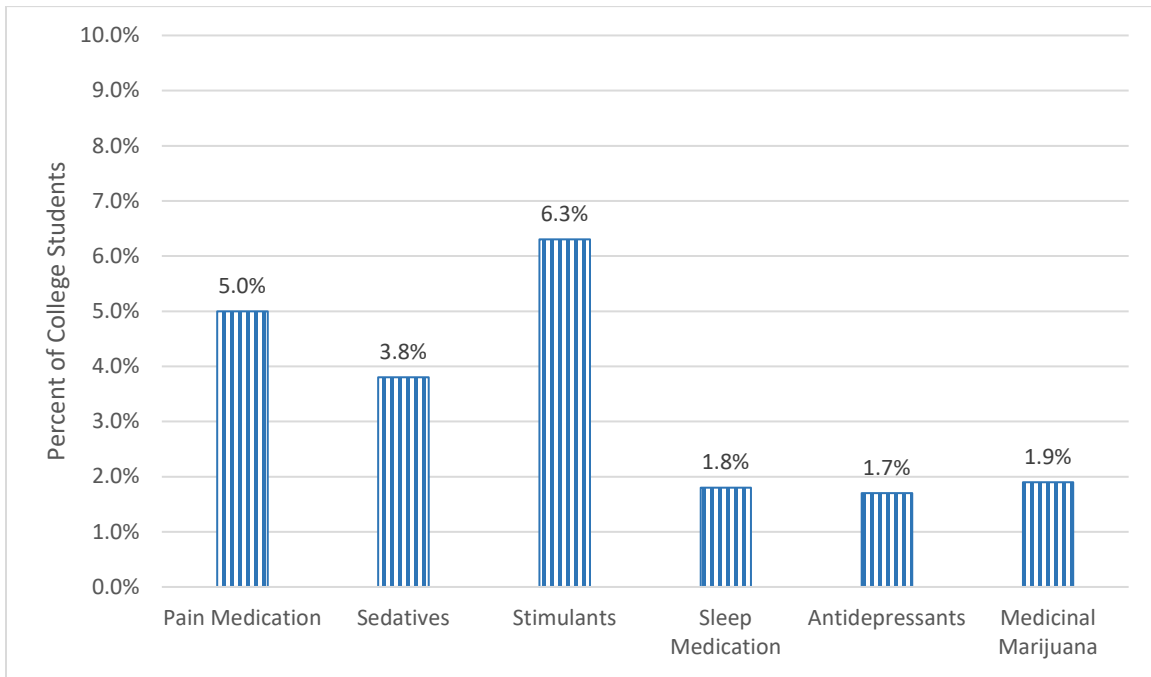
The Illinois CORE Survey is done each year with college and university students throughout Illinois (for a description, see Appendix A). As seen in the NSDUH data on page 20, the college-aged population (18-25 year olds) are the most likely to be using prescription drugs. The CORE survey has included questions regarding the past 30 day and past year use of prescription drugs beginning in 2014. Questions are stated by drug type and include several name-brand examples for clarity, including: Pain Medication (Vicodin, OxyContin); Sedatives/Anti-Anxiety (Valium, Xanax); Stimulants (Adderall, Ritalin); Sleep Medication (Lunesta, Ambien); Antidepressants (Wellbutrin, Cymbalta); and Medicinal Marijuana. The data presented below indicate that stimulants and pain medication are the most frequently used drug type in 2014 for both past 30 day use and past year use.

Figure 31: Past 30 Day Use by Drug Type



*Data is from the 2014 CORE Survey

Figure 32: Past Year Use by Drug Type



*Data is from the 2014 CORE Survey

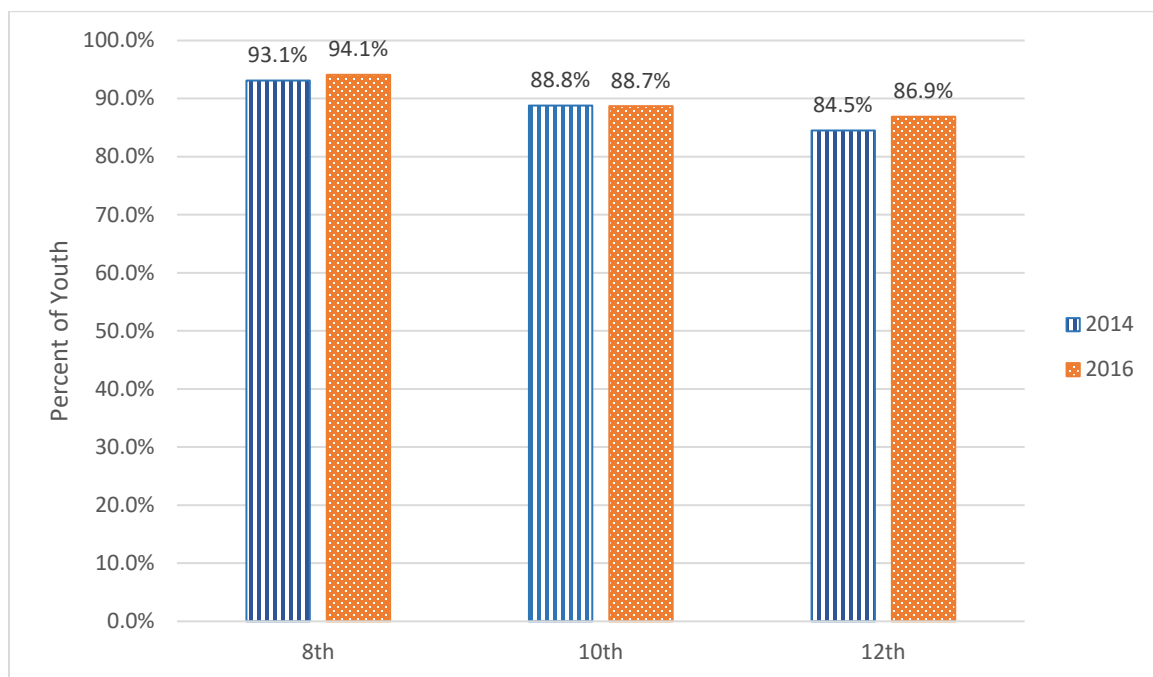
Chapter 2: Contributing Factors for Prescription Drug Use in Illinois

Chapter 2 contains data related to contributing factors (or risk and protective factors). Disapproval of drug use, perceived peer use, perceived risk of harm, access to prescription drugs, and depression/suicidality are all explored as potential contributing factors to prescription drug use.

Disapproval of Using Prescription Drugs “Not Prescribed to You”

Youth disapproval and their perceptions about others’ disapproval is a contributing factor related to prescription drug use. Those who have a higher disapproval of drug use or believe their parents do not approve of drug use are less likely to be drug users (Sung, Richter, Vaughan, Johnson, and Thom, 2004). The Illinois Youth Survey asks about youth’s personal disapproval (“how wrong do you feel it would be...”), as well as how much they believe their peers and parents disapprove of using a prescription drug “not prescribed to you” (for exact question wording, see Appendix B). While personal disapproval and perception of others’ disapproval decreases as youth age, the majority of youth believe that using prescription drugs is “very wrong” and perceive others as feeling the same.

Figure 33: Personal Disapproval of Prescription Drug Use



*Data is from the statewide random sample of the 2014 and 2016 Illinois Youth Survey

Figure 34: Perceived Peer Disapproval of Prescription Drug Use

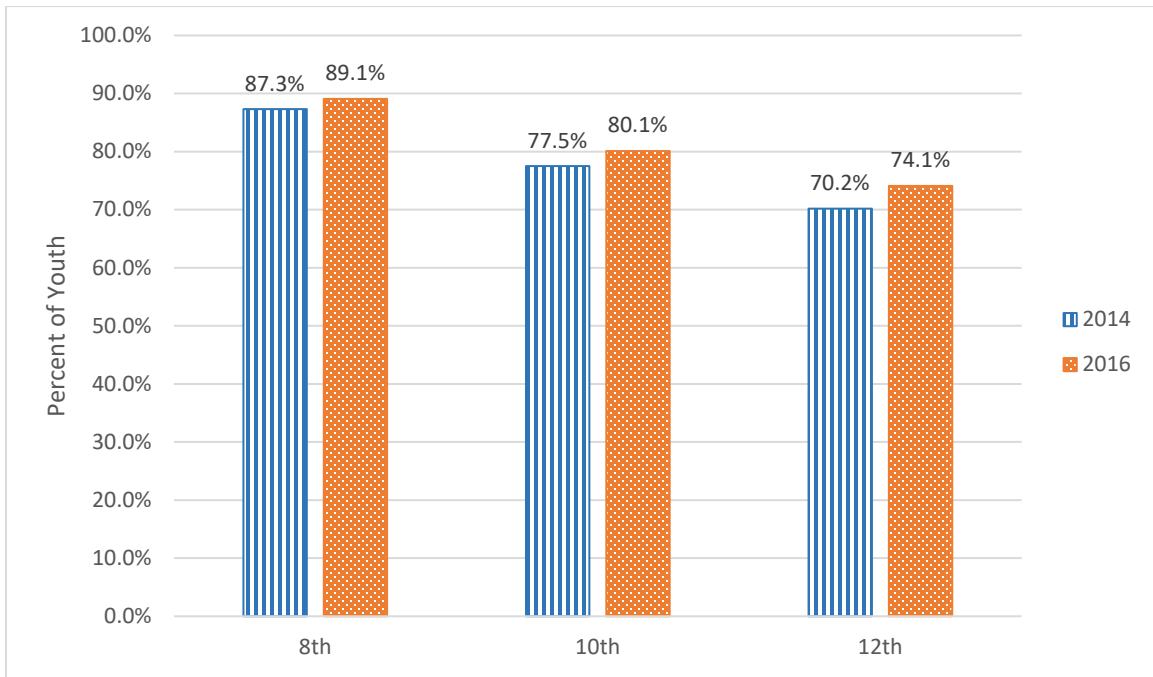
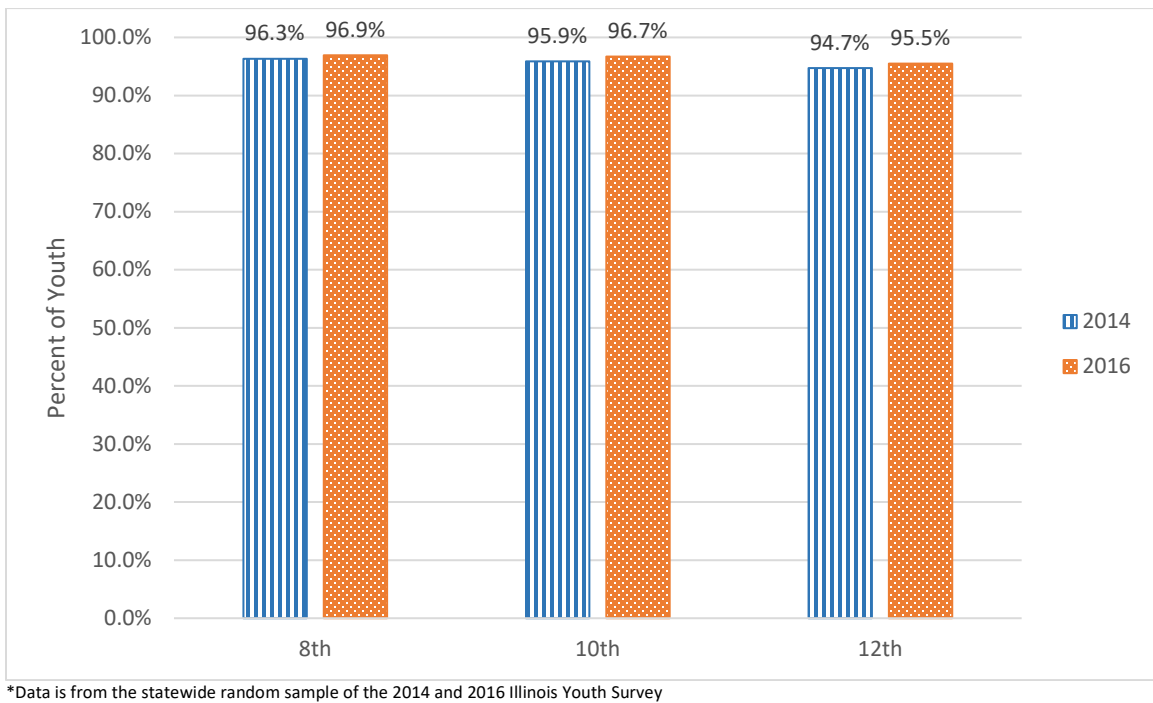


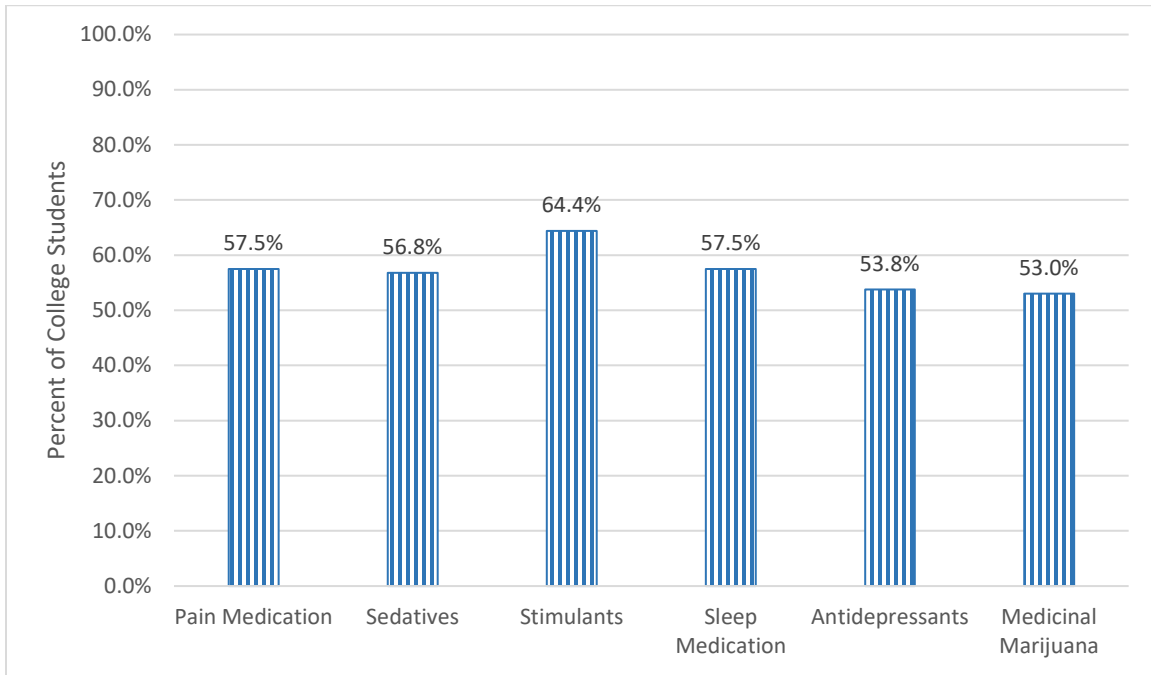
Figure 35: Perceived Parent Disapproval of Prescription Drug Use



Perceived Peer Use

The perception of peer use and its impact on personal use has long been documented for both adolescents (Stein, Newcomb, & Bentler, 1987) and college students (Perkins, Meilman, Leichliter, Cashin, & Presley, 2010). The Illinois CORE survey asks college students how many students they think use various types of prescription drugs on their campus. The results are presented below for 2014.

