Substance Use Disorder (SUD) and Alcohol, Tobacco, and Other Drugs (ATOD) Use Among Priority Populations in Indiana

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SyraHealth

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Introduction

Demographic data is a key component of epidemiological reporting that provides essential information regarding health status of various populations. Certain populations and groups are at higher risk than others when it comes to specific health conditions and illnesses. Highlighting these differences can provide valuable insight that is beneficial for affecting positive change for priority populations. Priority populations have long demonstrated a need for support and inclusion within health care and research.

The Health Care Research and Quality Act of 1999 established the following as priority populations: low-income populations, racial/ethnic minorities, women, children/adolescents, and the elderly. Recently, the inclusion criteria for priority populations was expanded to members of underserved communities including: Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality (About Priority Populations).

The following brief will analyze the current literature on substance use and mental health among priority populations. **The priority groups identified for this report include young adults, rural and underserved populations, racial and ethnic minorities, and LGBTQ+.** The review encompasses national and local data and provides a comprehensive break down of substance use trends among the priority populations. Data is derived from national and local survey systems on topics ranging from substance use prevalence to related disorder prevalence. Behavioral Risk Factor Surveillance System (BRFSS) data is used to identify mental illness and disorder prevalence among priority populations.

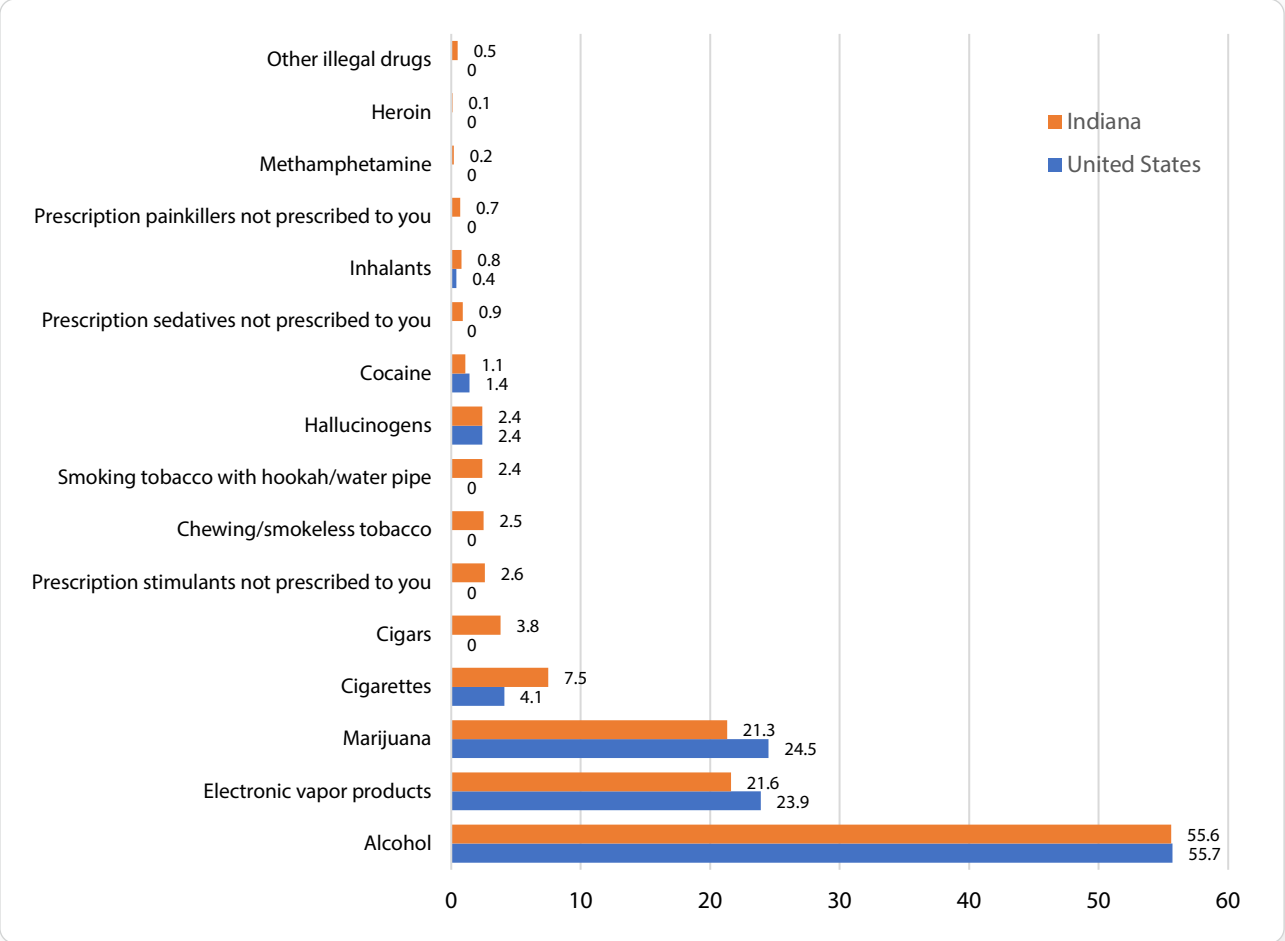
2. Substance and Alcohol Use Among College Students

College Students Substance Use

Increased drug use among college students has been indicated by recent reports. The rates of illicit or non-prescription drug use vary depending on college location and student demographics. Stimulants (e.g., cocaine, Adderall, etc.) and opioids are commonly misused by this population (Kollath-Cattano et al., 2020; Brandt et al., 2014). One study found that stimulants were used more frequently than other studied drug products (Kollath-Cattano et al., 2020). Opioids were found to be misused most frequently by collegiate male athletes post injury. This rate is twice as much as the average rate among the entire study population and is higher than the national average for college males. Increased opioid misuse is postulated to be due to the mindset among athletes that both emotional and physical sacrifices are necessary to be competitive in sports (Ford et al., 2014). One study assessed student perception of illicit drugs and found that stimulants had the highest peer use perception, highest injunctive norm, and are considered easily accessible. This availability is associated with stimulant use. Stimulants are also seen as the most rewarding among the different class of users, whereas non-users saw them as advantageous in college life (Kollath-Cattano et al., 2020).

The Indiana College Substance Use Survey (ICSUS) records data on past month usage among college students of select substances in Indiana and the United States for 2021. Alcohol is the most used substance by college students in Indiana (55.6%) and the United States (55.7%). Following alcohol, the most used substances include marijuana (Indiana: 21.3%; United States: 24.5%) and electronic vapor products (Indiana: 21.6%; United States: 23.9%). Prevalence of use of other substances are also tracked by ICSUS: cigarettes (Indiana: 7.5%; United States: 4.1%); cigars (Indiana: 3.8%; United States: N/A); prescriptions stimulants not prescribed to the user (Indiana: 2.6%; United States: N/A); chewing/smokeless tobacco (Indiana: 2.5%; United States: N/A); smoking tobacco with hookah/water pipe (Indiana: 2.4%; United States: N/A); hallucinogens (Indiana: 2.4%; United States: 2.4%); cocaine (Indiana: 1.1%; United States: 1.4%); prescription sedatives not prescribed to the user (Indiana: 0.9%; Untied States: N/A); inhalants (Indiana: 0.8%; United States: 0.4%); prescription painkillers not prescribed to the user (Indiana: 0.7%; United States: N/A); methamphetamine (Indiana: 0.2%; United States: N/A); heroin (Indiana: 0.1%; United States: N/A); other illegal drugs (Indiana: 0.5%; United States: N/A).

Figure 2.1: ICSUS Past Month Substance Use College Students



Source: ICSUS 2021
Note: Zero (0) indicated data not available.

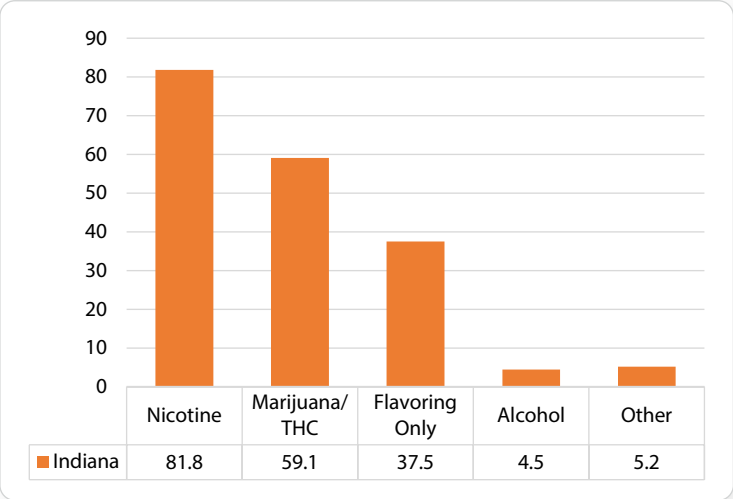
Students Reporting Use of Electronic Vapor Products

Low family income and feelings of anxiety have been reported as predictors of nicotine use (Comeau et al., 2001). Others postulate that parents with a higher education level may reduce the chances of nicotine use among the youth, but this potential benefit has been found to be less effective among minority student populations (Assari et al., 2019). It has been reported that minority student populations are significantly more likely to use nicotine products when compared to non-minority student populations. Native Hawaiian and Other Pacific Islanders as well as Native American and Alaskan Natives have a significantly higher percentage of nicotine users among high/middle school students. Statistically, e-cigarettes were used more often by most ethnic groups, except African Americans. Similar studies found that use of hookahs, cigarettes, and smokeless tobacco were reported more often. However, nicotine is consumed, the use of multiple products has been shown to be 2-3 times more likely to result in nicotine dependence compared to single-product users (Odani et al., 2018; Anic et al., 2018).

Recent studies across the United States examined the relationship of e-cigarette/electronic vapor use among colleges students and use of other substances. One study surveyed students at a United States university to assess whether there was a correlation between e-cigarettes and cannabis use later in life. This study reports that students who reported using e-cigarettes during one year of college had a significantly greater chance of using cannabis after transitioning to the next year (Ksinan et al., 2021). Another study conducted at a large, midwestern university surveyed their student body. Of the participants that reported e-cigarette use, data analysis found a significantly higher association of alcohol and drug use (both illicit and non-illicit) (Grant et al., 2019). Importantly, the same study also found a significant association between e-cigarette use and higher rates of PTSD, ADHD, and anxiety.

According to the 2021 Indiana College Substance Use Survey, college students ingested several types of substances via electronic vapor products (Figure 2.2). Of those who utilize electronic vapor products, 81.8% reported using nicotine in the device, followed by marijuana/THC (59.1%), flavoring only (37.5%), alcohol (4.5%), and other substances (5.2%).

Figure 2.2: Substances Used in Electronic Vapor Products

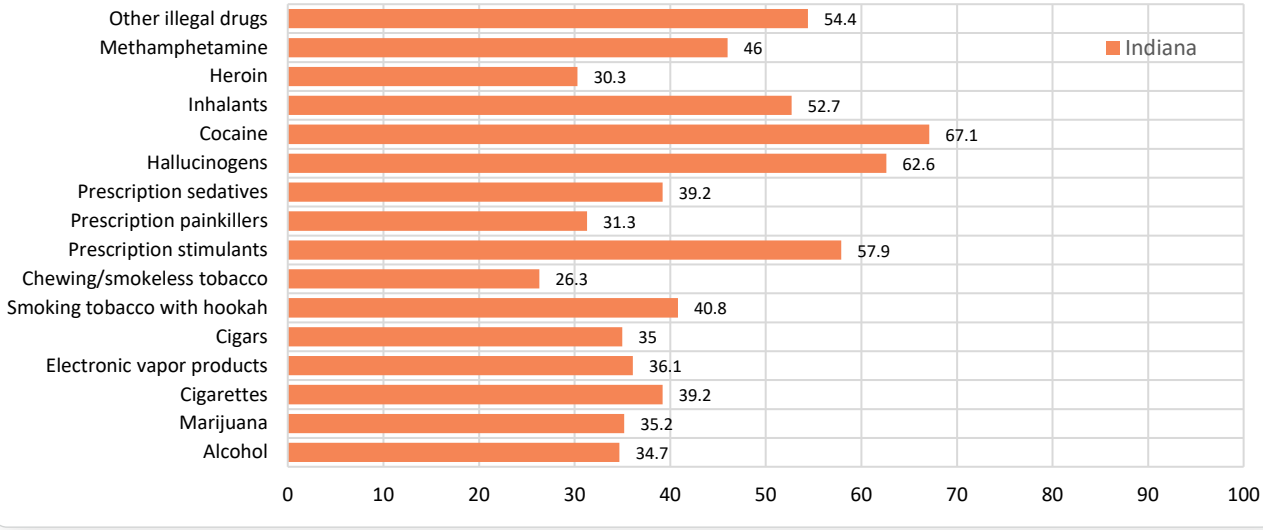


Source: ISCUS 2021
Note: Denominator is the number of students who reported ever using electronic vapor products.

Students Who Initiated Use of Substance

The Indiana College Substance Use Survey (ICSUS) reports the percentage of Indiana college students in 2021 who initiated use of a given substance after starting college (Figure 2.3). Of the students who use cocaine, the highest of all substances reported, 67.1%started using it after beginning college. Similarly, other substances are tracked by ICSUS (alcohol: 34.7%; marijuana: 35.2%; cigarettes: 39.2%; electronic vapor products: 36.1%; cigars: 35.0%; smoking tobacco with hookah: 40.8%; chewing/smokeless tobacco: 26.3%; prescription painkillers: 31.3%; prescription sedatives: 39.2%; hallucinogens: 62.6%; inhalants: 52.7%; heroin: 30.3%; methamphetamine: 46.0%; other illegal drugs: 54.4%).

Figure 2.3: Percentage of College Students Initiating Substance Use by Substance



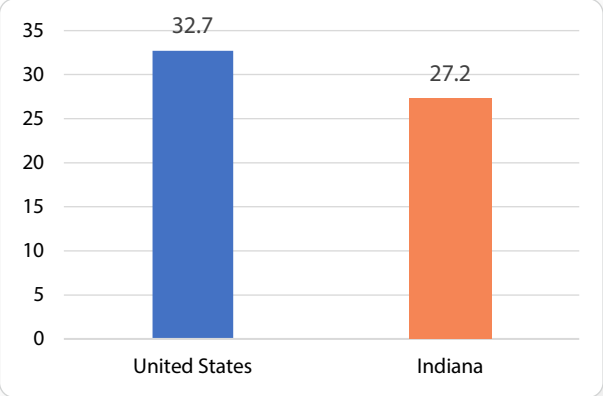
Source: ICSUS 2022
Note: Denominator is the number of students who reported ever using that substance.

Students Reporting Binge Drinking

College-age binge drinking has also been the focus of recent studies in the US. Such studies examine the topic from different angles, such as the consequences of binge drinking. One study compared the drinking pattern of community college students to self-perceived consequences of these drinking habits on their personal life. Their results showed that binge drinkers had a significantly higher instance of alcohol-related problems reported when compared to non-binge drinkers and abstainers (Sheffield et al., 2005). Students that binge drink were found to be eight times more likely to have school related problems compared to students that abstained from drinking (Sheffield et al., 2005). Another study surveyed students before and after a two-week period to determine the cause of these problematic behavior. Attitudes towards binge-drinking, stress, and perceived control over drinking habits were a significant contributor to whether the students did binge over the two-week period (Chen & Feely, 2016).

Binge drinking is "defined as consuming four or more drinks in one sitting for female students and five or more drinks in one sitting for male students." In 2021, according to ICSUS, 32.7% of US college students reported binge drinking in the past two weeks, compared to 27.2% of Indiana college students.

Figure 2.4: Percentage of College Students Reporting Binge Drinking in the Past Two Weeks

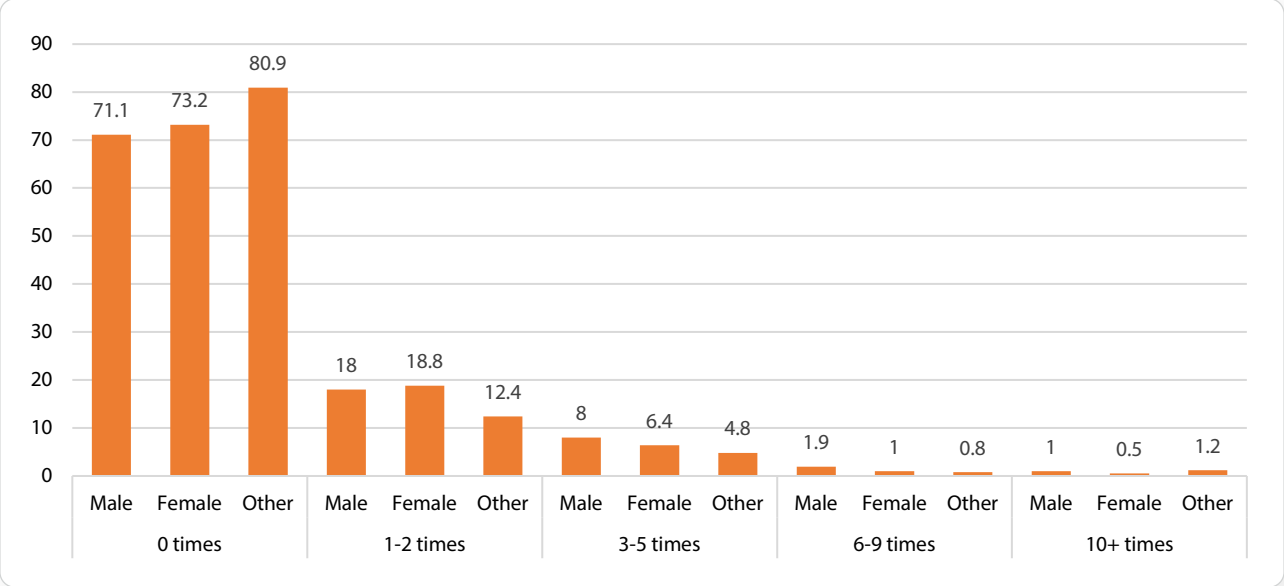


Note: ICSUS 2021
Students Who Binge Drink

Students Who Binge Drink

ICSUS reports the percentage of Indiana college students who binge drank a select number of times throughout the last two weeks. 71.1% and 73.2% of males and females, respectively, reported no binge drinking. Among males, 18.0% reported 1-2 times, 8.0% reported 3-5 times, 1.9% reported 6-9 times, and 1.0% reported 10+ times. Among females, 18.8% reported 1-2 times, 6.4% reported 3-5 times, 1.0% reported 6-9 times, 0.5% reported 10+ times.

Figure 2.5: Percentage of Reported Frequency of Binge Drinking in Past Two Weeks

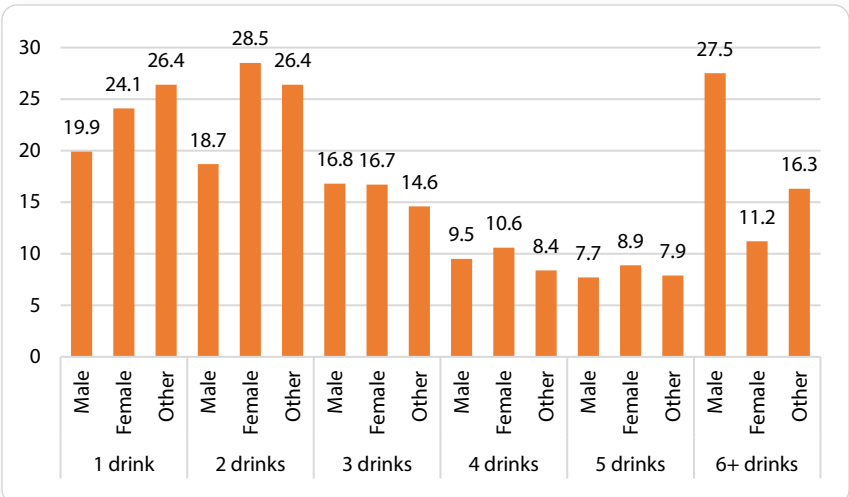


Source: ICSUS 2021

Students Separated by Number of Drinks on Occasions

ICSUS reports the percentage of Indiana college students separated by number of drinks when they drink alcohol (Figure 2.6). With respect to 1 or 2 drinks, females (1 drink: 24.1%; 2 drinks: 28.5%) drink more than men (1 drink: 19.9%; 2 drinks: 18.7%). Males (3 drinks: 16.8%; 4 drinks: 9.5%; 5 drinks: 7.7%) and females (3 drinks: 16.7%; 4 drinks: 10.6%; 5 drinks: 8.9%) drink similar amounts when drinking 3 to 5 drinks. However, when drinking 6+ drinks, males (27.5%) drink significantly more than females (11.2%).

Figure 2.6: Percentage of Number of Drinks Consumed by Gender

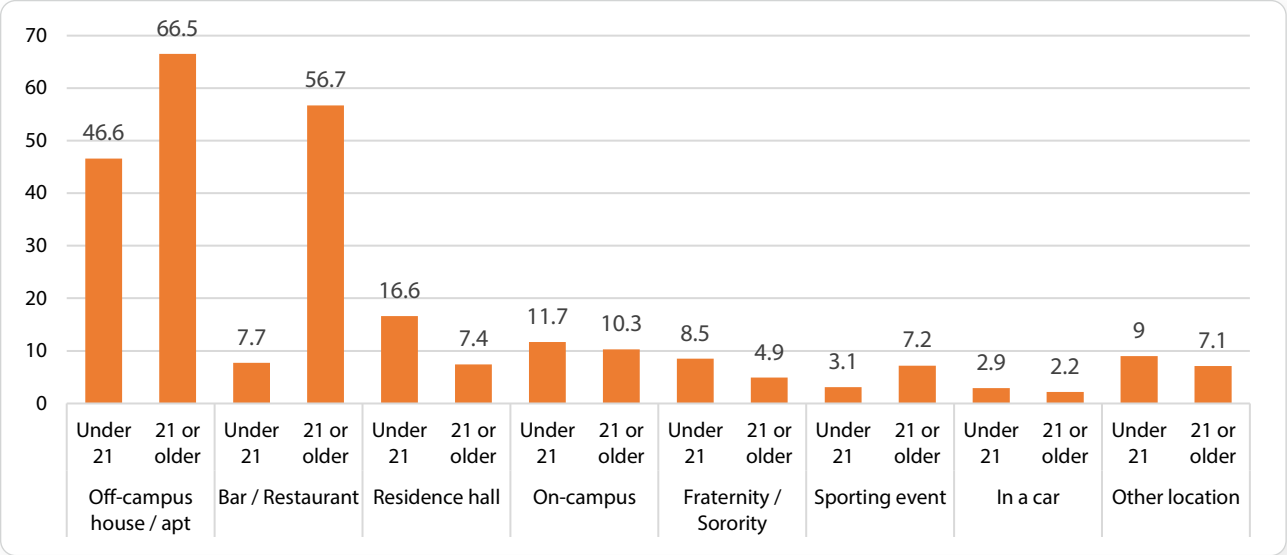


Note: Denominator is the number of students who reported ever consuming alcohol
Source: ISCUS 2021

Students Who Reported Drinking Alcohol

ICSUS reports the location of alcohol consumption among 2021 Indiana college students in the past year. Of those who drink alcohol, many drink at an off-campus house/ apartment (Under 21: 46.6%; 21 or older: 66.5%) or at a bar/restaurant (under 21: 7.7%; 21 or older: 56.7%). Other locations are also tracked by ICSUS: residence hall (Under 21: 16.6%; 21 or older: 7.4%); on-campus (Under 21: 11.7%; 21 or older: 10.3%); fraternity/sorority (Under 21: 8.5%; 21 or older: 4.9%); sporting events (Under 21: 3.1%; 21 or older: 7.2%); in a car (Under 21: 2.9%; 21 or older: 2.2%); other locations (Under 21: 9.0%; 21 or older: 7.1%). Among college students, alcohol consumption is influenced by various outside factors. As the survey above indicates, location and age of the student can contribute to the likelihood of alcohol consumption. One such investigation assessed alcohol consumption a students' 21st birthdays. On these occasions, more alcoholic drinks were consumed at non-Greek parties, Greek sororities or fraternities, and bars as compared to drinking at a parent's house or with a romantic partner (Miller et al., 2016). Another study reports that more alcoholic drinks were consumed at off-campus locations, whether it was housing, bars, or restaurants. Less drinking occurred at on-campus dorms, which may be attributed to regulations of drinking on campus or that students in dorms are typically under 21 (Rodriguez et al., 2016).

