

July 2016

**Independent Evaluation of the
Vermont Tobacco Control Program:
2015 Annual Report—A Historical Look
at Progress Achieved, Successes, and
Lessons Learned and RTI
Recommendations for Tobacco Control
in Vermont for the Years 2015–2020**

Final Report

Prepared for

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Executive Summary

Tobacco use remains the single most preventable cause of death and disease in the United States despite 50 years of declining prevalence in cigarette smoking (Centers for Disease Control and Prevention [CDC], 2008; U.S. Department of Health and Human Services [USDHHS], 2014). Cigarette smoking increases the risk of heart disease; chronic obstructive pulmonary disease; acute respiratory illness; stroke; and cancers of the lung, larynx, oral cavity, pharynx, pancreas, and cervix. In the United States, nearly 50,000 premature deaths each year are caused by smoking and exposure to secondhand smoke (USDHHS, 2014). Every year, approximately 900 Vermonters die as a result of smoking (CDC, 2014), and smoking-related deaths are responsible for nearly 11,000 years of potential life lost (CDC, 2007). Smoking-related health care costs and lost productivity in Vermont total more than \$430 million per year (CDC, 2007). Smoking is responsible for approximately \$348 million in direct medical costs each year in Vermont (CDC, 2014). Vermont businesses spend approximately \$2,284 per year, per smoker in increased health care costs. Businesses also lose \$2,574 per year, per smoker in lost work time due to smoking breaks and \$466 per year, per smoker due to absenteeism (VDH, 2015a). A pack-a-day smoker spends at least \$7 per day on cigarettes (\$2,520 per year).

In 2000, the Vermont Legislature made a commitment to the health and well-being of Vermonters, especially youth, by creating the Vermont Tobacco Control Program (VTCP). Under the direction and leadership of the Vermont Tobacco Evaluation and Review Board (VTERB), an independent, state-appointed board that coordinates and oversees the program, VTCP brings together multiple state agencies, such as the Vermont Department of Health (VDH), the Vermont Agency of Education, the Vermont Department of Liquor Control, and the Vermont Attorney General's Office. VTCP is a comprehensive, evidence-based program that is based on, and incorporates, the guidelines and recommendations established by CDC in its *Best Practices for Tobacco Control* as well as other federal guidelines and recommendations for comprehensive tobacco control programs. VTCP aims to reduce adult and youth tobacco use in Vermont, eliminate exposure to secondhand smoke, and minimize the use of other tobacco products (OTPs) and tobacco substitutes, such as electronic cigarettes (e-cigarettes).

In the 15 years since VTCP was implemented by the Vermont Legislature, the program has achieved success in a number of key outcomes:

- Adult and youth tobacco use in Vermont have decreased significantly. The percentage of Vermont adults who currently smoke has decreased significantly from 22% in 2001 to 17% in 2013. The prevalence of smoking among Vermont high school students has decreased significantly from 24% in 2001 to 13% in 2013.
- The percentage of Vermonters, both nonsmokers and smokers, who voluntarily prohibit smoking in their homes and vehicles has increased significantly since VTCP began in 2000.

- Exposure to secondhand smoke in Vermont has also significantly decreased since VTCP began. The percentage of adult Vermonters, both nonsmokers and smokers, and Vermont middle school and high school students who report being exposed to secondhand smoke in the past 7 days in homes, vehicles, and in public has also decreased.

CDC recommends that states pursue the following tobacco control strategies: increase the price of tobacco products, enact comprehensive smoke-free policies, fund hard-hitting mass media campaigns, and make cessation services fully accessible to tobacco users. Tobacco control interventions aimed at adolescents are critical for achieving long-term reductions in tobacco use and preventing future incidence of tobacco-related death and disease. Research has shown that increasing the unit price of tobacco products, enacting comprehensive smoke-free air laws, and implementing comprehensive and adequately funded state tobacco control programs are effective strategies for curbing youth and adult smoking (CDC, 2014). CDC also indicates that reducing youth exposure to tobacco advertising and promotion in the retail environment is an effective strategy for reducing youth tobacco use (CDC, 2014). VTCP's approach is consistent with CDC's guidelines and recommendations, and VTCP implements all of the overall and youth-focused tobacco control program strategies recommended by CDC.

The Vermont Legislature and local counties and towns have enacted and implemented numerous laws and policies creating smoke-free environments. Since 2005, Vermont has had a comprehensive statewide smoke-free air law in place. VTCP has successfully worked with the Vermont Legislature to remove loopholes and exemptions from Vermont's statewide smoke-free air law and has worked at the state and local levels to facilitate the implementation of new laws and policies creating additional smoke-free environments in Vermont. VTCP and its program partners, such as the Coalition for a Tobacco Free Vermont, have been highly effective at getting the Vermont Legislature to raise the cigarette excise tax rate eight times, from \$0.44 per pack in 2001 to \$3.08 per pack in July 2015. Vermont currently has the sixth highest cigarette excise tax in the country (Campaign for Tobacco-Free Kids [CFTFK], 2015).

In Vermont, the prevalence of smoking among adult Medicaid beneficiaries is nearly three times higher than the rate among non-Medicaid adults, and Medicaid smokers make up nearly half of the adult smokers in Vermont. Adults with low socioeconomic status (SES) and mental health issues also smoke at disproportionately high rates in Vermont. VDH is actively working to identify and address tobacco use disparities in Vermont and has focused specifically on Medicaid smokers, low SES smokers, and smokers with mental illness as target groups. VTCP has designed specific intervention approaches and tailored mass-media strategies to reach each of these target subpopulations with interventions that are designed to help those smokers quit successfully. VTCP has also used health communication interventions effectively throughout its 16-year history to promote tobacco use cessation, drive Vermont tobacco users to cessation services offered through VTCP's 802Quits

program, and correct misperceptions about the prevalence of smoking among Vermont youth. VTCP has also had a number of successes in its work with and efforts to promote and implement health systems change, particularly in the past few years. VDH has successfully worked with the Department of Vermont Health Access to get Vermont Medicaid to expand benefits and increase coverage of proven, evidence-based cessation treatments for beneficiaries. VDH was able to get Medicaid to cover in-person cessation counseling from a health care professional for all Vermont Medicaid beneficiaries, beginning in December 2013.

Despite VTCP's successes since 2000 and the favorable tobacco environment in Vermont, the program has also faced challenges and barriers. Although the prevalence of cigarette smoking has declined significantly among youth and adults, declines have slowed in recent years, both in Vermont and nationally. Quit attempts are also stagnant. In Vermont and nationally, nearly half of all smokers attempt to quit each year. However, the percentage of adult Vermont smokers making quit attempts has not changed significantly since VTCP began in 2000. The 2014 Surgeon General's Report concluded that the current rate of progress in tobacco control is not fast enough (USDHHS, 2014). The rampant use of e-cigarettes among adults and youth, marijuana use, and the generally high prevalence of smoking among Vermont's 11th and 12th grade students are all substantial threats to the progress VTCP has made in reducing smoking in Vermont. In 2014, Vermont had the third highest prevalence of past 30-day marijuana use in the United States. Marijuana users smoke cigarettes at substantially higher rates, and the increasing social acceptability of marijuana use has the potential to increase youth smoking in Vermont. Although the prevalence of smoking among Vermont high school students is comparable with the national average and has declined significantly since 2001, the smoking rate among 11th and 12th graders in 2013 was nearly equal to the rate among adults in Vermont.

Although the Vermont Legislature made a commitment to the health and well-being of Vermonters by establishing VTCP in 2000, the Vermont Legislature has consistently undermined the potential effectiveness and success by failing to fund VTCP at more than 50% of CDC recommended funding. In fiscal year (FY) 2001, VTCP was funded at \$6.5 million annually, which was only 41% of CDC's recommended funding. In the 16 years VTCP has been in existence, the Vermont Legislature has cut program funding in six of those years. Not accounting for inflation, VTCP's total budget in FY 2015 was only 60% of what it was when the program began in FY 2001. Accounting for inflation, VTCP's FY 2015 budget of \$3.9 million was less than half of the program's budget when it began in FY 2001 (which translates to about \$8.6 million in real, inflation-adjusted, 2014 dollars). Allocating just 7% of the annual revenues from cigarette taxes and Master Settlement Agreement (MSA) payments to tobacco control programming would meet CDC's recommended funding level for VTCP of \$8.4 million per year.

Over the past 16 years, the Vermont Legislature had ample money available through tobacco taxes and MSA payments to fund VTCP adequately. Given the available money from the landmark MSA settlement, the Vermont Legislature had an opportunity to strike a major blow to tobacco use in Vermont by devoting sufficient resources to the state's tobacco control program, but chose not to do so. As the Campaign for Tobacco-Free Kids noted in its report, "Broken Promises to Our Children," by not sufficiently funding VTCP over the past 15 years, the Vermont Legislature has done a tremendous disservice to the youth of Vermont and ensured that the cycle of tobacco dependence and addiction will continue in Vermont for generations to come.

Unless VTCP takes decisive action to address the threats to tobacco control in Vermont—particularly the high smoking rates among 12th grade students, the concurrent use of marijuana and cigarettes among Vermont youth, and the proliferation of e-cigarette use by adults and youth—VTCP will have no chance of ending the tobacco epidemic in Vermont or making continued progress toward its goals of reducing adult and youth tobacco use in Vermont. A firm commitment to tobacco control in Vermont will require strong and decisive action from the Vermont Legislature. VTCP will need sufficient and sustainable funding to implement evidence-based interventions that will reach a large enough proportion of Vermont tobacco users, including subpopulations with disproportionate tobacco use, to prevent youth from starting to use tobacco and to help adults quit using tobacco.

Recent budget cuts enacted during the 2014–2015 Vermont legislative session that go into effect during state FY 2016 (July 2015–June 2016) will result in reduced administrative and implementation capacity for VTCP and in substantially reduced, or eliminated, external evaluation of the program. Combined with additional budget cuts expected to be discussed and possibly enacted during the 2015–2016 Vermont legislative session, the future of VTCP and its impact on tobacco use and secondhand smoke exposure in Vermont remains uncertain. Given the harsh funding realities that VTCP is facing, the program will likely struggle to continue implementing all of its current activities and interventions. VTCP will almost certainly fail to achieve its overall program goals and Healthy Vermonters 2020 goals of reducing adult cigarette smoking to 12% by 2020 and reducing youth smoking in Vermont to 10% by 2020. Combined with the extreme reduction in, or perhaps complete elimination of, independent, external evaluation services, VTCP may no longer be able to call itself a comprehensive tobacco control program. As the program's capacity to continue delivering interventions diminishes, VTCP will be reaching fewer Vermont smokers with its efforts. As a result, Vermont may struggle to hold its ground with adult and youth tobacco use or begin to see increases in tobacco product use among adults and youth.

Looking forward to the next 5 years of tobacco control in Vermont from 2015 through 2020, RTI offers the following recommendations to VTCP for working toward its overall goals of reducing adult and youth cigarette smoking, reducing exposure to secondhand smoke, and minimizing the use of OTPs:

- Work to secure sufficient, stable, and sustainable funding for VTCP.
- Seek cost-sharing and partnership opportunities.
- Work to maintain a comprehensive tobacco control program.
- Focus on evidence-based interventions that reach the largest percentage of Vermont smokers.
- Try to maintain program capacity and infrastructure in the face of significant funding cuts to the program.
- Continue to maintain independent oversight of VTCP by VTERB.
- Continue to evaluate the program through independent, external evaluation if funds are available or through internal evaluation activities and efforts if funds are not available for independent, external evaluation.
- Continue working to promote and implement durable policy change.
- Continue implementing mass media using CDC *Tips From Former Smokers* campaign ads.

Evidence strongly suggests that one of the most effective strategies states can employ to combat tobacco use is to fund state tobacco control programs at CDC recommended levels. RTI recommends that Vermont pursue a strategy for ensuring sufficient and sustainable funding for tobacco control in Vermont that does not depend on year-to-year decisions being made during each Vermont legislative session. Other states have been able to implement such strategies. For example, Florida secured consistent funding for its tobacco control program through a state constitutional amendment, and other states have secured funding for their tobacco control programs by earmarking money from cigarette excise taxes. A legislative solution that guarantees a base amount of funding sufficient to deliver evidence-based tobacco control interventions consistently into the future should be considered a minimum requirement to achieve further reductions in tobacco use in Vermont. Sufficient and stable funding for tobacco control will also be necessary to combat new challenges and threats coming from high current smoking rates among Vermont 12th graders, the rapid increase in e-cigarette use, and the increased use of marijuana, particularly among Vermont youth.

1. Introduction

Tobacco use remains the single most preventable cause of death and disease in the United States despite 50 years of declining prevalence in cigarette smoking (Centers for Disease Control and Prevention [CDC], 2008; U.S. Department of Health and Human Services [USDHHS], 2014). Cigarette smoking increases the risk of heart disease; chronic obstructive pulmonary disease; acute respiratory illness; stroke; and cancers of the lung, larynx, oral cavity, pharynx, pancreas, and cervix. In the United States, nearly 50,000 premature deaths each year are caused by smoking and exposure to secondhand smoke (USDHHS, 2014). Every year, approximately 900 Vermonters die as a result of smoking (CDC, 2014). Each year, premature deaths due to smoking result in nearly 11,000 years of potential life lost (CDC, 2007). Smoking-related health care costs and lost productivity in Vermont total more than \$430 million per year (CDC, 2007). Each year, smoking is responsible for approximately \$348 million in direct medical costs in Vermont (CDC, 2014). Vermont businesses spend approximately \$2,284 per year, per smoker in increased health care costs. Businesses also lose \$2,574 per year, per smoker in lost work time due to smoking breaks and \$466 per year, per smoker due to absenteeism (VDH, 2015a). A pack-a-day smoker spends at least \$7 per day on cigarettes (\$2,520 per year).

In 2013, 18% of U.S. adults as well as Vermont adults smoked. Although this number decreased from 23% nationally and 22% in Vermont in 2001, progress has slowed in recent years, both nationally and in Vermont (CDC, 2002, 2013a; USDHHS, 2014). In addition, the national smoking rate is 70% higher among adults with mental illness than among adults with no reported mental illness (CDC, 2013b). This national trend is reflected in Vermont, where 38% of adults with mental illness smoke compared with 22% of the general population (CDC, 2013c). In 2011, nearly 70% of adult cigarette smokers in the United States wanted to quit smoking, and nearly 43% had made a quit attempt in the past year (USDHHS, 2014). Although almost 50% of U.S. smokers attempt to quit every year, the annual sustained cessation rate remains extremely low at around 5% (CDC, 2011; Fiore et al., 2008; Zhu et al., 2012). About half to three-quarters of smokers who attempt to quit relapse within 1 week (Hughes, Keely, & Naud, 2004).

Nearly 90% of U.S. smokers start smoking by the time they are 18 years old, and 99% start by the time they are 26 years old (CDC, 2014). Some smokers first use cigarettes in young adulthood, and a significant proportion of smokers establish regular smoking patterns during this period in the life course (Freedman, Nelson, & Feldman, 2012). Because of the tremendous adverse health effects associated with smoking, early use of tobacco is associated with a multitude of health problems later in life. The prevalence of smoking among high school students has declined significantly from 29% nationally and 24% in Vermont in 2001 to 16% nationally and 13% in Vermont in 2013.

Secondhand smoke exposure has been associated with several negative health effects, including sudden infant death syndrome; lower respiratory tract illness in infants and children, low levels of lung function, and the onset of wheeze illnesses in early childhood (USDHHS, 2006). It also leads to a greater number and severity of asthma attacks and lower respiratory tract infections and increases the risk for middle ear infections. Inhaling secondhand smoke causes lung cancer and coronary heart disease in nonsmoking adults. Secondhand smoke exposure is particularly a problem among younger populations. Adolescent exposure to nicotine has been shown to have negative effects on brain development (Dwyer, McQuown, & Leslie, 2009), with deficits shown in executive functions as well as increased anxiety and depression (Counotte et al., 2009; Dwyer et al., 2009; Slawewski, Thorsell, El Khoury, Mathe, & Ehlers, 2005). Adolescence is also a period of enhanced vulnerability to nicotine exposure, which can promote nicotine and tobacco use dependence and addiction (Natividad, Torres, Friedman, & O'Dell, 2013). In 2000, more than 126 million U.S. residents aged 3 or older were estimated to be exposed to secondhand smoke (USDHHS, 2006). Between 2007 and 2008, 88 million nonsmokers were exposed to secondhand smoke in the United States, with children representing the most exposed group (CDC, 2010).

Tobacco use and exposure to secondhand smoke can be combatted and overcome with evidence-based tobacco control programs and policy interventions. Extensive research in tobacco control has demonstrated that state tobacco control programs are effective in reducing youth and adult smoking prevalence and overall cigarette consumption (Chattopadhyay & Pieper, 2011; Farrelly et al., 2008; Farrelly, Pechacek, & Chaloupka, 2003; Tauras et al., 2005; USDHHS, 2014). Investing in comprehensive tobacco control programs and implementing evidence-based interventions have been shown to reduce tobacco use initiation, tobacco-related disease and death, and tobacco-related health care costs and lost productivity (CDC, 2014). Specifically, a wide range of effective interventions is available, including

- increasing the price of tobacco products,
- enacting comprehensive smoke-free policies,
- funding hard-hitting mass media campaigns, and
- making cessation services fully accessible to tobacco users.

Tobacco control interventions aimed at adolescents are critical for the long-term reduction in tobacco use and for preventing future incidence of tobacco-related death and disease. Research has shown that increasing the unit price of tobacco products, enacting comprehensive smoke-free air laws, and implementing comprehensive and adequately funded state tobacco control programs are effective strategies for curbing youth and adult smoking (CDC, 2014). CDC also indicates that reducing youth exposure to tobacco advertising and promotion in the retail environment is an effective strategy for reducing

youth tobacco use (CDC, 2014). Although critical efforts to reduce tobacco use occur at the national level, state and community action is necessary to ensure the success of tobacco control efforts. Most funding for tobacco control programs is provided by states, and state- and local-level policies, partnerships, and tobacco control interventions and activities will ultimately lead to social norm and behavior change with respect to tobacco use and exposure to secondhand smoke (CDC, 2014).

In 2000, the Vermont Legislature made a commitment to the health and well-being of Vermonters, especially youth, by creating the Vermont Tobacco Control Program (VTCP). Under the direction of the Vermont Tobacco Evaluation and Review Board (VTERB), an independent, state-appointed board that coordinates and oversees the program, VTCP brings together multiple state agencies, such as the Vermont Department of Health (VDH), the Vermont Agency of Education, the Vermont Department of Liquor Control, and the Vermont Attorney General’s Office. VTCP is a comprehensive, evidence-based program that is based on, and incorporates, the guidelines and recommendations established in CDC’s (2014) *Best Practices for Comprehensive Tobacco Control Programs (Best Practices)* as well as other federal guidelines and recommendations for comprehensive tobacco control programs. VTCP aims to reduce adult and youth tobacco use in Vermont, eliminate exposure to secondhand smoke, and minimize the use of other tobacco products (OTPs) and tobacco substitutes, such as electronic cigarettes (e-cigarettes). VTCP works with state and community partners to deliver a suite of evidence-based interventions, including state and community efforts to implement legislation and policies that have been shown to reduce tobacco use and eliminate exposure to secondhand smoke; a comprehensive set of cessation programs and services, such as cessation counseling and nicotine replacement therapy (NRT) offered at no cost to Vermont tobacco users through the 802Quits program; efforts to promote and facilitate health systems change to ensure that health systems and health care providers systematically screen for tobacco use and intervene with their patients regarding their tobacco use, including making referrals to 802Quits programs; working to expand health insurance coverage for and utilization of cessation treatments; and mass-reach health communication efforts, such as a wide variety of mass media, including television, digital media, social media, and targeted mass mailings designed to promote population-level quitting and drive tobacco users to VTCP’s cessation programs offered through 802Quits.

VTCP and its partners collect a wide variety of surveillance and evaluation data. VTCP uses these data to monitor and evaluate progress in terms of the key outcomes and tobacco use behaviors the program is trying to influence, both through internal evaluation activities conducted by VDH and through comprehensive, independent external evaluation. RTI International has served as VTCP’s independent external evaluator since 2002 and has analyzed and reported on the operations, progress, and outcomes of VTCP’s actions and efforts, including individual interventions, program components, or the program as a whole.

VTCP has evolved over time and changed its approach in response to changing guidelines and recommendations from CDC and other federal organizations, as well as research and findings from internal and external evaluation activities. VTCP has also made specific changes to the program's approach based on previous RTI recommendations.

In the 16 years since VTCP was created by the Vermont Legislature, the program has achieved a number of successes. Both adult and youth tobacco use in Vermont have declined significantly. With promotion and support from VTCP and the Coalition for a Tobacco Free Vermont, the Vermont Legislature has increased the cigarette excise tax multiple times. As of July 2015, Vermont had the sixth highest cigarette excise tax in the country. Also with promotion and support from VTCP and its program partners, the Vermont Legislature and local counties and towns have enacted and implemented numerous laws and policies creating smoke-free environments. Substantially fewer Vermonters are being exposed to secondhand smoke. Since 2005, Vermont has had a comprehensive statewide smoke-free air law in place. VTCP has successfully worked with the Vermont Legislature to remove loopholes and exemptions from Vermont's statewide smoke-free air law and has worked at the state and local levels to facilitate the implementation of new laws and policies creating additional smoke-free environments in Vermont. VTCP has effectively used mass-reach health communication interventions to correct misperceptions among Vermont youth regarding the prevalence of smoking among youth in Vermont. VTCP's mass media has also successfully promoted and increased utilization of cessation services offered through the program's 802Quits cessation services. VTCP has consistently been funded well above the national average. In 2014, VTCP was the seventh highest funded program in the United States, based on per capita funding for tobacco control, and Vermont was one of only 18 states in the country that spent at least 25% of CDC's recommended funding for tobacco control.

Despite VTCP's successes since it began in 2000, and the favorable tobacco environment in Vermont, the program has also faced challenges and barriers. Although the prevalence of cigarette smoking has declined significantly among youth and adults, declines have slowed in recent years, both in Vermont and nationally. New threats to the success of tobacco control efforts, such as concurrent use of cigarettes and marijuana and the rampant proliferation and skyrocketing use of e-cigarettes, pose imminent dangers to the gains that states have made in reducing youth and adult tobacco use. Without continued financial support and commitment to tobacco control, combined with strong and decisive action that consists of implementing evidence-based interventions, including new and emerging ones, Vermont may struggle to hold its ground with youth and adult tobacco use or begin to see increases in tobacco product use among youth and adults. Having a resilient, and potentially growing, population of youth tobacco users in Vermont will ensure future generations of Vermonters who are addicted to tobacco and suffer from its tremendous health consequences, experiencing continued and prolonged periods of tobacco-related disease,

death, and health care costs. In previous RTI annual reports, we have cautioned that underfunding for tobacco control in Vermont, combined with consistent and continued budget cuts to the program, were likely slowing progress on key outcomes VTCP is trying to influence, such as adult and youth smoking in Vermont and exposure to secondhand smoke. Since it began, VTCP has never been funded at more than 50% of the amount recommended by CDC. Recent budget cuts enacted during the 2014–2015 Vermont legislative session that will go into effect during state fiscal year (FY) 2016 (July 2015–June 2016) will result in reduced administrative and implementation capacity for VTCP and will also result in substantially reduced, or eliminated, external evaluation of the program. Combined with additional budget cuts expected to be discussed and possibly enacted during the 2015–2016 Vermont legislative session, the future of VTCP and its likely impact on tobacco use and secondhand smoke exposure in Vermont remains uncertain. Given these challenges and the current stagnation of tobacco use outcomes in Vermont, the program is unlikely to reach its 2020 goals for reduced tobacco use in Vermont.

The purpose of this year’s RTI annual report is to provide a historical look back at VTCP and tobacco control in Vermont since the program began in 2000. We examine the progress the program has made over the past 16 years as well as the challenges the program has faced. We also describe VTCP’s approach to tobacco control and briefly describe how the program has changed and evolved over time in response to guidelines and recommendations from CDC and other federal agencies, as well as to recommendations offered by RTI. We also highlight changes in VTCP’s programmatic approach that the program has had to make in response to funding cuts and limited available resources. Looking forward, we provide recommendations for how the program can best move forward over the next 5 years to continue working on and addressing the program’s goals to reduce adult and youth tobacco use in Vermont and minimize exposure to secondhand smoke.

The report is organized as follows. In Section 2, we present a description of VTCP and a brief history of the program. We also present the health and economic impacts associated with tobacco use in Vermont that motivate the program and the tobacco control environment in which the program operates, including cigarette taxes, revenue from cigarette taxes and Master Settlement Agreement (MSA) payments to Vermont, available funding for tobacco control in Vermont, and legislation and policies, such as smoke-free air laws. In Section 3, we present VTCP’s approach to tobacco control. In Section 4, we present trends in key outcomes, focusing on adult tobacco use, youth tobacco use, cessation outcomes, exposure to secondhand smoke, and use of OTPs and tobacco substitutes, such as e-cigarettes. In Section 5, we discuss our findings and present recommendations for how the program can work toward its 2020 goals over the next 5 years. Our recommendations are based on CDC *Best Practices* recommendations and recommendations from the 2014 Surgeon General’s report. We acknowledge the funding and resource capacity limitations

that the program is currently facing and will likely continue to face over the next 5 years and make our recommendations based on these harsh funding realities.

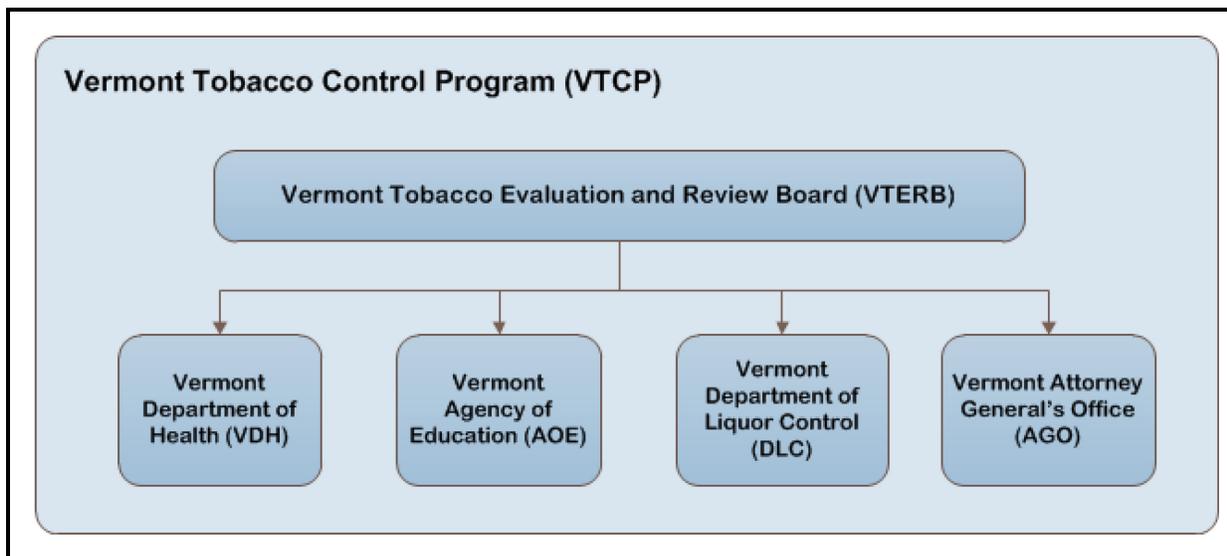
2. The Vermont Tobacco Control Program: Program History and Context

2.1 Program History

In 1998, Vermont and other states sued the tobacco industry for health effects and costs to states from cigarette smoking. The result of that lawsuit was the Master Settlement Agreement (MSA), which established the American Legacy Foundation to implement national efforts to prevent youth tobacco use, limited tobacco companies' marketing abilities, and required tobacco companies to make annual payments to states. The MSA states that tobacco company payments to states are "for the advancement of public health, [and] the implementation of important tobacco-related public health measures." Following the MSA, the Vermont Legislature established two new funds in 1999. The first was the Tobacco Litigation Settlement Fund (32 VSA §435a), which was established to support tobacco use prevention, cessation, and control, and for other health care purposes. Vermont deposits all funds received in connection with the MSA, including interest on those funds, into this fund. The second fund established in 1999 by the Vermont Legislature was the Tobacco Trust Fund (18 VSA §9502), which was set up "for the purposes of creating a self-sustaining, perpetual fund for tobacco cessation and prevention which is not dependent upon tobacco sales volume." In 1999, the Vermont Legislature initially appropriated \$19.2 million from Vermont's MSA payment to the Vermont Tobacco Trust Fund and reserved those funds "for the sole purpose of long-term sustainable tobacco education, prevention, cessation, and control programs." A portion of Vermont's MSA payment funds are transferred to Vermont's Tobacco Trust Fund annually (VTERB, 2015).

In May 2000, the Vermont Legislature established the Vermont Tobacco Control Program (VTCP) and created the Vermont Tobacco Evaluation and Review Board (VTERB) to serve as an independent state board to oversee and evaluate VTCP and ensure fiscal responsibility for state funds allocated to tobacco control (18 V.S.A. § 9504). VTCP is a comprehensive, evidence-based, program that is based on and incorporates key Centers for Disease Control and Prevention (CDC) *Best Practices for Comprehensive Tobacco Control Programs (Best Practices)* recommendations for state tobacco control programs. Working together with VTERB, the Vermont Department of Health (VDH), the Vermont Agency of Education (AOE), the Vermont Department of Liquor Control (DLC), and the Vermont Attorney General's Office comprise VTCP (Figure 2-1). VTCP is supported by MSA funding from Vermont's Tobacco Trust Fund and other sources, such as CDC (VTERB, 2015).

Figure 2-1. The Vermont Tobacco Control Program



Since its inception, VTCP, under the direction of VTERB, has worked to reduce adult and youth tobacco use in Vermont and to minimize Vermonters' exposure to secondhand smoke. Over the first decade of VTCP's existence, from 2001 through 2011, both adult and youth smoking rates declined in Vermont, and significantly fewer Vermonters were exposed to secondhand smoke. In 2012, as VTCP moved into its second decade of existence, VTERB led VTCP program partners through a strategic planning process to identify new program goals and strategies for the next 10 years through 2020. VTCP established four primary program goals that were in line with Healthy Vermonters 2020, the state health assessment plan that documents the health status of Vermonters and helps to guide work in public health through 2020:

1. Reduce adult cigarette smoking prevalence to 12% by 2020.
2. Reduce youth cigarette smoking prevalence to 10% by 2020.
3. Reduce exposure of nonsmokers to secondhand smoke.
4. Maintain low prevalence of other tobacco product (OTP) use.

VTCP uses a number of evidence-based strategies and approaches to accomplish these goals that are informed by and consistent with CDC's *Best Practices*, which is an evidence-based guide that was initially released in 1999 to help states plan and establish comprehensive tobacco control programs. CDC updated the *Best Practices* document and recommendations in 2007 and again in 2014. CDC's recommended goals for state tobacco control programs outlined in the 2014 *Best Practices* document are very similar to VTCP's goals through 2020, but CDC recommends that state tobacco control programs should also have a goal of identifying and eliminating tobacco-related disparities among population

groups (CDC, 2014). Although VTCP has not enumerated this as a goal of the program, VDH does actively monitor and work to address tobacco-related disparities in Vermont.

VTCP is built on the social norms change model, which posits 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 (CDC, 2007; Frieden, 2010; NCI, 1991; USDHHS, 2000). The theory of reasoned action predicts that attitudes and perceptions of social norms, which are a function of beliefs, drive intention to perform specific behaviors and that intention is an antecedent of actual behavior. Consistent with the theory of reasoned action, empirical evidence indicates that beliefs and attitudes, including the perceived health risks of smoking, concerns about the health consequences of smoking, and motivation to quit, predict cessation-related quit intentions and behavioral outcomes, including quit attempts among adult smokers. California was one of the first state tobacco control programs to take a social norms approach and achieved a substantial decline in smoking among adults and youth (CDHS, 1998). VTCP and its program partners work together to promote and foster statewide policy changes, such as increases in cigarette tax rates and the passage of smoke-free air laws, that encourage current tobacco users to quit; deter Vermonters, especially youth, from starting to use tobacco; protect all Vermonters from exposure to secondhand smoke; and create an environment where not using tobacco is the norm. VTCP's structure and approach are also based on other evidence, guidelines, and recommendations from federal agencies as well as evidence from tobacco research. VTCP has evolved and changed its approach over time in response to changes in CDC's *Best Practices* and other federal tobacco control guidance and recommendations as well as evidence emerging from the literature. We present and discuss VTCP's approach to tobacco control in Section 3.

Throughout its existence, VTERB has maintained and supported Vermont's comprehensive tobacco control program by working collaboratively with VTCP partner agencies to ensure that the program is on track and continually making progress toward achieving its long-term goals of reducing tobacco use in Vermont and improving the health and well-being of Vermonters (VTERB, 2015). Along with the Vermont Agency of Human Services and VDH, VTERB establishes an annual budget for VTCP. VTERB is also responsible for the review and evaluation of VTCP, which includes overseeing the independent, external evaluation of VTCP (VTERB, 2015). VTERB makes funding and programmatic recommendations and sets priorities based on research and science, federal guidance, and evaluation findings. Because it is an independent board with the primary operative of reducing tobacco use in Vermont, VTERB can advocate for what is best for VTCP and tobacco control in Vermont and is not hampered or limited by the political or bureaucratic constraints to which some of the VTCP partner organizations are subject.

2.2 Program Context

VTCP is motivated by the staggering health and economic consequences of tobacco use in Vermont. Tobacco use is a costly addiction that imposes a significant financial burden on tobacco users and results in substantial adverse health effects that are life changing and debilitating for many Vermonters. In addition to the negative consequences of tobacco use for Vermont tobacco users and their families, tobacco use results in a tremendous economic burden that is paid for by tobacco users, health plans, states, and the federal government. In Section 2.2.1, we summarize the health and economic costs of tobacco use in Vermont. We also estimate smoking-related health care cost savings as a result of declines in adult smoking in Vermont from 2001 through 2013 and how much additional money could be saved if the program is able to achieve its goal of reducing the prevalence of adult cigarette smoking in Vermont to 12% by 2020.

VTCP does not operate in a vacuum. The program's actions and efforts occur within a larger context that includes the political, social, and legal environments in Vermont as well as the tobacco control landscape in Vermont. VTCP's efforts are helped or enhanced by previous successes in tobacco control, including existing laws and policies and previous declines in smoking rates. Statewide laws and policies related to tobacco advance tobacco control and prevention in the state and provide a background or context within which VTCP operates. Many of Vermont's statewide laws and policies, such as cigarette excise taxes and smoke-free air laws, would not have been enacted without the program's efforts and support. VTCP's efforts and abilities are also largely determined by the amount of funding the program receives. Without sufficient funding, VTCP cannot deliver interventions or conduct activities with a broad enough reach or impact to be effective at meaningfully changing the behaviors of Vermont tobacco users. VTCP's efforts are undermined or potentially offset by the actions and activities of the tobacco industry. To put VTCP's approach, activities/efforts, and progress in context, in the next few sections, we summarize information about the health and economic costs associated with smoking, tobacco industry advertising and promotion, cigarette excise taxes, revenue from cigarette taxes and MSA payments, and funding for tobacco control. Where possible, we compare Vermont with the U.S. average.

2.2.1 Health and Economic Costs Associated with Smoking in Vermont

Smoking is associated with a significant health and economic burden. Each year, an estimated 900 Vermonters will die from smoking-related illnesses (Table 2-1). Looking to the future, an estimated 10,100 Vermont youth, currently aged 0 to 17, will eventually die from smoking. CDC estimates that medical costs associated with smoking total \$348 million each year in Vermont.

Table 2-1. Smoking-related Deaths and Health Care Costs in Vermont

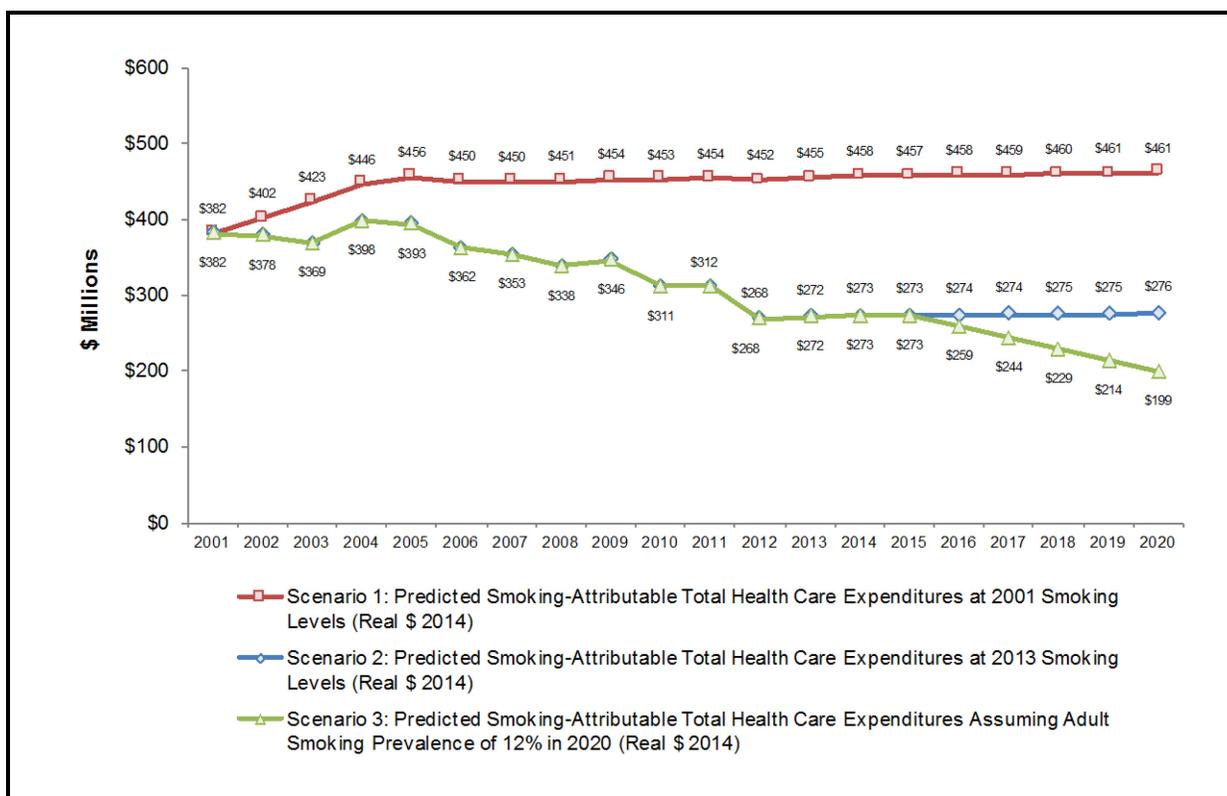
Deaths in Vermont Caused by Smoking	
Annual average smoking-attributable deaths	900
Youth aged 0 to 17 projected to die from smoking	10,100
Annual Costs Incurred in Vermont from Smoking	
Total medical	\$348 million

Source: Appendix E of CDC's (2014) *Best Practices for Comprehensive Tobacco Control Programs*.

Personal smoking-related direct medical costs in Vermont that were paid for by private citizens, health plans, the state of Vermont, and the federal government were an estimated \$273 million in 2014 (Figure 2-2). However, given recent declines in smoking, smoking-attributable health care costs in Vermont have also decreased since 2001. To illustrate the effect of declining smoking rates on smoking-related health care costs, we examine three scenarios: (1) what costs would have been if the adult smoking rate had remained at the 2001 level (22.4%), (2) what costs will be in the future if the adult smoking rate remains at the 2013 level (18%), and (3) what costs will be in the future if the adult smoking rate declines to 12% by 2020—a goal set by VTCP.

Figure 2-2 shows the estimated total smoking-attributable direct medical costs in Vermont that are paid for by Vermont citizens, health plans, the state of Vermont, and the federal government corresponding to each of the three scenarios explored. Because of reductions in adult smoking over the past decade, smoking-attributable medical costs were estimated to be nearly \$185 million less in 2014 than they would have been had smoking remained unchanged over this period. From 2001 to 2014, this represents a cumulative estimated reduction of \$1.43 billion in smoking-related direct medical costs in Vermont. If smoking rates continue to decline to 12% by 2020, Vermont can reduce the total smoking-related direct medical costs in Vermont by an estimated additional \$55 million per year. A decrease from the current smoking prevalence of 18% to 12% in 2020 would reduce total smoking-related direct medical costs in Vermont by an estimated \$229 million between 2015 and 2020.

Figure 2-2. Smoking-Attributable Health Care Costs in Vermont, 2001–2020



Medicaid smokers account for a large portion of all smoking-related direct medical costs in Vermont (41%). Extracting out the Medicaid-specific direct medical costs from the total smoking-related direct medical costs in Vermont, we estimate that cumulative smoking-related direct medical costs for Medicaid smokers in Vermont were \$1.95 billion from 2001 to 2014, but would have been \$2.54 billion if adult smoking rates in Vermont had remained at 2001 levels. This represents a cumulative estimated reduction of \$586 million in smoking-related direct medical costs in Vermont that are accounted for by Medicaid smokers. If smoking rates continue to decline to 12% by 2020, Vermont can reduce the total smoking-related direct medical costs that are accounted for by Medicaid smokers by an estimated \$31 million more per year. A decrease from the current smoking prevalence of 18% to 12% in 2020 would reduce total smoking-related direct medical costs accounted for by Medicaid smokers by an estimated \$94 million between 2015 and 2020. Taking this one step further, we looked at the proportion of Medicaid costs paid for by the state of Vermont. Federal matching for Medicaid is somewhat complicated and varies over time. Based on published Federal Matching Assistance Percentages (FMAP) rates, we estimate that reductions in smoking rates in Vermont from 2001 to 2014 have saved Vermont a total of \$245 million between 2001 and 2014. Assuming that smoking rates continue to decline to

VTCP’s goal of 12% in 2020, Vermont could save an estimated \$43 million more between 2015 and 2020.

As discussed later in this report, tobacco control programming and policies have been shown to be effective in reducing smoking rates. The substantial savings in smoking-related health care costs associated with reductions in smoking rates highlight the value of tobacco control for Vermont. These estimates of smoking-related health care costs also show that the costs of adequately funding VTCP are only a fraction of, and pale in comparison to, the amount of smoking-related health care costs that the state of Vermont is directly responsible for paying.

2.2.2 Cigarette Sales, Taxes, and Revenue from Cigarette Taxes and MSA Payments

Figure 2-3 presents a timeline of key cigarette sales laws and cigarette tax increases in Vermont from when VTCP started in FY 2001 through 2014. In 2002, Vermont banned the sale of single cigarettes. In 2005, Vermont legally required cigarettes to be fire-safe. In 2008, Vermont banned the sale of cigarettes through the Internet or mail. In 2009, the Food and Drug Administration (FDA) was granted regulatory authority over tobacco products. In 2012, the Vermont Legislature enacted Act 166 into law. Key provisions from this important Act include prohibiting the sale of tobacco substitutes or tobacco paraphernalia, including e-cigarettes, to minors younger than 18 years of age. Act 166 also requires tobacco retailers to display and store tobacco substitutes behind the counter and in the same manner as tobacco products. Since VTCP began, per capita cigarette sales in Vermont have declined by 55%, from 94.3 packs per person in 2001 to 42.1 packs per person in 2013 (Figure 2-4).

Figure 2-3. Timeline of Cigarette Sales Laws and Cigarette Tax Increases in Vermont

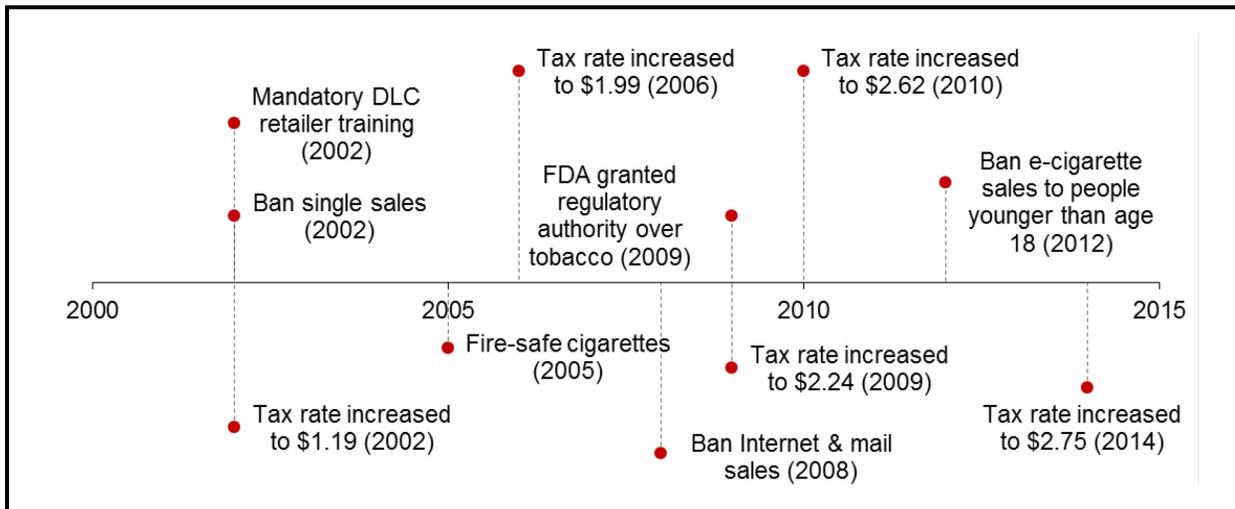
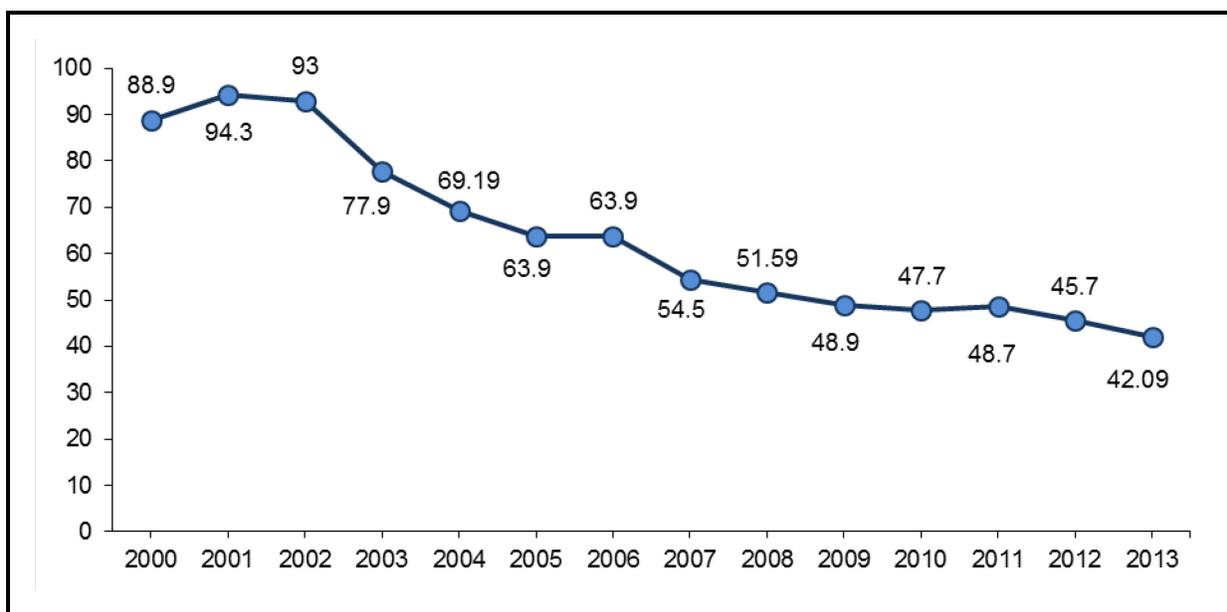


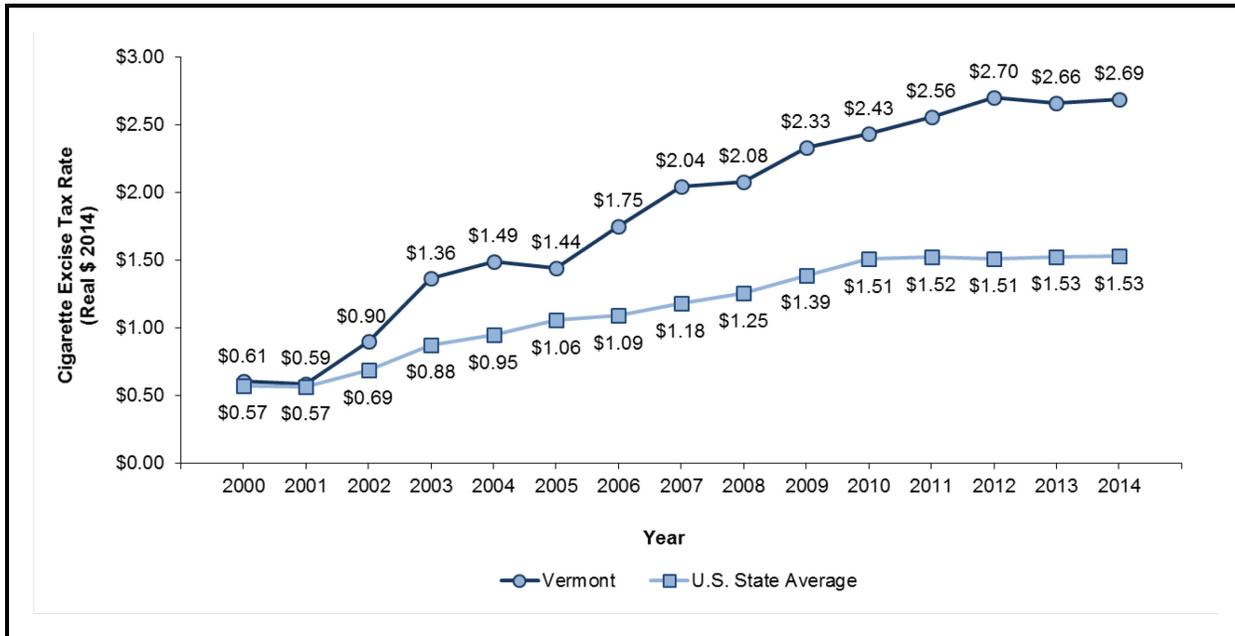
Figure 2-4. Per Capita Cigarette Sales in Vermont, 2000–2013



Increasing cigarette excise taxes is an effective way to prevent and reduce cigarette use (Chaloupka et al., 2012). Previous Surgeon General’s reports (USDHHS, 2000, 2012) have concluded that increases in cigarette prices, including those that result from increases in excise taxes, reduce the initiation, prevalence, and intensity of smoking among youth and adults. Selected state experience suggests that all levels of government can enhance revenue collection and minimize tax avoidance and evasion through several promising policy approaches. For example, California and Massachusetts have both implemented a high-tech cigarette tax stamp, which includes encrypted information on payments that is reported electronically to the state’s revenue collection entity (USDHHS, 2014). These data collection methods allow for more consistent monitoring of tax and MSA payments, improve tobacco licensure management, and make the stamps harder to counterfeit. In California, these methods have reduced state tax evasion by 37% since 2005.

In 2014, Vermont’s cigarette excise tax was the ninth highest in the country at \$2.69 per pack, which was \$1.16 more than the national average of \$1.52 per pack. When VTCP began in 2001, Vermont’s cigarette tax rate was similar to the national average (Figure 2-5). Over the years, VTCP and its program partners have been effective at getting the Vermont Legislature to raise the cigarette excise tax rate. From 2001 through 2014, recognizing that raising the cigarette excise tax has the potential to reduce adult and youth smoking rates (CFTFK, 2012), Vermont increased its cigarette tax rate 7 times from \$0.44 per pack in 2001 to \$2.69 per pack in 2014 (Table 2-2). Vermont went from having the 21st ranked cigarette tax rate in the country in 2001 to having the ninth highest cigarette tax

Figure 2-5. Cigarette Excise Tax Rates in Vermont and U.S. Average, 2000–2014



Note: Tax rates were adjusted for inflation and are presented in constant 2014 dollars.

Table 2-2. Cigarette Excise Tax Increases in Vermont and Other States, 1995–2015

Year	Date of Vermont Tax Increase	Amount of Vermont Tax Increase	New Vermont Tax Rate	Number of States that Increased their Tax	Average Tax Increase
1995	7/1/1995	\$0.24	\$0.44	7	\$0.12
1996				2	\$0.13
1997				8	\$0.28
1998				3	\$0.25
1999				3	\$0.32
2000				2	\$0.30
2001				4	\$0.19
2002	7/1/2002	\$0.49	\$0.93	21	\$0.43
2003	7/1/2003	\$0.26	\$1.19	17	\$0.35
2004				8	\$0.33
2005				12	\$0.58
2006	7/1/2006	\$0.60	\$1.79	6	\$0.34
2007				10	\$0.56
2008	7/1/2008	\$0.20	\$1.99	8	\$0.74
2009	7/1/2009	\$0.25	\$2.24	15	\$0.52

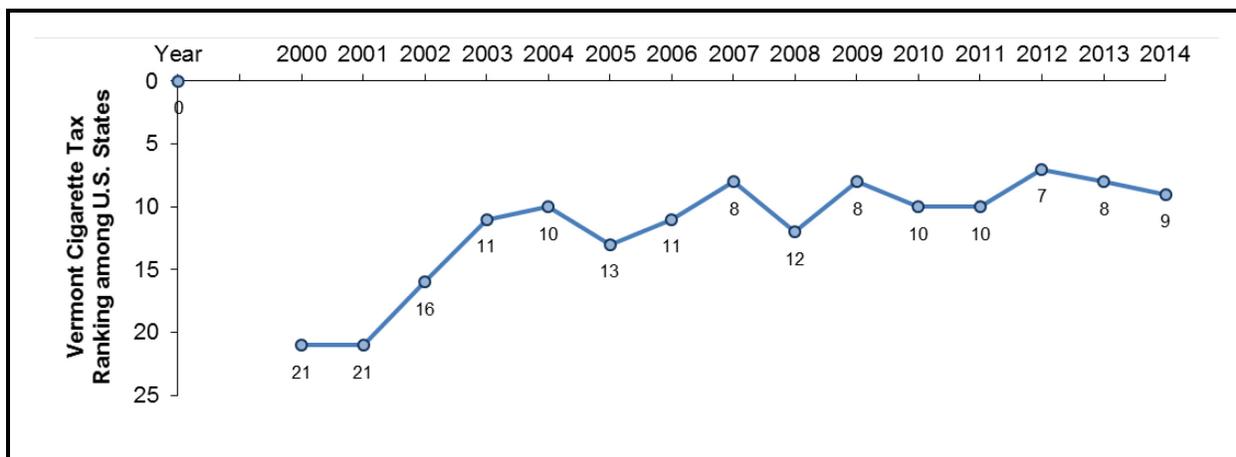
(continued)

Table 2-2. Cigarette Excise Tax Increases in Vermont and Other States, 1995–2015 (continued)

Year	Date of Vermont Tax Increase	Amount of Vermont Tax Increase	New Vermont Tax Rate	Number of States that Increased their Tax	Average Tax Increase
2010				6	\$0.88
2011	7/1/2011	\$0.38	\$2.62	4	\$0.22
2012				2	\$0.52
2013				3	\$0.90
2014	7/1/2014	\$0.13	\$2.75	2	\$0.13
2015	7/1/2015	\$0.33	\$3.08	3	\$0.47

rate in the country in 2014 (Figure 2-6). Between 2002 and 2009, numerous states increased their cigarette excise tax rates. Vermont is one of a handful of states that increased their taxes after 2010, with tax increases in 2011, 2014, and 2015. Most recently, Vermont lawmakers voted to enact Act 54, which raised the statewide tobacco tax yet again. Effective July 1, 2015, Vermont’s cigarette tax increased again by an additional \$0.33 per pack, bringing Vermont’s cigarette tax rate to \$3.08 per pack, the sixth highest cigarette excise tax in the country (CFTFK, 2015) (Table 2-2). The smokeless tobacco tax in Vermont will be \$2.57 per ounce or \$3.08 per package of less than 1.2 ounces, and the tax for snuff will be \$2.57 per ounce (Act 54, 2015).