Figure 36: Perceived Student Use in the Past Year by Drug Type

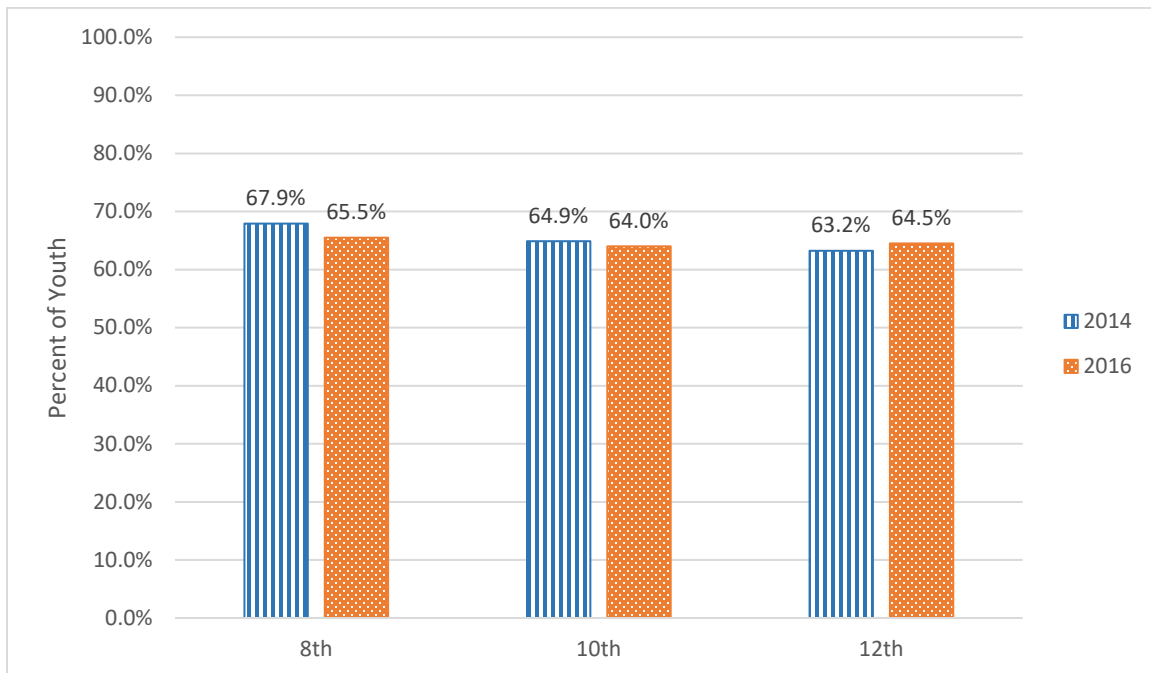


*Data is from the 2014 CORE Survey

Perceived Risk of Harm

Lower perceptions of risk or harmfulness of using drugs has been attributed to increased likelihood of using prescription drugs (Arria, Calderira, Vincent, O’Grady, and Wish, 2008). Youth taking the IYS were asked to rate how much they thought people risked harming themselves if they took prescription drugs “not prescribed to them” from “No Risk” to “Great Risk.” The majority of youth indicated “Great Risk.” While perceived risk slightly decreases with age, it remained above 60% for all grades in both administration years.

Figure 37: Perceived Risk of Harm from Prescription Drug Use



*Data is from the statewide random sample of the 2014 and 2016 Illinois Youth Survey

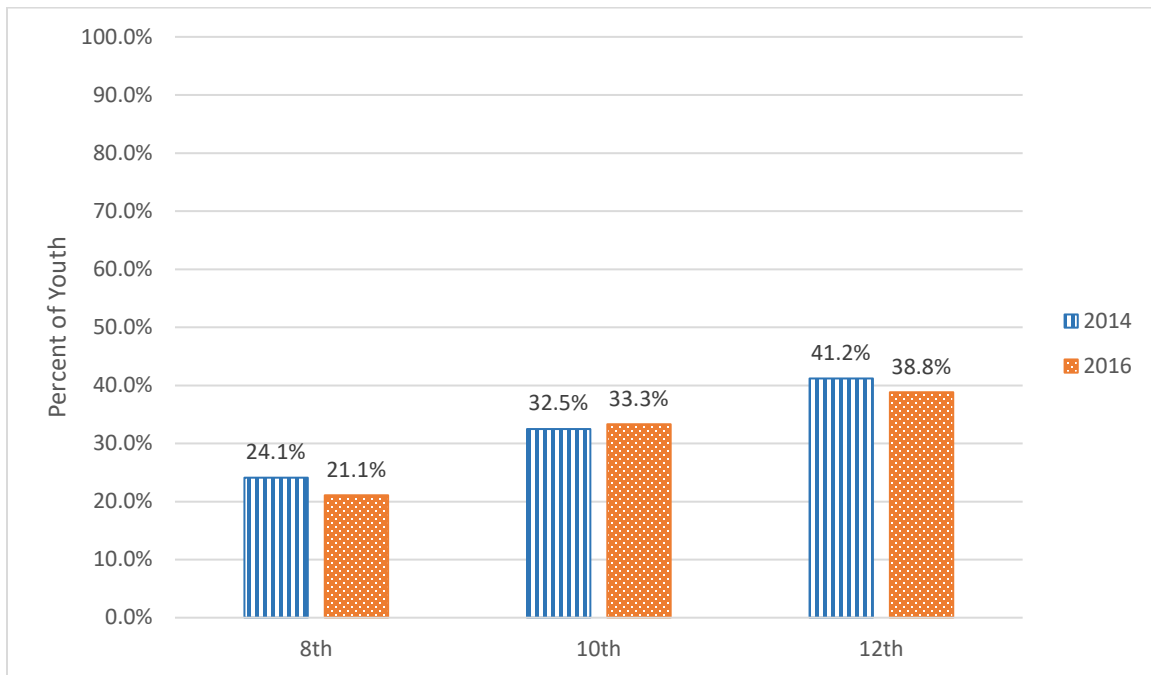
Ease of Access Perception and Access Sources

Perceived easy access to drugs in the community by youth has been identified as a risk factor for use (Connell, Gilreath, Aklin, & Brex, 2010). Youth may perceive easy access from a multitude of sources in their community. A study done by Lankenau, Teti, Silva, Bloom, Harocopos, and Treese in 2011 revealed that youth who started abusing prescription drugs gained access to them through 3 main sources: their own prescription, a family member's prescription, or from their friends. Moreover, those who initiated prescription drug use were likely to move on to more serious drug use and injecting drugs.

Illinois Youth Survey

On the IYS, youth were asked how easy they perceived it would be to get access to prescription drugs “not prescribed to you” and, among those who reporting using prescription drugs, where they got them from (friend, parents, others, etc.). There were only a small number of youth who reported using these drugs and the sources from where they gained access to these drugs; however, it is important to consider where access is coming from when planning for prevention efforts designed to limit the access to prescribed drugs. Below are the results for perception of easy access and access sources. Older youth tended to perceive easier access to prescription drugs. The source of prescription drugs seemed to differ with age as well. 8th grade youth reported access most frequently from their parents, while 10th and 12th grade youth were more likely to buy them from someone or get them from someone other than their parents.

Figure 38: Perceived Ease of Access to Prescription Drugs



*Data is from the statewide random sample of the 2014 and 2016 Illinois Youth Survey