Figure 2.7: Location of Alcohol Consumption



Note: Denominator is the number of students who reported ever consuming alcohol
Source: ICSUS 2021

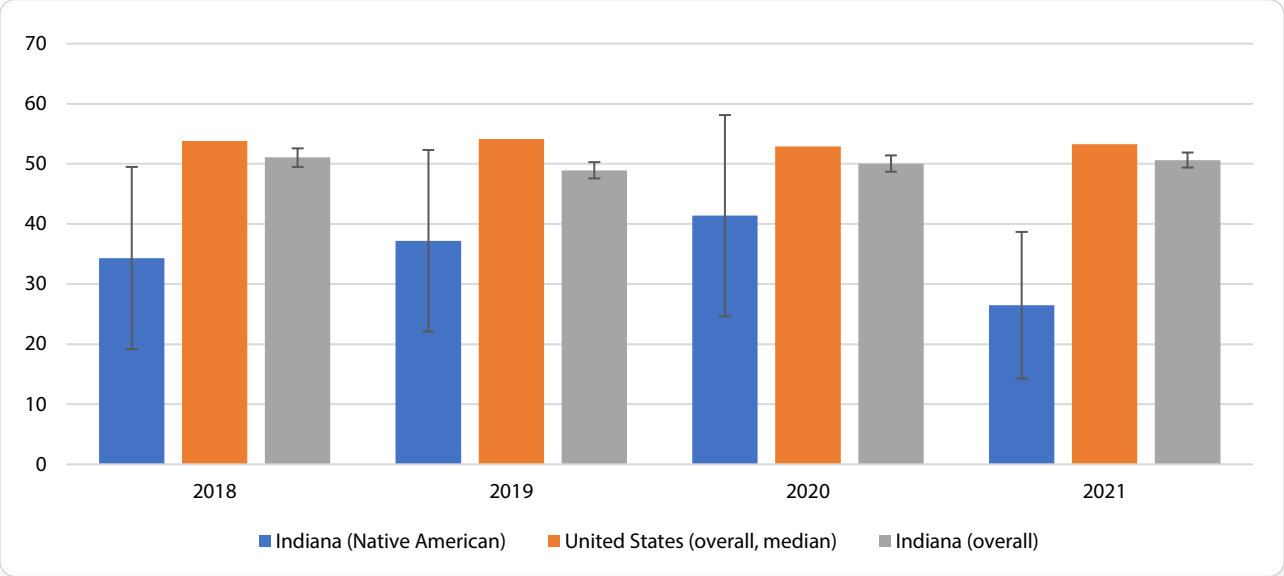
3. Native Americans

Native Americans are another population that are typically understudied. Understanding the rates of alcohol consumption within Native American populations is critical, and some reports have contradictory results, which may implicate that there are tribal or regional differences in rates of alcohol consumption. One study reported that drinking frequency among Native Americans was lower than white and mixed-race individuals (Chen et al, 2012). However, the rates of alcohol-related deaths with Native Americans (26.3%) were considerably higher than the white population (7.5%). The rates of binge drinking among Native Americans were also marginally higher as compared to white and mixed-race populations, but the differences were not statistically significant. White populations also benefit from parents that view substance use negatively, and Native Americans may also benefit from this (Chen et al., 2012). Another study found that adolescent Native Americans tended to drink more compared to their white peers as indicated by factors such as 'lifetime drinking,' 'past 30 days drinking,' and 'heavy episodic drinking' (Friese et al, 2010). While studies have assessed the potential for genetic factors to influence drug use, research found no significant differences between Native Americans and other ethnic groups (Ehlers et al., 2013).

Alcohol Consumption Among Native Americans

The BRFSS tracks the percentage of current drinkers among Native Americans living in Indiana, Indiana as whole, and the United States (given as a median). Using the point estimates, Native Americans residing in Indiana (2018: 34.3%; 2019: 37.2%; 2020: 41.4%; 2021: 26.5%) drink much less than the United States median (2018: 53.8%; 2019: 54.1%; 2020: 52.9%; 2021: 53.3%) and overall Indiana average (2018: 51.1%; 2019: 48.9%; 2020: 50.0%; 2021: 50.6%) (Figure 3.1).

Figure 3.1: BRFSS Current Alcohol Use



Source: 1: CDC-BRFSS 2018, 2019, 2020, 2021

Table 3.1: BRFSS Current Alcohol Use

	Indiana (Native American)	United States (overall, median)	Indiana (overall)
2018	34.3 [95% CI: 19.2 - 49.5]	53.8	51.1 [95% CI: 49.5 - 52.6]
2019	37.2 [95% CI: 22.1 - 52.3]	54.1	48.9 [95% CI: 47.6 - 50.3]
2020	41.4 [95% CI: 24.6 - 58.1]	52.9	50 [95% CI: 48.7 - 51.4]
2021	26.5 [95% CI: 14.3 - 38.7]	53.3	50.6 [95% CI: 49.4 - 51.9]

Current Smokers Among Native Americans

The BRFSS tracks the share of current smokers among Native Americans in Indiana, the United States, and overall Indiana general population. The point estimates show that Native Americans in Indiana (2018: 27.8%; 2019: 46.1%; 2020: 45.7%; 2021: 29.6%) smoke much more than the United States median (2018: 16.1%; 2019: 16.0%; 2020: 15.5%; 2021: 14.4%) and overall Indiana (2018: 21.1%; 2019: 19.2%; 2020: 19.4%; 2021: 17.3%).A study found that Native American/Alaskan Native (NA/AN) populations had the highest rate of illegal drug use within the past year as compared to other ethnic groups (Coughlin et al, 2021). The study also found that 2.4% of NA/AN individuals aged 12 years or older had reported methamphetamine use in 2018 compared to the 0.2-1.8% usage among other groups (Coughlin et al., 2021). Between the years of 2015 and 2019, 26.2 out of every 1000 NA/AN persons used methamphetamine as compared to 6.8 out of every 1000 persons for the rest of the United States. Typically, NA/AN persons in rural areas used methamphetamine at higher rates as compared to NA/AN persons in other regions, and users typically were middle-aged with lower income. Another study indicated that Native American youths used illicit drugs significantly more than white youths (Assari et al, 2019).

Native Americans, based off Indian Health Service's research, were found to be 1.7 times more likely to commit suicide as compared to the general US population (IHS, 2019). Youth groups appear to be at higher risk to commit suicide, and substance use disorder, mental health issues, and stress all increase the risk of suicide (Clifford et al., 2013). One study indicated that Native Americans aged 15-34 had a 50% higher suicide rate than the national average. The heavy consumption of alcohol has a likely effect on the population, as it does for their other ethnic peers (Cole et al., 2019).
For Native Americans, the loss of land and culture, trans-generational trauma, and racism are known to make life significantly more stressful. Many community-based tactics have been used to reduce suicide attempts. Gatekeeper training has shown a statistically significant, but short-term, increase in knowledge and confidence in recognizing the signs of suicide risk. Education resulted in less suicide, but such education must be culturally tailored to enhance effectiveness. Community programs had a statistically significant increase in protective behaviors among youths, and a subjective improvement for suicide prevention (Clifford et al., 2013).

Figure 3.2: BRFSS Current Smokers

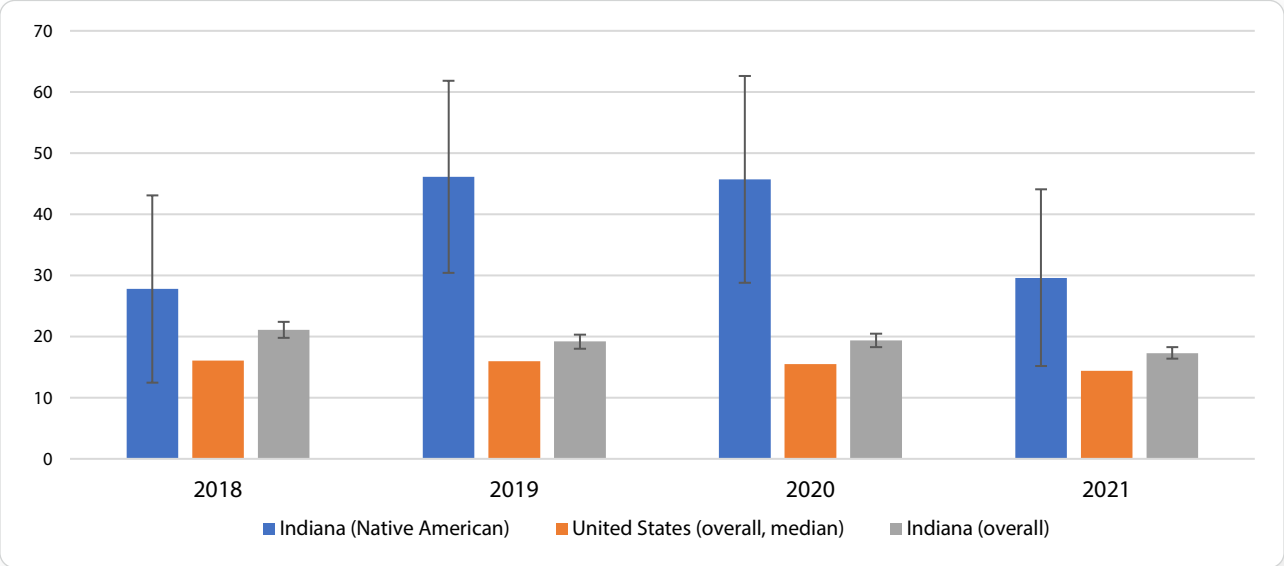


Figure 3.2: BRFSS Current Smokers
Source: CDC-BRFSS 2018, 2019, 2020, 2021

Table 3.2 BRFSS Current Smokers

	Indiana (Native American)	United States (overall, median)	Indiana (overall)
2018	27.8 [95% CI: 12.5 – 43.1]	16.1	21.1 [95% CI: 19.8 – 22.4]
2019	46.1 [95% CI: 30.4 – 61.8]	16.0	19.2 [95% CI: 18.0 – 20.3]
2020	45.7 [95% CI: 28.8 – 62.6]	15.5	19.4 [95% CI: 18.3 – 20.5]
2021	29.6 [95% CI: 15.2 – 44.1]	14.4	17.3 [95% CI: 16.4 – 18.3]

4. Rural Populations

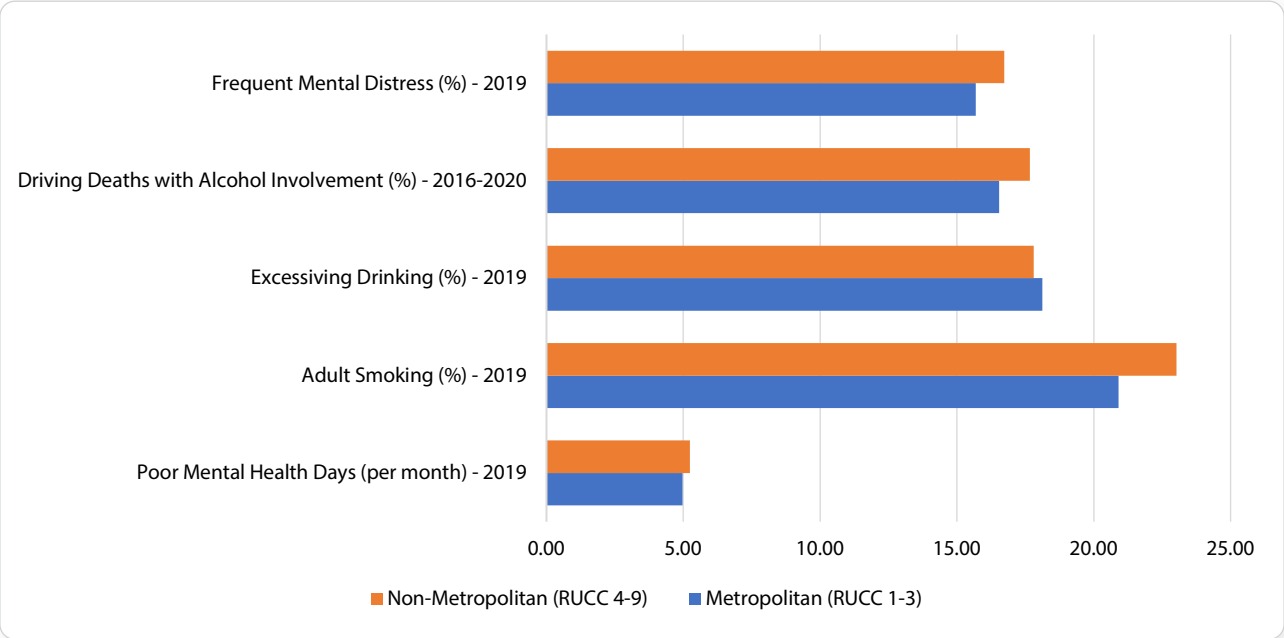
In the United States, drinking habits vary between rural and urban areas and also vary depending on the state these populations reside in. These rural and urban areas can also be further sub-divided into metropolitan, small metropolitan, and non-metropolitan (Dixon et al, 2016). Generally, data from 2011 found that large and small metropolitan areas have higher rates of 12-month Alcohol Use Disorder (AUD) than non-metropolitan areas. Notably, while the metropolitan rates of 12-month AUD increased slightly, non-metropolitan areas had significantly greater increases in 12-month AUD as compared to metropolitan areas. Rural areas report using alcohol as a drug of choice more than urban areas (Dixon et al., 2016). When analyzing the different regions of the US, the rural south had the lowest rate of alcohol use. The urban Midwest had the highest rate of exceeding daily drinking recommendations, as well as reporting the highest 12-month AUD. Within these areas, urban African American and white populations binge drink the most, while Hispanic populations appear to binge drink more in rural areas. Reports assessing AUD display similar findings (Dixon et al., 2016). Overall, there are various factors that contribute to this data, ranging from religious presence to socioeconomic status and even community support systems.

In our analysis, we classify Metropolitan and Non-Metropolitan counties from the USDA's Rural Urban Continuum Code. Counties with Codes 1 to 3 were classified as metropolitan and 4 to 9 as non-metropolitan.

Definitions

Frequent Mental Distress: "Percentage of adults reporting 14 or more days of poor mental health per month (age-adjusted)"; BRFSS
Driving Deaths with Alcohol Involvement: "Percentage of driving deaths with alcohol impairment"; Fatality Analysis Reporting System
Excessive Drinking: "Percentage of adults reporting binge or heavy drinking (age-adjusted)"; BRFSS
Adult Smoking: "Percentage of adults who are current smokers (age-adjusted)"; BRFSS
Poor Mental Health Days: "Average number of mentally unhealthy days reported in past 30 days (age-adjusted)"; BRFSS

Figure 4.1: **Selected Measures from County Health Rankings 2022 Report (%)**



Source: CHR 2022

Definitions

Suicides: "Number of deaths due to suicide per 100,000 population (age-adjusted)"; National Center for Health Statistics – Mortality Files

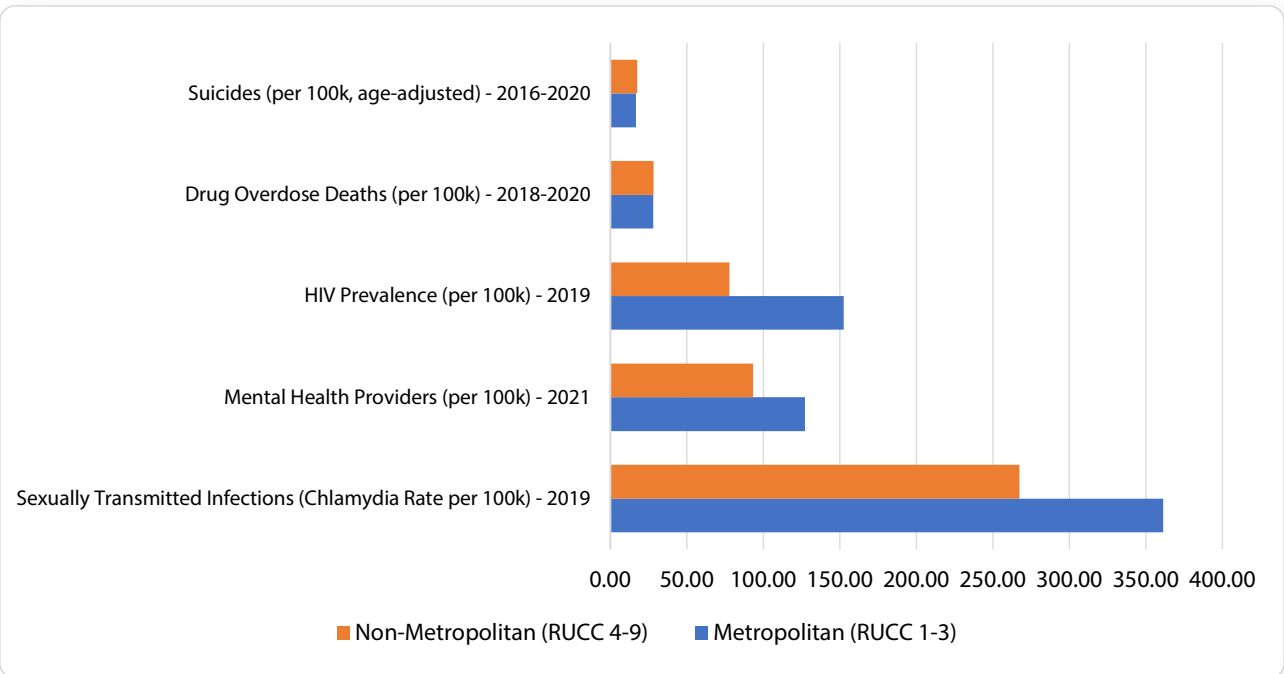
Drug Overdose Deaths: "Number of drug poisoning deaths per 100,000 population"; National Center for Health Statistics – Mortality Files

HIV Prevalence: "Number of people aged 13 years and older living with a diagnosis of human immunodeficiency virus (HIV) infection per 100,000 population"; National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

Mental Health Providers: "Ratio of population to mental health providers"; CMS, National Provider Identification

Sexually Transmitted Infections: "Number of newly diagnosed chlamydia cases per 100,000 population"; National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

Figure 4.2: **Additional Measures from County Health Rankings 2022 Report (per 100k)**

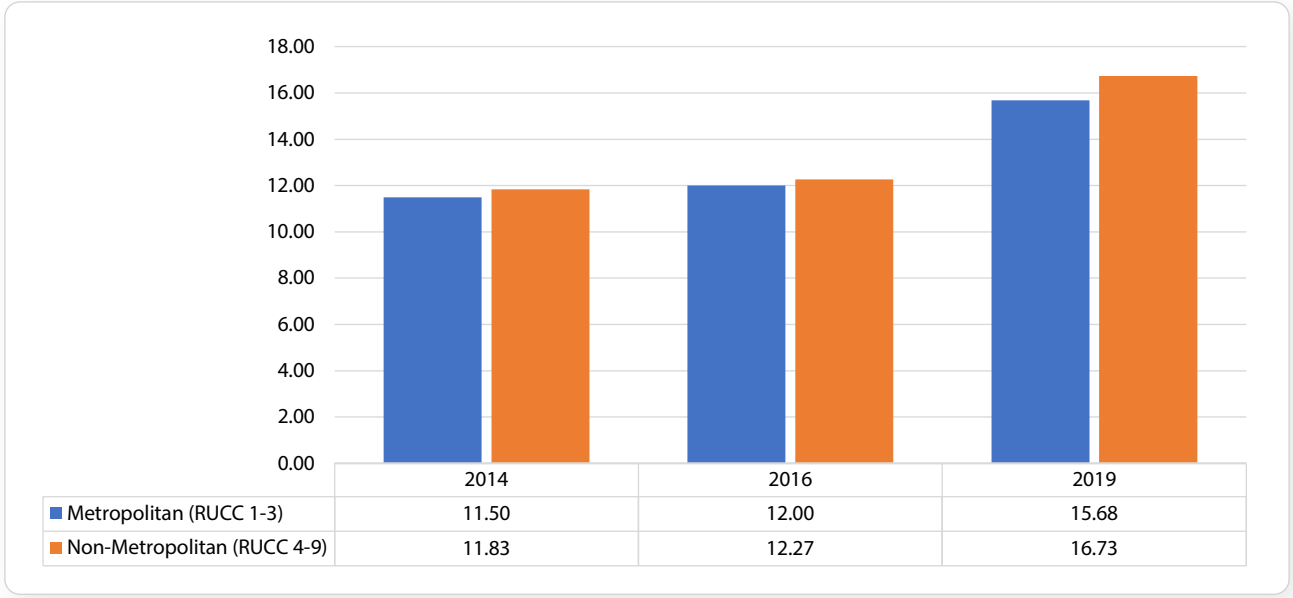


Source: CHR 2022

Rural Populations: Frequent Mental Distress

Frequent mental distress is reported by the BRFSS and is defined as the "percentage of adults reporting 14 or more days of poor mental health per month (age-adjusted)." Frequent mental distress varied slightly among metropolitan and non-metropolitan areas. In each of the reported years (2014, 2016, and 2019), non-metropolitan areas had a slightly higher percentage of its population experiencing frequent mental distress. While little change occurred between 2014 (Metropolitan: 11.50%; Non-Metropolitan: 11.83%) and 2016 (Metropolitan: 12.00%; Non-Metropolitan: 12.27%), a large increase occurred from 2016 to 2019 (Metropolitan: 15.68%; Non-Metropolitan: 16.73%).

