

# 2020 INDEPENDENT EVALUATION REPORT

## New York Tobacco Control Program



December 2021

# 2020 Independent Evaluation Report of the New York Tobacco Control Program

## Report

Prepared for

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## Executive Summary

The importance of public health is evident in 2020, as tobacco use claims the lives of more than 20,000 New Yorkers every year, an outbreak of vaping-related lung injury occurred in 2019, and the 2020 COVID-19 pandemic refocused attention on the critical role of disease prevention and health promotion. The New York Tobacco Control Program (NY TCP) works to decrease the health, social, and economic burdens caused by tobacco use in the state. New York has a history of state and local tobacco control interventions and has successfully reduced cigarette smoking among adults and youth. Although many tobacco-related outcomes have improved, smoking prevalence has not decreased proportionally for all groups; cigarette smoking remains higher among New Yorkers with low income and education, those with frequent mental distress, those who identify as LGBTQ, and those living in rural areas. In addition, sharp increases in youth use of e-cigarettes, also called vaping products, have driven up youth overall tobacco use and raised concerns about effects on youth development, health, addiction, and subsequent tobacco use. As new policies and interventions to address these issues are implemented, the Program continues to focus on a comprehensive approach that includes health communication, cessation-focused health systems change, and state and community interventions.

This independent evaluation report provides an annual review **of NY TCP's activities and its progress. The report summarizes** the context in which NY TCP works, outlines the programmatic approach, and describes progress toward tobacco control outcomes.

### *Key Evaluation Findings*

- In recent years, NY TCP funding has decreased, at a time when there is a dramatic increase in youth vaping. The reductions in funding in recent years have seriously hampered the **Program's capacity, reach, and effectiveness.**
- Adult cigarette smoking prevalence was 12.7% in 2019, down from 21.1% in 2009. This represents a 40% decline in smoking in New York, compared with a 32% decline nationally. While this decline is promising, the

Program acknowledges that disparities in smoking prevalence remain across subsets of the population.

- Smoking prevalence among adults with frequent mental distress (defined as experiencing 14 days or more when mental health is not good, in terms of stress, depression, and problems with emotions) was 24.7%, more than twice as high in 2019 as for those without frequent mental distress (11.1%).
- Education level was associated with smoking prevalence; 15.7% of New York adults with less than a high school education reported current smoking in 2019, more than twice the prevalence among those with a college degree or higher (6.0%).
- Among New Yorkers with household income less than \$25,000, smoking prevalence was 17.9% in 2019, greater than double the smoking prevalence among New Yorkers with household income of \$75,000 or more (8.2%). Although this income-related smoking disparity persists, a recent study found that New York was the only state to have decreased smoking disparities between higher- and lower-income adults between 2011 and 2017 (Mills et al., 2020).
- In 2019, more than half of New York smokers (59.3%) made a quit attempt within the previous 12 months. This rate has been relatively steady over the past 10 years. More adult smokers reported using evidence-based methods to quit than reported using vaping products in a quit attempt.
- New York adult vaping product use increased to 8.4% in 2019, although this is approximately half the national rate (16.0%). Fewer than half of vapers also smoked cigarettes, in New York and in the nation overall.
- Youth cigarette smoking prevalence has declined dramatically in recent years, leading to historically low rates of smoking in 2018 (the most recent year for which data were available). High school student smoking prevalence in 2018 was 4.8% in New York, compared with 8.1% in the rest of the United States. In 2018, 0.9% middle school students in New York and 1.8% of middle school students nationally reported current cigarette smoking.
- Although New York high school student smoking has decreased, there have been dramatic increases in the

prevalence of past 30-day use of vaping products, which was 27.4% among high schoolers in 2018. Youth use of any tobacco product in 2018 was 30.6%, with use of vaping products overwhelmingly more common than cigarettes or other tobacco products.

### *Measures of NY TCP Reach and Impact*

- NY TCP aired campaigns to promote smoking cessation, address youth vaping prevention, and encourage health care providers to screen and treat tobacco users. In the first quarter of 2019, during which NY TCP allocated 38% of its annual media efforts, 37% of New York smokers were aware of NY TCP cessation-focused ads. However, the annual awareness estimate was lower than 20%, likely reflects reduced media efforts as a result of decreased funding.
- **The NY TCP's 10 regional health systems grantees** worked with 98 medical organizations and 107 mental health organizations on health systems change in 2019, with these organizations encompassing more than 839 clinics and offices in New York. Combined, grantees actively worked with 37.6% of relevant organizations in their catchment areas.
- Between 2014 and 2019, 70.3% of the medical organizations and 64.2% of mental health organizations that health systems grantees targeted regarding tobacco-related improvements made updates to their tobacco-related policies and systems.
- Advancing Tobacco-Free Communities (ATFC) grantees worked on several key initiatives, including focusing on the retail environment and its association with youth tobacco initiation. ATFC grantees reported that by the end of 2019, 22 New York local communities had adopted retail environment policies in advance of additional state-level retail environment policies enacted in 2020.
- ATFC grantees pursued expansion of smoke-free housing policies across the state, reporting 11,409 additional multi-housing living units becoming smoke-free during 2019.

### *Overall Programmatic Recommendations*

- Restore NY TCP funding to the amount allocated by the state legislature. In addition, increase funding to a minimum of one-half of CDC's recommended funding level

for the state (\$203 million) to \$101.5 million, to give the Program a better chance to succeed at achieving its NYSDOH Prevention Agenda objectives.

- Recent dramatic increases in youth use of vaping products requires NY TCP to use its existing resources for even more strategic efforts. The Program could respond more effectively with additional funding to develop and disseminate messaging, identify and educate about policies to reduce youth exposure and access, implement compliance monitoring protocols, and study the effectiveness of interventions in this emerging area. This could include additional support for, and evaluation of, tobacco control policies enacted during early 2020.
- Directing the revenue from the new vaping product tax to tobacco control would support NY TCP efforts to educate, intervene, and evaluate in this area.
- **Continue to refine the Program’s approach to reach** smokers with disproportionately high rates of smoking, especially adults who report experiencing low income and frequent mental distress.

## Introduction

Recent estimates of the impact of smoking in New York found that more than 20,000 New Yorkers died prematurely from smoking-related illnesses and more than 1,000 additional New Yorkers died due to secondhand smoke in a single year. Direct smoking-attributable personal health care expenditures in New York State were \$9.7 billion, representing a substantial health and financial toll while also reflecting a decrease in the economic burden of smoking due to reductions in smoking prevalence. At a time when the 2019 outbreak of vaping-related lung injury and the 2020 COVID-19 pandemic have focused attention on the importance of public health, the field of tobacco control provides an example of the critical role of disease prevention and health promotion. The New York Tobacco Control Program (NY TCP) works to decrease the health, social, and economic burdens caused by tobacco use. **The Program's work continues to be relevant and critical,** as adult smokers who want to quit struggle with addiction, the product landscape shifts, youth use of vaping products remains high, and the effects of tobacco use continue to harm New Yorkers. NY TCP uses a multi-component approach to reduce tobacco use initiation, increase cessation, eliminate secondhand smoke exposure, and reduce smoking-related disparities in alignment **with the Centers for Disease Control and Prevention's (CDC's) *Best Practices for Comprehensive Tobacco Control Programs* (CDC, 2014).**

New York has a history of state and local tobacco control interventions and has successfully reduced cigarette smoking among adults and youth. Although many tobacco-related outcomes have improved, smoking rates remain disproportionately higher among New Yorkers with low income and education, those with frequent mental distress, those who identify as LGBTQ, and those living in rural areas. In addition, growing rates of youth vaping raise concerns about harm to **adolescents' developing brains, increased rates of nicotine** addiction, and the likelihood of tobacco use later in life (Berry et al., 2019). As new policies to address these issues are implemented, the Program continues to focus on a comprehensive approach that includes health communication, cessation-focused health systems change, and state and community interventions.

This independent evaluation report addresses the following core tobacco control evaluation questions:

- How have key outcome indicators changed over time?
- How do these indicators compare between New York and the United States?

We also share highlights from some specific studies and analyses conducted as part of the independent evaluation that address topics of interest to NY TCP:

- How have youth vaping product **users'** flavor preferences, harm perceptions, and use of high-nicotine products changed in recent years?
- How do youth and young adults in New York perceive vaping products and norms around their use?
- How does cigar use among New York adults vary by demographic characteristics?

**This report describes the NY TCP's context, the programmatic approach, key tobacco-related outcomes, and findings from several evaluation studies conducted as part of the independent evaluation of the Program.** This 2020 Independent Evaluation Report primarily reflects on activities and outcomes from the 2019 calendar year. Originally prepared for NY TCP in early 2020, this report **describes the Program's context as of early 2020**, including funding estimates for Fiscal Year (FY) 2020-2021.

## **The New York Tobacco Control Program – Context and Programmatic Approach**

**T**he state's tobacco control environment – including the **Program's funding and infrastructure, existing tobacco control policies, and the ongoing activities implemented by the Program** – provides important context for program outcomes. We describe policy and funding factors relevant to Program efforts, followed by a description of the programmatic approach within several key areas in tobacco control.

### ***Tobacco Control Policy Environment***

Core tobacco control policies that have been shown to help reduce smoking rates include increasing the price of tobacco

products, implementing smoke-free air laws, and funding comprehensive tobacco control programs (CDC, 2014). Although the tobacco product marketplace has continued to evolve and the U.S. Food and Drug Administration has taken actions to regulate tobacco products, there is significant variation across states in their tobacco control policy environments. New York State has been a leader for many years in implementing evidence-based tobacco control policies. **The state's cigarette excise tax is \$4.35**, which is more than twice the average of U.S. states (Table 1), and New York City also adds a local excise tax for cigarettes and minimum prices for tobacco products including cigarettes and cigars. New York State now requires a vaping product sales tax that is 20% of the retail price of vaping products; 23 other states have some form of vaping product tax. All New Yorkers are covered by a statewide comprehensive smoke-free air law (including workplaces, restaurants, and bars), compared with 61.1% of the U.S. population. New York State has added vaping products **to the state's Clean Indoor Air Act, which means that vaping** products may not be used where smoking is prohibited. By comparison, only 45.5% of the U.S. population is covered by laws that prohibit vaping in workplaces, bars, and restaurants. The use of vaping products is also prohibited on all public and private school grounds in the state. In 2019, New York State passed a registration requirement for all retailers that sell vaping products and established a minimum legal sales age for tobacco products of 21, prior to the federal change to age 21. Governor Andrew Cuomo announced an emergency executive action in September 2019 to prohibit the sale of flavored vaping products in New York, although the restriction was stalled in litigation.

The FY 2020-2021 New York State Enacted Budget incorporated a wide range of tobacco control policies, including a prohibition of flavored vaping product sales, a prohibition on sales of tobacco products in pharmacies, restrictions on tobacco product coupons and promotion, limits on exterior tobacco advertising near schools, and the prohibition of online sales of vaping products other than to licensed manufacturers and retailers. These new policies will not be reflected in the outcomes presented in the 2020 Independent Evaluation Report because this report primarily focuses on activities and outcomes from 2019.

Table 1. Pro- and Antitobacco Environmental Influences in New York and the United States

Indicator	New York	U.S. Average
State cigarette excise tax (January 1, 2020)	\$4.35	\$1.81
Percentage of the state population covered by comprehensive smoke-free air laws <sup>a</sup> (January 2, 2020)	100%	61.1%
Percentage of the state population covered by comprehensive laws prohibiting vaping in workplaces, bars, and restaurants (April 2020)	100%	45.5%
Annual per capita funding for tobacco control (FY 2019)	\$1.92	\$2.20 (excluding NY)

<sup>a</sup> “Comprehensive smoke-free air laws” refers to laws that create smoke-free workplaces, restaurants, and bars.

Per capita funding for tobacco control in FY 2019 was lower in New York (\$1.92) than the average of all other states (\$2.20). **This reflects New York’s reduced funding and the increase in some states, especially California.** At its peak in 2007, **New York State’s per capita funding was \$5.21,** compared with \$2.40 in all other states.

### *Program Funding*

For the FY 2020–2021, the state appropriated \$39.7 million for NY TCP, the same amount as had been allocated in recent fiscal years. In contrast to the state appropriation, the NYS Division of Budget communicated to the Department a limit of \$34.7 million, which is \$5 million less than the appropriated budget amount. This lower amount is a result of an administrative function set by the Division of Budget; the value can be changed by the Division of Budget in the course of a State Fiscal Year. However, even the appropriated dollar amount is significantly less than federal recommendations for tobacco control funding. The reduction **limits the Program’s capacity, reach, and effectiveness.** CDC calculates recommended funding levels—and recommended minimum levels—for each state tobacco control program as a benchmark for tobacco prevention and control **expenditures.** **New York’s tobacco control** funding represents **17% of CDC’s recommended funding level** for New York (\$203 million) and **24% of CDC’s recommended minimum level** (\$142.8 million).

**NY TCP’s FY 2020-2021 funding** represents only 2% of the combined revenue that the state receives annually from

cigarette excise taxes and Master Settlement Agreement (MSA) payments. New York State received \$1.0 billion in cigarette excise taxes in FY 2020 and \$706.6 million in MSA payments (Table 2). Although the MSA required major cigarette companies to make annual payments to states, these funds do not necessarily get applied to tobacco control or other public health initiatives.

Table 2. Annual New York State Tobacco Tax Revenue, Master Settlement Agreement Payments, and Spending on Tobacco Control and Tobacco Promotions

Revenue/Expenditure Category	Annual Revenue/Expenditure
Revenue from tobacco excise taxes (FY 2020)	\$1,030,000,000
Revenue from MSA payments (FY 2020)	\$706,600,000
Estimated cigarette advertising and promotions in New York State (FY 2018) by five major cigarette manufacturers	\$179,290,000
New York advertising for vaping products	\$8,700,000
NY Bureau of Tobacco Control budget (FY 2020–2021)	\$34,694,600

Note: CY = calendar year; FY = fiscal year; MSA = Master Settlement Agreement.

Tobacco industry expenditures on advertising and promotion are substantial. Tobacco companies spent \$8.4 billion on cigarette advertising and promotions in the United States in 2018. If these expenditures are proportional to cigarette sales, this translates to \$179.3 million on cigarette advertising and promotions in New York State in a single year (over five times the amount of funding allocated to the Program). Of this, an estimated \$154 million was spent on price reductions and retail-value-added bonus cigarettes (e.g., buy two packs, get one free) in retail stores in New York. In addition, vaping product advertising was estimated to be \$276.2 million in U.S. consumer media outlets in 2019. By brand, JUUL accounted for 58.5% of that amount, followed by Vuse (27.9%) and Blu (12.4%). Vaping product manufacturers spent approximately \$8.7 million advertising vaping products in consumer media outlets in New York during 2019. Exposure to vaping product advertising is associated with increased intentions to use and reported use of vaping products among youth and young adults (Farrelly et al., 2015; Villanti et al., 2016; Mantey et al., 2016).

Dollars spent on promoting tobacco products far outpace NY TCP’s funding of \$34.7 million (Figure 1). NY TCP funding levels provide context for interpreting trends in key outcome measures. Although Program funds appear relatively unchanged over the past several years Program funding has not increased to account for inflation. If the funding amounts were adjusted to reflect 2001 dollars, NY TCP funding for FY 2020-2021 is at 32% of peak funding, and is 24% lower than FY 2011-2012 in real terms.

**Figure 1. NY TCP Funding FY 2000–2001 to FY 2020-2021**

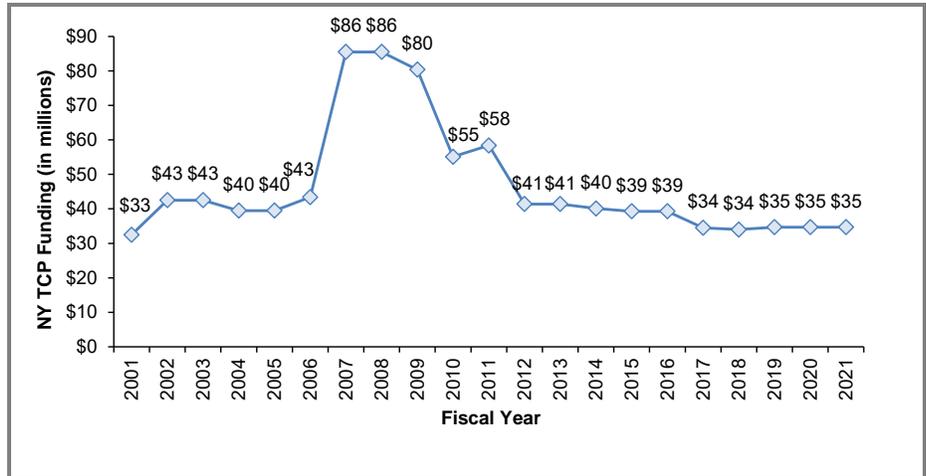


Table 3 shows funding by program component for FY 2020–2021. The funding total and amount per Program component are consistent with the prior FY.

Table 3. NY TCP Funding for FY 2020–2021, by Program Component

Program Component	2020–2021 Funding
State and Community Interventions	\$10,333,291
Advancing Tobacco-Free Communities	\$9,304,750
Center for Public Health and Tobacco Policy	\$528,541
Training/Professional development	\$500,000
Enforcement	\$4,649,950
BTC funds for enforcement	\$2,475,350
CEH funds for enforcement	\$2,174,600
Health Systems Interventions	\$7,658,909
Health Systems for a Tobacco-Free New York	\$3,274,943
Quitline	\$4,133,966
Nicotine replacement therapy	\$250,000
Health Communication Interventions	
Media placement	\$5,854,521
Surveillance and Evaluation	
Independent evaluation	\$2,921,929
Administration	
Tobacco control and cancer services	\$3,276,000
<b>Total</b>	<b>\$34,694,600</b>

Note: BTC = NYSDOH Bureau of Tobacco Control; CEH = NYSDOH Center for Environmental Health.

CDC provides recommendations for funding levels for comprehensive tobacco control programs, overall and by program component (CDC, 2014). **Although the Program’s** overall funding is below the CDC-recommended level, NY TCP considers CDC Best Practices guidance in the way it distributes its funding. NY TCP set aside 9% of its funding (\$3.3 million) for administration, which is close to one-third of **CDC’s recommended amount**. CDC encourages programs to fund their administration, management, and infrastructure activities at the recommended dollar amount, even if the Program’s **overall funding is below the CDC-** recommended level because of the importance of maintaining a functioning infrastructure (CDC, 2014). CDC suggests that cessation interventions and state and community interventions receive the highest allocations. NY TCP put 43% of its funding toward state and community interventions, compared **with CDC’s recommendation of 30%**. NY TCP assigned 22% of its funding to cessation **interventions, compared with CDC’s suggested 34%**. NY TCP

applied 8% of its funding to surveillance and evaluation, close to **CDC’s recommended 9%**. The Program put 17% of its FY 2019-2020 funding to health communications **interventions, compared with CDC’s recommended 23%**.