Figure 39: Access to Prescription Drugs – All Sources

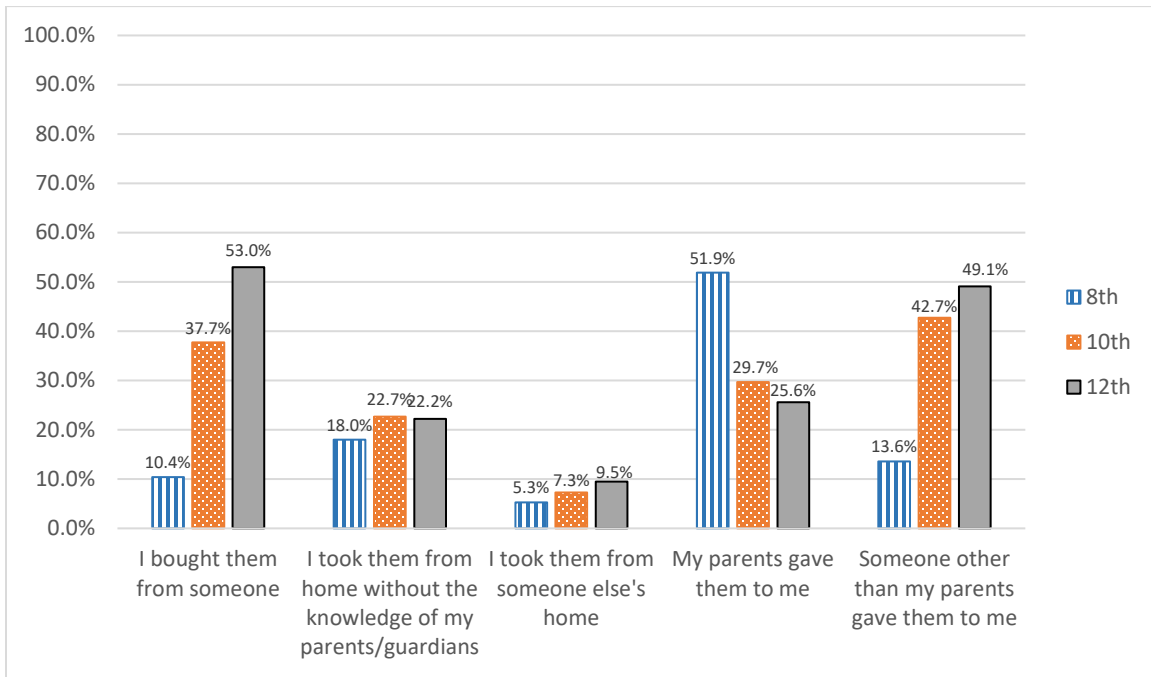


Figure 40: Access to Prescription Drugs – I bought them from someone

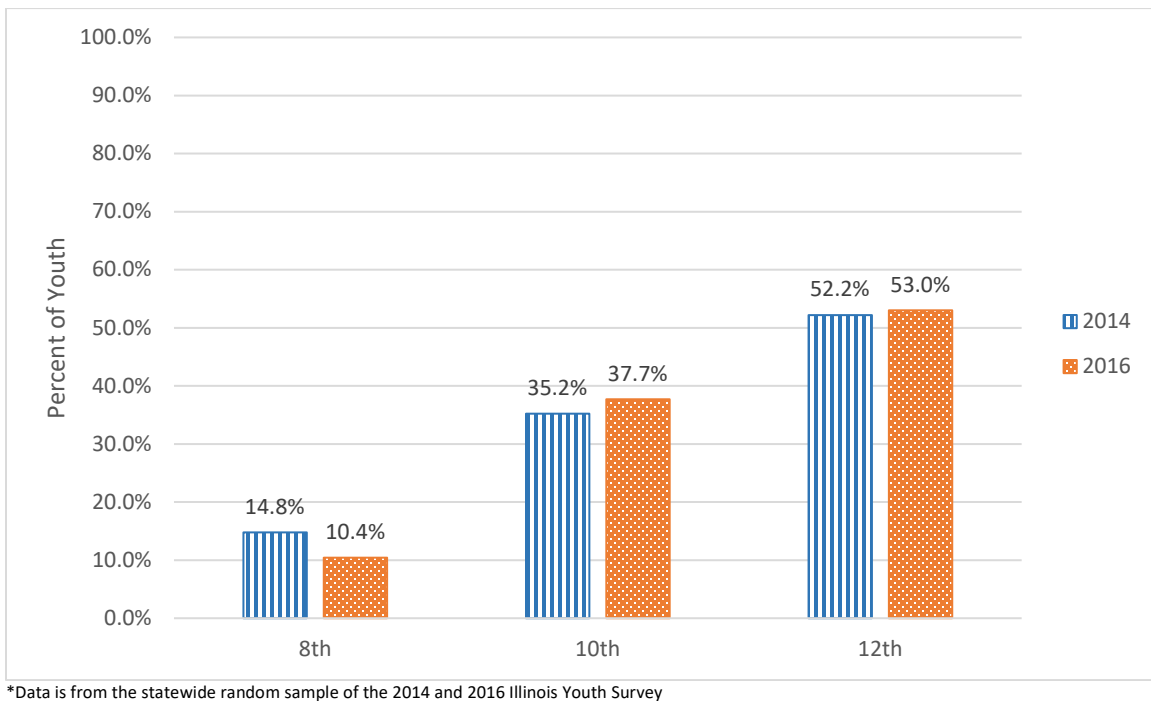
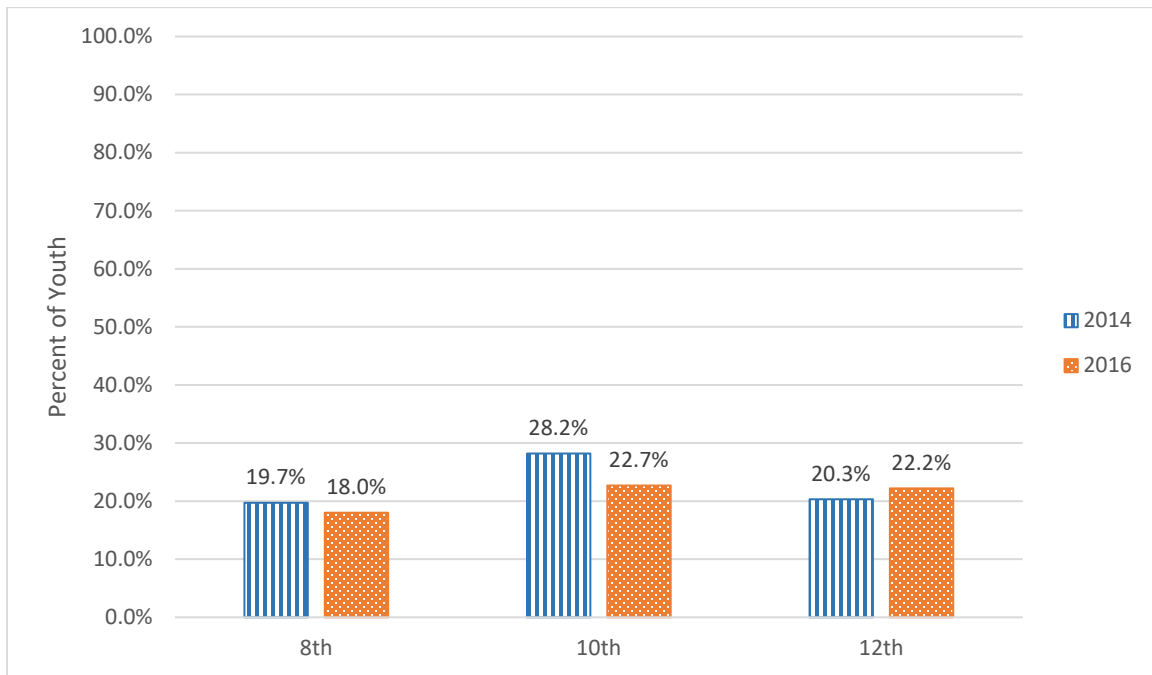
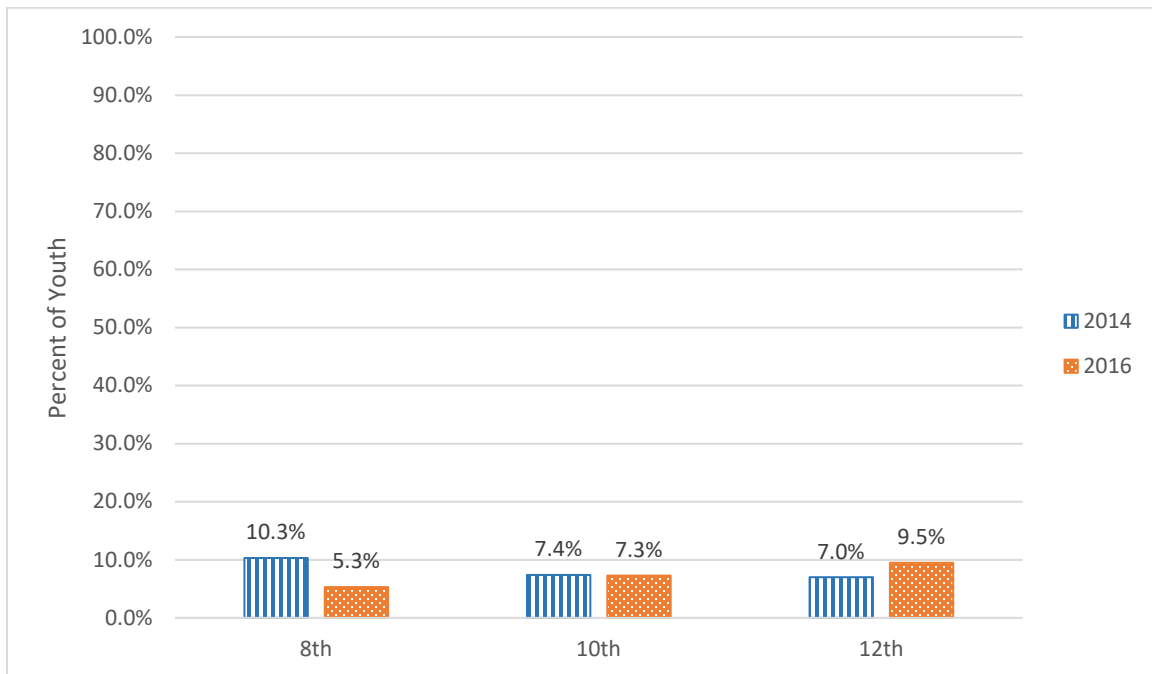


Figure 41: Access to Prescription Drugs – I took them from home without the knowledge of my parents/guardians



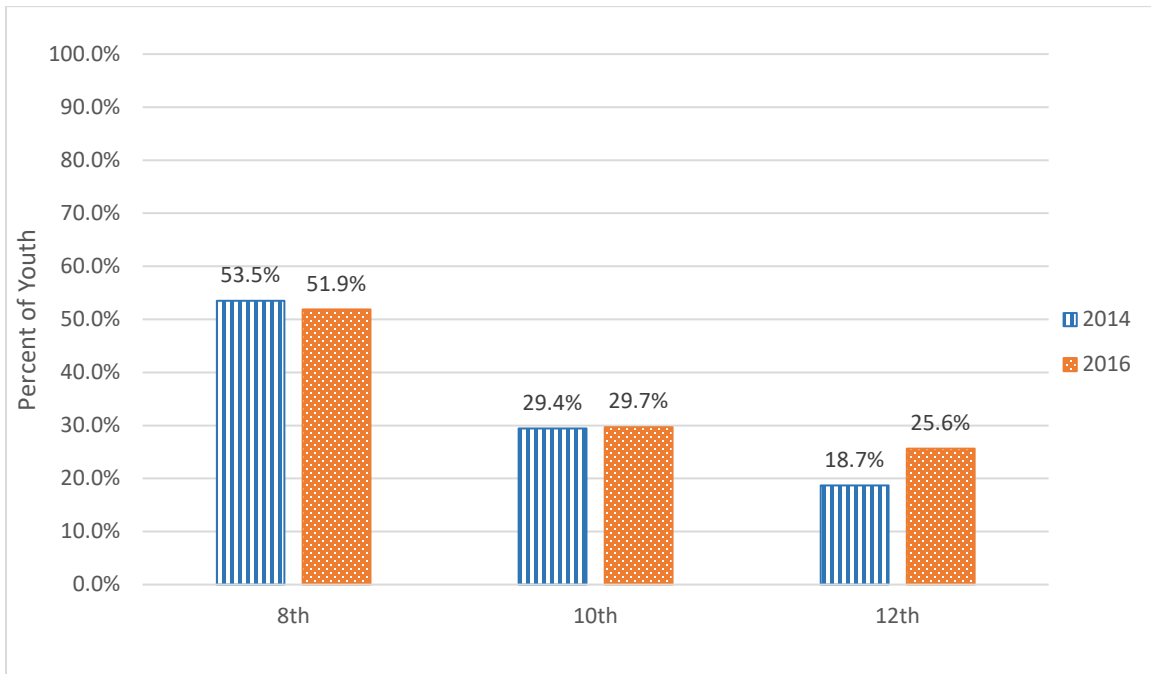
*Data is from the statewide random sample of the 2014 and 2016 Illinois Youth Survey

Figure 42: Access to Prescription Drugs – I took them from someone else's home



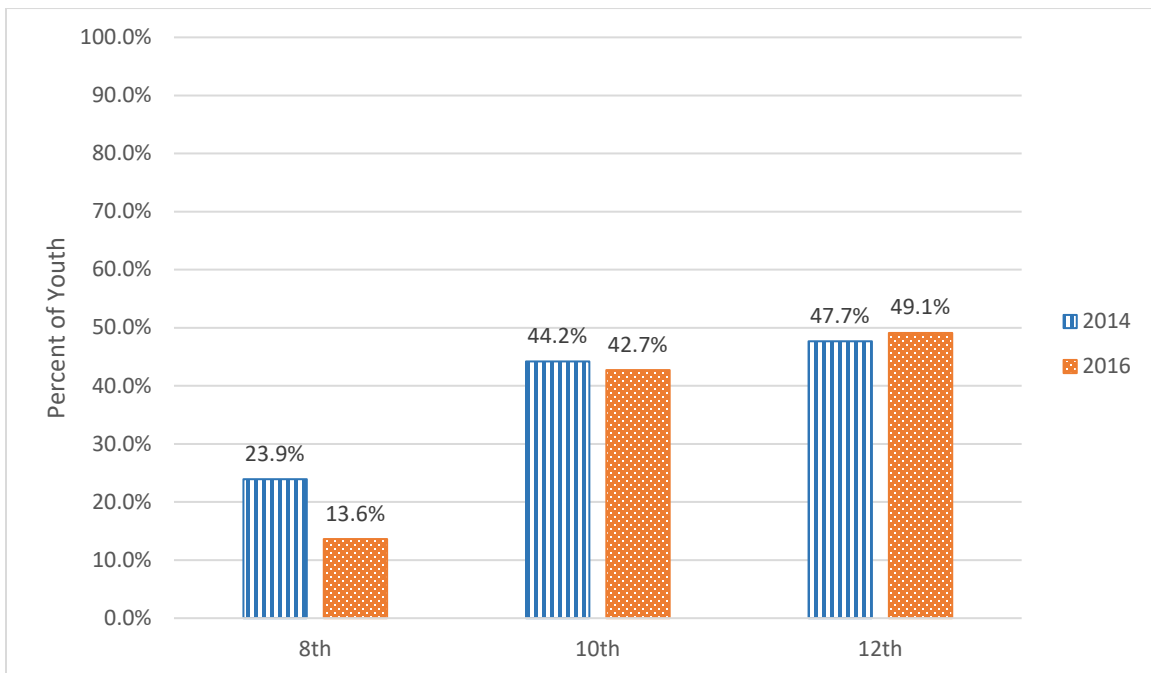
*Data is from the statewide random sample of the 2014 and 2016 Illinois Youth Survey

Figure 43: Access to Prescription Drugs – My parents gave them to me



*Data is from the statewide random sample of the 2014 and 2016 Illinois Youth Survey

Figure 44: Access to Prescription Drugs – Someone other than my parents gave them to me

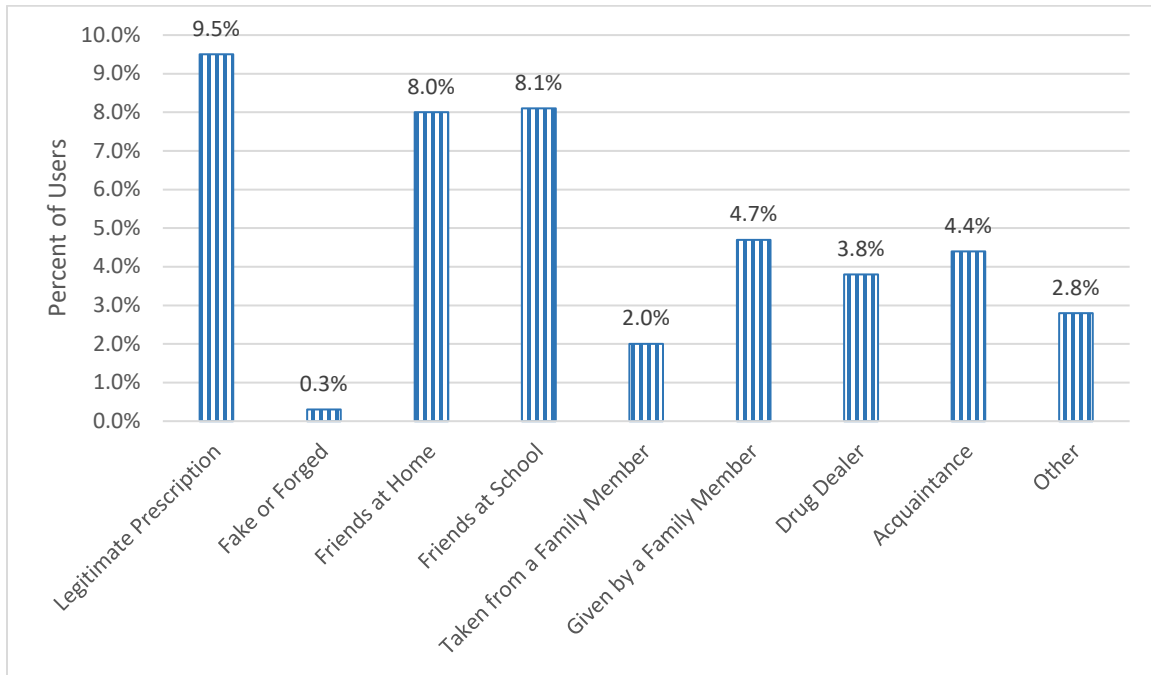


*Data is from the statewide random sample of the 2014 and 2016 Illinois Youth Survey

Illinois CORE Survey

The Illinois CORE Survey has included questions regarding where college students access prescription drugs since 2014. Access sources are listed to the left of each drug type on the consumption question, so if a student indicates they have used the drug within the past 30 days they also report where they got the drug within the same question. Below are the results, including a chart with the percent of students who reported getting any prescription drug from each source as well as a figure outlining the most common source for each drug type. As you will see, legitimate prescriptions and friends are the most common sources.

