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Key Tobacco Control Outcome Indicators

Final Report

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1. INTRODUCTION

Smoking-attributable personal health care costs exceed \$10 billion in New York State.¹ Each year, nearly 30,000 New Yorkers die prematurely from smoking-related illnesses.¹ Evidence-based tobacco control programs and policy interventions can reduce this burden. Evidence suggests that state tobacco control programs are effective in reducing youth and adult smoking prevalence and overall cigarette consumption.²⁻⁵ Mass media campaigns, smoke-free air laws, cigarette excise taxes, health care reminder systems, and telephone-based smoking cessation counseling are examples of effective interventions available to state tobacco control programs. New York State has developed and implemented a comprehensive, multicomponent tobacco control program built on evidence-based interventions and promising new practices.

To reduce tobacco-related morbidity and mortality and the social and economic burden caused by tobacco use, the New York Bureau of Tobacco Control administers the comprehensive New York Tobacco Control Program (NY TCP). This report presents updated trends in key outcome indicators as a way of tracking NY TCP's progress in reducing the health and economic burden of tobacco.

Using the Centers for Disease Control and Prevention's (CDC's) *Key Outcome Indicators for Evaluating Comprehensive Tobacco Control Programs*⁶ as a guide, NY TCP and RTI International previously identified 80 outcomes of interest using 20 different data sources,⁷ ranging from publicly available data sets (e.g., Census, Consumer Price Index) to data

¹ Centers for Disease Control and Prevention. (2011). State Tobacco Activities Tracking and Evaluation (STATE) System. Tobacco Control Highlights. New York. Retrieved from http://nccd.cdc.gov/STATESystem/rdPage.aspx?rdReport=OSH_STATE.Highlights&rdRequestForwarding=Form

² Farrelly, M. C., Crankshaw, E. C., & Davis, K. C. (2008). Assessing the effectiveness of the mass media in discouraging smoking behavior. In National Cancer Institute (Ed.), *The role of the media in promoting and reducing tobacco use* (pp. 479–546). Tobacco Control Monograph No. 19. NIH Pub. No. 07-6242. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute.

³ Farrelly, M. C., Pechacek, T. F., & Chaloupka, F. J. (2003). The impact of tobacco control expenditures on aggregate cigarette sales. *Journal of Health Economics*, 22, 843–59.

⁴ Taurus, J. A., Chaloupka, F. J., Farrelly, M. C., Giovino, G. A., Wakefield, M., Johnston, L. D., et al. (2005). State tobacco control spending and youth smoking. *American Journal of Public Health*, 95(2), 338–344.

⁵ U.S. Department of Health and Human Services. (2014). *The health consequences of smoking—50 years of progress: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

⁶ Starr, G., Rogers, T., Schooley, M., Porter, S., Wiesen, E., & Jamison, N. (2005). *Key outcome indicators for evaluating comprehensive tobacco control programs*. Atlanta, GA: Centers for Disease Control and Prevention.

⁷ RTI International. (2011). *Key tobacco control outcome indicators*. Retrieved from http://www.health.ny.gov/prevention/tobacco_control/docs/2011-09_key_tobacco_outcome_indicators.pdf

collected by NY TCP (e.g., New York Adult Tobacco Survey, New York Youth Tobacco Survey, Retail Tobacco Advertising Survey) or other New York State Department of Health programs (e.g., Behavioral Risk Factor Surveillance System). This report updates more than 50 measures of continued interest. These measures are presented in seven sections:

- Tobacco Use (Section 3),
- Cessation (Section 4),
- Secondhand Smoke (Section 5),
- Media (Section 6),
- Attitudes and Beliefs (Section 7),
- Policy (e.g., prices, minor access laws) (Section 8), and
- Burden of Smoking (Section 9).

Section 2 presents brief descriptions of the data sets and our analytic methods.

2. DATA AND METHODS

2.1 Data

This section presents brief summaries of the data sources used for this report. The data sources are presented in alphabetical order. The descriptions include information on the developing agency, dates of availability, and topics of interest.

2.1.1 Adult Tobacco Survey

The Adult Tobacco Survey (ATS) was developed by the New York Tobacco Control Program (NY TCP) in partnership with RTI International. The survey is fielded quarterly to the noninstitutionalized adult population, aged 18 or older, in New York State. Since Quarter 3, 2003, the ATS has assessed (a) adult attitudes and beliefs toward, and use of, tobacco; (b) purchasing behavior and cessation attempt behavior among adult smokers; (c) health status and health-related problems among all respondents; (d) attitudes toward, and exposure to, secondhand smoke; (e) perceptions of risk related to tobacco use; (f) recollection of exposure to tobacco or antitobacco advertising; and (g) attitudes toward newly enacted or proposed tobacco-related policies. Questions meant to address each of these topics are included for multiple quarters. Some measures have been included since inception (e.g., current smoking status); however, many questions are included for a shorter period of time and may be rotated in and out of the survey instrument as necessary.

2.1.2 Behavioral Risk Factor Surveillance System

The Behavioral Risk Factor Surveillance System (BRFSS) was developed by the Centers for Disease Control and Prevention (CDC) in 1984. The survey is a state representative survey of health risk behaviors, preventive health practices, and health care access. When the BRFSS was first initiated, 15 states collected surveillance data on risk behaviors, such as smoking and drinking, for the adult, civilian, noninstitutionalized population aged 18 or older through monthly telephone interviews. The number of states included in the BRFSS increased over time. Since 1995, 50 states, the District of Columbia, and 3 territories participated in the survey. Today, the BRFSS is the largest continuously conducted telephone health survey in the world.⁸ It has been conducted in New York State since 1985; however, a sample design and weight change implemented in 2009 does not allow comparisons with earlier survey results. Of note, implementation of the sample design and weighting changes were fully applied to all states in 2011. A core set of tobacco-related questions are used in the BRFSS to develop estimates of smoking prevalence in New York. The New York State Department of Health (NYSDOH) works with CDC to conduct the BRFSS

⁸ Centers for Disease Control and Prevention. (2016). Behavioral Risk Factor Surveillance System: Monitoring health risks and behaviors among adults: At a glance 2016. Retrieved from <http://www.cdc.gov/chronicdisease/resources/publications/aag/brfss.htm>

in New York, with CDC providing support for instrument development, sampling, and data weighting.

2.1.3 Census Bureau: Population

The Census Bureau's Population Estimate Program reports total resident population estimates for the nation, states, and counties. Annual population estimates for New York State were obtained for 2000 through 2015. County-level population estimates for 2000 through 2014 were also obtained.

2.1.4 Consumer Price Index

The Consumer Price Index (CPI), as reported by the Bureau of Labor Statistics, represents the change in prices paid by urban consumers for a representative basket of goods and services. This representative basket includes food and beverages, housing, apparel, transportation, medical care, recreation, education and communication, and other goods and services.

2.1.5 Federal Trade Commission: Tobacco Industry Marketing Expenditures

The Federal Trade Commission compiled information on domestic sales and advertising and promotional activity for U.S.-manufactured cigarettes between 1963 and 2013. The five major cigarette manufacturers in the United States (i.e., Altria Group; Commonwealth Brands, Inc.; Lorillard, Inc.; Reynolds American, Inc.; and Vector Group Ltd.) were required to submit special reports containing this information.⁹

2.1.6 Licensed Tobacco Retailers

The database of licensed tobacco retailers is collected and maintained by the New York State Department of Taxation and Finance. This database includes contact information (e.g., store name and address) for each licensed tobacco retailer in New York State. Using the physical address, rather than the mailing address, each retailer is identified as residing in one of New York's eight geographic areas.

2.1.7 Local Opinion Leader Survey

The Local Opinion Leader Survey (LOLS) was developed by NY TCP in partnership with RTI. The survey has been fielded twice, in 2011 and 2014. In each year, the LOLS sample was the frame of county-level elected officials plus the chief health officer at the county health department. For New York City, we identified all borough-level elected officials. LOLS assesses support for point-of-sale, tobacco free outdoor, and multi-unit housing policies.

⁹ Federal Trade Commission. (2016). Federal Trade Commission cigarette report for 2013. Retrieved from <https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-cigarette-report-2013/2013cigaretterpt.pdf>

2.1.8 National Adult Tobacco Survey

The National Adult Tobacco Survey (NATS) was developed by NY TCP in partnership with RTI. The survey was fielded quarterly from Quarter 4, 2007 to Quarter 4, 2009; twice in 2010; and annually in 2011, 2012, and 2015. NATS data reflect the noninstitutionalized adult population, aged 18 or older, in all states except New York State. Since inception, NATS has assessed (a) adult attitudes and beliefs toward, and use of, tobacco; (b) purchasing behavior and cessation attempt behavior among adult smokers; (c) health status and problems among all respondents; (d) attitudes toward, and exposure to, secondhand smoke; (e) perceptions of risk related to tobacco use; (f) recollection of exposure to tobacco or antitobacco advertising; and (g) attitudes toward newly enacted or proposed tobacco-related policies. Questions meant to address each of these topics are included for multiple quarters. Some measures have been included since inception (e.g., current smoking status); however, many questions are included for a shorter period of time.

2.1.9 National Health Interview Survey

The National Health Interview Survey (NHIS) is administered by the National Center for Health Statistics, part of CDC. Since 1957, the survey has monitored health trends in the civilian, noninstitutionalized population. NHIS is revised every 10 to 15 years to better reflect the changing atmosphere of health concerns. The most recent revision was implemented in 1997 and includes four core components: Household, Family, Sample Adult, and Sample Child. These components track key demographic and health-related measures for the household, the family, a randomly selected adult, and a randomly selected child (if any children are present).

2.1.10 New York State Smokers' Quitline

The New York State Smokers' Quitline (NYSSQL) was established in 2000 to provide smoking cessation assistance to eligible New Yorkers. NYSSQL data contain records for every incoming and outgoing call attempt to or from the Quitline and data related to the 2-week nicotine replacement therapy (NRT)/satisfaction survey.

2.1.11 Nielsen Media Research and HN Media & Marketing: Gross Rating Points

Nielsen Media Research and HN Media & Marketing provide data to NYSDOH and RTI. These data summarize retrospective NY TCP countermarketing efforts by outlining television (a) air dates, (b) gross rating points (GRPs), and (c) markets in which particular advertisements were broadcast. Nielsen Media Research provided this information between 2001 and 2005, and HN Media & Marketing currently provides these data (i.e., 2006 to date). The data are organized for analytic purposes into monthly, quarterly, ad-level, and market-level data sets.

2.1.12 Smoking-Attributable Mortality, Morbidity, and Economic Costs

The Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC) application was developed in 1987 by CDC to estimate the disease impact of smoking for the nation, states, and large populations. The adult SAMMEC application allows users to estimate (a) smoking-attributable mortality (SAM), (b) smoking-attributable years of potential life lost (YPLL), (c) health care expenditures, and (d) productivity losses for persons aged 35 or older. The application also provides estimates of direct health care expenditures for persons aged 18 or older.

2.1.13 Tax Burden on Tobacco

The Tax Burden on Tobacco, published by Orzechowski and Walker, contains self-reported consumption and prices from surveys of smokers and administrative data (e.g., prices and sales) on tax-paid removals from warehouses. Each annual edition presents data from 1955 through the most recent year available. *The Tax Burden on Tobacco* also contains detailed tables on local tax rates, local tax dollars collected, and taxes as a percentage of retail prices. Cigarette prices reported in *The Tax Burden* are constructed from responses to a mail survey of retailers using a sampling universe supplied by the tobacco industry. Prices are weighted to account for price discounts, brands, and cigarette characteristics.

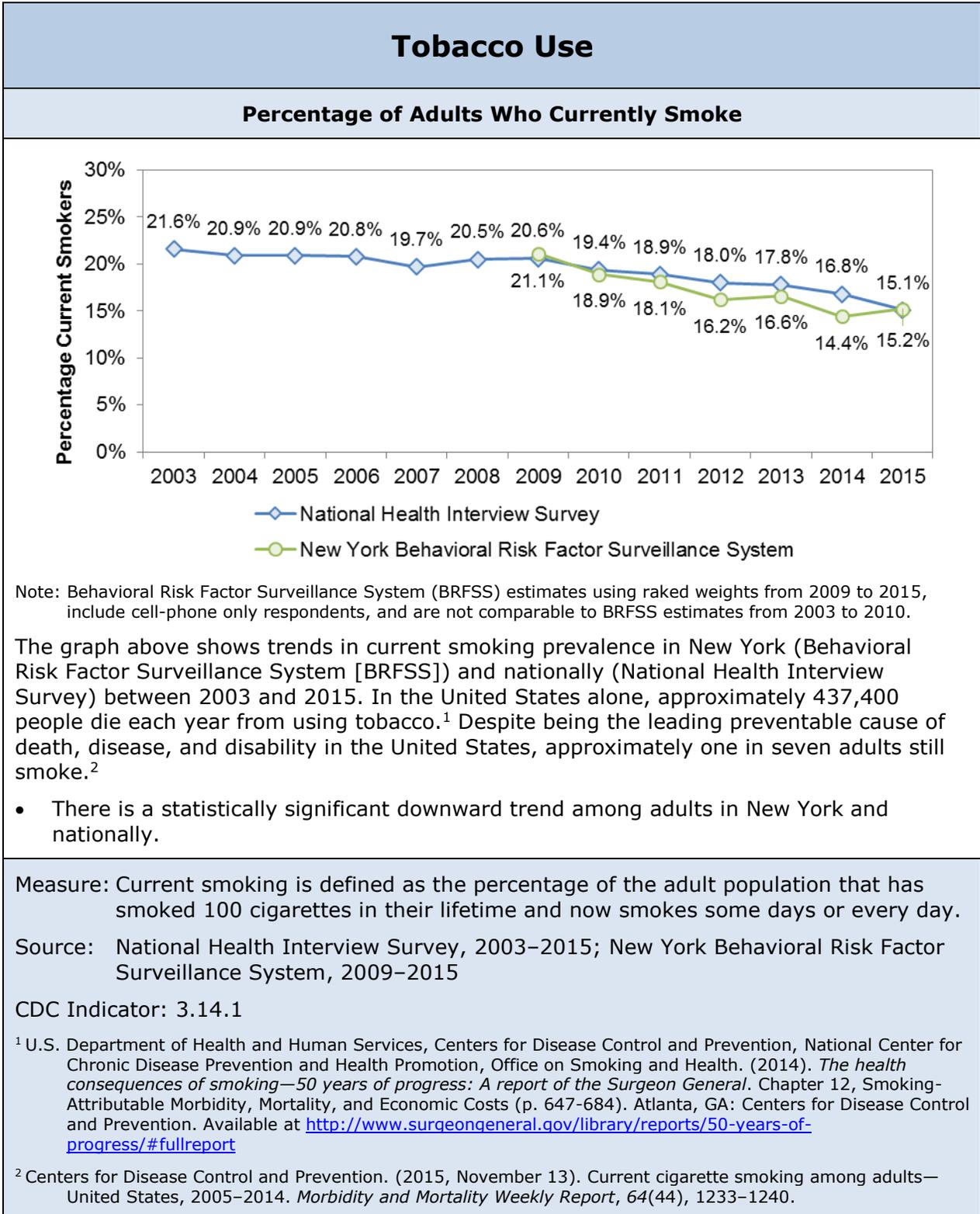
2.1.14 Youth Tobacco Survey

The Youth Tobacco Survey (YTS) was developed by CDC in collaboration with U.S. states to provide information on trends in youth tobacco use, access, and perceptions and to evaluate the cumulative effectiveness of tobacco use reduction programs. Since 2000, NYSDOH has conducted the YTS biennially to produce separate estimates for New York City, the rest of the state, and the state as a whole. The universe for the New York YTS consists of students in grades 6 through 12 attending public, parochial, and private schools in New York. Indicators assessed by the New York YTS include (a) tobacco use, (b) secondhand smoke exposure, (c) social network influences, (d) prevalence of cigarette smoking on school property, and (e) exposure to pro-tobacco messages.

2.2 Methods

We tested each outcome for linear trends to assess whether there have been significant increases or decreases in the outcome over time. When possible, we also tested for significant differences between New York and the rest of the United States. We highlight outcomes with statistically significant trends ($p < 0.05$) and differences ($p < 0.05$).

3. TOBACCO USE



Tobacco Use

Percentage of New York Adults Who Currently Smoke by Demographics

| Category | 2015 |
|-------------------------------------|--------------------|
| Overall | 15.2% [14.3, 16.1] |
| Age | |
| 18–24 | 14.0% [10.8, 17.1] |
| 25–39 | 18.4% [16.2, 20.7] |
| 40–64 | 16.9% [15.6, 18.3] |
| 65 or older | 8.1% [6.9, 9.4] |
| Race/Ethnicity | |
| White | 16.1% [14.9, 17.3] |
| African American | 15.5% [12.9, 18.2] |
| Hispanic | 14.2% [11.9, 16.6] |
| Gender | |
| Female | 12.9% [11.8, 14.0] |
| Male | 17.7% [16.2, 19.3] |
| Education | |
| Less than high school | 22.2% [18.9, 25.4] |
| High school diploma or GED | 20.2% [18.2, 22.2] |
| Some college | 15.9% [14.1, 17.7] |
| College degree or higher | 7.1% [6.1, 8.0] |
| Income | |
| Less than \$25,000 | 21.7% [19.6, 23.9] |
| \$25,000–\$49,999 | 19.0% [16.7, 21.3] |
| \$50,000–\$74,999 | 12.7% [10.4, 15.1] |
| \$75,000 and more | 10.0% [8.5, 11.4] |
| Employment | |
| Employed | 14.7% [13.5, 16.0] |
| Not employed | 27.0% [22.3, 31.8] |
| Not in the labor force ^a | 14.1% [12.7, 15.5] |

Legend: Estimate [95% Confidence Interval]

^a "Not in the labor force" includes students, homemakers, retirees, and those who are unable to work.

The table above presents current smoking prevalence in New York in 2015 by demographic characteristics. Smoking rates differ by demographics and socioeconomic status nationally and within New York.¹⁻³

Measure: Current smoking is defined as the percentage of the adult population that has smoked 100 cigarettes in their lifetime and now smokes some days or every day.

Source: New York Behavioral Risk Factor Surveillance System, 2015

CDC Indicator: 3.14.1

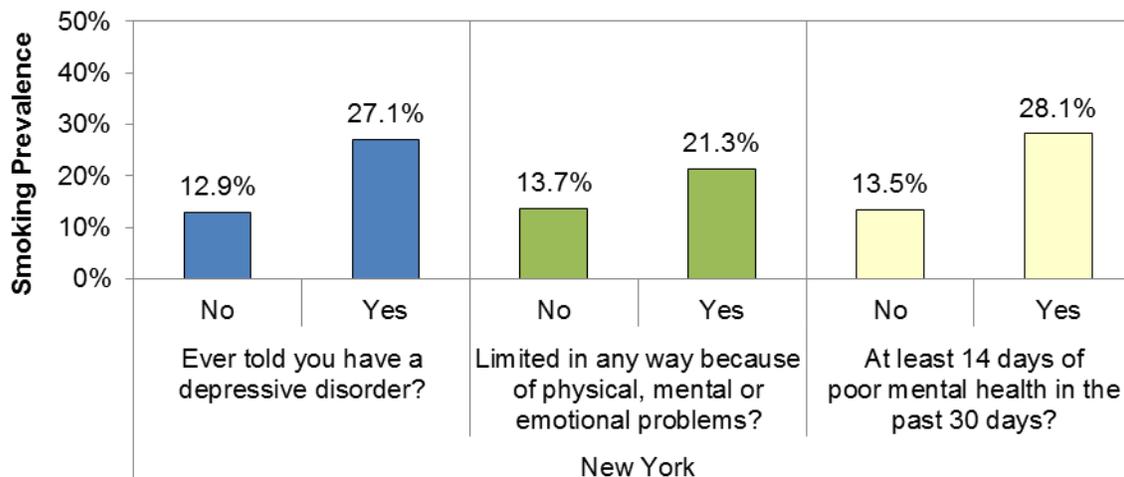
¹ Dwyer-Lindgren, L., Mokdad, A. H., Srebotnjak, T., Flaxman, A. D., Hansen, G. M., & Murray, C. J. (2014). Cigarette smoking prevalence in US counties: 1996-2012. *Population health metrics*, 12(1), 5.

² Jamal A, King BA, Neff LJ, Whitmill J, Babb SD, Graffunder CM. Current Cigarette Smoking Among Adults — United States, 2005–2015. *MMWR Morb Mortal Wkly Rep* 2016;65:1205–1211. DOI: <http://dx.doi.org/10.15585/mmwr.mm6544a2>

³ Farrelly, M., Watson, K., & Lawson, C. (2011). *Who's quitting in New York: a decade of progress reducing smoking and promoting cessation*. New York State Department of Health.

Tobacco Use

Percentage of New York Adults Who Currently Smoke by Mental Health Status



The graph above presents current smoking prevalence in New York in 2015 by self-reported mental health. Despite being the leading preventable cause of death, disease, and disability in the United States, approximately one in seven adults nationally still smoke.¹ Furthermore, among those with poor mental health, approximately one in three adults smoke.² In 2014, an estimated 18% of U.S. adults suffered from diagnosable mental disorders.³

Measure: Current smoking is defined as the percentage of the adult population that has smoked 100 cigarettes in their lifetime and now smokes some days or every day. The three self-reported mental health items are "Ever told you have a depressive disorder, including depression, major depression, dysthymia, or minor depression?"; "Are you limited in any way in any activities because of physical, mental, or emotional problems?"; and "Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?"

Source: New York Behavioral Risk Factor Surveillance System, 2015

CDC Indicator: 3.14.1

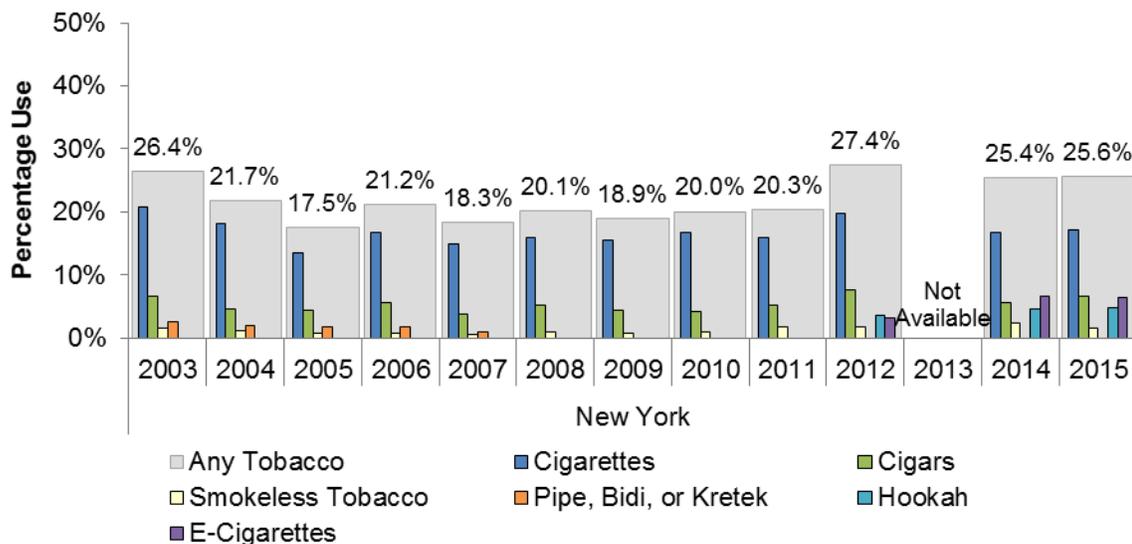
¹ Centers for Disease Control and Prevention. (2015, November 13). Current cigarette smoking among adults—United States, 2005–2014. *Morbidity and Mortality Weekly Report*, 64(44), 1233–1240.

² Centers for Disease Control and Prevention. (2013). Vital signs: current cigarette smoking among adults aged ≥18 years with mental illness—United States, 2009–2011. *Morbidity and Mortality Weekly Report*, 62(5), 81–87.

³ Center for Behavioral Health Statistics and Quality. (2015). *Behavioral health trends in the United States: Results from the 2014 National Survey on Drug Use and Health* (HHS Publication No. SMA 15-4927, NSDUH Series H-50). Retrieved from <http://www.samhsa.gov/data/sites/default/files/NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf>

Tobacco Use

Percentage of New York Adults Who Currently Use Any Tobacco Products



The graph above shows the prevalence of current tobacco use among adults in New York from 2003 to 2015. Nationally, approximately 437,400 people die each year from using tobacco.¹

- There is a statistically significant upward trend in current use of any tobacco, cigars, smokeless tobacco, and e-cigarettes.
- There was a statistically significant downward trend in current pipe, bidi or kretek use from 2003 to 2007.

Measure: Current tobacco use is defined by indicating use of cigarettes, cigars (large cigars, cigarillos, or little cigars); smokeless tobacco (chew, snuff, dip, or snus); pipe, bidi, or kretek; hookah; or e-cigarettes “Every day,” “Some days,” or “Rarely.” E-cigarette use data were first available in 2012Q1. Hookah use data were first available in 2012Q2. Pipe, bidi, and kretek use data were last available in 2007Q4. Of note, “Rarely” was first included as a response option in 2011Q4 for non-cigarette products.

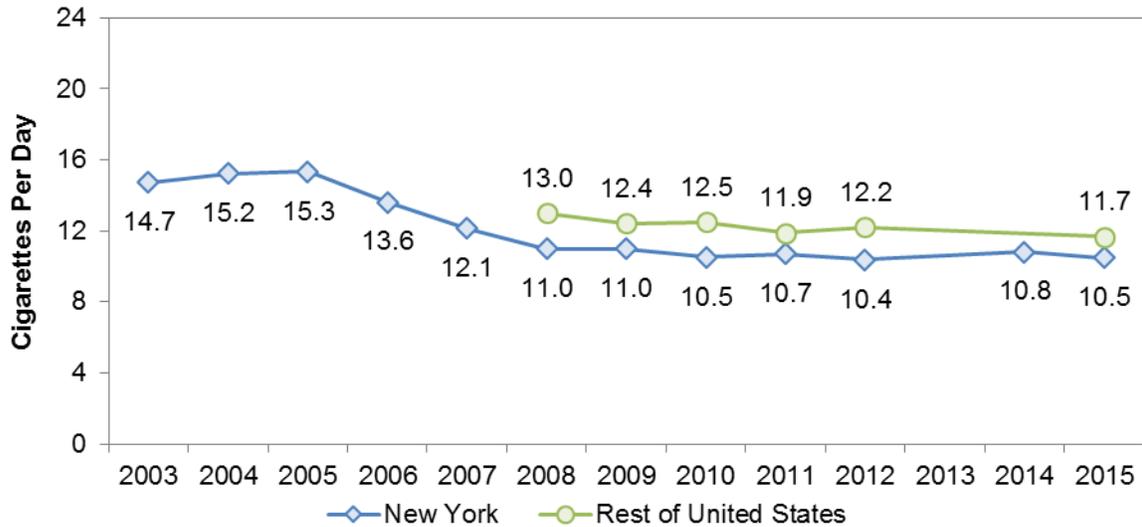
Source: New York Adult Tobacco Survey, 2003–2015

CDC Indicator: 3.14.1

¹ U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. (2014). *The health consequences of smoking—50 years of progress: A report of the Surgeon General*. Chapter 12, Smoking-Attributable Morbidity, Mortality, and Economic Costs (p. 647-684). Atlanta, GA: Centers for Disease Control and Prevention. Available at <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/#fullreport>

Tobacco Use

Average Number of Cigarettes Smoked per Day among Current Smokers



The graph above shows the trend in the number of cigarettes smoked per day among current smokers in New York between 2003 and 2015 and the rest of the United States between 2008 and 2015. Reductions in daily cigarette consumption among current smokers have been shown to increase the likelihood of smoking cessation.¹⁻³

- There is a statistically significant downward trend among New York smokers.

Measure: Number of cigarettes smoked per day among current smokers is defined by responses to “On average, in the past 30 days, about how many cigarettes a day do you now smoke?”; “During the past 30 days, on how many days did you smoke cigarettes?”; and “On the average, on the days when you smoked during the past 30 days, about how many cigarettes did you smoke a day?”