Figure 4.3: Percentage of Adults Reporting Poor Mental Health Days Per Month



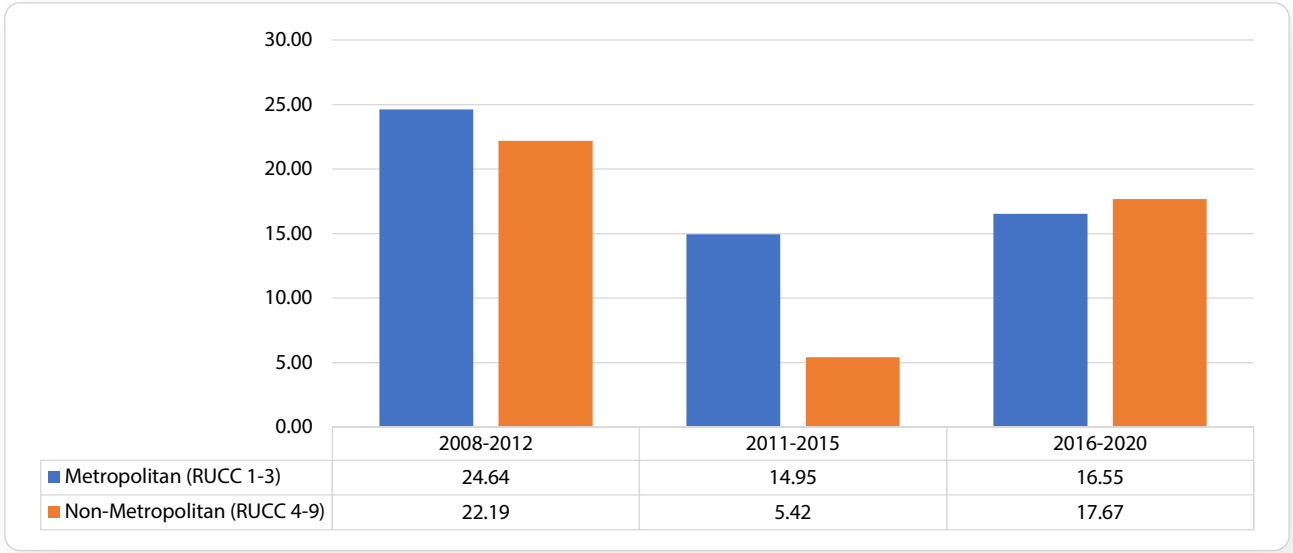
	2014	2016	2019
Metropolitan (RUCC 1-3)	11.50	12.00	15.68
Non-Metropolitan (RUCC 4-9)	11.83	12.27	16.73

Source: CHR Report 2022, BRFSS 2014, 2016, 2019

Driving Deaths with Alcohol Involvement in Rural Areas

The percentage of driving deaths that involved alcohol is reported by the Fatality Analysis Reporting System and curated by County Health Rankings. The percentage of driving deaths that involved alcohol has varied from year to year. In a composite of data from 2008 to 2012, metropolitan areas (24.64%) had a higher rate than that of the non-metropolitan areas (22.19%). In following reporting periods for data from 2011 to 2015, the rates dropped significantly (Metropolitan: 14.95%; Non-Metropolitan: 5.42%). The rates increased again in the reporting period from 2016 to 2020 (Metropolitan: 16.55%; Non-Metropolitan: 17.67%).

Figure 4.4 Percentage of Deaths Involving Alcohol



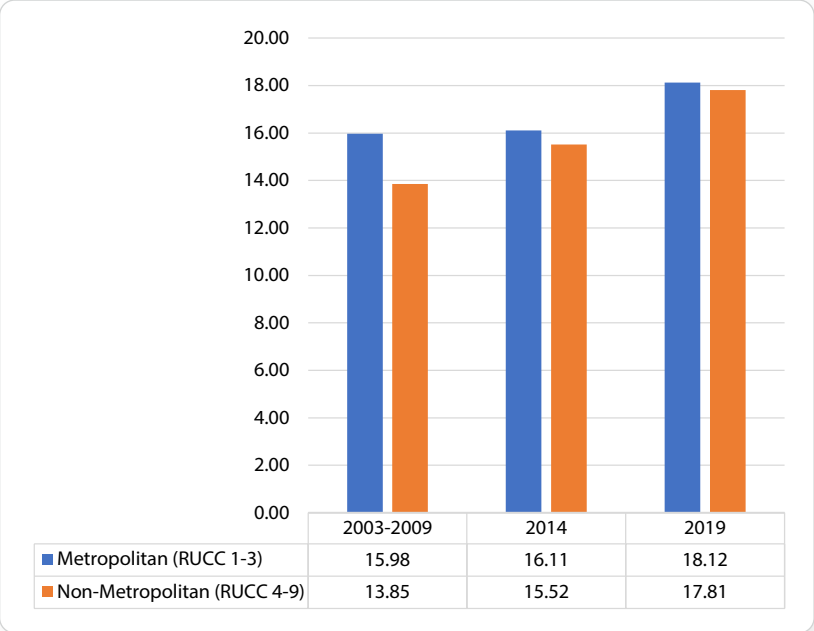
	2008-2012	2011-2015	2016-2020
Metropolitan (RUCC 1-3)	24.64	14.95	16.55
Non-Metropolitan (RUCC 4-9)	22.19	5.42	17.67

Source: CHR Report 2022, Fatality Analysis Reporting System 2008-2012, 2011-2015, 2016-2020

Excessive Drinking in Rural Areas

The percentage of adults who are binge or heavy drinkers is reported by the Behavioral Risk Factor Surveillance System and is age-adjusted (Figure 4.5). Over the last two decades, both metropolitan and non-metropolitan areas in Indiana have seen increases in the percentage of adults who report heavy or binge alcohol usage. For data covering 2003 to 2009, Indiana metropolitan areas (15.98%) had higher rates of excessive drinking than non-metropolitan areas (13.85%) Both rates increased in 2014 (Metropolitan: 16.11%; Non-Metropolitan: 15.52%). Again, the rates increased in 2019 (Metropolitan: 18.12%; Non-Metropolitan: 17.81%).

Figure 4.5: Percentage of Adults Reporting Heavy or Binge Drinking



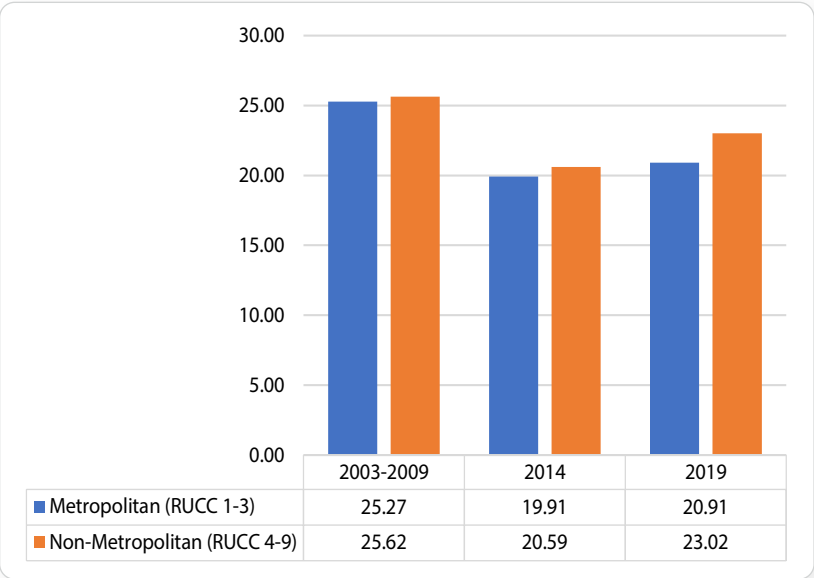
	2003-2009	2014	2019
Metropolitan (RUCC 1-3)	15.98	16.11	18.12
Non-Metropolitan (RUCC 4-9)	13.85	15.52	17.81

Source: CHR Report 2022, BRFSS 2003-2009, 2014, 2019

Rural Adult Smoking

One study examining the use of tobacco among adolescents the US found that rural adolescents use smokeless tobacco products more when compared to urban peers. The use of these same products is on the decline in urban areas. American northwestern urban and suburban teens are less likely to smoke daily compared to their rural counterparts (Coomber et al., 2011). Overall, the rural population of adolescents report statistically higher rates of tobacco use in the past 30 days when compared to urban populations. Further, this study reported that lifetime substance use was significantly higher among rural populations in the US focus groups (Coomber et al., 2011).

Figure 4.6: Percentage of Adult Reported Smokers



	2003-2009	2014	2019
Metropolitan (RUCC 1-3)	25.27	19.91	20.91
Non-Metropolitan (RUCC 4-9)	25.62	20.59	23.02

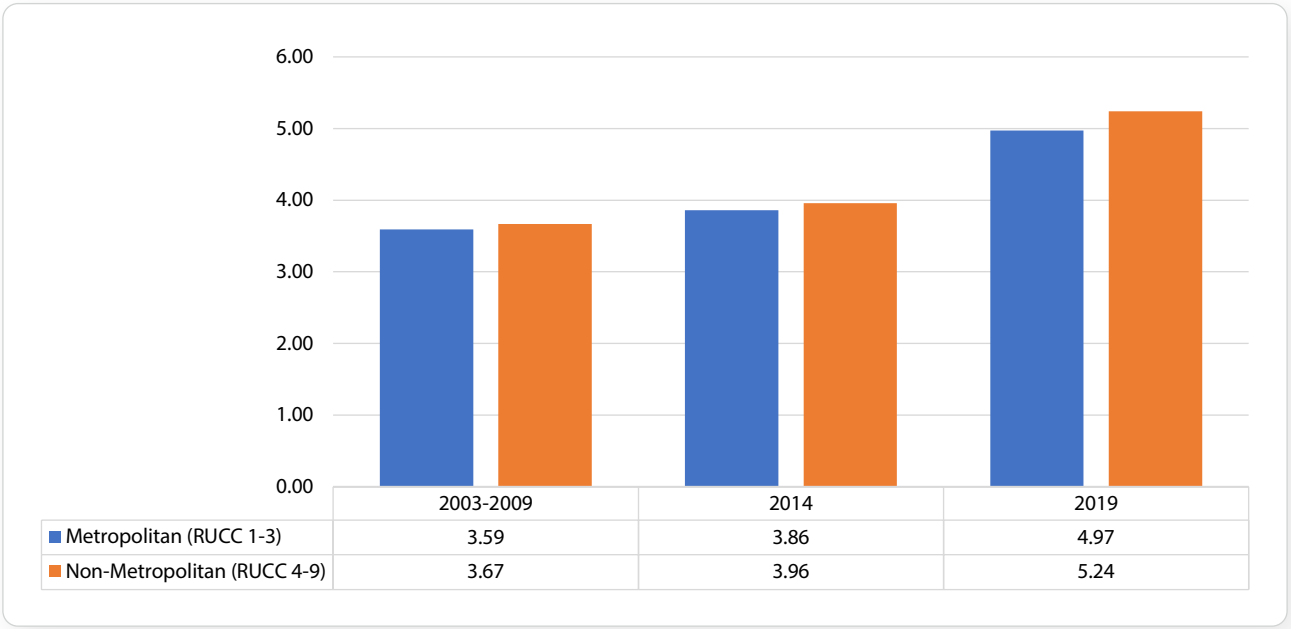
Source: CHR Report 2022, BRFSS 2003-2009, 2014, 2019

The prevalence of adult smoking in Indiana is reported by the Behavioral Risk Factor Surveillance System and is defined as the "percentage of adults who are current smokers (age-adjusted)." In the reported years, non-metropolitan areas consistently had higher rates of adult smoking than metropolitan areas. Adult smoking dropped from the 2003-2009 data (Metropolitan: 25.27%; Non-Metropolitan 25.62%) to 2014 (Metropolitan: 19.91%; Non-Metropolitan: 20.59%). A rebound in adult smoking occurred from 2014 to 2019 (Metropolitan: 20.91%; Non-Metropolitan: 23.02%).

Rural Poor Mental Health Days

The "average number of mentally unhealthy days reported in past 30 days (age-adjusted)" is reported by the BRFSS. From data covering 2003-2009 (Metropolitan: 3.59; Non-Metropolitan: 3.67) to 2014 (Metropolitan: 3.86; Non-Metropolitan: 3.96) to 2019 (Metropolitan: 4.97; Non-Metropolitan: 5.24), an increase in poor mental health days is apparent, with non-metropolitan areas outpacing metropolitan areas.

Figure 4.7: Reported Poor Mental Health Days in the Past 30 Days



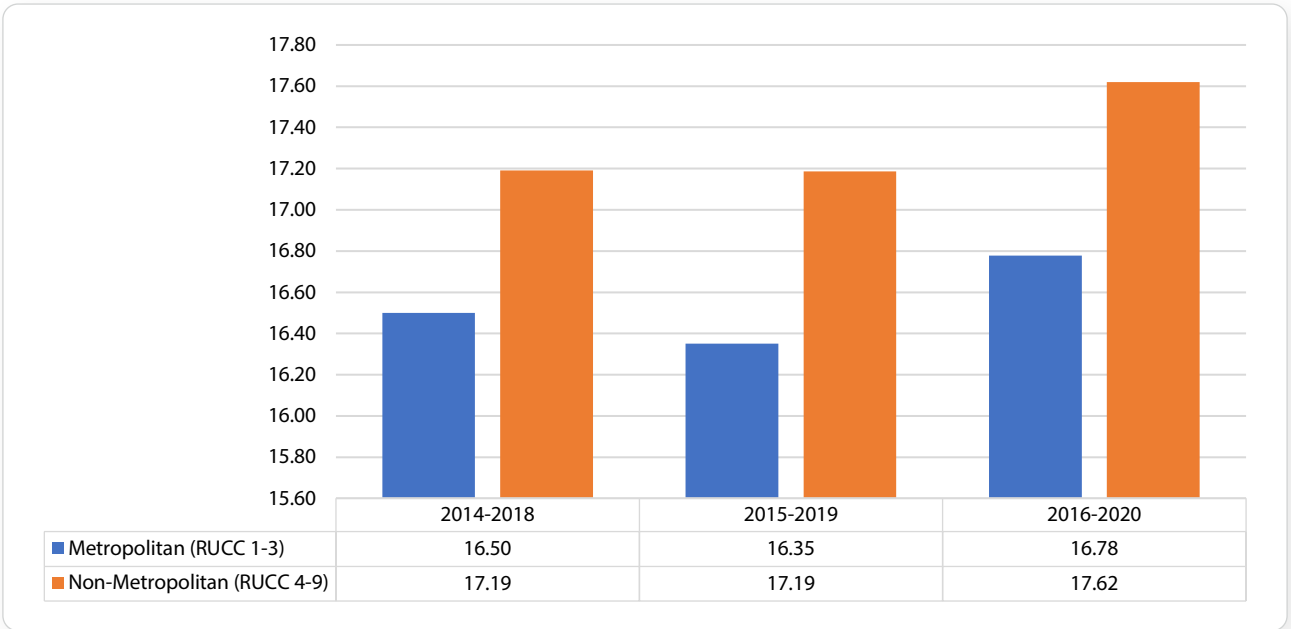
	2003-2009	2014	2019
Metropolitan (RUCC 1-3)	3.59	3.86	4.97
Non-Metropolitan (RUCC 4-9)	3.67	3.96	5.24

Source: CHR Report 2022, BRFSS 2003-2009, 2014, 2019

Rural Suicides

Suicides per 100,000 residents, age-adjusted, are reported by the National Center for Health Statistics – Mortality Files. In Indiana, non-metropolitan areas consistently have higher suicide rates than metropolitan areas. Suicides decreased from 2014-2018 (Metropolitan: 16.50; Non-Metropolitan: 17.19) to 2015-2019 (Metropolitan: 16.35; Non-Metropolitan: 17.19), before increasing above 2014-2018 levels in 2016-2020 (Metropolitan: 16.78; Non-Metropolitan: 17.62).

Figure 4.8: Rural Suicides per 100,000 Residents



	2014-2018	2015-2019	2016-2020
Metropolitan (RUCC 1-3)	16.50	16.35	16.78
Non-Metropolitan (RUCC 4-9)	17.19	17.19	17.62

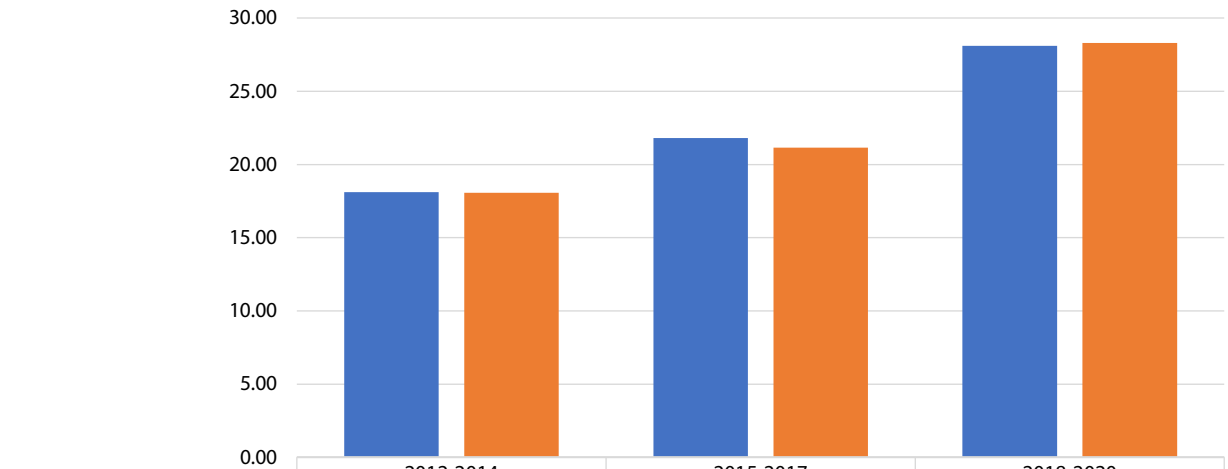
Source: CHR Report 2022, National Center for Health Statistics – Mortality Files 2014-2018, 2015-2019, 2016-2020

Rural Drug Overdose Deaths

The study assessing substance abuse in the US found that rural areas reported significantly more cannabis/illicit drug use than urban populations in both 30-day use and lifetime use. Socioeconomic factors appear to be protective regarding reducing the odds of these substances being used (Coomber et al., 2011). In another study focusing on prescription opioid misuse (POM), various factors contribute to POM. Factors that increase the likelihood of POM include white ethnicity, younger, single, and lower socioeconomic status. Odds of POM occurrence is lower in populations that are female, religious, or perceive the use of opioids as risky. Such factors are vital to understand as the report deaths from prescription opioids exceeded heroin and cocaine combined as far back as 2008 (CDC and Prevention, 2011). Taking these factors into consideration, the study found that rural areas had 15-18% lower odds of POM occurring compared to urban areas. (Rigg et al., 2014).

Drug overdose deaths per 100,000 residents are reported by the National Center for Health Statistics – Mortality Files. Rates of drug overdose deaths have consistently increased from 2012-2014 (Metropolitan: 18.11; Non-Metropolitan: 18.07) to 2015-2017 (Metropolitan: 21.80; Non-Metropolitan: 21.15) to 2018-2020 (Metropolitan 28.10; Non-Metropolitan: 28.3). For data covering 2012-2014 and 2015-2017, metropolitan areas had a higher rate of drug overdose deaths. In 2018-2020, non-metropolitan areas had a higher rate of drug overdose deaths.

Figure 4.9: Drug Overdose Deaths per 100,000 Residents



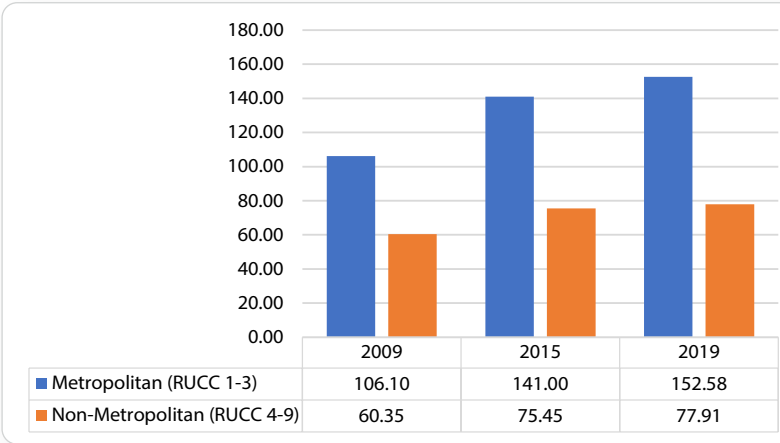
	2012-2014	2015-2017	2018-2020
Metropolitan (RUCC 1-3)	18.11	21.80	28.10
Non-Metropolitan (RUCC 4-9)	18.07	21.15	28.30

Source: CHR Report 2022, National Center for Health Statistics – Mortality Files 2012-2014, 2015-2017, 2018-2020

Rural HIV Prevalence

HIV prevalence per 100,000 residents is reported by the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (Figure 4.10). The data is defined as the "number of people aged 13 years and older living with a diagnosis of human immunodeficiency virus (HIV) infection per 100,000 population." Metropolitan areas (2009: 106.10; 2015: 141.00; 2019: 152.58) consistently have higher rates of HIV than non-metropolitan areas (2009: 60.35; 2015: 75.45; 2019: 77.91). HIV prevalence rates have consistently increased from 2009 to 2019 for both metropolitan and non-metropolitan areas

Figure 4.10: HIV Prevalence per 100,000 Residents



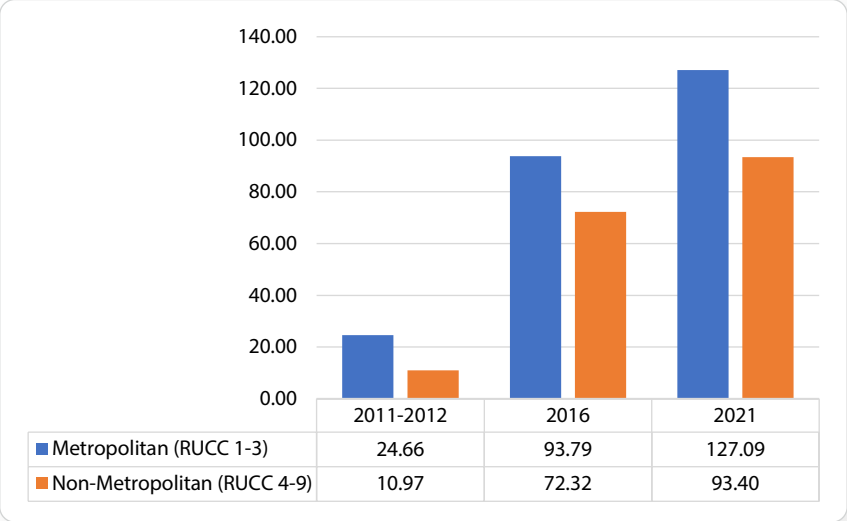
	2009	2015	2019
Metropolitan (RUCC 1-3)	106.10	141.00	152.58
Non-Metropolitan (RUCC 4-9)	60.35	75.45	77.91

Source: CHR Report 2022, National Center for HIV/AIDS, Viral Hepatitis, STD, and TD Prevention 2009, 2015, 2019

Rural Mental Health Providers

The number of mental health providers per 100,000 residents is reported by CMS, National Provider Identification (Figure 4.11). The number of mental health providers per 100,000 residents has consistently increased for both metropolitan (2011-2012: 24.66; 2016: 93.79; 2021: 127.09) and non-metropolitan areas (2011-2012: 10.97; 2016: 72.32; 2021: 93.40). Metropolitan areas consistently have higher counts of mental health providers per 100,000 residents than non-metropolitan areas.