### *Programmatic Approach*

NY TCP uses an evidence-based approach to achieve its core goals: preventing the initiation of tobacco use by youth and young adults, promoting cessation, eliminating exposure to secondhand smoke, and reducing smoking-related disparities. The Program employs a social norm change model with the intention of creating an environment in which tobacco use becomes less acceptable, less desirable, and less accessible (CDC, 2014; Frieden, 2010; NCI, 1991; USDHHS, 2000). The Program has identified objectives that are integrated into the New York State Department of **Health’s (NYSDOH’s) 2019-2024 Prevention Agenda**, which provides a blueprint for action at the state and local levels to improve the health and well-being among all New Yorkers (NYSDOH, 2019). The 2019-2024 NYSDOH Prevention Agenda includes measurable objectives focused on decreasing youth and adult tobacco use statewide with targeted reductions among populations disproportionately affected by tobacco use (Table 4).

Table 4. 2019-2024 NYSDOH Prevention Agenda Tobacco Objective Areas

Area	Focus of Objectives
Tobacco use prevalence among high school students	Decrease the prevalence of any tobacco use overall, and of combustible cigarette use and vaping product use in particular
Tobacco use prevalence among young adults age 18-24	Decrease the prevalence of combustible cigarette use and vaping product use
Tobacco use prevalence among adults	Decrease the prevalence of cigarette smoking by all adults and by groups with higher smoking prevalence, including adults <ul style="list-style-type: none"> <li>• with income less than \$25,000</li> <li>• with less than a high school education</li> <li>• reporting frequent mental distress</li> <li>• who identify as LGBT</li> <li>• who are living with any disability</li> </ul>
Use of evidence-based treatments	Increase assistance from health care providers to quit smoking Increase the utilization of smoking cessation benefits (counseling and/or medications) among Medicaid-enrolled smokers

Area	Focus of Objectives
Secondhand smoke exposure	Decrease the percentage of adult non-smokers living in multi-unit housing who were exposed to secondhand smoke in their homes Decrease the percentage of youth who were in a room where someone was smoking on at least 1 day in the past 7 days Increase the number of multi-unit housing units that adopt a smoke-free policy
Point of sale policy	Increase the number of municipalities that adopt retail environment policies, including those that restrict the density of tobacco retailers, keep the price of tobacco products high, and prohibit the sale of flavored tobacco products

**NY TCP’s comprehensive approach involves managing an** integrated infrastructure, conducting mass-reach health communication interventions, effecting health systems change to support cessation, and implementing state and community interventions that engage a range of grantees and partners. In the following sections, we describe these central programmatic activities in more detail.

Exhibit 1. NY TCP Programmatic Highlight: Administration and Management

Programmatic Approach Highlight:

## Administration and Management

” CDC recommends that “a fully functioning infrastructure must be in place in order to achieve the capacity to implement effective interventions” (CDC, 2014).

### Grants & contract management

 Ensure effective management, monitoring, and communicating across contracts, including:

- Health systems grantees
- ATFC grantees
- Quitline

### Education of public & decision-makers

 Promote policy change and support program sustainability by sharing successes and the ongoing need for tobacco control

### Strategic planning

 Engage with Advisory Board

 Contribute to NYSDOH Prevention Agenda

### Staffing & Development

 Maintain personnel focused on core components of program and grants management

 Ensure staff support coordination, communication, training, and monitoring

### Fiscal management

 Oversee use of and accountability for state funds and CDC grant funds

### Engaging data

 Employ surveillance and evaluation data to monitor progress and disseminate findings

 Internal research and evaluation, plus external independent evaluation

### *Administration and Management*

NY TCP implements strategic programmatic activities grounded in CDC Best Practices and dedicates time and resources to establish a solid foundation of administration and management, including staffing and infrastructure (Exhibit 1). NY TCP guides the overall programmatic strategy and coordinates communication across program staff, grantees, partners, and the broader NYSDOH. NY TCP employs a multilevel leadership approach that engages staff and stakeholders in planning, communication, and coordinated management. The Program offers professional development opportunities and integrates technical assistance and guidance to manage the effective and efficient investment of the state’s tobacco control funding. NY TCP maintains dynamic grantee reporting systems and

other reporting tools and procedures to ensure accountability. The Program connects with state, regional, and local tobacco control stakeholders and maintains contracts for the Quitline and other tobacco control grantees. State and community-level activities and program initiatives are supported by the ongoing development and dissemination of key messages that are communicated by community grantees and via earned and paid media. To assess the effect of program efforts, NY TCP collaborates with an independent surveillance and evaluation contractor and shares key tobacco control data and reports with stakeholders and the public.

### *Health Communication*

NY TCP uses health communication strategies to motivate tobacco users to stop using tobacco, deglamorize tobacco use, and educate community members and decision makers about tobacco control issues (Exhibit 2). Antismoking campaigns have been shown to be effective at reducing cigarette smoking among adults (Davis et al., 2015; Farrelly et al., 2012; NCI, 2008; Wakefield et al., 2010, 2011) and youth (USDHHS, 2012). NY TCP's antismoking media efforts in 2019 included ads depicting the negative health consequences of smoking through emotionally-evocative and graphic content. NY TCP aired several ads from the CDC's *Tips from a Former Smoker* Campaign, which has been shown to increase quit attempts (McAfee et al., 2013). NY TCP aired *Rebecca*, *Tiffany-Sharon*, *Leonard Nimoy – More Time*, and multiple ads from the *Brian and Christine* series, along with the NY TCP-adapted ad *Echo*. Nearly all of these ads include the tagline, **"Smoking is an addiction. Medicaid and your health care provider can help."** along with the New York State Smokers' Quitline telephone number—messaging that complements health systems efforts and offers smokers encouragement and a specific call to action.

In line with the 2019-2024 NYSDOH Prevention Agenda goal to **"prevent initiation of tobacco use, including combustible tobacco and electronic vaping products... by youth and young adults,"** NY TCP also launched a campaign targeted to parents in New York focused on youth vaping product use

prevention. The campaign aims to promote dialogue between parents and their children about the harmful effects of vaping products, promote social norms around vaping product prevention, and increase support for vaping product prevention policies. The vaping product prevention campaign included two ads adapted from North Dakota’s BreatheND campaign (*7 out of 10* and *Targets*) and one ad adapted from the Tobacco Free California’s Flavors Hook Kids campaign (*School*). All messages included the tagline, “Addiction to Nicotine is Not a Phase.”

Exhibit 2. NY TCP Programmatic Highlight: Health Communications



To complement smoker-targeted ads and build on the **Program’s health systems interventions**, NY TCP also implements ads targeting medical and behavioral health care providers, encouraging them to assist patients with evidence-based cessation. During 2019, NY TCP used print and digital media placements to encourage providers to recommend combination NRT and provide counseling to **address patients’ nicotine addiction**. NY TCP placed print ads in professional trade journals that the target audience is likely to frequent, such as the *Journal of the American Medical Association* and the *American Journal of Psychiatry* (Figure 2). They also placed digital banner ads on online medical journal sites and ads on social media platforms with targeting intended to reach providers.

The ads include a link to the website [TalkToYourPatients.health.ny.gov](https://TalkToYourPatients.health.ny.gov), which reinforces the ad messaging and provides additional details about nicotine addiction, tobacco dependence treatment medications, and brief counseling. In addition, the site has a specific section for behavioral health care providers that dispels common myths about smoking cessation among individuals experiencing mental illness.

Figure 2. Sample Provider-targeted Ads



Exhibit 3. NY TCP Programmatic Highlight: Health Systems Intervention

Programmatic Approach Highlight:

## Health Systems Intervention

“Health systems change involves institutionalizing cessation interventions in health care systems and seamlessly integrating these interventions into routine clinical care” (CDC, 2014).

**New York's health systems approach comprises an integrated set of components:**

- Regional Grantees
- Center of Excellence
- Provider-Targeted Media
- Smokers' Quitline
- Reduced-Cost Cessation Treatment

**Health systems changes include:**

- Changes to electronic health records
- Changes to policies and workflows
- Feedback to providers
- Training and resources

The Quitline offers coaching and NRT.

The New York State Medicaid Program covers FDA-approved cessation medications and counseling.

### *Health Systems Interventions*

To help tobacco users quit, NY TCP’s health systems interventions focus on increasing the provision of evidence-based treatments for tobacco dependence. These treatments include brief counseling by health care providers, use of FDA-approved cessation products such as nicotine replacement therapy (NRT, such as nicotine gum and patches) and prescription medications bupropion (Wellbutrin or Zyban) and varenicline (Chantix), and counseling via the state Quitline. **NY TCP’s health systems approach includes several activities targeting systems-, provider-, and patient-level outcomes including:**

- grantee facilitation of improvements to medical and behavioral health care systems’ policies, electronic health records (EHRs), and protocols that institutionalize provision of tobacco dependence treatment;

- media campaigns targeting medical and behavioral health care providers to promote evidence-based tobacco dependence treatments;
- coordination with external initiatives and partnerships to link statewide health care reform changes with NY TCP efforts to support tobacco-related systems change;
- provision of telephone- and web-based smoking cessation support; and
- reductions in the cost of tobacco dependence treatments for patients.

NY TCP's multi-faceted approach aims to catalyze and build on changes in the New York State health care landscape. The following sections describe NY TCP health systems interventions in more detail, summarizing health systems **grantees' interventions, reduced patient costs for treatment, and the New York State Smokers' Quitline.**

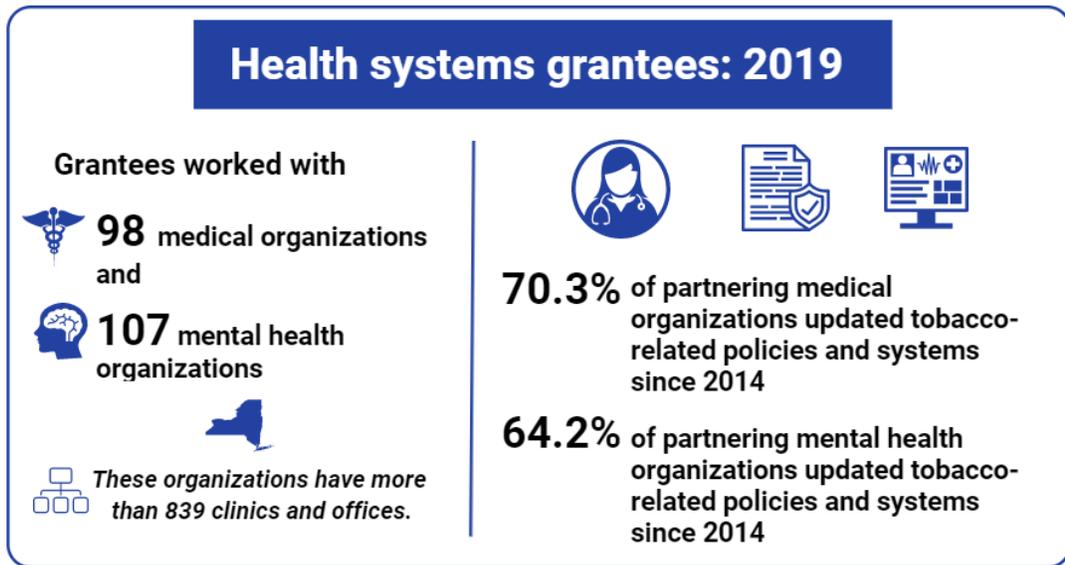
### **Health Systems Grantee Interventions**

NY TCP funds Health Systems for a Tobacco-Free New York (HSTFNY) grantees across the state to increase the number of medical and mental health care organizations that have institutionalized systems supporting the provision of evidence-based tobacco dependence treatment. These systems reinforce the screening of all patients for tobacco use, provision of brief advice to quit at all visits, and provision of assistance to help patients quit successfully. Ten regional grantees work with administrators of medical and behavioral health care organizations throughout the state.

Brief advice to quit smoking by a health care provider significantly increases the odds that a smoker will quit (Fiore et al., 2008; Nonnemaker et al., 2011). NY TCP's approach is aligned with CDC Best Practices and the U.S. Public Health Service guideline, *Treating Tobacco Use and Dependence* (Fiore et al., 2008). NY TCP funds 10 regional health systems grantees and one statewide Center of Excellence. The NY TCP's statewide Center of Excellence works to help foster a climate that encourages health care organizations to institutionalize guideline-concordant policies and systems, build partnerships among key

stakeholders, and support regional grantees. The 10 regional grantees assist individual health care organizations throughout New York State in making changes to improve provider tobacco cessation intervention, establish regular provider training, facilitate system improvement, and integrate provider feedback based on clinical data audits (Exhibit 4).

**Exhibit 4. Health Systems Grantees’ Reports of Partnering and Policy and System Changes**



NY TCP’s health systems grantee efforts have evolved alongside shifts in the health care landscape and public health priorities in the state. When regional health systems grantees began their efforts in 2004, they targeted hospitals and then later shifted their emphasis to medical practices, where the majority of smokers report receiving regular care. Consistent with RTI recommendations (RTI International, 2009), NY TCP refined the focus of the health systems initiative to target organizations that serve groups with higher rates of smoking, including populations with low income and populations that experience serious mental illness. Specifically, NY TCP instructed grantees to target Community Health Centers (CHCs), which provide services to underserved populations including those with low income, and programs that serve individuals who experience serious mental illness. Regional health systems grantees provide these organizations with guidance and strategic assistance

on systems-level changes that support consistent screening for and treatment of tobacco dependence.

NY TCP health systems grantees leverage existing initiatives and performance improvement projects, positioning themselves as resources to help with tobacco dependence-related projects. In 2019, the NY TCP released an RFP for future health systems grantee work that formally integrates vaping products into the health systems approach to tobacco use identification and treatment, in response to the changing tobacco product environment. During 2019, grantees actively worked with 36.0% of the relevant medical organizations and 39.2% of mental health organizations in their catchment areas. When medical and mental health organizations are considered together, grantees actively worked with 37.6% of organizations in their catchment areas.

Health systems grantees also facilitate news coverage about health systems change in New York to acknowledge organizations that have made systems-level improvements and to ensure ongoing conversations that promote health systems change in the field. Health systems grantees reported 624 instances of earned media during 2019, including stories in newsletters and on websites, newspaper stories, letters to the editor, radio interviews, TV stories, and editorials or op-eds.

### **Reduced Patient Costs for Treatment**

An important objective for NY TCP is to make evidence-based cessation treatment available to those with low income and frequent mental distress, who smoke at disproportionately higher rates than the general population. The New York State Medicaid program has expanded coverage for smoking cessation counseling and pharmacotherapy. The New York State Medicaid program covers all 7 FDA-approved medications as well as individual and group counseling, although some Medicaid plans may vary in their coverage for the NRT inhaler and in whether they require copays for cessation treatment (DiGiulio et al., 2020). The New York State Medicaid program covers unlimited trials of all FDA-approved medications and smoking cessation counseling to all Medicaid enrollees, via

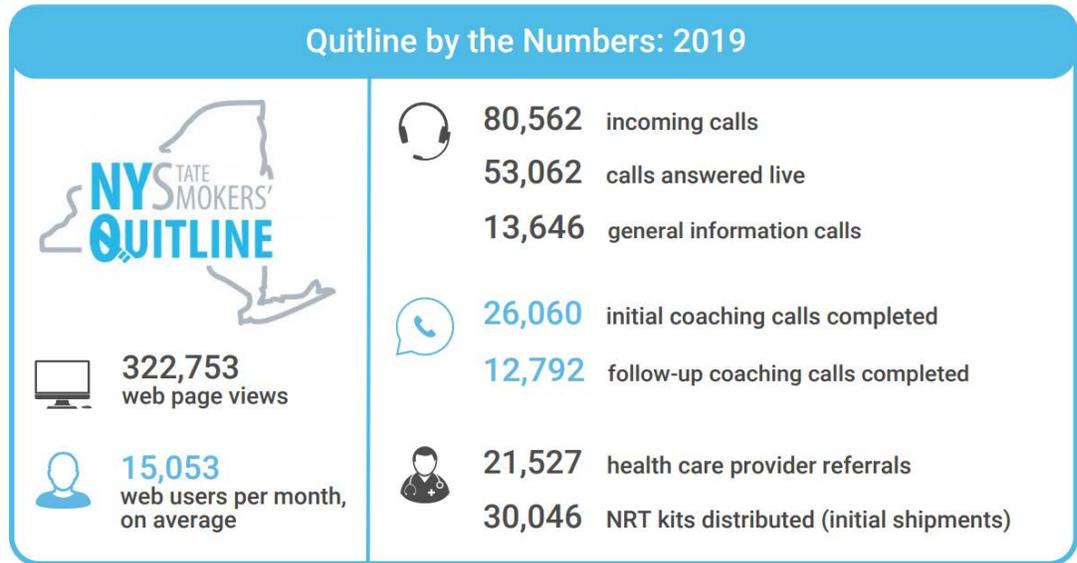
fee-for-service and Medicaid Managed Care (MMC) plans. Coverage includes combination NRT (e.g., long-acting patch and short-acting gum). In addition to medical health care provider counseling, New York Medicaid reimburses dentists and dental hygienists for smoking cessation counseling.

NY TCP and its grantees encourage health insurers to expand coverage and promote cessation services to their members. NY TCP and its health systems Center of Excellence grantee are supporting MMC plans and groups of providers in systems change efforts focused on increased utilization of tobacco dependence treatments, including use of the Medicaid benefits for cessation medication and counseling. Although New York provides broad coverage of tobacco dependence treatment for Medicaid enrollees, awareness of these benefits is fairly low. To increase awareness, NY TCP uses multiple approaches to educate Medicaid-enrolled smokers about the support available to them through health communications, systems changes to reinforce evidence-based treatment, and Quitline counseling communications.

### **New York State Smokers' Quitline**

**NY TCP funds the New York State Smokers' Quitline, which** has been in operation since 2000 and is managed by Roswell Park Comprehensive Cancer Center. The Quitline provides an effective, evidence-based service designed to help smokers quit smoking and serves as a clearinghouse of information on smoking cessation for smokers, health care providers, and the general public. In 2019, the Quitline received more than 80,000 calls (Exhibit 5). The Quitline also offers free NRT to eligible clients. Eligible Quitline clients receive an initial 2 weeks of NRT and can receive an additional 2 weeks of NRT shipped to them after completing a follow-up coaching call. The Quitline is expanding its counseling and NRT distribution services to help New Yorkers with quitting vaping as well. The Quitline also provides clients with an interactive Quitsite website that contains information and support about quitting.

