

Pennsylvania Tobacco Report 2023

**Bureau of Health Promotion and
Risk Reduction**

Division of Tobacco Control and Prevention

Bureau of Epidemiology

Division of Community Epidemiology



pennsylvania
DEPARTMENT OF HEALTH

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1. Executive Summary

Tobacco use is the leading cause of preventable deaths in the United States, accounting for approximately 500,000 deaths annually. Smokers have at least a ten-year shorter life expectancy compared to non-smokers.^{1,2} Tobacco use contributes to the development of chronic diseases and disabilities such as heart disease, stroke, lung disease, and cancer. An estimated 16 million Americans live with health conditions caused primarily by smoking.³ Exposure to secondhand smoke causes higher mortality rates and increased risk of disease, particularly for children.⁴

Women who smoke or are exposed to secondhand smoke during pregnancy are more likely to develop pregnancy-related complications, deliver prematurely, and deliver infants with low birthweights.⁵ Their infants are more likely to have weakened respiratory systems leading to increased risk for many health conditions, including sudden infant death syndrome, respiratory infections, and asthma.⁵

Electronic vapor products (EVPs), commonly called e-cigarettes or vape, contain the same dangerous and toxic chemicals found in traditional tobacco such as nicotine, heavy metals, and cancer-inducing agents.⁶ EVP use is prevalent among youth with approximately 18% of American youth using these products in 2021.⁷ Tobacco use among youth is a public health concern as tobacco use initiated during adolescence and young adulthood is associated with continued tobacco use into adulthood and increased dependence on nicotine.⁸

Over the past decade there have been substantial reductions in the rates of tobacco use, but EVP use is increase at an alarming rate. The following are the key findings from the report:

Key Report Highlights:

➤ Tobacco Use Among Pennsylvania Adults:

- In 2021, the current adult smoking prevalence in Pennsylvania (PA) was 14.1%, comparable to the national prevalence of 14.4%.⁹
- PA's current adult EVP use in 2021 was 6.1%, slightly lower than the national prevalence of 6.7%.⁹
- From 2012 to 2021, the current smoking prevalence decreased the most among Hispanics, from 25.8% to 13.9%.
- Smoking prevalence for adults 18-29 years old decreased from 26.2% in 2012 to 12% in 2021, while EVP use for the same age group increased from 7.4% in 2016 to 16.8% in 2021.
- In women, smoking prevalence during the last three months of pregnancy decreased from 12.6% in 2012 to 8.7% in 2021, while EVP use during pregnancy increased from 1.7% in 2016 to 2.6% in 2021.

➤ Tobacco Use Among Pennsylvania High School Students:

- The current smoking prevalence among PA high school students was 4.2% in 2021, slightly higher than the national prevalence of 3.8%.⁷
- The prevalence of PA high school student EVP use was 19.2% in 2021, slightly higher than the national prevalence of 18%.⁷

- The prevalence of smoking initiation and EVP use initiation among PA high school students was 21.8% and 40.3% in 2019, respectively.

The purpose of this report is to describe trends in tobacco use including smoking, smokeless tobacco, and EVPs in the Commonwealth from 2012 to 2021. We hope this report will be used by state and local health department staff, public health professionals, healthcare providers, community partners, and residents to help reduce the devastating impacts of tobacco use on the health and wellbeing of Commonwealth residents.

2. Data Sources

This report utilizes data from the following sources: (1) Behavioral Risk Factor Surveillance System (BRFSS); (2) Youth Risk Behavior Surveillance System (YRBSS); (3) PA Free Quitline; (4) Pregnancy Risk Assessment Monitoring System (PRAMS); (5) Enterprise Data Dissemination Informatics Exchange (EDDIE); (6) Pennsylvania Birth Certificate Registry; (7) Clean Indoor Air Act Annual Reports; (8) Annual Synar Reports; and (9) Tax Burden on Tobacco.

BRFSS is an annual survey coordinated by the Centers for Disease Control and Prevention (CDC) and administered to non-institutionalized adults by individual states. The survey collects information on health conditions, risk behaviors related to health, and preventative health care practices.¹⁰ The BRFSS questionnaire includes tobacco use and cessation questions.¹¹ BRFSS datasets for analysis were downloaded from https://www.cdc.gov/brfss/annual_data/annual_data.htm.

YRBSS is a biennial survey coordinated by the CDC and administered to middle and high school students in public and private educational institutions by individual states.¹² The survey collects information on adolescent health behaviors to detect developing issues and monitor health trends. Aggregated YRBSS data for high school students in Pennsylvania was obtained from the CDC YRBSS Youth Online website at <https://nccd.cdc.gov/Youthonline/App/Default.aspx>.

The PA Free Quitline assists individuals seeking cessation help with tobacco products.¹³ Quitline datasets were obtained from the Public Health Management Corporation which manages the data. More information about the PA Free Quitline is available at <https://www.health.pa.gov/topics/programs/tobacco/pages/quitline.aspx>.

PRAMS is an annually administered survey to women with a recent birth and collects information on maternal health and experiences surrounding pregnancy.¹⁴ Aggregated PRAMS data on tobacco use were obtained from the Pennsylvania Department of Health (PA DOH) Bureau of Family Health. More information about PRAMS may be found at <https://www.cdc.gov/prams/index.htm>.

EDDIE is a health statistics tool managed by the PA DOH Division of Health Informatics to disseminate data to public health professionals and the public.¹⁵ Aggregated adult tobacco data were obtained at <https://www.phaim1.health.pa.gov/EDD/>.

The Pennsylvania Birth Registry contains birth certificate data, including the mother's smoking status during pregnancy.¹⁶ Aggregated data were retrieved from the PA DOH Division of Health Informatics at <https://www.health.pa.gov/topics/HealthStatistics/VitalStatistics/BirthStatistics/Pages/birth-statistics.aspx>.

Clean Indoor Air Act (CIAA) Annual Reports are generated by the PA DOH Division of Tobacco Prevention and Control (DTPC). DTPC implements the CIAA and oversees tobacco enforcement programs throughout the Commonwealth. CIAA Annual Reports are available at <https://www.health.pa.gov/topics/programs/CIAA/Pages/Reports.aspx>.^{17, 18}

Annual Synar Reports provided aggregated data concerning tobacco sales to minors and additional information as well as the reports may be found at

<https://www.health.pa.gov/topics/HealthStatistics/BehavioralStatistics/Synar/Pages/synar.aspx>.^{19, 20}

The Tax Burden on Tobacco data was retrieved from the CDC National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health at <https://data.cdc.gov/Policy/Table-of-Gross-Cigarette-Tax-Revenue-Per-State-Orz/rkpp-igza>. These data provide information regarding cigarette sales and taxes.^{21, 22}

For each measure of tobacco use, a weighted percentage was calculated to represent the state-level estimates. Tobacco use measures were further analyzed by gender, age, race and ethnicity, education, annual household income, insurance coverage, employment status, housing situation, health district, and grade level where sufficient subgroup sample sizes are available. Race and ethnicity data include non-Hispanic Whites (referred to as Whites), non-Hispanic Blacks (referred to as Blacks), non-Hispanic Asians (referred to as Asians), and Hispanics/Latinos. YRBSS statistics are presented for high school students from 2015-2021 as Pennsylvania did not have representative data in 2011 or 2013.²³ SAS Enterprise Guide Version 7.1 (SAS Institute, Cary, North Carolina) was used to perform the data analyses.

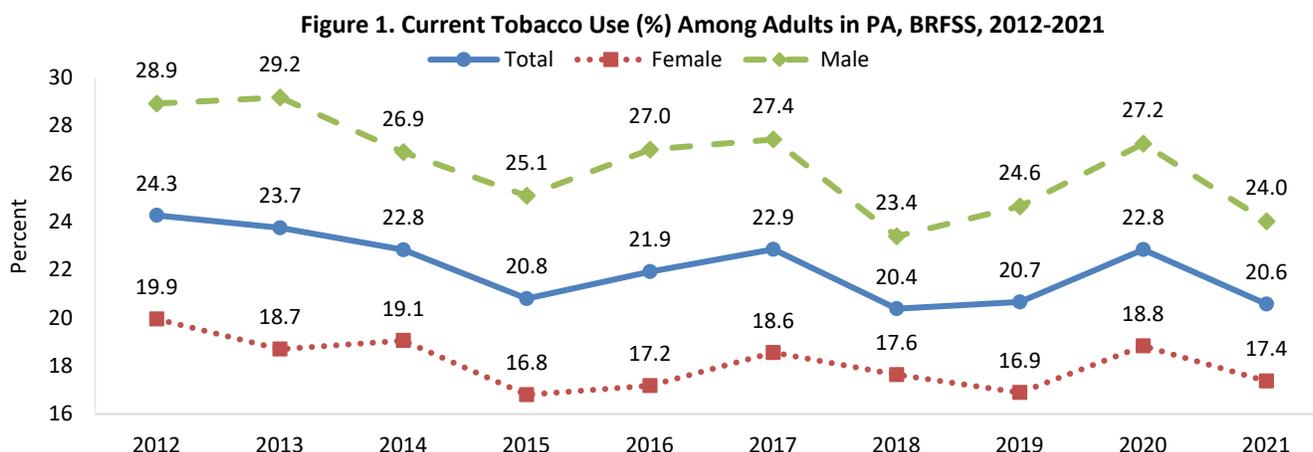
3. Findings

3.1 Current Tobacco Use Among Adults

Tobacco use includes any combustible or non-combustible tobacco products such as cigarettes, cigars, chewing tobacco, or EVPs. In 2021, approximately 20% of adults currently used some form of tobacco product, and fewer than 1% of adults used all forms of tobacco products concurrently.



Current tobacco use among adults decreased from 24.3% in 2012 to 20.6% in 2021. By gender, tobacco use was consistently higher among males than among females. Males demonstrated a larger decrease in tobacco use from 28.9% in 2012 to 24.0% in 2021, while female tobacco use decreased from 19.9% to 17.4% during the same period [Figure 1].

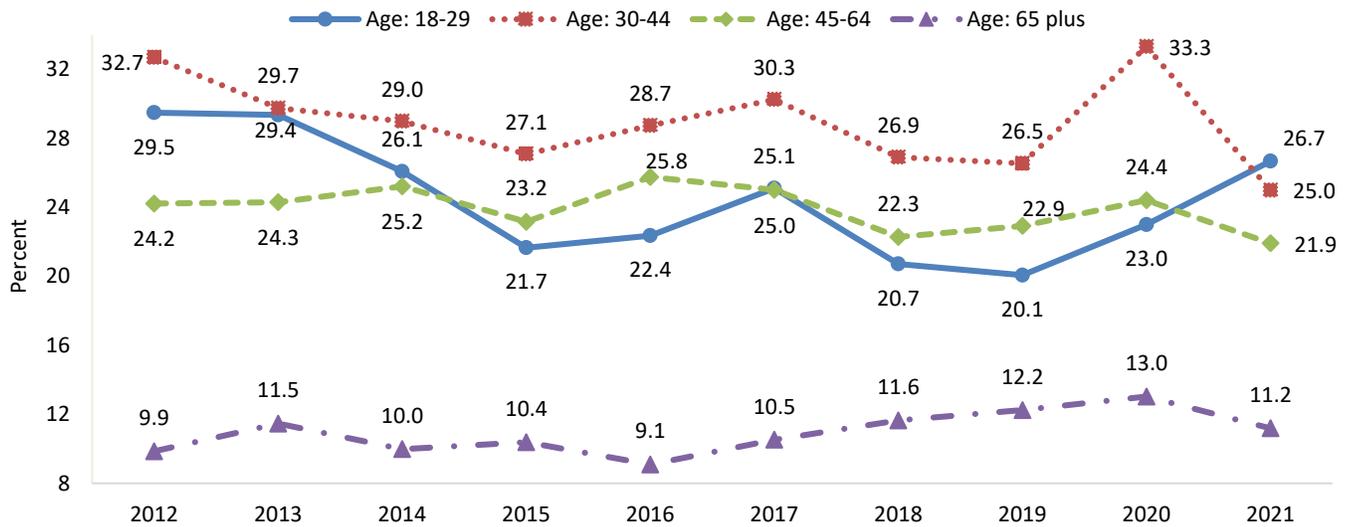


3.1.1 Current Tobacco Use by Age

Figure 2 displays tobacco use by age group. In general, the highest tobacco use was noted among adults 30-44 years old, and the lowest tobacco use was noted among adults 65 years or older. In 2021, adults 18-29 years

old had the highest percentage of tobacco use (26.7%), followed by adults 30-44 year olds (25%), adults 45-64 years old (21.9%), and adults 65 years or older (11.2%).

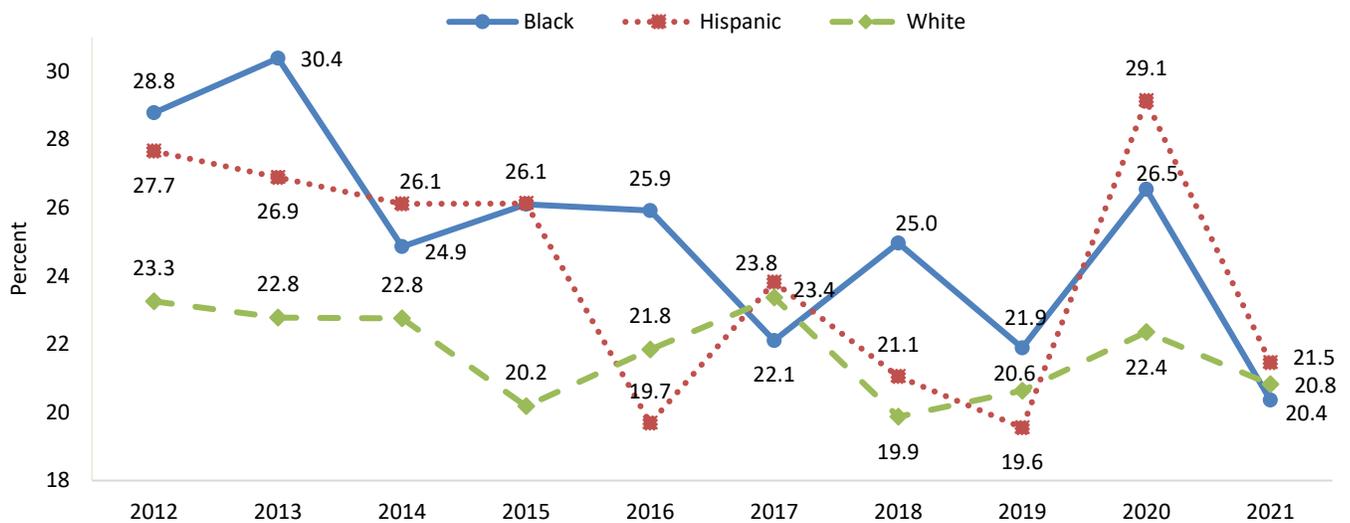
Figure 2. Current Tobacco Use (%) Among Adults by Age Group in PA, BRFSS, 2012-2021



3.1.2 Current Tobacco Use by Race and Ethnicity

From 2012 to 2021, tobacco use decreased the most among Blacks, followed by Hispanics, and Whites. In 2021, Hispanics had the highest percentage of tobacco use (21.5%), followed by Whites (20.8%), and Blacks (20.4%) [Figure 3].

Figure 3. Current Tobacco Use (%) Among Adults by Race and Ethnicity in PA, BRFSS, 2012-2021

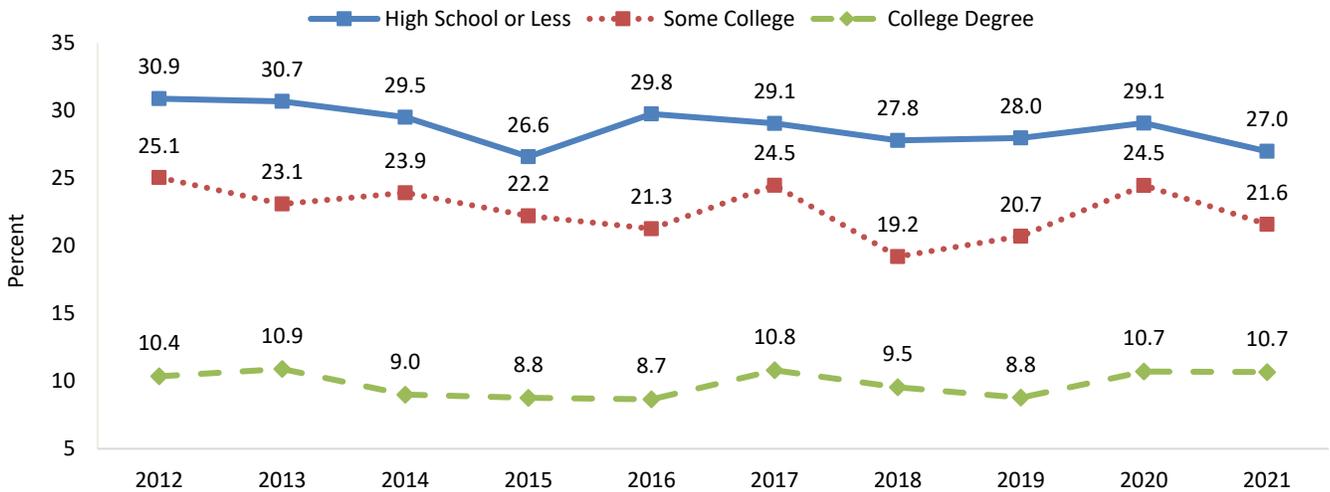


3.1.3 Current Tobacco Use by Education

By education, tobacco use was higher among adults with less education. The highest tobacco use was consistently among adults with a high school or lower education level. In 2021, adults with a high school or less education had the highest percentage of tobacco use (27%), followed by adults with some college level education (21.6%), and adults with a college education (10.7%) [Figure 4].

One quarter of tobacco users have a high school or less education

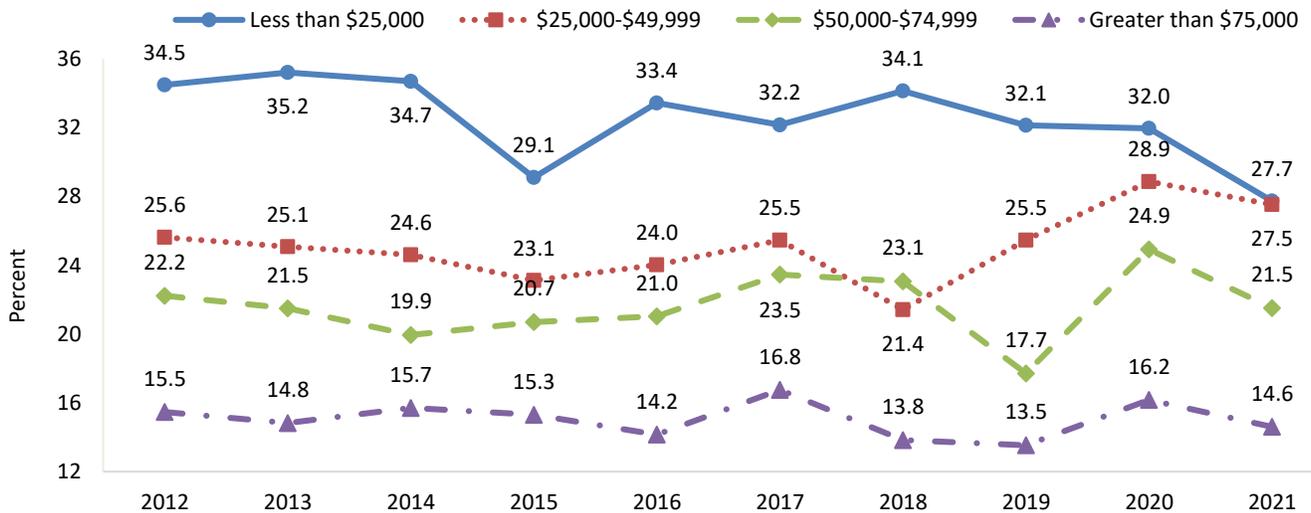
Figure 4. Current Tobacco Use (%) Among Adults by Education in PA, BRFSS, 2012-2021



3.1.4 Current Tobacco Use by Income

Figure 5 displays tobacco use among adults with various income levels with the highest usage noted among adults with the lowest income levels. Tobacco use decreased for all income groups except the \$50,000 - \$74,999 group which increased slightly from 25.6% in 2012 to 27.5% in 2021. In 2021, the less than \$25,000 income group had the highest percentage of tobacco use (27.7%), followed by the \$25,000-\$49,999 group (27.5%), the \$50,000-\$74,999 group (21.5%), and the greater than \$75,000 group (14.6%).

Figure 5. Current Tobacco Use (%) Among Adults by Income in PA, BRFSS, 2012-2021

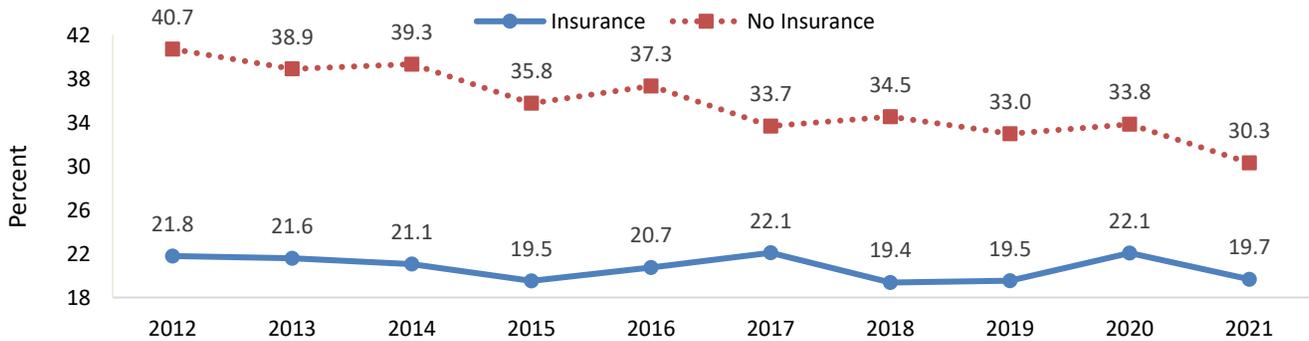


3.1.5 Current Tobacco Use by Health Insurance

Uninsured adults had higher percentages of tobacco use compared to insured adults. Tobacco use among uninsured adults decreased from 40.7% in 2012 to 30.3% in 2021, while tobacco use among insured adults decreased from 21.8% to 19.7% during the same period. In 2021, tobacco use among uninsured adults was 1.5 times higher than tobacco use among insured adults [Figure 6].