Figure 4.11: Reported Number of Mental Health Providers per 100,000 Residents



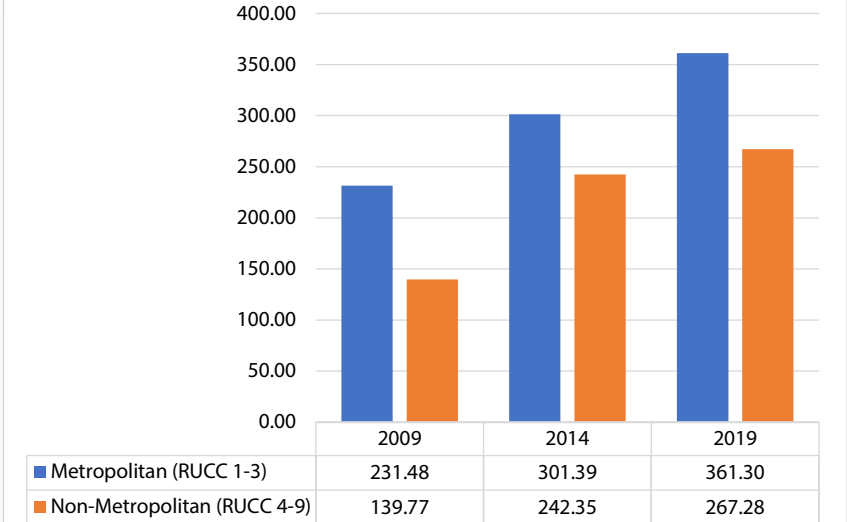
	2011-2012	2016	2021
Metropolitan (RUCC 1-3)	24.66	93.79	127.09
Non-Metropolitan (RUCC 4-9)	10.97	72.32	93.40

Source: CHR Report 2022, CMS, National Provider Identification 2011-2012, 2016, 2021

Rural Sexually Transmitted Infections

The Chlamydia rate per 100,000 residents is reported by the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. The data tracked for chlamydia rate is defined as the "number of newly diagnosed chlamydia cases per 100,000 population." Metropolitan areas (2009: 231.48; 2014: 301.39; 2019: 361.30) consistently have higher rates than non-metropolitan areas (2009: 139.77; 2014: 242.35; 2019: 267.28), with both seeing consistent increases from 2009 to 2019.

Figure 4.12: Chlamydia Transfer Rates per 100,000 Residents



	2009	2014	2019
Metropolitan (RUCC 1-3)	231.48	301.39	361.30
Non-Metropolitan (RUCC 4-9)	139.77	242.35	267.28

Source: CHR Report 2022, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention 2009, 2014, 2019

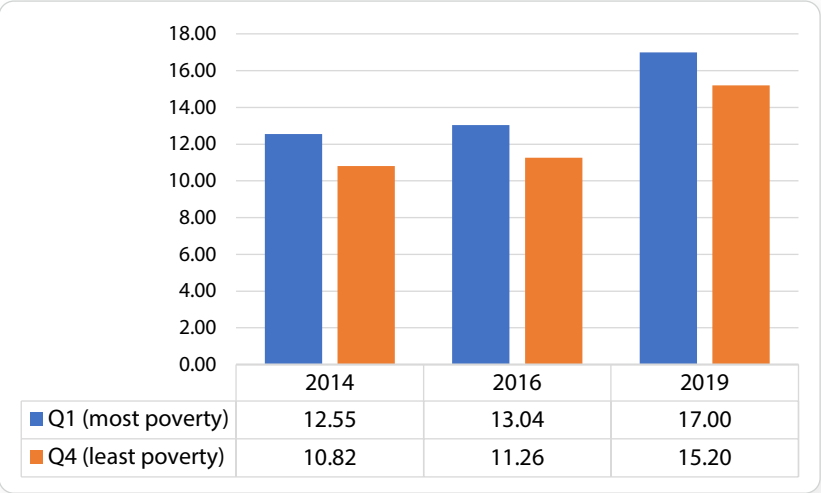
5. Underserved High-Need Geographic Areas

Using data from the Small Area Income and Poverty Estimates program (SAIPE), we created quartiles of Indiana counties based upon poverty data. The first quartile (Q1) represents the counties with the highest poverty rates, while the fourth quartile (Q4) represents the counties that have the lowest poverty rates. Q1 is a high-need geographic area. We then compare Q1 and Q4 poverty rate averages with data obtained from the 2022 County Health Rankings report.

Frequent Mental Distress in Underserved Areas

The BRFSS defines frequent mental distress as the "percentage of adults reporting 14 or more days of poor mental health per month (age-adjusted)." From 2014 (Q1: 12.55%; Q4: 10.82%) to 2016 (Q1: 13.04%; Q4: 11.26%) to 2019 (Q1: 17.00%; Q4: 15.20%), frequent mental distress was consistently higher in Q1 than Q4.

Figure 5.1 Percentage of Adults Reporting 14 or More Poor Mental Days



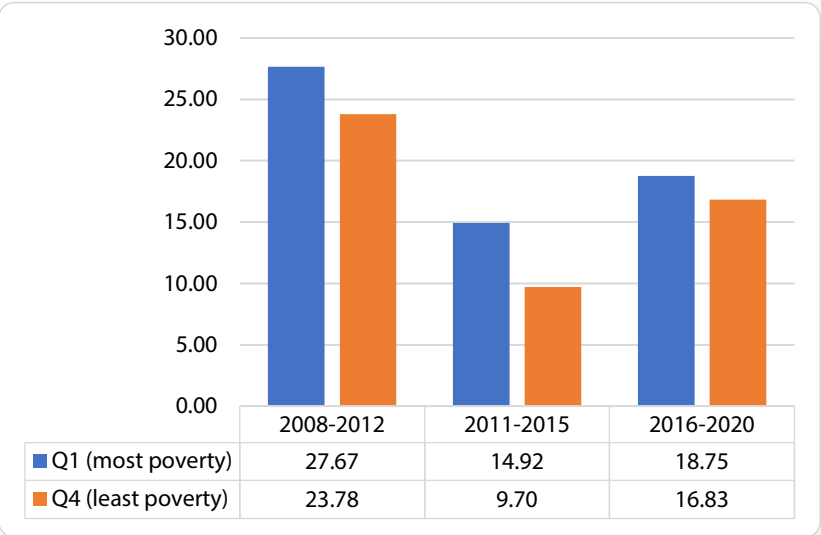
	2014	2016	2019
Q1 (most poverty)	12.55	13.04	17.00
Q4 (least poverty)	10.82	11.26	15.20

Source: CHR Report 2022, BRFSS 2014, 2016, 2019

Driving Deaths with Alcohol Involvement in Underserved Populations

The Fatality Analysis Reporting System reports driving deaths with alcohol involvement, which is defined as the "percentage of driving deaths with alcohol impairment." For data covering 2008-2012, Q1 (27.67%) had higher proportions of driving deaths that involved alcohol involvement than Q4 (23.78%). While rates did decrease in 2011-2015 (Q1: 14.92%; Q4: 9.70%) and 2016-2020 (Q1: 18.75%; Q4: 16.83%), Q1 continued to have higher rates than Q4.

Figure 5.2 Percentage of Driving Deaths with Alcohol Involvement



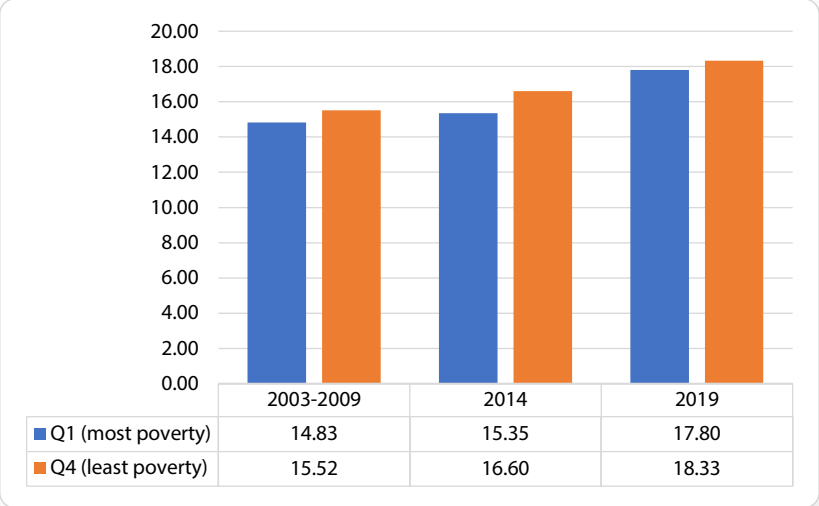
	2008-2012	2011-2015	2016-2020
Q1 (most poverty)	27.67	14.92	18.75
Q4 (least poverty)	23.78	9.70	16.83

Source: CHR Report 2022, Fatality Analysis Reporting System 2008-2012, 2011-2015, 2016-2020

Excessive Drinking Within Underserved Populations

Excessive drinking, defined as the "percentage of adults reporting binge or heavy drinking (age-adjusted)," is reported by the BRFSS. Q4 (2003-2009: 15.52%; 2014: 16.60%; 2019: 18.33%) consistently has higher rates of excessive drinking than Q1 (2003-2009: 14.83%; 2014: 15.35%; 2019: 17.80%), and both rates have continued to increase over time.

Figure 5.3 Adults Reporting Heavy or Binge Drinking



	2003-2009	2014	2019
Q1 (most poverty)	14.83	15.35	17.80
Q4 (least poverty)	15.52	16.60	18.33

Source: CHR Report 2022, BRFSS 2003-2009, 2014, 2019]

Adult Smoking in Underserved Populations

Adult smoking is reported by the Behavioral Risk Factor Surveillance System and is defined as the "percentage of adults who are current smokers (age-adjusted)." Q1 consistently had higher rates of adult smoking than Q4. Rates were highest in 2003-2009 (Q1: 28.14%; Q4: 22.43%), before going to lower levels in 2014 (Q1: 21.84%; Q4: 18.46%) and 2019 (Q1: 23.19%; Q4: 19.99%).

Figure 5.4: Percentage of Adults Who Currently Smoke

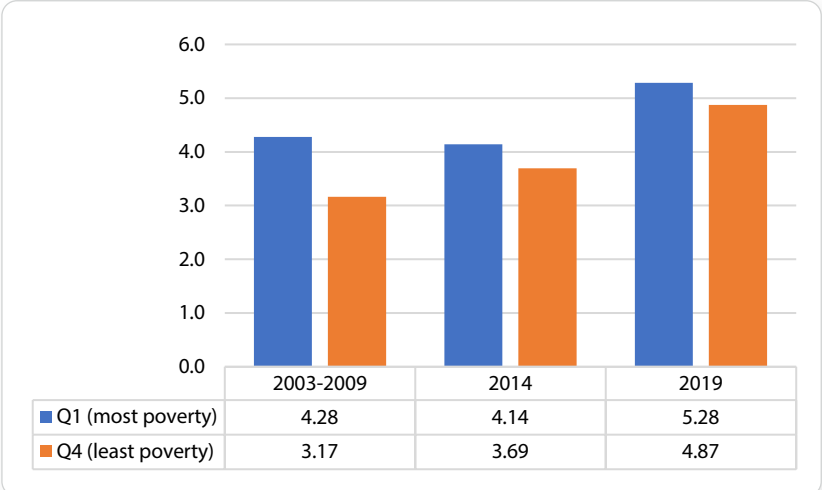
	2003-2009	2014	2019
Q1 (most poverty)	28.14	21.84	23.19
Q4 (least poverty)	22.43	18.46	19.99

Source: CHR Report 2022, BRFSS 2003-2009, 2014, 2019

Underserved Populations with Poor Mental Health Days

The "average number of mentally unhealthy days reported in the past 30 days (age-adjusted)" is reported by the BRFSS. From 2003-2009 to 2014, Q1 (2003-2009: 4.28; 2014: 4.14) experienced a decrease, while Q4 experienced an increase (2003-2009: 3.17; 2014: 3.69). Both saw increases from 2014 to 2019 (Q1: 5.28; Q4: 4.87). Q1 consistently had a higher average number of mentally healthy days each month than Q4.

Figure 5.5: Average Number of Mentally Unhealthy Days



	2003-2009	2014	2019
Q1 (most poverty)	4.28	4.14	5.28
Q4 (least poverty)	3.17	3.69	4.87

Source: CHR Report 2022, BRFSS 2003-2009, 2014, 2019

Underserved Suicides Rates

The "number of death due to suicide per 100,000 population (age-adjusted)" is reported by the National Center for Health Statistics – Mortality Files. Suicides per 100,000 residents are substantially higher in Q1 (2014-2018: 16.95; 2015-2019: 17.19; 2016-2020: 17.16) than in Q4 (2014-2018: 15.50; 2015-2019: 15.59; 2016-2020: 16.18).

Drug Overdose Deaths in Underserved Communities

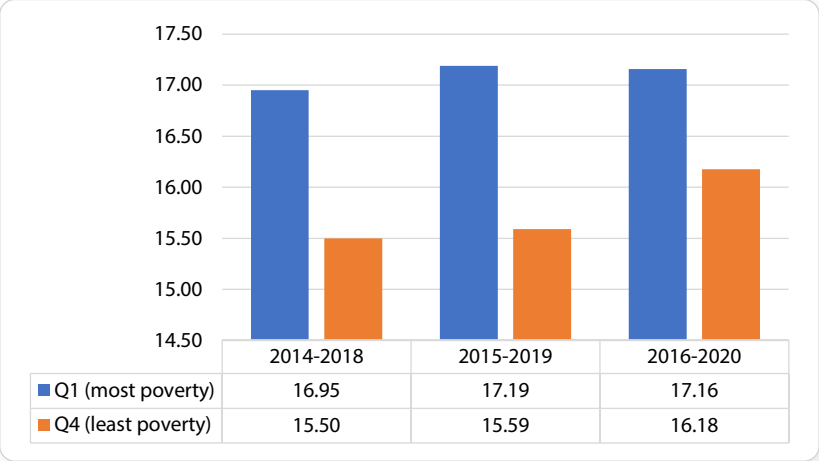
Recent studies of stimulant misuse found that African Americans had the highest rate of cocaine-involved deaths in 2017, while Native American populations had the highest rate of psychostimulant deaths in 2017 (Kariisa et al., 2019). Native Americans also experienced the highest rates of methamphetamine overdose deaths between 2012 and 2018. Although, it should be noted that stimulant-involved deaths appear to be increasing across all racial/ethnic groups (Han et al., 2021).

The National Center for Health Statistics – Mortality Files reports the "number of drug poisoning death per 100,000 population." From 2012-2014 (Q1: 21.42; Q4: 15.88) to 2015-2017 (Q1: 27.32; Q4: 20.06) to 2018-2020 (35.14; Q4: 23.89), Q1 had consistently higher drug overdose deaths per 100,000 residents than Q4.

Underserved HIV Prevalence

HIV prevalence is reported by the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention and is defined as the "number of people aged 13 years and older living with a diagnosis of human immunodeficiency virus (HIV) infection per 100,000 population." HIV prevalence went up for both Q1 and Q4 from 2009 (Q1: 121.29; Q4: 61.83) to 2015 (Q1: 166.00; Q4: 71.30) to 2019 (Q1: 176.25; Q4: 81.03), with Q1 having higher HIV prevalence rates than Q4.

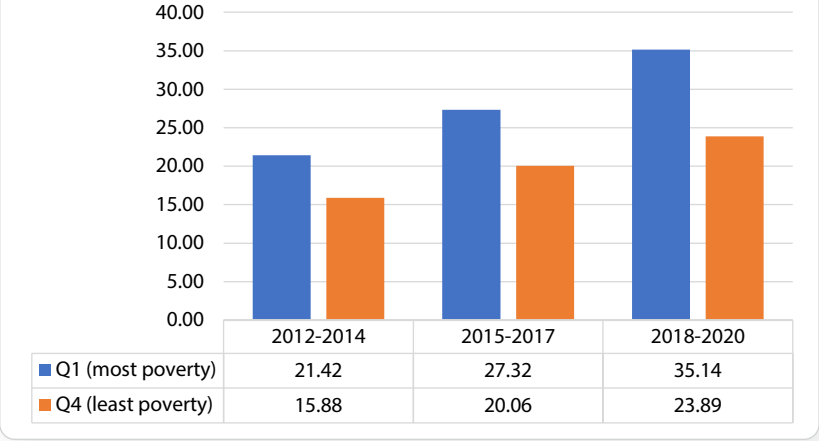
Figure 5.6 Number of Deaths Due to Suicide per 100,000 (age-adjusted)



	2014-2018	2015-2019	2016-2020
Q1 (most poverty)	16.95	17.19	17.16
Q4 (least poverty)	15.50	15.59	16.18

Source: CHR Report 2022, National Center for Health Statistics – Mortality Files 2014-2018, 2015-2019, 2016-2020

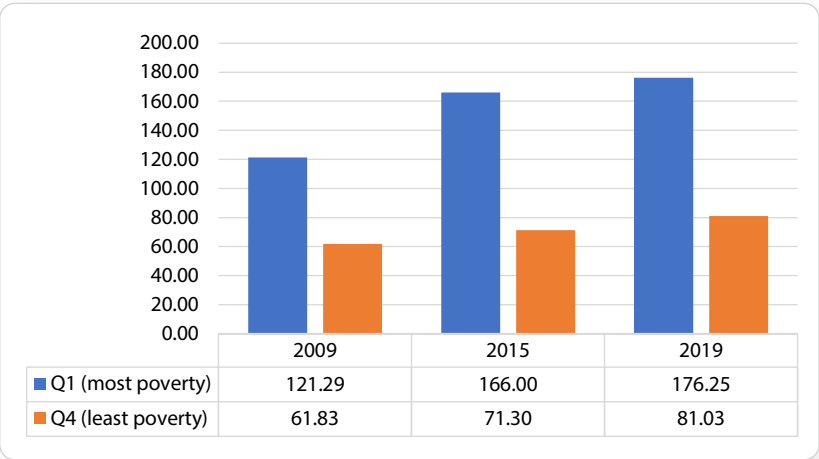
Figure 5.7: Number of Drug Poisoning Related Deaths per 100,000



	2012-2014	2015-2017	2018-2020
Q1 (most poverty)	21.42	27.32	35.14
Q4 (least poverty)	15.88	20.06	23.89

CHR Report 2022, National Center for Health Statistics – Mortality Files 2012-2014, 2015-2017, 2018-2020Source: CHR Report 2022, National Center for Health Statistics – Mortality Files 2012-2014, 2015-2017, 2018-2020

Figure 5.8: Prevalence of HIV Diagnosis per 100,000



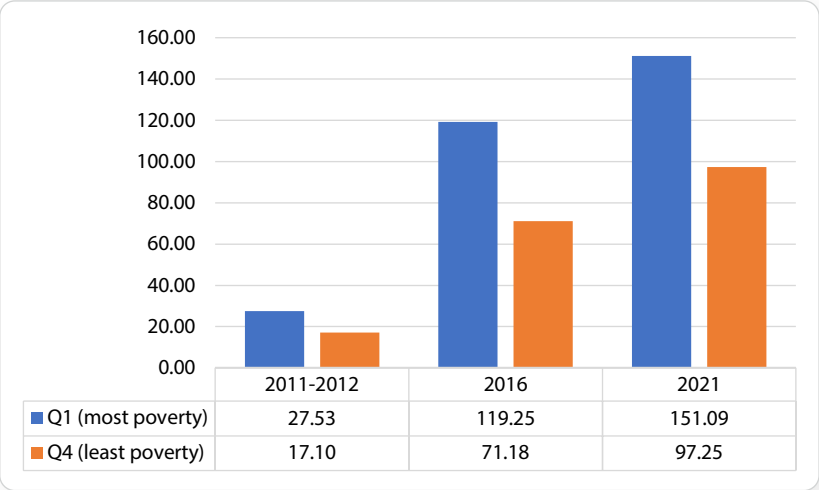
	2009	2015	2019
Q1 (most poverty)	121.29	166.00	176.25
Q4 (least poverty)	61.83	71.30	81.03

Source: CHR Report 2022, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention 2009, 2015, 2019

Underserved Mental Health Providers

The number of mental health providers per 100,000 residents is reported by CMS, National Provider Identification. From 2011-2010 to 2016 to 2021, large increases for both Q1 (2011-2012: 27.53; 2016: 119.25; 2021: 151.09) and Q4 (2011-2012: 17.10; 2016: 71.18; 2021: 97.25) can be observed for the number of mental health providers relative to the population. In each of the recorded data periods, Q1 had higher numbers of mental health providers relative to the population than Q4.