**Exhibit 5. New York State Smokers' Quitline Statistics for 2019**



NY TCP is strategically working to integrate the state's Quitline into larger programmatic health systems efforts to promote cessation. This includes tasking the Quitline with recommending to Quitline callers that they talk with their health care providers to receive additional services as well as informing them about cessation-related benefits available through their insurance.

In early 2019, the Quitline added a text messaging program to encourage clients to talk with their doctor and access available cessation benefits through their health plans. From March 2019, when the text messaging program began, through December 2019, the Quitline sent out a total of 151,538 text messages to clients. On average, the Quitline sent an average of 15,000 text messages per month. The number of individuals enrolled in the text message program who received text messages averaged 4,000 individuals per month.

In 2019, the Quitline received 80,562 incoming calls, a decrease of 15% from 95,255 calls in 2018. New York smoker enrollment in Quitline web services also decreased from 2018 to 2019.

Exhibit 6. NY TCP Programmatic Highlight: Statewide and Community Interventions

Programmatic Approach Highlight:

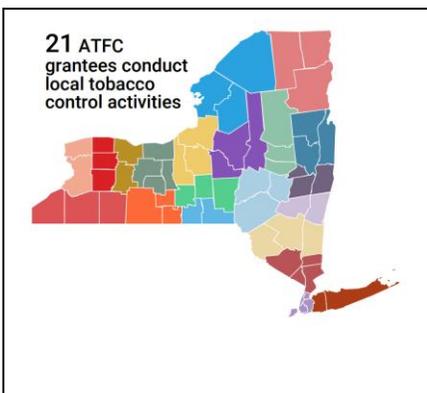
## Statewide and Community Interventions

” CDC recommends state and community interventions that support and implement “programs and policies to influence societal organizations, systems, and networks that encourage and support individuals to make behavior choices consistent with tobacco-free norms” (CDC, 2014).

**Advancing Tobacco-Free Communities (ATFC) grantees combine community partnership and youth engagement strategies to focus on core initiatives.**

- Retail environment policies**  
aim to reduce the impact of tobacco product marketing on youth
- Tobacco-free outdoors policies**  
reinforce tobacco-free norms
- Smoke-free multi-unit housing policies**  
reduce secondhand smoke exposure
- Smoke-free movies efforts**  
aim to change social norms

### *Statewide and Community Action*



NY TCP implements a coordinated community-based intervention strategy focused on local-level policies with the potential to prevent youth tobacco use initiation and promote cessation. NY TCP funds 21 Advancing Tobacco-Free Communities (ATFC) grantees to conduct local tobacco control activities. The Program directs the grantees to concentrate on specific evidence-based policy initiatives and strategies that are recommended by CDC (2014) and considered essential to continued declines in tobacco use (Institute of Medicine, 2007). The Program funds two full-time staff positions for each ATFC grantee, a Community Engagement Coordinator and a Reality Check Youth Action Coordinator. NY TCP contracts with a Tobacco Control Policy Center grantee to support key tobacco control policy initiatives.

With the goal of promoting a tobacco-free norm throughout the state, ATFC grantees focus their efforts on four initiatives: retail environment, tobacco-free outdoors, smoke-free multi-unit housing, and smoke-free media (Exhibit 6). Grantees promote these initiatives by building public, organizational, and political support through a coordinated set of strategies: community education, community mobilization, government policy maker education, and advocacy with organizational decision makers. Grantees apply a health equity lens to their work across these initiatives, including pursuing policy action to reduce the impact of tobacco marketing in lower-income and racial/ethnic minority communities, disadvantaged urban neighborhoods, and rural areas.

*Retail Environment Initiative:* The goal of the retail environment initiative is to reduce the impact of retail tobacco product marketing on youth. The retail environment initiative prioritizes education about policies that:

- restrict the density of tobacco retailers (by limiting the number of retailers that can sell tobacco products in a community, prohibiting the sale of tobacco products in pharmacies, and prohibiting the sale of tobacco products in stores near schools);
- keep the price of tobacco products high (such as prohibiting retailers from redeeming coupons or offering special promotions, including offers to buy one tobacco product and get one free); and
- prohibit the sale of flavored tobacco products.

ATFC grantees educated local policy makers about the retail environment initiative, including elected leaders of villages, townships, and New York City boroughs, as well as county officials, local boards of health, and state legislators.

The 2019-2024 NYSDOH Prevention Agenda has set an objective to increase the number of municipalities that adopt retail environment policies to 30 municipalities by the end of 2024. During 2019, grantees reported that 5 local communities adopted retail environment policies, bringing the total to 22 policies (Exhibit 7).

### Exhibit 7. ATFC Grantees' Retail Environment Policy Milestones



Several New York jurisdictions have taken steps towards policies that require local tobacco retailer licensing or registration and policies that prohibit tobacco sales near schools or in pharmacies. Examples of such retail environment policies adopted in New York during 2019 include the following:

- Suffolk County adopted a policy that prohibits the sale of tobacco products in pharmacies.
- The Village of Dolgeville (in Herkimer County) adopted a comprehensive policy that requires a license for the sale of any tobacco product, prohibits the sale of tobacco products by outlets within 1,000 feet of any youth-centered area, caps the number of tobacco outlets at three and does not accept additional applications after initial licenses are issued, and restricts tobacco price discounting.
- The Saint Regis Mohawk Tribal Council prohibited the retail sale of flavored vaping products.

However, grantees' work to restrict flavored tobacco products has encountered challenges:

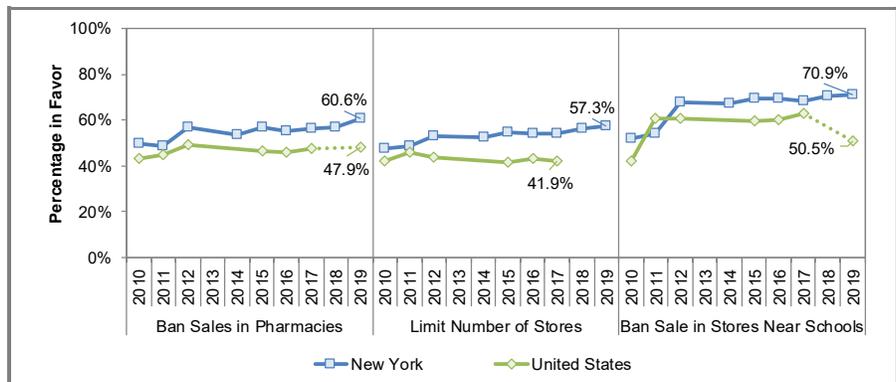
- The Albany County Legislature was only two votes short in November 2019 of passing a sales restriction on all flavored tobacco products including menthol.

- Although the Town of Manheim (in Herkimer County) passed a policy that addressed a range of issues, the town rescinded the policy due to the threat of legal challenges. The policy had included capping the number of tobacco retailers, prohibiting sales near youth-centered buildings, prohibiting discounts and coupons, and prohibiting the sale of all flavored tobacco products.
- The City of Yonkers (in Westchester County) successfully passed a sales restriction on all e-liquid flavors for vaping products, including mint and menthol, although litigation halted policy implementation and enforcement.

Grantees worked to gain media coverage of the retail environment issue and reported 467 instances of earned media coverage during 2019. This earned media promotes continued awareness, prioritization, and discussion of tobacco issues, and grantees reported contributing to newspaper stories, TV stories, newsletters, radio interviews, letters to the editor, and editorials.

New York adults’ support for prohibiting pharmacy sales of tobacco, limiting the number of stores that can sell tobacco, and prohibiting tobacco sales in stores near schools all increased between 2010 and 2019 (Figure 3).

**Figure 3. Support among Adults for Point of Sale Tobacco Control Policies, New York Adult Tobacco Survey 2010–2019 and National Adult Tobacco Survey 2010–2019**



Note: There is a statistically significant upward trend in support for point of sale policies among adults in New York State. There is a statistically significant upward trend in support for prohibiting sales of tobacco products in pharmacies and in stores near schools among adults in the United States. There is a statistically significant difference between adults in New York and the United States in support for prohibiting sales of tobacco products in pharmacies and in stores near schools in 2019. Support for limiting the number of stores selling tobacco was not measured for adults in the United States in 2019. The dotted line between 2017 and 2019 NATS estimates represents methodological changes in data collection and recruitment.

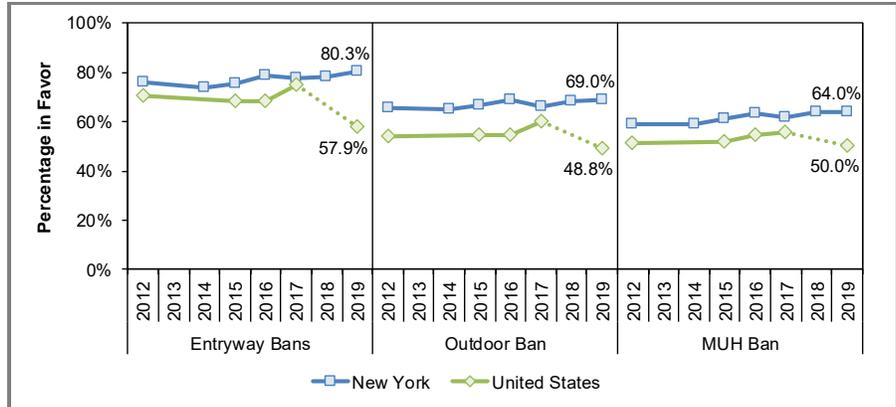
ATFC grantee efforts helped build momentum toward state-level retail environment policies adopted in late 2019 and early 2020. These policies include a tobacco-free pharmacy policy, a prohibition on sales of flavored vaping products, and coupon restrictions for all of New York.

*Tobacco-Free Outdoors Initiative:* The goal of the tobacco-free outdoors initiative is to reduce the social acceptability of tobacco use by decreasing the number of public places where it is allowed. Policies within this initiative include restrictions on tobacco use in outdoor public places such as beaches, parks, and playgrounds, and policies prohibiting tobacco use on grounds or near entrances of community colleges, museums, and other businesses. ATFC grantees reported 278 instances of educating policy makers about the issue and its policy solutions during 2019. These policy makers included elected representatives of villages, towns, cities, and counties. Grantees also reported 405 instances of advocating with organizational decision makers about the need for organizational policies addressing settings such as colleges/universities, businesses, religious organizations, health care provider offices, and libraries.

Grantees reported that new tobacco-free outdoors policies were adopted during 2019 by 45 municipalities and 195 organizations including colleges/universities, recreational facilities, businesses, religious organizations, health care provider offices, libraries, and service organizations. In some cases, policies that previously addressed only combustible products were updated to include vaping products. Grantees relied on tobacco-free signage and media coverage to make community members aware of the tobacco-free outdoors policies, and they reported 195 instances of earned media coverage regarding tobacco-free outdoors.

New York adults expressed support for policies to reduce secondhand smoke exposure, including prohibiting smoking in building entryways, in outdoor areas like parks and playgrounds, and in multi-unit housing (Figure 4).

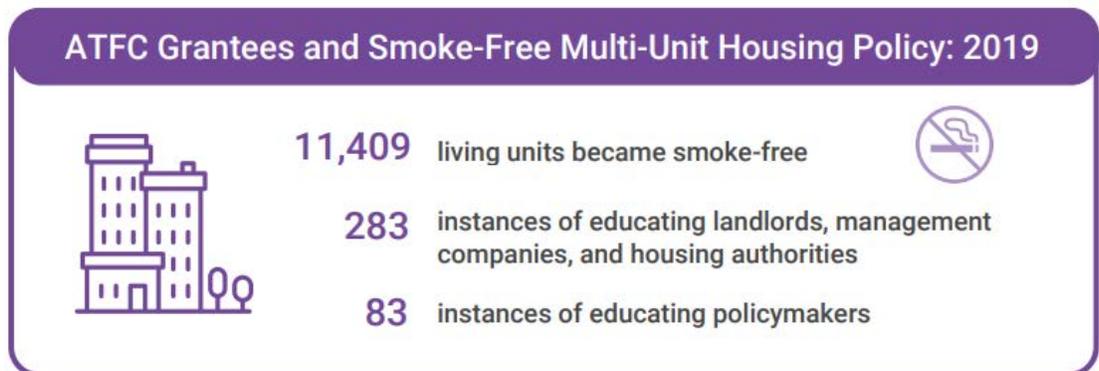
**Figure 4. Support among Adults for Policies to Reduce Secondhand Smoke Exposure, New York Adult Tobacco Survey 2012–2019 and National Adult Tobacco Survey 2012–2019**



Note: There are statistically significant upward trends in support for entryway, outdoor, and MUH bans among adults in New York State. There is a statistically significant downward trend in support of entryway bans in the United States. There are statistically significant differences between adults in New York and United States in support for entryway, outdoor, and MUH bans in 2019. MUH = Multi-unit housing. The dotted line between 2017 and 2019 NATS estimates represents methodological changes in data collection and recruitment.

*Smoke-Free Multi-Unit Housing Initiative:* The goal of the smoke-free multi-unit housing initiative is to eliminate exposure to secondhand smoke by increasing the number of housing units where smoking is prohibited. Grantees advocate with building owners and managers for smoke-free policies in large housing complexes with an emphasis on policies that protect the health of New York residents with low income. ATFC grantees reported that more than 11,000 living units became smoke-free during 2019 (Exhibit 8). Smoke-free homes not only protect nonsmokers and children from secondhand smoke, they also have the potential to increase quit attempts among smokers (USDHHS, 2006).

**Exhibit 8. ATFC Grantees’ Smoke-Free Multi-Unit Housing Policy Milestones**



Smoke-free multi-unit housing efforts gained additional momentum in recent years due to the U.S. Department of Housing and Urban Development's (HUD's) smoke-free rule for federal public housing. This rule required that public housing apartment buildings (including individual units) and offices be entirely smoke-free by July 31, 2018, including a minimum outdoor 25-foot buffer zone. RTI assessed policy-related beliefs and attitudes of public housing residents and administrators before and after the HUD smoke-free housing rule. This study involved surveys of five New York State federally-funded public housing authorities that were not smoke-free as of May 2017, with data collected in 2017 (pre-policy) and 2019 (approximately ten months after the policy was required to be implemented).

There were several meaningful changes in exposure and health behaviors from baseline to follow-up. At follow-up, significantly more residents reported that they never allow smoking in their units. Fewer residents reported being exposed to smoke in their units or common areas. Some residents reported quitting or cutting down on smoking; at follow-up, 29.7% of ever-smokers reported quitting smoking due to the policy change. However, one-third of residents still reported smoke entering their unit every day or a few times a week, which suggests that additional enforcement efforts may be warranted.

*Smoke-Free Movies Initiative.* The goal of the smoke-free movies initiative is to reduce youth exposure to tobacco use **imagery in movies. New York youth involved in ATFC's** Reality Check youth initiative engage the support of influential community members, including media stakeholders, to advocate with the Motion Picture Association of America and Internet companies (e.g., YouTube) to remove tobacco imagery from media targeted at youth. Youth also reach out to individual media outlets (e.g., radio stations), movie theaters, and regional and national media providers (e.g., Comcast, Viacom, Disney Sony). Grantees reported 76 instances of educating policy makers and 122 instances of advocating with organizational decision makers about the smoke-free movies initiative during 2019.

*Infrastructure Development and Sustainability.* In addition to their policy-focused activities, ATFC grantees engage in continuous education and networking activities to maximize the effectiveness of their policy work. In 2019, grantees participated in professional development including training on integrating a health equity approach in their work. They also conducted sustainability efforts to raise awareness of the Program among key stakeholders at the state and local levels to ensure that legislators understand the need for continued progress in tobacco control in New York.

## Key Evaluation Questions

This section addresses NY TCP progress for key outcome indicators for New York State and the United States over time. In addition, we document progress toward 2019-2024 NYSDOH Prevention Agenda objectives. Where possible, we examine trends from 2009 to 2019 for the following indicators:

- Prevalence of adults in New York and the United States who currently
    - smoke cigarettes,
    - smoke cigars,
    - use vaping products, and
    - use smokeless tobacco
  - Prevalence of smoking among New York adults who report annual income less than \$25,000 or frequent mental distress
  - Average daily cigarette consumption among current adult smokers in New York and the United States
  - Prevalence of adult smokers who made a quit attempt in the past 12 months in New York and the United States
  - Prevalence of youth in New York and nationally who currently use tobacco
  - Prevalence of New York adult smokers who report provider cessation interventions
- We also summarize special studies that address questions related to youth vaping and adult cigar use:

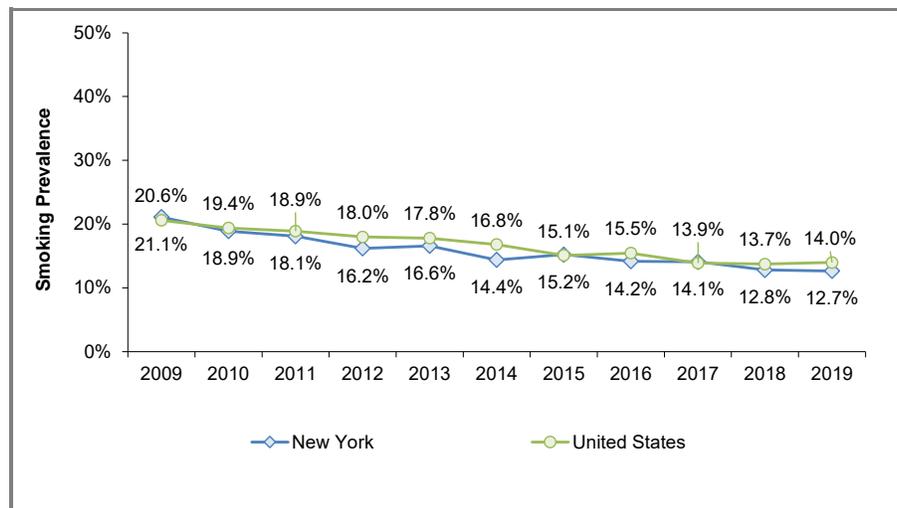
- How have youth vaping product **users’ flavor** preferences, harm perceptions, and use of high-nicotine products changed in recent years?
- How do youth and young adults in New York perceive vaping products and norms around their use?
- How does cigar use among New York adults vary by demographic characteristics?

### Adult Tobacco Use Measures

We present trends in New York adult smoking prevalence over the past 10 years, from 2009 to 2019, using the Behavioral Risk Factor Surveillance System (BRFSS). We report national smoking prevalence estimates for comparison from the National Health Interview Survey for the same years. For other tobacco control measures, we use the New York Adult Tobacco Survey and New York’s National Adult Tobacco Survey.