Figure 2-6. Vermont’s Cigarette Excise Tax Rate Ranking among U.S. States, 2000–2014



Each year, Vermont receives significant revenue from cigarette taxes and MSA payments. Revenue from tobacco taxes was \$80.1 million in state FY 2012, and revenue from MSA payments to Vermont totaled \$34.5 million in FY 2012 (Table 2-3). Together, these two sources total nearly \$115 million annually. Figure 2-7 presents trends in annual revenue from Vermont tobacco taxes and MSA payments to Vermont by calendar year.

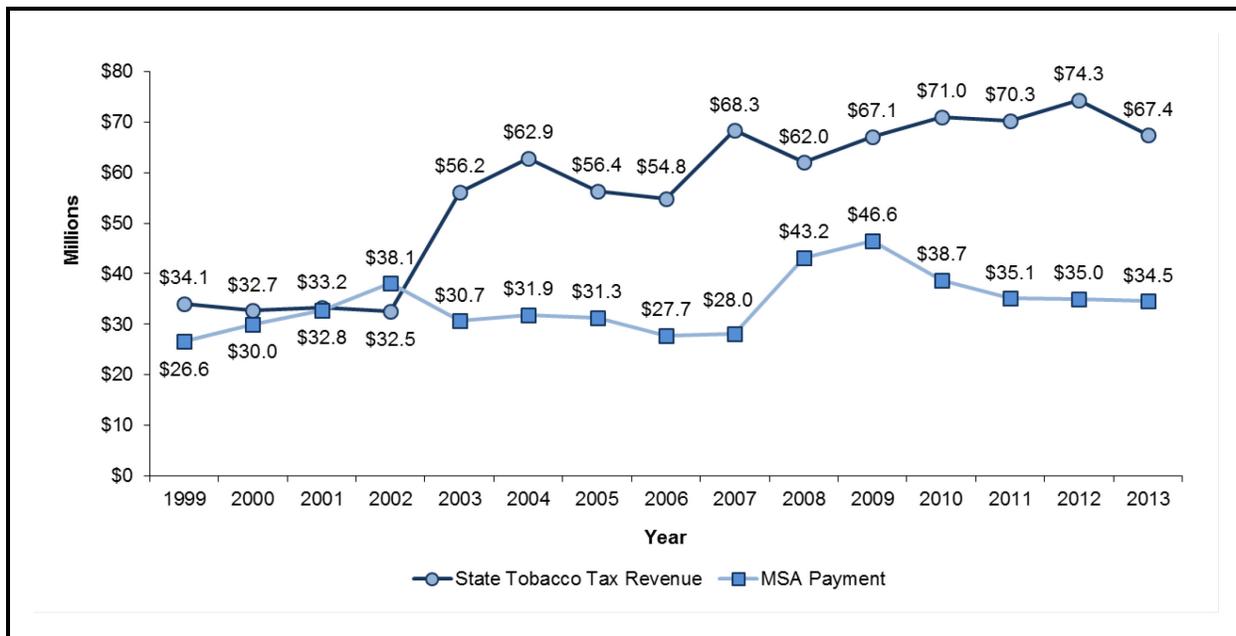
Table 2-3. Annual Revenue from Vermont Tobacco Taxes and Master Settlement Agreement (MSA) Payments to Vermont

Revenue Category	Annual Revenue
Revenue from tobacco taxes (FY 2012)	\$80.1 million
Revenue from MSA payment to Vermont (FY 2012)	\$34.5 million
Total revenue from tobacco taxes and MSA payments	\$114.6 million

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

Data source: 2014 CDC *Best Practices*

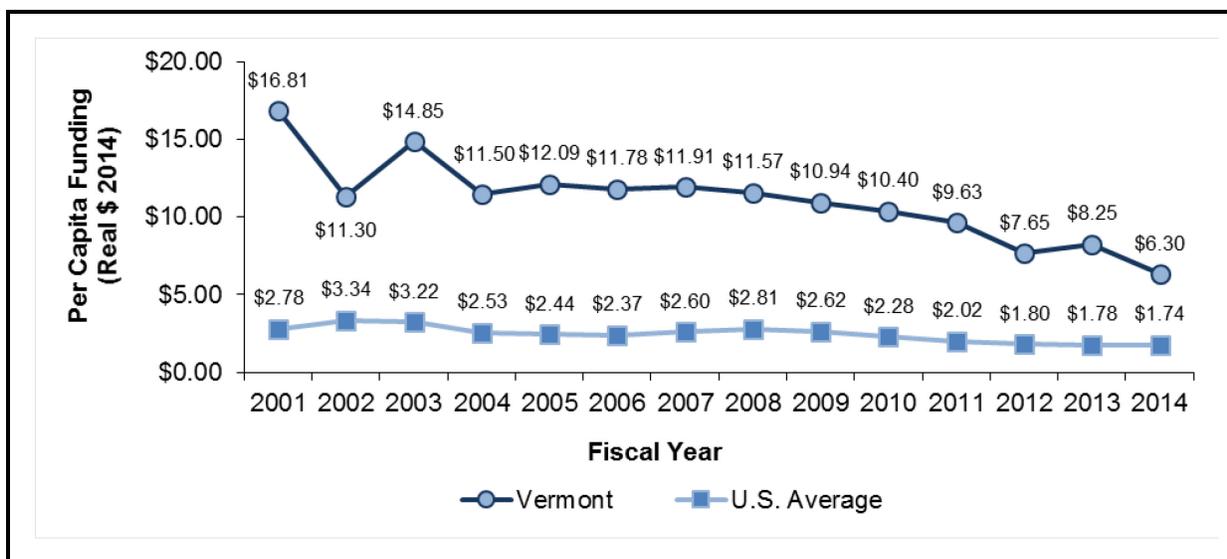
Figure 2-7. Revenue from Vermont Tobacco Taxes and Master Settlement Agreement (MSA) Payments to Vermont, 1999–2013



2.2.3 Funding for Tobacco Control in Vermont and Tobacco Company Spending on Cigarette Advertising and Promotions in Vermont

Research has shown that comprehensive tobacco control programs are effective at reducing smoking. Investments in comprehensive state tobacco control programs can result in declines in smoking rates and smoking-related illness and death (CDC, 2014). Research has shown that the more states invest in comprehensive tobacco control programs, the greater the resulting reductions in smoking (CDC, 2014). Per capita funding for tobacco control in Vermont has consistently been higher than the national average since VTCP began in 2001 (Figure 2-8). However, Vermont has spent less on tobacco control over time, and the difference between per capita funding for tobacco control in Vermont and the national average has decreased. In FY 2001, when the program began and was at its peak funding of \$16.81 per person, per capita funding in Vermont was 6 times higher than the national average of \$2.78 per person. By FY 2014, Vermont’s per capita funding of \$6.30 per person was only 3.6 times higher than the national average of \$1.74 per person.

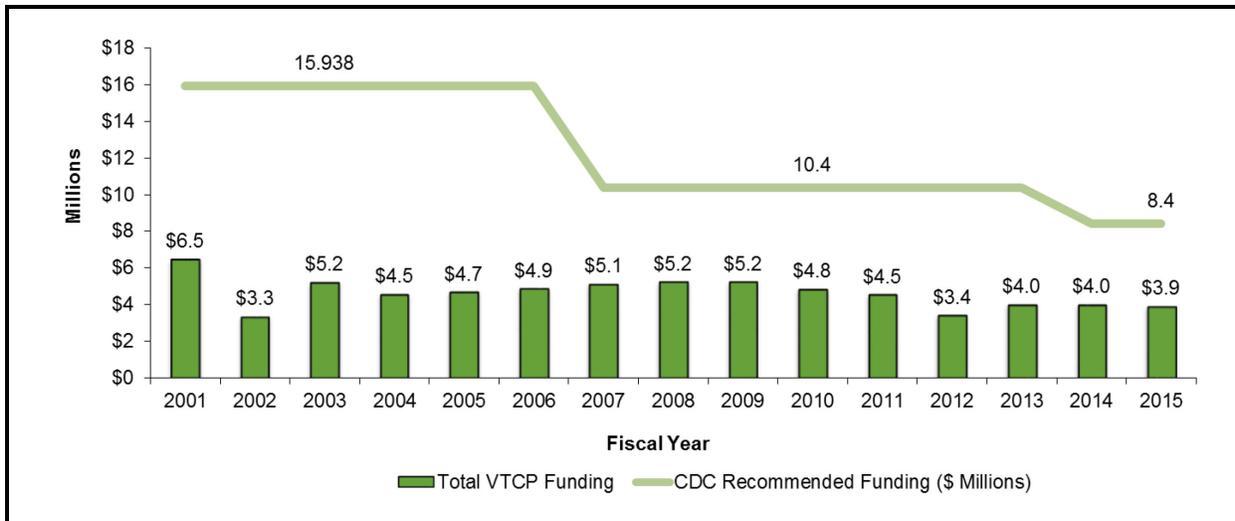
Figure 2-8. Per Capita Funding for Tobacco Control in Vermont and the United States, 2001–2014



In each edition of CDC’s *Best Practices* (1999, 2007, and 2014), CDC has provided recommended funding amounts for each state. In each edition, CDC has lowered its recommended tobacco control funding amounts for each state, not because states should have been spending less, but to reflect the reality that states were not spending anywhere near the recommended amounts and that increasing funding to CDC’s recommended amounts was not possible. Although the Vermont Legislature made a commitment to the health and well-being of Vermonters by establishing VTCP in 2000, the Vermont Legislature has consistently undermined the potential effectiveness and success by not funding it

sufficiently. Despite CDC lowering the recommended funding amount for Vermont twice, first in 2007 and again in 2014, the Vermont Legislature has never funded VTCP at more than 50% of CDC recommended funding since VTCP began in FY 2001. VTCP was initially funded in FY 2001 at \$6.5 million annually, which was only 41% of CDC’s recommended funding (Figure 2-9). In FY 2002, the Vermont Legislature slashed the program budget to \$3.3 million, which was only 21% of CDC recommended funding. Although the Vermont Legislature restored funding to the program in FY 2003, the annual amount of \$5.2 million was still only 33% of CDC-recommended funding. Of the 15 years VTCP has been in existence, the Vermont Legislature has cut program funding in 6 of those years. Not accounting for inflation, VTCP’s total budget in FY 2015 was only 60% of what it was when the program began in FY 2001. Accounting for inflation, VTCP’s FY 2015 budget of \$3.9 million was less than half of program funding when it began in FY 2001 (which translates to about \$8.6 million in real, inflation-adjusted, 2014 dollars).

Figure 2-9. Annual Funding for the Vermont Tobacco Control Program and CDC Best Practices Recommended Funding for Vermont, FY 2001 to FY 2015



Note: FY = fiscal year; VTCP = Vermont Tobacco Control Program.

Allocating just 7% of the annual revenues from cigarette taxes and MSA payments to tobacco control programming would meet CDC’s recommended funding level for VTCP of \$8.4 million per year (Table 2-4). As mentioned above, VTCP’s FY 2015 budget of approximately \$3.9 million was only 46% of the CDC recommendation and represents less than 4% of annual tobacco tax revenue and MSA payments to Vermont. Although VTCP was only funded at 46% of CDC’s recommended funding level, the distribution of funds by intervention category or strategy was similar to the distribution of CDC recommended funding (Figure 2-10). The distribution of VTCP funds has been similar to CDC recommendations for the past few years, as presented in previous RTI annual reports.

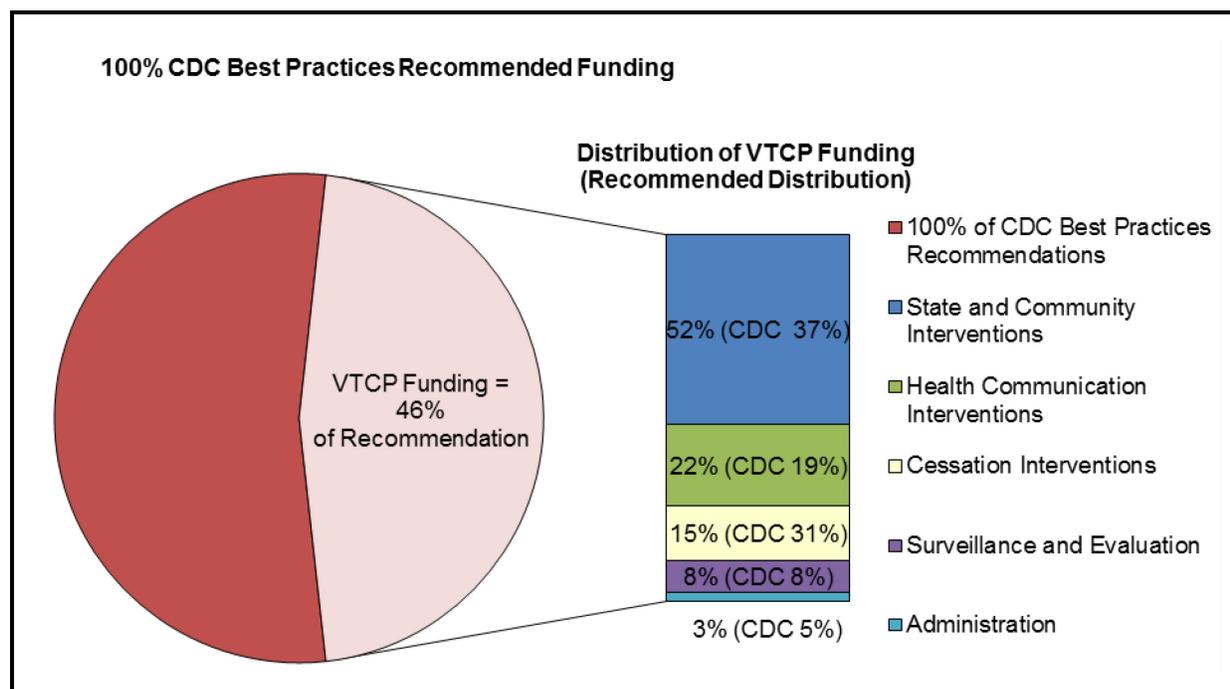
Table 2-4. Annual Revenue from Vermont Tobacco Taxes and Master Settlement Agreement (MSA) Payments to Vermont and CDC Best Practices Recommended Funding for Vermont

Category	Annual Amount
Revenue from tobacco taxes (FY 2012)	\$80.1 million
Revenue from MSA payment to Vermont (FY 2012)	\$34.5 million
Total state revenue from tobacco taxes (sales) and MSA payments	\$114.6 million
CDC recommended annual funding for tobacco control program	\$8.4 million
Percent tobacco revenue to fund VTCP at recommended level	7%

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

Data source: 2014 CDC *Best Practices*

Figure 2-10. Vermont Tobacco Control Program FY 2015 Budget Versus CDC Recommendations



Note: CDC = Centers for Disease Control and Prevention; FY = fiscal year; VTCP = Vermont Tobacco Control Program.

In addition to falling well below CDC’s recommended funding levels, VTCP is outspent by tobacco companies and advertisers. Based on the latest available data from the Federal Trade Commission (2011), tobacco companies spent \$9.4 billion nationally on advertising and promotions. If these expenditures are spent in proportion to cigarette sales, then this translates to \$15.9 million spent on advertising and promotions overall in Vermont in 2010

(Table 2-5). In 2012, the Center for Public Health and Tobacco Policy estimated that the tobacco industry spends nearly \$19 million per year on marketing tobacco products in Vermont, which translates to approximately \$18,000 per tobacco retailer in Vermont (Center for Public Health and Tobacco Policy, 2012).

Table 2-5. Annual Cigarette Advertising and Promotions in Vermont, 2010

Expenditure Category	Annual Expenditure
Estimated cigarette advertising and promotions in Vermont (CY 2010) by five major cigarette manufacturers	\$15,937,720

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

2.2.4 Smoke-Free Air Laws in Vermont

All Vermonters are covered by a comprehensive smoke-free air law (workplaces, restaurants, and bars) compared with 55% of the population nationally (Table 2-6). Vermont’s initial smoke-free air law was enacted in 1987 and has been strengthened several times since to be more comprehensive and eliminate loopholes and exemptions under the law (Figure 2-11). In 1993, Vermont extended limited smoke-free protection to public places. In 2005, Vermont implemented the Clean Indoor Air Act, which provided comprehensive smoke-free coverage for Vermont (Figure 2-12). In 2009, Vermont amended its Clean Indoor Air Act to make Vermont workplaces 100% smoke-free and prohibit smoking inside all areas of the workplace. One concern and criticism regarding smoke-free workplace laws is that they are bad for business. RTI has conducted studies showing that enacting a comprehensive smoke-free workplace law did not affect restaurant employment at the state level, but bar employment increased significantly following the law (Loomis et al., 2013b).

Table 2-6. Smoke-Free Air Law Coverage in Vermont and the United States

Indicator	Vermont	U.S. Average
Percentage of the state population covered by comprehensive ^a smoke-free air laws (as of January 1, 2015)	100%	55%

^a “Comprehensive” refers to laws that create smoke-free workplaces, restaurants, and bars.

In 2014, the Vermont Legislature enacted Act 135 into law to extend secondhand smoke protection to workplaces, motor vehicles, public places, and childcare settings. Implementation of Act 135 strengthens social norms around tobacco and creates additional smoke-free environments in Vermont, including in vehicles and around state buildings. This important legislation will create healthier environments for Vermont youth and provide more supportive and conducive environments for adults trying to quit smoking. Starting in 2015,

Figure 2-11. Timeline of Smoke-Free Air Laws in Vermont

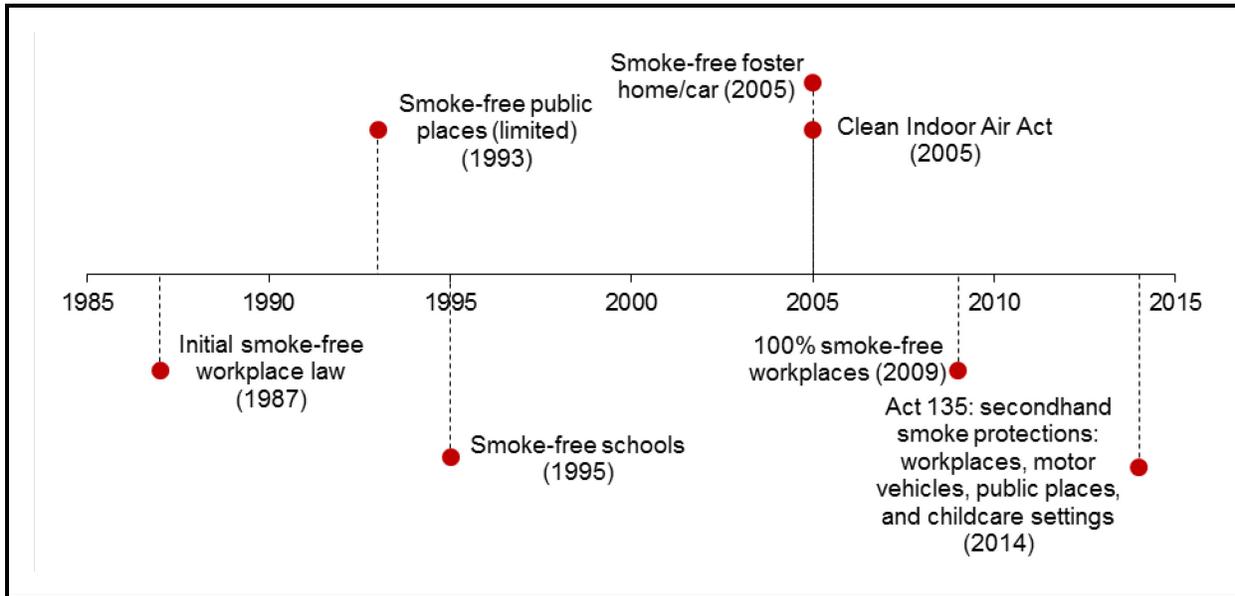
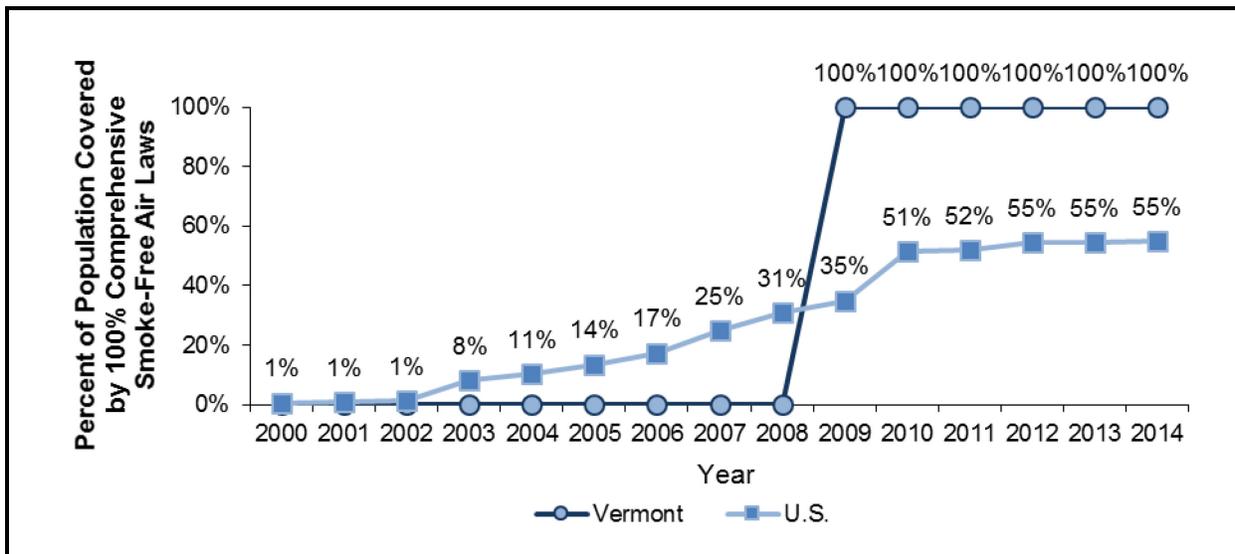


Figure 2-12. Percentage of Population Covered by 100% Comprehensive Smoke-Free Air Laws in Vermont and the United States, 2000–2014



Note: "Comprehensive" refers to laws that create smoke-free workplaces, restaurants, and bars.

Act 135 also takes a first step in protecting children from poisoning related to the liquid in e-cigarettes. In addition to statewide laws and policies creating smoke-free environments in Vermont, numerous villages, towns, and cities have also enacted ordinances and policies to create smoke-free outdoor areas.

3. The Vermont Tobacco Control Program: Program Approach

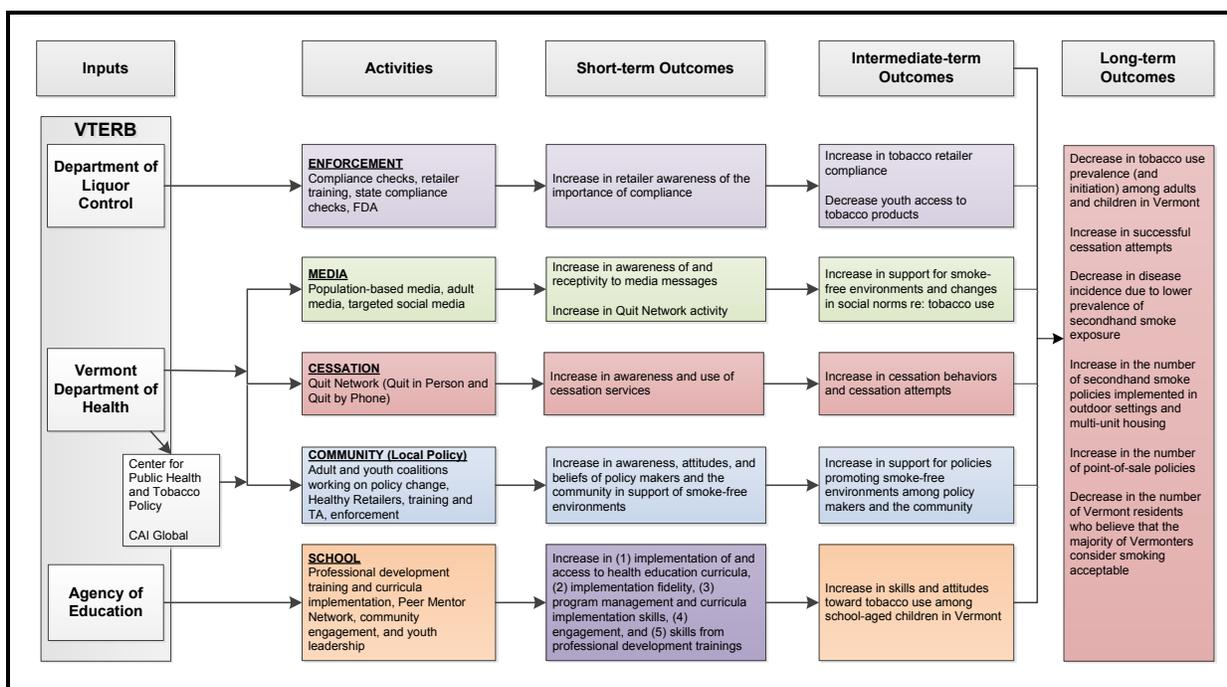
To accomplish its goals, the Vermont Tobacco Control Program (VTCP) employs key evidence-based strategies to change social norms, promote and encourage the implementation of wide-reaching and durable policies, and ultimately reduce tobacco use and exposure to secondhand smoke in Vermont. Consistent with recommendations for tobacco control programs in the Centers for Disease Control and Prevention's (CDC's) *Best Practices for Comprehensive Tobacco Control Programs* (2014) and supported by available evidence presented in *The Health Consequences of Smoking—50 Years of Progress* (USDHHS, 2014), VTCP's comprehensive and evidence-based approach includes the following core components:

- State and community interventions
- Mass-reach health communication interventions
- Cessation interventions
- Surveillance and evaluation
- Infrastructure, administration, and management

Comprehensive, and well-coordinated, tobacco control programs that include these five program components have been shown to be the most effective at preventing tobacco use initiation and promoting cessation (CDC, 2014). CDC recommends that state tobacco control programs should work to increase the unit price of tobacco products, sustain antitobacco media campaigns, and create smoke-free environments. CDC also recommends that community programs, as well as school and college policies and interventions, should be part of comprehensive state tobacco control programs (CDC, 2014).

Figure 3-1 presents an overview of VTCP's approach. The Vermont Tobacco Evaluation and Review Board (VTERB), Vermont Department of Health (VDH), Vermont Agency of Education (AOE), Department of Liquor Control (DLC), and the Attorney General's Office work together to conduct a variety of evidence-based activities and deliver interventions that are designed to influence desired short-term and intermediate outcomes that are expected to lead to the long-term outcomes of reduced tobacco use and exposure to secondhand smoke in Vermont. In the following sections, we briefly describe VTCP's approach for each of the five overall program components listed above.

Figure 3-1. Vermont Tobacco Control Program Approach



3.1 State and Community Interventions

Evidence has shown that the most effective state and community interventions have specific strategies for preventing tobacco use initiation, promoting tobacco use cessation, and eliminating exposure to secondhand smoke. CDC recommends that state tobacco control programs pair their state and community interventions with mass-reach health communication and community mobilization and work to integrate their strategies and approaches into synergetic and multicomponent efforts (CDC, 2014). State- and community-level policies and effective interventions will ultimately lead to social norm and behavior change (CDC, 2014).

Consistent with CDC recommendations, VTCP and its partners work to keep tobacco issues before the public, counteract tobacco industry efforts, engage and involve communities, educate policy makers, promote and obtain buy-in and support for tobacco control policies, and ultimately help inform and effect policy change (CDC, 2014). VTERB actively supports and promotes the legislative enactment of state policies that are likely to reduce adult and youth tobacco use, and VDH works with community coalitions to advance the development and implementation of community policies that are likely to reduce adult and youth tobacco use (see Section 3.1.3). VDH also actively partners with other programs and organizations to deliver broad-reaching interventions to tobacco users and to collaborate on program development and policy initiatives.

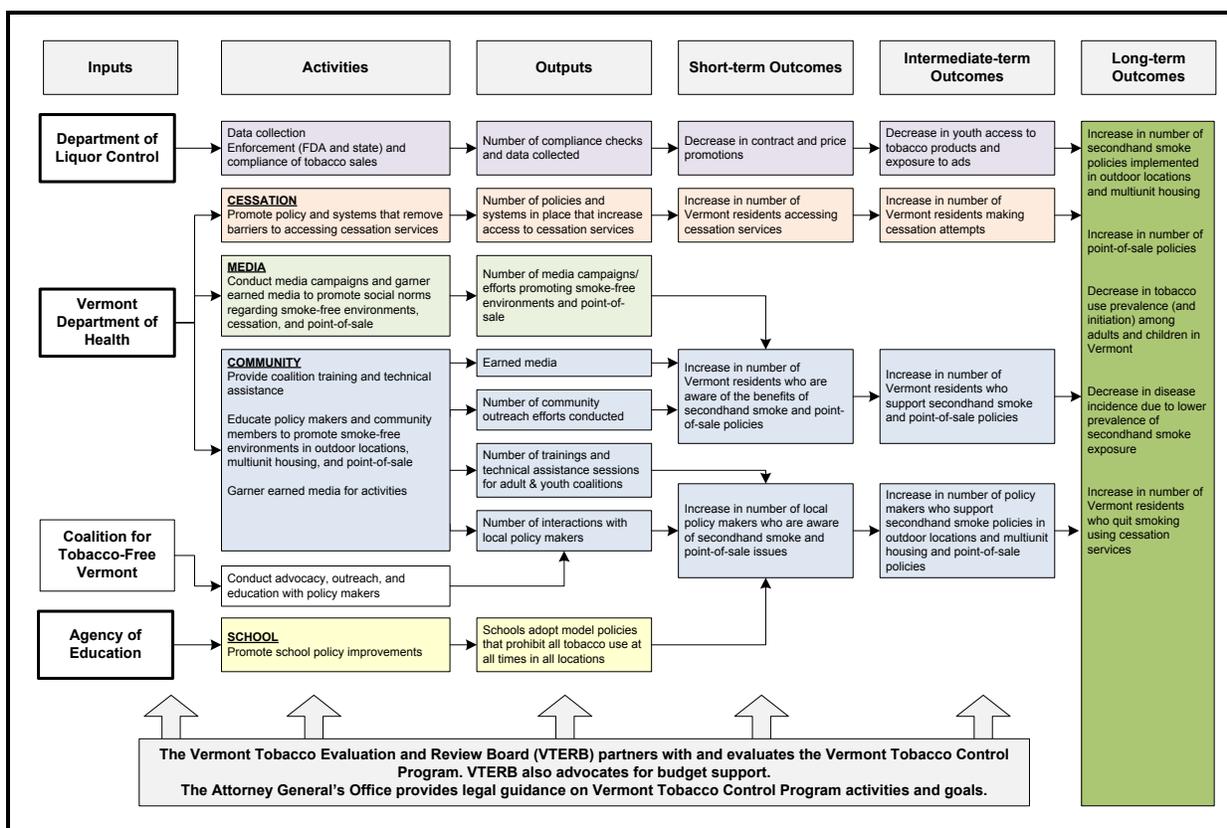
3.1.1 Efforts to Promote and Encourage Policy Change

Tobacco control policy efforts and activities are considered an essential step toward the reduction of tobacco use (Institute of Medicine [IOM], 2007). To continue reductions in tobacco use following the implementation of a statewide comprehensive control program, it is necessary to strengthen traditional tobacco control interventions and implement new interventions, such as broad reaching policies that can help increase cessation and decrease youth initiation (Bonnie, Stratton, & Wallace, 2007). Accordingly, CDC (2007, 2014) recommends that tobacco control programs place greater emphasis on tobacco policy because of its potential to have the greatest impact, especially when compared with individually focused clinical or education interventions. For policy efforts to discourage smoking initiation and promote cessation, targeted policies must be broad reaching to cover a notable proportion of the state's population. States should prioritize community action leading to policies in municipalities (i.e., towns, cities, and counties) and large businesses. Historically, states, including Vermont, have pursued and adopted wide-reaching policies, such as tax increases and smoke-free air laws. Moving forward, new types of tobacco control policies are needed that can effectively address youth smoking through the point of sale (POS). The 2012 Surgeon General's report emphasized the importance of policies that address youth tobacco use as "the addictiveness of tobacco, the severity of the health hazards posed by smoking, the evidence that tobacco marketing and promotion encourages children to start smoking, and the consistency of the evidence that it influences children's smoking justify banning advertising and displays of tobacco products at the point of sale" (USDHHS, 2012, p. 544).

VTCP takes a strategic and active approach to creating, supporting, and facilitating the passage of statewide tobacco legislation. Each summer, VTERB discusses and determines the types of legislation to focus on over the coming year. VTCP frequently researches tobacco control issues, drafts legislation, and provides testimony on statewide tobacco legislation. Although all agencies that comprise VTCP have an active role working on tobacco policy change in Vermont, VTERB largely directs and leads these efforts. VTERB sets the legislative priorities that the program focuses on each year. Additionally, as an independent board established by the Vermont Legislature for the sole purpose of advancing tobacco control in Vermont, VTERB is not constrained from conducting activities that are classified as advocacy. Sometimes advocacy activities, specifically ones related to supporting and promoting the enactment of legislation or policies, are prohibited or politically infeasible for some of the VTCP component agencies. However, VTERB is not constrained in this area and is able to endorse and support legislation or policies that VTCP identifies as beneficial and important for tobacco control in Vermont.

VTCP's policy efforts have focused largely on three main areas that have the potential to affect the largest proportion of the population: promoting an increase in the statewide cigarette tax, enacting smoke-free air laws, and enacting POS policies. Figure 3-2 presents

Figure 3-2. Vermont Tobacco Control Program Policy Change Logic Model



a logic model illustrating how VTCP's component organizations and partners work together to promote and facilitate the development and implementation of broad-reach and durable policies. The VTCP policy change logic model also illustrates how the implementation of such policies is expected to ultimately result in lower tobacco use and exposure to secondhand smoke in Vermont. As represented in the VTCP policy change logic model, the Coalition for a Tobacco Free Vermont is an important program partner that often works with VTCP to promote and advance statewide tobacco control legislation and policies in Vermont. The Coalition works to generate and leverage community support and to obtain state policy maker support and buy-in for statewide tobacco legislation and policies. Recent examples of the Coalition's role in promoting policy change in Vermont include its campaign and efforts to increase Vermont's cigarette tax rate by \$1.25 per pack (ACS CAN, 2015). The Coalition also criticized the Governor's FY 2016 proposed budget, which included a substantial decrease in funding for VTCP (ACS CAN, 2016). These recent examples illustrate the important and helpful advocacy role played by the Coalition for a Tobacco Free Vermont and other program partners that many of the VTCP component organizations would not be able to address.

VTCP has consistently emphasized interventions designed to influence attitudes and behaviors that reduce secondhand smoke exposure. VTCP promotes smoke-free zones, specifically at home and in the car when children are present. Additionally, VTCP works with community coalitions to influence tobacco-related attitudes, social norms, and behaviors. VTCP and community coalitions work with state policy makers to get statewide legislation enacted. VTCP and community coalitions work with local decision makers to promote the implementation of local ordinances and to promote voluntary policies aimed at reducing exposure to secondhand smoke in venues such as beaches, parks, community gathering spots, and multi-unit housing.

VTCP's POS policy efforts are aimed at reducing the social acceptability of tobacco use and youth tobacco use by reducing the impact of retail tobacco product marketing on youth. POS policy goals include reducing the level of tobacco product marketing, implementing policies that prohibit the display of tobacco products in establishments open to youth, limiting the number of retailers that can sell tobacco products in a community, prohibiting the sale of tobacco products in stores that are near schools, and/or prohibiting the sale of tobacco products in pharmacies. In Vermont, the POS policy efforts are at the town level. As depicted in Figure 3-2, the combined efforts of VTCP, community coalitions, and program partners lead to awareness of the importance of POS policies and increase public and policy-maker support for and receptivity to these policies. Public and policy-maker support and buy-in for POS policies will in turn lead to an increase in local and state POS policies in Vermont.

Historically, VTCP's POS activities focused on strengthening licensing with the DLC and encouraging voluntary changes in retailer behavior through the Healthy Retailer initiative. Specifically, VTCP conducted a variety of activities, including retailer audits, community opinion surveys, and education for retailers and the community, later expanding into policy education. Currently, VTCP's POS activities focus primarily on mass media and community engagement, as well as training and technical assistance (TA). Mass media and community engagement activities have included media efforts and campaigns (television, Web site, social media, and community coalition toolkits), as well as community and stakeholder education to increase community awareness and support for policies to address POS marketing on youth tobacco initiation. Cicatelli Associates Inc. (CAI) and the Policy Center have provided VTCP and the community coalitions with POS training and TA. The Policy Center has also provided VTCP with examples of language for model POS policies.

More recently, VTCP has shifted its focus and efforts with respect to POS efforts. In 2014, VTCP introduced the Counter Balance initiative, a multicomponent campaign designed to educate and increase awareness of the tobacco industry's POS strategies and to increase community and stakeholder support for reducing the impact of tobacco advertising in Vermont communities. VTCP aims to reach parents aged 25 to 45 through the Counter

Balance initiative to increase awareness of the negative impact of POS advertising on children's perceptions of tobacco and to increase knowledge of how POS works, along with effective counter-interventions. Counter Balance also includes partners, stakeholders, and opinion leaders, with the goal of increasing support for changing the POS environment. The Counter Balance initiative is being implemented in three stages with distinct goals, starting in fall 2014 and ending in summer 2017:



- Stage 1 (fall 2014–2015): Educate Vermont parents about the impact of POS tobacco advertising on children's perceptions of tobacco and the likelihood that they will eventually use tobacco.
- Stage 2 (fall 2015–spring 2016): Build on the awareness and education-related outcomes achieved during Stage 1 and shift the strategy to encourage social action and audience engagement.
- Stage 3 (fall 2016–summer 2017): Heighten awareness and engagement around the need for POS intervention(s) while continuing to build public support for the changes in communities across Vermont.

The density of tobacco retailers in high school neighborhoods has been associated with experimental smoking (Leatherdale & Strath, 2007; McCarthy et al., 2009), and exposure to tobacco product marketing at the POS has been consistently associated with increased youth smoking initiation and susceptibility to smoking (Henriksen et al., 2010; Paynter & Edwards, 2009; Slater et al., 2007). VTCP is working with the nonprofit organization Counter Tools to conduct a comprehensive assessment of Vermont's tobacco retail environment. Goals of the retail assessments include collecting in-depth data to increase understanding of tobacco industry marketing in Vermont, engaging community groups and youth in retail assessments, and establishing a baseline for evaluating the impact of the Counter Balance initiative. In August 2013, VTCP piloted Counter Tools in Chittenden County with VDH's Burlington district office and five local community coalitions. Based on this pilot, statewide audits were initiated in fall 2014. The store audit teams consisted of community coalition members, VDH district office staff, and members from the Our Voices Xposed (OVX) and Vermont Kids Against Tobacco (VKAT) tobacco youth coalitions. Counter Tools, along with VDH, trained the team to ensure that audits were conducted consistently throughout the state.

3.1.2 Restricting Youth Access to Tobacco Products

Restricting youth access to tobacco products is one component of a comprehensive strategy to prevent and reduce youth smoking (CDC, 2007; USDHHS, 2012, 2014). Youth can either obtain tobacco products commercially (purchasing them from a store or vending machine) or socially (borrowing, buying, or stealing them from other youth or adults). Theory, and some evidence, suggests that effectively restricting youth's commercial access to tobacco products can also result in limiting social access by reducing the total amount of tobacco

products accessible to youth (USDHHS, 2012, 2014). However, the 2012 Surgeon General’s report reviewed the efficacy of interventions to prevent the sale of tobacco products to minors and concluded that the evidence is mixed on whether youth access restrictions can actually lead to a reduction in the number of tobacco retailers selling tobacco to minors (USDHHS, 2012). The Community Preventive Services Task Force (2005) recommended that state tobacco control programs should actively pursue community mobilization, combined with stronger tobacco retailer laws and active enforcement of those laws and corresponding merchant education.

Vermont requires all tobacco retailers to obtain a tobacco license from the Vermont DLC. Consistent with recommendations from the 2014 Surgeon General’s report (USDHHS, 2014), Vermont uses multiple strategies to ensure compliance with minimum purchase age laws for tobacco products, including regulating the retail environment, educating tobacco retailers, and actively enforcing youth access laws. Vermont requires tobacco products to be located behind the counter and requires tobacco retailers to post signage notifying customers it is illegal for minors to purchase tobacco products. Vermont also requires all licensed tobacco retailers to verify the age of purchasers. Consistent with numerous recommendations, including those in an IOM report and the 2014 Surgeon General’s report, Vermont banned the sale of tobacco products in vending machines (Bonnie, Stratton, & Wallace, 2007; IOM, 2007; USDHHS, 2014).

In 2009, FDA was granted regulatory authority over tobacco products. In March 2010, FDA implemented regulations regarding the sale and distribution of cigarettes, cigarette tobacco, and smokeless tobacco, including the following requirements (USDHHS, 2014):

- Prohibit the sale of tobacco products to individuals younger than 18 years of age.
- Require proof of age by photo identification for purchasers younger than 27 years of age.
- Prohibit the sale of tobacco products in vending machines, self-service displays, or other impersonal methods, except in very limited circumstances.
- Prohibit the sale of cigarettes in packs containing fewer than 20 cigarettes.
- Prohibit free samples of cigarettes and limit the distribution of free samples of smokeless tobacco products.

Vermont’s legislative efforts to prevent tobacco sales to minors, combined with FDA’s federal legislative requirements for tobacco sales, may reduce the likelihood that youth will be able to purchase tobacco products from Vermont stores. VTCP recently supported and promoted legislation to address tobacco substitutes, such as e-cigarettes, that was successfully adopted and implemented by the Vermont Legislature. Act 166, which went into effect in May 2012, extends the minimum purchase age of 18 for tobacco products to tobacco substitutes and requires tobacco substitutes to be located behind the counter like other tobacco products (OTPs).

VTCP provides training to tobacco retailers in Vermont to inform and educate retailers and clerks about Vermont's minimum purchase age laws for tobacco products. Since VTCP began in 2000, DLC has been providing merchant education and training to tobacco retailers in Vermont. Tobacco retailers in Vermont have the option of sending their clerks to DLC training seminars or training their clerks themselves. In 2011, DLC introduced an online version of its tobacco retailer training program. VTCP's retailer education and training efforts are intended to reduce the likelihood of tobacco retailers and clerks selling tobacco products to minors.

Federal law requires that states conduct retailer compliance checks to determine the rate of illegal tobacco sales to minors and set an annual goal to reach 80% compliance. In 1997, Vermont set a higher standard of 90%. DLC enforces the laws against the sale of tobacco to minors and conducts retailer compliance checks to measure Vermont's compliance with state tobacco sales laws. Penalties are also an important part of preventing minors from purchasing tobacco products from commercial sources (USDHHS, 2012). Penalties for selling tobacco products to minors include fining merchants and clerks who sell to youth or potentially revoking store licenses. Vermont fines retailers that sell tobacco products to minors during compliance checks. VTCP supports proposed legislation to increase the fees associated with selling tobacco products to minors. FDA is also enforcing the tobacco sales regulations that it implemented in 2010 through state contracts and other enforcement activities. In addition to the regular retailer compliance checks that DLC conducts for Vermont, DLC is conducting additional retailer compliance checks for FDA. Retailer penalties for violations observed during FDA retailer compliance checks can include warning letters, fines, or restrictions on the sale of tobacco (USDHHS, 2014).

3.1.3 Community Coalitions

Effective community efforts reach and influence people in their daily environment (CDC, 2014). Considerable research, evidence, and guidelines recommend community engagement and community mobilization as a key component of an effective state tobacco control program (CDC, 2014). CDC's *Best Practices* cites the involvement and integration of community partners as an important strategy for influencing societal organizations, systems, and networks (CDC, 2014). CDC also indicates that evidence-based community interventions are an effective method for addressing and decreasing disparities in tobacco use (CDC, 2014). Since it began in 2000, VTCP has used community tobacco coalitions as a core component of the program. VDH provides grant funding to tobacco coalitions across the state to bring VTCP's objectives and efforts to the community and support the program at the local level. Many of the community coalitions have been funded for multiple years and are well established within their communities.

In the early years of Vermont's tobacco control program, community coalitions tended to focus their efforts on directly addressing the program's overall goals of reducing adult and

youth smoking and eliminating exposure to secondhand smoke. Specific activities conducted by coalitions varied widely but tended to include a number of community education activities, such as conducting health fairs, setting up booths at events, and making presentations to small groups of people, either at schools or in the community. At that time, there were no overall program guidelines coordinating or directing community coalitions. One of RTI's earliest evaluation recommendations was to coordinate the efforts of the program at the state level so that the program's statewide activities, community activities, and media were in sync. In response to this request, VTCP developed common theme campaigns where the program focused on one of the three program areas (adult smoking, youth smoking, and secondhand smoke exposure) for 4 months as a time. During each common theme campaign, VTCP implemented statewide media focusing on the campaign theme, and community coalitions were directed to focus their efforts and activities around the campaign theme.

Moving toward common theme campaigns helped standardize and coordinate the efforts of the community coalitions. However, another of RTI's evaluation findings was that community coalitions were disproportionately focusing their activities on youth prevention. Following RTI recommendations, VTCP directed the community coalitions to diversify their activities to include adult cessation and secondhand smoke activities. With guidance, direction, and support from VDH, coalitions were able to diversify their activities to include a relatively equal mix of activities focusing on youth prevention, adult cessation, and secondhand smoke exposure. Coalition activities focusing on cessation often included promoting VTCP's cessation programs, such as the Vermont Smokers' Quitline (since renamed 802Quits–Quit by Phone) and the Vermont Quit in Person program (since renamed Vermont Quit Partners) and encouraging Vermont smokers to use those programs for help with quitting. Coalitions efforts directed at secondhand smoke included activities aimed at raising awareness of the dangers of secondhand smoke and encouraging adults to either quit smoking for the health of their children and families or to create a Smoke Free Zone around their children by smoking outside the house away from their children and not smoking in the car when children were present.

Vermont's community coalitions have made progress in coordinating their activities and efforts around statewide common theme campaigns and distributing their activities more evenly across program goals. However, community coalition activities tended to reach a relatively low proportion of Vermont's tobacco users and were unlikely to have substantial impacts on the tobacco use behaviors and outcomes VTCP was trying to influence. In its 2014 *Best Practices* document, CDC recommended focusing community efforts on creating durable policy change that would reach and influence a broad population of tobacco users. To counter the aggressive influence of the tobacco industry's promotion of tobacco products, particularly at the POS, CDC encourages communities to work to change the knowledge, attitudes, and behaviors of tobacco users and non-users. CDC also recommends that states

and communities actively pursue strategies to address the manner in which tobacco is promoted; the time, manner, and place in which tobacco is sold; and how and where tobacco is used (CDC, 2014). RTI echoed CDC's recommendations and encouraged VTCP to direct community coalitions' efforts toward policy change. Following CDC and RTI recommendations, VTCP has shifted the focus and direction of the community coalitions to supporting statewide policy efforts and bringing about durable policy changes at the local level.

Coalitions are working on two primary policies: smoke-free air laws and POS policy initiatives. Community coalitions are helping their communities make town parks smoke-free and to help local businesses implement smoke-free policies, such as making building entrances smoke-free. Coalitions are also working with tobacco retailers to get them to reduce or remove tobacco advertising and displays. In addition to policy change efforts, community coalitions are still actively promoting tobacco use cessation in their communities through a number of methods, including organizing classes at local businesses to encourage employees to quit using tobacco and to connect them with resources to help them quit. Coalitions are also partnering with mental health providers to help provide tobacco cessation assistance and resources to patients (VDH Web site).

Shifting community coalition efforts from discrete events and activities in their communities to policy change was not an easy transition. It involved a shift in paradigm that included different types of activities and skill sets that coalitions may not have had previous experience with, including talking with local legislators and decision makers to educate them about tobacco policies and to obtain their support and buy-in. Policy change is a long-term activity that often takes repeated attempts over a long time to produce results. VDH worked closely with the community coalitions and provided them with extensive training and TA to help them with their policy change work and efforts. VDH contracted with the Center for Public Health and Tobacco Policy (The Policy Center) to provide training and TA to community coalitions and youth coalitions who are working with towns on smoke-free air laws and POS policies. The Policy Center has also shared national updates related to tobacco policy with VDH and community coalitions. Topics presented and discussed during Policy Center conference calls conducted with community and youth coalitions have included e-cigarette regulations in the United States and Vermont; cross-cutting strategies for tobacco, alcohol, and marijuana; and reviewing ongoing tobacco court cases (VDH Tobacco Use Performance Dashboard Web site [VDH Dashboard Web site hereafter]: <http://healthvermont.gov/hv2020/dashboard/tobacco.aspx>). Although The Policy Center provided VDH and community coalitions with excellent training and TA to help with VTCP's smoke-free air and POS policy initiatives, VDH had to end its contract with The Policy Center due to tobacco control program funding cuts and lack of available resources to continue these helpful training and TA activities.

VTCP is also conducting a Tobacco Free College Campus initiative. The Burlington Partnership for a Healthy Community, which is coordinating and organizing this initiative, is providing information on national, regional, and local strategies for promoting the importance of health on Vermont's college campuses and helping them work toward implementing tobacco-free campuses (VDH Dashboard Web site). Through the Tobacco Free College Campus Initiative, VTCP is also supporting community coalitions and college campus stakeholders to educate Vermont colleges about the dangers of secondhand smoke exposure and to assess the readiness of Vermont colleges to implement smoke-free policies, including tobacco-free campuses. For this initiative, VTCP has developed Vermont's Tobacco Free College Initiative toolkit. Program partners working on this initiative, including the Burlington Partnership for a Healthy Community and community coalitions, are promoting this toolkit.

Typically, VDH funds around 20 community coalitions each year to support VTCP at the local level. In FY 2015, VDH funded 18 community coalitions. In recent years, VDH has had to fund fewer coalitions at a smaller amount due to VTCP funding cuts and constraints on available resources. In FY 2016, VDH will be funding fewer community coalitions as a result of the large cut in VTCP funding resulting from budget cuts made by the Vermont Legislature during the 2014–2015 legislative session. With future funding cuts likely during the upcoming 2015–2016 Vermont legislative session, VDH may have to eliminate funding for even more community coalitions that are actively working across the state to help communities and businesses create smoke-free environments, to address the tobacco retail environment at the POS, and to help promote cessation and connect tobacco users with resources to help them quit.

In addition to community coalitions, VDH also funds two youth tobacco prevention coalitions: OVX and VKAT. OVX is a high-school aged, youth-led coalition that aims to education, inform, and empower teens to reduce tobacco use among their peers. VKAT is for Vermont youth in fifth through eighth grades. VKAT started in 1995 with the goal of educating Vermont youth about the dangers of tobacco use. Historically, Vermont's youth coalitions operated independently and conducted numerous youth-focused activities throughout the year. As with the community coalitions, the efforts and activities of these groups were limited by low reach and lack of potential impact on program goals and outcomes. When VTCP shifted the community coalition focus to working on broad-reaching durable policy change, it also overhauled these two youth coalitions. OVX and VKAT now partner and work directly with community coalitions in their area on policy change initiatives. These groups are both working to educate peers and their community about the impact of tobacco on Vermont youth and actions that decision makers can take to reduce the negative effects of tobacco on youth. This includes smoke-free policies, which reduce exposure to secondhand smoke and establish smoke-free environments as the norm, and changing the tobacco retail environment where exposure to tobacco products and tobacco

advertising and promotion at the POS has been associated with youth tobacco use initiation (VDH Dashboard Web site).

3.1.4 School-based Programs

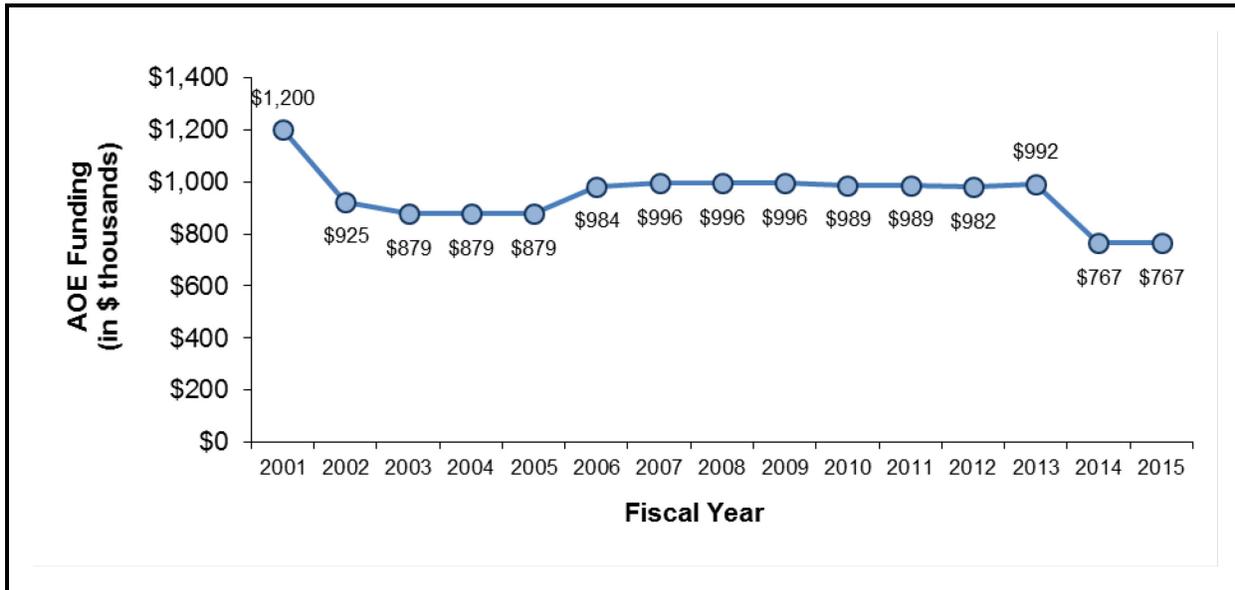
CDC recommends that school-based tobacco control efforts should be an integral part of a state and community tobacco control program (CDC, 2014). Evidence suggests that there can be both short-term and long-term effects of individual school-based tobacco prevention programs. There have also been a number of review articles and meta-analyses of school-based tobacco programs and tobacco prevention education (see Flay, 2009, for a detailed discussion). A main conclusion of the 2012 Surgeon General's Report, *Preventing Tobacco Use Among Youth and Young Adults*, was that "coordinated, multicomponent interventions that combine mass media campaigns, price increases including those that result from tax increases, school-based policies and programs, and statewide or community-wide changes in smoke free policies and norms are effective in reducing the initiation, prevalence, and intensity of smoking among youth and young adults" (USDHHS, 2012, p. 31).