Figure 45: College Student Reported Access Source – Any Prescription Drug



*Data is from the 2014 CORE Survey

Table 1: Sources of Drugs for College-Aged Users by Drug Type

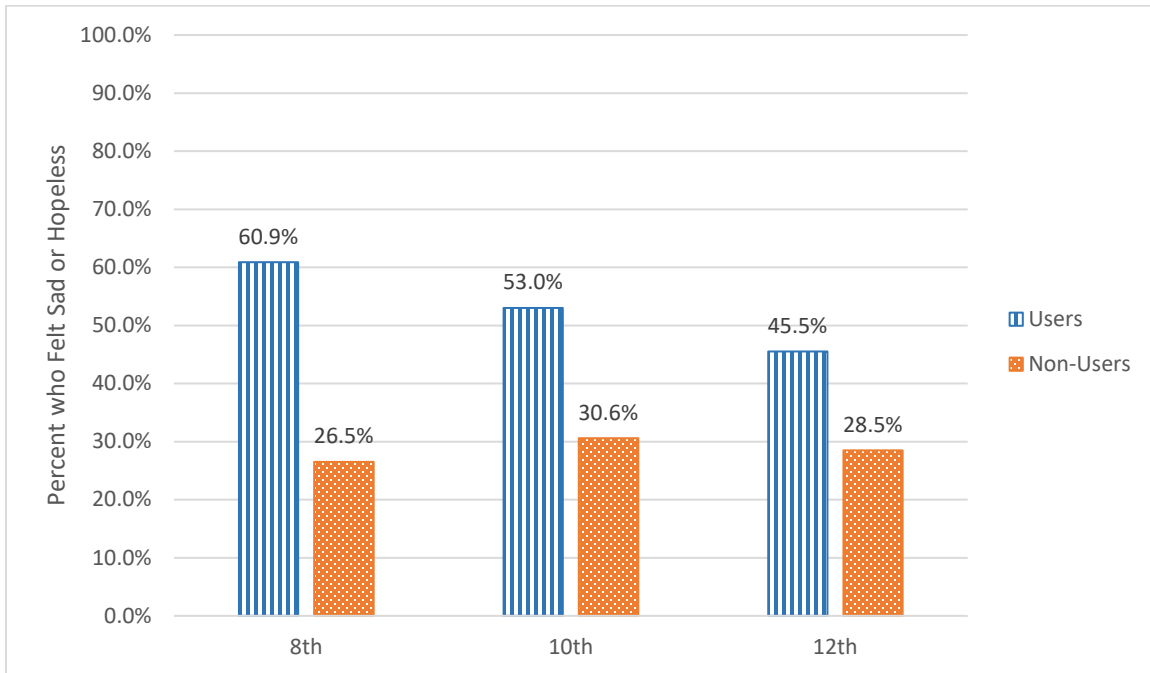
Drug Type	Legitimate Prescription	Fake or Forged	Friends at Home	Friends at School	Taken from a Family Member	Given by a Family Member	Drug Dealer	Acquaintance	Other
Pain Medication (Vicodin, OxyContin)	2.2%	0.1%	1.2%	0.9%	0.6%	1.0%	0.5%	0.6%	0.3%
Sedatives/Anti-Anxiety (Valium, Xanax)	4.8%	0.2%	4.4%	4.1%	1.1%	3.0%	2.2%	2.6%	1.6%
Stimulants (Adderall, Ritalin)	0.7%	0.0%	1.6%	2.7%	0.2%	0.3%	0.6%	0.8%	0.4%
Sleep Medication (Lunesta, Ambien)	0.6%	0.0%	0.2%	0.1%	0.1%	0.3%	0.1%	0.1%	0.2%
Antidepressants (Wellbutrin, Cymbalta)	1.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Medicinal Marijuana	0.1%	0.0%	0.5%	0.3%	0.0%	0.1%	0.4%	0.3%	0.2%

*Data is from the 2014 CORE Survey

Depression and Suicidality Among Prescription Drug Users

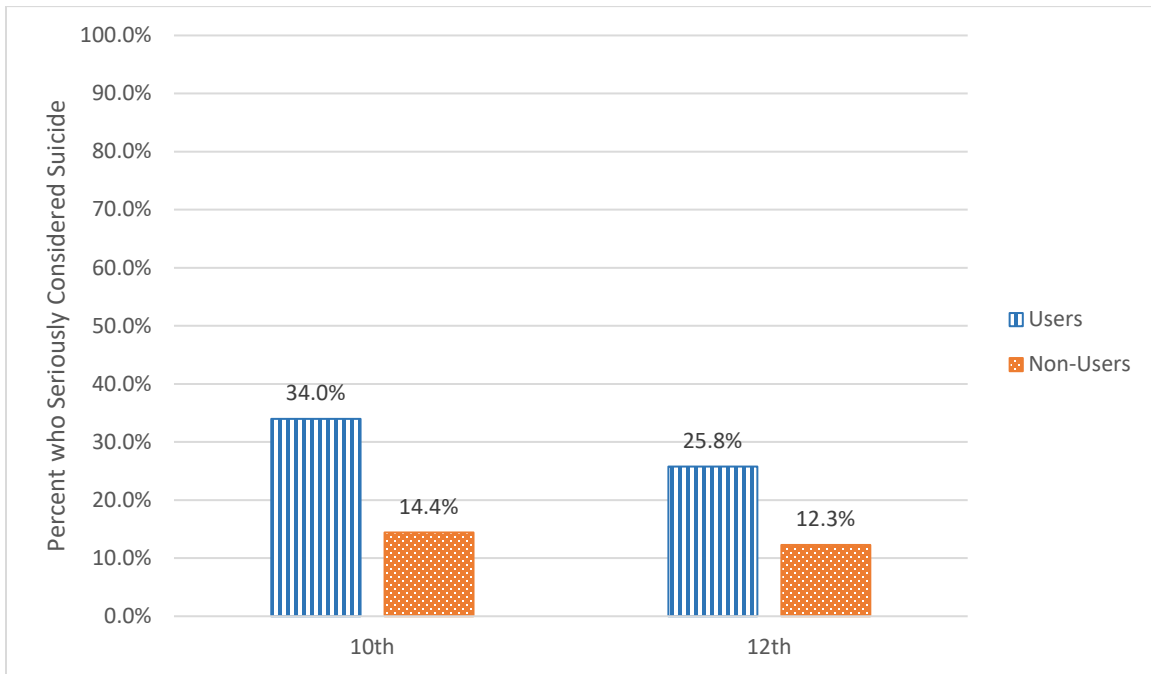
Comorbidity between mental health and substance use has been long substantiated, and recent research suggests this also applies to the use of prescription drugs (Zullig & Divin, 2012). Below data is presented from both the Illinois Youth Survey and the Youth Risk Behavior Survey that shows the rates of depression and suicidality in users versus non-users of prescription drugs. As illustrated in the data below, those who reported misusing prescription drugs were more likely to report feeling sad or hopeless, seriously considering or making a plan to commit suicide, and have actually attempted suicide than those who did not report using prescription drugs. This relationship is greater in the lower grades (8th, 10th) compared to grade 12. Across each of the indicators, prescription drug users are more likely to be at risk for or attempt suicide.

Figure 46: Prescription Drugs Users Who Reported Feeling Sad or Hopeless



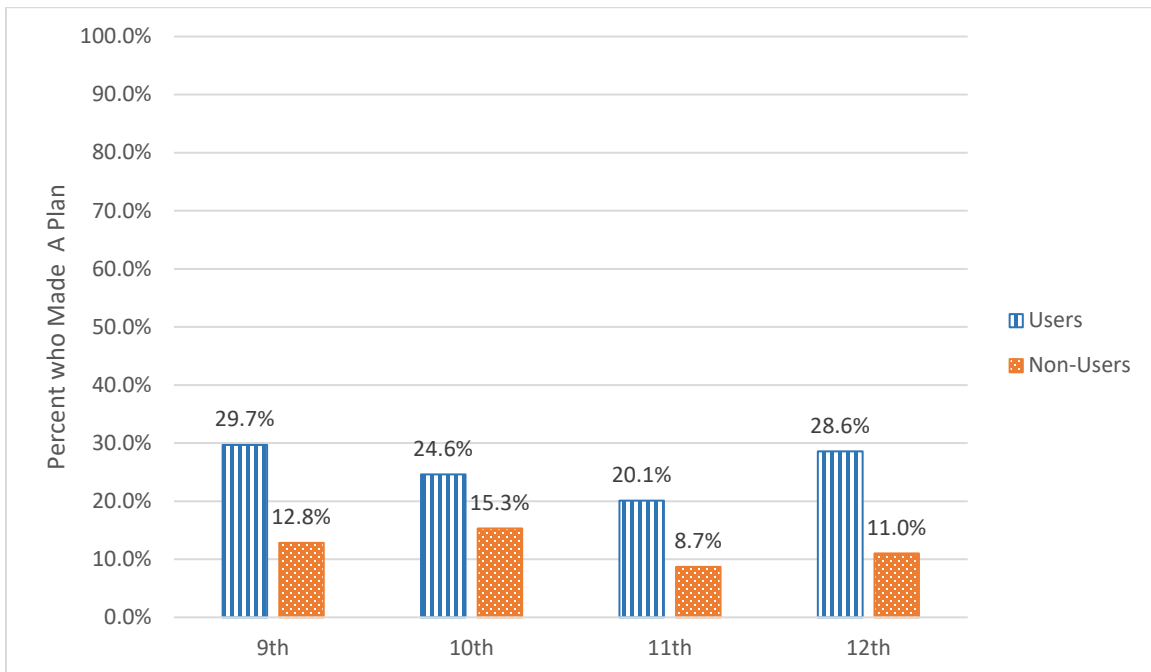
*Data is from the statewide random sample of the 2016 Illinois Youth Survey

Figure 47: Prescription Drug Users that Have Seriously Considered Suicide



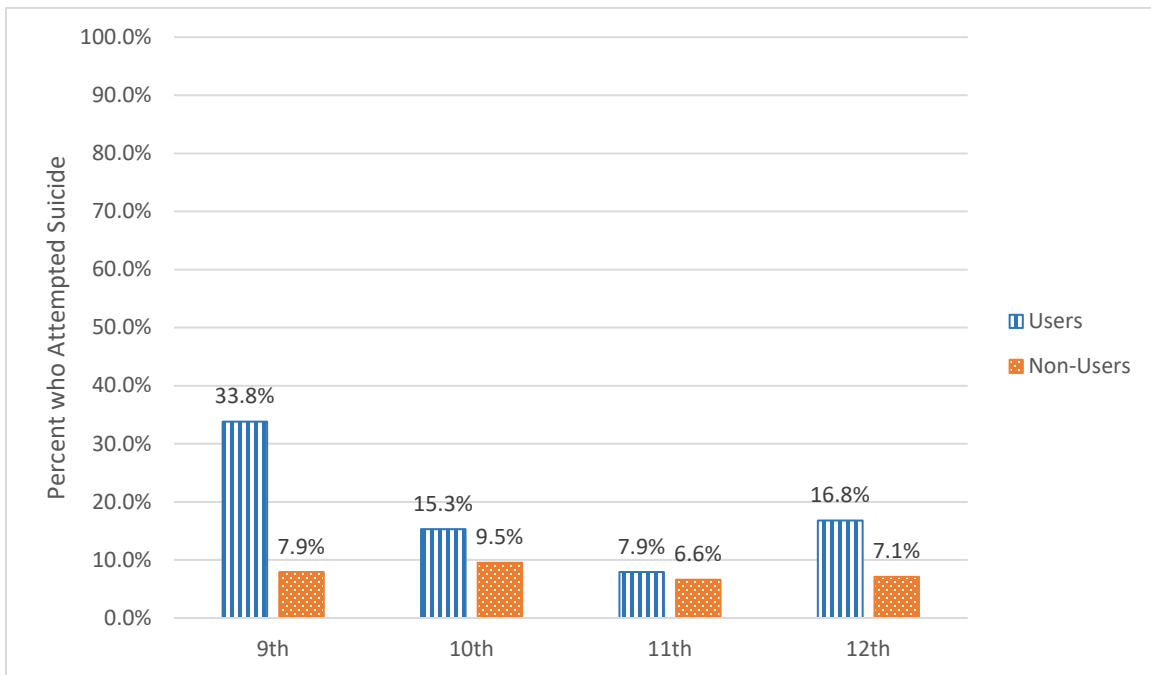
*Data is from the statewide random sample of the 2016 Illinois Youth Survey

Figure 48: Prescription Drug Users that Have Made a Plan about How They Would Attempt Suicide