Source: New York Adult Tobacco Survey, 2003–2015; National Adult Tobacco Survey, 2008–2015

CDC Indicator: 2.8.2

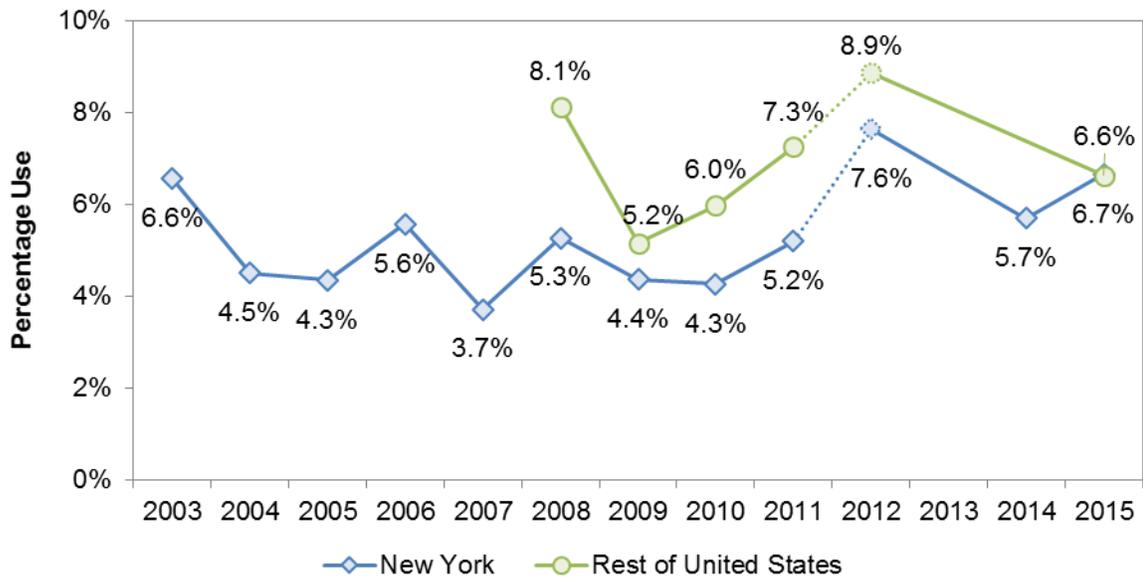
¹ Hughes, J., & Carpenter, M. (2006). Does smoking reduction increase future cessation and decrease disease risk? A qualitative review. *Nicotine & Tobacco Research*, 8(6), 739–749.

² Hyland, A., Levy, D. T., Rezaishiraz, H., Hughes, J. R., Bauer, J. E., Giovino, G. A., & Cummings, K. M. (2005, June). Reduction in amount smoked predicts future cessation. *Psychology of Addictive Behaviors*, 19(2), 221–225.

³ Klemperer, E. M., & Hughes, J. R. (2015). Does the magnitude of reduction in cigarettes per day predict smoking cessation? A qualitative review. *Nicotine & Tobacco Research*. doi:10.1093/ntr/ntv058.

Tobacco Use

Percentage of Adults Who Smoke Cigars



Note: Response options were extended to include "Rarely" in Quarter 4 of 2011. This change is indicated by a dashed series between 2011 and 2012.

The graph above shows the trend in cigar use in New York between 2003 and 2015 and the rest of the United States between 2008 and 2015. Those who smoke cigars regularly are at an increased risk for developing lung, oral cavity, larynx, esophagus, and possibly pancreatic cancer.¹

- There is a statistically significant upward trend among New York adults.

Measure: Cigar use is defined by responding "Every day," "Some days," or "Rarely" to "Do you now use cigars, cigarillos, or little cigars?" Of note, "Rarely" was first included as a response option in Quarter 4 of 2011.

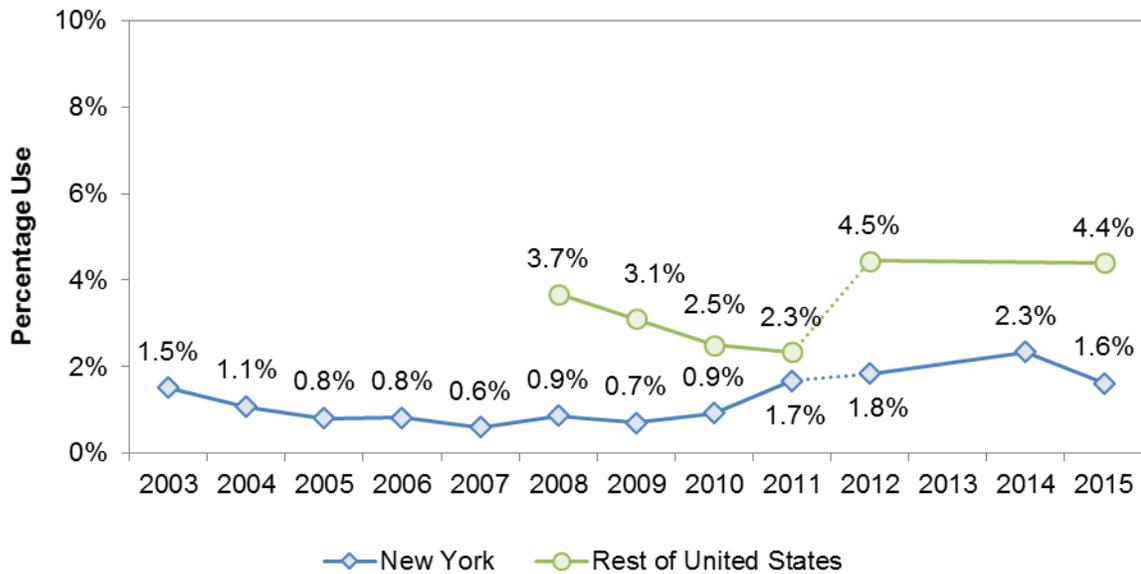
Source: New York Adult Tobacco Survey, 2003–2015; National Adult Tobacco Survey, 2008–2015

CDC Indicator: 3.14.1

¹ American Cancer Society. (2010). *Cancer facts & figures 2010*. Atlanta, GA: American Cancer Society.

Tobacco Use

Percentage of Adults Who Use Smokeless Tobacco



Note: Smokeless tobacco use originally included chewing tobacco, snuff, or dip. In Quarter 4 of 2011, snus was added to the definition of smokeless tobacco, and response options were extended to include "Rarely." This change is indicated by a dashed series between 2011 and 2012.

The graph above shows the trend in smokeless tobacco use in New York between 2003 and 2015 and the rest of the United States between 2008 and 2015. Using smokeless tobacco significantly increases one's risk for developing oral cavity, pharynx, and pancreatic cancer.¹

- There is a statistically significant upward trend among New York adults.
- There is a statistically significant difference between smokeless tobacco use in New York and the rest of the United States in 2015.

Measure: Smokeless tobacco use is defined by chewing tobacco, snuff, dip, or snus use. Specifically, responding "Every day," "Some days," or "Rarely" to "Do you now use chewing tobacco, snuff, or dip?" or "Do you now use snus, such as Camel snus?" Beginning in 2015, these items were combined as "Do you now use chewing tobacco, snuff, dip, or snus such as Copenhagen, Grizzly, Skoal, or Camel Snus?" Of note, snus use was first included in Quarter 4 of 2011. Also, "Rarely" was first included as a response option in Quarter 4 of 2011.

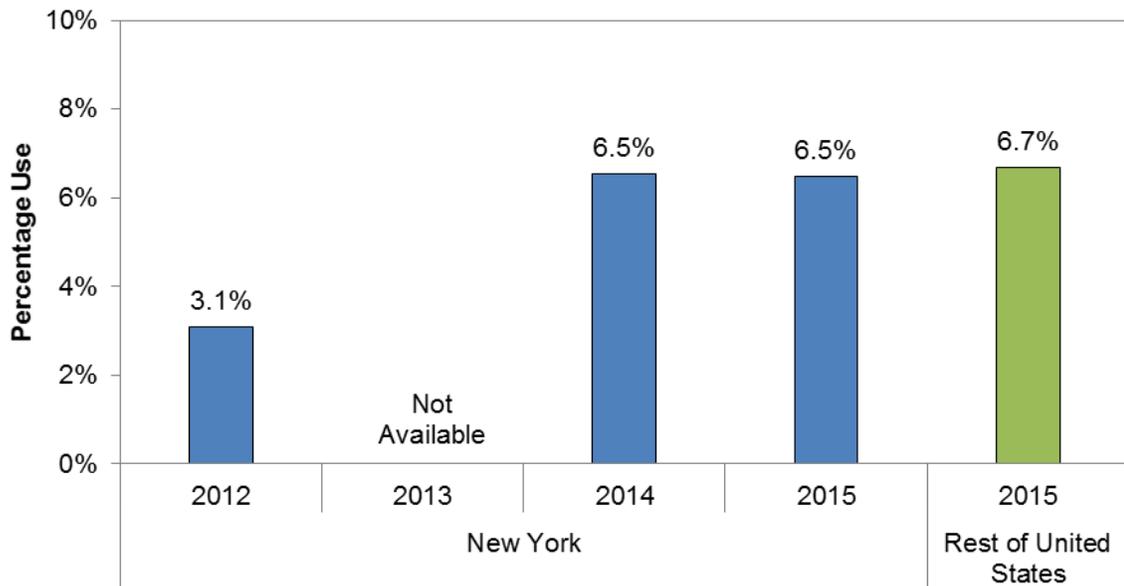
Source: New York Adult Tobacco Survey, 2003–2015; National Adult Tobacco Survey, 2008–2015

CDC Indicator: 3.14.1

¹ American Cancer Society. (2010). *Cancer facts & figures 2010*. Atlanta, GA: American Cancer Society.

Tobacco Use

Percentage of Adults Who Use E-Cigarettes



The graph above shows the trend in e-cigarette use in New York between 2012 and 2015 and the rest of the United States in 2015. E-cigarettes are also known as electronic cigarettes, e-cigs, vape pens, hookah pens, or e-hookah. E-cigarette use may lead to tobacco use, undermine social norms about tobacco, and delay cessation among cigarette smokers.^{1,2}

- There is a statistically significant upward trend in current e-cigarette use among adults in New York from 2012 to 2015.

Measure: E-cigarette use is defined by responding "Every day," "Some days," or "Rarely" to "Do you now smoke Electronic Cigarettes or E-cigarettes every day, some days, rarely, or not at all?" Brand examples such as blu, Ruyan, and NJOY are offered for context.

Source: New York Adult Tobacco Survey, 2012–2015; National Adult Tobacco Survey, 2015

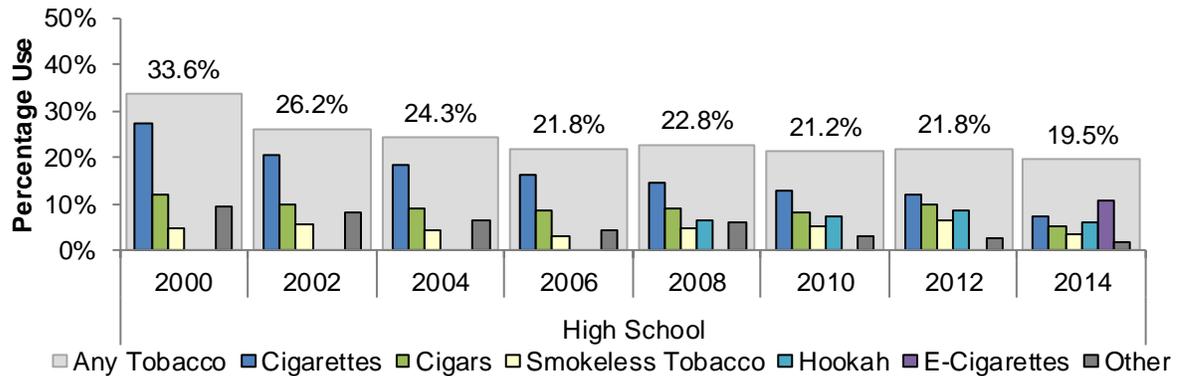
CDC Indicator: 3.14.1

¹ Grana, R. A. (2013). Electronic cigarettes: A new nicotine gateway? *Journal of Adolescent Health, 52*(2), 135–136.

² Mejia, A. B., Ling, P. M., & Glantz, S. A. (2010). Quantifying the effects of promoting smokeless tobacco as a harm reduction strategy in the USA. *Tobacco Control, 19*(4), 297–305.

Tobacco Use

Percentage of High School Students in New York Who Currently Use Any Tobacco



The graph above shows the prevalence of current tobacco use among high school students in New York from 2000 to 2014. If young people can be kept from using tobacco, their chances of smoking as adults are greatly reduced.^{1,2} Of note, e-cigarettes were the most commonly used tobacco product among middle and high school students in 2014,³ and use of e-cigarettes among those not open to smoking is associated with progression to traditional cigarette smoking.⁴

- There is a statistically significant downward trend in current use of any tobacco, cigarettes, cigars, and other tobacco products.

Measure: Current tobacco use is defined by indicating use of cigarettes, cigars (large cigars, cigarillos, or little cigars), smokeless tobacco (chew, snuff, or dip), hookah (or waterpipe), e-cigarettes, or other tobacco products (snus, pipe, bidi, kretek, or dissolvable) on 1 or more days in the past 30 days. Hookah use first available in 2008. E-cigarette use first available in 2014. Other tobacco product availability has varied over time; specifically, bidi and kretek available from 2000 to 2010, pipe available from 2000 to 2008 and in 2014, snus available in 2012 and 2014, and dissolvable available in 2014.

Source: New York Youth Tobacco Survey, 2000–2014

CDC Indicator: 1.14.2

¹ Buchmann, A., Blomeyer, D., Jennen-Steinmetz, C., Schmidt, M., Esser, G., Banaschewski, T., & Laucht, M. (2011). Early smoking onset may promise initial pleasurable sensations and later addiction. *Addiction Biology*, 18(6), 947-954.

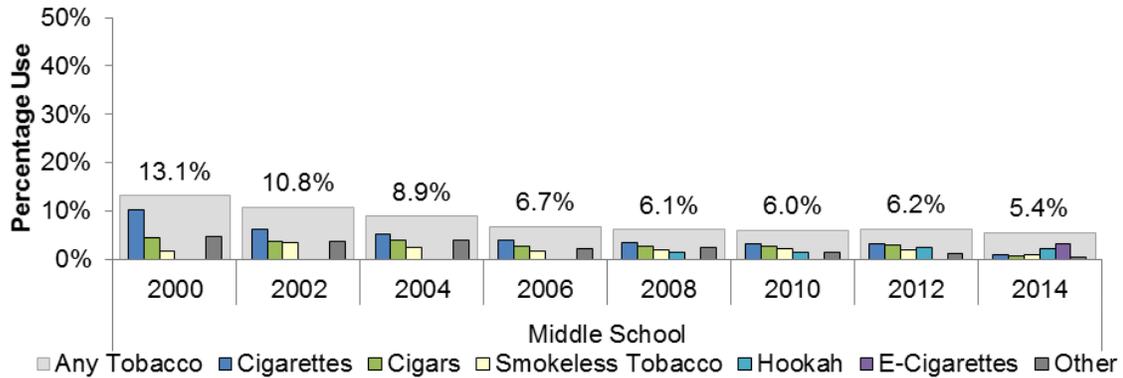
² U.S. Department of Health and Human Services. (2012). *Preventing tobacco use among youth and young adults: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

³ Arrazola, R., Singh, T., Corey, C. G., Husten, C. G., Neff, L. J., Apelberg, B. J.,... Caraballo, R.S. (2015). Tobacco use among middle and high school students—United States, 2011–2014. *Morbidity and Mortality Weekly Report*, 64(14), 381–385.

⁴ Primack, B. A., Soneji, S., Stoolmiller, M., Fine, M. J., & Sargent, J. D. (2015). Progression to traditional cigarette smoking after electronic cigarette use among US adolescents and young adults. *JAMA Pediatrics*, 169(11), 1018–1023.

Tobacco Use

Percentage of Middle School Students in New York Who Currently Use Any Tobacco



The graph above shows the prevalence of current cigarette, cigar, smokeless tobacco, hookah, or e-cigarette use among middle school students in New York from 2000 to 2014. If young people can be kept from using tobacco, their chances of smoking as adults are greatly reduced.^{1,2} Of note, e-cigarettes were the most commonly used tobacco product among middle and high school students in 2014,³ and use of e-cigarettes among those not open to smoking is associated with progression to traditional cigarette smoking.⁴

- There is a statistically significant downward trend in current use of any tobacco, cigarettes, cigars, smokeless tobacco, and other tobacco products.

Measure: Current tobacco use is defined by indicating use of cigarettes, cigars (large cigars, cigarillos, or little cigars), smokeless tobacco (chew, snuff, or dip), hookah (or waterpipe), e-cigarettes, or other tobacco products (snus, pipe, bidi, kretek, or dissolvable) on 1 or more days in the past 30 days. Hookah use was first available in 2008. E-cigarette use was first available in 2014. Other tobacco product availability has varied over time; specifically, bidi and kretek available from 2000 to 2010, pipe available from 2000 to 2008 and in 2014, snus available in 2012 and 2014, and dissolvable available in 2014.

Source: New York Youth Tobacco Survey, 2000–2014

CDC Indicator: 1.14.2

¹ Buchmann, A., Blomeyer, D., Jennen-Steinmetz, C., Schmidt, M., Esser, G., Banaschewski, T., & Laucht, M. (2011). Early smoking onset may promise initial pleasurable sensations and later addiction. *Addiction Biology*, 18(6), 947–954.

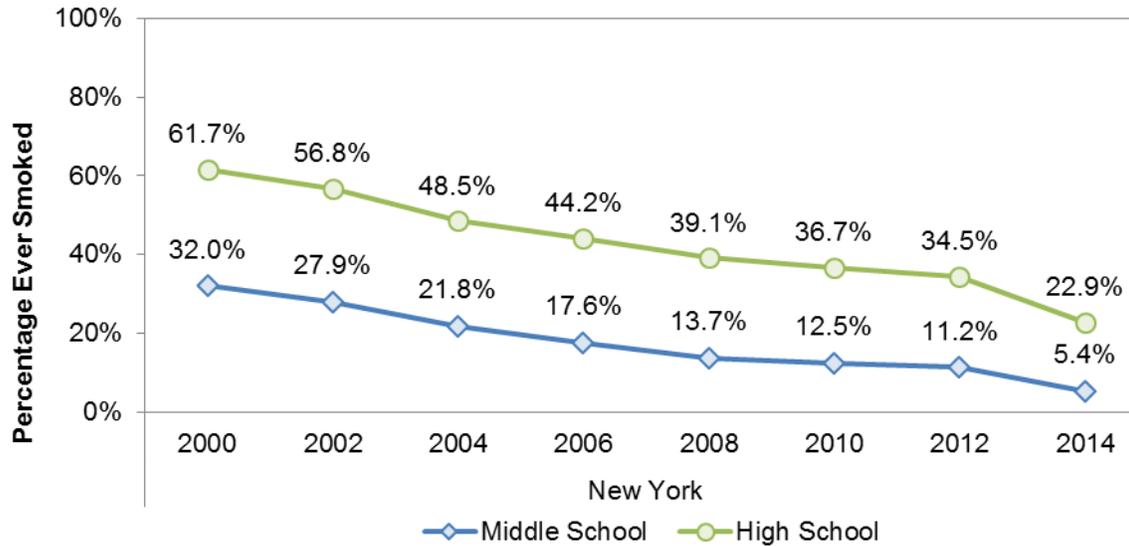
² U.S. Department of Health and Human Services. (2012). *Preventing tobacco use among youth and young adults: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

³ Arrazola, R., Singh, T., Corey, C. G., Husten, C. G., Neff, L. J., Apelberg, B. J.,... Caraballo, R.S. (2015). Tobacco use among middle and high school students—United States, 2011–2014. *Morbidity and Mortality Weekly Report*, 64(14), 381–385.

⁴ Primack, B. A., Soneji, S., Stoolmiller, M., Fine, M. J., & Sargent, J. D. (2015). Progression to traditional cigarette smoking after electronic cigarette use among US adolescents and young adults. *JAMA Pediatrics*, 169(11), 1018–1023.

Tobacco Use

Percentage of New York Middle School and High School Students Who Have Ever Smoked a Cigarette



The graph above shows the trend in ever smoking among middle school and high school students in New York between 2000 and 2014. Most adult smokers begin smoking as adolescents. If young people can be kept from using tobacco, their chances of smoking as adults are greatly reduced.^{1,2} Youth and young adult smoking has immediate adverse health consequences.²

- There is a statistically significant downward trend among middle school students.
- There is a statistically significant downward trend among high school students.

Measure: Ever use of cigarettes among middle and high school students is defined by responding "Yes" to "Have you ever tried cigarette smoking, even one or two puffs?"

Source: New York Youth Tobacco Survey 2000–2014

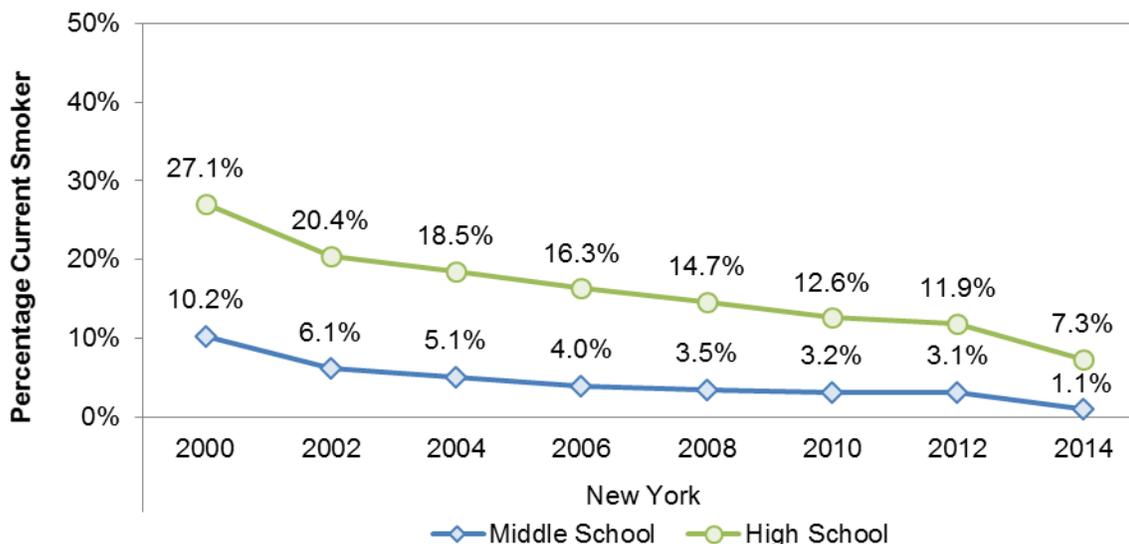
CDC Indicator: 1.13.2

¹ Buchmann, A., Blomeyer, D., Jennen-Steinmetz, C., Schmidt, M., Esser, G., Banaschewski, T., & Laucht, M. (2011). Early smoking onset may promise initial pleasurable sensations and later addiction. *Addiction Biology*, 18(6), 947–954.

² U.S. Department of Health and Human Services. (2012). *Preventing tobacco use among youth and young adults: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

Tobacco Use

Percentage of New York Middle School and High School Students Who Are Current Cigarette Smokers



The graph above shows the trend in current smoking among middle school and high school students in New York between 2000 and 2014. Most adult smokers begin smoking as adolescents. If young people can be kept from using tobacco, their chances of smoking as adults are greatly reduced.^{1,2}

- There is a statistically significant downward trend among middle school students.
- There is a statistically significant downward trend among high school students.

Measure: Current smoking among middle and high school students is defined by responding "1 or 2 days," "3 to 5 days," "6 to 9 days," "10 to 19 days," "20 to 29 days," or "all 30 days" to the question "During the past 30 days, on how many days did you smoke cigarettes?"

Source: New York Youth Tobacco Survey, 2000–2014

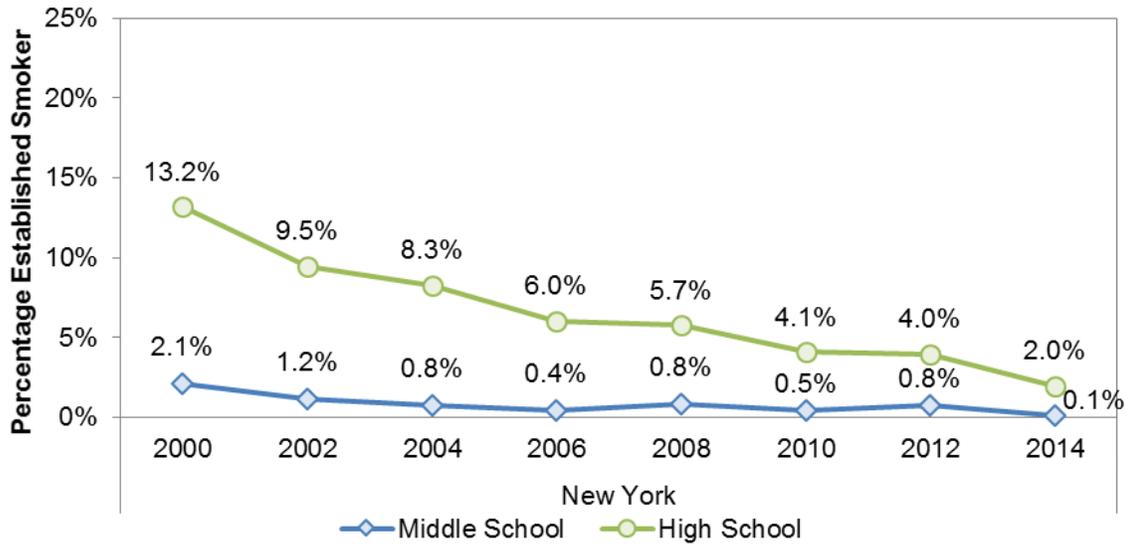
CDC Indicator: 1.14.1

¹ Buchmann, A., Blomeyer, D., Jennen-Steinmetz, C., Schmidt, M., Esser, G., Banaschewski, T., & Laucht, M. (2011). Early smoking onset may promise initial pleasurable sensations and later addiction. *Addiction Biology*, 18(6), 947–954.

² U.S. Department of Health and Human Services. (2012). *Preventing tobacco use among youth and young adults: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

Tobacco Use

Percentage of New York Middle School and High School Students Who Are Established Smokers



The graph above shows the trend in established smoking among middle school and high school students in New York between 2000 and 2014. Long-term addiction to nicotine is more likely in those who begin smoking at an early age. If young people can be kept from using tobacco, their chances of smoking as adults are greatly reduced.^{1,2}

- There is a statistically significant downward trend among middle school students.
- There is a statistically significant downward trend among high school students.

Measure: Established smoking among middle and high school students is defined by responding "100 to 200 cigarettes (5–10 packs)" or "More than 200 cigarettes (more than 10 packs)" to the question "About how many cigarettes have you smoked in your entire life?" In addition, students responded "20 to 29 days" or "all 30 days" to the question "During the past 30 days, on how many days did you smoke cigarettes?"