Tobacco use is 1 ½ times higher among uninsured adults

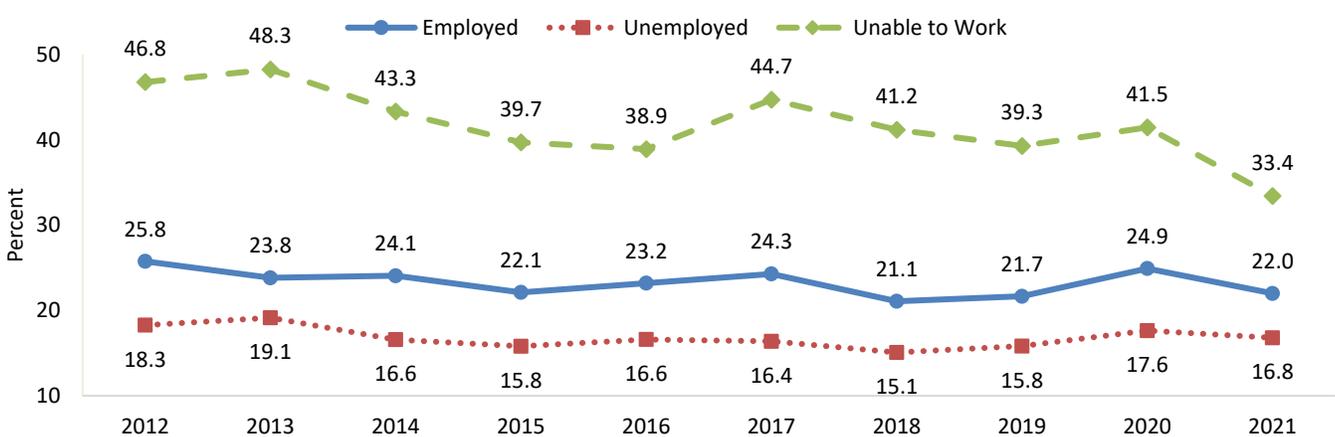
Figure 6. Current Tobacco Use (%) Among Adults by Insurance Coverage in PA, BRFSS, 2012-2021



3.1.6 Current Tobacco Use by Employment

Throughout the ten-year period, tobacco use was the highest among adults unable to work, followed by employed and unemployed adults. In 2021, adults unable to work had the highest percentage of tobacco use (33.4%), followed by employed adults (22%), and unemployed adults (16.8%) [Figure 7].

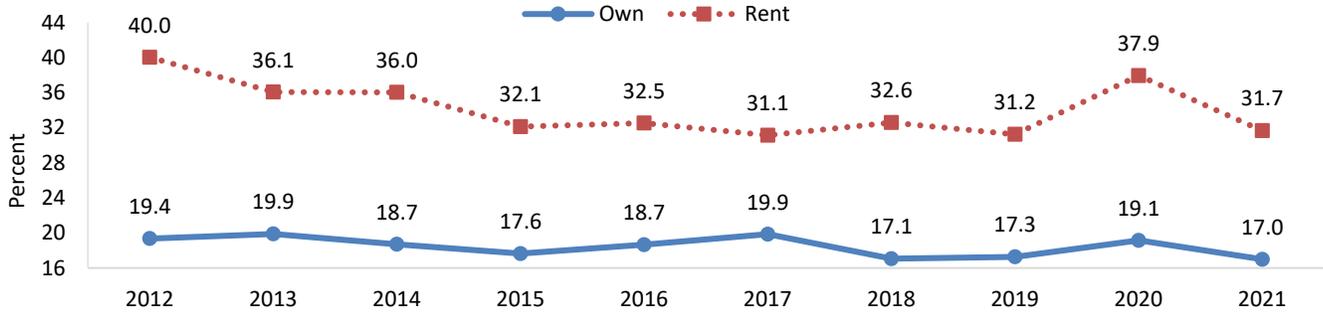
Figure 7. Current Tobacco Use (%) Among Adults by Employment in PA, BRFSS, 2012-2021



3.1.7 Current Tobacco Use by Housing Ownership

Renters had consistently higher percentages of tobacco use compared to homeowners. In 2021, tobacco use among renters was 31.7%, almost twice as high as among homeowners [Figure 8].

Figure 8. Current Tobacco Use (%) Among Adults by Housing in PA, BRFSS, 2012-2021



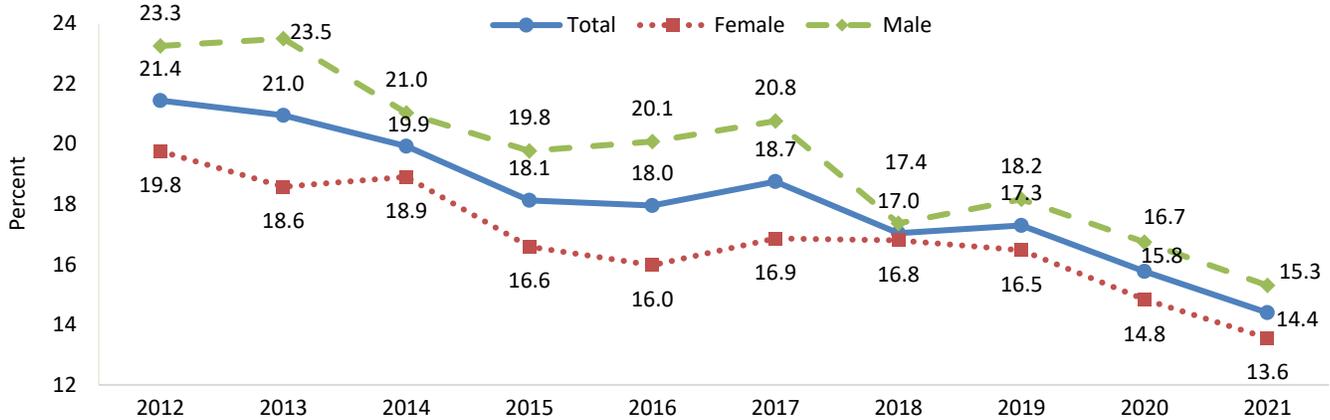
3.2 Current Smoking Prevalence Among Adults

Cigarette smoking is one of the most common forms of tobacco use.¹ BRFSS defines current smokers as survey respondents who reported smoking at least 100 cigarettes in their lifetime and now smoke some days or every day.¹¹

From 2012 to 2021, Pennsylvania’s current smoking prevalence declined from 21.4% to 14.4%. By gender, the prevalence was consistently higher among males than among females with both genders experiencing a decrease in prevalence during the ten-year period. In 2021, the smoking prevalence among males and females was 15.3% and 13.6%, respectively [Figure 9].

PA adult smoking prevalence decreased 33% from 2012 to 2021

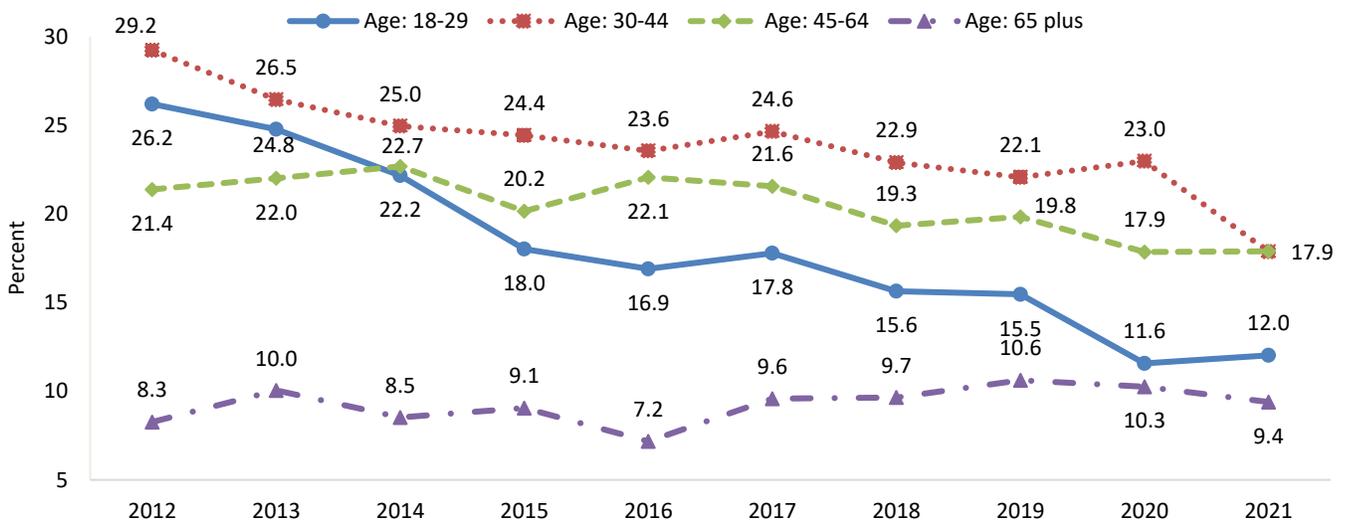
Figure 9. Current Smoking Prevalence (%) Among Adults in PA, BRFSS, 2012-2021



3.2.1 Current Smoking Prevalence by Age

Figure 10 displays smoking prevalence by age group. The highest prevalence was noted among adults aged 30-44 years and the lowest prevalence was noted among adults aged 65 years or older throughout the ten-year period. Adults aged 18-29 years demonstrated the greatest decrease in smoking prevalence. In 2021, the smoking prevalence was highest among adults aged 30-64 years (17.9%), followed by adults aged 18-29 years (12%), and adults 65 years or older (9.4%).

Figure 10. Current Smoking Prevalence (%) Among Adults by Age Group in PA, BRFSS, 2012-2021

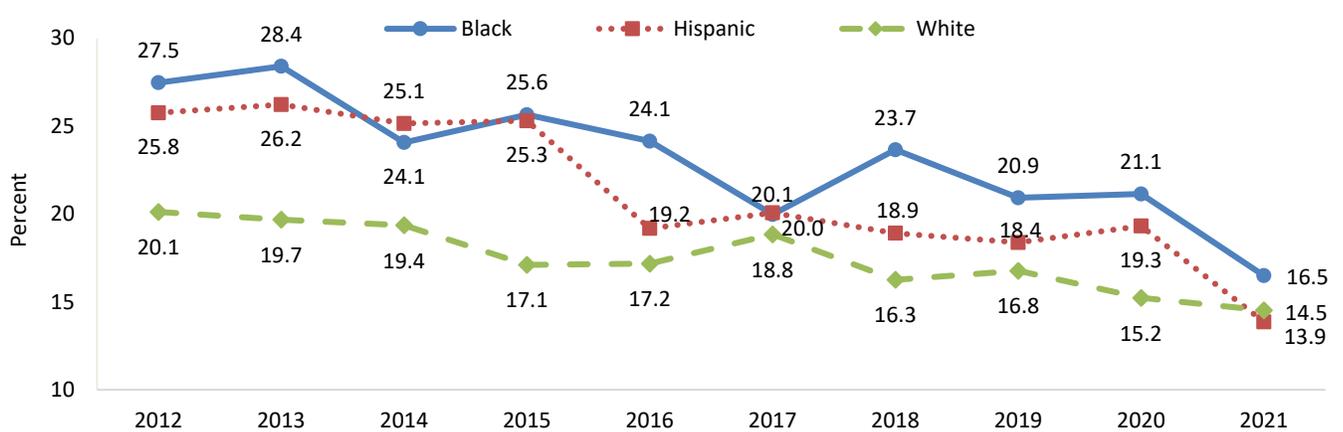


3.2.2 Current Smoking Prevalence by Race and Ethnicity

By race and ethnicity, Blacks generally had the highest smoking prevalence, followed by Hispanics, and Whites throughout the ten-year period. Smoking prevalence decreased the most in Hispanics, followed by Blacks and Whites. The smoking prevalence in 2021 was highest among Blacks (16.5%), followed by Whites (14.5%), and Hispanics (13.9%) [Figure 11].

Smoking decreased the most among Hispanic adults

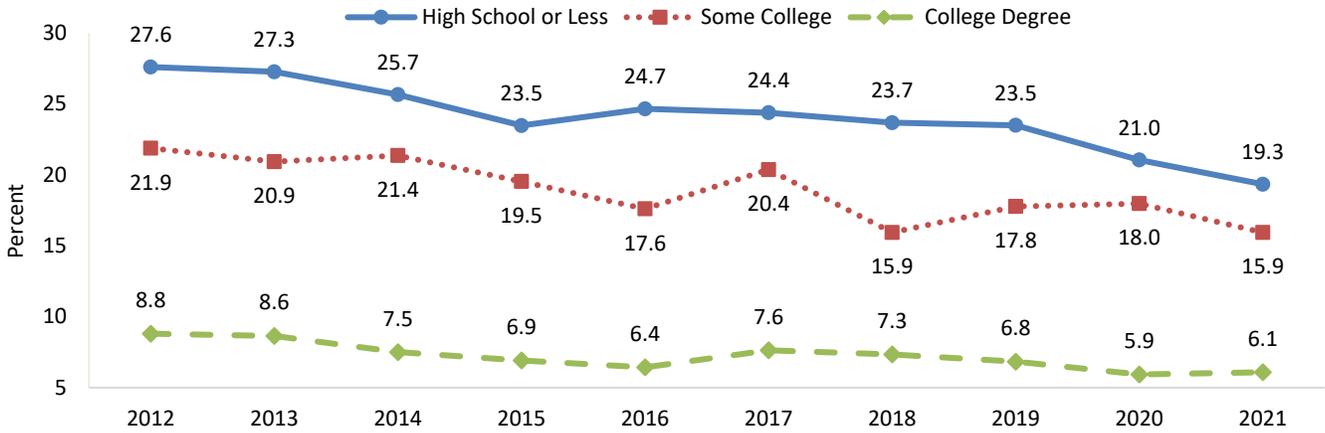
Figure 11. Current Smoking Prevalence (%) Among Adults by Race and Ethnicity in PA, BRFSS, 2012-2021



3.2.3 Current Smoking Prevalence by Education

By education, smoking prevalence was higher among adults with less education. Smoking prevalence decreased in all adults with different education levels. In 2021, the smoking prevalence among adults with a high school or less education was three times greater than among college educated adults [Figure 12].

Figure 12. Current Smoking Prevalence (%) Among Adults by Education in PA, BRFSS, 2012-2021

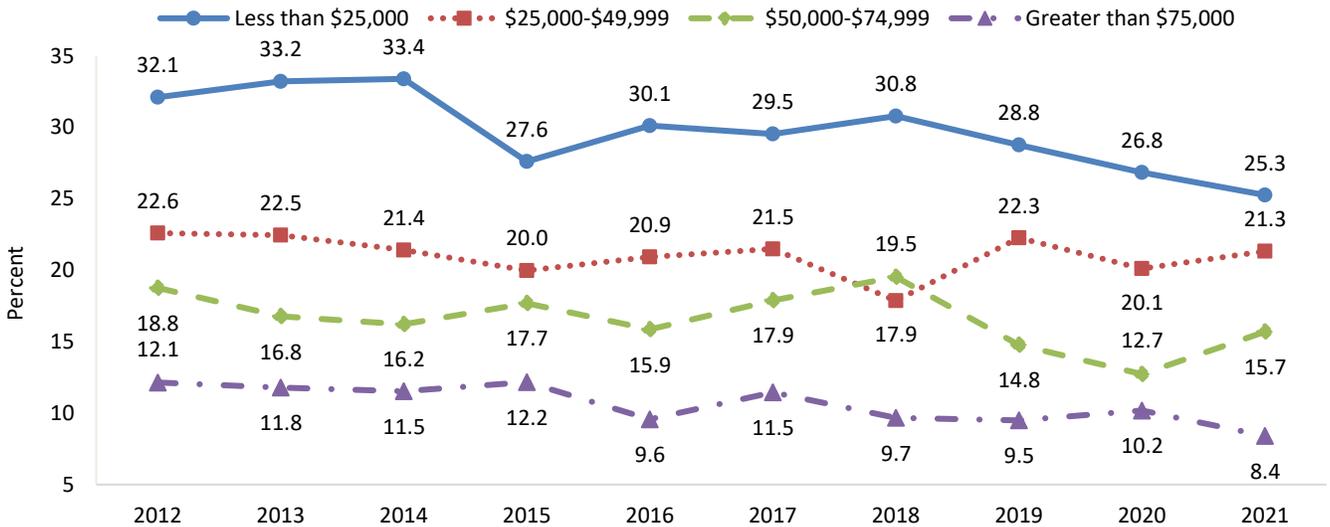


3.2.4 Current Smoking Prevalence by Income

By income, smoking prevalence was higher among adults with lower incomes levels. During the ten-year period, smoking prevalence decreased for all income groups. In 2021, the smoking prevalence for adults in the lowest income group was three times greater than adults in the highest income group [Figure 13].

Smoking prevalence in lowest income group is three times greater than prevalence in highest income group

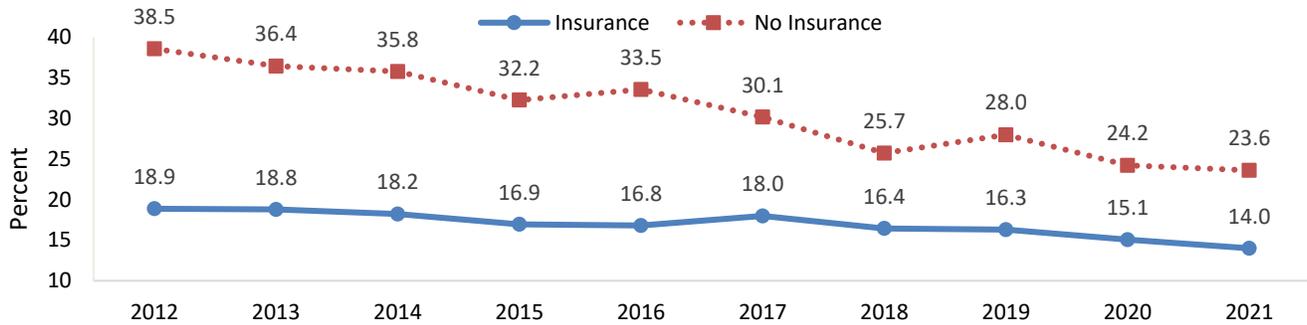
Figure 13. Current Smoking Prevalence (%) Among Adults by Income in PA, BRFSS, 2012-2021



3.2.5 Current Smoking Prevalence by Health Insurance

Smoking prevalence was higher among adults without insurance compared to adults with insurance. From 2012 to 2021, smoking prevalence declined among adults with or without insurance coverage. In 2021, the smoking prevalence among uninsured adults was 1.5 times higher than among insured adults [Figure 14].

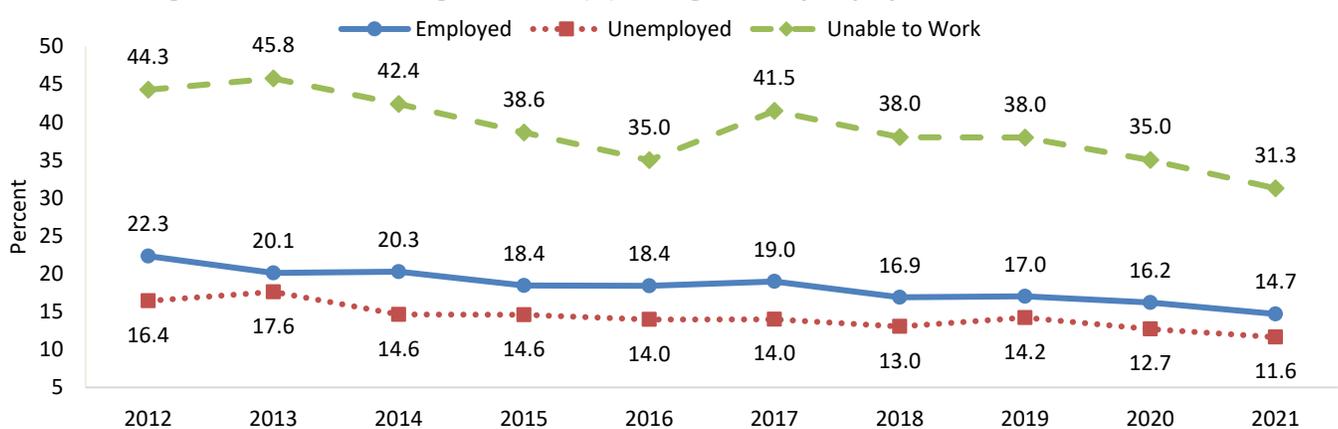
Figure 14. Current Smoking Prevalence (%) Among Adults by Insurance Coverage in PA, BRFSS, 2012-2021



3.2.6 Current Smoking Prevalence by Employment

Smoking prevalence was consistently higher among adults who were unable to work, followed by employed adults and unemployed adults. Smoking prevalence decreased by approximately one-third for each group during the ten years. In 2021, the smoking prevalence was highest among adults unable to work (31.3%), followed by employed adults (14.7%), and unemployed adults (11.6%) [Figure 15].