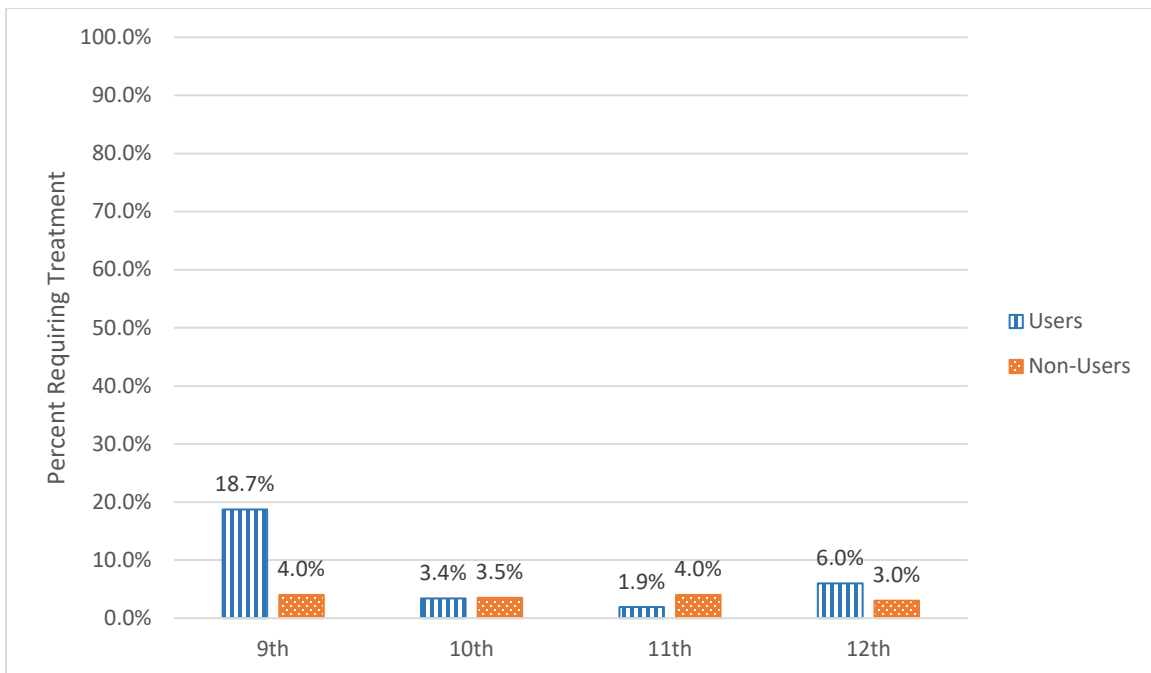
*Data is from the 2015 Youth Risk Behavior Surveillance survey for the state of Illinois

Figure 49: Prescription Drug Users that Have Actually Attempted Suicide



*Data is from the 2015 Youth Risk Behavior Surveillance survey for the state of Illinois

Figure 50: Prescription Drug Users that Attempted Suicide that Resulted in Injury, Poisoning, or Overdose that Had to Be Treated by a Doctor or Nurse



*Data is from the 2015 Youth Risk Behavior Surveillance survey for the state of Illinois

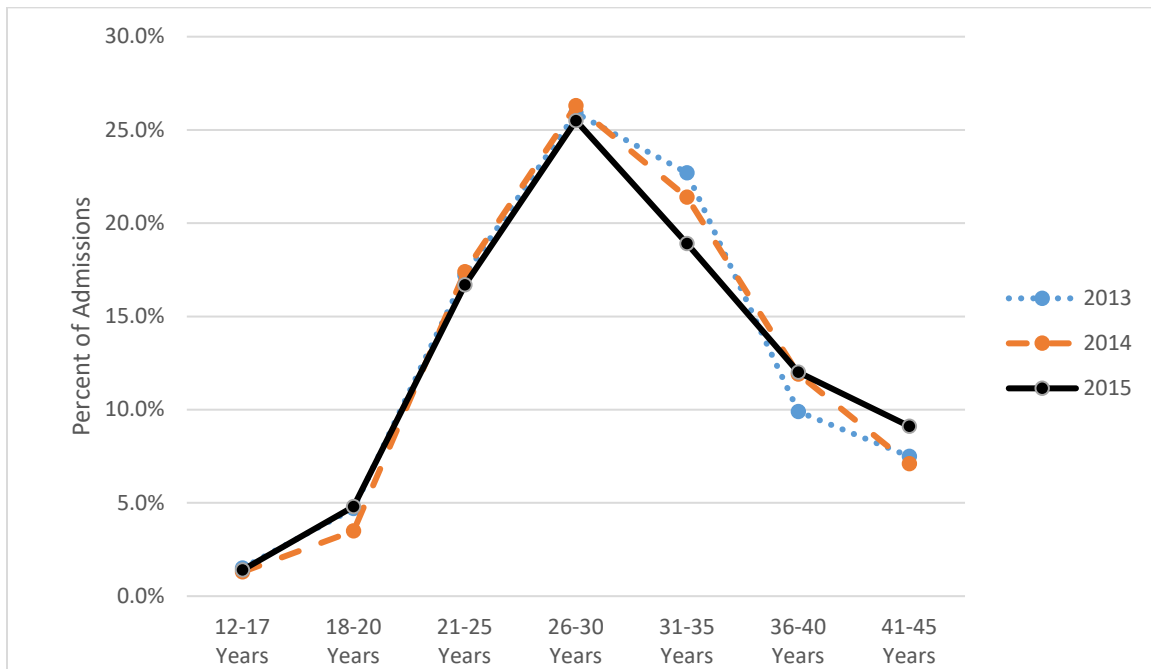
Chapter 3: Consequences of Prescription Drug Abuse

The third key concern related to prescription drug use are the consequences associated with misuse and abuse. This chapter represents the consequences of prescription drug misuse as indicated by drug treatment admissions, emergency department visits due to poisonings, and overdose deaths.

Drug Treatment Admissions

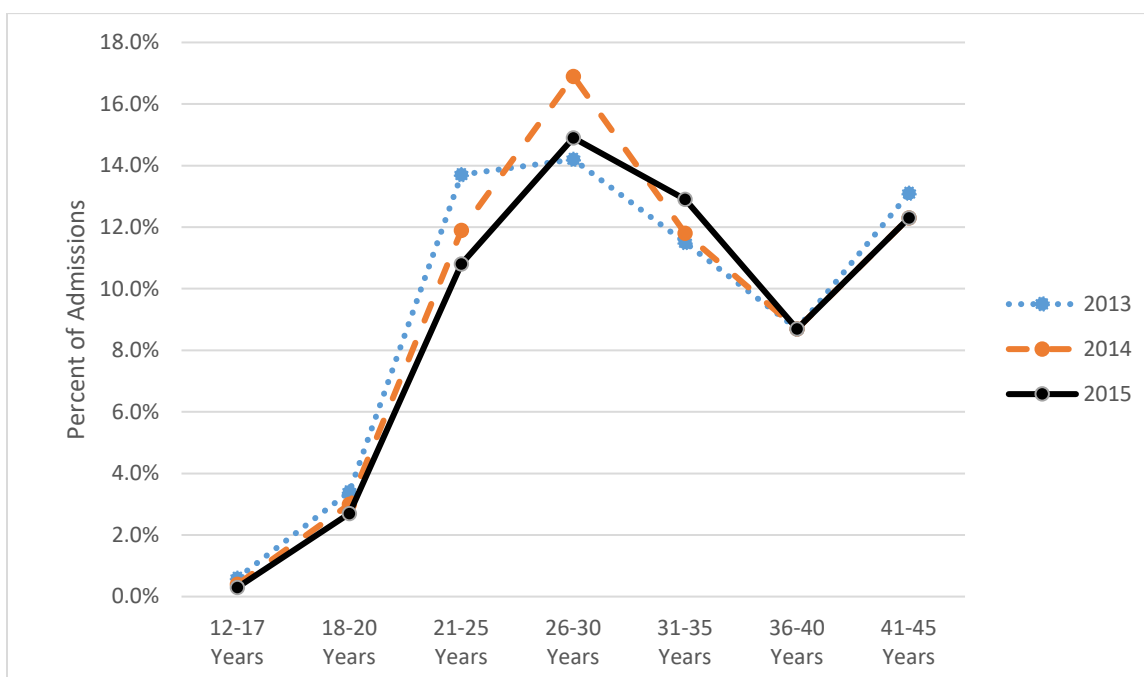
Drug treatment admissions are reported by the Substance Abuse and Mental Health Services Administration (SAMHSA) through the Treatment Episode Data Set (TEDS). For more information, see Appendix A. Treatment admission data is reported annually by age, gender, and race/ethnicity by primary substance at admission to the treatment facility. Medication-Assisted Treatment (MAT) facility location information is provided in the report *The Opioid Crisis: Data and the State's Response* (Illinois Department of Human Services, 2017). The data presented below are from the TEDS for the state of Illinois from 2013 to 2015. As shown previously, the NSDUH data suggested that the highest using population was 18-25 year olds, and the data presented below are consistent with the trajectory in that the highest rate of admissions to treatment occurs soon after with 26-30 year olds. This is the case for both "Other Opiates" and "Heroin" as a primary substance at admission. Overall, heroin makes up 25% and other opiates makes up 5% of total treatment admissions.

Figure 51: Admission to drug treatment facility with a primary substance of "Other Opiates" by Age of Admission



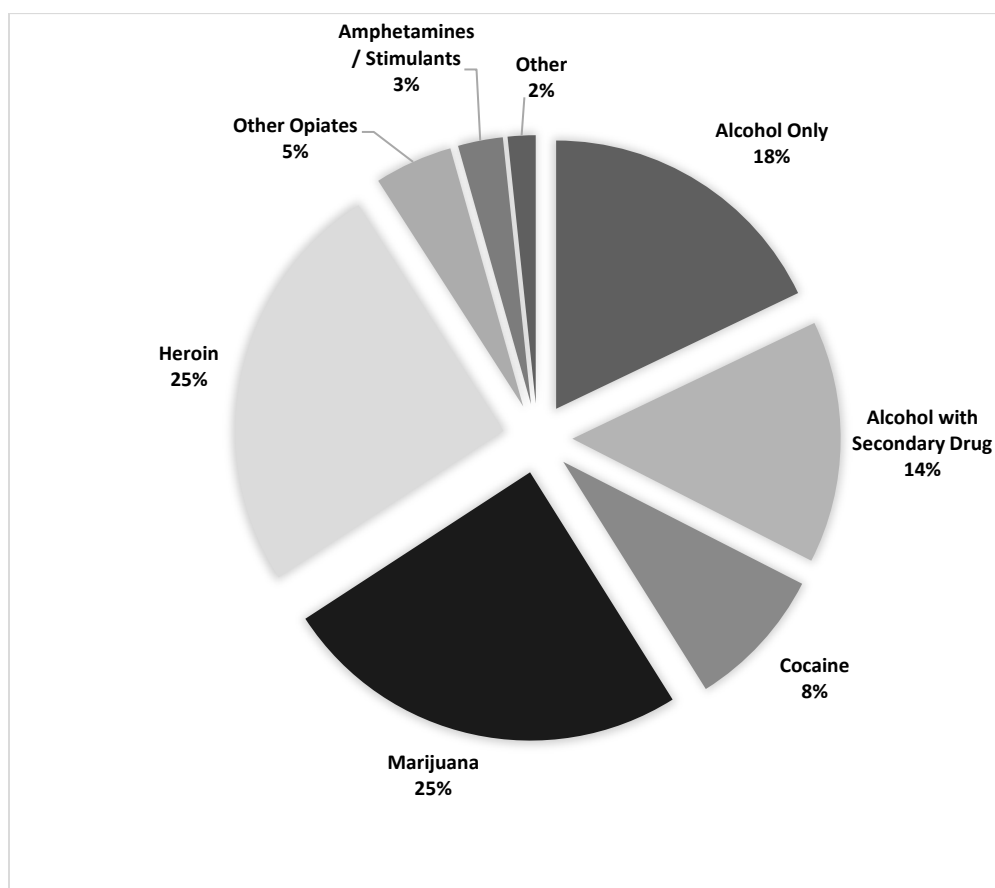
*Source: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS)

Figure 52: Admission to drug treatment facility with a primary substance of “Heroin” by Age of Admission



*Source: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS)

Figure 53: 2015 Treatment Admissions by Primary Substance



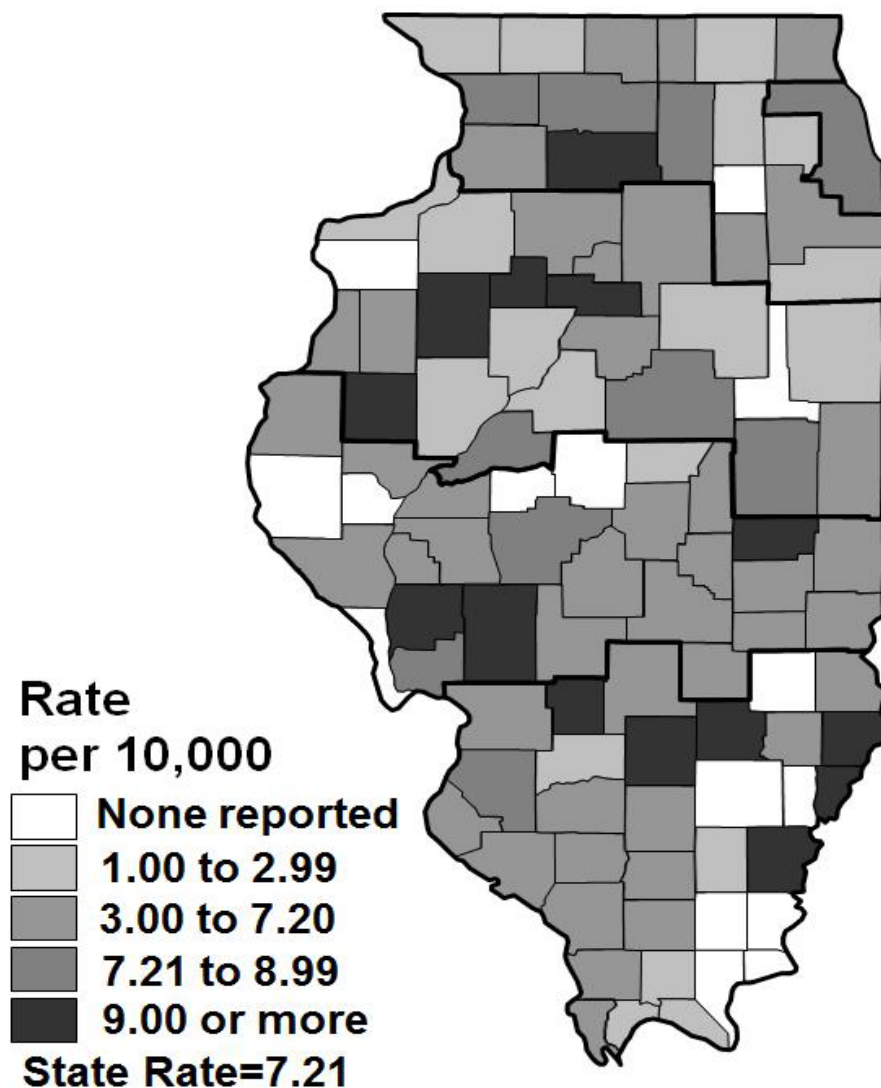
*Source: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS)

*Other includes: PCP, Hallucinogens, Tranquilizers, Sedatives, Inhalants, Other and Unknown

Reported EMS Events with One or More Naloxone Administrations (IDPH)

Emergency Medical Service (EMS) personnel are often the first health care providers to arrive when an emergency call is made regarding a drug overdose. Naloxone can be used to reverse the effects of an opioid overdose and is administered via intranasal, intramuscular, or intravenous routes. On some occasions, depending on the amount or strength of the opioid the person has taken, more than one dose of Naloxone needs to be administered (Faul, et al., 2017). In the state of Illinois, EMS providers around the state report the number of instances and doses of Naloxone that have been administered. Below is a map of the number of instances that one or more doses of Naloxone were given to a patient by county for the year 2015. This data was collected and provided by the Illinois Department of Human Services. For more information, see the report *The Opioid Crisis in Illinois: Data and the State's Response* (Illinois Department of Human Services, 2017).