To address tobacco-use among youth, CDC provides seven recommendations to guide the development and implementation of effective school-based tobacco prevention programs (CDC, 1994):

- Develop and enforce a school policy on tobacco use.
- Provide instruction about the short- and long-term negative physiologic and social consequences of tobacco use, social influences on tobacco use, peer norms regarding tobacco use, and refusal skills.
- Provide tobacco-use prevention education in kindergarten through 12th grade, which should be especially intensive in junior high or middle school and reinforced in high school.
- Provide program-specific training for teachers.
- Involve parents or families in support of school-based programs to prevent tobacco use.
- Support cessation efforts among students and all school staff who use tobacco.
- Assess the tobacco-use prevention program at regular intervals.

AOE receives tobacco control program funding to conduct Vermont's school-based tobacco control program activities. AOE's goal is to decrease tobacco use among school-aged youth by increasing their skills and attitudes toward tobacco through school-based efforts. Funding for school-based tobacco activities in Vermont peaked at \$1.2 million when VTCP was created in FY 2001 and has decreased since then to the current annual funding level of \$766,541 in FY 2015 (see Figure 3-3).

Figure 3-3. Funding Allocated to the Agency of Education for School-based Tobacco Prevention Activities

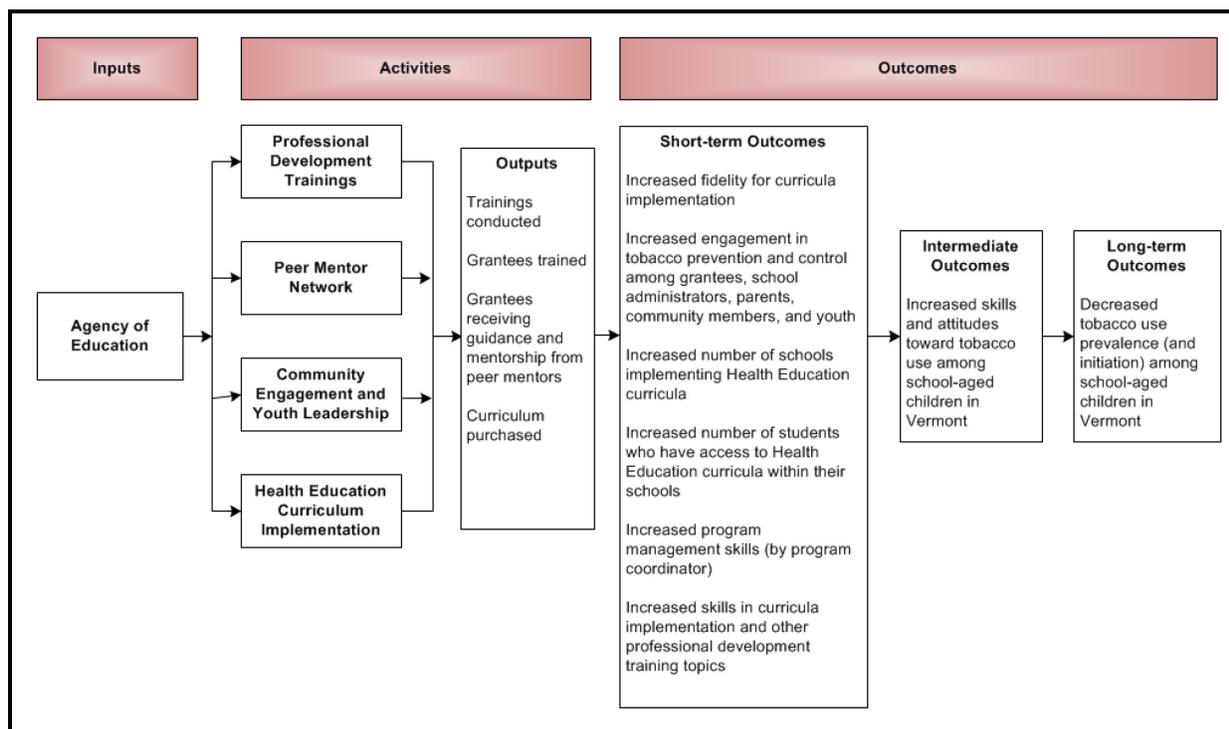


Note: AOE = Agency of Education (formerly Department of Education)

AOE uses its tobacco control funding to provide noncompetitive grants to local education agencies (LEAs). LEA grants are awarded biennially and are structured to allow LEAs to determine which activities they conduct based on their local needs. The size of awarded grant funding is based on student enrollment, and in FY 2015, LEA grant funding ranged from \$5,800 to \$23,569. As part of the grant application process, Vermont LEAs are required to complete a local needs assessment with input from school and district stakeholders as well as data from LEA- and state-level surveys that provide insight into youth behaviors, beliefs, risk factors, and protective factors related to tobacco use. AOE provides significant support to LEAs in the needs assessment and grant application process. Sample activities are offered for each of the seven CDC guideline components: policy, instruction, curriculum, training, family and community involvement, tobacco use cessation efforts, and evaluation. Based on LEA-level discussion of the data, local planning teams identify priority areas for prevention programming, identified action steps to address these priority areas, and identified data sources to help track progress.

AOE's efforts to address tobacco use can be visually depicted through a logic model that outlines the activities underway to reach tobacco prevention goals, along with the output and intended short-, intermediate-, and long-term outcomes (Figure 3-4). AOE focuses its efforts on four overarching activities: professional development trainings, peer mentor network, community engagement and youth leadership, and health education curriculum implementation.

Figure 3-4. Vermont Tobacco Control Program School-based Programs Logic Model



A variety of tobacco prevention and health education curricula are available for implementation in school settings. AOE provides funding to LEAs that helps cover the cost of purchasing specific curricula and maintains a Health Education Resource Center with health education curricula materials to help LEAs decide which curricula are the best fit for their needs. Originally, AOE funding could be used for the following curricula: Know Your Body, Botvin’s LifeSkills Training, Michigan Model for Health, Teenage Health Teaching Modules, Project Towards No Tobacco, and Project ALERT. In 2013, AOE changed its policy and now allows grant funding to be used only on evidence-based curricula, as determined through an analysis using the Health Education Curriculum Analysis Tool (HECAT). Thus, schools can continue using curricula purchased before this policy change, but any newly purchased curricula must be evidence-based.

AOE offers professional development training to LEAs as part of tobacco-free school efforts. Trainings are available on a variety of relevant topics, including curriculum training, program management and implementation, and health education and assessment, although not all trainings are provided each year. In FY 2014–2015, curricula training was offered for Botvin’s LifeSkills Training. This training allowed curricula implementers to receive formal instruction and direction on the curricula that can be used with students. Beyond the curricula trainings, AOE provides other professional development and health education

trainings. In FY 2014–2015, this was limited to Building Youth Developmental Assets in School Communities.

In 2011, AOE introduced a system of grantee peer mentors in an effort to support tobacco-free school grantees. Experienced tobacco-free school grantee peer mentors serve as resources to other grantees in networks across the state and help AOE design trainings for all grantees. One of the goals for the program is to create a framework of sustainability to ensure that grantees have the knowledge and skills needed to manage and implement their tobacco-free school activities effectively. To prepare the selected grantees for their role as peer mentors, the AOE provides training to the peer mentors on topics including facilitation techniques, conducting needs assessment, and basic principles of adult education and learning. The intent of training peer mentors is to help them learn how to be good mentors or coaches for other grantees, to understand how to help other grantees with developing their action plans, and to help them troubleshoot issues with other grantees. In May 2015, AOE held a peer mentor retreat to provide additional leadership training for the peer mentors and to discuss potential improvements for 2016–2017 school-based tobacco prevention interventions informed by current research and literature. Currently, seven peer mentors are working with Tobacco Prevention Coordinators throughout the state in a variety of ways. Peer mentors work directly with grantees to answer programmatic-related questions and educate others on areas of personal interest, including learning technology, hosting trainings, and open space technology. In FY 2015, the peer mentors planned and facilitated five regional training events, which provided face-to-face support and opportunities for sharing among all grantees.

Community engagement and youth leadership is another area of focus for the tobacco-free school programs. These efforts vary by LEA and are based largely on results from the needs assessment conducted by each LEA. Some examples of LEA activities to address community engagement and youth leadership include providing parent education and support for prevention and cessation activities, providing cessation tools to help students in cessation efforts, and promoting peer leadership training in high schools to address tobacco use prevention.

Although not depicted in the current logic model for VTCP’s school-based tobacco control efforts (see Figure 3-4), AOE and VDH are working to address youth tobacco use—AOE through Vermont’s school-based programs and VDH through community and youth coalitions and other statewide tobacco control initiatives. Because of this overlap in programmatic efforts, and the limited funding and resources available for tobacco control in Vermont, AOE and VDH have been working collaboratively over the past few years to create operational efficiencies and improve VTCP’s efforts related to youth. Working together, AOE and VDH are taking a holistic approach to addressing youth tobacco use that focuses on improving overall child and community health.

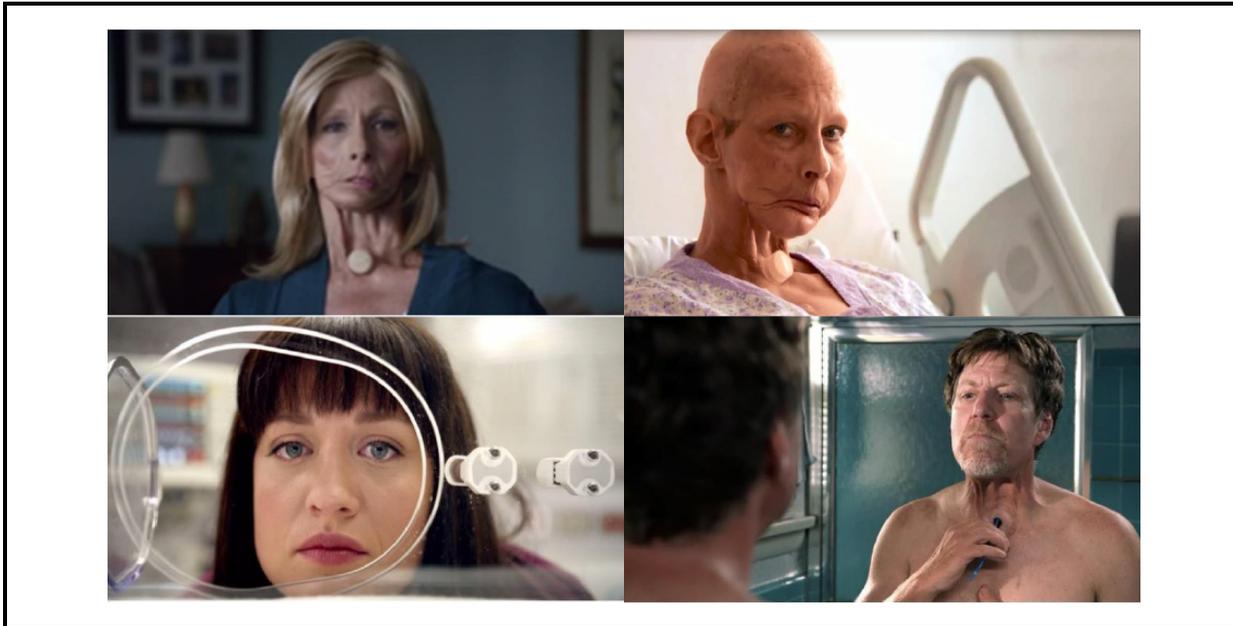
3.2 Mass-Reach Health Communication Interventions

There is growing evidence that antismoking campaigns are effective in reducing cigarette smoking among youth (USDHHS, 2012) and adults (Farrelly et al., 2012; National Cancer Institute, 2008; Wakefield et al., 2010, 2011). Tobacco prevention media campaigns have been used by state tobacco control programs to promote quitline use, and multiple studies have demonstrated their effects on increasing calls to quitlines in the United States and in other countries. Mass media campaigns can reduce cigarette use by reducing smoking initiation among youth and promoting cessation among adults, particularly when combined with other evidence-based tobacco prevention and control interventions. Evidence from campaign evaluations and controlled field experiments indicates that cessation media campaigns can be used to promote quitting, particularly when they are evidence-based and well-funded. Studies further suggest that media campaigns are more effective when they occur within the context of other tobacco control efforts, such as increased access to cessation aids and services, smoke-free laws, tax increases, and school and community programs.

Research has shown that ads that elicit a strong emotional response, including testimonials and graphic portrayals of the health consequences of tobacco use, are particularly effective in motivating smokers to quit. These types of ads also produce stronger and more consistent effects on audience recall, knowledge, beliefs, and quitting behaviors compared with less emotional and more informative or educational ads (CDC, 2014). Evidence also suggests that graphic and emotional advertising messages reduce tobacco use among youth and young adults and that these messages resonate with a wide variety of audiences (CDC, 2014). For example, the *Tips From Former Smokers (Tips)* campaign, launched in 2012 by CDC, was the first federally funded tobacco education campaign in the United States. A recent study published in *Lancet* found that *Tips* generated an estimated 1.64 million new quit attempts of 1 day or more among U.S. adult smokers and approximately 100,000 sustained quits (McAfee et al., 2013). Figure 3-5 presents a few screenshots from *Tips* campaign ads.



Figure 3-5. Screenshots from CDC’s *Tips From Former Smokers* Campaign Ads



CDC and the Community Preventive Services Task Force both recommend mass-reach health communication interventions on the basis of strong evidence that mass media is an effective strategy for decreasing the prevalence of tobacco use, increasing quitting behaviors and the use of cessation services such as quitlines, and decreasing the initiation of tobacco use among youth (CDC, 2014). Mass-reach health communication interventions are also needed to counteract heavy exposure to tobacco industry media, advertising, and promotion and help promote cessation and prevent the initiation of tobacco use (CDC, 2014).

Since the program began in 2000, VTCP has used and implemented mass-reach health communication interventions as a core component of the program. VDH is the VTCP organization responsible for funding and implementing media for the program. From FY 2003 through FY 2015, VTCP has spent an average of \$925,000 per year on media and public health education efforts, ranging from a low of \$578,000 in FY 2012 to a high of \$1.06 million in FY 2010. VTCP’s media and public health education budget was approximately \$850,000 in FY 2015.

A key goal of tobacco control media campaigns is to reach a target audience in the most efficient way possible. From the beginning of Vermont’s tobacco control program in 2000 through 2012, VDH contracted with the ad agency Kelliher Samets Volk (<http://www.ksvc.com>) to develop ads and media creative and to handle media buying, including how, when, and on which channels campaign ads aired. In 2012, VDH switched media contractors to Rescue Social Change Group (RSCG) (<http://rescuescg.com>) with HMC

Advertising (<http://wearehmc.com>) serving as a media subcontractor responsible for buying media spots. HMC Advertising is an experienced media buyer that leverages available funding for VTCP's mass media campaigns to obtain the maximum broadcast time possible for each campaign (VDH Dashboard Web site).

Although there is strong evidence that antismoking campaigns are effective, research from multiple sources has shown that such campaigns must have sufficient reach, frequency, and duration to be effective. Effective mass-reach health communications need to be sustained and adequately funded to make an impact on population-level tobacco use behaviors (CDC, 2014). CDC *Best Practices* states that while some campaigns, such as CDC's *Tips* campaign, have influenced behavior over a short duration, media campaigns typically need to run at least 3 to 6 months to achieve awareness of the issue, 6 to 12 months to influence attitudes, and 12 to 18 months to influence behavior (CDC, 2014). CDC also recommends that media campaigns run as continuously as possible since their impact can diminish over a relatively short period after coming off the air (CDC, 2014).

VTCP's health communication interventions have always included paid television, radio, out-of-home (e.g., billboards, transit), and print advertisements. The content of Vermont's media has tended to focus on one of the three major program goals: adult cessation, youth prevention, and reduced exposure to secondhand smoke. Following an RTI recommendation, VTCP integrated its media implementation into statewide common theme campaigns that focused on each of the three VTCP program areas for 4 months at a time. Youth prevention campaigns have included the extremely successful "8 out of 10" campaign that was designed to correct misperceptions about the prevalence of smoking among youth. Vermont's cessation media campaigns, which relied heavily on radio ads, promoted Vermont's cessation programs, such as the Vermont Smokers' Quitline, which later became the Vermont Quit Network and eventually was rebranded as part of Vermont's 802Quits program. Vermont's cessation ads have explored such themes as the costs of smoking and dangerous health consequences of smoking. For most of VTCP's history, the program's cessation ads have provided Vermont smokers who are ready to quit or contemplating quitting with information about how to quit, such as information about cessation programs available or tips for quitting. Recently, VTCP has begun airing CDC *Tips* ads, which are more graphic and emotional ads that are designed to prompt and motivate smokers to quit. Hard-hitting and emotionally powerful ads like those from CDC's *Tips* campaign have been shown to have a positive effect on population-level quit attempts, especially among lower-income tobacco users who represent the majority of smokers in Vermont. The call to action in VTCP's ads has directed viewers to Vermont's 802Quits cessation program. The strategy of using mass-reach health communication to promote available cessation services is consistent with CDC's *Best Practices* recommendations for comprehensive tobacco control programs (VDH Dashboard Web site).

In recent years, VTCP has added digital media to its mix of mass-reach health communication interventions to complement traditional mass media approaches. Since VTCP began in 2000, there have been numerous innovations in health communication, including the ability to target and engage specific audiences through multiple communication channels, including online video, mobile Web, and smartphone and tablet applications. Social media, such as Facebook and Twitter, has also emerged since VTCP began. Social media provides a wide array of options for disseminating messages and sharing relevant and credible messages more broadly within the target audience and among their social circles (CDC, 2014). VTCP has kept up with these innovations in health communication, and the program's current mix of health communication interventions includes digital video, online search, and social media components. VTCP promotes cessation services and disseminates motivational health messaging through the 802Quits Facebook campaign and through campaign-specific social media pages, such as the Down & Dirty page. VTCP's social media pages drive tobacco users to 802Quits and increase the transmission of the program's message as individuals share, like, and comment on social media pages and posts (VDH Dashboard Web site). VTCP also streams 802Quits Web videos, CDC *Tips* ads, and locally produced ads on streaming video sites, such as YouTube and Hulu. VTCP also purchases 802Quits online banner ads, which are clickable images that direct individuals to the 802Quits Web site, 802Quits.org (VDH Dashboard Web site). Using these technologies, VTCP also partners with the program's media contractor to deliver targeted Web videos designed to reach populations with disproportionate tobacco use, such as individuals with mental health conditions. VTCP also works to ensure consistency of campaign delivery across media channels. Ads used in transitional mass-reach media outlets, such as network and cable television, are also run on streaming video sites (VDH Dashboard Web site).

Although these new modes of health communication are exciting and provide new opportunities for reaching and interacting with target audiences, data on the effectiveness of these interventions are still emerging. At this point, digital and social media platforms should be considered complements to traditional mass media that may help improve the reach of campaigns, particularly with target audiences. Future research and evaluation of digital and social media efforts will help to determine the effectiveness of those interventions and establish an evidence base for the role of digital media and social media in tobacco control (CDC, 2014). VTCP monitors activity through digital and social media platforms and uses analytics data to assess how well the program is reaching and supporting smokers through digital technologies. VTCP hopes that these efforts will help to inform the evolution of mass-reach health communication interventions and establish guidance on the use of digital technologies for cessation messaging (VDH Dashboard Web site).

VTCP also has a long history of effectively using mass mailings to promote programs or services or to disseminate key messages to target audiences. Throughout the history of the Vermont quitline, VTCP has periodically sent out mass mailings to promote the quitline to

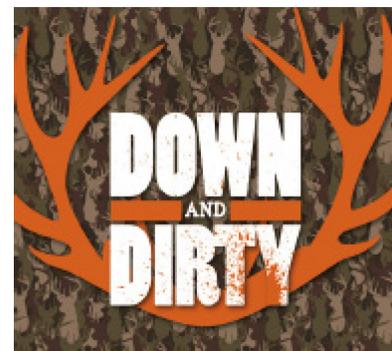
Vermont smokers. RTI has shown in previous reports that mass mailings were a highly effective, low-cost approach for promoting the quitline and increasing call volume. More recently, VTCP has used mass mailings to promote expanded insurance coverage and cessation benefits available to adult Vermont Medicaid beneficiaries (discussed more in Section 3.3.2).

In addition to paid media, VTCP and its partners, such as community and youth coalitions, also work to garner earned media to enhance and expand the impact of VTCP's paid media. CDC recommends that earned media efforts should be part of health communication efforts regardless of the media campaign budget, but especially when funds are limited (CDC, 2014). Earned media can come from a variety of sources, including press releases, social media, news stories, and coverage of local events. While paid media allows for control of the message and the placement of ads, earned media, and especially news media coverage, can help set the public agenda, influence what people are talking about, and enhance the credibility of the campaign's paid messages (CDC, 2014).

Within the scope of available funding and resources, VTCP is currently implementing a variety of mass-reach health communication interventions targeting Vermont smokers. VTCP currently runs a minimum of three media campaigns annually, including CDC's *Tips From Former Smokers* and locally produced Vermont Quit Partners ads, which feature in-person quit counselors. The CDC *Tips* ads are tagged with the telephone number for Vermont's telephone quit line (1-800-QUIT-NOW). The Vermont Quit Partners ads provide viewers with information about the various cessation services available through Vermont's 802Quits comprehensive cessation program (described in Section 3.3). VTCP's current media campaigns target Vermont smokers with low socioeconomic status because those individuals smoke at higher rates, and evidence has shown that they may have a more difficult time quitting than individuals with higher socioeconomic status (VDH Dashboard Web site).

VTCP works with RSCG to implement mass media efforts that are part of larger social branding interventions developed by RSCG. These interventions are behavior change marketing strategies designed to use peer-crowd-targeted social brands to associate healthy behaviors with certain desirable lifestyles through interactive and highly stylized marketing strategies. Each of RSCG's social branding interventions attempts to capitalize on connections between adults and youth with similar interests, lifestyles, influencers, and media

consumption habits. Teens and adults belong to a "peer crowd" that shares cultural similarities across geographic areas. RSCG social branding interventions used by VTCP have included Commune, Blacklist, and Down & Dirty. The Commune social branding intervention targeted young adult tobacco users aged 18 to 26 who identified with the hipster crowd.



The Blacklist social branding intervention targeted Vermont youth identified with the alternative crowd, with a primary target of teens aged 13 to 17 and a secondary target of teens aged 15 to 19. VDH eventually stopped using the Commune and Blacklist social branding interventions in Vermont because they did not feel that either campaign was providing enough benefit in terms of reaching Vermonters or affecting desired outcomes to justify the expenditures required to sustain those interventions. Currently, the only RSCG social branding intervention being used by VDH is Down & Dirty, which targets the country and rural peer crowd. Teens in this peer crowd are more likely to use tobacco, and traditional mass media efforts to reach and influence this population appear to be less successful. Down & Dirty attempts to change perceptions of what it means to be a country peer crowd teen by breaking associations between tobacco use and teens' cultural identity as a member of the country and rural peer crowd. Down & Dirty uses digital advertising to target country teens based on their location and interest and employs peer crowd targeting to maximize the potential of interest-based targeting to reach a higher-risk population with custom messages tailored to the population. Down & Dirty hosts a number of branded events, including fairs, mud bogs, and 4x4 competitions. Young adult brand ambassadors, who embody the peer crowd and live a tobacco-free lifestyle, staff the events. RSG uses a Down & Dirty Facebook page as the central hub for all online interactions with the country teens targeted by the intervention. Social media allows Down & Dirty to promote the campaign's message and get the peer crowd talking about it and sharing it among their own social networks. To be effective, the messages and media creative must be aligned with the peer crowd's values and identity. The Down & Dirty intervention and creative assets are currently shared between Vermont, Virginia, and Mississippi. This creates significant cost savings for participating states that Vermont has been able to benefit from. Using this cost sharing option, the cost of developing campaign creative and materials is approximately 50% to 65% less than the cost would be if VTCP had to produce the creative materials locally in state.

After the first full year of implementing Down & Dirty in Vermont in FY 2014, RSCG



conducted an online survey to evaluate the intervention in Vermont. The survey included Vermont residents aged 13 to 18 who were recruited through Facebook ($N = 252$). Nearly 34% of the sample reported using one or more types of tobacco in the past 30 days, indicating that this primarily social media-based campaign has been effective at reaching a high-prevalence audience. Nearly 63% of the survey respondents reported awareness of

Down & Dirty, with higher reported awareness among tobacco users. Nearly 60% of respondents who were aware of Down & Dirty have visited the Down & Dirty Web site, and nearly 66% have visited the Down & Dirty Facebook page. Nearly 59% of survey respondents had seen a Down & Dirty commercial at least once, with exposure to campaign ads ranging from 24% to 44%. The most liked Down & Dirty ad was the Go Far. Ride Hard commercial. RSCG and VDH concluded from survey results that Down & Dirty is firmly associated with country culture in Vermont, and slightly more than half of Vermont youth familiar with Down & Dirty associated it with living a tobacco-free lifestyle (RSCG, Down & Dirty Year One Evaluation Summary).

In addition to social branding interventions, VTCP continues to use traditional mass media strategies to reach Vermont adult smokers and promote cessation. VTCP continues to use ads from CDC's highly successful *Tips* campaign, which has had a robust and well-demonstrated positive impact on population-level quit attempts and quit success and is highly effective at driving calls to telephone quitlines. VTCP is currently running traditional adult cessation media campaigns using locally produced ads promoting the Vermont Quit Partners in-person cessation services offered through Vermont's 802Quits cessation program. VTCP's traditional mass media strategies promoting adult cessation use television, radio, and digital media approaches as well as social media, such as Facebook and Twitter. VTCP's current media efforts also include streaming video on sites like YouTube and Hulu. These efforts have been shown to have a positive impact on use of the cessation services offered by VTCP's 802Quits program. Whenever VTCP adult cessation ads are on air, either CDC *Tips* ads or the locally produced Vermont Quit Partners ads, the number of Vermont tobacco users registering for services from 802Quits programs has noticeably and consistently increased. Working with its media buyer, HMC Advertising, VTCP has been able to attain media exposure levels consistently, as measured by gross rating points (GRPs), that exceeded the program's targets or goals for recent mass media campaigns.

Because of restrictions on tobacco advertising, the vast majority of the tobacco industry's marketing efforts are focused on the POS, which includes the retail stores where tobacco is sold (Pollay, 2007). Research confirms that POS marketing is a leading cause of youth smoking (Center for Public Health and Tobacco Policy, 2012). The 2009 federal Family Smoking Prevention and Tobacco Control Act gives states and communities the authority to change the time, place, and manner of cigarette advertising at the POS. VTCP has recently added POS as an area that the program is targeting with its mass media efforts.

VTCP began a multicomponent campaign in 2014 as part of the Counter Balance initiative, which is described in greater detail in Section 3.1.1. The public education campaign is designed to increase awareness of the tobacco industry's POS strategies and to increase community and stakeholder support for reducing the impact of tobacco advertising in Vermont communities. The Counter Balance initiative aims to reach parents aged 25 to 45 and to increase awareness of the negative impact of POS advertising on children's

perceptions of tobacco and to increase knowledge of how POS works, along with effective counter-interventions. Counter Balance campaign ads ran from October 5 through December 7, 2014, and again from May 4 through June 27, 2015. Campaign ads ran on television and online and targeted adults aged 25 to 49, parents of grade school youth, and parents of tweens. The campaign included a campaign Web site, social media, and community outreach by VTCP's funded community coalitions. Campaign partners also worked to garner earned media to help communicate the campaign's message. The next phase of the campaign will occur from fall 2015 to spring 2016 and will move from public education to encouraging social action and audience engagement. The third phase of the campaign will occur between fall 2016 and summer 2017 and will focus on generating awareness and engagement regarding the need for POS interventions. Each phase of the campaign will focus on building community-level support for policy change in Vermont.

3.3 Cessation Interventions

Promoting tobacco use cessation is a core component of a comprehensive state tobacco control program's efforts to reduce tobacco use (CDC, 2014). Getting tobacco users to quit successfully is the quickest way to reduce tobacco-related death, disease, and health care costs (CDC, 2014). Quitting smoking results in both immediate and long-term health benefits (CDC, 2014). Although quitting at any age is beneficial, smokers who quit before age 44 avoid most of the risk of dying from a smoking-related disease (CDC, 2014). Effective implementation of evidence-based interventions, such as increasing the unit price of tobacco products, comprehensive smoke-free air laws, and hard-hitting media campaigns, promotes tobacco use cessation by motivating tobacco users to quit (CDC, 2014). Tobacco use treatment is also highly cost-effective (CDC, 2007). Offering cessation assistance to tobacco users who are trying to quit complements and maximizes the impact and effectiveness of the suite of tobacco control activities and other interventions being implemented by comprehensive tobacco control programs and connects tobacco users who were inspired or motivated to quit by those efforts with assistance and resources should they need them (CDC, 2014).

CDC *Best Practices* recommends that cessation activities and interventions focus on the following three goals:

- promoting health systems change,
- expanding insurance coverage and utilization of evidence-based cessation treatments, and
- supporting state quitline capacity.

3.3.1 Promoting Health Systems Change

Health systems change involves institutionalizing cessation interventions into health care systems and seamlessly integrating them into routine health care delivery and practices.

State efforts to promote health systems change related to tobacco use cessation involve working with health care systems and organizations to integrate tobacco dependence fully treatment into the clinical workflow (CDC, 2014; Fiore et al., 2007, 2008; Guide to Community Preventive Services, 2016; Land et al., 2012; Rigotti, 2011). Health care providers are an important point of intervention for smoking cessation. Physicians and other health care providers are a credible source of health care advice, and they have frequent opportunities to provide brief interventions to patients who smoke or to recommend cessation strategies or services. Tobacco use screening combined with brief physician intervention is also a highly cost-effective mechanism for promoting cessation. The goal of these efforts is to systematically and consistently incorporate the “5 A’s” approach into the health care environment with respect to tobacco use dependence and treatment: (1) ask about tobacco use, (2) advise to quit, (3) assess willingness to make a quit attempt, (4) assist in the quit attempt, and (5) arrange follow-up (CDC, 2014; Fiore et al., 2008). Fully implementing this approach ensures that all patients are screened for tobacco use, their tobacco use status is documented, and patients who use tobacco are advised by their health care provider to quit (CDC, 2014; Fiore et al., 2007, 2008; Guide to Community Preventive Services, 2016; Land et al., 2012; Rigotti, 2011). Health care providers follow up their efforts to ask and advise about tobacco use by offering patients cessation medication (unless contraindicated), counseling, and assistance, and arranging follow-up contact either on-site or through referrals to cessation programs, such as the state quitline, or other community resources (CDC, 2014). Research indicates that health care providers hold a position of respect with their patients, and they can strongly influence a patient’s tobacco use behaviors through motivational interviewing and other patient-centered approaches (McIvor et al., 2009). Consistent intervention and assistance with tobacco use cessation by health care providers will have broad and ongoing population-level reach and is likely to have a substantial impact on increasing tobacco use cessation.

Consistent screening and delivery of cessation interventions is a key component of the health systems change approach. Electronic medical records and provider reminder systems, which prompt health care providers to screen and intervene with patients about their tobacco use, are both effective ways to ensure consistent provider intervention and delivery of cessation advice (CDC, 2014). Vermont has been working on health systems change, including electronic medical records and provider reminder systems, for a number of years under the Blueprint for Health initiative, which includes tobacco dependence and treatment components. Electronic health records and provider reminder systems also make it easier for health care providers to refer patients to cessation services, such as Vermont’s 802Quits program, counseling within a health care setting, or community-based cessation programs. This is particularly true when those referrals can be made electronically (CDC, 2014).

VTCP recognizes the importance of getting health care providers to intervene consistently with their patients about tobacco use and to help their patients quit. In addition to talking with their patients about tobacco use and quitting, an important outcome of these efforts is to get health care providers to refer their patients who are tobacco users to Vermont's cessation assistance programs, including the Quit by Phone, Quit Online, and Vermont Quit Partners in-person counseling services offered by Vermont's 802Quits program. Historically, VTCP has used brochure racks and community engagement to interact with health care providers to increase their awareness of Vermont's available cessation programs and services and to get them to refer their patients to those programs and services. More recently, VTCP has modernized its approach to reaching and engaging health care providers to ensure they are aware of and are referring patients to Vermont's cessation programs and services (VDH Dashboard Web site). VTCP uses a variety of strategies, including mass mailings, e-mail blasts, and trainings, to encourage health care providers to talk with their patients about tobacco use, advise them to quit, and refer them to available cessation services, including 802Quits programs. VTCP is creating a provider page on the 802Quits Web site to provide additional resources, fact sheets, links, and research to support and aid providers with effectively talking with their patients about tobacco use cessation. VTCP is also working to enhance existing partnerships with other chronic disease programs to get a broader range of health care professionals, including diabetes educators, dental hygienists, and oncologists to refer patients who use tobacco use to Vermont's cessation programs and services (VDH Dashboard Web site). VDH offers online trainings (with CME credit) to health care providers on how to screen for tobacco use and effectively conduct brief cessation-related interventions. These VDH trainings are based on the "5As" (Ask, Assess, Advise, Assist, Arrange) brief intervention that is recommended in the 2008 Clinical Practice Guideline: Treating Tobacco Use and Dependence (Fiore et al., 2008). VDH and its partners are working to promote the online training to network providers and health systems (VDH Dashboard Web site).

In 2012, VDH prioritized addressing tobacco use cessation among pregnant women who use tobacco. To address this program priority, VDH is working closely with the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) since 25% of the pregnant women who enroll in WIC are smoking at the time they enroll in the program. VDH is working with WIC to integrate referrals to Vermont's cessation programs and resources into WIC interviews with their clients. VDH is also working with WIC to improve their data collection systems with the goal of improving data monitoring and analysis and ultimately enabling WIC to better meet the needs of its clients. VDH has also been working with the Nurse Family Partnership (NFP), which is an evidence-based home visiting model, to get them to refer clients to Vermont's cessation programs and services whenever one of their clients screens positive for tobacco use during pregnancy. Maternal and child health nurse home visits are a critical component of the NFP, which provides nurse-led home visits to low-income, first-time mothers. Vermont will continue to monitor NFP implementation

through home health agencies until NFP demonstrates that a high level of women who screen positive for tobacco use are being referred to tobacco use cessation services consistently (VDH Dashboard Web site).

In addition to efforts to implement health systems changes related to the behaviors of health care providers, VTCP has been involved in a multiyear initiative with behavioral health centers that receive state funding. VDH has been working with behavioral health centers that receive state funding to help them become tobacco-free campuses and incorporate tobacco into their treatment protocols. VDH is providing training, TA, templates, and signage to help with this initiative.

3.3.2 Expanding Insurance Coverage for and Utilization of Cessation Treatments

Expanding insurance coverage for cessation treatments removes cost and administrative barriers that prevent tobacco users from accessing cessation counseling and medications. Expanding insurance coverage for cessation treatments also increases the number of tobacco users who use evidence-based cessation treatments and who successfully quit. Another advantage of this strategy is that expanding insurance coverage for cessation treatments has the potential to reduce tobacco-related population disparities (CDC, 2014).

For insurance coverage of cessation treatments to be effective in increasing cessation, the coverage must be comprehensive and include all evidence-based cessation treatments, which includes individual, group, and telephone counseling; and the seven cessation medications approved by FDA (bupropion, varenicline, and five forms of NRT: patch, gum, lozenge, inhaler, and nasal spray). Comprehensive coverage of cessation treatments eliminates or minimizes barriers to accessing this coverage, including costs (CDC, 2014). Another important aspect of comprehensive insurance coverage for cessation treatments includes proactively communicating and promoting the coverage to ensure that tobacco users and health care providers are aware of the coverage. This increases the chances that tobacco users will utilize these benefits (CDC, 2014). High utilization is essential for a cessation benefit to be effective, since comprehensive coverage for cessation will have little impact if tobacco users and providers are not aware of it or do not use it (CDC, 2014; Keller et al., 2011; McMenamin et al., 2004, 2006). Provisions in the Affordable Care Act expand private and Medicaid coverage for cessation. However, the specifics of the required coverage are not clearly defined and are somewhat open to interpretation. CDC recommends that state tobacco control programs work with large health insurers to implement comprehensive, evidence-based, coverage for cessation.

Since 2012, VDH has been working with the Department of Vermont Health Access (DVHA) to expand coverage for tobacco cessation counseling and medications for Medicaid clients. VDH has been successful at getting Medicaid to expand cessation coverage to include face-to-face tobacco use cessation counseling by, or under the direction of, a physician or health

care professional for all Medicaid beneficiaries aged 18 or older. Prior to VDH's efforts, this benefit was only available to pregnant Medicaid beneficiaries. Beginning in December 2013, Vermont turned on the following two Current Procedural Terminology (CPT) codes for tobacco cessation counseling for all adult Medicaid beneficiaries in Vermont:

- **99406:** Smoking and tobacco use cessation counseling visit; immediate, greater than 3 minutes up to 10 minutes
- **99407:** Smoking and tobacco use cessation counseling visit; intensive, greater than 10 minutes

Turning on these two CPT codes for all adult Vermont Medicaid beneficiaries allows physicians and health care providers to bill Medicaid for providing counseling to tobacco users. DVHA provides VDH with data on the utilization of these two CPT codes by Vermont Medicaid beneficiaries. VTCP and DVHA have been working together and collaborating to publicize and promote the expanded tobacco cessation benefits for adult Vermont Medicaid beneficiaries to Medicaid beneficiaries and health care professionals. VTCP has promoted the CPT code benefit through direct mailings to health care providers. VTCP also informed Medicaid beneficiaries about this benefit through promotional efforts, including mailings, television ads, and digital media. VTCP's promotion of the CPT code benefit directed toward Medicaid smokers encouraged them to talk to their doctor about quitting, included information about VTCP 802Quits programs, and offered free "quit tools" to support them with their quit attempts. As mentioned in Section 3.3.1, VTCP is also working on adding a provider page to the 802Quits Web site that will provide additional resources, fact sheets, links, and research to support and aid providers on talking effectively with patients around tobacco cessation (VDH Dashboard Web site).

VDH has been working to get the Centers for Medicaid & Medicaid Services (CMS) to reimburse Medicaid clients who receive services from Vermont's 802Quits program, including NRT and counseling. Medicaid covers 16 weeks of NRT over 1 year. Historically, Medicaid beneficiaries were not eligible to receive free NRT through the 802Quits program because they were eligible to receive a greater amount of free NRT through their Medicaid benefits. In the past few years, VTCP began offering Medicaid registrants a 2-week NRT starter kit through the 802Quits programs. Medicaid does not currently reimburse VTCP for the cost of the 2-week NRT starter kits provided to Medicaid beneficiaries through the 802Quits program.

3.3.3 Supporting State Quitline Capacity

Telephone quitlines are another core element of comprehensive state tobacco control programs. Quitlines potentially have broad reach and have been shown to be effective at encouraging quit attempts and improving cessation outcomes. Quitline services can also be tailored to diverse populations. Because state quitline services are free to tobacco users, remove time and transportation barriers, and are confidential, they are one of the most

accessible cessation resources to tobacco users. CDC recommends making quitline counseling available to all tobacco users willing to access the service (CDC, 2014).

Despite the many demonstrated advantages and potentially broad reach of quitlines, on average, state quitlines only reach about 1% of smokers annually (CDC, 2014). The consistently low reach of state quitlines is likely a function of relatively low funding for providing and promoting state quitline services (CDC, 2014). CDC's (2014) *Best Practices* indicates that, with sufficient funding, state quitlines should be able to reach higher proportions of tobacco users, with a target of 90% of quitline callers accepting counseling services. CDC recommends that states consider providing some form of cessation assistance to all quitline callers and that all callers who want to talk to a quitline coach or counselor should receive at least one 10-minute call in which the caller receives brief cessation counseling. Additional counseling calls can be provided to all, or a subset, of quitline callers based on state eligibility criteria. CDC also suggests that states could work with Medicaid, private health plans offered through the state Health Insurance Marketplace, and large private health insurance plans to get reimbursed for cessation services provided through the state quitline or implement some form of cost sharing with those plans (CDC, 2014). CDC suggests that states can offer free NRT through their quitlines and that doing so can increase quitline call volume and callers' success with quitting. CDC recommends that states conduct targeted outreach and promotional effects to increase the state quitlines' reach to underserved populations with high tobacco use rates (CDC, 2014).

An integral component of VTCP is the set of activities aimed at helping smokers quit. VTCP has a long history of providing free evidence-based cessation services to Vermont tobacco users who are ready to quit. The Vermont Smokers' Quitline was established in 2001. Several years later, VTCP established the Quit in Person program to provide in-person counseling to Vermont smokers in all Vermont hospitals. Several years after establishing the Quit in Person program, VTCP added online cessation support through the QuitNet Web site. In 2008, all VTCP cessation services were consolidated under a single unifying framework and branded as the Vermont Quit Network. In 2012, the Vermont Quit Network was rebranded as 802Quits to create a name and program identity that resonated better with Vermont tobacco users and stressed that the programs and services were being offered as part of a state-based initiative.



802Quits continues to offer the same cessation services to Vermont smokers at no cost to them. 802Quits provides telephone cessation counseling through the Quit by Phone program (i.e., quitline), in-person group cessation counseling through the Vermont Quit Partners program (formerly known as the Quit in Person program), and Web-based cessation support through the Quit Online program. Vermont Quit Partners is a VTCP-supported program that provides in-person cessation counseling services. It is maintained by the Vermont Blueprint for Health and uses accredited counselors who provide both hospital and community-based

cessation services. Although assistance is available for all tobacco users, cigarette smokers comprise the majority of tobacco users in Vermont.

Over the years, VTCP has made free NRT available to Vermont smokers enrolled in various incarnations of the current 802Quits programs. However, the eligibility criteria for free NRT and amount offered has varied over time and across cessation programs. VTCP currently offers free combination NRT, such as patches, gum, or lozenges, to smokers enrolled in any of the 802Quits programs. Research shows that smokers who use NRT and/or counseling are more likely to succeed at a quit attempt than those who attempt to quit on their own without assistance. When cessation counseling and medications are used concurrently, the chances of successfully quitting doubles. VDH contracts and/or partners with multiple organizations to offer the 802Quits services for free to all Vermonters (VTERB, 2015).

VTCP has also conducted ongoing 7-month follow-up evaluations with smokers who received services from 802Quits programs. RTI has conducted numerous analyses of 802Quits program and evaluation data over the years and found that reach, utilization, and quit



success were relatively comparable across the different arms of the 802Quits program. However, the costs of providing direct treatment and one-on-one counseling to tobacco users in person through the Vermont Quit Partners program were substantially higher than through VTCP's other programs. Given VTCP's limited funds, RTI recommended that VTCP pursue a more cost-effective mix of cessation services. VTCP heeded RTI's recommendation and worked to make changes to the Vermont Quit Partners program. One change was to shift from one-on-one in person counseling to group counseling classes. VTCP was also able to incorporate the Vermont Quit Partners program into Vermont's Blueprint for Health initiative, which also absorbed the costs of implementing the program.

802Quits also includes VTCP's Your Quit. Your Way campaign, which has been running for many years to address the needs of independent quitters. Year after year, the majority of tobacco users say that they want to quit on their own without any assistance. To reach these tobacco users, VTCP's Your Quit. Your Way campaign makes cessation tips, advice, resources, and free quit tools, such as pedometers, available to Vermont tobacco users.



VTCP also provides a number of cessation services and resources to youth tobacco users who are ready to quit. Since 2007, tobacco users aged 17 or younger have been able to receive counseling services from 802Quits. VDH also provides funding for the Not-On-Tobacco (N-O-T) smoking cessation program designed for teens. The N-O-T program is administered by the American Lung Association of Vermont and delivered in schools and in community settings.

To support and enhance VTCP's cessation programs, VTCP applied for and obtained a 4-year CDC Quitline Enhancement grant to expand efforts with Affordable Care organizations and to maintain Quitline capacity in serving smokers in Vermont. Implementation of these efforts started in the fall of 2014. CDC *Best Practices* also recommends that states pursue longer-term strategies to support and expand capacity for state quitline services. Specific strategies recommended include developing the capacity to accept e-referrals from patient electronic health records and integrating telephone cessation services with text messaging interventions and cessation services provided through other technologies, such as the Web and social media. Text messaging, Web, and social media interventions could potentially extend the reach and impact of quitlines, particularly among younger tobacco users (CDC, 2014). CDC also suggests reaching out to previous quitline users who agree to be re-contacted to help them with future quit attempts (CDC, 2014). Over time, VTCP has added numerous innovations to the 802Quits programs, including a more robust online and social media presence. VTCP has also been adding text message support and interventions to 802Quits programs. Following CDC recommendations and VDH priorities to focus on and address tobacco use disparities, VTCP has also been working on outreach and promotion of 802Quits to specific populations and developing tailored interventions. National Jewish Health, the contractor that implements the Quit by Phone and Quit Online programs, has also developed numerous cessation protocols, including a telephone counseling protocol specifically for pregnant tobacco users. VTCP is also working on outreach and targeting efforts to improve the reach of 802Quits programs among tobacco users with mental health issues, LGBT tobacco users, and veterans.

3.4 Surveillance and Evaluation

In addition to national data surveillance data collection efforts, VTCP and its program partners collect numerous data that provide the information needed to monitor and evaluate VTCP's progress toward achieving its goals of reducing adult and youth smoking, reducing exposure to secondhand smoke, and minimizing use of OTPs and tobacco substitutes, such as electronic cigarettes. Important routine and ongoing data surveillance systems that are conducted periodically on a schedule and provide critical data for surveillance and evaluation include Behavioral Risk Factor Surveillance System (BRFSS), Vermont Adult Tobacco Survey (VT ATS), Youth Risk Behavior Survey (YRBS), and CDC School Health Profiles. DLC also collects information about its tobacco retailer compliance checks, including the rate of retailer compliance by type of training received by clerks. VTCP's cessation contractor, National Jewish Health, collects extensive data about the use of telephone and online cessation services that it provides to Vermont smokers through the 802Quits Quit by Phone and Quit Online programs. VTCP receives data on the utilization of the Vermont Quit Partners in-person cessation program from Vermont Blueprint for Health. VDH has also successfully worked with DVHA to establish data sharing protocols that allow VTCP to have access to information about the utilization of 802Quits programs and services by Medicaid

smokers in Vermont. VTCP's media contractors, RSCG and HMC Advertising, also collect and provide the program with extensive programmatic and implementation data, as well as Web analytics, on Vermont's mass-reach health communication interventions and media campaigns. VDH also collects a variety of data regarding the activities and progress of community and youth coalitions. Finally, VTCP works with its partners and contractors to implement a number of new data collection efforts to collect critical data necessary to monitor and evaluate program activities or specific program components. In 2010, RTI conducted an online media tracking survey to assess awareness of and reactions to VTCP's media efforts. In 2014, RTI conducted the Vermont Local Opinion Leaders Survey (VT LOLS) to obtain baseline data regarding local Vermont decision-maker support for various policies, including a variety of POS policies. VDH contracted with Counter Tools to conduct retailer audits in 2014. VDH has also contracted with ICF Macro to conduct polls that collect a variety of important information from Vermonters that VTCP uses to monitor and evaluate program efforts.

VTCP conducts a number of internal evaluation activities. VDH leads these efforts and routinely analyzes and reports on BRFSS, VT ATS, and YRBS data. In 2014 and 2015, VDH prepared numerous summary reports, presentations, and fact sheets that are available on the VTERB Web site (<http://humanservices.vermont.gov/tobacco>) or VDH's tobacco program surveillance and research Web page (<http://healthvermont.gov/prevent/tobacco/surveillance.aspx#pos>). The VDH Web page also includes a link to VDH's tobacco use and program evaluation VDH Dashboard Web site (<http://healthvermont.gov/hv2020/dashboard/tobacco.aspx>). The VDH Dashboard Web site contains a wide variety of key surveillance and evaluation data related to VTCP's overall goals and objectives and Healthy Vermonters 2020 goals and performance measures.

VTCP's surveillance and evaluation activities also include independent, external evaluation. Independent evaluations are the most rigorous way to measure impact and are at the heart of accountability, learning, transparency, and evidence-based decision making. RTI has been VTCP's independent external evaluator since 2002. In this role, RTI has provided a comprehensive evaluation of VTCP, including an overall assessment of how well the program is meeting its goals and objectives and analyses and assessments of individual program components or specific VTCP activities or interventions. VTERB works closely with RTI in the comprehensive evaluation of VTCP. RTI has produced and provided VTCP with annual evaluation reports since 2003. RTI has also produced numerous topical reports focusing on a wide variety of topics, including VTCP's impact on cigarette sales and consumption in Vermont, impacts of cigarette excise tax increases on cigarette sales and consumption in Vermont, VTCP's cessation programs and services, community coalitions receiving funding from VDH, AOE's school-based efforts, VTCP's mass-media interventions, VTCP's youth tobacco access laws and enforcement of those laws, the 2014 LOLS, and many other special topic and ad hoc reports. In addition to conducting analyses and providing VTCP with

evaluation reports, RTI assists VTCP with strategic planning, including the development and preparation of overall program logic models and logic models for specific program components. RTI participates in routine conference calls with VTCP and provides the program with routine and ongoing ad hoc assistance. Periodically, RTI also participates in in-person site visits with VTCP's component organizations and program partners in Vermont.

RTI also routinely provides VTCP with recommendations, either for the program as a whole or for specific program components or interventions. Previous RTI recommendations that VTCP has found to be useful include a recommendation within the first few years of the program's existence to consolidate and coordinate all statewide and local program efforts, including the program's media campaigns and activities, in common theme campaigns focusing on a single program goal (e.g., adult cessation, youth prevention, secondhand smoke exposure). VTCP subsequently implemented RTI's recommendations, which was particularly helpful for standardizing, consolidating, and coordinating the activities and efforts of the community coalitions around a single topic while amplifying that topic through similarly themed statewide media efforts. RTI also identified that the reach and effectiveness of VTCP's in-person, one-on-one cessation counseling services was similar to the Quit by Phone and Quit Online programs but that the costs per person for providing services was substantially higher for the in-person cessation counseling service. RTI recommended that VTCP examine its mix of cessation programs and services and come up with a more cost-effective balance of service offerings. VTCP subsequently acted on this recommendation, first by transitioning the in-person cessation counseling program from one-on-one counseling sessions to group cessation counseling classes and later by successfully getting the program absorbed into the Vermont Blueprint for Health, which also took over responsibility for the operational costs of the program other than the cost of providing free NRT to Vermont smokers through the program. More recently, RTI has identified challenges that the program is facing due to multiple, successive budget cuts that the Vermont Legislature has made to VTCP. The size and scope of RTI's comprehensive evaluation of the program has been cut back with each major VTCP program funding cut. RTI's current evaluation is considerably less comprehensive than it has been in prior years. RTI's current evaluation typically includes an annual evaluation report as well as one or two focused topical reports per year on topics that are relevant for and of interest to VTCP. RTI's ability to provide ad hoc analytic and evaluation assistance to VTCP has also been greatly limited by funding cuts to RTI's evaluation budget. The large VTCP FY 2016 budget cut passed by the Vermont Legislature during the 2014–2015 legislative session will further reduce, and perhaps completely eliminate, RTI's independent external evaluation of VTCP.

3.5 Program Infrastructure, Administration, and Management

CDC *Best Practices* includes an ideal staffing plan for comprehensive tobacco control programs that includes a program director, policy coordinator, communications specialist, cessation coordinator, surveillance and evaluation staff, fiscal management systems staff, and administrative staff. VTCP has a similar structure, and most of the roles and positions recommended by CDC are currently being filled by VTERB and VDH staff. VTERB manages and oversees the program and coordinates program goals, strategies, and activities with VTCP component organizations (VDH, AOE, DLC, Attorney General’s Office) and program partners. VTERB is an independent board that consists of members of the public and private sectors, as well as state agencies. VTCP’s independent status and authority allows it to

- appropriately monitor and evaluate program investments,
- make investment decisions based on independent program evaluation to ensure successful outcomes,
- maintain partnerships among funded state agencies, and
- leverage state expenditures to the greatest extent possible.

CDC recommends and encourages tobacco control programs to fund their administration, management, and infrastructure activities at CDC *Best Practices* recommended amounts, even if the program’s total funding is below CDC recommended amounts (CDC, 2014).

The independence of VTERB also ensures that critical stakeholders and an engaged public have a voice in the development and maintenance of the statewide tobacco control program. VTERB plays a critical role in VTCP and serves as a mechanism for obtaining input from and making decisions across Vermont’s comprehensive, multicomponent, tobacco control program that includes many component organizations and program partners. Combined with independent, external evaluation, VTERB’s efforts ensure that VTCP’s media campaigns are as strong and effective as possible, limited funding and resources are allocated as wisely and effectively as possible, VTCP component agencies and program partners collaborate effectively to advance the program goals and objectives, and the progress and outcomes of VTCP’s efforts are independently assessed and evaluated. Without VTERB and independent external evaluation, agencies are not held as rigorously accountable for their efforts and their use of limited program funds and available resources.

4. Tobacco Control in Vermont: Progress and Trends in Key Outcomes

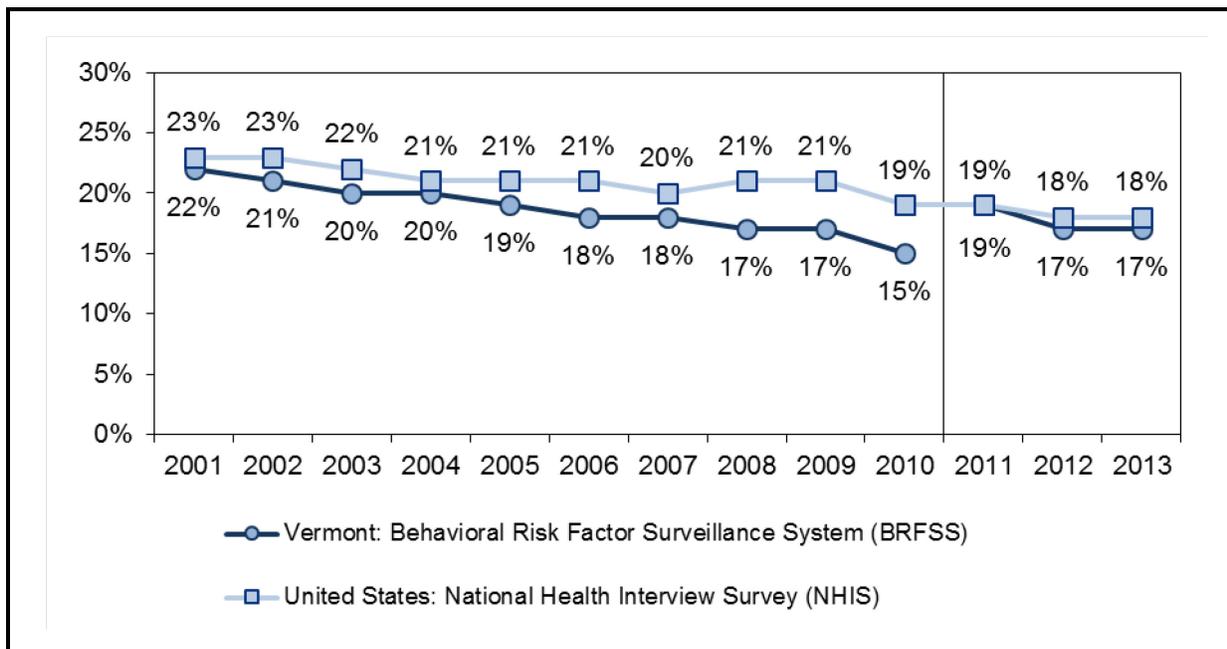
In this section, we summarize progress and trends in key tobacco control outcomes since the Vermont Tobacco Control Program (VTCP) began in 2001. This section is organized by the major goals and objectives of the program: reducing adult cigarette smoking (Section 4.1), reducing youth cigarette smoking (Section 4.2), promoting and increasing tobacco use cessation (Section 4.3), reducing exposure to secondhand smoke (Section 4.4), and minimizing the use of other tobacco products (OTPs) (Section 4.5). We present trends covering the entire time span of the program for each outcome if data for the outcome were readily available. If data for an outcome were not readily available going back to 2001—because the data do not exist, comparable data are not available over time to create a long-term trend, or RTI did not have access to those data while preparing this report—we present more recent data to present a picture of the recent and current status of those outcomes.