From 2009 to 2019, adult smoking prevalence declined by 40% in New York. Over the same period, adult smoking prevalence declined by 30% nationally (Figure 5). As adult smoking prevalence has continued to decrease, NY TCP has continued to set new, lower targets. **NY TCP’s new** objective is to attain an 11.0% adult smoking prevalence rate by the year 2024.

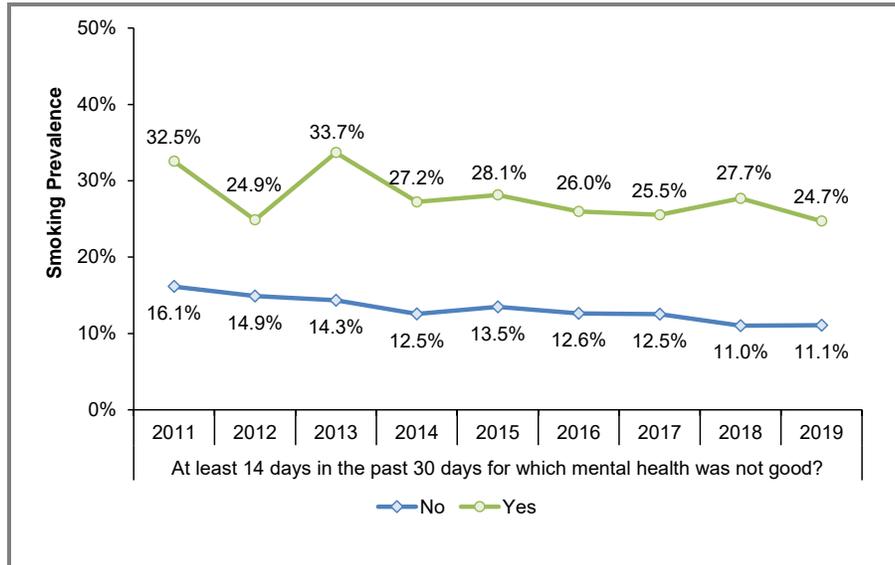
**Figure 5. Percentage of Adults Who Currently Smoke in New York (Behavioral Risk Factor Surveillance System) and Nationally (National Health Interview Survey) 2009–2019**



Note: There is a statistically significant downward trend in smoking prevalence from 2009 to 2019 among adults in New York State and in the United States.

Smoking prevalence among New York adults who report frequent mental distress is 24.7%, more than twice the rate of those without mental distress (11.1%) (Figure 6). The 2019-2024 NYSDOH Prevention Agenda sets an ambitious target of decreasing smoking among New York adults reporting frequent mental distress to 20.1% by the end of 2024.

**Figure 6. Percentage of New York Adults Who Currently Smoke, by Frequent Mental Distress, New York Behavioral Risk Factor Surveillance System, 2011–2019**

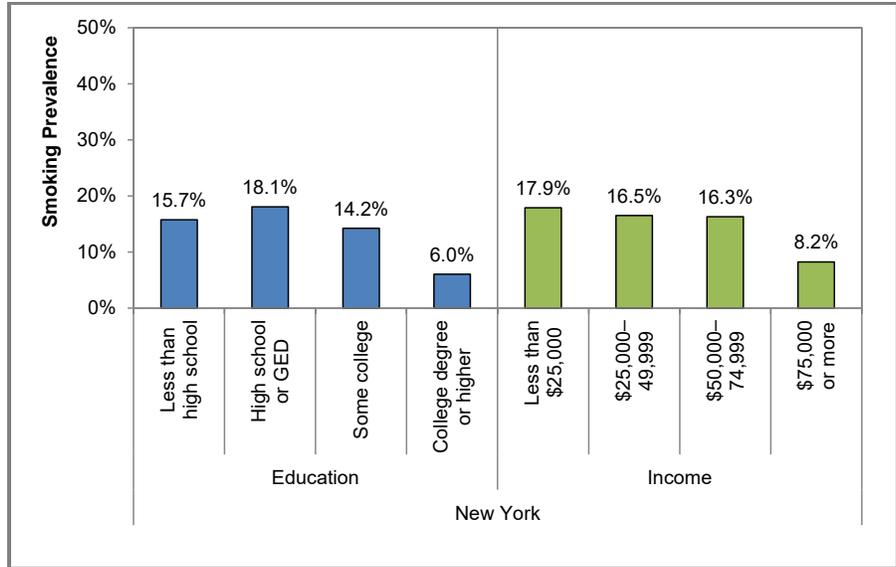


Note: There is a statistically significant downward trend in smoking prevalence among New York adults indicating that their mental health (including stress, depression, and problems with emotions) was not good during at least 14 of the past 30 days, as well as those who indicated that their mental health was not good during less than 14 of the past 30 days from 2011 to 2019.

Educational attainment is associated with smoking prevalence in New York. Those with a college degree or higher have a lower smoking prevalence (6.0%) than those with less than a high school degree (15.7%), a high school degree or equivalent (18.1%), or some college (14.2%) (Figure 7).

Smoking prevalence also varies by income level, and the 2019-2024 NYSDOH Prevention Agenda includes an objective of decreasing smoking prevalence among adults with household income of less than \$25,000 to 15.3% by the end of 2024. In 2019, 17.9% of New York adults with a household income of less than \$25,000 reported current smoking (see Figure 7).

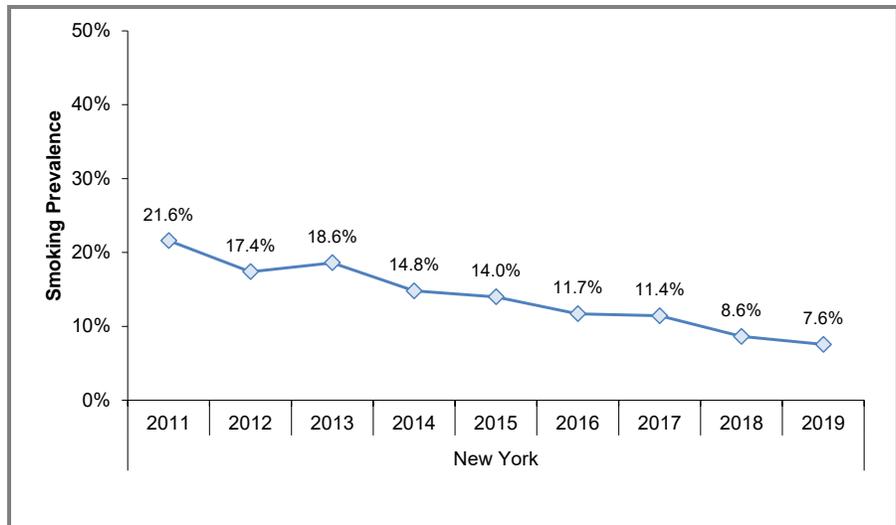
**Figure 7. Percentage of New York Adults Who Currently Smoke, by Education and Income, Behavioral Risk Factor Surveillance System 2019**



Note: Prevalence of smoking differs significantly by education and income. Those with a college degree or higher have lower smoking prevalence than those with less than a high school education, those with a high school diploma or GED, and those with some college experience. Those with some college experience also have a lower smoking prevalence than those with a high school diploma or GED. Those earning less than \$75,000 have higher smoking prevalence than those earning \$75,000 or more.

The 2019-2024 NYSDOH Prevention Agenda targets a cigarette smoking prevalence rate of 7.0% among young adults by the end of 2024. In 2019, 7.6% of New York young adults ages 18 to 24 reported smoking cigarettes (Figure 8). Young adult cigarette smoking has decreased 65.0% since 2011.

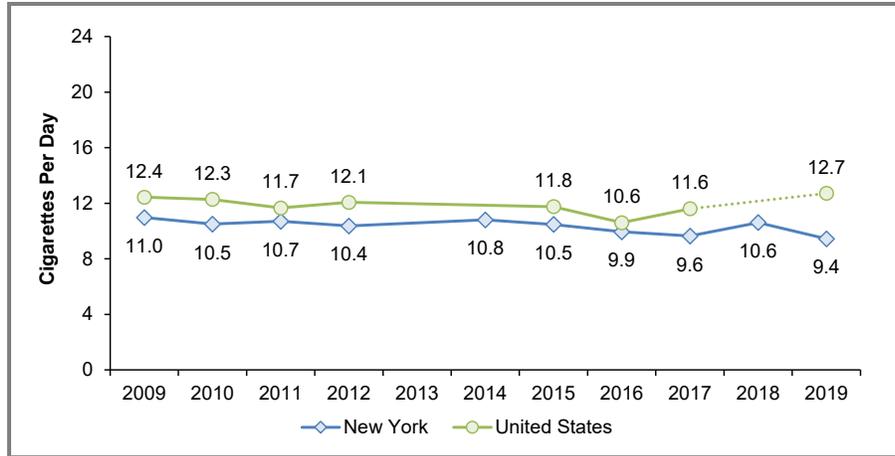
**Figure 8. Percentage of New York Young Adults Aged 18 to 24 Who Currently Smoke, Behavioral Risk Factor Surveillance System 2011-2019**



Note: There is a statistically significant downward trend in smoking prevalence among young adults in New York State from 2011 to 2019.

Among all New York adult smokers, daily cigarette consumption was 9.4 cigarettes per day in 2019, or just less than half a pack a day (Figure 9). Daily cigarette consumption among adults in the United States was 12.7 in 2019.

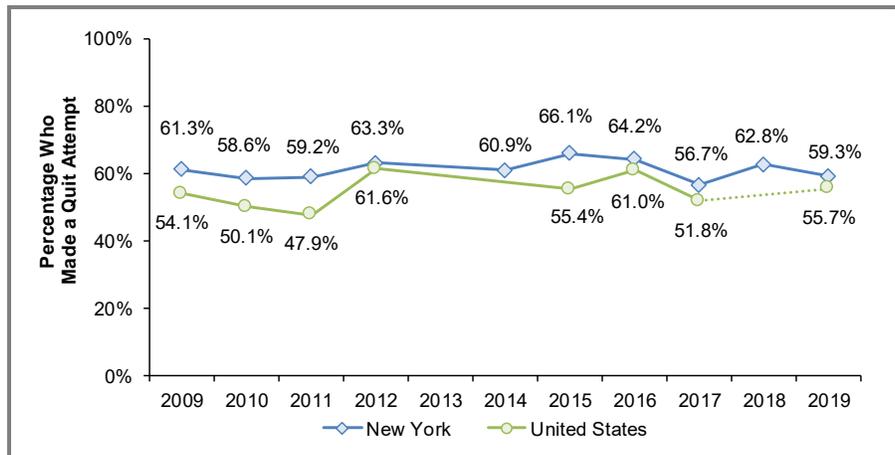
**Figure 9. Average Daily Cigarette Consumption by Current Smokers, New York Adult Tobacco Survey 2009–2019 and National Adult Tobacco Survey 2009–2019**



Note: There is a statistically significant downward trend in average cigarettes smoked per day among use among adult smokers in New York. The dotted line between 2017 and 2019 NATS estimates represents methodological changes in data collection and recruitment.

In New York, 59.3% of adult smokers reported having made a past-year quit attempt in 2019, compared with 61.3% in 2009 (Figure 10). The prevalence of past-year quit attempts in the United States was 55.7% in 2019.

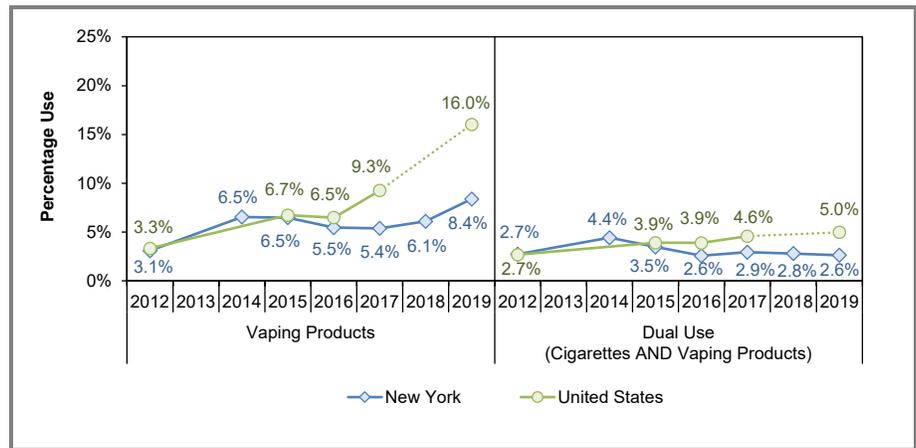
**Figure 10. Percentage of Adult Smokers Who Made a Quit Attempt in the Past 12 Months, New York Adult Tobacco Survey 2009–2019 and National Adult Tobacco Survey 2009–2019**



Note: There is a statistically significant upward trend among smokers in the United States. The dotted line between 2017 and 2019 NATS estimates represents methodological changes in data collection and recruitment.

NY TCP began tracking use of vaping products via the New York Adult Tobacco Survey in 2012. Vaping product use among adults increased in New York between 2012 and 2019 from 3.1% to 8.4%; this includes adults who vape every day, some days, or rarely (Figure 11)<sup>1</sup>. Adult use of vaping products in the United States increased from 3.3% in 2012 to 16.0% in 2019. Dual use of cigarettes and vaping products (including those who vape every day, some days, or rarely) was 2.6% in New York and 5.0% in United States in 2019 (see Figure 11), indicating that less than half of adult vaping product users in New York and the United States also used cigarettes.

**Figure 11. Percentage of Adults Who Currently Use Vaping Products and Percentage of Adults Who Report Both Cigarette and Vaping Product Use, New York Adult Tobacco Survey 2012–2019 and National Adult Tobacco Survey 2012–2019**

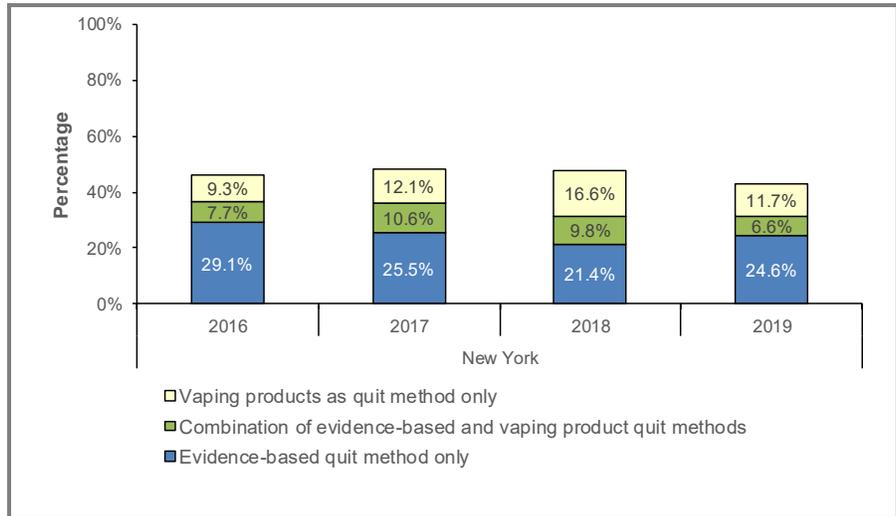


Note: There is a statistically significant upward trend in current vaping product use among adults in New York State and the United States. There is a statistically significant upward trend in current dual use (cigarette and vaping product use) among adults in the United States. Current vaping product use includes reports of use every day, some days, and rarely. The dotted line between 2017 and 2019 NATS estimates represents methodological changes in data collection and recruitment.

<sup>1</sup> It is worth noting that the estimate for New York adults currently vaping every day or some days from the New York Adult Tobacco Survey is quite similar to the BRFSS estimate for New York adult vaping prevalence, which only includes those who report vaping some days or every day (5.1% according to the New York Adult Tobacco Survey and 5.2% per BRFSS). Although the difference between New York and national vaping estimates identified using these surveys is not confirmed in other surveys, the prevalence is lower when considering only those adults who vape every day or some days; our National Adult Tobacco Survey finds that 8.0% of U.S. adults vape some days or every day compared with the National Health Interview Survey’s estimate of 4.5%.

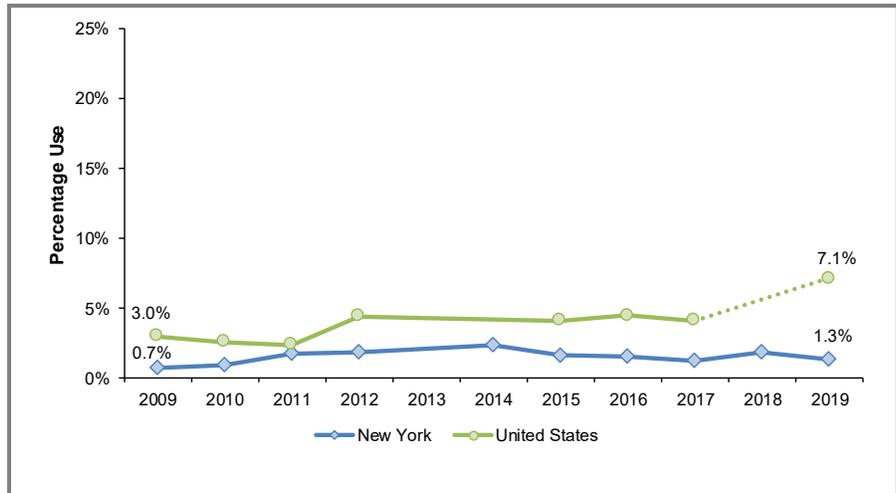
Some vaping product manufacturers and advocates suggest that smokers use vaping products to quit smoking cigarettes. In 2019, 24.6% of New York smokers reported using evidence-based quit methods only, 11.7% reported using vaping products as their only quit method, and 6.6% used a combination of evidence-based quit methods and vaping products (Figure 12).

**Figure 12. Percentage of Adult Smokers or Recent Quitters Who Made a Quit Attempt in the Past Year Who Used Evidence-based Quit Methods, Vaping Products as Quit Method, or Both, New York Adult Tobacco Survey 2016–2019.**



Although current smokeless tobacco use prevalence among New York adults is very low, it increased slightly from 2009 to 2019 (Figure 13). New York adult smokeless tobacco use prevalence in 2019 was 1.3% lower than the national estimate of 7.1%.