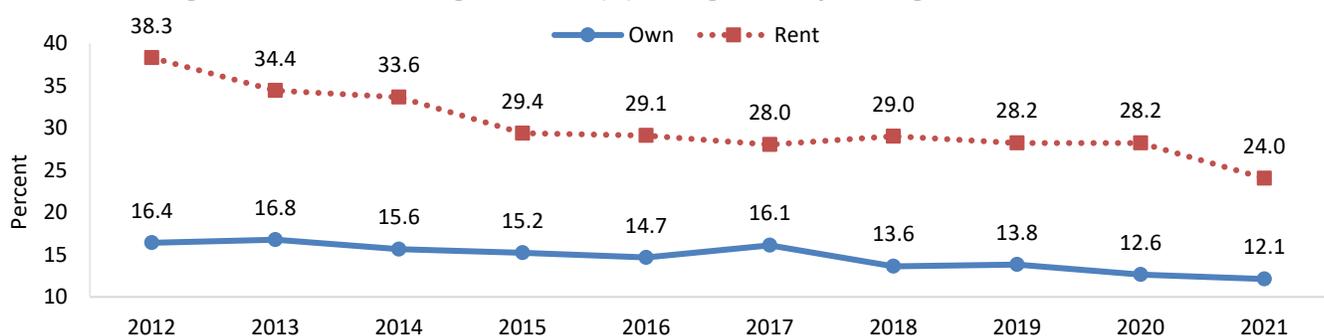
Figure 15. Current Smoking Prevalence (%) Among Adults by Employment in PA, BRFSS, 2012-2021



3.2.7 Current Smoking Prevalence by Housing Ownership

While the smoking prevalence was consistently higher among renters than homeowners, renters demonstrated a larger decrease in smoking during the ten-year period (from 38.3% in 2012 to 24% in 2021). In 2021, the smoking prevalence for renters was twice as high as the prevalence for homeowners [Figure 16].

Figure 16. Current Smoking Prevalence (%) Among Adults by Housing in PA, BRFSS, 2012-2021



3.2.8 Current Smoking Prevalence by Health District

Smoking prevalence varied across PA DOH Health Districts. The Northwest Health District had the highest smoking prevalence of 25% in 2012, but in 2021, it had the lowest prevalence of 12%. In 2021, the Northeast District had the highest prevalence of 18% [Table 1].

Table 1. Current Smoking Prevalence (%) Among Adults by Health District in PA, BRFSS, 2012-2021

District	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Allegheny	22%	21%	19%	17%	19%	19%	18%	15%	16%	14%
North Central	20%	20%	20%	23%	19%	18%	15%	20%	16%	13%
Northeast	24%	22%	21%	22%	20%	21%	20%	19%	21%	18%
Northwest	25%	22%	25%	21%	20%	30%	23%	21%	20%	12%
Philadelphia	24%	24%	23%	22%	22%	23%	19%	20%	16%	15%
South Central	19%	22%	20%	19%	18%	19%	19%	17%	17%	16%
Southeast	19%	18%	17%	12%	14%	11%	12%	14%	11%	17%
Southwest	22%	20%	21%	20%	17%	24%	19%	19%	18%	15%

* Note: Southeast Health District excludes Philadelphia County; Southwest Health District excludes Allegheny County

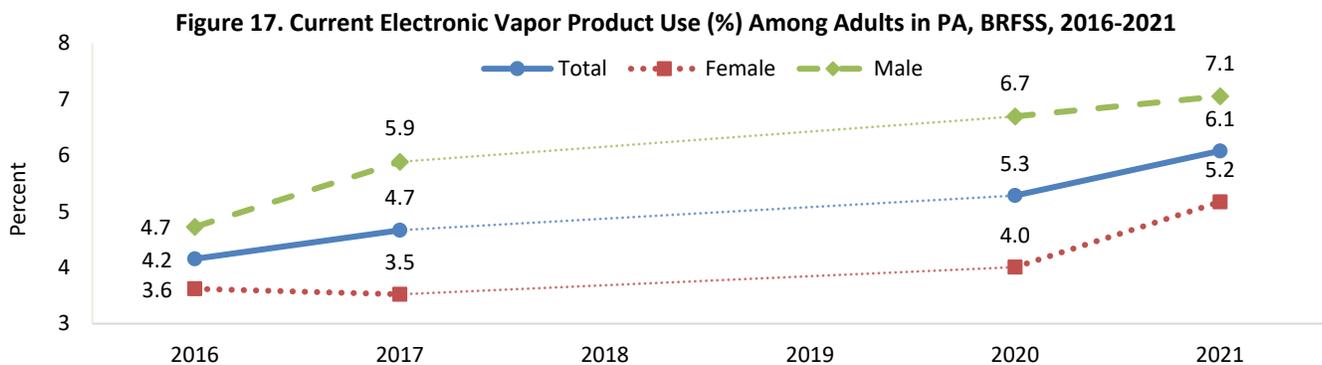
3.3 Current Electronic Vapor Product (EVP) Use Among Adults

EVPs contain heating elements to aerosolize solutions containing nicotine, flavorings, and other chemicals into vapor that the user inhales.⁶ There are various names for EVPs including e-cigarettes, e-hookahs, tanks, mods, or vape pens.⁶ EVPs are not safer than other tobacco products and cause the same detrimental health consequences.



EVP use questions were first introduced in the 2016 BRFSS questionnaire. However, in 2018 and 2019, data on EVP use were not collected for Pennsylvania; Pennsylvania elected not to ask EVP questions in 2018 and CDC did not include EVP questions in the 2019 BRFSS survey.¹¹

BRFSS defines current adult EVP users as respondents who reported using EVPs in their lifetime and now use them every day or some days.¹¹ EVP use among adults increased from 4.2% in 2016 to 6.1% in 2021 and the increase was noted in both males and females. EVP use was higher in males than in females [Figure 17].

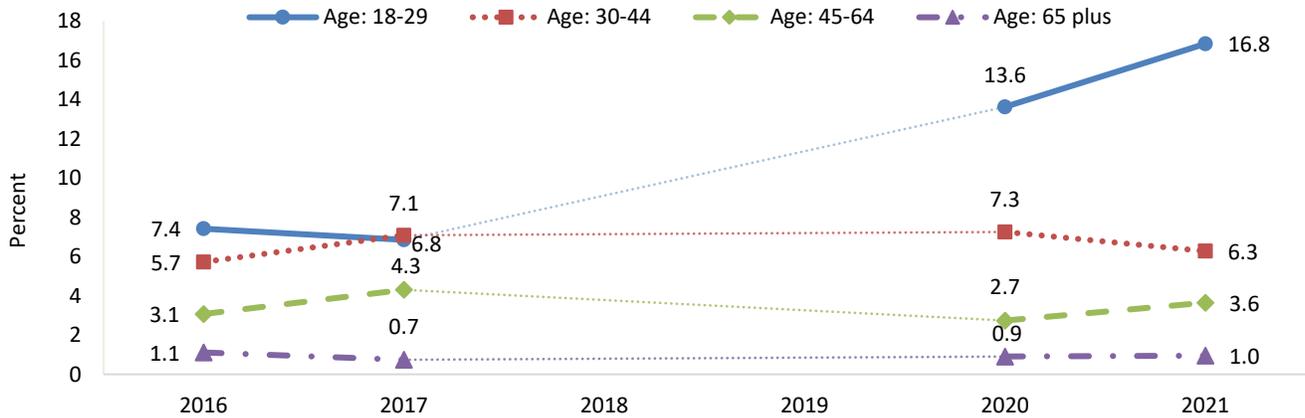


3.3.1 Current Adult EVP Use by Age

Younger adults had consistently higher rates of EVP use compared to older adults. EVP use among adults aged 18- 29 years increased the most from 2016 to 2021. In the other age groups, EVP use either increased slightly or remained unchanged.

Percentage of EVP use in 18-29 year olds is 2½ times greater than the next highest age group of 30-44 year olds

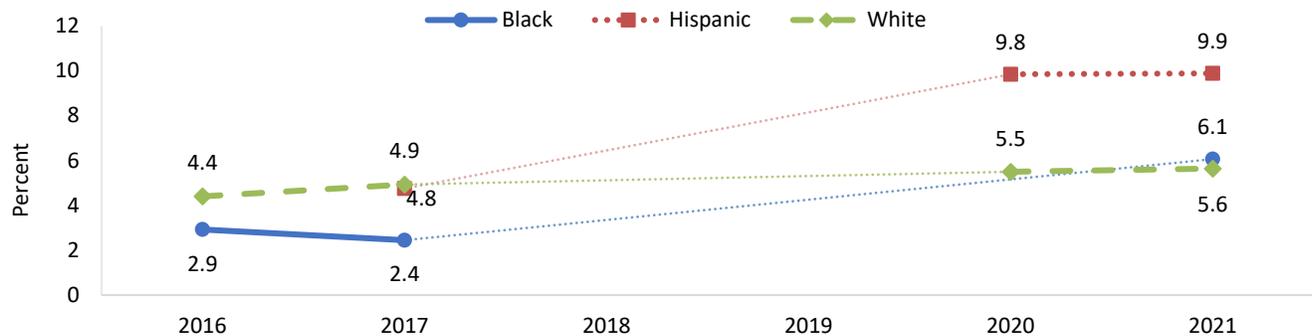
Figure 18. Current Electronic Vapor Product Use (%) Among Adults by Age Group in PA, BRFSS, 2016-2021



3.3.2 Current Adult EVP Use by Race and Ethnicity

EVP use increased in all racial/ethnic groups, with Hispanics experiencing the largest increase. In 2021, the percentage of EVP use was highest among Hispanics (9.9%), followed by Blacks (6.1%), and Whites (5.6%) [Figure 19].

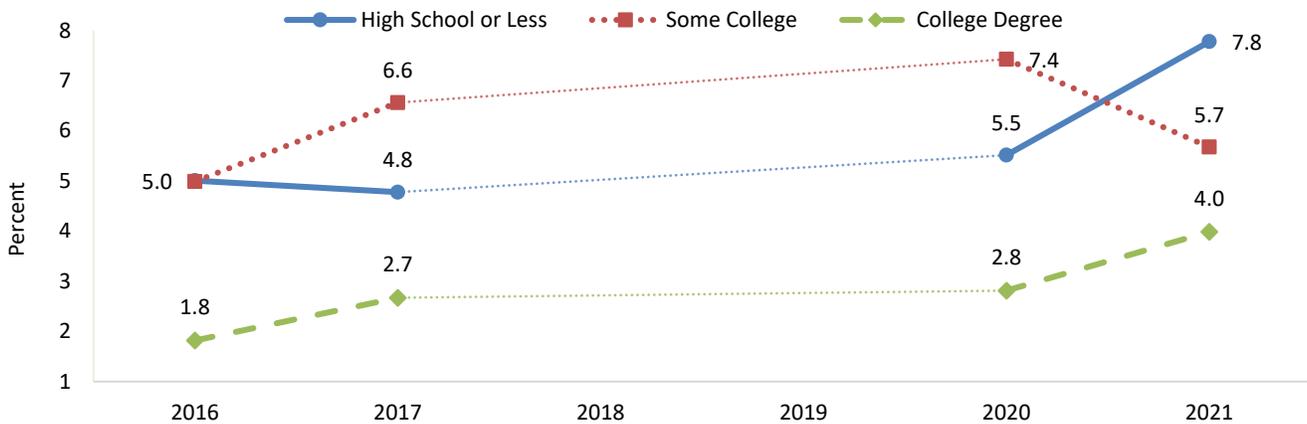
Figure 19. Current Electronic Vapor Product Use (%) Among Adults by Race and Ethnicity in PA, BRFSS, 2016-2021



3.3.3 Current Adult EVP Use by Education

EVP use was lowest in college educated adults but use in this group increased the most from 2016 to 2021. Before 2021, adults with some college education had the highest percentage of EVP use, but in 2021, adults with a high school or less education had the highest percentage of EVP use [Figure 20].

Figure 20. Current Electronic Vapor Product Use (%) Among Adults by Education in PA, BRFSS, 2016-2021



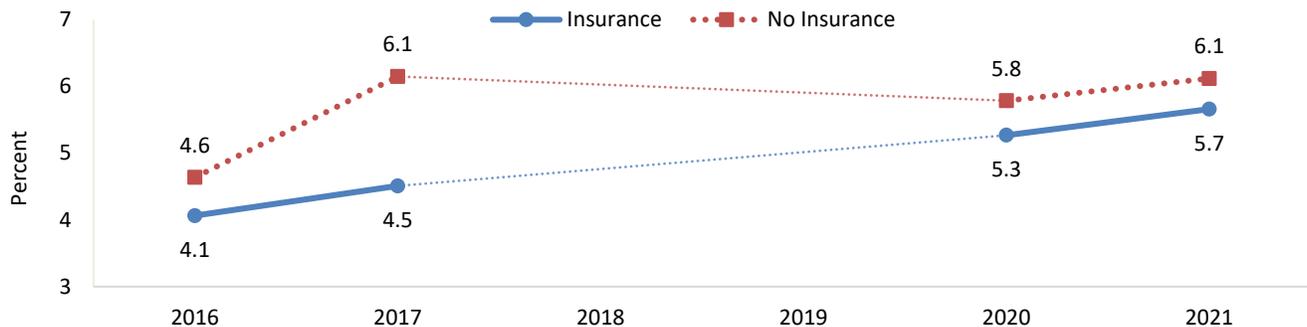
3.3.4 Current Adult EVP Use by Income

Income data for EVP use were inadequate for analysis.

3.3.5 Current Adult EVP Use by Health Insurance

EVP use was slightly higher among adults without insurance coverage than among adults with insurance coverage from 2016 to 2021. In 2021, EVP use was 6.1% among uninsured adults, slightly higher than insured adults (5.7%) [Figure 21].

Figure 21. Current Electronic Vapor Product Use (%) Among Adults by Insurance in PA, BRFSS, 2016-2021

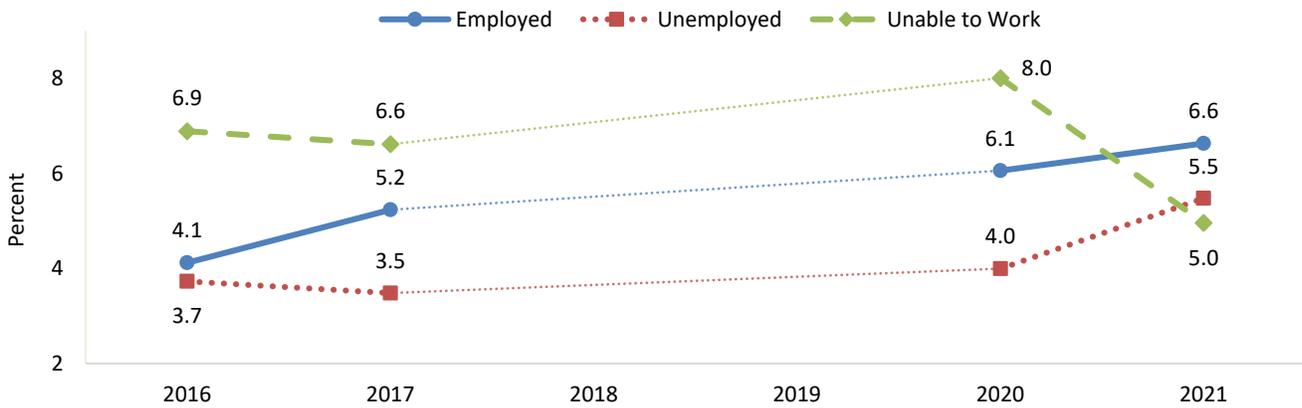


3.3.6 Current Adult EVP Use by Employment

EVP use increased among adults who were employed or unemployed, but decreased among those who were unable to work from 2016 to 2021. In 2021, employed adults had the highest percentage of EVP use (6.6%), followed by unemployed adults (5.5%), and adults who were unable to work (5%) [Figure 22].

Employed adults use more EVPs than unemployed adults and adults unable to work

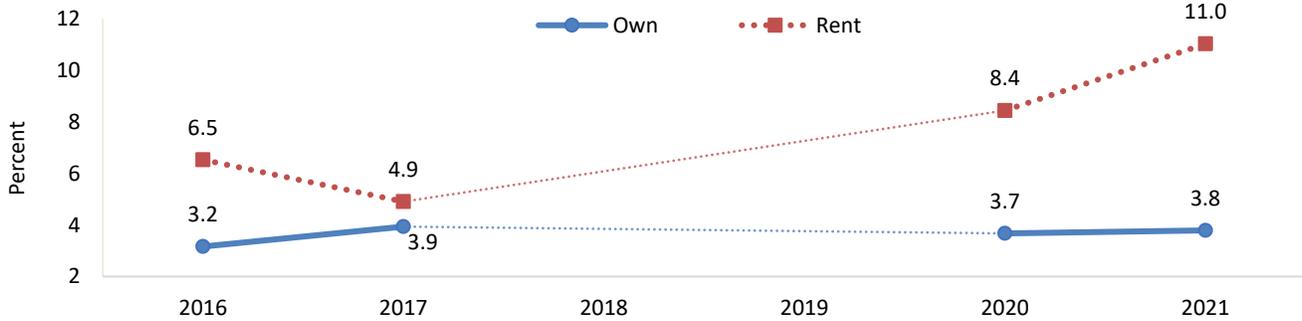
Figure 22. Current Electronic Vapor Product Use (%) Among Adults by Employment in PA, BRFSS, 2016-2021



3.3.7 Current Adult EVP Use by Housing Ownership

Renters had consistently higher rates of EVP use compared to homeowners. From 2016 to 2021, EVP use was stable among homeowners, but almost doubled among renters. In 2021, EVP use among renters was 11.0%, almost three times higher than among homeowners (3.8%) [Figure 23].

Figure 23. Current Electronic Vapor Product Use (%) Among Adults by Housing in PA, BRFSS, 2016-2021



3.4 Current Smokeless Tobacco Use Among Adults

Smokeless tobacco products include chewing tobacco, snuff, and snus (pre-packaged moist snuff).¹¹ BRFSS defines current adult smokeless tobacco users as survey respondents who reported using smokeless tobacco products some days or every day.¹¹

Statewide smokeless tobacco use remained consistent at around 4% until 2021 when it decreased to 3.5%. Males had consistently higher rates of smokeless tobacco use compared to females. Males exhibited a decrease in smokeless use from 8.2% in 2012 to 6.3% in 2021, while female smokeless tobacco use increased slightly from 0.5% in 2012 to 0.9% in 2021 [Figure 24].

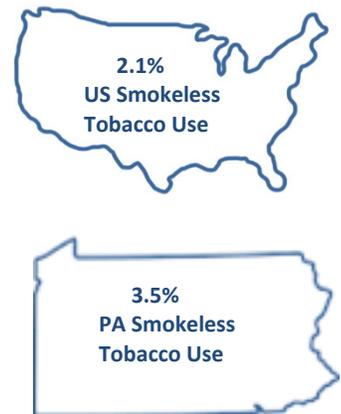
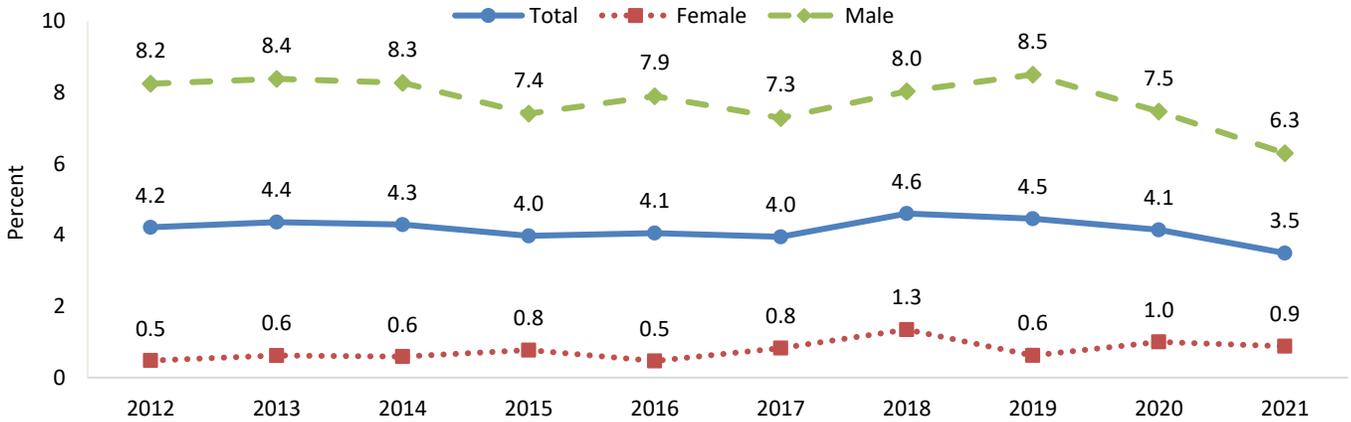


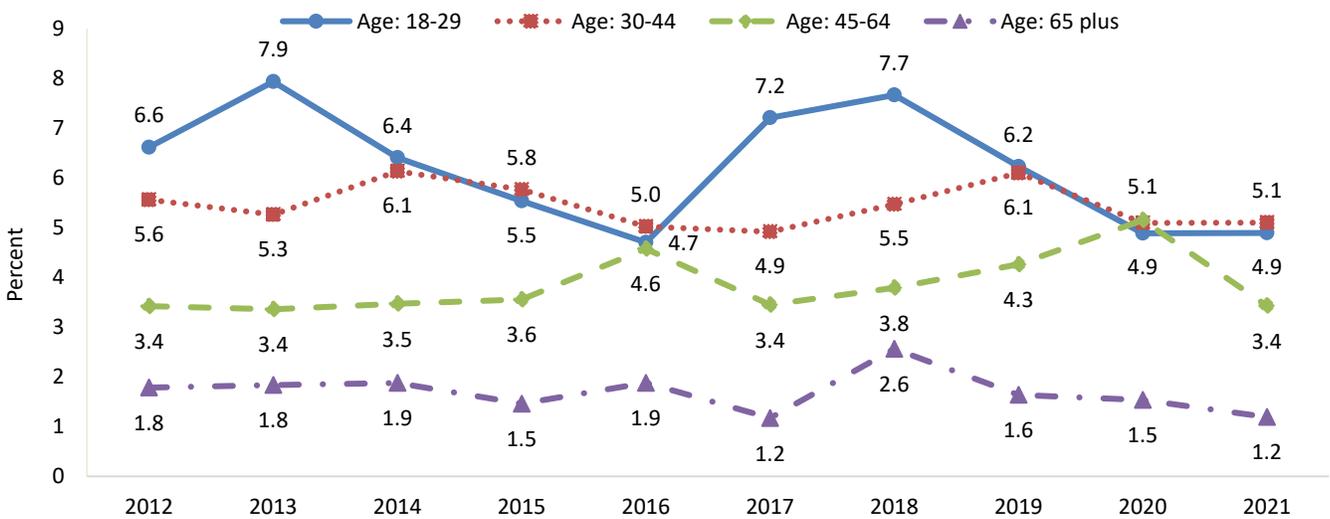
Figure 24. Current Smokeless Tobacco Use (%) Among Adults in PA, BRFSS, 2012-2021



3.4.1 Current Smokeless Tobacco Use by Age

Young adults had higher rates of using smokeless tobacco than older adults. The rate decreased among the youngest group (18-29 years) but remained stable in the other groups from 2012 to 2021. In 2021, adults 18-29 years old had the highest percentage of smokeless tobacco use (5.1%), followed by adults 30-44 years old (4.9%), adults 45-64 years old (3.4%), and adults 65 years and older (1.2%) [Figure 25].