4.1 Reducing Adult Cigarette Smoking in Vermont

One of VTCP's primary goals is to reduce adult cigarette smoking in Vermont to 12% by 2020. Data from the Behavioral Risk Factor Surveillance System (BRFSS) indicate that current adult cigarette smoking prevalence in Vermont declined from 22% in 2001 to 17% in 2013 (Figure 4-1). Data from the National Health Interview Survey (NHIS) show that national current adult cigarette smoking prevalence declined from 23% in 2001 to 18% in 2013 (Figure 4-1).

In 2011, the Centers for Disease Control and Prevention (CDC) changed the BRFSS survey weighting to represent the adult population more accurately. Survey weights are now calculated using an iterative proportional fitting (or "raking") methodology. Starting in 2011, the BRFSS also includes cell phone respondents. Previous studies indicate that cell phone-only households are more likely to smoke (Blumberg & Luke, 2011; Delnevo, Gundersen, & Hagman, 2009). The revised BRFSS sampling, which includes cell phone respondents and weighting methodology changes, produces more accurate estimates that are representative of the adult population, particularly among populations with disparate tobacco use, such as low-income adults. However, these changes also limit the ability to compare data from 2011 forward with previous years. Statistical differences between data from 2011 and forward may be due to methodological changes, rather than actual changes in behavior. We present a break in BRFSS trend lines after 2010 and present the period from 2011 forward separately from previous years.

Figure 4-1. Percentage of Adults Who Currently Smoke in Vermont (Behavioral Risk Factor Surveillance System [BRFSS]) and Nationally (National Health Interview Survey), 2001–2013

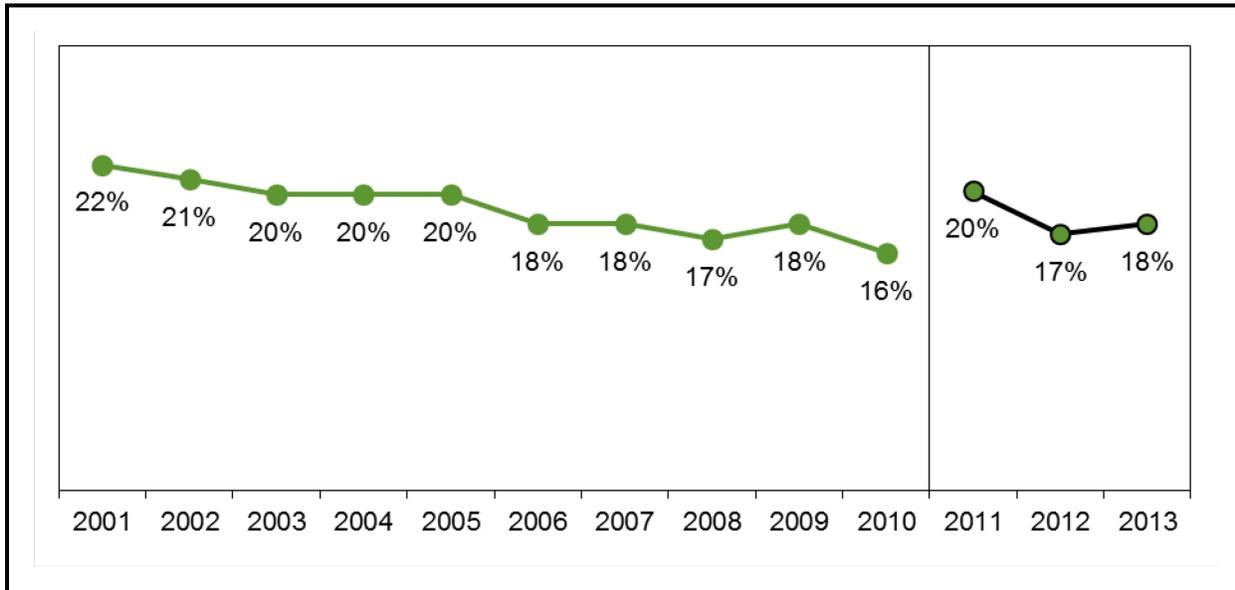


Note: In 2011, the Centers for Disease Control and Prevention implemented changes to the BRFSS weighting methodology to represent the adult population more accurately. The changes in methodology limit the ability to compare BRFSS data before 2011 to subsequent years. Therefore, comparisons between BRFSS data before and after 2011 should be made with caution.

The prevalence of adult smoking has declined significantly since 2001 in Vermont and nationally. However, declines in current adult cigarette smoking prevalence have also slowed or stalled in recent years, both in Vermont and nationally. BRFSS prevalence data have not shown any statistically significant changes in the adult smoking rate in Vermont from 2011 through 2013.

To align with Healthy People 2020, the Vermont Department of Health (VDH) reports age-adjusted smoking prevalence rates using BRFSS data. Similar to the crude rates presented in Figure 4-1, the age-adjusted prevalence of smoking among Vermont adults declined from 19% in 2011 to 17% in 2013 (Figure 4-2). This is the baseline from which progress toward the 2020 goal of 12% current adult smoking prevalence in Vermont is measured. The estimated number of current adult cigarette smokers in Vermont was 95,000 in 2011 and 81,000 in 2013 (Table 4-1). Although the estimated number of current adult cigarette smokers in Vermont was lower in 2013 than in 2011, the difference in current adult smoking rates between those two years was not statistically significant.

Figure 4-2. Age-Adjusted Percentage of Adults Who Currently Smoke in Vermont, Behavioral Risk Factor Surveillance System (BRFSS), 2001–2013



Note: In 2011, the Centers for Disease Control and Prevention implemented changes to the BRFSS weighting methodology to represent the adult population more accurately. The changes in methodology limit the ability to compare BRFSS data before and after 2011 to subsequent years. Therefore, comparisons between BRFSS data before and after 2011 should be made with caution. The data in this figure are age-adjusted to the 2000 U.S. standard population. For more detailed information on age adjustment, see <https://www.cdc.gov/nchs/data/statnt/statnt20.pdf>.

Table 4-1. Age-Adjusted Current Adult Cigarette Smoking Prevalence and Estimated Number of Adult Vermont Smokers

Year	Age-Adjusted Prevalence (BRFSS)	Estimated Number of Vermont Smokers
2011	20.2%	95,000
2012	17.3%	81,000
2013	18.0%	81,000

Notes: Percent is age-adjusted. Estimated number of Vermont smokers is rounded to the nearest thousand Vermonters (not age-adjusted).

Extensive survey data, including the BRFSS, have shown significant differences in smoking rates by demographics and across population subgroups (CDC, 2014). Table 4-2 presents trends in age-adjusted current adult cigarette smoking prevalence, overall and by demographic subgroups, from the BRFSS for 2011 through 2013. Large disparities in tobacco use remain based on age, educational attainment, and socioeconomic status (see Table 4-2). Male and female Vermonters tend to smoke at similar rates. Younger adults are more likely to smoke than older adults. From 2011 through 2013, Vermont adults with less

Table 4-2. Percentage of Adults Who Currently Smoke in Vermont by Demographic Groups, Behavioral Risk Factor Surveillance System 2011–2013

Group	2011	2012	2013
Overall	20%	17%	18%
Gender			
Female	18%	16%	16%
Male	23%	19%	19%
Age Group			
18–24 years	24%	20%	19%
25–34 years	33%	25%	24%
35–44 years	21%	19%	21%
45–54 years	19%	20%	19%
55–64 years	16%	14%	13%
65+ years	6%	6%	8%
Education			
< High school	56%	46%	42%
High school or GED	27%	23%	25%
Some college	17%	17%	17%
College graduate or higher degree	8%	7%	6%
Income			
Less than \$25,000	34%	31%	36%
\$25,000–\$49,999	23%	22%	21%
\$50,000–\$74,999	12%	11%	10%
\$75,000 or more	7%	7%	6%
Federal Poverty Level			
< 250% of FPL	26%	24%	29%
≥ 250% of FPL	9%	9%	9%

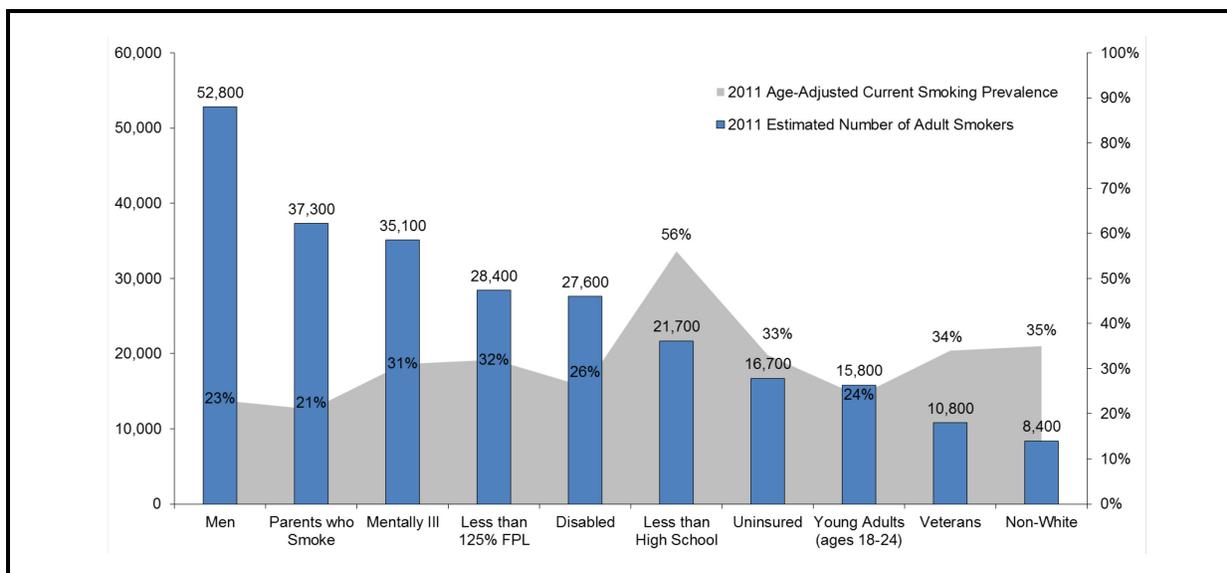
Note: All percentages with the exception of age group are age-adjusted to standard U.S. 2000 population according to Healthy People 2020.

than a high school education had the highest current cigarette smoking prevalence among the four education groups at 56% in 2011, 46% in 2012, and 42% in 2013—on average about 7 times higher than the current adult cigarette smoking prevalence among college graduates and those with higher degrees. Individuals with a high school education or less smoked at a higher rate than the state average, whereas those with at least some college education smoked at a lower rate than the state average. Those with incomes less than \$25,000 had the highest smoking prevalence among the four income groups at 34% in

2011, 31% in 2012, and 36% in 2013—about 4 to 6 times higher than the prevalence of smoking among those with incomes greater than \$75,000 annually. Individuals with annual incomes of less than \$25,000 also smoked at higher rates than the state average, whereas those with annual incomes of \$50,000 or greater smoked at lower rates than the state average. The BRFSS indicator for individuals living at less than 250% of the Federal Poverty Level (FPL) has been used as a proxy for Medicaid eligibility. The prevalence of current adult cigarette smoking among individuals living at less than 250% of FPL was 26% in 2011, 24% in 2012, and 29% in 2013, which was above the state average current cigarette smoking prevalence and about 3 times higher than among those living above 250% of FPL.

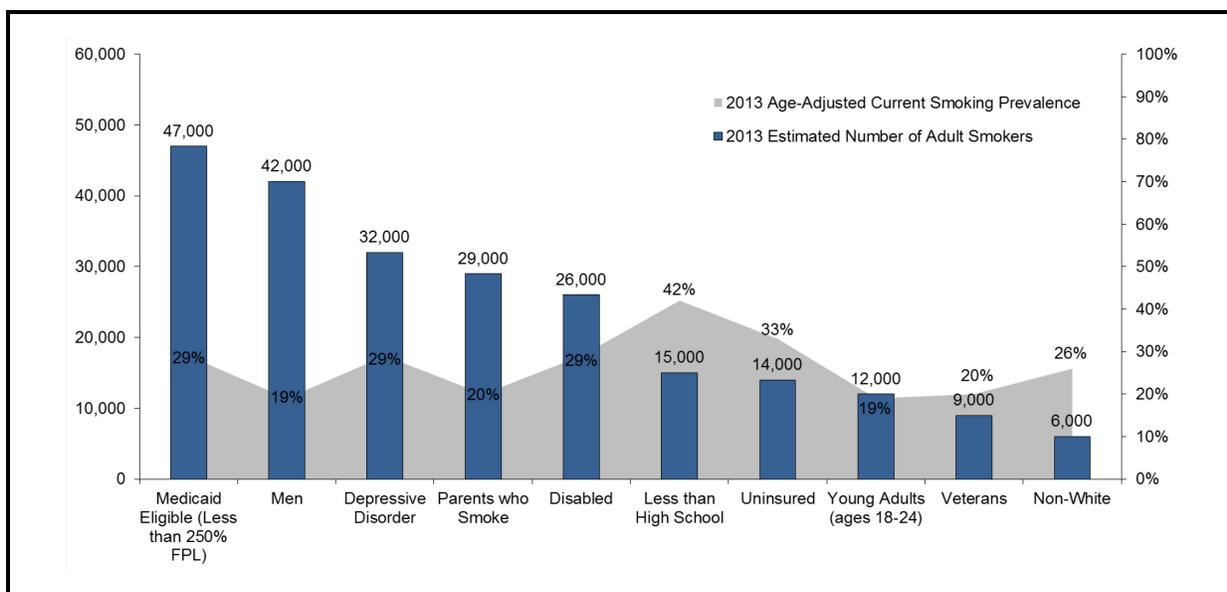
Although it is not one of the stated goals of VTCP, VDH is actively monitoring tobacco use disparities in Vermont and implementing interventions that are effective at helping populations with disproportionate tobacco use successfully quit. Figures 4-3 and 4-4 present the age-adjusted current adult cigarette smoking prevalence in Vermont from the BRFSS and estimated number of adult smokers in Vermont for specific populations with disproportionate smoking rates for 2011 and 2013, respectively. The figures present the estimated number of adult smokers in Vermont for each population as bars with the age-adjusted smoking prevalence as the shaded grey area in the background. The populations presented are arranged and sorted by population size, where the population with the largest number of adult smokers is on the left, and the population with the smallest number of adult smokers is on the right. Medicaid beneficiaries and low-income smokers are a specific target group for VDH because of their high smoking rates and large share of Vermont's smoking population. It is estimated that nearly 50% of the smokers in Vermont are Medicaid insured or eligible (see Figure 4-4). Research indicates that low-income smokers are as motivated to quit as smokers with higher incomes, but they can have more difficulty in sustaining successful quit attempts over time (VDH Dashboard Web site). Other key populations with disproportionate tobacco use in Vermont include individuals who have mental illness or a depressive disorder (approximately 40% of Vermont's adult smokers), parents who smoke (approximately 35% of Vermont's adult smokers), individuals who are disabled (approximately 32% of Vermont's adult smokers), individuals with less than a high school education (approximately 18% of Vermont's adult smokers), uninsured individuals (approximately 17% of Vermont's adult smokers), young adults aged 18 to 24 (approximately 15% of Vermont's adult smokers), and veterans (approximately 11% of Vermont's adult smokers). Each of these populations smokes at rates significantly higher than the state average.

Figure 4-3. Age-Adjusted Current Adult Cigarette Smoking Prevalence and Estimated Number of Adult Cigarette Smokers for Specific Populations with High Smoking Rates, Behavioral Risk Factor Surveillance System (BRFSS), 2011



Note: All percentages with the exception of age group are age-adjusted to standard U.S. 2000 population according to Healthy People 2020. Estimates of the number of adult smokers are rounded to the nearest hundred Vermonters.

Figure 4-4. Age-Adjusted Current Adult Cigarette Smoking Prevalence and Estimated Number of Adult Cigarette Smokers for Specific Populations with High Smoking Rates, Behavioral Risk Factor Surveillance System (BRFSS), 2013



Note: All percentages with the exception of age group are age-adjusted to standard U.S. 2000 population according to Healthy People 2020. Estimates of the number of adult smokers are rounded to the nearest thousand Vermonters.

The Vermont Adult Tobacco Survey (VT ATS) contains measures of Vermont adults' attitudes and beliefs regarding the acceptability of adult smoking. In 2014, 32% of current adult smokers in Vermont personally believe that it is okay for adults to smoke as much as they want (Figure 4-5), and 23% believe that most people in their community feel it is okay for adults to smoke as much as they want (Figure 4-6). A substantially smaller proportion of nonsmokers share those beliefs. In 2014, only 6% of adult nonsmokers in Vermont personally believe that it is okay for adults to smoke as much as they want (see Figure 4-5), and 8% believe that most people in their community feel that it is okay for adults to smoke as much as they want (see Figure 4-6). There has been minimal or no change in these outcomes among any group since 2001. National estimates were obtained from the RTI National Adult Tobacco Survey (RTI-NATS) conducted by RTI for the New York State Department of Health (2007–2011) and the Bureau of Tobacco Free Florida (2012). From 2008 through 2011, a higher proportion of U.S. smokers believed that it is okay for adults to smoke as much as they want compared with Vermont smokers (see Figure 4-5). This measure was not included in the 2012 RTI-NATS.

Figure 4-5. Percentage of Smokers and Nonsmokers Who Feel It Is Okay for Adults to Smoke as Much as They Want, Vermont Adult Tobacco Survey, 2001–2014

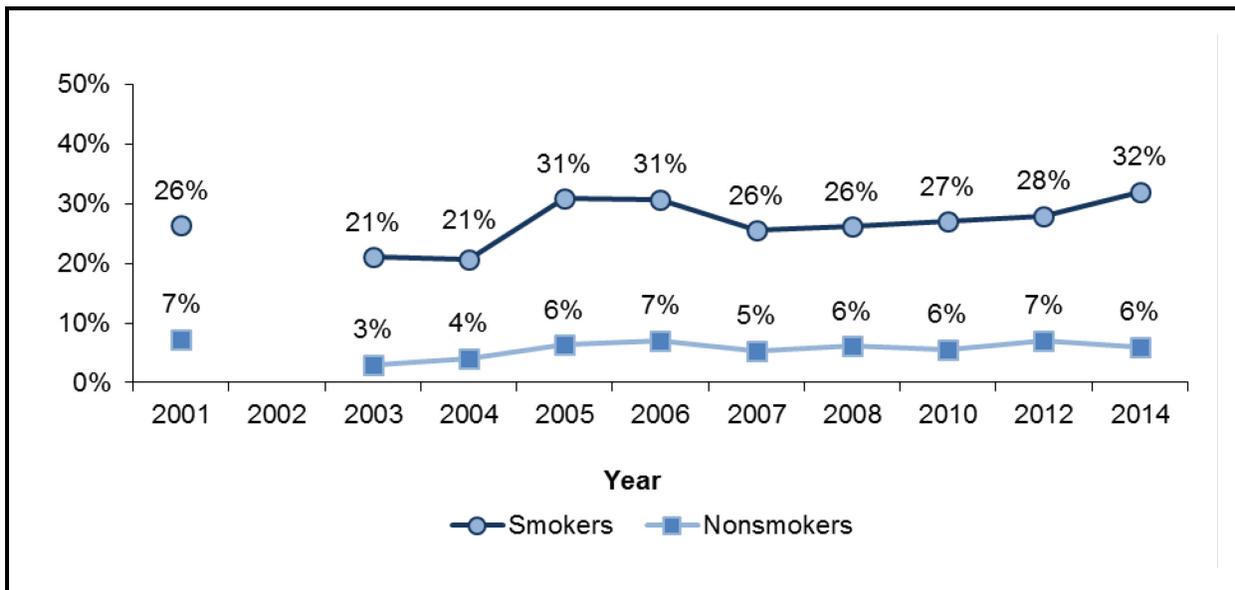
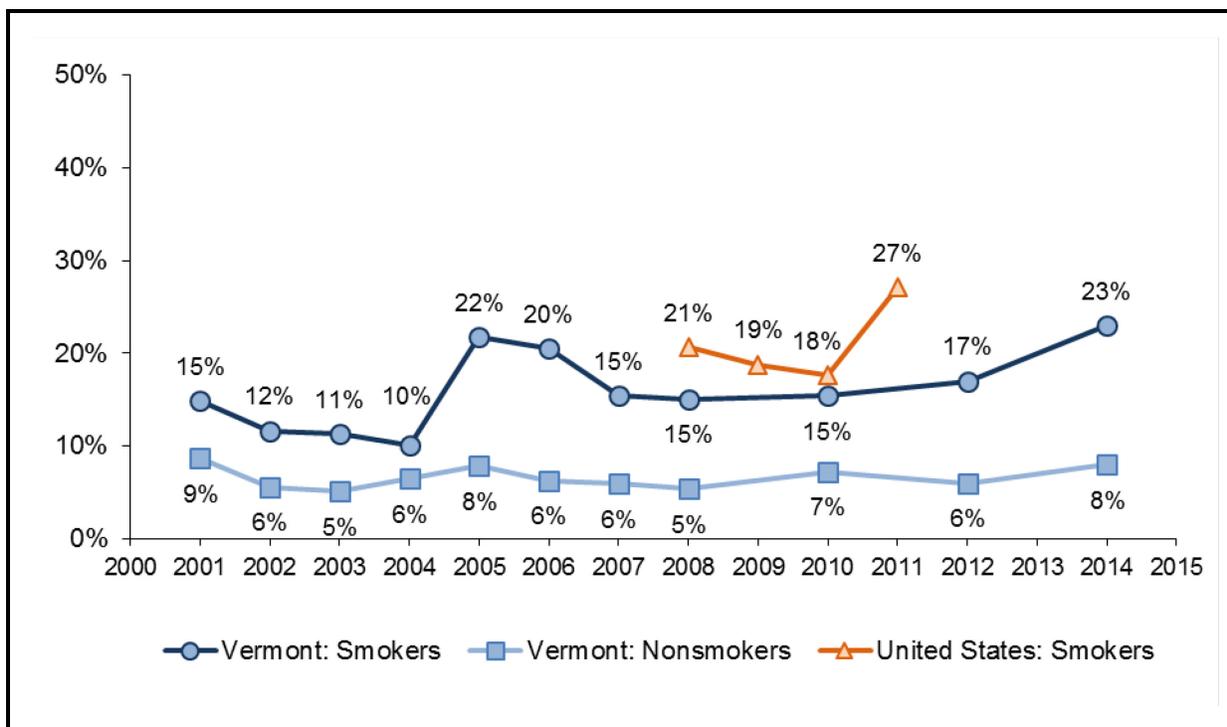


Figure 4-6. Percentage of Smokers and Nonsmokers Who Think Most People in the Community Feel It Is Okay for Adults to Smoke as Much as They Want, Vermont Adult Tobacco Survey and National Adult Tobacco Survey 2001–2008

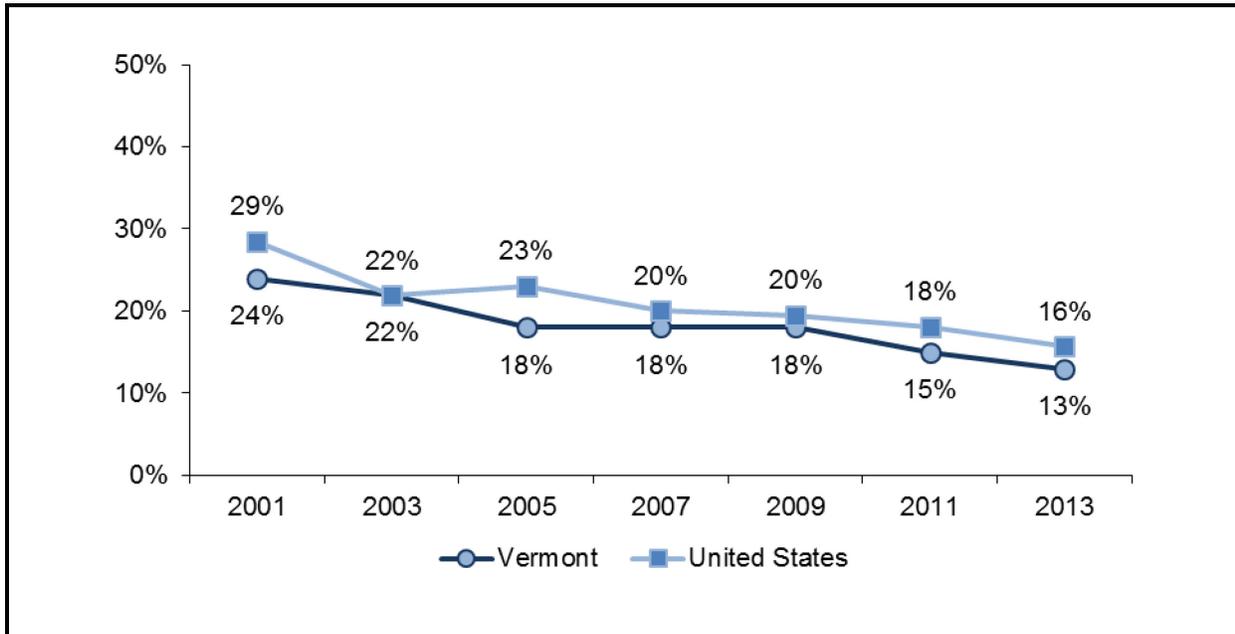


Note: 95% confidence intervals are displayed for each estimate presented.

4.2 Reducing Youth Cigarette Smoking in Vermont

Another of VTCP's primary goals is to reduce youth cigarette smoking in Vermont to 10% by 2020. In Vermont, youth smoking prevalence is measured using the Youth Risk Behavior Survey (YRBS). VDH considers the YRBS to be the best source of data on youth smoking prevalence. VTCP's measure of youth smoking is based on past 30-day cigarette use among high school students from the YRBS. The percentage of high school students in Vermont who currently smoke cigarettes has significantly decreased from 24% in 2001 to 13% in 2013 (Figure 4-7). Nationally, the percentage of high school students who currently smoke cigarettes has also significantly decreased from 29% in 2001 to 16% in 2013. Data from the Vermont YRBS show that Vermont's high school smokers are not frequent or heavy smokers. In 2013, only 5% of all high school students in Vermont smoked on 20 or more of the past 30 days, and only 1% of all Vermont high school students smoked 1 pack or more per day on days smoked in the past 30 days.

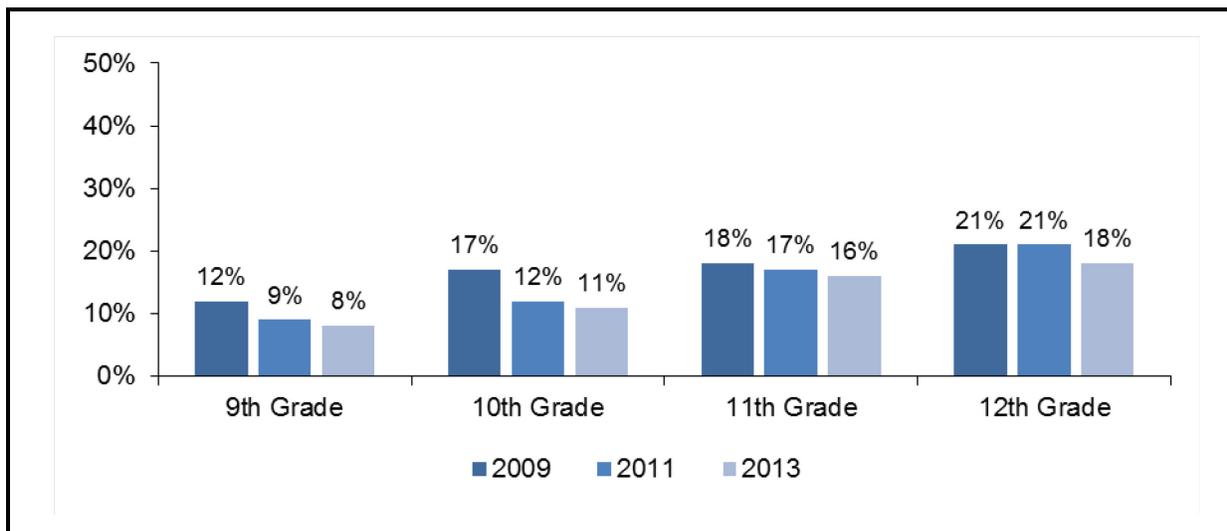
Figure 4-7. Percentage of High School Students Who Currently Smoke Cigarettes in Vermont and Nationally, Vermont Youth Risk Behavior Survey 2001–2013 and National Youth Risk Behavior Survey 2001–2013



Note: Statistically significant decrease among middle school and high school students in Vermont and the United States between 2000 and 2013. Statistically significant downward trend among middle school and high school students from 2000 to 2013 in Vermont and nationally. Data for high school students are from the Vermont and National Youth Risk Behavior Survey. Data for middle school students in Vermont are from the 2000–2006 Vermont Youth Health Survey (formerly the Youth Tobacco Survey) and the 2011–2013 Vermont Youth Risk Behavior Survey. Data for middle school students, nationally, are from the National Youth Tobacco Survey.

Vermont high school students in 11th and 12th grades have consistently smoked cigarettes at higher rates than Vermont high school students in 9th and 10th grades (Figure 4-8). In 2013, 16% of Vermont’s 11th grade students currently smoked cigarettes, and 18% of Vermont’s 12th grade students currently smoked cigarettes. These findings are somewhat troubling as the prevalence of smoking among Vermont’s 11th and 12th grade students is comparable to the overall prevalence of smoking among adults in Vermont. Vermont also has elevated rates of youth smoking among 11th and 12th grade students compared with other states. Based on available 2013 YRBS data for 42 states, Vermont was ranked 27th in current smoking among 11th grade students and 22nd in current smoking among 12th grade students. This means that at least 26 other states have a lower prevalence of smoking among their 11th grade students and at least 21 other states have a lower prevalence of smoking among their 12th grade students.

Figure 4-8. Percentage of Vermont High School Students Who Currently Smoke Cigarettes by Grade, Vermont Youth Risk Behavior Survey 2009–2013



Most smokers begin using cigarettes by the time they are 18 years old (87%), with nearly all first use occurring by 26 years of age (98%) (CDC, 2014). The percentage of Vermont high school students who smoked a whole cigarette before age 13 has declined from 22% in 2001 to 7% in 2013 (Figure 4-9). This change could be a result of decreasing youth smoking in Vermont. However, since current youth smoking rates among 11th and 12th graders remain relatively high, these results could be an indication that, over time, Vermont youth are beginning to smoke at older ages and the age of initiation is being shifted out as a result of social and environmental changes or perhaps effectiveness of tobacco control efforts at preventing initiation among younger age groups.

To complement the high school smoking prevalence data, we present trends in youth smoking prevalence for middle school students in grades 6 through 8 using the 2000–2006 Vermont Youth Health Survey (YHS) (formerly the Youth Tobacco Survey [YTS]), the 2011 and 2013 Vermont YRBS, and the 2000–2009 NYTS. Vermont stopped conducting the YHS in 2008 and incorporated some of the YHS questions into the Vermont YRBS. The question used to measure 30-day smoking prevalence among Vermont middle school students is the same in the YRBS as it was in the YHS, making data from the two surveys comparable. The 2011 YRBS is the first Vermont YRBS that contains middle school-specific results.

The percentage of middle school students in Vermont who currently smoke cigarettes has declined significantly from 2000 (12%) to 2013 (2%) (Figure 4-10). Nationally, the percentage of middle school students who currently smoke has also declined significantly from 2000 (11%) to 2013 (3%).

Figure 4-9. Percentage of High School Students Who Smoked a Whole Cigarette Before Age 13, Vermont Youth Risk Behavior Survey 2001–2013

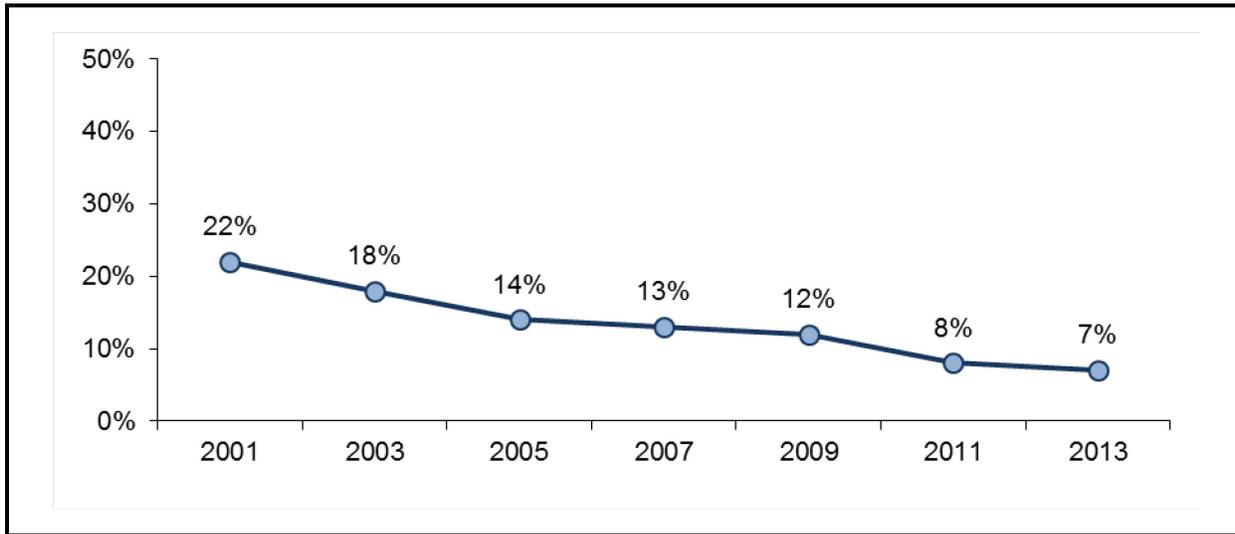
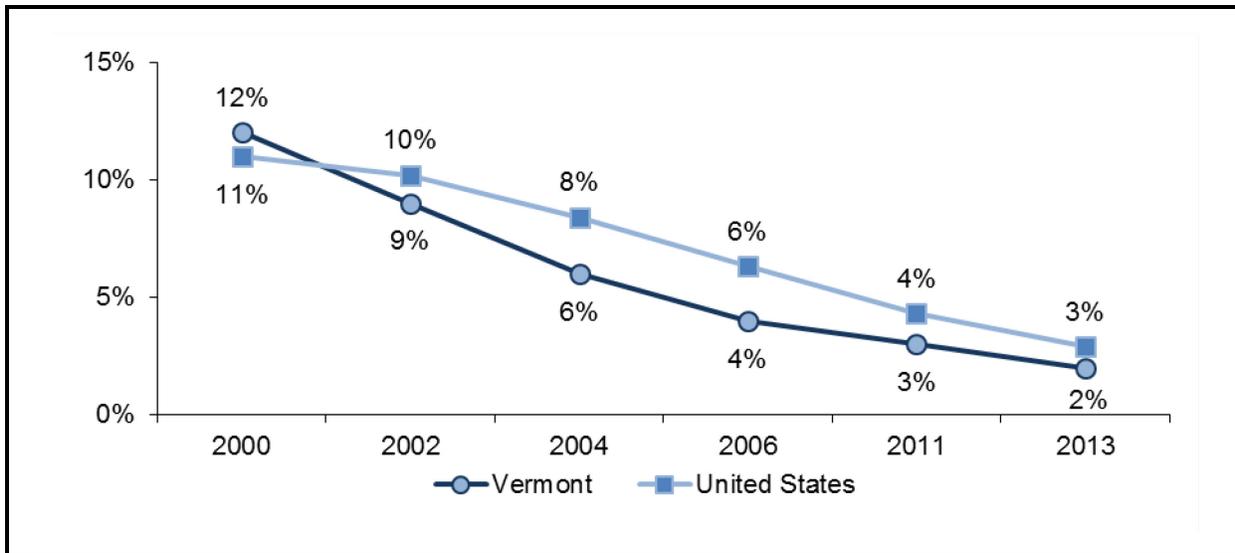


Figure 4-10. Percentage of Middle School Students Who Currently Smoke Cigarettes in Vermont and Nationally, Vermont Youth Health Survey 2000–2006, Vermont Youth Risk Behavior Survey 2011–2013, and National Youth Tobacco Survey 2000–2013



Note: Statistically significant decrease among middle school and high school students in Vermont and the United States between 2000 and 2013. Statistically significant downward trend among middle school and high school students from 2000 to 2013 in Vermont and nationally. Data for high school students are from the Vermont and National Youth Risk Behavior Survey. Data for middle school students in Vermont are from the 2000–2006 Vermont Youth Health Survey (formerly the Youth Tobacco Survey) and the 2011–2013 Vermont Youth Risk Behavior Survey. Data for middle school students, nationally, are from the National Youth Tobacco Survey.

The 2011 Vermont YRBS asked Vermont middle and high school students about their perception of the harmful effects of smoking cigarettes. In 2011, 70% of Vermont's middle school students and 59% of Vermont's high school students believed that people their age greatly risk harming themselves (physically or in other ways) if they smoke one or more packs of cigarettes per day (Figure 4-11). Nearly all Vermont middle school students (95% in 2001 and 96% in 2013) and high school students (90% in 2011 and 91% in 2013) think that their parents believe it is wrong or very wrong to smoke cigarettes (Table 4-3). Similarly, nearly all Vermont middle school students personally believe that it is wrong or very wrong to smoke cigarettes (93% in 2011 and 94% in 2013). However, a lower percentage of Vermont high school students (70% in 2011 and 74% in 2013) personally believe it is wrong or very wrong to smoke cigarettes (see Table 4-3).

Figure 4-11. Percentage of Vermont Middle School and High School Students Who Believe That People Their Age Greatly Risk Harming Themselves (Physically or in Other Ways) If They Smoke One or More Packs of Cigarettes per Day, Vermont Youth Risk Behavior Survey 2011

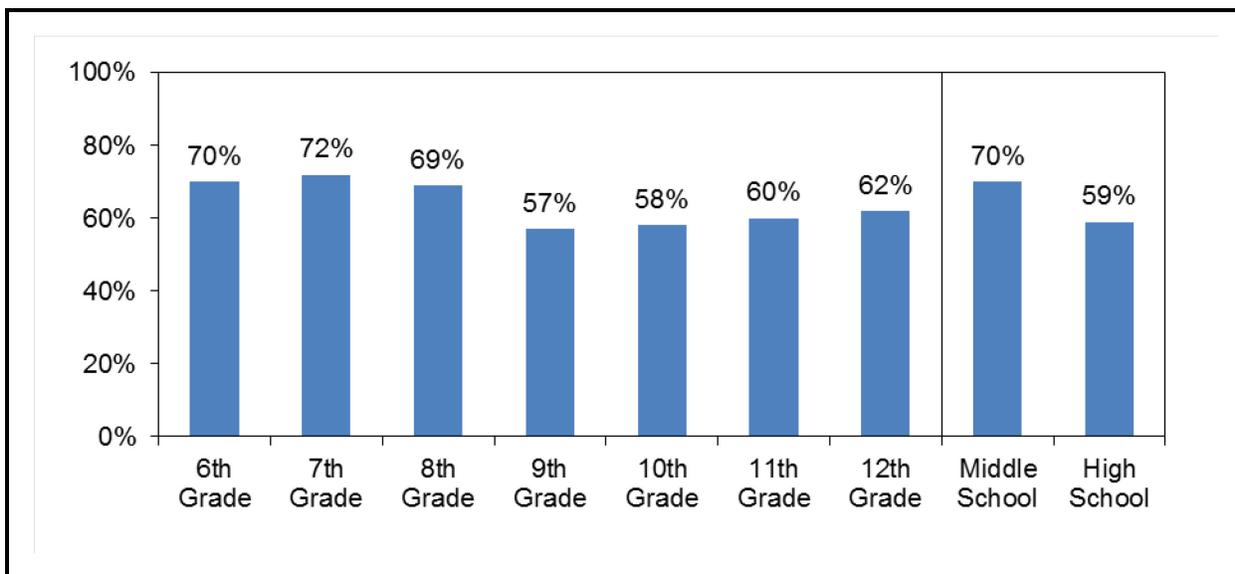


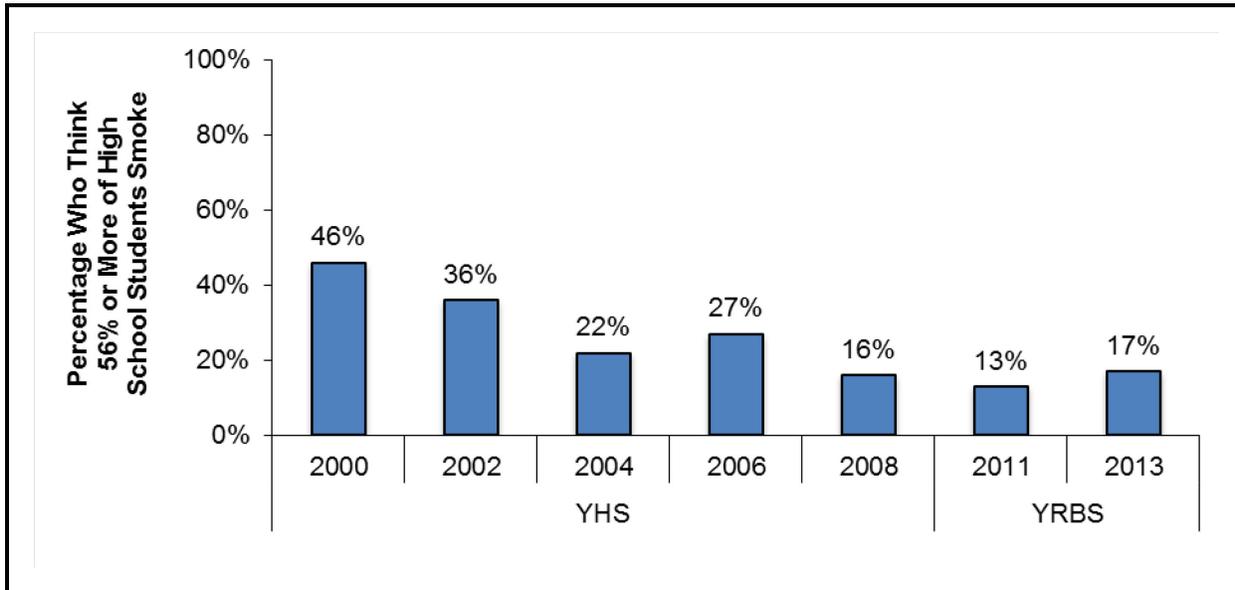
Table 4-3. Vermont Middle School and High School Students' Beliefs about the Acceptability of Smoking Cigarettes, Vermont Youth Risk Behavior Survey 2009–2013

Population	Year	Think Parents Believe it is Wrong or Very Wrong to Smoke Cigarettes	Personally Believe it is Wrong or Very Wrong to Smoke Cigarettes
Middle School	2011	95%	93%
	2013	96%	94%
High School	2009	90%	70%
	2011	91%	74%

Since VTCP began in 2001, the percentage of Vermont middle school students who believe that 56% or more of Vermont high school students smoke has significantly decreased. The percentage of Vermont middle school students in grades 6 through 8 who think that 56% or more of high school students smoke decreased from 46% in 2000 to 17% in 2011 (Figure 4-12). The dramatic change in the perceived prevalence of high school smoking among Vermont middle school students provides compelling evidence that VTCP's long-running "8 out of 10" health communication campaign, which began in 2001, has been successful at correcting misperceptions about the prevalence of youth smoking in Vermont. Evidence suggests that media campaigns can correct student misperceptions of the level of adolescent smoking (Davis et al., 2007) and that youth are more likely to smoke if they perceive that smoking is common among their peers (Botvin et al., 1992; Chassin et al., 1984). Additional evidence suggesting that Vermont youth are exposed to and aware of VTCP media efforts comes from YRBS measures of exposure to antitobacco messages. In 2013, 80% of Vermont high school students reported hearing or seeing an ad about the dangers of smoking in the past 30 days (Figure 4-13).

An emerging issue that has important implications for youth smoking in Vermont is concurrent use of tobacco and marijuana in Vermont. The Vermont YRBS also includes questions about marijuana use. In 2013, 13% of Vermont high school students reported past 30-day cigarette use, and 24% of Vermont high school students reported past 30-day marijuana use. As of September 2014, Vermont ranked third among U.S. states in high school marijuana use. Marijuana use and tobacco use are also highly associated. Of the Vermont students who reported using marijuana in the past 30 days, 41% also reported using cigarettes. Of the Vermont students who reported smoking cigarettes in the past 30 days, 72% also reported using marijuana (VDH, 2014). The more frequently students report using marijuana, the more likely they are to also report smoking cigarettes (Figure 4-14). Among Vermont high school students who reported using marijuana on 1 to 2 of the past 30

Figure 4-12. Percentage of Middle School Students Who Think That 56% or More of High School Students Smoke, Vermont Youth Health Survey 2000–2008 and Vermont Youth Risk Behavior Survey 2011–2013



Note: VHS = Vermont Health Survey; YRBS = Youth Risk Behavior Survey

Figure 4-13. Percentage of Vermont High School Students Who Heard or Saw an Ad about the Dangers of Smoking in the Past 30 Days, Vermont Youth Risk Behavior Survey, 2013

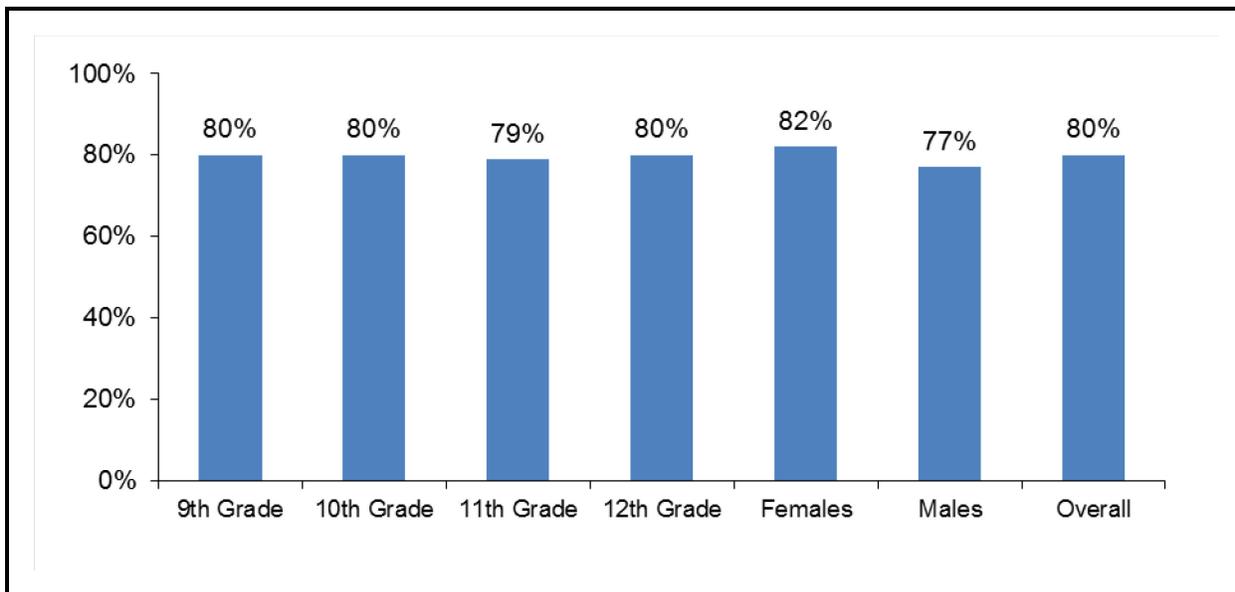
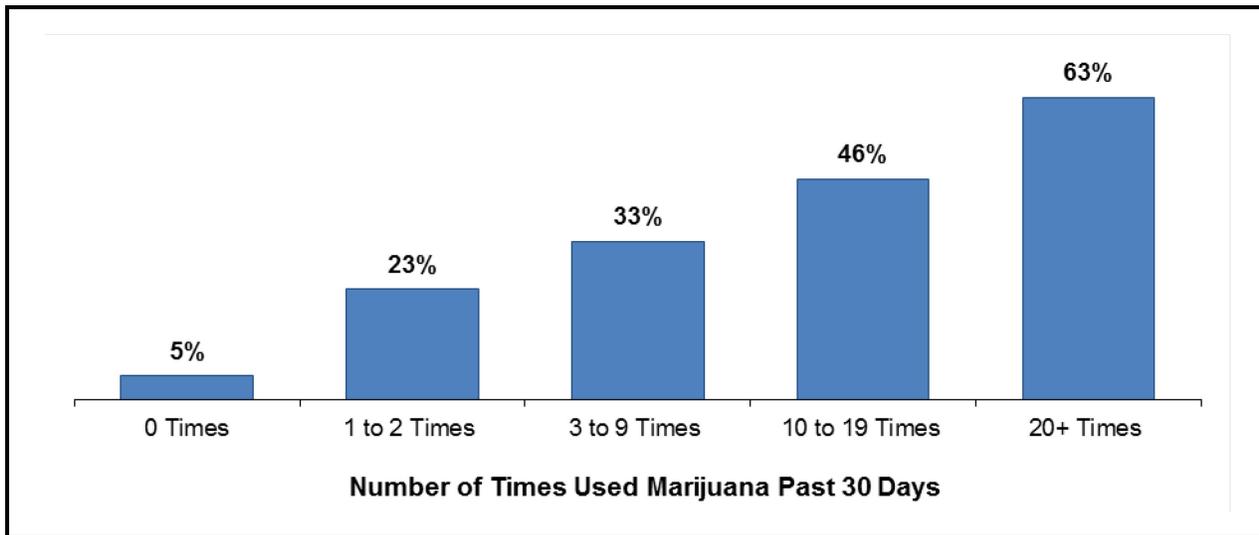


Figure 4-14. Percentage of Vermont High School Students Who Smoked One or More Cigarettes in the Past 30 Days by Reported Daily Marijuana Use in the Past 30 Days, Vermont Youth Risk Behavior Survey 2013



days, 23% reported smoking cigarettes. Among Vermont high school students who used marijuana on 20 or more of the past 30 days, 63% reported smoking cigarettes at least once in the past 30 days (VDH, 2014).

VTCP has worked hard to increase perceived harm of tobacco to reduce youth prevalence. However, the perceived harm of marijuana among Vermont youth is declining. Rising social acceptability of marijuana, which is anticipated to be spurred on further by marijuana legalization, has the potential to erode the gains Vermont has made in reducing youth tobacco use and ultimately lead to an increase in youth tobacco use (VDH, 2014).

Vermont YRBS data also show an alarming association between concurrent use of marijuana and cigarettes and attempted suicide in the past year. Overall, 5% of Vermont high school students reported attempting suicide in the past year. This rate was only 3% among students who did not use either marijuana or cigarettes, 6% among students who reported using marijuana only, and 10% among students who reported using cigarettes only. However, 16% of Vermont students who reported using both marijuana and cigarettes reported attempting suicide in the past year (VDH, 2014).

4.2.1 Restricting Youth Access to Tobacco Products

Vermont attempts to restrict youth access to tobacco products through minimum purchase age laws for tobacco and tobacco substitutes, which include e-cigarettes. Vermont also has numerous laws that regulate the tobacco retail environment. Examples of these regulations include requiring tobacco products and tobacco substitutes to be located behind the counter.

Tobacco retailers are required to post signage that it is illegal for minors to purchase tobacco products or tobacco substitutes, and clerks are required to obtain proof of age from a valid photo ID from all tobacco purchasers younger than 27 years of age. To enforce these regulations, DLC conducts random, unannounced retailer compliance checks where minors working with DLC attempt to purchase tobacco products. If Vermont tobacco retailers fail DLC tobacco compliance checks, they are subject to penalties, including fines. Vermont legislative statutes specify a minimum of 90% compliance with Vermont’s youth tobacco access laws. From FY 2009 through FY 2014, Vermont has come very close to the 90% retailer compliance rate and has met the 90% compliance rate threshold in 3 of those 6 years (Figure 4-15). DLC also collects data on the type of training that clerks who are involved in DLC tobacco retailer compliance checks received. From 2009 through 2014, clerks who were trained by DLC had higher tobacco compliance rates than clerks who were trained by the retailer or had not received training (Table 4-4).

Figure 4-15. Retailer Compliance Rates from DLC Tobacco Retailer Compliance Checks, FY 2009–FY 2014

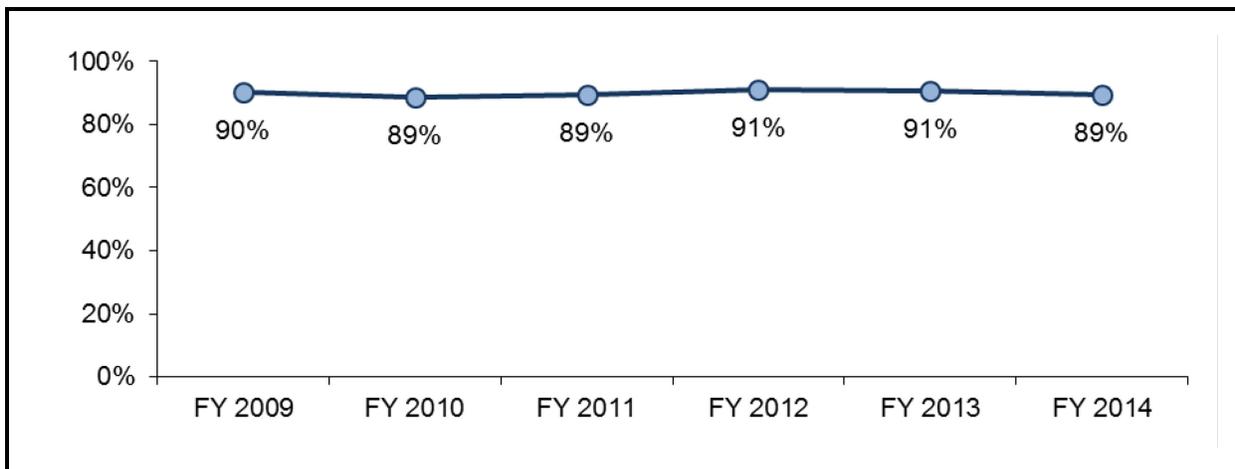


Table 4-4. Retailer Compliance Rates from DLC Tobacco Retailer Compliance Checks by Type of Training the Clerk Received, 2009–2014

Training Type	Year	Clerks	Did Not Sell	Sold	Compliance Rate
Total	2009	1,324	1,182	142	89%
	2010	1,526	1,355	171	89%
	2011	989	900	89	91%
	2012	968	874	94	90%
	2013	1,265	1,147	118	91%
	2014	727	644	83	89%

(continued)

Table 4-4. Retailer Compliance Rates from DLC Tobacco Retailer Compliance Checks by Type of Training the Clerk Received, 2009–2014 (continued)

Training Type	Year	Clerks	Did Not Sell	Sold	Compliance Rate
Clerk trained by DLC	2009	787	728	59	93%
	2010	789	719	70	91%
Clerk trained by DLC: attended seminar	2011	473	441	32	93%
	2012	372	346	26	93%
	2013	405	375	30	93%
	2014	206	190	16	92%
Clerk trained by DLC: online seminar	2011	12	12	0	100%
	2012	58	57	1	98%
	2013	124	113	11	91%
	2014	95	89	6	94%
Clerk trained by retailer	2009	461	397	64	86%
	2010	646	559	87	87%
	2011	447	405	42	91%
	2012	510	445	65	87%
	2013	687	624	63	91%
	2014	405	350	55	86%
Clerk not trained	2009	76	57	19	75%
	2010	91	77	14	85%
	2011	57	42	15	74%
	2012	28	26	2	93%
	2013	49	35	14	71%
	2014	21	15	6	71%

Vermont’s youth tobacco access laws and DLC’s enforcement efforts are aimed at restricting the ability of Vermont youth to obtain tobacco products from commercial sources. The idea is that, by restricting access to tobacco products through commercial sources, the overall amount of tobacco products available to youth will decrease. However, even with excellent retailer compliance with youth tobacco access laws and optimal enforcement of those laws, youth can still obtain tobacco products through non-commercial sources. This might include bumming tobacco products from friends or older youth who are legally able to purchase them or by stealing them from a store or family member. The Vermont YRBS asks students

about the ease of obtaining cigarettes. In 2011, 67% of Vermont high school students reported that it would be easy or very easy to get cigarettes (Figure 4-16). The percentage of students reporting ease of access to cigarettes increased for each grade, with 85% of Vermont's 12th grade students reporting that it would be easy or very easy to get cigarettes. This finding is not surprising because many 12th grade students are old enough to purchase cigarettes legally. In 2011 and 2013, less than 30% of Vermont's middle school students reported that it would be easy or very easy to get cigarettes (Figure 4-17).