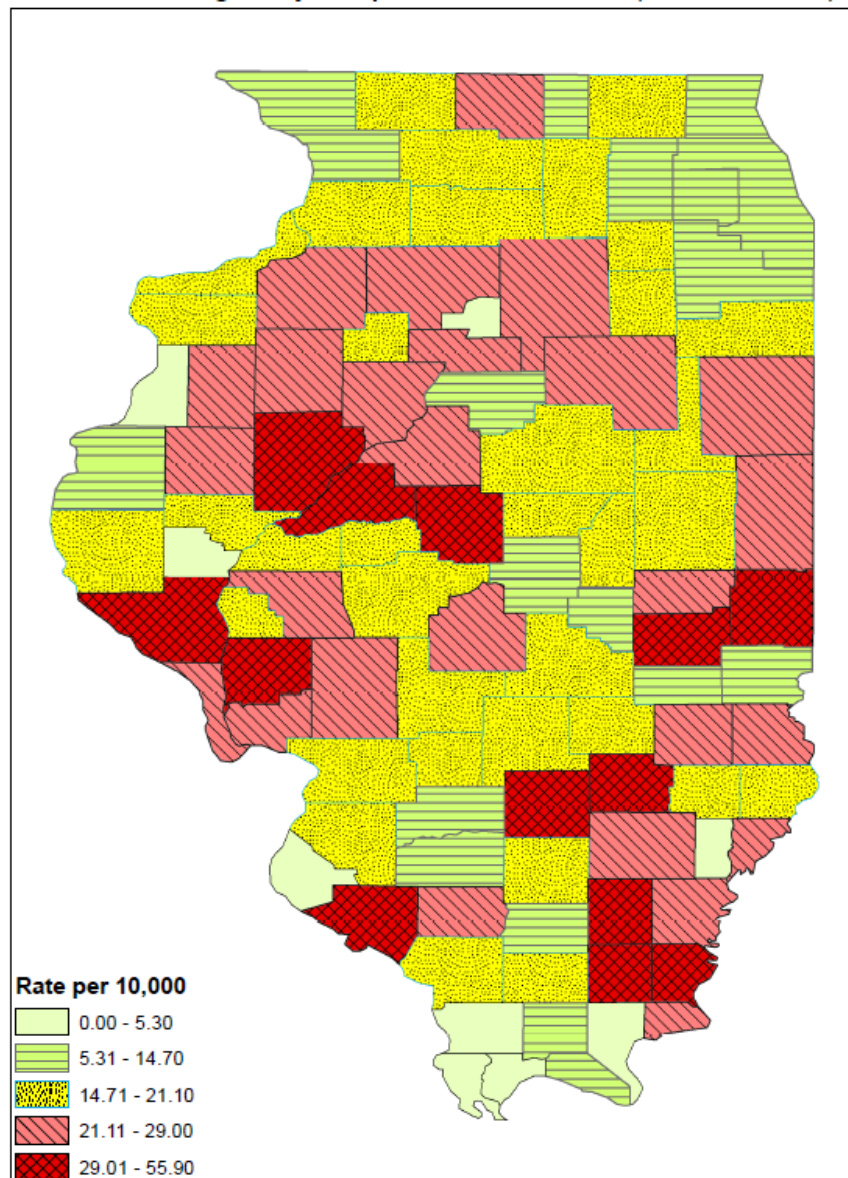
Figure 54: Reported EMS Events with One or More Naloxone Administrations (Rate per 10,000)



Emergency Department Admissions for Prescription-Drug Related Poisonings (IDPH)

Emergency department visit data are collected and reported to the Illinois Department of Public Health. Using ICD-10 codes recommended by the CDC (see Appendix A for more information), the data were queried by county for 2015. The counts provided were converted to a rate per 10,000 for each county. There were 8 counties with no emergency department visits due to prescription-drug related poisonings. Below is a map that outlines where the highest rates of emergency department visits for pharmaceutical poisonings occurred. The greatest rates are all primarily in the bottom half of the state, reflecting the large number of rural counties and communities.

Figure 55: 2015 Emergency Department Visits Per 10,000

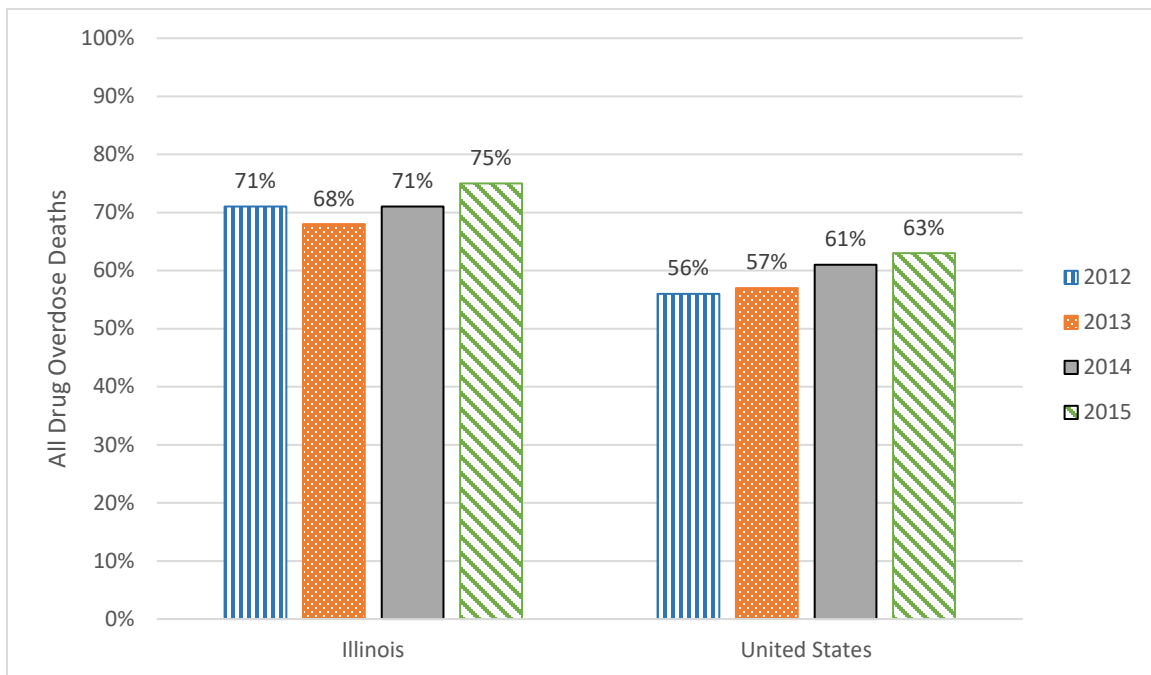


Opioid Overdose Deaths

Overdose deaths from opioid drugs have been increasing at a rapid rate over the past few years in Illinois and the United States. Two agencies in Illinois have investigated the Chicago city-level and state-level overdose death data and found sharp increases. Specifically, the Chicago Department of Public Health (2017) provided an in-depth look at coroner results and the majority of overdose deaths in Chicago were caused by fentanyl or heroin-based opioids. Overdose death data was provided by gender, age, economic hardship, race/ethnicity, and location. Similarly, the Illinois Department of Public Health (2017) also found that opioid overdose deaths were most often caused by heroin or fentanyl-based opioids, and noted sharp increases in the rate of opioid overdose deaths in the past few years.

As shown in the data provided below, opioid deaths make up the majority of drug overdose deaths in both Illinois and the United States. Though Illinois has a smaller rate per 100,000 for prescription-drug related overdose deaths than the United States as a whole, the rate continues to climb each year. The number of overdose deaths in Illinois is in the second highest category when compared to other states (see map below). When we look at overdose deaths by age group, the percent of total deaths has remained relatively steady the past few years by age group, with those in the middle-aged ranges (25-54) having the highest rates and the younger ages (0-24) having the lowest rates. Perhaps most alarming is the overdose deaths rate by type of opioid. When comparing 4 different types of opioids, there has been a sharp increase in overdose deaths from heroin over the past few years (for a definition of each type, see Appendix A).

Figure 56: Opioid Deaths as a Percent of All Drug Overdose Deaths



*Data is from the Kaiser Family Foundation's State Health Facts

Entity	2012	2013	2014	2015
Illinois	2.6	2.6	3.4	4.5
United States	5.1	5.1	5.9	7.0

Figure 58: 2015 Prescription Opioid Overdose Deaths (Number of Deaths)

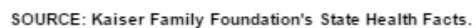
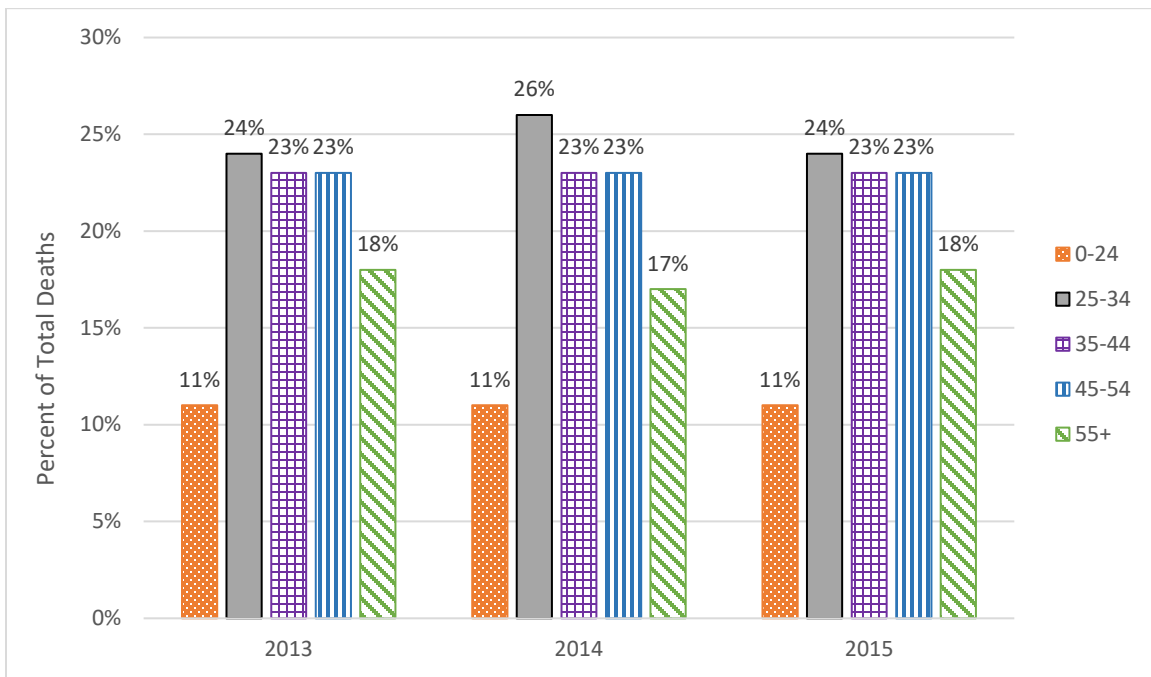
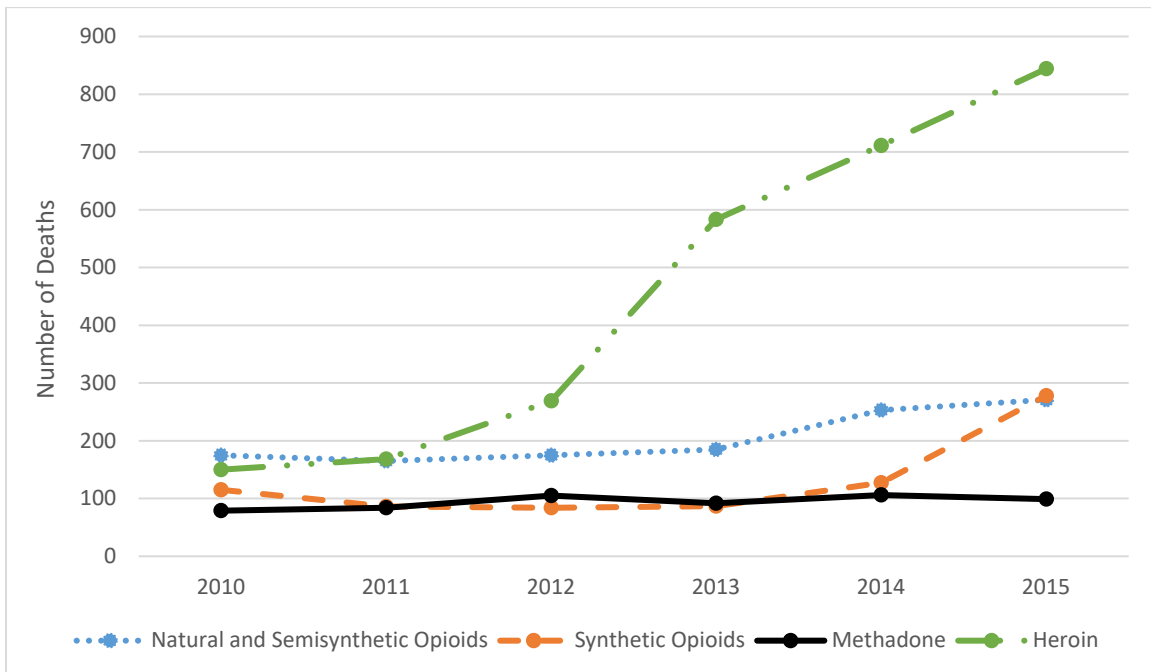


