Chapter 5

Demographic Subgroup Differences

Executive Summary

Men had significantly higher prevalence levels of substance use than women in 2021 for many measures of the most commonly used substances. In particular:

- Men had higher prevalence than women among young adults ages 19 to 30 and adults ages 35 to 50 for: marijuana use in the past 12 months and past 30 days and for alcohol use in the past 30 days.
- Men had higher prevalence among young adults ages 19 to 30 but not adults ages 35 to 50 for: cigarette use in the past 30 days, vaping nicotine in the past 30 days, and use of any drug other than marijuana in the past 12 months and past 30 days.
- Trends over time showed that sex differences have been narrowing for marijuana use (since about 2010), alcohol use (since about 1994), and binge drinking (since about 1989) among young adults.
- Sex differences have grown for cigarette use among young adults, with men having an increasingly greater prevalence than women since around 2007.

Trends have tended to be relatively similar by region over time, although there were some significant differences in specific substances in 2021.
• Marijuana use prevalence in the past 12 months was higher in the Northeast and West than the South (with Midwest not significantly differing from any of the other regions).
• Alcohol use in the past 30 days and binge drinking prevalence levels were higher in the Northeast and Midwest than South and West
• The prevalence levels of cigarette use and nicotine vaping in the past 30 days were higher in the Midwest than West (with Northeast and South not differing significantly from any other region).

Significant differences by racial/ethnic subgroups in 2021 showed that:
• White young adults reported the highest prevalence levels of alcohol use, binge drinking, cigarette smoking, nicotine vaping, and use of any drug other than marijuana.

Introduction

Trends in the prevalence of use are charted separately for young adults ages 19 to 30 and adults ages 35 to 50 for different timeframes (e.g., 12 months, 30 days) by sex, geographic region of the country, and race/ethnicity. Trends are also shown in tables following each figure. Subgroup difference in trends by sex, region of the U.S., and race/ethnicity for respondents ages 19 to 30 and 35 to 50 are presented in Figures 62 through 109. Subgroup data for young adult ages 19 to 30 are available since 1988 and for middle adults ages 35 to 50 since 2008. Sample sizes for subgroups shown range in size from 150 to 6800 each year, depending on the variable and the year, with the smallest sample sizes being for Black and Hispanic young adults and adults.

Sex

Since the beginning of the study sex has been coded as male or female based on the question “What is your sex” asked in high school at age 18. However, in more recent surveys additional questions are asked and additional response options (e.g., nonbinary) are included. As data become available on
larger portions of the population, we will be able to examine differences among sexual and gender minority groups.

**Region**

For the region of the U.S., respondents are asked in what state they resided as of March of the year in which they completed the survey. States are then grouped into four regions defined by the U.S. census: Northeast, Midwest, South, and West.¹

**Race/Ethnicity**

Trends by race/ethnicity are shown for the three largest subgroups: Black, Hispanic, and White. Since 2005, the survey question has been, "How do you describe yourself? (Select one or more responses.)" Responses include: Black or African American; the following four which are combined for the Hispanic category: Mexican American or Chicano, Cuban American, Puerto Rican, Other Hispanic or Latino; Asian American; White (Caucasian); American Indian or Alaska Native; Native Hawaiian or Other Pacific Islander. Trends for additional subgroups—such as Asian, American Indian, and Multiracial—are not shown here due to smaller subgroup sample sizes (and due to variation in substance use across these smaller categories, making them into an “other” category would not be informative).

**Most Common Substances**

Results are reported for the most prevalent substances, including marijuana, alcohol, cigarettes, vaping nicotine, and any drug other than marijuana. Differences for other subgroups and other substances have been

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¹ States are grouped into regions as follows: Northeast (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont); Midwest (Illinois, Indiana, Iowa, Kansas, Ohio, Michigan, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wisconsin); South (Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia); West (Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming).
reported elsewhere can be examined in the data available for use by researchers.\(^2\)

**Subgroup Differences & Trends by Substance**

**Marijuana**

**Sex.** Marijuana use among young adults and adults in the past 12 months (Figures 62 and 65) and past 30 days (Figures 68 and 71) was slightly higher for men than women. The gap has narrowed in the past 3 to 4 years as women’s use has increased to catch up with men’s, and the gap is now significant only for young adult use in the past 30 days (Figure 68).