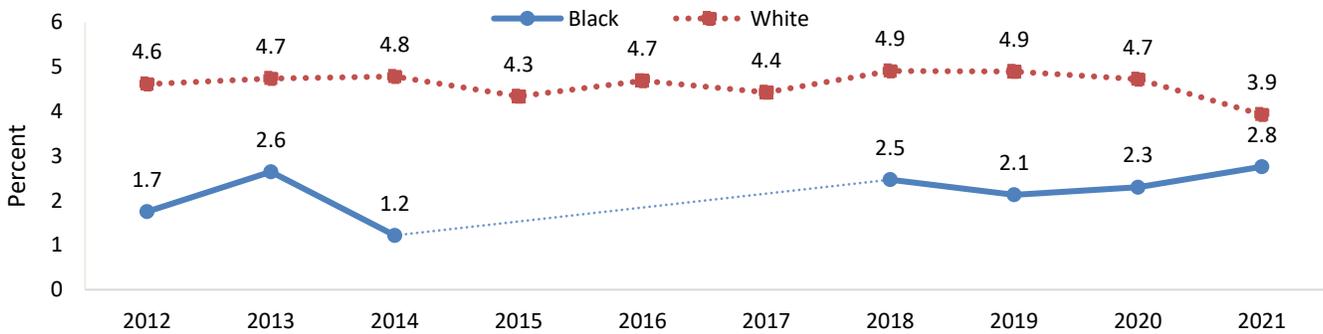
Figure 25. Current Smokeless Tobacco Use (%) Among Adults by Age Group in PA, BRFSS, 2012-2021



3.4.2 Current Smokeless Tobacco Use by Race and Ethnicity

Figure 26 presents smokeless tobacco rates only among Whites and Blacks because the other racial and ethnic groups had insufficient samples for analysis. From 2012 to 2021, smokeless tobacco use was consistently higher in Whites than in Blacks. While the rate decreased in Whites, the rate increased slightly in Blacks. In 2021, the rate was 3.9% in Whites and 2.8% in Blacks.

Figure 26. Current Smokeless Tobacco Prevalence (%) Among Adults by Race and Ethnicity in PA, BRFSS, 2012-2021

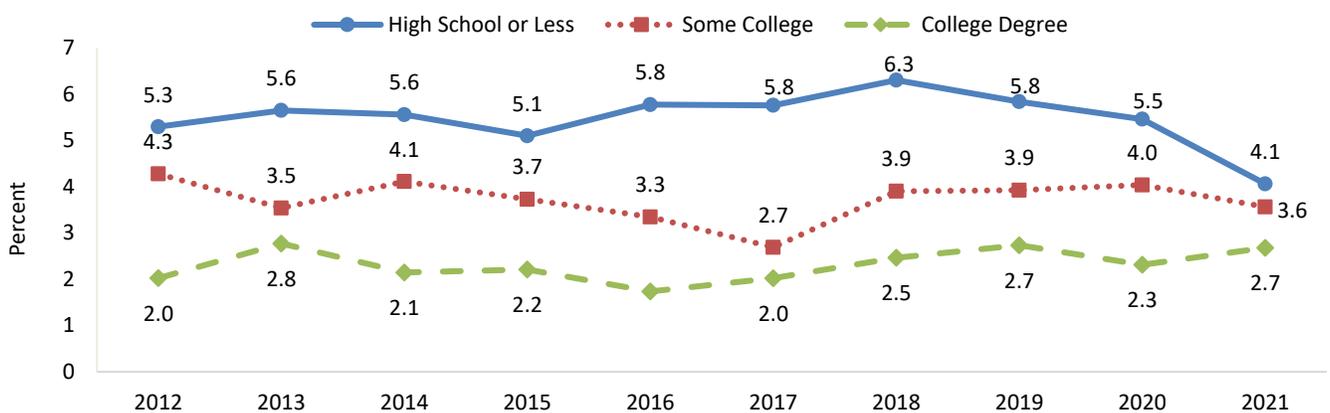


3.4.3 Current Smokeless Tobacco Use by Education

By education, adults with higher education levels had lower rates of smokeless tobacco use. The rate increased slightly among those with a college degree but decreased among those with some college or less education from 2012 to 2021. In 2021, adults with a high school or less education had the highest percentage of smokeless tobacco use (4.1%), followed by adults with some college education (3.6%), and adults with a college degree (2.7%) [Figure 27].

Smokeless tobacco use is higher among lower education levels

Figure 27. Current Smokeless Tobacco Use (%) Among Adults by Education in PA, BRFSS, 2012-2021



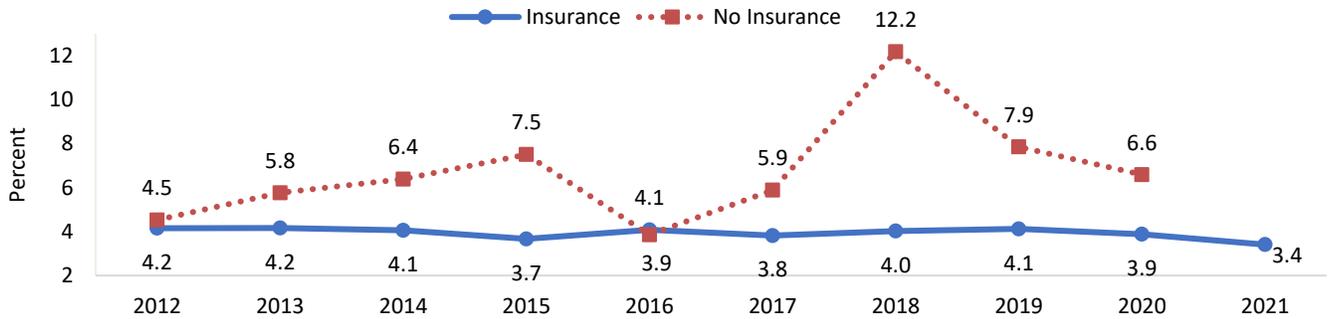
3.4.4 Current Smokeless Tobacco Use by Income

Income data for smokeless tobacco use were inadequate for analysis.

3.4.5 Current Smokeless Tobacco Use by Health Insurance

Uninsured adults generally had higher smokeless tobacco use rates than insured adults. Rates for uninsured adults varied from 4.5% in 2012 to 6.6% in 2020 with a peak of 12.2% in 2018. Rates among insured adults remained relatively consistent around 4% with a decrease from 4.2% in 2012 to 3.4% in 2021 [Figure 28].

Figure 28. Current Smokeless Tobacco Use (%) Among Adults by Insurance in PA, BRFSS, 2012-2021

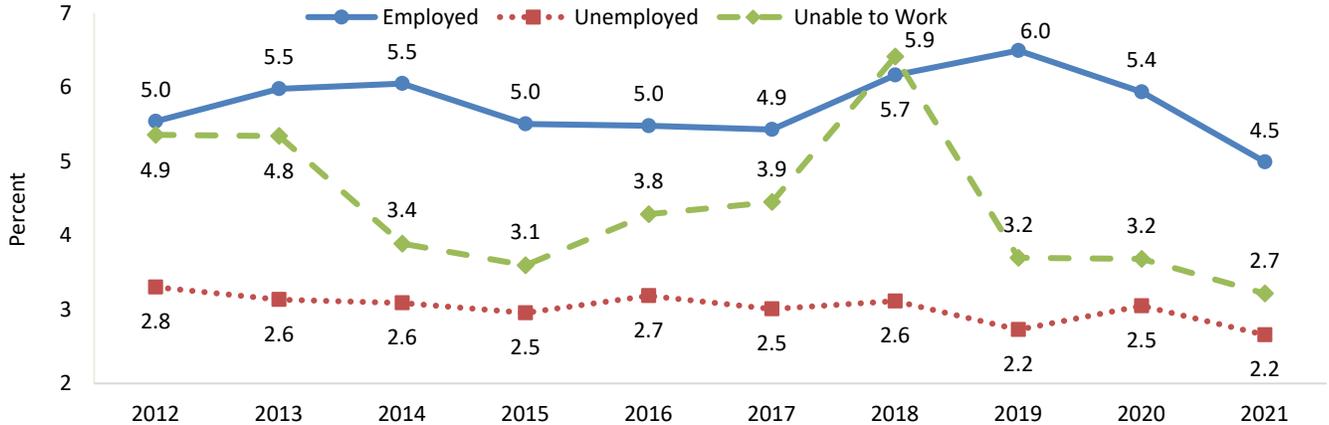


* Note: Data for uninsured adults unavailable in 2021 due to insufficient sample sizes

3.4.6 Current Smokeless Tobacco Use by Employment

Smokeless tobacco use was generally the highest among employed adults and lowest among unemployed adults. In 2021, smokeless tobacco use among employed adults was 4.5%, higher than among adults who were unable to work (2.7%), and unemployed adults (2.2%) [Figure 29].

Figure 29. Current Smokeless Tobacco Use (%) Among Adults by Employment in PA, BRFSS, 2012-2021

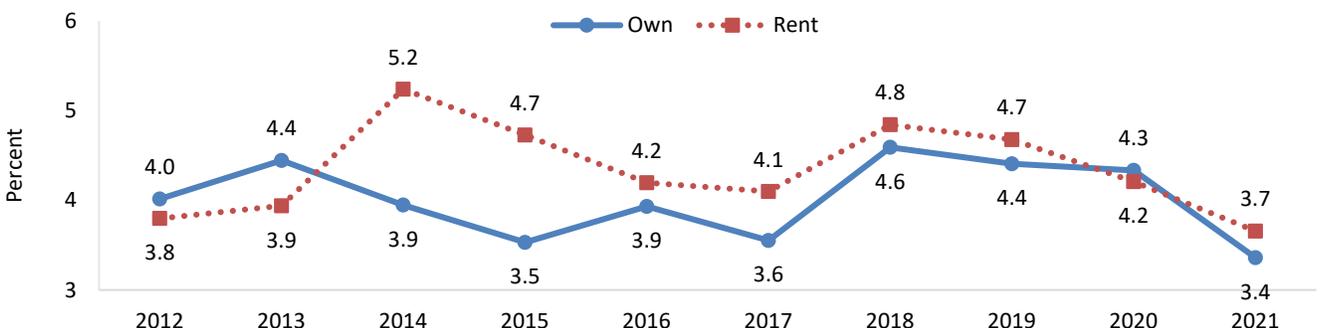


3.4.7 Current Smokeless Tobacco Use by Housing Ownership

Generally, the rate of smokeless tobacco use was slightly higher in renters than in homeowners over the ten-year period. In 2021, the rate was 3.7% for renters, which was similar to the rate of 3.4% for homeowners [Figure 30].

Smokeless tobacco is the only tobacco product with similar use between renters and owners

Figure 30. Current Smokeless Tobacco Use (%) Among Adults by Housing in PA, BRFSS, 2012-2021



3.4.8 Current Smokeless Tobacco Use by Health District

The Southwest and Northwest Health Districts experienced the largest decrease in smokeless tobacco use during the ten-year period. In 2021, the South Central District had the highest prevalence at 7% and the Northwest and Southwest Districts had the lowest prevalence at 2% [Table 2].

Table 2. Current Smokeless Tobacco Use (%) Among Adults by Health District in PA, BRFSS, 2012-2021

* Note: Southeast Health District excludes Philadelphia County; Southwest Health District excludes Allegheny County

District	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Allegheny	3%	4%	3%	2%	3%	4%	4%	3%	2%	4%
North Central	8%	6%	6%	8%	8%	7%	13%	8%	8%	4%
Northeast	4%	3%	3%	1%	2%	3%	3%	4%	3%	6%
Northwest	8%	10%	8%	8%	8%	6%	9%	7%	10%	2%
Philadelphia	1%	1%	1%	2%	2%	2%	2%	2%	1%	3%
South Central	5%	7%	5%	5%	6%	6%	5%	7%	5%	7%
Southeast	2%	2%	3%	3%	2%	2%	3%	2%	2%	5%
Southwest	9%	7%	8%	9%	7%	8%	6%	8%	10%	2%

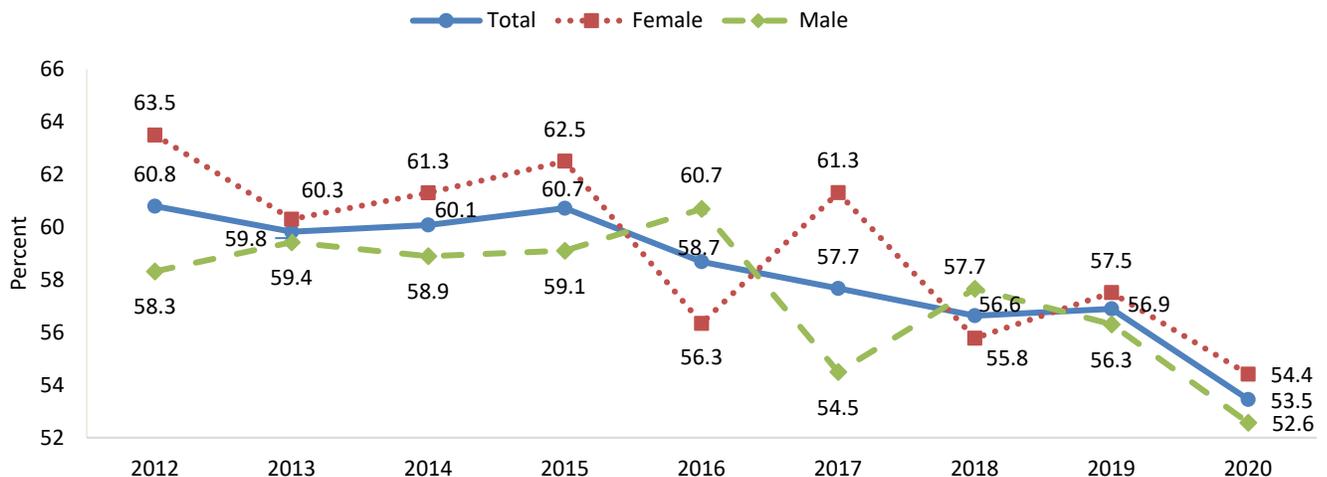
3.5 Current Tobacco Quit Attempts Among Adults

BRFSS defines current adult tobacco quit attempts as survey respondents who reported stopping smoking for one day or longer in the previous twelve months because they were trying to quit smoking.¹¹ Data were available for analysis between 2012 and 2020. In 2021, PA did not include the cessation questions in the BRFSS survey.¹¹

1 in 2 PA smokers tried quitting in the past year

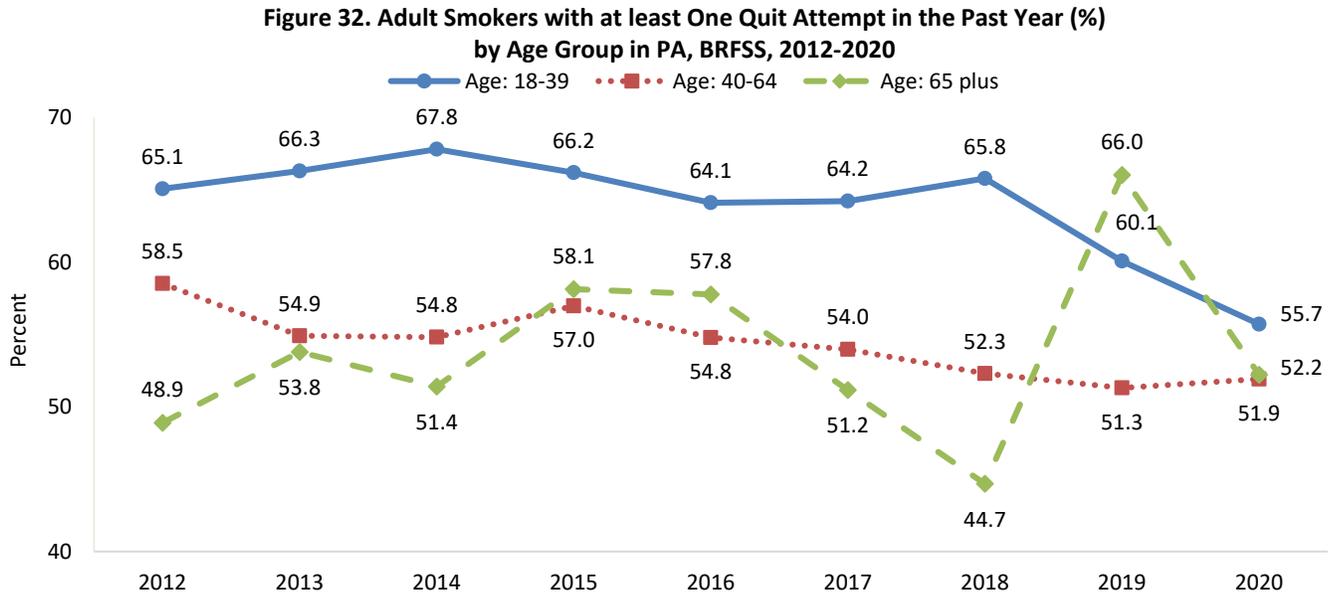
The percentage of current adult smokers with at least one quit attempt in the past year in Pennsylvania decreased from 60.8% in 2012 to 53.5% in 2020. Both genders had similar quit rates throughout the ten-year period. From 2012 to 2020, quit attempts for female smokers decreased from 63.5% to 54.4%, and quit attempts for male smokers decreased from 58.3% to 52.6%. In 2020, the percentage of quit attempts for female smokers was slightly higher than for male smokers [Figure 31].

Figure 31. Adult Smokers with at least One Quit Attempt in the Past Year (%) in PA, BRFSS, 2012-2020



3.5.1 Current Tobacco Quit Attempts by Age

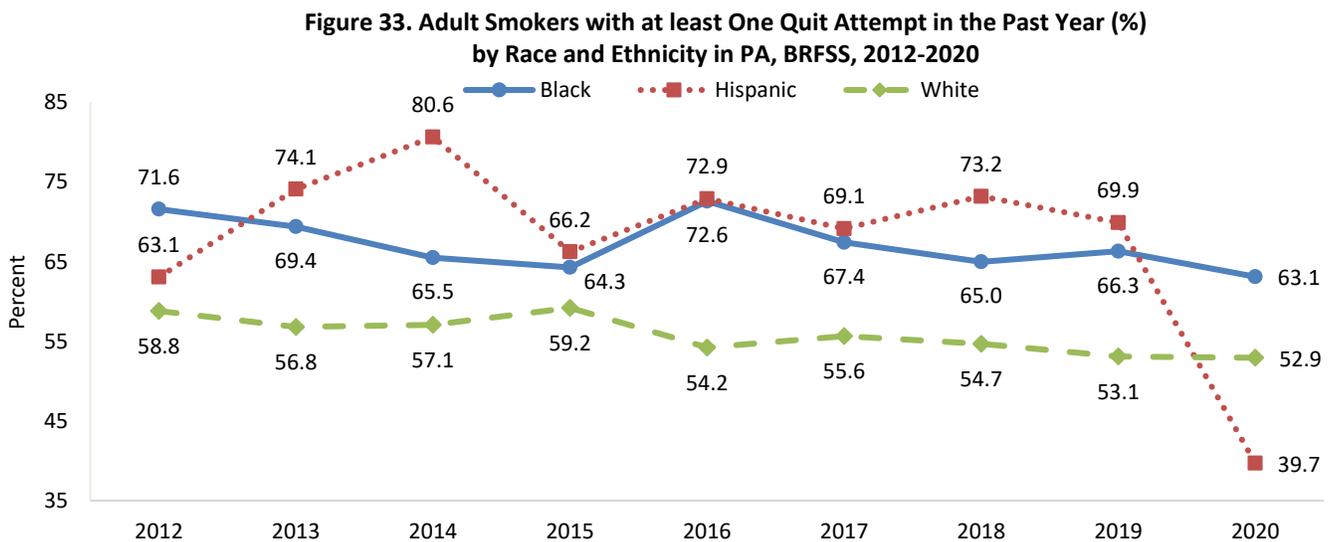
By age, quit attempts were higher in younger adults than in older adults. From 2012 to 2020, quit attempts declined among smokers aged 18-39 years and 40-64 years, but increased among smokers aged 65 years or older. In 2020, smokers aged 18-39 years had the highest percentage of quit attempts (55.7%). Quit attempts were similar in smokers aged 40-64 years (51.9%) and smokers aged 65 years or older (52.2%) [Figure 32].