Figure 59: Percent of Opioid Overdose Deaths by Age Group for Illinois



*Data is from the Kaiser Family Foundation's State Health Facts

Figure 60: Opioid Overdose Deaths Trend by Type of Opioid in Illinois

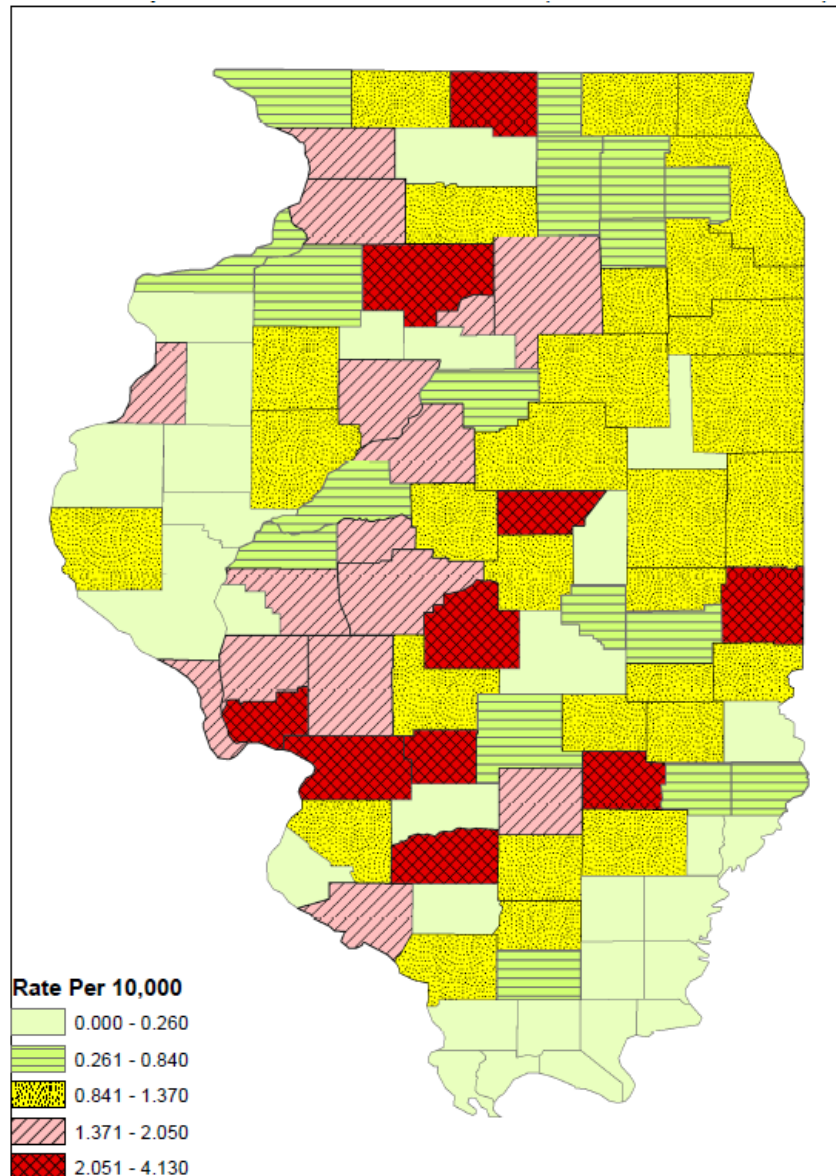


*Data is from the Kaiser Family Foundation's State Health Facts

Map of Opioid Overdose Deaths by County

Drug overdose mortality data is collected and reported to the Illinois Department of Public Health. The data is provided on the IDPH website (for more information, see Appendix A). The counts provided were converted to a rate per 10,000 for each county. There were 29 counties in Illinois with no opioid overdose deaths. Below is a map that outlines where the highest rates of opioid overdose deaths occurred in 2015. As with emergency department visits, most are in the southern part of the state and are rural communities.

Figure 61: 2015 Opioid Overdose Deaths (Rate Per 10,000)



Appendix A: Description of Data Sources

Illinois Youth Survey (IYS)

The Illinois Youth Survey is a self-report biennial survey conducted with youth in grades 8, 10, and 12. The survey is administered in public and private schools throughout Illinois. Schools opt-in or are recruited to participate. Each administration, a random sample of schools is drawn throughout the state using Probability Proportional to Size (PPS) sampling. The data from the state random sample for Illinois during 2012, 2014, and 2016 is presented in this profile.

Monitoring the Future

Monitoring the Future is an ongoing study of the behaviors, attitudes, and values of American secondary school students, college students, and young adults. Each year, a total of approximately 50,000 8th, 10th and 12th grade students are surveyed. In addition, annual follow-up questionnaires are mailed to a sample of each graduating class for a number of years after their initial participation. The Monitoring the Future study has been funded under a series of investigator-initiated competing research grants from the National Institute on Drug Abuse, a part of the National Institutes of Health. MTF is conducted at the Survey Research Center in the Institute for Social Research at the University of Michigan.

National Survey on Drug Use and Health (NSDUH)

The National Survey on Drug Use and Health (NSDUH) is an annual nationwide survey involving interviews with approximately 70,000 randomly selected individuals aged 12 and older. Data from the NSDUH provide national and state-level estimates on the use of tobacco products, alcohol, illicit drugs (including non-medical use of prescription drugs) and mental health in the United States. RTI has conducted the survey since 1988. Each year, a scientific random sample of households is selected across the United States, and a professional RTI interviewer makes a personal visit to each selected household. If an individual is selected for the interview, they receive compensation for their participation, which is voluntary, but no other person can take their place. Since the survey is based on a random sample, each selected person represents more than 4,500 United States residents.

Youth Risk Behavior Survey (YRBS)

The YRBS is a survey designed to monitor priority health risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and adults in the United States. The YRBS includes national, state, territorial, tribal government, and local school-based surveys of representative samples of 9th through 12th grade students. These surveys are conducted every two years, usually during the spring semester. The national survey, conducted by the CDC, provides data representative of 9th through 12th grade students in public and private schools in the United States. The state, territorial, tribal government, and local surveys, conducted by departments of health and education, provide data representative of mostly public high school students in each jurisdiction.

CORE Survey

The CORE Survey is conducted by the Core Institute at Southern Illinois University. The survey is administered at public and private colleges and universities in the state of Illinois. The survey is voluntary, conducted in paper/pencil or online format, and schools are encouraged to conduct the survey with a random sample (some smaller schools choose to survey the entire student population). The CORE Survey's purpose is to quantify and document college students' attitudes, perceptions, and opinions about alcohol and drugs. The survey also measures behaviors of actual AOD use and consequences of use. The data is collected via online or paper forms and analyzed by the Core Institute. There are several versions of the survey that schools can choose to administer (i.e., short vs. long form, community college form, campus norms, faculty/staff, etc.). Participating colleges and universities receive reports outlining the results. The target audiences of the products and services offered by the Core Institute are college presidents, administrators, counselors, and others involved in student life and the quality of the college campus environment. A statewide report is also created that combines all participating college and universities' data.

Treatment Episode Data Set (TEDS)

The Treatment Episode Data Set (TEDS) is maintained by the Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration (SAMHSA). The TEDS system includes records for some 1.5 million substance abuse treatment admissions annually. While TEDS does not represent the total national demand for substance abuse treatment, it does comprise a significant proportion of all admissions to substance abuse treatment, and includes those admissions that constitute a burden on public funds.

TEDS comprises data that are routinely collected by States in monitoring their individual substance abuse treatment systems. In general, facilities reporting TEDS data are those that receive State alcohol and/or drug agency funds (including Federal Block Grant funds) for the provision of substance abuse treatment. However, differences in State systems of licensure, certification, accreditation, and disbursement of public funds affect the scope of facilities included in TEDS. Treatment facilities that are operated by private for-profit agencies, hospitals, and the State correctional system, if not licensed through the State substance abuse agency, may be excluded from TEDS. TEDS does not include data on facilities operated by Federal agencies (the Bureau of Prisons, the Department of Defense, and the Veterans Administration). For more information, please visit: <https://www.dasis.samhsa.gov/webt/information.htm>.

Emergency Department Data

The emergency department visit data was provided by the Illinois Department of Public Health (IDPH). The data was queried using the ICD-10 codes recommended by the CDC (https://www.cdc.gov/drugoverdose/pdf/pdo_guide_to_icd-9-cm_and_icd-10_codes-a.pdf). For emergency department visits, the pharmaceutical poisoning codes were used. Initially, the codes for prescription opioid poisonings were used, but there were not enough reportable cases for more than half (54) of the 102 counties in Illinois. Only 8 counties were suppressed for pharmaceutical poisonings. A description of the ICD-10 codes can be found below. The data for patients was queried by the patient's zip code and aggregated to the county level. The data was provided as the number of cases where a patient visited an emergency department with one or more of the ICD-10 codes listed as any of the diagnostic codes (there are up to 25 banks to enter codes for each visit). The data is not an unduplicated count, meaning if one person visited the emergency department multiple times over the course of the year with one of the ICD-10 codes listed, they were counted more than one time in the data. The data was provided for 2015, which was the most recent data.

Drug Overdose Mortality Data

Drug overdose mortality data were retrieved from the Kaiser Family Foundation website or were provided by the Illinois Department of Public Health (IDPH). The Kaiser Family Foundation website (<http://www.kff.org/statedata/>) contains state health facts from a wide variety of publicly available data sets in an easily query-able format with available trend data and maps. The data provided in this report originated from the Centers for Disease Control (CDC)'s WONDER database (<http://wonder.cdc.gov/mcd-icd10.html>) and were accessed on March 2, 2017. These data are displayed in figures 55-59 of this report and include the percent of all deaths that were specific to opioids, the prescription drug overdose death rate per 100,000, a map that shows prescription drug overdose death rates by state, the death rate by age group, and the death rate by type of opioid. The definitions of each type of opioid are listed below:

- **Natural and Semisynthetic Opioids:** A category of prescription opioids that includes natural opioid analgesics (e.g. morphine and codeine) and semi-synthetic opioid analgesics (e.g. drugs such as oxycodone, hydrocodone, hydromorphone, and oxymorphone).
- **Synthetic Opioids, other than Methadone:** A category of opioids including drugs such as tramadol and fentanyl. Synthetic opioids are commonly available by prescription. Fentanyl is legally made as a pharmaceutical drug to treat pain, or illegally made as a non-prescription drug and is increasingly used to intensify the effects (or "high") of other drugs, such as heroin.
- **Methadone:** a synthetic opioid prescribed to treat moderate to severe pain or to reduce withdrawal symptoms in people addicted to heroin or other narcotic drugs.

The data in figures 54 and 60 were provided by the Illinois Department of Public Health (IDPH). The data were queried using the ICD-10 codes recommended by the CDC, and are reported on the IDPH website (<http://www.dph.illinois.gov/data-statistics/vital-statistics/death-statistics/more-statistics>). For this profile, the 2015 overdose death data related to opioid analgesics was gathered and converted into map form for easier readability and comparison purposes. Since the data was retrieved from a public website, it is unknown how many counties were suppressed (all counties were listed). However, there were 36 counties with zero drug overdose deaths. Below, the ICD-10 codes are described in detail.

ICD-10 Code Descriptions

Below is a list and description of the codes from the Centers for Disease Control used for emergency department visits and drug overdose mortality in this profile. The underlying cause codes are listed first, with grouping descriptions, followed by the contributing cause codes. The code descriptions were accessed from CDC WONDER

(<https://wonder.cdc.gov/>).

- For emergency department visits, the full list of codes was used for pharmaceutical poisonings. The underlying cause codes and the contributing cause codes T40.2, T40.3, and T40.4 were used for prescription opioid poisonings.
- For drug overdose mortality, “any opioid” consisted of T40.0, T40.1, T40.2, T40.3, T40.4, and T40.6, while “opioid analgesics” consisted of T40.2, T40.3, and T40.4.