Figure 4-16. Percentage of Vermont High School Students Who Report That It Would Be Easy or Very Easy to Get Cigarettes, Vermont Youth Risk Behavior Survey, 2011

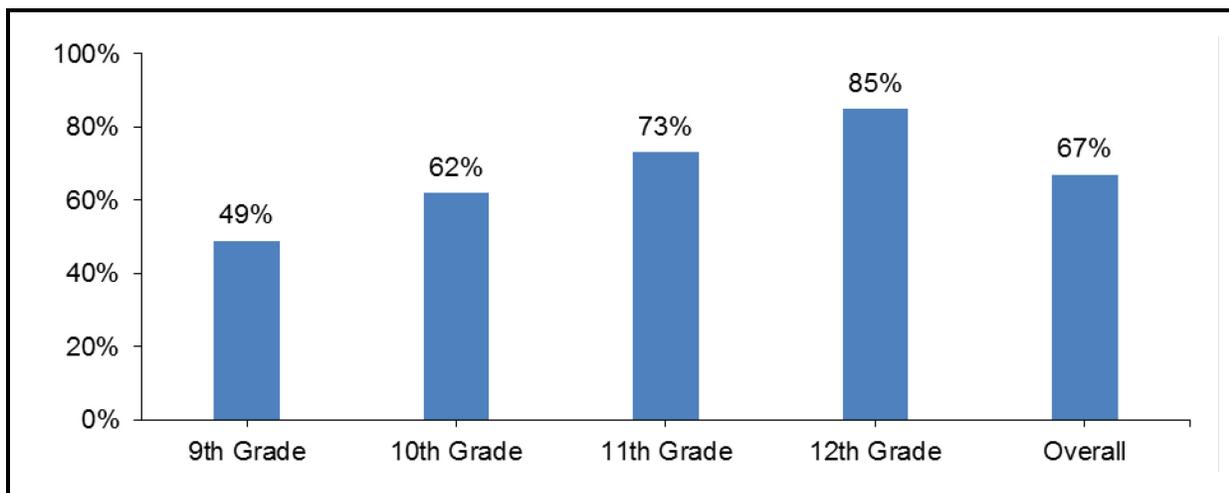
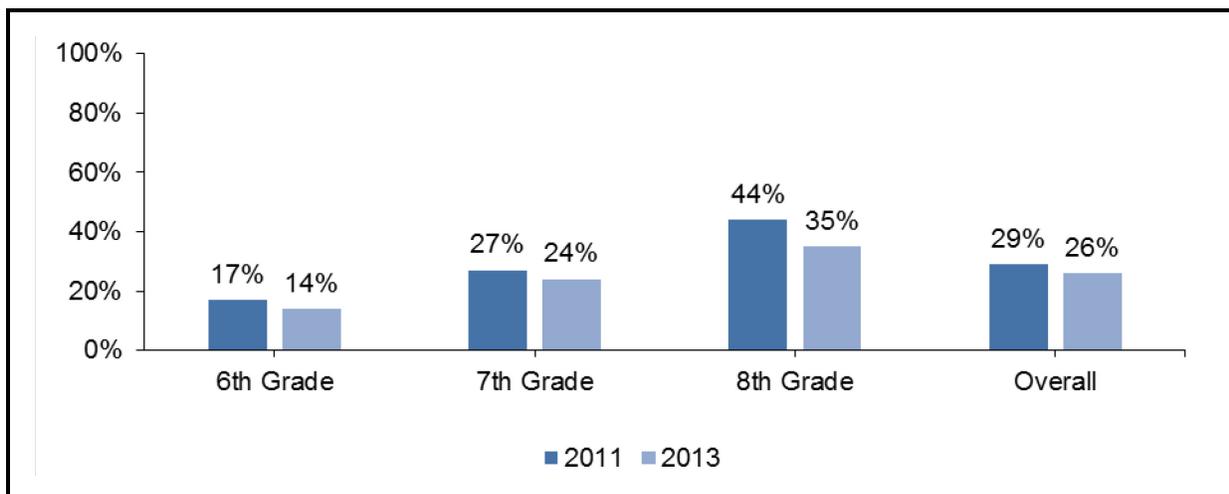


Figure 4-17. Percentage of Vermont Middle School Students Who Report That It Would Be Easy or Very Easy to Get Cigarettes, Vermont Youth Risk Behavior Survey, 2011 and 2013



Vermont high school students who smoked in the past 30 days most often obtained their cigarettes by borrowing or “bumming” them (41% in 2011 and 36% in 2013) (Figure 4-18). Other common ways Vermont high school smokers usually obtained their cigarettes were to have someone else purchase them (28% in 2011 and 25% in 2013) or to purchase them from a store or gas station (19% in 2011 and 20% in 2013). Not surprisingly, older Vermont high school students were more likely to report purchasing cigarettes from a store or gas station as their usual method for obtaining cigarettes in the past 30 days (Table 4-5). Nearly half of Vermont’s 12th grade smokers (48% in 2011 and 45% in 2013) reported that they usually get their cigarettes by purchasing them from a store or gas station (see Table 4-5).

Figure 4-18. Usual Source of Cigarettes in the Past 30 Days, High School Cigarette Smokers, Vermont Youth Risk Behavior Survey 2011 and 2013

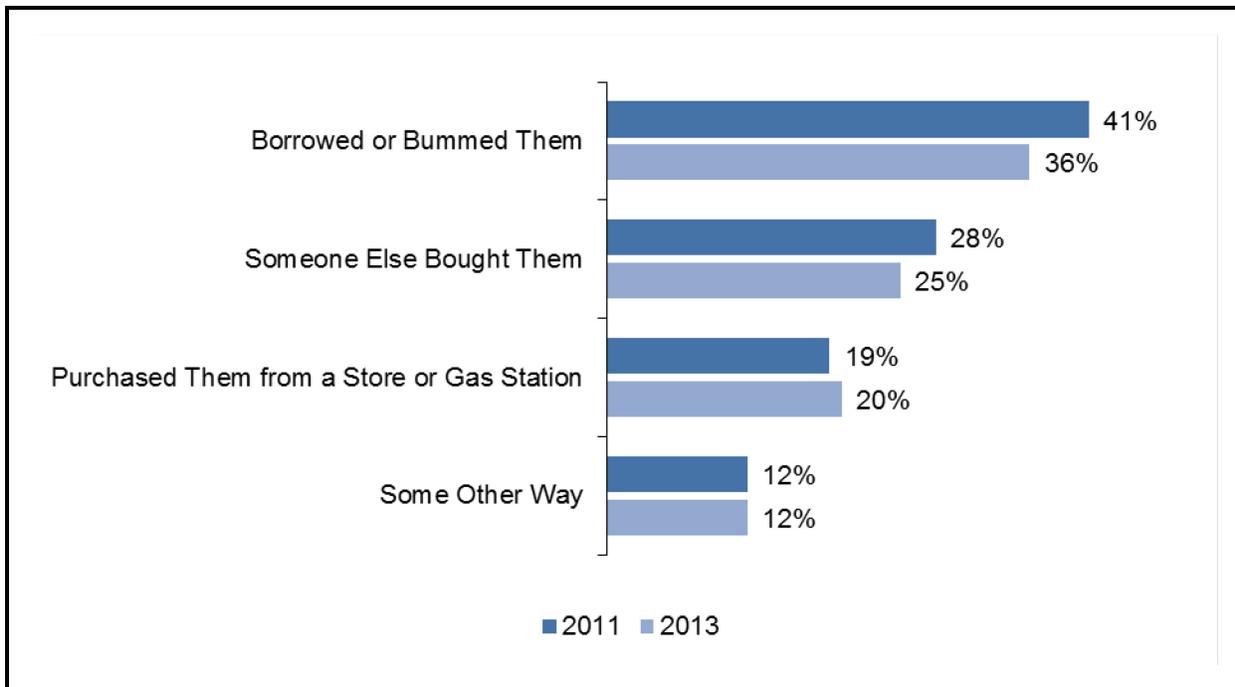


Table 4-5. Usual Source of Cigarettes in the Past 30 Days, High School Cigarette Smokers by Grade, Vermont Youth Risk Behavior Survey 2011 and 2013

Grade	Source	2011	2013
9th Grade	Borrowed or bummed them	52%	41%
	Someone else bought them	23%	24%
	Purchased them from a store or gas station	9%	2%
	Other	16%	33%
10th Grade	Borrowed or bummed them	48%	41%
	Someone else bought them	33%	30%
	Purchased them from a store or gas station	8%	5%
	Other	11%	24%
11th Grade	Borrowed or bummed them	40%	40%
	Someone else bought them	34%	32%
	Purchased them from a store or gas station	15%	12%
	Other	11%	16%
12th Grade	Borrowed or bummed them	19%	28%
	Someone else bought them	24%	17%
	Purchased them from a store or gas station	48%	45%
	Other	9%	10%

4.2.2 School-based Efforts to Reduce Youth Tobacco Use in Vermont

AOE uses data from CDC’s School Health Profiles surveys to obtain school-based data on a variety of school health policies and practices, including tobacco use prevention. The School Health Profiles surveys collect data from school administrators and health educators in secondary schools throughout the state and can be used to provide an overview of the current status of school-based tobacco use prevention efforts in Vermont.

Over the past few years, LEAs in Vermont have been working to promote smoke-free school policies across the state. Nearly all schools in Vermont (98.4% in 2014) had prohibitory tobacco use policies (Table 4-6). However, only 66.8% of schools prohibited all tobacco use at all times in all locations in 2014, an increase from 63.1% in 2008. This includes use of cigarettes, smokeless tobacco, cigars, and pipes by students, faculty, school staff, and visitors. Locations subsumed within these policies include school buildings, outside on school grounds, on school buses or other vehicles used to transport students, and at off-campus, school sponsored events. In total, 75.3% of Vermont schools posted signs marking it as a tobacco-free school zone with a specified distance from school grounds where tobacco use is not allowed, which was an increase from 2008 (69.7%).

Table 4-6. CDC School Health Profile Data, Vermont 2008–2014

Measure	Vermont				National Median
	2008	2010	2012	2014	2012 ^a
	%	%	%	%	%
Tobacco-Free Schools					
Percentage of schools that have adopted a policy prohibiting tobacco use	100.0%	100.0%	98.5%	98.4%	98.5%
Percentage of schools that prohibited all tobacco use at all times in all locations (including cigarettes, smokeless tobacco, cigars, and pipes; by students, faculty and school staff, and visitors; in school buildings; outside on school grounds; on school buses or other vehicles used to transport students; and at off-campus, school-sponsored events; during school hours and nonschool hours)	63.1%	60.8%	54.9%	66.8%	57.4%
Schools that posted signs marking a tobacco-free school zone, that is, a specified distance from school grounds where tobacco use is not allowed	69.7%	68.4%	78.7%	75.3%	82.7%
Cessation Services					
Schools that have arrangements with any organizations or health care professionals not on school property to provide tobacco cessation services for students	34.5%	42.6%	42.8%	36.4%	34.2%
Schools that have arrangements with any organizations or health care professionals not on school property to provide tobacco cessation services for faculty and staff	28.5%	43.1%	52.1%	46.3%	27.8%
Schools that provided tobacco cessation services for students	40.1%	48.6%	41.4%	41.9%	25.2%
Schools that provided tobacco cessation services for faculty and staff	13.5%	22.7%	20.4%	25.9%	16.8%
Training For Lead Health Educators					
Percentage of schools in which the lead health education teacher received professional development during the 2 years before the survey on tobacco use prevention	—	—	29.8%	35.6%	—
Percentage of schools in which the lead health education teacher would like to receive professional development on tobacco-use prevention	—	—	—	46.2%	—

^a At the time this report was written, CDC had not yet released School Health Profiles data for 2014, so RTI did not have data on the national median for 2014.

Notes: 2008 and 2010 data collected from http://education.vermont.gov/documents/EDU-School_Health_Profiles_Report_2010.pdf; 2012 data collected from http://www.cdc.gov/healthyyouth/profiles/pdf/facts/vt_chronic_profiles.pdf and http://www.cdc.gov/healthyyouth/profiles/2012/profiles_report.pdf; 2014 data provided by the Vermont Agency of Education.

Nearly all Vermont schools have adopted a policy prohibiting tobacco use (Table 4-6). The percentage of Vermont schools that prohibited all tobacco use at all times in all locations increased from 54.9% in 2012 to 66.8% in 2014. Although national data are only available for 2012, Vermont was roughly on par with the national median in 2012 for school-based tobacco policies. In 2012, 54.9% of schools in Vermont prohibited tobacco at all times in all locations compared with 57.4% nationally. Similarly, 78.7% of schools in Vermont posted signs marking tobacco-free zones compared with 82.7% nationally. Finally, the percentage of schools with a prohibitory tobacco use policy was the same in Vermont and nationally (98.5%) in 2012.

Providing cessation services for students, faculty, and staff is an important strategy to help support tobacco-free environments in and around schools. In 2014, 41.9% of Vermont schools offered cessation services for students, and 25.9% offered such services for faculty and staff (Table 4-6). In 2012, Vermont's rates were higher than the national median. Specifically, 41.4% of Vermont schools provided tobacco cessation services for students compared with 25.2% nationally, and 20.4% of schools in Vermont provided tobacco cessation services for faculty and staff compared with 16.8% nationally.

Some schools offer cessation services through external organizations or health care professionals in addition to, or instead of, school-based cessation support. In 2014, 36.4% of schools in Vermont had arrangements with other organizations or health care professionals outside of the school to provide tobacco cessation services for students and 46.3% had arrangements to provide tobacco cessation services for faculty and staff (Table 4-6). The percentage of Vermont schools offering outside tobacco cessation support for students has been increasing over time (34.5% in 2008, 42.6% in 2010, and 42.8% in 2012), but decreased from 2012 to 2014 (36.4% in 2014). The percentage of Vermont schools offering outside tobacco cessation services for faculty and staff has also been increasing over time (28.5% in 2008, 43.1% in 2010, and 52.1% in 2012), but decreased from 2012 to 2014 (46.3% in 2014). Nonetheless, in 2012, Vermont was above the national median provision of these cessation services for students (34.2%) and faculty and staff (27.8%).

As described above, one component of Vermont's school-based tobacco prevention program is training health educators in the provision of tobacco-prevention curricula. The percentage of Vermont schools in which the lead health educators received professional development training in the past 2 years increased from 29.8% in 2012 to 35.6% in 2014 (Table 4-6). However, this indicates that only slightly more than one-third of Vermont schools have lead health educators who have received professional development in the past 2 years. Vermont lead health educators may need additional professional development and training. In 2014, 46.2% of Vermont schools had a lead health educator who would like to receive professional development on tobacco use prevention.

4.2.3 Efforts to Address Youth Tobacco Use in Vermont at the Point of Sale

Throughout Vermont, community coalitions and youth groups are actively working to enact local policy change and advocate for statewide tobacco control policies (for a description of activities, see Section 3.1.3). The percentage of youth coalitions educating local or state decision makers on smoke-free policies and retailer tobacco advertising has risen dramatically in the past few years, from 0% in 2012, to 89% in 2013, and 98% in 2014 (VDH Dashboard Web site). At the same time, the youth coalitions became actively involved with VDH's Counter Tools store audit during FY 2015 (see Sections 3.1.1 and 3.1.3). The goals of these activities are to increase knowledge, attitudes, and beliefs regarding POS policies; increase community and decision-maker support for policies; and enact local- and state-level policies that will ultimately address youth tobacco use throughout the state. The following section describes the progress that Vermont is making toward these goals.

Counter Balance Tobacco Retailer Store Audits

VTCP worked with Counter Tools to conduct the Counter Balance store audit, which was implemented to obtain and provide the program with a better understanding of the tobacco advertising environment in Vermont. Data collected during the store audits provide information on retailer density, retailer location, exterior marketing, interior marketing, product availability, and product pricing. Findings from the store audit will be used to educate community members and inform decision makers so that everyone fully understands how POS advertising can negatively influence youth smoking rates and how POS policies can help address the issue of youth smoking. The information obtained through the store audit is extensive and indicates that tobacco retailers are concentrated in certain parts of the state. For example, neighborhoods with lower household income tend to have more tobacco retailers per 1,000 residents than neighborhoods in higher-income areas: 1.9 retailers per 1,000 residents in areas where the median household income is less than \$43,000 compared with 1.1 retailers per 1,000 residents where the median household income is greater than \$64,000 (VDH, May 2015c) (Table 4-7). Furthermore, tobacco retailers are twice as likely to be located near a school or park in the lowest-income neighborhood, compared with the highest-income neighborhoods.

The store audits also revealed that advertising tobacco products outside of the retail stores is common. In fact, close to half (41%) of audited tobacco retailers had exterior advertising for at least one tobacco product. Rates varied among type of retailers, with 100% of e-cigarette shops, 70% of mass merchandisers, 50% of convenience stores, 28% of grocery stores, and 9% of supermarkets having exterior advertising. Retailers located within 1,000 feet of a school were more than twice as likely to have exterior advertising compared with retailers located more than 1,000 feet of a school. In total, 38% of audited retailers advertised tobacco within 3 feet of the floor or close to youth products (VDH, May 2015c). The products sold in stores near schools were similar to those sold more than 1,000 feet

Table 4-7. Tobacco Retailer Density in Vermont, 2015

Median Household Income	Total Population	Number of Retailers	Retailers per 1K	People per Retailer
Total	625,498	952	1.5	657
<\$43K	112,302	218	1.9	515.1
\$43–51K	117,318	216	1.8	543.1
\$51–56K	127,162	174	1.4	730.8
\$56–64K	120,490	178	1.5	676.9
>\$64K	148,226	166	1.1	892.9

Source: VDH (May 2015c)

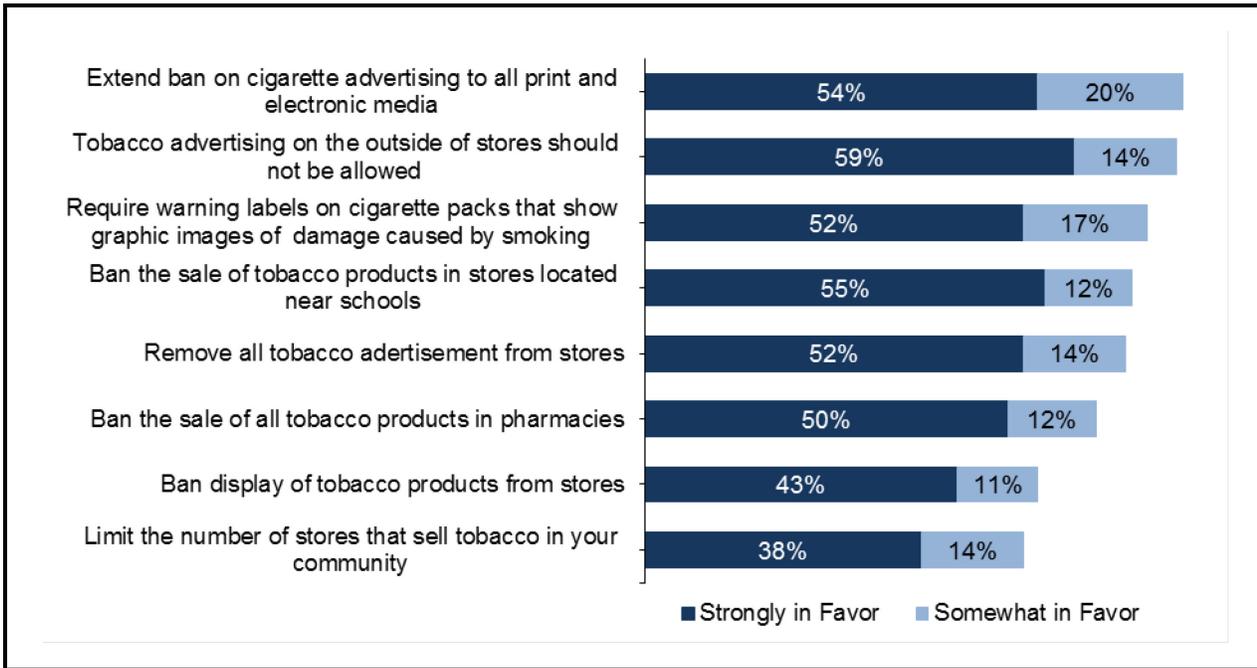
from schools, although stores near schools were slightly more likely to sell cigarillos and e-cigarettes than stores farther away (82% and 66% compared with 79% and 62%, respectively). However, stores closer to schools were less likely to sell flavored products compared with stores more than 1,000 feet from a school (82% vs 85%). Furthermore, while more than half of the audited tobacco retailers (54%) offered discounted tobacco products, retailers close to a school were more likely to offer discounts in every product category, with the exception of e-cigarettes (VDH, May 2015c).

Support for Point-of-Sale Laws and Policies

As depicted in the POS logic model presented in Section 3.1.1, a necessary precursor to the adoption and implementation of local and state POS policies is community support for POS policies, as well as decision-maker receptivity and support for such policy efforts. Understanding community and decision-maker support for policies can help VTCP determine where to focus its educational efforts in the future. Policies for which there is widespread support may be easier to enact in Vermont, whereas policies that have less current support will require a longer-term, more intensive, effort to pass. The public may need to be further educated on the value of these policies.

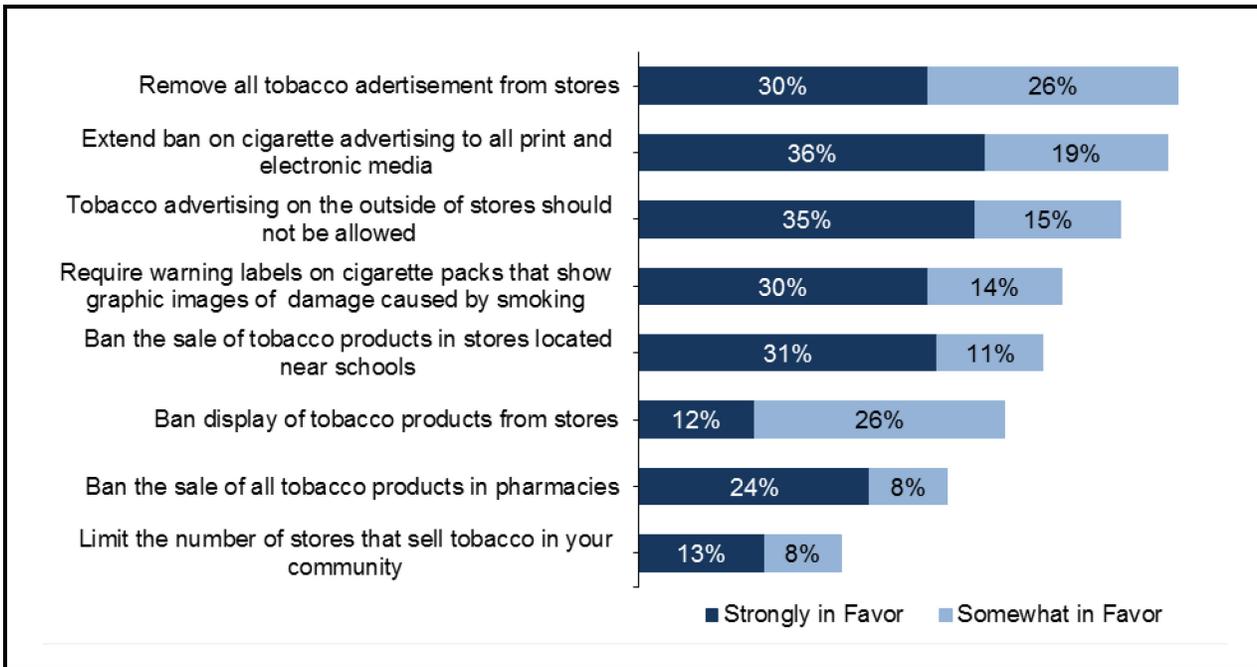
VTCP has tracked community support for POS policies through the VT ATS. Figure 4-19 presents data from the 2014 VT ATS on public support for POS policies among Vermont nonsmokers, ordered from most to least support. Figure 4-20 presents data from the 2014 VT ATS on public support for POS policies among Vermont smokers, ordered from most to least support. Figure 4-21 presents data from the 2012 VT ATS on public support for POS policies among Vermont nonsmokers and smokers, ordered from most to least support.

Figure 4-19. Public Support for POS Policies among Vermont Nonsmokers, Vermont Adult Tobacco Survey, 2014



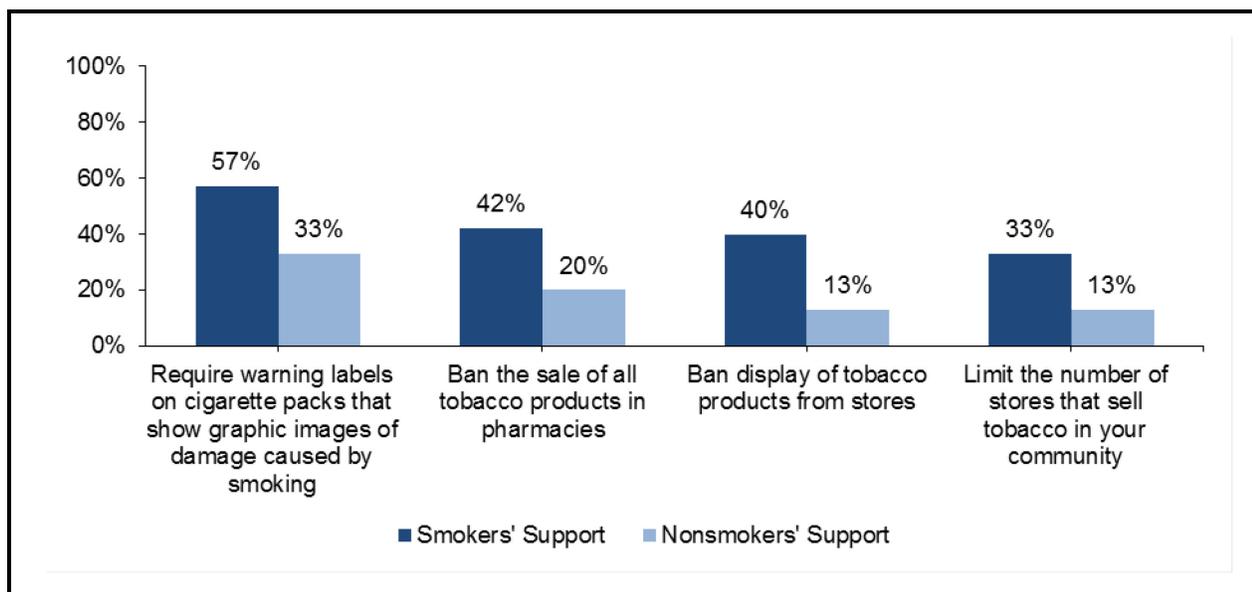
Note: Policies are ordered from most public support to least public support.

Figure 4-20. Public Support for POS Policies among Vermont Smokers, Vermont Adult Tobacco Survey, 2014



Note: Policies are ordered by the policy with the most public support to the policy with the least public support.

Figure 4-21. Public Support for POS Policies, Vermont Adult Tobacco Survey, 2012



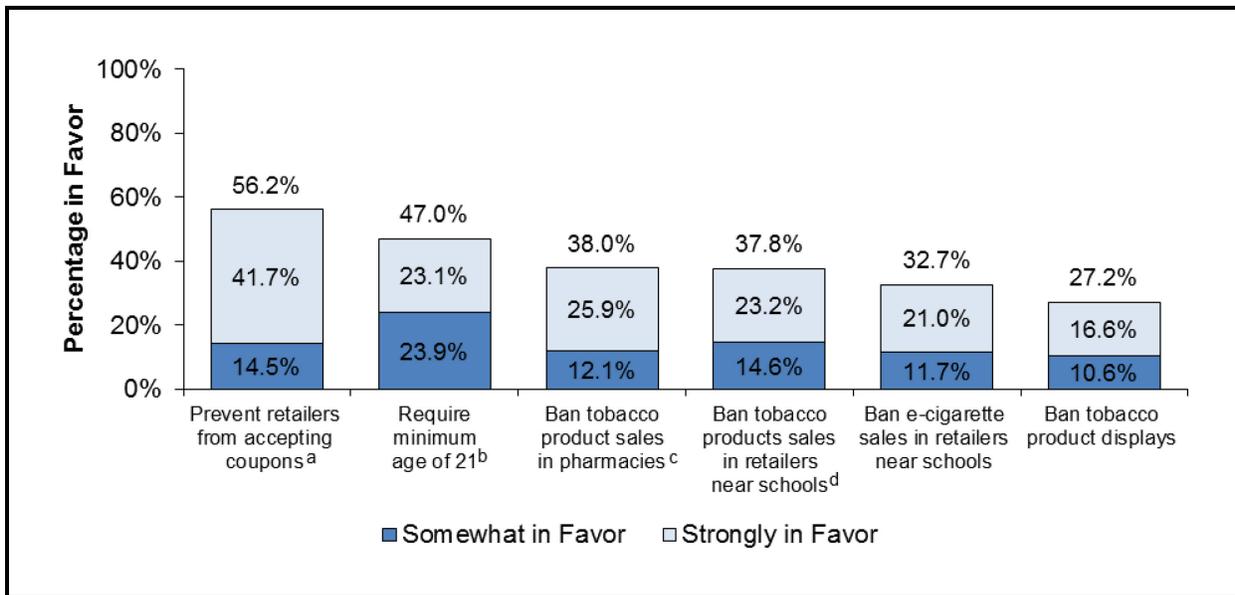
Notes: Data are the percentage of respondents who reported strongly in favor of policy. Policies are ordered from most public support to least public support.

In 2014, RTI conducted the LOLS in Vermont to better understand the extent to which tobacco prevention and control is a priority for Vermont's local opinion leaders, the current level of support for key tobacco policies, and why local opinion leaders support or oppose these policies. Local opinion leaders throughout Vermont, including mayors, town managers, Selectboard chairs, and Planning Commission executive directors, were asked to participate in the Vermont LOLS. RTI measured attitudes and beliefs toward tobacco policies using the 2014 Vermont LOLS instrument, which consisted of 19 open- and close-ended questions about policy support, perceived level of influence, and respondent demographics. The survey also included questions that allowed respondents to describe why they supported or opposed a policy. Tobacco control policies included

- increasing the minimum age for purchasing tobacco products,
- preventing retailers from accepting tobacco coupons,
- banning the display of cigarettes and OTPs from stores (product placement),
- banning the sale of tobacco products in pharmacies,
- banning the sale of tobacco products close to schools, and
- banning the sale of e-cigarettes close to schools.

The Vermont LOLS was conducted from April 7 through June 20, 2014. In total, 238 of the 308 eligible local opinion leaders contacted participated in the survey, for a response rate of 77%. Figure 4-22 presents data on the percentage of survey respondents who were somewhat in favor, or strongly in favor, of each policy asked about on the Vermont LOLS. Policies are ordered from most support to least support among local opinion leaders. Figure 4-23 further breaks down data for each of the policies included in the Vermont LOLS by each of the five response categories: strongly in favor, somewhat in favor, indifferent, somewhat against, and strongly against. Table 4-8 presents the percentage of Vermont LOLS respondents who were somewhat or strongly in favor of tobacco policies by perceived state influence and political philosophy.

Figure 4-22. Local Opinion Leader Support for Tobacco-Related Policies, RTI Local Opinion Leaders Survey, 2014



^a Statistically significant difference compared with support for all other policies ($p < 0.05$).

^b Statistically significant difference compared with support for banning the sale of tobacco products and e-cigarettes in close proximity to schools and a product placement policy ($p < 0.05$).

^c Statistically significant difference compared with support for minimum age and product placement policies ($p < 0.05$).

^d Statistically significant difference compared with support for a product placement policy ($p < 0.05$).

Figure 4-23. Distribution of Support for Tobacco Control Policies, RTI Local Opinion Leaders Survey, 2014

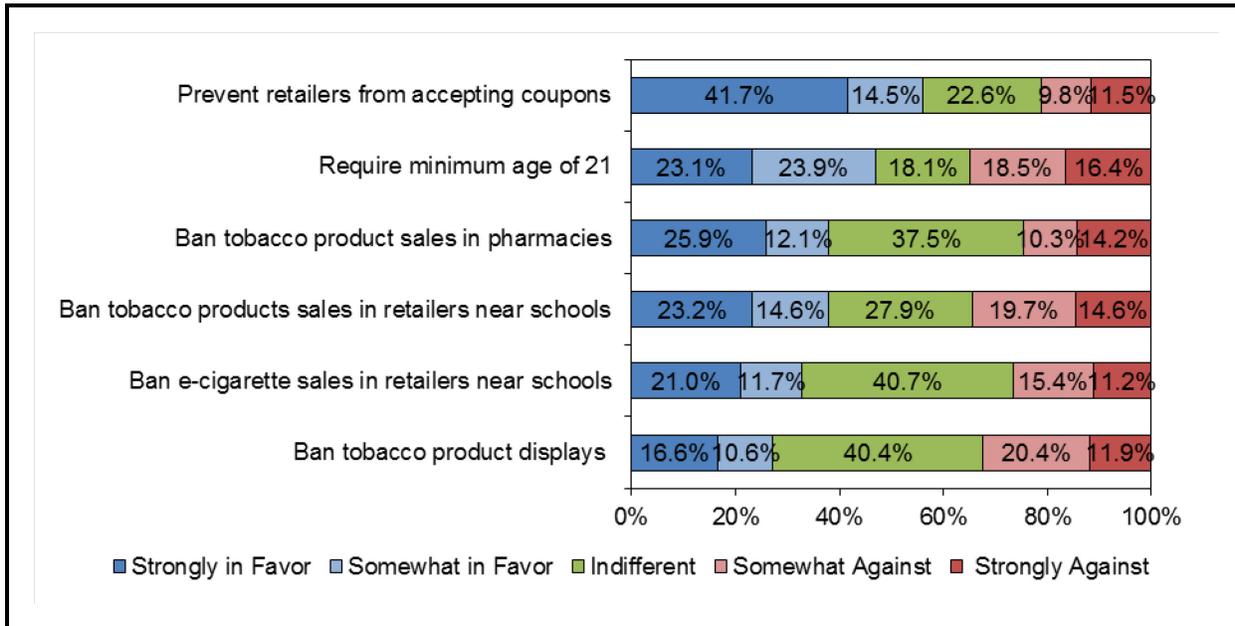


Table 4-8. Percentage of Respondents Somewhat or Strongly in Favor of Tobacco Policies by Perceived State Influence and Political Philosophy, RTI Local Opinion Leader Survey, 2014

Policy	Perceived State Influence		Political Philosophy		
	Med-High	Low	Conservative	Moderate	Liberal
Prevent retailers from accepting tobacco coupons	66.0% ^a	49.3% ^a	47.5% ^b	55.1% ^c	75.0% ^{b,c}
Increase the minimum age for purchasing tobacco products	52.1%	43.0%	43.8%	46.1%	52.8%
Ban the sale of tobacco products in pharmacies	52.2% ^a	28.6% ^a	29.5% ^b	39.8%	50.9% ^b
Ban the sale of tobacco products close to schools	46.2% ^a	30.8% ^a	36.7%	36.8%	43.4%
Ban the sale of e-cigarettes close to schools	39.3%	57.1%	40.0%	30.0%	32.0%
Ban the display of cigarettes and other tobacco products from store	37.6% ^a	19.3% ^a	20.3% ^b	27.0%	39.6% ^b

^a Statistically significant difference in level of support between respondents with a medium or high level of state influence and those with a low level of state influence ($p < 0.05$).

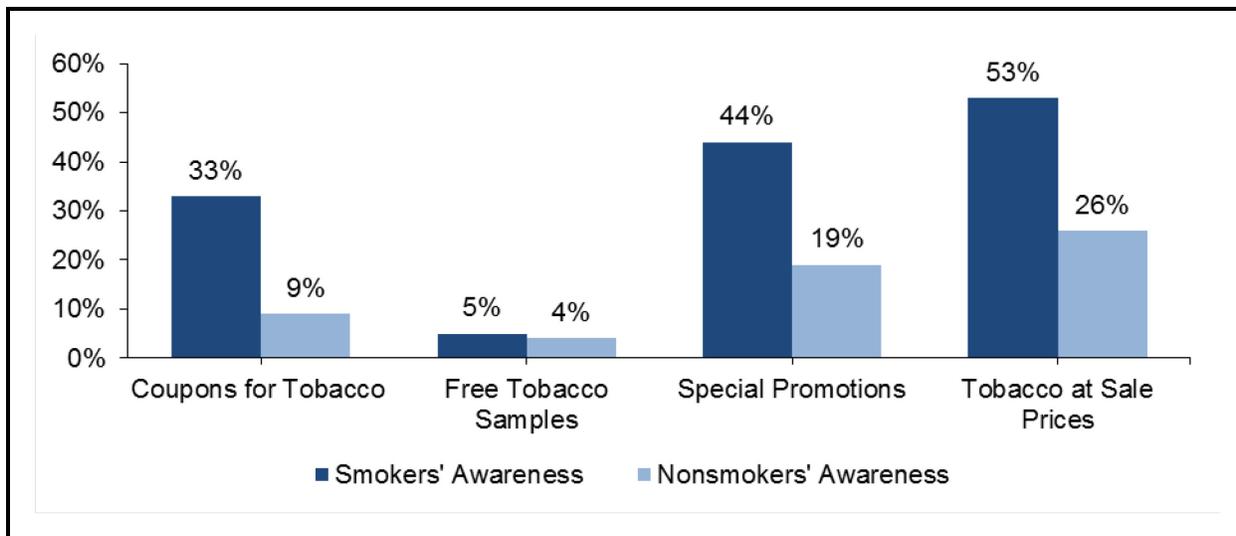
^b Statistically significant difference in level of support between conservative and liberal respondents ($p < 0.05$).

^c Statistically significant difference in level of support between moderate and liberal respondents ($p < 0.05$).

Attitudes toward Tobacco Advertising

In addition to collecting information on support for policies, the VT ATS includes questions to assess the public’s attitudes toward tobacco advertising. As depicted in the POS logic model presented in Section 3.1.1, changing knowledge and attitudes regarding the influence of marketing on youth initiation is a first step toward enacting policy change. Data from the 2014 VT ATS suggest that smokers were more likely than nonsmokers to notice a variety of tobacco marketing and advertising, including “tobacco at sales prices,” “special promotions,” and “coupons for tobacco” (Figure 4-24). Younger smokers were significantly more likely than older smokers to notice the advertisements. Differences in awareness of ads by age were also observed among nonsmokers, with younger nonsmokers being more likely to report awareness of ads. However, the differences in awareness were not as dramatic among nonsmokers as among smokers, and some of the differences were not statistically significant.

Figure 4-24. Percentage of Vermont Smokers and Nonsmokers Who Reported Awareness of Tobacco Advertising and Promotion at the Point of Sale, Vermont Adult Tobacco Survey, 2014



Beyond simply noticing tobacco advertising, 76% of Vermonters strongly or somewhat agreed that tobacco advertising encourages young people to start smoking (Table 4-9). In total, 80% of nonsmokers have those concerns, whereas 54% of smokers strongly or somewhat agreed that tobacco advertising encourages young people to start smoking (VT ATS, 2014). Furthermore, well over half of Vermonters (68%) strongly or somewhat agree that tobacco advertising targets certain groups, specifically young adults, low-income groups, and specific ethnic groups (Table 4-10). Roughly 73% of nonsmokers and 45% of smokers share that belief.

Table 4-9. Percentage of Vermonters Who Believe that Tobacco Advertising Encourages Young People to Start Smoking, Vermont Adult Tobacco Survey, 2014

Group	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
Vermonters	49%	27%	7%	8%	10%
Nonsmokers	53%	27%	6%	6%	7%
Smokers	31%	23%	10%	14%	21%

Table 4-10. Percentage of Vermonters Who Believe that Tobacco Advertising Targets Certain Groups (e.g., Young Adults, Low-Income Groups, Specific Ethnic Groups), Vermont Adult Tobacco Survey, 2014

Group	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
Vermonters	49%	19%	13%	8%	12%
Nonsmokers	54%	19%	13%	6%	8%
Smokers	28%	17%	13%	13%	28%

Extending the Ban on Tobacco Advertising

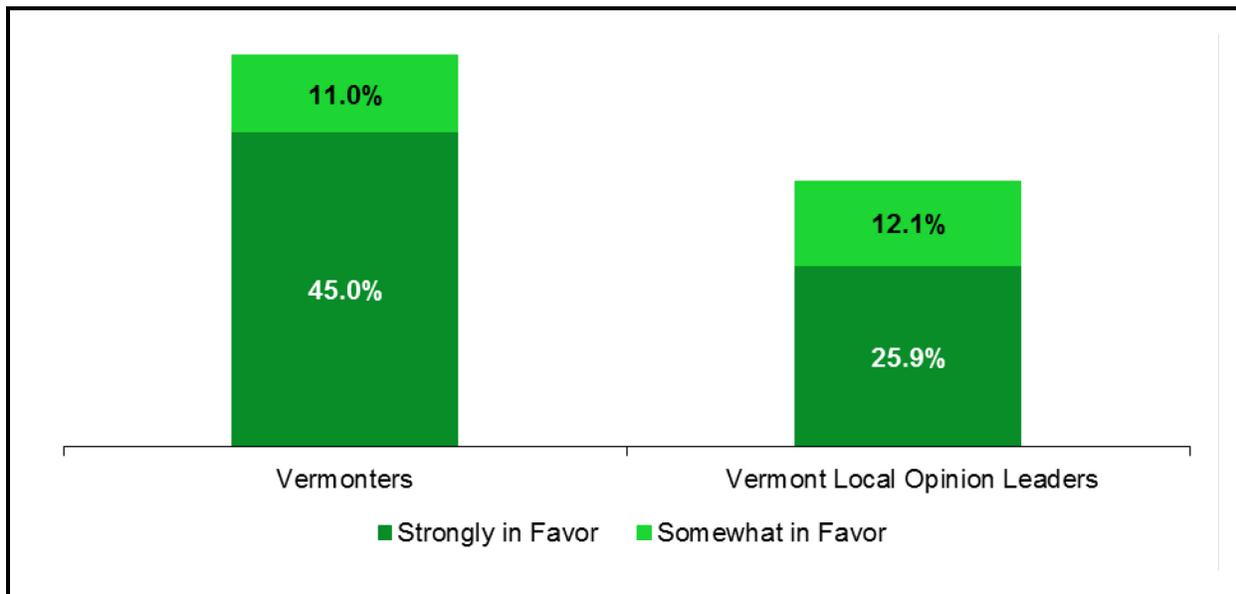
The 2014 VT ATS asked Vermonters about their support for a policy that would extend the existing ban on tobacco advertising to cover all print and electronic media, as well as a ban on tobacco advertising inside and outside of stores. More than half of nonsmokers (54%) and just over one-third of smokers (36%) in Vermont strongly agreed with banning advertising in all print and electronic media (see Figure 4-19). Furthermore, 52% of nonsmokers and 30% of smokers strongly agreed that all tobacco advertising should be removed from stores (see Figures 4-19 and 4-20). Results were similar for outdoor advertising with 59% of nonsmokers and 35% of smokers strongly agreeing that tobacco advertising should not be allowed on the outside of stores (see Figures 4-19 and 4-20).

Banning the Sale of Tobacco Products in Pharmacies

Support for a policy that would ban the sale of all tobacco products in pharmacies has grown among Vermonters in the past few years. In 2012, 37% of Vermonters were strongly in favor of such a ban, and support has grown to 45% in 2014 (VT ATS, 2014). In total, 56% of Vermonters are strongly or somewhat in favor of such a ban (Figure 4-25). The percentage of nonsmokers who were strongly in favor of this policy increased from 42% in 2012 to 50% in 2014 (see Figures 4-19 and 4-21). The proportion of smokers who were strongly in favor of this policy also increased from 2012 (20%) to 2014 (24%) (see Figures 4-20 and 4-21).

Among local decision makers, 38.0% supported a policy that would ban the sale of tobacco products in pharmacies, with 25.9% being strongly in favor (Figure 4-25). Respondents with medium to high perceived state influence were significantly more likely than those with low perceived state influence to support the policy (52.2% compared with 28.6%) (Table 4-8). In addition, self-identified liberal respondents were significantly more likely than self-identified conservative respondents to support the ban on tobacco products in pharmacies (see Table 4-8).

Figure 4-25. Support for a Ban on the Sale of All Tobacco Products in Pharmacies, 2014 Vermont Adult Tobacco Survey and 2014 RTI Local Opinion Leader Survey



Preventing Retailers from Accepting Tobacco Coupons

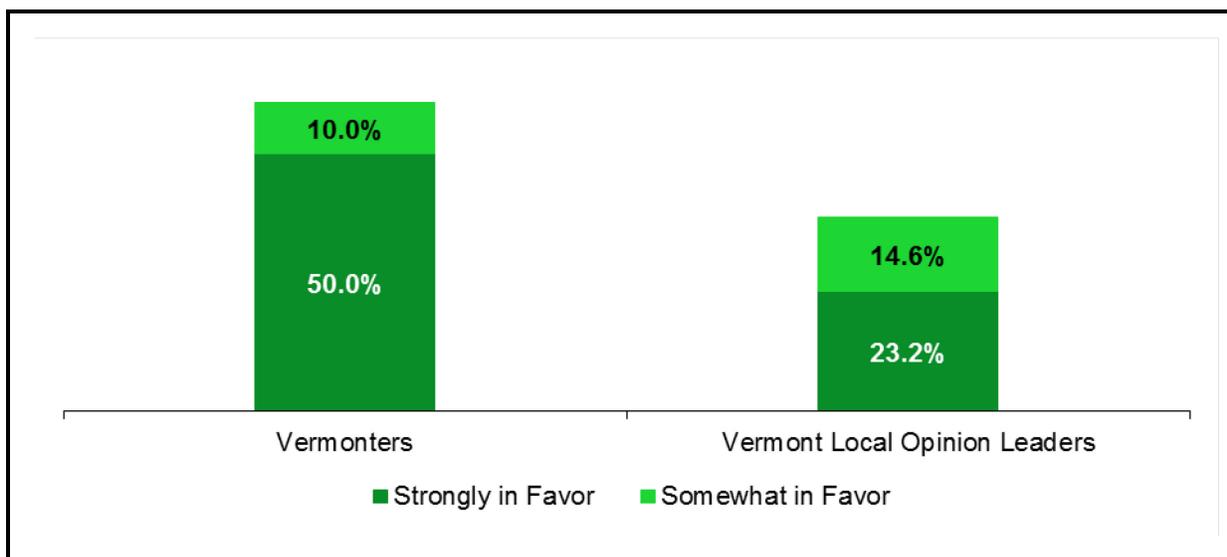
The 2014 Vermont LOLS found that 56.2% of local decision makers indicated they strongly or somewhat favored a ban that would prevent retailers from accepting tobacco coupons (see Figures 4-22 and 4-23). The tobacco coupon ban (56.2%) was the only policy that the majority of respondents supported, and support for this policy was significantly higher than support for any other policy included in the Vermont LOLS (see Figures 4-22 and 4-23). The tobacco coupon ban also had the highest level of support among all political groups and the biggest difference in support between liberal (75.0%) and conservative (47.5%) respondents (see Table 4-8). As with many of the other policies, respondents with medium to high perceived state influence were significantly more likely than respondents with low perceived state influence to support a policy preventing retailers from accepting tobacco coupons (see Table 4-8).

Banning the Sale of Tobacco Products in Stores Located Close to Schools

Data from the 2014 VT ATS indicate that 50% of Vermonters were strongly in favor of a policy that would ban the sale of tobacco products in stores located near schools, and an additional 10% of Vermonters were somewhat in favor of such a policy (Figure 4-26). Among nonsmokers, 67% support banning the sale of tobacco products in stores located near schools, with 55% strongly in favor and 12% somewhat in favor (see Figure 4-19). Among smokers, 42% support this policy, with 31% strongly in favor and 11% somewhat in favor (see Figure 4-20).

Support for this policy was lower among local decision makers than the general public (Figure 4-26). Indeed, 37.8% of local decision makers supported the policy, with 23.2% strongly supporting it. As shown in Table 4-8, support among decision makers with medium to high levels of perceived state influence was significantly higher than support among decision makers with low perceived state influence (46.2% vs 30.8%). Support did not differ significantly by political affiliation.

Figure 4-26. Support for a Ban on the Sale of Tobacco Products in Stores Located Near Schools, 2014 Vermont Adult Tobacco Survey and 2014 RTI Local Opinion Leader Survey



Banning the Display of Cigarettes and Other Tobacco Products from Stores (Product Placement)

Support for a ban on the display of cigarettes and OTPs from stores has remained relatively constant among nonsmokers and smokers in Vermont (Table 4-11). Data from the VT ATS indicate that, in 2014, 39% Vermonters were strongly in favor of banning the display of any tobacco product from stores, which was up from 34% of Vermonters who were strongly in

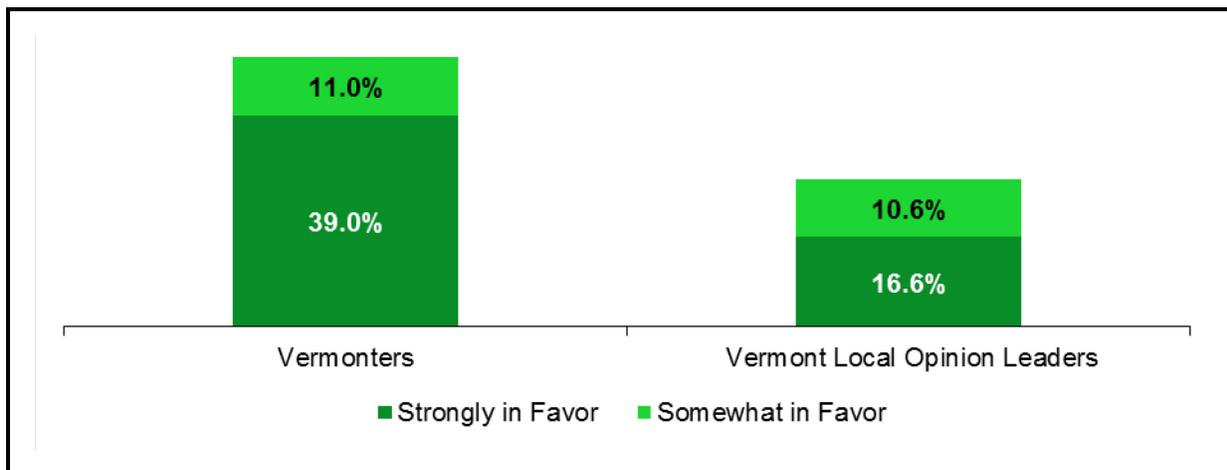
Table 4-11. Public Support for a Ban on the Display of Tobacco Products in Stores, Vermont Adult Tobacco Survey, 2012–2014

Year	Strongly in Favor	Somewhat In Favor	Neutral	Somewhat Against	Strongly Against
Vermonters					
2014	39%	11%	27%	10%	14%
2012	34%	14%	26%	NA	26%
Nonsmokers					
2014	43%	12%	25%	9%	11%
2012	40%	14%	25%	NA	21%
Smokers					
2014	20%	7%	34%	13%	26%
2012	13%	14%	32%	NA	41%

favor of such a policy in 2012. The percentage of nonsmokers who were strongly or somewhat in favor of this policy increased from 40% in 2012 to 43% in 2014. Support for the policy among smokers was at 27% in both 2012 and 2014. However, the percentage of smokers who were strongly in favor of the policy increased from 13% in 2012 to 20% in 2014 (Table 4-11).

Despite growing support for a product placement policy among community members, decision makers were least supportive of a ban on tobacco product displays compared with other policies included in the Vermont LOLS. In total, 27.2% of decision makers supported the policy, with only 16.6% indicating they strongly supported a product display ban (Figure 4-27). Furthermore, respondents with medium to high perceived state influence were significantly more likely to support a ban on tobacco product displays in stores compared with respondents with low perceived state influence, as were respondents who self-identified as liberal compared with those who self-identified as conservative (see Table 4-8).

Figure 4-27. Support for a Ban on the Display of Tobacco Products in Stores, 2014 Vermont Adult Tobacco Survey and 2014 RTI Local Opinion Leader Survey



Banning the Sale of E-Cigarettes Close to Schools

Vermont has not collected data on public support for a policy that would ban the sale of e-cigarettes close to school, but baseline data were obtained from local decision makers through the 2014 Vermont LOLS. In total, 32.7% of local decision makers supported this policy, although 40.7% indicated that they neither supported nor opposed the policy (see Figures 4-22 and 4-23). This was the only policy included on the Vermont LOLS where support was higher among conservatives than liberals, although the difference was not statistically significant (see Table 4-8). Similarly, it was the only policy where decision makers with medium to high levels of perceived state influence were less likely to support the policy than those with low levels of perceived state influence, but this difference was not statistically significant.

Increasing the Minimum Age for Purchasing Tobacco Products

In 2014, 47.1% of local decision makers supported a policy that would increase the minimum age for purchasing tobacco products to 21 years of age (see Figure 4-22). Support for the policy was higher among decision makers with medium to high levels of perceived state influence than among those with low levels of perceived state influence. Support was also higher among liberals than among moderates and conservatives. However, none of these differences was statistically significant (see Table 4-8).

Requiring Warning Labels on Cigarette Packs

Public support for a policy that would require warning labels on cigarette packs that show graphic images of the damage caused by smoking decreased from 2012 to 2014. The proportion of nonsmokers who were strongly in favor of such a policy decreased from 57%

in 2012 to 52% in 2014 (see Figures 4-19 and 4-21). The proportion of smokers who were strongly in favor of a policy that would require warning labels on cigarette packs showing graphic images decreased from 33% in 2012 to 30% in 2014 (see Figures 4-20 and 4-21).