Source: New York Youth Tobacco Survey, 2000–2014

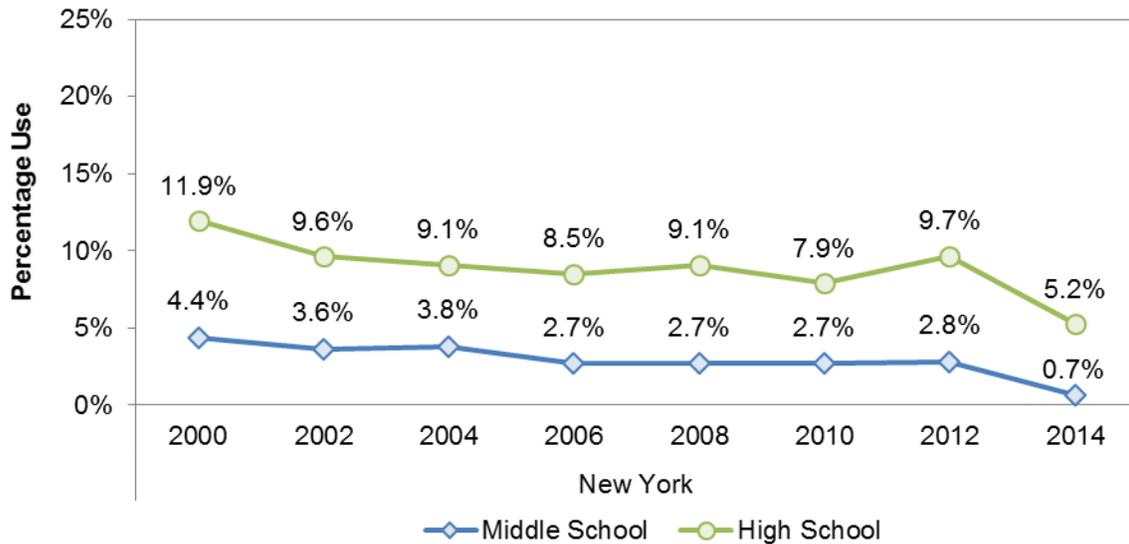
CDC Indicator: 1.14.2

¹ Buchmann, A., Blomeyer, D., Jennen-Steinmetz, C., Schmidt, M., Esser, G., Banaschewski, T., & Laucht, M. (2011). Early smoking onset may promise initial pleasurable sensations and later addiction. *Addiction Biology*, 18(6), 947–954.

² U.S. Department of Health and Human Services. (2012). *Preventing tobacco use among youth and young adults: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

Tobacco Use

Percentage of New York Middle School and High School Students Who Are Current Cigar Smokers



The graph above shows the prevalence of current cigar use among middle school and high school students in New York from 2000 to 2014. Most adult smokers begin smoking as adolescents. If young people can be kept from using tobacco, their chances of smoking as adults are greatly reduced.^{1,2}

- There is a statistically significant downward trend among middle school students.
- There is a statistically significant downward trend among high school students.

Measure: Current cigar use among middle and high school students is defined by responding 1 or more days to the question “During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars?” from 2000 to 2012. In 2014, current use is defined by indicating “Cigars” or “Cigarillos or little cigars” to the question “In the past 30 days, which of the following products have you used on at least one day?”

Source: New York Youth Tobacco Survey, 2000–2014

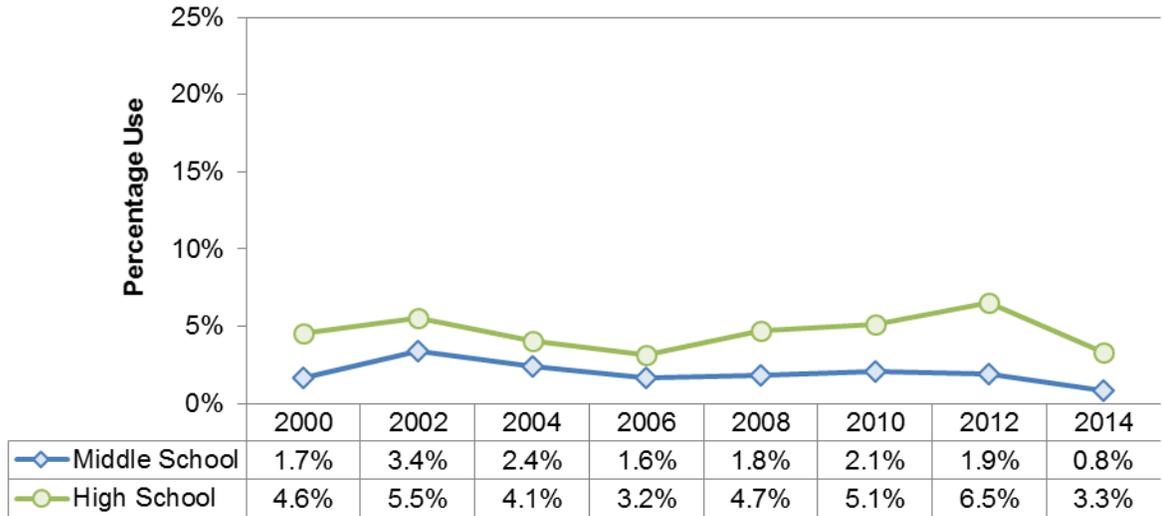
CDC Indicator: 1.14.1

¹ Buchmann, A., Blomeyer, D., Jennen-Steinmetz, C., Schmidt, M., Esser, G., Banaschewski, T., & Laucht, M. (2011). Early smoking onset may promise initial pleasurable sensations and later addiction. *Addiction Biology*, 18(6), 947–954.

² U.S. Department of Health and Human Services. (2012). *Preventing tobacco use among youth and young adults: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

Tobacco Use

Percentage of New York Middle School and High School Students Who Are Current Smokeless Tobacco Users



New York

The graph above shows the prevalence of current smokeless tobacco use among middle school and high school students in New York from 2000 to 2014. If young people can be kept from using tobacco, their chances of smoking as adults are greatly reduced.^{1,2}

- There is a statistically significant downward trend among middle school students.

Measure: Current smokeless tobacco use among middle and high school students is defined by responding 1 or more days to the question “During the past 30 days, on how many days did you use chewing tobacco, snuff, or dip?” from 2000 to 2012. In 2014, current use is defined by indicating “Chewing tobacco, snuff, or dip” to the question “In the past 30 days, which of the following products have you used on at least one day?”

Source: New York Youth Tobacco Survey, 2000–2014

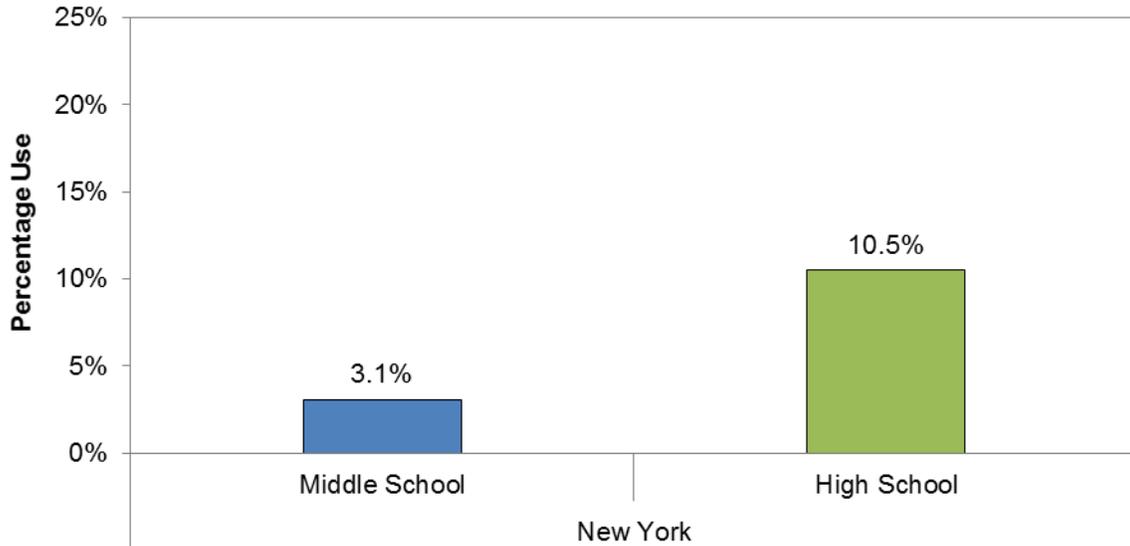
CDC Indicator: 1.14.1

¹ Nelson, D. E., Mowery, P., Tomar, S., Marcus, S., Giovino, G., & Zhao, L. (2006). Trends in smokeless tobacco use among adults and adolescents in the United States. *American Journal of Public Health, 96*(5), 897-905.

² U.S. Department of Health and Human Services. (2012). *Preventing tobacco use among youth and young adults: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

Tobacco Use

Percentage of New York Middle School and High School Students Who Are Current E-cigarette Users



The graph above shows the prevalence of current e-cigarette use among middle school and high school students in New York in 2014. E-cigarettes are also known as electronic cigarettes, e-cigs, vape pens, hookah pens, or e-hookah. In 2014, e-cigarettes were the most commonly used tobacco product among middle and high school students.¹ Furthermore, use of e-cigarettes among nonsusceptible nonsmokers is associated with progression to traditional cigarette smoking.² If trends in e-cigarette television advertising continue, awareness and use of e-cigarettes are likely to increase among youth and young adults.³

Measure: Current e-cigarette smoking among middle and high school students is defined by responding "1 or 2 days," "3 to 5 days," "6 to 9 days," "10 to 19 days," "20 to 29 days," or "all 30 days" to the question "During the past 30 days, on how many days did you use electronic cigarettes or e-cigarettes, such as blu, 21st Century Smoke, or NJOY?"

Source: New York Youth Tobacco Survey, 2000–2014

CDC Indicator: 1.14.1

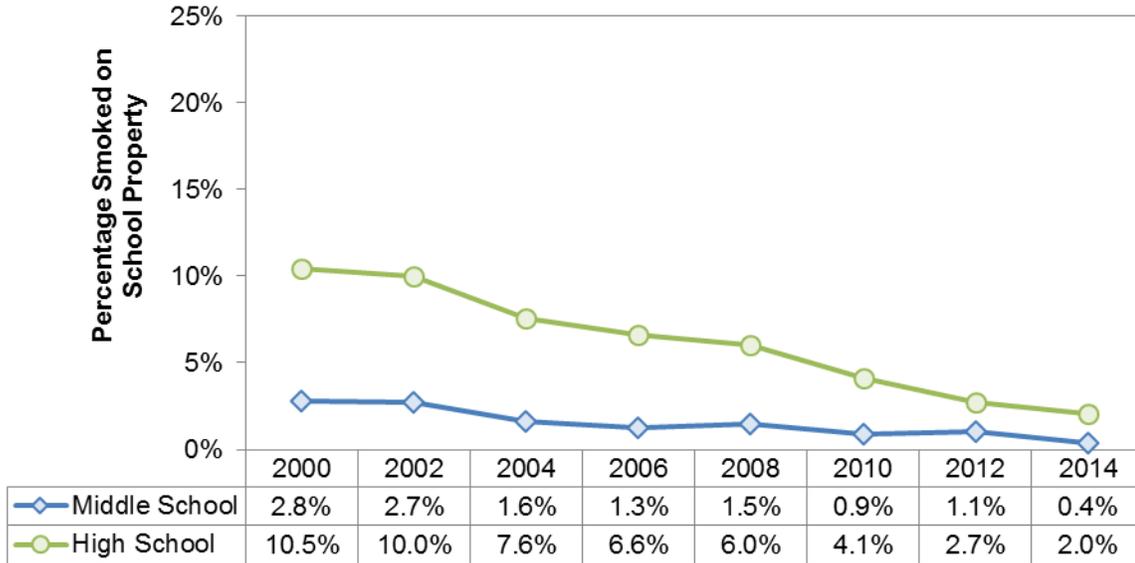
¹ Arrazola, R., Singh, T., Corey, C. G., Husten, C. G., Neff, L. J., Apelberg, B. J.,... Caraballo, R.S. (2015). Tobacco use among middle and high school students—United States, 2011–2014. *Morbidity and Mortality Weekly Report*, 64(14), 381–385.

² Primack, B. A., Soneji, S., Stoolmiller, M., Fine, M. J., & Sargent, J. D. (2015). Progression to traditional cigarette smoking after electronic cigarette use among US adolescents and young adults. *JAMA Pediatrics*, 169(11), 1018–1023.

³ Duke, J. C., Lee, Y. O., Kim, A. E., Watson, K. A., Arnold, K. Y., Nonnemaker, J. M., & Porter, L. (2014). Exposure to electronic cigarette television advertisements among youth and young adults. *Pediatrics*, 134, e29–e36.

Tobacco Use

Percentage of New York Middle School and High School Students Who Reported Smoking on School Property in the Past 30 Days



New York

The graph above shows the trend in smoking on school property among middle school and high school students in New York between 2000 and 2014. As compliance with tobacco-free policies increases and antitobacco attitudes and beliefs become the social norm, adolescents' use of and access to tobacco products are likely to decline.^{1,2}

- There is a statistically significant downward trend among middle school students.
- There is a statistically significant downward trend among high school students.

Measure: Past-month smoking on school property by middle and high school students is defined by responding "1 or 2 days," "3 to 5 days," "6 to 9 days," "10 to 19 days," "20 to 29 days," or "all 30 days" to the question "During the past 30 days, on how many days did you smoke cigarettes on school property?"

Source: New York Youth Tobacco Survey, 2000–2014

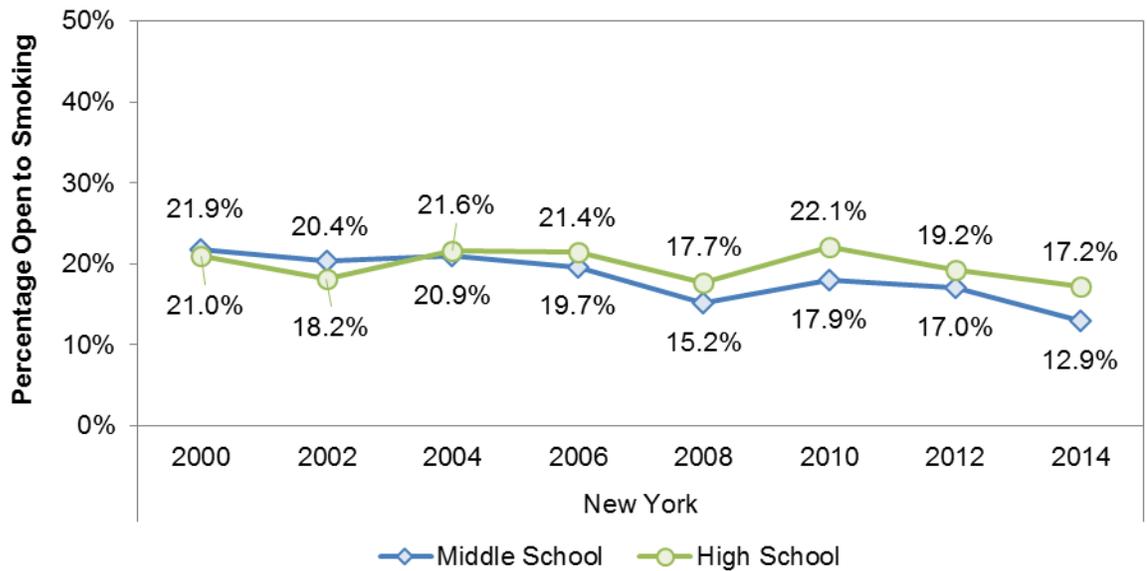
CDC Indicator: 1.7.10

¹ Lechner, W., Meier, E., Miller, M., Wiener, J., & Fils-Aime, Y. (2012). Changes in smoking prevalence, attitudes, and beliefs over 4 years following a campus-wide anti-tobacco intervention. *Journal of American College Health, 60*(7), 505–511.

² Weber, M. D., Bagwell, D. A., Fielding, J. E., & Glantz, S. A. (2003). Long-term compliance with California's smoke-free workplace law among bars and restaurants in Los Angeles County. *Tobacco Control, 12*, 269–273.

Tobacco Use

Percentage of New York Middle School and High School Never Smokers Who Are Open to Smoking



The graph above shows the trend in middle school and high school never smokers in New York who are open to smoking between 2000 and 2014. Adolescents are less likely to try smoking if they make a firm decision to be smoke-free. Not making a firm decision to be smoke-free increases the chances that a young person will experiment with smoking more than if the young person has family or close friends who smoke.¹ Furthermore, peer smoking leads to an increase in an adolescent's probability of smoking.²

- There is a statistically significant downward trend among middle school students.

Measure: Middle and high school students who have never smoked are defined as open to smoking by responding "yes" to the question "Do you think that you will try a cigarette soon?"; "definitely yes," "probably yes," or "probably not" to the question "Do you think you will smoke a cigarette at any time during the next year?"; and "definitely yes," "probably yes," or "probably not" to the question "If one of your best friends offered you a cigarette, would you smoke it?"

Source: New York Youth Tobacco Survey, 2000–2014

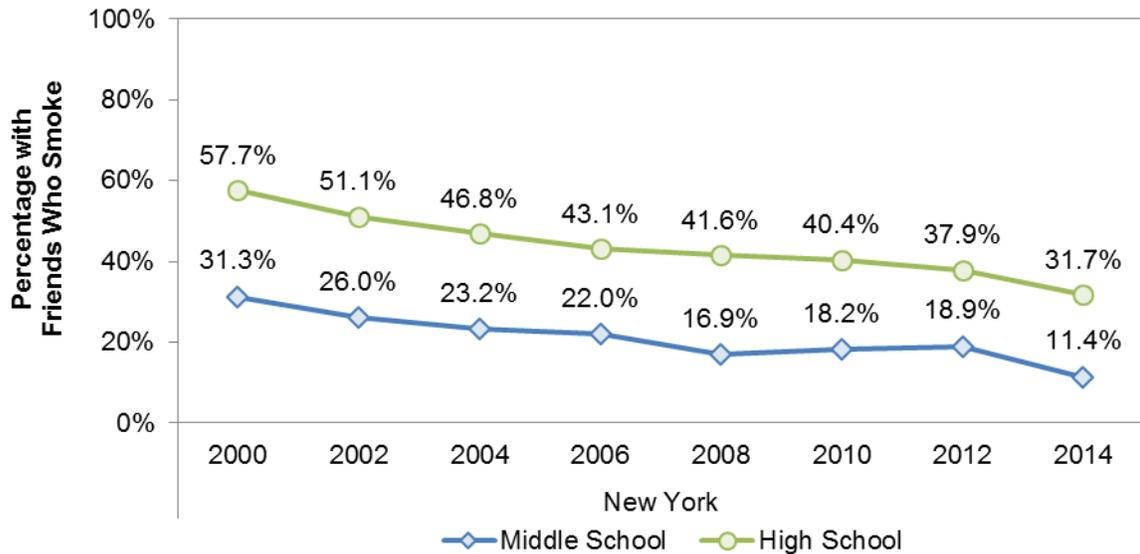
CDC Indicator: 1.10.5

¹ Pierce, J. P., Choi, W. S., Gilpin, E. A., Farkas, A. J., & Merritt, R. K. (1996). Validation of susceptibility as a predictor of which adolescents take up smoking in the United States. *Health Psychology, 15*(5), 355–361.

² Fletcher, J. (2010). Social interactions and smoking: Evidence using multiple student cohorts, instrumental variables, and school fixed effects. *Health Economics, 19*, 466–484.

Tobacco Use

Percentage of New York Middle School and High School Students Who Have at Least One Close Friend Who Smokes



The graph above shows the trend in middle school and high school students in New York who have at least one close friend who smokes between 2000 and 2014. Peer smoking leads to an increase in an adolescent's probability of smoking.¹

- There is a statistically significant downward trend among middle school students.
- There is a statistically significant downward trend among high school students.

Measure: Percentage of New York middle school and high school students who have at least one close friend who smokes, by year. Having a friend who smokes is defined by responding "one," "two," "three," or "four" to the question "How many of your four closest friends smoke cigarettes?"

Source: New York Youth Tobacco Survey, 2000–2014

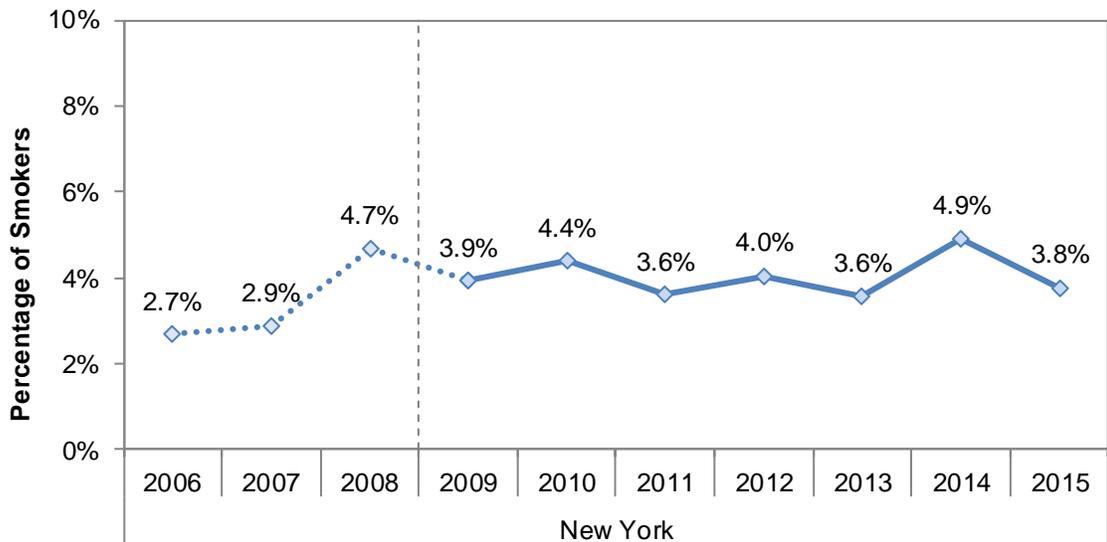
CDC Indicator: 1.10.5

¹ Fletcher, J. (2010). Social interactions and smoking: Evidence using multiple student cohorts, instrumental variables, and school fixed effects. *Health Economics*, 19, 466–484.

4. CESSATION

Cessation

Reach of the New York State Smokers' Quitline and Qitsite



Note: Quitline reach is defined by estimating the number of adult smokers using Behavioral Risk Factor Surveillance System (BRFSS) estimates. However, due to a sampling design change, New York BRFSS estimates are not directly comparable before and after 2009. This change is indicated by a dotted series prior to 2009 and the vertical line.

The graph above shows the percentage of New York smokers who called the Quitline or visited the Qitsite on their own behalf between 2006 and 2015. Studies have shown that telephone quitlines increase quit rates among quitline callers.^{1,2}

Measure: Reach of the New York State Smokers' Quitline and Qitsite is defined by the percentage of New York smokers who called the Quitline or visited the Qitsite on their own behalf from 2006 to 2015. The number of New York smokers is calculated by multiplying the New York BRFSS adult smoking prevalence by the U.S. Census Bureau's New York adult population.

Source: New York State Smokers' Quitline 2006–2015; New York Behavioral Risk Factor Surveillance System 2006–2014; U.S. Census Bureau Adult Population Estimates 2006–2015

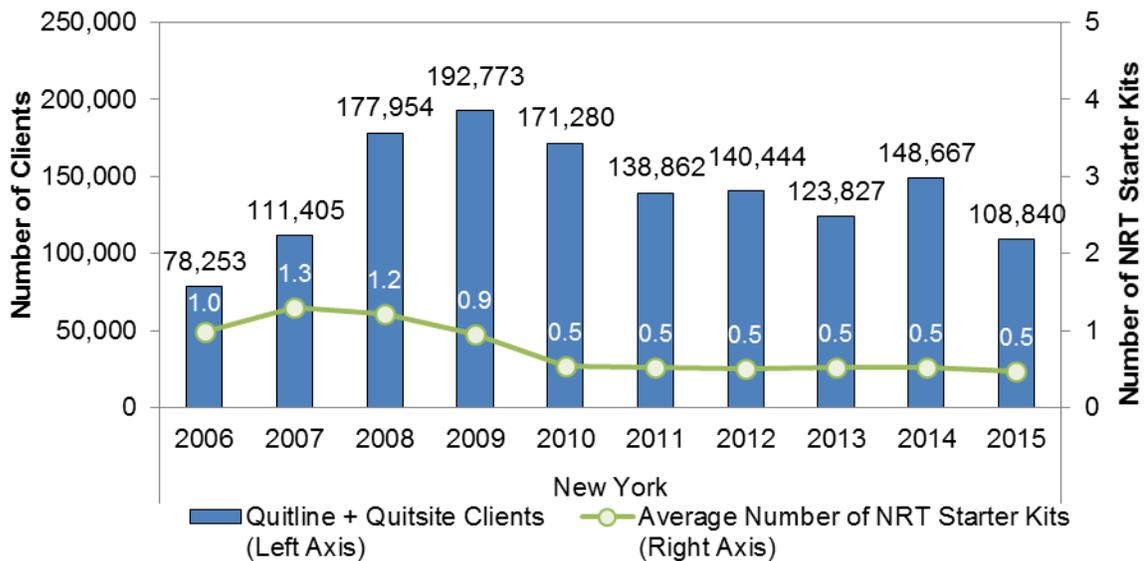
CDC Indicator: 3.7.1

¹ National Cancer Institute. (2000). *Population-based smoking cessation: Proceedings of a conference on what works to influence cessation in the general population*. Smoking and Tobacco Control Monograph No. 12. NIH Publication No. 00-4892. Bethesda, MD: National Cancer Institute.

² Stead, L. F., Hartmann-Boyce, J., Perera, R., & Lancaster, T. (2013). Telephone counselling for smoking cessation. *Cochrane Database of Systematic Reviews*, 8. Art. No.:CD002850. doi:10.1002/14651858.CD002850.pub3.

Cessation

Number of New York State Smokers' Quitline and Quitsite Clients and Average Number of NRT Starter Kits per Client



The graph above shows the trend in the number of New York State Smokers' Quitline and Quitsite clients from 2006 to 2015. The average number of free nicotine replacement therapy (NRT) starter kits sent per client is also shown. Every year, about half of all U.S. smokers attempt to quit, and services such as quitlines, counseling, pharmacotherapy, and a combination of these cessation services significantly increase abstinence rates among smokers.^{1,2}

- There is a statistically significant downward trend in the average number of NRT starter kits per client from 2009 to 2015.

Measure: The number of New York State Smokers' Quitline and Quitsite clients is defined as the number of unique callers to the Quitline receiving counseling plus the number of Quitsite registrants. The average number of NRT starter kits is defined by taking the total number of NRT starter kits sent and dividing by the number of New York State Smokers' Quitline and Quitsite clients.

Source: New York State Smokers' Quitline, 2006–2015

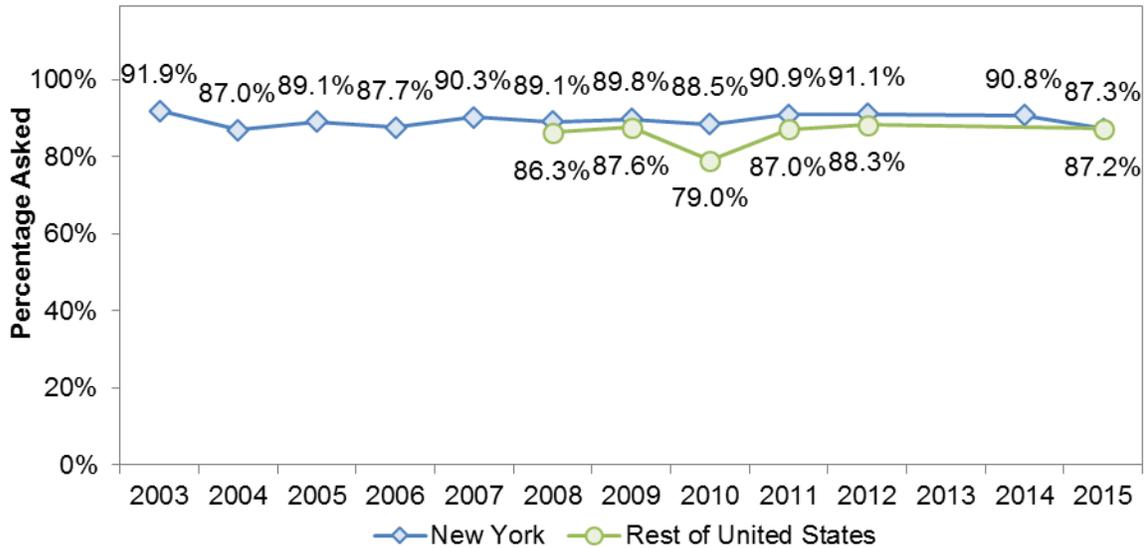
CDC Indicator: 3.8.4

¹ Fiore M. C., Jaen, C. R., Baker, T. B., et al. (2008). *Treating tobacco use and dependence: 2008 update*. Clinical practice guideline. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service.

