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2017 Independent Evaluation Report of the New York Tobacco Control Program

Prepared for

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Executive Summary

Tobacco use is the leading cause of preventable death in New York State, with more than 28,000 New Yorkers dying prematurely every year from smoking-related illnesses. Smoking-attributable personal health care costs exceed $10 billion in New York State. The New York Tobacco Control Program (NY TCP) has been a leader in tobacco control for more than a decade, and has facilitated significant improvements in tobacco-related outcomes. NY TCP uses an evidence-based programmatic approach to tobacco control, with key components focused on health communication; health systems interventions; and statewide and community action targeting policy, systems, and environmental changes.

New York has implemented core tobacco control interventions including comprehensive smoke-free air, high taxes for tobacco products, and local and organizational tobacco-free policies. The program has also introduced innovative policy and education approaches that serve as models for other tobacco control programs. NY TCP efforts have led to successful reductions in tobacco use among adults and youth.

Although tobacco use has decreased in New York and the rest of the United States, tobacco use and tobacco-related disease continue to pose a threat to public health. The demographics of tobacco use are shifting, as tobacco use is becoming more concentrated among people with low income and poor mental health. Although youth cigarette smoking has decreased dramatically, youth e-cigarette use has increased. NY TCP's strategic approach to continue to reduce the burden of tobacco use includes striving to achieve key objectives in the New York State Department of Health (NYSDOH) Prevention Agenda. NY TCP is evolving with the changing environment, recognizing emerging issues, and adapting its efforts.

This independent evaluation report provides an annual view of the program and its progress. The report outlines the context in which NY TCP works, describes each component of the programmatic approach, and summarizes progress toward its tobacco control outcomes.

Key Evaluation Findings

- In 2016, 14.2% of New York adults smoked cigarettes. Because the original NYSDOH Prevention Agenda 2013-2018 objective of decreasing adult smoking prevalence to 15.0% was met in 2014, NYSDOH set a new target of decreasing prevalence to 12.3% by 2018.
- In 2016, 26.0% of New York adults with poor mental health smoked. Although this rate is still higher than among adults with good mental health, it is down from 32.5% in 2011 and now meets the NYSDOH Prevention Agenda target of 26.5% by 2018.
- Smoking prevalence also varies by household income level, with 19.8% of New York adults with an income of less than $25,000 smoking in 2016, compared with 12.5% among those with incomes of at least $25,000. Although this gap in smoking status by income exists, the program has met the NYSDOH Prevention Agenda objective to decrease smoking among low-income adults to 20% by the end of 2018, down from 27.8% in 2011.
- Among all New York adult smokers, daily cigarette consumption decreased from 14.7 cigarettes per day in 2003 to 9.9 cigarettes per day in 2016, or just less than half a pack a day.
- The proportion of adult smokers who made a quit attempt in the past 12 months has increased in New York and the rest of the United States. In 2016, 64.2% of New York adult smokers and 62.5% of adult smokers in the rest of the United States reported having made a past-year quit attempt.
- In 2016, 6.6% of New York adults reported current use of cigars. Most New York adults who use cigars report using them rarely.
- In 2016, 5.5% of New York adults reported current e-cigarette use, and half of New York e-cigarette users also smoked cigarettes.
- Youth smoking rates have decreased dramatically. Only 4.3% of high school students smoked cigarettes in 2016, compared with 27.1% in 2000, a decrease of 84%. Youth smoking rates in New York have decreased faster than in the country as a whole.
- The 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. Youth use of tobacco products in 2016 was 25.4%, with e-

cigarette use overwhelmingly more common (20.6% of New York high school students) than use of cigarettes or other tobacco products.

Measures of NY TCP Reach and Impact

- In 2016, 34% of New York adult smokers recalled seeing NY TCP-sponsored television advertisements even though NY TCP funding for health communication interventions was 21% of the CDC-recommended health communication funding in FY 2016-2017.
- NY TCP-funded contractors educated landlords, management companies, and public housing authorities about the benefits of smoke-free multi-unit housing. From March 2016 through March 2017, 88 apartment complexes, management companies, and public housing authorities adopted smoke-free policies, making an additional 115,600 units smoke-free.
- From 2010 through 2015, New York's quitline reach – or the percentage of adult smokers who received counseling and/or nicotine replacement therapy such as the nicotine patch – was consistently one of the highest in the country. New York's quitline reach substantially exceeded the average state quitline reach for the 45 states with data available for analysis.
- The NYSDOH Prevention Agenda set an objective of increasing health care provider assistance with quitting from 46.3% in 2011 to 55.0% in 2018. With 52.5% of smokers reporting provider assistance in 2016, this rate has increased by 13% since 2011.

Overall Programmatic 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 more than double the current appropriation. NY TCP has successfully budgeted and implemented the program with approximately twice its current funding in the past. Such a significant increase would require careful shifts in staffing, contractor allotments, and media.
  - Additional funding would facilitate implementation of CDC best practice recommendations, including

increased funds for statewide and community intervention contractor efforts and professional development, improved administrative capacity through staff funding and training, greater health communication opportunities to reach target populations including more targeted campaigns and more integrated digital and social media campaigns, enhanced health systems intervention support, and expanded surveillance and additional innovation in evaluation activities to assess the program's impact.

- Continue to develop and target interventions to reach smokers with disproportionately high rates of smoking, especially adults with low income and poor mental health.
  - NY TCP should expand efforts to monitor disparities in tobacco use, to inform appropriate intervention efforts. Monitoring disparities could include advanced mapping and analyzing of demographic characteristics to identify opportunities. Addressing these disparities could include continuing to grow community mobilization work, enhance decision maker education activities, and expand health systems change efforts.
- Update the NYSDOH Prevention Agenda objectives to reflect program successes and reflect changes in tobacco product use.
  - 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 should address youth e-cigarette use and adult and youth multiple-product use.

Introduction

The New York Tobacco Control Program (NY TCP) strives to reduce tobacco-related morbidity and mortality and alleviate the social and economic burdens caused by tobacco use. In New York State, more than 28,000 people die every year from tobacco-related disease. New Yorkers' annual costs for tobacco-related health care costs are $10.4 billion. NY TCP has been a leader in tobacco control for more than a decade, and has seen significant improvements in tobacco-related outcomes. NY TCP structures its multi-component approach on the framework of the Centers for Disease Control and Prevention's (CDC's) *Best Practices for Comprehensive Tobacco Control Programs* (CDC, 2014). The three central 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 tobacco control interventions at state and local levels and has successfully reduced tobacco use among adults and youth. However, this progress has not been evenly distributed throughout the population; smoking rates remain high among New Yorkers with low income and education and New Yorkers with mental illness. In addition, the increased use of e-cigarettes, particularly among youth, raises questions about long-term health effects and tobacco use trajectories.

In this independent evaluation report, we highlight contextual influences relevant to NY TCP's progress, describe NY TCP's approach to tobacco control, and assess trends in key outcome indicators. This report focuses primarily on activities and outcomes for 2016. 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 New York Quitline reach, services offered, and quit outcomes compare with other state quitlines?

- To what extent are New York health care providers aware of a provider-targeted media campaign promoting cessation, and is awareness associated with cessation interventions?
- To what extent are New York parents aware of a social media campaign regarding tobacco at the retail point of sale, and to what extent did the campaign motivate parents to take action on this issue?

The New York Tobacco Control Program—Context and Programmatic Approach

In this section, we describe New York's tobacco control context and provide an overview of NY TCP's current programmatic approach to tobacco control.

Tobacco Control Policy Environment

New York continues to have the highest state-level cigarette excise tax in the country. At $4.35, the New York cigarette excise tax is more than twice the 2016 national average for state tax per pack ($1.65). All New Yorkers are covered by a statewide comprehensive smoke-free air law (workplaces, restaurants, and bars), compared with 48% of the population nationally. In fiscal year (FY) 2016, per capita funding for tobacco control was higher in New York ($2.15) than the average of all other states ($1.71) (Table 1), 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.

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, 2017)	$4.35	$1.65
Percentage of the state population covered by comprehensive[a] smoke-free air laws (December 31, 2016)	100%	48.0%
Annual per capita funding for tobacco control (FY 2016)	$2.15	$1.71 (excluding NY)

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

Program Funding

For the 2017–2018 fiscal year (FY), the state appropriated $39.3 million for NY TCP, the same amount as had been allocated for several prior years. In contrast to the state appropriation, the NYS Division of Budget communicated to the Department a limit of $34.2 million, nearly $5.2 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 2017-2018 fiscal year. Even the appropriated dollar amount is significantly less than federal recommendations for tobacco control funding. 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 revenue from annual cigarette tax and Master Settlement Agreement (MSA) payments. In FY 2017, New York State received approximately $1.85 billion in cigarette tax revenue and MSA payments (Table 2). The FY 2017 MSA payment is more aligned with prior years' MSA payments than payment for FY 2016, which was significantly larger due to a one-time settlement that the state attorney general negotiated regarding prior years' withheld funds.

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

Revenue/Expenditure/Funding Category	Annual Amount
Revenue from state cigarette excise taxes (FY 2017)	$1,230,000,000
Revenue from MSA payments (FY 2017)	$617,500,000
Estimated cigarette advertising and promotions in New York State by five major cigarette manufacturers (FY 2015)	$189,744,000
National advertising for e-cigarettes (CY 2016)	$60,500,000
New York Tobacco Control Program funding (FY 2017-2018)	$34,162,870

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

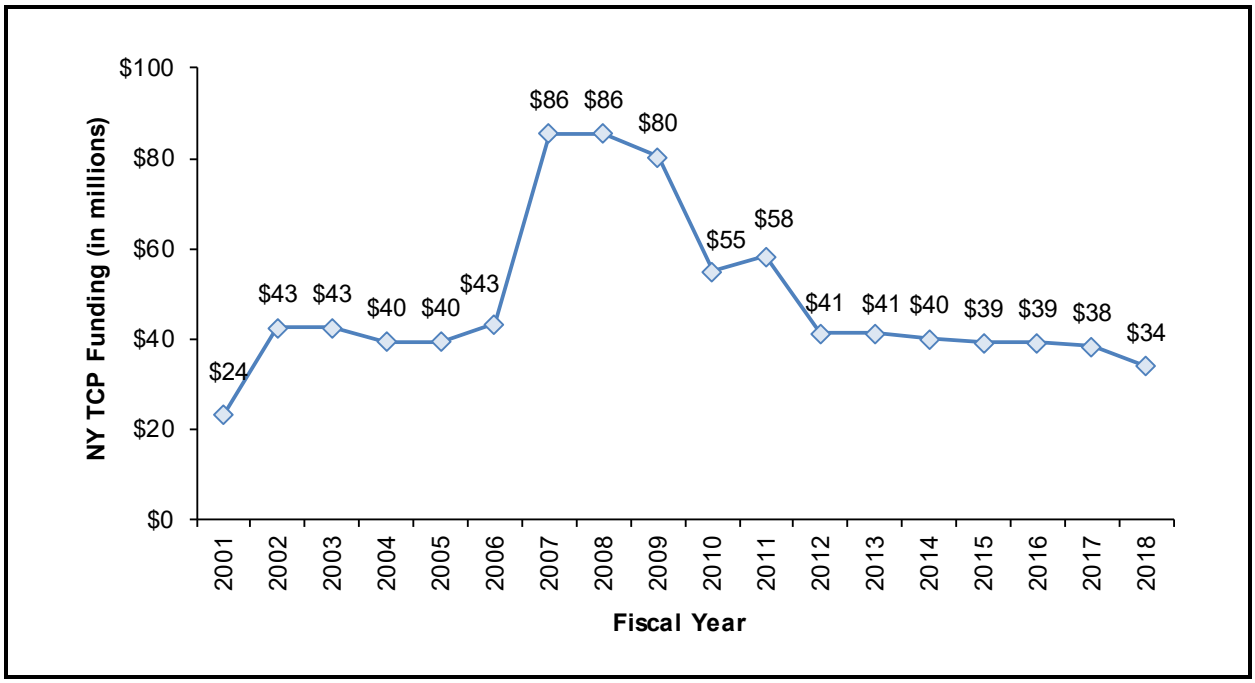
The state's funding for NY TCP is significantly lower than the amount of money spent annually by tobacco companies on

tobacco advertising and promotion. Tobacco companies spent $8.5 billion in the United States on cigarette advertising and promotions in 2015. If these expenditures are spent in proportion to cigarette sales, this translates to spending $190 million on advertising and promotions in New York State. 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).

Although not as high as cigarette advertising and promotion, industry expenditures on e-cigarette advertising and promotion are growing. This may also pose challenges for NY TCP, given the potential for youth to initiate e-cigarette use and become addicted to nicotine. Exposure to e-cigarette advertising is associated with increased intentions to use e-cigarettes in the future among youth (Farrelly et al., 2015). Although e-cigarettes are now regulated by the U.S. Food and Drug Administration, e-cigarette advertising is not regulated in the same way as cigarettes. In 2016, nearly $60.5 million was spent on advertising for e-cigarettes in New York, up from nearly $38 million in 2015. This estimate includes e-cigarette advertising via magazines, television, Internet (display and online videos), radio, newspapers, and outdoor media.

Despite the large gap between pro-tobacco spending and NY TCP's funding, the program focuses on evidence-based allocation of resources to reduce initiation and promote cessation. NY TCP's FY 2017–2018 funding level was the lowest since the Program's initial launch, even as new tobacco products emerge (Figure 1). The longer-term pattern of NY TCP funding provides context for interpreting the trends in key outcome indicators presented below.

Figure 1. NY TCP Funding FY 2000–2001 to FY 2017–2018



Note: NY TCP = New York Tobacco Control Program.

Table 3 shows the funding for FY 2016–2017 and FY 2017–2018 by program component. FY 2017-2018 funding was $4.2 million lower than the prior year's funding, and the decrease primarily affected health communications interventions, with additional decreases in administration, nicotine replacement therapy, and surveillance and evaluation.

Table 3. NY TCP Funding for FY 2016–2017 and FY 2017–2018, by Program Component

Program Component	2016-2017 Funding	2017–2018 Funding
State and Community Interventions	**$10,395,959**	**$10,410,728**
Advancing Tobacco-Free Communities	$9,394,000	$9,394,000
Center for Public Health and Tobacco Policy	$501,959	$516,728
Training/Professional development	$500,000	$500,000
Enforcement		
Clean Indoor Air Act and Adolescent Tobacco Use Prevention Act Enforcement	**$4,649,950**	**$4,649,950**
Health Systems Interventions	**$7,604,493**	**$8,160,897**
Health Systems for a Tobacco-Free New York	$3,274,770	$3,274,770
Quitline	$3,329,770	$4,086,127
Nicotine replacement therapy	$1,000,000	$800,000
Health Communication Interventions		
Media placement	**$9,653,420**	**$5,246,547**
Surveillance and Evaluation		
Independent evaluation	**$3,014,778**	**$2,950,748**
Administration		
Tobacco control and cancer services	**$3,065,000**	**$2,744,000**
Total	**$38,383,600**	**$34,162,870**

CDC offers recommendations regarding the percentage of comprehensive tobacco control program funding to be allocated to each program component (CDC, 2014). Eight percent of NY TCP's funding ($2.7 million) went to administration, which is far lower than CDC's recommended amount of $8.8 million; 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). NY TCP spent the highest proportions of its funding on state and community interventions and cessation interventions, consistent with CDC recommendations. NY TCP spent 44% of its funding on state and community interventions compared with CDC's recommendation of 30%. NY TCP spent 24% of its funding on cessation interventions, compared with CDC's suggested 34%. NY TCP put 9% of its funding toward surveillance and evaluation, matching CDC's recommendation. The program spent 15% of the FY 2017-2018 funding on health

communications interventions, compared with CDC's recommended 23%. The balance of expenditures across components was affected by the $5.2 million difference from budgeted to available funds. Although the outcomes presented in this report focus on the 2016 calendar year, the multi-year funding decreases are likely to have a negative effect on tobacco control outcomes in future years.

NY TCP state funding was supplemented by CDC grants, which primarily fund several staff positions. However, if the shift in federal funding priorities after the 2016 election affects CDC allocations, the program may face shortages that will need to be absorbed by state funds. NY TCP monitors federal budget news to assess the potential implications for their program.

Programmatic Approach

NY TCP's programmatic approach is built on evidence of what works in tobacco control. The program's approach is based on the social norm change model, aiming to reduce tobacco use by 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). To change policies, norms, and environments, NY TCP's goals focus on preventing the initiation of tobacco use by youth and young adults, promoting cessation, and eliminating exposure to secondhand smoke. Specific objectives in the New York State Department of Health's (NYSDOH's) 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, e-cigarettes, cigars, and smokeless tobacco) to 15.0% among high school students.

NY TCP uses a multicomponent approach to reducing tobacco use. The program manages an infrastructure with significant capacity, conducts mass-reach health communication interventions, effects health systems change to support cessation, and implements 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

Consistent with CDC Best Practices, NY TCP maintains a well-connected infrastructure to support its programmatic activities. NY TCP's multilevel leadership approach emphasizes strategic implementation of the program's initiatives. This involves designing contractor objectives that align with program and NYSDOH goals and maintaining clear channels of communication that empower individuals at each level to work towards core tobacco control objectives. The program provides professional development for staff and contractors on an ongoing basis. NY TCP coordinates surveillance and evaluation activities, and shares key tobacco control data and reports with stakeholders and the public. NY TCP administration guides the overall programmatic strategy and coordinates effective communication across program staff, contractors, and partners. New York's tobacco control infrastructure integrates technical assistance and guidance to manage the effective and efficient investment of state tobacco control funding. To ensure that policy goals are met, NY TCP revisits its strategic approach, maintains strong accountability and reporting procedures, and contracts 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.

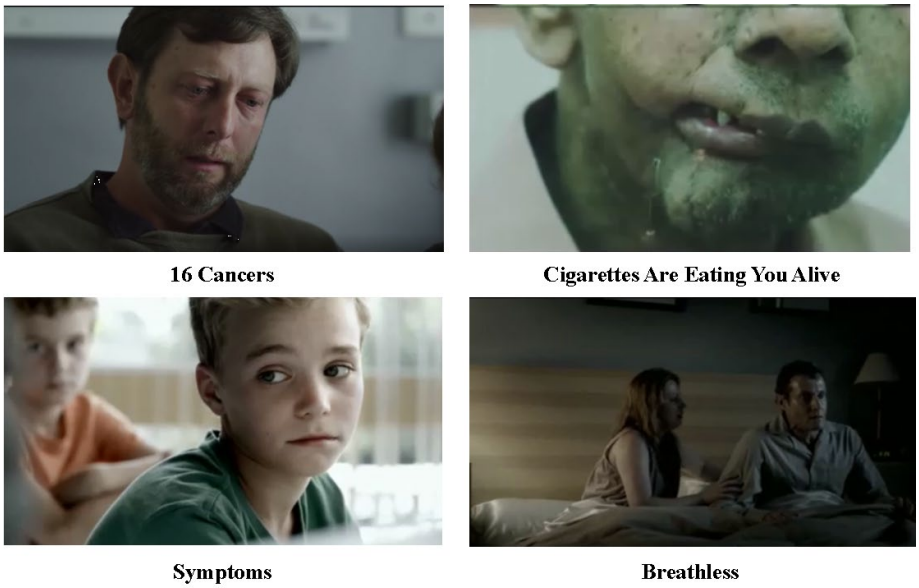
Health Communication

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 are effective in reducing cigarette smoking among youth (USDHHS, 2012) and adults (Davis et al., 2015; Farrelly et al., 2012; NCI, 2008; Wakefield et al., 2010, 2011). NY TCP focuses paid media efforts 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 effective in promoting smoking cessation (Farrelly et al., 2012; McAfee et al., 2013). Nearly all messages include the New York State

Smokers' Quitline telephone number and Web site address. For most of 2016, NY TCP continued to use the tagline that reads "You can quit smoking. Call your doctor today. For more help, call the Quitline" at the end of its ads – a message that complements health systems efforts and offers smokers encouragement and a specific call to action.