3.5.2 Current Tobacco Quit Attempts by Race and Ethnicity

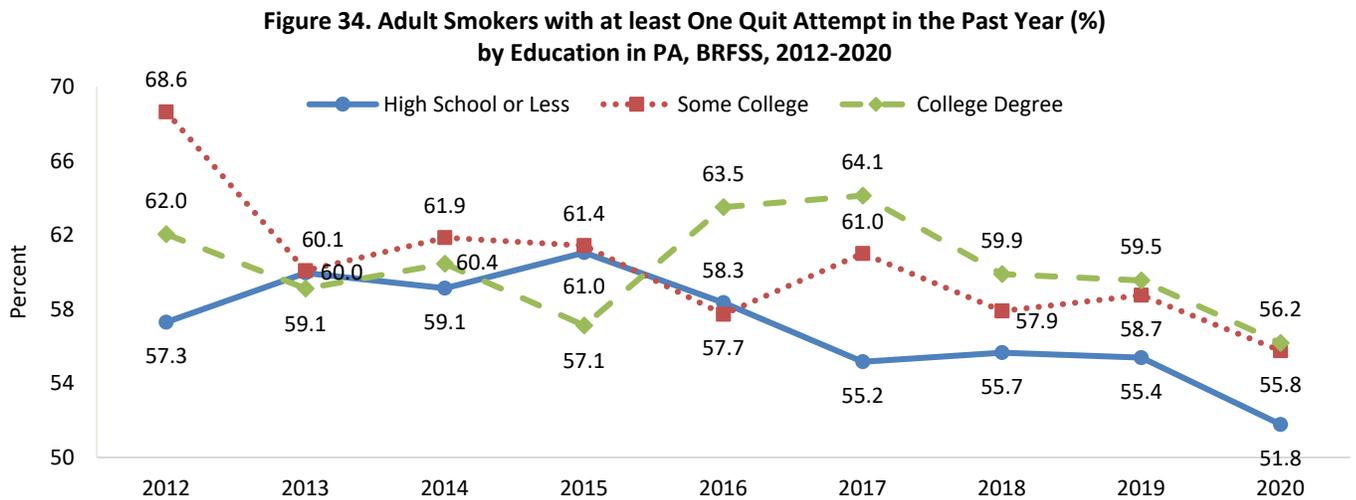
White smokers had the lowest percentage of quit attempts compared to Black or Hispanic smokers during the ten-year period. Quit attempts decreased in both White and Black smokers. For Hispanic smokers, quit attempts increased from 63.1% to 69.9% from 2012 to 2019, despite some variations over time. Due to unknown reasons, there was a sharp decline in quit attempts among Hispanic smokers from 2019 to 2020 [Figure 33].

Black smokers had the highest percentage of quit attempts in 2021



3.5.3 Current Tobacco Quit Attempts by Education

By education, smokers of different education levels demonstrated an overall decrease in attempts to quit smoking from 2012 to 2020. In 2020, smokers with a high school or less education had the lowest percentage of quit attempts (51.8%), while the other smokers had equivalent quit attempts [Figure 34].

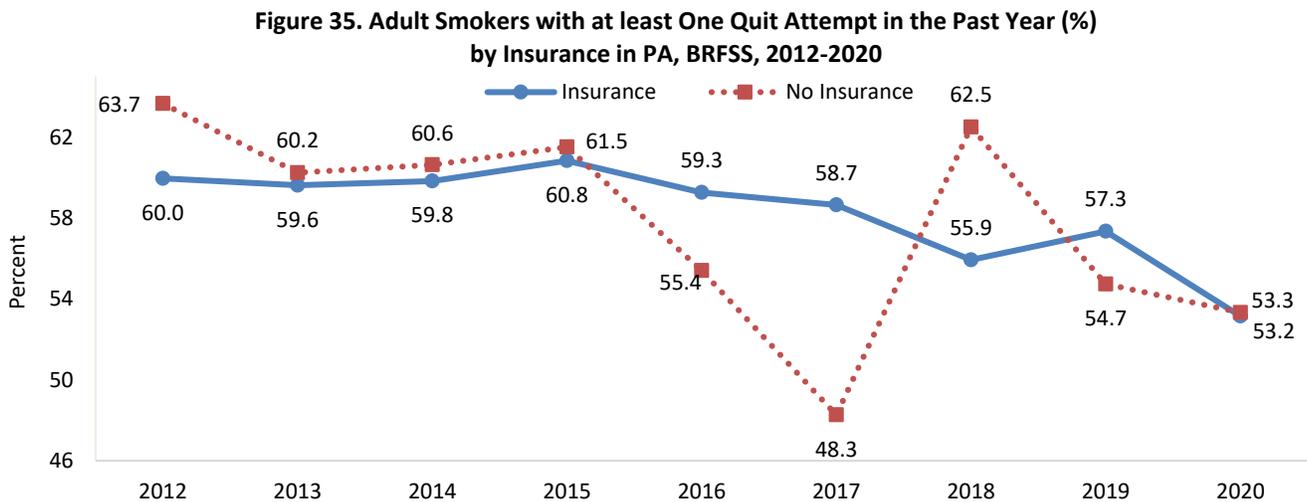


3.5.4 Current Tobacco Quit Attempts by Income

Income data for quit attempts among smokers were inadequate for analysis.

3.5.5 Current Tobacco Quit Attempts by Health Insurance

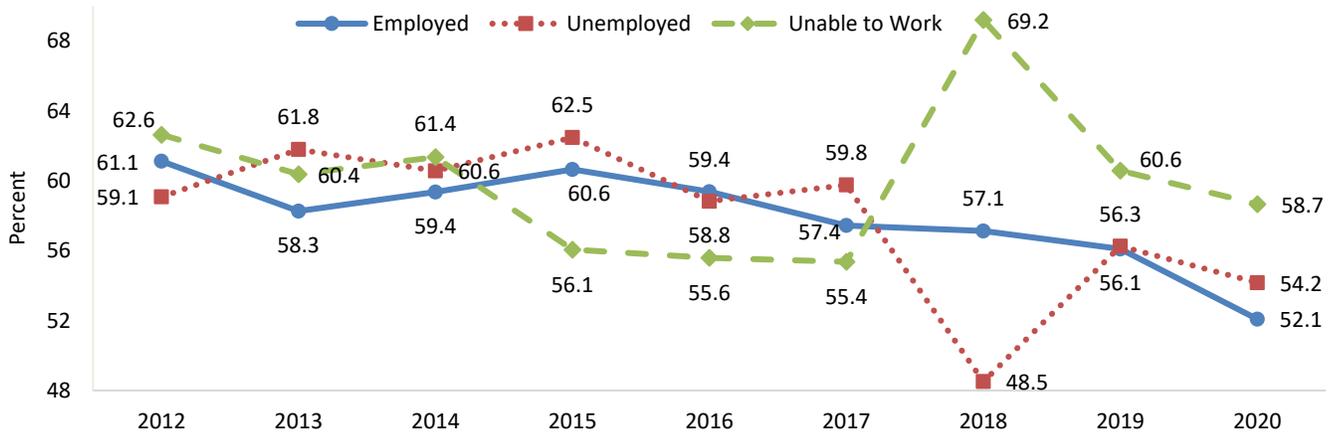
Quit attempts among insured and uninsured smokers declined during the ten-year period. In 2020, quit attempts were nearly identical for both insured and uninsured smokers. The large change in quit attempts among uninsured smokers from 2016 to 2018 is due to unknown reasons [Figure 35].



3.5.6 Current Tobacco Quit Attempts by Employment

From 2012 to 2020, quit attempts declined in smokers with different employment statuses. Employed smokers demonstrated a more stable decline compared to those who were unemployed or unable to work. In 2020, smokers who were unable to work had the highest percentage of quit attempts (58.7%), followed by unemployed smokers (54.2%), and employed smokers (52.1%) [Figure 36].

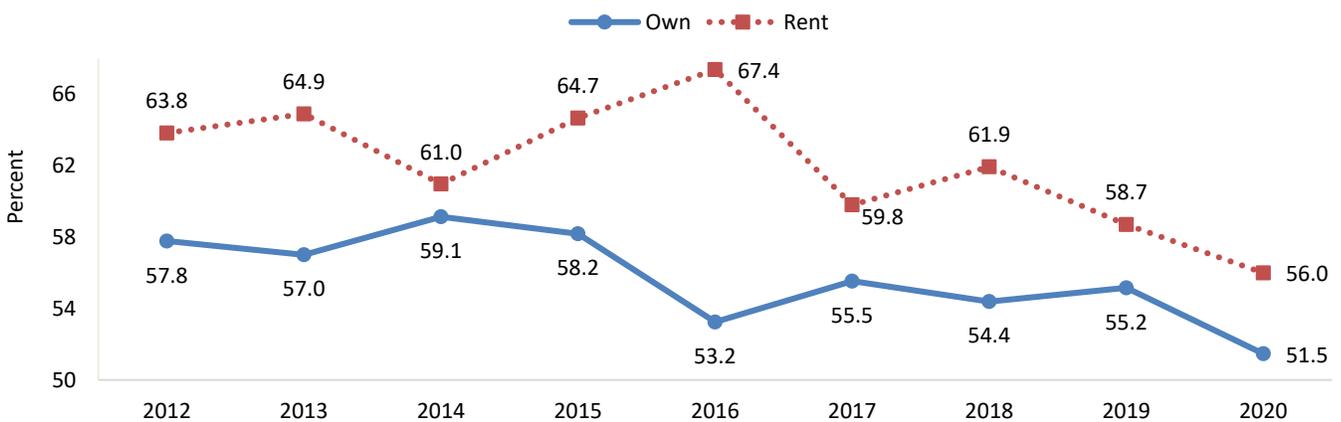
Figure 36. Adult Smokers with at least One Quit Attempt in the Past Year (%) by Employment in PA, BRFSS, 2012-2020



3.5.7 Current Tobacco Quit Attempts by Housing Ownership

Overall, quit attempts were higher among renters than among homeowners, and quit attempts declined gradually in both groups from 2012 to 2020. In 2020, quit attempts were 56.0% among renters and 51.5% among homeowners [Figure 37].

Figure 37. Adult Smokers with at least One Quit Attempt in the Past Year (%) by Housing in PA, BRFSS, 2012-2020



3.5.8 Current Tobacco Quit Attempts by Health District

The Philadelphia District consistently had the highest percentage of quit attempts among the health districts, peaking at 68% in 2019. The Philadelphia and South Central Health Districts were the only two districts to demonstrate an increase in quit attempts. The Northeast and Southwest Districts had the largest decrease in quit attempts, decreasing from 56% in 2012 to 37% in 2020 for the Northeast District and from 57% in 2012 to 40% in 2020 for the Southwest District [Table 3].

Table 3. Adult Smokers with at Least One Quit Attempt in the Past Year by Health District in PA, BRFSS, 2012-2020

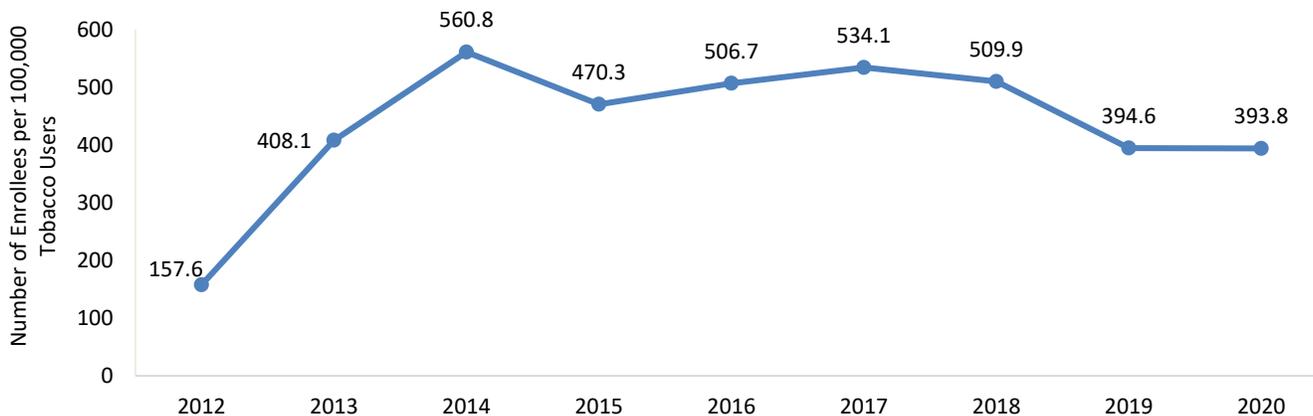
District	2012	2013	2014	2015	2016	2017	2018	2019	2020
Allegheny	54%	57%	57%	ND	51%	37%	54%	48%	ND
North Central	47%	52%	54%	ND	55%	45%	ND	40%	ND
Northeast	56%	53%	56%	56%	39%	47%	49%	48%	37%
Northwest	47%	53%	51%	48%	40%	47%	62%	44%	ND
Philadelphia	63%	63%	63%	ND	66%	ND	67%	68%	ND
South Central	49%	48%	48%	54%	54%	56%	53%	45%	56%
Southeast	57%	54%	55%	58%	57%	ND	52%	48%	47%
Southwest	57%	49%	43%	51%	43%	53%	45%	50%	40%

* Note: ND = No data available due to insufficient sample sizes

3.6 Pennsylvania Free Quitline

The PA Free Quitline assists individuals seeking cessation help with tobacco products. Callers may enroll in services such as counseling and nicotine replacement therapy.¹³ Quitline data were available for analysis between 2012 and 2020. Figure 38 presents the number of cessation services enrollees per 100,000 tobacco users in Pennsylvania. Figures 39-42 present the demographic characteristics of cessation services participants.

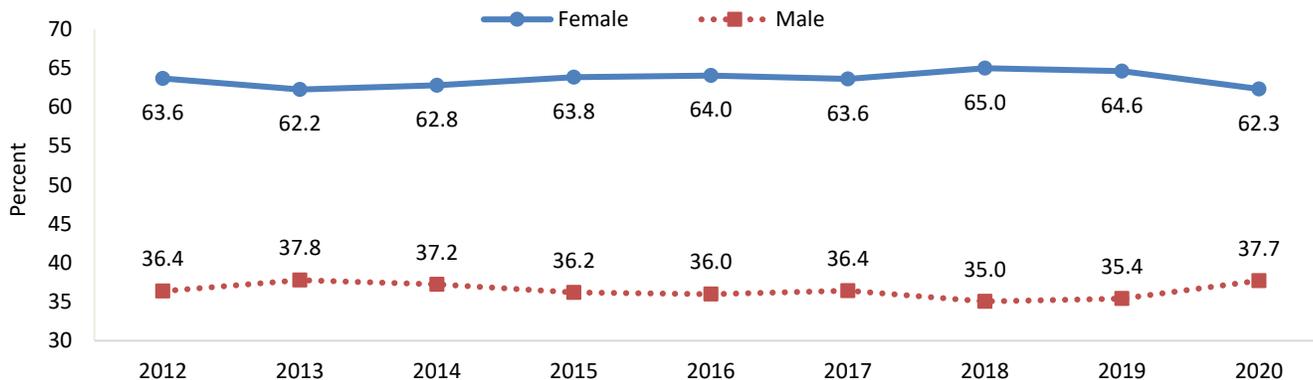
Figure 38. Cessation Services Enrollees per 100,000 Tobacco Users in PA, PA Free Quitline and BRFSS, 2012-2020



3.6.1 Cessation Services Participants by Gender

By gender, cessation services participants were consistently more female than male during the ten-year period. In 2020, participants were 62.3% female and 37.7% male [Figure 39].

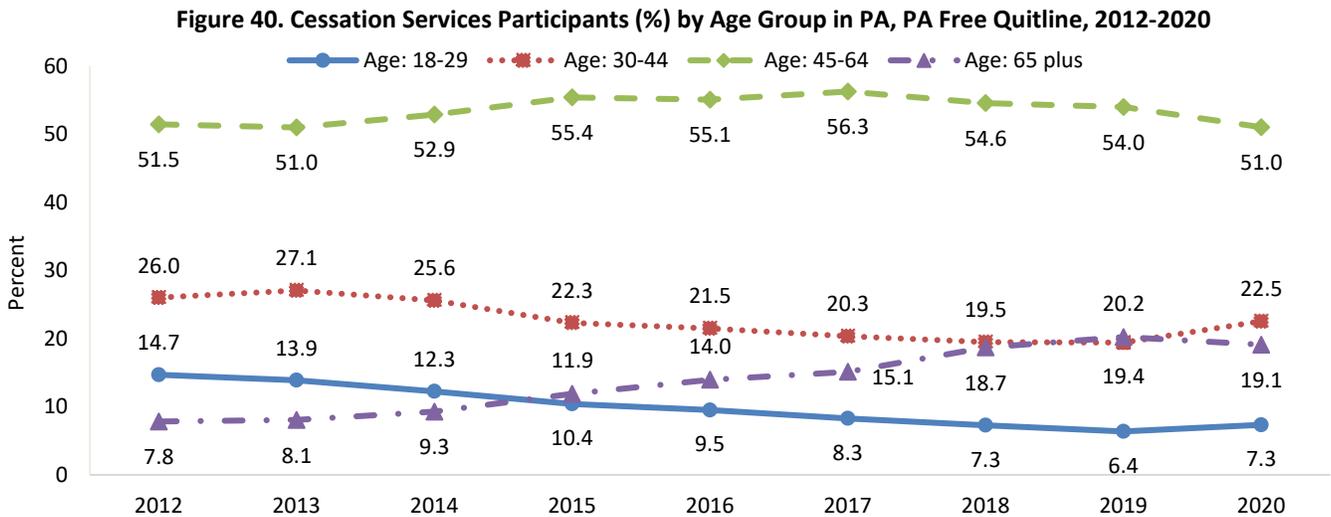
Figure 39. Cessation Services Participants (%) by Gender in PA, PA Free Quitline, 2012-2020



3.6.2 Cessation Services Participants by Age

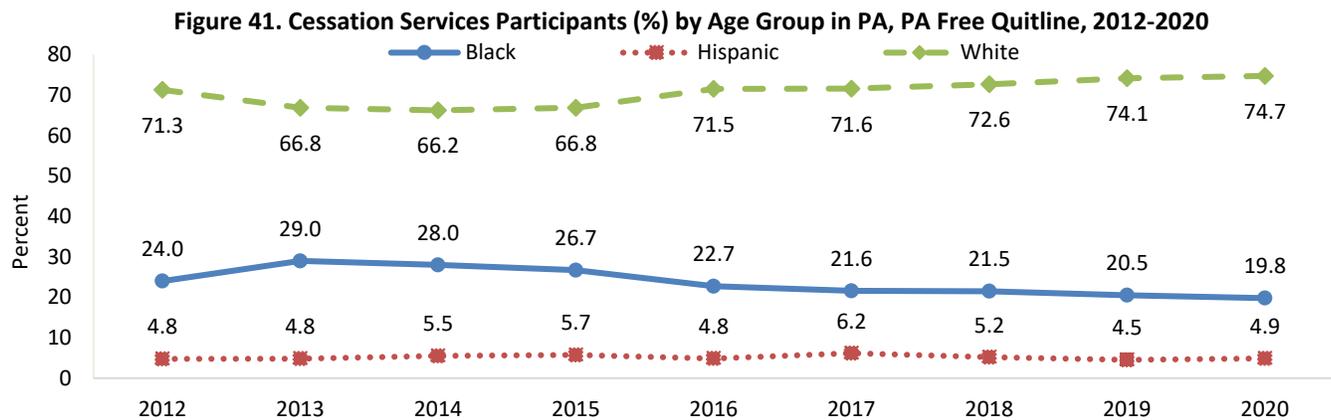
Figure 40 displays cessation services participants by age group with adults aged 45-64 years old accounting for more than 50% of participants each year. Participation among adults aged 18-29 years old and 30-44 years old decreased from 2012 to 2021 while participation among adults 65 years or older increased during the same period. In 2020, participation was highest among adults 45-64 years old (51%), followed by adults 30-44 years old (22.5%), adults 65 years or older (19.1%), and adults 18-29 years old (7.3%).

Cessation participation decreased among younger tobacco users



3.6.3 Cessation Services Participants by Race and Ethnicity

Cessation services participants were more commonly White, followed by Black and Hispanic. Participation remained consistent among the racial/ethnic groups with Whites comprising 74.7% of participants, followed by Blacks (19.8%), and Hispanics (4.9%) in 2020 [Figure 41].