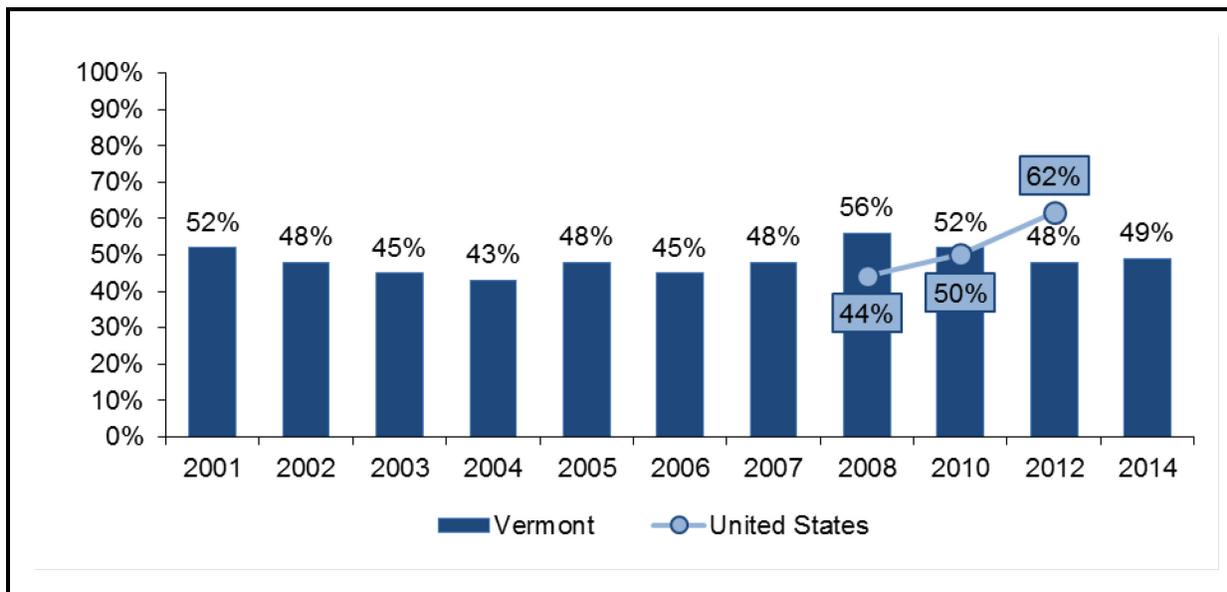
4.3 Promoting and Increasing Tobacco Use Cessation in Vermont

Although tobacco use cessation is not explicitly one of VTCP’s four primary goals, it is an implicit and critical component of reducing adult tobacco use. As described in Section 3.3, tobacco use cessation has been a primary focus and core component of VTCP since the program began. VTCP actively works to promote and increase tobacco use cessation in Vermont through multiple complementary approaches, including statewide actions and mass-reach health communication interventions designed to prompt smokers to make quit attempts; working with health systems and health care providers to implement health systems changes to facilitate consistent health care provider intervention with patients regarding tobacco use; working with Medicaid to expand insurance coverage for and utilization of tobacco use cessation benefits; and providing a variety of cessation assistance to Vermont tobacco users, including free counseling and NRT through VTCP’s 802Quits program. In this section, we first present trends in key population-level cessation outcomes, such as quit attempts and intentions to quit. We then present trends in outcomes related to VTCP’s progress in working with health systems and health care providers to implement health systems changes that may facilitate and increase tobacco use cessation in Vermont. Finally, we present trends in outcomes related to awareness and utilization of VTCP’s cessation programs and services offered through 802Quits.

4.3.1 Population-Level Cessation Outcomes

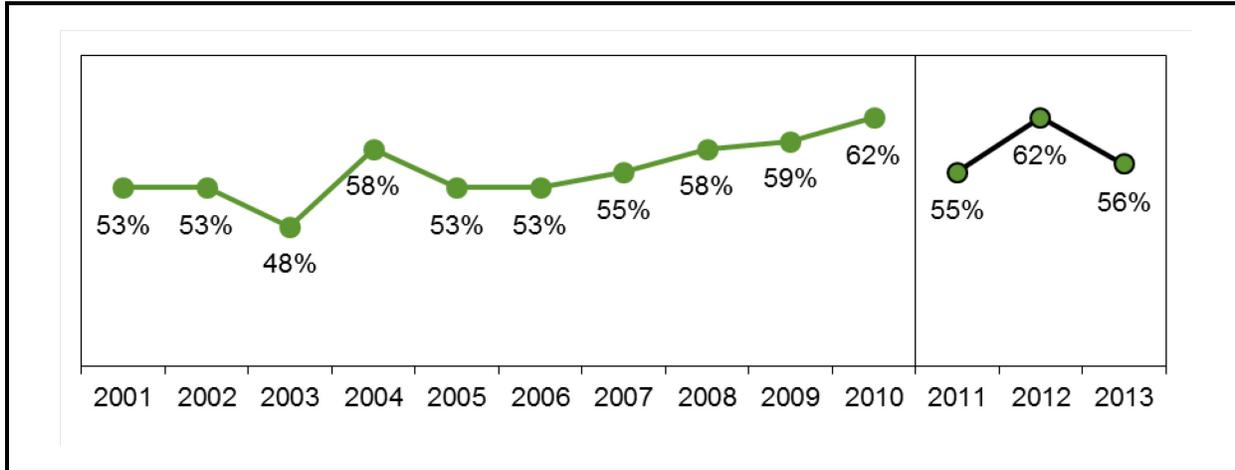
One of Vermont’s Healthy Vermonters 2020 goals is for 80% of current adult cigarette smokers to make a quit attempt in the past year. Despite this goal and significant VTCP efforts to promote and increase population-level tobacco use cessation, only half (49%) of Vermont’s current smokers attempted to quit in 2014. The percentage of current smokers in Vermont who made a quit attempt in the past 12 months has not changed significantly since 2001 (Figure 4-28). In 2008, the prevalence of making a quit attempt in the past 12 months was higher in Vermont (56%) than the national average (44%), as measured by the RTI NATS. However, in 2010, quit attempts were similar between Vermont (52%) and nationally (50%), and in 2012, the percentage of current cigarette smokers making quit attempts in the United States (62%) outpaced Vermont (48%).

Figure 4-28. Percentage of Current Adult Smokers Who Made a Quit Attempt in the Past 12 Months, Adult Tobacco Survey 2001–2014 and RTI National Adult Tobacco Survey 2008–2012



As discussed earlier, as a part of the Healthy People 2020 initiative, VDH reports a number of age-adjusted measures to facilitate better comparison of outcomes across areas where the age distribution of the population varies substantially. The BRFSS also includes a measure of quit attempts among current cigarette smokers. Although the data on quit attempts are similar between the VT ATS and the BRFSS, the age-adjusted quit rates in Vermont from the BRFSS are slightly higher. BRFSS data indicate that, in 2013, more than half (56%) of Vermont’s current cigarette smokers made a quit attempt in the past 12 months (Figure 4-29). However, because of changes in BRFSS survey methodology, comparing BRFSS data before and after 2011 is not advised. Using 2011 as a baseline, the percentage of Vermont cigarette smokers who made a quit attempt has remained stable and has not significantly increased over time. Each year, approximately 50,000 Vermont adult cigarette smokers attempt to quit smoking (Table 4-12).

Figure 4-29. Percentage of Current Adult Cigarette Smokers in Vermont Who Made a Quit Attempt in the Past 12 Months, Behavioral Risk Factor Surveillance System, 2001–2013



Note: In 2011, the Centers for Disease Control and Prevention implemented changes to the BRFSS weighting methodology to represent the adult population more accurately. The changes in methodology limit the ability to compare BRFSS data before 2011 to subsequent years. Therefore, comparisons between BRFSS data before and after 2011 should be made with caution. The data in this figure are age-adjusted to the 2000 U.S. standard population. For more detailed information on age adjustment, visit <https://www.cdc.gov/nchs/data/statnt/statnt20.pdf>.

Table 4-12. Percentage and Estimated Number of Current Adult Cigarette Smokers in Vermont Who Made a Quit Attempt in the Past 12 Months, Behavioral Risk Factor Surveillance System, 2001–2013

Year	Percentage of Smokers	Estimated Number of Vermont Smokers
2011	54.9%	53,000
2012	62.4%	51,000
2013	56.2%	46,000

Note: Percent is age-adjusted. Estimated number of Vermont smokers is rounded to the nearest thousand Vermonters (not age-adjusted).

Unlike the prevalence of cigarette smoking, which varies substantially by demographics and socioeconomic status, the percentage of current adult cigarette smokers in Vermont who made a quit attempt does not differ significantly by demographics or socioeconomic status (Table 4-13). As with the overall prevalence of quit attempts in Vermont, the percentage of current adult cigarette smokers in Vermont who made a quit attempt in the past year has also remained relatively constant from 2011 through 2013 by demographic and socioeconomic subgroup.

Table 4-13. Percentage of Current Adult Cigarette Smokers in Vermont Who Made a Quit Attempt in the Past 12 Months by Demographic Groups, Behavioral Risk Factor Surveillance System, 2011–2013

Group	2011	2012	2013
Overall	55%	62%	56%
Gender			
Female	57%	60%	58%
Male	53%	64%	54%
Age Group			
18–24 years	62%	80%	—
25–34 years	58%	70%	54%
35–44 years	52%	54%	62%
45–54 years	54%	58%	49%
55–64 years	54%	57%	52%
65+ years	51%	61%	51%
Education			
< High school	49%	68%	N/A
High school or GED	58%	55%	N/A
Some college	56%	67%	63%
College graduate or higher degree	53%	62%	66%
Income			
Less than \$25,000	60%	58%	61%
\$25,000–\$49,999	55%	66%	62%
\$50,000–\$74,999	49%	65%	50%
\$75,000 or more	55%	76%	63%
Federal Poverty Level			
< 250% of FPL	56%	60%	N/A
≥ 250% of FPL	55%	67%	N/A

Note: All percentages with the exception of age group are age-adjusted to standard U.S. 2000 population according to Healthy People 2020. Data on quit attempts for individuals aged 18 to 24 years are not presented due to small BRFSS sample sizes. Complete data for 2013 by education and Federal Poverty Level are not presented because RTI did not have those data at the time this report was prepared.

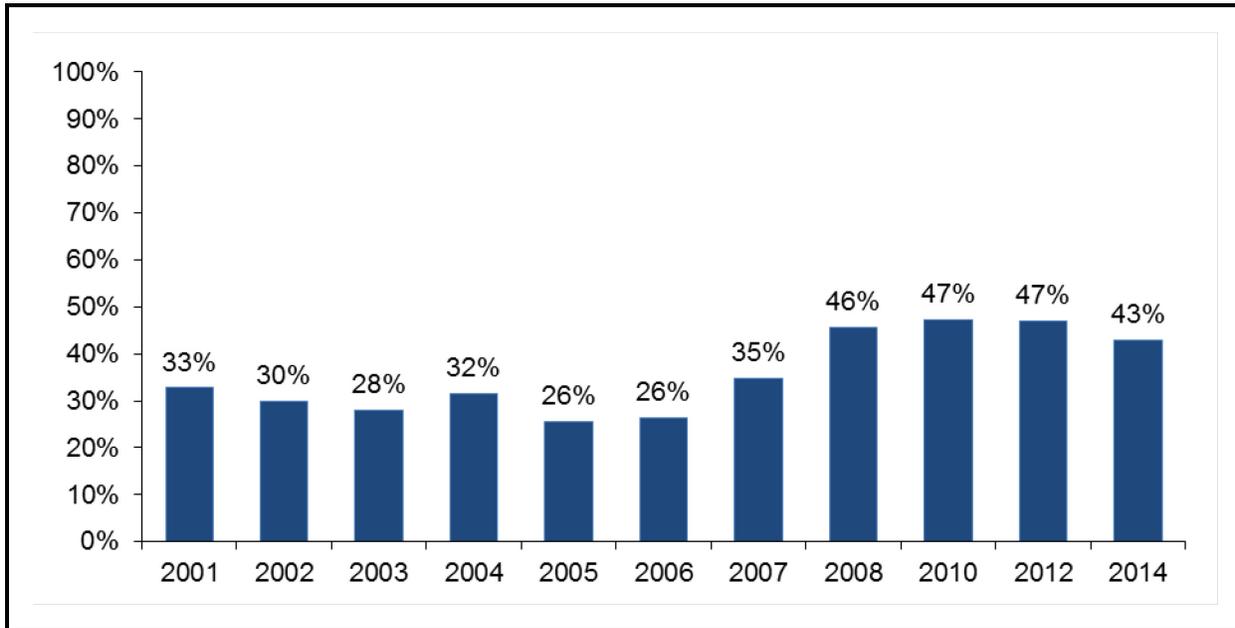
Similar to adults, nearly half of Vermont’s high school and middle school smokers attempted to quit smoking in 2011 and 2013 (Table 4-14). The percentage of Vermont high school cigarette smokers who made a quit attempt in the past 12 months is also inversely related to grade, with 9th graders having the highest rate of quit attempts and 12th graders having the lowest rate of quit attempts among high school cigarette smokers.

Table 4-14. Percentage of Current High School and Middle School Cigarette Smokers Who Made a Quit Attempt in the Past 12 Months, Vermont Youth Risk Behavior Survey, 2011–2013

Grade	2011	2013
High School	47%	44%
9th grade	54%	47%
10th grade	52%	44%
11th grade	45%	45%
12th grade	43%	43%
Middle School	54%	48%
6th grade	N/A	49%
7th grade	N/A	50%
8th grade	N/A	47%

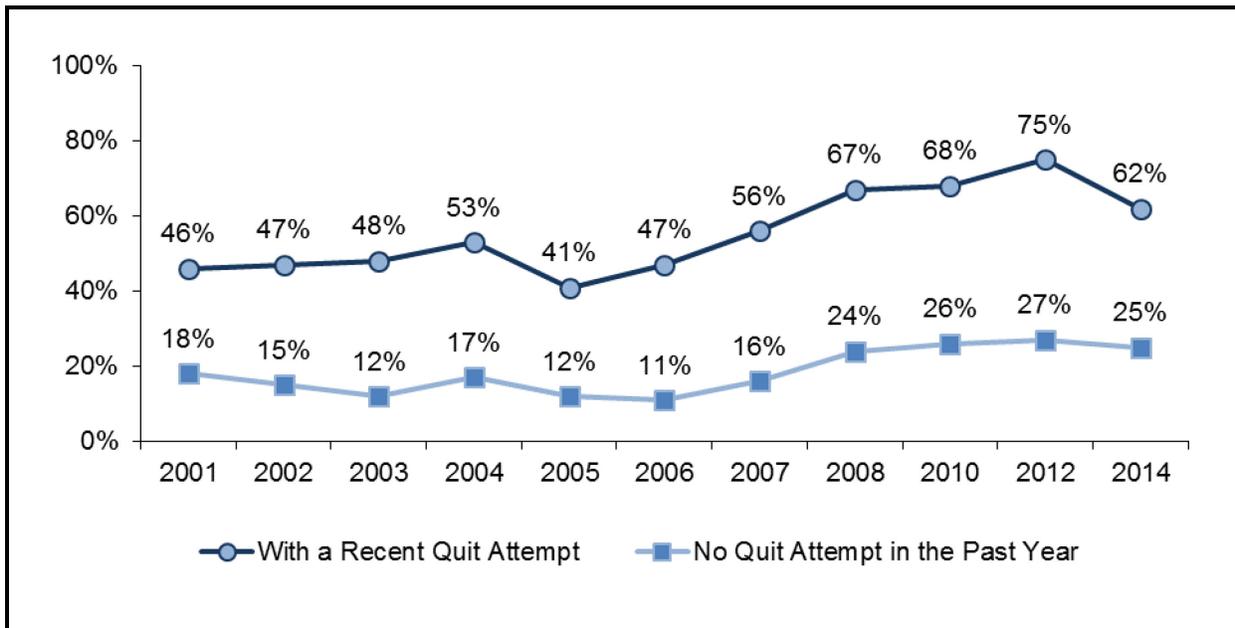
Slightly fewer than half (43%) of Vermont’s current smokers were seriously thinking of quitting in the next 30 days, a significant increase from 33% in 2001 (Figure 4-30). Not surprisingly, significantly more cigarette smokers with a recent quit attempt reported seriously thinking about quitting in the next 30 days than those who had not attempted to quit in the past year (Figure 4-31). The percentage of Vermont smokers who are seriously thinking about quitting in the next 30 days has increased significantly since 2001, both overall (up 10%) and among Vermont adult smokers with and without recent quit attempts (up 16% and 7%, respectively).

Figure 4-30. Percentage of Current Adult Smokers Who Intend to Make a Quit Attempt in the Next 30 Days, Vermont Adult Tobacco Survey 2001–2014



Note: Statistically significant increase between 2001 and 2014 among Vermont adult smokers.

Figure 4-31. Percentage of Current Smokers Who Are Seriously Thinking of Making a Quit Attempt in the Next 30 Days by Past Year Quit Status, Vermont Adult Tobacco Survey, 2001–2014



Note: Statistically significant increase between 2001 and 2014 among both groups.

Cessation Methods Used

The majority of Vermont smokers who try to quit smoking try to quit on their own without help. Although evidence clearly shows the effectiveness of cessation treatments such as NRT and counseling at helping smokers successfully quit, these “independent quitters” do not use those proven, evidence-based resources when trying to quit. In 2014, 66% of Vermont smokers who tried to quit did so on their own without help during their most recent quit attempt (Figures 4-32 and 4-33). Despite consistent promotion of the cessation services and resources available through VTCP’s 802Quits program, the percentage of Vermont smokers who attempt to quit on their own without help has remained constant since 2006. For Vermont smokers who take advantage of cessation assistance or resources to help them quit, talking with a health professional and using NRT or cessation medications were the most common cessation methods used (see Figure 4-33). In 2012 and 2014, nearly half (45%) of current adult cigarette smokers who attempted to quit talked with a health professional during their most recent quit attempt. In 2014, 35% of Vermont smokers reported using NRT in their most recent quit attempt (down from 39% in 2012), 11% reported using Chantix or Varenicline (down from 14% in 2012), and 10% reported using Zyban or Wellbutrin (up from 8% in 2012). In recent years, e-cigarettes have emerged as a frequent strategy that Vermont smokers report using to help them quit cigarettes. In 2014, 26% of Vermont smokers reported using e-cigarettes during their most recent quit attempt (up from 19% in 2012). Although this increase is not statistically significant, the higher percentage of smokers reporting using e-cigarettes as a cessation aid and lower percentage of smokers reporting use of NRT or other cessation medications such as Chantix or Zyban suggests that many smokers may be turning away from NRT and other cessation medications and toward e-cigarettes to help them quit smoking. This is problematic because evidence has not demonstrated that e-cigarettes are more effective than NRT or other cessation medications. Although research is emerging, the health effects of e-cigarettes are not fully known at this time. Individuals using e-cigarettes are still being exposed to chemicals in the liquid used by e-cigarettes, many of which may be harmful or toxic to users. Additionally, the vapor emitted by e-cigarettes may expose others to harmful chemicals. Finally, this emerging trend is problematic because research has shown that individuals who use e-cigarettes as a method for quitting also continue to use traditional cigarettes during their quit attempt, which may undermine the success of smokers’ quit attempts and result in them ingesting a greater amount of harmful substances.

Figure 4-32. Percentage of Current Adult Cigarette Smokers Who Recently Tried to Quit On Their Own Without Help, Vermont Adult Tobacco Survey 2006–2014

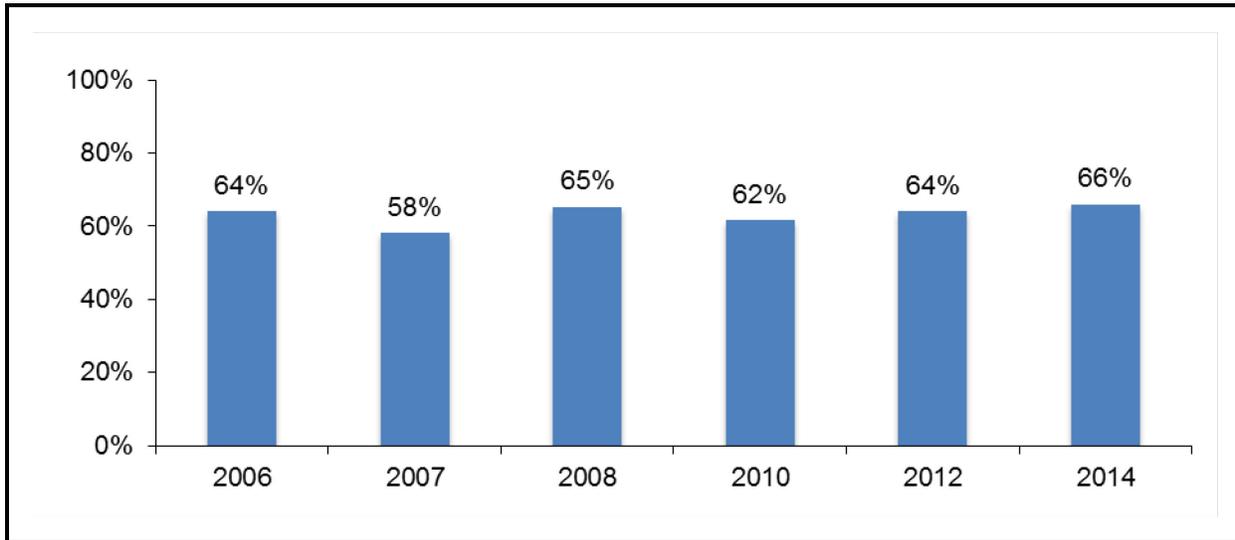
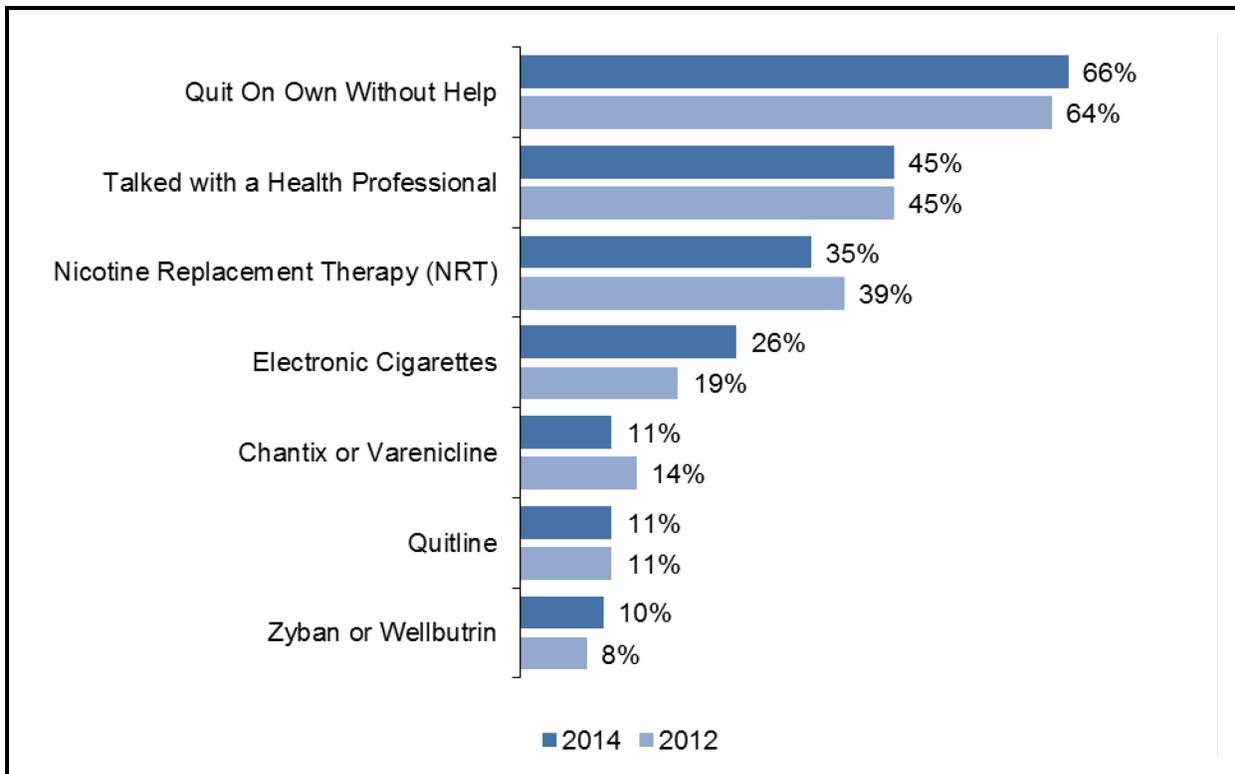


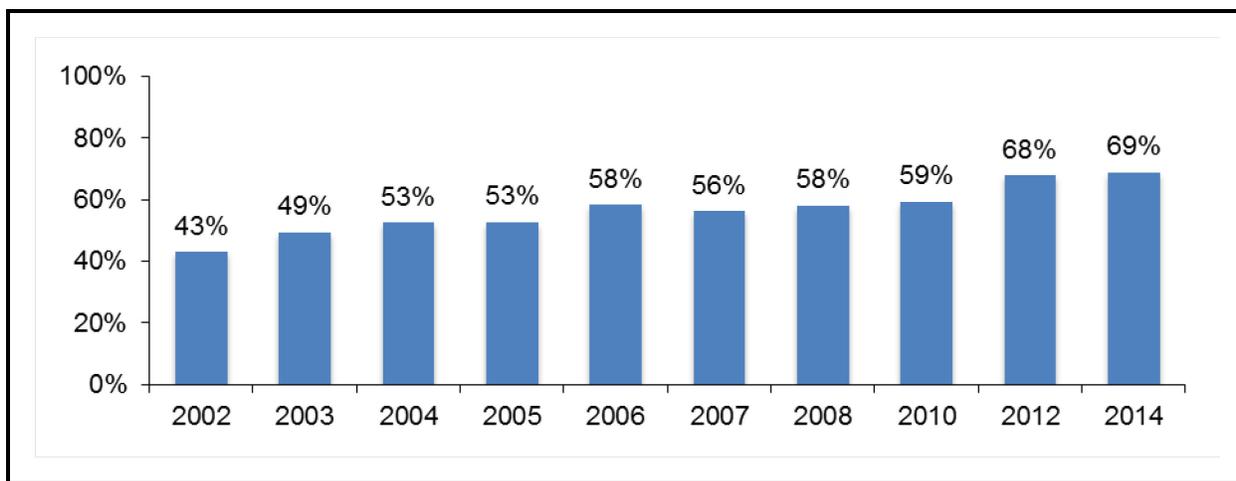
Figure 4-33. Cessation Methods Used by Current Vermont Cigarette Smokers during their Most Recent Quit Attempt, Vermont Adult Tobacco Survey 2012 and 2014



Use of Nicotine Replacement Therapy (NRT) and Quitting Medications

Substantial evidence and guidelines, including CDC *Best Practices*, recommend the use of NRT or other cessation medications for adults who are trying to quit smoking cigarettes (CDC, 2014). A majority (69%) of current smokers in Vermont have used NRT or other quitting medications, such as Zyban, Wellbutrin, or Chantix, to help them quit smoking (Figure 4-34). Since 2002, the percentage of Vermont smokers who report ever using NRT or quitting medications to help them quit has significantly increased, up 26% from 43% in 2002 to 69% in 2014.

Figure 4-34. Percentage of Current Adult Cigarette Smokers Who Have Ever Used Nicotine Replacement Therapy, Zyban, Wellbutrin, or Chantix, Vermont Adult Tobacco Survey, 2002–2014



4.3.2 Cessation Assistance from Health Care Providers

As discussed in Section 3.2, VTCP has been actively working with health systems and health care providers to engage and involve them as a program partner and driving force to promote and increase tobacco use cessation. This includes efforts to implement health systems changes that will increase the role of health care providers in helping their patients quit using tobacco—either by directly intervening with them or by referring them to evidence-based services and resources, such as 802Quits. In this section, we present trends in outcomes that show VTCP’s progress in this area.

The VT ATS and YRBS contain several outcomes related to the “5 As” intervention that encourages providers to ask their patients to identify tobacco use, advise patients to quit using tobacco products, assess willingness to quit, assist patients in quitting by recommending programs or appropriate cessation medications, and arrange follow-up contact. These measures represent intermediate outcomes, and progress in this area demonstrates health care provider support for and commitment to smoking cessation.

In 2014, 48% of Vermont smokers with children were asked by their health care provider about smoking around children (Figure 4-35). This measure has not changed significantly since 2002 (41%). Nearly half (48% in 2011 and 54% in 2013) of Vermont high school smokers and about one in five (19% in 2011 and 21% in 2013) Vermont middle school smokers were asked if they smoke by a health care professional (Figure 4-36).

Figure 4-35. Percentage of Current Adult Smokers with Children Who Were Asked by Their Health Care Provider about Smoking Around Children, Vermont Adult Tobacco Survey, 2002–2014

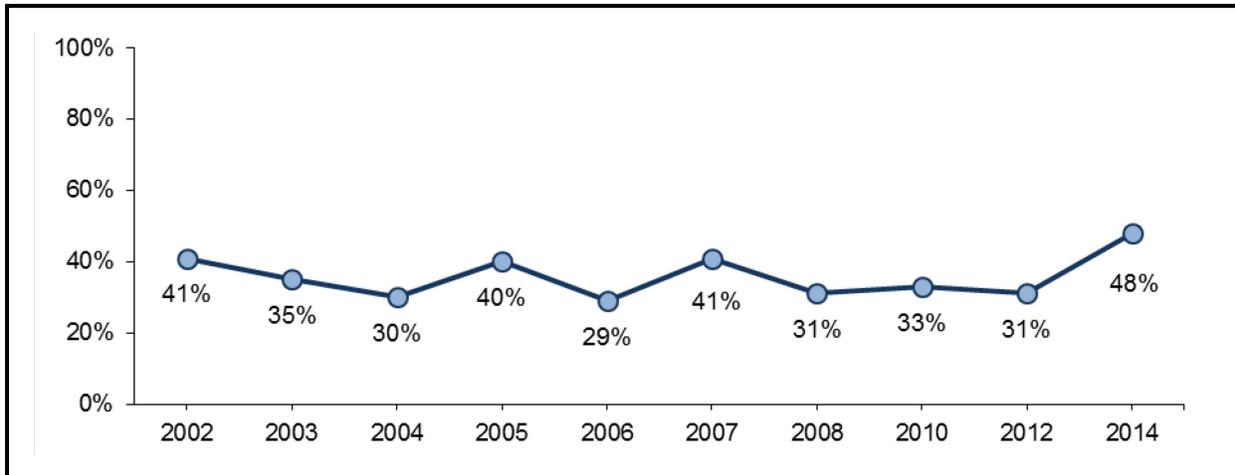
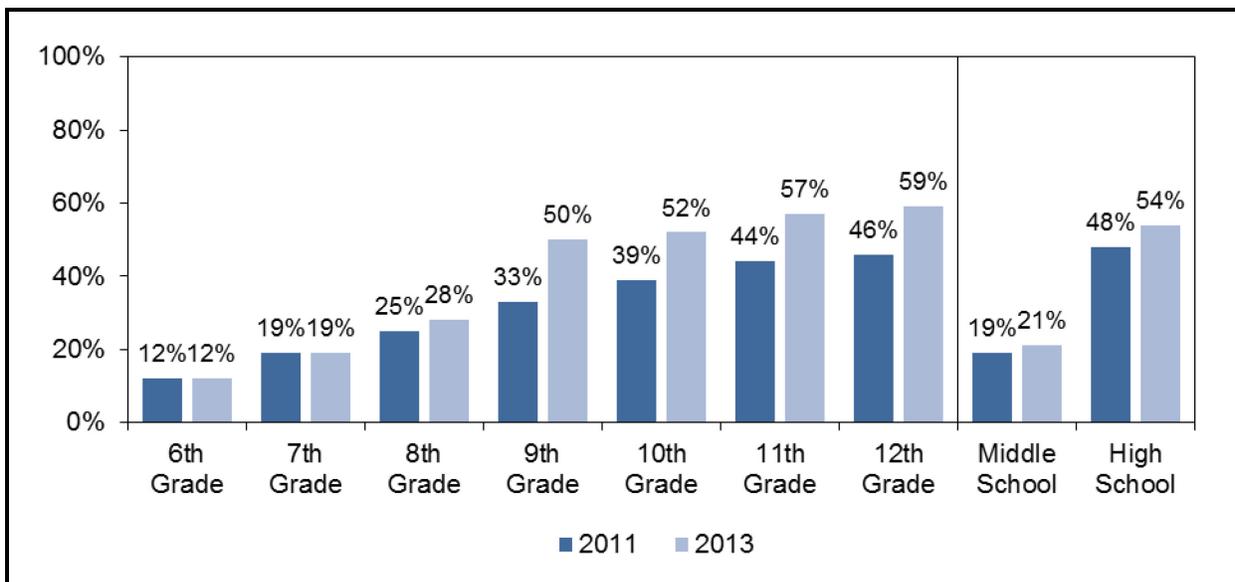
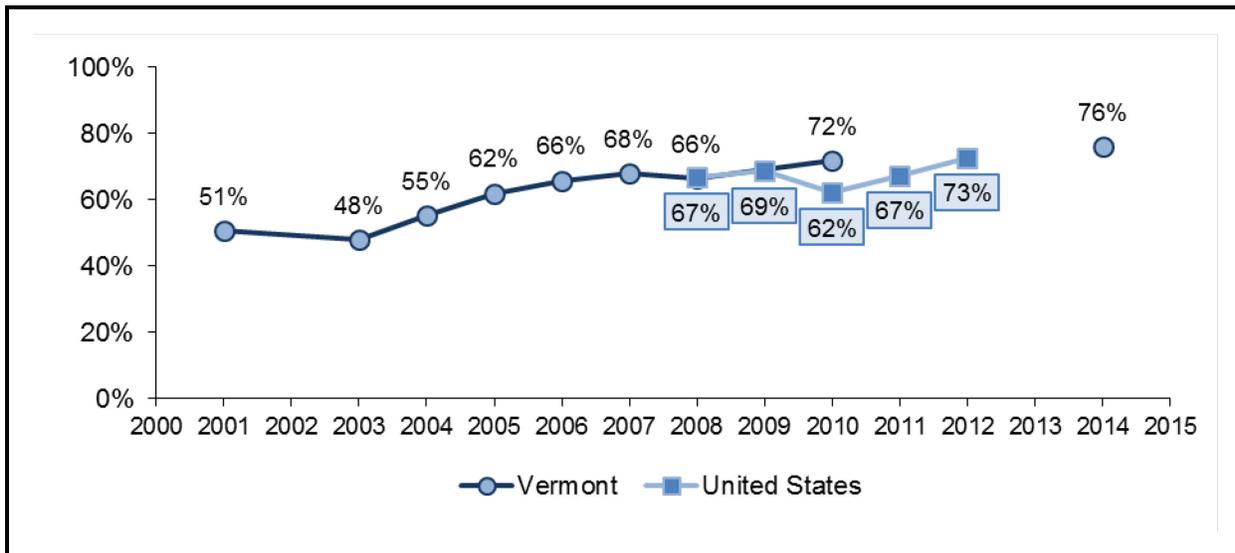


Figure 4-36. Percentage of Vermont Middle School and High School Students Who, in the Past 12 Months, Were Asked If They Smoked by a Doctor, Dentist, Nurse, or Other Health Professional, Vermont Youth Risk Behavior Survey, 2011 and 2013



The percentage of current Vermont smokers who reported being advised to quit by their health care provider increased significantly from 51% in 2001 to 76% in 2014 (Figure 4-37). Based on national comparison data from the RTI NATS, the percentage of current smokers who were advised to quit by their health care provider was significantly higher in Vermont in 2010 than in the United States as a whole; however, this measure has increased nationally since then to bring it on par with Vermont.

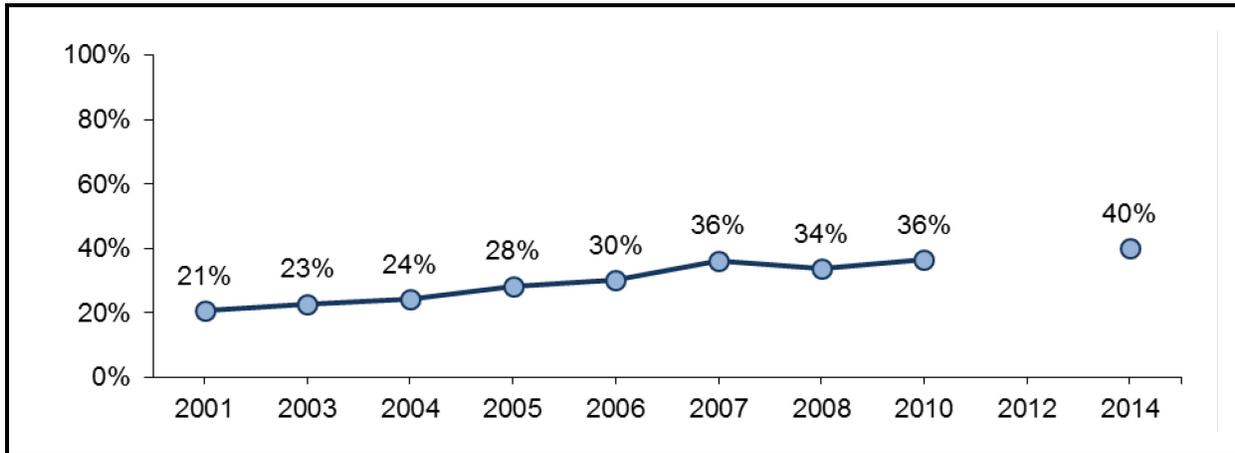
Figure 4-37. Percentage of Current Smokers Who Were Advised by Their Health Care Provider to Quit Smoking in the Past 12 Months, Vermont Adult Tobacco Survey 2001–2014 and RTI National Adult Tobacco Survey 2008–2012



Self-reports by current smokers that their health care provider recommended a specific cessation program or medication increased significantly from 2001 (21%) to 2014 (40%) (Figure 4-38). Despite significant increases since 2001, fewer than half of all current smokers report that their health care provider recommended a specific cessation program or medication. VTCP has been actively working to educate health care providers about smoking cessation counseling and medications and to implement health care system change, such as increasing referrals to 802Quits programs.

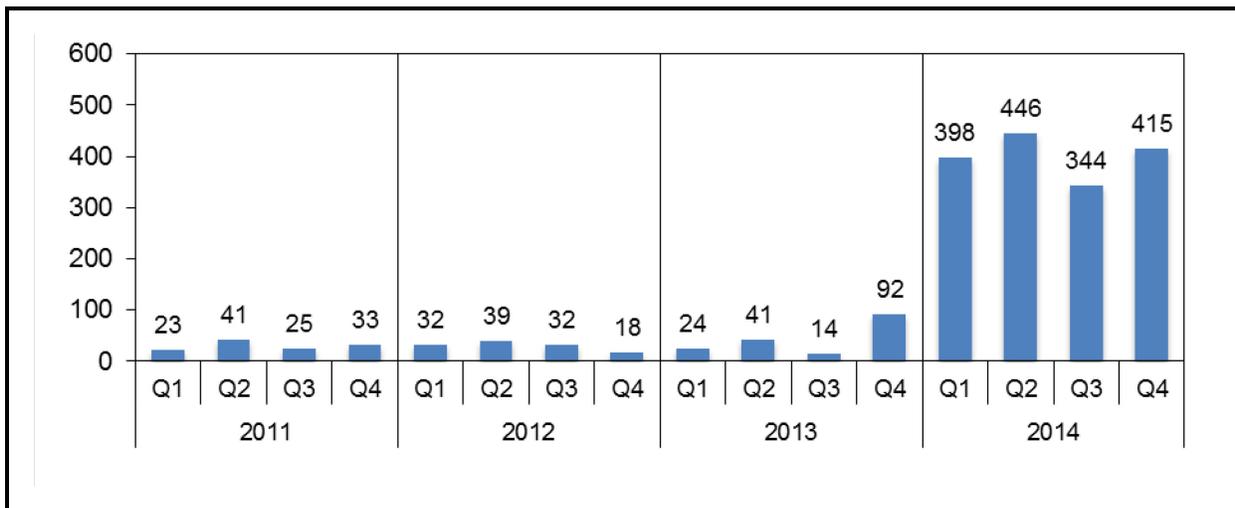
As discussed in Section 3.3.2, VTCP has been actively working to expand insurance coverage for and use of cessation treatments, such as NRT and counseling. VDH successfully worked with DVHA (Medicaid) to expand Medicaid coverage of cessation counseling for beneficiaries. Beginning in December 2013, two CPT codes were activated, allowing health care providers to bill Medicaid for providing cessation counseling to Medicaid

Figure 4-38. Percentage of Current Smokers Whose Health Care Provider Recommended a Specific Cessation Program, Vermont Adult Tobacco Survey, 2001–2014



beneficiaries. Previously, this benefit was only available for pregnant Medicaid beneficiaries. The use of these CPT codes for providing tobacco cessation counseling to patients has increased dramatically since they were opened up to all Medicaid beneficiaries in December 2013 (Figure 4-39). These findings are encouraging and provide evidence that these expanded Medicaid benefits for cessation assistance are being used and that a greater proportion of the Medicaid tobacco users in Vermont are receiving cessation assistance and counseling from their health care providers as a result of VDH’s efforts to expand these benefits.

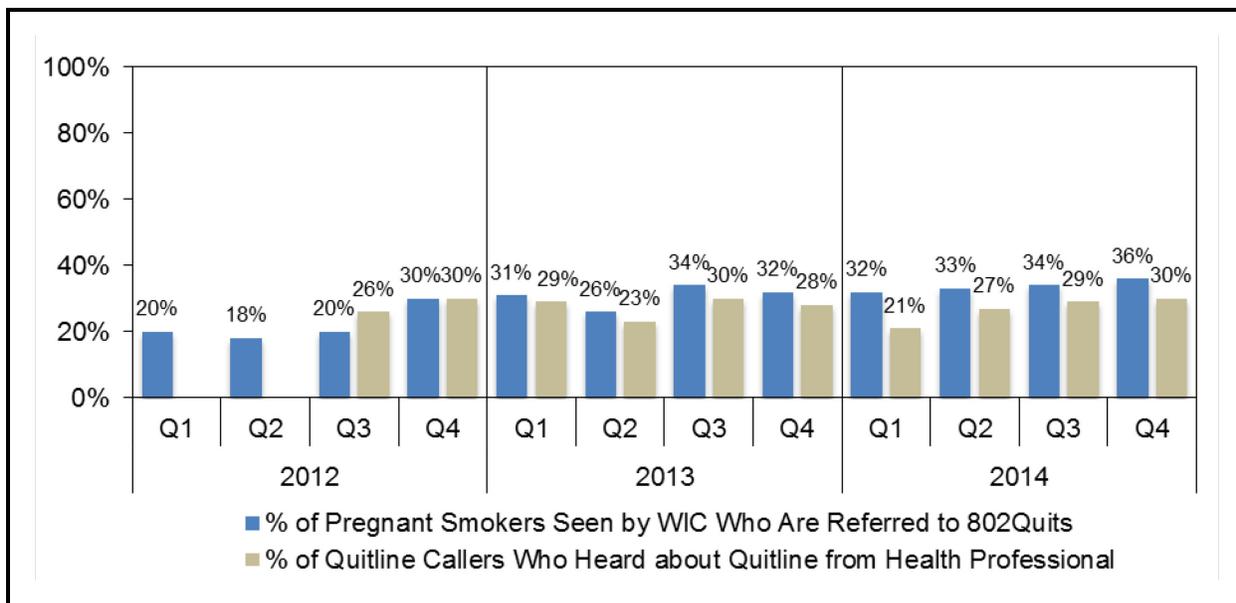
Figure 4-39. Number of CPT Reimbursement Codes Used by Medicaid Providers for Tobacco Cessation, 2011–2014



Note: Data are from the VDH Dashboard Web site. CPT codes were turned on for all Medicaid beneficiaries in December 2013 (Source: DVHA Medicaid).

Another key outcome of interest to VTCP is health care provider referrals to the evidence-based cessation services provided to Vermont smokers at no cost to them through VTCP’s 802Quits programs. Relevant Healthy Vermonters 2020 performance measures include WIC and Nurse Family Partnership referrals to 802Quits programs and the percentage of Quit by Phone callers who reported hearing about the program from a health care professional. The Nurse Family Partnership is currently referring all of their patients who screen positive for tobacco use during pregnancy to 802Quits. The Healthy Vermonters 2020 goal is for WIC to refer all pregnant smokers to 802Quits. In 2013 and 2014, WIC referred slightly more than 30% of the pregnant smokers they saw each quarter to 802Quits (Figure 4-40). The proportion of Quit by Phone callers who reported hearing about the program from a health professional fluctuated between 21% and 30% per quarter in 2013 and 2014. As discussed in Section 3.3.1, VTCP has begun implementing promotional efforts to educate health care professionals about VTCP’s 802Quits programs, stress the importance of provider referrals, and encourage their patients to use 802Quits programs and services.

Figure 4-40. Health Care Provider Referrals to 802Quits Cessation Programs, 2012–2014



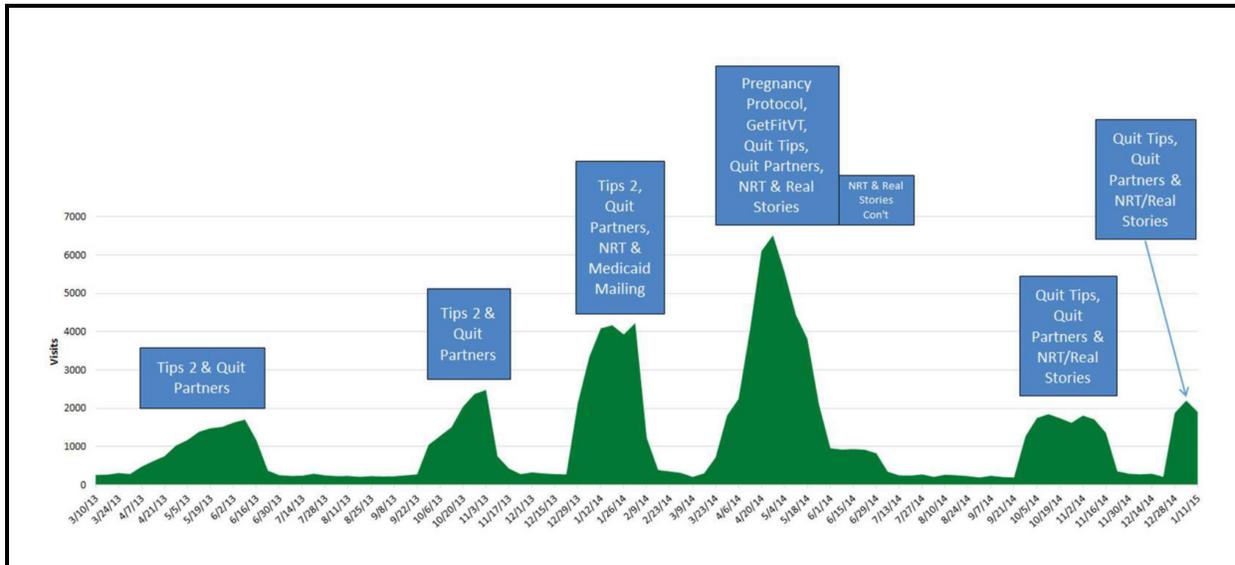
Data source: VDH Dashboard Web site

4.3.3 Awareness and Use of Cessation Programs (802Quits)

In addition to health care provider referrals, VTCP also uses mass-reach health communication interventions to promote the cessation programs and services it offers through the 802Quits program. As discussed in Section 3.2, VTCP currently runs annual media campaigns using CDC *Tips* ads and locally produced ads. All campaign ads direct viewers to 802Quits. Calls to the 802Quits Quit by Phone program from December 2013

through January 2015 clearly resulted from VTCP’s media campaigns (Figure 4-41). Previous analyses and RTI reports have produced consistent findings throughout the program’s history demonstrating that mass media promoting the Vermont Quit by Phone program has been effective at driving calls. VTCP also experienced a substantial increase in views of key 802Quits Web pages between 2013 and 2014 (Figure 4-42) that were clearly a result of VTCP’s paid media efforts.

Figure 4-41. 802Quits Quit by Phone Call Volume and Vermont Health Communication Interventions, March 10, 2013–January 11, 2015



Data source: Reproduced from Vermont Department of Health (VDH). (2015d, March). 2014 Cessation Report. Retrieved from <http://humanservices.vermont.gov/boards-committees/tobacco-board/the-boards-committees/cessation-committee/february-19-2015-committee-meeting/slide-presentation/view>

Figure 4-42. Views of Key 802Quits Web Pages, 2013–2014

	NRT	Baby	Stories	In Person Quit Help
2013	1,756	193	3,338	7,699
2014	36,206	8,357	13,488	11,636
% Change	+1,962%	+4,230%	+304%	+51%

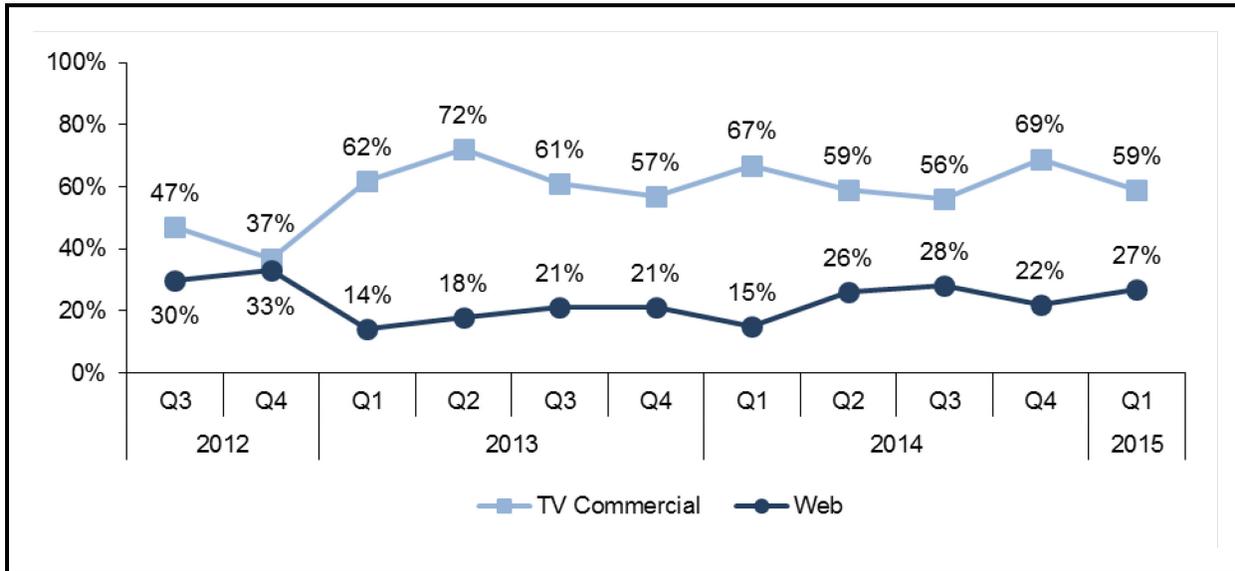
Data source: Reproduced from Vermont Department of Health (VDH). (2015d, March). 2014 Cessation Report. Retrieved from <http://humanservices.vermont.gov/boards-committees/tobacco-board/the-boards-committees/cessation-committee/february-19-2015-committee-meeting/slide-presentation/view>.

Vermont’s cessation contractor, National Jewish Health, provides the program with a monthly report detailing how Quit by Phone callers reported hearing about the program. VTCP uses those data to determine how well its mass-reach health communication interventions and media efforts to promote 802Quits are working. From 2012-Q3 through 2015-Q1, among Quit by Phone callers who reported hearing about the program from a media source, the percentage who cited a television commercial fluctuated quarterly and ranged from 37% in 2012-Q4 to 72% in 2013-Q2 (Figure 4-43). Over the same period, from 2012-Q3 through 2015-Q1, among Quit by Phone callers who reported hearing about the program from a media source, the percentage who cited the Web each quarter ranged from 14% in 2013-Q1 to 33% in 2012-Q4.

The VT ATS asks current smokers about their awareness and use of 802Quits programs. Over time, the question wording has been updated to reflect the current structure and branding of VTCP’s cessation services, which was rebranded as the Vermont Quit Network and later rebranded again as 802Quits. From 2005 through 2014, the majority of current Vermont smokers reported awareness of the Quit by Phone program (Table 4-15). Reported awareness of the Quit by Phone program was lower in 2014 than in previous years, which may have been a result of changes to the question wording over time. In 2014, 60% of Vermont current adult cigarette smokers reported awareness of the 802Quits Quit Online Web-based cessation service. Reported awareness of the Vermont Quit Partners in-person counseling service offered through 802Quits increased from 34% in 2012 to 55% in 2014.

This increase is likely a result of the rebranding of the service from Quit in Person to Vermont Quit Partners and effective media promotion of the program by VTCP through its annual Vermont Quit Partners mass media ads.

Figure 4-43. Percentage of Quit by Phone Callers Who Heard about the Program from a TV Commercial or the Web (among Callers Who Reported Hearing about the Program from a Media Source), 2012–2015



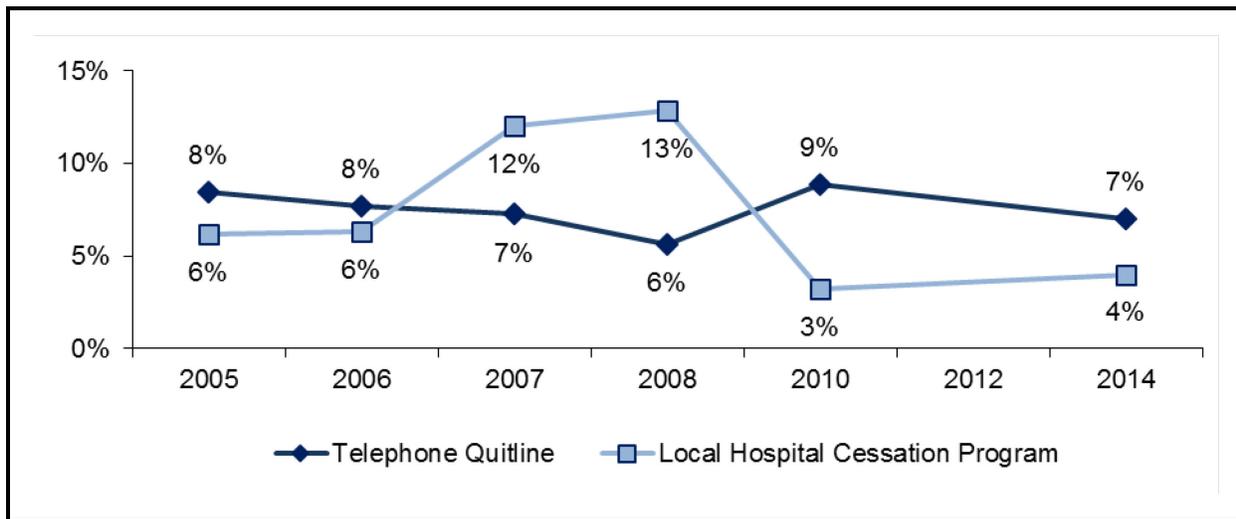
Data source: VDH (March 2015d).

Table 4-15. Percentage of Vermont Smokers Who Reported Awareness of Vermont’s 802Quits Programs, Vermont Adult Tobacco Survey, 2005–2014

802Quits Program	Year	Percentage of Smokers
Quit by Phone Program (Quitline)	2005	84%
	2007	86%
	2008	86%
	2014	70%
Quit Online Program	2014	60%
Vermont Quit Partners (Quit in Person Program)	2012	34%
	2014	55%

The VT ATS also asks current smokers who made a quit attempt in the past year and reported awareness of 802Quits programs whether they used those programs in their most recent quit attempt. In 2014, 7% reported using a telephone quitline (Figure 4-44). Reported use of a telephone quitline has not changed significantly since 2006. In 2014, 4% reported using a local hospital cessation program (Figure 4-44). Fluctuations in this measure since 2006 are likely due to changes in the VT ATS wording for the local hospital cessation program question over those years.

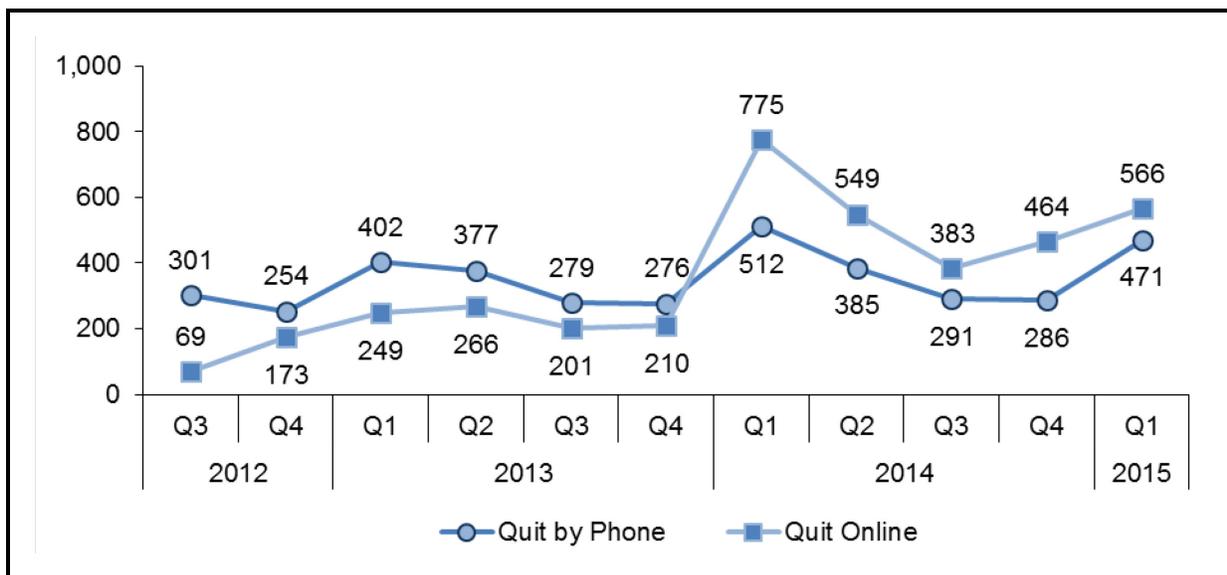
Figure 4-44. Percentage of Current Adult Smokers Who Reported Using Cessation Programs During their Most Recent Quit Attempt, Vermont Adult Tobacco Survey, 2005–2014



Healthy Vermonters 2020 includes two performance measures related to the number of Vermont tobacco users who register for services through the 802Quits Quit by Phone and Quit Online programs. Tracking the number of tobacco users who register for services from these programs helps VTCP monitor and assess how well its media and promotional efforts, as well as referrals from health care providers, are driving Vermont tobacco users to those programs and services. Between 2012-Q3 and 2015-Q1, an average of 350 Vermont tobacco users registered to receive services from the Quit by Phone program each quarter, ranging from 254 in 2012-Q4 to 512 in 2014-Q1 (Figure 4-45). Over the same period, an average of 355 Vermont tobacco users registered to receive services from the Quit Online program each quarter, ranging from 69 in 2012-Q3 to 775 in 2014-Q1. Use of both the Quit by Phone and Quit Online programs increased from 2013 to 2014, with larger increases in registrations for the Quit Online program. In 2014, a total of 1,474 tobacco users registered to receive services from the Quit by Phone program (up 10% from 1,334 in 2013), and a total of 2,171 tobacco users registered to receive services from the Quit Online program (up 134% from 926 in 2013). Use of both the Quit by Phone and Quit Online programs

combined increased by 61% from 2013 (2,260) to 2014 (3,645). Increases in the number of Vermont tobacco users who registered to receive cessation services from 802Quits

Figure 4-45. Number of Tobacco Users Registering to Receive Services from the 802Quits Quit by Phone and Quit Online Programs, 2012-Q3 through 2015-Q1



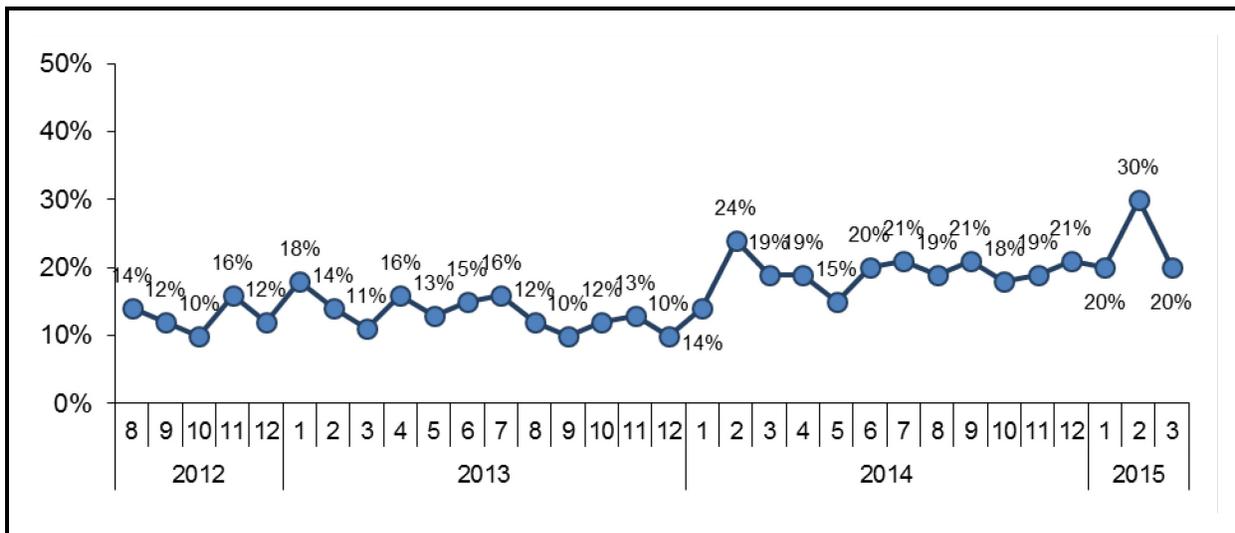
programs in 2014, particularly during the first quarter, corresponded with the rebranding of VTCP’s cessation services from the Vermont Quit Network to 802Quits and the launching of the 802Quits Web site in January 2014. Increases in registrations in 2014 were likely a result of VTCP’s media and promotional efforts, which included CDC *Tips* media television ads that ran in January 2014, digital media, and mass mailings describing 802Quits that were sent to Medicaid beneficiaries in Vermont. VTCP’s cessation service provider, National Jewish Health, also offers Quit by Phone registrants the option to receive cessation-focused text messages to aid them in their quit attempts. National Jewish Health sent a total of 31,080 text messages to Quit by Phone registrants in FY 2014 (July 2013–June 2014) (VDH, March 2015d).

Addressing tobacco use disparities is a CDC best practice for comprehensive tobacco control programs. VDH conducts numerous activities to identify populations with disparate tobacco use and to help them quit. In the United States and in Vermont, the adult Medicaid population smokes at substantially higher rates than the non-Medicaid population. Medicaid smokers account for nearly half of all adult smokers in Vermont. Because of this, VDH has specifically identified Medicaid smokers as a key target. As described in Section 3, VDH has been actively working with health care providers to get them to refer Medicaid smokers to 802Quits programs. VDH has also successfully worked with Vermont Medicaid to expand

cessation coverage for Medicaid beneficiaries. VTCP has implemented numerous mass-reach health communication interventions specifically targeting Medicaid smokers, such as mass mailings sent to Medicaid beneficiaries to inform them of the expanded insurance coverage for cessation and to provide them with information about 802Quits.

One of the aims and expected outcomes of VTCP’s efforts related to promoting cessation among Medicaid smokers in Vermont is an increase in the use of 802Quits by Medicaid smokers. One of the Healthy Vermonters 2020 performance measures is the percentage of 802Quits registrants who are Medicaid insured, with a target of 25% per month. The percentage of Quitline and Quit Online registrants who were Medicaid insured has been increasing gradually over the past couple of years with noticeable increases in 2014 over 2013 (Figure 4-46). From August 2012 through March 2015, the percentage of Quit by Phone registrants who were Medicaid insured ranged from 10% per month to 30% per month in February 2015 (see Figure 4-46). The number of Medicaid insured tobacco users who registered to receive services from the Quit by Phone increased by 52% from 216 in 2013 to 329 in 2014. Medicaid registrants to the Quit Online program nearly tripled from 95 in 2013 to 363 in 2014. The total number of Quit by Phone coaching calls completed by Medicaid registrants nearly doubled from 267 in 2013 to 517 in 2014 (VDH, March 2015d). These data not only indicate that more Medicaid tobacco users registered for services from 802Quits in 2014 than in 2013 but also that more Medicaid tobacco users in Vermont actually received evidence-based cessation counseling services from VTCP’s 802Quits programs in 2014 than in 2013. In FY 2014 (July 2013 through June 2014), 54% of the Quit by Phone Medicaid registrants opted to receive texts from the program (VDH, March 2015d).

Figure 4-46. Medicaid Registrants as a Percentage of Total 802Quits Quit by Phone and Quit Online Registrants, August 2012 through March 2015

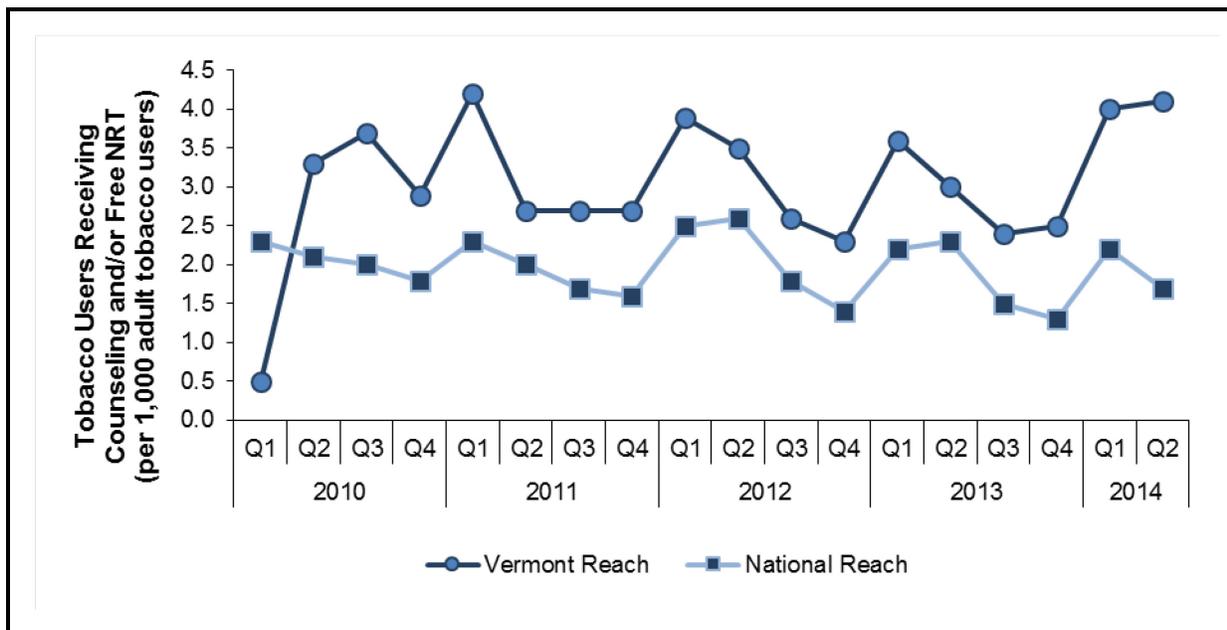


Data source: VDH Dashboard Web site

The reach of a program is the percentage of the target population served by the program over a specified period. Figure 4-47 presents trends in quarterly quitline reach in Vermont and nationally for 2010-Q1 through 2014-Q2 using data from CDC’s National Quitline Data Warehouse (NQDW) published online through CDC’s State Tobacco Activities Tracking and Evaluation (STATE) System Web site

(http://www.cdc.gov/tobacco/data_statistics/state_data/state_system/index.htm). The NQDW reports a measure of treatment reach that is defined as the number of tobacco users who received counseling and/or free NRT per 1,000 adult tobacco users in the state. Adult tobacco users include adults aged 18 or older who currently smoke cigarettes, use smokeless tobacco, or use both cigarettes and smokeless tobacco. The NQDW measure of quitline reach reported by CDC is scaled and presented as a rate (instead of a percentage of tobacco users as is typically done for reach) for readability purposes because the straight percentage values for each quarter tend to be very small. The NQDW measure of reach is different from other typical measures of quitline reach and is therefore not directly comparable with those estimates, because the calculation is based on tobacco users (cigarettes and/or smokeless tobacco users) instead of just cigarette smokers. Reach is typically expressed as the percentage of the total cigarette smoking population that used the quitline. Quitlines provide services to all tobacco users, not just cigarette smokers, so the NQDW measure of reach is a broader measure that attempts to cover the entire tobacco use population (not just cigarette smokers).

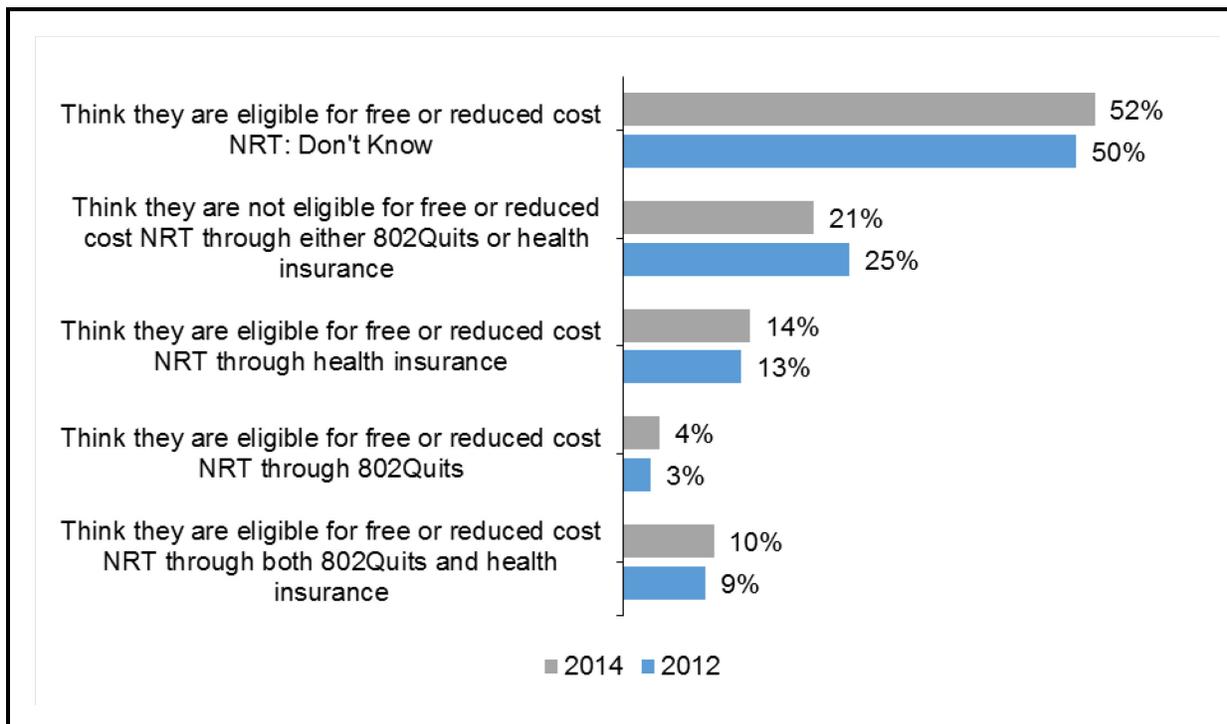
Figure 4-47. Treatment Reach of Telephone Quitlines in Vermont and Nationally, National Quitline Data Warehouse, 2010-Q1 through 2014-Q2



Vermont's quarterly quitline treatment reach was higher than the national average in 17 of the 18 quarters from 2010-Q1 through 2014-Q2 (Figure 4-47). From 2010-Q1 through 2014-Q4, Vermont's average quarterly quitline treatment reach was 1.6 times higher than the national average, and Vermont's quitline treatment reach was at least 50% higher than the national average in 13 quarters with a peak in 2014-Q2, when Vermont's quitline treatment reach was almost 2.5 times higher than the national average. Among states reporting to the NQDW, Vermont's quarterly quitline treatment reach rank ranged from 19th nationally in two quarters (2010-Q2 and 2011-Q2) to 5th nationally in 2014-Q2 when the quitline treatment reach in Vermont was more than twice the national average quitline reach. Across all quarters from 2010-Q1 through 2014-Q2, Vermont's average quarterly quitline treatment reach ranked 15th among states reporting quitline treatment reach data to the NQDW (which ranged from 41 states in 2014-Q2 to 49 states in numerous other quarters with an average of 46 states reporting over the period). Vermont's favorable treatment reach rates indicate that VTCP's mass media and promotional efforts to promote 802Quits programs—including running the CDC's *Tips* ads and actively engaging health care providers to get them to refer patients to 802Quits—have been successful at increasing the proportion of Vermont's tobacco users who are receiving evidence-based cessation treatments, such as counseling and NRT, from VTCP through the 802Quits program.

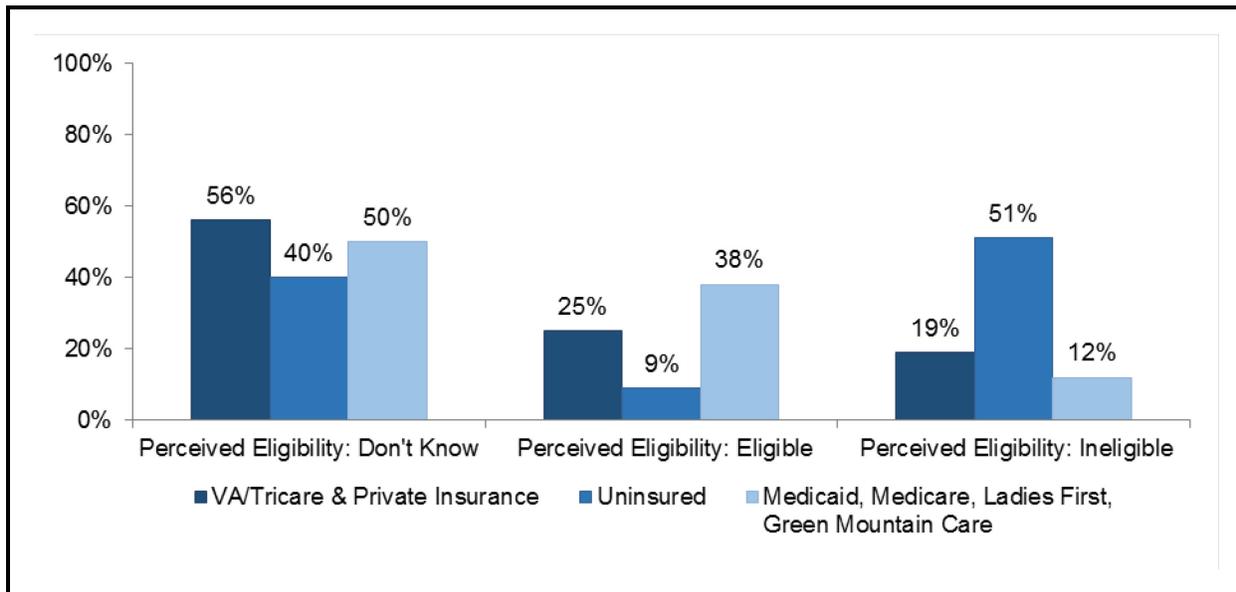
Unless there are medical conditions preventing its use, all current smokers in Vermont are eligible for free or reduced cost NRT through 802Quits or their health insurance provider. Because research has shown that the combination of counseling and NRT medication increases the likelihood of a successful quit, VTCP requires 802Quits registrants to complete at least one counseling session, either through a phone call or an in-person class, before they are able to receive the free NRT from 802Quits. Medicaid smokers are able to get a 2-week supply of NRT through 802Quits and up to an additional 16 weeks of NRT with a prescription from a medical provider. VTCP has made numerous efforts over the years to publicize these benefits, including using mass media and sending direct mailings to Vermonters to notify them about these benefits. VTCP has also actively engaged health systems and health care providers to notify them about the NRT benefits available to Vermont smokers through 802Quits or their health insurance in the hopes that health care providers will then inform their patients about the benefits and refer them to 802Quits or their insurance to utilize their free NRT benefits. Despite VTCP's efforts, lack of knowledge and misinformation have remained about free NRT available to Vermont smokers. Many Vermont smokers are not aware that they are eligible for free or reduced cost NRT. In 2012 and 2014, half or more of current adult Vermont cigarette smokers did not know whether they were eligible for free or reduced cost NRT (Figure 4-48). In 2014, nearly 1 in 5 current adult cigarette smokers in Vermont incorrectly believed that they were not eligible for free or reduced cost NRT (down from 25% in 2012). In 2012 and 2014, fewer than 15% of

Figure 4-48. Perceived Eligibility for Free or Reduced Cost NRT (among Current Adult Cigarette Smokers), Vermont Adult Tobacco Survey, 2012–2014



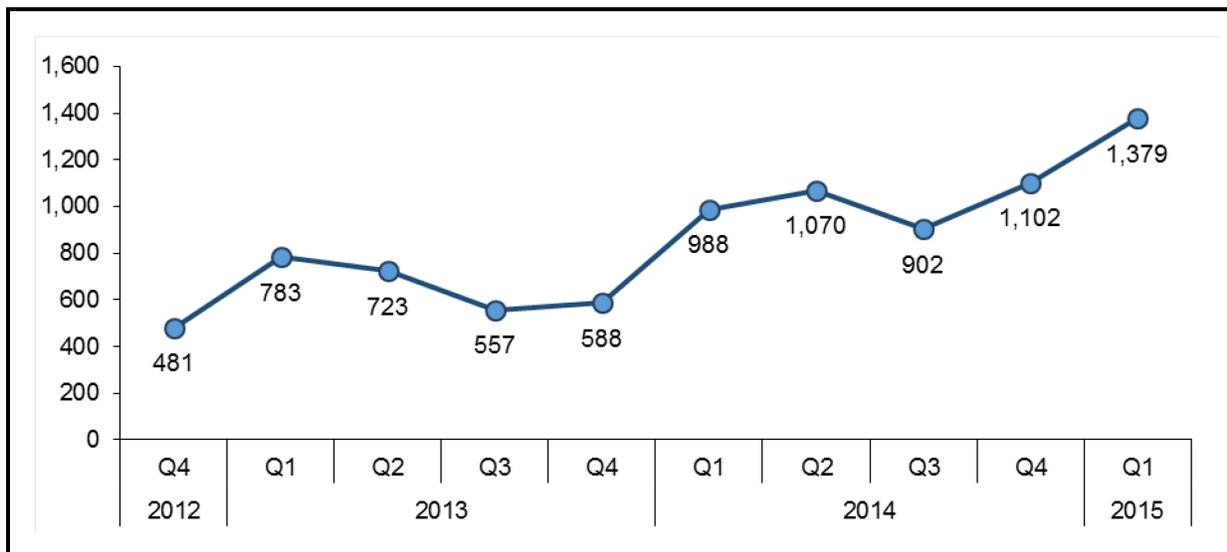
current adult Vermont cigarette smokers believed they were eligible for free or reduced cost NRT through their insurance, from 802Quits, or from both 802Quits and their health insurance.

In 2014, only 9% of current Vermont cigarette smokers who did not have health insurance thought they were eligible for free or reduced cost NRT (Figure 4-49). About half (51%) of uninsured current cigarette smokers incorrectly believed they were eligible for free or reduced cost NRT. Current Vermont smokers with state-subsidized insurance, such as Medicaid, Medicare, Ladies First, or Green Mountain Care, were more likely than those with private insurance or Veterans' Administration (VA)/Tricare insurance to believe they were eligible for free or reduced cost NRT (38% compared to 25%).

Figure 4-49. Perceived Eligibility for Free or Reduced Cost NRT by Insurance Status, Vermont Adult Tobacco Survey, 2014

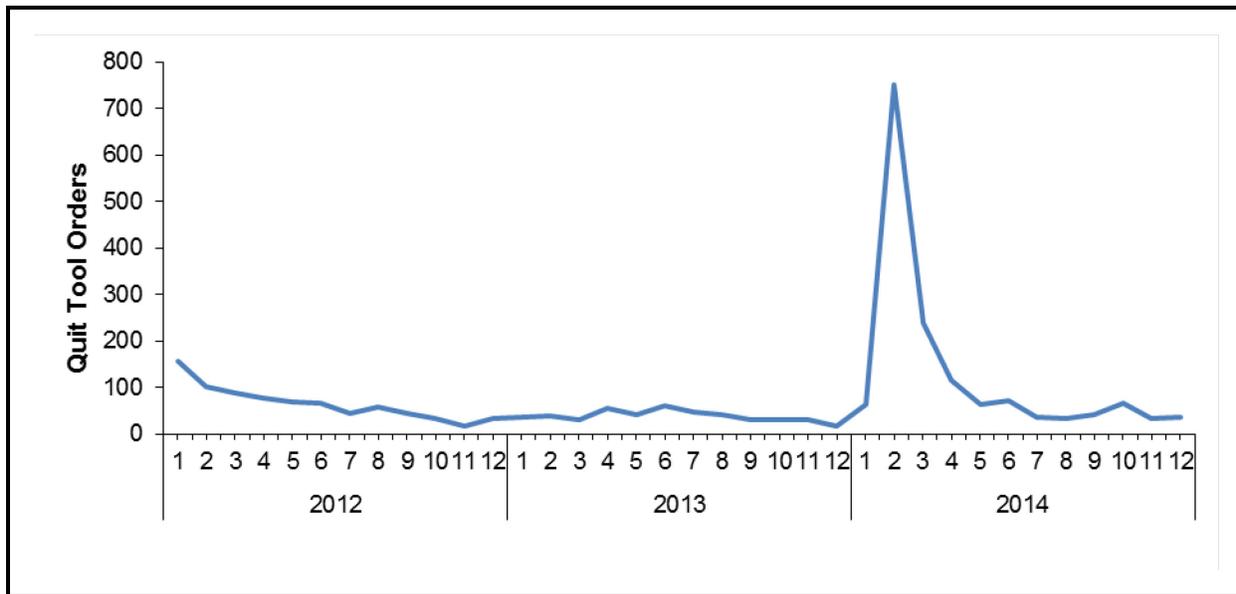
Because VTCP provides free NRT (nicotine patches, gum, and lozenges) to Vermont tobacco users enrolled in any of the 802Quits programs, tracking NRT orders is an important indicator of how many tobacco users are receiving evidence-based cessation treatments through VTCP's cessation programs and services. The number of NRT orders distributed by 802Quits programs is also a Healthy Vermonters 2020 performance measure. The number of NRT orders distributed through 802Quits programs—Quit by Phone, Quit Online, and Vermont Quit Partners—increased steadily from 2012-Q4 (481 orders) through 2015-Q1 (1,379 orders) (Figure 4-50). Total NRT orders in 2014 (4,062 orders) were 53% higher than 2013 (2,651 orders). Several factors may account for the increased distribution of NRT through 802Quits in 2014. In January 2014, VTCP rebranded its cessation services from the Vermont Quit Network to 802Quits and introduced the 802Quits Web site. Starting in April 2014, VTCP also made dual NRT (long- and short-term) available to all Vermont smokers through 802Quits once they had completed at least one counseling session since research has shown that using both long- and short-acting NRT simultaneously can result in a more successful quit attempt. Before this change, Vermont smokers were eligible to receive only one type of NRT (patches, gum, or lozenges) at a time. Vermont smokers can now order and use both long-acting NRT (patches) and short-acting NRT (gum and lozenges) simultaneously. As previously mentioned, VTCP also extended provision of NRT through 802Quits to Medicaid registrants and sent a mass mailing to Medicaid beneficiaries promoting 802Quits services and encouraging them to talk with their doctor about quitting. VTCP also aired Vermont Quit Partners television ads in October 2014, which also resulted in an increase in NRT orders through 802Quits.

Figure 4-50. Number of NRT Orders Distributed by 802Quits Programs (Quit by Phone, Quit Online, and Vermont Quit Partners), 2012-Q4 through 2015-Q1



VTCP makes a variety of cessation information, tips, tools, and advice available to Vermont tobacco users who wish to quit on their own without any assistance through the Quit Your Way program offered through 802Quits. Tobacco users can order a variety of free quit tools, such as pedometers, worry stones, and distraction putty through the 802Quits Web site. VTCP typically gets an average of 50 Quit Tool orders each month (Figure 4-51). However, in February 2014, VTCP experienced record Quit Tool orders of 750 orders. Quit Tool orders remained much higher than normal in March 2014 (239 orders) and April 2014 (114 orders). The annual total of Quit Tool orders increased nearly 2.5 times from 452 in 2013 to 1,545 in 2014.

VTCP conducts 7-month follow-up evaluations by telephone among Vermont smokers who receive services from 802Quits programs to determine whether they were able to quit smoking successfully after using the 802Quits programs. Survey response rates and cessation outcomes from the 802Quits 7-month follow-up evaluations have been relatively consistent across programs and stable over time. CDC's NQDW collected data from 7-month follow-up evaluations conducted by states among their quitline clients for 2010–2011 and reports those numbers online through the STATE System Web site. From 2010–2011, Vermont achieved a 45% survey response rate for the 7-month follow-up surveys attempted during that time. Among individuals who responded to the survey, approximately 80% reported making a quit attempt lasting 24 hours or longer at least one time after contacting the quitline for help, and 27% reported that they had been smoke-free for at least 30 days at the time they completed their follow-up interview. When adjusting for

Figure 4-51. Quit Tool Orders, 2012–2014

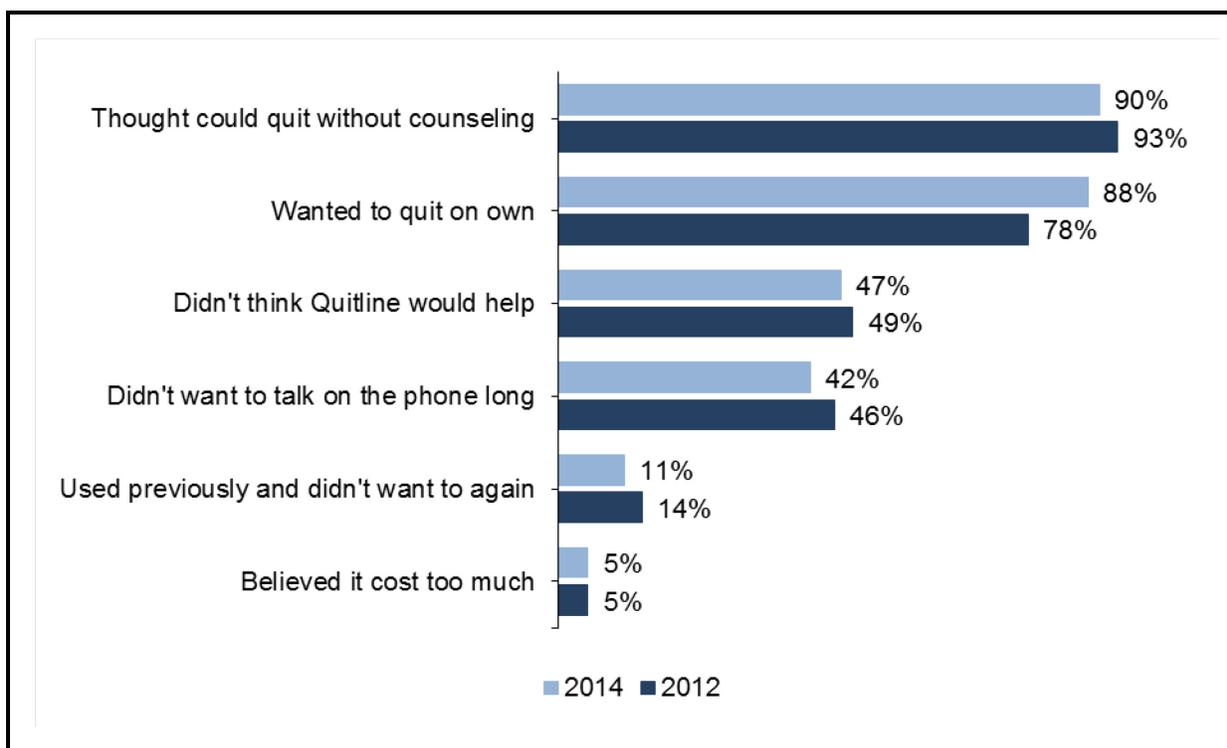
Source: Reproduced from VDH (March 2015d).

survey nonresponse by assuming that individuals who did not respond to the survey failed to make a quit attempt, the results indicate that 38% of the individuals who received services from the Quit by Phone program made a quit attempt at some point after registering with the program, and 12% were smoke-free for at least 30 days at 7 months after receiving services from the program. Follow-up evaluation survey outcomes in Vermont were comparable to national averages reported by CDC. These findings reported by NQDW for Vermont for 2010–2011 are consistent with other 7-month follow-up evaluation data that RTI has analyzed for Vermont spanning the entire tenure of the 802Quits programs, going back to 2001 when the quitline was originally established. More recent 7-month follow-up evaluation data for 802Quits programs have found similar results. Based on follow-up evaluation surveys completed by 802Quits registrants, approximately 80% of those who responded to follow-up surveys reported making a quit attempt lasting 24 hours or longer at least once since receiving services from the program, and approximately 25% to 30% reported being smoke-free for at least 30 days at the time they completed their follow-up evaluation survey (VDH, March 2015d).

Although the 802Quits programs are evidence-based, have been shown to be effective at helping smokers quit, and offer proven cessation treatments such as counseling and NRT to Vermont smokers at no cost to them, many Vermont smokers still opt not to use 802Quits programs. The VT ATS asks current adult Vermont smokers who have made a quit attempt in the past year and who have heard of, but not used, 802Quits programs why they did not use the programs. The most common reasons cited for not using the Quit by Phone program in 2012 and 2014 were that people thought they could quit on their own without counseling

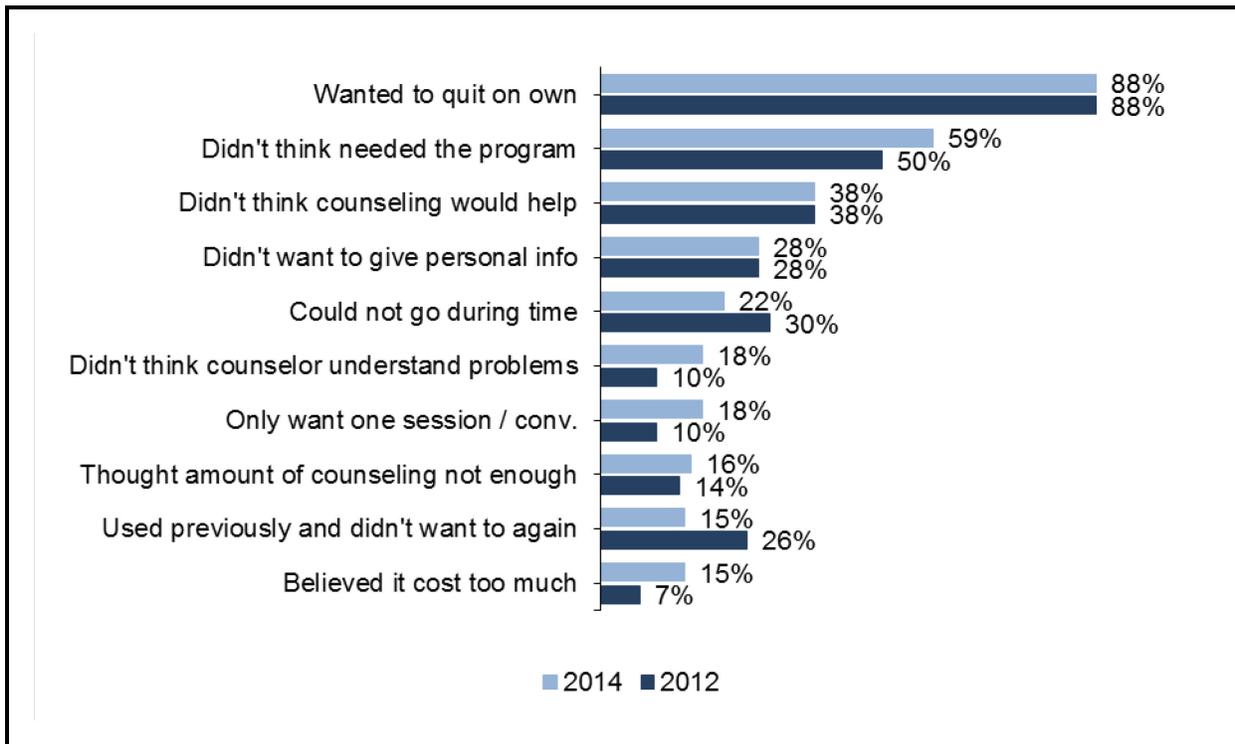
(93% in 2012 and 90% in 2014), or they wanted to quit on their own (78% in 2012 and 88% in 2014) (Figure 4-52). Slightly less than half reported that they did not think the Quit by Phone program would help, or they did not want to talk on the phone long. Other reasons given were that they used the program previously and did not want to again (14% in 2012 and 11% in 2014), or they thought the program cost too much (5% in 2012 and 2014). Questions on reasons for not using the Quit Online program were included in the 2014 VT ATS, and the responses were similar to those given for the Quit by Phone program. The most common reasons cited in 2012 and 2014 for not using the Vermont Quit Partners in-person counseling services also included people wanting to quit on their own (88% in 2012 and 2014) and either not thinking they needed the program or not thinking it would be helpful (Figure 4-53).

Figure 4-52. Reasons for Not Using the 802Quits Quit by Phone Program, Vermont Adult Tobacco Survey, 2012–2014



Note: Data are among current adult Vermont smokers who made a quit attempt in the past year and heard of, but did not use, the 802Quits Quit by Phone program during their most recent quit attempt.

Figure 4-53. Reasons for Not Using the 802Quits Vermont Quit Partners Program, Vermont Adult Tobacco Survey, 2012–2014



Note: Data are among current adult Vermont smokers who made a quit attempt in the past year and heard of, but did not use, the 802Quits Vermont Quit Partners program during their most recent quit attempt.

4.4 Reducing Secondhand Smoke Exposure in Vermont

4.4.1 Policy Efforts to Reduce Exposure to Secondhand Smoke

Policy efforts to reduce secondhand smoke exposure can take place at the local and state levels. As discussed in Section 3.1.1, VTCP has made significant strides in implementing statewide policies to reduce secondhand smoke. At the local level, community coalitions are the driving force behind local secondhand smoke policies with support from OVX and VKAT youth coalitions. Coalitions receive TA and support from VDH, such as drafts of model policies, background information, and research on secondhand smoke ordinances, to enable them to be as effective as possible in their policy efforts to reduce exposure to secondhand smoke. The following section provides an overview of statewide and local efforts to enact secondhand smoke policies in Vermont.

Statewide Policy Efforts

Although Vermont has already enacted several policies that are intended to reduce exposure to secondhand smoke across the state (see Section 2.2.4), two other bills were being considered as part of the 2014–2015 legislative session. The first, H.416, would have

reduced exposure to secondhand smoke by prohibiting the possession of lighted tobacco products in the following locations:

- the common areas of all enclosed indoor places of public access and publicly owned buildings and offices;
- any area within 25 feet of the windows, doors, ventilation systems, or other openings of places of public access;
- all enclosed indoor places in lodging establishments used for transient traveling or public vacationing, such as resorts, hotels, and motels, including sleeping quarters and adjoining rooms rented to guests;
- designated smoke-free areas of property or grounds owned by or leased to the state; and
- any other area within 25 feet of state-owned buildings and offices, except that to the extent that any portion of the 25-foot zone is not on state property, smoking is prohibited only in that portion of the zone that is on state property unless the owner of the adjoining property chooses to designate his or her property smoke-free.

Passage of the second bill, H.509, would prohibit smoking in any area within 25 feet of a condominium or apartment building. Although neither bill was enacted into law by the Vermont Legislature during the 2014–2015 legislative session, these two bills indicate the type of legislation and policies that Vermont lawmakers are considering. Getting these items added to the legislative process represents progress in the tobacco control environment in Vermont, which is at least partially due to the historical and current efforts of VTCP and its partners. These bills also show potential areas in which the program can focus its efforts to educate and obtain support and buy-in from decision makers.

Community Policy Efforts

As discussed in Section 3.1.3, Vermont’s community coalitions are working to help their communities implement local smoke-free air law policies. Community coalition efforts to help their communities enact local smoke-free air policies have been steadily growing over time (Table 4-16). In FY 2009, coalitions throughout the state worked on 55 policies and were able to complete, or enact, 28 policies. The number of policies worked on per year peaked in FY 2014 with a total of 155 policies worked on and 45 completed. More notably, in FY 2014, 100 policies were considered in progress at the time of reporting, with the hope that they would be completed later. In total, 231 policies have been completed since FY 2009.

Table 4-16. Community Coalition Smoke-Free Air Policy Efforts, FY 2009–FY 2015

	Policy Efforts						
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Number of funded coalitions	20	20	17	16	16	16	17
Total number of policies worked on in grant year	55	59	46	75	151	155	95
Number of policies completed (with some measure of success)	28	28	23	28	61	45	18
Number of policies in progress (as of June 30)	26	23	20	42	75	100	75
Number of policies unsuccessful	1	8	3	5	15	10	2

Table 4-17 summarizes the type of smoke-free air policies that Community Tobacco Coalitions have worked on from FY 2009 through FY 2015. Coalitions have consistently focused on smoke-free air policies in parks, playgrounds, and other recreational areas. Recently, other popular venues for pursuing smoke-free air policies have included business campuses (45 policies worked on in FY 2014) and outdoor public events (32, 24, and 12 policies worked on in FY 2013, FY 2014, and FY 2015, respectively). The Community Tobacco Coalitions tend to focus policy efforts on a variety of location types rather than exclusively targeting policies in one or two location types.

Table 4-17. Smoke-Free Air Policies Worked on by Community Tobacco Coalitions by Policy Location Type, FY 2009–FY 2015

Location Type	Policy Target													
	FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015	
Multi-Unit Housing (indoors & outdoors)	4	7%	6	10%	6	13%	9	12%	7	5%	26	17%	12	13%
Outdoor Dining Areas	1	2%	2	3%	2	4%	2	3%	0	0%	0	0%	0	0%
Building Entryways	10	18%	18	31%	8	17%	13	17%	35	23%	0	0%	9	9%
Outdoor Public Events	2	4%	3	5%	4	9%	9	12%	32	21%	24	15%	12	13%
Parks, Playgrounds, or other Recreational Areas	15	27%	15	25%	14	30%	23	31%	31	21%	36	23%	15	16%
Outdoor Pedestrian Areas/Sidewalks	1	2%	2	3%	3	7%	2	3%	7	5%	3	2%	10	11%
College/University Campus	N/A	N/A	N/A	N/A	N/A	N/A	6	8%	12	8%	14	9%	12	13%
Business Campus	15	27%	9	15%	9	20%	6	8%	23	15%	45	29%	12	13%
Healthcare Campus	N/A	N/A	N/A	N/A	N/A	N/A	1	1%	3	2%	5	3%	8	8%
Other	7	13%	4	7%	N/A	N/A	4	5%	1	1%	2	1%	3	3%

4.4.2 Public Support for Additional Smoke-Free Air Laws

Although Vermont has already made notable strides in enacting policies creating smoke-free environments, VTCP is working to continue these efforts and continue implementing policies that expand or extend smoke-free environments in Vermont. To assess community support for additional smoke-free air laws, VTCP has used statewide data collection tools, including the VT ATS and a poll conducted for VDH in 2012 by ICF Macro. Over half of the respondents (52%) in the 2012 Macro pool reported being aware of smoke-free outdoor spaces in their community (VDH Macro Poll, 2012).

Smoking Bans in Multi-Unit Housing

Despite Vermont’s focus on enacting smoke-free air policies for many years (see Section 2.24), exposure to secondhand smoke through multi-unit housing (MUH) remains a risk for many Vermonters as roughly 17% of Vermonters live in MUH (including apartments, townhouses, and condos) (VT ATS, 2012). Recent findings suggest that roughly 48% of nonsmokers living in MUH reported exposure to secondhand smoke in 2012 (VDH Macro Poll, 2012). Furthermore, smokers were significantly more likely than nonsmokers to live in a building with two or more apartments or a mobile home, indicating that secondhand smoke exposure in MUH is a real concern (VT ATS, 2014). VTCP is actively working to

expand secondhand smoke policies to address MUH, and an important step in that process is building public support for such policies.

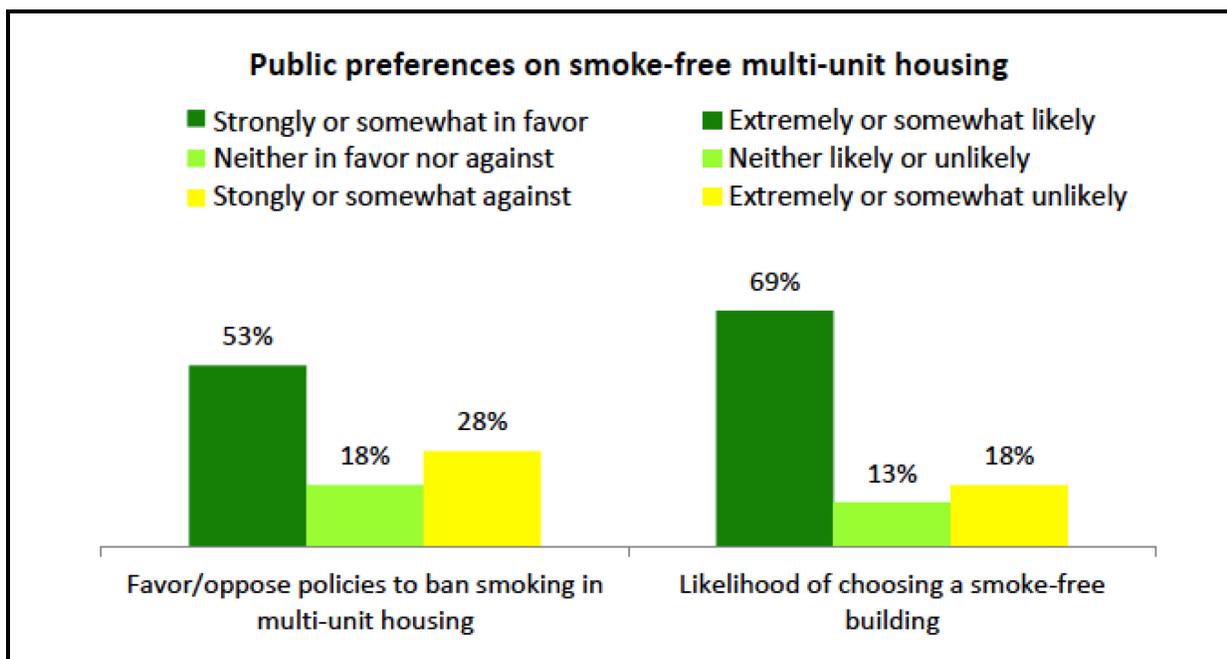
Support for a ban on smoking in MUH has remained largely the same from 2012 to 2014. In 2014, 54% of Vermonters were strongly or somewhat in favor of a ban on smoking in multi-unit complexes (Table 4-18). Support was notably higher among nonsmokers than among smokers (57% and 43%, respectively). Support for a smoking ban in MUH did not vary significantly by housing status. Among Vermonters living in a building with two or more apartments and Vermonters living in any other housing situation, between 35% and 39% were strongly in favor of banning smoking in MUH (VT ATS, 2014).

Table 4-18. Public Support for a Ban on Smoking in Multi-Unit Housing Complexes, Vermont Adult Tobacco Survey, 2012–2014

Year	Strongly in Favor	Somewhat In Favor	Neutral	Somewhat Against	Strongly Against
Vermonters					
2014	38%	16%	17%	11%	18%
2012	37%	16%	18%	12%	16%
Nonsmokers					
2014	42%	15%	16%	10%	17%
2012	42%	16%	16%	11%	14%
Smokers					
2014	21%	22%	21%	16%	21%
2012	20%	13%	24%	18%	26%

Beyond simply supporting these policies, 69% of Vermonters indicated that they would be somewhat or extremely likely to choose a smoke-free building over a building that permitted smoking if other amenities were equal (Figure 4-54) (VDH Macro Poll, 2012). Only 13% said they were extremely unlikely to make such a choice.

Figure 4-54. Public Preferences for Smoke-Free Multi-Unit Housing, VDH Macro Poll, 2012



Note: Reproduced from Vermont Department of Health (VDH). (March 2015d). Data Brief: Attitudes of Vermonters Regarding Secondhand Smoke and Point of Sale Policy.

Smoking Bans in Outdoor Public Areas

Although Vermont's Clean Indoor Air act bans smoking in indoor "places of public access," which does include within 25 feet of all state-owned businesses and offices, there are few restrictions on smoking in outdoor public areas. As described in Section 4.4.1, Community Tobacco Coalitions are actively working to enact local and voluntary bans on smoking in outdoor spaces, but a comprehensive statewide policy has not been enacted to date. Nonetheless, is the majority of Vermonters support such a policy. In 2014, roughly 64% of Vermonters supported a ban in outdoor public places (Table 4-19). Furthermore, the percentage of Vermonters, including both smokers and nonsmokers, who strongly support such a ban has increased significantly since 2012. About half of Vermonters (46%) and nonsmokers (52%), along with 23% of smokers, were strongly in favor of banning smoking in outdoor public places in 2014. Data from the 2012 Macro Poll suggest that support for an outdoor smoking ban may in fact be slightly higher than data from VT ATS suggest, as 57% of Vermonters indicated they were strongly or somewhat in favor of such a policy (Figure 4-55).

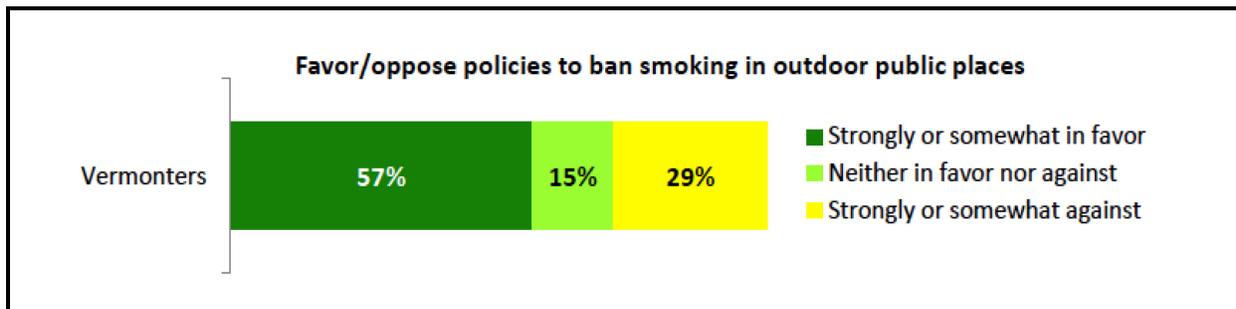
Table 4-19. Public Support for a Ban on Smoking in Outdoor Public Places, Vermont Adult Tobacco Survey, 2012 and 2014

Year	Strongly in Favor	Somewhat In Favor	Neutral	Somewhat Against	Strongly Against
Vermonters					
2014	46% ^a	18%	14%	10%	12%
2012	38%	19%	15%	13%	16%
Nonsmokers					
2014	52% ^a	17%	12%	9%	9%
2012	44%	20%	14%	10%	11%
Smokers					
2014	23% ^a	17%	24%	14%	21% ^b
2012	15%	13%	19%	21%	33%

^a Significant increase from 2012 to 2014.

^b Significant decrease from 2012 to 2014.

Figure 4-55. Public Sentiment Regarding a Ban on Smoking in Outdoor Public Places, VDH Macro Poll 2012



Note: Reproduced from Vermont Department of Health (VDH). (March 2015d). Data Brief: Attitudes of Vermonters Regarding Secondhand Smoke and Point of Sale Policy.

Smoking Bans in Public Entryways

Vermont’s Clean Indoor Air Act currently prohibits smoking within 25 feet of all state-owned businesses and offices, but this policy does not cover all other public entryways. Support for such a policy has remained relatively constant from 2012 to 2014, with 60% of Vermonters strongly in favor and 11% somewhat in favor of a ban on smoking in public entryways in 2014 (Table 4-20). In addition, 66% of nonsmokers and 39% of smokers favored such a ban in 2014.

Table 4-20. Public Support for a Ban on Smoking in Entrancesways of Public Buildings and Workplaces, Vermont Adult Tobacco Survey, 2012 and 2014

Year	Strongly in Favor	Somewhat In Favor	Neutral	Somewhat Against	Strongly Against
Vermonters					
2014	60%	11%	6%	7%	16%
2012	62%	10%	7%	6%	15%
Nonsmokers					
2014	66%	9%	4%	6%	15%
2012	68%	8%	6%	5%	14%
Smokers					
2014	39%	19%	13%	10%	19%
2012	38%	16%	12%	12%	22%

Smoking Bans in Vehicles

Data from the VDH 2012 Macro Poll indicate that there was overwhelming support among Vermonters for a ban on smoking in vehicles when children are present (81%). The majority of all demographic and geographic groups supported a complete ban. Findings from the 2014 VT ATS echo this sentiment, with roughly 89% of Vermonters and 96% of nonsmokers favoring a ban on smoking in vehicles.

4.4.3 Exposure to Secondhand Smoke

Secondhand smoke is a major cause of disease among healthy nonsmokers, with nearly 50,000 deaths each year in the United States attributable to secondhand smoke (Macro Poll, 2012). The U.S. Surgeon General has concluded that there is no risk-free level of exposure to tobacco smoke and that the duration and level of exposure to tobacco smoke are directly related to the risk and severity of disease (USDHHS, 2010). One of VTCP’s four key goals is to reduce Vermonters’ exposure to secondhand smoke. VTCP addresses this through a number of key activities, including statewide and community efforts to create smoke-free environments through state laws and local ordinances or policies. VTCP also supports efforts to create smoke-free environments and reduce exposure to secondhand smoke through mass-reach health communication interventions. VTCP media campaigns promoting smoke-free environments include the “Take It Outside” and “Smoke Free Zone” campaigns that encouraged adults not to smoke around children. VTCP’s efforts and activities aimed at creating smoke-free environments and reducing exposure to secondhand smoke in Vermont are discussed in greater detail in Section 3. In this section, we present trends in the percentage of Vermonters who prohibit smoking in their homes and vehicles as well as the

percentage of Vermonters who are exposed to secondhand smoke in homes, vehicles, and in public.