Figure 5.9: Mental Health Providers per 100,000

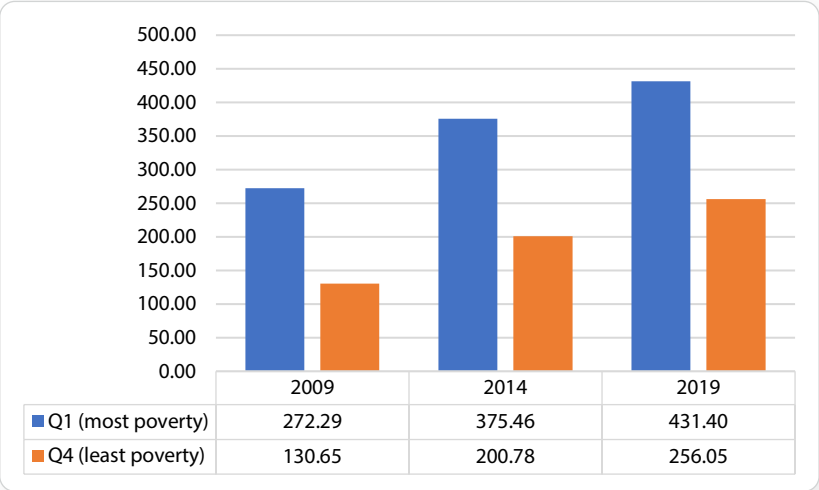


	2011-2012	2016	2021
Q1 (most poverty)	27.53	119.25	151.09
Q4 (least poverty)	17.10	71.18	97.25

Sexually Transmitted Infections in Underserved Areas

The "number of newly diagnosed chlamydia cases per 100,000 population" is reported by the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention." Consistent increases in sexually transmitted infections can be seen from 2009 (Q1: 272.29; Q4: 130.65) to 2014 (Q1: 375.46; Q4: 200.78) to 2019 (Q1: 431.40; Q4: 256.05), with Q1 having consistently higher rates than Q4.

Figure 5.10: Newly Diagnosed Chlamydia per 100,000



	2009	2014	2019
Q1 (most poverty)	272.29	375.46	431.40
Q4 (least poverty)	130.65	200.78	256.05

Source: CHR Report 2022, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention 2009, 2014, 2019

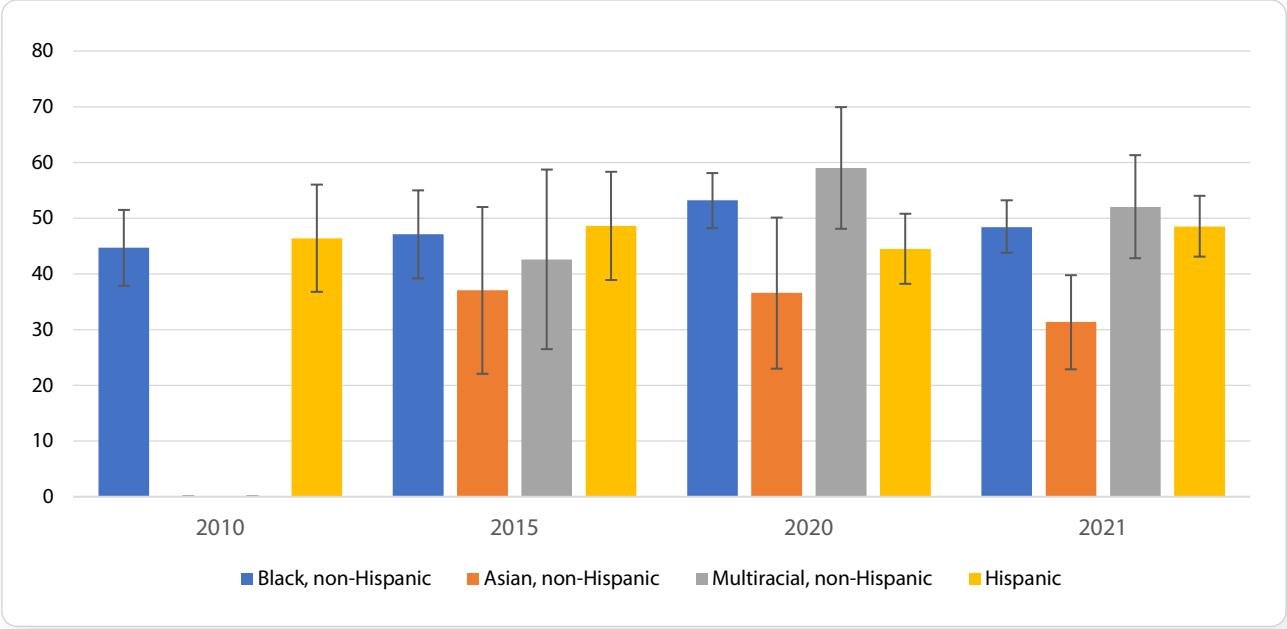
6. Underserved Racial and Ethnic Minorities

Alcohol Consumption

Alcohol use varies between ethnic group, and these rates can also be affected by the region they live in and the influence of American culture within those regions. One study assessed drinking rates between 1984 and 1995, which found that African American and Hispanic men saw increased rates of abstention from alcohol in that period. This was measured among other people aged 18 years or more in the US at the time. The rates of binge drinking (5+ drinks a week) withing these populations have remained steady over this time. While rates of binge drinking have increased for all women from 1984-1995, the rate of binge drinking increased more for Hispanic and African American women compared to white women (Galvan et al., 2003). Native Americans have similar rates of alcohol consumption to Hispanic and African American groups. However, their drinking habits vary based on their location. On reservation land, there may be higher rates of binge drinking compared to whites, but Native Americans that drink off the reservation may do so more frequently rather than binging. (Galvan et al., 2003). Japanese Americans tend to drink more than other Asian American groups, but Japanese American men born in the US do not drink as much as Japanese men born in Japan. (Galvan et al., 2003). Regarding binge drinking and deaths, the rate of alcohol-related issues has doubled within the Hispanic population between 1984-1995. Liver disease was the sixth leading cause of death among Hispanics and Native Americans over that time frame. According to information from 1999, Native Americans, African American, and Hispanic populations had the top 3 highest rates of liver disorders (Galvan et al., 2003).

Alcohol consumption, defined as "adults who have had at least one drink of alcohol within the past 30 days," is reported by the Behavioral Risk Factor Surveillance System (figure 6.1). With respect to the point estimates, Asians (2015: 37.1%; 2020: 36.6%; 2021: 31.4%) consistently had the lowest rates of alcohol consumption. In 2010, Hispanics (46.4%) had higher rates of alcohol consumption than African Americans (44.7%). Again, in 2015, Hispanics (48.6%) had higher rates of alcohol consumption than African Americans (47.1%), with multiracial having a rate of 42.6%. In 2020, multiracial (59.0%) had the highest rate, followed by African Americans (53.2%) and Hispanics (44.5%). In 2021, Hispanics (48.5%) had a slightly higher rate than African Americans (48.4%), both of which were lower than multiracial (52.0%).

Figure 6.1: Adults Reported Having At Least One Drink Within Past 30 Days in Indiana



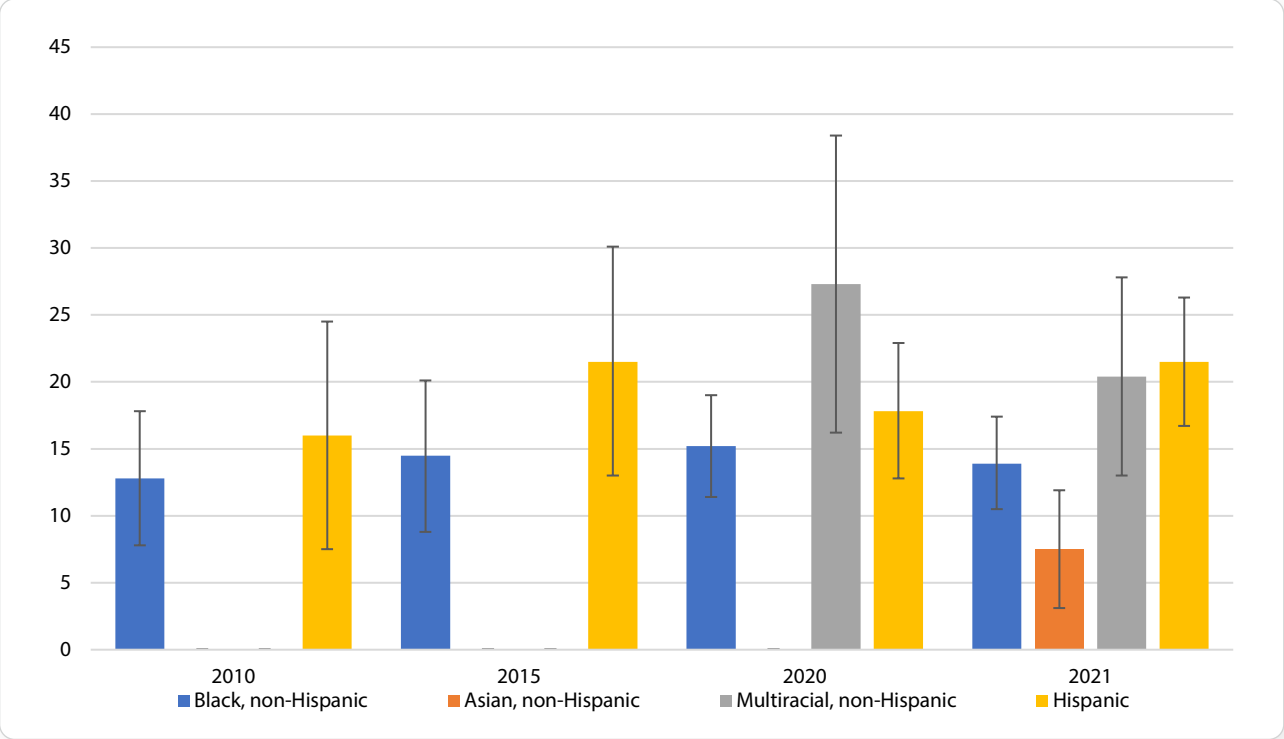
	Black, non-Hispanic	Asian, non-Hispanic	Multiracial, non-Hispanic	Hispanic
2010	44.7 [95% CI: 37.9 - 51.5]	Not available	Not available	46.4 [95% CI: 36.8 - 56]
2015	47.1 [95% CI: 39.2 - 55]	37.1 [95% CI: 22.1 - 52]	42.6 [95% CI: 26.5 - 58.7]	48.6 [95% CI: 38.9 - 58.3]
2020	53.2 [95% CI: 48.2 - 58.1]	36.6 [95% CI: 23 - 50.1]	59 [95% CI: 48.1 - 69.9]	44.5 [95% CI: 38.2 - 50.8]
2021	48.4 [95% CI: 43.8 - 53.2]	31.4 [95% CI: 22.9 - 39.8]	52 [95% CI: 42.8 - 61.3]	48.5 [95% CI: 43.1 - 54]

Source: CDC-BRFSS 2010, 2015, 2020, 2021

Binge Drinking

The BRFSS reports binge drinking, which is defined as "males having five or more drinks on one occasion" or "females having four or more drinks on one occasion." With respect to the point estimates, a lower proportion of Asian Americans reported binge drinking (7.5%) as compared to all other racial groups. African Americans reported the second lowest proportion of its population partaking in binge drinking (2010: 12.8%; 2015: 14.5%; 2020: 15.2%; 2021: 13.9%). Non-Hispanic multiracial and Hispanics have similar proportions of their respective populations that reported binge drinking.

Figure 6.2: Adult Reported Binge Drinking on One Occasion in Indiana



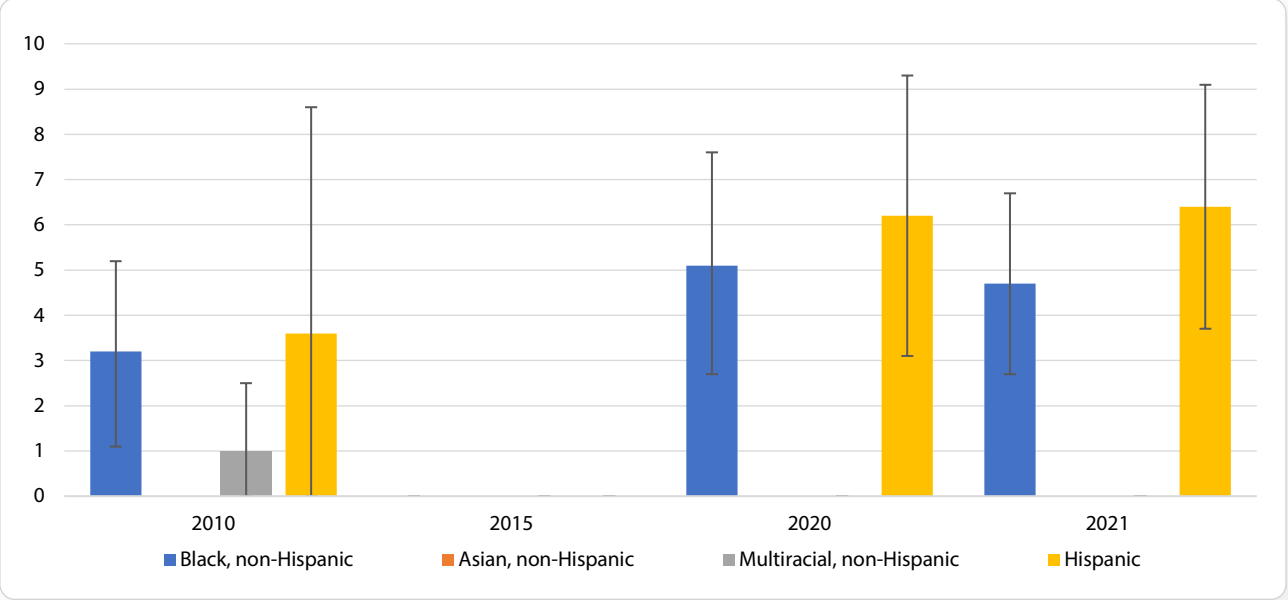
	Black, non-Hispanic	Asian, non-Hispanic	Multiracial, non-Hispanic	Hispanic
2010	12.8 [95% CI: 7.8 - 17.8]	Not available	Not available	16 [95% CI: 7.5 - 24.5]
2015	14.5 [95% CI: 8.8 - 20.1]	Not available	Not available	21.5 [95% CI: 13 - 30.1]
2020	15.2 [95% CI: 11.4 - 19]	Not available	27.3 [95% CI: 16.2 - 38.4]	17.8 [95% CI: 12.8 - 22.9]
2021	13.9 [95% CI: 10.5 - 17.4]	7.5 [95% CI: 3.1 - 11.9]	20.4 [95% CI: 13 - 27.8]	21.5 [95% CI: 16.7 - 26.3]

Source: CDC-BRFSS 2010, 2015, 2020, 2021

Heavy Drinking

Reported by the BRFSS, heavy drinking is defined as "adult men having more than 14 drinks per week and adult women having more than 7 drinks per week." With respect to the point estimates, Hispanics (2010: 3.6%; 2015: N/A; 2020: 6.2%; 2021: 6.4%) consistently had the highest rates of heavy drinking, followed by African Americans (2010: 3.2%; 2015: N/A; 2020: 5.1%; 2021: 4.7%). In 2010, multiracial had a point estimate of 1.0%. Asian data is not reported.

Figure 6.3: Adult Reported Heavy Drinking on One Occasion in Indiana



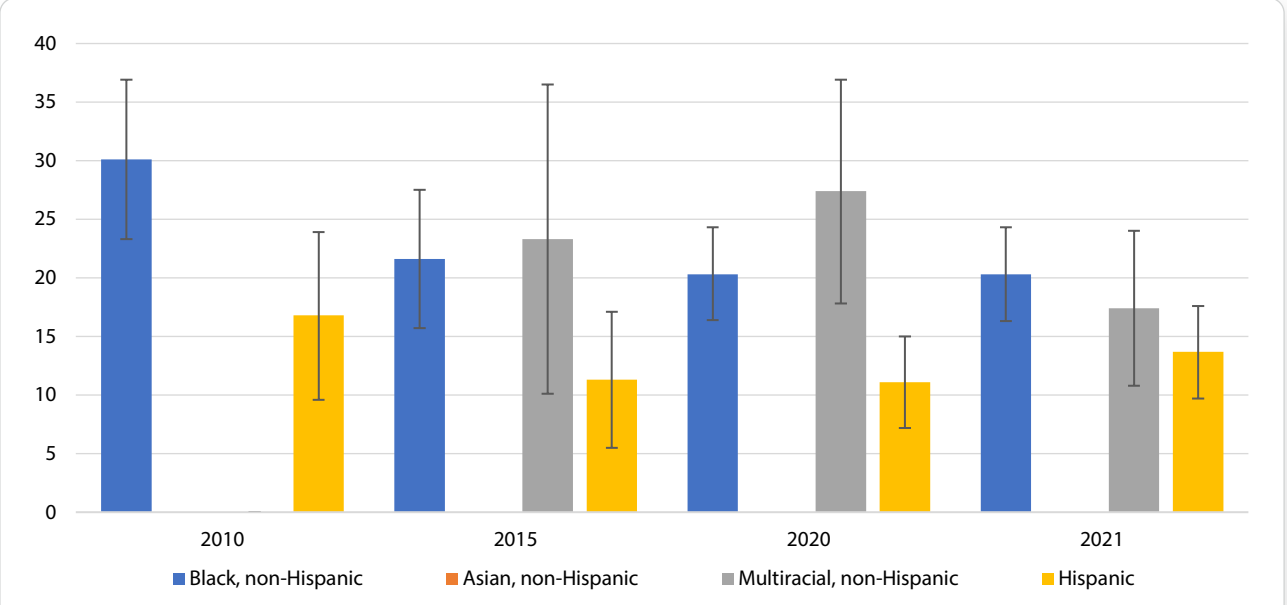
	Black, non-Hispanic	Asian, non-Hispanic	Multiracial, non-Hispanic	Hispanic
2010	3.2 [95% CI: 1.1 - 5.2]	Not available	1 [95% CI: 0 - 2.5]	3.6 [95% CI: 0 - 8.6]
2015	Not available	Not available	Not available	Not available
2020	5.1 [95% CI: 2.7 - 7.6]	Not available	Not available	6.2 [95% CI: 3.1 - 9.3]
2021	4.7 [95% CI: 2.7 - 6.7]	Not available	Not available	6.4 [95% CI: 3.7 - 9.1]

Source: CDC-BRFSS 2010, 2015, 2020, 2021

Current Smokers

The BRFSS reports the share of current smokers. With respect to the point estimates, African Americans (2010: 30.1%; 2015: 21.6%; 2020: 20.3%; 2021: 20.3%) consistently had higher rates than Hispanics (2010: 16.8%; 2015: 11.3%; 2020: 11.1%; 2021: 13.7%). Multiracial (2015: 23.3%; 2020: 27.4%; 2021: 17.4%) data was also reported. Data for Asians was not reported.

Figure 6.4: Reported Current Adult Smokers



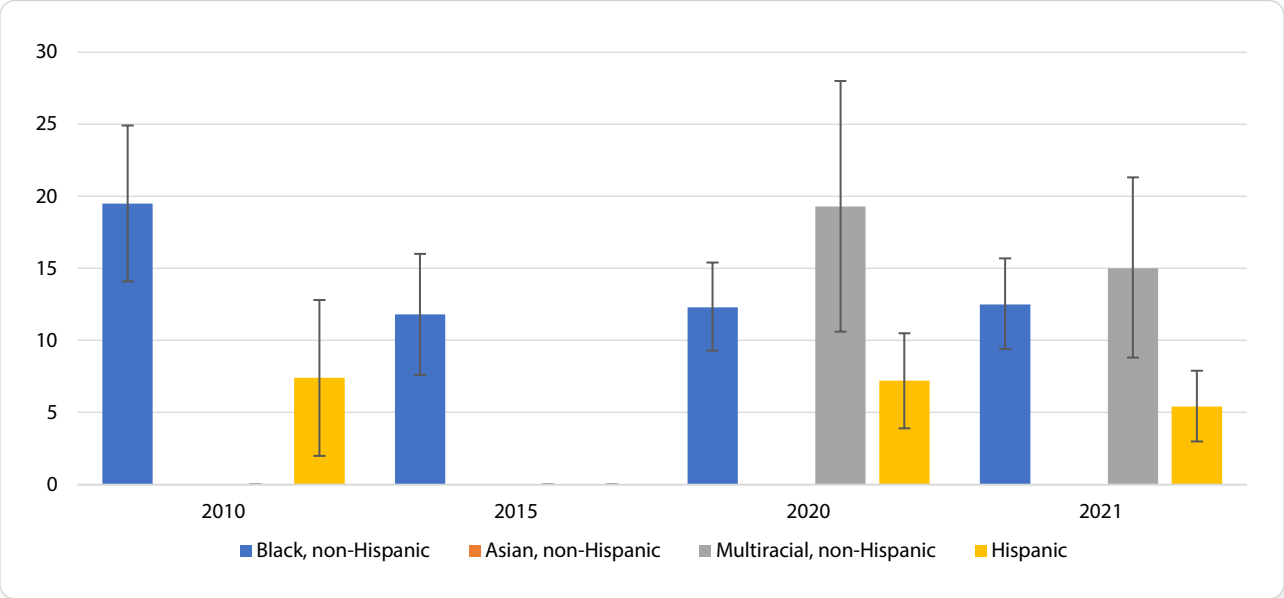
	Black, non-Hispanic	Asian, non-Hispanic	Multiracial, non-Hispanic	Hispanic
2010	30.1 [95% CI: 23.3 - 36.9]	Not available	Not available	16.8 [95% CI: 9.6 - 23.9]
2015	21.6 [95% CI: 15.7 - 27.5]	Not available	23.3 [95% CI: 10.1 - 36.5]	11.3 [95% CI: 5.5 - 17.1]
2020	20.3 [95% CI: 16.4 - 24.3]	Not available	27.4 [95% CI: 17.8 - 36.9]	11.1 [95% CI: 7.2 - 15]
2021	20.3 [95% CI: 16.3 - 24.3]	Not available	17.4 [95% CI: 10.8 - 24]	13.7 [95% CI: 9.7 - 17.6]

Source: 2 CDC-BRFSS 2010, 2015, 2020, 2021

Smoker Status: Smoke Everyday

The BRFSS reports those who smoke every day. With respect to the point estimates, African Americans (2010: 19.5%; 2015: 11.8%; 2020: 12.3%; 2021: 12.5%) consistently had higher rates than Hispanics (2010: 7.4%; 2015: N/A; 2020: 7.2%; 2021: 5.4%). Multiracial (2020: 19.3%; 2021: 15.0%) data was also reported. Asian data was not reported.