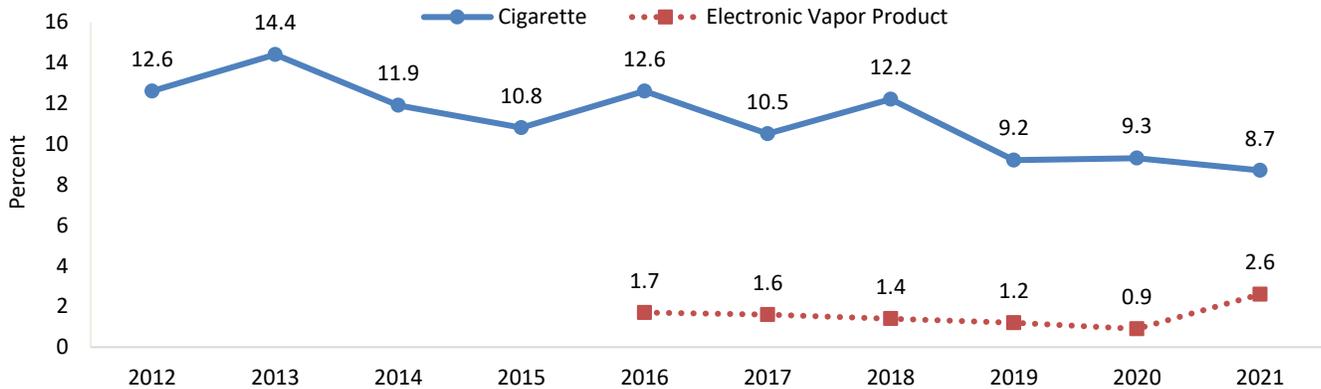
3.6.4 Cessation Services Participants by Education

Figure 42 presents education levels among cessation services participants with little variation noted among the groups during the period. In 2020, adults with a high school or less education comprised 54% of participants, followed by adults with some college level education (25.9%), and adults with a college degree (20.1%).

In Pennsylvania, smoking prevalence in mothers during the last three months of pregnancy decreased from 12.6% in 2012 to 8.7% in 2021. For EVP use during the last three months of pregnancy, the prevalence increased from 1.7% in 2016 to 2.6% in 2021. EVP data were not available before 2016 [Figure 44].

EVP use among pregnant women has more than doubled since 2020

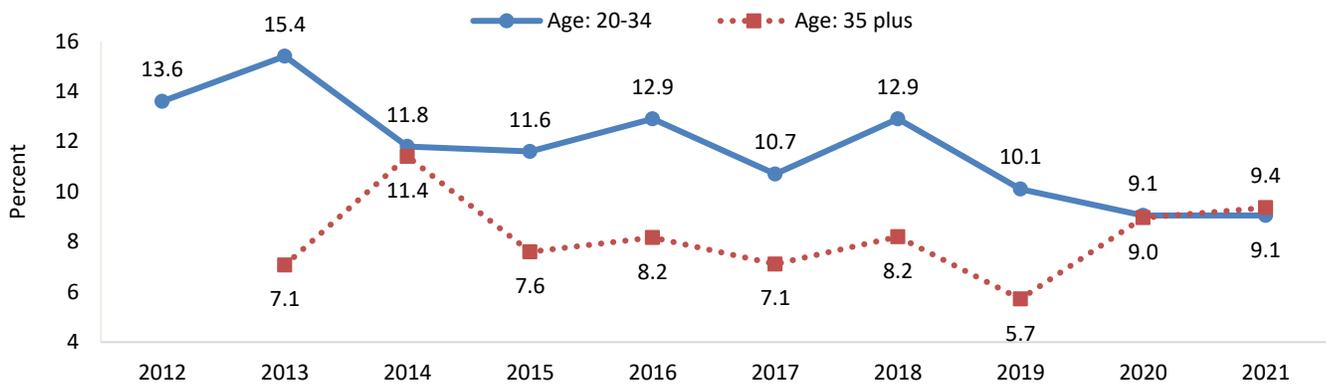
Figure 44. Smoking Prevalence (%) and Electronic Vapor Product Use (%) During Last Three Months of Pregnancy in PA, PRAMS, 2012-2021



3.7.1 Smoking Prevalence During Pregnancy by Age

Among mothers aged 20-34, smoking prevalence during pregnancy declined from 13.6% in 2012 to 9.1% in 2021, while the prevalence among mothers 35 and older increased from 7.1% in 2013 to 9.4% in 2021 (data were insufficient in 2012) [Figure 45].

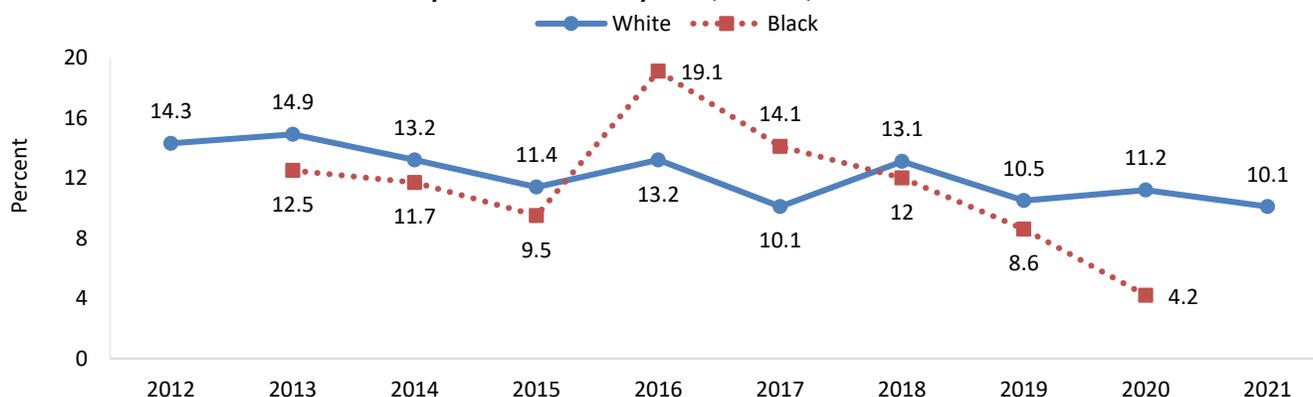
Figure 45. Smoking Prevalence During Last Three Months of Pregnancy (%) by Age Group in PA, PRAMS, 2012-2021



3.7.2 Smoking Prevalence During Pregnancy by Race and Ethnicity

Smoking prevalence during pregnancy among White mothers was higher than among Black mothers in most years from 2012 to 2020, and the prevalence declined in both groups over the ten-year period. In 2020, smoking prevalence during pregnancy was 2.5 times higher in White mothers compared to Black mothers [Figure 46].

Figure 46. Smoking Prevalence (%) During Last Three Months of Pregnancy by Race and Ethnicity in PA, PRAMS, 2012-2021

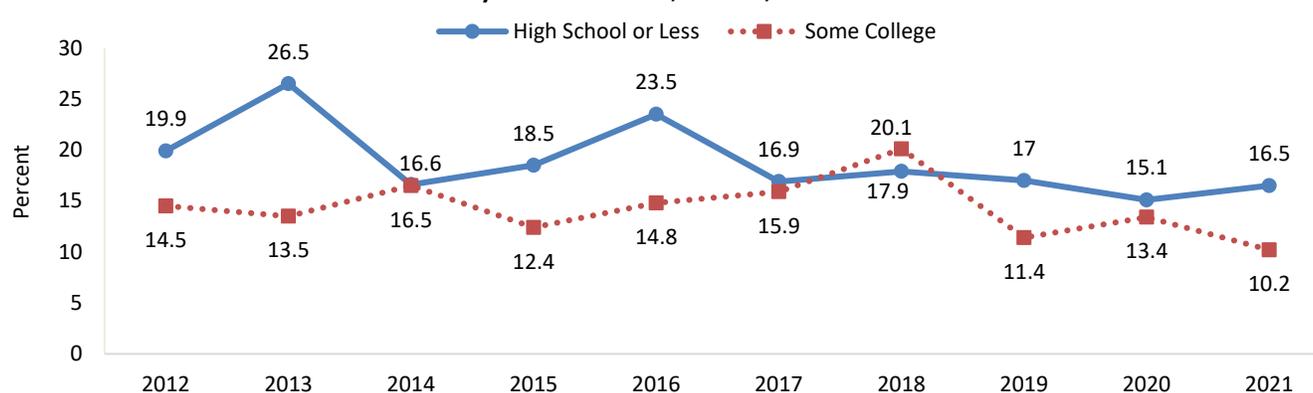


* Note: Data for Black mothers unavailable in 2012 and 2021 due to insufficient sample sizes

3.7.3 Smoking Prevalence During Pregnancy by Education

Smoking during pregnancy was generally more prevalent among mothers with a high school or less education. From 2012 to 2021, smoking prevalence decreased in all mothers with lower or higher education levels (or regardless of their education levels) [Figure 47].

Figure 47. Current Smoking Prevalence (%) During Last Three Months of Pregnancy by Education in PA, PRAMS, 2012-2021

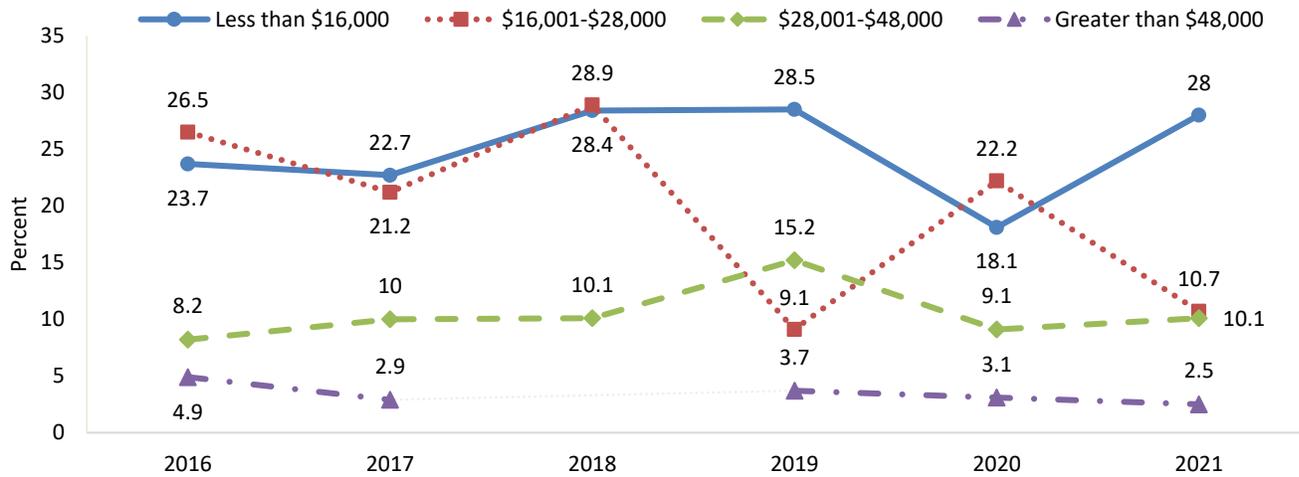


3.7.4 Smoking Prevalence During Pregnancy by Income

By income, smoking prevalence during the last three months of pregnancy was higher in mothers with lower incomes. In 2021, mothers with the lowest incomes had the highest smoking prevalence of 28%, almost ten times higher than mothers with the highest incomes (2.5%) [Figure 48].

Smoking prevalence among pregnant women in lowest income group is 2 ½ times greater than prevalence in next highest income group

Figure 48. Smoking Prevalence (%) During Last Three Months of Pregnancy by Income in PA, PRAMS, 2016-2021



* Note: Data unavailable for the Greater than \$48,000 group in 2018 due to insufficient sample sizes

3.7.5 Smoking Prevalence During Pregnancy by Health District

Smoking prevalence during pregnancy was consistently highest in the Northwest Health District compared to the other Health Districts. In 2021, smoking prevalence was highest in the Northwest District (27.6%) and lowest in the Southeast District (3.3%) [Table 4].

Table 4. Smoking Prevalence (%) During Last Three Months of Pregnancy by Health District in PA, PRAMS, 2012-2021

District	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
North Central	ND	ND	21.2%	ND						
Northeast	ND	17.4%	8.7%	15.7%	13.6%	9.9%	14.8%	ND	13.2%	13.4%
Northwest	20.9%	29.2%	13.4%	17.8%	27.2%	19.8%	20.2%	20.9%	17.5%	27.6%
South Central	12.5%	15.1%	12.8%	11.5%	15.7%	10.2%	13.7%	11.4%	9.9%	12.0%
Southeast	12.2%	9.8%	8.6%	6.7%	6.3%	7.6%	8.6%	3.2%	5.4%	3.3%
Southwest	11.5%	17.1%	18.0%	16.6%	14.9%	15.1%	11.6%	20.2%	13.3%	9.4%

* Note: ND = No data available due to insufficient sample sizes

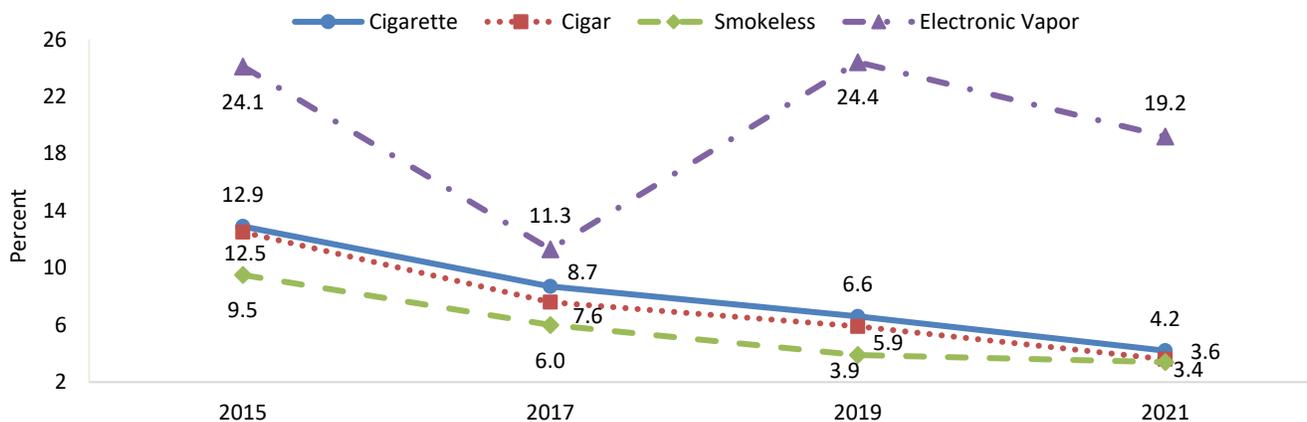
* Note: Southwest District includes Allegheny County; Southeast District includes Philadelphia

3.8 Tobacco Use Among High School Students

In Pennsylvania, EVPs were the most used tobacco type among high school students, followed by cigarettes, cigars, and smokeless tobacco. While the use generally declined for all tobacco products from 2015 to 2021, EVP use remained high compared to the other tobacco products in 2021 [Figure 49].

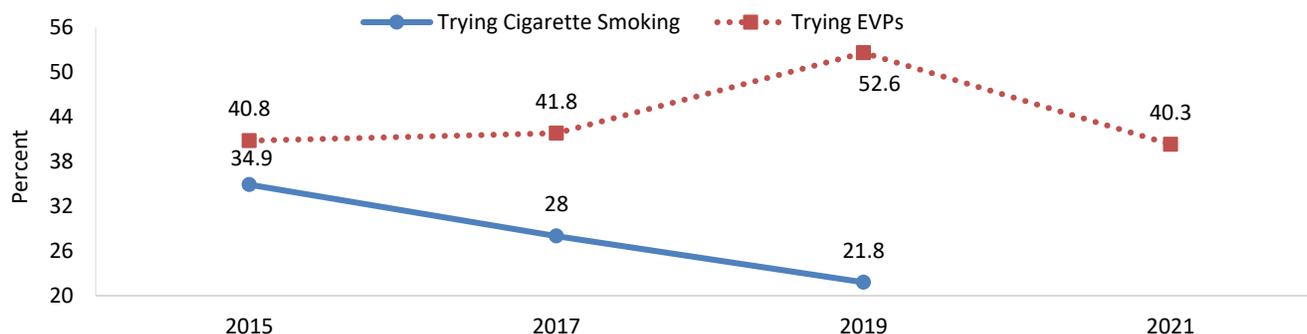
Rate of EVP use is 4.5 times higher than rate of cigarette use among high school students in 2021

Figure 49. Current Tobacco Use (%) Among High School Students by Tobacco Product in PA, YRBSS, 2015-2021



High school students trying cigarette smoking at least once declined from 34.9% in 2015 to 21.8% in 2019, while the percentage of students trying EVPs peaked at 52.6% in 2019 and decreased marginally from 40.8% in 2015 to 40.3% in 2021 [Figure 50].

Figure 50. High School Students Initiating Tobacco Use (%) in PA, YRBSS, 2015-2021



* Note: Trying cigarettes question not asked in 2021

3.8.1 Smoking Prevalence Among High School Students

YRBSS defines current smoking as smoking cigarettes on at least one day during the past 30 days.²⁴ Smoking prevalence among high school students decreased from 12.9% in 2015 to 4.2% in 2021, and it consistently decreased in both male and female students, although male students generally had a higher smoking prevalence than female students [Figure 51].

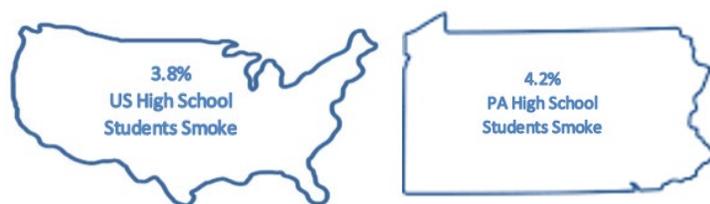
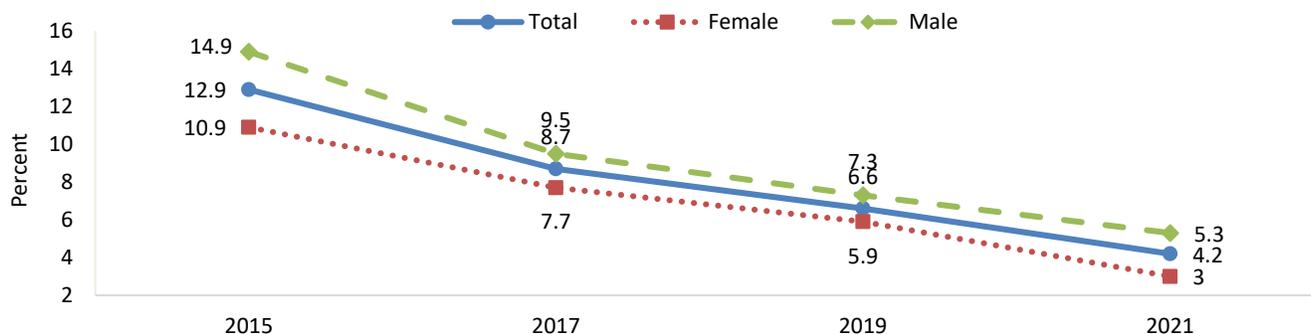


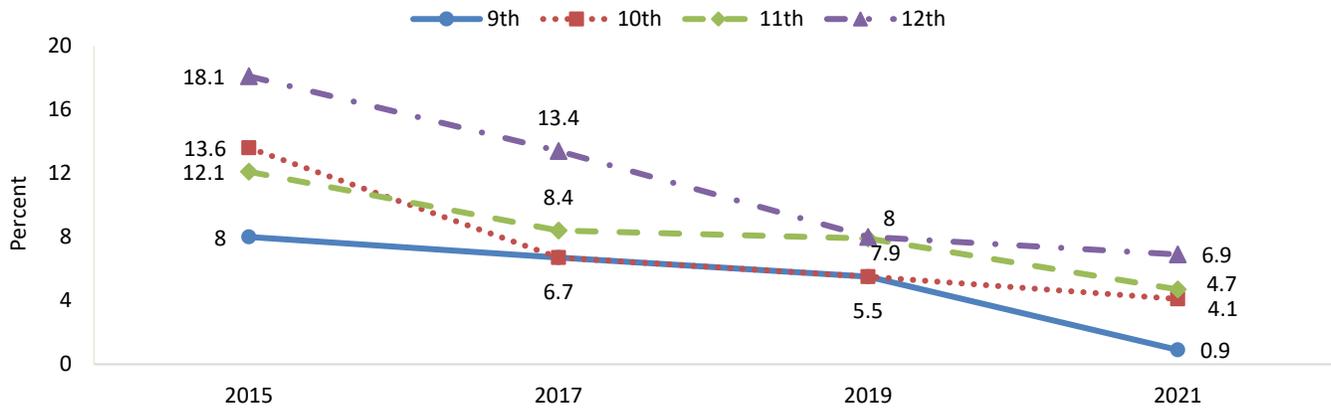
Figure 51. Current Smoking Prevalence (%) Among High School Students in PA, YRBSS, 2015-2021



3.8.1.1 Smoking Prevalence Among High School Students by Grade Level

By grade, smoking prevalence was generally higher in students in higher grades than students in lower grades. The smoking prevalence consistently decreased for all grades from 2015 to 2021. In 2021, 12th graders had the highest smoking prevalence (6.9%), and 9th graders had the lowest prevalence (0.9%) [Figure 52].