Throughout the year, NY TCP continued to use message strategies that have been successful in the past several years, with campaign ads that primarily focus on promoting cessation (Figure 2 shows images from some of the ads). Early in the year, ads depicted the effects of smoking-related illness to motivate smokers to quit. Two ads from the New York City Department of Health and Mental Hygiene's *Reverse the Damage* campaign, *Reverse Heart Attack* and *Reverse Lung Cancer,* promote the immediate and long-term benefits of smoking cessation through a series of graphic images and end with a motivational appeal to stop smoking immediately. These ads were followed by an adapted version of the Cancer Institute of New South Wales' ad *16 Cancers*, which highlights the different types of cancer associated with smoking, and their related impact on physical and emotional health.

Figure 2. Sample Ad Images



NY TCP introduced two new ads in spring 2016, which aired throughout the summer. *Breathless,* an ad developed by the Australian Government Department of Health, focuses on the

impact of smoking-related emphysema and the long-term suffering associated with breathing challenges over many years. The ad features a man waking up, struggling to catch his breath. As his wife looks on, the voiceover warns smokers to "stop before the suffering starts." *Symptoms,* also developed by the Australian Government Department of Health, 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. The ad features a man who suffered with withdrawal but is now able to go out to play 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."

In late 2016, NY TCP returned to previously-aired ads that feature an emotional appeal that emphasizes the effects of tobacco use and related illnesses on tobacco users and their families. The ClearWay Minnesota ad *Hallway* shows a woman walking through a hospital hallway with her oxygen tank as her young daughter walks beside her. A narrator explains that Emily, who is 7, knows the real cost of tobacco because, "last year, smoking cost Emily her mom." Another ad from the Cancer Council Tasmania, *Last Dance*, depicts a wife dancing with her dying husband in their living room while their child looks on.

These ads were complemented by NY TCP's *Cigarettes are Eating You Alive* ad, which graphically illustrates the ways that smoking "eats away at nearly every vital organ in your body," including your heart, lungs, mouth, throat, teeth, 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 also introduced the tagline reading "Smoking is an addiction. Medicaid and your health provider can help."

In addition, throughout 2016, NY TCP continued to air its own ad targeting Medicaid recipients that was launched in 2015. This ad focuses on the positive outcomes of cessation and reminds Medicaid-enrolled New Yorkers that their Medicaid benefits cover medications to help them quit. The ad shows a mother and daughter and uses an encouraging tone to motivate smokers to quit.

Finally, NY TCP continued to air ads from CDC's *Tips From Former Smokers* (*Tips*) tobacco education campaign during the fall. *Marlene* talks about the impact smoking had on her eyesight and the monthly eye injections she needs, while *Amanda* discusses her experience having a baby that was premature because of her smoking.

Health Systems Interventions

NY TCP's evidence-based, multi-component approach to promote cessation involves institutionalizing changes in health systems, offering telephone-based smoking cessation counseling, and reducing the cost of tobacco dependence treatments for patients. By focusing on a public health approach that influences the health system context, the program aims to maximize its reach and sustainability and spend its resources efficiently. NY TCP's health systems change approach includes facilitating changes in the statewide health care context that promote treatment of tobacco dependence and working with health care organizations to modify policies and systems to ensure that patients are consistently asked about tobacco use and provided assistance with quitting. The New York State Smokers' Quitline offers tobacco cessation counseling, provides access to nicotine replacement therapy (NRT) for eligible individuals, and serves as an information clearinghouse regarding cessation. New York reduces the cost of tobacco dependence treatment by offering smoking cessation Medicaid benefits to enrollees and free NRT through the Quitline. The following sections describe NY TCP health systems interventions in more detail, summarizing health systems contractor 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 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. Brief advice to quit smoking by a health care

provider significantly increases the odds that a smoker will quit, 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 for a Tobacco-Free New York contractors. 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. The Center of Excellence also has a role in supporting the regional contractors. The ten 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.

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 assessment and treatment in health systems. Workgroup members include representatives from organizations and government agencies in areas related to health care, health insurance coverage, tobacco, and mental 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 success has been the establishment of a collaborative relationship with E-Clinical Works, one of the most widely used EHRs in New York, 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.

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 getting regular care. Consistent with RTI

recommendations, NY TCP refined the focus of the health systems initiative to organizations that serve groups with higher rates of smoking. Specifically, NY TCP instructed contractors to target community health centers (CHCs), which serve underserved populations, including those with low income, and programs that serve individuals who experience severe mental illness. Because populations with low income and populations who experience mental illness use tobacco at higher rates than the general population, working with CHCs and mental health facilities provides a significant opportunity for health systems contractors to target their efforts to 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 assessment and treatment of tobacco dependence.

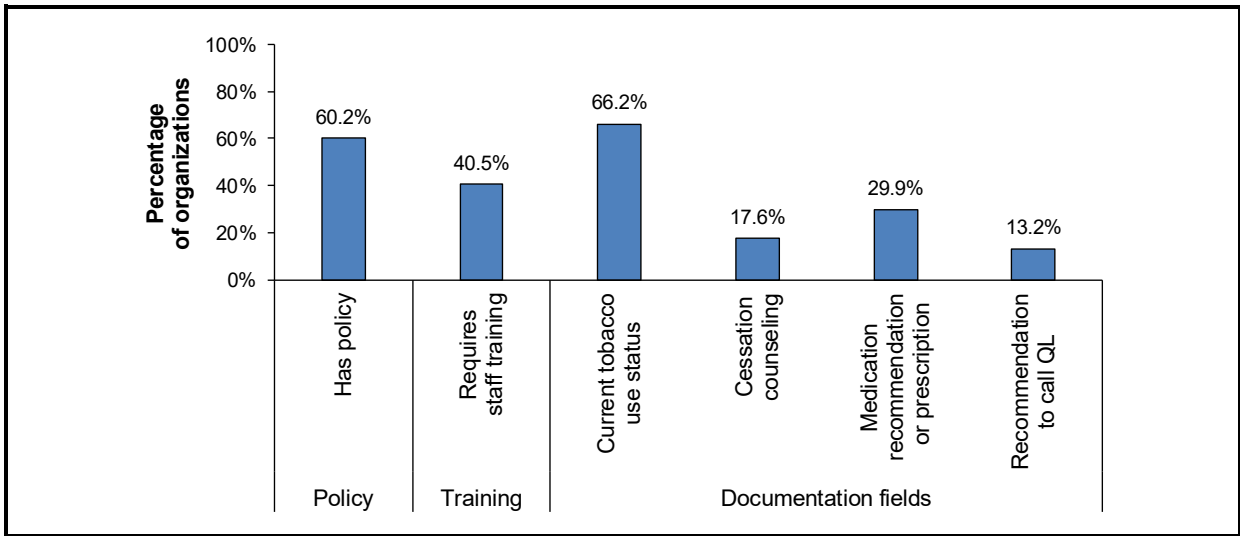
Health systems contractors' interactions with targeted organizations include obtaining administrative commitment to partner with organizations, educating decision makers about the need for policies and systems that promote tobacco use screening and dependence treatment, and encouraging changes to tobacco-related policies, standards of care, and electronic health records. From April 2016 to March 2017, health systems contractors worked with 101 medical health care organizations and 103 mental health organizations. 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 more than 100 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 a tobacco user identification system	57	46
Integration of education, resources, and feedback to promote provider intervention	38	39
Assigning dedicated staff to provide and/or integrate tobacco dependence treatment	16	26

A survey of mental health organizations in New York found that, as of 2016, many New York mental health treatment facilities have existing tobacco-related systems in place and a strong infrastructure on which to expand these systems. However, there is still room for improvement in mental health organizations' tobacco-related policies, fields in EHRs to document tobacco use status and counseling, and required training for providers about cessation methods (Figure 3). Although the large majority of these organizations (92.4%) report conducting audits of client records, fewer than half of organizations (48.3%) provide tobacco-related performance feedback to staff. This provides an opportunity for regional contractors to build on the systems already in place in these organizations.

Figure 3. Percentage of Organizations with a Written Policy, Required Training, or Documentation fields, NY Mental Health Nested Study, 2016



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 2016 through March 2017, health systems contractors reported 197 instances of earned media, including 55 newspaper stories, 50 stories in newsletters or websites, 27 TV stories, 23 letters to the editor, 22 radio interviews, 16 editorials or op-eds, and 4 blog stories.

New York State Smokers' Quitline

The New York State Smokers' Quitline has been in operation since 2000 and is managed by Roswell Park Cancer Institute with funding from the NY TCP. The Quitline provides individualized telephone counseling to adult smokers who want to quit, free 2-week nicotine replacement therapy 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 for 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. The Quitline complements NY TCP's emphasis on health systems changes to provide cessation assistance to smokers as an additional support beyond provider assistance with quitting.

In 2016, the Quitline received 134,942 incoming calls, an increase of 16.8% over the 115,515 calls received in 2015 (Table 5). A total of 49,958 individuals registered for Quitline services by telephone, an increase of 20.9% compared with 41,327 telephone registrations in 2015. Of those callers who registered for Quitline services by phone, a total of 40,179 callers completed a telephone intake interview in 2016, up 32% from 30,870 in 2015. The Quitline website received 703,653 visits in 2016, and 12,680 individuals registered for Quitline services online. The Quitline changed its method for calculating

website visits and registrations in November 2015, which does not allow us to make direct comparisons in website traffic and registrations between 2015 and 2016. The number of Quitline clients who were referred to the Quitline by their health care provider increased dramatically in 2016. Health care providers referred 17,427 patients to the Quitline in 2016, which was an increase of 45.7% from the 11,960 patients referred to the Quitline by health care providers in 2015.

Table 5. New York State Smokers' Quitline Calls, Registrations, and Referrals, 2015-2016

Measure	2015	2016
Calls to the Quitline	115,515	134,942
Individuals registered for Quitline services	41,327	49,958
- Registered individuals who completed intake interviews	30,870	40,179
Provider referrals	11,960	17,427

Although Quitline call volume, web visits, health care provider referrals, and the number of New York tobacco users registering for quitline services all increased in 2016, the total number of tobacco users who received counseling services and/or free NRT from the Quitline decreased in 2016. A total of 51,174 tobacco users received counseling and/or free NRT from the Quitline in 2016, which was 6% lower than 2015 when 54,223 tobacco users received counseling and/or free NRT from the Quitline. The overall treatment reach of New York's Quitline, or the percentage of adult smokers in New York State who received counseling and/or NRT from the Quitline, was 2.16% in 2016, down from 2.29% in 2015. Despite recent declines in Quitline reach, the New York Quitline's annual reach of 2.16% in 2016 was still 2.6 times higher than the median state quitline reach of 0.82% and 1.8 times higher than the national average state quitline reach of 1.21%.

Reduced Patient Costs for Treatment

NY TCP has worked to make evidence-based cessation treatment available to those with low income and poor mental health, 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 promoted these benefits. The Affordable Care Act requires all Medicaid programs to cover all tobacco cessation medications, although not all states have fully implemented this requirement (Singleterry et al., 2015). Since October 1999, New York's fee-for-service (FFS) Medicaid has covered first-line, FDA-approved prescription medications; coverage for over-the-counter products began in February 2000. All New York Medicaid Managed Care (MMC) plans cover at least the nicotine patch and gum, bupropion (Zyban®), and varenicline (Chantix®); some plans also cover the nasal spray, inhaler, and lozenge. In October 2015, New York State Medicaid benefits were expanded in New York City to offer unlimited trials of all FDA-approved medications and smoking cessation counseling to those with behavioral health diagnoses, who have higher rates of tobacco use. This expansion was subsequently implemented statewide. Effective December 1, 2016, the New York State Medicaid program expanded these benefits to all Medicaid enrollees, not just those with behavioral health diagnoses. Currently, combination therapy (e.g., patch and gum) is covered and there are no annual limits for medications or prior authorizations needed for any Medicaid enrollee. NY TCP encourages other health plans to expand coverage and promote cessation services to their members.

New York State plans to expand the percentage of recipients enrolled in MMC plans (vs. fee for service) 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 made presentations to representatives from MMC plans and has partnered with DSRIP stakeholders to establish NY TCP health systems contractors as resources to help with cessation projects.

Statewide and Community Action

NY TCP's community interventions focus on policies at the local level with the potential to prevent youth tobacco use initiation and promote cessation. The policy areas targeted and strategies implemented are recommended by CDC (2014) and considered essential to the continued declines in tobacco use (Institute of Medicine, 2007). NY TCP currently funds 25 Advancing Tobacco-Free Communities (ATFC) contractors to conduct these tobacco control activities at the local level. 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 positions for each ATFC contractor, a Community Engagement Coordinator and a Reality Check Youth Action Coordinator.

Community mobilization is a key component of contractor work; engaging other community organizations to conduct tobacco control activities expands the reach of the program. In addition, the program emphasizes that youth play an integral role in all activities. ATFC contractors reported nearly 600 instances of community mobilization (where instances represent monthly activity reported by contractors) from March 2016 to March 2017, with youth involved in 16% of these activities.

ATFC contractors focus their efforts on four initiatives: point of sale (POS), tobacco-free outdoors (TFO), 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 March 2016 through March 2017.

POS Initiative: The goal of the POS initiative is to reduce the impact of retail tobacco product marketing 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 buy one, get one free offers. Contractors may also work with jurisdictions on efforts to raise the age for legal purchase of tobacco products from 18 to 21.

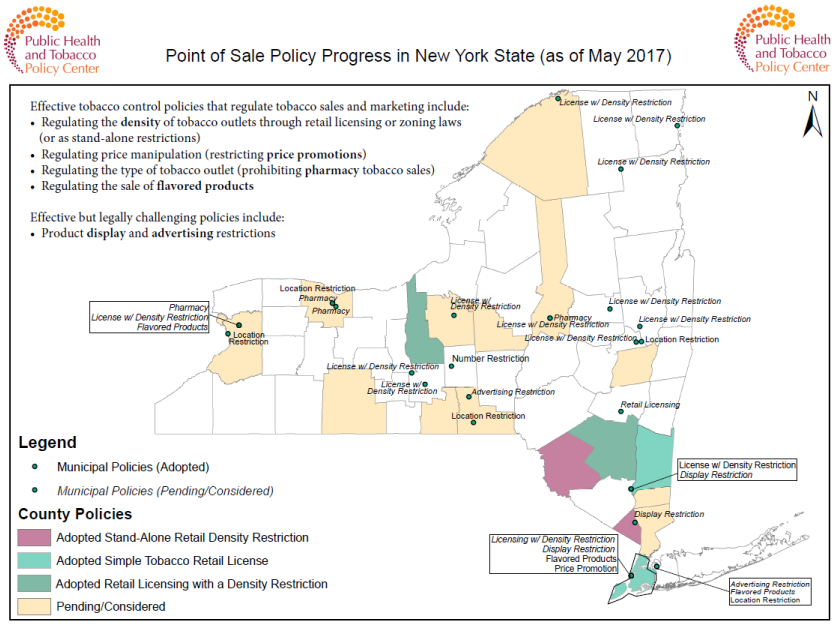
From March 2016 to March 2017, ATFC contractors reported more than 450 meetings to educate local policy makers about the POS initiative. These policy makers included elected leaders of villages, townships, and New York City boroughs, as well as county officials, local boards of health, and state legislators. To gain media coverage of the POS issue, contractors also reported over 650 instances of earned media including 254 newspaper stories (print or web); 148 radio interviews or stories; 145 newsletter/website stories; 88 TV stories (broadcast or web); 63 letters to the editor (print or web); 25 editorials (print or web); and 25 blogs/discussions. ATFC contractors also conducted nearly 750 community education events related to POS. These events were presented to or targeted youth groups, schools, allied coalitions, neighborhood associations, healthcare offices, mental health providers, businesses, law enforcement, and the general public.

ATFC contractors used paid media to support the goals of the POS initiative. In May 2016, they launched a social media campaign, *Seen Enough Tobacco,* to educate the public about tobacco industry marketing at the POS and its impact on youth (See sample images from one of these ads in Figure 4, and more detail about our evaluation on page 56).

Figure 4. Still Images from Seen Enough Tobacco Digital Media Campaign

The NYSDOH Prevention Agenda established a target of 10 POS policies by the end of 2018. Jurisdictions across the state have adopted POS policies, and even more have taken steps towards such policies (Figure 5). As of April 2017, the target number has been achieved, in advance of the target timeline. At least 10 distinct municipalities have adopted POS policies, including policies that address tobacco retailer licensing or registration and prohibit tobacco sales near schools or in pharmacies. New York City has a law that addresses a range of point of sale policy areas, including setting a minimum price for cigarettes and little cigars and prohibiting price promotions. In August 2017, New York City passed new legislation expanding its POS tobacco restrictions. The new regulations ban tobacco sales in New York City pharmacies; cap the number of tobacco retailers; increase the minimum price for cigarettes, cigars, and other tobacco products; and require that e-cigarette retailers obtain a license. Across New York State, municipalities are also adopting policies that increase the minimum age to purchase tobacco to 21 or limit where vape shops can be located. In addition, several jurisdictions voted on POS policies, but did not adopt them. This indicates growing interest in tobacco control policy change.

Figure 5. Map Highlighting New York Jurisdictions with Point of Sale Policies



Source: Public Health and Tobacco Policy Center, 2017.

TFO Initiative: The goal of the TFO 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 March 2016 through March 2017, ATFC contractors reported nearly 400 instances of educating policy makers about the issue and its policy solutions, including elected representatives of villages, towns, cities and counties across the state and a number of state senators and representatives. They also reported more than 500 instances of advocating with organizational decision makers about the need for organizational policies (colleges, businesses, religious organizations, healthcare provider offices, and libraries).

From March 2016 through March 2017, 3 counties, 9 cities, 21 towns, 11 villages, and 1 park adopted TFO policies. Of these, 17 were policies that prohibit smoking near building entryways; 40 were policies that prohibit smoking at beaches, parks, and/or playgrounds; and 17 were policies that prohibit smoking on campus grounds. Eight policies included all three components, 4 covered both building entryway and beaches/parks; and 2 prohibited smoking on both building grounds and in building entryways.

An additional 148 voluntary policies were adopted by libraries, colleges, recreational facilities, businesses, health care provider offices, and service organizations. Of these policies, 86 prohibit smoking in building entryways, 11 prohibit smoking at parks or other venues, and 110 prohibit smoking on campus grounds. Seven of the organizational policies included all 3 areas; 1 covered entryways and parks/venues; and 44 covered entryways and the organization's campus.

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 and are directed to prioritize those with at least 50 units. Smoke-free homes not only protect nonsmokers and children from secondhand smoke, they also have the

potential to increase quit attempts among smokers (Pizacani et al., 2004). From March 2016 through March 2017, ATFC contractors reported over 475 instances of educating about the issue and policy solutions; they reported 123 instances of obtaining commitment for a smoke-free multi-unit housing policy. ATFC contractors met with 263 unique targets, including individual landlords, management companies, and public housing authorities.

