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2018 Independent Evaluation Report of the New York Tobacco Control Program

Final Report

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Executive Summary

Tobacco use is the leading cause of preventable death in New York State. In 2017, approximately 24,000 New Yorkers died prematurely from smoking-related illnesses and nearly 1,000 more died due to secondhand smoke. Smoking-attributable personal health care expenditures reached $9.8 billion in New York State in 2017. New York has been a leader in tobacco control for more than a decade and has facilitated significant improvements in tobacco-related outcomes. The New York Tobacco Control Program's (NY TCP's) evidence-based approach to tobacco control uses health communication; health systems interventions; and statewide and community action targeting policy, systems, and environmental changes to decrease tobacco use in the state.

New York has implemented effective tobacco control interventions including a statewide comprehensive smoke-free air policy, high taxes for tobacco products, and tobacco-free outdoor policies in jurisdictions and organizations around the state. The program has introduced innovative policy and education approaches that serve as models for other tobacco control programs. These NY TCP efforts have led to successful reductions in cigarette smoking among adults and youth, with improvements in many tobacco-related measures occurring earlier than the rest of the country.

Although outcomes have improved, tobacco use remains a substantial public health problem with a sizable economic burden, and tobacco use has become more concentrated among people with low income and poor mental health. Youth tobacco product use has decreased dramatically, except for vaping products (also referred to as electronic cigarettes or e-cigarettes, vape pens, or mods), which has increased. To adapt to changing realities regarding tobacco use in New York, the NY TCP implements a range of interventions and seeks to achieve specific objectives outlined in the New York State Department of Health (NYSDOH) Prevention Agenda. However, decreases in NY TCP funding challenge the Program's ability to continue making progress as the product landscape changes.

This independent evaluation report provides an annual view 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 2017, 14.1% of New York adults smoked cigarettes. NY TCP set a new target for adult smoking prevalence (12.3% by the end of 2018) after the original target of 15% was reached in 2014.
- Twenty-six percent of New York adults with frequent mental distress (defined as having at least 14 days in the past month with poor mental health, including stress, depression, and problems with emotions) reported smoking cigarettes in 2017, a rate much higher than among adults without frequent mental distress. However, smoking prevalence among this population has decreased from 32.5% in 2011 and now meets the 2013-2018 NYSDOH Prevention Agenda target of 26.5%.
- Rates of adult cigarette smoking also vary by household income. In 2017, 19.6% of New York adults with a household income of less than $25,000 smoked cigarettes, which is higher than smoking rates among those with higher household incomes. Because this estimate has decreased from 27.8% in 2011, the program has met the 2013-2018 NYSDOH Prevention Agenda objective to decrease smoking among low-income adults to 20%.
- The proportion of New York adult smokers who made a quit attempt in the past 12 months is 56.7% in 2017. Although relatively unchanged over the past 10 years, this means that more than half of smokers try to quit at least once in the past year.
- In 2017, 5.4% of New York adults reported current use of vaping products, and half of New York vaping product users also smoked cigarettes. Adult use of vaping products is higher in the rest of the country than in New York.
- Groups with the highest smoking prevalence—individuals with frequent mental distress, public insurance, and lower education and income—were generally those reporting higher rates of receiving provider assistance and using evidence-based treatments more often than the general population. Although disparities in tobacco use prevalence remain, interventions appear to be

reaching smokers in these disproportionately-affected groups.

- The proportion of youth who smoke cigarettes has decreased dramatically, but youth overall tobacco use remained relatively unchanged for most of the past decade. However, overall youth tobacco use prevalence increased from a low of 19.5% in 2014 to 25.4% in 2016. Decreases in cigarette, cigar, and smokeless tobacco use have been offset by increased vaping product use. Only 4.3% of high school students smoked cigarettes in 2016, and 20.6% used vaping products.
- A 2017 survey of adolescents who vape found that 75.8% reported that vaping was their first experience with tobacco products, often sharing friends' devices. Adolescents' misperceptions about vaping include that fruit and sweet flavors are less harmful than other flavors and that secondhand emissions contain only water vapor.
- More than half of Medicaid-enrolled smokers (59.7%) were aware of Medicaid cessation benefits in 2017. Most Medicaid-enrolled smokers who made a quit attempt did so unaided, but the majority of those who used recommended cessation treatments reported that Medicaid paid for them.

Measures of NY TCP Reach and Impact

- In 2017, 25% of New York adult smokers recalled seeing NY TCP-sponsored television advertisements encouraging smokers to quit. This decrease in awareness from 34% in 2016 reflects the reduced funding available to NY TCP, which resulted in cuts to health communication interventions.
- NY TCP-funded Health Systems for a Tobacco-Free NY contractors have facilitated making a standardized tobacco-focused electronic health record (EHR) template more accessible to health systems organizations through their work with leading EHR vendors. Health systems contractors worked with more than 200 medical and mental health organizations in 2017, educating and assisting them with health systems change to ensure tobacco use identification and treatment.
- NY TCP-funded Advancing Tobacco-Free Communities (ATFC) contractors educated landlords, management companies, and public housing authorities about the benefits of smoke-free multi-unit housing. From April 2017 through January 2018, 76 apartment complexes,

management companies, and public housing authorities adopted smoke-free policies, making an additional 9,187 units smoke-free.

- The New York State Smokers' Quitline reached a greater proportion of smokers in the state than the average national quitline reach. In 2017, 1.5% of New York smokers registered for Quitline services by phone and 0.7% of New York smokers registered online; nationally, Quitlines reach approximately 1% of smokers. The reduction in Quitline calls from 2016 to 2017 likely reflects reduced program funds available for media. More than 19,000 referrals were sent to New York's Quitline by health care providers during 2017.
- Demographic groups with the highest smoking prevalence, including individuals with frequent mental distress and lower income, reported higher rates of receiving provider assistance and using evidence-based treatments than the general population.
- Medicaid-insured adults have consistently higher smoking rates than those with other types of insurance, and New York State's Medicaid Program provides coverage for evidence-based interventions. Although only 24.6% of New York Medicaid-insured smokers used Medicaid benefits, most were aware of tobacco dependence treatments, and 59.7% were aware that Medicaid will pay for them.

Overall Programmatic Recommendations

- Ensure that the NY TCP annual funding matches the amount appropriated by the New York State legislature. In addition, increase NY TCP funding to a minimum of one-half of CDC's recommended funding level for the state ($203 million) to $101.5 million.
  - Significantly increasing NY TCP funding would facilitate implementation of CDC best practice recommendations, including increased funds for ATFC contractor efforts, health system intervention support, and greater health communication opportunities to reach target populations and increase integration of digital and social media campaigns.
  - Additional funds would also enable infrastructure and administration improvements like expanded professional development, enhanced administrative capacity through staff funding and training, and

expanded surveillance and additional innovation in evaluation activities to assess the program's impact.

  - The relatively recent expansion of NY TCP efforts to address emerging products including vaping products would be better supported by increased funding for developing effective messages, pursuing policies to reduce youth exposure and access, and implementing compliance monitoring protocols.

- 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 persistent disparities will require ongoing collaboration with stakeholders working with these populations, through enhanced community mobilization work and expanded health systems change efforts.

- Update the NYSDOH Prevention Agenda objectives to reflect program achievements and reflect changes in the tobacco product landscape.

  - NY TCP should continue to set meaningful new objectives via ongoing strategic planning. To help ensure that the program is keeping pace with tobacco use trends and tracking progress, new objectives could address youth vaping product use and adult and youth multiple-product use.

Introduction

In 2017, approximately 24,000 New Yorkers died prematurely from smoking-related illnesses and nearly 1,000 more died due to secondhand smoke. Smoking-attributable personal health care expenditures reached $9.8 billion in New York State in 2017. The New York Tobacco Control Program (NY TCP) envisions a tobacco-free society and works to decrease the social and economic burdens caused by tobacco use. The program uses an evidence-based approach to reduce illness, disability, and death related to tobacco use and secondhand smoke exposure. Aligned with the Centers for Disease Control and Prevention's (CDC's) *Best Practices for Comprehensive Tobacco Control Programs* (CDC, 2014), NY TCP's main program components are health communication; health systems interventions; and statewide and community action targeting policy, systems, and environmental changes.

New York has implemented a range of state and local tobacco control interventions and has successfully reduced tobacco use among adults and youth. Although tobacco-related outcomes have improved overall, smoking rates remain high among New Yorkers who have lower incomes and low educational attainment, those with mental illness, those who identify as LGBTQ, and those living in rural areas. In addition, the increased use of vaping products (also referred to as electronic cigarettes or e-cigarettes, vape pens, hookah pens, personal vaporizers, and mods), particularly among youth, raises concerns about long-term health effects and tobacco use trajectories.

In this independent evaluation report, we describe contextual influences relevant to NY TCP's progress, outline NY TCP's approach to tobacco control, and examine trends in key outcome indicators. This report primarily summarizes activities and outcomes for 2017. We address the following core tobacco control evaluation questions in this report:

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

We also address questions specific to unique tobacco control issues and studies:

- How do quitting-related behaviors and influences on cessation vary by demographic characteristics (age, race/ethnicity, sex, education, income, insurance, and mental health)?
- How and why do adolescents begin using vaping products?
- Are Medicaid-enrolled smokers aware of Medicaid smoking cessation benefits and do they believe tobacco dependence treatments are effective?

The New York Tobacco Control Program—Context and Programmatic Approach

Before we describe NY TCP's programmatic approach to tobacco control, we begin with a description of the state's tobacco control context. We emphasize key policy and funding factors relevant to program efforts.

Tobacco Control Policy Environment

New York State has been a leader for many years in implementing policies that are shown to help reduce smoking rates. The state's cigarette excise tax is $4.35, more than twice the average of U.S. states (Table 1). All New Yorkers are covered by a statewide comprehensive smoke-free air law (workplaces, restaurants, and bars), compared with 48% of the population nationally. During 2017, New York State adopted two new laws that expand smoke-free restrictions by limiting where vaping products may be used. Vaping products were added to the state's Clean Indoor Air Act, which means that vaping products may not be used where smoking is prohibited. In addition, the use of vaping products is now prohibited on all public and private school grounds in the state.

Table 1. Tobacco-related Environmental Influences in New York and the United States

Indicator	New York	U.S. Average
State cigarette excise tax (January 1, 2018)	$4.35	$1.72
Percentage of the state population covered by comprehensive[a] smoke-free air laws (December 31, 2017)	100%	58.4%
Annual per capita funding for tobacco control (FY 2017)	$1.90	$1.70 (excluding NY)

[a] "Comprehensive" refers to laws that create smoke-free workplaces, restaurants, and bars.

For fiscal year (FY) 2017, per capita funding for tobacco control was higher in New York ($1.90) than the average of all other states ($1.70), but the difference between these estimates continues to shrink. At its peak in 2007, the state's per capita funding was $5.21, compared with $2.40 in all other states.

Program Funding

For the 2018-2019 fiscal year (FY), the state appropriated $39.8 million for NY TCP. In contrast to the state appropriation, the NYS Division of Budget communicated to the Department a limit of $34.7 million, more than $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, although it was not adjusted in the 2018-2019 fiscal year. Even the appropriated dollar amount 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). New York's current funding represents only 2% of the state's annual cigarette tax and Master Settlement Agreement (MSA) payments. In FY 2018, New York State received approximately $1.8 billion in cigarette tax revenue and MSA payments combined (Table 2).

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

Revenue/Expenditure Category	Annual Amount
Revenue from state cigarette excise taxes (FY 2018)	$1,174,000,000
Revenue from MSA payments (FY 2018)	$650,300,000
Estimated cigarette advertising and promotions in New York State by five major cigarette manufacturers (FY 2016)	$189,726,000
National advertising for vaping products (CY 2017)	$41,500,000
New York Tobacco Control Program funding (FY 2018-2019)	$34,694,600

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

NY TCP's funding is considerably lower than the amount of money spent by cigarette manufacturers on advertising and promotion. Tobacco companies spent $8.2 billion in the United States on cigarette advertising and promotions in 2016. Assuming these expenditures are spent in proportion to cigarette sales, this translates to nearly $190 million spent on cigarette advertising and promotions in New York State in one year. Of this, an estimated $151 million was spent on price reductions and retail-value-added bonus cigarettes (e.g., buy two packs, get one free) in the retail environment. In addition, vaping product advertising in 2017 was estimated to be $41.5 million in the United States (via magazines, television, Internet, radio, newspapers, and outdoor media). 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). These vaping product advertisements are reaching youth; 68% of U.S. middle and high school students reported seeing vaping product ads in the retail setting in 2016, higher than reported exposure in 2014 and 2015 (Marynak et al., 2018).

Although the money spent on promoting tobacco products far outweighs NY TCP's funding, the program distributes its resources across a range of evidence-based approaches to reduce initiation and promote cessation. NY TCP's funding of $34.7 million for FY 2018–2019 continues at a fraction of the CDC-recommended amount, even as emerging tobacco products become more prevalent. The pattern of NY TCP funding over time provides context for interpreting trends in key outcome measures (Figure 1).

Figure 1. NY TCP Funding FY 2000–2001 to FY 2018–2019

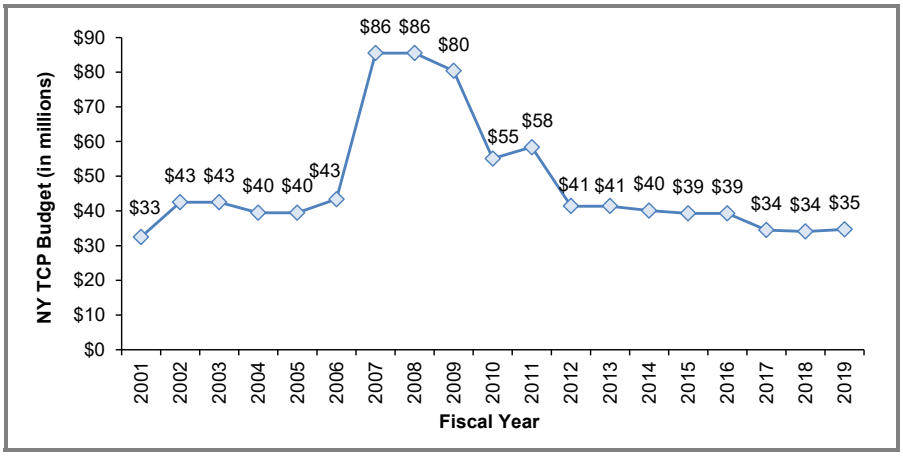


Table 3 shows funding for FY 2017–2018 and FY 2018-2019 by program component. These levels reflect NYS Division of Budget funding amounts rather than the state appropriation.

Table 3. NY TCP Funding for FY 2017–2018 and FY 2018–2019, by Program Component

Program Component	2017–2018 Funding	2018–2019 Funding
State and Community Interventions	**$10,410,458**	**$10,409,250**
Advancing Tobacco-Free Communities	$9,394,000	$9,394,000
Center for Public Health and Tobacco Policy	$516,458	$515,250
Training/Professional development	$500,000	$500,000
Enforcement	**$4,649,950**	**$4,649,950**
BTC tobacco enforcement support	$2,475,350	$2,475,350
CEH appropriation for enforcement	$2,174,600	$2,174,600
Health Systems Interventions	**$8,160,897**	**$8,096,976**
Health Systems for a Tobacco-Free New York	$3,274,770	$3,274,770
Quitline	$4,086,127	$4,072,206
Nicotine replacement therapy	$800,000	$750,000
Health Communication Interventions		
Media placement	**$5,246,547**	**$5,341,284**
Surveillance and Evaluation		
Independent evaluation	**$2,950,748**	**$2,921,140**
Administration		
Tobacco control and cancer services	**$2,744,000**	**$3,276,000**
Total NY TCP funding	**$34,162,600**	**$34,694,600**

BTC=Bureau of Tobacco Control. CEH=Center for Environmental Health.

CDC offers recommendations regarding the percentage of comprehensive tobacco control program funding to be allocated to each program component (CDC, 2014). NY TCP put 9% of its funded amount ($3.3 million) toward administration, which is far less than CDC's recommended amount of $8.8 million, although this is augmented by CDC grant funds in the amount of about $1.8 million annually; 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 (CDC, 2014). CDC suggests that state and community interventions and cessation interventions receive the highest proportions of program funds. NY TCP assigned 43% of its funding to state and community interventions compared with CDC's recommendation of 30%. NY TCP put 23% of its funding toward cessation interventions, compared with CDC's suggested 34%. NY TCP assigned 8% of its funding to surveillance and evaluation, close to CDC's recommendation of 9%. The program assigned 15% of the FY 2018-2019 funding to health communications interventions, compared with CDC's recommended 23%. The balance across components was impacted by the $5 million difference from the state-appropriated funds to the funds made available.

NY TCP state funding is supplemented by CDC grants, which primarily fund several staff positions. Shifts in federal funding priorities that affect CDC allocations may pose challenges for the program. NY TCP monitors federal budget news to assess the potential implications for their program.