**Region.** Trends in marijuana use by geographic region have been similar over time. In 2021, prevalence of use in the past 12 months among young adults was higher in the Northeast (46.4%) and the West (46.1%) than the South (38.4%), with the Midwest (42.3%) not being significantly different from any of the other regions (Figure 63). There were no differences for use in the past 30 days among young adults in 2021 (Figure 69). For adults ages 35 to 50, marijuana use in the past 12 months was significantly higher for the Northeast and the West than the South, with the Midwest not significantly different than other regions (Figure 66). The West was also significantly higher than the South for use in the past 30 days among adults ages 35 to 50, although the Midwest and Northeast were not significantly different than other regions (Figure 72).

**Race/Ethnicity.** In 2021 Black and White young adults reported similarly high prevalence of marijuana use in the past 12 months and past 30 days, followed by Hispanic young adults; however, these differences were significant only for Black vs. Hispanic for use in the past 30 days (Figures 64 and 70). This ranking has shifted over time; the first time that the prevalence was higher among Black than White young adults was in 2014 for past 12 month use in 2012 for past 30 days use. From the late 1980s

\(^2\) Monitoring the Future: Restricted-Use Panel Data, United States, 1976-2019 (ICPSR 37072)

[https://www.icpsr.umich.edu/web/NAHDAP/studies/37072](https://www.icpsr.umich.edu/web/NAHDAP/studies/37072)
through 2007, White young adults consistently had significantly higher prevalence of marijuana use than Black and Hispanic young adults. For adults ages 35 to 50, there were no significant differences by race/ethnicity in 2021 (Figures 67 and 73).

**Alcohol**

**Sex.** Alcohol use in the past 30 days among young adults has shown narrowing differences by sex, and the difference between prevalence among men (68.0%) and women (65.4%) was not significant in 2021 (Figure 74). Among adults ages 35 to 50, the sex differences have been more consistent, with prevalence of alcohol use in the past 30 days higher for men (74.5%) than women (69.1%) in 2021 (Figure 77). Binge drinking (5+ drinks) in the past 2 weeks showed a similar pattern, with a narrowing gap among young adults (38.5% of men and 28.0% of women in 2021; Figure 80) and a more persistent difference among adults (34.4% of men and 17.6% of women in 2021; Figure 83).

**Region.** Alcohol use is typically somewhat higher in the Northeast and Midwest regions than in the South and West; this pattern held in 2021 regarding drinking in the past 30 days (Figure 75 for young adults, Figure 78 for adults) and binge drinking (Figure 81 for young adults, Figure 84 for adults).

**Race/Ethnicity.** Differences in alcohol use have been quite consistent over time, with White young adults having the highest prevalence of alcohol use in the past 30 days, followed by Black (58.6%) and Hispanic (56.6%) young adults (Figure 76). For binge drinking, the time-limited decrease associated with the COVID-19 pandemic in 2020 was seen for White young adults only (Figure 82); the same pattern held with the highest prevalence among White young adults in 2021. The pattern was largely replicated among adults ages 35 to 50, although there were no significant differences by race/ethnicity in this age group (Figures 79 and 85).
Cigarettes

**Sex.** The sex difference in cigarette use among young adults has grown across the life of the study, again with a significant decline for women from 2020 to 2021. In 2021, cigarette use in the past 30 days was significant different by sex and reported by 12.0% of young adult men compared to 7.1% of young adult women (Figure 86). However, for adults ages 35 to 50 in 2021, there was no sex difference in cigarette smoking in the past 30 days (Figure 89).