During this period, ATFC contractors reported that 88 apartment complexes or management companies adopted smoke-free multi-unit housing policies. As a result, an additional 115,617 units became smoke-free between March 2016 and March 2017. The NYSDOH Prevention Agenda objective of increasing the number of local housing authorities with tobacco-free policy for all housing units from 3 (in 2012) to 12 by the end of 2018 was previously met, with an additional 10 housing authorities becoming smoke-free during this period.

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 (MPAA) 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 March 2016 and March 2017 contractors participated in nearly 200 trainings on a wide range of topics, from Electronic Nicotine Delivery Systems to messaging around tobacco control topics to the National Conference on Tobacco or Health in Austin, TX. They also engage in sustainability efforts to raise awareness of the program among key stakeholders at the state and local levels. ATFC contractors reported 14 communications with FDA and 19 responses to dockets. They reported 294 in-person meetings with legislators in New York, along with an additional 1,303 communications with legislators (not in-person) to ensure that

those legislators understand the need for continued progress in reducing tobacco use among New Yorkers.

Key Evaluation Questions

This section addresses NY TCP progress from 2003 to 2016 for key outcome indicators for New York State and the remaining United States, when available. We document progress toward 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 from 2003 to 2016? 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 e-cigarettes
  - Prevalence of smoking among New York adults who report annual household income less than $25,000 or poor mental health
  - 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
    - smoke cigarettes,
    - smoke cigars,
    - use smokeless tobacco,
    - use e-cigarettes, and
    - use any tobacco products
  - Percentage of New York adult smokers who report provider cessation interventions

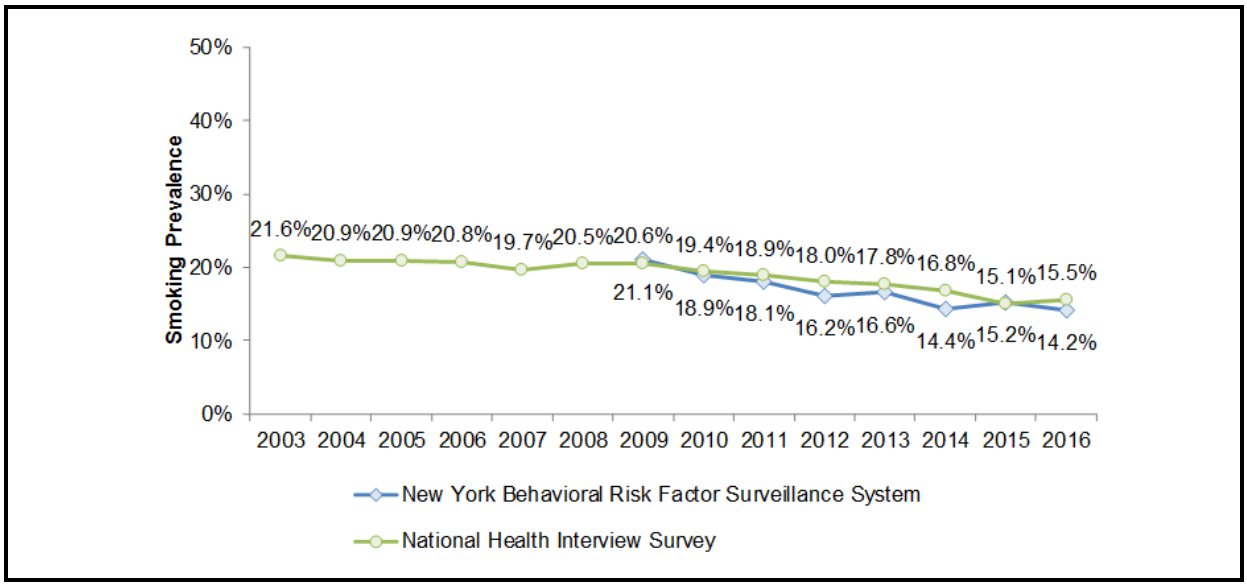
- We also summarize studies related to New York's Quitline and two targeted media campaigns:
  - Comparison of the New York State Smokers' Quitline reach, services offered, and quit outcomes to other state quitlines
  - Analysis of health care provider media campaign outcomes
  - Analysis of a social media campaign targeting parents with a message about the effect of retail tobacco marketing on youth

Adult Tobacco Use Measures

We present trends in adult smoking prevalence in New York from 2009 to 2016 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. We report national smoking prevalence estimates for comparison from the National Health Interview Survey (NHIS) from 2003 to 2016. For other tobacco control measures, we use the New York Adult Tobacco Survey and New York's National Adult Tobacco Survey.

From 2009 to 2016, adult smoking prevalence declined by 33% in New York and by 25% nationally (Figure 6). NY TCP reached the original 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 2018.

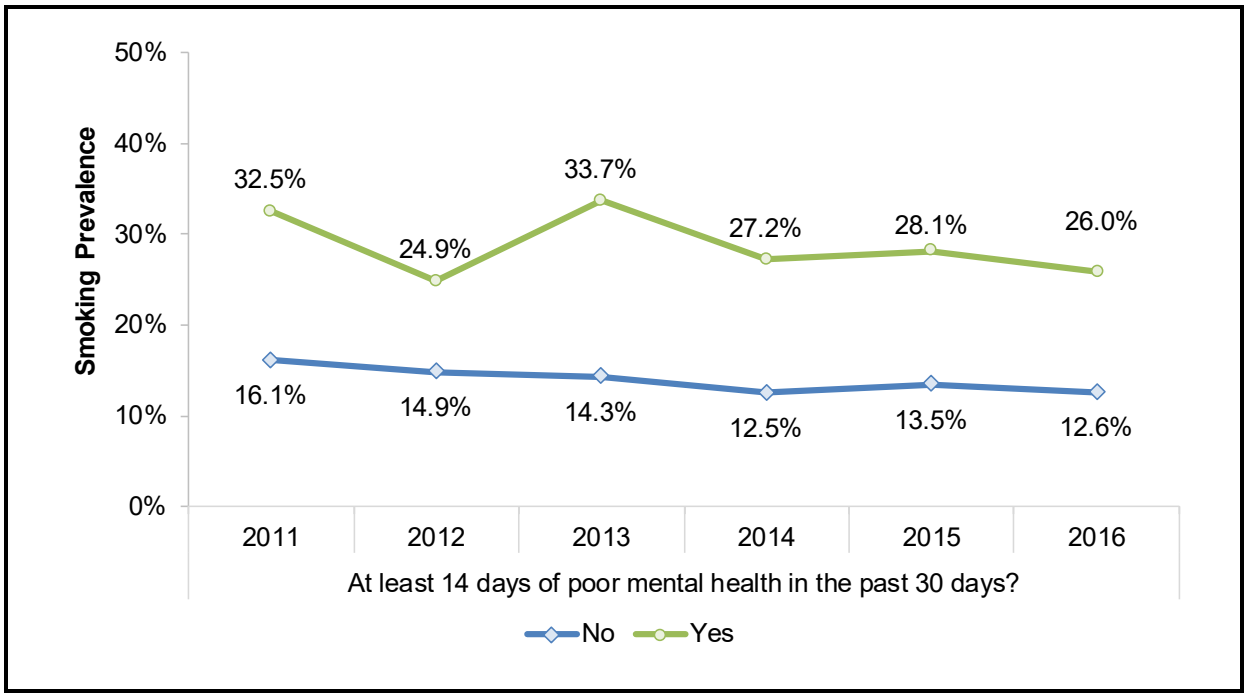
Figure 6. Percentage of Adults Who Currently Smoke in New York (Behavioral Risk Factor Surveillance System) 2009–2016 and Nationally (National Health Interview Survey) 2003–2016



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 2016. There is a statistically significant difference between the smoking prevalence in New York State and the United States in 2016.

Smoking prevalence is higher among New York adults who report poor mental health than those who report having good mental health. The NYSDOH Prevention Agenda set a target of decreasing smoking among New York adults with poor mental health from 32.5% in 2011 to 26.5% by the end of 2018. The current prevalence estimate among New York adults with poor mental health is 26.0% (Figure 7).

Figure 7. Percentage of New York Adults with Poor Mental Health Who Currently Smoke, New York Behavioral Risk Factor Surveillance System, 2011–2016



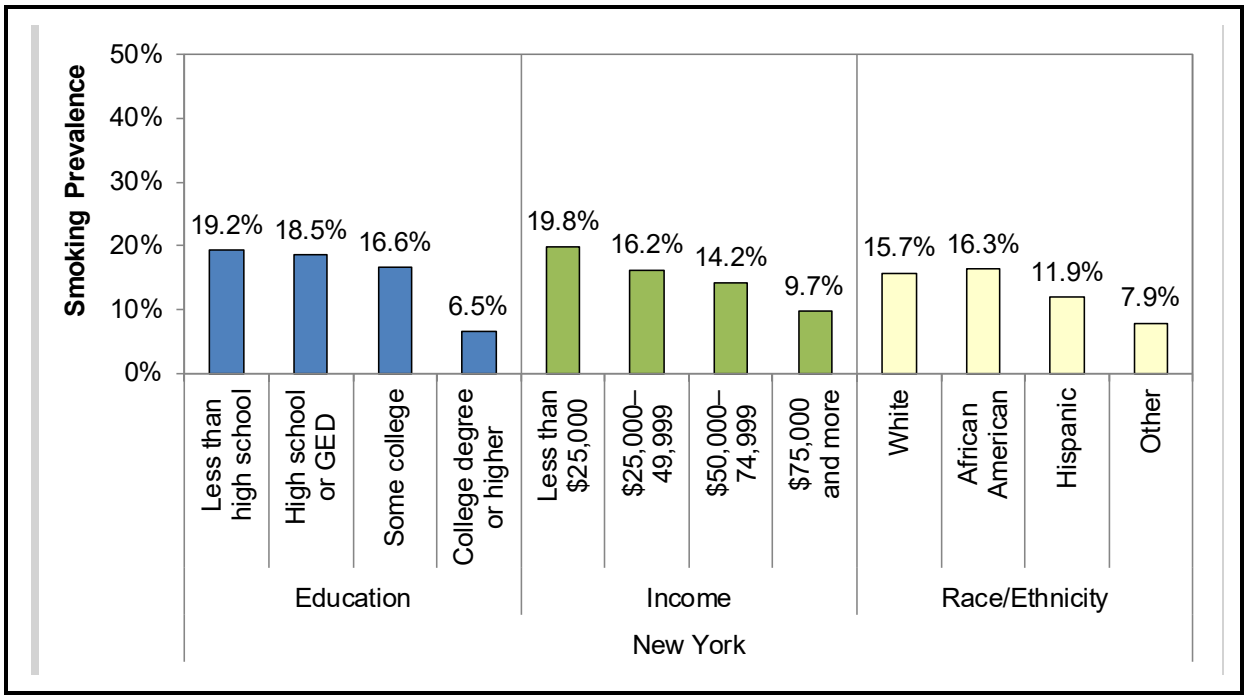
Note: There is a statistically significant downward trend in smoking prevalence among New York adults indicating "No" to "At least 14 days of poor mental health in the past 30 days" from 2011 to 2016.

Smoking prevalence also varies by household income level, and the NYSDOH Prevention Agenda includes an objective of decreasing smoking prevalence among adults with income of less than $25,000 to 20% by the end of 2018. In 2016, 19.8% of New York adults with an income of less than $25,000 reported current smoking, down from 27.8% in 2011 (a decrease of 29%) (Figure 8). New York adults with income of less than $25,000 still smoke at rates higher than those with an income of $25,000 or more.

Educational attainment is associated with smoking prevalence in New York. Those with a college degree or higher have a lower smoking prevalence (6.5%) than those with less than a high school degree (19.2%), a high school degree or equivalent (18.5%), or some college (16.6%) (see Figure 8).

Smoking prevalence varies by race/ethnicity as well. Smoking rates are higher among white adults (15.7%) and African American adults (15.9%) than Hispanic adults (11.9%) and those who report a race/ethnicity of "other" (7.6%) (see Figure 8).

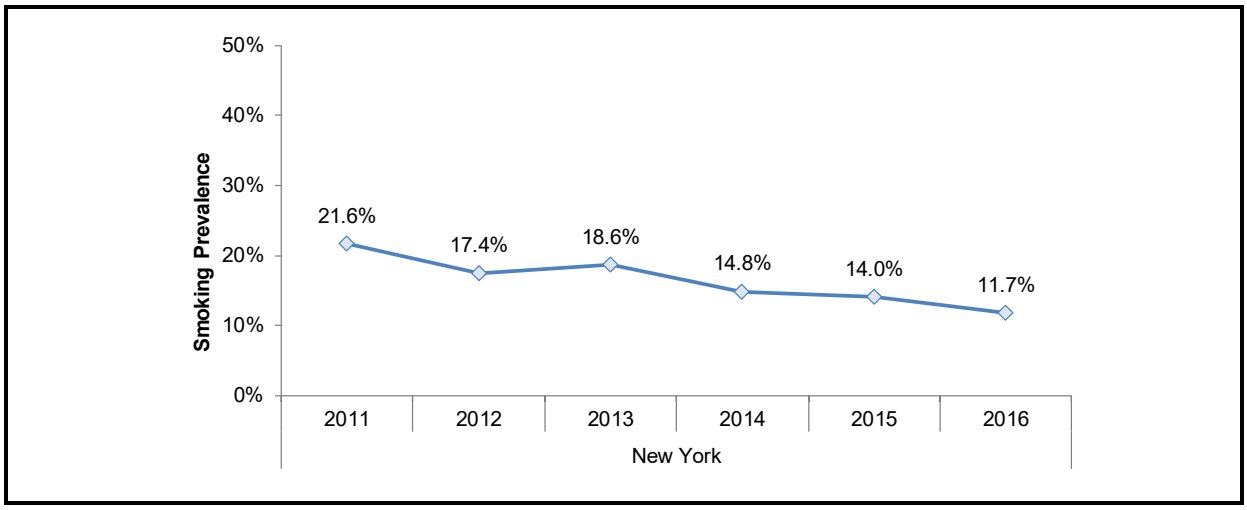
Figure 8. Percentage of New York Adults Who Currently Smoke, by Household Income, Education, and Race/Ethnicity, Behavioral Risk Factor Surveillance System 2016



Note: Prevalence of smoking differs significantly by education; 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. The prevalence of smoking also differs significantly between adults by household income; those households earning less than $25,000 have higher smoking prevalence than those earning $25,000 or more, those earning less than $75,000 have a higher smoking prevalence than those earning $75,000 or more. There are statistically significant differences in the prevalence of smoking between white or African American adults and Hispanic or adults with a race/ethnicity of "other." There is also a statistically significant difference in the prevalence of smoking between Hispanic adults and adults with race/ethnicity of "other."

The NYSDOH Prevention Agenda also includes a goal of decreasing smoking among young adults to 18% by 2018. New York has already achieved this goal, and in 2016, 11.7% of New York young adults ages 18 to 24 reported current smoking (Figure 9).

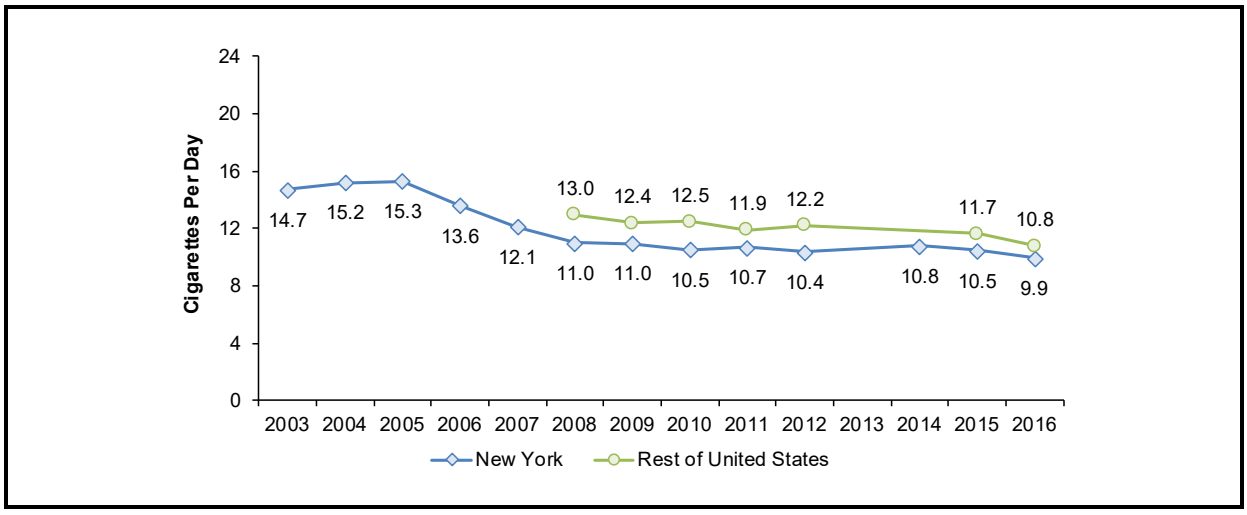
Figure 9. Percentage of New York Young Adults Aged 18 to 24 Who Currently Smoke, Behavioral Risk Factor Surveillance System 2011–2016



Note: There is a statistically significant downward trend in smoking prevalence among young adults in New York State from 2011 to 2016.

Among all New York adult smokers, daily cigarette consumption decreased from 14.7 cigarettes per day in 2003 to 9.9 cigarettes per day in 2016, or just less than half a pack a day (Figure 10). Among adults in the rest of the United States, daily cigarette consumption was 10.8 cigarettes per day in 2016. 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.

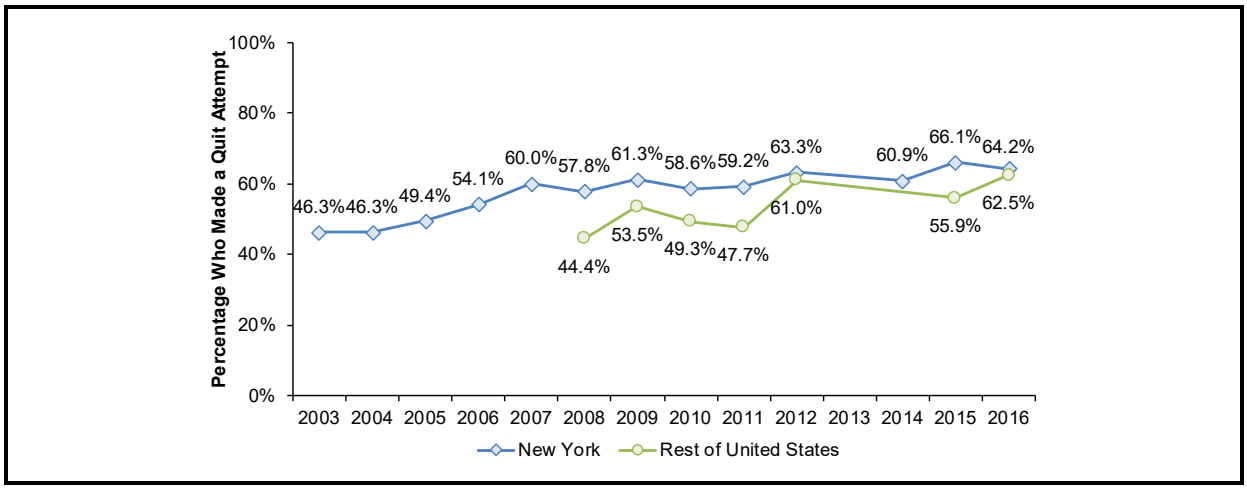
Figure 10. Average Daily Cigarette Consumption by Current Smokers, New York Adult Tobacco Survey 2003–2016 and National Adult Tobacco Survey 2008–2016



Note: There is a statistically significant downward trend among smokers in New York and the rest of the United States.