² Hollis, J., McAfee, T., Fellows, J., Zbikowski, S., Stark, M., & Riedlinger, K. (2007). The effectiveness and cost effectiveness of telephone counselling and the nicotine patch in a state tobacco quitline. *Tobacco Control*, 16 Suppl, I53–I59.

Cessation

Percentage of Current Smokers Who Were Asked by Their Health Care Provider(s) If They Smoked



The graph above shows the trend in New York between 2003 and 2015 and the rest of the United States between 2008 and 2015 for current smokers who were asked by their health care provider(s) if they smoked. Health care providers have a prime opportunity to counsel smokers on tobacco treatment because they have high credibility and routine contact with smokers.^{1,2}

Measure: Among current smokers who have seen a health care professional in the past 12 months, asked by a health care provider about smoking is defined by responding "Yes" to "During the past 12 months, did any doctor, nurse, or health professional ask if you smoke?"

Source: New York Adult Tobacco Survey, 2003–2015; National Adult Tobacco Survey, 2008–2015

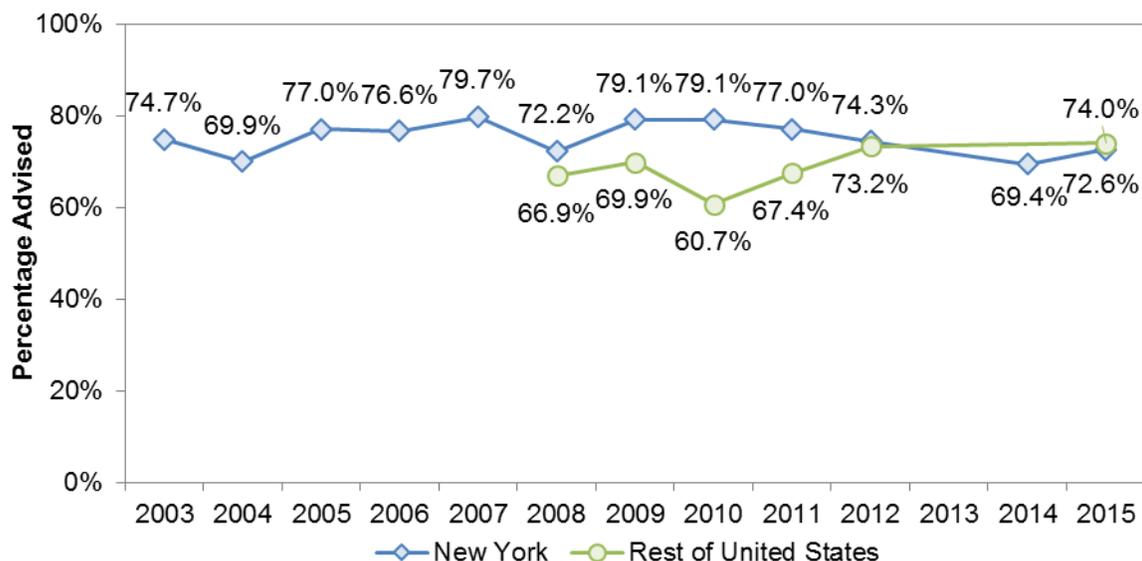
CDC Indicator: 3.9.2

¹ Fiore M. C., Jaen, C. R., Baker, T. B., et al. (2008). *Treating tobacco use and dependence: 2008 update*. Clinical practice guideline. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service.

² Fiore, M. C., & Baker, T. (2011). Treating smokers in the health care setting. *New England Journal of Medicine*, 365, 1222–1231.

Cessation

Percentage of Current Smokers Who Were Advised by Their Health Care Provider(s) to Quit Smoking



The graph above shows the trend in New York between 2003 and 2015 and the rest of the United States between 2008 and 2015 for current smokers who were advised by their health care provider(s) to quit smoking. Self-reports indicate smokers are motivated to quit smoking upon receiving quit recommendations from their health care provider. Clinician advice on treating tobacco dependence can result in a decrease in the number of cigarettes smoked daily, an increase in quit attempts, and an increase in intentions to quit smoking.¹

Measure: Among current smokers who have seen a health care professional in the past 12 months, advised by a health care provider about smoking is defined by responding "Yes" to "In the past 12 months, has a doctor, nurse, or other health professional advised you to quit smoking?"

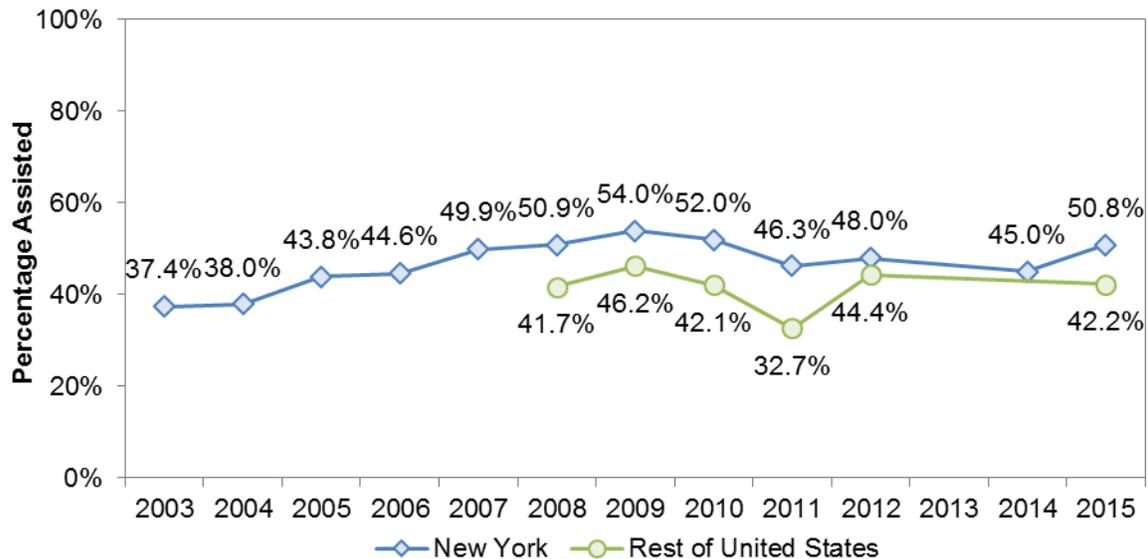
Source: New York Adult Tobacco Survey, 2003–2015; National Adult Tobacco Survey, 2008–2015

CDC Indicator: 3.9.3

¹ Fiore, M., Jaen, C., Froelicher, E., Baker, T., & Baily, W. (2008). A clinical practice guideline for treating tobacco use and dependence: 2008 update. *American Journal of Preventive Medicine*, 135(2), 158–176.

Cessation

Percentage of Adult Current Smokers Who Were Assisted by Their Health Care Provider(s) with Smoking Cessation



The above graph shows the trend in New York between 2003 and 2015 and the rest of the United States between 2008 and 2015 for current smokers who were assisted by their health care provider(s) with smoking cessation. Clinician advice on treating tobacco dependence can result in a decrease in the number of cigarettes smoked daily, an increase in quit attempts, and an increase in intentions to quit smoking. Clinicians who receive rigorous training to identify and counsel smokers have a higher success rate in helping smokers quit than clinicians without such training.¹

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

Measure: Among current smokers who have seen a health care professional in the past 12 months, assisted by a health care provider with smoking cessation is defined by responding "Yes" to "When a doctor, nurse, or other health professional advised you to quit smoking, did he/she do any of the following: recommend a nicotine patch, nicotine gum, nasal spray, an inhaler, or pills such as Zyban or Chantix; set a specific quit date; smoking cessation class, program, or counselling; call telephone quit line; provide booklet, videos, or other materials; schedule a follow-up visit to discuss progress?"

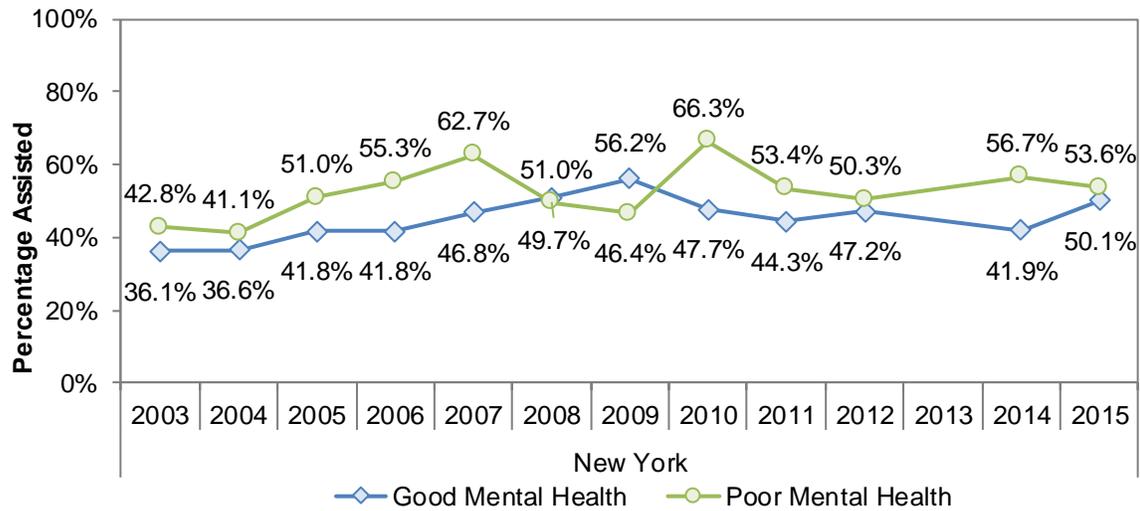
Source: New York Adult Tobacco Survey, 2003–2015; National Adult Tobacco Survey, 2008–2015

CDC Indicator: 3.9.5

¹ Fiore, M., Jaen, C., Froelicher, E., Baker, T., & Baily, W. (2008). A clinical practice guideline for treating tobacco use and dependence: 2008 update. *American Journal of Preventive Medicine*, 135(2), 158–176.

Cessation

Percentage of Adult Current Smokers in New York Who Were Assisted by Their Health Care Provider(s) with Smoking Cessation by Mental Health Status



The above graph shows the trend in New York between 2003 and 2015 among current smokers who were assisted by their health care provider(s) with smoking cessation, by mental health status. Clinician advice on treating tobacco dependence can result in a decrease in the number of cigarettes smoked daily, an increase in quit attempts, and an increase in intentions to quit smoking. Clinicians who receive rigorous training to identify and counsel smokers have a higher success rate in helping smokers quit than clinicians without such training.¹

- There is a statistically significant upward trend among New York smokers who reported good mental health.

Measure: Among current smokers who have seen a health care professional in the past 12 months, assisted by a health care provider with smoking cessation is defined by responding "Yes" to "When a doctor, nurse, or other health professional advised you to quit smoking, did he/she do any of the following: recommend a nicotine patch, nicotine gum, nasal spray, an inhaler, or pills such as Zyban or Chantix; set a specific quit date; smoking cessation class, program, or counselling; call telephone quit line; provide booklet, videos, or other materials; schedule a follow-up visit to discuss progress?" Good mental health is defined by responding less than 14 days and poor mental health is defined by responding 14 or more days to "Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?"

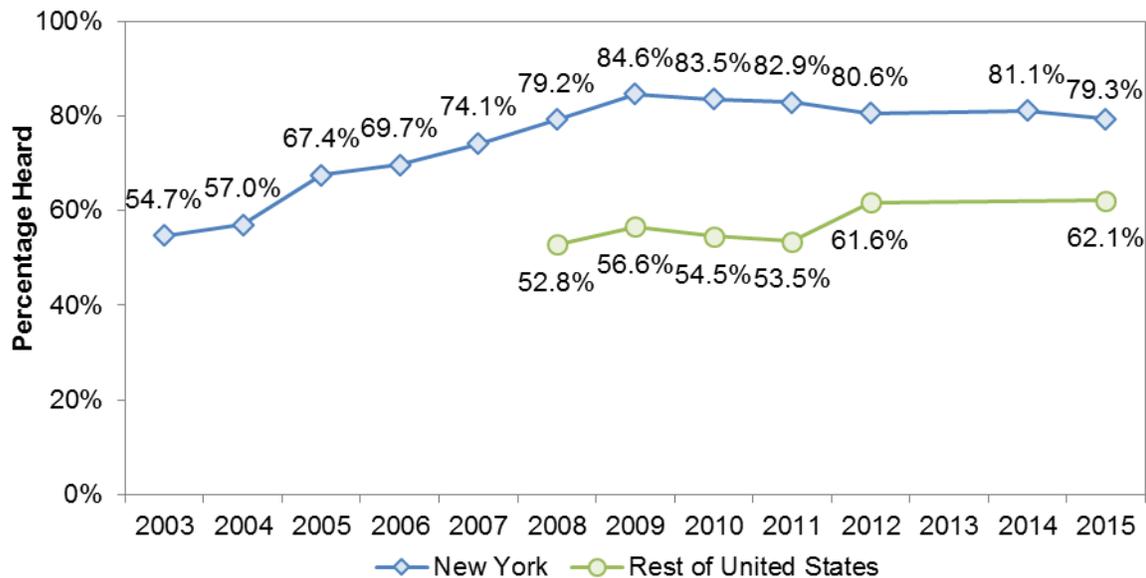
Source: New York Adult Tobacco Survey, 2003–2015

CDC Indicator: 3.9.5

¹ Fiore, M., Jaen, C., Froelicher, E., Baker, T., & Baily, W. (2008). A clinical practice guideline for treating tobacco use and dependence: 2008 update. *American Journal of Preventive Medicine*, 135(2), 158–176.

Cessation

Percentage of Adult Current Smokers Who Report That They Have Heard of the New York State Smokers' Quitline or Any Telephone Quitline



The graph above shows the trend in adult current smokers in New York who report that they have heard of the New York State Smokers' Quitline between 2003 and 2015 and the trend in adult current smokers in the rest of the United States who report that they have heard of any telephone quitline between 2008 and 2015. Increased awareness of quitlines is associated with an increase in the use of quitlines.¹

- There is a statistically significant upward trend among adult smokers in New York and those in the rest of the United States.
- There is a statistically significant difference between smokers in New York and those in the rest of the United States in 2015.

Measure: The percentage of current smokers who have heard about the New York State Smokers' Quitline is defined by responding "Yes" to "Have you heard of the New York State Smokers' Quitline?" among New York Adult Tobacco Survey respondents. The percentage of current smokers who have heard of any telephone quitlines is defined by responding "Yes" to "Have you heard of any telephone quitlines, such as 1-800-QUIT-NOW?" among National Adult Tobacco Survey respondents.

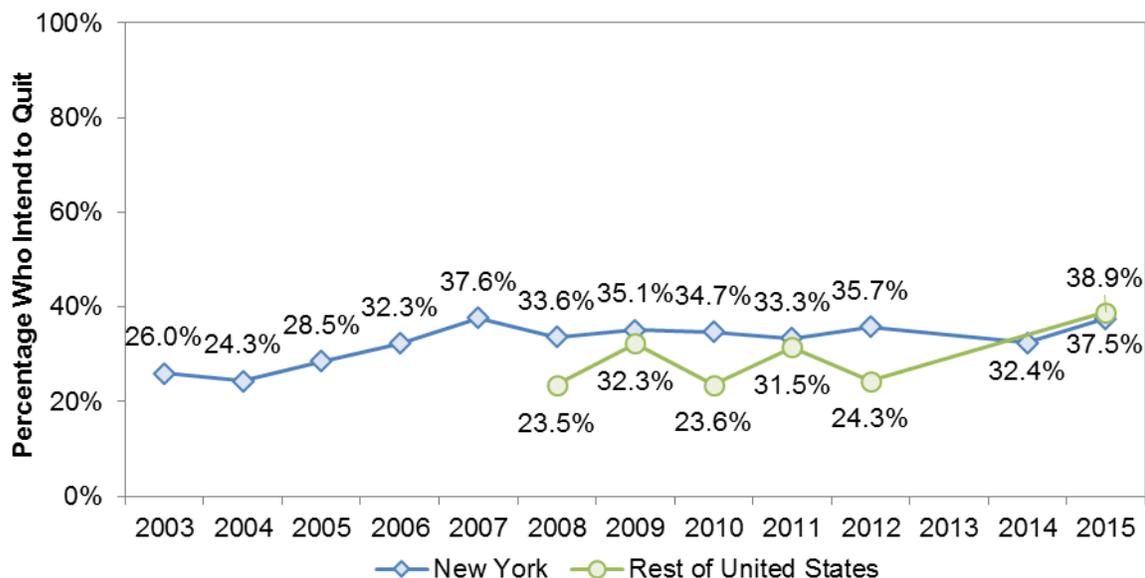
Source: New York Adult Tobacco Survey, 2003–2015; National Adult Tobacco Survey, 2008–2015

CDC Indicator: Not Applicable

¹ RTI International. (2009, July). *Fifth Annual Independent Evaluation of New York's Tobacco Control Program*. Prepared for the New York State Department of Health.

Cessation

Percentage of Adult Current Smokers Who Intend to Make a Quit Attempt in the Next 30 Days



The graph above shows the trend in adult current smokers who intend to make a quit attempt in New York in the next 30 days between 2003 and 2015 and the rest of the United States between 2008 and 2015. Smokers who report intentions to quit smoking are more likely to make quit attempts.¹⁻³

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

Measure: Among current smokers, intentions to quit are defined by responding “A little,” “Somewhat,” or “A lot” to “How much do you want to quit smoking?”; “Yes” to “Are you seriously considering stopping smoking within the next six months?”; and “Yes” to “Are you planning to stop smoking within the next 30 days?”

Source: New York Adult Tobacco Survey, 2003–2015; National Adult Tobacco Survey, 2008–2015

CDC Indicator: 3.8.3

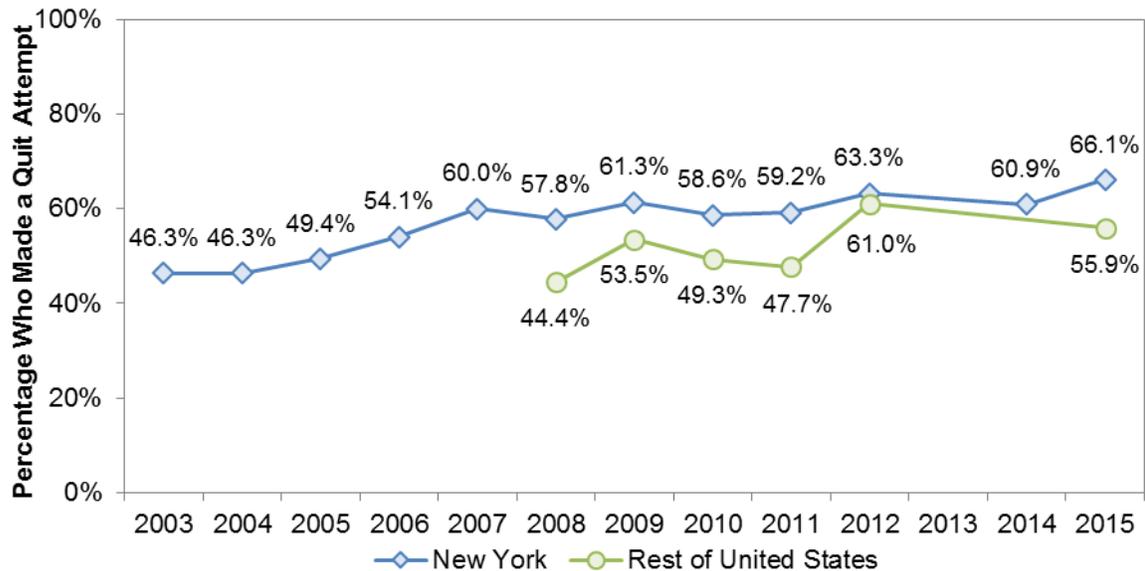
¹ Smit, E., Fidler, J., & West, R. (2011). The role of desire, duty and intention in predicting attempts to quit smoking. *Addiction*, 106(4), 844–851.

² U.S. Department of Health and Human Services. (2000). *Reducing tobacco use: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Available at: http://www.cdc.gov/tobacco/data_statistics/sgr/2000/complete_report/pdfs/fullreport.pdf

³ Vangeli, E., Stapleton, J., Smit, E., Borland, R., & West, R. (2011). Predictors of attempts to stop smoking and their success in adult general population samples: A systematic review. *Addiction*, 106(12), 2110–2121.

Cessation

Percentage of Adult Current Smokers Who Made a Quit Attempt in the Past 12 Months



The graph above shows the trend in adult current smokers who made a quit attempt in New York in the past 12 months between 2003 and 2015 and the rest of the United States between 2008 and 2015. Every year, about half of all U.S. smokers attempt to quit, and, in many cases, giving up tobacco permanently requires several quit attempts.¹⁻³

- There is a statistically significant upward trend among smokers in New York and those in the rest of United States.
- There is a statistically significant difference between smokers in New York and those in the rest of the United States in 2015.

Measure: Among current smokers, making a quit attempt is defined by responding “Yes” to “During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?”

Source: New York Adult Tobacco Survey, 2003–2015; National Adult Tobacco Survey, 2008–2015

CDC Indicator: 3.11.1

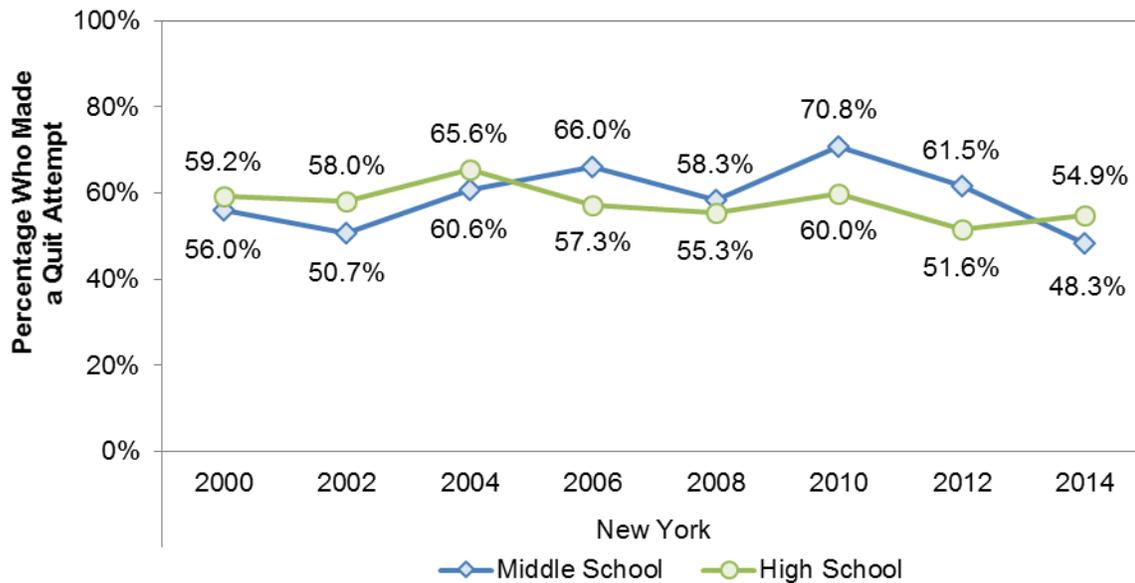
¹ Centers for Disease Control and Prevention. (2011, November 11). Quitting smoking among adults—United States, 2001–2010. *Morbidity and Mortality Weekly Report CDC Surveillance Summaries*, 60(44), 1513–1519.

² Fiore, M., Jaen, C., Froelicher, E., Baker, T., & Baily, W. (2008). A clinical practice guideline for treating tobacco use and dependence: 2008 update. *American Journal of Preventive Medicine*, 135(2), 158–176.

³ Hollis, J., McAfee, T., Fellows, J., Zbikowski, S., Stark, M., & Riedlinger, K. (2007). The effectiveness and cost effectiveness of telephone counselling and the nicotine patch in a state tobacco quitline. *Tobacco Control*, 16 Suppl, I53–I59.

Cessation

Percentage of New York Middle School and High School Current Smokers Who Have Made a Quit Attempt in the Past Year



The graph above shows the trend in middle school and high school current smokers in New York who have made a quit attempt in the past 12 months between 2000 and 2014. In many cases, giving up tobacco permanently takes several quit attempts. Recent quit attempts strongly predict future attempts and may be driven by motivation to stop smoking.¹ Of note, relapse is most strongly associated with nicotine dependence, social smoking cues, and recently failed quit attempts.¹

Measure: Middle and high school student quit attempts are defined by responding "1 time," "2 times," "3 to 5 times," "6 to 9 times," or "10 or more times" to the question "How many times during the past 12 months have you stopped smoking for 1 day or longer because you were trying to quit smoking?"

Source: New York Youth Tobacco Survey, 2000–2014

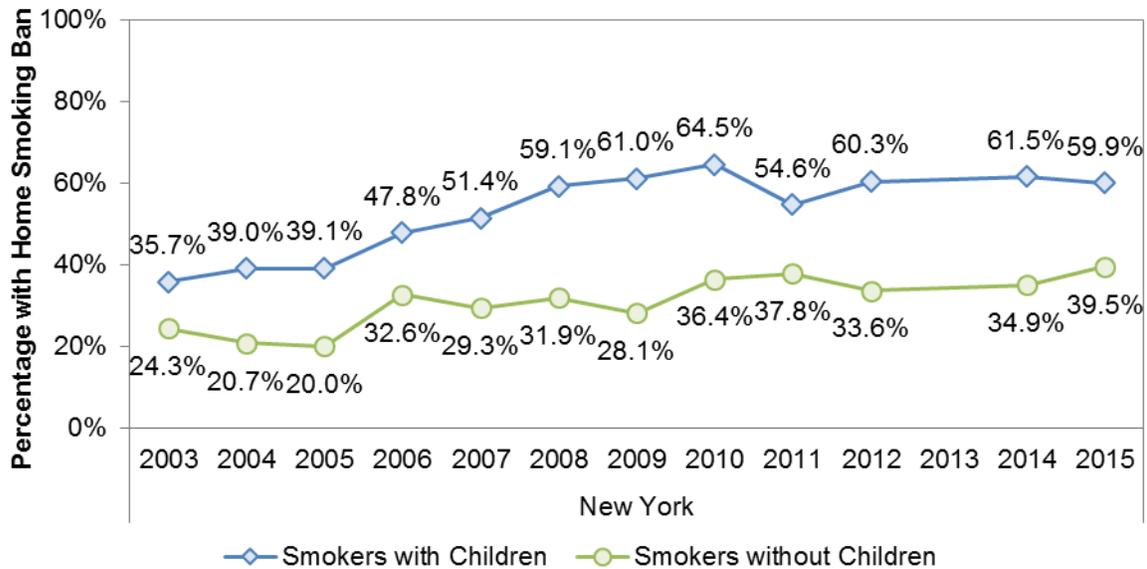
CDC Indicator: 3.11.2

¹ Zhou, X., Nonnemaker, J., Sherrill, B., Gilseman, A., Coste, F., & West, R. (2009). Attempts to quit smoking and relapse: Factors associated with success or failure from the ATTEMPT cohort study. *Addictive Behaviors*, 34(4), 365–373.

5. SECONDHAND SMOKE

Secondhand Smoke

Percentage of New York Smokers Who Report that Their Homes are 100% Smoke-Free



The graph above shows the trend in adult smokers with or without children in New York who report that their homes are 100% smoke-free between 2003 and 2015. Living with adult smokers increases youth susceptibility to increased levels of secondhand smoke. Home restrictions on smoking are significant in reducing the amount of secondhand smoke inhaled by nonsmoking youth in the home.¹⁻³

- There is a statistically significant difference between smokers with and without children.
- There is a statistically significant upward trend among smokers with and without children in New York.

Measure: Among current smokers, the presence of a home smoking ban is defined by responding "Smoking is not allowed anywhere inside your home" to "Which statement best describes the rules about smoking in your home?"