**Figure 13. Percentage of Adults Who Currently Use Smokeless Tobacco, New York Adult Tobacco Survey 2009–2019 and National Adult Tobacco Survey 2009–2019**

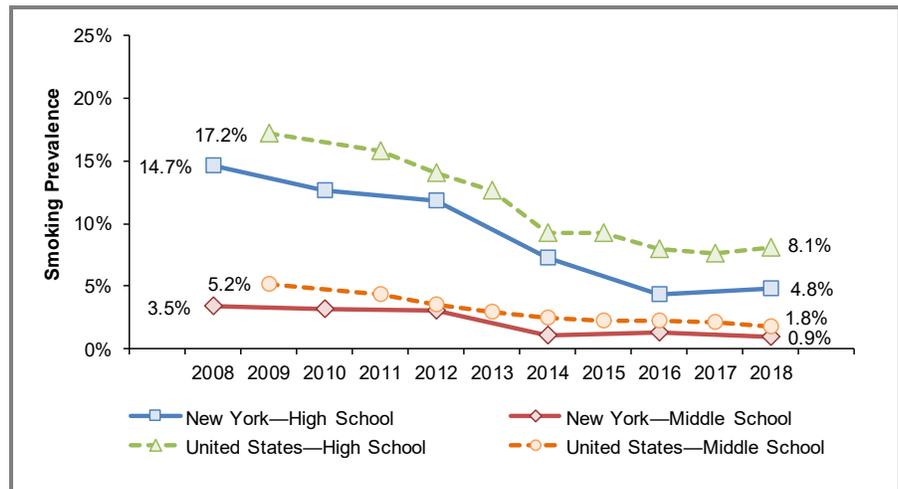


Note: There is a statistically significant upward trend in current smokeless use among adults in the United States. From 2009 to Quarter 2, 2010, smokeless tobacco included chewing tobacco, snuff, and dip. Since Quarter 3, 2010, smokeless tobacco includes chewing tobacco, snuff, dip, and snus. Since Quarter 4, 2011, data include "rarely" as an additional response option for current smokeless tobacco use in addition to "Every day," "Some days," and "Not at all." The dotted line between 2017 and 2019 NATS estimates represents methodological changes in data collection and recruitment.

## Youth Tobacco Use Measures

In this section, we present trends in tobacco product use among middle and high school students in New York and nationally. Cigarette smoking rates among middle and high school students have declined since 2008, leading to historically low rates of smoking in 2018 (the most recent year for which data are available). Specifically, the prevalence of current smoking in New York declined by 67% among high school students over the past 10 years and by 74% among middle school students (Figure 14). High school student smoking prevalence in 2018 was 4.8% in New York, compared with 8.1% in the rest of the United States. In 2018, 0.9% middle school students in New York and 1.8% of middle school students nationally reported current cigarette smoking.

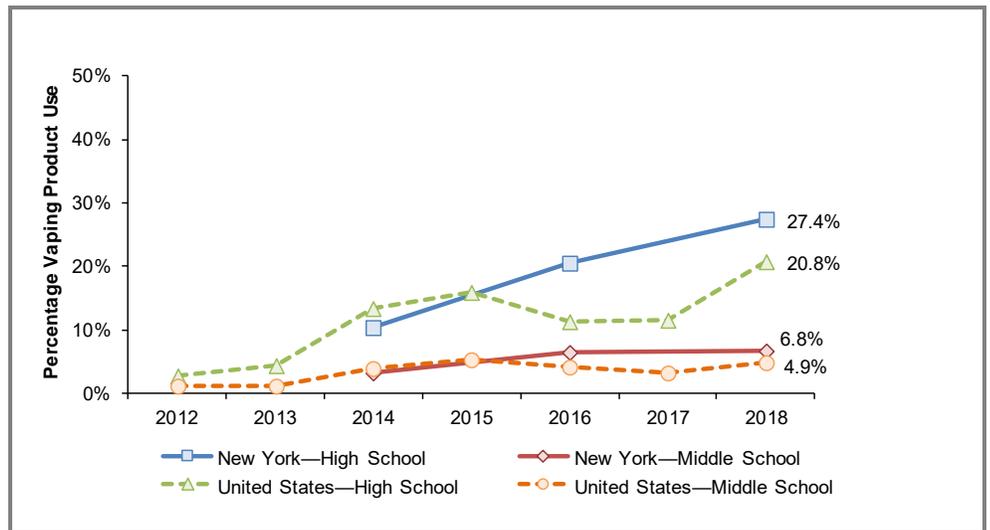
**Figure 14. Percentage of Middle and High School Students Who Currently Smoke Cigarettes in New York and Nationally, New York Youth Tobacco Survey 2008–2018 and National Youth Tobacco Survey 2009–2018**



Note: There is a statistically significant downward trend among middle and high school students in New York and in the United States.

Youth use of vaping products has increased substantially. Among New York high school students, use of vaping products increased from 10.5% in 2014 to 27.4% in 2018 (Figure 15). Current use is defined as youth reports of vaping within the past 30 days, which includes youth who vape regularly and youth who vaped recently, which puts them at risk of regular use. Reports of current vaping among New York middle school students among New York middle school students increased from 3.2% in 2014 to 6.8% in 2018. Nationally, youth use of vaping products has increased as well, with high school student use at 20.8% in 2018.

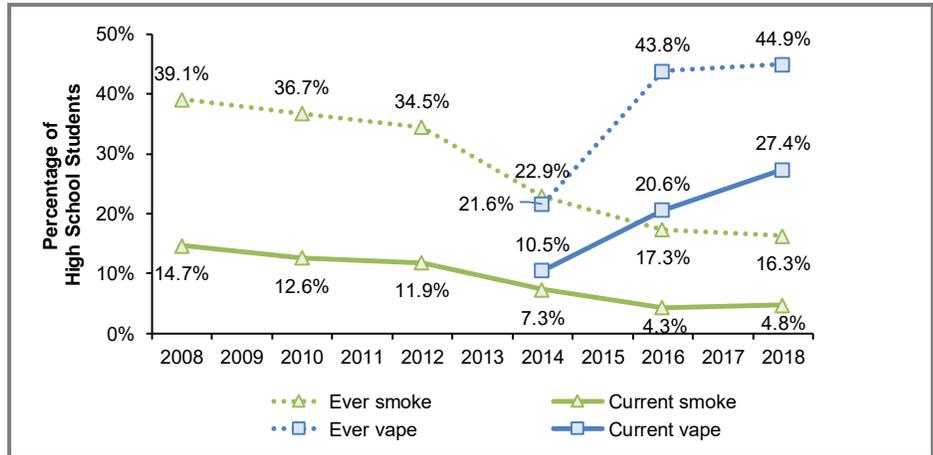
**Figure 15. Percentage of Middle Students and High School Students Who Currently Vape in New York and Nationally, New York Youth Tobacco Survey 2014–2018 and National Youth Tobacco Survey 2012–2018**



Note: There is a statistically significant upward trend among middle and high school students in New York and in the United States.

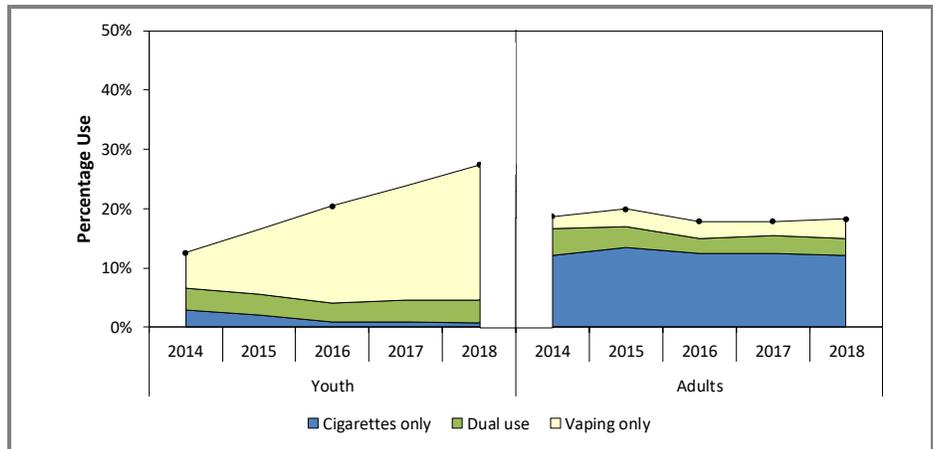
Ever use of cigarettes among New York high school students has declined over the past 10 years, with the greatest drop occurring around the time that vaping products were gaining in popularity (Figure 16). In 2018, 44.9% of New York high school students reported ever trying vaping products, while only 16.3% had ever tried smoking cigarettes. More than half of those who reported trying vaping reported current use; a smaller proportion of those who tried smoking reported current smoking.

**Figure 16. Prevalence of Cigarette and Vaping Product Ever Use and Current Use Among High School Students, New York Youth Tobacco Survey, 2008–2018**



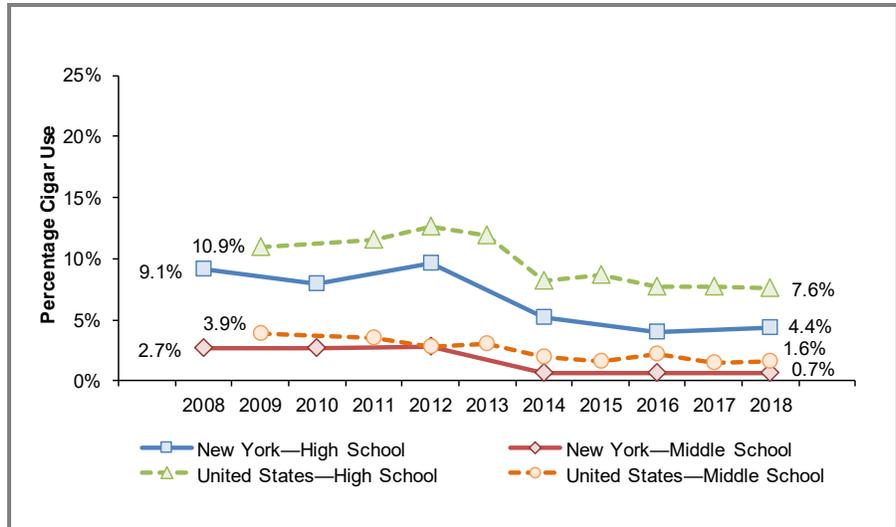
Vaping is dramatically more prevalent than cigarette smoking or dual use of cigarettes and vaping products among high school students, in contrast to patterns of adult use of cigarettes and vaping products (Figure 17).

**Figure 17. Prevalence of Cigarette, Vaping Product, and Dual Use Among High School Students and Adults, New York Youth Tobacco Survey and New York Adult Tobacco Survey, 2014–2018**



The prevalence of cigar use among middle and high school students has declined in recent years in New York and nationally. Fewer than 1% of middle school students in New York reported current cigar use, a 74% decrease since 2008. In 2018, 4.4% of New York high school students reported current cigar use, a 52% decrease since 2008 (Figure 18). National trends in youth cigar use have also decreased over time, although 7.6% of high school students nationally smoke cigars.

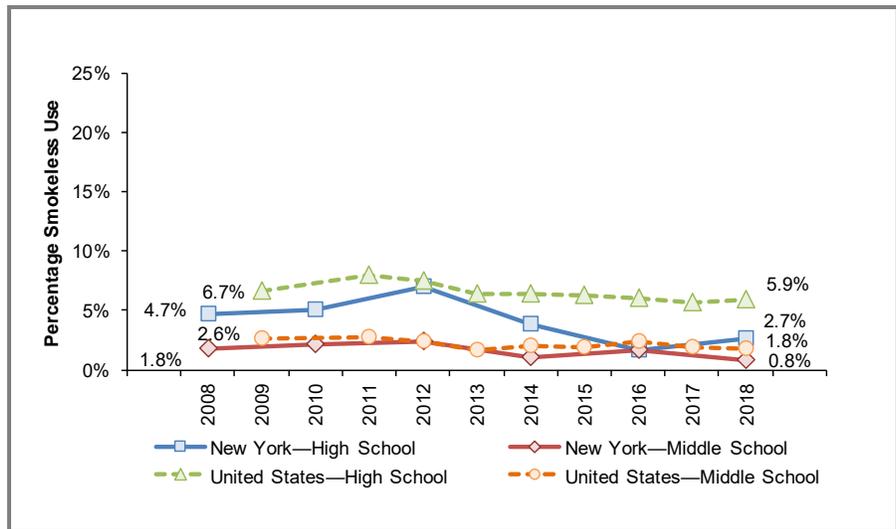
**Figure 18. Percentage of Middle and High School Students Who Currently Smoke Cigars in New York and Nationally, New York Youth Tobacco Survey 2008–2018 and National Youth Tobacco Survey 2009–2018**



Note: There is a statistically significant downward trend among middle and high school students in New York and in the United States. Starting in 2014 for New York and 2011 for the United States, questions about other tobacco product use were combined into one current use question with separate response options for each product type.

Youth use of smokeless tobacco is low, both in New York and in the United States. In 2018, 2.7% of New York high school students reported current use of smokeless tobacco, compared with 5.9% of high school students nationally (Figure 19). New York middle school student smokeless tobacco use prevalence was 0.8% in 2018, while the national middle school student rate was 1.8%.

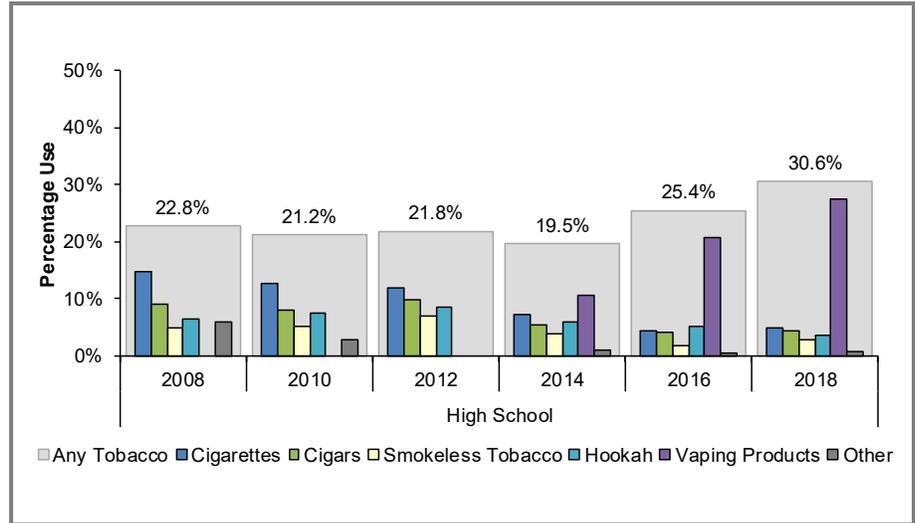
**Figure 19. Percentage of Middle and High School Students Who Currently Use Smokeless Tobacco in New York and Nationally, New York Youth Tobacco Survey 2008–2018 and National Youth Tobacco Survey 2009–2018**



Note: There is a statistically significant downward trend among middle school and high school students in New York. Starting in 2014 for New York and 2011 for the United States, questions about other tobacco product use were combined into one current use question with separate response options for each product type. Smokeless tobacco includes chew, snuff, dip, snus, or dissolvable. Survey questions regarding snus use were first available for New York in 2012 and for the United States in 2011. Survey questions regarding dissolvable use were first available for New York in 2014 and for the United States in 2011.

The 2019-2024 NYSDOH Prevention Agenda set an objective of decreasing high school student prevalence of any tobacco product use to 19.7% by the end of 2024. Youth use of tobacco products in 2018 was 30.6%, with use of vaping products overwhelmingly more common than other types of tobacco products (Figure 20).

**Figure 20. Percentage of New York High School Students Reporting Current Use of Any Tobacco Product, New York Youth Tobacco Survey 2008–2018**



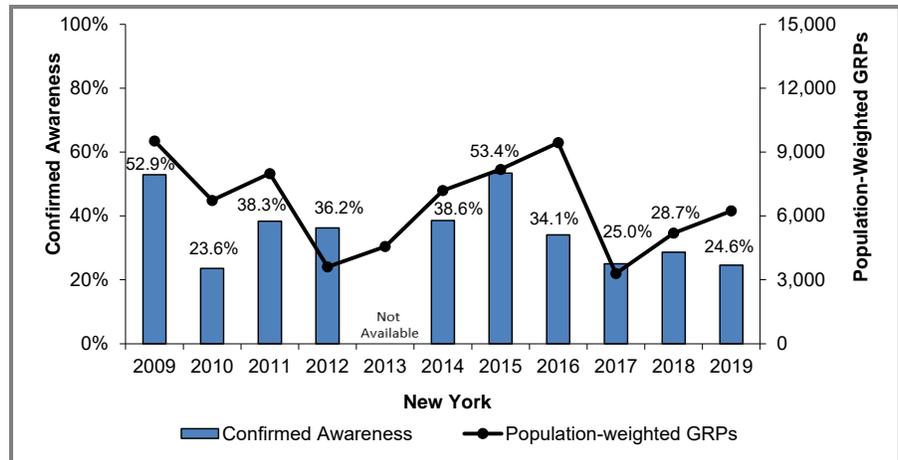
Note: There is a statistically significant upward trend in current use of any tobacco product among New York high school students. Current tobacco use is defined by indicating use of cigarettes, cigars (large cigars, cigarillos, or little cigars), smokeless tobacco (chew, snuff, dip, snus, or dissolvable), hookah (or waterpipe), vaping products, or other tobacco products (pipe, bidi, or kretek) on 1 or more days in the past 30 days. Survey questions addressing various tobacco products have varied over time; specifically, data regarding vaping product use were first available in 2014, hookah use data were first available in 2008, bidi and kretek use data were available from 2000 to 2010, pipe use data were available for all years except 2010 and 2012, snus use data were available in 2012, and dissolvable use data were first available in 2014.

### *Trends in Other Key Outcome Indicators*

This section describes other key tobacco control outcomes including awareness of antitobacco advertising, awareness and use of the Quitline, reports of provider cessation interventions, and exposure to secondhand smoke. We present data related to 2019-2024 NYSDOH Prevention Agenda objectives and other relevant measures.