The proportion of adult smokers who made a quit attempt in the past 12 months has increased in New York and the rest of the United States. In 2016, 64.2% of New York adult smokers and 62.5% of adult smokers in the rest of the United States reported having made a past-year quit attempt (Figure 11).

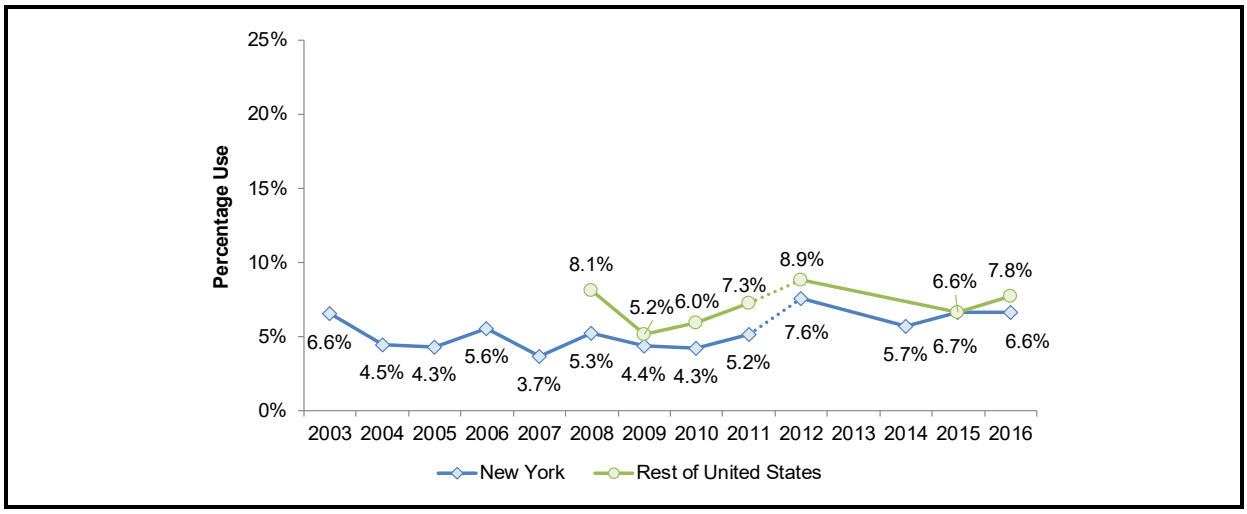
Figure 11. Percentage of Adult Smokers Who Made a Quit Attempt in the Past 12 Months, New York Adult Tobacco Survey 2003–2016 and National Adult Tobacco Survey 2008–2016



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

In 2016, 6.6% of New York adults reported current use of cigars, the same as the national rate (6.6%) (Figure 12). Most New York adults who use cigars report using them rarely.

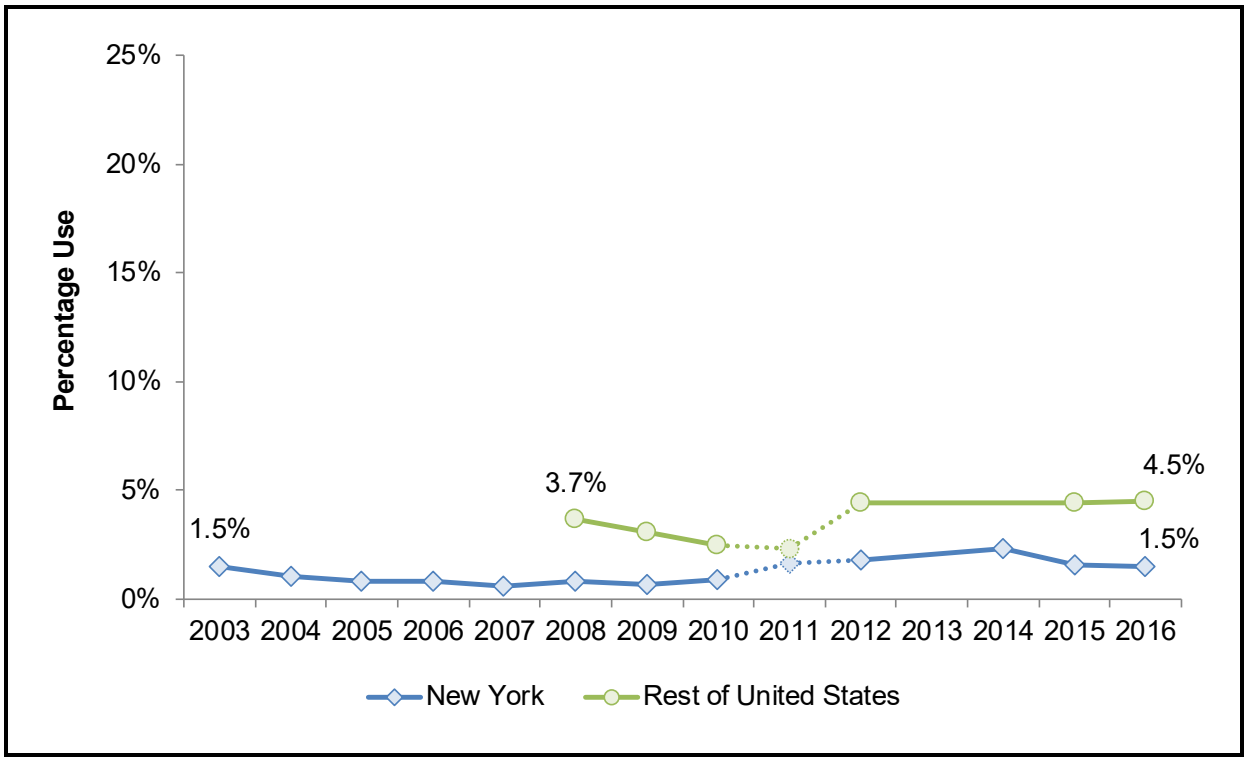
Figure 12. Percentage of Adults Who Currently Smoke Cigars, New York Adult Tobacco Survey 2003–2016 and National Adult Tobacco Survey 2008–2016



Note: There is a statistically significant upward trend in current cigar use among adults in New York State. The dotted line between 2011 and 2012 indicates the change in current cigar use response options from "Every day," "Some days," and "Not at all" to also include "Rarely" in Quarter 4, 2011.

Current use of smokeless tobacco among New York adults is lower than in the rest of the United States (Figure 13). In 2016, adult smokeless tobacco use prevalence was 1.5% in New York compared with 4.5% in the rest of the country.

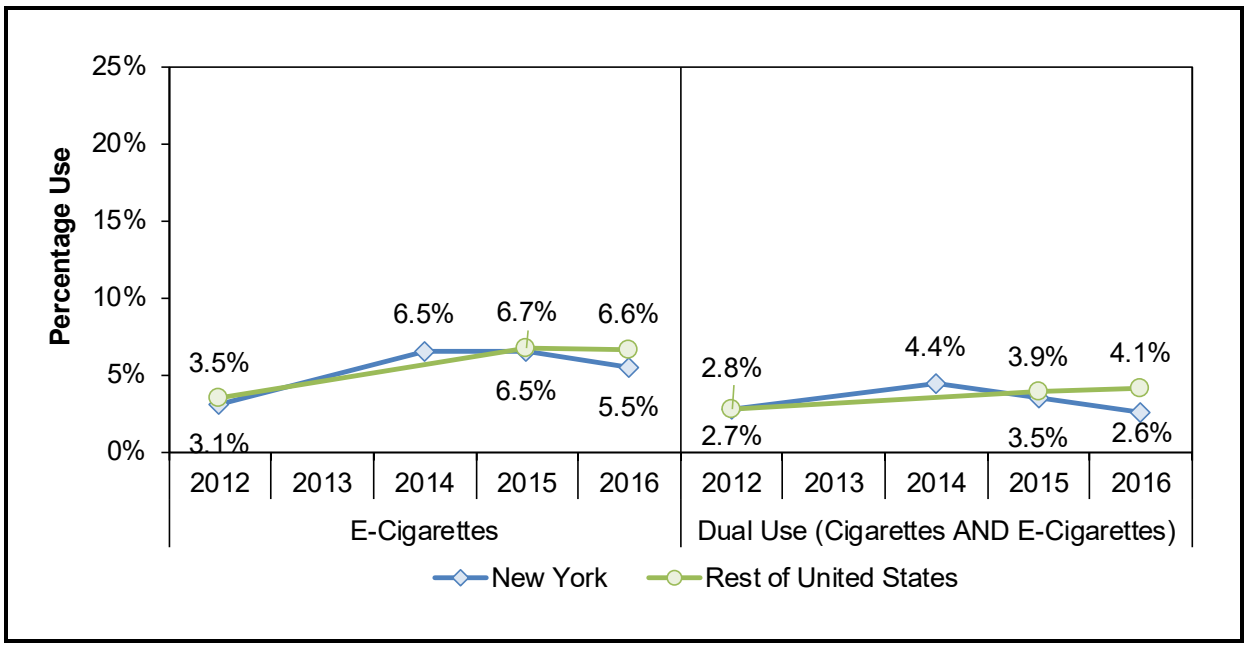
Figure 13. Percentage of Adults Who Currently Use Smokeless Tobacco, New York Adult Tobacco Survey 2003–2016 and National Adult Tobacco Survey 2008–2016



Note: There is a statistically significant upward trend in current smokeless use among New York adults. There is a statistically significant difference between current smokeless tobacco use in New York State and the rest of the United States in 2016. The dotted line between 2010 and 2011 indicates the change in smokeless tobacco's definition from chewing tobacco, snuff, and dip to include snus starting in Quarter 3, 2010. The dotted line between 2011 and 2012 indicates the change in current smokeless tobacco use response options from "Every day," "Some days," and "Not at all" to also include "Rarely" in Quarter 4, 2011.

NY TCP began tracking rates of electronic cigarette (e-cigarette) use via the New York Adult Tobacco Survey in 2012. In 2016, 5.5% of New York adults reported current e-cigarette use compared with 6.6% in the rest of the United States, and 2.6% of New York adults used both cigarettes and e-cigarettes (Figure 14). Thus, nearly half of New York adult e-cigarette users also used cigarettes. Dual use of e-cigarettes and cigarettes was lower in New York than the rest of the country in 2016.

Figure 14. Percentage of Adults Who Currently Use E-Cigarettes and Percentage of Adults Who Report Both Cigarette and E-Cigarette Use, New York Adult Tobacco Survey 2012–2016 and National Adult Tobacco Survey 2012-2016

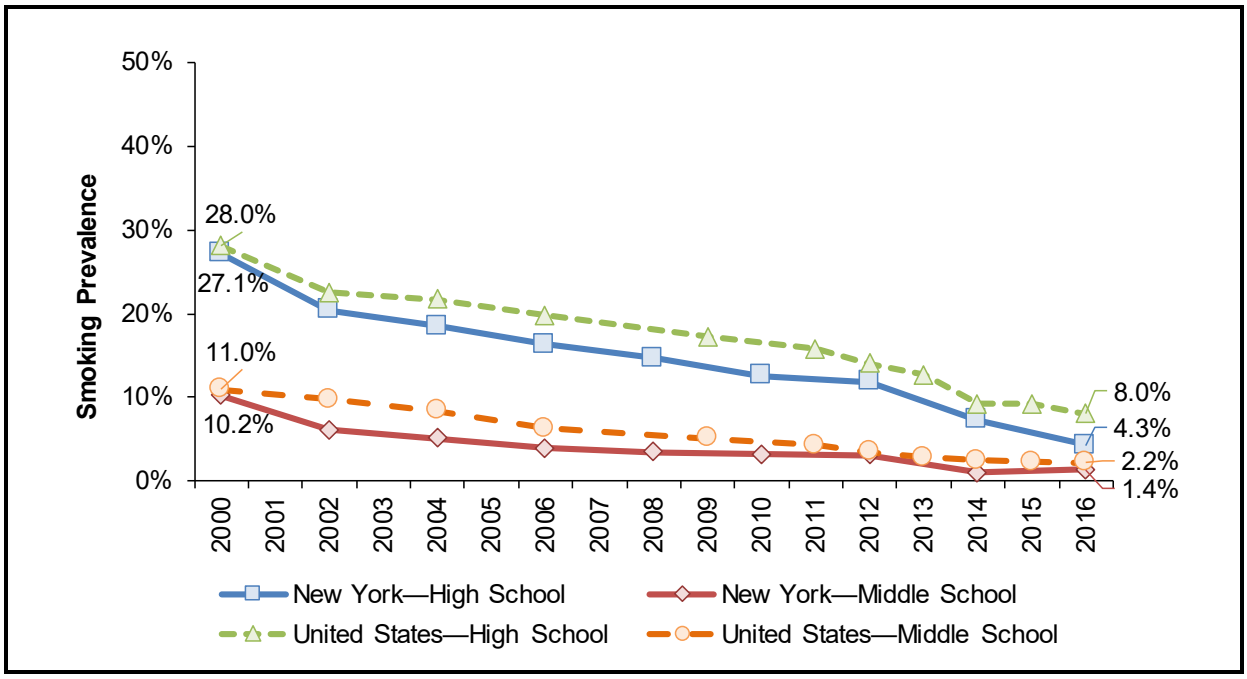


Note: Current e-cigarette use includes reports of use every day, some days, and rarely. There is a statistically significant upward trend in current e-cigarette use among adults in New York State and the rest of the United States. There is a statistically significant upward trend in current dual use (cigarette and e-cigarette use) among adults in the rest of the United States. There is a statistically significant difference between dual use in New York State and the rest of the United States in 2016.

Youth Tobacco Use Measures

In this section, we present trends in the use of tobacco products among middle and high school students in New York and nationally. Cigarette smoking rates among middle and high school students has declined substantially since 2000, leading to historically low rates of smoking in 2016. Specifically, the prevalence of current smoking in New York declined by 84% among high school students and by 86% among middle school students (Figure 15). High school student smoking prevalence in 2016 lower for New York than for the United States.

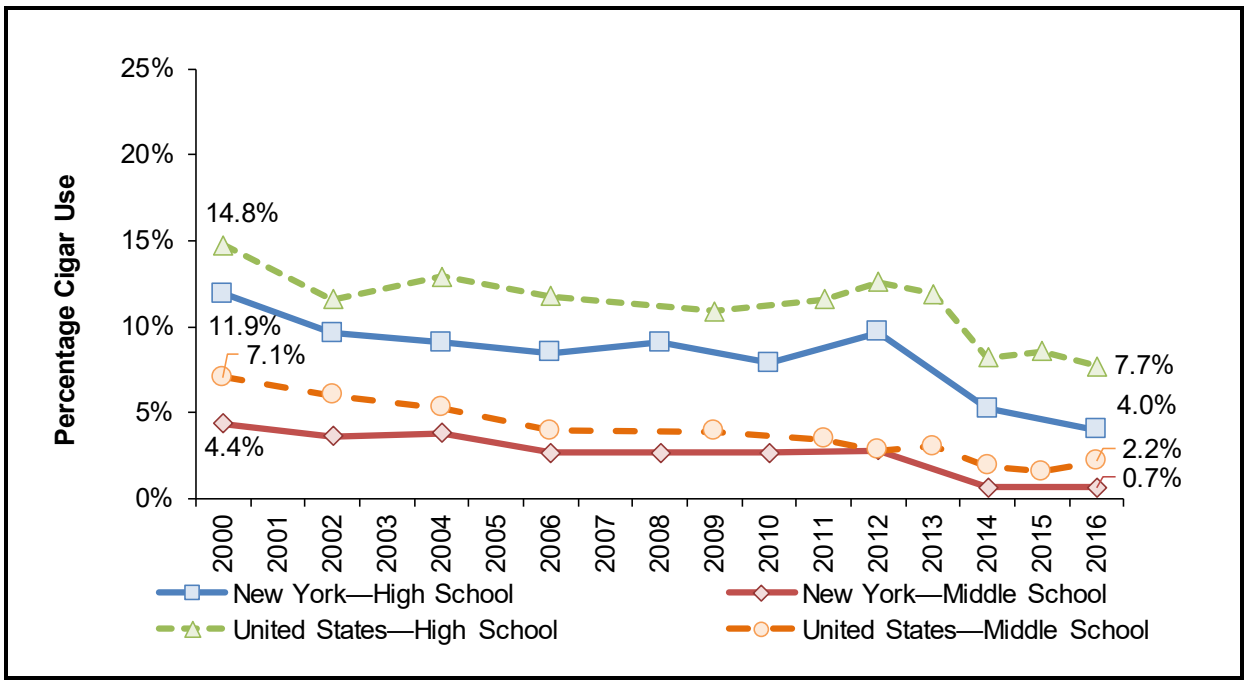
Figure 15. Percentage of Middle and High School Students Who Currently Smoke Cigarettes in New York and Nationally, New York Youth Tobacco Survey 2000–2016 and National Youth Tobacco Survey 2000–2016



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, an 84% decrease since 2000. In 2016, 4.0% of New York high school students reported current cigar use, a 66% decrease since 2000 (Figure 16). National trends in youth cigar use have also decreased over time, although middle and high school student cigar use was lower in New York than nationally in 2016.

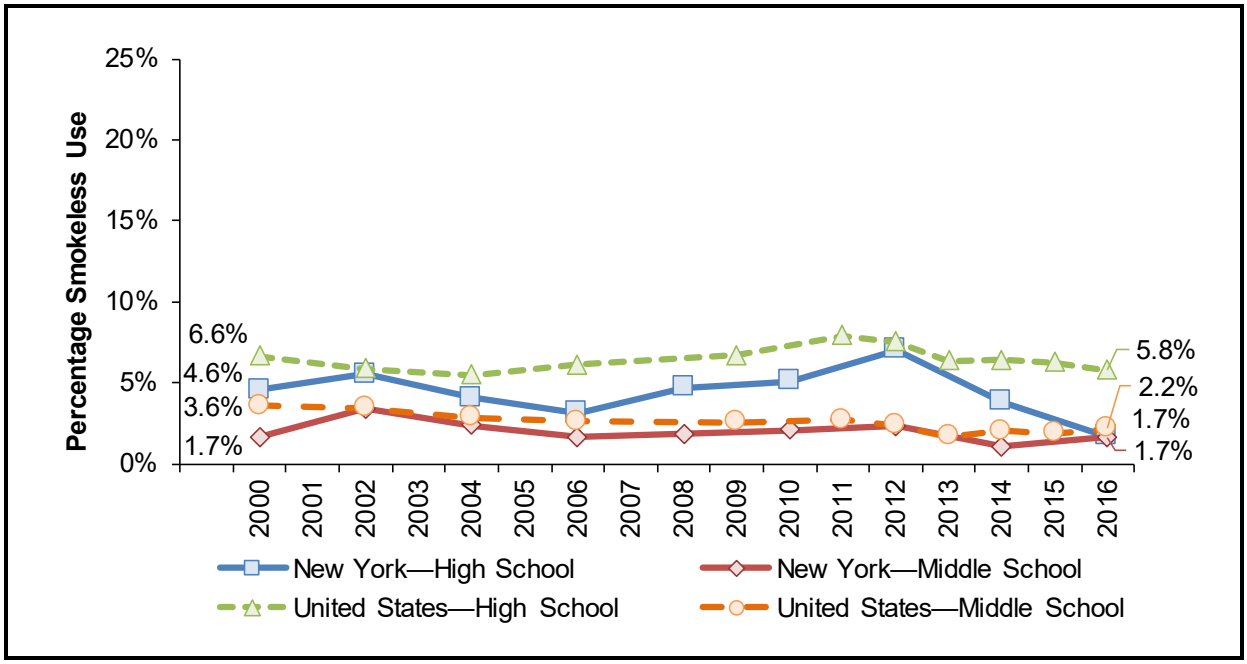
Figure 16. Percentage of Middle and High School Students Who Currently Smoke Cigars in New York and Nationally, New York Youth Tobacco Survey 2000–2016 and National Youth Tobacco Survey 2000–2016



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 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.