Source: New York Adult Tobacco Survey 2003–2015

CDC Indicator: 2.4.4

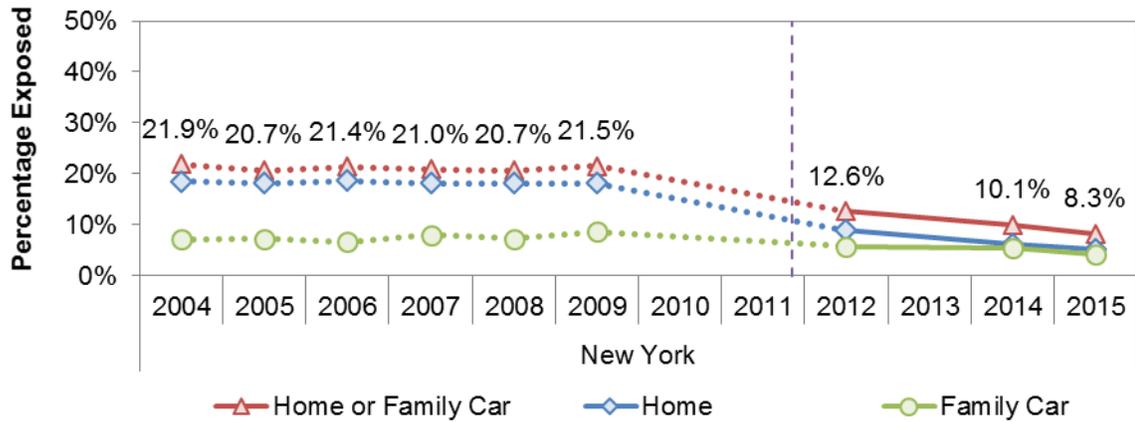
¹ Emory, K., Saquib, N., Gilpin, E., & Pierce, J. (2010). The association between home smoking restrictions and youth smoking behaviour: A review. *Tobacco Control*, 19(6), 495–506.

² Mills, A., Messer, K., Gilpin, E., & Pierce, J. (2009). The effect of smoke-free homes on adult smoking behavior: A review. *Nicotine & Tobacco Research*, 11(10), 1131–1141.

³ Wakefield, M., Banham, D., Martin, J., Ruffin, R., McCaul, K., & Badcock, N. (2000). Restrictions on smoking at home and urinary cotinine levels among children with asthma. *American Journal of Preventive Medicine*, 19(3), 188–192.

Secondhand Smoke

Percentage of New York Nonsmokers Who Were Exposed to Secondhand Smoke in their Homes or Vehicles



Note: Due to question wording changes, estimates for secondhand smoke exposure are not directly comparable before and after 2009. This change is indicated by a dotted series prior to 2012 and the vertical line.

The graph above shows the percentage of New York nonsmokers who were exposed to secondhand smoke by location from 2004 to 2015. Studies show that children and adults exposed to secondhand smoke are more susceptible to multiple health problems.¹ Lung cancer and heart disease in adults and asthma, upper and lower respiratory tract infections, and ear infections in children are some of the serious health problems that result from secondhand smoke exposure.^{1,2}

- There is a statistically significant downward trend among New York nonsmokers who are exposed to secondhand smoke overall, particularly in their home, from 2012 to 2015.

Measure: 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.

Source: New York Adult Tobacco Survey, 2004–2015

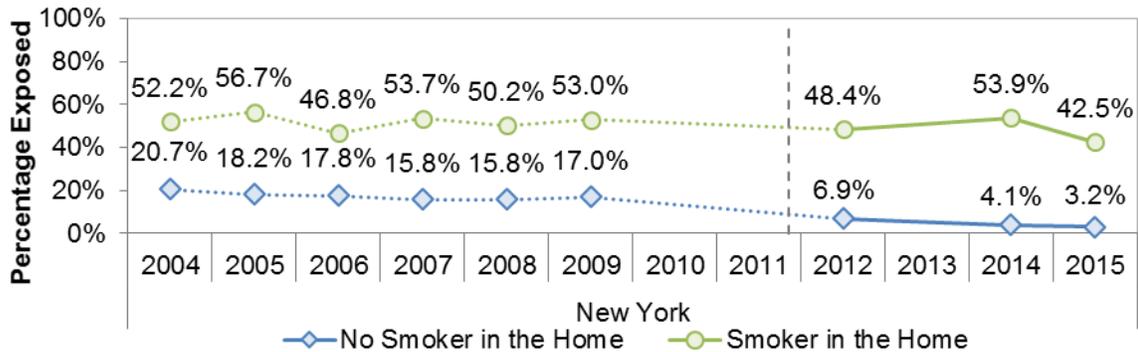
CDC Indicator: 2.7.3

¹ Treyster, Z., & Gitterman, B. (2011). Second hand smoke exposure in children: Environmental factors, physiological effects, and interventions within pediatrics. *Reviews on Environmental Health*, 26(3), 187–195.

² U.S. Department of Health and Human Services. (2006). *The health consequences of involuntary exposure to tobacco smoke: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Retrieved from <http://www.surgeongeneral.gov/library/reports/secondhandsmoke/fullreport.pdf>

Secondhand Smoke

Percentage of New York Nonsmokers Who Were Exposed to Secondhand Smoke in their Home or Vehicle by Presence of Smoker in the Home



Note: Due to question wording changes, estimates for secondhand smoke exposure are not directly comparable before and after 2009. This change is indicated by a dotted series prior to 2012 and the vertical line.

The graph above shows the percentage of New York nonsmokers who were exposed to secondhand smoke in their homes or family vehicle by the presence of smokers from 2004 to 2015. Studies show that children and adults exposed to secondhand smoke are more susceptible to multiple health problems.¹ Lung cancer and heart disease in adults and asthma, upper and lower respiratory tract infections, and ear infections in children are some of the serious health problems that result from secondhand smoke exposure.^{1,2}

- There is a statistically significant difference between nonsmokers who live with a smoker and those who do not live with a smoker.
- There is a statistically significant downward trend among New York nonsmokers who do not live with a smoker from 2012 to 2015.

Measure: Percentage of nonsmokers exposed to secondhand smoke, who do or do not live with a smoker, 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.

Source: New York Adult Tobacco Survey, 2004–2015

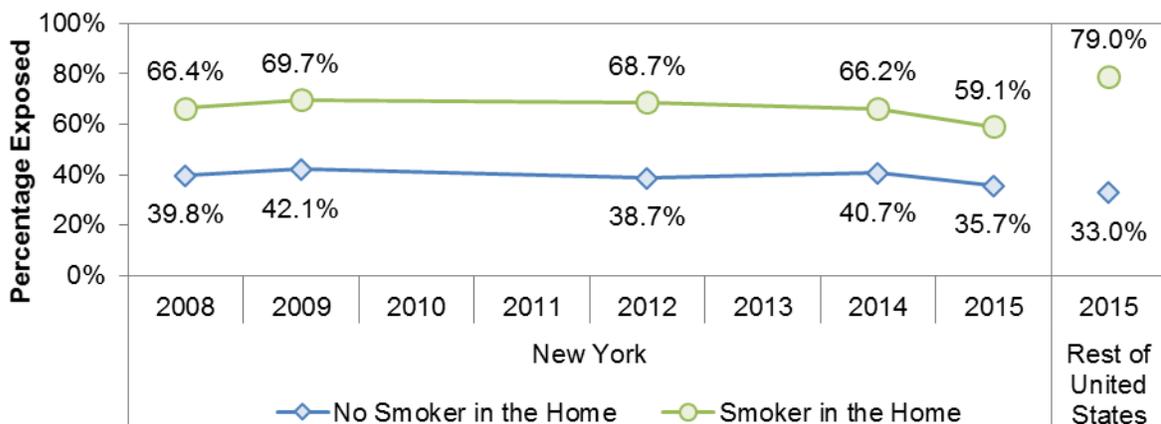
CDC Indicator: 2.7.3

¹ Treyster, Z., & Gitterman, B. (2011). Second hand smoke exposure in children: Environmental factors, physiological effects, and interventions within pediatrics. *Reviews on Environmental Health*, 26(3), 187–195.

² U.S. Department of Health and Human Services. (2006). *The health consequences of involuntary exposure to tobacco smoke: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Retrieved from <http://www.surgeongeneral.gov/library/reports/secondhandsmoke/fullreport.pdf>

Secondhand Smoke

Percentage of New York Nonsmokers Living in Multi-Unit Housing Who Were Exposed to Secondhand Smoke in their Homes



The graph above shows the percentage nonsmokers living in multi-unit housing who were exposed to secondhand smoke in their homes of New York from 2008 to 2015 and in the rest of the U.S. in 2015. Studies show that children and adults exposed to secondhand smoke are more susceptible to multiple health problems.¹ Lung cancer and heart disease in adults and asthma, upper and lower respiratory tract infections, and ear infections in children are some of the serious health problems that result from secondhand smoke exposure.^{1,2}

- There is a statistically significant difference between nonsmokers who live with a smoker and those who do not live with a smoker.
- There is a statistically significant downward trend among New York nonsmokers who do and do not live with a smoker.

Measure: Percentage of multi-unit housing residents exposed to secondhand smoke in their living space is defined by responding "Daily," "A few times a week," "Once every couple of weeks," or "Once a month or less" to "During the last 12 months of living in your unit, how often has tobacco smoke entered into your personal living space from somewhere else in or around the building?" Adults living in multi-unit housing are defined by responding "Duplex," "Double or other multi-family home," "Apartment building," "Condominium," "Townhouse," "CO-OP," or "Nursing home" from 2007 to 2011; or responding "Yes" to "Do you live in an apartment, condominium, townhome, or other multi-unit dwelling?" from 2012 onward.

Source: New York Adult Tobacco Survey, 2012–2015

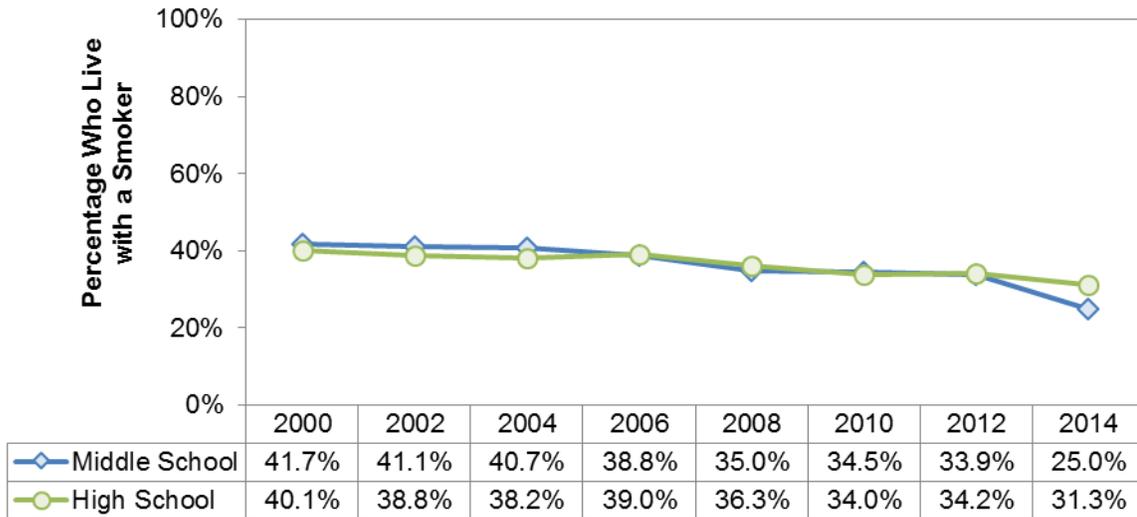
CDC Indicator: 2.7.3

¹ Treyster, Z., & Gitterman, B. (2011). Second hand smoke exposure in children: Environmental factors, physiological effects, and interventions within pediatrics. *Reviews on Environmental Health*, 26(3), 187–195.

² U.S. Department of Health and Human Services. (2006). *The health consequences of involuntary exposure to tobacco smoke: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Retrieved from <http://www.surgeongeneral.gov/library/reports/secondhandsmoke/fullreport.pdf>

Secondhand Smoke

Percentage of New York Middle School and High School Students Who Live with a Current Smoker



New York

The graph above shows the trend in New York middle school and high school students who lived with a current smoker between 2000 and 2014. Adolescents are primarily exposed to secondhand smoke in their household.¹ Children exposed to secondhand smoke are at an increased risk for developing lower respiratory infections and ear infections and for having exacerbated effects of asthma if asthmatic.¹ In addition, children living in a household with a smoker are more likely to try smoking.²

- There is a statistically significant downward trend among middle school students.
- There is a statistically significant downward trend among high school students.

Measure: Living with a current smoker among middle and high school students is defined by responding “yes” to the question “Does anyone who lives with you now smoke cigarettes?”

Source: New York Youth Tobacco Survey, 2000–2014

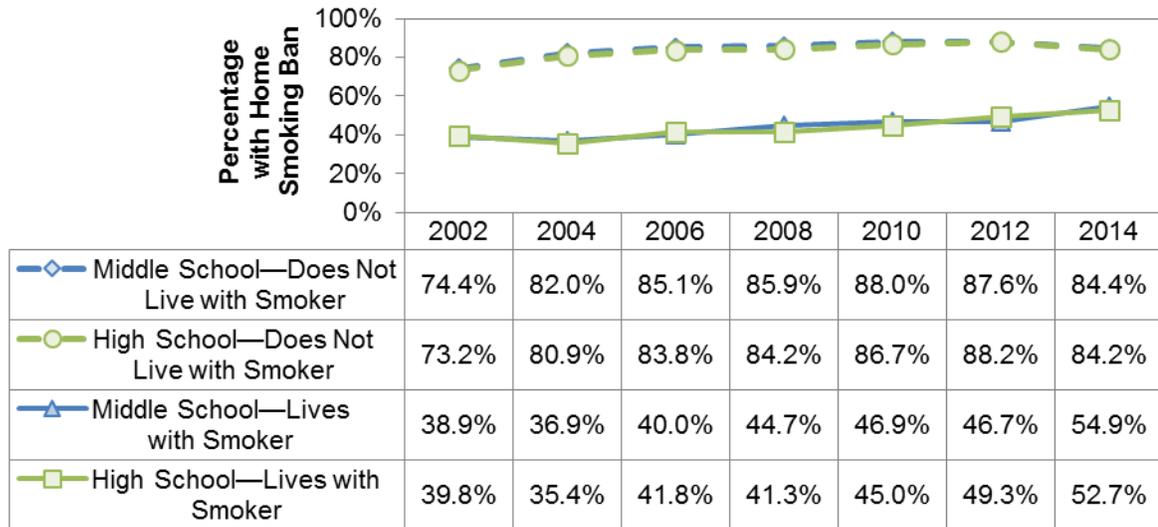
CDC Indicator: Not applicable

¹ U.S. Department of Health and Human Services. (2006). *The health consequences of involuntary exposure to tobacco smoke: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

² Gilman, S. E., Rende, R., Boergers, J., Abrams, D. B., Buka, S. L., Clark, M. A., et al. (2009, February). Parental smoking and adolescent smoking initiation: An intergenerational perspective on tobacco control. *Pediatrics*, 123(2), e274–e281.

Secondhand Smoke

Percentage of New York Middle School and High School Students Who Live in a Household Where Smoking is Not Allowed Anywhere Inside the Home



New York

The graph above shows the trend in New York middle school and high school students who live in a household where smoking is not allowed anywhere inside the home between 2002 and 2014. The Surgeon General has concluded that indoor smoking bans are the only way to protect nonsmokers from exposure to secondhand smoke. Household smoking bans help protect nonsmoking inhabitants from the harmful effects of secondhand smoke. Some studies suggests that smoke-free rules at home decrease the risk that adolescents will smoke and aid smokers in quitting.¹

- There is a statistically significant upward trend among middle school students who do and do not live with a smoker.
- There is a statistically significant upward trend among high school students who do and do not live with a smoker.

Measure: Percentage of New York middle school and high school students who live in a household where smoking is not allowed anywhere inside the home, by year and presence of smoker in the household. Living in a household where smoking is not allowed is defined by responding "smoking is not allowed anywhere inside my home" to the question "Which statement best describes the rules about smoking inside your home?"

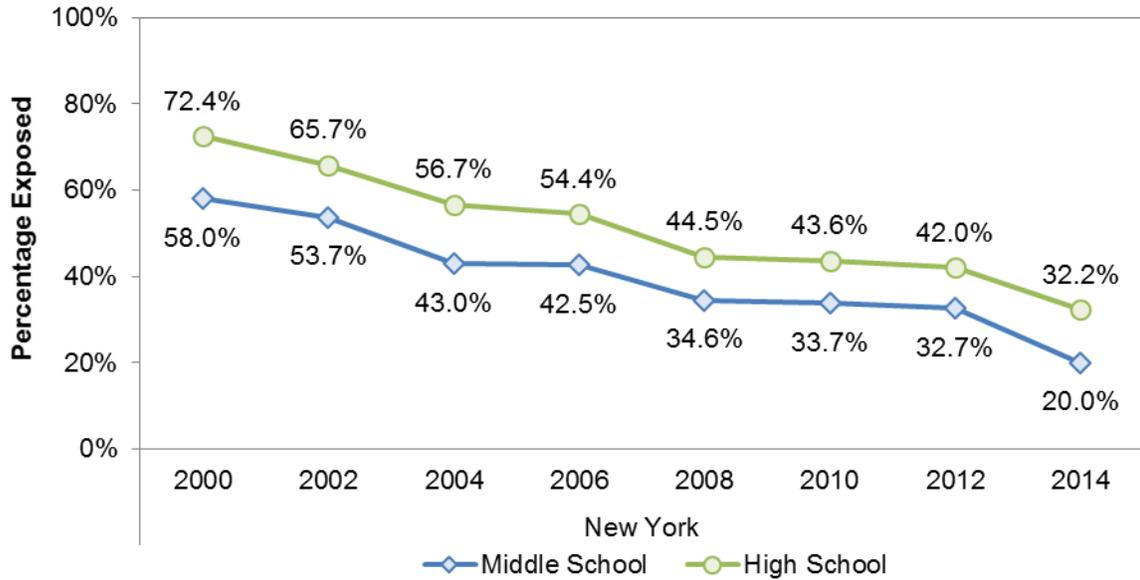
Source: New York Youth Tobacco Survey, 2002–2014

CDC Indicator: 2.4.4

¹ U.S. Department of Health and Human Services. (2006). *The health consequences of involuntary exposure to tobacco smoke: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

Secondhand Smoke

Percentage of New York Middle School and High School Students Who Were in a Room Where Someone Was Smoking on at Least 1 Day in the Past 7 Days



The graph above shows the trend in New York middle school and high school students who were in a room where someone was smoking on at least 1 day in the past 7 days between 2000 and 2014. Children exposed to secondhand smoke are at increased risk for developing lower respiratory infections, ear infections, and for having exacerbated effects of asthma if asthmatic. The Surgeon General has declared that any exposure to secondhand smoke is risky.¹

- There is a statistically significant downward trend among middle school students.
- There is a statistically significant downward trend among high school students.

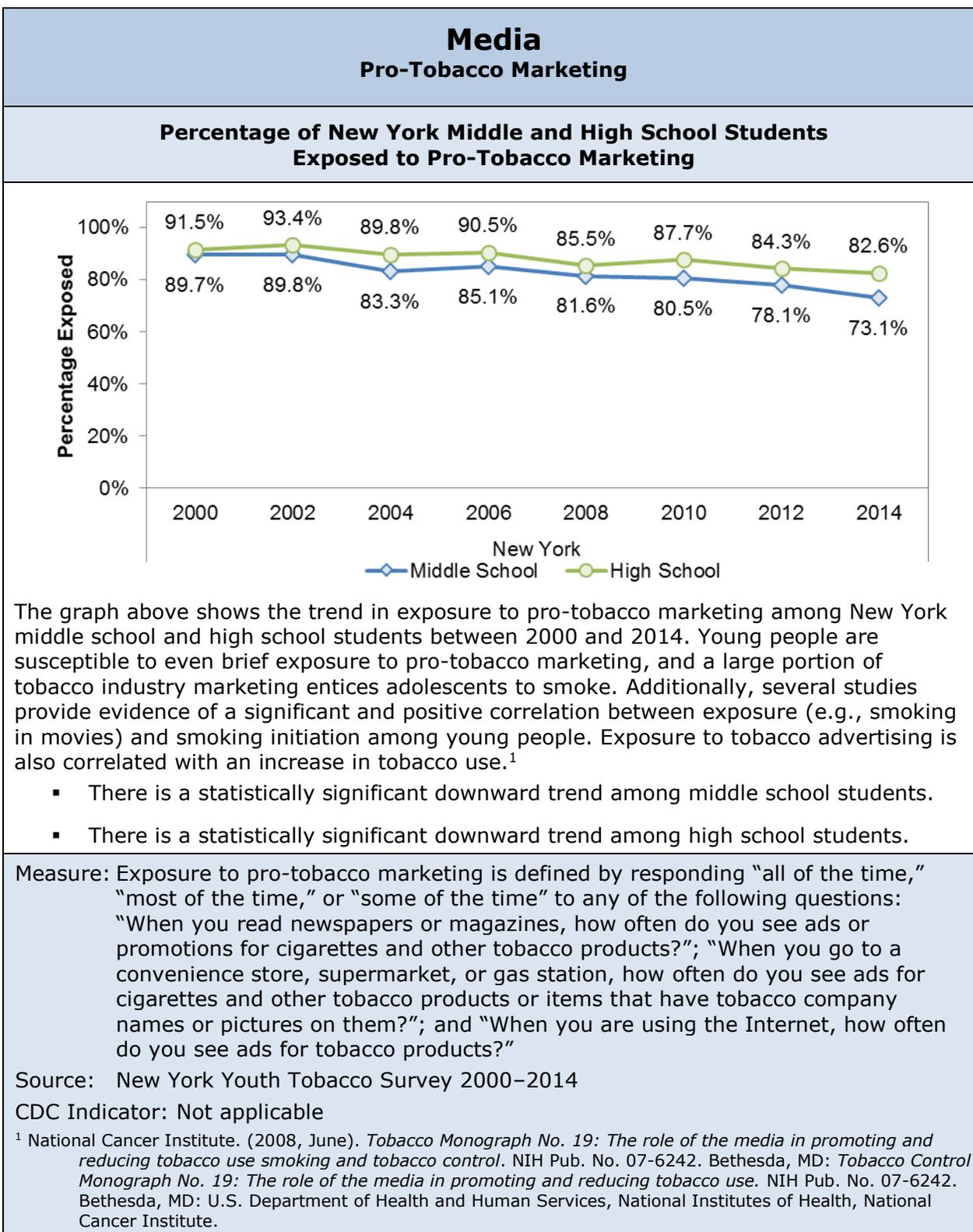
Measure: Past-week indoor exposure to smoking is defined by responding “1 or 2 days,” “3 or 4 days,” “5 or 6 days,” or “7 days” to the question “During the past 7 days, on how many days were you in the same room with someone who was smoking cigarettes?”

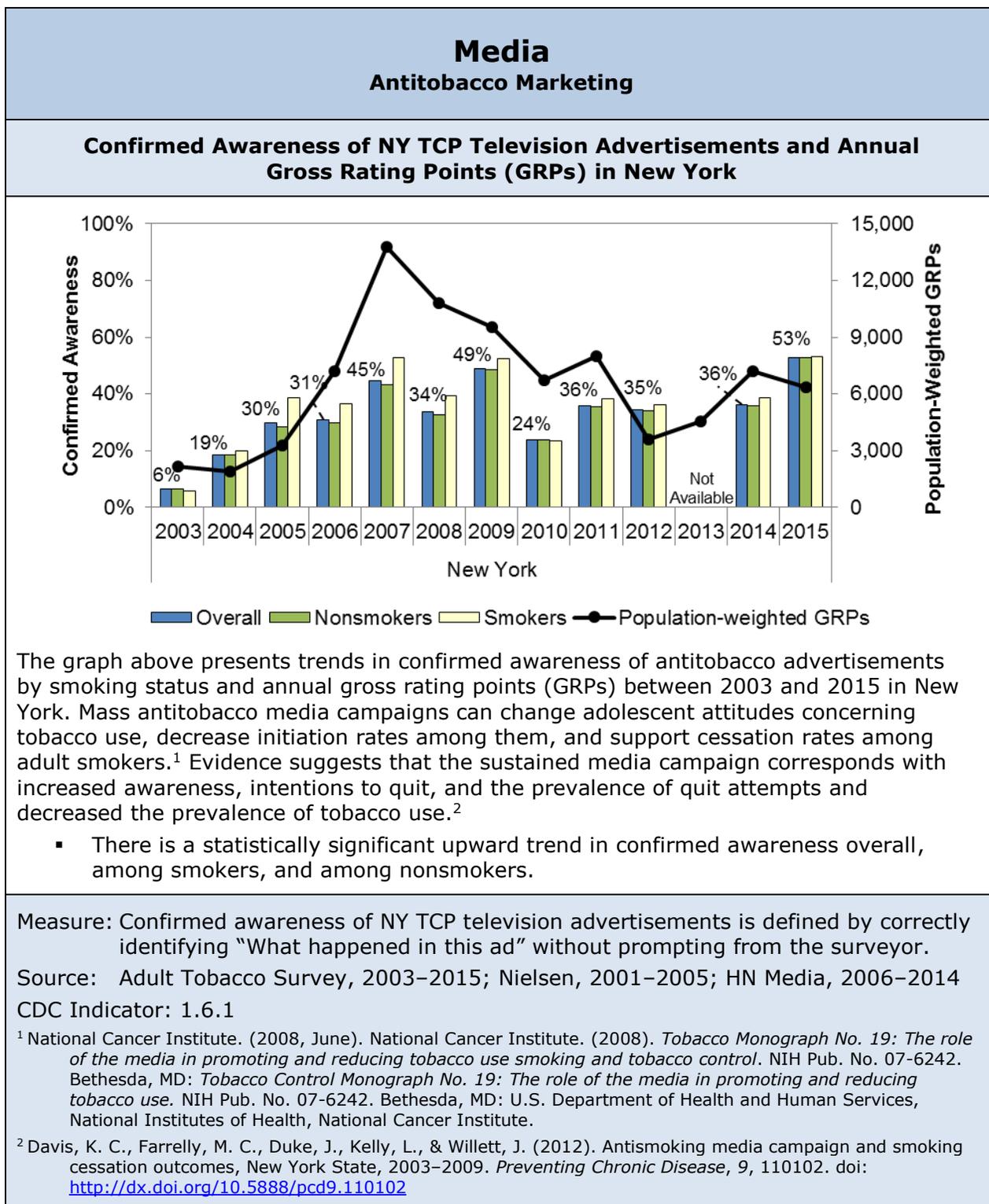
Source: New York Youth Tobacco Survey, 2000–2014

CDC Indicator: 2.7.3

¹ U.S. Department of Health and Human Services. (2006). *The health consequences of involuntary exposure to tobacco smoke: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

6. MEDIA

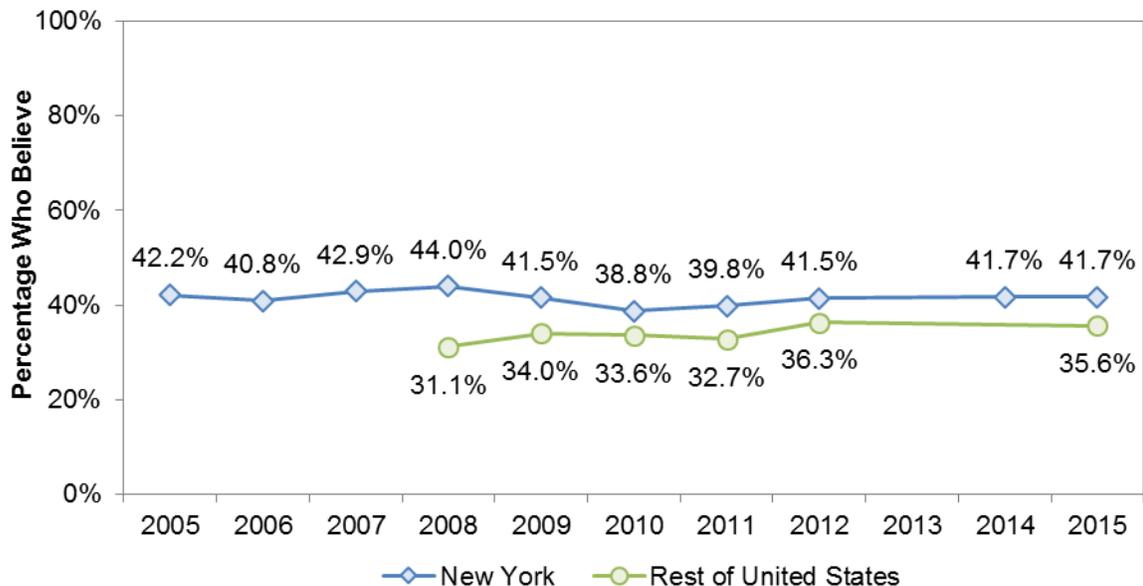




7. ATTITUDES AND BELIEFS

Attitudes and Beliefs

Percentage of Adults Who Believe that Tobacco Use is among the Most Important Health Problems in Their Community



The graph above shows the trend in the percentage of adults who believe that tobacco use is among the most important health problems in their community in New York between 2005 and 2015 and the rest of the United States between 2008 and 2015. Efforts to control tobacco use should focus on nurturing a social environment that encourages cessation and non-initiation through changes in attitudes and beliefs.¹

- There is a statistically significant difference between adults in New York and adults in the rest of the United States in 2015.
- There is a statistically significant upward trend among adults in the rest of the United States.

Measure: The belief that tobacco use is among the most important health problems is defined by responding "among the most important health problems" to the question "Thinking about all the health problems in your community, how important is addressing the problem of tobacco use?"

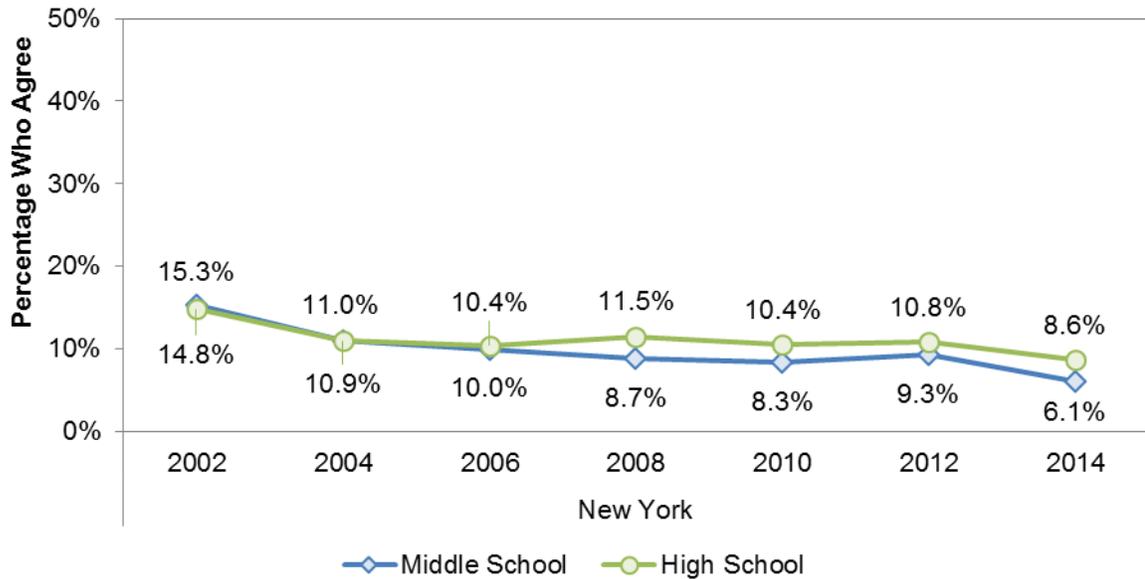
Source: New York Adult Tobacco Survey, 2005–2015; National Adult Tobacco Survey, 2008–2015

CDC Indicator: Not applicable

¹ Stuber, J., Galea, S., & Link, B. (2008). Smoking and the emergence of a stigmatized social status. *Social Science & Medicine*, 67(3), 420–430.

Attitudes and Beliefs

Percentage of New York Middle School and High School Students Who Think Smoking Cigarettes Makes Young People Look Cool or Fit In



The graph above shows the trend in New York middle school and high school students who think smoking cigarettes makes young people look cool or fit in, between 2002 and 2014. Adolescents who view smoking as the social norm and as having positive social consequences, such as increasing one’s popularity and making them look cool, are more susceptible to trying smoking.^{1,2}

- There is a statistically significant downward trend among middle school students.
- There is a statistically significant downward trend among high school students.

Measure: Percentage of New York middle school and high school students who think smoking cigarettes makes young people look cool or fit in, by year. Belief that smoking makes youth look cool is defined by responding “definitely yes” or “probably yes” to the question “Do you think smoking cigarettes makes young people look cool or fit in?” This question was not asked in the 2000 YTS.

Source: New York Youth Tobacco Survey 2002–2014

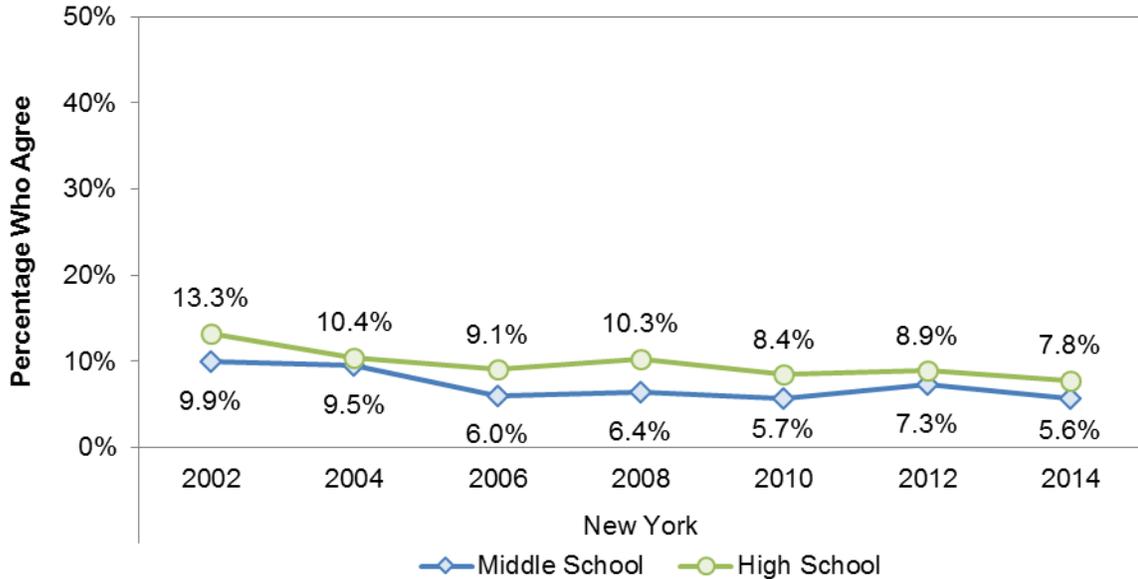
CDC Indicator: 1.10.1

¹ Unger, J. B., Rohrbach, L. A., Howard-Pitney, B., Ritt-Olson, A., & Mouttapa, M. (2001). Peer influences and susceptibility to smoking among California adolescents. *Substance Use and Misuse*, 36(5), 551–571.

² Song, A., Morrell, H., Cornell, J., Ramos, M., Biehl, M., Kropp, R., & Halpern-Felsher, B. (2009). Perceptions of smoking-related risks and benefits as predictors of adolescent smoking initiation. *American Journal of Public Health*, 99(3), 487–492.

Attitudes and Beliefs

Percentage of New York Middle School and High School Students Who Believe Smoking for 1 or 2 Years and then Quitting is Safe



The graph above shows the trend in New York middle school and high school students who believe smoking for 1 or 2 years and quitting is safe, between 2002 and 2014. Symptoms of addiction, such as irritability, anxiety, and unsuccessful quit attempts, can become manifest within days and weeks after occasional smoking first begins. Immediate health effects of first smoking include damage to brain cell receptors and problems with the respiratory, cardiovascular, gastrointestinal, immune, and metabolic systems.¹

- There is a statistically significant downward trend among middle school students.
- There is a statistically significant downward trend among high school students.

Measure: The percentage of middle and high school students who believe smoking for 1 or 2 years and quitting is safe is defined by responding “definitely yes” or “probably yes” to the question “Do you think it is safe to smoke for only a year or two, as long as you quit after that?”

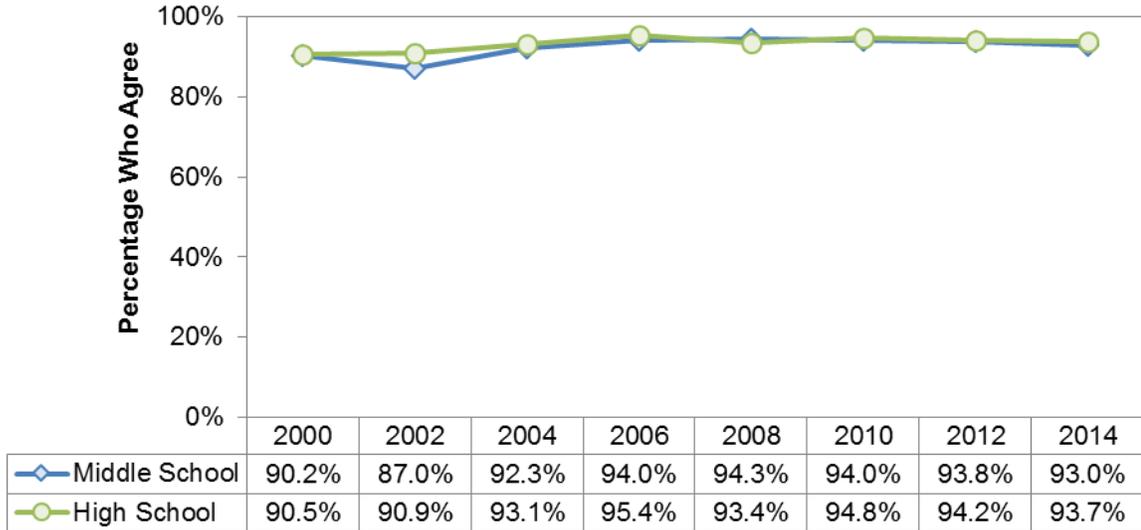
Source: New York Youth Tobacco Survey, 2002–2014

CDC Indicator: Not applicable

¹ U.S. Department of Health and Human Services. (2012). *Preventing tobacco use among youth and young adults: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

Attitudes and Beliefs

Percentage of New York Middle School and High School Students Who Believe the Smoke from Other People’s Cigarettes Is Harmful to Your Health



New York

The graph above shows the trend in New York middle and high school students who believe that smoke from other people’s cigarettes is harmful to your health, between 2000 and 2014. Children exposed to secondhand smoke are at an increased risk for developing lower respiratory infections and ear infections and for having exacerbated effects of asthma if asthmatic. The Surgeon General has declared that any exposure to secondhand smoke is risky.¹

- There is a statistically significant upward trend among middle school students.
- There is a statistically significant upward trend among high school students.

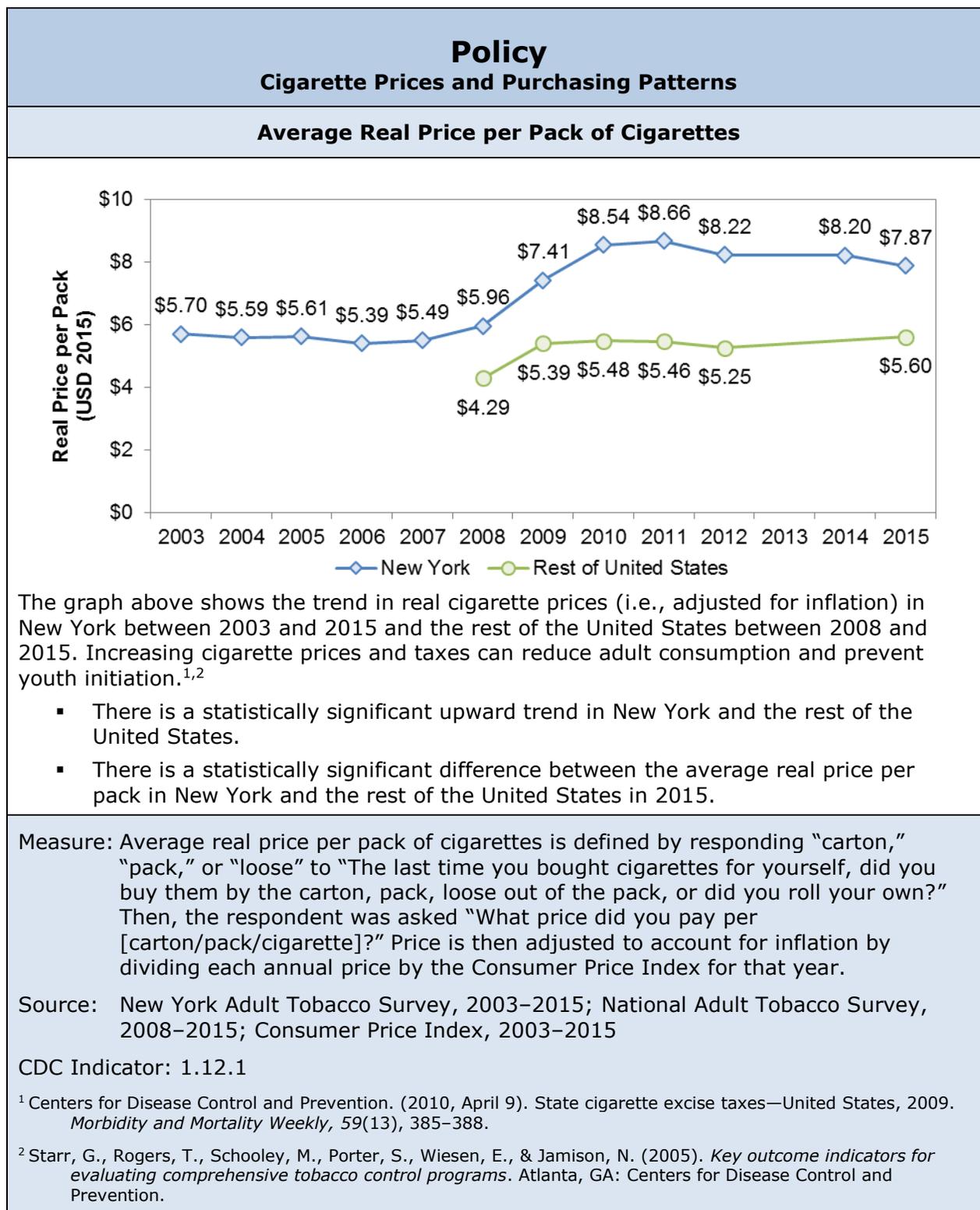
Measure: The percentage of middle and high school students who believe the smoke from other people’s cigarettes is harmful to your health is defined by responding “definitely yes” or “probably yes” to the question “Do you think the smoke from other people’s cigarettes is harmful to you?”

Source: New York Youth Tobacco Survey, 2000–2014

CDC Indicator: 2.3.5

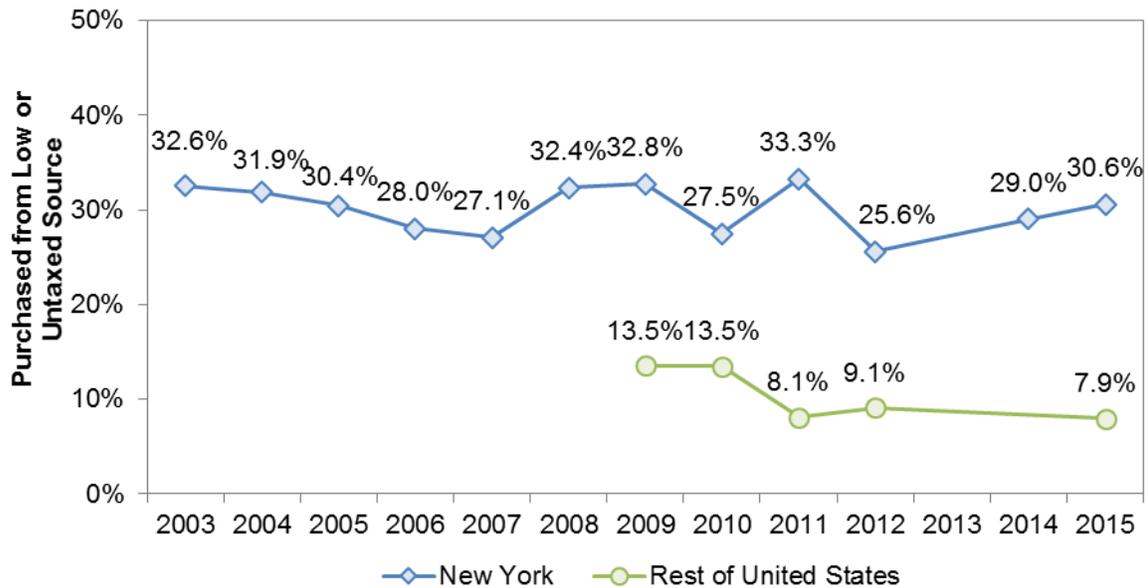
¹ U.S. Department of Health and Human Services. (2006). *The health consequences of involuntary exposure to tobacco smoke: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

8. POLICY



Policy Cigarette Prices and Purchasing Patterns

Percentage of Adult Smokers Who Purchased from an Indian Reservation



The graph above shows the trend in adult smokers who purchased cigarettes from an Indian reservation in the past 12 months in New York between 2003 and 2015 and the rest of the United States between 2009 and 2015. Tax avoidance weakens the public health benefits of higher cigarette prices. States can increase their revenues from tobacco tax increases by reducing evasion of the tobacco tax.^{1,2}

- There is a statistically significant difference between smokers in New York and those in the rest of the United States in 2015.

Measure: Purchases from low or untaxed sources is defined by responding “yes” to “In the past 12 months, have you or a friend or relative purchased cigarettes for your own use [at an Indian reservation]?”

Source: New York Adult Tobacco Survey, 2003–2015; National Adult Tobacco Survey, 2009–2015

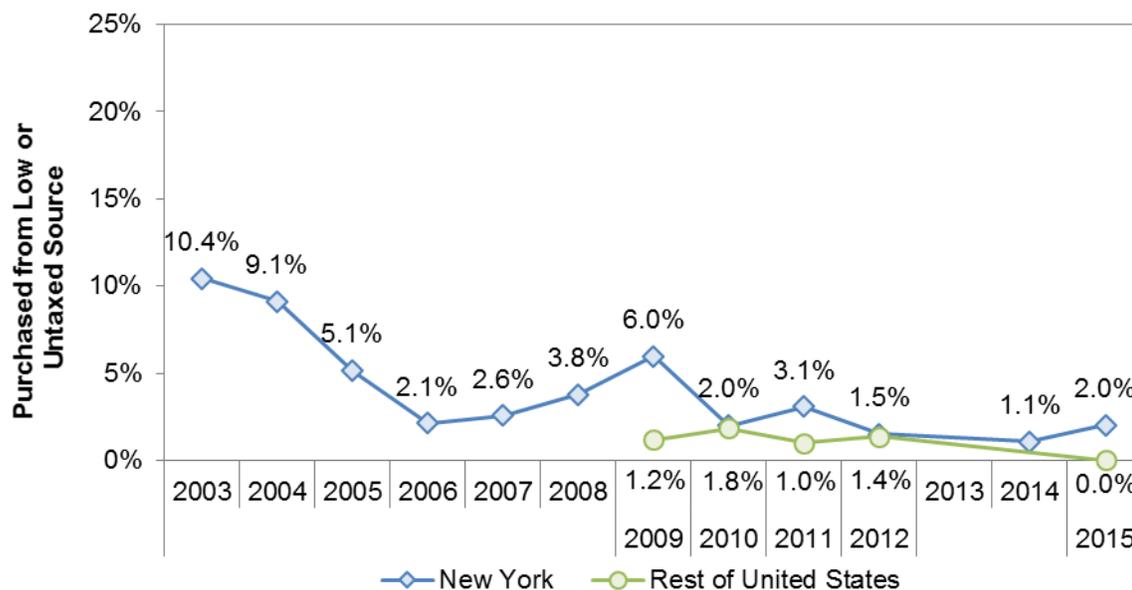
CDC Indicator: Not applicable

¹ Decicca, P., Kenkel, D., & Liu, F. (2013). Excise tax avoidance: The case of state cigarette taxes. *Journal of Health Economics*, 32(6), 1130–1141.

² Farrelly, M. C., Nimsch, C. T., & James, J. (2003, May). *State cigarette excise taxes: Implications for revenue and tax evasion. Final report*. Research Triangle Park, NC: RTI International.

Policy Cigarette Prices and Purchasing Patterns

Percentage of Adult Smokers Who Purchased over the Internet



The graph above shows the trend in adult smokers who purchased cigarettes over the Internet in the past 12 months in New York between 2003 and 2015 and the rest of the United States between 2009 and 2015. Tax avoidance weakens the public health benefits of higher cigarette prices. States can increase their revenues from tobacco tax increases by lessening evasion of the tobacco tax.¹

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

Measure: Purchases from low or untaxed sources is defined by responding “yes” to “In the past 12 months, have you or a friend or relative purchased cigarettes for your own use [from a Web site or on the Internet]?”

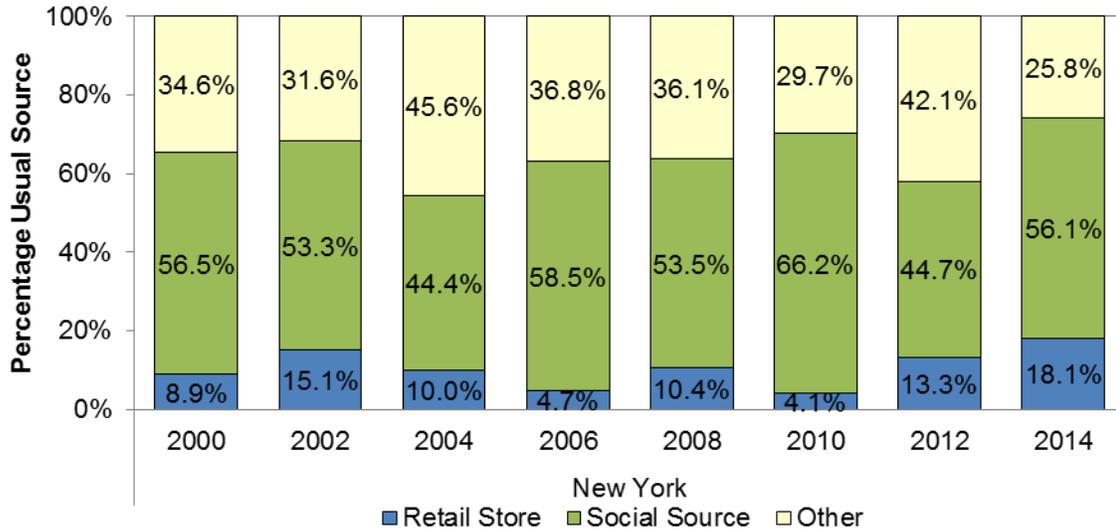
Source: New York Adult Tobacco Survey, 2003–2015; National Adult Tobacco Survey, 2009–2015

CDC Indicator: Not applicable

¹ Farrelly, M. C., Nimsch, C. T., & James, J. (2003, May). *State cigarette excise taxes: Implications for revenue and tax evasion. Final report.* Research Triangle Park, NC: RTI International.

Policy
Cigarette Prices and Purchasing Patterns

Usual Source of Cigarettes for New York Middle School Students



The graph above shows New York middle school students’ usual source for cigarettes between 2000 and 2014. Evidence indicates that the reduction of illegal tobacco sales may be an effective method for reducing tobacco access and use among adolescents.^{1,2}

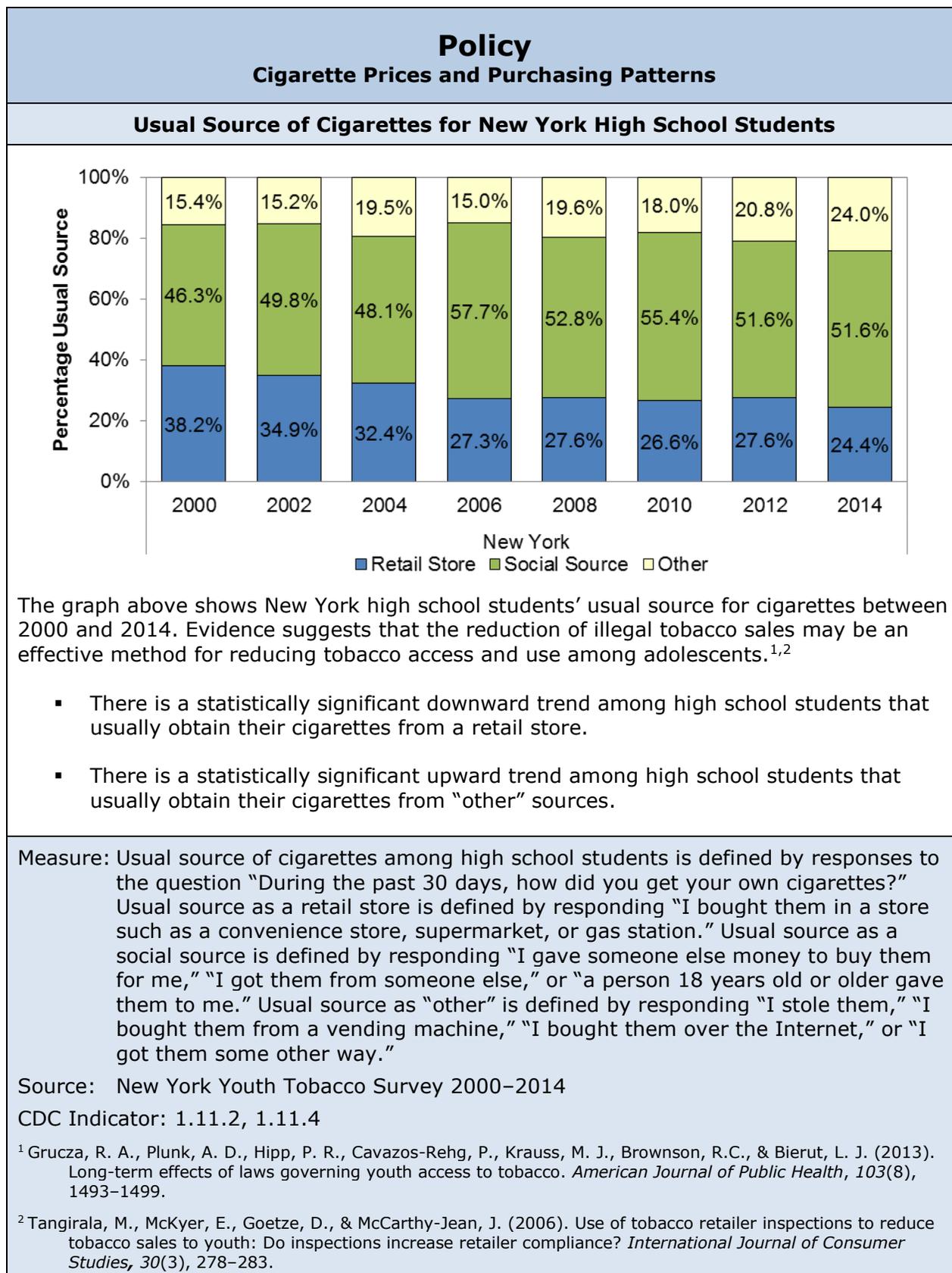
Measure: Usual source of cigarettes among middle school students is defined by responses to the question “During the past 30 days, how did you get your own cigarettes?” Usual source as a retail store is defined by responding “I bought them in a store such as a convenience store, supermarket, or gas station.” Usual source as a social source is defined by responding “I gave someone else money to buy them for me,” “I got them from someone else,” or “a person 18 years old or older gave them to me.” Usual source as “other” is defined by responding “I stole them,” “I bought them over the Internet,” “I bought them from a vending machine,” or “I got them some other way.”