Programmatic Approach

NY TCP focuses on the goals of preventing the initiation of tobacco use by youth and young adults, promoting cessation, and eliminating exposure to secondhand smoke. The program's approach is built on evidence of what works in tobacco control. NY TCP aims to reduce tobacco use by applying a social norm change model, creating a policy and social environment in which tobacco use becomes less acceptable, less desirable, and less accessible (CDC, 2014; Frieden, 2010; NCI, 1991; USDHHS, 2000). The program's goals are operationalized in the New York State Department of Health's (NYSDOH's) Prevention Agenda. The NYSDOH Prevention Agenda identifies measurable

objectives focused on decreasing youth and adult tobacco use statewide and establishes target reductions specifically among populations disproportionately affected by tobacco use. Objectives for the 2013-2018 Prevention Agenda include decreasing smoking prevalence among adults to 12.3% by the end of 2018 and reducing the rate of any tobacco use (i.e., cigarettes, vaping products, cigars, and smokeless tobacco) to 15.0% among high school students.

NY TCP's multipronged approach involves managing an extensive 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 contractors and partners. In the following sections, we describe NY TCP's central programmatic activities in more detail.

Administration and Support

NY TCP sustains a well-connected infrastructure to support its programmatic activities, in alignment with CDC Best Practices recommendations. NY TCP administration guides the overall programmatic strategy and coordinates communication across program staff, contractors, and partners. CDC emphasizes the importance of strategic planning, capacity building, coordination, and contract and financial management to effectively administer a comprehensive tobacco control program. NY TCP's multilevel leadership approach emphasizes strategic implementation of the program's initiatives through planning, communication, and coordinated management. This includes managing contractors' work on initiatives related to NYSDOH Prevention Agenda objectives. The program provides regular opportunities for professional development and maintains clear channels of communication, empowering individuals at each level to contribute to core tobacco control objectives. New York's tobacco control infrastructure integrates technical assistance and guidance to manage the effective and efficient investment of state tobacco control funding. NY TCP maintains strong accountability and reporting procedures, including dynamic contractor reporting tools. The program connects with tobacco control stakeholders throughout the state and region and contracts with Roswell Park Cancer Institute for quitline services and with the Public Health and

Tobacco Policy Center at Northeastern University's School of Law to support key tobacco control policy initiatives. State and community-level activities and program initiatives are supported by development and dissemination of key messages that are communicated by community contractors and via earned and paid media. To assess the effect of program efforts, NY TCP coordinates surveillance and evaluation activities, 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. 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 are largely focused on promoting smoking cessation, with an emphasis on television advertisements that graphically depict the health consequences of smoking and/or elicit strong negative emotions, as these types of ads have been found to be particularly effective in promoting smoking cessation (Farrelly et al., 2012; McAfee et al., 2013). Nearly all messages 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. NY TCP ran health communications during 2017, but at a much lower level than originally planned, in response to reduced funding.

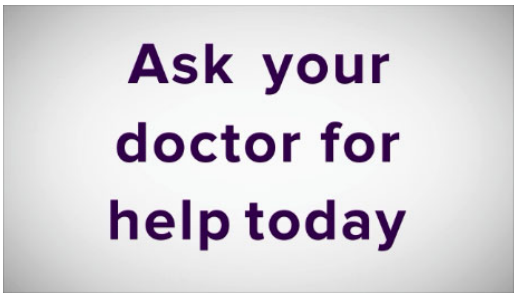
During 2017, NY TCP continued to use message strategies that have been successful in the past several years, with campaigns primarily focused on promoting cessation (Figure 2 shows images from some of the ads). In spring 2017, NY TCP introduced a new ad—*Best Intentions*—that features an emotional appeal emphasizing the effects of tobacco use and

Figure 2. Sample Ad Images

Best Intentions

Symptoms

Cigarettes Are Eating You Alive



Medicaid

related illnesses on tobacco users and their families. Developed by the Cancer Institute of New South Wales in Australia and adapted by NY TCP, *Best Intentions* features a man with cancer caused by smoking reflecting on his previous promises and failed attempts to quit smoking. The man says, "I was sure I was gonna stop before it did me any serious damage" before a voiceover reminds us that "there is never going to be a perfect time to quit. Smoking is an addiction. Face it now. Your healthcare provider can help you quit smoking for good."

Best Intentions was complemented with a previously-aired ad, *Symptoms*, that encourages smokers by acknowledging that while quitting can be difficult, with both physical and mental symptoms of withdrawal, these symptoms are a normal part of the quitting process. Developed by the Australian Government Department of Health, *Symptoms* features a man who suffered with withdrawal but is now able to play outdoors with his two young children, while the voiceover reminds those watching that "a little bit of suffering now can save a lot of suffering later."

NY TCP also returned to the ad *Cigarettes are Eating You Alive*, which graphically illustrates the ways that smoking "eats away

at nearly every vital organ in your body," including your heart, lungs, mouth, teeth, throat, and brain. The ad notes that while quitting is hard, help is available and the chances for success are greater with treatment and medication. This ad included the tagline, "Smoking is an addiction. Medicaid and your health provider can help." At the end of 2017, NY TCP also introduced a slightly modified version of the ad featuring a man with facial disfiguration caused by smoking-related disease.

In addition, throughout 2017, NY TCP continued to air its own ad targeting Medicaid recipients with a reminder that Medicaid benefits can be used to cover the cost of cessation medications. The brief ad features animated text on a white background, with a voiceover reading text including "We know quitting smoking isn't easy…if you're a Medicaid member, medications to help you quit are covered." To complement smoker-targeted ads and the program's health systems interventions, NY TCP also implements ads targeting health care providers, encouraging them to assist patients with evidence-based cessation. During 2017, the program tested new versions in this campaign for release in 2018.

To inform the planning and development of its antismoking media campaigns, NY TCP and RTI conduct rigorous formative testing of ads before airing and routinely assesses key campaign metrics, including awareness of ads and campaign brands, ad receptivity, and media use patterns of New York smokers. In 2017, NY TCP used data from its ongoing Media Tracking Survey Online to identify and characterize different segments of NY smokers who are the target of NY TCP's antismoking media campaigns. Results from this effort showed that, compared with smokers with higher socioeconomic status (SES), smokers with low SES watch similar types of programming but are more likely to do so via traditional platforms like broadcast television. NY TCP and its media contractors were able to draw on this and other insights from the segmentation analysis to optimize ad placement.

Health Systems Interventions

NY TCP's health systems interventions focus on increasing the provision of evidence-based tobacco dependence treatments, including brief counseling by health care providers and use of nicotine replacement therapies (NRTs) like the nicotine patch or

gum or prescription stop-smoking medications such as bupropion (Zyban) or varenicline (Chantix). NY TCP employs a multi-component, integrated approach, where activities target systems-, provider-, and patient-level outcomes, all with the coordinated goal of increasing provision of evidence-based tobacco dependence treatments. These activities include:

- institutionalizing changes in medical and behavioral health care systems, including policies, changes to electronic health records (EHRs), and protocols and standards of care;
- developing and airing media targeting health care providers motivating them to assist their patients with quitting;
- leveraging statewide health care reform changes, such as Medicaid payment incentive programs and CDC's 6|18 initiative, which focuses on effective interventions for high-burden health conditions;
- offering telephone-based smoking cessation counseling; and
- reducing the cost and increasing availability of tobacco dependence treatments for patients.

By focusing on an integrated public health approach that influences the health system context, the program aims to maximize its reach and sustainability and spend its resources efficiently. The following sections describe NY TCP health systems interventions in more detail, summarizing health systems contractors' interventions, the New York State Smokers' Quitline, and reduced patient costs for treatment.

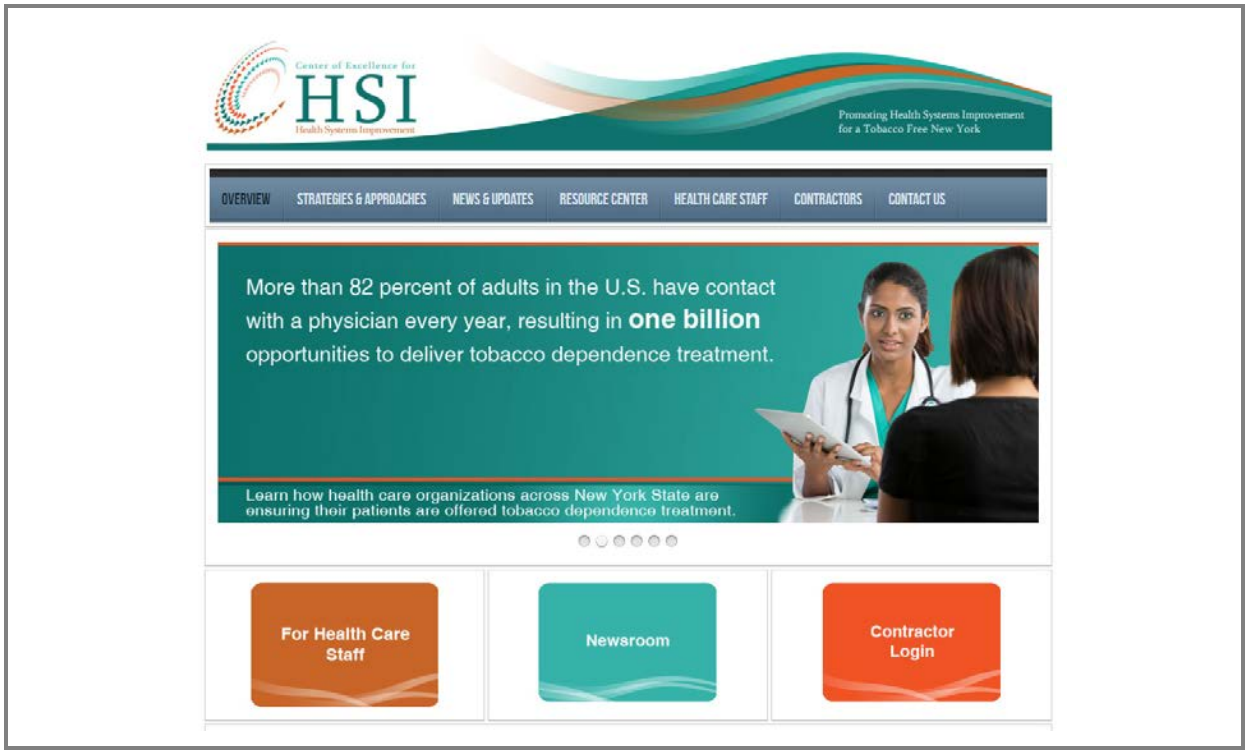
Health Systems Contractor Interventions

For more than a decade, NY TCP's health systems change intervention activities have focused on funding contractors to increase the number of medical and mental health care organizations that have systems that facilitate and institutionalize the provision of evidence-based tobacco dependence treatment: screening all patients for tobacco use, providing brief advice to quit at all visits, and providing assistance to help patients quit successfully. NY TCP's health systems change approach includes facilitating systems-level changes within medical and behavioral health care organizations to ensure that all tobacco users are identified and receive interventions.

Brief advice to quit smoking by a health care provider significantly increases the odds that a smoker will quit (Nonnemaker et al., 2011), and 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 one statewide Center of Excellence and 10 regional health systems contractors to carry out the health systems initiative known as Health Systems for a Tobacco-Free NY. The statewide Center of Excellence works at the state level to help foster a climate that encourages health care organizations to institutionalize guideline-concordant policies and systems.

One of the Center of Excellence's key activities at the state level is to convene the Statewide Stakeholder Workgroup to bring together representatives from key organizations across the state to influence health systems-related policy and leverage resources to support implementation of tobacco dependence screening and treatment in health systems (Figure 3 shows the Center of Excellence's website). Workgroup members include representatives from organizations and

Figure 3. Health Systems Center of Excellence Website



government agencies in areas related to health care, health insurance coverage, tobacco control, and behavioral health. The workgroup facilitates conversations among key stakeholders regarding tobacco cessation Medicaid benefit coverage and utilization, works to create and disseminate standard tobacco-related templates for EHRs, and actively engages key stakeholders regarding statewide health care delivery service redesign projects to facilitate inclusion of tobacco cessation measures into those projects. One continued success has been the establishment of a collaborative relationship with several electronic health record vendors, E-Clinical Works, Allscripts, and Epic, to develop standard tobacco-related templates for the EHR that could be utilized by a wide array of organizations. The Center of Excellence has facilitated the negotiation of a single programming development cost and a cost sharing mechanism to make standard EHR forms more accessible to organizations.

The Center of Excellence also has a role in supporting the Health Systems for a Tobacco-Free NY regional contractors. The 10 regional contractors 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 provide technical assistance.

When they began their efforts in 2004, regional health systems contractors 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. Specifically, NY TCP instructed contractors to target Federally Qualified Health Centers (FQHCs), which serve underserved populations, including those with low income, and programs that serve individuals who experience serious mental illness. Because populations with low income and populations that experience serious mental illness use tobacco at higher rates than the general population, working with FQHCs and behavioral health treatment facilities provides a significant opportunity for health systems contractors to impact organizations where smokers receive care. Regional health systems contractors provide these organizations with guidance and strategic assistance on

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

Health systems contractors' interactions with targeted organizations include obtaining administrative commitment to partner with organizations, educating decision makers about the need for policies and systems that promote tobacco use screening and dependence treatment, and encouraging changes to tobacco-related policies, standards of care, and electronic health records. From April 2017 to January 2018, the Health Systems for a Tobacco-Free NY contractors worked with 127 medical health care organizations and 131 mental health target organizations. This translates to contractor partnerships with more than 60% of the community health centers in New York and with more than 20% of the outpatient mental health service organizations in the state.

As health systems contractors facilitate organizations' systems-level strategies to improve policies, protocols, and systems, they document these changes over time. Between July 2016 and June 2017, health systems contractors reported that 75 organizations implemented health systems changes (Table 4). The most common type of health systems change implemented in medical and mental health organizations during this time was focused on implementing a system that ensures that every patient is asked about tobacco use at every visit (Table 4).

Table 4. Tobacco-related Health Systems Changes Implemented in Medical and Mental Health Organizations by Systems Strategy, July 2016-June 2017

Systems-Level Strategy	Medical Health Organization Systems Changes	Mental Health Organization Systems Changes
Implementation of or update to a tobacco user identification system	38	37
Integration of education, resources, and feedback to promote provider intervention	35	31
Assignment of dedicated staff to provide and/or integrate tobacco dependence treatment	17	16

Health systems contractors 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. From April 2017–January 2018, health systems contractors reported 224 instances of earned media, including 61 stories in newsletters or websites, 45 newspaper stories, 41 letters to the editor, 30 radio interviews, 30 TV stories, 9 blog stories, and 8 editorials or op-eds.

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 Cancer Institute. The Quitline provides individualized telephone counseling to adult smokers who want to quit, free 2-week NRT starter kits to eligible clients by phone or Internet, prerecorded telephone messages covering a range of topics related to quitting and an interactive Quitsite Web site. The Quitline serves a number of purposes in the NY TCP, including (1) providing an effective, evidence-based service designed to help smokers quit smoking; (2) serving as a clearinghouse of information on smoking cessation for smokers, health care providers, and the general public; (3) facilitating a call to action in mass media messages designed to promote cessation; and (4) enhancing the ability of health care providers to refer their patients to a cessation resource. NY TCP is strategically working to integrate the New York Quitline into larger programmatic health systems efforts to promote cessation. This includes tasking the Quitline with suggesting that Quitline callers talk with their health care providers to receive additional services as well as to inform Quitline callers of the cessation-related benefits available to them through their insurance.

The Quitline contract renewal in May 2017 resulted in changes to some quitline protocols and data collection procedures. For measures that were modified in May 2017 and are no longer comparable to previous measures, we calculate totals for May 2017 through December 2017.

In 2017, the Quitline received 103,589 incoming calls, a decrease of 23.2% over the 134,942 calls received in 2016 (Table 5). This decrease likely reflects the reduced funding available during 2017, as prior analyses have found that changes in media placements are associated with changes in Quitline calls. A total of 32,583 individuals registered for Quitline services by telephone, a decrease of 34.8% from

49,958 telephone registrations in 2016. A total of 15,088 individuals registered for Quitline services online, an increase of 19% over the 12,680 individuals who registered for Quitline services online in 2016. The 2016 Quitline website registrations are notably lower than the 2017 registrations as the website was turned off in January 2016 and February 2016. In 2017, the Quitline sent a total of 37,048 NRT starter kits to callers, down 20.2% from 46,442 NRT starter kits in 2016.

Table 5. New York State Smokers' Quitline Calls, Registrations, and NRT Provision, 2016–2017

Measure	2016	2017
Calls to the Quitline	134,942	103,589
Individuals Registered for Quitline Services: Telephone	49,958	32,583
Individuals Registered for Quitline Services: Website	12,680	15,088
Number of NRT Starter Kits Sent	46,442	37,048

From May 2017 through December 2017, a total of 24,740 tobacco users enrolled in telephone quitline services, and 19,810 tobacco users completed an initial coaching call (Table 6). The Quitline website had a total of 154,032 pageviews from 75,300 website visitors. Website visitors engaged in a total of 86,815 website visits. From May 2017 through December 2017, the Quitline received a total of 19,772 referrals from health care providers through two types of referral programs.