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 6.3% of high school students nationally (Figure 17). New York middle school student smokeless tobacco use prevalence was also 1.7% in 2016, similar to the national middle school student rate of 2.2%.

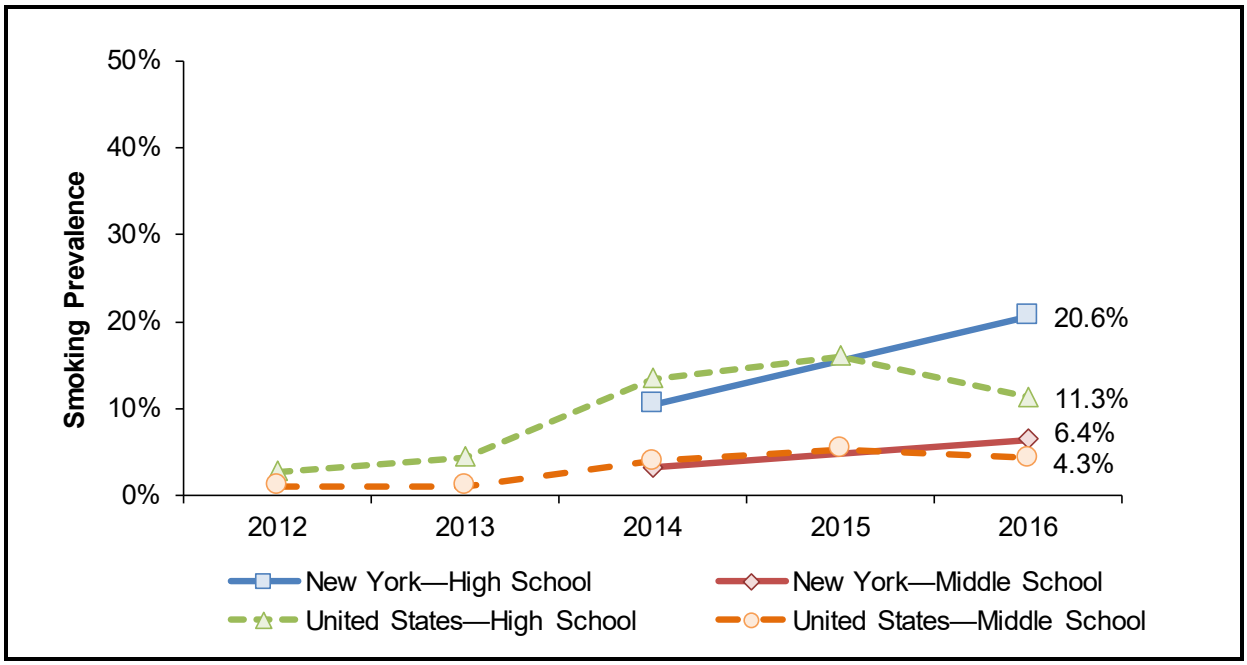
Figure 17. Percentage of Middle and High School Students Who Currently Use Smokeless Tobacco in New York and Nationally, New York Youth Tobacco Survey 2000–2016 and National Youth Tobacco Survey 2000–2016



Note: 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, and dissolvable use data were first available for New York in 2014 and for the United States in 2011.

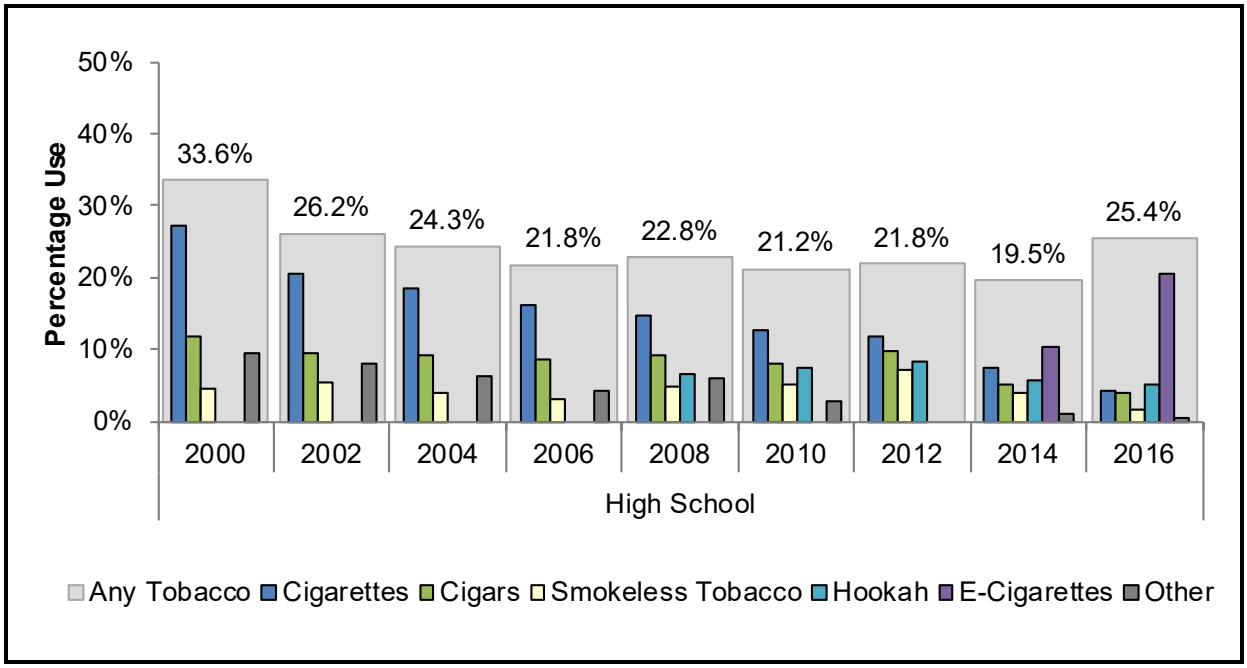
Rates of cigarette, cigar, and smokeless tobacco use among youth in New York and nationally are decreasing, but youth e-cigarette use has followed a different trajectory. Among New York high school students, e-cigarette use increased from 10.5% in 2014 to 20.6% in 2016 (Figure 18). E-cigarette use among 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 e-cigarette use 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 use e-cigarettes than use cigarettes, cigars, or smokeless tobacco.

Figure 18. Percentage of Middle School Students and High School Students Who Currently Use E-Cigarettes in New York and Nationally, New York Youth Tobacco Survey 2014 –2016 and National Youth Tobacco Survey 2012–2016



The 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 e-cigarettes) in 2016 was 25.4%, with use of e-cigarettes overwhelmingly more common than other types of tobacco products (Figure 19).

Figure 19. Percentage of New York High School Students Reporting Current Use of Any Tobacco Product, New York Youth Tobacco Survey 2000–2016



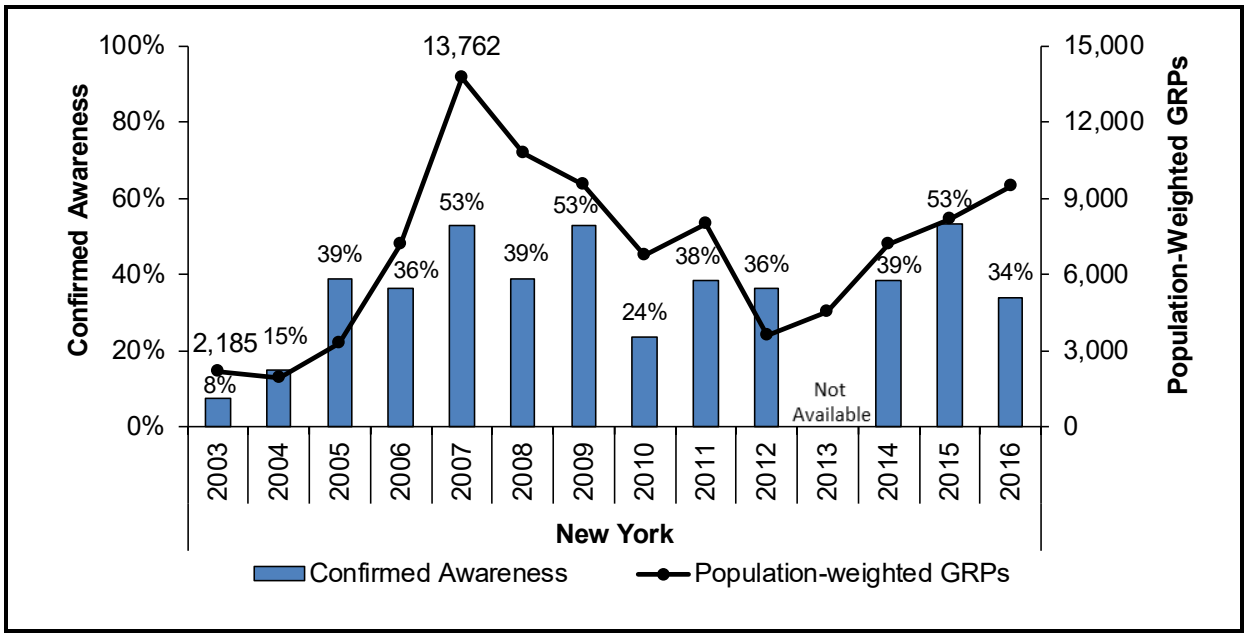
Note: There is a statistically significant downward trend in current use of any tobacco product. Current tobacco use is defined by indicating use of cigarettes, cigars (large cigars, cigarillos, or little cigars), smokeless tobacco (chew, snuff, dip, snus, or dissolvable), hookah (or waterpipe), e-cigarettes, 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 e-cigarette 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 NYSDOH Prevention Agenda objectives and other relevant measures.

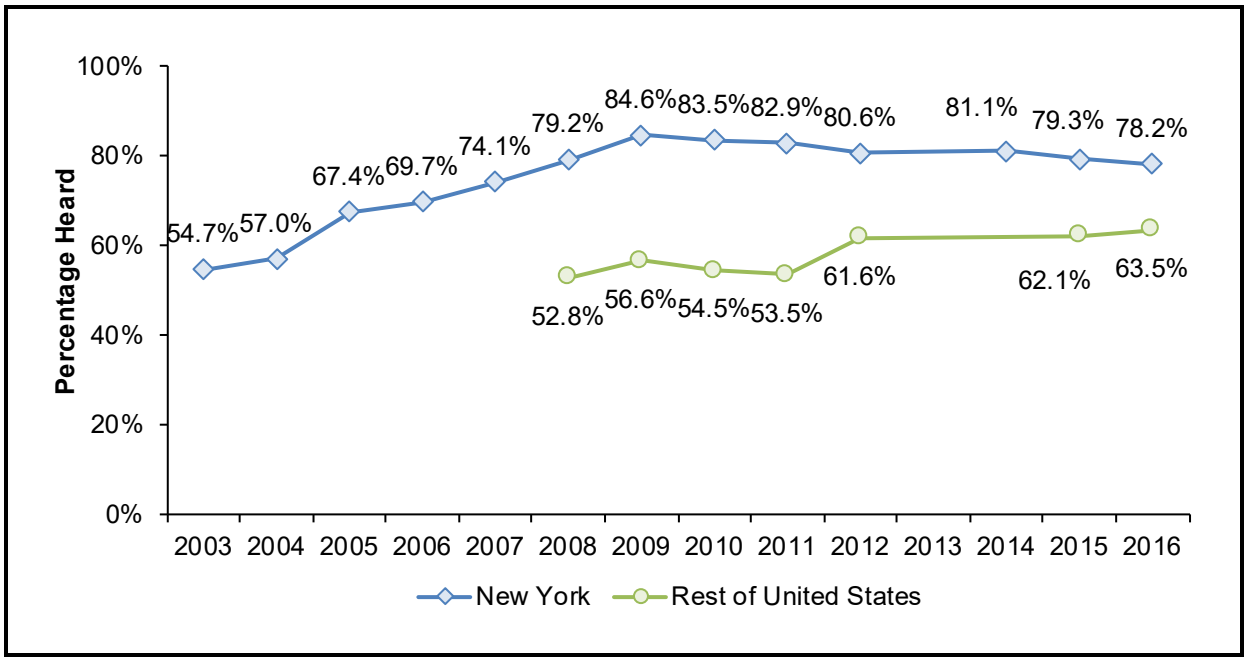
In 2016, 34% of New York adult smokers recalled seeing at least one NY TCP-sponsored television advertisement (Figure 20). The decline in awareness from 2015 to 2016, despite a relative increase GRP levels, may reflect differences in the ad allocation between years. Compared with 2016, the TCP's 2015 ad allocation included a greater emphasis on CDC Tips ads, which may have garnered higher levels of ad awareness due to synergy with the CDC's national campaign. The aggregate yearly awareness estimate among smokers also obscures quarterly-level differences over the year, with 2016 awareness levels being higher in Q1 (41%) and Q2 (48%) than in Q3 (20%) and Q4 (30%).

Figure 20. Confirmed Awareness of Paid Advertisements among Smokers and Population-Weighted Statewide Average Gross Rating Points (GRPs) 2003–2016, New York Adult Tobacco Survey 2003–2016



Awareness of the New York State Smokers' Quitline among New York smokers was 78.2% in 2016, higher than awareness of quitlines among adult smokers in the rest of the country (63.5%) (Figure 21). Quitline awareness has been fairly stable in recent years, both in New York and nationally.

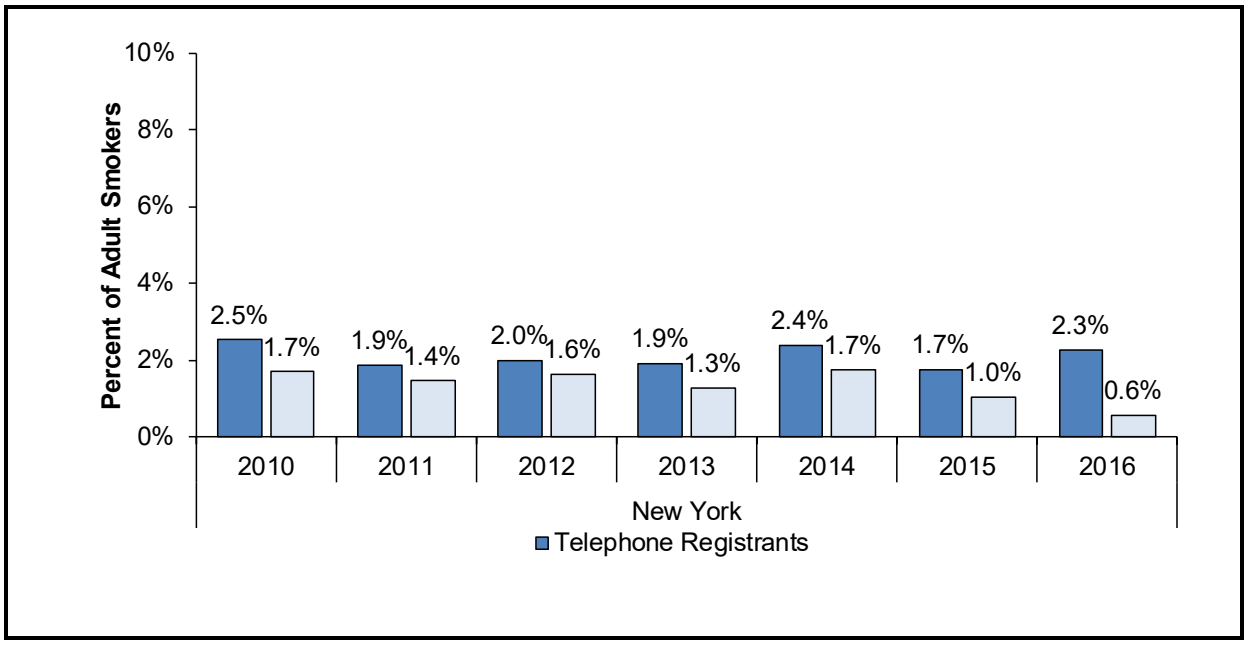
Figure 21. Percentage of Adult Smokers Who Have Heard of Quitline, New York Adult Tobacco Survey 2003–2016 and National Adult Tobacco Survey 2008–2016



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 New York State and the rest of the United States. There is a statistically significant difference between smokers in New York State and the rest of the United States in 2016.

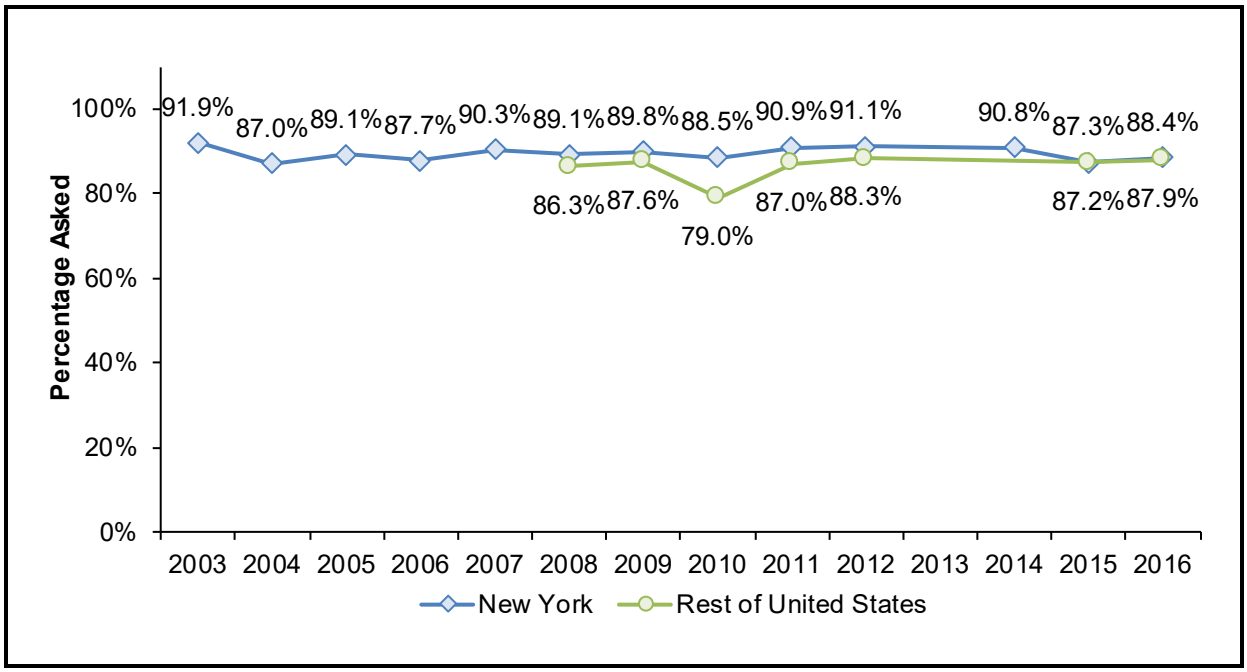
On average in the United States, state quitlines reach approximately 1% of smokers annually (CDC, 2014). In 2016, 2.1% of New York smokers registered for Quitline services by phone and 0.5% of New York smokers registered online (Figure 22). The 2016 Quitline website registrations reflect a lower reach than prior years. NRT distribution via the website was suspended for 3 months during the winter and opened up again in March 2016, accommodating New York City's NRT giveaway campaign and newly requiring coaching for those non-NYC tobacco users interested in receiving NRT from the Quitline.

Figure 22. Percentage of Adult Cigarette Smokers in New York Who Registered for Services from the New York Quitline by Telephone and Website, 2010–2016



Health care providers have the opportunity to conduct evidence-based interventions with patients who smoke and provider interventions 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 smokes. In 2016, 88.4% of smokers in New York who visited a health care provider in the past 12 months reported that they were asked about their smoking status, similar to the percentage of smokers who were asked nationally (Figure 23).

Figure 23. 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 2003–2016 and National Adult Tobacco Survey 2008–2016



Trends of smokers' reports of their health care provider advising them to quit smoking have not changed significantly in New York or the rest of the United States (Figure 24). In 2016, rates of provider advice were 77.8% among New York smokers and 70.1% nationally. Although approximately three-quarters of smokers in New York report that their provider advised them to quit, fewer smokers report that a provider assisted them with quitting. Provider assistance is measured by smoker reports of provider suggestions of setting a quit date; provision of quit-smoking materials; and discussion of cessation medications, quitlines, or classes. Assistance with a quit attempt has increased over time in New York and in 2016, 52.5% of New York adult smokers reported provider assistance (Figure 25). In the rest of the United States, 44.7% of smokers reported provider cessation assistance.

The NYSDOH Prevention Agenda set an objective of increasing provider assistance with quitting from 46.3% in 2011 to 55.0% in 2018. With 52.5% of smokers reporting provider assistance, this rate has increased by 13% since 2011 and would need to increase an additional 5% to reach this target by the end of 2018.

Figure 24. 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 2003–2016 and National Adult Tobacco Survey 2008–2016

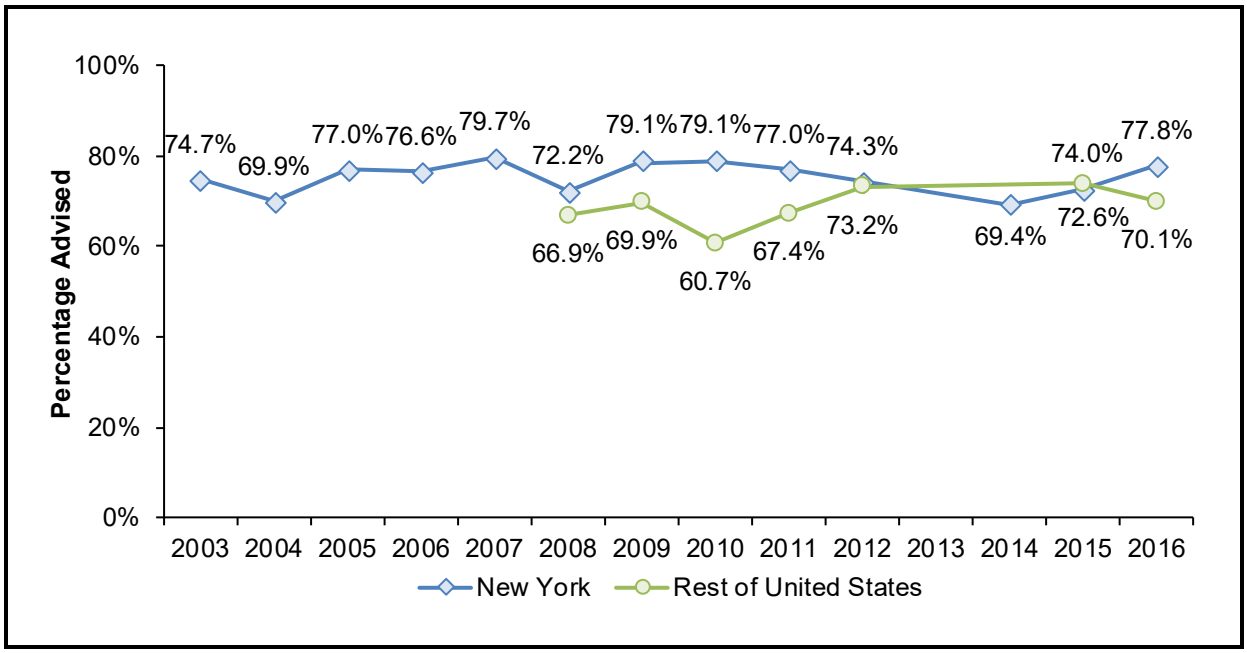
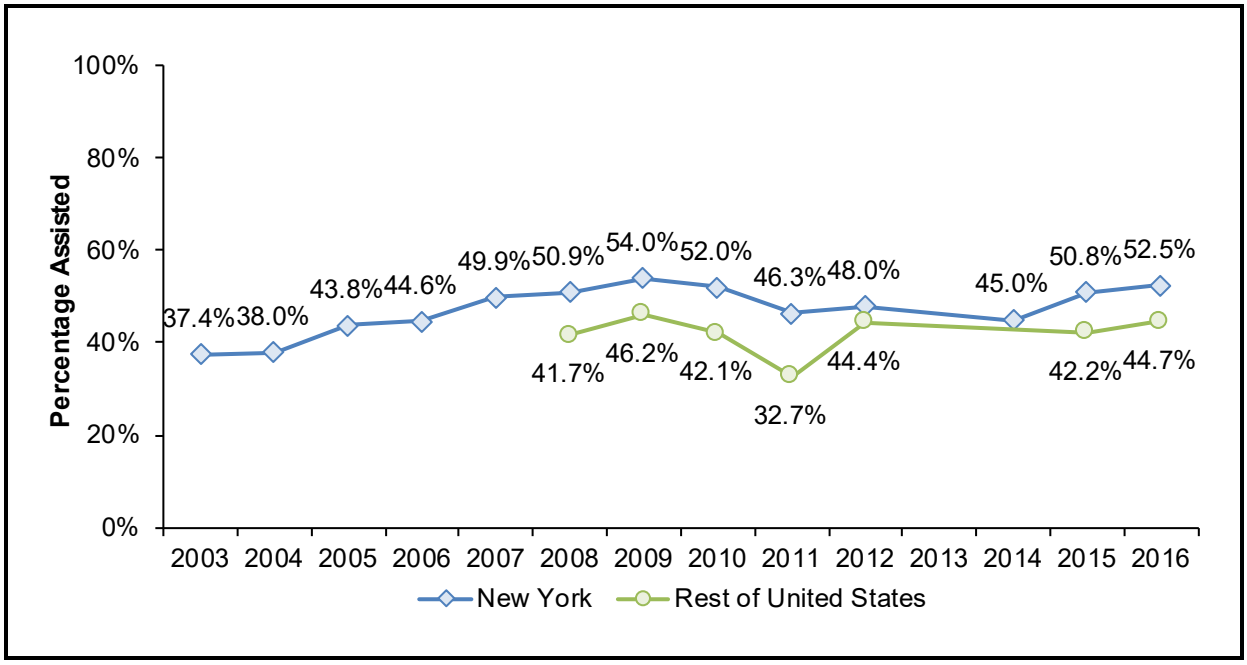


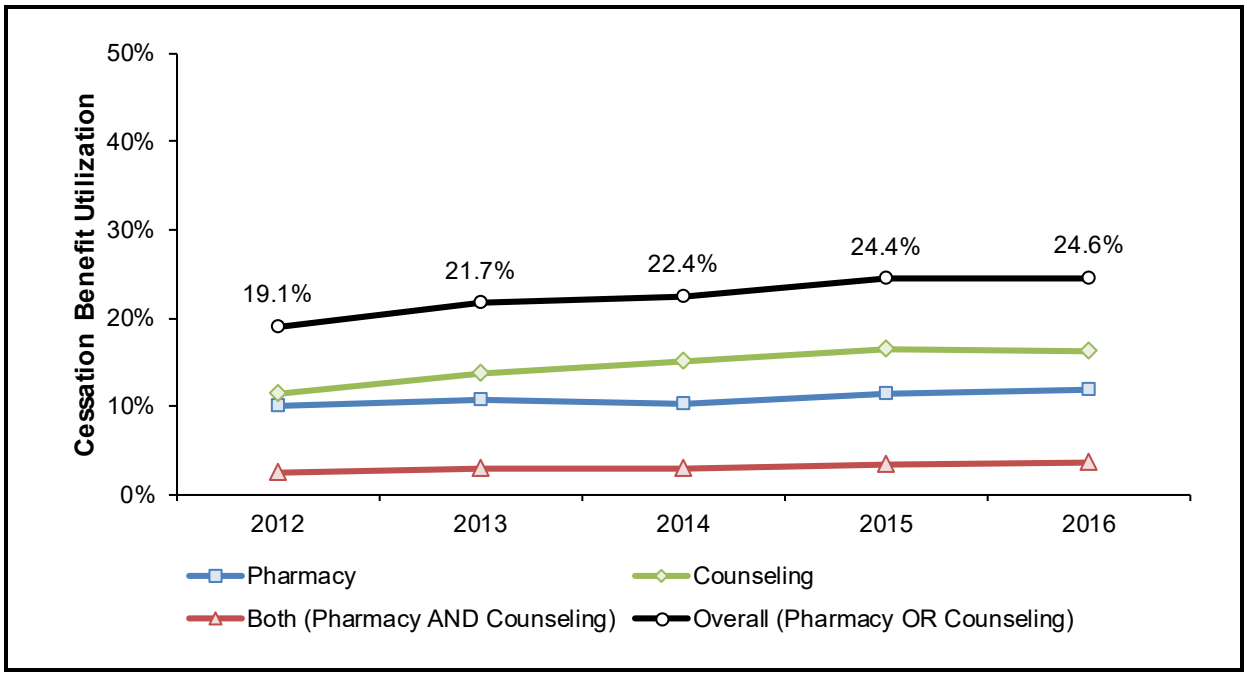
Figure 25. Percentage of Adult Smokers Who Report That Their Health Care Provider Assisted Them with Smoking Cessation in the Past 12 Months, New York Adult Tobacco Survey 2003–2016 and National Adult Tobacco Survey 2008–2016



Note: There is a statistically significant upward trend among New York smokers.

The NYSDOH Prevention Agenda includes an objective of increasing the utilization rate of smoking cessation benefits among smokers enrolled in Medicaid Managed Care (MMC) plans to 41.0% in 2018. The New York Medicaid Office shared a preliminary estimate indicating that 24.6% of MMC-enrolled smokers used cessation benefits in 2016 (Figure 26). This estimate represents a 49% increase since 2011, and appears to be linked to increased utilization of counseling benefits.

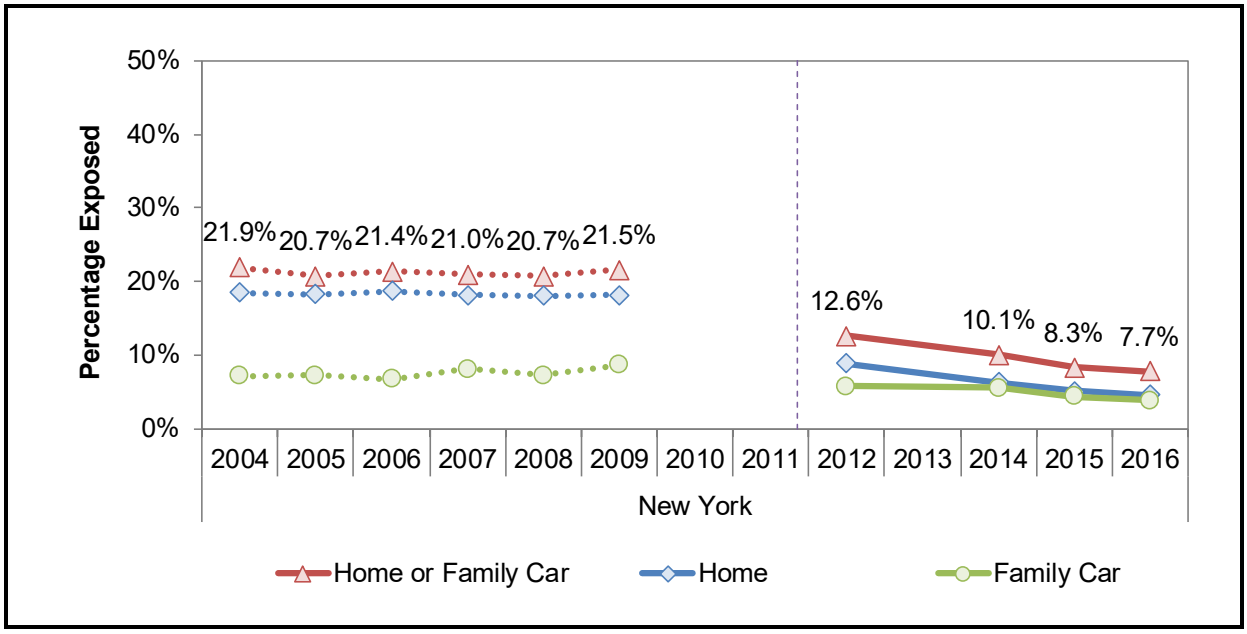
Figure 26. Percent of estimated smokers enrolled in Medicaid Managed Care Plans That Used Smoking Cessation Benefits, 2011-2016, NY Medicaid



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). 2016 estimate is preliminary.

Secondhand smoke exposure among New York adults has decreased. The 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 2015 and 16.2% of adults in 2016 reported being exposed to secondhand smoke. Estimates of exposure to secondhand smoke specifically among nonsmokers are even lower. In 2016, only 7.7% of nonsmoking New York adults reported secondhand smoke exposure in homes or cars (Figure 27).

Figure 27. Percentage of New York Nonsmokers Who Report Being Exposed to Secondhand Smoke, New York Adult Tobacco Survey 2004–2016



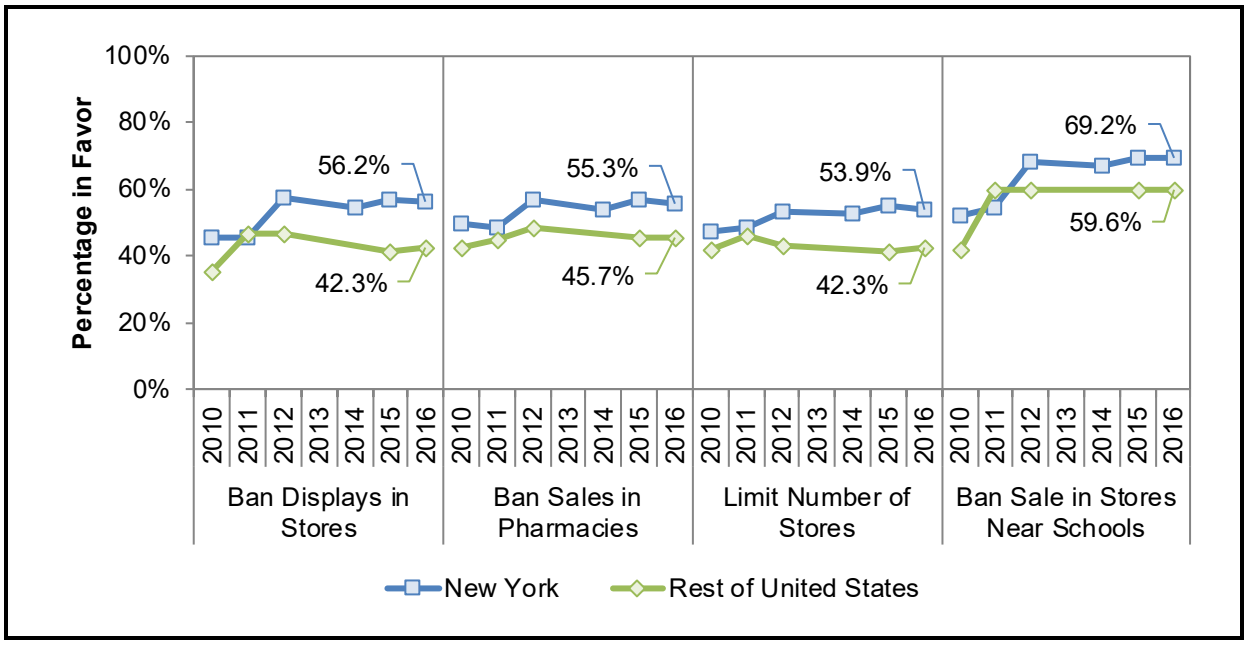
Note: Due to question wording changes, estimates for secondhand smoke exposure are not directly comparable before and after 2009. There is a statistically significant downward trend in secondhand smoke exposure from 2012 to 2016 among New York nonsmokers. The percentage of nonsmokers exposed to secondhand smoke is defined by responding 1 or more hours to "During the past 7 days, approximately how many hours (total in a week) did you spend in a room (either work or home) where someone has been smoking?" or "During the past 7 days, approximately how many hours (total in a week) did you spend in a vehicle where someone else has been smoking?" from 2004 to 2009; or 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?" from 2012 onward.

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 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 point of sale marketing influences youth tobacco initiation are more likely to support point of sale policies (Schmitt et al., 2012, 2015). Policy change in the point of sale 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.

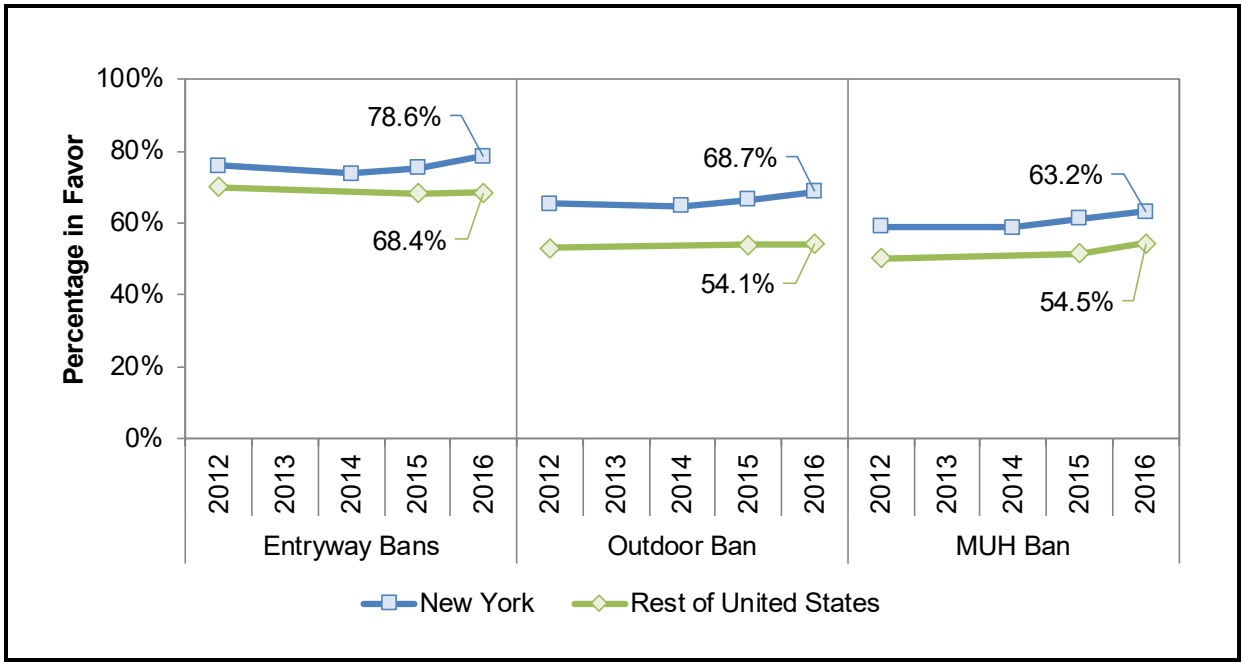
New York adults' support for prohibiting the display of tobacco products, prohibiting pharmacy sales, limiting the number of stores that can sell tobacco, and prohibiting tobacco sales in stores near schools all increased significantly between 2014 and 2016 (Figure 28). Support for these policies was 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 banning smoking in building entryways, in outdoor areas like parks and playgrounds, and in multi-unit housing (Figure 29). Support for policies to reduce secondhand smoke exposure was higher among adults in New York than in the rest of the country, for each policy category.