Source: New York Youth Tobacco Survey 2000–2014

CDC Indicator: 1.11.2, 1.11.4

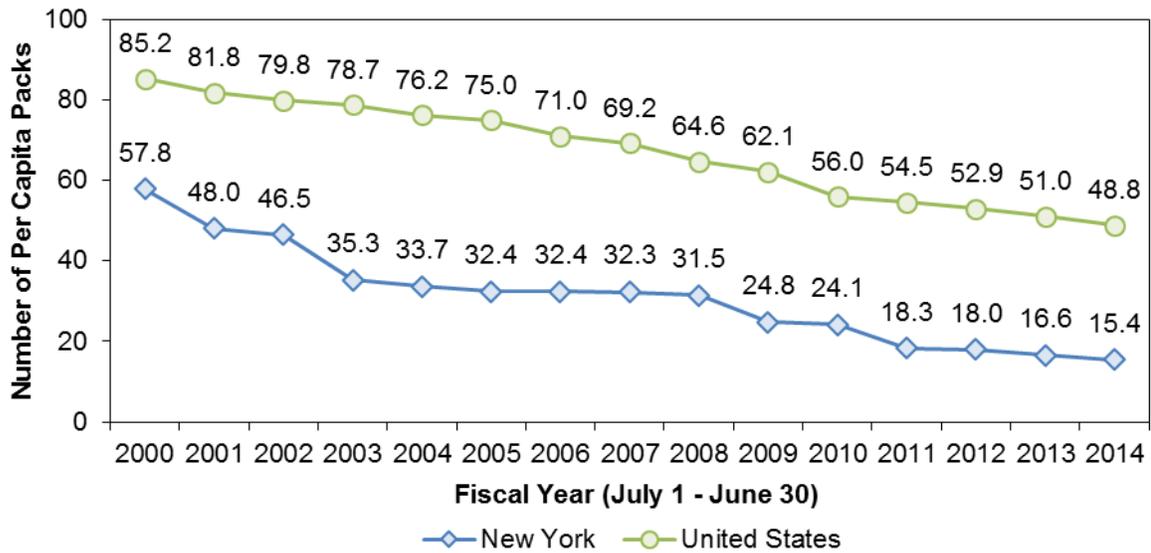
¹ Grucza, R. A., Plunk, A. D., Hipp, P. R., Cavazos-Rehg, P., Krauss, M. J., Brownson, R. C., & Bierut, L. J. (2013). Long-term effects of laws governing youth access to tobacco. *American Journal of Public Health, 103*(8), 1493–1499.

² Tangirala, M., McKyer, E., Goetze, D., & McCarthy-Jean, J. (2006). Use of tobacco retailer inspections to reduce tobacco sales to youth: Do inspections increase retailer compliance? *International Journal of Consumer Studies, 30*(3), 278–283.



Policy Cigarette Prices and Purchasing Patterns

New York Per Capita Sales of Cigarette Packs



The graph above shows the trend in per capita sales of cigarette packs between fiscal years 2000 and 2014 for New York and the United States as a whole. Increasing cigarette prices and taxes can reduce adult consumption and prevent youth initiation.¹⁻³

- There is a statistically significant downward trend in New York.
- There is a statistically significant downward trend across the United States.

Measure: Per capita sales of cigarettes in New York is defined as the number of tax-paid cigarette packs sold divided by the total population as reported by the U.S. Census Bureau. National per capita sales of cigarettes are presented as a population-weighted average.

Source: Tax Burden on Tobacco, 2000–2014

CDC Indicator: 2.8.1

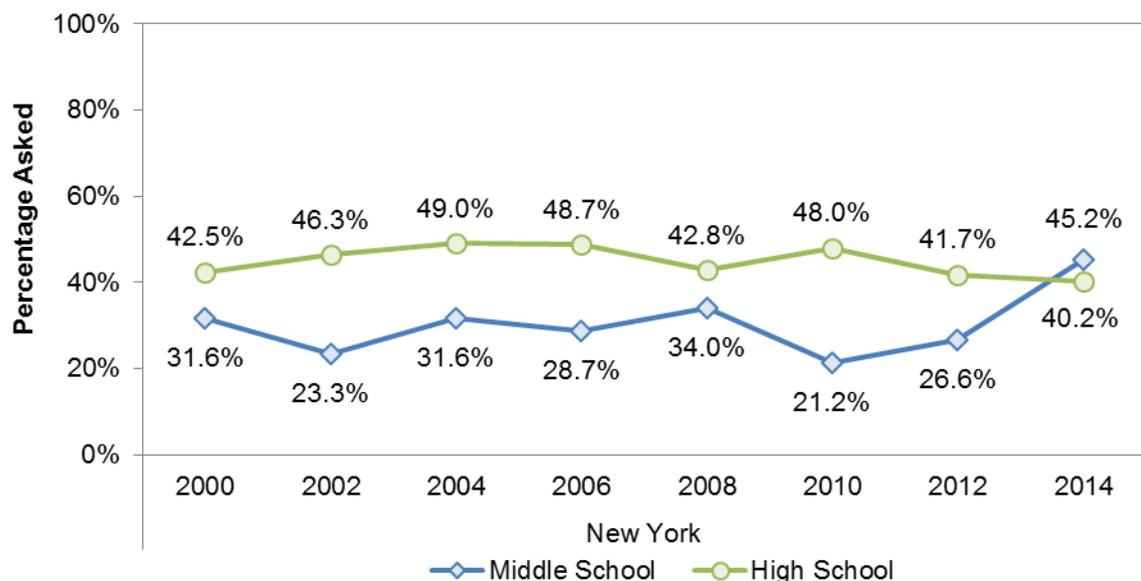
¹ Centers for Disease Control and Prevention. (2010, April 9). State cigarette excise taxes—United States, 2009. *Morbidity and Mortality Weekly*, 59(13), 385–388.

² Chaloupka, F., Yurekli, A., & Fong, G. (2012). Tobacco taxes as a tobacco control strategy. *Tobacco Control*, 21, 172-180.

³ Starr, G., Rogers, T., Schooley, M., Porter, S., Wiesen, E., & Jamison, N. (2005). *Key outcome indicators for evaluating comprehensive tobacco control programs*. Atlanta, GA: Centers for Disease Control and Prevention.

Policy Compliance

Percentage of New York Middle School and High School Students Asked to Show Proof of Age When Purchasing Cigarettes, among All Youth Aged 17 or Younger Who Attempted to Purchase Cigarettes



The graph above shows the trends in New York middle and high school students aged 17 or younger who tried to purchase cigarettes in the past 30 days and were asked to show proof of age when purchasing cigarettes between 2000 and 2014. Enforcing laws aimed at prohibiting the sale of tobacco products to young people has been shown to increase compliance among store clerks and decrease illegal purchases by minors.¹⁻³ The increase in compliance may lead to a small yet significant decline in youth tobacco use.³

Measure: The percentage of all middle school and high school students aged 17 or younger who tried to purchase cigarettes in the past 30 days and were asked to show proof of age when purchasing cigarettes is defined by responding "Yes, I was asked to show proof of age" to the question "When you bought or tried to buy cigarettes in a store during the past 30 days, were you ever asked to show proof of age?"

Source: Youth Tobacco Survey, 2000–2014

CDC Indicator: 1.11.3

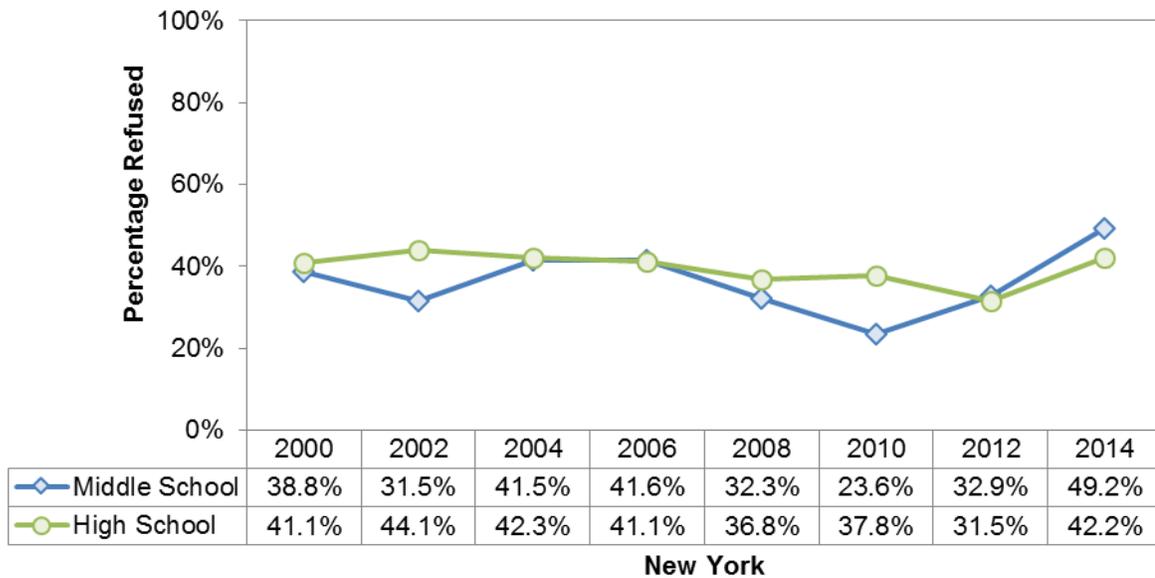
¹ Difranza, J. (2011). Which interventions against the sale of tobacco to minors can be expected to reduce smoking? *Tobacco Control*, 21(4), 436–442.

² Difranza, J., Savageau, J., & Fletcher, K. (2009). Enforcement of underage sales laws as a predictor of daily smoking among adolescents—a national study. *BMC Public Health*, 9, 107.

³ Grucza, R. A., Plunk, A. D., Hipp, P. R., Cavazos-Rehg, P., Krauss, M. J., Brownson, R. C., & Bierut, L. J. (2013). Long-term effects of laws governing youth access to tobacco. *American Journal of Public Health*, 103(8), 1493–1499.

Policy Compliance

Percentage of New York Middle School and High School Students Refused Purchase of Cigarettes due to Age, among All Youth Aged 17 or Younger Who Attempted to Purchase Cigarettes



The graph above shows the trends in New York middle school and high school students aged 17 or younger who tried to purchase cigarettes in the past 30 days and were refused purchase due to age when purchasing cigarettes between 2000 and 2014. Evidence suggests that about 25% of smokers younger than age 18 buy their cigarettes from stores.¹ Further, it has been shown that up to a 20% reduction in the odds of smoking can be attributed to increased merchant compliance with underage tobacco regulations.² Therefore, efforts to further increase compliance have the potential to reduce young people’s access to tobacco products and decrease smoking rates.^{1,2}

Measure: Percentage of all New York middle school and high school students aged 17 or younger who tried to purchase cigarettes in the past 30 days and were refused cigarettes due to age, by year. Refusal due to age is defined by responding “Yes, someone refused to sell me cigarettes because of my age” to the question “During the past 30 days, did anyone ever refuse to sell you cigarettes because of your age?”

Source: Youth Tobacco Survey, 2000–2014

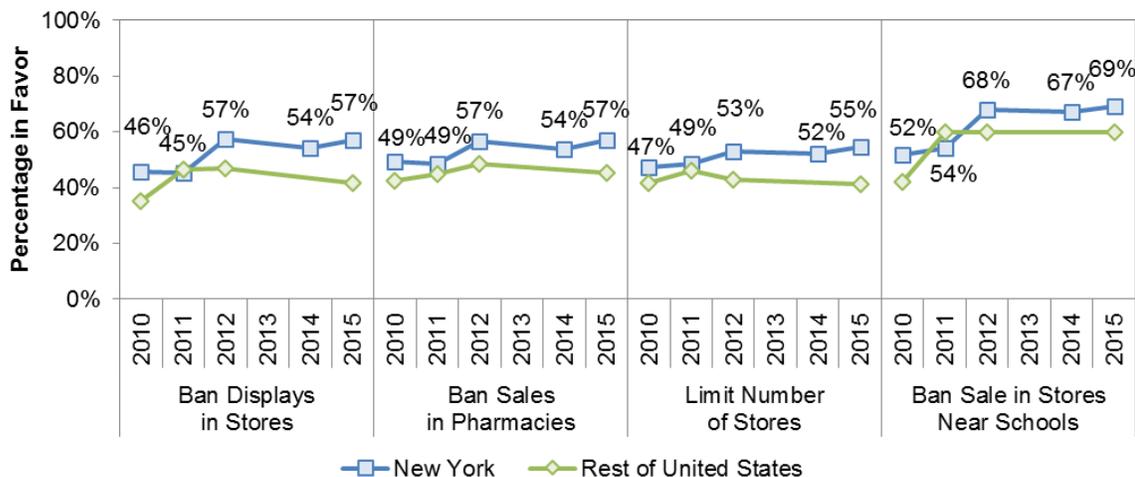
CDC Indicator: 1.11.3

¹ Jones, S. E., Sharp, D. J., Husten, C. G., & Crossett, L. S. (2002). Cigarette acquisition and proof of age among US high school students who smoke. *Tobacco Control, 11*, 20–25.

² Difranza, J., Savageau, J., & Fletcher, K. (2009). Enforcement of underage sales laws as a predictor of daily smoking among adolescents—a national study. *BMC Public Health, 9*, 107.

Policy Point-of-Sale

Percentage of Adults Who Support Point-of-Sale Policies that Ban or Limit the Sale of Tobacco Products



The graph above shows the percentage of adults in New York and the rest of the United States who are in favor of point-of-sale policies that ban or limit the sale of tobacco products. Young people are susceptible to even brief exposure to pro-tobacco marketing, and a large portion of tobacco industry marketing entices adolescents to smoke.¹ Evidence suggests that only comprehensive bans on tobacco advertising and promotion reduce tobacco use.¹

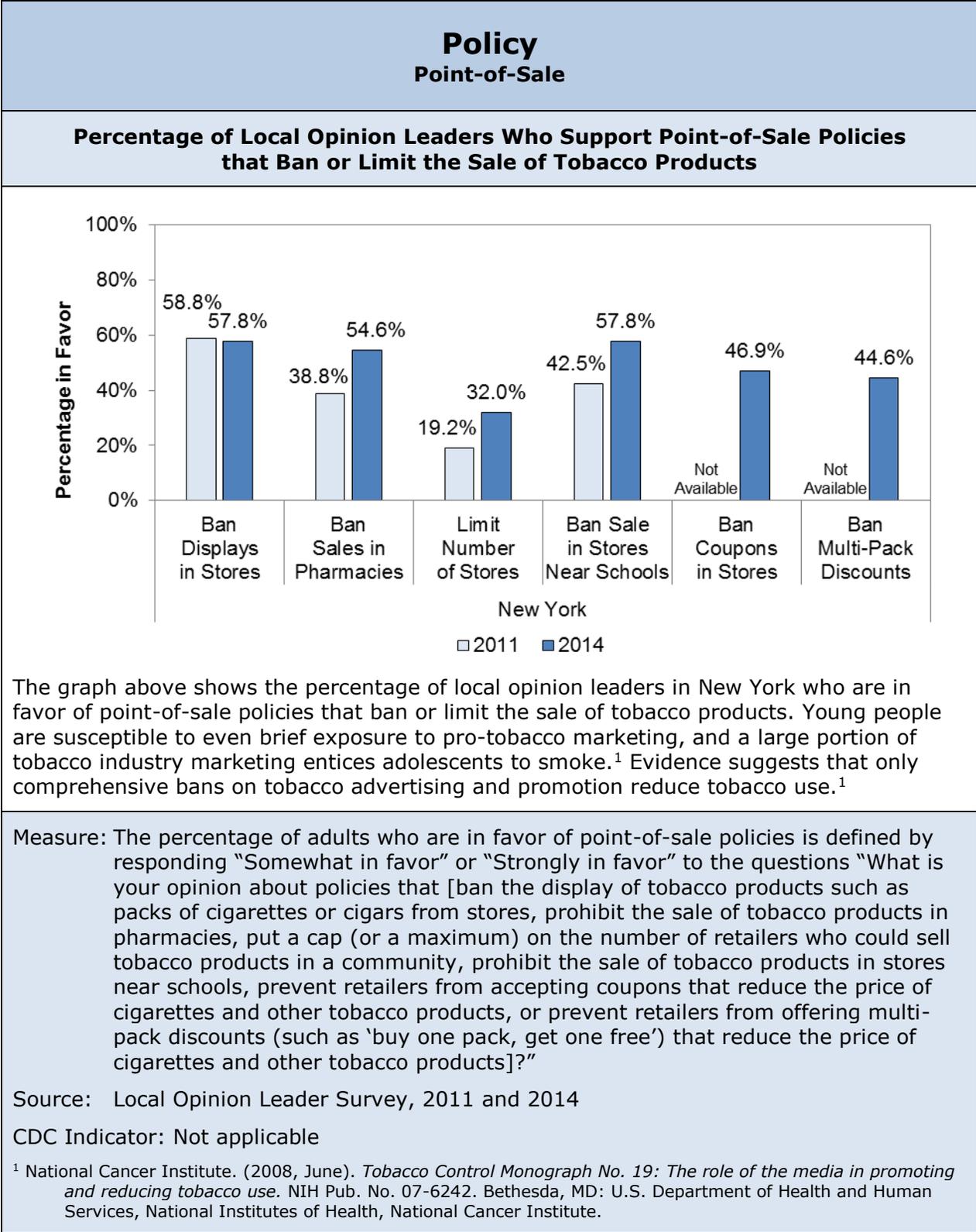
- There is a statistically significant upward trend in support for all four policies among New Yorkers.
- There is a statistically significant upward trend in support for policies that ban sales in stores near schools among adults in the rest of the United States.
- There is a statistically significant difference between support for policies in New York and the rest of the United States in 2015 for all four policies.

Measure: The percentage of adults who are in favor of point-of-sale policies is defined by responding “Somewhat in favor” or “Strongly in favor” to the questions “What is your opinion about policies that [ban the display of tobacco products such as packs of cigarettes or cigars from stores, ban the sale of all tobacco products in pharmacies, limit the number of stores that sell tobacco in your community, or ban the sale of tobacco products in stores that are located near schools]?”

Source: New York Adult Tobacco Survey, 2010–2015; National Adult Tobacco Survey, 2010–2015

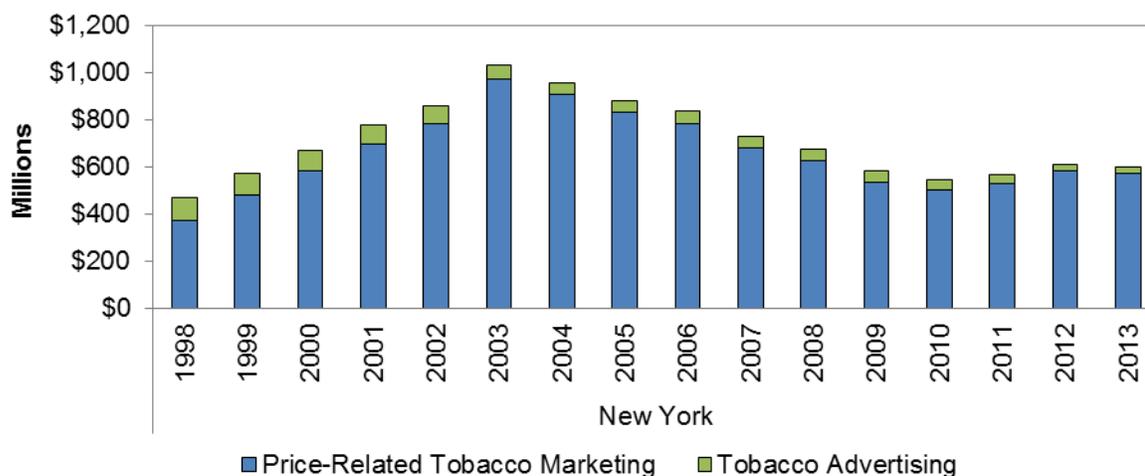
CDC Indicator: Not applicable

¹ National Cancer Institute. (2008, June). *Tobacco Control Monograph No. 19: The role of the media in promoting and reducing tobacco use*. NIH Pub. No. 07-6242. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute.



Policy Point-of-Sale

Tobacco Industry Marketing Expenditures in New York



The graph above shows estimated tobacco industry marketing expenditures in New York by type and year from 1998 to 2013. In the United States, price discounts paid to cigarette retailers or wholesalers to reduce the price paid by consumers made up 85.4% of cigarette manufacturers' marketing expenditures in 2013. Retail stores are the principal means of communication with smokers and potential smokers, and ads endorsing smoking influence all customers regardless of their smoking status.¹ Higher levels of advertising, lower cigarette prices, and greater availability of cigarette promotions are all associated with the uptake of smoking cigarettes.²

- There is a statistically significant downward trend among price-related tobacco marketing and tobacco advertising from 2003 to 2013.

Measure: Tobacco industry marketing expenditures in New York, by type and year. Tobacco industry marketing expenditures is defined by multiplying cigarette and smokeless tobacco price-related marketing and advertising by the percentage of the adult population living in New York State. Price-related marketing includes promotional allowances, price discounts, retail value added, coupons, and specialty item distribution. Advertising includes outdoor, point-of-sale, magazine, newspaper, transit, Internet, and all other advertising. Advertising also includes public entertainment support, direct mailings, and free sample distribution.

Source: Federal Trade Commission, 1998–2013; U.S. Census Bureau Adult Population Estimates 1998–2013

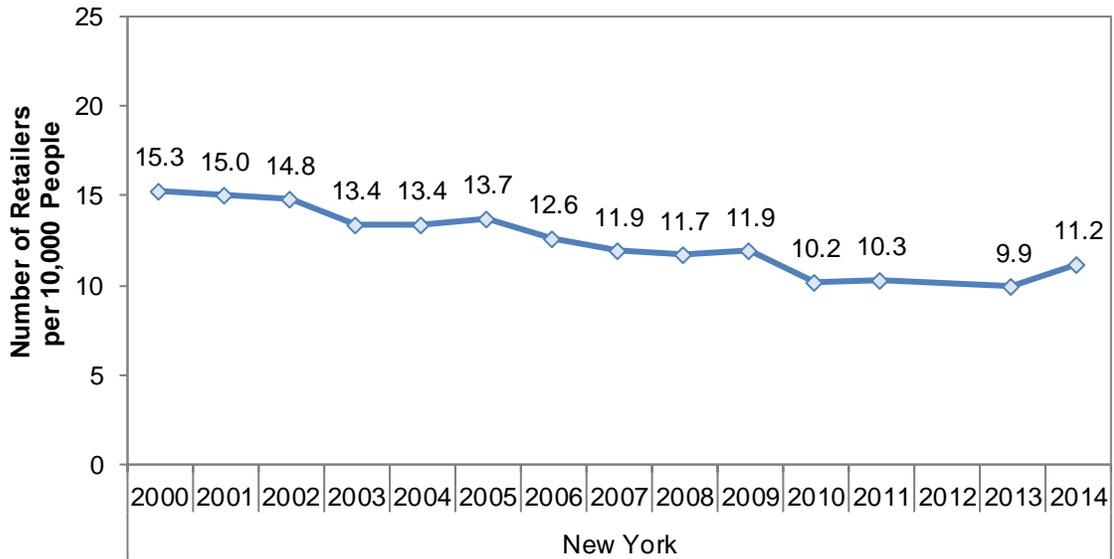
CDC Indicator: Not applicable

¹ Feighery, E. C., Ribisl, K. M., Clark, P. I., & Haladjian, H. H. (2003). How tobacco companies ensure prime placement of their advertising and products in stores: Interviews with retailers about tobacco company incentive programmes. *Tobacco Control, 12*(2), 184–188.

² Slater, S., Chaloupka, F., Wakefield, M., Johnston, L., & O'Malley, P. (2007). The impact of retail cigarette marketing practices on youth smoking uptake. *Archives of Pediatrics & Adolescent Medicine, 161*(5), 440–440.

**Policy
Point-of-Sale**

Number of Licensed Tobacco Retailers in New York per 10,000 People



The graph above presents the number of licensed tobacco retailers in New York per 10,000 people between 2000 and 2014. Evidence suggests that adolescent smoking increases with the density of licensed tobacco retailers.¹

- There is a statistically significant downward trend.

Measure: The number of retailers in New York per 10,000 people is defined by calculating the number of retailers divided by the total population. Of note, licensed tobacco retailers with P.O. Box facility addresses are excluded.

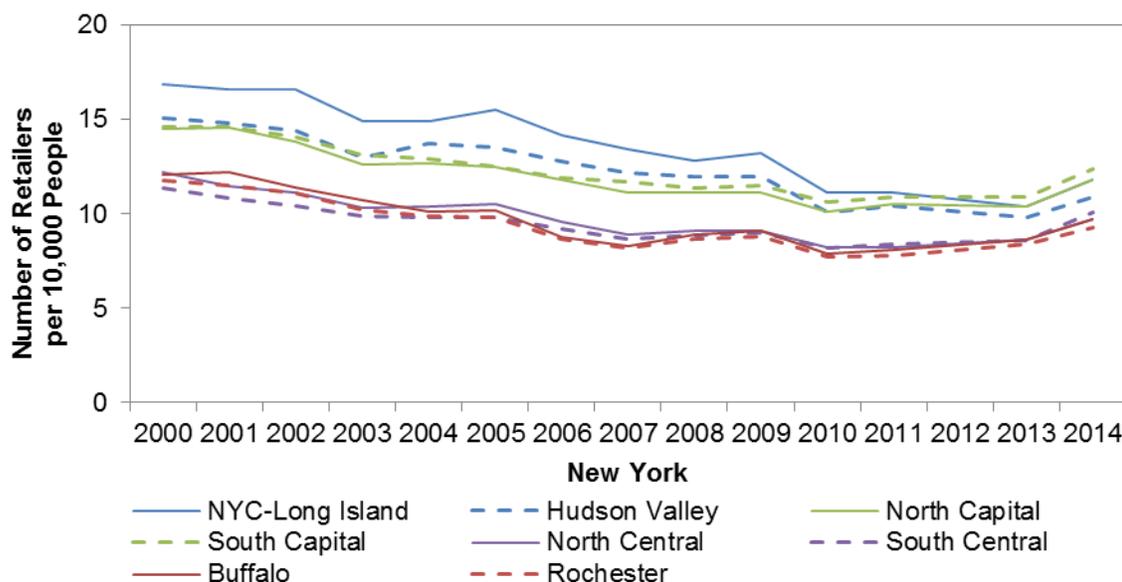
Source: Licensed Tobacco Retailers, 2000–2014; Census 2000–2014

CDC Indicator: Not applicable

¹ Novak, S. P., Reardon, S. F., Raudenbush, S. W., & Buka, S. L. (2006). Retail tobacco outlet density and youth cigarette smoking: A propensity-modeling approach. *American Journal of Public Health, 96*, 670–676.

Policy Point-of-Sale

Number of Licensed Tobacco Retailers in New York per 10,000 People by Geographic Area



Note: The series presented above treats the annual estimates as continuous; however, the 2012 estimates are not available. The trend analysis accounts for the 1-year absence between 2011 and 2013.

The graph above presents the number of licensed tobacco retailers in New York per 10,000 people by area and year from 2000 to 2014. Evidence suggests that adolescent smoking increases with the density of licensed tobacco retailers.¹

- There is a statistically significant downward trend across all areas.

Measure: Number of licensed tobacco retailers in New York per 10,000 people, by area and year. The number of retailers per 10,000 people is defined by calculating the number of retailers in eight New York areas divided by the total population for each area. Of note, licensed tobacco retailers with P.O. Box facility addresses are excluded.

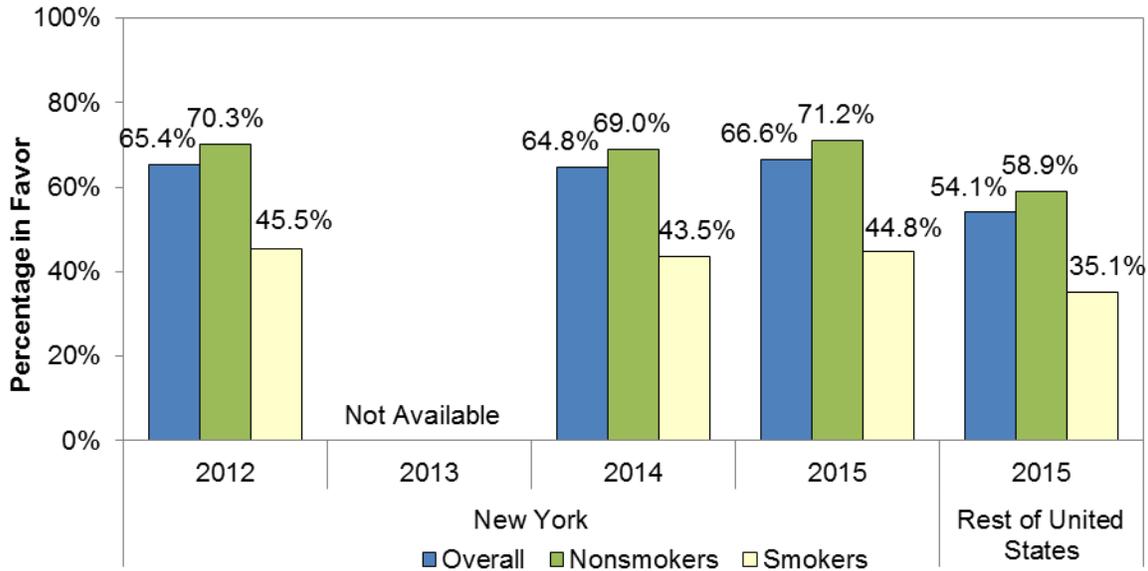
Source: Licensed Tobacco Retailers, 2000–2014; Census 2000–2014

CDC Indicator: Not applicable

¹ Novak, S. P., Reardon, S. F., Raudenbush, S. W., & Buka, S. L. (2006). Retail tobacco outlet density and youth cigarette smoking: A propensity-modeling approach. *American Journal of Public Health, 96*, 670–676.

Policy Smoke-free Spaces

Percentage of Adults Who Support a Ban on Smoking in Outdoor Public Spaces



The graph above shows support for a ban on smoking in outdoor public spaces between 2012 and 2015. Smoke-free policies require support from the public, business leaders, and policy makers.^{1,2} Support for smoke-free policies increase when people understand their rationale and experience the benefits.³

- There is a statistically significant difference overall, among smokers, and among nonsmokers in New York and those in the rest of the United States in 2015.

Measure: The percentage of adults who support a ban on smoking in outdoor public spaces is defined by responding “Somewhat in favor” or “Strongly in favor” to “What is your opinion about policies that ban smoking in outdoor public places such as beaches or parks?”

Source: New York Adult Tobacco Survey, 2012–2015; National Adult Tobacco Survey, 2015

CDC Indicator: 2.3.7

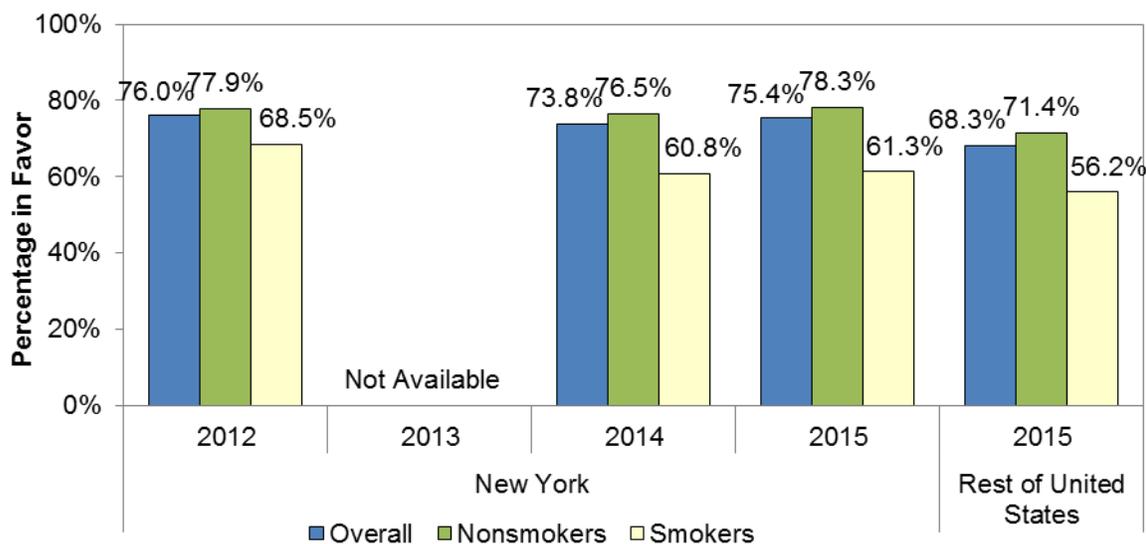
¹ U.S. Department of Health and Human Services. (2000). *Reducing tobacco use: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Available at: http://www.cdc.gov/tobacco/data_statistics/sgr/2000/complete_report/pdfs/fullreport.pdf

² Thomson, G. W., & Wilson, N. (2004). Public attitudes about tobacco smoke in workplaces: The importance of workers’ rights in survey questions [letter]. *Tobacco Control*, 13(2), 206–217.

³ Hyland, A., Higbee, C., Borland, R., Travers, M., Hastings, G., Fong, G., & Cummings, K. (2009). Attitudes and beliefs about secondhand smoke and smoke-free policies in four countries: Findings from the International Tobacco Control Four Country Survey. *Nicotine & Tobacco Research*, 11(6), 642–649.

Policy Smoke-free Spaces

Percentage of Adults Who Support a Ban on Smoking in Building Entranceways



The graph above shows support for a ban on smoking in entrances of public buildings and workplaces between 2012 and 2015. Smoke-free policies require support from the public as well as business leaders and policy makers.^{1, 2} Support for smoke-free policies increase when people understand their rationale and experience the benefits.³

- There is a statistically significant downward trend among smokers in New York.
- There is a statistically significant difference overall and among nonsmokers in New York and those in the rest of the United States in 2015.

Measure: The percentage of adults who support a ban on smoking in building entrances is defined by responding “Somewhat in favor” or “Strongly in favor” to “What is your opinion about policies that ban smoking in entrances of public buildings and workplaces?”

Source: New York Adult Tobacco Survey, 2012–2015; National Adult Tobacco Survey, 2015

CDC Indicator: 2.3.7

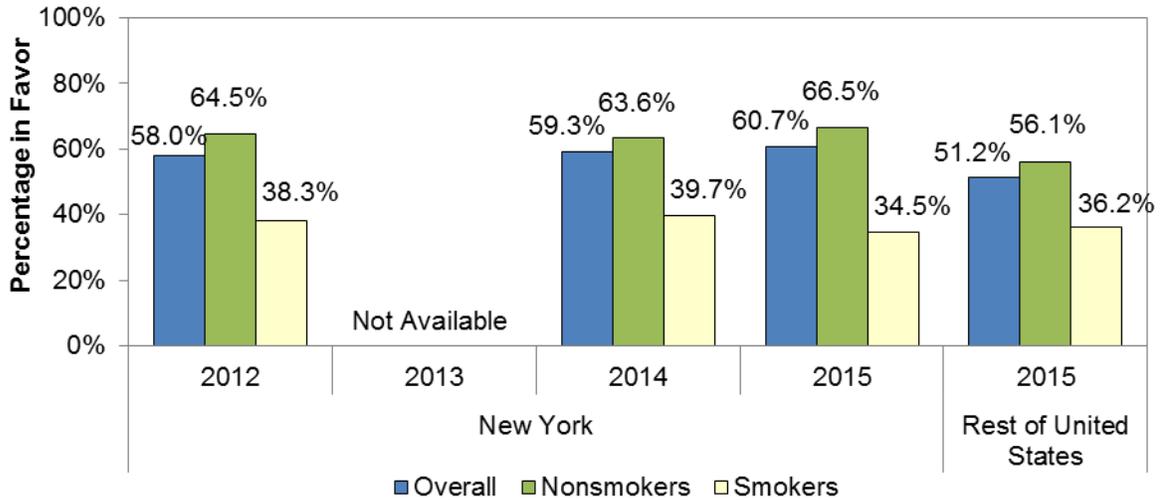
¹ U.S. Department of Health and Human Services. (2000). *Reducing tobacco use: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Available at: http://www.cdc.gov/tobacco/data_statistics/sgr/2000/complete_report/pdfs/fullreport.pdf

² Thomson, G. W., & Wilson, N. (2004). Public attitudes about tobacco smoke in workplaces: The importance of workers’ rights in survey questions [letter]. *Tobacco Control*, 13(2), 206–217.

³ Hyland, A., Higbee, C., Borland, R., Travers, M., Hastings, G., Fong, G., & Cummings, K. (2009). Attitudes and beliefs about secondhand smoke and smoke-free policies in four countries: Findings from the International Tobacco Control Four Country Survey. *Nicotine & Tobacco Research*, 11(6), 642–649.

Policy Smoke-free Spaces

Percentage of Adults Who Support a Residential Building Smoking Ban among Those Living in Multi-Unit Housing



The graph above shows support for a residential building smoking ban among those living in multi-unit housing in New York between 2012 and 2015 and the rest of the United States in 2015. National and international studies provide evidence that smoke-free legislation will be supported by the public.^{1,2} Media advocacy has been shown to increase support for antitobacco policies and correlate with subsequent passage of those policies.³

- There is a statistically significant difference between New York adults and those in the rest of the United States in 2015, overall and among nonsmokers.

Measure: Percentage of adults who support a residential building smoking ban among those living in a multi-unit dwelling, by location and smoking status. Among those living in a multi-unit dwelling, support for a residential smoking ban is defined by responding "Somewhat in favor" or "Strongly in favor" to the question "What is your opinion about policies that ban smoking in apartment buildings, condominiums, and other multi-unit complexes, including indoor areas, private balconies and patios?"

Source: New York Adult Tobacco Survey, 2012–2015; National Adult Tobacco Survey, 2015

CDC Indicator: Not applicable

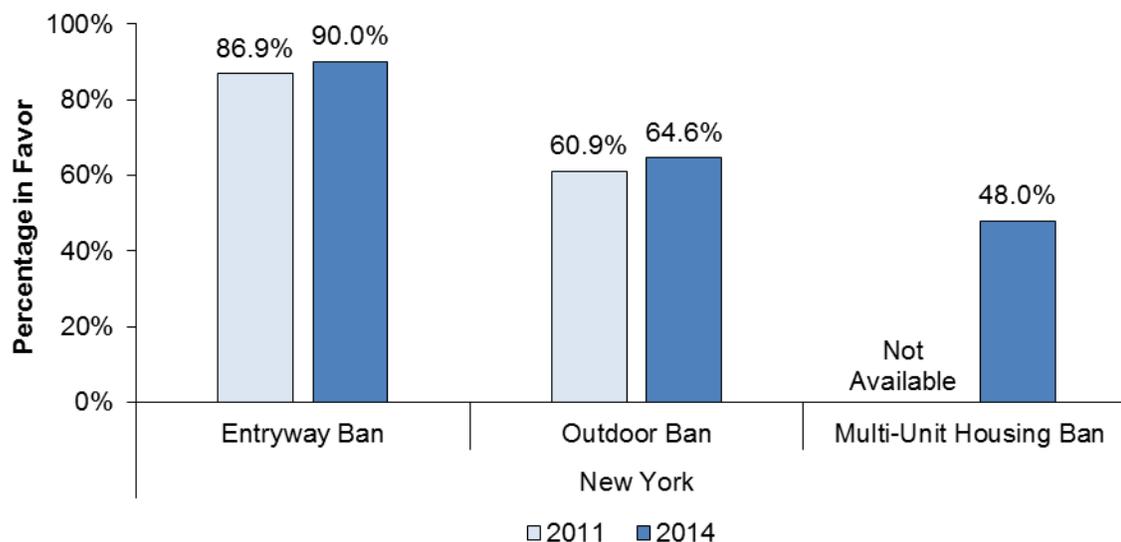
¹ New York State Department of Health (2006). *The health and economic impact of New York's Clean Indoor Air Act*. New York, NY: New York State Department of Health.

² Fong, G. T., Hyland, A., Borland, R., Hammond, D., Hastings, G., McNeill, A., et al. (2006). Reductions in tobacco smoke pollution and increases in support for smoke-free public places following the implementation of comprehensive smoke-free workplace legislation in the Republic of Ireland: Findings from the ITC Ireland/UK survey. *Tobacco Control*, 15(Suppl III), iii51–iii58.

³ Niederdeppe, J., Farrelly, M., & Wenter, D. (2007). Media advocacy, tobacco control policy change and teen smoking in Florida. *Tobacco Control*, 16(1), 47–52.

Policy Smoke-free Spaces

Percentage of Local Opinion Leaders in New York Who Support a Ban on Smoking in Building Entraceways, Outdoor Public Spaces, or Multi-Unit Housing



The graph above shows support for a ban on smoking in entranceways of public buildings and workplaces, outdoor public spaces, and multi-unit housing in 2012 and 2014. Smoke-free policies require support from the public, business leaders, and policy makers.^{1, 2} Support for smoke-free policies increases when people understand their rationale and experience the benefits.³

Measure: The percentage of local opinion leaders who support a ban is defined by responding "Somewhat in favor" or "Strongly in favor" to "What is your opinion of a policy that prohibits (or would prohibit) smoking in the entranceways of public buildings and workplaces?," "What is your opinion of a policy that prohibits (or would prohibit) smoking in outdoor public places such as beaches and parks?," and "What is your opinion of a policy that would require apartment or condo buildings to ban smoking inside of residences?"

Source: Local Opinion Leader Survey, 2011 and 2014

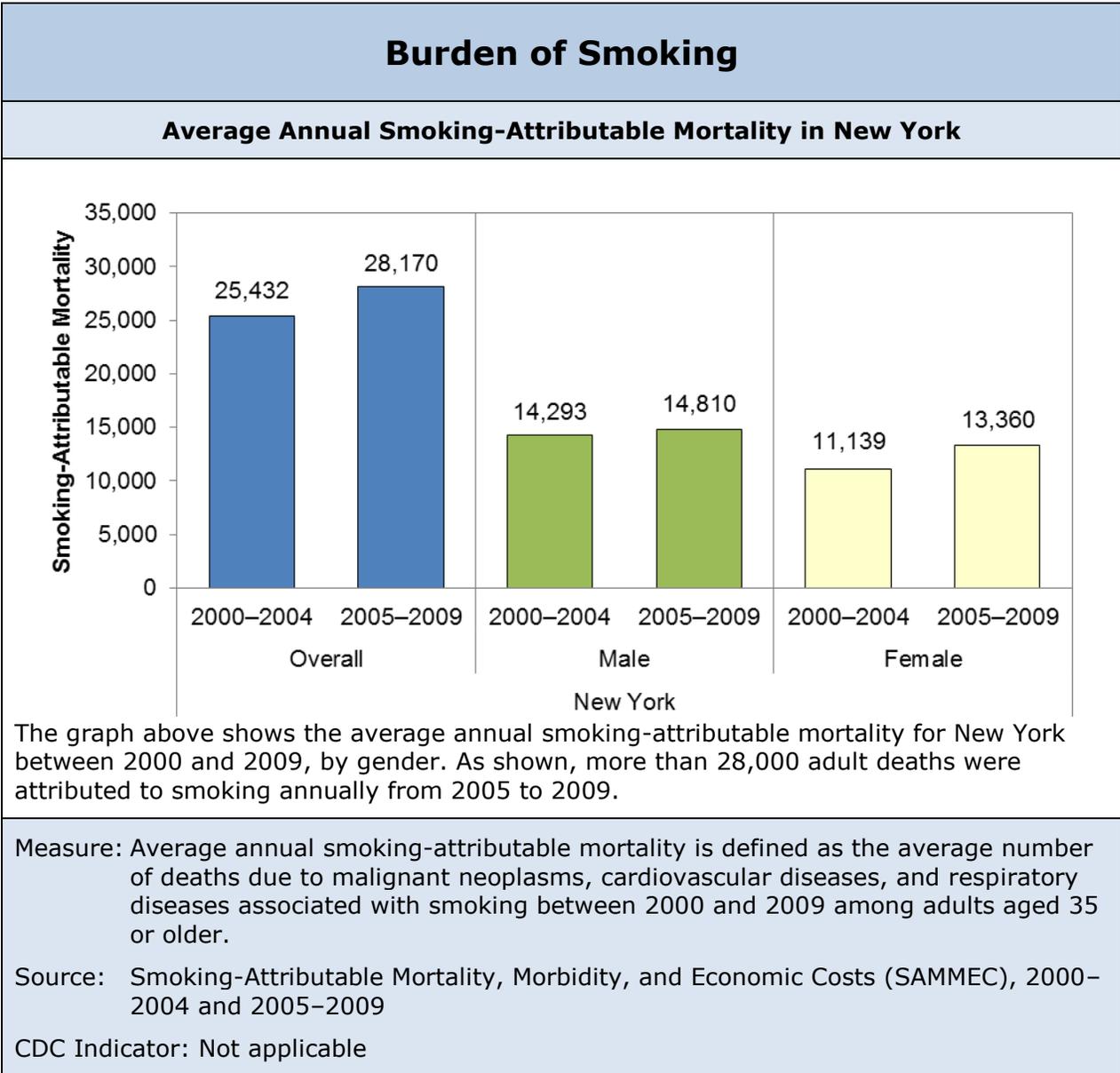
CDC Indicator: 2.3.7

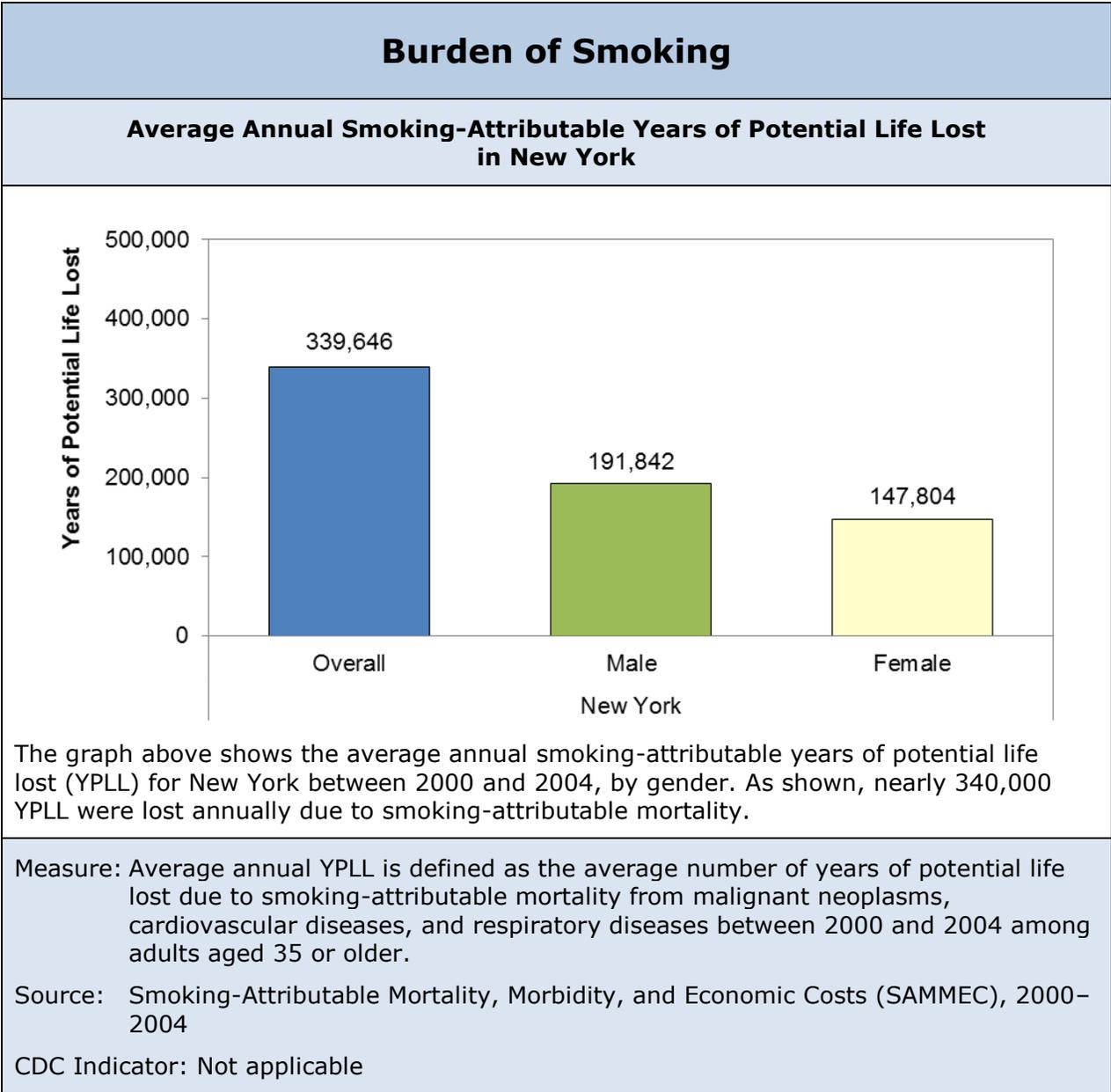
¹ U.S. Department of Health and Human Services. (2000). *Reducing tobacco use: A report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Available at: http://www.cdc.gov/tobacco/data_statistics/sgr/2000/complete_report/index.htm

² Thomson, G. W., & Wilson, N. (2004). Public attitudes about tobacco smoke in workplaces: The importance of workers' rights in survey questions [letter]. *Tobacco Control*, 13(2), 206–217.

³ Hyland, A., Higbee, C., Borland, R., Travers, M., Hastings, G., Fong, G., & Cummings, K. (2009). Attitudes and beliefs about secondhand smoke and smoke-free policies in four countries: Findings from the International Tobacco Control Four Country Survey. *Nicotine & Tobacco Research*, 11(6), 642–649.

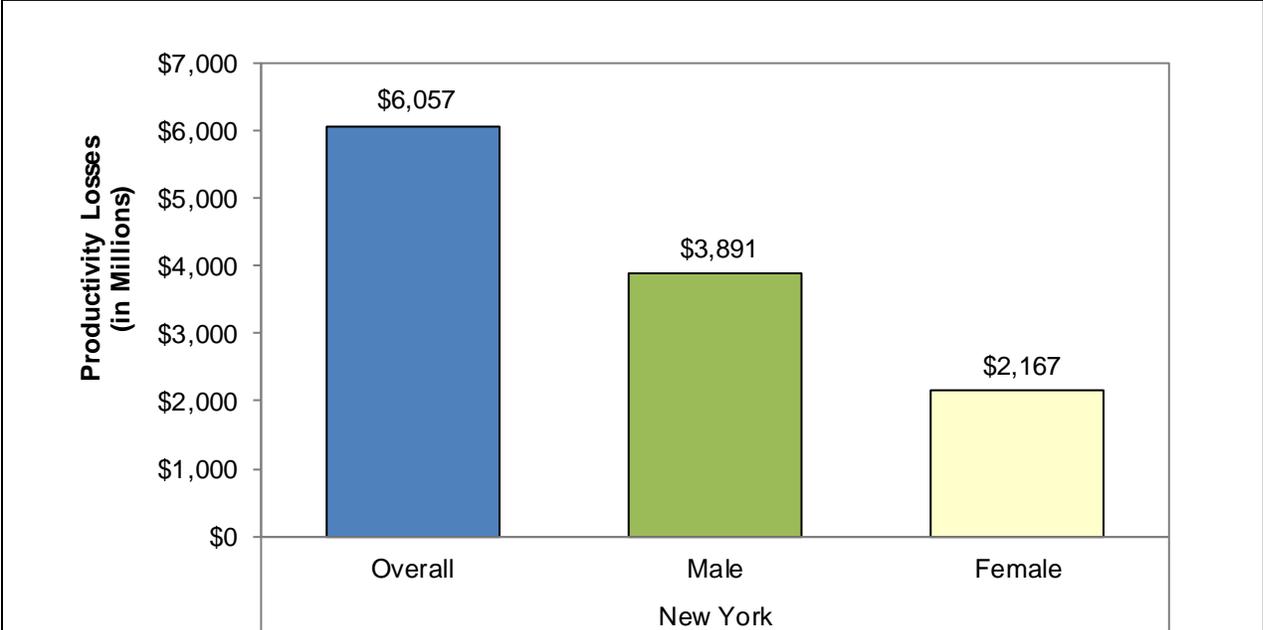
9. BURDEN OF SMOKING





Burden of Smoking

Average Annual Smoking-Attributable Productivity Losses in New York



The graph above shows the average annual smoking-attributable productivity losses for New York between 2000 and 2004, by gender. As shown, productivity losses due to smoking-attributable morbidity and mortality totaled more than \$6 billion annually.

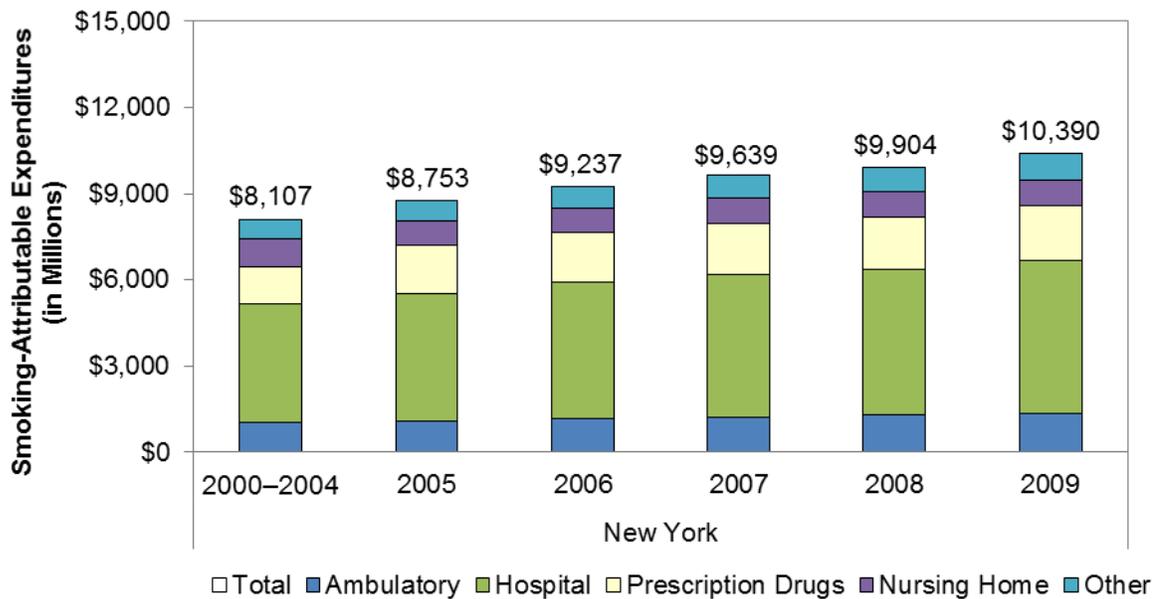
Measure: Average annual productivity loss is defined as the present value of foregone future earnings from paid labor and of foregone future imputed earnings from unpaid household work associated with smoking-attributable morbidity and mortality from malignant neoplasms, cardiovascular diseases, and respiratory diseases between 2000 and 2004 among adults aged 35 or older.

Source: Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC), 2000–2004

CDC Indicator: Not applicable

Burden of Smoking

Smoking-Attributable Expenditure on Personal Health Care in New York



The graph above shows total health care expenditures on ambulatory services, hospital services, prescription drugs, nursing homes, and other categories due to smoking-attributable causes in New York from 2004 to 2009.

- Statistically significant upward trend in smoking-attributable expenditures overall and by source among ambulatory, hospital, prescription drugs, and other sources.

Measure: Health care expenditures are defined among ambulatory, hospital, prescription drugs, nursing homes, and other categories expenditures attributed to smoking, among adults aged 18 or older.

Source: Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC), 2000-2004 and 2005-2009

CDC Indicator: Not applicable