Underlying Cause	
Code	Description
X40-X49 Grouping	Accidental poisoning by and exposure to noxious substances
X40	Accidental poisoning by and exposure to nonopioid analgesics, antipyretics and antirheumatics
X41	Accidental poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified
X42	Accidental poisoning by and exposure to narcotics and psychodysleptics (hallucinogens), not elsewhere classified
X43	Accidental poisoning by and exposure to other drugs acting on the autonomic nervous system
X44	Accidental poisoning by and exposure to other and unspecified drugs, medicaments, and biological substances
X60-X84 Grouping	Intentional self-harm
X60	Intentional self-poisoning by and exposure to nonopioid analgesics, antipyretics and antirheumatics
X61	Intentional self-poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified
X62	Intentional self-poisoning by and exposure to narcotics and psychodysleptics (hallucinogens), not elsewhere classified
X63	Intentional self-poisoning by and exposure to other drugs acting on the autonomic nervous system
X64	Intentional self-poisoning by and exposure to other and unspecified drugs, medicaments, and biological substances
X85-Y09 Grouping	Assault
X85	Assault by drugs, medicaments, and biological substances
Y10-Y34 Grouping	Event of undetermined intent
Y10	Poisoning by and exposure to nonopioid analgesics, antipyretics and antirheumatics, undetermined intent
Y11	Poisoning by and exposure to antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified

Y12	Poisoning by and exposure to narcotics and psychodysleptics (hallucinogens), not elsewhere classified, undetermined intent
Y13	Poisoning by and exposure to other drugs acting on the autonomic nervous system, undetermined intent
Y14	Poisoning by and exposure to other and unspecified drugs, medicaments, and biological substances, undetermined intent
Contributing Cause	
T36	Poisoning by systemic antibiotics
T37	Poisoning by other systemic anti-infectives and antiparasitics
T38	Poisoning by hormones and their synthetic substitutes and antagonists, not elsewhere classified
T39	Poisoning by nonopioid analgesics, antipyretics and antirheumatics
T40 Grouping	Poisoning by narcotics and psychodysleptics (hallucinogens)
T40.0	Opium
T40.1	Heroin
T40.2	Other opioids
T40.3	Methadone
T40.4	Other synthetic narcotics
T40.6	Other and unspecified narcotics
T41	Poisoning by anaesthetics and therapeutic gases
T42	Poisoning by antiepileptic, sedative-hypnotic, and antiparkinsonism drugs
T43 Grouping	Poisoning by psychotropic drugs, not elsewhere classified
T43.0	Tricyclic and tetracyclic antidepressants
T43.1	Monoamine-oxidase-inhibitor antidepressants
T43.2	Other and unspecified antidepressants
T43.3	Phenothiazine antipsychotics and neuroleptics
T43.4	Butyrophenone and thioxanthene neuroleptics
T43.5	Other and unspecified antipsychotics and neuroleptics
T43.8	Other psychotropic drugs, not elsewhere classified
T43.9	Psychotropic drug, unspecified
T44	Poisoning by drugs primarily affecting the autonomic nervous system
T45	Poisoning by primarily systemic and haematological agents, not elsewhere classified
T46	Poisoning by agents primarily affecting the cardiovascular system
T47	Poisoning by agents primarily affecting the gastrointestinal system
T48	Poisoning by agents primarily acting on smooth and skeletal muscles and the respiratory system
T49	Poisoning by topical agents primarily affecting skin and mucous membrane and by ophthalmological, otorhinolaryngological and dental drugs
T50 Grouping	Poisoning by diuretics and other and unspecified drugs, medicaments, and biological substances
T50.0	Mineralocorticoids and their antagonists
T50.1	Loop (high ceiling) diuretics
T50.2	Carbonic-anhydrase inhibitors, benzothiadiazides and other diuretics
T50.3	Electrolytic, caloric and water-balance agents
T50.4	Drugs affecting uric acid metabolism
T50.5	Appetite depressants
T50.6	Antidotes and chelating agents, not elsewhere classified
T50.7	Analeptics and opioid receptor antagonists
T50.8	Diagnostic agents

Appendix B: Question Wording and Response Options

Consumption Survey Questions

Illinois Youth Survey

Have you used prescription painkillers to get high during the past 30 days? (like OxyContin, Vicodin, Lortab, or others)?

- Yes
- No

During the past 12 months, how often have you used prescription painkillers to get high? (e.g., OxyContin, Vicodin, Lortab, etc)

- Never
- 1-2 times
- 3-5 times
- 6 or more times

Have you used other prescription drugs to get high during the past 30 days? (like Ritalin, Adderall, or Xanax)

- Yes
- No

During the past 12 months, how often have you used other prescription drugs to get high? (e.g., Ritalin, Adderall, Xanax, etc.)

- Never
- 1-2 times
- 3-5 times
- 6 or more times

During the past 30 days have you used prescription drugs not prescribed to you?

- Yes
- No

During the past year have you used prescription drugs not prescribed to you?

- Yes
- No

In the past year, on how many occasions (if any) have you: used heroin?

- 0 occasions
- 1-2 occasions
- 3-5 occasions
- 6-9 occasions
- 10-19 occasions
- 20 or more occasions

Youth Risk Behavior Surveillance System (YRBSS)

During your life, how many times have you taken a prescription drug (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription?

- 0 times
- 1 or 2 times

- 3 to 9 times
- 10 to 19 times
- 20 to 39 times
- 40 or more times

During your life, how many times have you used heroin (also called smack, junk, or China White)?

- 0 times
- 1 or 2 times
- 3 to 9 times
- 10 to 19 times
- 20 to 39 times
- 40 or more times

National Survey on Drug Use and Health (NSDUH)

Note: NSDUH questions are specific by the name of each drug, depending on affirmative responses to use of each category listed below. The data is aggregated to use of “any prescription drug” when distributed.

- In the past 12 months, did you use [any prescription drug] in any way a doctor did not direct you to use it?
 - Pain relievers
 - Sedatives
 - Tranquilizers
 - Stimulants
- In the past 12 months, did you use [any prescription drug] in any way a doctor did not direct you to use it?
 - Pain relievers
 - Sedatives
 - Tranquilizers
 - Stimulants

CORE Survey

During the last 30 days, on how many days did you use prescription drugs without a prescription or other than prescribed?

Response Options: Did not use, 1-2 Days, 3-5 Days, 6-9 Days, 10-19 Days, 20-29 Days, All 30 Days

- Pain Medication (Vicodin, OxyContin)
- Sedatives/Anti-Anxiety (Valium, Xanax)
- Stimulants (Adderall, Ritalin)
- Sleep Medication (Lunesta, Ambien)
- Antidepressants (Wellbutrin, Cymbalta)
- Medicinal Marijuana

Within the last year, approximately how often did you use prescription drugs without a prescription or other than prescribed?

Response Options: Did not use, Once/Year, 6 times/Year, Once/Month, Once/Week, 3 Times/Week, 5 Times/Week, Every Day

- Pain Medication (Vicodin, OxyContin)
- Sedatives/Anti-Anxiety (Valium, Xanax)
- Stimulants (Adderall, Ritalin)
- Sleep Medication (Lunesta, Ambien)
- Antidepressants (Wellbutrin, Cymbalta)
- Medicinal Marijuana

Contributing Factors

Illinois Youth Survey

How wrong do you think it is for someone your age to use prescription drugs not prescribed to them?

- Not wrong at all
- A little bit wrong
- Wrong
- Very Wrong

How wrong do your friends feel it would be for you to use prescription drugs not prescribed to you?

- Not wrong at all
- A little bit wrong
- Wrong
- Very Wrong

How wrong do your parents feel it would be for you to use prescription drugs not prescribed to you?

- Not wrong at all
- A little bit wrong
- Wrong
- Very Wrong

How much do you think people risk harming themselves (physically or in other ways) if they use prescription drugs not prescribed to them?

- No risk
- Slight risk
- Moderate risk
- Great risk

If you wanted to get prescription drugs not prescribed to you, how easy would it be for you to get some?

- Very hard
- Sort of hard
- Sort of easy
- Very easy

In the past year, did you get any prescription drugs not prescribed to you from any of the following sources?

Response Options: Yes, No

- I bought them from someone (friend, relative, stranger, etc.)
- I took them from home without the knowledge of my parents/guardians
- I took them from someone else's home
- My parents gave them to me
- Someone other than my parents gave them to me (friend, relative, friends' parent, etc.)

During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?

- Yes
- No

During the past 12 months, did you ever seriously consider attempting suicide?

- Yes
- No

Youth Risk Behavior Surveillance System (YRBSS)

During the past 12 months, did you make a plan about how you would attempt suicide?

- Yes
- No

During the past 12 months, how many times did you actually attempt suicide?

- 0 times
- 1 time
- 2 or 3 times
- 4 or 5 times
- 6 or more times

If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?

- I did not attempt suicide during the past 12 months
- Yes
- No

CORE Survey

Approximately how often do you think the average student on your campus uses prescription drugs without a prescription or other than prescribed?

Response Options: Did not use, Once/Year, 6 times/Year, Once/Month, Once/Week, 3 Times/Week, 5 Times/Week, Every Day

- Pain Medication (Vicodin, OxyContin)
- Sedatives/Anti-Anxiety (Valium, Xanax)
- Stimulants (Adderall, Ritalin)

- Sleep Medication (Lunesta, Ambien)
- Antidepressants (Wellbutrin, Cymbalta)
- Medicinal Marijuana

Within the last year, approximately how often did you use prescription drugs without a prescription or other than prescribed?

Note: Respondents asked to mark “as many as apply” for how they got each drug if they indicated use in the past year

Response Options: Legitimate Prescription, Fake or Forged Prescription, Friends at home, Friends at school, Taken from a family member, Given by a family member, Drug Dealer, Acquaintances, Other

- Pain Medication (Vicodin, OxyContin)
- Sedatives/Anti-Anxiety (Valium, Xanax)
- Stimulants (Adderall, Ritalin)
- Sleep Medication (Lunesta, Ambien)
- Antidepressants (Wellbutrin, Cymbalta)
- Medicinal Marijuana

References

- Arria, A.M., Caldeira, K.M., Vincent, K.B., O'Grady, K.E., & Wish, E.D. (2008). Perceived Harmfulness Predicts Nonmedical Use of Prescription Drugs Among College Students: Interactions with Sensation-Seeking. *Prevention Science*, 9, 191-201. doi: 10.1007/s11121-008-0095-8
- Chicago Department of Public Health. (2017). Epidemiology brief: Characterizing opioid use, misuse, and overdose in Chicago, IL, 2015. Retrieved from Chicago Department of Public Health website: https://www.cityofchicago.org/content/dam/city/depts/cdph/CDPH/Healthy%20Chicago/ChicagoOpioidBrief3_6162017.pdf.
- Chicago Department of Public Health. (2017). Epidemiology brief: Opioid related overdose deaths in Cook County, IL, 2015. Retrieved from Chicago Department of Public Health website: https://www.cityofchicago.org/content/dam/city/depts/cdph/CDPH/Healthy%20Chicago/JointChicagoCook_6162017b.pdf.
- Connell, C.M., Gilreath, T.D., Aklin, W.M., & Brex, R.A. (2010). Social-ecological influences on patterns of substance use among non-metropolitan high school students. *American Journal of Community Psychology*, 45(0), 36-48. doi: 10.1007/s10464-009-9289-x
- Faul, M., Lurie, P., Kinsman, J.M., Daily, M.W., Crabaugh, C., & Sasser, S.M. (2017). Multiple Naloxone administration among emergency medical service providers is increasing. *Prehospital Emergency Care*, 21(4), 411-419. doi: 10.1080/10903127.2017.1315203
- Illinois Department of Human Services. (2017). The opioid crisis in Illinois: Data and the state's response (DHS 4489, N-05-17). Retrieved from http://www.dhs.state.il.us/OneNetLibrary/27896/documents/OpioidCrisisInIllinois_051617.pdf
- Illinois Department of Public Health. (2017). Analysis of substances involved in opioid overdose deaths in Illinois, 2013-2016. *Illinois Morbidity and Mortality Bulletin*, 3(1), 2-6. Retrieved from Illinois Department of Public Health website: <http://www.dph.illinois.gov/sites/default/files/publications/publicationsoppsimmbvol-3-issue-1.pdf>.
- Jones, C.M. (2013). Heroin use and heroin use risk behaviors among nonmedical users of prescription opioid pain relievers – United States, 2002-2004 and 2008-2010. *Drug and Alcohol Dependence*, 132, 95-100. Retrieved from <http://dx.doi.org/10.1016/j.drugalcdep.2013.01.007>
- Lankenau, S.E., Teti, M., Silva, K., Jackson-Bloom, J., Harocopos, A., & Treese, M. (2012). Initiation into prescription opioid misuse amongst young injection drug users. *International Journal of Drug Policy*, 23, 37-44. doi:10.1016/j.drugpo.2011.05.014
- Lubman, D.I., Hides, L., Yucel, M., & Toumbourou, J.W. (2007). Intervening early to reduce developmentally harmful substance use among youth populations. *The Medical Journal of Australia*, 187(7), 22-25. Retrieved from https://www.mja.com.au/system/files/issues/187_07_011007/lub10281_fm.pdf
- Lucyk, S.N., & Nelson, L.S. (2017). Novel synthetic opioids: An opioid epidemic within an opioid epidemic. *Annals of Emergency Medicine*, 69 (1), 91-93. doi: 10.1016/j.annemergmed.2016.08.445
- Perkins, H.W., Meilman, P.W., Leichliter, J.S., Cashin, J.R., & Presley, C.A. (2010). Misperceptions of the norms for the frequency of alcohol and other drug use on college campuses. *Journal of American College Health*, 47(6), 253-258. doi:10.1080/07448489909595656

- Rudd, R.A., Aleshire, N., Zibbell, J.E., Gladden, R.M. (2016). Increases in Drug and Opioid Overdose Deaths: United States, 2000-2014. *American Journal of Transplantation*, 16(4), 1323-1327. doi: 10.1111/ajt.13776
- Single, E., Kandel, D., & Faust, R. (1974). Patterns of multiple drug use in high school. *Journal of Health and Social Behavior*, 15(4), 344-357. Retrieved from <http://www.jstor.org/stable/2137095>
- Stein, J.A., Newcomb, M.D., & Bentler, P.M. (1987). An 8-year study of multiple influences on drug use and drug use consequences. *Journal of Personality and Social Psychology*, 53(6), 1094-1105. doi: 10.1037/0022-3514.53.6.1094
- Sung, H., Richter, L., Vaughan, R., Johnson, P.B., & Thom, B. (2005). Nonmedical use of prescription opioids among teenagers in the United States: Trends and correlates. *Journal of Adolescent Health*, 37, 44-51. doi:10.1016/j.jadohealth.2005.02.013
- Zullig, K.J., & Divin, A.L. (2012). The association between non-medical prescription drug use, depressive symptoms, and suicidality among college students. *Addictive Behaviors*, 37, 890-899. doi:10.1016/j.addbeh.2012.02.008



C P R D

SCHOOL OF SOCIAL WORK
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN