

YOUTH PREVENTION AND ADULT SMOKING IN NEW YORK



NEW YORK STATE
DEPARTMENT OF HEALTH
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This brief report presents data from the New York Youth Tobacco Survey (NY YTS) and the New York Behavioral Risk Factor Surveillance System (BRFSS) to examine the impact of youth prevention on adult smoking. The report begins with a brief overview of the New York Tobacco Control Program (NY TCP) and its strategies for tobacco prevention and cessation. Next, data on current cigarette use are presented to assess progress in reducing youth and adult smoking prevalence. To understand the role of youth prevention and adult cessation in reducing smoking prevalence and to put the impact of youth prevention on adult smoking into perspective, the report presents measures of cessation and smoking initiation followed by a brief discussion of the relative impact of each.

Key findings include the following:

- Between 2000 and 2010, current cigarette smoking declined from 10.2% to 3.2% among middle school students in New York and from 27.1% to 12.6% among high school students.
- Overall, between 2000 and 2009, current cigarette use among adults in New York significantly declined from 21.6% to 18.0%. Among young adults, current cigarette use declined from 33.0% to 23.1% over that same period.
- The prevalence of former established smokers, an indicator for the role of smoking cessation, has remained unchanged since 2000, with the exception of 25- to 34-year-olds. The prevalence of adults who have not smoked 100 cigarettes in their lifetime, an indicator for the role of prevention, significantly increased. This is an indication that the observed reduction in current cigarette use among young adults is driven by prevention efforts.
- Approximately 35% of the total decline in adult current cigarette use in New York is attributable to the decrease in smoking among young adults.

The New York Tobacco Control Program and Its Role in Tobacco Prevention and Cessation

NY TCP's overall approach to tobacco control is built on the social norm change model, which hypothesizes that reductions in tobacco use are achieved by creating a social environment and legal climate in which tobacco becomes less desirable, less acceptable, and less accessible (NCI, 1991; USDHHS, 2000). The Program's mission is to reduce tobacco-related morbidity and mortality and the social and economic burden caused by tobacco use, with a long-term vision of creating a tobacco-free New York. To accomplish these goals, NY TCP employs three key evidence-based strategies: statewide and community action, health communication, and cessation interventions. These strategies are supported by administration, training and technical assistance, and surveillance and evaluation.

- **Statewide and Community Action.** NY TCP funds organizations across the state to work in five modalities: Community Partnerships for Tobacco Control, Reality Check contractors, Healthy Schools NY contractors, Cessation Centers, and Colleges for Change contractors. These community contractors conduct three types of activities (or strategies):
 - use paid and earned media to raise awareness and educate the community and key community members about the tobacco problem and tobacco control policies;
 - educate government policy makers about the tobacco problem to build support for tobacco control policies; and

- advocate with organizational decision makers, such as tobacco retailers, health care organizations, school boards, and community organizations, for policy changes and resolutions.
- **Health Communication.** NY TCP invests in paid advertising on television, radio, print, Internet, and other venues to motivate tobacco users to stop using tobacco, promote smoke-free homes, deglamorize tobacco use, and educate community members and decision makers about tobacco control. Paid advertising is also the key driver of calls to the New York State Smokers' Quitline. NY TCP employs other strategies, such as public relations and media advocacy, to increase coverage and discussion of tobacco control issues and events in the news media.
- **Cessation Interventions.** To promote cessation, NY TCP takes a multistrategy, evidence-based approach that includes health systems change, telephone-based smoking cessation counseling, and health communication. Health systems change approaches include updating health care provider reminder systems to ensure that patients are asked about tobacco use and provided assistance,

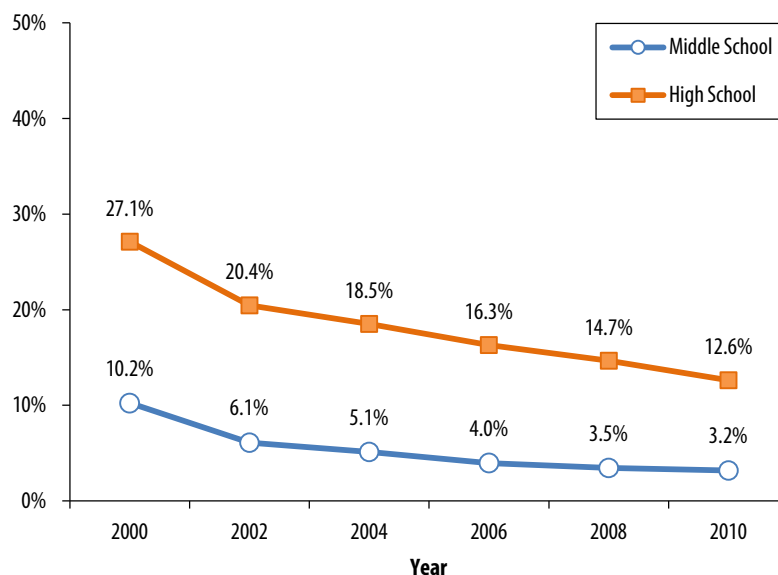
expanding Medicaid support for smoking cessation, and encouraging private health plans to expand tobacco cessation coverage. The New York State Smokers' Quitline provides tobacco cessation counseling and access to nicotine replacement therapy and serves as an information clearinghouse for cessation.

In addition to employing evidence-based tobacco control program strategies, effective statewide policy interventions are also in place. In particular, New York's state cigarette excise tax has increased from \$1.11 in 2000 to \$4.35 in 2010. Increasing cigarette excise taxes, which increases the unit price of tobacco products, is an effective intervention to reduce tobacco use initiation and increase tobacco use cessation as outlined in the *Guide to Community Preventive Services* (TFCPS, 2005). In addition, the statewide Clean Indoor Air Act went into effect in 2003, which prohibits smoking in all work and public places, including bars and restaurants. In addition to being effective in reducing exposure to second-hand smoke, there is evidence that smoke-free policies are effective in reducing tobacco use among workers (TFCPS, 2010).

Current Cigarette Use among Students

To examine progress that has been made in reducing youth smoking prevalence, Figure 1 presents trends in current cigarette use among middle school and high school students in New York. Between 2000 and 2010, cigarette use significantly declined from 10.2% to 3.2% among middle school students and from 27.1% to 12.6% among high school students. By 2010, there were approximately 58,340 fewer smokers among middle school students and 110,345 fewer smokers among high school students compared with 2000.

Figure 1. Current Cigarette Use among Middle and High School Students, New York State, 2000–2010 NY YTS



Current Cigarette Use among Adults

To examine progress that has been made in reducing adult smoking prevalence, Figure 2 presents trends in current cigarette use among all adults and young adults (adults aged 18 to 24) in New York. Between 2000 and 2009, current cigarette use among all adults significantly declined from 21.6% to 18.0%. Similarly, between 2000 and 2009, current cigarette use among young adults significantly declined from 33.0% to 23.1%.

NY TCP was established in 2000. At that time, the young adult population had yet to benefit from the Program's tobacco prevention strategies or from the implementation of effective policy interventions. By 2008, all of the young adult population fully benefited from the Program's tobacco prevention strategies and the implementation of effective policy interventions.

Figure 2. Current Cigarette Use among All Adults and Young Adults in New York, 2000–2009 BRFSS

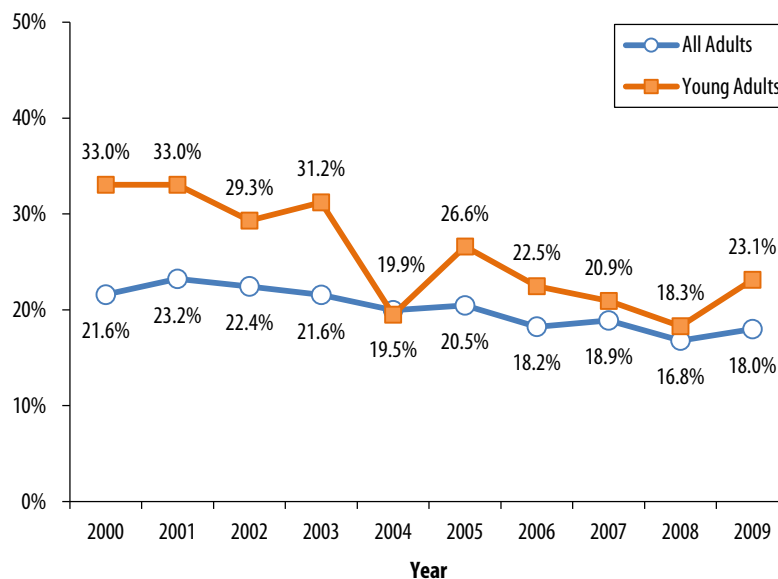


Table 1 presents estimates of current cigarette use among adults and changes in the number of adult smokers overall and by age group. Overall, as a result of the decline in current cigarette use among adults that occurred between 2000 and 2009, there were 398,898 fewer adult smokers in New York in 2009. Looking at estimates by age group, there were significant declines among 18- to 24-year-olds (140,487 fewer smokers), 25- to 34-year-olds (196,706 fewer smokers), and 35- to 44-year-olds (269,223 fewer smokers).

Table 1. Estimated Number of Adult Smokers Overall and by Age Group, 2000 and 2009 BRFSS

Age Group	2000 Current Cigarette Use (%)	Number of Smokers in 2000	2009 Current Cigarette Use (%)	Number of Smokers in 2009	2000–2009 Difference in Current Smoking Population
All adults	21.6	3,134,077	18.0	2,735,179	-398,898
18–24	33.0	584,905	23.1	444,418	-140,487
25–34	27.1	745,060	20.7	548,354	-196,706
35–44	26.8	823,244	20.5	554,022	-269,223
45–54	19.5	501,208	21.1	621,006	119,799
55–64	14.7	249,165	15.7	357,799	108,633
65 or older	9.4	230,495	8.0	209,580	-20,915

Note: Census population estimates were used to derive estimates of the number of adult smokers in 2000 and 2009 (Census, 2010).

Declines in Adult Cigarette Use: A Look at Cessation and Prevention

Two factors may explain declines in current cigarette use. First, tobacco control strategies and policies have prompted adult smokers to quit smoking (cessation). Second, tobacco control strategies and policies have prevented people from starting to smoke (prevention).

To examine the role of cessation in explaining declines in adult current cigarette use, Figure 3 presents the prevalence of former established smokers among adults in New York for 2000 and 2009. Adults were considered to be former established smokers if they reported smoking at least 100 cigarettes in their lifetime and that they do not currently smoke. Among young adults, the prevalence of former established smokers did not significantly change between 2000 and 2009. Among 25- to 34-year-olds, the prevalence of former established smokers significantly increased from 36.3% to 47.9%. Adults who were 25 to 34 years old in 2009 were in the 18- to 24-year-old age group

in 2000, indicating that this group of adults primarily benefited from cessation strategies and policies between 2000 and 2009 as opposed to prevention strategies and policies. The prevalence of former established smokers did not significantly change among the remaining age groups.

Figure 3. Prevalence of Former Established Smokers among Adults in New York, Overall and by Age Group, 2000 and 2009 BRFSS

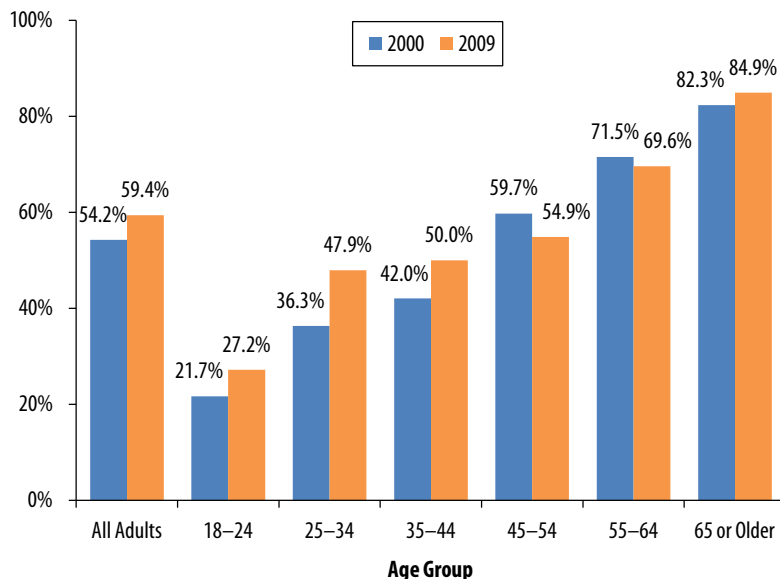


Table 2 presents estimates of the number of former established smokers among adults in New York. Overall, by 2009, there were 363,314 additional former established smokers. Among 25- to 34-year-olds, there were an additional 79,875 former established smokers by 2009. Among young adults, there was not a significant change in the number of former established smokers.

Table 2. Estimated Number of Adult Former Established Smokers Overall and by Age Group, 2000 and 2009 BRFSS

Age Group	2000 Prevalence of Former Established Smokers (%)	Number of Former Established Smokers in 2000	2009 Prevalence of Former Established Smokers (%)	Number of Former Established Smokers in 2009	2000-2009 Difference in Population of Former Established Smokers
All adults	54.2	3,622,728	59.4	3,986,042	363,314
18-24	21.7	162,309	27.2	165,885	3,576
25-34	36.3	425,146	47.9	505,021	79,875
35-44	42.0	597,344	50.0	554,022	-43,322
45-54	59.7	744,216	54.9	757,807	13,591
55-64	71.5	624,142	69.6	820,047	195,905
65 or older	82.3	1,069,570	84.9	1,183,260	113,689

Note: Census population estimates were used to derive estimates of the number of former established smokers in 2000 and 2009 (Census, 2010).

To examine the role of prevention in explaining declines in adult current cigarette use, Figure 4 presents the prevalence of adults who have not smoked 100 cigarettes in their lifetime. Adults in this group include those who have never smoked or those who have tried smoking but did not progress to established smoking. Overall, the prevalence of adults who have not smoked 100 cigarettes in their lifetime significantly increased from 52.8% in 2000 to 55.7% in 2009. This increase was largely driven by the increase in the prevalence of young adults who have not smoked 100 cigarettes in their lifetime. Between 2000 and 2009, the prevalence of young adults who have not smoked 100 cigarettes in their lifetime significantly increased from 57.8% to 68.3%, an increase of more than 10 percentage points. The prevalence of adults who have not smoked 100 cigarettes in their lifetime did not significantly change among the remaining age groups.

Figure 4. Prevalence of Adults in New York Who Have Not Smoked 100 Cigarettes in Their Lifetime, Overall and by Age Group, 2000 and 2009 BRFSS

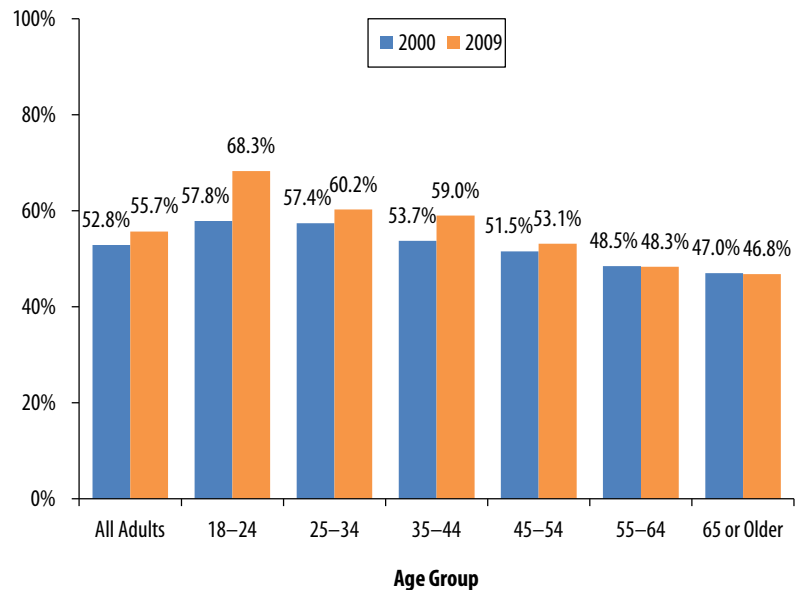


Table 3 presents estimates of the number of adults who have not smoked 100 cigarettes in their lifetime. Overall, by 2009, an additional 842,471 adults reported that they have not smoked 100 cigarettes in their lifetime. Furthermore, by 2009, an additional 289,545 young adults reported that they have not smoked 100 cigarettes in their lifetime. Among 25- to 34-year-olds, there was not a significant change in the number of adults who reported that they have not smoked 100 cigarettes in their lifetime by 2009. The estimates in Tables 2 and 3 demonstrate that the reductions in current cigarette smoking among young adults were largely attributable to prevention strategies and policies.

Table 3. Estimated Number of Adults Who Have Not Smoked 100 Cigarettes in Their Lifetime Overall and by Age Group, 2000 and 2009 BRFSS

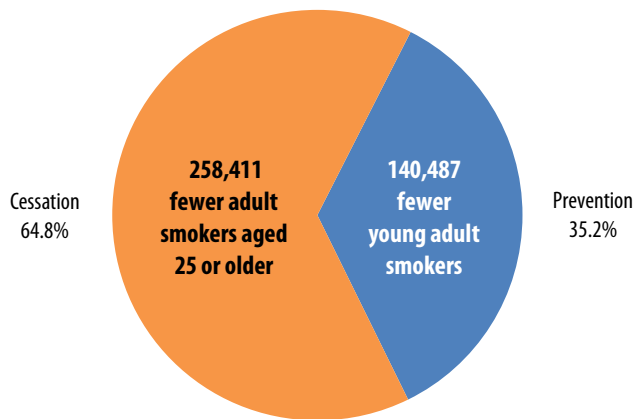
Age Group	2000 Prevalence (%)	Number in 2000	2009 Prevalence (%)	Number in 2009	2000-2009 Difference in Population
All adults	52.8	7,550,381	55.7	8,392,852	842,471
18-24	57.8	1,024,470	68.3	1,314,015	289,545
25-34	57.4	1,578,098	60.2	1,594,731	16,633
35-44	53.7	1,649,560	59.0	1,594,501	-55,059
45-54	51.5	1,323,702	53.1	1,562,817	239,115
55-64	48.5	822,076	48.3	1,100,743	278,667
65 or older	47.0	1,152,475	46.8	1,226,045	73,571

Note: Census population estimates were used to derive estimates of the number of adults who have not smoked 100 cigarettes in their lifetime in 2000 and 2009 (Census, 2010).

Impact of Youth Prevention on Adult Smoking in New York

Overall, in 2009, there were 398,898 fewer adult smokers in New York compared with the number of adult smokers in 2000. Figure 5 shows the relative contribution that youth prevention and smoking cessation had on the overall reduction

Figure 5. Impact of Youth Prevention on Adult Smoking in New York



in adult smoking in New York between 2000 and 2009. Approximately 35% of the total decline in adult smoking in New York is attributable to youth prevention.

Overall, the declines in youth smoking that have occurred since 2000 are contributing to the declines in adult smoking in New York. The declines in current cigarette use among middle and high school students observed in the 2000–2010 NY YTS indicate that fewer youth are starting to smoke cigarettes. Furthermore, the declines in current cigarette use among adults observed in the 2000–2009 BRFSS indicate that youth are continuing to stay tobacco-free over time.

In summary, this brief report highlights the notable impact that effective youth prevention strategies and policies have on adult smoking. In addition, this brief report illustrates that smoking cessation is also contributing to the overall reduction in adult smoking in New York. Continued success in reducing tobacco use in New York requires continued investment in NY TCP's evidence-based strategies and effective public policies.

About the New York Youth Tobacco Survey and the New York Behavioral Risk Factor Surveillance System

The NY YTS is a school-based survey of youth in middle school (grades 6 through 8) and high school (grades 9 through 12) that was developed by the Centers for Disease Control and Prevention (CDC) in collaboration with the New York State Department of Health. The purpose of the NY YTS is to provide surveillance of trends in youth tobacco use, access, and perceptions and to evaluate the cumulative effectiveness of tobacco use reduction programs. The survey instrument includes a standard set of questions that were developed by CDC along with optional state-added questions to measure progress toward NY TCP's goals and objectives. Tobacco-related information gathered from the NY YTS includes tobacco use, secondhand smoke exposure, social network influences, prevalence of cigarette smoking on school property, and exposure to pro-tobacco messages.

The BRFSS is a telephone survey of the adult, civilian noninstitutionalized population aged 18 or older. The purpose of this state-representative survey is to collect information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury. The BRFSS questionnaire consists of three sections: the core component, optional modules, and state-added questions. All states use the core component, while individual states can choose to include the optional modules and state-added questions. The content of the optional modules is developed by CDC, whereas the state-added questions are developed or acquired by individual states. Survey items cover a variety of health topics and risk factors, including health status, health care access, exercise, diabetes, immunization, and tobacco use.

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