Figure 28. Support among Adults for Point of Sale Tobacco Control Policies, New York Adult Tobacco Survey 2010–2016 and National Adult Tobacco Survey 2010–2016



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 banning 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 2016.

Figure 29. Support among Adults for Policies to Reduce Secondhand Smoke Exposure, New York Adult Tobacco Survey 2012–2016 and National Adult Tobacco Survey 2012–2016



Note: There is a statistically significant upward trend in support for secondhand smoke exposure policies among adults in New York State. There is a statistically significant difference between support in New York State and the rest of the United States in 2016. MUH = Multi-unit housing.

The next sections delve into two tobacco control issues relevant to New York in detail. First, we present an analysis comparing New York's Quitline to other state quitlines. Second, we summarize our evaluation of a media campaign targeting health care providers in New York.

Comparison of the New York State Smokers' Quitline Reach, Services Offered, and Quit Outcomes to Other State Quitlines

The New York State Smokers' Quitline (New York Quitline) provides individualized telephone counseling, free nicotine replacement therapy (NRT), a variety of tips and tools, and a Quitsite website with interactive features for tobacco users who want to quit. All U.S. states maintain and operate state tobacco cessation quitlines that offer a combination of free tobacco use cessation counseling, free NRT, web-based services, and mailed self-help materials to tobacco users. Despite quitlines having the potential for broad reach, only around 1% of adult smokers in the United States receive services from state quitlines annually (CDC 2014 & HHS 2014).

The services offered, as well as operational and implementation procedures, although similar, differ by state and by quitline service provider. We conducted a descriptive study of the New York Quitline using available data from CDC's National Quitline Data Warehouse (NQDW) for 2010–2015 to describe Quitline reach, services offered, and cessation outcomes. We compare results for New York to the 44 other state quitlines with complete NQDW data.

Data and Methods

In 2010, the CDC's Office on Smoking and Health established the NQDW to serve as a national repository of data for state quitlines and provide an infrastructure and a mechanism for ongoing data collection and monitoring. We used available NQDW data from 2010–2015 to compare the reach, services offered, and cessation outcomes for the New York Quitline to 44 other state quitlines with complete NQDW data. To ensure the comparability of reach data over time, we restricted our analysis of NQDW data to the 45 states with complete data for 2010–2015 (2010-Q1 through 2015-Q4).

We first compared the New York Quitline to other state quitlines based on treatment reach, which is defined as the proportion of the target population (i.e., smokers in the state) that receive an evidence-based service from the quitline (NAQC, 2009). We ranked states from highest to lowest in terms of reach, services offered, and quit rates, and we report New York's rank for each of these measures.

Next, we created a descriptive profile of the services offered by state quitlines based on the following NQDW data measures: hours of operation, eligibility criteria for counseling, amount of counseling offered, free NRT offered, eligibility criteria for free NRT, and amount of free NRT offered. In this profile, we report the number of states with a higher amount of quitline services, the same amount, and a lower amount of services in comparison to New York.

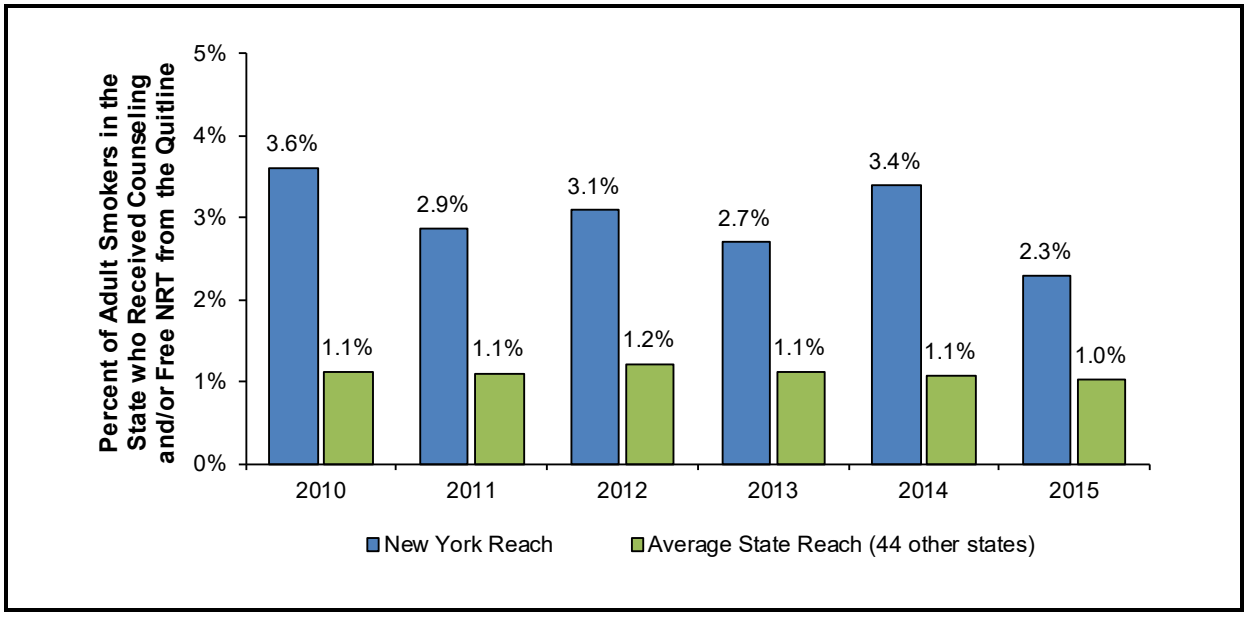
We then conducted a descriptive analysis of cessation outcomes, using 7-month follow-up evaluation data for 2010 and 2011. For this analysis, we further restricted the data to 32 of the 45 states included in the overall analysis, limiting to those with complete follow-up survey data. We present descriptive data from the 7-month follow-up survey for 24-hour quit rates and 30-day quit rates. The 24-hour quit rate is the percentage of survey respondents who reported that they stopped using tobacco for 24 hours or longer and the 30-day quit rate is the percentage of survey respondents who reported not smoking any cigarettes or using other tobacco products in the past 30 days.

Both quit rates are presented using two different calculation methods: a responder rate and an intent-to-treat rate. Responder rates are calculated only among individuals who completed follow-up evaluation surveys. Therefore, this method of quit rate calculation is likely to be an overestimate because those who did not quit might be less likely to complete the survey. Intent-to-treat rates are calculated among all individuals who were selected to participate in the 7-month follow-up evaluation survey, regardless of whether they completed the survey. The intent-to-treat rates is likely an underestimate of the quit rate because when we calculate it, we assume that all nonresponders failed to make a quit attempt or maintain sustained quitting behaviors.

Results

New York's average annual quitline reach from 2010–2015 was 3.0% per year, ranging from 2.3% in 2015 to 3.6% in 2010 (Figure 30). Over this same period, the average annual state quitline reach for the 44 other states included in our analysis was 1.1% per year, ranging from 1.0% in 2015 to 1.2% in 2012.

Figure 30. Annual Quitline Reach for New York and 44 Other States, 2010–2015



From 2010 through 2015, New York's quitline reach was consistently one of the highest in the country and substantially exceeded the average state quitline reach for the other 44 states in our analysis (Table 6). New York's annual quitline reach ranked between second and fourth highest among the 45 states in our analysis, and New York's average annual quitline reach was 2.7 times higher than average annual reach across the other 44 states.

The New York Quitline is open 12 hours per day Monday through Thursday and 8 hours per day on Friday through Sunday. The other 44 states included in our analysis were open longer than New York, with counseling services available an average of approximately 20 hours per day Monday through Thursday and nearly 19 hours per day Friday through Sunday (see Table 5). The New York Quitline offers two counseling sessions to all eligible callers, compared with an average of four

counseling sessions across 42 other states that offer a finite number of sessions; two states offer unlimited counseling sessions to quitline callers. New York was ranked 39th out of the 45 states included in our analysis in terms of the number of counseling sessions offered to eligible quitline callers.

For the 41 other states that offered free NRT, the average amount of free nicotine patches per quit attempt offered to eligible quitline callers was 5 weeks. New York offered 2 weeks per quit attempt, which ranked 17th out of the 42 states included in our analysis that offered free NRT.

Table 6. Quitline Services Offered by New York and 44 Other States, 2010-2015

Hours of Operation				
	New York		Other States (n = 44)	
Day of Week	Daily Hours	Hours Per Day	Hours Per Day: Mean (Min–Max)	NY Rank
Monday–Thursday	9 am–9 pm EST	12	20.2 (12–24)	43 (tied)
Friday	9 am–5 pm EST	8	20.2 (12–24)	45
Saturday	9 am–5 pm EST	8	19.3 (0–24)	42 (tied)
Sunday	9 am–5 pm EST	8	18.9 (0–24)	40 (tied)
Counseling Offered				
Number of Counseling Sessions Offered to Callers	New York		Other States (n = 44)	
	Number of Sessions		Number of Sessions: Mean (Min–Max)	NY Rank
Counseling Sessions	2		4 (1–8)	39
Free Nicotine Replacement Therapy (NRT) Offered				
Amount of Free NRT Offered to Callers	New York		Other States (n = 41)	
	Number of Weeks		Number of Weeks: Mean (Min–Max)	NY Rank
Weeks Per Quit Attempt	2		5 (2–12)	17 (tied)

Among the 32 states for which complete 7-month follow-up evaluation data were available, New York had the third highest follow-up survey response rate (Table 7). Among the 32 states with complete 7-month follow-up evaluation data, New York ranked 22nd in 30-day quit rate assessed among survey respondents. However, when looking at the intent-to-treat approach of measuring the 30-day quit rate, New York had the seventh highest 30-day quit rate.

Table 7. Seven-Month Follow-up Evaluation Survey Results for New York and 31 Other States, 2010-2011

				24-Hour Quit Attempt		30-Day Quit Rate	
Statistic	Follow-Up Sample Size	Completed Follow-Up Survey	Response Rate	Responder Rate	Intent-to-Treat Rate	Responder Rate	Intent-to-Treat Rate
New York	5,074	2,626	51.8%	91.3%	47.2%	25.6%	13.2%
New York Rank	6	3	3	1	2	22	7
Other States (n = 31)							
Average	3,486	1,118	37.0%	76.6%	29.3%	29.0%	10.7%
Minimum	1,251	400	8.1%	35.0%	5.9%	21.9%	2.7%
Maximum	11,108	3,623	65.1%	89.9%	56.9%	48.7%	27.7%

Notes: Data are from CDC's NQDW Seven-Month Follow-Up Evaluation Survey data published online through CDC's State Tobacco Activities Tracking and Evaluation (STATE) System website (http://www.cdc.gov/statesystem). Data are for 32 states that reported complete 7-month follow-up evaluation data for all measures to NQDW. The following 19 states were excluded from our analysis due to missing data: Alaska, Arizona, California, Colorado, District of Columbia, Georgia, Illinois, Kentucky, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, North Dakota, Rhode Island, Tennessee, Utah, West Virginia, and Wyoming.

Summary

The annual reach of New York's quitline ranked from second to fourth highest among the 45 states in this analysis, and was an average of 2.7 times higher than the average state reach. The New York Quitline is open fewer hours per day than almost all the states that we examined, offers fewer counseling sessions than most other state quitlines, and was near the middle of the states we examined in the amount of free NRT offered to

eligible quitline callers. However, data for New York show that providing a lower level of quitline services did not appear to have negative consequences on cessation outcomes, such as 24-hour quit attempts or 30-day quit rates. The cessation outcomes in 2010–2011 for the New York Quitline compare favorably to 31 other states with complete NQDW quitline cessation outcomes data. These findings suggest that the New York Quitline is providing a similarly effective intervention, compared to most other state quitlines, and may be doing so more efficiently since the New York Quitline generally offers a lower amount of services to quitline callers.

Increasing Provider-Assisted Cessation through Targeted Media

A key goal of the NY TCP is to increase provision of tobacco dependence treatment through health systems change efforts. To complement these efforts, NY TCP developed a health care provider-targeted media campaign that aimed to encourage the provision of evidence-based tobacco dependence treatment to patients who use tobacco by emphasizing that smoking is an addiction which is best treated by counseling from a health care professional and stop-smoking medications including nicotine replacement therapy.

New York aired this media campaign March 14-July 10, 2016, using 3 main ads, formatted for several media channels (Figure 31). The media placement included digital (e.g., banner ads on sites such as the American Family Physician website, Facebook, LinkedIn), print trade journals (e.g., *New England Journal of Medicine*), and out-of-home media placement (e.g., doctor's office exam rooms, bus shelters). Each ad included a tag line with a website which contains information about nicotine addiction, nicotine's interactions with prescription medications, dosage of stop-smoking medication, and how to conduct evidence-based counseling.

Figure 31. Health care provider-targeted print ads

We assessed provider awareness of and receptivity to the campaign and analyzed associations between the campaign and provider tobacco cessation interventions with patients.

Data and Methods

In 2016, RTI conducted an online survey of health care providers who work in New York State. We conducted cross-sectional surveys before and after the campaign aired. We completed the baseline survey of 400 providers in February 2016, prior to the launch of the media campaign. We conducted the follow-up survey of 400 providers in July 2016, after the campaign ended. Physicians, nurse practitioners, and physician's assistants working in New York State were eligible to participate.

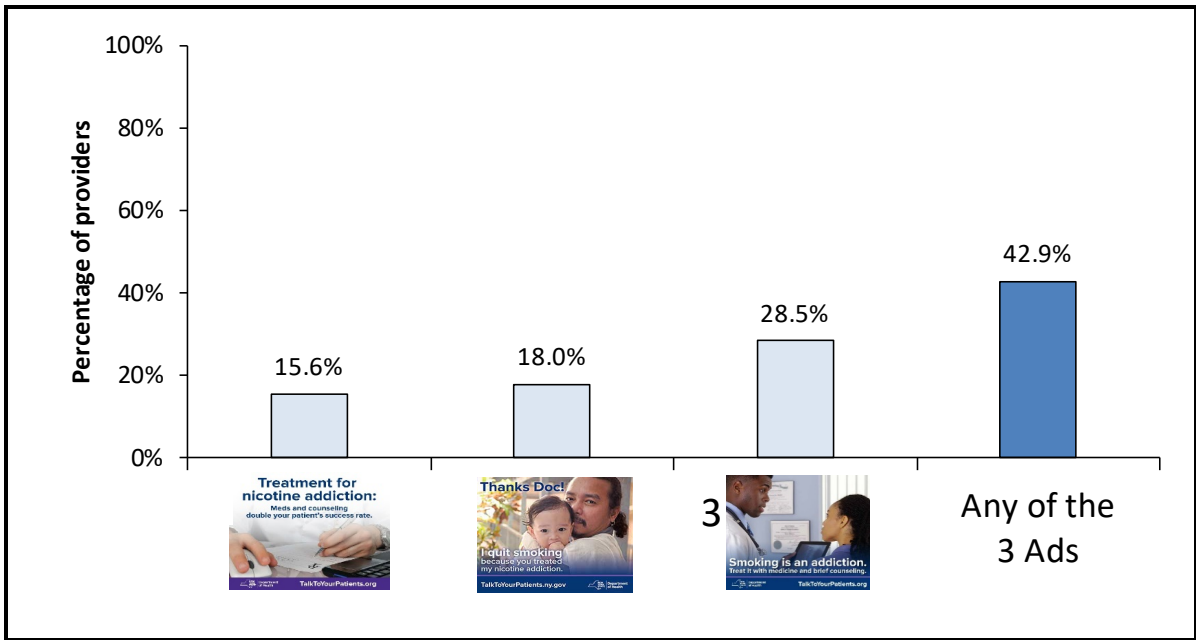
The follow-up surveys also measured providers' awareness of the media campaign and their receptivity to the ads. Baseline and follow-up surveys assessed tobacco-related intervention behaviors (the 5As: Ask, Advise, Assess, Assist, Arrange). To reduce online sampling bias, we calibrated the sample to the distribution of physicians, nurse practitioners, and physician assistants in New York. We calculated descriptive statistics and used Adjusted Wald-tests to assess differences in tobacco intervention by awareness of each ad and awareness of any ad. In addition, we conducted multivariable logistic regression to assess the relationship between awareness of the campaign and provider assistance.

Results

Awareness of and receptivity to the ads

Overall, 42.9% of the providers we surveyed reported seeing at least one of the ads (Figure 32). The most commonly reported ad was ad 3 (28.5%), which shows a provider talking with a patient. Most providers who were aware of any ad reported awareness of a combination of the ads or ad 3 only.

Figure 32. Percentage of Providers Aware of Ads, NY Health Care Provider Media Evaluation, 2016



We asked providers who had seen the ads a series of questions to assess their opinion about the extent to which the ad(s) they had seen were worth remembering, powerful, informative, meaningful to them, convincing, and grabbed their attention. We calculated perceived effectiveness as a mean score that combines these 6 items. Overall, the ads were received well by providers, as evidenced by mean perceived effectiveness score: ad 1 had a mean score of 3.4 out of 5, ad 2 had a score of 3.7 out of 5 and ad 3 had a mean score of 3.5 out of 5.