Table 6. New York State Smokers' Quitline Utilization and Referrals, May 2017–December 2017

Measure	May 2017–December 2017
Tobacco Users: Enrolled in Telephone Services	24,740
Tobacco Users: Completed Initial Coaching Call	19,810
Quitline Website: Pageviews	154,032
Quitline Website: Visits	86,815
Quitline Website: Visitors	75,300
Total Provider Referrals (Refer-To-Quit and Opt-To-Quit Programs)	19,772

Reduced Patient Costs for Treatment

NY TCP has worked 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 and actively promotes these benefits through television ads and other communications. The Affordable Care Act requires all Medicaid programs to cover all FDA-approved tobacco cessation medications, although not all states have fully implemented this requirement (DiGiulio et al., 2018). New York is one of 32 states that covers all 7 FDA-approved medications and one of 10 states that covers the 7 medications and covers individual plus group counseling (DiGiulio et al., 2018). Of the 7 common barriers to treatment (copays, prior authorization, counseling requirements for medications, stepped care, duration limits, annual attempt limits, lifetime attempt limits), New York has successfully eliminated all but copays.

In October 2015, New York State Medicaid benefits were expanded in New York City to offer smoking cessation counseling and unlimited trials of all FDA-approved medications to those with behavioral health diagnoses, who have higher rates of tobacco use. This expansion was subsequently implemented statewide. Effective December 2016, New York's Medicaid program expanded these benefits to all Medicaid enrollees, not just those with behavioral health diagnoses. Unlimited courses of medication are covered, including combination NRT (e.g., long-acting patch and short-acting gum).

NY TCP encourages other health plans to expand coverage and promote cessation services to their members. New York State is expanding the percentage of recipients enrolled in Medicaid Managed Care (MMC) plans to 95% within the next few years (DiNapoli, 2015). NY TCP and its health systems Center of Excellence contractor are supporting MMC plans and groups of providers in their systems change efforts focused on increased smoking cessation treatment, including use of the Medicaid benefits for cessation medication and counseling. In 2014, New York expanded counseling to include dentists and dental hygienists. New York State's Delivery System Reform Incentive

Payment (DSRIP) program charges provider groups with carrying out performance improvement projects with the goal of reducing unnecessary hospital visits. NY TCP has partnered with representatives from MMC plans and DSRIP stakeholders to establish NY TCP health systems contractors as resources to help with cessation projects.

Statewide and Community Action

NY TCP implements a coordinated community intervention strategy focused on local-level policies with the potential to prevent youth tobacco use initiation and promote cessation. NY TCP funds 25 Advancing Tobacco-Free Communities (ATFC) contractors to conduct local tobacco control activities. The program directs the contractors to concentrate on specific policy initiatives and strategies that are recommended by CDC (2014) and considered essential to the continued declines in tobacco use (Institute of Medicine, 2007). In 2017-2018, Each AFTC contractor organization is responsible for a geographically defined catchment area, ranging from a single borough in New York City (e.g., Queens) to three counties in upstate New York. The program funds two full-time staff positions for each ATFC contractor, a Community Engagement Coordinator and a Reality Check Youth Action Coordinator.

ATFC contractors focus their efforts on four initiatives: point of sale (POS), tobacco-free outdoors, smoke-free multi-unit housing, and smoke-free media. Contractors promote these initiatives by conducting four types of strategies: community education, community mobilization, government policy maker education, and advocacy with organizational decision makers. These strategies are supported by state and community paid media efforts. In the remainder of this section, we briefly summarize the policy goals for each initiative and the level of contractor activity for each initiative from April 2017 through January 2018.

POS Initiative: The goal of the POS initiative is to reduce the impact of retail tobacco product marketing primarily on youth. The POS initiative includes education about policies that

- limit the number of retailers that can sell tobacco products in a community,
- prohibit the sale of tobacco products in stores near schools,

- prohibit the sale of tobacco products in pharmacies, and
- prohibit retailers from redeeming coupons or offering special promotions, such as offers of buy one tobacco product, get one free.

Contractors also work with jurisdictions on efforts to raise the age for legal purchase of tobacco products from 18 to 21.

From April 2017 to January 2018, ATFC contractors reported more than 284 meetings to educate local policy makers about the POS initiative. These policy makers included elected leaders of villages, townships, and New York City boroughs, as well as county officials, local boards of health, and legislators. Contractors worked to gain media coverage of the POS issue and reported 427 instances of earned media coverage, including 203 newspaper stories; 57 radio interviews or stories; 50 newsletter/website stories; 41 TV stories; 37 letters to the editor; 7 editorials; and 32 blogs/discussions (see Figure 4 for some examples). ATFC contractors also conducted more than

Figure 4. Examples of Media Coverage Related to the Point of Sale Initiative

500 community education events related to POS to connect with youth groups, schools, allied coalitions, neighborhood associations, health care offices, mental health providers, businesses, law enforcement, and the general public.

The 2013-2018 NYSDOH Prevention Agenda established a target of 10 POS policies, throughout the state, by the end of 2018. As of January 2018, the target number has been achieved, in advance of the target timeline. At least 10 distinct municipalities have adopted POS policies, and some have implemented policies with multiple POS components or even distinct POS policies. As a result, these policies affect more than half the population of the state. These include policies that address tobacco retailer licensing or registration and policies that prohibit tobacco sales near schools or in pharmacies. New York City laws set a minimum price for cigarettes and little cigars, prohibit price promotions, prohibit tobacco sales in pharmacies, cap the number of tobacco retailers, and require that vaping product retailers obtain a license. Sullivan and Ulster Counties prohibit the sale of tobacco in new retailers within 1,000 feet of schools. Other counties and jurisdictions have additional POS policy provisions in place, and contractors continue pursuing the expansion of these policies to create an environment that decreases the likelihood of youth starting to use tobacco and increases the chances of successful cessation for those trying to quit. Across New York State, municipalities are also adopting policies that increase the minimum age to purchase tobacco to 21 or limit the number or location of vape shops. In addition, other New York jurisdictions have voted on POS policies, but not yet adopted them—indicating growing interest in tobacco control policy change.

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. The policy goals for this initiative include restrictions on smoking in outdoor public places such as beaches, parks, and playgrounds, and policies prohibiting smoking on grounds or near entrances of community colleges, museums, and other businesses. From April 2017 through January 2018, ATFC contractors reported 263 instances of educating policy makers about the issue and its policy solutions, including elected representatives of villages, towns, cities, and counties, as well as state senators and representatives. They also reported 367

instances of advocating with organizational decision makers about the need for organizational policies addressing settings such as colleges, businesses, religious organizations, health care provider offices, and libraries.

From April 2017 through January 2018, contractors reported that new tobacco-free outdoors policies were adopted by 45 municipalities, 4 counties, and 157 organizations including libraries, colleges, recreational facilities, businesses, health care provider offices, and service organizations. The majority of the policies prohibit smoking in outdoor areas such as campus grounds or beaches, parks, and playgrounds; some policies prohibit smoking near building entryways.

New Yorkers who work outdoors have higher rates of smoking (23.6% in 2015, BRFSS) compared with those who work indoors. To better understand how the program might incorporate outdoor worksites into the tobacco-free outdoors initiative, RTI conducted focus groups with outdoor workers. The outdoor workers who participated in the focus groups reported that smoke-free outdoor workplace rules would cause them to smoke less. They also reported that they opposed smoke-free worksite rules and stated that smoking is commonplace in outdoor workplace culture. By understanding the perspectives of outdoor workers, NY TCP can anticipate challenges more efficiently and identify opportunities to build on shared perspectives more effectively.

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. Contractors advocate with building owners and managers for smoke-free policies in large housing complexes. 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). From April 2017 through January 2018, ATFC contractors reported over 57 instances of educating policymakers about the issue and policy solutions and 333 instances of advocating with organizational decision makers including individual landlords, management companies, and public housing authorities; they reported 95 instances of obtaining commitment for a smoke-free multi-unit housing policy.

ATFC contractors reported that 76 apartment complexes or management companies adopted smoke-free multi-unit housing policies between April 2017 and January 2018. As a result, an additional 9,187 units became smoke-free during this period.

The program's smoke-free multi-unit housing initiative is ali with the U.S. Department of Housing and Urban Development's (HUD's) smoke-free rule for federal public housing. This rule requires that public housing apartment buildings (including individual units) and offices and a minimum outdoor 25-foot buffer zone be entirely smoke-free by July 31, 2018. To inform connections between the HUD smoke-free rule and the program's smoke-free multi-unit housing initiative, we assessed policy-related beliefs and attitudes of public housing residents and administrators in five New York State federally funded public housing authorities that were not smoke-free as of May 2017. Exposure to secondhand smoke in these units was relatively high, and 21.6% of residents surveyed had moved out of their apartment because of exposure to tobacco smoke in their home. However, few residents indicated complaining directly to smokers about secondhand smoke, and even fewer complained to building management. Support for smoke-free public housing units was high among residents and mixed among administrators, who voiced concerns about the burden of monitoring and enforcing the policy. These findings suggest that implementation of the HUD rule could be improved through well-designed dissemination of information about the policy combined with a systematic and anonymous way to register complaints, and NY TCP contractors can leverage these data and existing resources to support housing authorities' policy implementation efforts.

Smoke-Free Media Initiative. The goal of the smoke-free media initiative is to reduce youth exposure to tobacco use imagery in movies and on the Internet. Youth ATFC members 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) and movie theaters, and regional and national media providers (e.g., Comcast, Viacom, Disney Sony).

Infrastructure Development and Sustainability. In addition to their policy-focused activities, ATFC contractors engage in continuous education and networking activities to maximize the effectiveness of their policy work. Between April 2017 and January 2018, contractors participated in 133 trainings on a wide range of topics, including internal ATFC trainings, communication and messaging workshops, and trainings on policy priorities like POS or smoke-free multi-unit housing. They also engage in sustainability efforts to raise awareness of the program among key stakeholders at the state and local levels. From April 2017 to January 2018, they reported 146 in-person meetings with legislators in New York, along with an additional 1,112 communications with legislators through letters and calls to ensure that legislators understand the need for continued progress in reducing tobacco use among New Yorkers.

Key Evaluation Questions

This section addresses NY TCP progress over the past 10 years for key outcome indicators for New York State and for the United States, when available. We document progress toward 2013-2018 NYSDOH Prevention Agenda objectives. The key evaluation questions for this year include core tobacco control measures and special studies:

- How has NY TCP influenced trends in tobacco use? Specifically, we examine trends in the following indicators:
  - Percentage of adults in New York and the United States who currently
    - smoke cigarettes,
    - smoke cigars,
    - use smokeless tobacco, and
    - use vaping products
  - Prevalence of smoking among New York adults who report annual household income less than $25,000 or frequent mental distress
  - Average daily cigarette consumption among current adult smokers in New York and the rest of the United States
  - Percentage of adult smokers who made a quit attempt in the past 12 months in New York and the rest of the United States

  - Percentage of youth in New York and nationally who currently use tobacco
  - Percentage of New York adult smokers who report provider cessation interventions
- We also summarize studies that address questions related to cessation behaviors across demographic groups, vaping product beliefs and patterns among adolescents, and awareness of Medicaid benefits for smoking cessation:
  - How do quitting-related behaviors and influences on cessation vary by demographic characteristics (age, race/ethnicity, sex, education, income, insurance, and mental health)?
  - How and why do adolescents begin using vaping products?
  - Are Medicaid-enrolled smokers aware of Medicaid smoking cessation benefits and do they believe tobacco dependence treatments are effective?

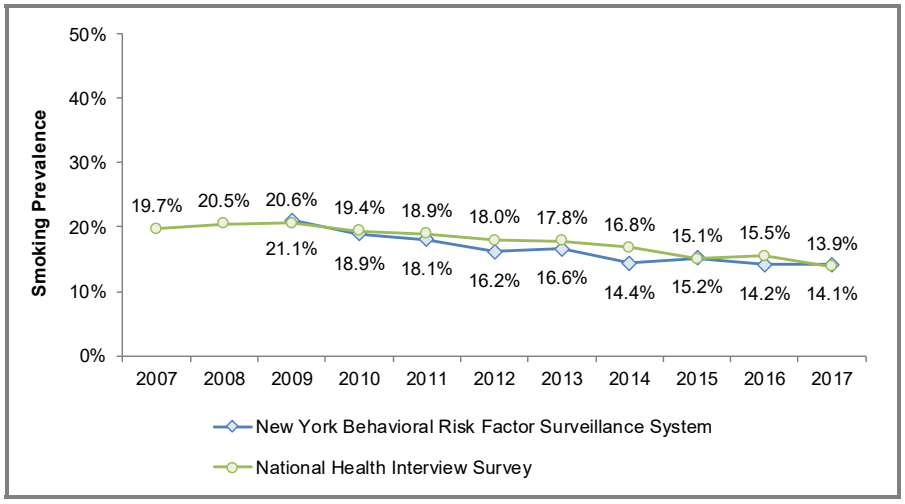
Adult Tobacco Use Measures

We present trends in New York adult cigarette smoking prevalence from 2009 to 2017 using the Behavioral Risk Factor Surveillance System (BRFSS). BRFSS estimates of smoking prevalence prior to 2009 are not directly comparable to estimates in 2009 and more recent years due to changes in data collection and weighting methodologies.[1] We report national smoking prevalence estimates for comparison from the National Health Interview Survey from 2007 to 2017. For other tobacco control measures, we use the New York Adult Tobacco Survey and New York's National Adult Tobacco Survey.

[1] In 2009, CDC piloted a new weighting and data collection methodology for the BRFSS in several states, including New York State. This new approach became the standard approach in all states in 2011.

From 2009 to 2017, adult smoking prevalence declined by 33% in New York and by 30% nationally (Figure 5). NY TCP reached the original 2013-2018 NYSDOH Prevention Agenda objective of decreasing adult smoking prevalence to 15.0% in 2014 and set a new target of decreasing prevalence to 12.3% by the end of 2018. In 2017, 14.1% of New York adults reported current smoking.

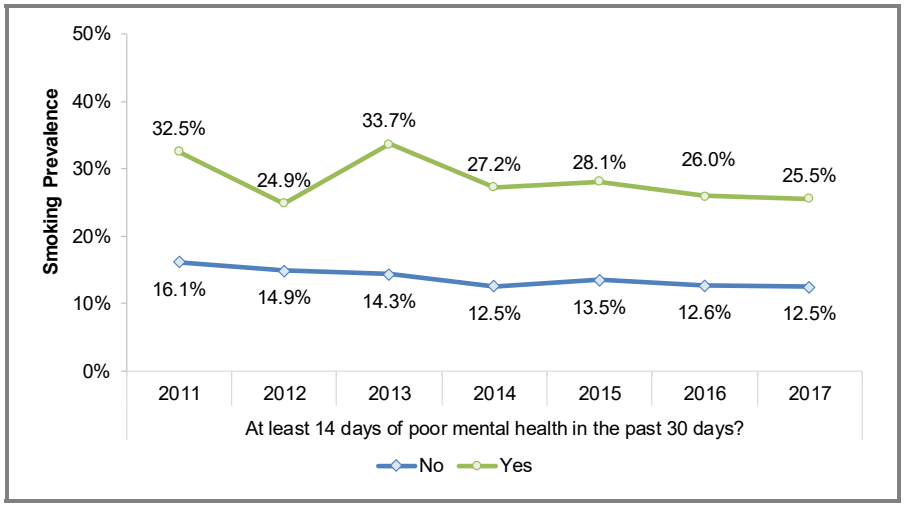
Figure 5. Percentage of Adults Who Currently Smoke in New York (Behavioral Risk Factor Surveillance System) 2009–2017 and Nationally (National Health Interview Survey) 2007–2017



Note: There is a statistically significant downward trend in smoking prevalence among adults in New York State and in the United States from 2009 to 2017.

Smoking prevalence is higher among New York adults who report frequent mental distress than those who do not, and the 2013-2018 NYSDOH Prevention Agenda set a target of decreasing smoking among New York adults with frequent mental distress to 26.5% by the end of 2018. The current prevalence estimate among New York adults with frequent mental distress is 25.5% (Figure 6), indicating that the program has achieved this objective.