Figure 52. Current Smoking Prevalence (%) Among High School Students by Grade Level in PA, YRBSS, 2015-2021

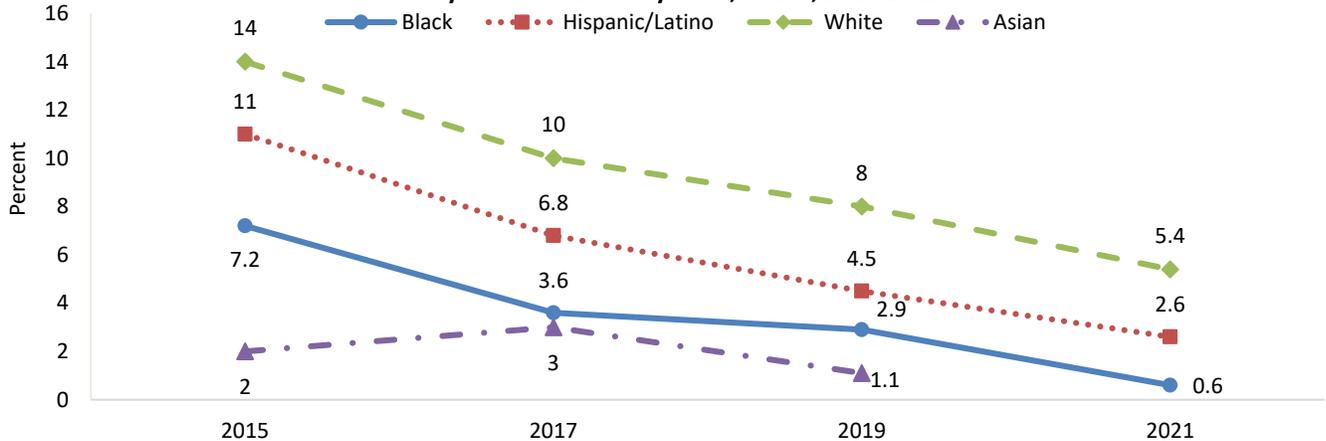


3.8.1.2 Smoking Prevalence Among High School Students by Race and Ethnicity

By race and ethnicity, White students generally had the highest smoking prevalence, followed by Hispanic/Latino, Black, and Asian students. Smoking prevalence consistently decreased in all racial and ethnic groups from 2015 to 2021. In 2021, the smoking prevalence was highest in White students (5.4%) and lowest in Black students (0.6%) (data were not available for Asian students) [Figure 53].

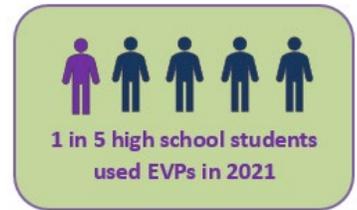
White high school students smoke 2 times more than Hispanic and 9 times more than Black high school students

Figure 53. Current Smoking Prevalence (%) Among High School Students by Race and Ethnicity in PA, YRBSS, 2015-2021



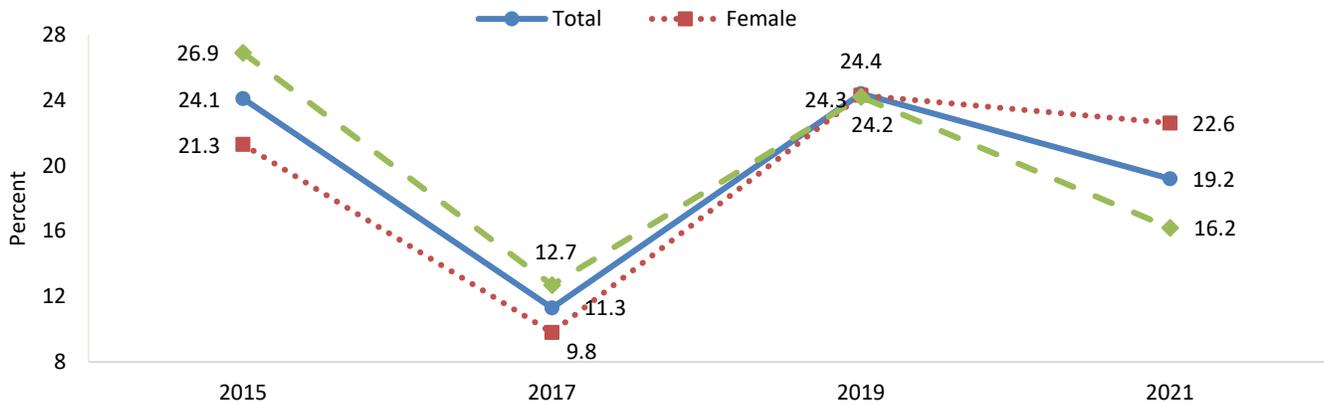
3.8.2 EVP Use Among High School Students

YRBSS defines current EVP use as students reporting using EVPs at least once in the past 30 days.²⁴ EVPs mainly include e-cigarettes, vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods. In Pennsylvania, EVP use peaked at 24.4% in 2019 and decreased from 24.1% in 2015 to 19.2% in 2021.



While the use of EVPs declined in male students, the use slightly increased in female students from 2015 to 2021. In 2015, EVP use was higher in male students but in 2021, EVP use was higher in female students [Figure 54].

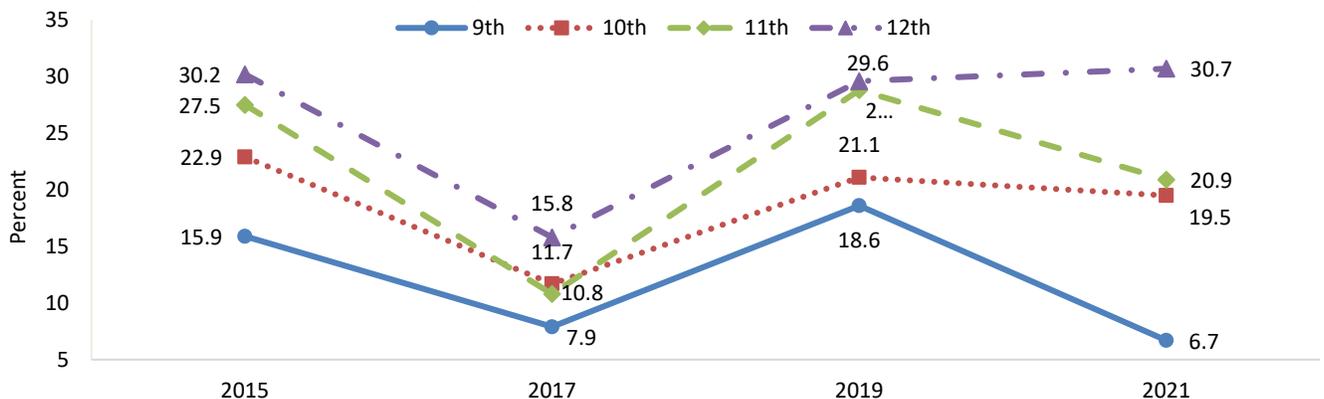
Figure 54. Current Electronic Vapor Product Use (%) Among High School Students in PA, YRBSS, 2015-2021



3.8.2.1 EVP Use Among High School Students by Grade Level

EVP use was generally higher among students in the upper-grade levels. From 2015 to 2021, EVP use decreased among students in grades 9-11, but remained at the same level among 12th graders. In 2021, EVP use in 12th graders was 4.5 times higher than EVP use in 9th graders [Figure 55].

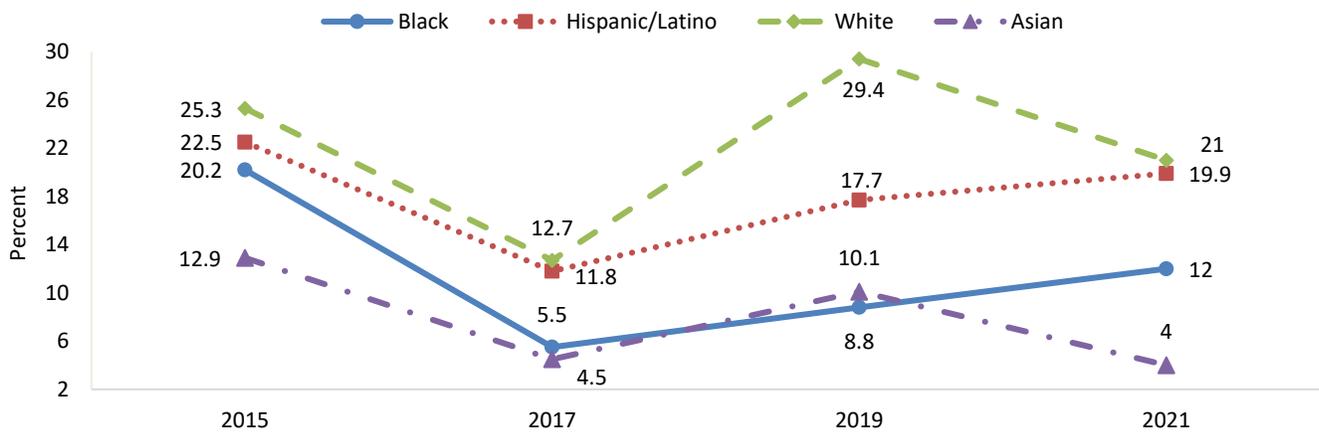
Figure 55. Current Electronic Vapor Product Use (%) Among High School Students by Grade Level in PA, YRBSS, 2015-2021



3.8.2.2 EVP Use Among High School Students by Race and Ethnicity

White students had the highest prevalence of EVP use, followed by Hispanic/Latinos, Blacks, and Asians. From 2015 to 2021, EVP use declined in all racial/ethnic groups. In 2021, Whites had the highest percentage of EVP use (21%), followed by Hispanic/Latinos (19.9%), Blacks (12%), and Asians (4%) [Figure 56].

Figure 56. Current Electronic Vapor Product Use (%) Among High School Students by Race and Ethnicity in PA, YRBSS, 2015-2021



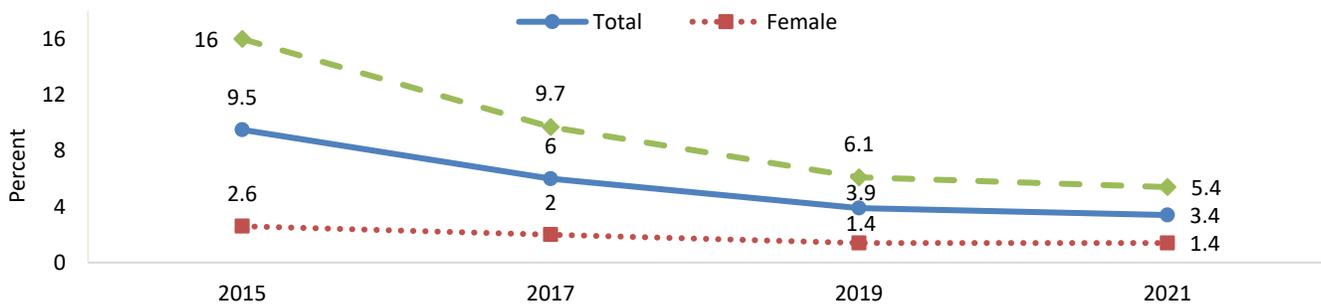
3.8.3 Smokeless Tobacco Use Among High School Students

Smokeless tobacco products include chewing tobacco, snuff, dip, snus, or dissolvable tobacco products. YRBSS defines current smokeless tobacco use as any use of these products at least once in the past 30 days.²⁴ Figure 57 shows that smokeless tobacco use declined from 9.5% in 2015 to 3.4% in 2021 in Pennsylvania high school students.

Smokeless tobacco & cigar use
5 times higher in male than
female high school students

Smokeless tobacco use was consistently higher among male than among female students. From 2015 to 2021, smokeless tobacco use decreased from 16% to 5.4% for male students and from 2.6% to 1.4% for female students [Figure 57].

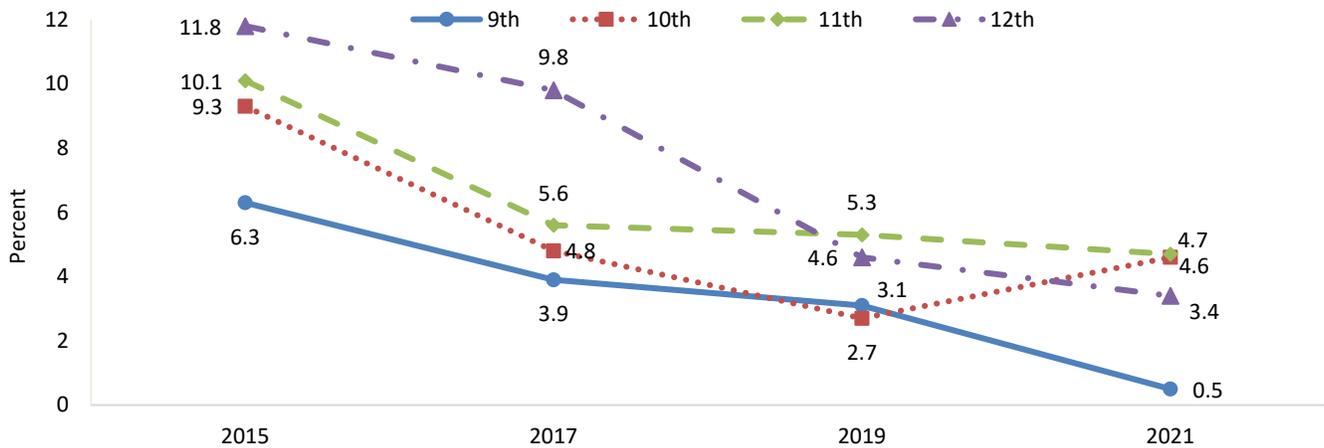
Figure 57. Current Smokeless Tobacco Use (%) Among High School Students in PA, YRBSS, 2015-2021



3.8.3.1 Smokeless Tobacco Use Among High School Students by Grade Level

Smokeless tobacco use was higher among students in higher grade levels. From 2015 to 2021, smokeless tobacco use decreased in all students. In 2021, 11th graders had the highest percentage of smokeless tobacco use (4.7%), followed by 10th graders (4.6%), 12th graders (3.4%), and 9th graders (0.5%) [Figure 58].

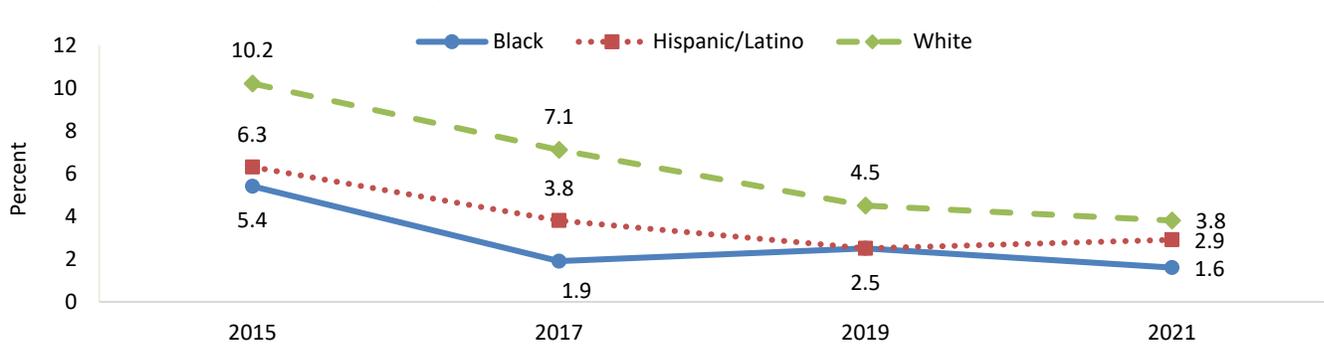
Figure 58. Current Smokeless Tobacco Prevalence (%) Among High School Students by Grade Level in PA, YRBSS, 2015-2021



3.8.3.2 Smokeless Tobacco Use Among High School Students by Race and Ethnicity

White students used smokeless tobacco products more commonly than Black or Hispanic/Latino students. From 2015 to 2021, smokeless tobacco use declined in all racial/ethnic groups. In 2021, Whites had the highest percentage of smokeless tobacco use (3.8%), followed by Hispanic/Latinos (2.9%) and Blacks (1.6%) [Figure 59].

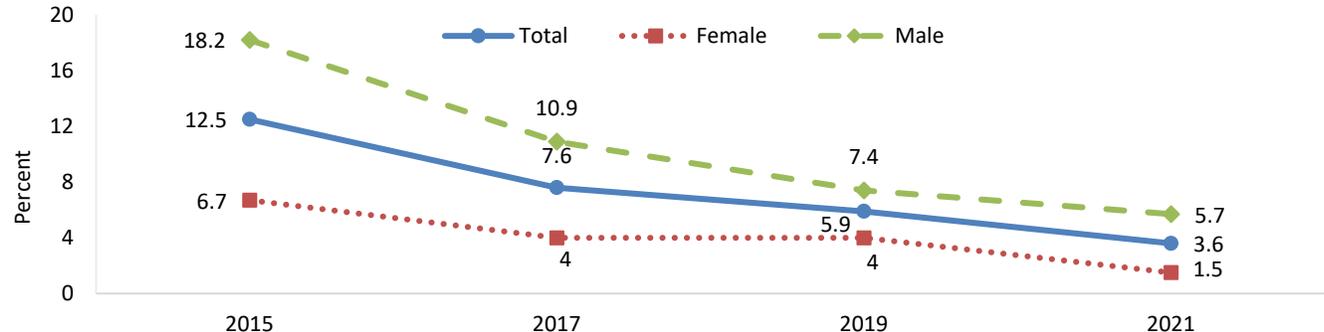
Figure 59. Current Smokeless Tobacco Prevalence (%) Among High School Students by Race and Ethnicity in PA, YRBSS, 2015-2021



3.8.4 Cigar Use Among High School Students

Cigars include cigarettos and little cigars. YRBSS defines current cigar use as using the products at least once in the past 30 days.²⁴ In Pennsylvania, cigar use declined from 12.5% in 2015 to 3.6% in 2021. By gender, cigar use was consistently higher in male than in female students. Use declined in both genders from 2015 to 2021. In 2021, cigar use in male students was approximately five times higher than in female students [Figure 60].

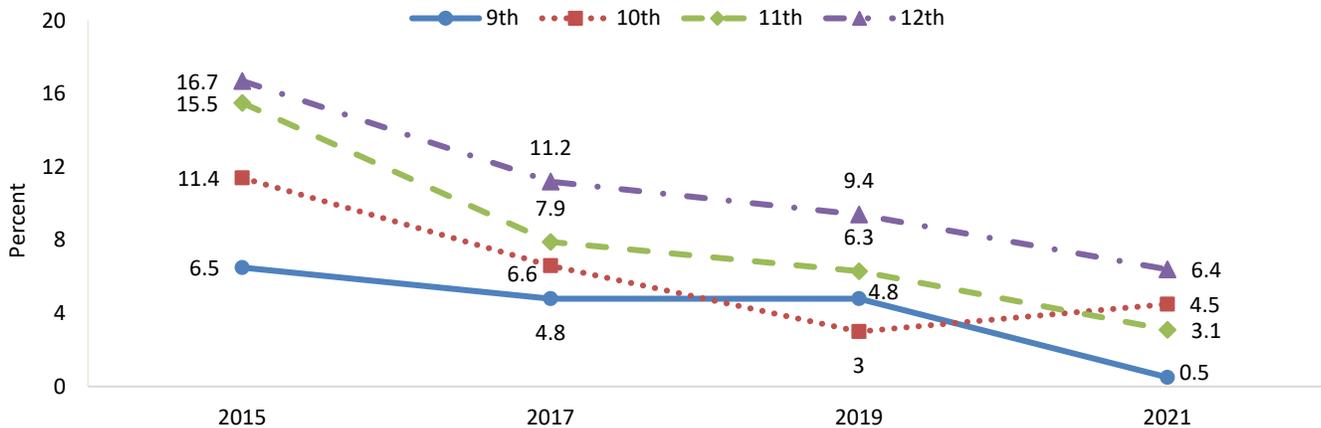
Figure 60. Current Cigar Use (%) Among Students in PA, YRBSS, 2015-2021



3.8.4.1 Cigar Use Among High School Students by Grade Level

Similar to other tobacco products, cigar use was generally higher among higher grades. Cigar use declined in all students despite the grade level from 2015 to 2021. In 2021, 12th graders had the highest perc (6.4%), followed by 10th graders (4.5%), 11th graders (3.1%), and 9th graders (0.5%) [Figure 61].

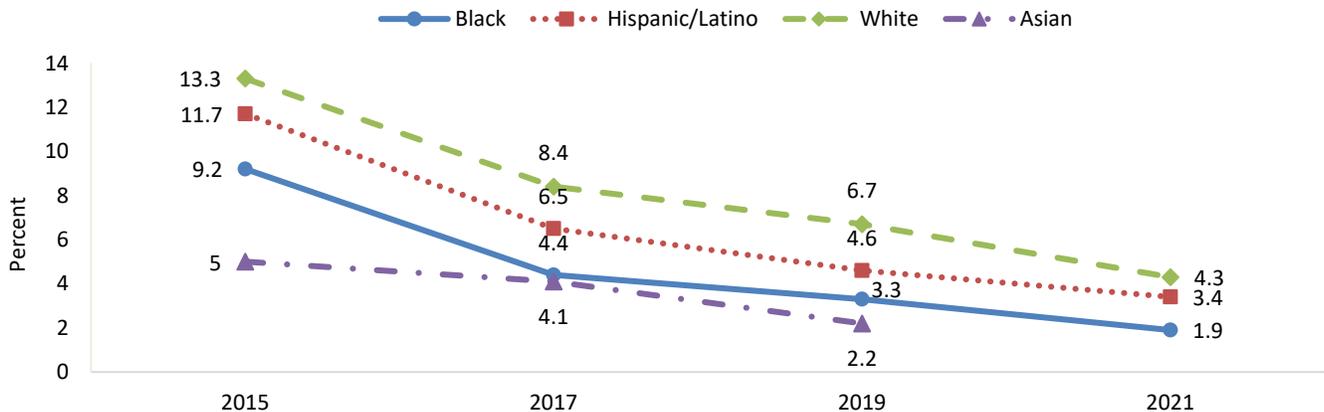
Figure 61. Current Cigar Use (%) Among Students by Grade Level in PA, YRBSS, 2015-2021



3.8.4.2 Cigar Use Among High School Students by Race and Ethnicity

Cigar use was more prevalent among White students, followed by Hispanic/Latino, Black, and Asian students. From 2015 to 2021, cigar use declined in all racial/ethnic groups. In 2021, cigar use was highest among White students (4.3%) and lowest among Black students (1.9%) [Figure 62].