Figure 6.5: Adults Who Reported Smoking Everyday in Indiana



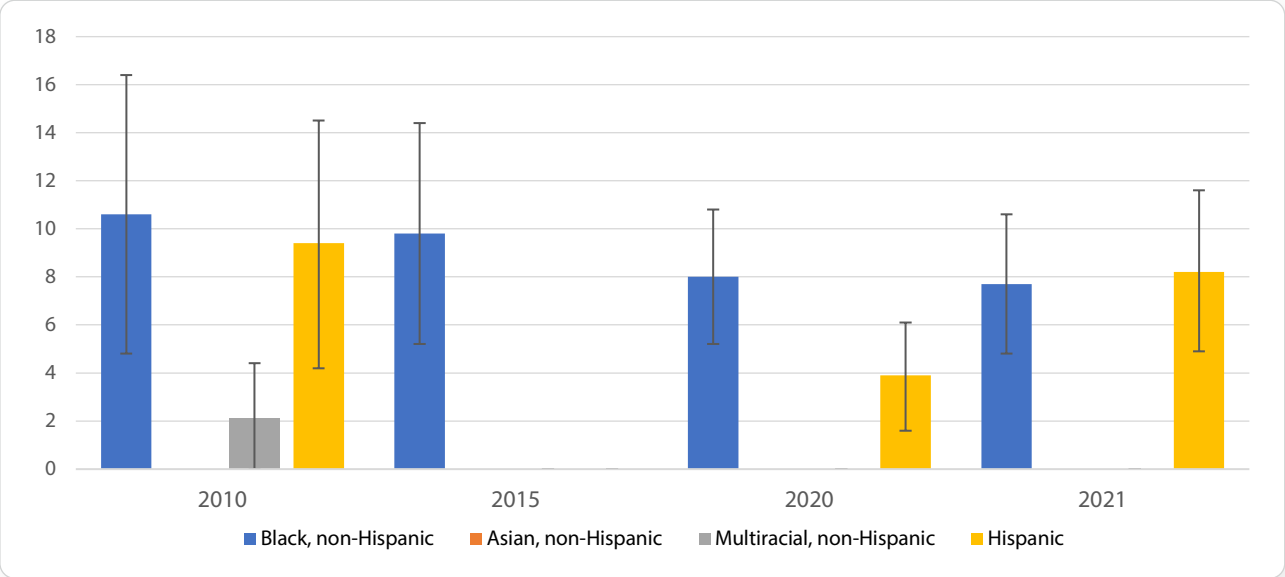
	Black, non-Hispanic	Asian, non-Hispanic	Multiracial, non-Hispanic	Hispanic
2010	19.5 [95% CI: 14.1 - 24.9]	Not available	Not available	7.4 [95% CI: 2 - 12.8]
2015	11.8 [95% CI: 7.6 - 16]	Not available	Not available	Not available
2020	12.3 [95% CI: 9.3 - 15.4]	Not available	19.3 [95% CI: 10.6 - 28]	7.2 [95% CI: 3.9 - 10.5]
2021	12.5 [95% CI: 9.4 - 15.7]	Not available	15 [95% CI: 8.8 - 21.3]	5.4 [95% CI: 3 - 7.9]

Source: CDC-BRFSS 2010, 2015, 2020, 2021

Smoker Status: Smoke Some Days

The BRFSS reports those who identify as smoking some days. According to the point estimates, African Americans (2010: 10.6%; 2015: 9.8%; 2020: 8.0%; 2021: 7.7%) consistently had higher rates than Hispanics (2010: 9.4%; 2015: N/A; 2020: 3.9%; 2021: 8.2%). In 2010, multiracial had a rate of 2.1%. Asian data was not reported.

Figure 6.6: Adults Who Reported Smoking on Some Days in Indiana



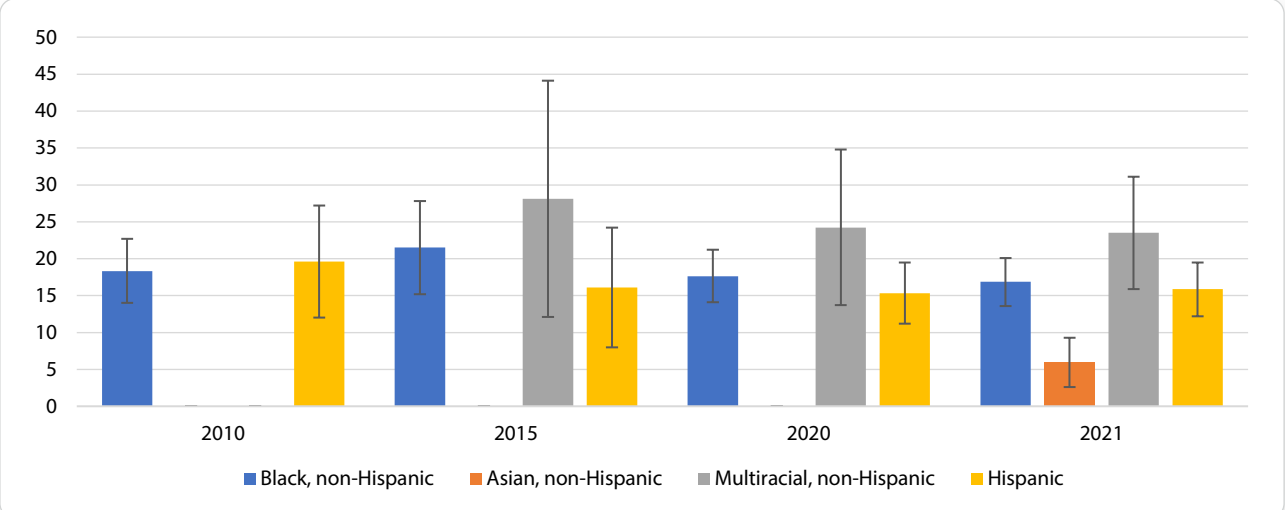
	Black, non-Hispanic	Asian, non-Hispanic	Multiracial, non-Hispanic	Hispanic
2010	10.6 [95% CI: 4.8 - 16.4]	Not available	2.1 [95% CI: 0 - 4.4]	9.4 [95% CI: 4.2 - 14.5]
2015	9.8 [95% CI: 5.2 - 14.4]	Not available	Not available	Not available
2020	8 [95% CI: 5.2 - 10.8]	Not available	Not available	3.9 [95% CI: 1.6 - 6.1]
2021	7.7 [95% CI: 4.8 - 10.6]	Not available	Not available	8.2 [95% CI: 4.9 - 11.6]

Source: CDC-BRFSS 2010, 2015, 2020, 2021

Smoker Status: Former Smoker

The BRFSS reports those who identify as former smokers. Multiracial (2015: 28.1%; 2020: 24.2%; 2021: 23.5%) consistently had higher rates than African Americans (2010: 18.3%; 2015: 21.5%; 2020: 17.6%; 2021: 16.9%) and Hispanics (2010: 19.6%; 2015: 16.1%; 2020: 15.3%; 2021: 15.9%). Asians, in 2021, had the lowest rate of 5.9%.

Figure 6.7: Adults Who Reported Being a Former Smoker in Indiana in Indiana



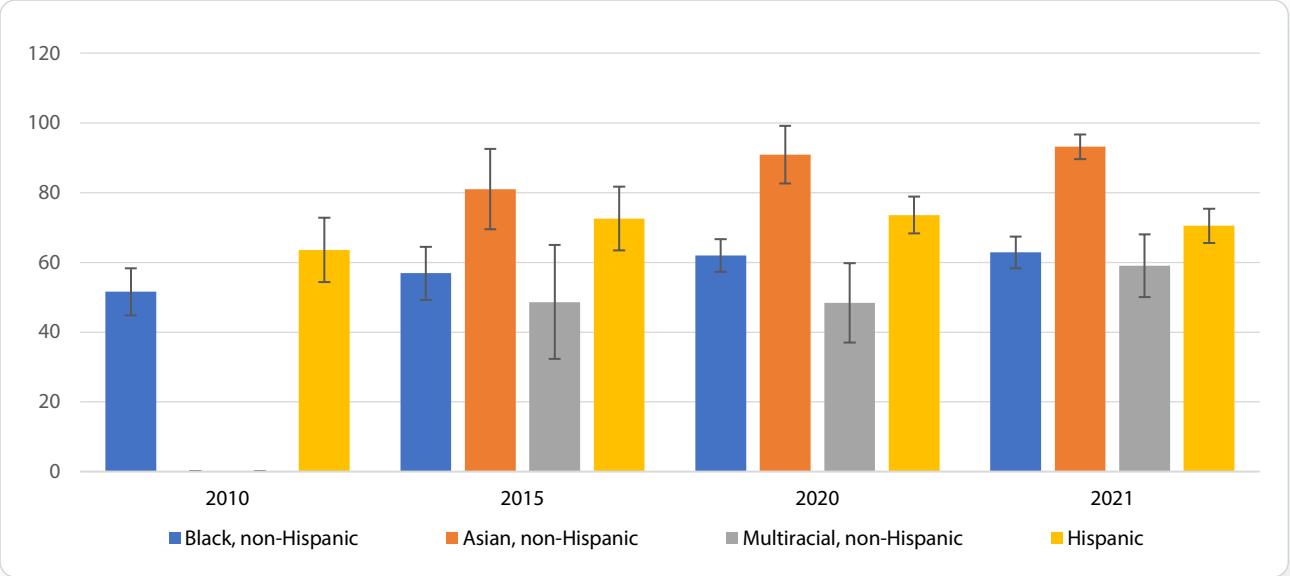
	Black, non-Hispanic	Asian, non-Hispanic	Multiracial, non-Hispanic	Hispanic
2010	18.3 [95% CI: 14 - 22.7]			19.6 [95% CI: 12 - 27.2]
2015	21.5 [95% CI: 15.2 - 27.8]		28.1 [95% CI: 12.1 - 44.1]	16.1 [95% CI: 8 - 24.2]
2020	17.6 [95% CI: 14.1 - 21.2]		24.2 [95% CI: 13.7 - 34.8]	15.3 [95% CI: 11.2 - 19.5]
2021	16.9 [95% CI: 13.6 - 20.1]	5.9 [95% CI: 2.6 - 9.3]	23.5 [95% CI: 15.9 - 31.1]	15.9 [95% CI: 12.2 - 19.5]

Source: CDC-BRFSS 2010, 2015, 2020, 2021

Smoker Status: Never Smoked

The BRFSS reports the percentage of those who never smoked. Per the point estimates, Asians (2015: 81.0%; 2020: 90.0%; 2021: 93.2%) consistently had the highest rates, followed by Hispanics (2010: 63.6%; 2015: 72.6%; 2020: 73.6%; 2021: 70.5%), African Americans (2010: 51.6%; 2015: 56.9%; 2020: 62.0%; 2021: 62.9%), and multiracial (2015: 48.6%; 2020: 48.4%; 2021: 59.1%).

Figure 6.8: Adults Who Reported Never Smoking in Indiana



	Black, non-Hispanic	Asian, non-Hispanic	Multiracial, non-Hispanic	Hispanic
2010	51.6 [95% CI: 44.8 - 58.3]	Not available	Not available	63.6 [95% CI: 54.4 - 72.8]
2015	56.9 [95% CI: 49.2 - 64.5]	81 [95% CI: 69.5 - 92.6]	48.6 [95% CI: 32.3 - 65]	72.6 [95% CI: 63.5 - 81.7]
2020	62 [95% CI: 57.3 - 66.7]	90.9 [95% CI: 82.7 - 99.2]	48.4 [95% CI: 37 - 59.8]	73.6 [95% CI: 68.3 - 78.9]
2021	62.9 [95% CI: 58.3 - 67.4]	93.2 [95% CI: 89.6 - 96.7]	59.1 [95% CI: 50.1 - 68.1]	70.5 [95% CI: 65.6 - 75.4]

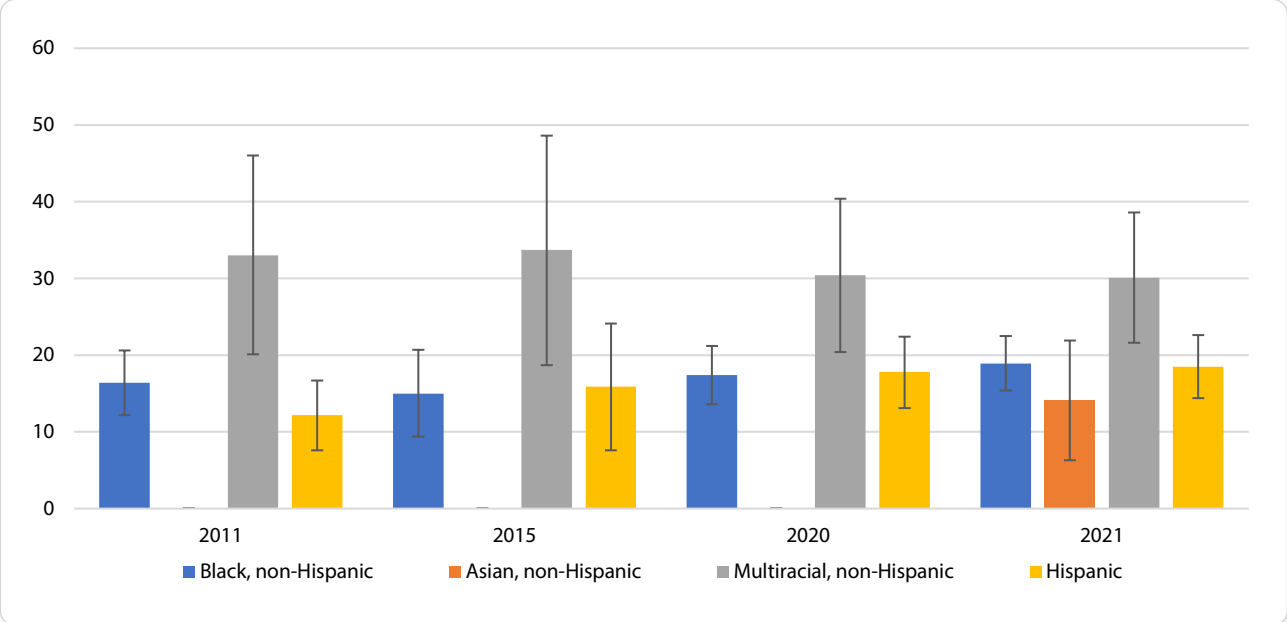
Source: CDC-BRFSS 2010, 2015, 2020, 2021

Chronic Health Indicators – Depression

One report has reviewed the importance of suicide prevention interventions for Native Americans in the United States and indigenous populations around the world. The Native American population has a rate of suicide that is 1.5 times higher than the overall rate. Factors, such as mental health, stress, and substance misuse are known to affect these rates (Clifford et al., 2013). Methods such as Gatekeeper training, education, and community programs were seen as effective in preventing suicide, according to the study. The study revealed that the use of multi-media educational programing did not result in statistically significant change in suicide rates, but it did significantly improve feelings of hopelessness within the population studied. The effect of Gatekeeper training on suicide risk had a short-term, but significant increase in knowledge on the topic. Protective behaviors have been reported to lead to statistically significant improvements in suicide prevention (Clifford et al., 2013).

The BRFSS reports the percentage of those who experience depression. Per the point estimates, multiracial (2011: 33.0%; 2015: 33.7%; 2020: 30.4%; 2021: 30.1%) consistently had higher rates than African Americans (2011: 16.4%; 2015: 15.0%; 2020: 17.4%; 2021: 18.9%) and Hispanics (2011: 12.2%; 2015: 15.9%; 2020: 17.8%; 2021: 18.5%). In 2021, Asians had the lowest rate of 14.1%. A major limitation for reporting is the lack of localized data. The State of Indiana does not track local rates of depression, addition of this data can possibly expand understanding of mental health in the state.

Figure 6.9: Adults Who Reported Experiencing Depression in Indiana



	Black, non-Hispanic	Asian, non-Hispanic	Multiracial, non-Hispanic	Hispanic
2011	16.4 [95% CI: 12.2 - 20.6]	Not available	33 [95% CI: 20.1 - 46]	12.2 [95% CI: 7.6 - 16.7]
2015	15 [95% CI: 9.4 - 20.7]	Not available	33.7 [95% CI: 18.7 - 48.6]	15.9 [95% CI: 7.6 - 24.1]
2020	17.4 [95% CI: 13.6 - 21.2]	Not available	30.4 [95% CI: 20.4 - 40.4]	17.8 [95% CI: 13.1 - 22.4]
2021	18.9 [95% CI: 15.4 - 22.5]	14.1 [95% CI: 6.3 - 21.9]	30.1 [95% CI: 21.6 - 38.6]	18.5 [95% CI: 14.4 - 22.6]

Source: CDC-BRFSS 2010, 2015, 2020, 2021

7. LGBTQ+ Population

Substance Use Disorder and Mental Illness in United States

Discrimination, whether racial or sexual orientation-related, is known to increase drug use among underserved groups. Discrimination has many negative effects including increased risk for use of illicit drugs among populations that have been harmed by discriminatory acts. Individuals within the LGBTQ+ community have been reported to use and become dependent on illicit drugs more frequently than peers outside that community. One study found that discrimination also increases the risk for internalized oppression, which can result in use of illicit drugs as a coping mechanism. While both racial and sexual orientation-related discrimination are detrimental to all populations affected, LGBTQ individuals of minority backgrounds reported that LGBTQ discrimination led to more psychologically damaging effects than their experience of racism. This is postulated to be due to LGBTQ discrimination being present even within POC communities (Drazdowski et al., 2016).

Among the LGB population in the United States, who have a substance use disorder (18.3%), many of them have other issues. 64.4% reported having struggled with alcohol use, while 51.6% reported having struggled with illicit drugs. Other problems are also reported: mental illness (47.4%); struggled with illicit drugs and alcohol (16.2%); both substance use disorder and a mental illness (12.9%). Of the LGB adults with a mental illness, 38.2% had a serious mental illness.

We do not have the substance use, behavioral and mental health data for LGBTQ+ population for Indiana.

Below we present the national statistics obtained from NSDUH for LGB population

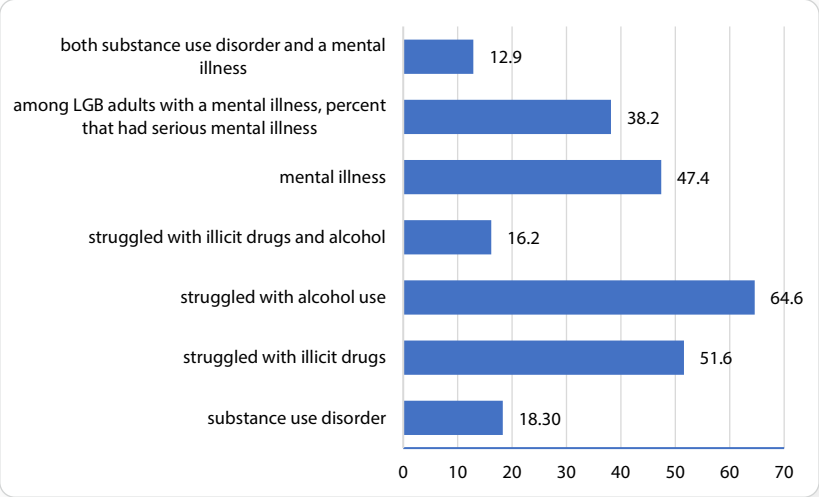
LGB Alcohol Use, United States

Alcohol use among LGB adults is reported by NSDUH. LGB adults aged 26 or older (2016: 66.3%; 2017: 64.5%; 2018: 64.7%; 2019: 64.2%) consistently have higher rates of alcohol use than those aged 18 to 25 (2016: 61.4%; 2017: 61.6%; 2018: 64.3%; 2019: 60.0%).

Source: NSDUH 2019

Note: Denominator is number of LGB adults who have a substance use disorder

Figure 7.1: Adult Reported Disorders/Illness and Drug Use Within LGB Population

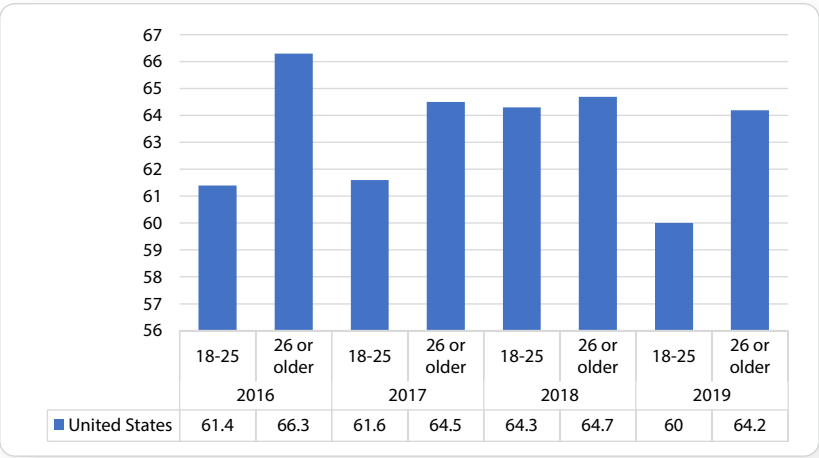


LGB Alcohol Use, United States

Alcohol use among LGB adults is reported by NSDUH. LGB adults aged 26 or older (2016: 66.3%; 2017: 64.5%; 2018: 64.7%; 2019: 64.2%) consistently have higher rates of alcohol use than those aged 18 to 25 (2016: 61.4%; 2017: 61.6%; 2018: 64.3%; 2019: 60.0%).

Source: NSDUH 2019

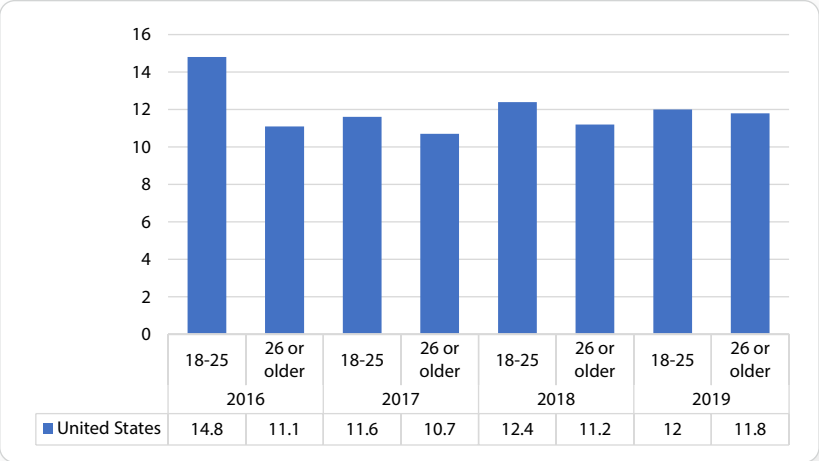
Figure 7.1 Reported Alcohol Use by Age Among LGB Population



Alcohol Use Disorder Within LGB

NSDUH tracks alcohol use disorder among the LGB population. Those 26 or older (2016: 11.1%; 2017: 10.7%; 2018: 11.2%; 2019: 11.8%) consistently have lower rates of alcohol use disorder than those aged 18 to 25 (2016: 14.8%; 2017: 11.6%; 2018: 12.4%; 2019: 12.0%).