Figure 6. Percentage of New York Adults with Frequent Mental Distress Who Currently Smoke, New York Behavioral Risk Factor Surveillance System, 2011–2017

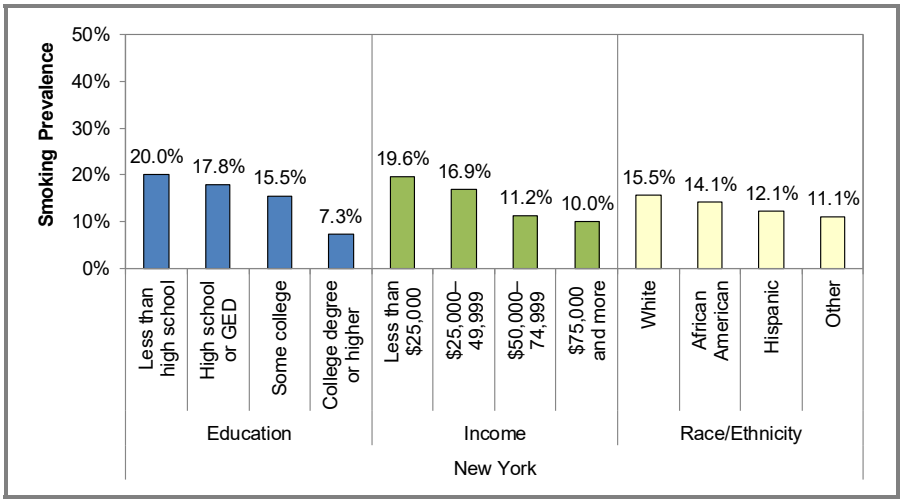


Note: There is a statistically significant downward trend in smoking prevalence among New York adults indicating "Yes" or "No" to "At least 14 days of poor mental health in the past 30 days" from 2011 to 2017.

Smoking prevalence varies by income level, and the 2013-2018 NYSDOH Prevention Agenda includes an objective of decreasing smoking prevalence among adults with household income of less than $25,000 to 20% by the end of 2018. In 2017, 19.6% of New York adults with a household income of less than $25,000 reported current smoking, down from 27.8% in 2011 (a decrease of 29%) (Figure 7). However, smoking rates are still higher among New York adults with household income of less than $25,000 or between $25,000 and $50,000 than those with higher household incomes.

Educational attainment is associated with smoking prevalence in New York. Those with a college degree or higher have a lower smoking prevalence (7.3%) than those with less than a high school degree (20.0%), a high school degree or equivalent (17.8%), or some college (15.5%) (see Figure 8). Smoking prevalence varies by race/ethnicity as well. Smoking rates are higher among white adults (15.5%) and African American adults (14.1%) than Hispanic adults (12.1%) and those who report a race/ethnicity of "other" (11.1%) (see Figure 7).

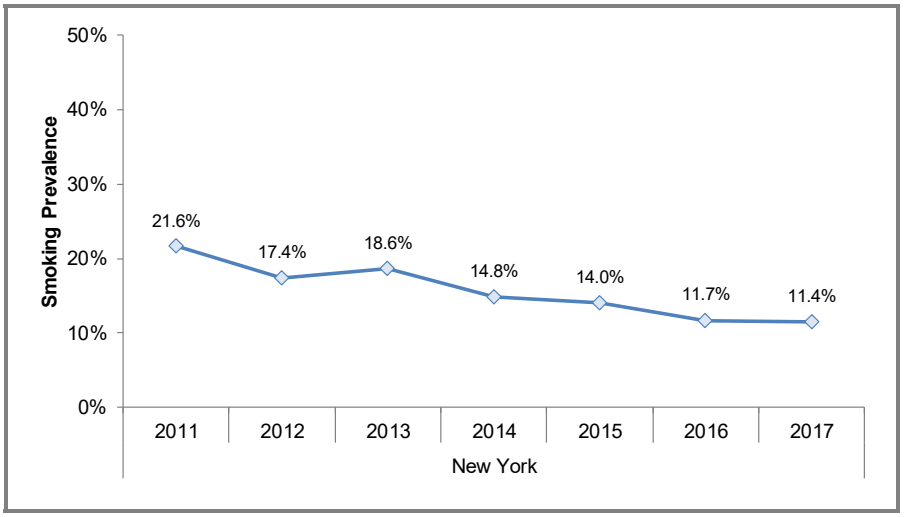
Figure 7. Percentage of New York Adults Who Currently Smoke, by Income, Education, and Race/Ethnicity, Behavioral Risk Factor Surveillance System 2017



Note: Prevalence of smoking differs significantly by education, income, and race/ethnicity. 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 less than a high school education. Those earning less than $50,000 have higher smoking prevalence than those earning $50,000 or more. There are statistically significant differences in the prevalence of smoking between white adults and Hispanic adults or adults with a race/ethnicity of "other."

The 2013-2018 NYSDOH Prevention Agenda also includes a goal of decreasing cigarette smoking among young adults to 18% by 2018. New York has already achieved this goal; in 2017, 11.4% of New York young adults ages 18 to 24 reported smoking (Figure 8).

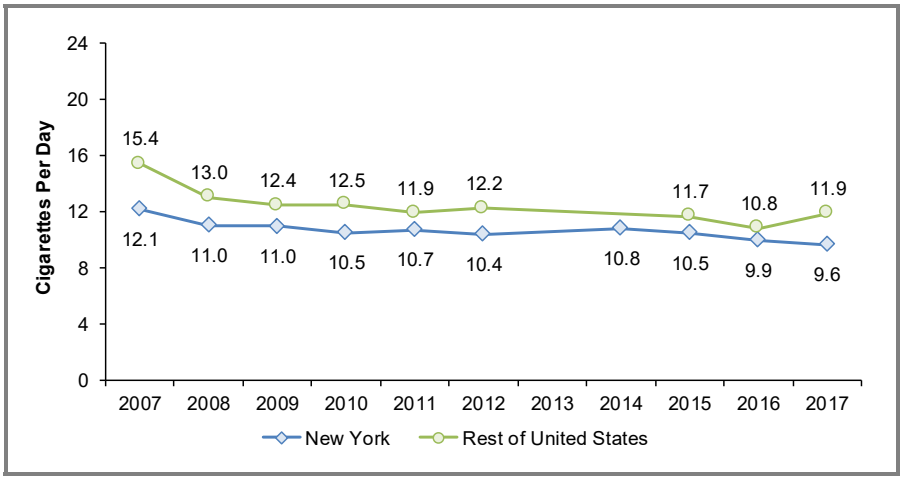
Figure 8. Percentage of New York Young Adults Aged 18 to 24 Who Currently Smoke, Behavioral Risk Factor Surveillance System 2011–2017



Note: There is a statistically significant downward trend in smoking prevalence among young adults in New York State from 2011 to 2017.

Among all New York adult smokers, daily cigarette consumption decreased from 12.1 cigarettes per day in 2007 to 9.6 cigarettes per day in 2017, or just less than half a pack a day (Figure 9). Among adults in the rest of the United States, daily cigarette consumption was 11.9 cigarettes per day in 2017. Although there is a downward trend in daily cigarette consumption in New York and in the rest of the country, consumption rates have plateaued in recent years.

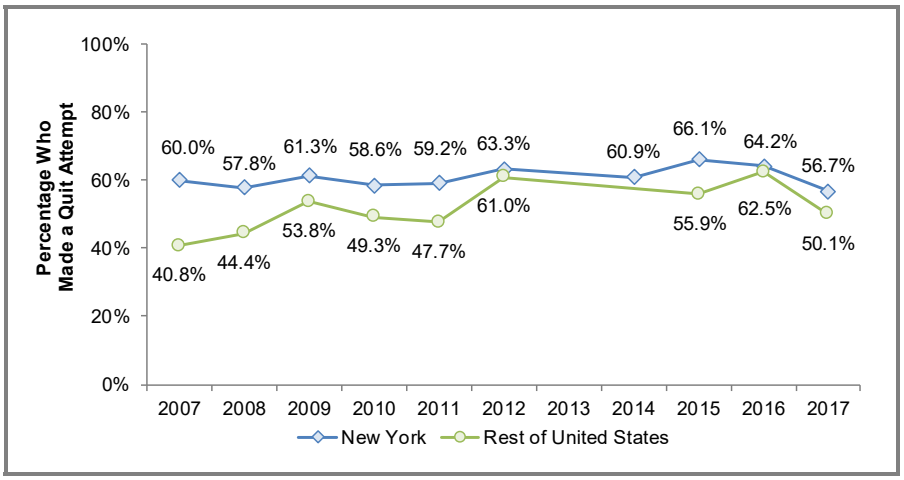
Figure 9. Average Daily Cigarette Consumption by Current Smokers, New York Adult Tobacco Survey 2007–2017 and National Adult Tobacco Survey 2007–2017



Note: There is a statistically significant downward trend among smokers in New York and the rest of the United States. There is a statistically significant difference in average daily cigarette consumption among current smokers in New York and the rest of the United States in 2017.

The proportion of adult smokers who made a quit attempt in the past 12 months was 56.7% in New York in 2017, compared with 50.1% of adult smokers in the rest of the United States (Figure 10). The prevalence of quit attempts among current smokers has increased in the rest of the United States.

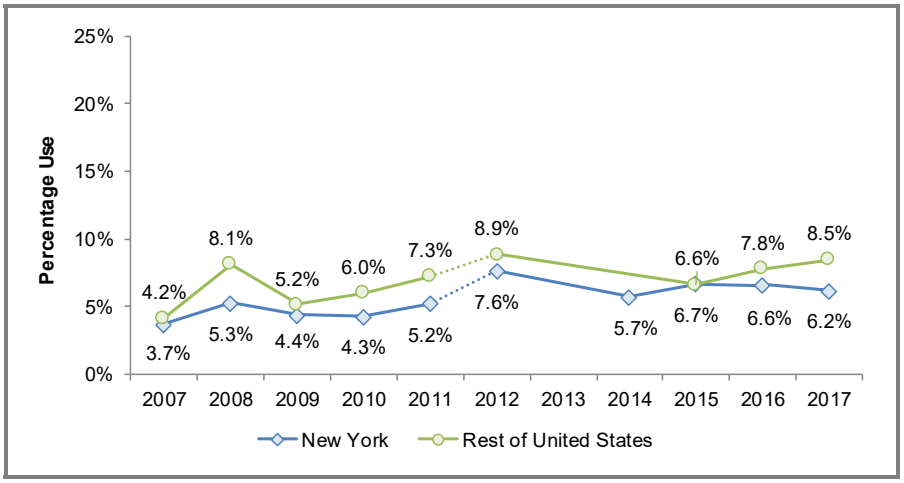
Figure 10. Percentage of Adult Smokers Who Made a Quit Attempt in the Past 12 Months, New York Adult Tobacco Survey 2007–2017 and National Adult Tobacco Survey 2007–2017



Note: There is a statistically significant upward trend among smokers in the rest of the United States.

In 2017, 6.2% of New York adults reported current use of cigars (defined as cigars, cigarillos, or little cigars), an increase from 2007. New York adults' cigar use prevalence is lower than the national rate (8.5%) (Figure 11). Most New York adults who use cigars report using them rarely. Cigar use in New York is much higher among men (9.5%) than women (3.3%), and varies by age group, with rates highest among young adult men ages 18-24 (12.7%) (data not shown).

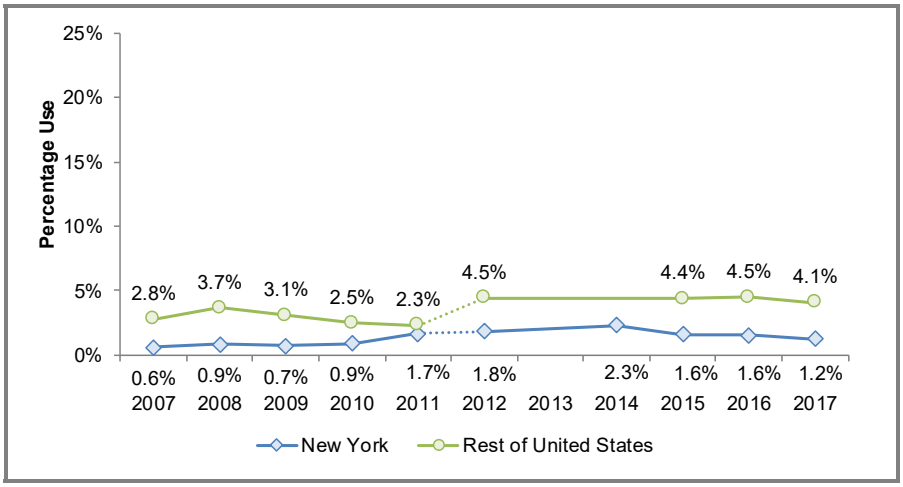
Figure 11. Percentage of Adults Who Currently Smoke Cigars, New York Adult Tobacco Survey 2007–2017 and National Adult Tobacco Survey 2007–2017



Note: There is a statistically significant upward trend in current cigar use among adults in New York State and the rest of the United States. There is a statistically significant difference in the percentage of adults who currently smoke cigars in New York and the rest of the United States in 2017. 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."

Current use of smokeless tobacco among New York adults is lower than in the rest of the United States (Figure 12). In 2016, adult smokeless tobacco use prevalence was 1.2% in New York compared with 4.1% in the rest of the country.

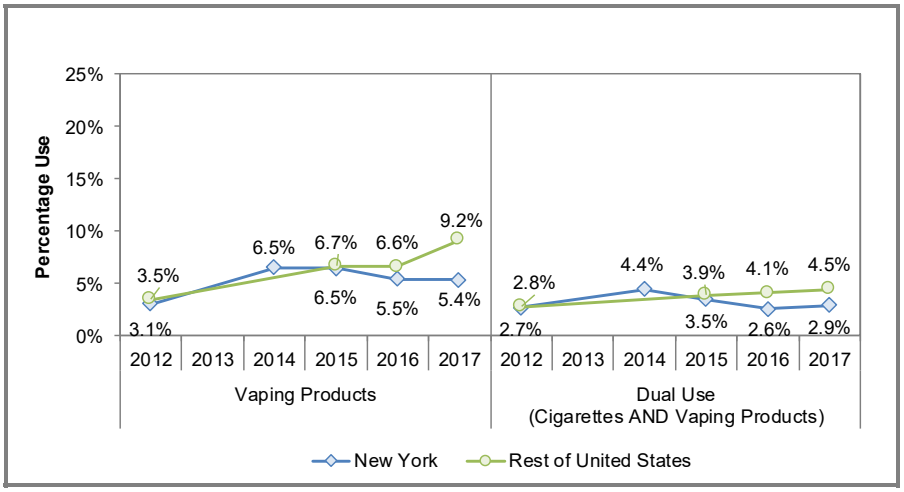
Figure 12. Percentage of Adults Who Currently Use Smokeless Tobacco, New York Adult Tobacco Survey 2007–2017 and National Adult Tobacco Survey 2007–2017



Note: There is a statistically significant upward trend in current smokeless use among New York adults and the rest of the United States. There is a statistically significant difference between current smokeless tobacco use in New York State and the rest of the United States in 2017. From 2007 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."

NY TCP began tracking use of vaping products via the New York Adult Tobacco Survey in 2012. In 2017, 5.4% of New York adults reported current use of vaping products compared with 9.2% in the rest of the United States, and 2.9% of New York adults used both cigarettes and vaping products (Figure 13). Thus, half of New York adult vaping product users also used cigarettes. Use of vaping products and dual use of vaping products and cigarettes was lower in New York than the rest of the country in 2017.

Figure 13. 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 2012–2017 and National Adult Tobacco Survey 2012–2017

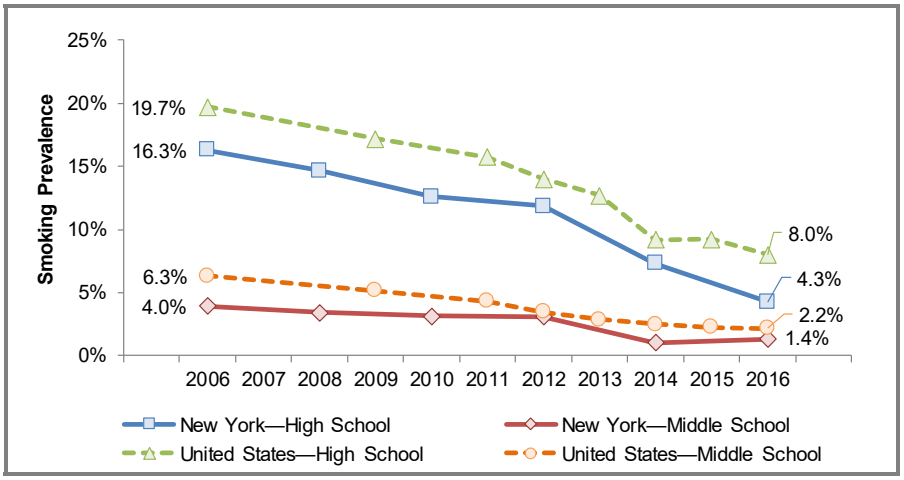


Note: There is a statistically significant upward trend in current dual use (cigarette and vaping product use) among adults in the rest of the United States. There is a statistically significant difference between vaping product use in New York State and the rest of the United States in 2017. There is also a statistically significant difference between dual use in New York State and the rest of the United States in 2017. Current vaping product use includes reports of use every day, some days, and rarely. There is a statistically significant upward trend in current vaping product use among adults in New York State and the rest of the United States.