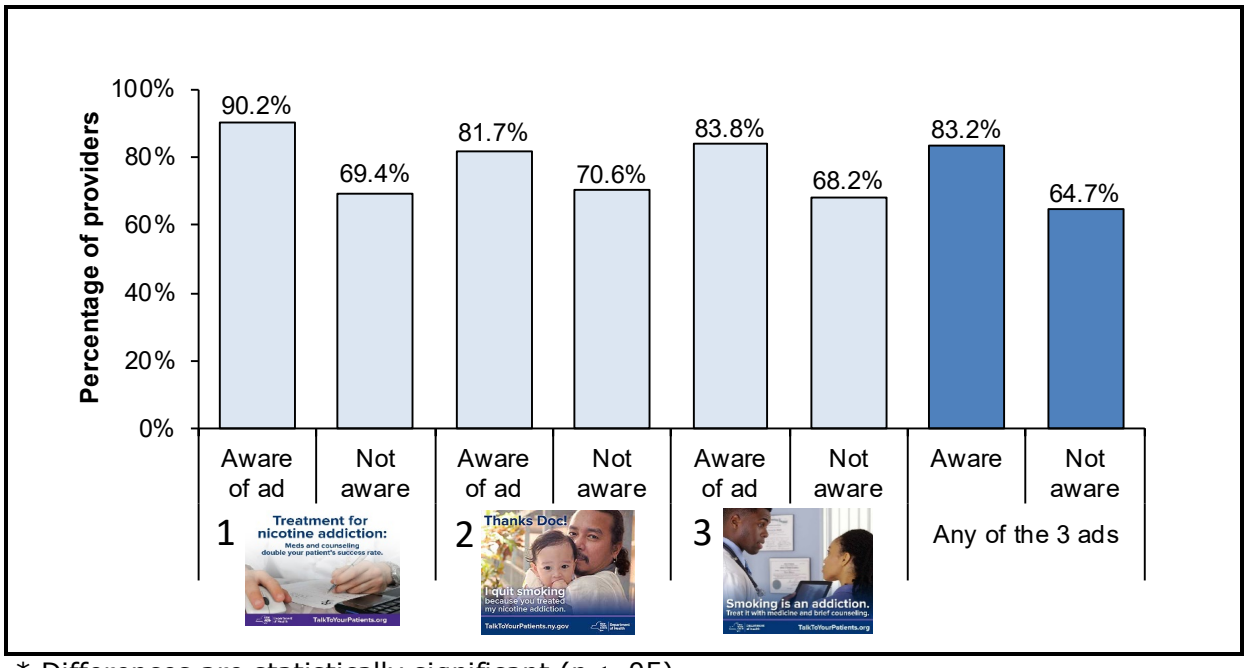
Provider tobacco intervention

A key outcome of the campaign was to increase the extent to which health care providers assist their patients with a quit attempt, including suggesting patients set a quit date, a smoking cessation class or program, or the Quitline; providing

self-help materials; or recommending or prescribing nicotine replacement therapy or other stop-smoking medications. We found that provider awareness of any of the 3 ads was associated with provider assistance, such that more providers who were aware of any ad reported assisting their patients with a quit attempt (83.2%) than those not aware of the campaign (64.7%) (Figure 33). Awareness of ad 1 (provider using computer and prescription pad) and ad 3 (provider with patient) were associated with provider assistance, but not ad 2 ("Thanks Doc!" with father and child).

The relationship between provider assistance and ad awareness of ad 1 and any of the ads remained significant after controlling for age, gender, race/ethnicity, provider type, and tobacco-related training in the past 5 years. Providers who were aware of ad 1 were 3.1 times as likely as providers not aware of ad 1 to assist their patients. Providers who were aware of any of the ads were 2.6 times as likely as providers not aware of any ad to assist their patients.

Figure 33. Percentage of Providers Reporting Provider Assistance, by Awareness of the Campaign, NY Health care provider media evaluation, 2016



* Differences are statistically significant (p< .05)

Summary

The findings from RTI's evaluation of NY TCP's health care provider-targeted media campaign suggest that the campaign is reaching the target audience, health care providers in a position to assist their tobacco-using patients with a quit attempt. Ads were well-received by providers and appear to be associated with the campaign's intention to promote provider assistance with a quit attempt.

Evaluation of a Digital Media Campaign Educating Parents about Tobacco at the Retail Point of Sale

NY TCP funds ATFC contractors to change the community environment to support a tobacco-free norm in New York State. ATFC contractors focus their efforts on four initiatives, one of which is reducing the negative impact of tobacco product marketing and price promotions on youth and adults at the point of sale (POS). In support of this goal, NY TCP has implemented a range of efforts to educate the public and policy makers about the effect of POS marketing on youth tobacco use. The most recent community education effort was a digital campaign targeting parents of youth aged 8-17. ATFC contractors launched the *Seen Enough Tobacco* digital campaign on May 31, 2016. The ads featured in the campaign were designed to grab viewers' attention, prompt them to want to learn more about the issue, and encourage them to share the campaign messages (Figure 34).

Figure 34. Ads from *Seen Enough Tobacco* Media Campaign

We evaluated the campaign to assess campaign and ad awareness, receptivity and reactions to ads, actions and intentions related to the campaign's call to action, attitudes and

beliefs about tobacco marketing and policies, and support for POS policies.

Data and Methods

In September 2016, we recruited 500 parents of children ages 8-17 through Facebook (n = 250) and Instagram (n = 250) to participate in an online survey. The survey assessed awareness of the campaign name (*Seen Enough Tobacco*) and the 3 ads in the past 3 months. For each ad, the survey measured perceived ad effectiveness (a scale of six items – ad is worth remembering, grabbed my attention, powerful, informative, meaningful, convincing), negative ad perceptions (e.g., ad is misleading), and agreement that the ad makes them want to learn more.

The survey also assessed whether participants who had seen the ads had engaged in a variety of actions to educate themselves/others or to support reducing POS marketing in stores (e.g., visiting the website, signing the petition, talking with their children). Among participants who had not seen the ads, the survey assessed intentions to engage in those actions.

Results

Most of the respondents to this online survey were female (87.4%), White (77.4%), had at least some college education (79.2%) and were 35 or older (73.8%). We found that 23.0% were current smokers and 33.8% reported that at least one type of tobacco product was used in their home. The most popular online media (used at least once per day) were Facebook (95.8%), news/weather websites (74.2%), and Gmail (64.1%).

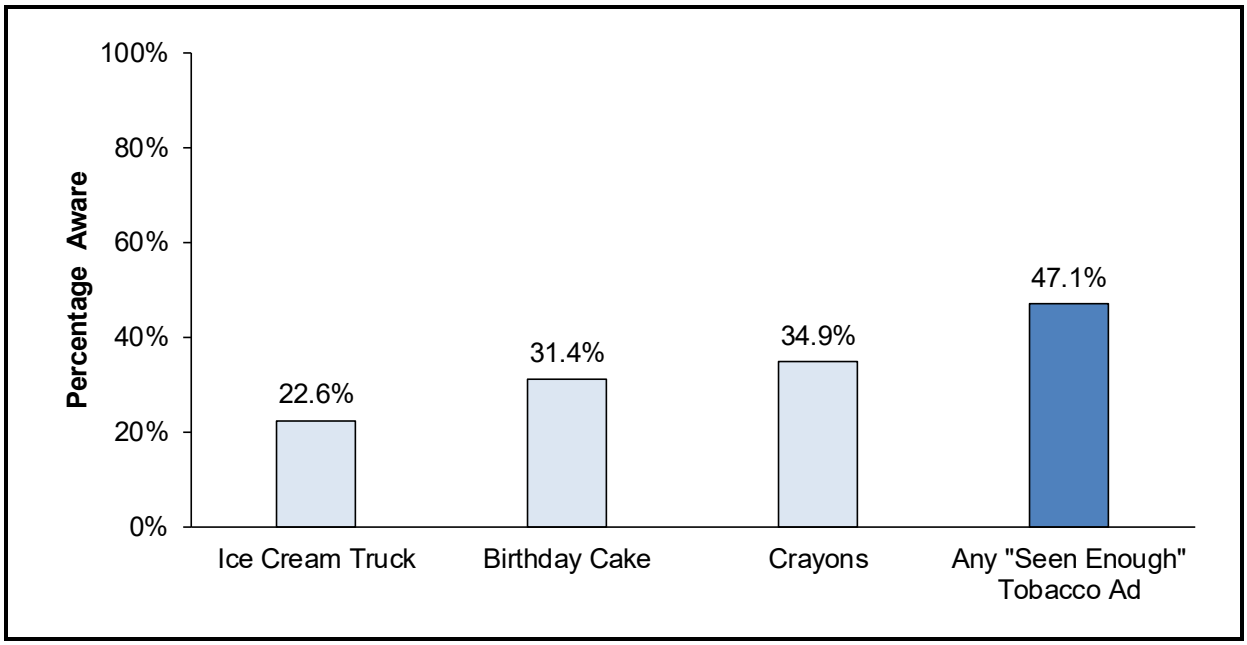
Respondents supported limiting the number of stores selling tobacco (67.6% strongly or somewhat favored the policy) and prohibiting the sale of tobacco at stores near schools (78.4%). Most believed that advertising for tobacco in retail stores was totally unacceptable (43.2%) or somewhat unacceptable (28.6%).

Campaign and Ad Awareness

Before they were shown the specific ads, 18.8% of participants reported awareness of the *Seen Enough Tobacco* campaign

name/slogan in the past 3 months. After viewing the three ads during the online survey, almost half (47.1%) reported having seen at least one of the ads in the past 3 months (Figure 35). Awareness of the individual ads ranged from 22.6% to 34.9%. *Ice Cream Truck* was launched later in the campaign, which may explain the lower awareness.

Figure 35. Awareness of *Seen Enough Tobacco* Campaign Ads



Reactions to Ads

Participants reported high perceived ad effectiveness scores for the ads, low negative ad perception scores, high ratings that the ads had a "clear message," and moderate ratings that the ads made them want to learn more. There were no differences in any of these ratings or responses by ad, although nonsmokers rated the ads as more effective and had higher agreement that they wanted to learn more, compared with current smokers.

Among adults who were aware of any *Seen Enough Tobacco* ads, more than two-thirds (67.0%) reported that they talked with their children and one-third (36.9%) talked with their family and friends (Table 8). Other actions, such as sharing the ads or signing the petition, were less common. In comparison, adults that viewed the ads in the survey but had not seen them when they were aired expressed high or moderate intentions to talk with their child (mean 4.0 on scale where 1 is very unlikely

and 5 is very likely), sign the petition (3.5), talk with their family or friends (3.3), and share the petition (3.2) (data not shown).

Table 8. Actions Taken by Parents in Response to *Seen Enough Tobacco* Ads, Among Parents Who Saw the Ads

Action	% Taking Action
Talked with child	67.0%
Talked with family and friends	36.9%
Shared ads or messages	15.3%
Signed petition	14.4%
Shared petition	12.3%
Wrote to newspaper	9.0%
Visited campaign website	5.1%
Contacted organization	5.1%
Attended a meeting	3.8%
Contacted elected official	2.6%

Some parents' beliefs changed after viewing the ads during the survey. After viewing the ads, more parents believed that seeing tobacco advertised in stores makes a child much more likely to be a smoker (20.0% to 23.0%) or somewhat more likely to be a smoker (48.4% to 50.0%). Fewer parents believed that seeing tobacco advertised in stores has no effect on whether a child becomes a smoker (31.6% to 27.0%).

Summary

Almost half of New York parents surveyed were aware of at least one of the *Seen Enough Tobacco* ads. The campaign was well-received by the target audience and successful in raising awareness of tobacco marketing in stores. Although few participants took specific actions targeted by the campaign, such as visiting the campaign website and signing the petition, many participants reported talking about the issue with their children, friends, and family. These promising findings suggest that social media can be an effective way to build support for POS initiative goals and possibly mobilize parents in support of POS policies.

Discussion

Progress in Changing Tobacco Use

New York continues to implement a range of evidence-based initiatives to reduce tobacco use and improve health outcomes. NY TCP has consistently conducted health communications, cessation-focused health systems change efforts, and statewide and community interventions focused on policy, system, and environment changes. The program has reached some of the NYSDOH Prevention Agenda 2013-2018 objectives in advance of the expected timeline. Adult smoking prevalence overall, smoking prevalence among those with poor mental health, smoking prevalence among those with low income, exposure to secondhand smoke, and implementation of smoke-free multi-unit housing policies have all improved at a faster pace than anticipated in the program's strategic planning. In addition, smokers are aware of the state quitline, which is efficient in its services. The recent health care provider media campaign and a parent-targeted POS digital campaign both effectively reached their targets, complementing other NY TCP efforts.

Amidst these tobacco control successes, the program recognizes the remaining challenges, as tobacco use and addiction continue to negatively affect New Yorkers. As of 2016, fewer than 15% of New York adults smoke cigarettes. Because the original NYSDOH Prevention Agenda objective of decreasing adult smoking prevalence to 15.0% was met in 2014, NYSDOH set a new target of decreasing prevalence to 12.3% by 2018. However, tobacco use is becoming more concentrated among people with low income and poor mental health. Although targets to decrease smoking rates among these populations have been met, there are still gaps to be addressed with revised objectives.

Daily cigarette consumption among adult smokers has remained relatively unchanged over the past 8 years, with smokers reporting an average of less than half a pack daily. The proportion of New York smokers making quit attempts has increased over time, but addiction to nicotine makes quitting challenging. NY TCP promotes the use of evidence-based treatment to increase the likelihood that quit attempts will be

successful, including FDA-approved medications and provider assistance with quitting.

New York adults who report poor mental health smoke at rates at least double those with good mental health. In 2016, 26.0% of New York adults with poor mental health smoked. This rate has decreased from 32.5% in 2011, and has now dropped below the NYSDOH Prevention Agenda target of 26.5%. Smoking prevalence also varies by income level, with 19.8% of New York adults with a household income of less than $25,000 smoking in 2016, reaching the NYSDOH Prevention Agenda objective of decreasing this to 20%. 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 continuing broad statewide efforts, NY TCP is targeting interventions to specifically reach people with low income and poor mental health and prevalence rates among these groups are changing. The program has focused health systems change efforts on medical and mental health organizations that serve low income, underserved populations, and those with mental illness. The program has worked to raise awareness of cessation Medicaid benefit coverage of evidence-based treatments, including airing ads to communicate this message. Smoke-free multi-unit housing activities include an emphasis on working with public housing authorities. 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, who are disproportionately affected by tobacco use. Ongoing efforts to reduce tobacco-related disparities involve monitoring tobacco use patterns across demographic groups and adapting interventions to reach those most in need of assistance.

New York adults' use of non-cigarette tobacco products remains largely unchanged in recent years. The rate of cigar use in New York is consistent with national rates. Fewer than 2% of New York adults use smokeless tobacco, a rate which is lower than the national rate. In 2016, 5.5% of New York adults reported current e-cigarette use, and nearly half of New York e-cigarette users also smoked cigarettes.

There has been an ongoing decline in youth cigarette smoking, which has been even steeper in recent years, along with decreases in youth use of cigars and smokeless tobacco.

Although this indicates progress toward core tobacco control objectives, overall youth tobacco use prevalence has increased due to the uptake of e-cigarettes by youth. E-cigarettes are relatively new products with enticing flavors. Although the national rate of youth e-cigarette use decreased in 2016, New York youth use of e-cigarettes increased. It is important for NY TCP to continue to address youth use of e-cigarettes.

New York has been a national leader in establishing strong tobacco control policies, spreading antitobacco norms, and decreasing tobacco use prevalence rates. However, improvements in some key measures have stalled and the rest of the country is catching up with New York's early success. Funding reductions limit the Program's capacity to address the public health problem of tobacco use. Achieving continued reductions in tobacco use, including among adults with low income and poor mental health, will require strengthening traditional tobacco control interventions and implementing new interventions that increase cessation and decrease youth initiation (Institute of Medicine, 2007). NY TCP currently receives 17% of the CDC-recommended level of funding. Increased NY TCP funding would facilitate additional efforts that would improve health outcomes among New York youth and adults and would allow New York to continue to be a leader in tobacco control.

Health Communications

NY TCP has focused paid media efforts on promoting smoking cessation, with an emphasis on television advertisements that use depictions of the health consequences of smoking and the emotional impact of these health effects on individuals and their families. In 2016, 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, and trying to quit. The program has increasingly integrated its efforts, promoting Medicaid coverage of tobacco dependence treatment via broadcast ads and complementing its regular health communications and health systems change efforts with provider-targeted media.

In contrast with previous trends, awareness of NY TCP's antitobacco ads declined between 2015 and 2016 despite a relative increase in GRPs. This finding may be due to differences in the ad allocation, with NY TCP airing fewer CDC Tips ads that were also running as part of the CDC's national campaign in 2016. Nevertheless, the discrepancy in GRP and ad awareness levels is anomalous, and suggests the need for continued monitoring.

Health Systems Change

NY TCP conducts evidence-based interventions focused on health systems change to promote cessation from tobacco use. These interventions support the institutionalization of provider tobacco dependence treatment and include funding health systems contractors to facilitate systems changes in health care organizations across the state, funding the Quitline, airing a health care provider-targeted media campaign, and reducing the cost for patients of evidence-based cessation. NY TCP funds a Center of Excellence 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 that ultimately increase the provision of tobacco dependence treatment.

NY TCP-funded health systems contractors focus on systems change in organizations where populations with the highest rates of smoking are concentrated, in CHCs 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. Although quitline reach is low, it is significantly higher than in other states, and New York's quitline efficiently provides counseling and NRT to smokers. New York has made changes to expand Medicaid benefits for smoking cessation and promote the benefits, and rates of benefit utilization have been increasing in recent years.

Statewide and Community Action

Contractors have made continued progress with point of sale, tobacco-free outdoors, smoke-free multi-unit housing, and smoke-free media initiatives. Public support for most of the key

policy areas has increased over time and in 2016 support for smoke-free outdoor air and POS policies was significantly higher in New York than it was in the rest of the United States.

New Yorkers currently benefit from the statewide clean indoor air law, augmented by the increasing number of smoke-free multi-unit housing policies. A new federal rule requiring public housing authorities to go smoke-free has the potential to substantially increase these protections, especially for people with low income.

With tobacco use at an all-time low in New York and increasing success in protecting New Yorkers from secondhand smoke, POS policies represent a promising way to continue the state's declines in tobacco use (IOM, 2007). The low number of POS policies currently adopted in the state belies the progress made on this initiative as evidenced by increased support for these policies among both the general public and local opinion leaders. The program continues to explore modifications to their POS messaging and methods to better reach and mobilize the public in support of these policies.

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 more than double the current allocation. In the past, NY TCP has successfully budgeted and implemented the program with approximately twice its current funding. Increasing funding to $101.5 million would require careful shifts in staffing, contractor allotments, and media.
  - Additional funding would facilitate implementation of CDC best practice recommendations, including increased funds for statewide and community intervention contractor efforts and professional development, improved administrative capacity through staff funding and training, greater health

communication opportunities to reach target populations including more targeted campaigns and more integrated digital and social media campaigns, enhanced health systems intervention support, and expanded surveillance and additional innovation in evaluation activities to assess the program's impact.

- Continue to develop and target interventions to reach smokers with disproportionately high rates of smoking, especially adults with low income and poor mental health.
  - NY TCP should expand efforts to monitor disparities in tobacco use, to inform appropriate intervention efforts. Monitoring disparities could include advanced mapping and analyzing of demographic characteristics to identify opportunities. Addressing these disparities could include continuing to grow community mobilization work, enhance decision maker education activities, and expand health systems change efforts.
- Update the NYSDOH Prevention Agenda objectives to reflect program successes and reflect changes in tobacco product use.
  - 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 e-cigarette 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.
  - Given the narrowing of the population currently using tobacco, exploration of the use of digital and social media ads may help the program more effectively target specific populations.
- Use data on smokers' media use habits to inform the development of ad placement strategies that maximize the reach and potential effectiveness of media campaigns.

Health Systems Change Recommendations

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

- Maintain communications with New York local opinion leaders and communities to remind them that tobacco use remains a public health problem that affects all New York families.
- Continue to educate the public and policy makers about the influence of POS tobacco marketing on youth and continue to emphasize the evidence-based policies that would reduce exposure to POS tobacco marketing.
- Increase the reach of the POS initiative messaging by sustaining and expanding paid media that reinforce the messages contractors communicate through policy-maker advocacy, public education, and community mobilization. The *Seen Enough Tobacco* campaign evaluation suggests that social media can be an effective and inexpensive way to target and mobilize parents in support of POS policy change.
- Continue to explore messaging approaches that may improve the effectiveness of contractor education efforts focused on the problem of tobacco marketing at the POS and the need for policy solutions to address that problem.

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