

# Tobacco Product Use Among Adults — United States, 2019

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## Summary

### What is already known about this topic?

Cigarette smoking remains the leading cause of preventable disease and death in the United States; however, a variety of new combustible, noncombustible, and electronic tobacco products are available in the United States.

### What is added by this report?

In 2019, approximately 20.8% of U.S. adults (50.6 million) currently used any tobacco product. Cigarettes were the most commonly used tobacco product among adults, and e-cigarettes were the most commonly used noncigarette tobacco product (4.5%). The highest prevalence of e-cigarette use was among smokers aged 18–24 years (9.3%), with over half (56.0%) of these young adults reporting that they had never smoked cigarettes.

### What are the implications for public health practice?

The implementation of comprehensive, evidence-based, population-level interventions, combined with targeted strategies, in coordination with regulation of tobacco products, can reduce tobacco-related disease and death in the United States. As part of a comprehensive approach, targeted interventions are also warranted to reach subpopulations with the greatest use, which might vary by tobacco product type.

Cigarette smoking remains the leading cause of preventable disease and death in the United States (1). The prevalence of current cigarette smoking among U.S. adults has declined over the past several decades, with a prevalence of 13.7% in 2018 (2). However, a variety of combustible, noncombustible, and electronic tobacco products are available in the United States (1,3). To assess recent national estimates of tobacco product use among U.S. adults aged ≥18 years, CDC analyzed data from the 2019 National Health Interview Survey (NHIS). In 2019, an estimated 50.6 million U.S. adults (20.8%) reported currently using any tobacco product, including cigarettes (14.0%), e-cigarettes (4.5%), cigars (3.6%), smokeless tobacco (2.4%), and pipes\* (1.0%).<sup>†</sup> Most current tobacco product users (80.5%) reported using combustible products (cigarettes, cigars, or pipes), and 18.6% reported using two or more tobacco products.<sup>§</sup> The prevalence of any current tobacco product use was higher among males; adults aged ≤65 years;

non-Hispanic American Indian/Alaska Native (AI/AN) adults; those whose highest level of educational attainment was a General Educational Development (GED) certificate; those with an annual household income <\$35,000; lesbian, gay, or bisexual (LGB) adults; uninsured adults and those with Medicaid; those with a disability; or those with mild, moderate, or severe generalized anxiety disorder. E-cigarette use was highest among adults aged 18–24 years (9.3%), with over half (56.0%) of these young adults reporting that they had never smoked cigarettes. Implementing comprehensive, evidence-based, population level interventions (e.g., tobacco price increases, comprehensive smoke-free policies, high-impact antitobacco media campaigns, and barrier-free cessation coverage), in coordination with regulation of the manufacturing, marketing, and sale of all tobacco products, can reduce tobacco-related disease and death in the United States (1,4). As part of a comprehensive approach, targeted interventions are also warranted to reach subpopulations with the highest prevalence of use, which might vary by tobacco product type.

NHIS is an annual, nationally representative, household survey of the noninstitutionalized U.S. civilian population.<sup>¶</sup> The 2019 NHIS Sample Adult component included 31,997 adults aged ≥18 years; the response rate was 59.1% (5). Data were weighted to account for complex survey design and provide nationally representative estimates. Use of five tobacco product types was assessed: cigarettes, cigars (cigars, cigarillos, or filtered little cigars), pipes (regular pipes, water pipes, or hookahs), e-cigarettes, and smokeless tobacco (chewing tobacco, snuff, dip, snus, or dissolvable tobacco). Current cigarette smokers reported having smoked ≥100 cigarettes during their lifetime and reported that they smoked “every day” or “some days” at the time of survey. Current users of all other tobacco products reported using these products “every day” or “some days” at the time of survey. Prevalence estimates for current use of each tobacco product type, any tobacco product, any combustible tobacco product, and two or more tobacco products were calculated. Estimates were calculated overall and by sex, age, race/ethnicity, U.S. Census region,<sup>\*\*</sup> education (adults aged ≥25 years), marital status, annual household income,<sup>††</sup> sexual orientation,<sup>§§</sup> health insurance coverage,<sup>¶¶</sup> disability status,<sup>\*\*\*</sup> and indication of generalized anxiety disorder (GAD-7).<sup>†††</sup> The distribution of age groups was assessed among current users of each tobacco product, any tobacco product, combustible products, and two or more tobacco products. Among e-cigarette users, the percentage of current,<sup>§§§</sup> former,<sup>¶¶¶</sup> and never<sup>\*\*\*\*</sup> cigarette smokers was assessed by age group. SAS-callable SUDAAN software (version 11.0.3; RTI International) was used to conduct all analyses.

Among U.S. adults in 2019, 20.8% (estimated 50.6 million) currently used any tobacco product, 16.7% (40.8 million) used any combustible tobacco product, and 3.9% (9.4 million) used two or more tobacco products ([Table](#)). Cigarettes were the most commonly used tobacco product (14.0%; 34.1 million). Prevalence of use of other tobacco products was as follows: e-cigarettes (4.5%; 10.9 million); cigars (3.6%; 8.7 million); smokeless tobacco (2.4%; 5.9 million); and pipes (1.0%; 2.4 million). Combustible tobacco products were used by 80.5% of current tobacco product users. Use of two or more tobacco products was reported by 18.6% of current tobacco product users.