Figure 7.2 Reported Alcohol Use Disorder in LGB Populations

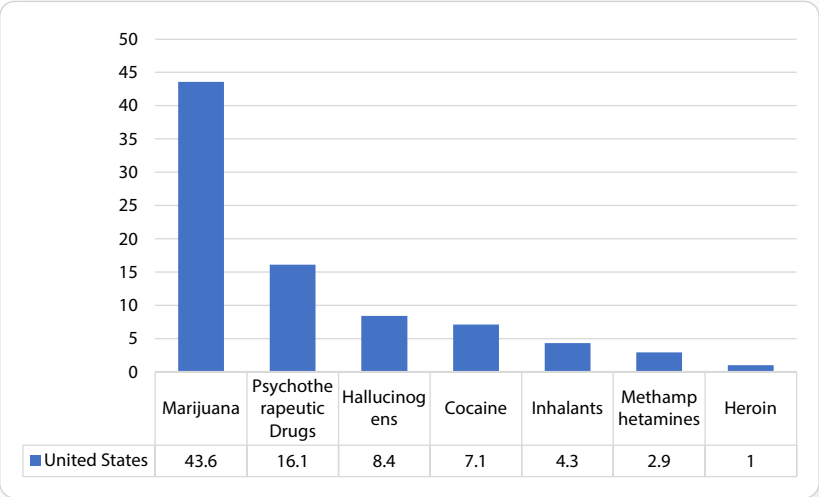


Source: NSDUH 2019

Drug Use Among LGB in the United States

NSDUH data shows that among LGB adult marijuana usage accounts for 43.6% of the population. Other drug usage rates are also reported: psychotherapeutic drugs (16.1%); hallucinogens (8.4%); cocaine (7.1%); inhalants (4.3%); methamphetamines (2.9%); heroin (1.0%).

Figure 7.3: Substance Use Among LGB Adults

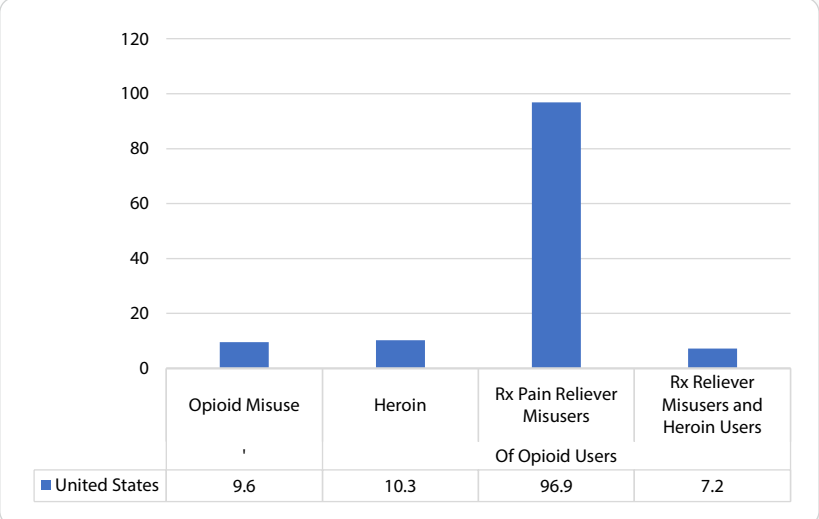


Source: NSDUH 2019

Pain Reliever Misuse Among LGB United States

According to NSDUH, among LGB adults, 9.6% of the population reports opioid misuse. Among these users, the data is further broken down: prescription pain reliever misusers (96.9%); heroin (10.3%); prescription reliever misusers and heroin users (7.2%).

Figure 7.4: Adult Reported Opioid/Pain Reliver Misuse Among LGB

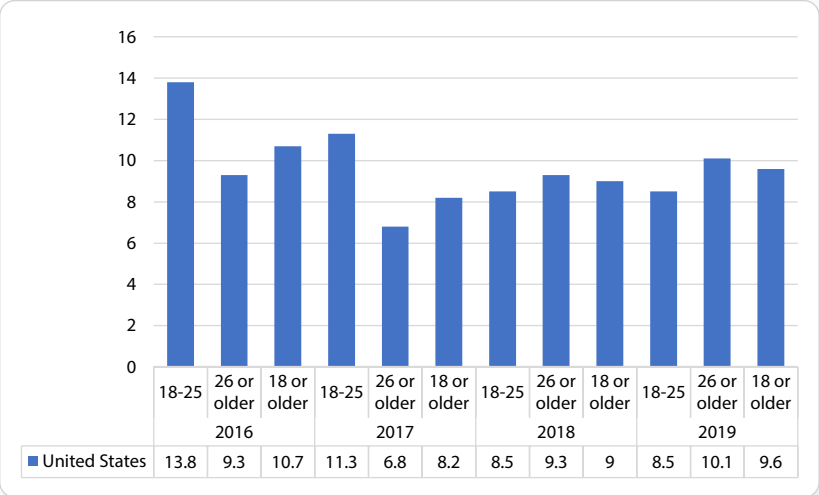


Source: NSDUH 2019

Opioid Misuse Among LGB Populations in United States

NSDUH reports opioid misuse data among the LGB population. For 2016 and 2017, individuals aged 18 to 25 (2016: 13.8%; 2017: 11.3%) had higher rates of opioid misuse than those aged 26 or older (2016: 9.3%; 2017: 6.8%). For 2018 and 2019, those aged 26 or older (2018: 9.3%; 2019: 10.1%) had higher rates of opioid misuse than those aged 18 to 25 (2018: 8.5%; 2019: 8.5%). Data for those aged 18 or older was also tracked (2016: 10.7%; 2017: 8.2%; 2018: 9.0%; 2019: 9.6%).

Figure 7.5: Reported Opioid Misuse Among LGB by Age

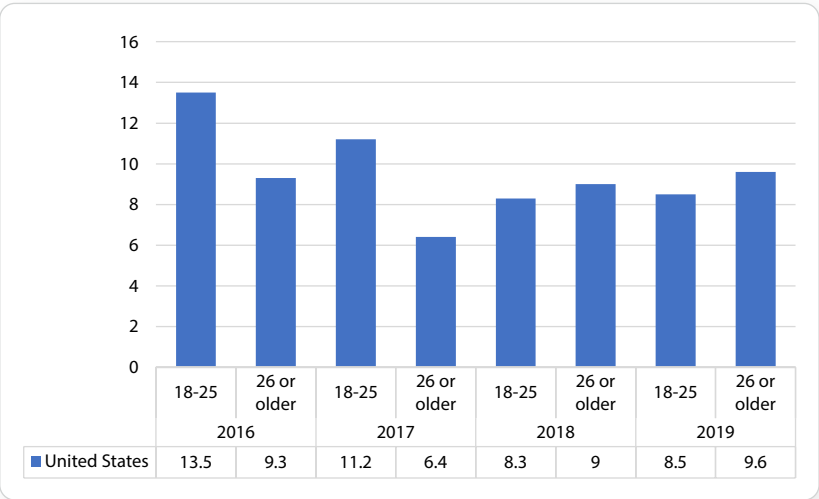


Source: NSDUH 2019

LGB Prescription Pain Reliever Misuse in United States

Among LGB adults, prescription pain reliever misuse is reported by NSDUH. For 2016 and 2017, individuals aged 18 to 25 (2016: 13.5%; 2017: 11.2%) had a higher rate of misuse than those aged 26 or older (2016: 9.3%; 2017: 6.4%). In 2018 and 2019, those aged 26 or older (2018: 9.0%; 2019: 9.6%) had a higher rate of prescription pain reliever misuse than those aged 18 to 25 (2018: 8.3%; 2019: 8.5%).

Figure 7.6: Reported Prescription Pain Reliver Misuse Among LGB by Age

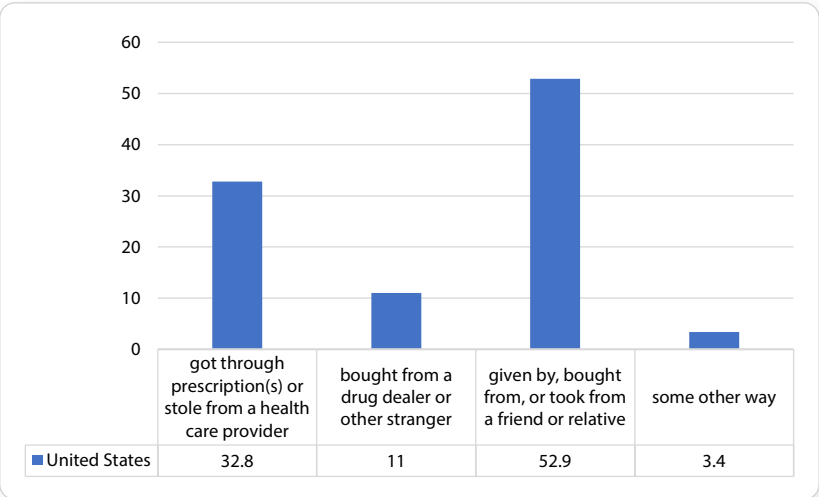


Source: NSDUH 2019

Source of Pain Relievers Obtained in United States

Among LGB adults who misuse pain relievers, 52.9% received them or bought from someone they knew. 11.0% bought from a dealer or stranger, 32.8% received prescriptions or stole them from a health care provider, and 3.4% obtained them in an unknown fashion.

Figure 7.7: LGB Adult Reported Pain Reliver Sources

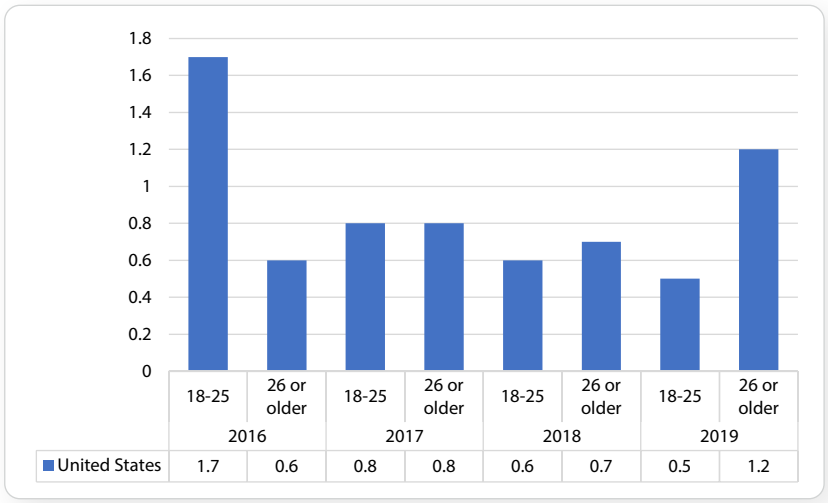


Source: NSDUH 2019

Heroin Use Among LGB in United States

Heroin use among the LGB population is reported by NSDUH. In 2016, 1.7% of those aged 18 to 25 and 0.6% of those 26 or older reported heroin usage. In 2017, both age groups reported usage at a rate of 0.8%. In 2018 and 2019, individuals aged 18 to 25 (2018: 0.6%; 2019: 0.5%) had lower rates of heroin use than those aged 26 or older (2018: 0.7%; 2019: 1.2%).

Figure 7.8: Reported Heroin Use by Age Among LGB Population

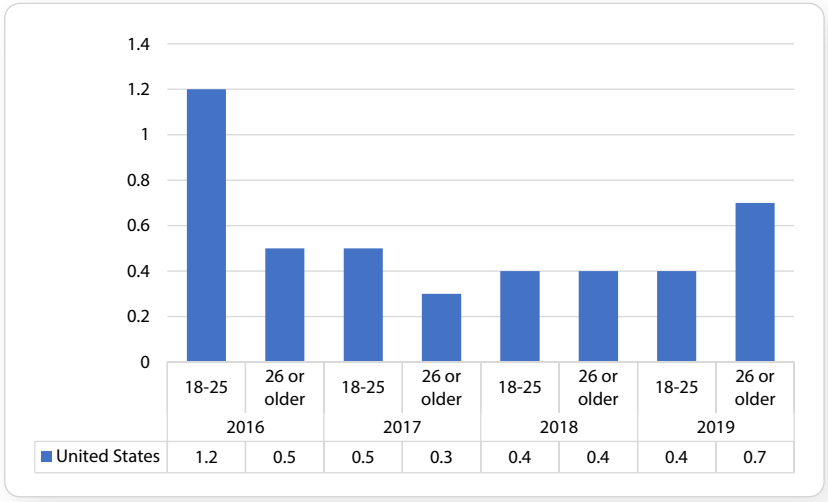


Source: NSDUH 2019

Heroin Related Opioid Disorder Among LGB

Heroin-related opioid use disorder within the LGB community is reported by NSDUH for 2019. In 2016 and 2017, those aged 18 to 25 (2016: 1.2%; 2017: 0.5%) had higher rates of heroin-related opioid use disorder than did those 26 or older (2016: 0.5%; 2017: 0.3%). In 2018, both age groups had a rate of 0.4%. In 2019, those aged 26 or older (0.7%) had higher rates than those aged 18 to 25 (0.4%).

Figure 7.9: Reported Heroin Related Opioid Use Among LGB by Age

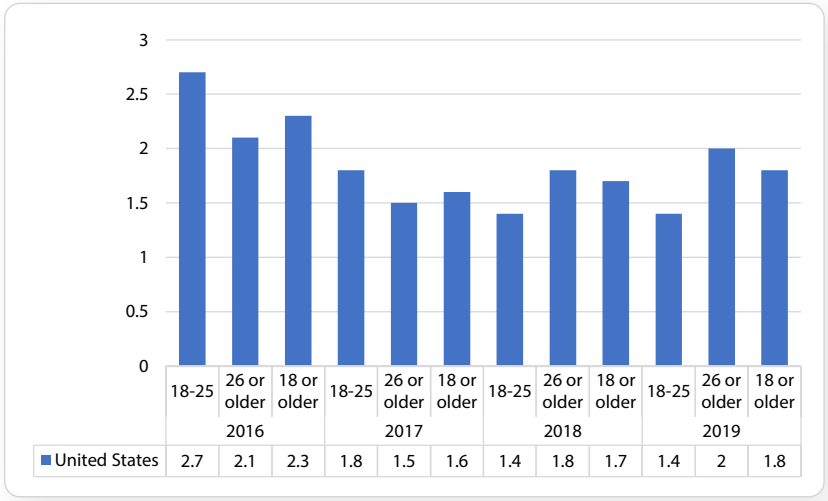


Source: NSDUH 2019

General Opioid Use Disorder Among LGB in United States

Opioid use disorder among the LGB population for 2019 is reported by NSDUH. In 2016 and 2017, those aged 18 to 25 (2016: 2.7%; 2017: 1.8%) had higher rates than those 26 or older (2016: 2.1%; 2017: 1.5%). In 2018 and 2019, the opposite was true: 18 to 25 years-old (2018: 1.4%; 2019: 1.4%) and 26 or older (2018: 1.8%; 2019: 2.0%). Those aged 18 or older (2016: 2.3%; 2017: 1.6%; 2018: 1.7%; 2019: 1.8%) are also reported.

Figure 7.10: LGB Reported Opioid Disorder by Age

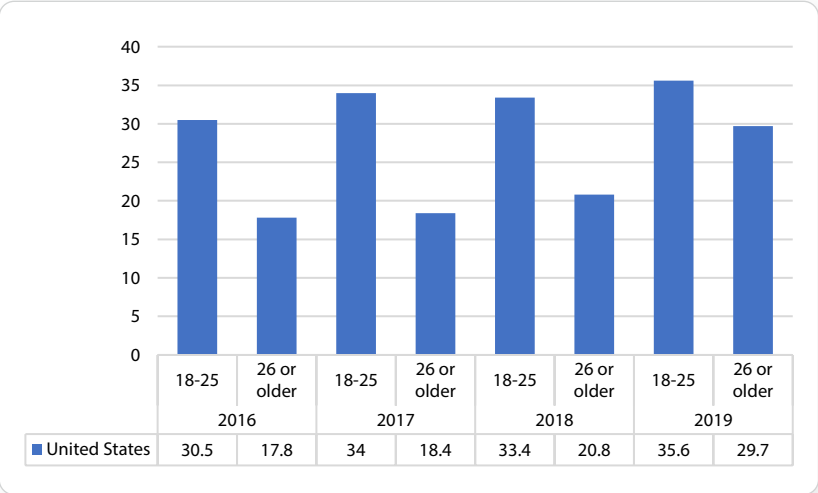


Source: NSDUH 2019

Past Month Marijuana Use Among LGB in United States

Past month marijuana use within the LGB community is reported by NSDUH. In all reported years, those aged 18 to 25 (2016: 30.5%; 2017: 34.0%; 2018: 33.4%; 2019: 35.6%) had higher rates than those aged 26 or older (2016: 17.8%; 2017: 18.4%; 2018: 20.8%; 2019: 29.7%).

Figure 7.11: LGB Reported Past Month Marijuana Use by Age

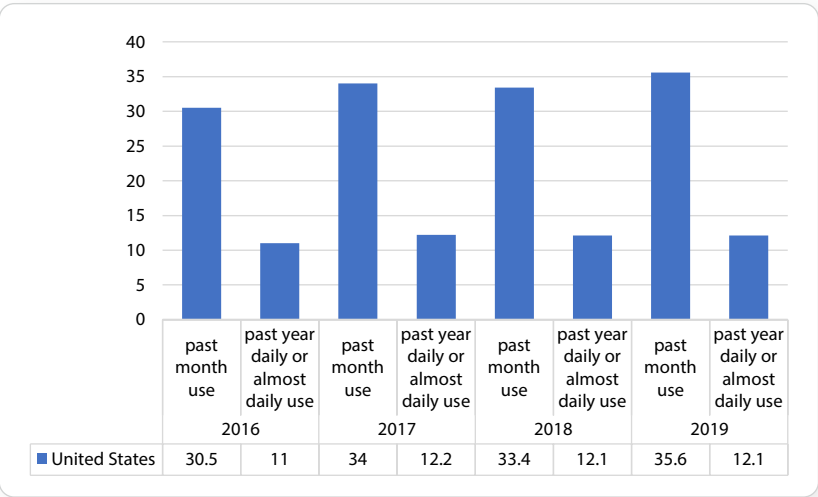


Source: NSDUH 2019

Marijuana Use Among LGB in United States

NSDUH reports marijuana usage among the LGB community. Those who reported past month use increased from 2016 (30.5%) to 2019 (35.6%), with an increase in 2017 (34.0%) and slight decrease in 2018 (33.4%). Those who reported daily or almost daily use within the past year (2016: 11.0%; 2017: 12.2%; 2018: 12.1%; 2019: 12.1%) were also reported.

Figure 7.12: Reported Marijuana Use Among LGB Adult Population

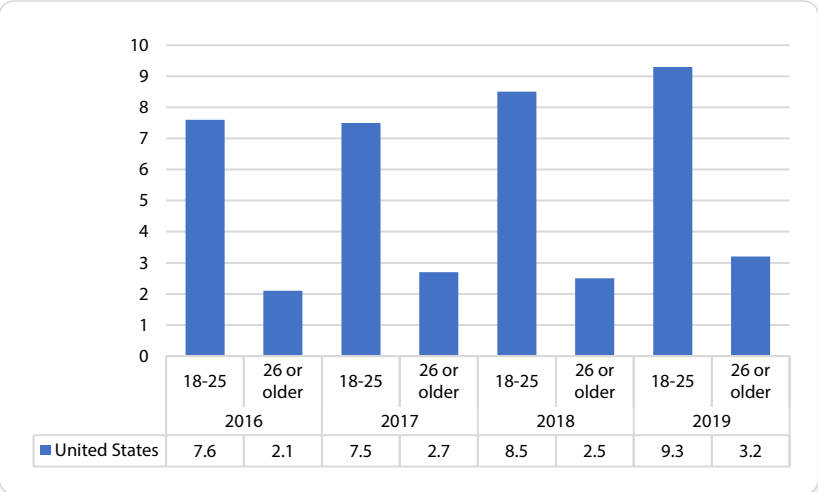


Source: NSDUH 2019

Marijuana Use Disorder Among LGB in United States

Marijuana use disorder among the LGB population is reported by NSDUH. Those aged 18 to 25 (2016: 7.6%; 2017: 7.5%; 2018: 8.5%; 2019: 9.3%) consistently had higher rates than those aged 26 or older (2016: 2.1%; 2017: 2.7%; 2018: 2.5%; 2019: 3.2%).

Figure 7.13: Reported Marijuana Use Disorder in LGB by Age

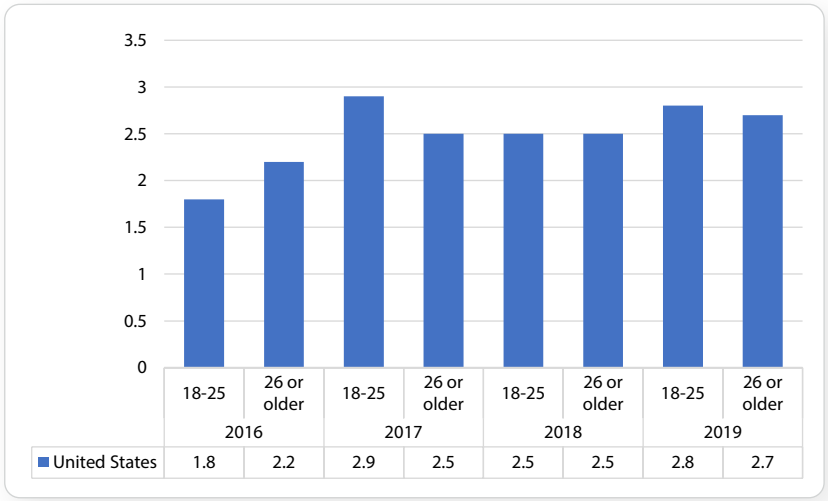


Source: NSDUH 2019

Cocaine Use Among LGB in United States

Cocaine use among the LGB population is reported by NSDUH. In 2016, those aged 26 or older (2.2%) had higher rates than those aged 18 to 25 (1.8%). In 2017, those aged 18 to 25 (2.9%) had higher rates than those aged 26 or older (2.5%). In 2018, both age groups had rates of 2.5%. Those aged 18 to 25 (2.8%) had higher rates than those aged 26 or older (2.7%) in 2019.

Figure 7.14: Reported Cocaine Use Among LGB Population

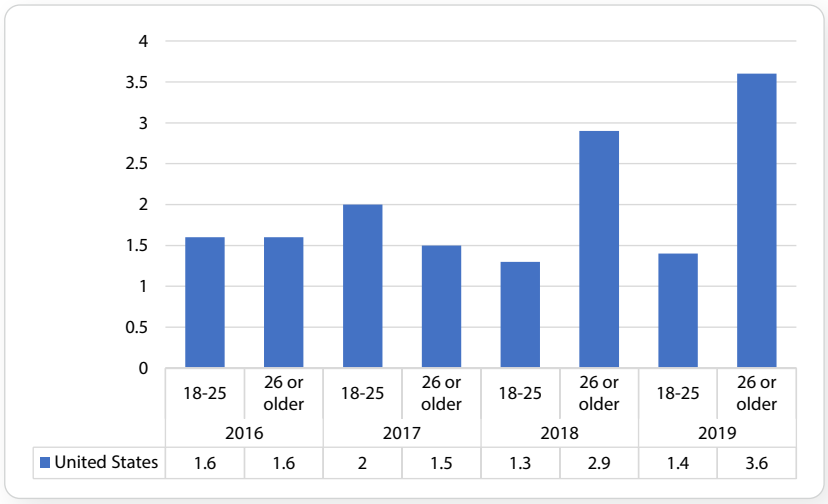


Source: NSDUH 2019

Methamphetamine Use Among LGB in United States

Methamphetamine use by the LGB community is reported by NSDUH. In 2016, those aged 18 to 25 and those aged 26 or older both had rates of 1.6%. Those aged 18 to 25 (2.0%) had higher rates in 2017 than those aged 26 or older (1.5%). In 2018 and 2019, those aged 26 or older (2018: 2.9%; 2019: 3.6%) had higher rates than those aged 18 to 25 (2018: 1.3%; 2019: 1.4%).

Figure 7.15: Reported Methamphetamine Use Among LGB by Age

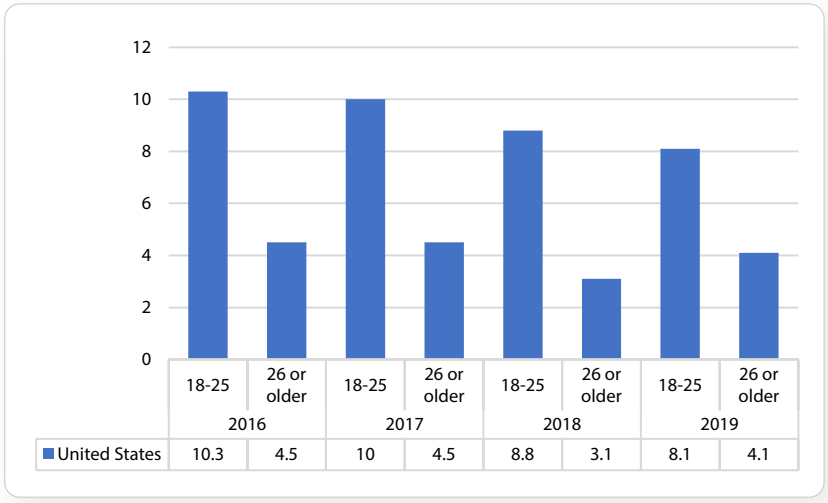


Source: NSDUH 2019

Prescription Stimulant Misuse among LGB in United States

Prescription stimulant misuse among the LGB community is reported by NSDUH. In all reported years, those aged 18 to 25 (2016: 10.3%; 2017: 10.0%; 2018: 8.8%; 2019: 8.1%) had higher rates than those aged 26 or older (2016: 4.5%; 2017: 4.5%; 2018: 3.1%; 2019: 4.1%).

Figure 7.16: Reported Prescription Stimulant Misuse Among LGB by Age

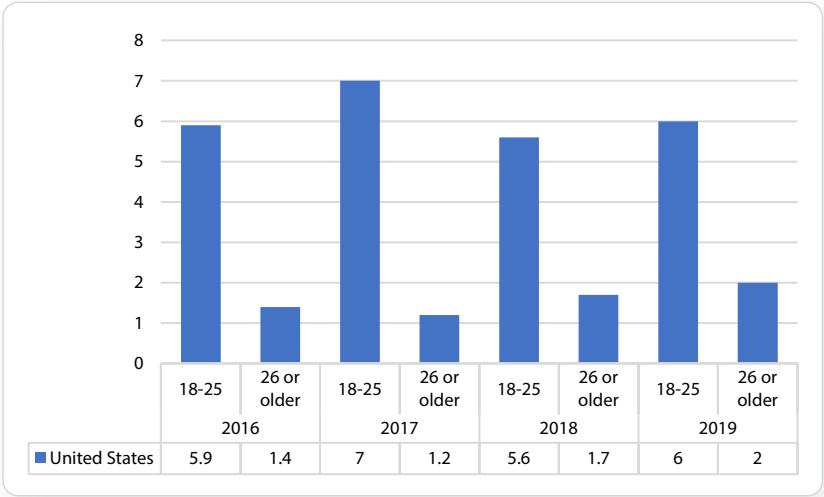


Source: NSDUH 2019

LSD Use Among LGB in United States

LSD use within the LGB community is reported by NSDUH. Those aged 18 to 25 years-old (2016: 5.9%; 2017: 7.0%; 2018: 5.6%; 2019: 6.0%) consistently had higher rates than those aged 26 or older (2016: 1.4%; 2017: 1.2%; 2018: 1.7%; 2019: 2.0%).

Figure 7.17 Reported LSD Use Among LGB by Age

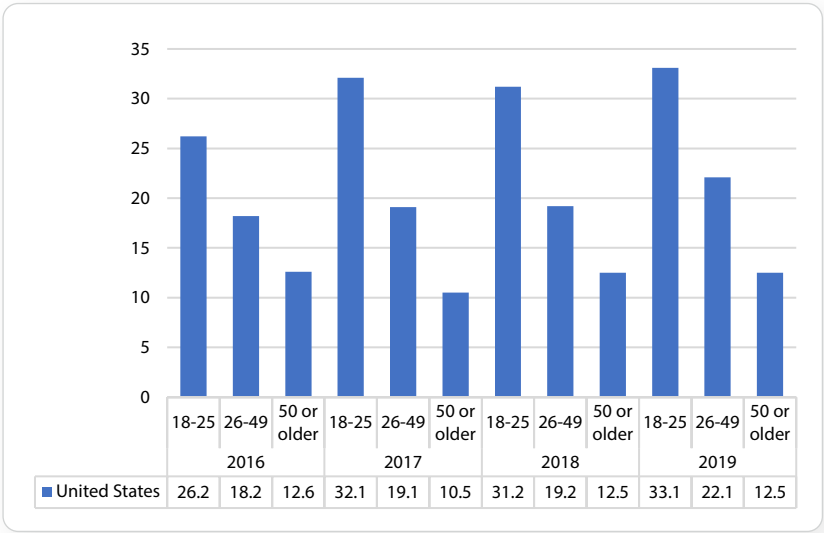


Source: NSDUH 2019

Major Depressive Episodes Among LGB United States

The percentage of the LGB population that suffered from a major depressive episode is reported by NSDUH. In all reported years, those aged 18 to 25 (2016: 26.2%; 2017: 32.1%; 2018: 31.2%; 2019: 33.1%) consistently had higher rates than those aged 26 to 49 (2016: 18.2%; 2017: 19.1%; 2018: 19.2%; 2019: 22.1%). In all reported years, those aged 50 or older (2016: 12.6%; 2017: 10.5%; 2018: 12.5%; 2019: 12.5%) had lower rates than the other age groups.

Figure 7.18: Reported Major Depressive Episode Among LGB by Age

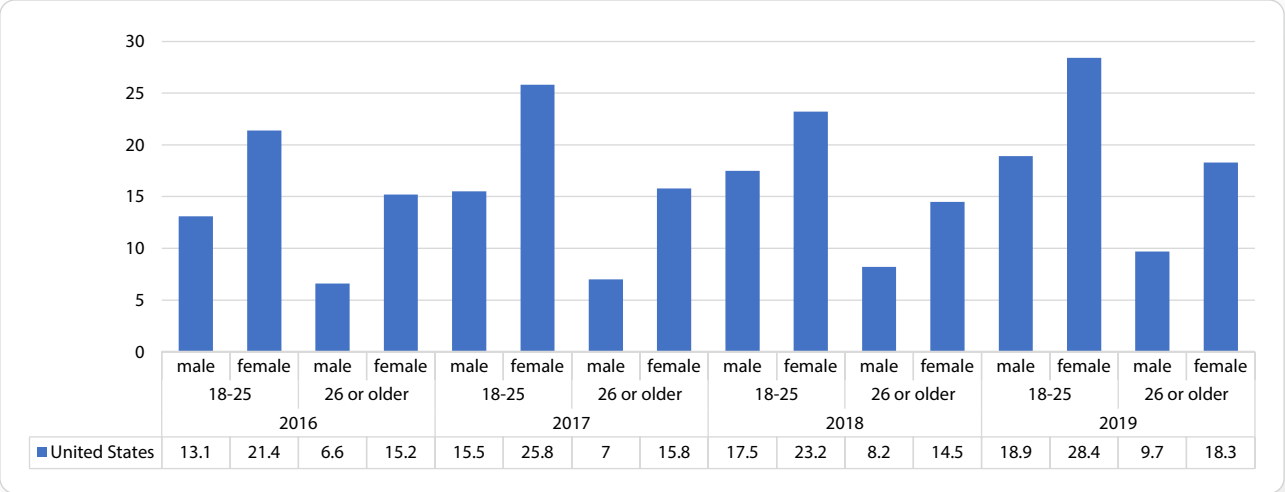


Source: NSDUH 2019

Major Depressive Episodes with Severe Impairment Among LGB in United States

Within the LGBTQ community, NSDUH reports the percentage of LGBTQ individuals who suffered a major depressive episode with sever impairment. Among males, those aged 18 to 25 (2016: 13.1%; 2017: 15.5%; 2018: 17.5%; 2019: 18.9%) had higher rates than those aged 26 or older (2016: 6.6%; 2017: 7.0%; 2018: 8.2%; 2019: 9.7%). Among females, those aged 18 to 25 (2016: 21.4%; 2017: 25.8%; 2018: 23.2%; 2019: 28.4%) also had higher rates than those aged 26 or older (2016: 15.2%; 2017: 15.8%; 2018: 14.5%; 2019: 18.3%).

Figure 7.19: Reported Major Depressive Episode with Severe Impairment Among LGB



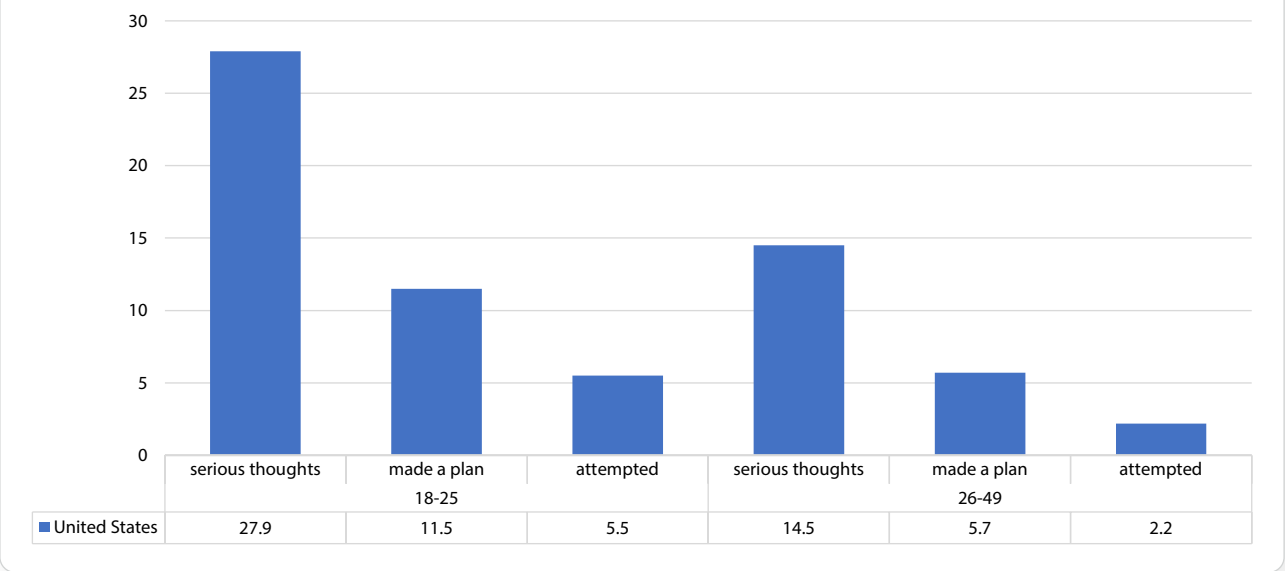
Source: NSDUH 2019

Suicidal Thoughts, Plans, and Attempts Reported Among LGBTQ+ in United States

During adolescent years, individuals can be more prone to stronger, prejudicial attitudes and may not be capable of nuanced or sophisticated judgments. This can lead to social exclusion as well as discriminatory and homophobic behavior. Bullying, victimization, and limited rights play an additional role in risk of suicide. A 2016 report indicated that suicide was the third leading cause of death for ages 10-14 and second-most cause for ages 15-24 in this population (Russell et al., 2016). The population of LGBTQ youths assessed in this study found that 31% report suicidal behavior. Bisexual individuals, compared to their straight or gay counterparts, have been reported to be at greater risk for developing mental health conditions (Russell et al., 2016). These mental health issues can carry over into adulthood, resulting in higher rates of substance use, mood disorders, and suicide. A primary risk factor for LGBTQ populations is the lack of support systems on personal and institutional levels. Supportive families have been shown to reduce the risk of suicide. In addition, it is implicated that schools can reduce the risk of mental health conditions by educating students on LGBTQ topics and developing an environment that promotes acceptance and safety of LGBTQ students (Russell et al., 2016).

NSDUH reports the percentage of the LGB population in 2019 who had suicidal thoughts, plans, and attempts. Those aged 18 to 25 (27.9%) had a higher rate of suicidal thoughts than those aged 26 to 49 (14.5%). Again, those aged 18 to 25 (11.5%) had higher rates of making a suicide plan than those aged 26 to 49 (5.7%). Those aged 18 to 25 (5.5%) had higher rates of suicide attempts than those aged 26 to 49 (2.2%).

Figure 7.20: Reported Events Among LGB

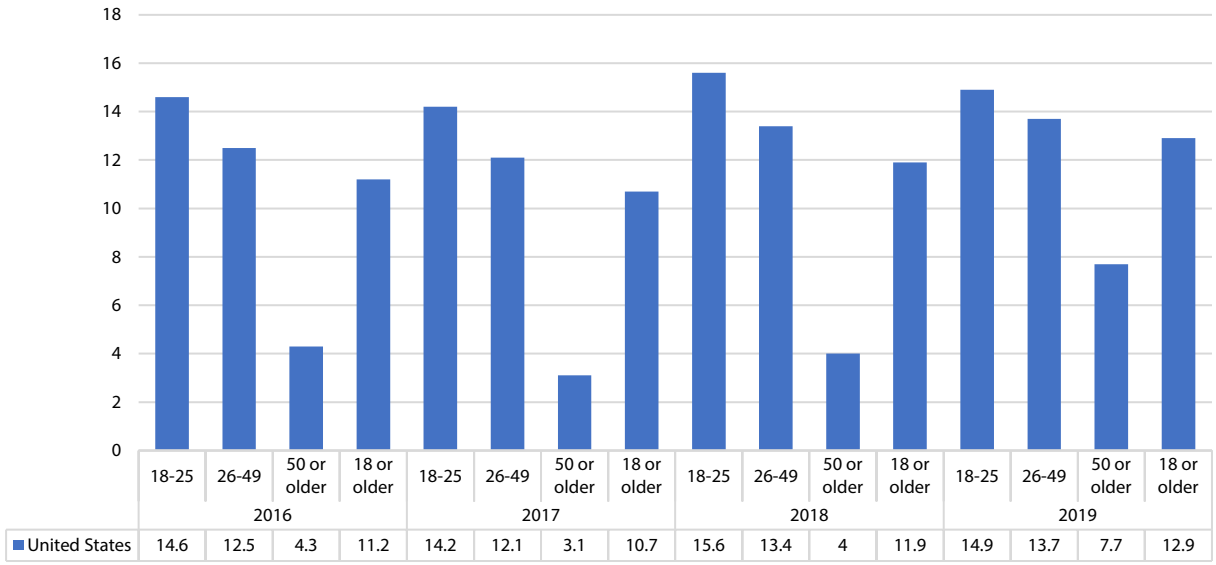


Source: NSDUH 2019

Any Mental Illness and Substance Use Disorder, Co-Occurring, United States

NSDUH reports the co-occurrence of any mental illness and substance use disorder among the LGB population. Those aged 50 or older (2016: 4.3%; 2017: 3.1%; 2018: 4.0%; 2019: 7.7%) consistently had the lowest rates of co-occurrence. Those aged 18 to 25 (2016: 14.6%; 2017: 14.2%; 2018: 15.6%; 2019: 14.9%) consistently had the highest rates of co-occurrence. Those aged 26 to 49 (2016: 12.5%; 2017: 12.1%; 2018: 13.4%; 2019: 13.7%) consistently had higher rates than those aged 18 or older (2016: 11.2%; 2017: 10.7%; 2018: 11.9%; 2019: 12.9%).

Figure 7.21: Reported Co-occurrence of Any Mental Illness or Substance Use Disorder Among LGB



	2016				2017				2018				2019			
	18-25	26-49	50 or older	18 or older	18-25	26-49	50 or older	18 or older	18-25	26-49	50 or older	18 or older	18-25	26-49	50 or older	18 or older
United States	14.6	12.5	4.3	11.2	14.2	12.1	3.1	10.7	15.6	13.4	4	11.9	14.9	13.7	7.7	12.9

Source: NSDUH 2019

Conclusion

Health disparities are regularly found in priority populations as they are often more frequently exposed to social and economic stressors while additionally facing adverse environmental factors such as accessibility to quality care, cultural stigmas, and discrimination. All factors negatively impact mental health and contribute to substance misuse rates among these populations. To gain a more comprehensive picture of the status of mental health and substance use in Indiana, additional research that more accurately captures the outcomes of Indiana's most vulnerable populations is critically needed. Further analysis of mental health and substance use disorder prevalence rates in priority populations can serve as basis for future policy decisions and the implementation of public health strategies to address health disparities among priority populations.

Key Points

- According to the compiled data, there are several key findings for special populations in the state of Indiana. When looking at substance use within college campuses, stimulants are found to be the drug with the most availability. The accessibility of stimulants was found to be a contributing factor for the high rate of use among college students. While stimulants are the most used illicit drug, it is found that male college athletes in this study. Have used opioids at higher rates than the average.

- Studies report that in the state of Indiana alcohol is the most used substance for this population followed by marijuana, e-cigarettes, and cigarettes. E-cigarette use is linked to the increased use of alcohol among students.

These studies also find that male students are more likely to consume alcohol than females and the use is commonly found at off campus locations.

- Studies show that the Native American population has a higher rate of binge drinking than other populations. Along with the higher rate of alcohol consumption this population is found to have higher rates of alcohol related deaths than Caucasians. The studies find that Native Americans living in Indiana have a higher rate of smoking compared to others living in Indiana. Native Americans are 1.7 times more likely to die by suicide compared to remaining United States population.

- Studies have found that there are large differences within metropolitan and non-metropolitan areas regarding substance use. Metropolitan areas have higher rates of alcohol use and rates continue to increase yearly. It has been found that non-metropolitan areas have higher rate of taking mental health days. With that, non-metropolitan areas have a higher rate of deaths by suicide and drug overdoses in recent years.

- The underserved high-need geographic areas examine the differences between those in high poverty and low poverty. Studies have found differences in the mental health of those living within poverty. There are lower rates of accessibility to mental health providers while having a higher rate of mental health days and deaths by suicide for those living in poverty. Those living in poverty are also at a higher risk of having HIV than those not living in poverty. This population is also more likely to have sexually transmitted infections compared to those not in poverty.

- Underserved racial and ethnic minorities have notable differences in substance use trends. Studies find that the Asian population has the lowest rate of smoking. These findings also show that the African American population has the highest rate of smokers. Multiracial populations are found to have the highest level of alcohol use compared to other racial and ethnic minorities.

- Studies have found that there are also differences among the mental health of underserved racial and ethnic minorities. Native Americans are found to have the highest number of deaths by suicide. With that, the multiracial population has the highest depression.

- Over 50% of the LGBTQ+ community is faced with alcohol related issues. The young adults of this community, ages 18-25, are a large contributor to this percentage. The community is reported to use marijuana more than any other illicit substances followed with heroin and LSD.

- Drug overdoses and death by suicide impact a large number of this community. Suicide is found to be the third leading cause of death among LGBTQ+ members ranging in ages 10-14 and the second leading cause of death among LGBTQ+ members ranging in ages 15-24. Overall key findings from the report are listed in Table 1.

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Appendix

Priority Populations		
Reference	**Year**	**Key Point**
College Students		
Kollath-Cattano, C., Hatteberg, S. J., & Kooper, A.	2020	Stimulants are more frequently used than other illicit drugs by college students.
Ford, J. A., Pomykacz, C., Veliz, P., McCabe, S. E., & Boyd, C. J.	2017	Male college athletes use opioids more than any other athletes.
Indian College Substance Use Survey	2021	Cocaine is the most frequently initiated illicit drug in college.
Indiana College Substance Use Survey	2021	Alcohol is the most used substance in Indiana (55.6%) followed by marijuana (21.3%), electronic cigarettes (21.6%), and cigarettes (7.5%)
Indiana College Substance Use Survey	2021	28.9% of males and 26.8% of females report binge drinking
Native Americans		
Center for Disease Control and Prevention	2021	Native Americans in Indiana drink less than others in Indiana.
Center for Disease Control and Prevention	2021	Native Americans in Indiana smoke more than others in Indiana
Chen, H.-J., Balan, S., & Price, R. K.	2012	Native Americans have higher alcohol related deaths then the white population.
Indiana Health Services	2019	Native Americans are 1.7 times more likely to die by suicide compared to other populations.
Rural Populations		
National Center for Health Statistics	2022	Indiana metropolitan areas have higher rates of excessive drinking.
National Center for Health Statistics	2022	Indiana non-metropolitan areas have higher rates of deaths by suicide.
National Center for Health Statistics	2022	Non-metropolitan has higher overdose rates.
Behavioral Risk Factor Surveillance System	2022	Metropolitan areas have higher alcohol rates.
Underserved High-Need Geographic Areas		
National Provider Identification	2022	Those in poverty have less access to mental health providers.
National Provider Identification	2022	Those in poverty have higher rates of poor mental health days and suicides.
National Center for HIV/AIDS, Viral Hepatitis, STD, TB Prevention	2022	High poverty populations have higher rates of STI's and HIV.
Underserved High-Need Geographic Areas		
Center for Disease Control and Prevention	2021	Asian populations have the lowest rates of smoking.
Center for Disease Control and Prevention	2021	Multiracial populations have the highest alcohol consumption rates.
Center for Disease Control and Prevention	2021	Native Americans have the highest suicide rate.
LGBTQ+		
National Survey on Drug Use and Health	2019	50% of LGBTQ members have alcohol issues. Youth 18-25 are the highest contributors to the alcohol use issues.
National Survey on Drug Use and Health	2019	Suicide is found to be the third leading cause in death among LGBTQ members ages 10-14.
National Survey on Drug Use and Health	2019	Marijuana is used more than other illicit substances by members of LGBTQ populations.

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