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 over time, leading to historically low rates of smoking in 2016. Specifically, the prevalence of current smoking in New York declined by 74% among high school students and by 65% among middle school students (Figure 14). High school student smoking prevalence in 2016 was lower for New York than for the United States.

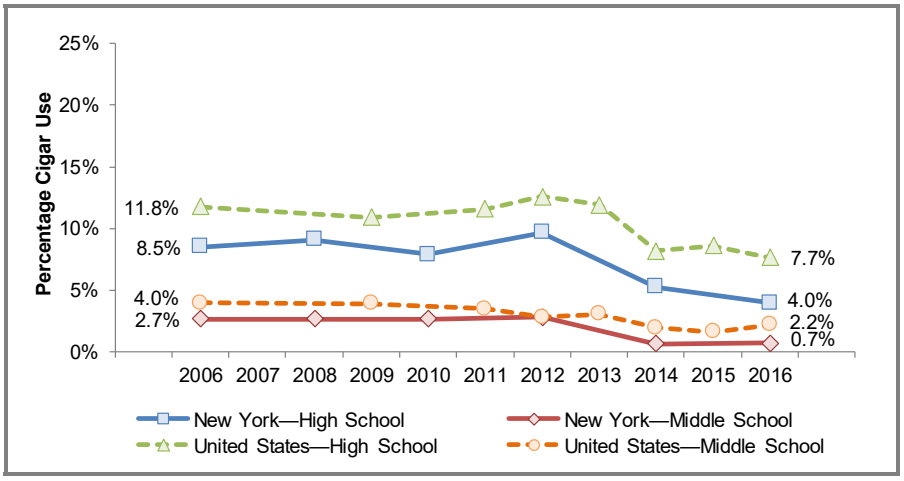
Figure 14. Percentage of Middle and High School Students Who Currently Smoke Cigarettes in New York and Nationally, New York Youth Tobacco Survey 2006–2016 and National Youth Tobacco Survey 2006–2016



Note: There is a statistically significant downward trend among middle and high school students in New York and in the United States. There is a statistically significant difference in high school student smoking between New York and the United States in 2016.

Rates of cigar use among middle and high school students have declined in recent years in New York and nationally. Less than 1% of middle school students in New York reported current cigar use, a 74% decrease since 2006. In 2016, 4.0% of New York high school students reported current cigar use, a 53% decrease since 2006 (Figure 15). National trends in youth cigar use have also decreased over time, although New York middle and high school student cigar use was lower than national rates in 2016.

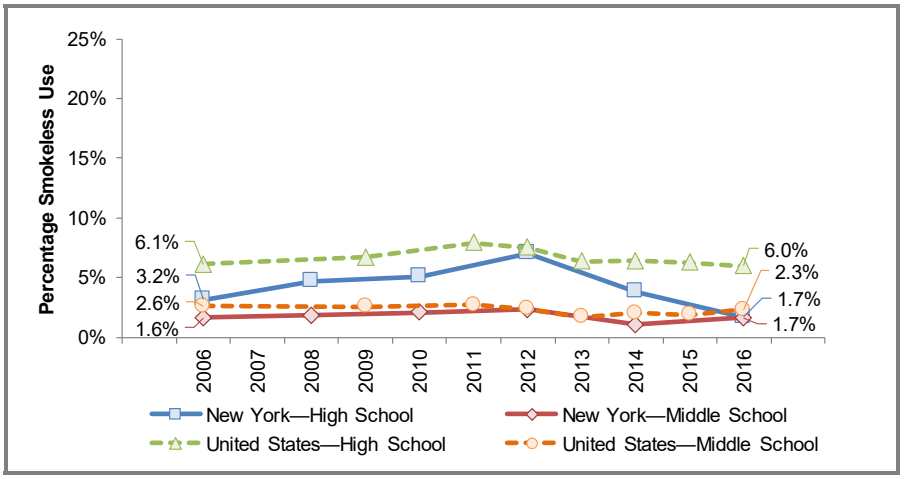
Figure 15. Percentage of Middle and High School Students Who Currently Smoke Cigars in New York and Nationally, New York Youth Tobacco Survey 2006–2016 and National Youth Tobacco Survey 2006–2016



Note: There is a statistically significant difference in middle and high school student cigar use between New York and the United States in 2016. 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. There is a statistically significant downward trend among middle and high school students in New York and in the United States.

Youth use of smokeless tobacco is low, both in New York and in the United States as a whole. In 2016, 1.7% of New York high school students reported current use of smokeless tobacco, compared with 6.0% of high school students nationally (Figure 16). New York middle school student smokeless tobacco use prevalence was also 1.7% in 2016, similar to the national middle school student rate of 2.3%.

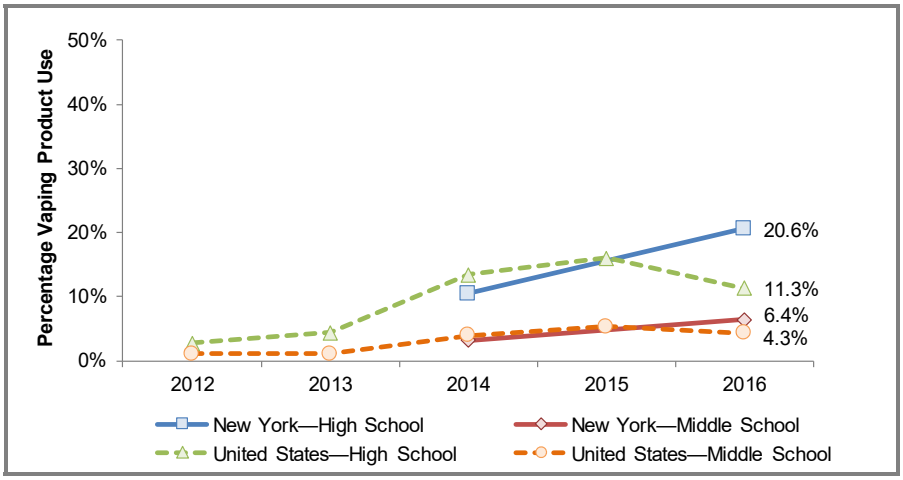
Figure 16. Percentage of Middle and High School Students Who Currently Use Smokeless Tobacco in New York and Nationally, New York Youth Tobacco Survey 2006–2016 and National Youth Tobacco Survey 2006–2016



Note: There is a statistically significant difference in high school student smokeless tobacco use between New York and the United States in 2016. 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.

Rates of cigarette, cigar, and smokeless tobacco use among youth in New York and nationally are decreasing, but youth use of vaping products has followed a different trajectory. Among New York high school students, current use of vaping products defined as vaping within the past 30 days, thereby inclusive of regular users and youth at risk of becoming regular users) increased from 10.5% in 2014 to 20.6% in 2016 (Figure 17). Reports of current vaping among New York middle school students has increased from 3.2% in 2014 to 6.4% in 2016. National rates decreased while New York rates increased, and vaping among New York middle and high school students was higher in 2016 than national rates. Of note, a higher proportion of New York middle and high school students vape than use cigarettes, cigars, or smokeless tobacco.

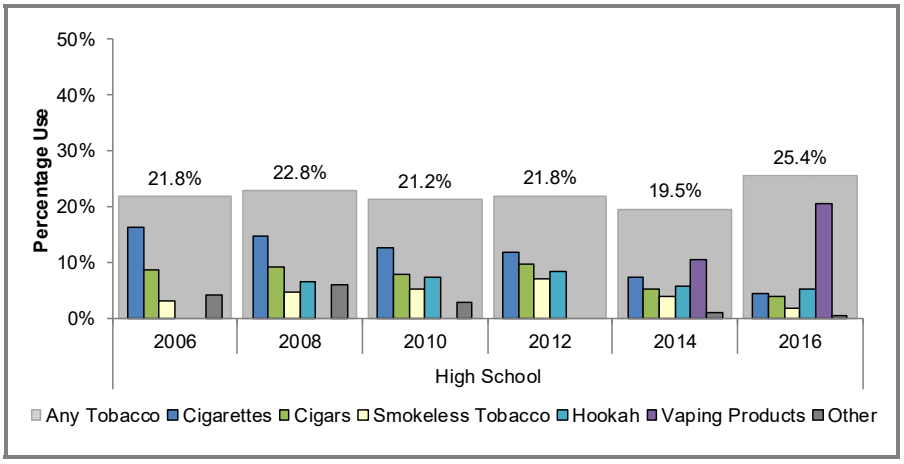
Figure 17. Percentage of Middle School Students and High School Students Who Currently Use Vaping Products in New York and Nationally, New York Youth Tobacco Survey 2014–2016 and National Youth Tobacco Survey 2014–2016



Note: There is a statistically significant upward trend among middle and high school students in New York and in the United States. There is a statistically significant difference in middle and high school student vaping product use between New York and the United States in 2016.

The 2013-2018 NYSDOH Prevention Agenda set an objective of decreasing high school student prevalence of any tobacco product use to 15.0% by the end of 2018. In 2016, youth use of tobacco products (cigarettes, cigars, smokeless, hookah, bidi, or kreteks) was 21.2%. Youth use of tobacco products (including vaping products) in 2016 was 25.4%, with use of vaping products overwhelmingly more common than other types of tobacco products (Figure 18).

Figure 18. Percentage of New York High School Students Reporting Current Use of Any Tobacco Product, New York Youth Tobacco Survey 2000–2016



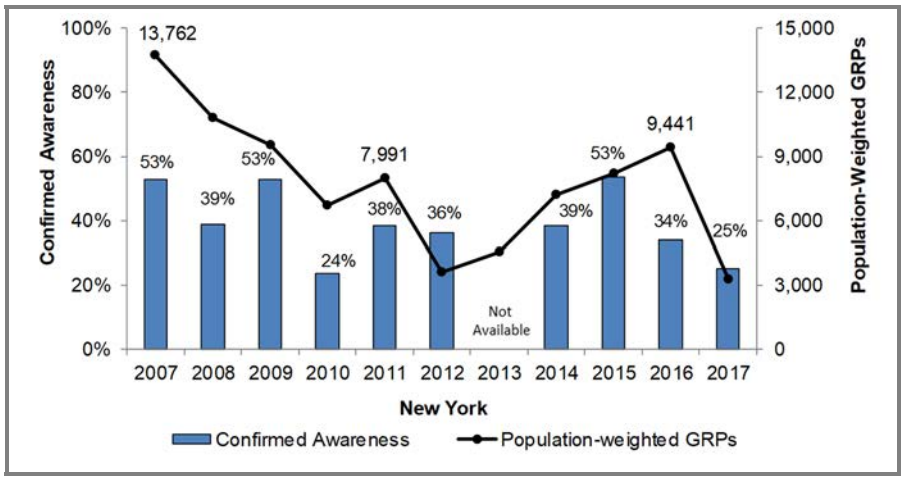
Note: Current tobacco use is defined by indicating use of cigarettes, cigars (large cigars, cigarillos, or little cigars), smokeless tobacco (chew, snuff, dip, snus, or dissolvable), hookah (or waterpipe), vaping products, or other tobacco products (pipe, bidi, or kretek) on 1 or more days in the past 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 2013-2018 NYSDOH Prevention Agenda objectives and other relevant measures.

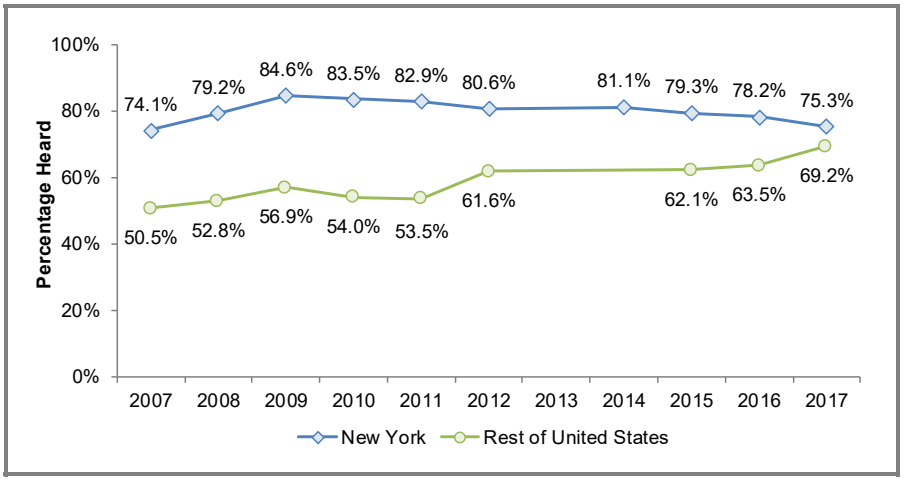
In 2017, 25% of New York adult smokers recalled seeing at least one NY TCP-sponsored television advertisement, a 25% decline from 2016 (Figure 19). This corresponds with a 65% decrease in gross ratings points or GRPs (a measure of potential ad exposure) from 9,441 to 3,296 due to decreased Program funding.

Figure 19. Confirmed Awareness of Paid Advertisements among Smokers and Population-Weighted Statewide Average Gross Rating Points (GRPs) 2003–2017, New York Adult Tobacco Survey 2003–2017



Awareness of the New York State Smokers' Quitline among New York smokers was 75.3% in 2017. Awareness of quitlines among adult smokers in the rest of the country has increased and, at 69.2% in 2017, is approaching the level of New York's Quitline (Figure 20).

Figure 20. Percentage of Adult Smokers Who Have Heard of Quitline, New York Adult Tobacco Survey 2007–2017 and National Adult Tobacco Survey 2007–2017

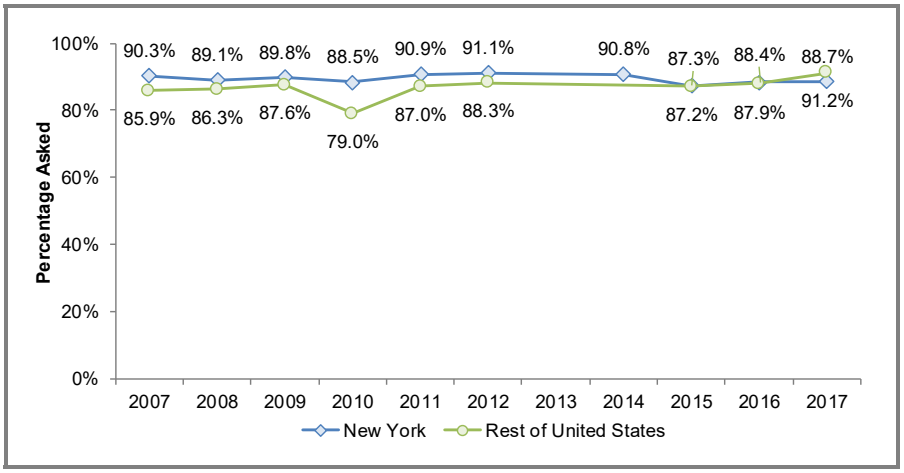


Note: New York smokers were asked if they had heard of the New York State Smokers' Quitline. Smokers in the rest of the United States were asked if they had heard of any telephone quitlines, such as 1-800-QUIT-NOW. There is a statistically significant upward trend among smokers in the rest of the United States.

We assessed the utilization and reach of the New York Quitline using data from the monthly Quitline reports prepared by Roswell Park Cancer Institute. On average in the United States, state quitlines reach approximately 1% of smokers annually (CDC, 2014). In 2017, 1.5% of New York smokers registered for Quitline services by phone and 0.7% of New York smokers registered online. In 2017, reach for the telephone component of the Quitline was lower than in 2016; reach for the website component of the Quitline was slightly higher.

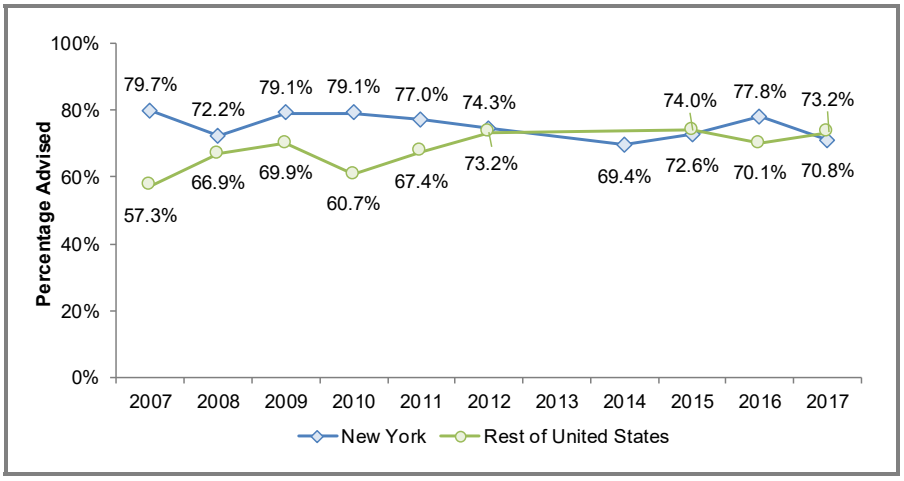
Health care provider interventions with patients who use tobacco are associated with increased patient quit success. Health systems interventions in New York facilitate organizational changes that make the delivery of cessation interventions a routine part of care for each patient who uses tobacco. In 2017, 88.7% 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 percentage of smokers who were asked nationally (Figure 21).

Figure 21. 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 2007–2017 and National Adult Tobacco Survey 2007–2017



Once patients are identified as tobacco users, guidelines recommend advising that they quit and providing assistance with a quit attempt. In 2017 in New York, 70.8% 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 22). Reports of provider advice to quit among smokers in the rest of the United States in 2017 were similar (73.2%). Rates of provider advice to quit have not changed significantly over the past 10 years in New York.

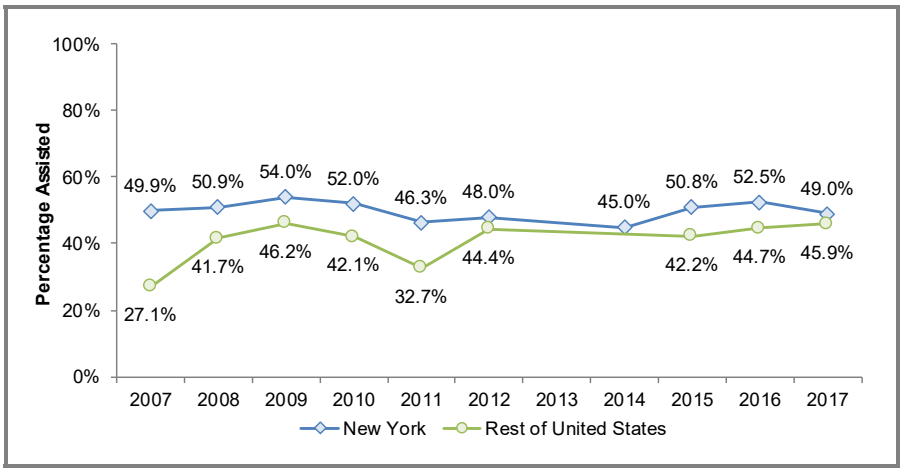
Figure 22. Percentage of Adult Smokers Who Were Advised by Their Health Care Provider to Quit Smoking in the Past 12 Months, New York Adult Tobacco Survey 2007–2017 and National Adult Tobacco Survey 2007–2017



Note: There is a statistically significant upward trend among smokers in the rest of the United States.

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 classes. The 2013-2018 NYSDOH Prevention Agenda set an objective of increasing provider assistance with quitting from 46.3% in 2011 to 55.0% by the end of 2018. Assistance with a quit attempt has been stable over the past 10 years in New York and in 2017, 49.0% of New York adult smokers reported provider assistance (Figure 23). In the rest of the United States, 45.9% of smokers reported provider cessation assistance. Reports of assistance have increased since 2007 in the rest of the United States, closing the gap between New York and the rest of the country.

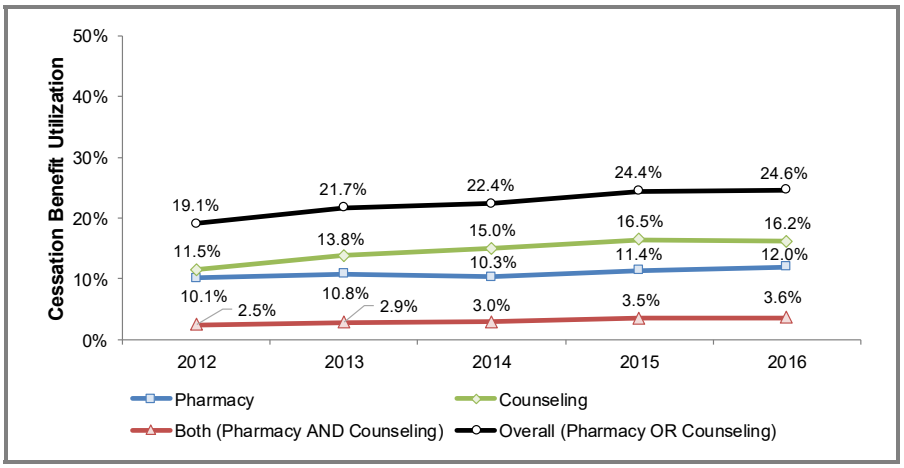
Figure 23. Percentage of Adult Smokers Who Report That Their Health Care Provider Assisted Them with Smoking Cessation in the Past 12 Months, New York Adult Tobacco Survey 2007–2017 and National Adult Tobacco Survey 2007–2017



Note: There is a statistically significant upward trend among smokers in the rest of the United States.

The 2013-2018 NYSDOH Prevention Agenda includes an objective focused on increasing use of cessation supports for Medicaid-enrolled smokers. The objective sets a target of increasing the utilization rate of smoking cessation benefits among smokers enrolled in MMC plans to 41.0% by the end of 2018. The New York Medicaid Office shared a preliminary estimate indicating that 24.6% of MMC-enrolled smokers used cessation benefits in 2016 (Figure 24). This estimate represents a 29% increase since 2012. The way that NYSDOH calculates smoking prevalence for Medicaid utilization estimates has changed over time (Malloy et al., 2017), and improvements in methodology may reflect an opportunity to reassess the target.

Figure 24. Percent of Estimated Smokers Enrolled in Medicaid Managed Care Plans That Used Smoking Cessation Benefits, 2012-2016, NY Medicaid

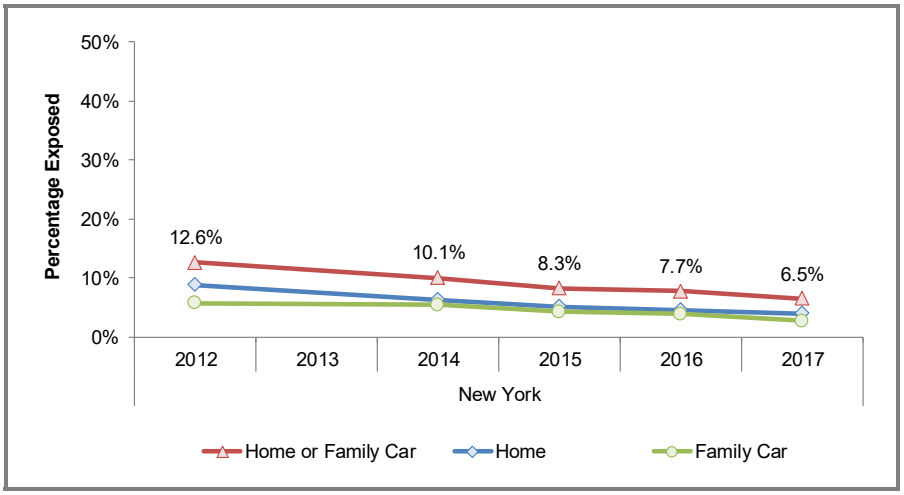


Note: Estimated number of smokers was calculated by multiplying plan enrollment (based on Medicaid member profile data) by plan-specific smoking prevalence (based on Medicaid adult CAHPS® surveys administered in 2011, 2013, and 2015). CAHPS prevalence was held constant over two years to account for off cycle years (years in which the adult surveys were not administered).

New York adults' secondhand smoke exposure has decreased dramatically. The 2013-2018 NYSDOH Prevention Agenda defined a goal of decreasing secondhand smoke exposure from 27.8% in 2009 to 20% by 2018. Since 2015, New York has exceeded this goal. Specifically, 19.6% of adults in 2017 reported being exposed to secondhand smoke.

Estimates of exposure to secondhand smoke specifically among nonsmokers are even lower. In 2017, only 6.5% of nonsmoking New York adults reported secondhand smoke exposure in their homes or family cars (Figure 25).

Figure 25. Percentage of New York Nonsmokers Who Report Being Exposed to Secondhand Smoke, New York Adult Tobacco Survey 2012–2017



Note: There is a statistically significant downward trend in secondhand smoke exposure among New York nonsmokers. There is a statistically significant difference in secondhand exposure in the family car between New York State and the rest of the United States in 2017.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?"

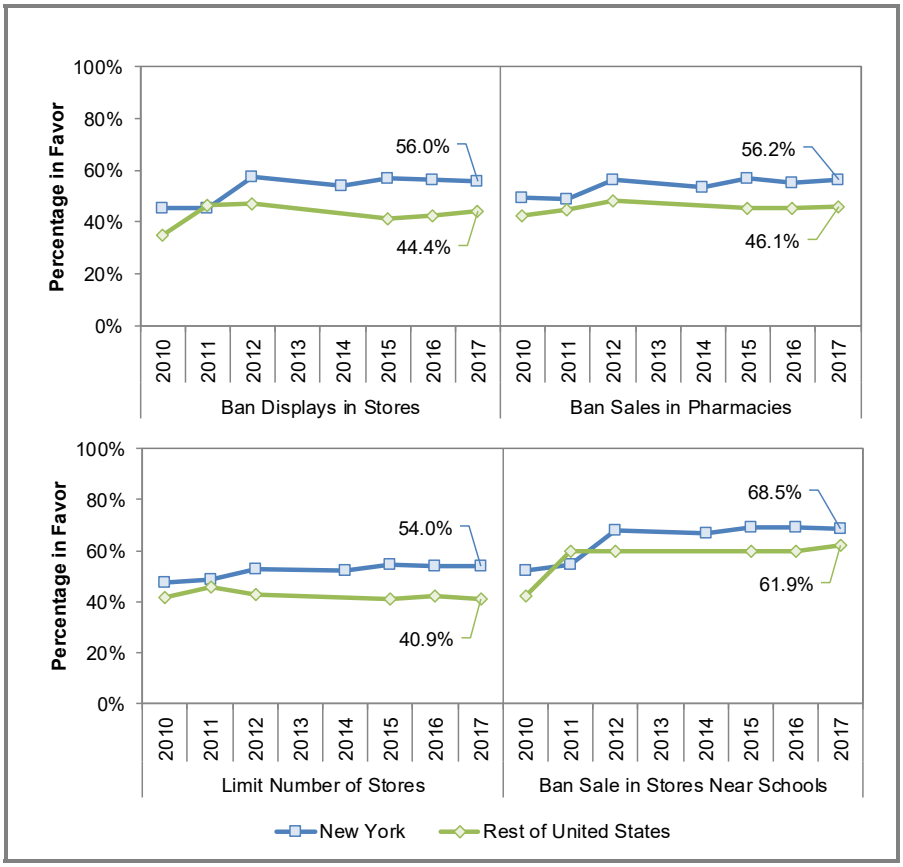
Support for Tobacco Control Policy Change

NY TCP's ATFC contractors routinely educate the public, policy makers, and organizational decision makers about tobacco control issues. For example, contractors educate policy makers about the research literature documenting the relationship between tobacco product marketing at the point of sale (POS) and tobacco use initiation (e.g., Henriksen et al., 2004, 2008, 2010; Wakefield et al., 2006). Past analyses of New York data consistently demonstrate that policy makers who believe that POS marketing influences youth tobacco initiation are more likely to support POS policies (Schmitt et al., 2012, 2015).

Policy change in the POS area has been slow, which increases the importance of monitoring more proximal outcomes of contractor activities, such as changes in knowledge and beliefs consistent with the program's messaging.

New York adults' support for prohibiting the display of tobacco products, prohibiting pharmacy sales, limiting the number of stores that can sell tobacco, and prohibiting tobacco sales in stores near schools all increased significantly between 2010 and 2017 (Figure 26). Support for these policies was significantly higher among New Yorkers than among adults in the rest of the United States. New York adults also expressed support for policies to reduce secondhand smoke exposure, including

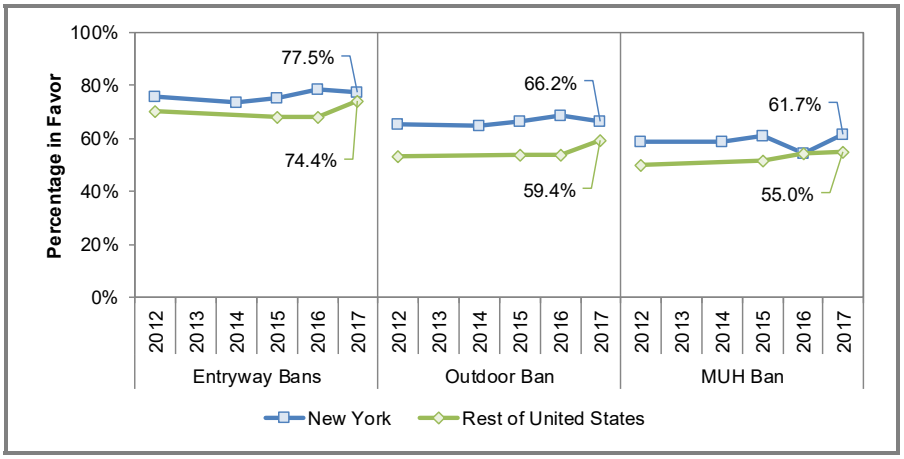
Figure 26. Support among Adults for Point of Sale Tobacco Control Policies, New York Adult Tobacco Survey 2010–2017 and National Adult Tobacco Survey 2010–2017



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 stores near schools among adults in the rest of the United States. There is a statistically significant difference between support in New York State and the rest of the United States in 2017.

prohibiting smoking in building entryways, in outdoor areas like parks and playgrounds, and in multi-unit housing (Figure 27). Support for policies to reduce secondhand smoke exposure was higher among adults in New York than in the rest of the country for outdoor and multi-unit housing policies.

Figure 27. Support among Adults for Policies to Reduce Secondhand Smoke Exposure, New York Adult Tobacco Survey 2012–2017 and National Adult Tobacco Survey 2012–2017



Note: There are statistically significant upward trends in support for entryway and MUH bans among adults in New York State. There is a statistically significant difference between support of an outdoor and MUH ban in New York State and the rest of the United States in 2017. MUH = Multi-unit housing.

The next sections explore three important tobacco control issues in greater detail. First, we present quitting-related behaviors and influences on cessation by demographic characteristics of New York smokers. Second, we analyze how and why New York youth begin using vaping products. Third, we examine the extent to which Medicaid-enrolled smokers are aware of New York State Medicaid's benefits to assist them with quitting.

How Do Quitting-related Behaviors and Influences on Cessation Vary by Demographic Characteristics?

Adult smoking prevalence in New York has declined over the past 10 years due to reduced initiation and increased cessation. Cessation is a complex process that often requires multiple attempts (Chaiton et al., 2016). Although the majority of smokers made at least one quit attempt in the past year, certain groups still smoke at higher rates than others, including males, American Indian/Alaska Natives, individuals with a GED, individuals living below the poverty line, those who have

Medicaid insurance, and those who experience serious psychological distress (Jamal et al., 2015).

Policy, environmental changes, and mass antitobacco advertising are well-documented evidence-based interventions for promoting cessation. New York State has been a leader in the field of tobacco control, with the first statewide clean indoor air act, which now includes vaping products, the highest state-level tobacco excise tax in the country at $4.35, and comprehensive Medicaid coverage for tobacco dependence treatments with minimal barriers to access. In recent years, NY TCP has made a strategic shift in focus and resources to target smokers who are disproportionately affected by tobacco use, particularly individuals with serious mental illness and/or low income.

The purpose of this analysis was to explore disparities in quit attempts in New York State and identify differences in influences on smoking cessation by demographic groups.