Figure 62. Current Cigar Use (%) Among Students by Race and Ethnicity in PA, YRBSS, 2015-2021



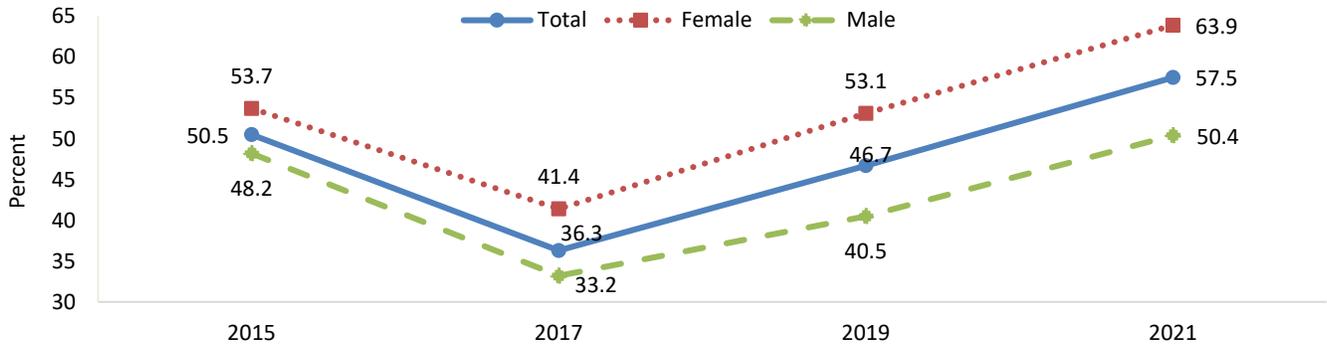
* Note: Data unavailable for Asian students in 2021 due to insufficient sample sizes

3.8.5 Tobacco Quit Attempts Among High School Students

YRBSS defines quit attempts as trying to quit using tobacco products during the previous year.²⁴ From 2015 to 2021, quit attempts among Pennsylvanian high school students increased from 50.5% in 2015 to 57.5% in 2021, and the increase has been noted in both male and female students [Figure 63].

More than 50% of high school students tried quitting tobacco

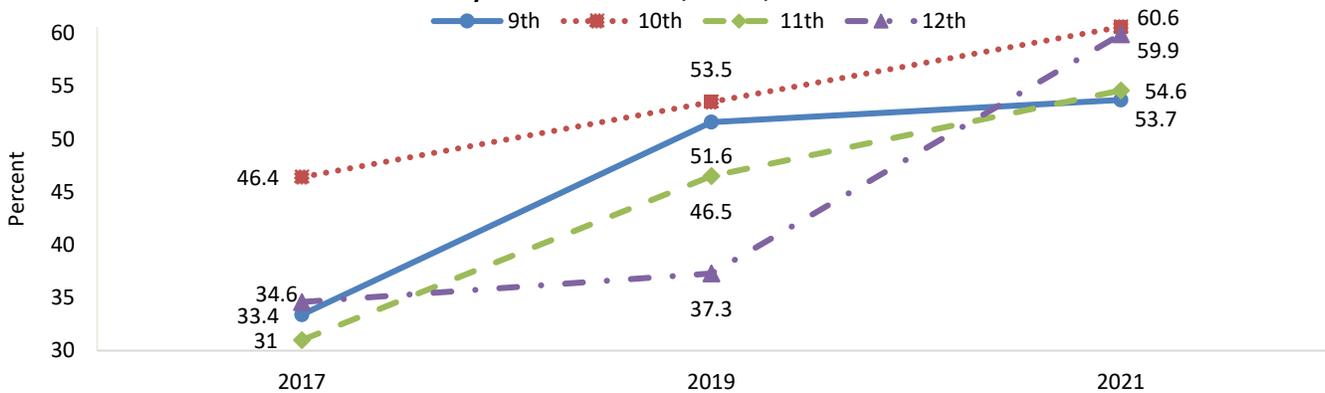
Figure 63. Students Reporting at Least One Tobacco Quit Attempt in the Past Year (%) in PA, YRBSS, 2015-2021



3.8.5.1 Tobacco Quit Attempts Among High School Students by Grade Level

Quit attempts increased for each grade level from 2017 to 2021. In 2021, quit attempts were highest in 10th graders (60.6%), followed by 12 graders (59.9%), 11th graders (54.6%), and 9th graders (53.7%) [Figure 64]. Data for 2015 was unavailable due to insufficient sample sizes.

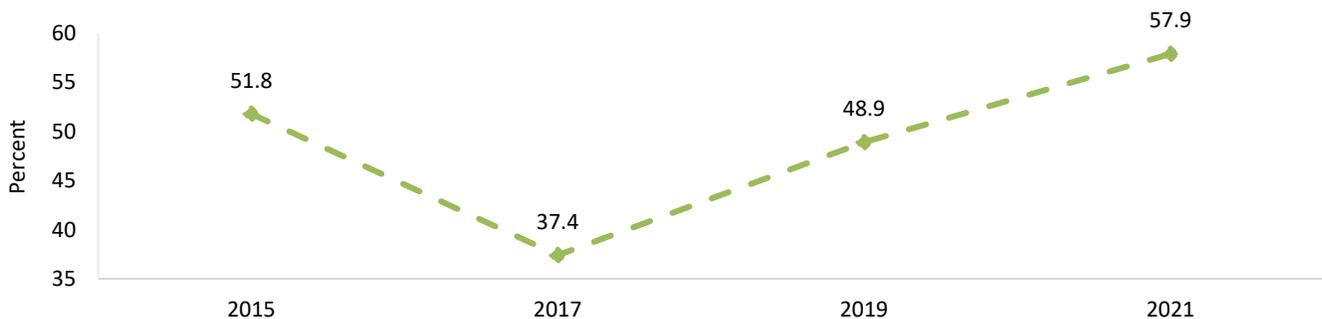
Figure 64. Students Reporting at Least One Tobacco Quit Attempt in the Past Year (%) by Grade Level in PA, YRBSS, 2017-2021



3.8.5.2 Tobacco Quit Attempts Among High School Students by Race and Ethnicity

Quit attempt data were only available for White students due to insufficient sample sizes among the other racial/ethnic groups. As shown in Figure 65, quit attempts first dropped from 2015 to 2017 but then increased from 2017 to 2021 among White students.

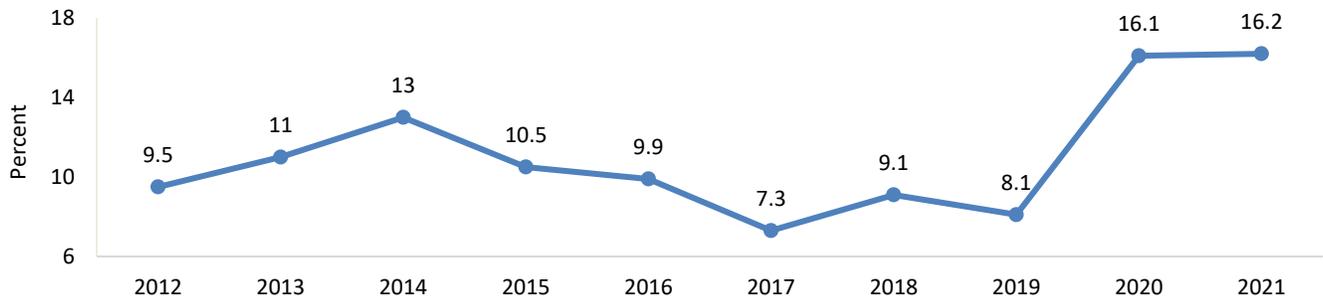
Figure 65. White Students Reporting at Least One Quit Attempt in the Past Year (%) in PA, YRBSS, 2015-2021



3.8.6 Youth Access to Tobacco

The Synar Amendment is a component of the Alcohol, Drug Abuse, and Mental Health Administration Reorganization Act designed to address youth access to tobacco.²⁰ The annual Synar Survey evaluates the effectiveness of the Commonwealth’s enforcement program and estimates retailer compliance with prohibiting tobacco sales to minors.^{19, 20} Data is collected from youth buyers who attempt to purchase tobacco products from a random sample of PA tobacco retailers. The number of illegal purchases is recorded, and the calculated violation rate represents the percentage of tobacco retailers that allowed minors to purchase tobacco products. The state’s Synar violation rates increased from 9.5% in 2012 to 16.2% in 2021 [Figure 66].

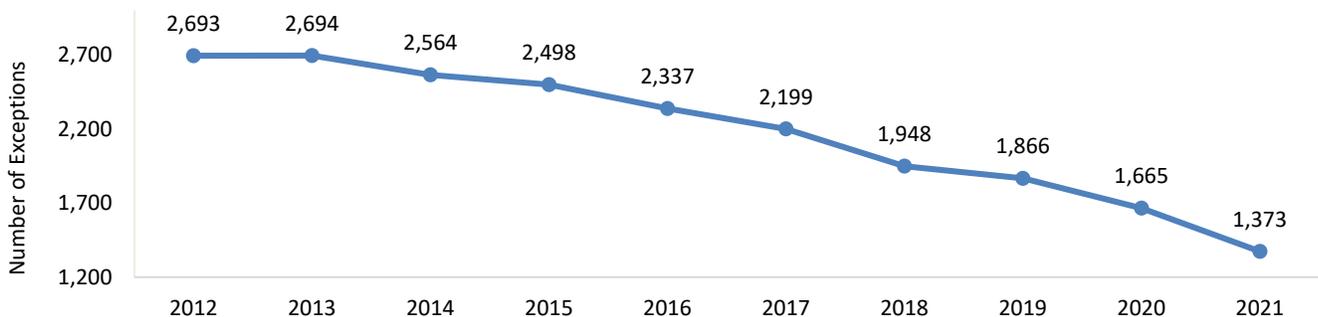
Figure 66. Synar Violation Rates (%) Among Youth in PA, PA DOH, 2012-2021

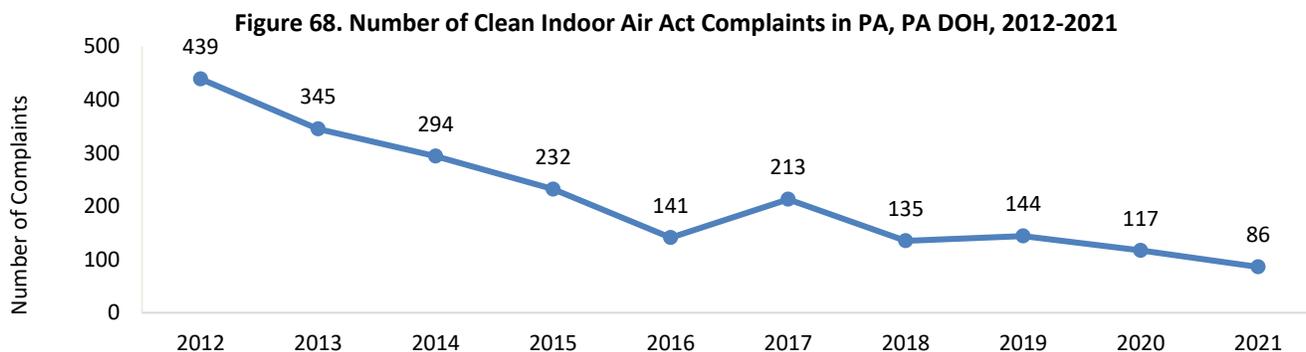


3.9 Clean Indoor Air Act

The Clean Indoor Air Act (CIAA) prohibits smoking tobacco in public locations and workplaces.¹⁷ The Act allows for several exceptions including different types of drinking establishments, cigar bars, and tobacco shops. The PA DOH Division of Tobacco Prevention and Control (DTPC) oversees exception applications from businesses and addresses public complaints of businesses violating the CIAA. Figure 67 depicts the number of CIAA exceptions granted by DTPC which declined from 2,693 in 2012 to 1,373 in 2021. Figure 68 represents the number of CIAA complaints received by DTPC which declined from 439 to 86 during the ten-year period.

Figure 67. Number of Clean Indoor Air Act Exceptions in PA, PA DOH, 2012-2021

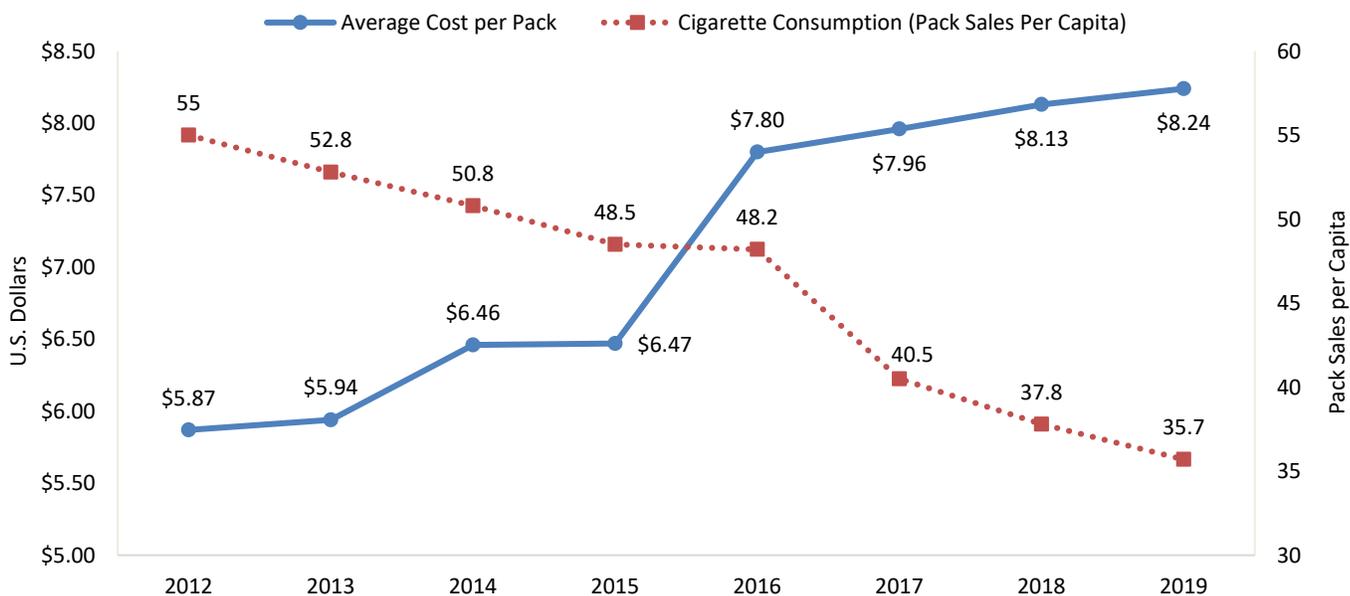




3.10 Cigarette Sales and Tax

The current cigarette tax in the Commonwealth, established in 2016, is \$2.60 per pack of 20 cigarettes.²² Excise taxes are an evidence-based strategy for reducing tobacco consumption. As shown in Figure 69, cigarette consumption decreased as taxes increased in PA. The average cost per pack of cigarettes has increased from \$5.87 in 2012 to \$8.24 in 2019. Meanwhile, cigarette consumption has decreased from 55 pack sales per capita in 2012 to 35.7 pack sales per capita in 2019.

Figure 69. Cigarette Cost (US Dollars per Pack) vs Cigarette Consumption (Pack Sales per Capita) in PA, CDC, 2012-2019



4. References

1. U.S. Department of Health and Human Services National Center for Chronic Disease Prevention and Health Promotion Office on Smoking and Health, *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. 2014.
2. Centers for Disease Control and Prevention National Center for Chronic Disease Prevention and Health Promotion Office on Smoking and Health. *Health Effects of Cigarette Smoking*. 2023. [02/01/2023]; Available from: https://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/.
3. Centers for Disease Control and Prevention National Center for Chronic Disease Prevention and Health Promotion Office on Smoking and Health. *Health Effects*. 2020. [02/01/2023]; Available from: https://www.cdc.gov/tobacco/basic_information/health_effects/index.htm.
4. Centers for Disease Control and Prevention National Center for Chronic Disease Prevention and Health Promotion Office on Smoking and Health. *Health Problems Caused by Secondhand Smoke*. 2022. [02/01/2023]; Available from: <https://www.cdc.gov/tobacco/secondhand-smoke/health.html>.
5. Centers for Disease Control and Prevention National Center for Chronic Disease Prevention and Health Promotion Office on Smoking and Health. *Smoking During Pregnancy*. 2020. [02/01/2023]; Available from: https://www.cdc.gov/tobacco/basic_information/health_effects/pregnancy/index.htm.
6. Centers for Disease Control and Prevention National Center for Chronic Disease Prevention and Health Promotion Office on Smoking and Health. *About Electronic Cigarettes (E-Cigarettes)*. 2023. [02/01/2023]; Available from: https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.html.
7. Centers for Disease Control and Prevention National Center for Chronic Disease Prevention and Health Promotion. *Youth Online*. 2023. [03/01/2023]; Available from: <https://nccd.cdc.gov/Youthonline/App/Default.aspx>.
8. Sharapova S, R.-G.C., Singh T, et al, *Age of tobacco use initiation and association with current use and nicotine dependence among US middle and high school students, 2014–2016*. *Tobacco Control* 2020. **29**: p. 49-54.
9. Centers for Disease Control and Prevention National Center for Chronic Disease Prevention and Health Promotion Division of Population Health, *BRFSS Prevalence & Trends Data*. 2023.
10. Centers for Disease Control and Prevention National Center for Chronic Disease Prevention and Health Promotion Division of Population Health. *Behavioral Risk Factor Surveillance System*. 2023. [02/01/2023]; Available from: <https://www.cdc.gov/brfss/index.html>.
11. Centers for Disease Control and Prevention National Center for Chronic Disease Prevention and Health Promotion Division of Population Health. *BRFSS Questionnaires*. 2022. [02/01/2023]; Available from: <https://www.cdc.gov/brfss/questionnaires/index.htm>.
12. Centers for Disease Control and Prevention Division of Adolescent and School Health. *Youth Risk Behavior Surveillance System*. 2023. [02/01/2023]; Available from: <https://www.cdc.gov/healthyyouth/data/yrbs/index.htm>.
13. Pennsylvania Department of Health Division of Tobacco Prevention and Control. *PA Free Quitline*. 2023. Available from: <https://www.health.pa.gov/topics/programs/tobacco/pages/quitline.aspx>.
14. Centers for Disease Control and Prevention National Center for Chronic Disease Prevention and Health Promotion Division of Reproductive Health. *Pregnancy Risk Assessment Monitoring System*. 2023. [03/01/2023]; Available from: <https://www.cdc.gov/prams/index.htm>.
15. Pennsylvania Department of Health Division of Health Informatics. *Enterprise Data Dissemination Informatics Exchange*. 2023. [03/01/2023]; Available from: <https://www.health.pa.gov/topics/HealthStatistics/EDDIE/Pages/EDDIE.aspx>.
16. Pennsylvania Department of Health Division of Health Informatics. *Birth Statistics*. 2023. [03/01/2023]; Available from: <https://www.health.pa.gov/topics/HealthStatistics/VitalStatistics/BirthStatistics/Pages/birth->

statistics.aspx.

17. Pennsylvania Department of Health Division of Tobacco Prevention and Control. *Clean Indoor Air Act*. 2023. [03/01/2023]; Available from:
<https://www.health.pa.gov/topics/programs/CIAA/Pages/CIAA.aspx#:~:text=The%20Clean%20Indoor%20Air%20Act,is%20considered%20a%20public%20place.>
18. Pennsylvania Department of Health Division of Tobacco Prevention and Control. *Clean Indoor Air Act Annual Reports 2012-2021*. [03/01/2023]; Available from:
[https://www.health.pa.gov/topics/programs/CIAA/Pages/Reports.aspx.](https://www.health.pa.gov/topics/programs/CIAA/Pages/Reports.aspx)
19. Pennsylvania Department of Health Division of Tobacco Prevention and Control. *FDA Retail Compliance Program*. 2023. [03/01/2023]; Available from:
[https://www.health.pa.gov/topics/programs/tobacco/Pages/FDA-Program.aspx.](https://www.health.pa.gov/topics/programs/tobacco/Pages/FDA-Program.aspx)
20. Pennsylvania Department of Health Division of Health Informatics. *Synar Survey*. 2023. [03/01/2023]; Available from:
[https://www.health.pa.gov/topics/HealthStatistics/BehavioralStatistics/Synar/Pages/synar.aspx.](https://www.health.pa.gov/topics/HealthStatistics/BehavioralStatistics/Synar/Pages/synar.aspx)
21. Orzechowski W and Walker RC, *The Tax Burden on Tobacco*, Centers for Disease Control and Prevention National Center for Chronic Disease Prevention and Health Promotion Office on Smoking and Health, Editor. 1970-2019.
22. Pennsylvania Department of Revenue. *Cigarette Tax*. 2023. [03/01/2023]; Available from:
<https://www.revenue.pa.gov/TaxTypes/CigaretteTax/Pages/default.aspx#:~:text=Cigarette%20tax%20is%20an%20excise,per%20carton%20of%2010%20packs.>
23. Centers for Disease Control and Prevention. *High School YRBS Participation History & Data Quality, 1991-2021*. 2023. Available from:
[https://www.cdc.gov/healthyyouth/data/yrbs/pdf/2021/2021_hs_participation_history_508.pdf.](https://www.cdc.gov/healthyyouth/data/yrbs/pdf/2021/2021_hs_participation_history_508.pdf)
24. Centers for Disease Control and Prevention Division of Adolescent and School Health. *YRBSS Questionnaires*. 2023. [03/01/2023]; Available from:
[https://www.cdc.gov/healthyyouth/data/yrbs/questionnaires.htm.](https://www.cdc.gov/healthyyouth/data/yrbs/questionnaires.htm)