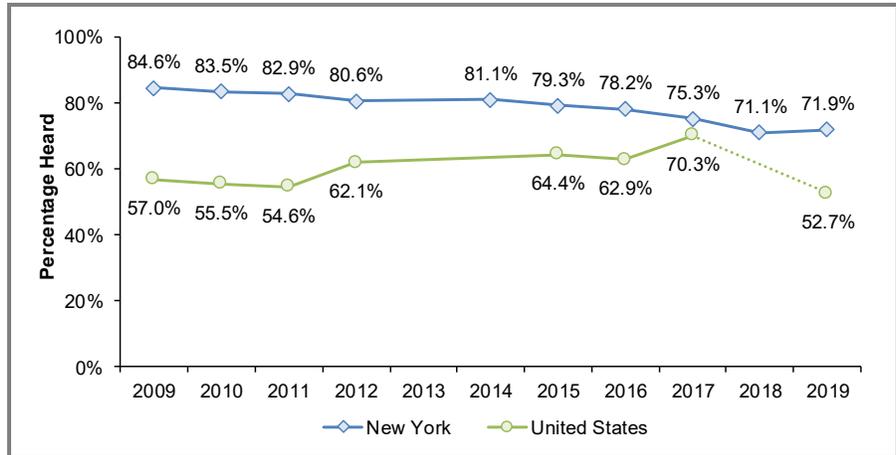
In 2019, 24.6% of New York adult smokers recalled seeing at least one NY TCP-sponsored television advertisement (Figure 21). Awareness of advertisements generally corresponds with the level of gross ratings points or GRPs (a measure of potential ad exposure). Recent decreases in media funding and discrepancies in the timing of campaign delivery relative to NY ATS data collection resulted in lower awareness of advertisements among smokers.

**Figure 21. Confirmed Awareness of Paid Advertisements among Smokers and Population-Weighted Statewide Average Gross Rating Points (GRPs) 2009–2019, New York Adult Tobacco Survey 2009-2019**



Awareness of the New York State Smokers' Quitline among New York smokers was 71.9% in 2019 (Figure 22). Awareness of **New York's Quitline has decreased** approximately 10 percentage points in the past 5 years, likely as a result of reduced media funding and a shift to promote conversations with health care providers more prominently than Quitline counseling. Quitline awareness among adult smokers in the United States shows an overall increase, although it was lower than New York smokers' Quitline awareness in 2019.

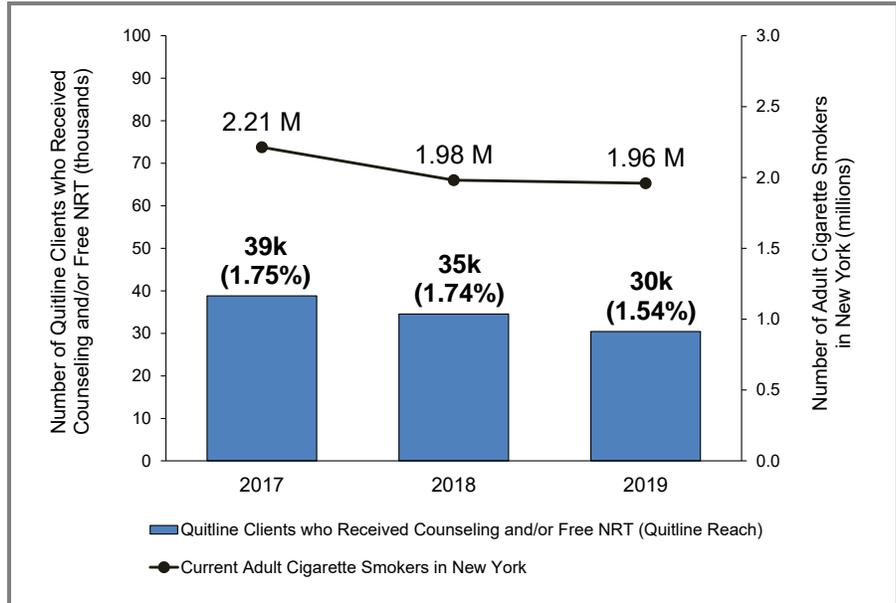
**Figure 22. Percentage of Adult Smokers Who Have Heard of Quitline, New York Adult Tobacco Survey 2009-2019 and National Adult Tobacco Survey 2009-2019**



Note: There is a statistically significant downward trend among smokers in New York. There is a statistically significant upward trend among smokers in the United States. There is a statistically significant difference between smokers in New York and smokers in the United States in 2019. New York smokers were asked **if they had heard of the New York State Smokers' Quitline**. Smokers in the total United States were asked if they had heard of any telephone quitlines, such as 1-800-QUIT-NOW. The dotted line between 2017 and 2019 NATS estimates represents methodological changes in data collection and recruitment.

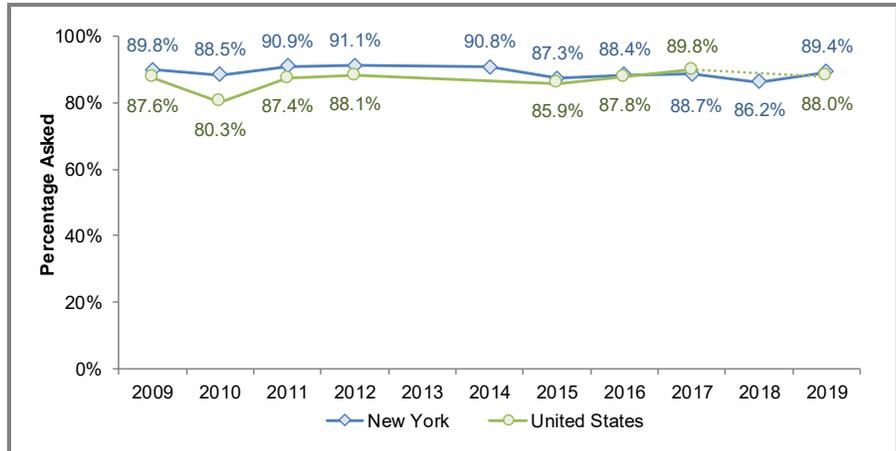
The proportion of adult smokers in New York who received an evidence-based service from the quitline each year, known as quitline reach, is higher than the most recently-available estimates of national quitline reach (Mann, et al., 2018). New York’s quitline reach was 1.54% in 2019, compared with 1.74% in 2018 (Figure 23).

**Figure 23. Number of Individuals Served by and Reach of NYSSQL, 2017-2019**



Health care provider interventions with patients who use tobacco are associated with increased patient quit success. Health systems interventions in New York facilitate organizational changes that make the delivery of cessation interventions a routine part of care for each patient who uses tobacco. In 2019, 89.4% of smokers in New York who visited a health care provider in the past 12 months reported that they were asked about their smoking status, similar to the 88.0% of smokers who were asked nationally in 2019 (Figure 24).

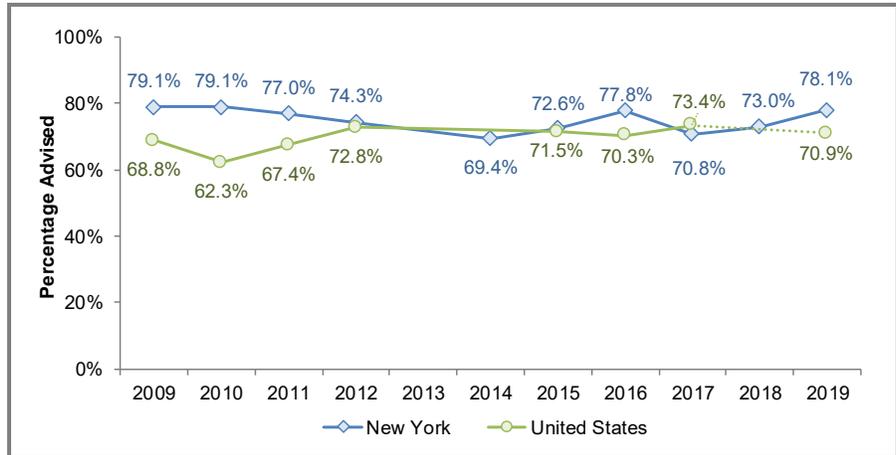
**Figure 24. Percentage of Adult Smokers Who Were Asked About Their Tobacco Use by Their Health Care Provider in the Past 12 Months, New York Adult Tobacco Survey 2009-2019 and National Adult Tobacco Survey 2009-2019**



Note: The dotted line between 2017 and 2019 NATS estimates represents methodological changes in data collection and recruitment.

Once patients are identified as tobacco users, clinical guidelines recommend that providers advise the patient to quit and provide assistance with a quit attempt. In 2019, 78.1% of New York smokers who saw a health care provider in the past year reported that their provider gave them brief advice to quit (Figure 25). Among smokers in the United States, 70.9% reported brief provider advice to quit in 2019. Rates of provider advice to quit have not changed significantly over the past 10 years in New York or the United States.

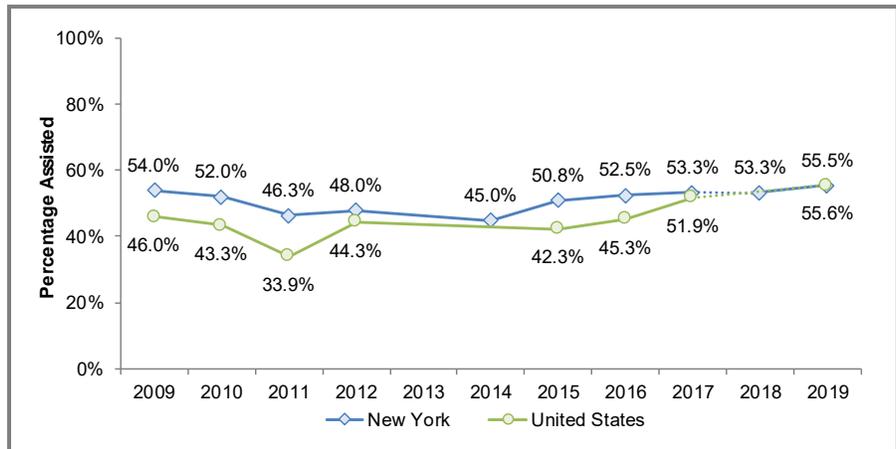
**Figure 25. Percentage of Adult Smokers Who Were Advised by Their Health Care Provider to Quit Smoking in the Past 12 Months, New York Adult Tobacco Survey 2009-2019 and National Adult Tobacco Survey 2009-2019**



Note: The dotted line between 2017 and 2019 NATS estimates represents methodological changes in data collection and recruitment.

Rates of provider assistance with quitting are generally lower than provider advice to quit. Provider assistance is measured by smoker reports of provider suggestions of setting a quit date; provision of quit-smoking materials; and/or discussion of cessation medications, quitlines, or cessation classes. The 2019-2024 NYSDOH Prevention Agenda set an objective of increasing provider assistance with quitting from 53.3% in 2017 to 60.1% by the end of 2024. Assistance with a quit attempt has been stable over the past 10 years in New York. Over half (55.5%) of New York adult smokers reported that they saw a provider in the past 12 months and received provider assistance with quitting smoking (Figure 26). In the United States, 55.6% of smokers reported provider cessation assistance in 2019.

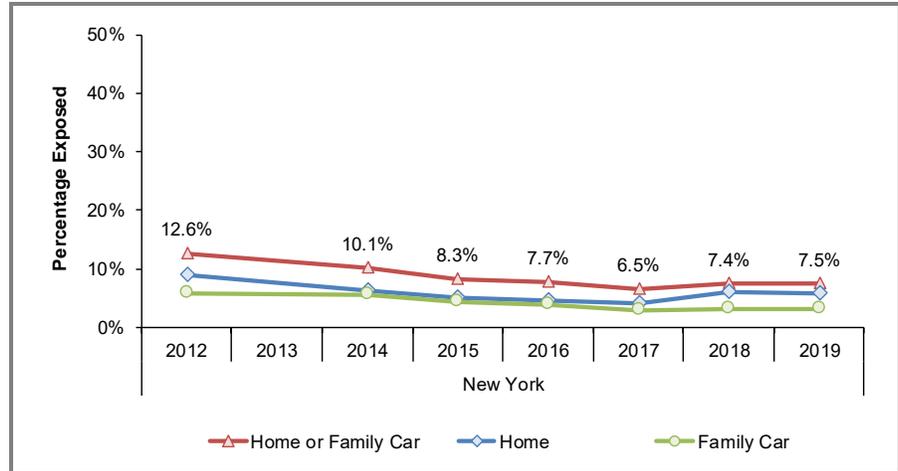
**Figure 26. Percentage of Adult Smokers Who Report That Their Health Care Provider Assisted Them with Smoking Cessation in the Past 12 Months, New York Adult Tobacco Survey 2009-2019 and National Adult Tobacco Survey 2009-2019**



Note: There is a statistically significant upward trend in the percentage of adult smokers in the United States who were assisted by their health care provider with smoking cessation. Beginning in 2017, annual estimates for percentage assisted include respondents who reported assistance whether or not they reported being advised by a health professional to quit smoking. The dotted line between 2017 and 2019 NATS estimates represents methodological changes in data collection and recruitment.

New York adults' secondhand smoke exposure has decreased dramatically. In 2019, only 7.5% of nonsmoking New York adults reported secondhand smoke exposure in their homes or family cars (Figure 27).

**Figure 27. Percentage of New York Nonsmokers Who Report Being Exposed to Secondhand Smoke, New York Adult Tobacco Survey 2012-2019**



Note: There is a statistically significant downward trend in secondhand smoke exposure among New York nonsmokers. The percentage of nonsmokers exposed to secondhand smoke is defined by responding 1 or more days to "During the past 7 days, on how many days did anyone smoke cigarettes, cigars, or pipes anywhere inside your home?" or "During the past 7 days, on how many days did anyone smoke cigarettes, cigars, pipes, or hookah anywhere inside your family car?"

The next sections explore three important tobacco control issues in greater detail. First, we present survey data regarding New York youth vaping, focusing on flavors, harm perceptions, and nicotine levels. Second, we analyze youth and young adult perceptions about vaping products. Third, we examine patterns of cigar use by demographic characteristics among New York adults.

### *How have youth vaping product users' flavor preferences, harm perceptions, and use of high-nicotine products changed in recent years?*

While youth cigarette smoking in New York continues to decline, youth use of vaping products has increased and is now much higher than cigarette and other tobacco product use. In New York, current vaping product use among youth increased 160% between 2014 and 2018 (New York State Department of Health, 2019). RTI conducted online surveys of New York

adolescent vaping product users in 2017 and 2019 to understand how and why they are using these products.

## Data and Methods

Online surveys of 15- to 17-year-old current vaping product users in New York were conducted in 2017 and 2019. Respondents were recruited through Facebook and Instagram in 2017 and Instagram only in 2019. They were offered a \$15 gift card incentive for completing the survey. Following removal of fraudulent and incomplete responses, the final dataset included 296 observations from 2017, and 286 from 2019. We weighted the data to approximate the population of youth vaping product users in the NY YTS. Weighted proportions for outcomes of interest in 2017 and 2019 were then compared using Adjusted Wald tests ( $p < 0.05$ ) to assess changes in behaviors and beliefs.

## Results

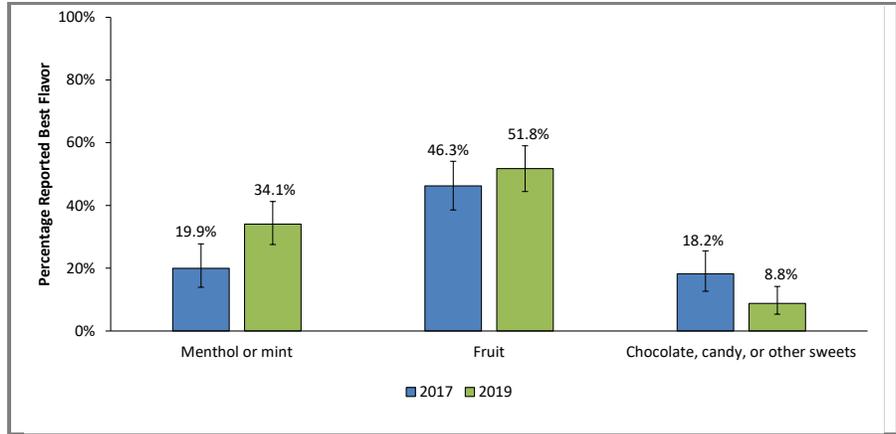
### *Product Use*

The average number of days that respondents reported using a vaping device in the past 30 days rose from 8.2 days in 2017 to 10.9 days in 2019. In 2019, 74.7% of adolescent vaping product users reported that the first tobacco product they ever tried was a vaping device. JUUL was the most popular brand in both 2017 and 2019, and the percentage of adolescent vaping product users who reported regularly using JUUL increased from 57.7% to 80.6%.

### *Flavors*

Adolescents report their favorite flavors of vaping products to be **“fruit” (51.8%), “menthol or mint” (34.1%), and “chocolate, candy, or other sweets” (8.8%) (Figure 28)**. The percentage of respondents who reported favoring **“menthol or mint” increased** from 19.9% in 2017 to 34.1% in 2019. The percentage of respondents **selecting “chocolate, candy, or other sweets” as** their favorite flavor decreased from 18.2% to 8.8%.

**Figure 28. Percentage of Adolescent Vaping Users Who Selected the Flavor They Like Best, New York Adolescent Vaping Survey, 2017-2019**

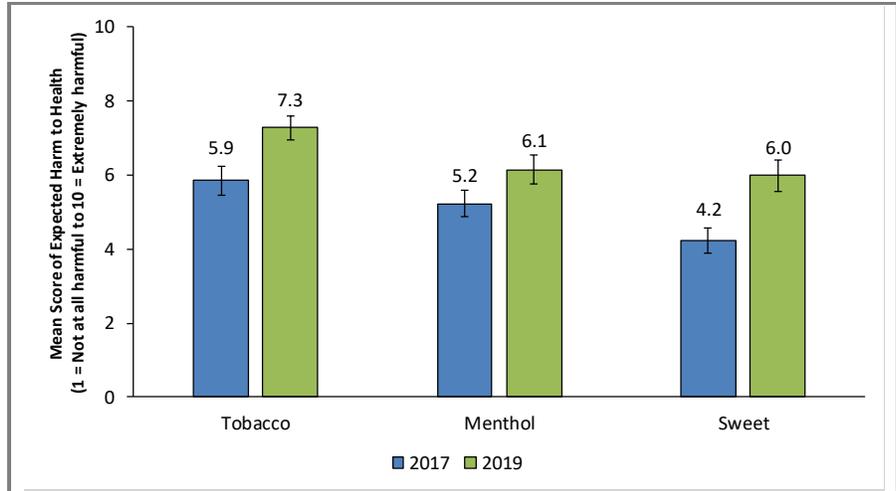


Note: There is a statistically significant difference between 2017 and 2019 in the percentage of respondents who report liking the following flavors the best: menthol or mint; chocolate, candy, or other sweets ( $p < 0.05$ ).

### *Harm Perception*

While adolescent vaping product users perceive the likelihood of developing health problems from vaping as less than that from smoking combustible cigarettes, the perceived likelihood of health problems from vaping increased from 2017 to 2019 among this group. Perception of harm from vaping products by flavor was rated on a scale of 1 to 10 (Figure 29). The average rating for tobacco-flavored products was 7.3 in 2019, indicating respondents thought it was more harmful than sweet, rated 6.0, or menthol/mint-flavored vaping products, rated 6.1. Nearly half (47.8%) of respondents reported a lower expected harmfulness score for menthol/mint-flavored e-liquid than for tobacco-flavored e-liquid in 2019. Perceived harm from using tobacco and menthol/mint flavors increased from 2017 to 2019.

**Figure 29. Mean Score of Perceived Harmfulness of Various Flavors, New York Adolescent Vaping Survey, 2017-2019**

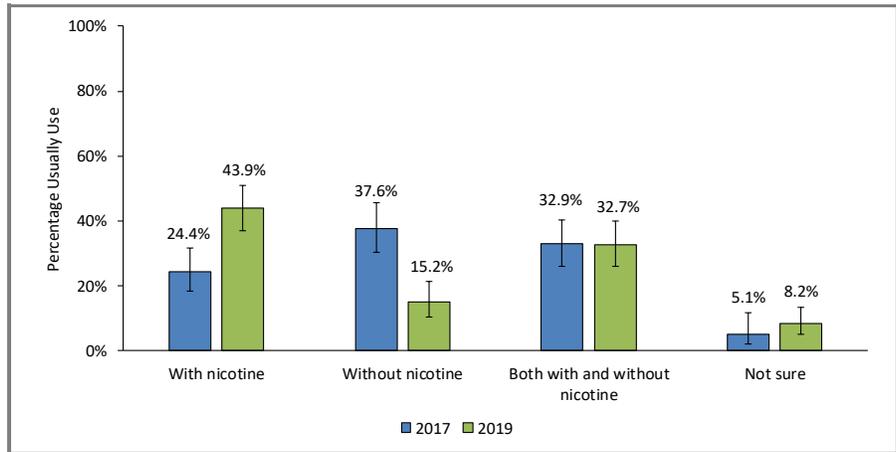


Note: There is a statistically significant difference between 2017 and 2019 in the perceived harm of using tobacco flavored e-liquid and menthol flavored e-liquid ( $p < 0.05$ ). Due to question wording changes between 2017 and 2019, no tests were performed for the perceived harm of using sweet flavored e-liquids.

*Nicotine Content*

The percentage of respondents who reported using vaping devices with nicotine increased from 24.4% in 2017 to 43.9% in 2019, while the percentage reporting vaping without nicotine decreased (Figure 30). Fewer than 10% of respondents in each year reported that they were not sure whether the products they most commonly used contained any nicotine.

**Figure 30. Percentage of Adolescent Vaping Device Users Who Report Using Vaping Devices with and without Nicotine, New York Adolescent Vaping Survey, 2017-2019**

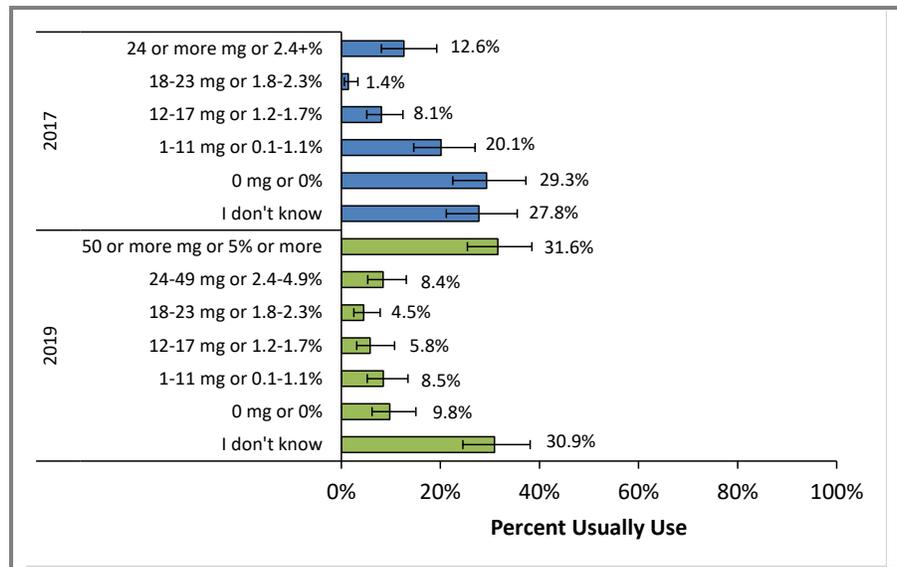


Note: There is a statistically significant difference between 2017 and 2019 in the percentage of respondents who report using vaping devices with nicotine, and without nicotine ( $p < 0.05$ ).

We found an increase in the proportion of New York youth vapers who used high nicotine concentrations (Figure 31). The proportion of youth who usually used a nicotine concentration

of 2.4% or higher (or at least 24 mg) increased three-fold from 12.6% in 2017 to 40.0% in 2019. In 2019, the most commonly reported nicotine level was the highest category (50 mg or more). Nearly one-third of respondents in both years, 27.8% in 2017 and 30.9% in 2019, were unsure of the nicotine content of the products they usually used; this includes those who were not sure if the products contain nicotine and those who were unsure how much nicotine the products that they used contained (see Figure 31).

**Figure 31. Percentage of adolescent vaping device users who report using various concentrations of nicotine**



Note: There is a statistically significant difference between 2017 and 2019 in the percentage of respondents who report using the following concentrations of nicotine: 0 mg, 1-11 mg, 18-23 mg, 24 or more mg (which includes 2019 respondents who reported either 24-49 mg or 50 or more mg) ( $p < 0.05$ ). Due to insufficient sample size, the following estimate could not be reliably reported, and is therefore excluded from this report: **The percentage of respondents reporting "other" for nicotine concentration usually used.**

## Summary

Youth vaping product use has increased in recent years, and flavor preferences, harm perceptions, and nicotine levels have evolved. Menthol or mint flavors are increasingly popular among adolescent vaping product users, with the popularity of menthol/mint flavors second only to fruit. Nearly half of youth vapers rated the harmfulness of menthol/mint-flavored e-liquid lower than the harmfulness of tobacco-flavored e-liquid in 2019.

Perceived likelihood of health problems related to vaping increased among adolescent users, suggesting they are more aware that vaping can be harmful. There was an increase in

adolescent vaping product users who reported vaping with nicotine from 2017 to 2019. This could be attributable to continued growth in popularity of high-nicotine products (e.g., JUUL) or to increased awareness of nicotine content in vaping devices and refills. The reported increase in use of higher-nicotine vaping products heightens concerns about harm to youth developing brains and addiction to tobacco products.

### *How do youth and young adults in New York perceive vaping products and norms around their use?*

NY TCP aims to decrease the prevalence of youth and young adult use of vaping products. Understanding youth and young adults' perceptions and experiences around their use of vaping products is critical to informing policies and interventions intended to reduce vaping product initiation. We conducted focus groups to explore youth and young adults' perceptions and experiences regarding the use, acceptability, health risk, and addictiveness of vaping products.

### **Data and Methods**

We conducted focus groups in April 2019 in New York with youth (aged 15–17) and young adults (aged 18–21) who vape. Across 6 focus groups, 20 youth and 37 young adults participated. We asked open-ended questions regarding vaping product use, use of flavored vaping products, norms and acceptability of vaping product use, health risks associated with use, and whether participants had heard about people their age who had trouble cutting back on how much they vape.

### **Results**

Vaping is often a social experience for youth and young adults, both in terms of first use and continued use. Youth and young adults described vaping as starting socially, usually trying **someone else's device before starting to vape more regularly and getting one's own device. One youth participant said, "It's just like a friend's got it or somebody that you're with has it, and then you just try it."** Sharing and passing around devices is common among youth and young adults. A high school student detailed this social experience in their description, "All my

friends have vapes and when we get together, we'll sit in my one friend's basement 'cause they all have different flavors. So **we'll pass them around.**"

We asked youth and young adults about when and where people usually vape, and we consistently heard about how easy it is for them to vape discreetly, almost anywhere. Participants described vaping devices as small in size and producing no smell, making them easy to hide. Participants appreciated the ease of surreptitious vaping.

Youth and young adults understood vaping as not accepted at schools, workplaces, or in public, and usually not at home. However, they indicated that they often vape discreetly even in places where vaping would not be allowed.

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*"With the vape, you could just pull it out, take two hits, and then put it away."*

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At the time these focus group were conducted, the youth and young adult participants stated that JUUL was the most popular brand. They reported that other vaping products were also used by themselves or people around them, including Juno and Smok Novo. Participants consistently noted that pod-based systems are more popular than tanks or mods because they are smaller and easier to conceal during use. In addition, flavors were a significant draw. All youth and young adults in these focus groups vaped flavors. Some reported having a favorite flavor that they usually vape; others vape multiple flavors. Participants frequently mentioned fruit flavors like mango and menthol or mint, and they often share with friends so they can **try new flavors. One young adult proclaimed, "...for me personally, there would be no point in JUULing if there was no flavor to it."**

We captured perspectives related to vaping product addictiveness by asking youth and young adults if they had heard about people their age who vape more than they thought they would, who have trouble cutting back on how much they vape, or who feel like their vaping has gotten out of their control. Youth and young adults in New York consistently voiced that they and people they knew vape

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*"It's really comparable to useless use of a cell phone. ... So vaping's the same thing; it's just something to distract you."*

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more than they thought they would. They recognize how much they vape by noticing how many pods they go through. Participants noted trying to stop or cut back because of the cost of refills, but said that they usually start up again. Some described vaping products as addictive and acknowledged **“fiending” for it** (obsessing over or craving vapes), and some described the social habit by saying that it is difficult to stop vaping because it feels like it is everywhere. Participants characterized vaping use in different ways, with some describing vaping as an addiction and others considering it a mindless habit, like checking your phone. When asked why they vape now, youth and young adults responses included that everyone is doing it, vaping relieves their stress, they get a buzz, that vaping is a habit or an addiction, and that they vape when they cannot smoke.

Youth and young adults have some concerns about vaping-related health risks. Although participants believe vaping is safer than smoking cigarettes, several participants noted that it is too early to know the long-term effects of vaping. In all focus groups, participants immediately mentioned having heard of “popcorn lung”<sup>2</sup> as a vaping risk, but they did not know what it is or know of anyone who has had it. However, many focus group participants have experienced shortness of breath they believe is due to their vaping.

Youth and young adults indicated that the cost of vaping products was the factor most likely to impact their vaping behavior. Most youth and young adults said that prices of vaping products have in some way already influenced their behavior. For example, recognizing the cumulative cost of vaping pods led some to switch from JUUL to cheaper vaping devices, including those that can be refilled. Others mentioned buying a single pod from someone at school because the cost feels less steep than the cost of a multi-pod pack.

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*“The JUULs are expensive, it’s \$5 a pod and you’ll be going through a pod a day.”*

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<sup>2</sup> Popcorn lung is a condition that damages the lungs, and can be caused by breathing in chemicals, including some used to flavor food (first identified related to a flavoring for microwave popcorn) or vaping products.

Participants recognize that the vaping product marketplace is **rapidly evolving**. “A lot more has come out. ... They make a new vape like every other day.” Although youth and young adults have noticed changes in available products such as JUUL stopping sales of mango pods, some expressed that companies will still offer flavored vaping products, and that they will get around restrictions that are put in place.

## Summary

Youth and young adults who vape in New York describe vaping as a social experience with enjoyable flavors and new products regularly becoming available. They **appreciate the devices’** easily-concealable nature, and they recognize that vaping is not readily acceptable in many settings. Youth and young adults who vape have concerns about the health risks of vaping although they do not have a grasp on what those risks are. Some participants consider vaping simply a mindless habit and noted that they could stop vaping any time they wanted to stop. However, many youth and young adults said that they and their peers find themselves unable to stop vaping, due to perceived omnipresence of vaping and their own addiction. These focus group findings can help provide detailed insights for prevention activities, feed into surveillance instrument revisions to monitor use and purchasing behaviors, contribute to revisiting enforcement approaches, and assist NY TCP with messaging planning efforts.

## *Differences in prevalence of New York adults’ cigar use by demographic characteristics*

Cigar use has increased among New York adults in recent years. To inform NY TCP tobacco use prevention and cessation efforts, we analyzed existing surveillance data to identify characteristics associated with a higher likelihood of cigar use and use of flavored cigar products.

## Data and Methods

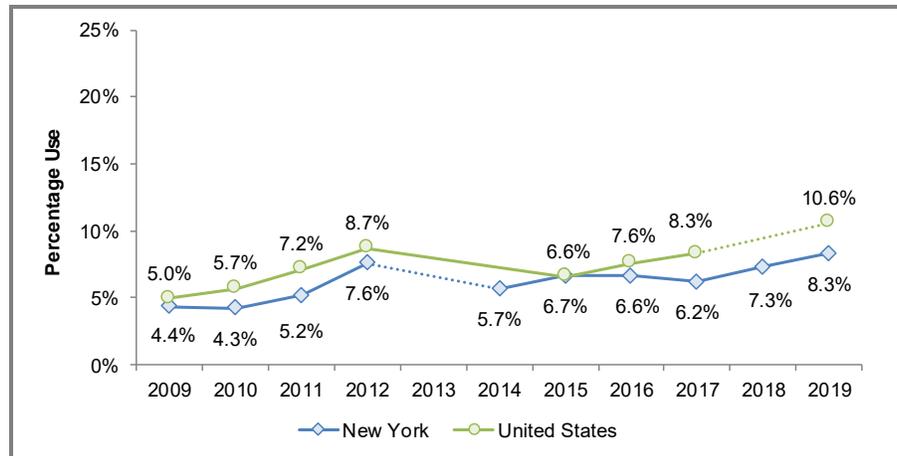
We analyzed self-report of cigar use among adults aged 18 and older who participated in the NY ATS between 2009 and 2019. We report cigar use by type (traditional cigars/little cigars or cigarillos) in 2019. To assess differences between demographic groups, we compared 2019 estimates across geography

(NYC/Rest of State), gender, age category, race/ethnicity, and use of tobacco products other than cigars (cigarettes, smokeless tobacco, vaping products, and/or hookah). We also analyzed trends in cigar use prevalence within each demographic group. Among cigar users, we estimated recent use of fruit, alcohol, candy, mint, or “other” flavored cigar products. To achieve sufficient sample size for these analyses, we generated estimates using pooled data from 2018 and 2019.

## Results

In 2019, 8.3% of New York adults reported current use of cigars, an increase from 2009 (4.4%) (Figure 32). National cigar use prevalence in 2019 was 10.6%, compared with 5.0% in 2009. Most New York adults who use cigars report using them rarely. In 2019, 5.8% of New York adults reported using large cigars and 4.4% reported using little cigars or cigarillos.

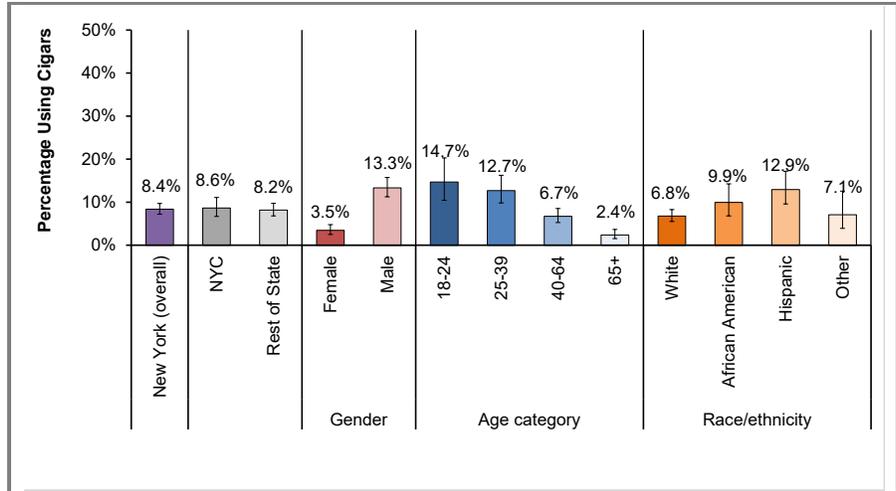
**Figure 32. Percentage of Adults Who Currently Smoke Cigars, New York Adult Tobacco Survey 2009–2019 and National Adult Tobacco Survey 2009–2019**



Note: There is a statistically significant upward trend in current cigar use among adults in New York and the United States. Since Quarter 4, 2011, data include “rarely” as an additional response option for current cigar use in addition to “Every day,” “Some days,” and “Not at all.” The dotted line between 2017 and 2019 NATS estimates represents methodological changes in data collection and recruitment.

The prevalence of adult cigar use was similar between NYC and the rest of the state in 2019, with 8.6% of adults in NYC and 8.2% of adults in the rest of the state reporting cigar use (Figure 33). In 2019, cigar use was more prevalent among men than women, with 13.3% of men reporting current cigar use compared to only 3.5% of women.

**Figure 33. Percentage of Adults Who Currently Smoke Cigars by Demographic Characteristics, New York Adult Tobacco Survey 2019**



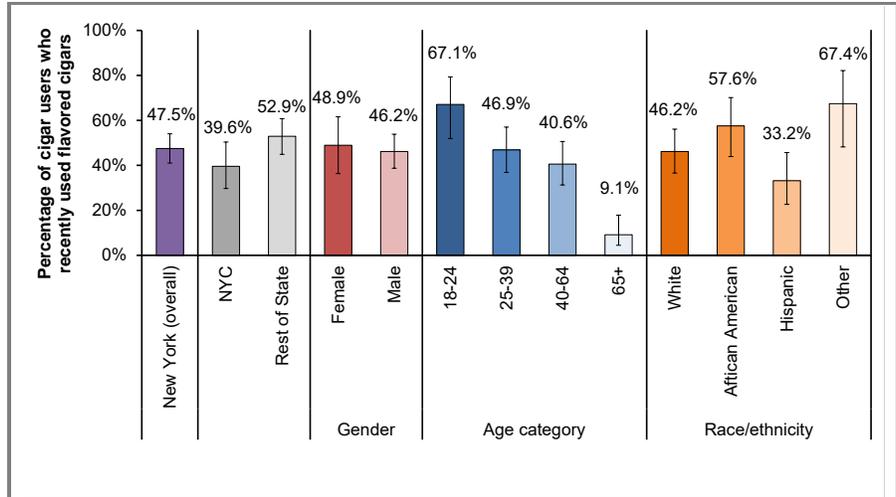
When we looked at trends over time, we found that cigar use trended upward among respondents regardless of demographic characteristics. Cigar use increased in NYC and the rest of the state, as well as among both men and women.

Younger adults were more likely to use cigars than older adults, with highest use among those age 18-24 (14.7% in 2019) and lowest prevalence among those aged 65 and older (2.4%) (Figure 34). Cigar use prevalence increased between 2009 and 2019 for the 18-24 and 25-39 age groups, but was stable among those in the two older age groups.

Cigar use in 2019 was more common among Hispanic adults, of whom 12.9% were cigar users, than among those who were **white (6.8%)** or **“other” race (7.1%)**. Rates of cigar use were similar among Hispanic and African American adults (9.9%) (Figure 33). Cigar use trended upward among African American and Hispanic respondents between 2009 and 2019.

Nearly half (47.5%) of New York cigar users reported recent use of flavored cigars in 2018 and 2019 (Figure 34). Flavored cigar use was slightly lower among cigar users in NYC, where 39.6% of cigar users reported recent use of flavored cigars compared with 52.9% in the rest of the state.

**Figure 34. Percentage of Adult Cigar Smokers who Recently Smoked Flavored Cigars, by Demographic Characteristics, New York Adult Tobacco Survey, 2018 and 2019**



Rates of flavored cigar use were similar among men and women who used cigars (see Figure 34). Cigar users were more likely to report recent use of flavored products if they were younger, compared with those in the 65+ age group. Cigar users who were African American or “other” race were more likely to use flavored cigars than Hispanic cigar users, with 57.6% of African American cigar users and 67.4% of “other” race cigar users reporting recent use of flavored cigars compared with 33.2% of Hispanic cigar users. Just fewer than half (46.2%) of White cigar users reported recent flavored cigar use (see Figure 34).

### Summary

Cigar use differs among New York adults by demographic characteristics. Cigar use was more prevalent among men, young adults, and African American or Hispanic adults. Trend analyses suggest increases in statewide prevalence of cigar use were likely driven by young adults and those who are African American or Hispanic. Use of flavored cigars appeared more popular among men, young adults, and African American or “other” race adults. Lower rates of flavored cigar use among adults in New York City may be related to **the City’s flavored** tobacco restriction, and this could be useful information as restrictions on flavored cigars and other tobacco products are considered elsewhere in the state. These findings, which identify differences in cigar use, can be used by the Program as it prioritizes policy and education goals to reduce tobacco use in the state.

## Discussion

### *Progress in Changing Tobacco Use*

NY TCP has reached multiple objectives toward its core goals of reducing tobacco use initiation, increasing cessation, eliminating exposure to secondhand smoke, and reducing smoking-related disparities. Key successes include long-term decreases in cigarette smoking prevalence among New York adults and youth. With the 2019-2024 NYSDOH Prevention Agenda, the Program set new objectives to strive for further improvements. **NY TCP's objectives are motivated by important public health goals, but may be unrealizable given available funding and the dynamic tobacco product landscape.** The Program may be more likely to backslide than to maintain, let **alone achieve more ambitious goals, given the Program's** decreasing funding and the explosive growth in youth vaping. NY TCP does not have access to the full \$39.7 million appropriated by the state, with a Division of Budget limit \$5 million lower. The Program uses the funding that it has to implement evidence-based approaches in ways that are responsive to data and evaluation, but the Program would have a greater chance of achieving its objectives if its funding were increased to expand the reach and impact of its efforts.

The Program has seen success in reducing adult cigarette smoking prevalence, with a pronounced decline among young adults. However, disparities remain. Cigarette smoking prevalence continues to be higher among adults with frequent mental distress and lower income and education. Analyses have found that ad awareness and provider interventions do not differ by mental health status, income, or education, meaning **that the Program's interventions are reaching these populations** (RTI International, 2018). A recent national study related to income-related smoking disparities found that New York was the only state to have decreased smoking disparities between higher- and lower-income adults from 2011 to 2017 (Mills et al., 2020). Continuing to pursue **the Program's goals through** evidence-based interventions and coordinating with other health promotion efforts that address disparities and their underlying causes may lead to continued decreases in smoking prevalence and smoking-related disparities. In addition, restricting the sale of menthol cigarettes would contribute to

reduced initiation and increased cessation, leading to decreased smoking prevalence.

Cigar smoking prevalence is increasing in New York and the United States, with rates much higher among males than females and among younger adults than older adults. Over the past decade, cigar use has increased among younger adults and among African American and Hispanic New Yorkers. Among cigar users, flavored cigar use is lower among those aged 65 or older than younger age groups. These patterns of use may be linked to a proliferation of cigarillos, and an increase in available flavors of these products. Restricting the sale of flavored cigarillos and increasing the price of these products may help reverse the trends of increasing cigar product use. Additionally, increased cigar use may be related to co-use of cigars and cannabis (Strong et al., 2018; Cohn et al, 2019), and successfully suppressing cigar use may require the Program to address this co-use as well.

The prevalence of adult smokers making a quit attempt has remained steady over the past decade. More than half of adult smokers who made a quit attempt over the past 12 months did not use any assistance. Nearly 30% of smokers who made a quit attempt used evidence-based quit methods, and close to 20% used vaping products to try to quit. Vaping products have not been consistently shown to be an effective quit method, and dual use of cigarettes and vaping products may lead to increased harm. More than half of smokers report that their health care provider assisted them with smoking cessation. The New York State **Smokers' Quitline served 1.5% of adult** smokers in the state through counseling and/or NRT. Although this reach is low, it is higher than national quitline reach and includes all smokers, even those not ready to quit. Improving provider assistance and smoker use of evidence-based cessation treatment like NRT and stop-smoking medications can help more smokers to quit successfully.

The prevalence of adult vaping in New York has increased to 8.4%, which is lower than the national prevalence. Fewer than 3% of New York adults reported dual use of cigarettes and vaping products in 2019, a rate that has remained relatively low. NY TCP has focused on treating vaping product use like other tobacco product use, bringing vaping policies into parity with smoking-related policies. As dual use of cigarettes and

vaping products has been found to compound harms to the user, it is important that the Program continue to focus on reducing use of both of these products, including in combination with each other.

Although New York youth cigarette smoking prevalence has consistently been lower than national rates, the decrease has plateaued and overall youth tobacco use has risen to 30.6%. The decrease in youth cigarette use is more than offset by an increase in youth vaping product use. Nearly half of New York high school students have ever vaped, compared with the 16.3% who have ever smoked. In addition to increasing youth vaping prevalence, surveys of New York youth vaping product users found that the frequency of vaping increased from 2017 to 2019. Youth reported lower harm perceptions from sweet- or menthol/mint-flavored vaping products compared with tobacco flavors although they are not less harmful. In addition, a greater proportion of youth reported vaping with nicotine (compared to vaping without nicotine) in 2019 compared with 2017, and there was a strong shift to vaping with higher concentrations of nicotine. These patterns – more youth vaping more often with more nicotine – will lead to increased addiction.

In focus groups about vaping, some youth and young adults who vape called it a mindless habit, but many said that they find themselves unable to stop vaping because of addiction and the fact that vaping is so common. Youth and young adults described vaping as a social experience and the devices as easily concealable. They indicated having concerns about the health risks of vaping, although they did not understand what those risks are. Continued focus on education and restrictions to make youth-appealing vaping products less available will need to be coupled with support for vaping product users who struggle with addiction.

**The Program's multi-**component approach to reduce tobacco use includes work to educate about and assist with policies to help make a tobacco-free choice the easy choice. **New York's** statewide policies have been strong for years (including comprehensive smoke-free air and high cigarette excise taxes), and the state added a vaping product tax, a registration requirement for any retailer that sells vapor products, and a minimum legal tobacco sale age of 21 (prior to this changing at

the federal level) during 2019. A set of new tobacco control laws were passed in early 2020 **that align with the Program's** efforts, and these will be discussed in more detail in future reports. Next, we discuss overarching themes from the **Program's three main intervention areas, health** communications, health systems change, and state and community interventions, and then we offer recommendations for the NY TCP.

### *Health Communications*

NY TCP has continued to focus paid media efforts on promoting smoking cessation, with an emphasis on television advertisements that depict the health consequences of smoking and the emotional impact of those health effects on individuals and their families. In 2019, NY TCP used message strategies and specific advertisements that have performed well in **formative testing, including airing several ads from the CDC's** Tips from a Former Smoker Campaign. NY TCP also launched a new vaping prevention campaign aimed at promoting parent-child dialogue about vaping products and shifting social norms around the acceptability of vaping product use. As a complement to its health systems change efforts, the Program also continues to promote Medicaid coverage of tobacco dependence treatment for smokers and implements media campaigns encouraging medical and behavioral health care providers to assist patients with evidence-based cessation.

Thirty-seven percent of New York smokers were aware of NY TCP cessation-focused ads in the first quarter of 2019, although the annual awareness estimate was 25%. Despite an increase in GRPs between 2018 and 2019, awareness of antitobacco ads decreased over this time. This low awareness likely reflects reduced media efforts as a result of decreased funding as well as the timing of the NY **ATS data collection relative to NY TCP's** ad campaign schedule. NY TCP ran no ads in quarter 2 of 2019 and in quarter 3 there was very little overlap between the ad flight schedule and the NY ATS data collection for that wave; thus, the majority of NY ATS respondents were considered not aware of any campaign ads because no ads were running when the survey was administered. Also, in quarter 4, during which NY TCP allocated over half (54%) of its total annual GRPs, the NY ATS was not administered and thus ad awareness was not

captured during this time. To account for this gap in data collection, we generated a regression model to predict quarter 4 awareness using previous data on GRPs and campaign awareness; the 2019 yearly awareness estimate represents an average of quarterly estimates for quarters 1-3 and the predicted awareness estimate for quarter 4.

To increase the reach and effectiveness of its health communications efforts, NY TCP should continue to focus the bulk of its cessation campaign efforts on hard-hitting graphic or emotionally resonant ads that have been perceived as highly effective by New York smokers. NY TCP may also consider optimizing ad allocation strategies to best align with the media use preferences of their target audience. Findings from our examination of reactions to ads and media use patterns of New York smokers could help inform these efforts. Additionally, the Program could **reassess the media vendor's negotiated bonus airtime to maximize the value of the Program's ad buys.**

With the evolution of the tobacco product landscape, such as increases in vaping product use, campaign strategies will need to evolve. However, little evidence exists regarding effective campaigns to curb vaping product use or reduce adult use of other tobacco products. With additional resources, the Program **could take steps to identify effective messages.** The program's plan to identify promising vaping-related beliefs and characterize target audiences for a potential vaping prevention campaign, based on surveys of New York parents, will help inform these efforts.

### *Health Systems Change*

NY TCP conducts evidence-based health systems interventions to promote cessation from tobacco use by supporting the provision of evidence-based, clinical tobacco dependence treatment in health care settings. Their multi-component intervention includes funding health systems grantees to facilitate policy, systems, and environmental changes; providing Quitline support; and reducing the cost of and barriers to accessing evidence-based cessation assistance. **These efforts complement the NY TCP's smoker-targeted and provider-targeted media campaigns.** Although the Program designed its approach based on available evidence in the field, there is no playbook for how to implement health systems

intervention activities and NY TCP is a pioneering program in this area.

NY TCP's **continued focus** on systems change in organizations where populations with the highest rates of smoking are concentrated, in CHCs and mental health treatment facilities, continues to be an appropriate approach. Grantees have been reaching around one-third of the identified organizations in the state, and they continue to educate and support them regarding changes to institutionalize evidence-based tobacco dependence treatment. Although there is room for improvement in the prevalence of New York adult smokers reporting that health care providers are assisting with quit attempts, some of the highest rates of provider assistance were reported among the groups that NY TCP interventions are targeting: those with frequent mental distress, those on public insurance, and those with low income.

Systems-level change within an organization takes time and requires ongoing reinforcement amid myriad competing priorities. Assessing progress at the state level is challenging, especially since each organization may be implementing different changes at different points in time. Adapting intervention and evaluation efforts over time will help address identified disparities and challenges, and NY TCP should continue to facilitate the integration of vaping products into the **Program's strategic approach**.

**Although the state's Quitline reach is low, it is higher than in** other states and provides efficient services as recommended by **CDC's Best Practices** (2014) (Mann et al., 2018). In addition, over the last several years, the NY TCP has directed the Quitline to integrate programmatic components that support the overall health systems initiatives. For example, **Quit Coaches reinforce the Program's messaging about the** importance of talking with a health care provider about quitting and information about available health insurance benefits for tobacco dependence treatments. The Program may need to reassess the balance of health systems efforts, particularly in the face of funding challenges.

## *Statewide and Community Action*

ATFC grantees continued working on core tobacco control initiatives focused on the retail environment, tobacco-free outdoors, and smoke-free multi-unit housing. Policy change in the retail environment remains challenging in tobacco control generally and requires years of educating the public and policy makers about the effects of tobacco marketing in the retail environment and the need for policies to counter it. Grantee efforts resulted in a relatively small number of local policies in 2019, and other policies were adopted but faced legal challenges. In addition to forging progress on retail environment policies, ongoing ATFC efforts have helped raise support for these policies and thereby helped prepare communities for implementing these kind of policies. Multiple retail environment policies were enacted at the state level in early 2020. Although not a focus of this report (which reflects primarily on 2019), these policies will require a shift in future ATFC grantee efforts to policy priorities not yet implemented, such as restrictions on flavored cigars and menthol cigarettes.

Grantees continue to educate about policy solutions to create environments where the easiest choice is the tobacco-free choice. Grantees facilitated smoke-free multi-unit housing policies, with more than 11,000 units becoming smoke-free in 2019. This continues a multi-year pattern of facilitating more than 10,000 units annually being established as smoke-free. ATFC grantees also offered technical assistance to support public housing authorities **following adoption of HUD's smoke-free rule for federal public housing**, which went into effect on July 31, 2018. These changes continue to increase the availability of housing that protects families from secondhand smoke. During 2019, ATFC grantees reported that an additional 240 entities restricted tobacco use in outdoor areas, ranging from individual organizations to municipalities.

The Program has conducted some strategic planning to reflect on and prioritize effective ways to integrate an equity focus into its objectives and interventions, and should continue learning, planning, and revisiting this approach. This can include additional trainings, conversations, and collaborations with organizations that represent and serve populations disparately affected by tobacco use.

## *Programmatic Recommendations*

### **Overall Recommendations**

- Restore NY TCP funding to the amount allocated by the state legislature. In addition, increase funding to a minimum of one-**half of CDC’s recommended funding level** for the state (\$203 million) to \$101.5 million, to give the Program a better chance to succeed at achieving its NYSDOH Prevention Agenda objectives.
  - Significantly increasing Program funding would be consistent with CDC recommendations, and could be used to expand the reach of ATFC grantee efforts, health system interventions, and health communication campaigns to reach target populations with increased integration of digital and social media campaigns.
  - Recent dramatic increases in youth use of vaping products requires NY TCP to use its existing resources for even more strategic efforts. The Program could respond more effectively with additional funding to develop and disseminate messaging, identify and educate about policies to reduce youth exposure and access, implement compliance monitoring protocols, and study the effectiveness of interventions in this emerging area. This could include additional support for, and evaluation of, tobacco control policies enacted during early 2020.
  - Directing the revenue from the vaping product tax to tobacco control would support NY TCP efforts to educate, intervene, and evaluate in this area.
  - Additional funds would allow infrastructure and administration improvements like expanded professional development, enhanced administrative capacity through staff funding and training, and innovation in surveillance and **evaluation activities to assess the Program’s** impact.
- Continue to refine the Program’s **approach to reach** smokers with disproportionately high rates of smoking, especially adults with low income and frequent mental distress.
  - Addressing these and other persistent disparities will require ongoing collaboration with

stakeholders working with populations facing disproportionate health and financial burden from tobacco use. The Program can further enhance community mobilization work and expand health systems change efforts.

- The inclusion of NYSDOH Prevention Agenda objectives regarding smoking prevalence among adults who are living with any disability or who self-identify as LGBT may require adjustments to intervention approaches and organizational partnerships.

## Health Communication Recommendations

- Acknowledging that the funds available for media severely **limit the Program’s ability to meet CDC reach and awareness targets, focus the Program’s paid media** campaign efforts on high-impact television advertisements, those that graphically depict the health consequences of smoking or elicit strong negative emotions.
- Consider strategies to identify and employ the optimal allocation of campaign advertising across medium (e.g., television vs. digital) and specific channels and programs, **especially as New Yorkers’ use of media shifts** over time.
- Review ad placement strategies to maximize the reach and potential effectiveness of campaigns among populations disproportionately impacted by tobacco use.
- Continue to complement smoker-targeted media campaigns with provider-targeted media campaigns, and aim to improve provider response to these campaigns and increase changes in provider awareness and behaviors.
- Continue to adapt campaigns in response to changes in the tobacco product landscape and policy changes, including vaping product use, menthol cigarette use, and multi-product use. Studying the effectiveness of these efforts will help fill the existing gap in literature and practice on this issue.

## Health Systems Change Recommendations

- Continue to focus health systems change efforts on organizations that serve high proportions of tobacco users, such as CHCs and mental health organizations.

- Collaborate with the New York State Medicaid program to conduct additional educational efforts targeting enrollees and providers to promote awareness and use of Medicaid smoking cessation benefits.
- Continue to leverage existing partnerships and engage in new collaborations across the health care sector to promote health systems change and expanding insurance coverage for tobacco dependence treatments for all New Yorkers.
- Encourage the NY TCP-funded Center of Excellence to leverage opportunities to help create changes in the state-level context for health systems change that support the institutionalization of tobacco dependence treatment.
- **Continue to clarify the Program’s plan** for how vaping product use should be addressed in the health care setting and integrate this into health systems interventions.

### Statewide and Community Action Recommendations

- Build on the recent flavored vaping product restriction by encouraging restrictions on the sale of all flavored tobacco products, including menthol cigarettes and flavored cigarillos. More comprehensive flavor restrictions will reduce the appeal of tobacco products, especially to youth.
- Address increased cigar use with education and policy efforts, acknowledging the potential role of co-use of cigars and cannabis in young adult cigar use trends.
- Continue to explore messaging approaches that resonate with populations that have disproportionately high tobacco use (and opinion leaders within those populations).
- Expand grantee community mobilization to include more organizations outside of the traditional health and public health sectors and explore the feasibility of empowering grantees to incorporate related non-tobacco causes into their own work. Engaging with allied organizations could be expanded to efforts that serve a mutual benefit, including sectors such as business, education, and housing.
  - For example, community grantees might engage with other organizations in efforts to promote affordable quality housing in their communities, whereas community housing organizations could

integrate smoke-free housing policies and potentially promote assisted cessation in their organizational activities.

- Continue to integrate a health equity approach in the **grantees' community**-based work to address the root causes that contribute to health disparities, including tobacco use and its health consequences. Provide training and technical assistance for grantees to meaningfully engage their communities in this work.

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