Data and Methods

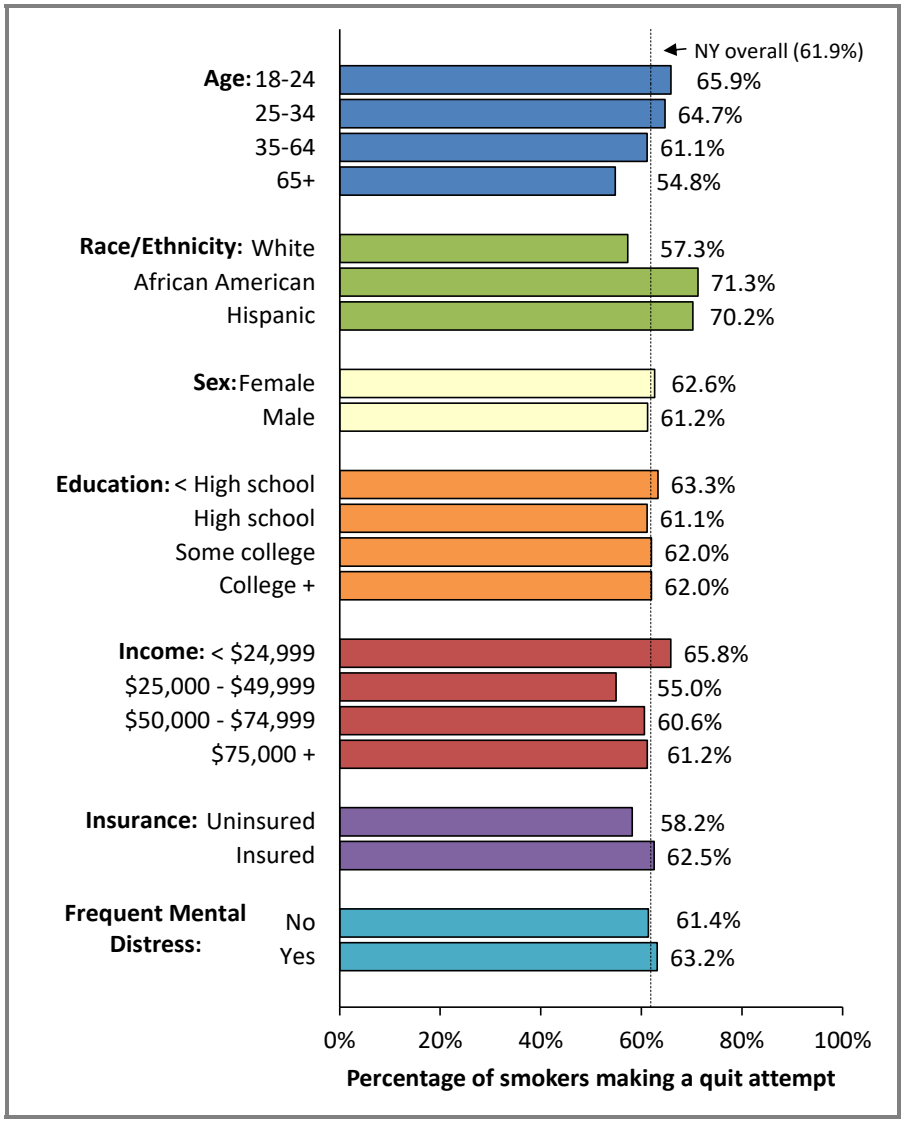
We used data from the New York BRFSS survey and the New York Adult Tobacco Survey to analyze cessation-related outcomes and influences among adults in New York State overall and by demographic groups. To achieve adequate sample size for demographic groups of interest, we pooled survey data from 2014 through 2016. We focused on the following outcomes: past-year quit attempts, cessation assistance by a health care provider, use of evidence-based quit methods, and confirmed awareness of antitobacco advertising. We estimated these outcomes overall and by the demographic variables of age, race/ethnicity, sex, education level, annual household income, insurance, mental health status, and location (NYC vs. Rest of State).

Results

BRFSS data indicate that 61.9% of New York smokers made a quit attempt in the past year (Figure 28). The demographic groups with the highest reports of making a quit attempt were African Americans (71.3%), Hispanics (70.2%), smokers making less than $25,000 (65.8%), and smokers aged 18-24 (65.9%) and 25-34 (64.7%). Reports of making a quit attempt

did not differ by sex, education, insurance, or mental health status.

Figure 28. Prevalence of Making a Past-Year Quit Attempt, NY-BRFSS 2014–2016



Overall, 23.4% of smokers in NY used an evidence-based quit method at their last quit attempt. Evidence-based quit methods include counseling from a health care provider, Quitline or cessation program/class, and use of prescription stop-smoking medications Zyban or Chantix or NRT such as nicotine patch or gum. Individuals who experience frequent mental distress (32.2%) and those with less than a high school education (31.1%) reported the highest rates of using evidence-based methods. Rates of using evidence-based methods to quit were lowest among smokers without health insurance (10.5%) and those with higher income (13.3%).

The groups reporting the highest rates of provider assistance were smokers who are Hispanic (66.3%), who report frequent mental distress (60.6%), who have public insurance (58.1%), and those with low income (58.0%). Awareness of NY TCP's antitobacco television advertisements was highest among smokers who were African Americans (50.2%), had some college experience (49.9%), or were aged 35–64 (46.1%).

Summary

Although smoking rates in New York State have declined significantly over time, some groups still smoke at disproportionately higher rates than others. Groups with the highest smoking prevalence—individuals with frequent mental distress, public insurance, and lower education and income—were generally those reporting higher rates of receiving provider assistance and using evidence-based treatments more often than the general population.

How and Why Do Adolescents Begin Using Vaping Products?

Although youth cigarette smoking in NY continues to decline, vaping product use has increased and is now higher than cigarette and other tobacco product use. Existing tobacco surveillance efforts, such as the NY Youth Tobacco Survey (NY YTS), collect data about vaping product use, but gaps remain in our understanding about youth beliefs and behaviors regarding vaping products. To address some of these gaps, RTI conducted an online survey of NY adolescent vaping product users to understand how and why they are using these products.

Data and Methods

From August to November 2017, we recruited 296 15- to 17-year-old vaping product users through Instagram and Facebook to participate in an online survey.

The survey addressed a range of topics related to vaping product beliefs and behaviors, including vaping product and tobacco product use; types of devices used; reasons for initiation and current use; flavor use; purchasing behaviors and other use behaviors, such as sharing/borrowing; and knowledge, attitudes, and beliefs about e-liquids, nicotine, and

product emissions. In the survey, we asked about "electronic vaping products, including e-cigarettes, vape pens, hookah pens, personal vaporizers, and mods."

To adjust for differences between the sample and the target population, we calibrated the data to the demographic distribution of current vaping product users aged 15 to 17 in the 2016 NY YTS. We calculated descriptive statistics for key variables and present national estimates from RTI's calibrated national youth vaping product survey when available.

Results

The sample was mostly white (46.4%) and female (57.1%). We found that nearly half of NY adolescent vaping product users (49.4%) lived in the same household with someone who uses tobacco products.

Tobacco Product Use, Including Use of Vaping Products

Most NY adolescent vaping product users (75.8%) reported that vaping products were the tobacco product they tried first, while nationally it was fewer than half (37.3%). When asked about non-vaping product tobacco use, 17.9% of NY adolescent vaping product users reported smoking cigarettes in the past 30 days; the rate was 53.2% nationally.

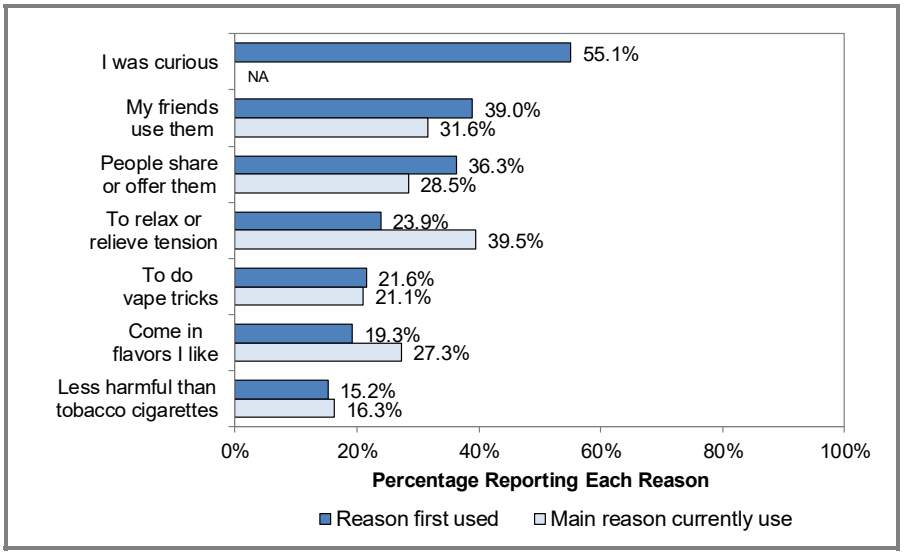
When asked about how often they use specific types of vaping devices, NY adolescent vaping product users most commonly reported using refillable models; 74.6% used intermediate devices (refillable tanks without special features), and 69.3% used advanced devices (refillable tanks with special features like temperature control). Fewer adolescents reported using basic (non-refillable) devices (49.7%). Similar patterns of use were seen among adolescents nationally. Examples of these device types are shown in Figure 29.

Figure 29. Vaping Device Types Shown in Survey

Reasons for Vaping Product Use

We asked NY adolescent vaping product users to select the reasons why they first tried and currently use vaping products (Figure 30). Curiosity was the top reason cited for trying vaping products: more than half of NY adolescent vaping product users (55.1%) reported that they first tried vaping products because they were curious. Relaxing and relieving tension was the top reason cited for current or ongoing use of vaping products (39.3%). Peer influence (i.e., "my friends use them") and sharing devices were also cited as major reasons for first trying and currently using vaping products. Although fewer than 20% reported flavors as a reason they first tried vaping, most used flavored products. Only 4.6% of adolescents reported that their preferred vaping products were tobacco flavor or unflavored.

Figure 30. Percentage of NY Adolescent Vaping Product Users Reporting Main Reasons Why They First Tried/Currently Use, NY Adolescent Vaping Product Survey, 2017



Source of Vaping Device

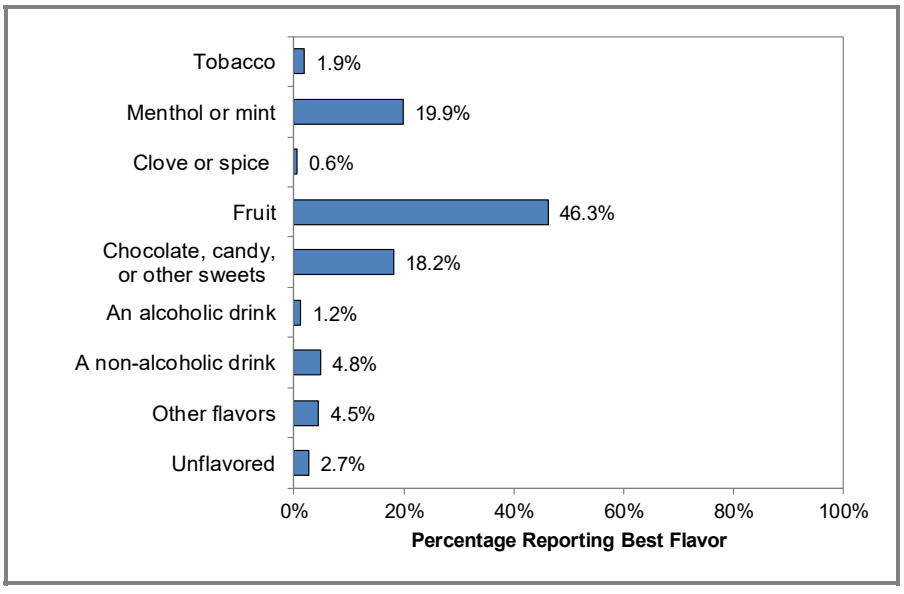
We asked respondents about the source of the device they used when they first tried vaping. About three-quarters of NY adolescent vaping product users (75.4%) shared someone else's device the first time they tried vaping. Buying their own device, giving someone money to buy the device, and getting the device from a parent or someone else were much less common sources.

Vaping Product Flavors

Using a variety of e-liquid flavors was popular among NY adolescent vaping product users. Most (65.1%) reported using more than one flavor of e-liquid in the past 30 days, with the majority using two or three different flavors.

Nearly half of adolescent vaping product users in New York (46.3%) and nationally (41.5%) liked fruit flavors of e-liquid the best, followed by menthol (19.9% in New York, 13.4% in the U.S.) and chocolate, candy, or other sweets (18.2% in New York, 24.1% in the U.S.) (Figure 31). They believed that fruit and chocolate, candy, or other sweets flavors are less harmful to health than other flavors including tobacco and alcohol. Menthol or mint flavor was perceived as less harmful than tobacco flavor, but more harmful than fruit and sweet flavors.

Figure 31. Percentage of NY Adolescent Vaping Product Users Who Selected E-liquid Flavor They Like Best, NY Adolescent Vaping Product Survey, 2017



Knowledge, Attitudes, and Beliefs about Vaping Products

Only 10.7% of New York adolescent vaping product users (26.5% nationally) correctly responded that the nicotine in vaping products and e-liquids is extracted from tobacco plants.

While nearly three-quarters of New York adolescent vaping product users (73.9%, 62.3% nationally) understood that they breathe in more than water vapor when they vape, a smaller percentage (58.5%, 52.6% nationally) correctly understood that secondhand emissions from someone else's use of a vaping product contain more than just water vapor.

Summary

Adolescent vaping product use patterns appear different in New York from the United States more broadly. Most New York adolescent users reported vaping products as the first tobacco product ever tried; nationally, tobacco cigarettes were the initial product most commonly reported. Concurrent cigarette smoking and other tobacco product use among adolescent vaping product users also appeared lower in New York than nationally.

Findings from this survey underscore that social context plays an important role in why and how New York adolescent vaping product users begin using these products. Curiosity, peer influence, and device sharing were cited as main reasons why they first tried vaping. Adolescents reported that when they first tried vaping, they usually shared someone else's device.

New York adolescent vaping product users found e-liquid flavors appealing and believed that fruit and sweets flavors are less harmful. More education is needed about the contents of vaping product emissions, as many adolescents did not realize that secondhand emissions contain more than water vapor. Future surveillance efforts can monitor trends in vaping product use and behaviors among New York adolescents and evaluate intervention activities.

Are Medicaid-enrolled Smokers Aware of Medicaid Smoking Cessation Benefits?

Medicaid-insured adults smoke at twice the rate of adults with private insurance (Jamal et al., 2016) and are an important target population in decreasing smoking prevalence in New

York State. A key NYSDOH 2013-2018 Prevention Agenda objective was to increase the utilization of smoking cessation benefits among smokers who are enrolled in MMC plans. In recent years, New York State has expanded Medicaid coverage for tobacco cessation benefits and has promoted these benefits through antitobacco television advertisements reminding Medicaid-enrolled New Yorkers about coverage of medications to help quit smoking and encouraging them to talk with their health care providers. The purpose of the current study was to assess Medicaid-insured smokers' awareness and use of Medicaid tobacco cessation benefits and use and perceived effectiveness of tobacco dependence treatments.

Data and Methods

In July and August 2017, RTI conducted a survey of Medicaid-insured adults ages 18-65 who were current smokers or who quit smoking in the past year. We partnered with the Office of Health Insurance Programs to obtain a sample of 20,000 Medicaid enrollees from a sampling frame of 3.4 million. Of the individuals who were screened, 266 eligible participants (adult smokers currently on Medicaid and living in New York) completed a survey. The online survey assessed enrollees' awareness of tobacco dependence treatments, awareness of Medicaid coverage for tobacco dependence treatments, and perceived effectiveness and use of tobacco dependence treatments.

Results

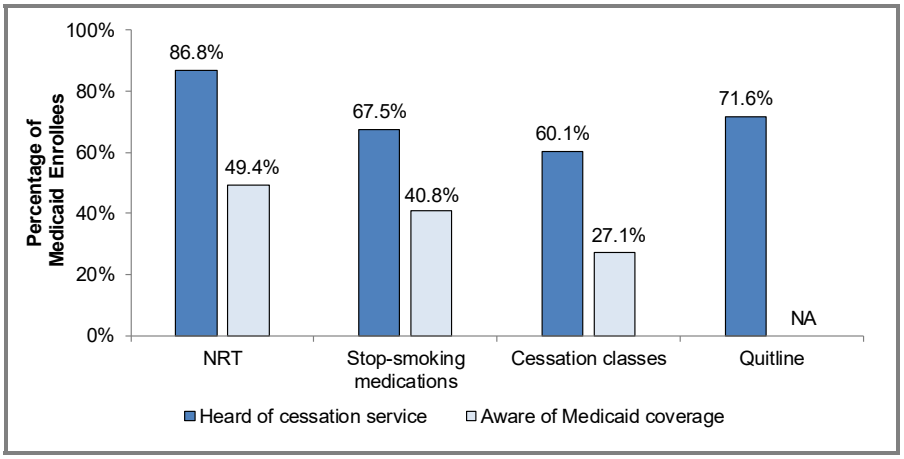
Sample Characteristics

Overall, 87.6% of our sample were current smokers and 12.4% reported quitting smoking in the past year. Participants were primarily white non-Hispanic (54.5%); 17.7% were black non-Hispanic, 16.2% were Hispanic, and 11.7% reported other as their race/ethnicity. Approximately 60% of the sample was female and the average age was 40 years old. Approximately one-third (36.8%) reported experiencing frequent mental distress. Approximately half primarily smoke menthol cigarettes (54.1%) and tried to quit smoking in the past year (55.3%). About 20% reported current vaping product use and 62% had ever tried vaping products.

Awareness of Cessation Services and Medicaid Coverage

Most enrollees (94.3%) had heard of at least one tobacco dependence treatment; 86.8% were aware of NRT, 71.6% were aware of the Quitline, 67.5% were aware of stop-smoking medications, such as Zyban or Chantix, and 60.1% were aware of cessation classes (Figure 32). When asked whether Medicaid will pay for these treatments, 59.7% were aware that Medicaid pays for NRT, stop-smoking medications, or cessation classes; awareness of Medicaid coverage for any of these was highest for NRT, with approximately half (49.4%) of Medicaid-enrolled smokers being aware of nicotine patches and gum coverage.