**Region.** Cigarette smoking among young adults has tended to be slightly higher in the Midwest and lowest in the West. In 2021, prevalence of smoking in the past 30 days was 11.0% in the Midwest, 9.5% in the Northeast, 8.2% in the South, and 7.2% in the West (Figure 87). All four regions have shown a considerable and mostly parallel decline in past 30 day smoking since the mid-2000s. Among adults ages 35 to 50, cigarette smoking was most prevalent in the Midwest (14.0%) compared to other regions (7.4–9.7%) in 2021, after a significant decline in cigarette use in the South from 2020 to 2021. All four regions have shown a decline in past 30 day smoking since 2008, when data were first available for this age group (Figure 90).

**Race/Ethnicity.** White young adults have consistently had the highest prevalence of smoking cigarettes in the past 30 days, and this persisted in 2021 (10.8% of White vs. 5.0% of Hispanic and 4.6% of Black young adults; Figure 88). This pattern was also observed for adults, although differences were not statistically significant (Figure 91).

Vaping Nicotine

**Sex.** The prevalence of nicotine vaping in the past 30 days was significantly higher for young adult men than women (19.5% vs. 14.0%) in 2021 (Figure 92), although there was no sex difference among adults (1.9% vs. 1.8% in 2021; Figure 95).
Region. There were significant increases in nicotine vaping in the past 30 days among young adults in the Midwest, Northeast, and South from 2020 to 2021. In 2021, the prevalence of vaping nicotine was somewhat higher for the Midwest (18.9%) compared to the West (13.9%), with the Northeast (16.5%) and South (15.2%) in between (Figure 93). These differences were not seen for adults ages 35 to 50 (all levels 1.4–2.3% in 2021; Figure 96).

Race/Ethnicity. White young adults have consistently had the highest prevalence of nicotine vaping, and prevalence grew again in this group from 2020 (15.8%) to 2021 (18.9%), although it was stable among Hispanic (8.7%) and Black (5.1%) young adults (Figure 94). Nicotine vaping prevalence also increased among White adults, nearly doubling from 1.2% in 2020 to 2.1% in 2021, although differences by race/ethnicity were not significant in 2021 (Figure 97).

Any Drug Other Than Marijuana

An index of non-medical use of any drugs other than marijuana includes hallucinogens (including LSD), cocaine, amphetamines, sedatives (barbiturates), tranquilizers, and narcotics (including heroin).

Sex. In 2021, young adult men continued to have higher prevalence levels of use of any illicit drug other than marijuana in the past 12 months (21.0% vs. 16.7%; Figure 98) and past 30 days (9.2% vs. 6.5%; Figure 104). Among adults there were no consistent sex differences (Figures 101 and 107).

Region. Prevalence of use of any drug other than marijuana among young adults in the past 12 months and 30 days was highest in the West (22.2% and 8.7%) and Northeast (18.6% and 8.7%) compared to South (16.0% and 6.9%) and Midwest (18.1% and 6.7%) in 2021 (Figures 99 and 105). There were no significant differences by region for use in the past 30 days (Figure 105). Among adults ages 35 to 50, there were no significant differences by region in 2021 (Figures 102 and 108).

Race/Ethnicity. White young adults continued to have the highest prevalence of using any drug other than marijuana in the past 12 months in
2021 (20.5%), although this was no longer significantly different than prevalence among Hispanic young adults (15.3%). Black young adults had the lowest prevalence (9.4%) in 2021, and this has been true since this age group was first surveyed in 1988 (Figure 100). Among young adults there were no significant racial/ethnic differences for use of any illicit drug in the past 30 days in 2021 (Figure 106). However, Black young adults have had the lowest prevalence of using any illicit drug other than marijuana for as long as data on this full age band were first available in 1988. These patterns held for use among adults ages 35 to 50, as well, with White adults having the highest prevalence in 2021 in the past 12 months and past 30 days (11.6% and 5.7%), followed by Hispanic (7.9% and 3.4%) and Black (5.0% and 4.7%) adults; however, differences were smaller and only differences between White and Black groups of adults were statistically significant (Figures 103 and 109). The rankings of all three groups across years were less consistent than among the young adults, with Black and Hispanic adults having more variability due to smaller sample sizes.