The tobacco product with the highest percentage of users aged 18–24 (24.5%) and 25–44 years (49.3%) was e-cigarettes ([Figure 1](#)). The tobacco product with the highest percentage of users aged 45–64 (40.2%) and ≥65 years (12.3%) was cigarettes. Among current e-cigarette users, 36.9% were current cigarette smokers, 39.5% were former cigarette smokers, and 23.6% were never cigarette smokers ([Figure 2](#)). The percentage of e-cigarette users who were never smokers was highest (56.0%) among the 18–24 age group and decreased with increasing age. The percentage of e-cigarette users who were former smokers was lowest (20.5%) among the 18–24 age group and increased with increasing age. Many adults in all age groups were dual users of e-cigarettes and cigarettes.

The prevalence of any current tobacco product use was higher among males (26.2%) than among females (15.7%) and among those aged 25–44 years (25.3%), 45–64 years (23.0%), or 18–24 years (18.2%) than among those aged ≥65 years (11.4%) (Table). Current tobacco product use was also higher among non-Hispanic AI/AN adults (29.3%), non-Hispanic adults of other<sup>\*\*\*\*</sup> races (28.1%), non-Hispanic White adults (23.3%), non-Hispanic Black adults (20.7%), and Hispanic or Latino adults (13.2%) than among non-Hispanic Asian adults (11.0%); and among those living in the Midwest (23.7%) or South (22.9%) than among those in the Northeast (18.5%) or West (16.4%). The prevalence of current tobacco product use was higher among those whose highest educational attainment was a GED (43.7%) than among those with other levels of education; among those who were divorced/separated/widowed (23.5%) or single/never married/not living with a partner (23.0%) than among those married/living with a partner (19.2%); among those who had annual household income of <\$35,000 (27.0%) than among those with higher income; and among LGB adults (29.9%) than among those who were heterosexual/straight (20.5%). Prevalence was also higher among adults who were uninsured (30.2%), insured by Medicaid (30.0%), or had some other public insurance (25.6%) than among those with private insurance (18.0%) or Medicare only (11.4%); among those who had a disability (26.9%) compared with those without (20.1%); and among those who had GAD-7 scores indicating mild (30.4%), moderate (34.2%) or severe (45.3%) anxiety than among those indicating no or minimal (18.4%) anxiety.

## Discussion

In 2019, approximately one in five U.S. adults (50.6 million) reported currently using any tobacco product. Cigarettes were the most commonly used tobacco product among adults, and combustible tobacco products (cigarettes, cigars, or pipes) were used by most (80.5%) adult tobacco product users. Most of the death and disease from tobacco use in the United States is primarily caused by cigarettes and other combustible products (1); therefore, continued efforts to reduce all forms of combustible tobacco smoking among U.S. adults are warranted. Moreover, approximately one in five current tobacco product users (18.6%) reported using two or more tobacco products, and differences in prevalence of tobacco use were also seen across population groups, with higher prevalence among those with a GED, American Indian/Alaska Natives, uninsured adults and adults with Medicaid, and LGB adults. Each of these groups has experienced social, economic, and environmental stressors that might contribute to higher

tobacco use prevalence (6). Comprehensive strategies at the national, state, and local levels, including targeted interventions and tailored community engagement, can reduce tobacco-related disease and death and help to mitigate tobacco-related disparities (1,4,6).

U.S. adults also reported using various noncigarette tobacco products, with e-cigarettes being the most commonly used noncigarette tobacco product (4.5%). E-cigarette use was highest among adults aged 18–24 years (9.3%), with over half (56.0%) of these young adults reporting that they had never smoked cigarettes. In addition, the tobacco product with the highest percentage of users aged 18–24 years (24.5%) was e-cigarettes. E-cigarettes contain nicotine, which is highly addictive, can prime the brain for addiction to other drugs, and can harm brain development, which continues until about age 25 years (3). Although e-cigarette use was lower among the older age groups, more than 40% of e-cigarette users in the 25–44, 45–64 and ≥65 years age groups reported being former smokers. Although some evidence suggests that the use of e-cigarettes containing nicotine and more frequent use of e-cigarettes are associated with increased smoking cessation, smokers need to completely stop smoking cigarettes and stop using any other tobacco product to achieve meaningful health benefits (6,7). The U.S. Surgeon General concluded that there is presently inadequate evidence to conclude that e-cigarettes, in general, increase smoking cessation, and further research is needed on the effects that e-cigarettes have on cessation (7). Therefore, continued efforts to reduce use of all tobacco products, combustible and noncombustible, are needed.

The findings in this report are subject to at least four limitations. First, the 59.1% response rate might have resulted in nonresponse bias, although sample weighting is designed to account for this. Second, self-reported responses were not validated by biochemical testing for cotinine (a biomarker indicating nicotine exposure); however, there is high correlation between self-reported smoking and smokeless use and cotinine levels (8,9). Third, because NHIS is limited to the noninstitutionalized U.S. civilian population, these results might not be generalizable to institutionalized populations and persons in the military. Finally, this analysis does not provide comparisons of prevalence estimates with previous surveys because changes in weighting and design methodology for the 2019 NHIS have the potential to affect comparisons of weighted survey estimates over time.<sup>§§§§</sup>

The implementation of comprehensive, evidence-based, population-level interventions in coordination with regulation of tobacco products, can reduce tobacco-related disease, disparities, and death in the United States (1,4). These evidence-based, population-level strategies include implementation of tobacco price increases, comprehensive smoke-free policies, high-impact antitobacco media campaigns, and barrier-free cessation coverage (1). As part of a comprehensive approach, targeted interventions are also warranted to reach subpopulations with the highest prevalence of use, which might vary by tobacco product type.

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