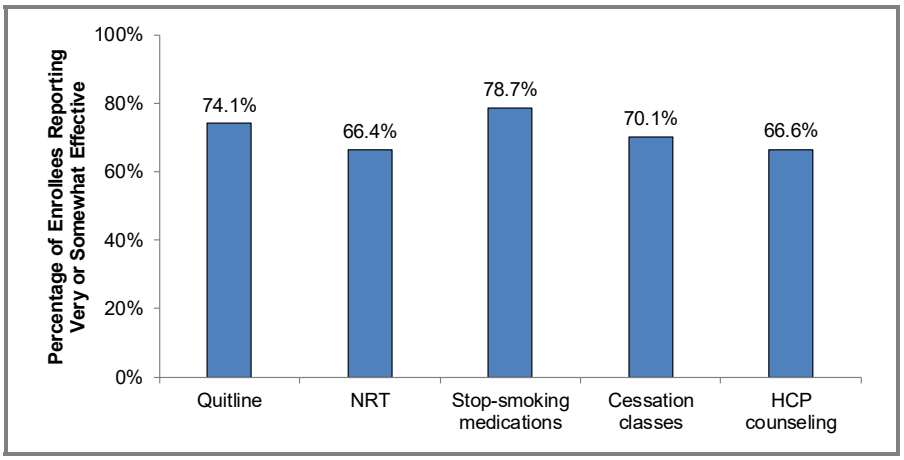
Figure 32. Percentage of Current Smoker and Recent Quitter Medicaid Enrollees Aware of Cessation Services and Medicaid Coverage, NY Medicaid Study, 2017



Perceived Effectiveness of and Use of Tobacco Dependence Treatments

Overall, Medicaid enrollees believe evidence-based tobacco dependence treatments are effective at helping smokers quit, but most do not use them. Medicaid enrollees reported that the following evidence-based tobacco dependence treatments were "very effective" or "somewhat effective": stop-smoking medications (78.7%), Quitline (74.1%), cessation classes (70.1%), provider counseling (66.6%), and NRT (66.4%) (Figure 33).

Figure 33. Percentage of Medicaid-Enrolled Current Smokers or Recent Quitters Reporting That Cessation Services Are "Very Effective" or "Somewhat Effective," Among Those Who Have Heard of Each Cessation Service, NY Medicaid Study, 2017



However, most participants reported quitting unaided at their last quit attempt (59.9%) and one-quarter or fewer reported using NRT (25.8%), stop-smoking medications (13.0%), the Quitline (9.2%), or a cessation class (4.2%). Among enrollees who used NRT or stop-smoking medications at their last quit attempt, 70.3% reported that Medicaid paid for their NRT and 90.9% reported that Medicaid paid for stop-smoking medications.

Approximately 80% of enrollees had visited a health care provider in the past year. Among those who had seen a health care provider, the majority were asked if they use tobacco (95.4%) and were advised to quit smoking (80.1%). Approximately half (56.5%) of enrollees reported their health care provider assisted with a quit attempt, with the most commonly reported form of provider assistance being prescribing or recommending NRT or stop-smoking medications (41.4%). When asked about cessation- and nicotine-related beliefs, 61.5% of participants reported that the best way to quit is "cold turkey," and 75.3% of participants reported that nicotine is a cause of cancer.

Summary

As Medicaid-insured adults smoke at almost twice the rate of those with other types of insurance, this group is an important population to target with cessation interventions. This study found that 9 out of 10 Medicaid-insured current smokers and recent quitters in New York State were aware of evidence-based tobacco dependence treatments, and 6 in 10 were aware

that Medicaid will pay for them. However, awareness of Medicaid coverage for tobacco dependence treatments in this study was relatively high; past studies have found levels of awareness between 7 and 46% (Murphy et al., 2003; McMenamin et al., 2004; McMenamin et al., 2006).

New York has some of the most comprehensive Medicaid coverage in the country and has fewer barriers to tobacco dependence treatment (TDT) than many states (DiGiulio et al., 2018); ensuring that even more smokers are aware of these services is an important part of the process. Educational efforts may also address misperceptions regarding nicotine and TDT effectiveness. Medicaid coverage of TDTs and communication and promotion of the benefits to smokers and health care providers can help smokers quit, resulting in better health outcomes and reduced health care costs. Understanding Medicaid enrollees' awareness of cessation services and insurance coverage can potentially inform messaging and help address tobacco-related disparities.

Discussion

Progress in Changing Tobacco Use

NY TCP has consistently addressed tobacco use among youth and adults by conducting health communications, cessation-focused health systems change efforts, and statewide and community interventions focused on policy, system, and environment changes. The 2013-2018 NYSDOH Prevention Agenda presents key outcome indicators to track program progress, and NY TCP has reached 7 of the 10 targets in advance of the expected timeline. The objectives that the program has already met address goals of preventing initiation, decreasing prevalence, and eliminating exposure to secondhand smoke:

- Decrease prevalence of any cigarette smoking by adults age 18 to 24 to 18%;
- Increase to 10 the number of municipalities that restrict tobacco marketing;
- Decrease the prevalence of cigarette smoking among all adults to 15% (which, after being achieved, was adjusted downward to a new target of 12.3%);

- Decrease the prevalence of cigarette smoking among adults with an annual income of less than $25,000 to 20%;
- Decrease the prevalence of cigarette smoking among adults with poor mental health to 27.6%;
- Decrease the prevalence of cigarette smoking among young adults to 18%;and
- Increase to 12 the number of local housing authorities that adopt a tobacco-free policy for all housing units.

Amidst these tobacco control successes, the program recognizes the remaining challenges, as tobacco use and addiction continue to negatively affect New Yorkers. The steady decrease in smoking will lessen the health and economic burden of tobacco use, but tobacco use continues to be more concentrated among people with low income and frequent mental distress. Although targets to decrease smoking rates among these populations have been met, the program can now revise their objectives to address the remaining disparities.

In 2017, 25.7% of New York adults with frequent mental distress smoked. Smoking prevalence also varies by income level, with 19.6% of New York adults with a household income of less than $25,000 smoking in 2017. New York adults with a college degree or higher have a smoking prevalence rate less than half of that among New Yorkers without a college degree. In addition to broad statewide efforts such as television ads and local education and policy change, NY TCP interventions are designed to reach people with low income and poor mental health. The program has worked to raise awareness of Medicaid benefit coverage of evidence-based cessation treatments, including airing ads targeting enrollees and health care providers to communicate this message. Health systems contractors focus on organizations that serve people with low income and poor mental health. Many NY TCP smoke-free multi-unit housing activities focus on public housing authorities. Reports of provider assistance and Medicaid benefit awareness are at least as high among these groups as the general population, and smoking prevalence rates among these groups are decreasing. With these sustained efforts across multiple intervention components, the program aims to further decrease tobacco use among populations with low income and poor mental health.

The proportion of New York adult smokers who made at least one quit attempt in the past year has increased over time. Even with the majority of smokers making quit attempts, most have trouble staying quit because they are addicted to nicotine. NY TCP promotes the use of evidence-based treatment to increase the likelihood that quit attempts will be successful, including U.S. Food and Drug Administration (FDA)-approved medications and provider assistance with quitting. The FDA has proposed lowering the amount of nicotine in cigarettes to a minimally or non-addictive level (FDA, 2018), but this regulatory proposal will likely take years to implement and may face legal challenges. In the meantime, NY TCP continues to pursue evidence-based recommendations to help tobacco users quit successfully. However, the funding limits from the NYS Division of Budget are significantly lower than the Program's appropriation from the state legislature; this difference seriously limits the Program's opportunity to implement evidence-based interventions to improve health outcomes.

New York adults' use of non-cigarette tobacco products has changed very little in recent years, and New York prevalence estimates are lower than national rates. Fewer than 7% of New York adults smoke cigars and fewer than 2% of New York adults use smokeless tobacco. In 2017, 5.4% of New York adults reported using vaping products, and nearly half of New York vaping product users also smoked cigarettes. More policies are being implemented or adapted to address vaping products, including local vape shop licensing policies and the 2017 policy change that prohibits the use of vaping products in places where cigarettes are prohibited under New York State law. NY TCP's approach to vaping products has focused on regulating them similarly to other tobacco products, including working to prevent youth initiation. The Program's ability to understand and act on these emerging products would be improved with additional funding. Instead, reductions in available funds resulted in the Program being unable to spend $5.1 million of its appropriated budget. This significant decrease impairs the Program's capacity and flexibility to address ongoing and emerging tobacco use in the state, which ultimately reduces the Program's impact on key outcomes.

Youth use of cigarettes, cigars, and smokeless tobacco in New York has decreased over the past decade, with the most dramatic decline occurring for youth cigarette use. However,

youth vaping product use has offset the downward pattern of tobacco product use overall. Youth vaping product users indicate that curiosity and friends' use and sharing of vaping products are major factors why they initiated use. Public and policy maker attention continues to focus on vaping products, especially given the recent rise in popularity of JUUL products (see, for example, Tolentino, 2018) and FDA communications regarding nicotine's negative effect on the developing brain (FDA, 2017). NY TCP has emphasized the importance of integrating vaping products into existing tobacco product regulation to prevent youth initiation. Low rates of youth smoking help bring down adult smoking prevalence as youth age up into the adult population, especially since adult quit prevalence has remained stable over time.

ATFC contractors remain active in their communities, educating the public and decision makers about tobacco control issues and policy solutions to prevent initiation and increase cessation. Although New York continues to be a national leader in implementing strong tobacco control policies, spreading antitobacco norms, and decreasing tobacco use prevalence rates, the rest of the country is catching up with New York's early success. Achieving continued reductions in tobacco use, including among adults with low income and poor mental health, will require implementing new interventions and strengthening traditional tobacco control interventions (Institute of Medicine, 2007).

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 2017, NY TCP combined message strategies and specific advertisements that have performed well in formative testing in the past several years with new advertisements, including those that offer encouragement and support for smokers who are interested in quitting and trying to quit. As a complement to its health systems change efforts, the program also continues to promote Medicaid coverage of tobacco dependence treatment via broadcast advertising, along with developing provider-targeted media.

Coincident with a sharp drop in GRPs between 2016 and 2017, awareness of antitobacco ads declined relative to previous years, with one-quarter of NY smokers being aware of any NY TCP ad in 2017. Historical patterns suggest that increasing GRPs, with a continued emphasis on hard-hitting graphic and emotionally-resonant ads, may help improve ad awareness. NY TCP funds for health communication interventions were approximately $4 million less than the Program had planned based on the state appropriation for the Program. Exposure to ads is associated with improved outcomes including Quitline calls and quit attempts, and reductions in GRPs may lead to some key outcome measures stagnating. Reinstating NY TCP funding is essential to maximizing the potential impact of the Program.

NY TCP may also consider optimizing ad allocation strategies to best align with the media use preferences of their target audience. Examining the media use patterns of New York smokers could help inform this effort. 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.

Health Systems Change

NY TCP conducts evidence-based health systems interventions to promote cessation from tobacco use. These health systems interventions support the institutionalization of provider tobacco dependence treatment; they include funding health systems contractors to facilitate systems changes in health care and mental health organizations, managing the Quitline, and reducing the cost of evidence-based cessation assistance. In addition, the NY TCP-funded Center of Excellence works at the state level to foster an environment supportive of cessation-focused health systems change that encourages health care organizations to institutionalize guideline-concordant policies and systems.

New York's Quitline reach is higher than in other states and provides efficient services as recommended by CDC's *Best Practices* (2014). Additionally, New York has made changes to expand Medicaid benefits for smoking cessation, remove barriers to access, and promote the benefits.

NY TCP-funded health systems contractors focus on systems change in organizations where populations with the highest rates of smoking are concentrated, in community health centers and mental health facilities. New York adult smokers report that health care providers ask about tobacco use and advise them to quit at high rates, but New York has not yet achieved its target for provider assistance with quit attempts. However, some of the highest rates of provider assistance were reported among the groups that NY TCP interventions are targeting: those with poor mental health, those on public insurance, and those with low income. Although New York State Medicaid estimates indicate that 24.6% of Medicaid-enrolled smokers use smoking cessation benefits, a separate analysis found that use of evidence-based quit methods were highest among New York adults with frequent mental distress and those with low educational attainment. The program has a strong framework for implementing evidence-based health systems interventions and has focused on reaching the groups with disproportionately high rates of smoking.

Statewide and Community Action

Contractors continue to focus their policy efforts on local policymakers, key decision makers, media coverage, and to a lesser extent on direct public education. As a result, they have continued to make progress toward local policies focused on POS, tobacco-free outdoors, and smoke-free multi-unit housing. While POS efforts have resulted in a relatively small number of local policies, contractors have exceeded the 2013-2018 NYSDOH Prevention Agenda target of 10 policies. POS policy change remains a challenging area in tobacco control generally, and New York continues to be at the forefront of new and creative ways to approach this issue with local leaders and the general public. Because more than 200 entities ranging from individual organizations to large municipalities restricted tobacco use in outdoor areas during this time period, the proportion of New Yorkers whose outdoor experiences are

marred by tobacco litter and secondhand smoke continues to decrease. Likewise, contractor efforts dovetailed with HUD's smoke-free rule for federal public housing, thereby continuing New York's progress in increasing the availability of housing that protects families from secondhand smoke and protects the value of housing multiunit housing properties.

Public support for several POS and tobacco-free outdoors policies continues to increase among New Yorkers, albeit at relatively slow rates. New Yorkers also demonstrate higher levels of support for prohibiting sales of tobacco products near schools and prohibiting smoking in outdoor public places, along with establishing smoke-free multi-unit housing, than do residents in the rest of the United States. Additionally, the program is positioning itself to facilitate public housing authorities' smoke-free policy implementation efforts in response to the HUD smoke-free rule that must be implemented by July 31, 2018. To ensure continued increases in support for local policy change among opinion leaders and the public, the program continues to invest in contractor training, legal advice (through their contract with the Public Health and Tobacco Policy Center), and development of tobacco control policy messaging and materials.

Programmatic Recommendations

Overall Recommendations

- Ensure that the annual NY TCP funding matches the amount appropriated by the state legislature. In addition, increase NY TCP funding to a minimum of one-half of CDC's recommended funding level for the state ($203 million) to $101.5 million.
  - Increasing funding to $101.5 million would facilitate implementation of CDC best practice recommendations, including increased funds for ATFC contractor efforts, health system intervention support, and greater health communication opportunities to reach target populations and increase integration of digital and social media campaigns.
  - Additional funds would also enable infrastructure and administration improvements like expanded professional development, enhanced administrative capacity through staff funding and training, and

expanded surveillance and additional innovation in evaluation activities to assess the program's impact.

  - The expansion of NY TCP efforts to address emerging products including vaping products would be better supported by increased funding for developing effective messages, pursuing policies to reduce youth exposure and access, and implementing compliance monitoring protocols.

- Continue to refine the program's approach to reach smokers with disproportionately high rates of smoking, especially adults with low income and poor mental health.

  - Addressing these persistent disparities will require ongoing collaboration with stakeholders working with these populations, through enhanced community mobilization work and expanded health systems change efforts.

- Update the NYSDOH Prevention Agenda objectives to reflect program achievements and reflect changes in the tobacco product landscape.

  - NY TCP should continue to set meaningful new objectives via ongoing strategic planning. To help ensure that the program is keeping pace with tobacco use trends and tracking progress, new objectives could address youth vaping product use and adult and youth multiple-product use.

Health Communication Recommendations

- Continue to focus paid media campaign efforts on television advertisements that graphically depict the health consequences of smoking or elicit strong negative emotions.
- Expanding on findings from previous examinations of the media use patterns of New York smokers, consider evaluation strategies to identify the optimal allocation of campaign advertising across medium (e.g., television vs. digital) and specific channels and programs.
- Review ad placement strategies to maximize the reach and potential effectiveness of campaigns among populations disproportionately impacted by tobacco. This could include reassessing the media vendor's negotiated bonus airtime to maximize the value of the Program's ad buys.
- Explore opportunities to adapt campaigns in response to changes in the tobacco product landscape, including

vaping product use and multi-product use. Assessing 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. Work with agency administrators and statewide organizations to gain high-level buy-in for these efforts.
- Collaborate with New York State Medicaid to conduct additional educational efforts targeting enrollees and providers to promote awareness and use of Medicaid smoking cessation benefits.
- Encourage the NY TCP-funded Center of Excellence to expand existing initiatives and leverage new opportunities to help create changes in the state-level context for health systems change that support the institutionalization of tobacco dependence treatment.
- Continue to complement health systems change smoker-targeted ads with provider-targeted ads and expand these efforts to behavioral health care providers.

Statewide and Community Action Recommendations

- Consider developing a television media campaign to increase public awareness of tobacco industry marketing at the POS and mobilize public support for POS policy change.
- Continue to explore messaging approaches that resonate with target populations with disproportionately high tobacco use (and opinion leaders within those populations), including those living in rural areas of the state.
- Consider convening contractors serving rural areas to identify best practices in building partnerships and raising the priority of tobacco control in these areas.

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