Data on adults’ exposure to secondhand smoke in Vermont are available from the VT ATS, which asks respondents about the voluntary prohibition of smoking in their homes and vehicles and their exposure to secondhand smoke in homes, vehicles, and in public. Youth are not surveyed by the VT ATS; however, VT ATS respondents are asked whether there is a child younger than age 18 in the household. Adult behaviors with respect to household and vehicle smoking rules may affect youth health and smoking behaviors. Secondhand smoke exposure among Vermont middle and high school students is assessed by the Vermont YRBS.

Nearly all Vermont adults who are nonsmokers do not allow smoking in their homes (93% in 2014, up from 90% in 2012) (Figure 4-56). The percentage of Vermont adult smokers who do not allow smoking in their homes increased from 63% in 2012 to 69% in 2014. When limiting results to nonsmokers and smokers with children in the home, the percentage of adult Vermonters who do not allow smoking in their homes increased: 97% of nonsmokers and 80% of smokers with children do not allow smoking in the home (Figure 4-57).

Figure 4-56. Percentage of Vermont Adults Who Do Not Allow Smoking in Their Home, Vermont Adult Tobacco Survey, 2012–2014

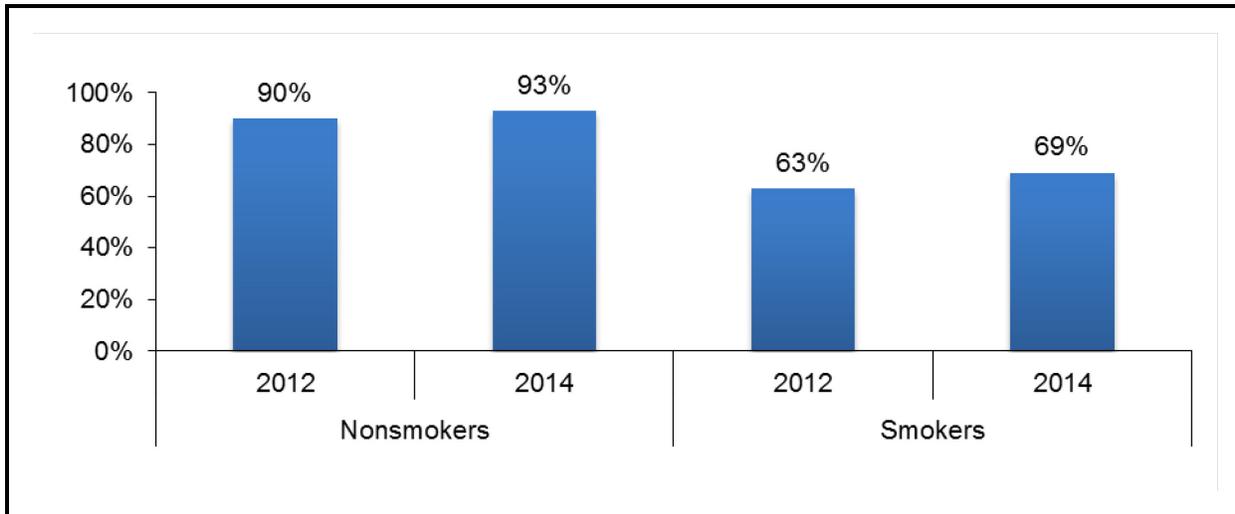
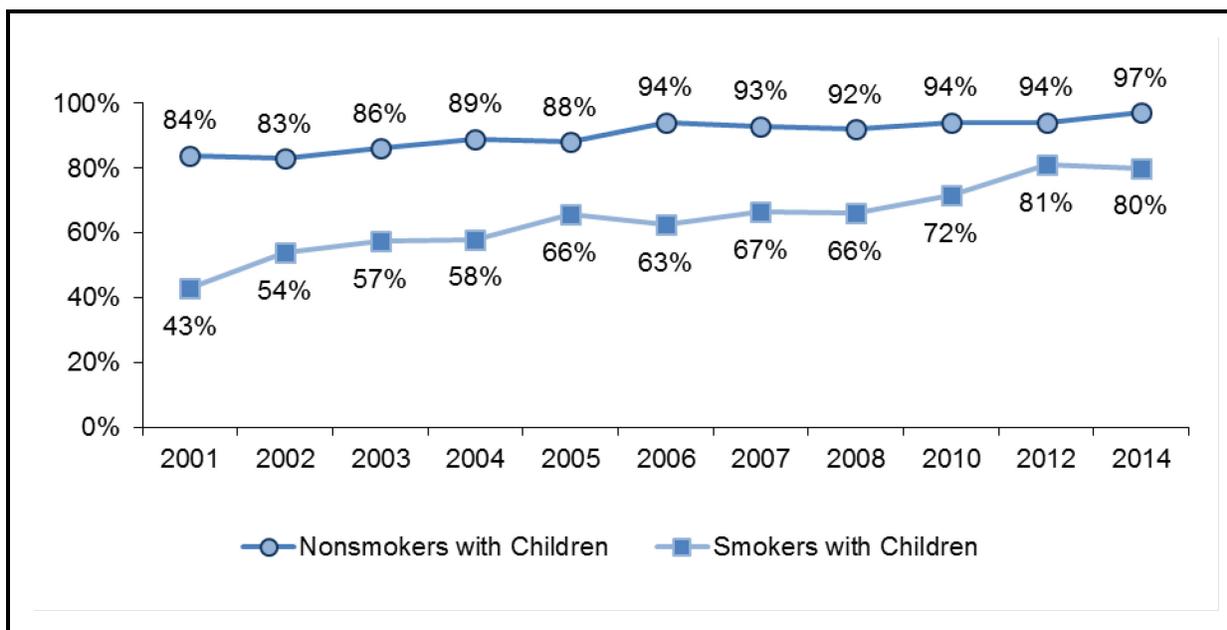


Figure 4-57. Percentage of Vermont Adults with Children Who Do Not Allow Smoking in Their Home, Vermont Adult Tobacco Survey, 2012–2014



Exposure to secondhand smoke in homes has become rare among nonsmokers in Vermont. The percentage of adult nonsmokers who reported that no one smoked in the house in the past 7 days was 96% in 2012 and 97% in 2014 (Figure 4-58). Not surprisingly, a higher percentage of adult smokers reported exposure to secondhand smoke in the home in the past 7 days, but this percentage appears to have increased somewhat between 2012 and 2014. The percentage of adult Vermont smokers who reported that no one smoked in the home in the past 7 days was 67% in 2012 and 71% in 2014. A lower percentage of smokers with children reported exposure to secondhand smoke in the home in the past 7 days. The percentage of Vermont smokers with children who reported that no one smoked in the home in the past 7 days increased significantly from 52% in 2002 to 81% in 2014 (Figure 4-59). About one-third of Vermont middle school students reported being in the same room with someone who was smoking in the past 7 days in 2011 and 2013 (Figure 4-60). Exposure to secondhand smoke among Vermont high school students has declined slightly in recent years. The percentage of Vermont high school students who reported being in the same room with someone who was smoking in the past 7 days decreased from 49% in 2009 to 41% in 2013 (Figure 4-60).

Figure 4-58. Percentage of Vermont Adults Reporting That No One Smoked in the Home in the Past 7 Days, Vermont Adult Tobacco Survey, 2012–2014

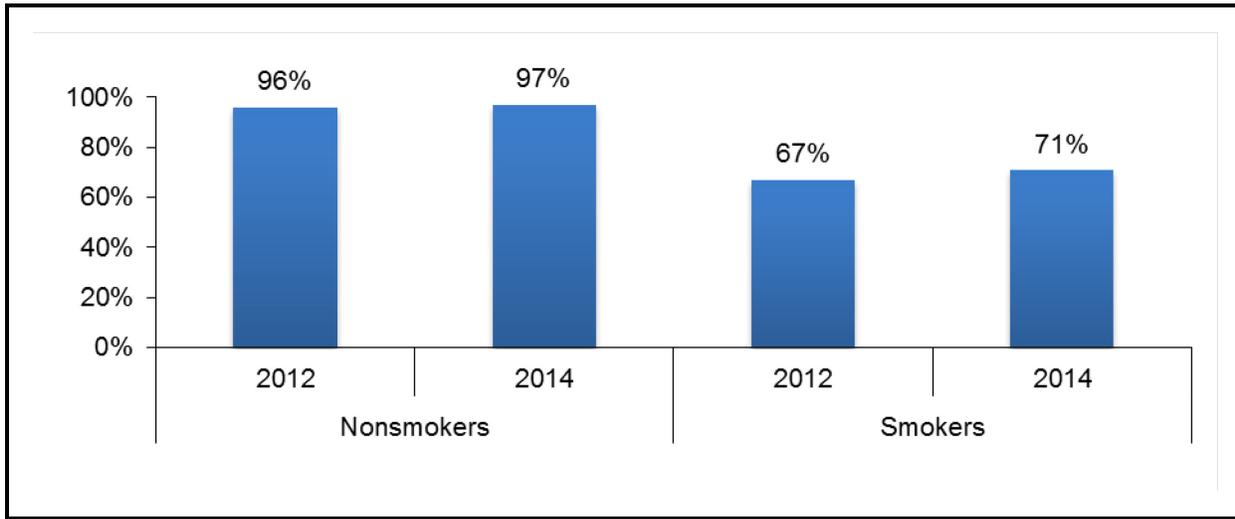


Figure 4-59. Percentage of Vermont Smokers with Children Reporting That No One Smoked in the Home in the Past 7 Days, Vermont Adult Tobacco Survey, 2012–2014

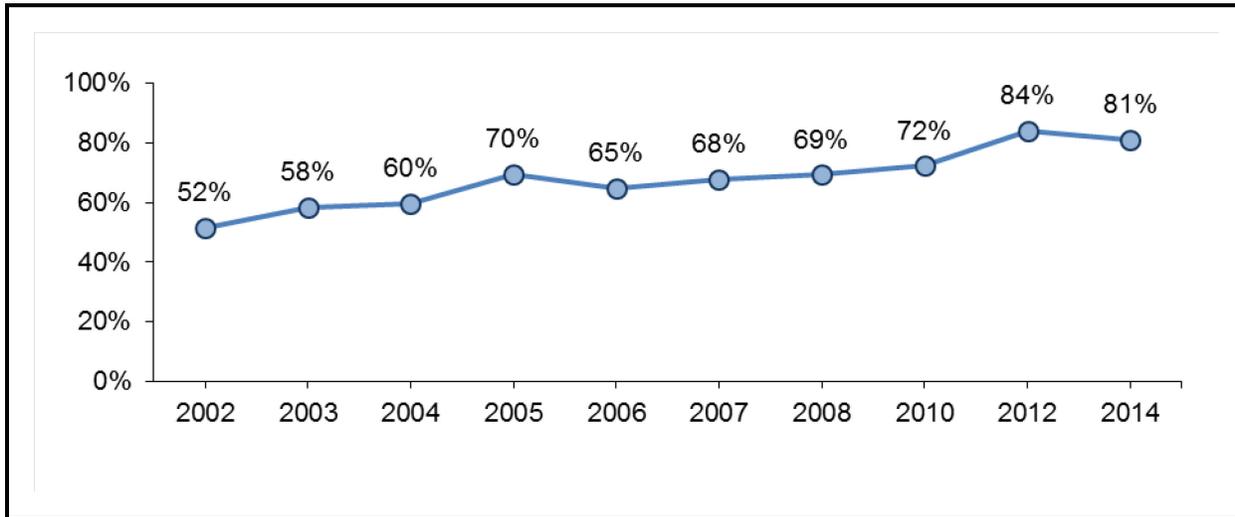
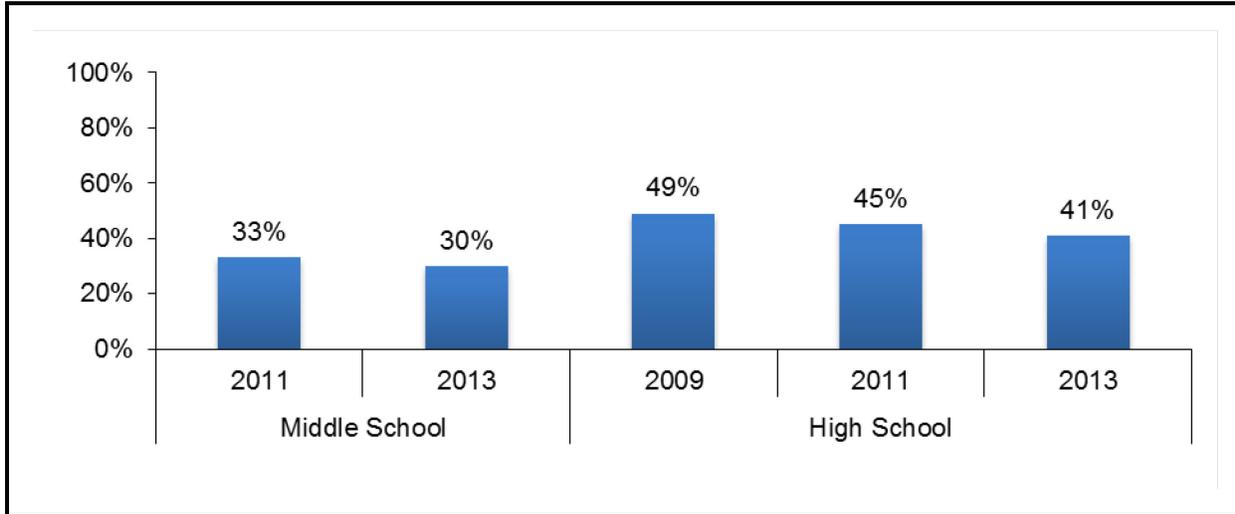


Figure 4-60. Percentage of Vermont Middle and High School Students Who Were in the Same Room with Someone Who was Smoking Cigarettes in the Past 7 Days, Vermont Youth Risk Behavior Survey, 2009–2013



The majority of Vermont adult smokers do not allow smoking in their vehicle when children are present, and this has increased significantly from 54% of Vermont adult smokers in 2001 to 89% of Vermont adult smokers in 2014 (Figure 4-61). The percentage of Vermont adults exposed to secondhand smoke in vehicles in the past 7 days depends on their smoking status. The percentage of nonsmokers exposed to secondhand smoke in a vehicle in the past 7 days decreased from 12% in 2002 to 9% in 2014, whereas the percentage of smokers exposed to secondhand smoke in a vehicle in the past 7 days decreased from 63% in 2002 to 52% in 2014 (Figure 4-62). Less than one-quarter of Vermont's middle school students were in the same vehicle with someone who was smoking in 2011 (25%) and 2013 (22%) (Figure 4-63). The percentage of Vermont high school students who reported being in the same vehicle as someone who was smoking in the past 7 days decreased from 39% in 2009 to 31% in 2013.

Figure 4-61. Percentage of Vermont Adult Smokers Who Do Not Allow Smoking in Vehicle When Children Are Present, Vermont Adult Tobacco Survey 2001–2010

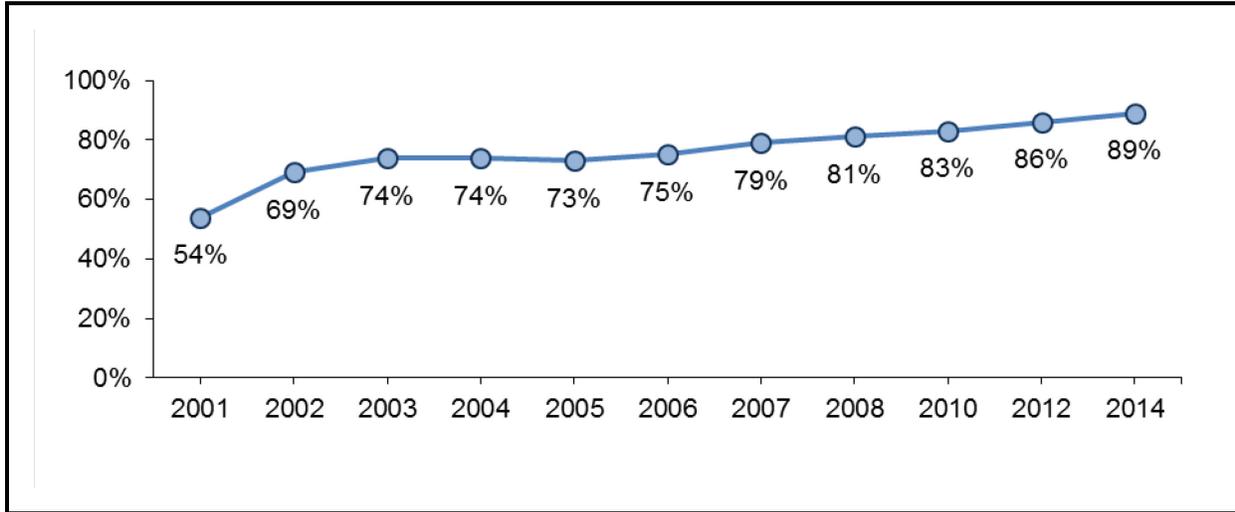


Figure 4-62. Percentage of Vermont Adults Exposed to Secondhand Smoke in Vehicle in the Past 7 Days, Vermont Adult Tobacco Survey 2002–2014

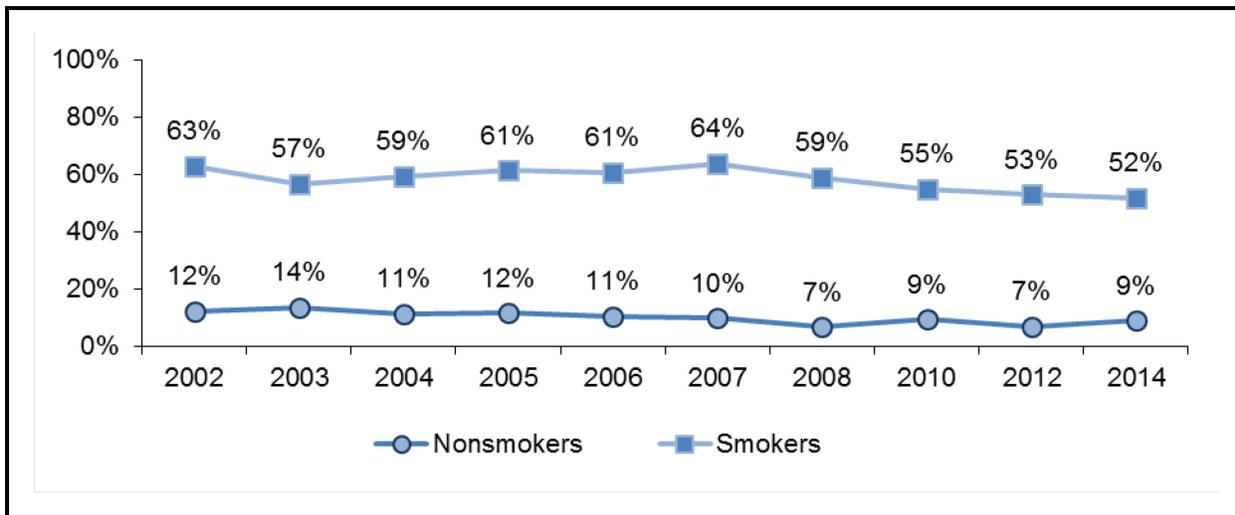
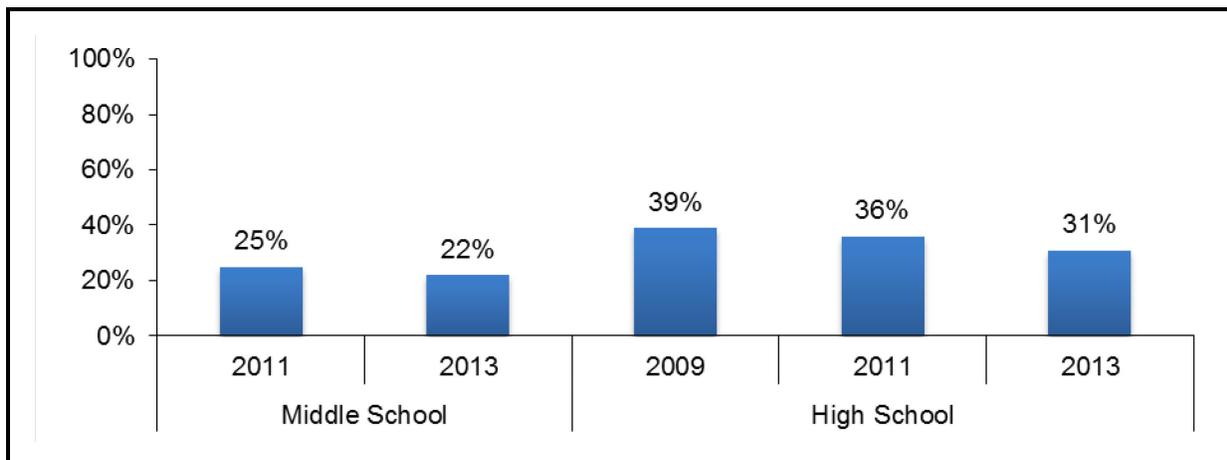
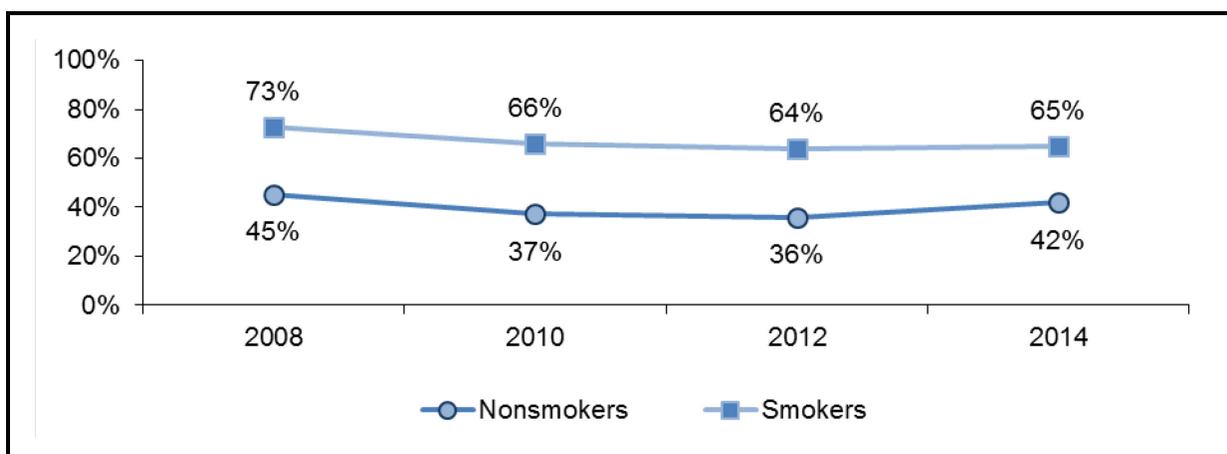


Figure 4-63. Percentage of Vermont Middle and High School Students Who Were in the Same Vehicle with Someone Who was Smoking Cigarettes in the Past 7 Days, Vermont Youth Risk Behavior Survey, 2009–2013



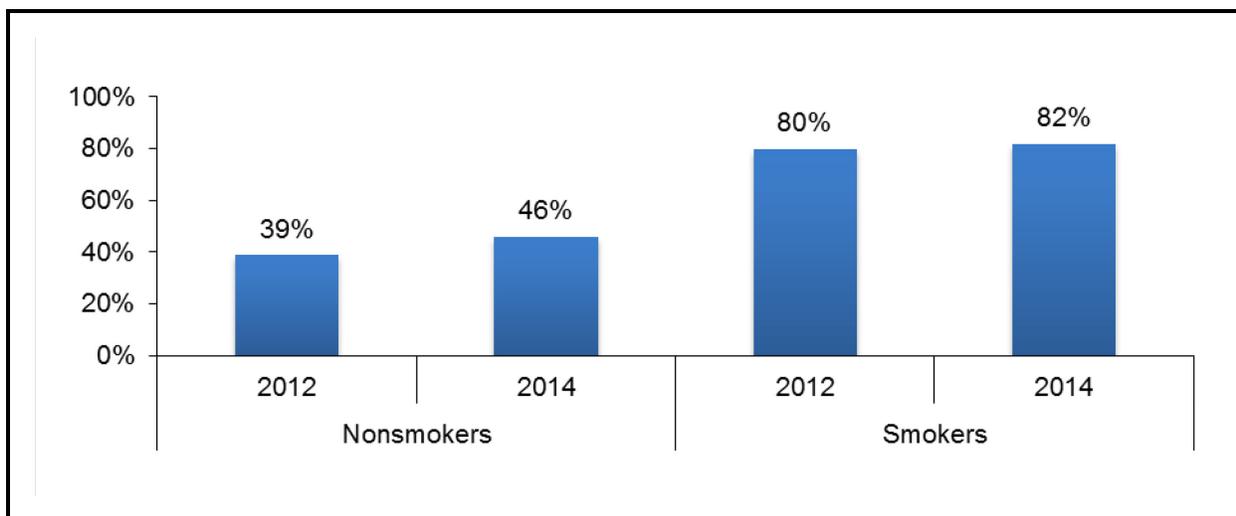
Exposure to secondhand smoke in public may be declining slightly. The percentage of adult nonsmokers in Vermont who were exposed to secondhand smoke in public in the past 7 days decreased from 45% in 2008 to 36% in 2012 but then increased to 42% in 2014 (Figure 4-64). The increase in secondhand smoke exposure in public among nonsmokers may be a result of an increase in policies creating smoke-free environments in Vermont, with the result being an increase in smokers going outside and smoking in public places where nonsmokers are being exposed to secondhand smoke. The percentage of adult smokers in Vermont who were exposed to secondhand smoke in public in the past 7 days decreased from 73% in 2008 to 65% in 2014.

Figure 4-64. Percentage of Vermont Adults Exposed to Secondhand Smoke in Public in the Past 7 Days, Vermont Adult Tobacco Survey 2008–2014



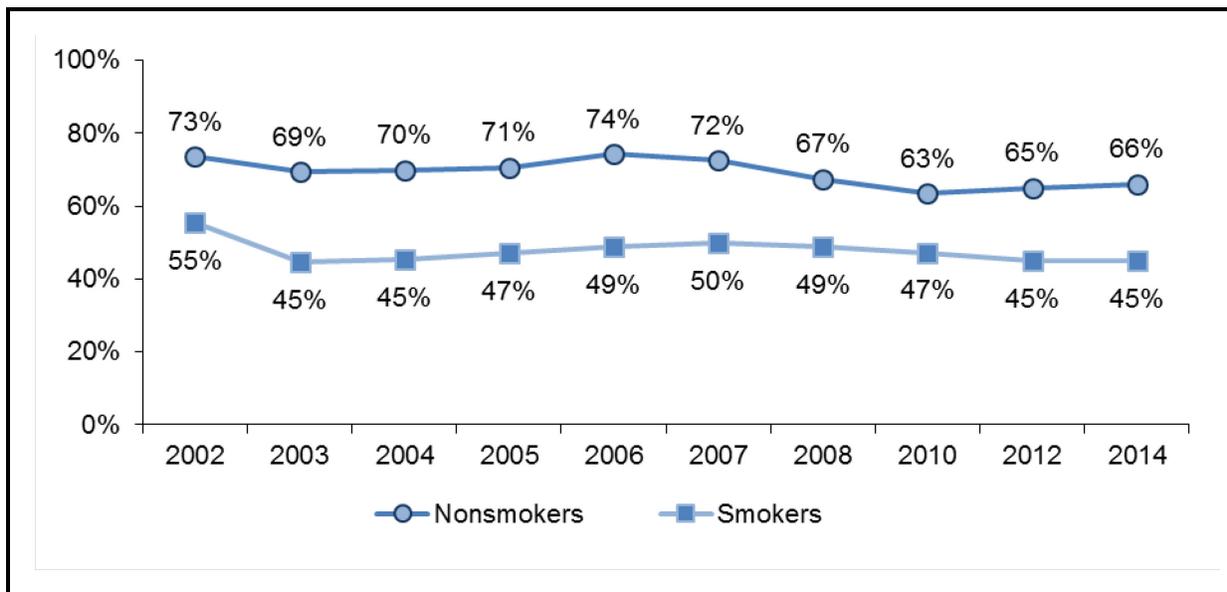
Overall exposure to secondhand smoke in homes, vehicles, or public in the past 7 days has remained relatively stable among Vermont smokers, with 80% of Vermont adult smokers reporting exposure to secondhand smoke in their home, a vehicle, or in public in the past 7 days in 2012 and 2014 (Figure 4-65). However, overall exposure to secondhand smoke among nonsmokers increased from 39% in 2012 to 46% in 2014. As discussed above, this increase is likely a result of an increase in policies creating smoke-free environments in Vermont, resulting in more smokers going outside to smoke in public places where nonsmokers are being exposed to their smoke.

Figure 4-65. Percentage of Vermont Adults Exposed to Secondhand Smoke in the Past 7 Days (Homes, Vehicles, or Outdoors), Vermont Adult Tobacco Survey 2012–2014



In 2014, a significantly higher proportion of nonsmokers than smokers in Vermont believed that breathing smoke from other people’s cigarettes is “very harmful” to one’s health (66% vs. 45%) (Figure 4-66). Since VTCP began, Vermonters’ attitudes and beliefs have softened regarding the harmfulness of secondhand smoke exposure. In 2014, significantly fewer Vermont adults, both nonsmokers and smokers, believed that breathing smoke from other people’s cigarettes is “very harmful” to one’s health than in 2002. There has been little change in the perceived harmfulness of secondhand smoke exposure in Vermont since 2008.

Figure 4-66. Percentage of Vermont Adults Who Believe that Breathing Smoke from Other People’s Cigarettes Is Very Harmful, Vermont Adult Tobacco Survey 2002–2014



4.5 Minimizing the Use of Other Tobacco Products and Tobacco Substitutes in Vermont

Another primary goal of VTCP is to maintain a low prevalence of OTP use. Throughout the United States, patterns of tobacco use are changing, with more intermittent use of cigarettes and increases in the use of OTPs, including new and emerging tobacco products, such as e-cigarettes, that are being heavily marketed and promoted (CDC, 2014). VTCP is placing increased emphasis on the use of OTPs and tobacco substitutes, such as e-cigarettes, particularly among youth and young adults in Vermont. VTCP added this goal in response to increased tobacco industry promotion of these products as well as state and national data that show increasing use of these products. Much like cigarettes, OTPs are addictive and associated with negative health consequences. Cigar smoke has higher concentrations of toxic and carcinogenic compounds than cigarettes, and substitution of cigars by cigarette smokers does not reduce the risk of nicotine addiction (Baker et al., 2000).

E-cigarettes have become an important and emerging focus, both in Vermont and nationally, since the proliferation, marketing, and use of e-cigarettes has increased. U.S. sales of e-cigarettes have doubled every year since they were introduced, reaching \$2 billion annually in 2013 (Herzog, Gerberi, & Scott, 2014). The majority (84%) of e-cigarette users also smoke conventional cigarettes (Lee et al., 2014). E-cigarettes are also heavily marketed and promoted. Annual advertising expenditures for e-cigarettes across various

media channels tripled from \$6.4 million in 2011 to \$18.3 million in 2012, particularly in magazines and on television (Kim et al., 2014a). Smokers, in particular, are receptive to e-cigarette television advertisements and report their intention to try e-cigarettes after viewing an advertisement (Kim et al., 2013). The online marketplace for e-cigarettes is thriving and more diverse than the product offerings available through traditional brick-and-mortar offerings; the top brands mentioned in tweets, except for blu eCigs, are not the leading brands advertised on other media channels (e.g., television) or sold in retail stores (Kim et al., 2014a). A recent national study found that e-cigarettes were available in more than 30% of stores sampled, and the 2013 Florida Retail Advertising Tracking Survey (RATS) found that e-cigarettes were available in 71% of retail stores statewide (Loomis et al., 2013a). Studies have also shown an increase in e-cigarette vape stores that specialize in selling e-cigarettes (Lee & Kim, 2014). For youth, e-cigarettes may also serve as a gateway to traditional cigarette use (Glynn, 2014).

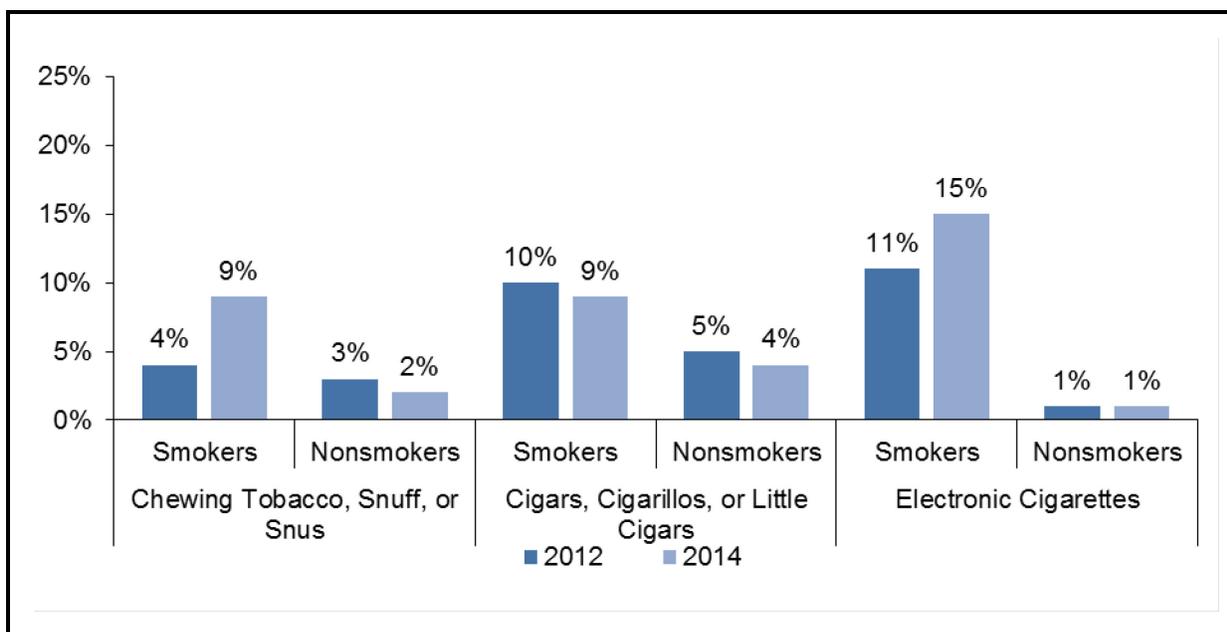
In addition to rampant advertising and promotion of e-cigarettes, there are also concerns about the health effects associated with e-cigarette use. E-cigarettes are battery-powered devices that produce an inhalable aerosol from a heated liquid that is inhaled by the user and then exhaled as a vapor emission. E-cigarettes are not regulated by FDA. Although e-cigarettes have been marketed as a cessation aid and an increasing number of smokers are using e-cigarettes to help them quit smoking traditional cigarettes, e-cigarettes have not been approved by FDA as a smoking cessation device. Without federal oversight of e-cigarettes, the concentration of nicotine, toxicity of ingredients, and the devices themselves vary. Poison control centers across the nation receive over 200 calls a month related to e-cigarette liquid. Most of the calls are due to children touching or drinking the e-cigarette liquid. The vapor emissions given off by e-cigarettes may also contain toxins that others are exposed to, similar to secondhand smoke. Recent studies suggest that e-cigarettes may affect respiratory and heart health for users and others who are exposed to vapor emissions secondhand (Pisinger & Dossing, 2014). Aerosol from e-cigarettes is not as safe as clean air and may contain harmful toxins and psychoactive substances (American Hygiene, 2014). E-cigarettes are a nicotine delivery device and have a similar effect on the brain as cigarettes and OTPs, posing the same risk of nicotine addiction (Kandel & Kandel, 2014). Nicotine exposure can cause increases in heart rate and blood pressure and can also be poisonous if the body absorbs too much. Another problematic aspect of e-cigarettes is the availability of flavored liquid, including candy and fruit, many of which appeal to youth. Some e-cigarette devices can be refilled and recharged, whereas others are inexpensive and disposable, which is also appealing to youth.

Because of these concerns regarding e-cigarettes, VDH is working with community partners to restrict youth access to e-cigarettes across Vermont. In 2014, the Vermont Legislature made school grounds, school events, and child care centers tobacco and tobacco substitute free. Many companies are now restricting the use of e-cigarettes as part of their healthy

workplace policies. VDH recommends that employers include e-cigarettes in their tobacco-free or smoke-free policies. A uniform policy that includes all forms of tobacco and tobacco substitutes sends a strong health message and protects employees (VDH E-Cigarette Fact Sheets, <http://www.healthvermont.gov/prevent/tobacco/ecigarettes.aspx>).

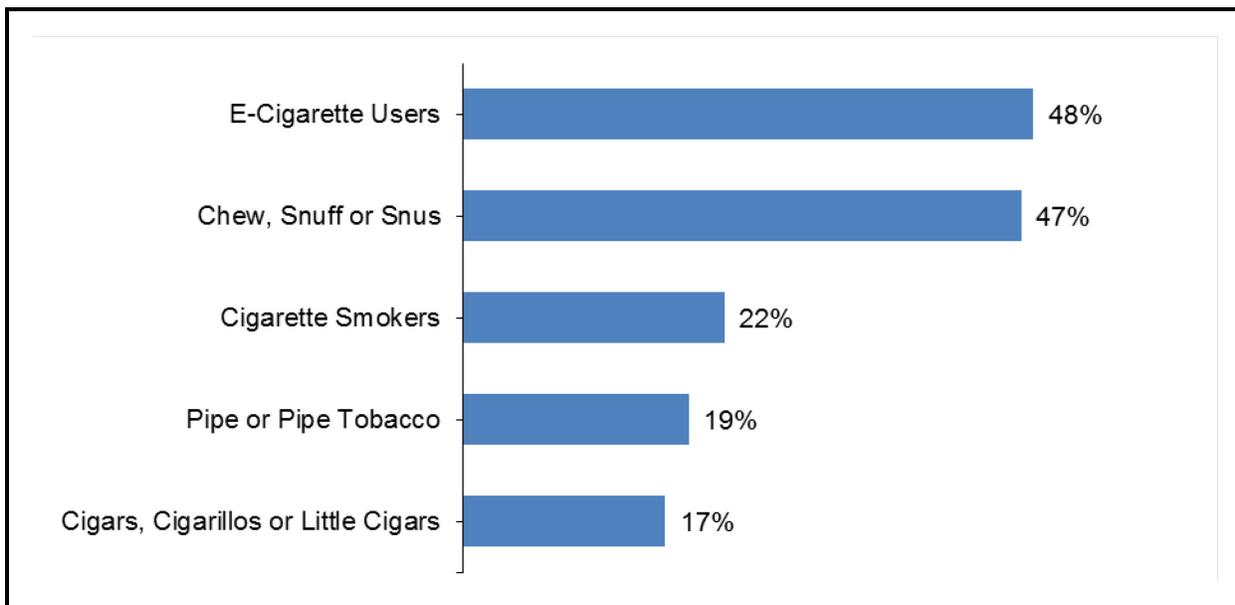
The prevalence of smokeless tobacco use in Vermont is relatively low. Data from the BRFSS indicate that the percentage of Vermont adults who use smokeless tobacco has been at about 3% since 2008. The prevalence of OTP use among Vermont adults was consistently higher in 2012 and 2014 among adults who also currently smoke cigarettes (Figure 4-67). The percentage of Vermont smokers who also use chewing tobacco, snuff, or snus increased from 4% in 2012 to 9% in 2014. The percentage of Vermont smokers who also use cigars, cigarillos, or little cigars increased from 10% in 2012 to 9% in 2014. In 2012, the VT ATS asked respondents about their use of cigars, pipes, or pipe tobacco, and indicated that about 10% of Vermont smokers used cigars, pipes, or pipe tobacco. The OTP with the highest prevalence is e-cigarettes. Although not statistically significant, the prevalence of Vermont adult smokers who also used e-cigarettes increased from 11% in 2012 to 15% in 2014. Based on data from the 2014 VT ATS, 11% of Vermont's current adult cigarette smokers have completely switched from traditional cigarettes to e-cigarettes. Data from the 2012 VT ATS also show relatively high prevalence of OTP use among young adults in Vermont. In 2012, among Vermont young adults aged 18 to 24, 14% of nonsmokers and 15% of smokers used cigars, pipes, or pipe tobacco. In 2012, 8% of Vermont young adults used e-cigarettes.

Figure 4-67. Percentage of Vermont Adults Who Currently Use Other Tobacco Products or Tobacco Substitutes by Current Cigarette Smoking Status, Vermont Adult Tobacco Survey, 2012–2014



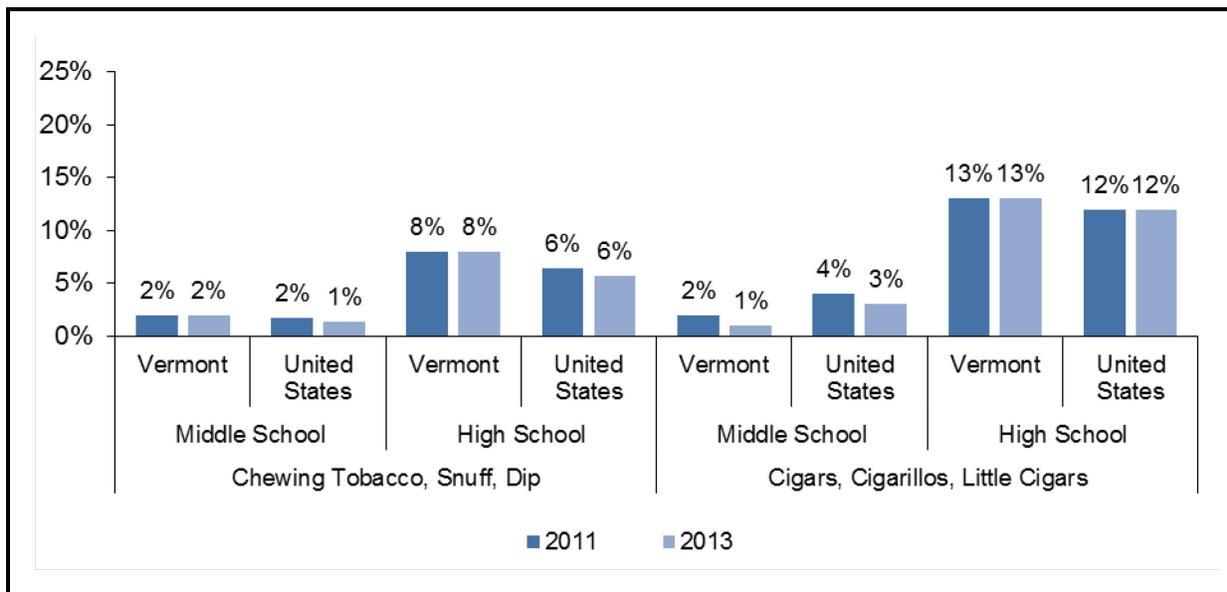
Flavored tobacco products may encourage tobacco initiation among youth. In 2014, nearly half of current adult users of chew, snuff or snus, and e-cigarettes reported using a flavored version of those products (Figure 4-68). In contrast, less than one-quarter of current cigarette, cigar, cigarillo, or little cigar, and pipe or pipe tobacco users reported using flavored products. The fact that cigar products can still contain characterizing flavor may contribute to the high prevalence of current cigar use, especially among youth—cigar brands that produce flavored products tend to be more popular among youth than brands without flavored products (Delnevo, Giovenco, Ambrose, Corey, & Conway, 2014).

Figure 4-68. Percentage of Current Adult Tobacco Users in Vermont Who Use Flavored Tobacco Products, Vermont Adult Tobacco Survey, 2014



Vermont middle school and high school students are using chewing tobacco, snuff, and dip at similar rates to the United States, and these rates did not change significantly between 2011 and 2013 (Figure 4-69). Among Vermont high school students, 8% used chewing tobacco, snuff, or dip in the past 30 days in both 2011 and 2013. Vermont middle school and high school students are also smoking cigars, cigarillos, and little cigars at rates similar to the United States (Figure 4-69). Among Vermont high school students, 13% smoked cigars, cigarillos, or little cigars in the past 30 days in both 2011 and 2013. Nationally, the use of e-cigarettes among high school students has increased at an alarming rate. The percentage of high school students in the United States who used e-cigarettes on one or more of the past 30 days increased from 2% in 2011 to 13% in 2014 (NYTS). The percentage of middle school students in the United States who used e-cigarettes on one or more of the past 30 days increased from 1% in 2011 to 4% in 2014 (NYTS). Data on

Figure 4-69. Percentage of Middle School and High School Students Who Used Other Tobacco Products in the Past 30 Days, Vermont Youth Risk Behavior Survey and National Youth Tobacco Survey, 2011–2013



e-cigarette use among Vermont youth were not collected in the 2013 Vermont YRBS. Looking at tobacco products as a whole, in 2012, over one-fifth of high school students in the United States currently used a tobacco product (traditional cigarettes, cigars, smokeless tobacco, pipes, bidis, kreteks), and almost half of these currently used two or more tobacco products (Arrazola, Kuiper, & Dube, 2014).

In 2014, 38% of the adult electronic cigarette users in Vermont did not believe that e-cigarettes are very harmful (Figure 4-70). By contrast, 23% of non-e-cigarette users believed that e-cigarettes are very harmful, and 30% believed they are somewhat harmful. An additional 34% of non-e-cigarette users and 13% of e-cigarette users reported that they did not know whether e-cigarettes were harmful or not. In 2014, 62% of non-OTP users believed that adults should definitely not use OTPs, whereas only 19% of current OTP users believed that adults should definitely not use OTPs (Figure 4-71). In terms of community perceptions, 33% of non-OTP users felt that most adults in their community believe that adults should definitely not use OTPs, whereas 15% of current OTP users felt that most adults in their community believe that adults should definitely not use OTPs (Figure 4-72).

Figure 4-70. Perceived Harmfulness of Electronic Cigarettes, Vermont Adult Tobacco Survey, 2014

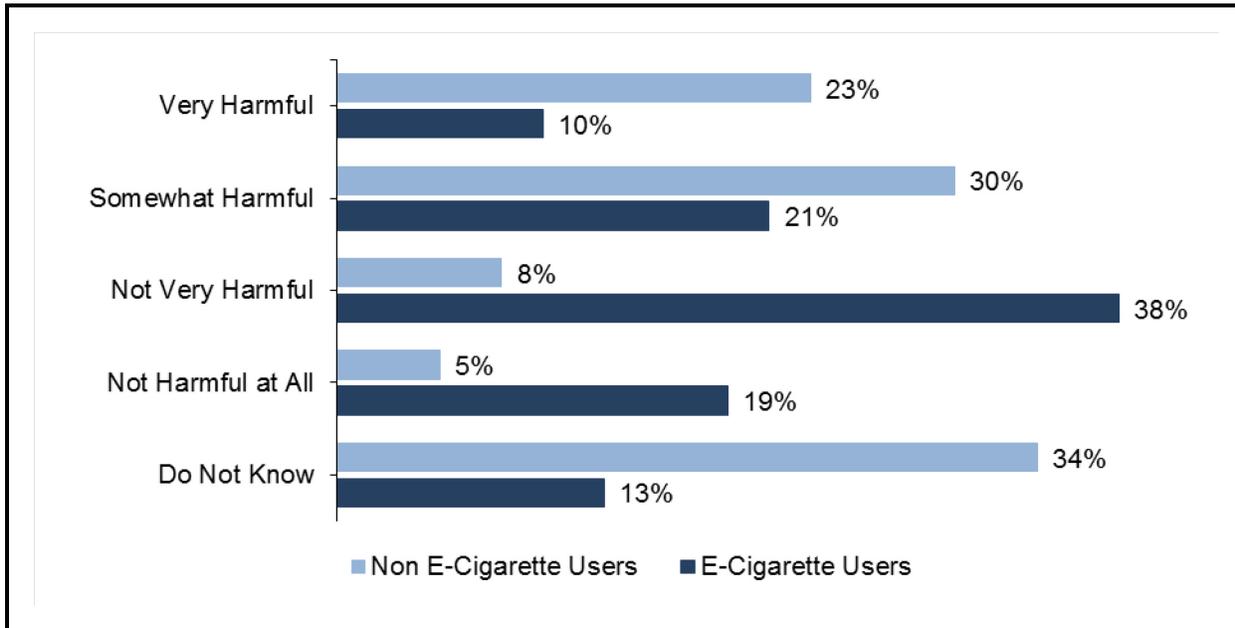


Figure 4-71. Personal Views about Adult Other Tobacco Product Use, Vermont Adult Tobacco Survey, 2014

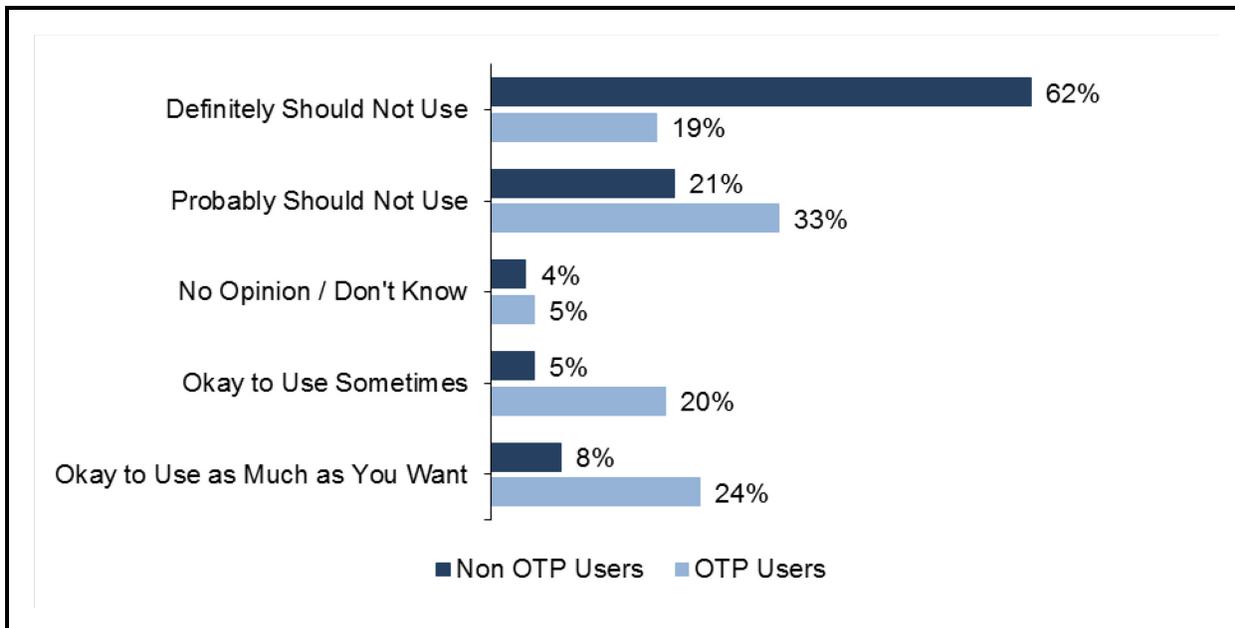
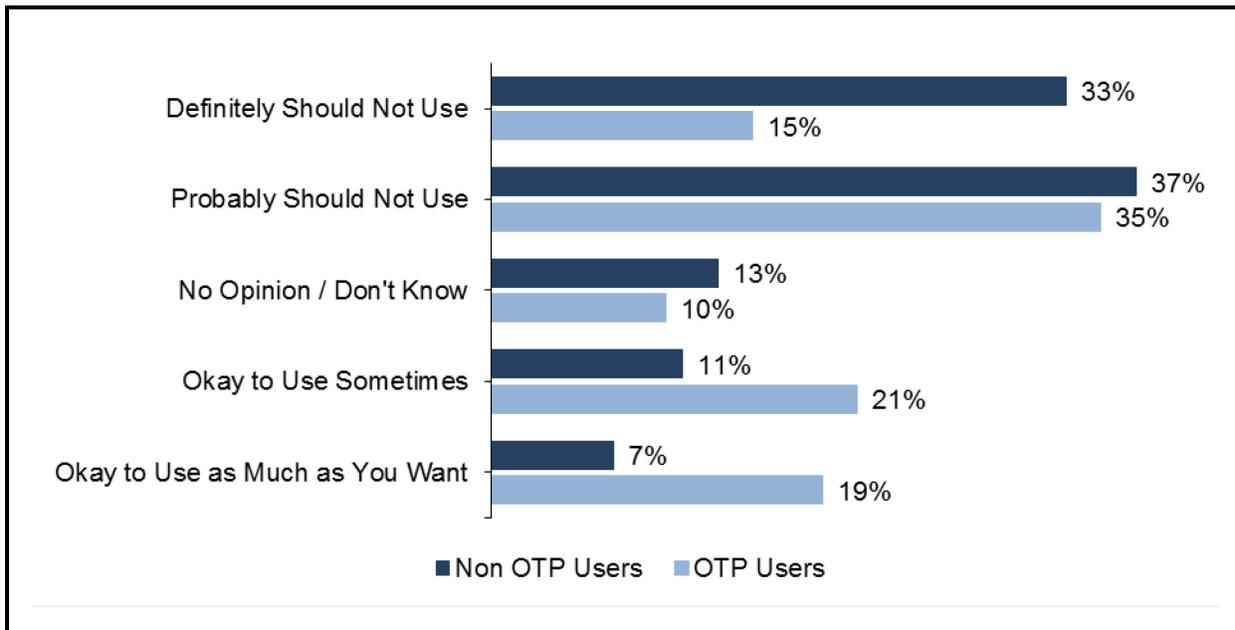


Figure 4-72. Perceived Community Views about Adult Other Tobacco Product Use, Vermont Adult Tobacco Survey, 2014



5. Discussion

Every year, approximately 900 Vermonters die from smoking-related diseases (CDC, 2014). Annual smoking-related deaths result in nearly 11,000 years of potential life lost (CDC, 2007). Smoking also imposes a tremendous economic burden on Vermont. Smoking-related health care costs and lost productivity in Vermont total more than \$430 million per year (CDC, 2007). Smoking is responsible for approximately \$348 million in direct medical expenses in Vermont annually (CDC, 2014). A large portion of the health care costs resulting from smoking are accounted for by Medicaid smokers, and Vermont directly pays for a large portion of the Medicaid smoking-related health care costs associated with smoking in the state. From 2001 through 2014, we estimated that Vermont paid \$787 million in smoking-related health care costs for Medicaid smokers; the total would have been slightly over \$1 billion over that same period if adult smoking rates in Vermont had remained at 2001 levels. Declines in adult smoking prevalence in Vermont are estimated to have saved the state at least \$245 million from 2001 through 2014. In addition to the health care costs associated with smoking, the habit of smoking is also tremendously expensive and financially burdensome to Vermont smokers. A pack-a-day smoker spends at least \$7 per day on cigarettes (\$2,520 per year).

In 2000, the Vermont Legislature made a commitment to the health and well-being of Vermonters, especially youth, by creating the Vermont Tobacco Control Program (VTCP). Under the direction of the Vermont Tobacco Evaluation and Review Board (VTERB), an independent, state-appointed board that coordinates and oversees the program, VTCP brings together multiple state agencies, such as the Vermont Department of Health (VDH), the Vermont Agency of Education, the Vermont Department of Liquor Control, and the Vermont Attorney General's Office. VTCP is a comprehensive, evidence-based program that is based on, and incorporates, the guidelines and recommendations established by the Centers for Disease Control and Prevention (CDC) (2014) in its *Best Practices for Comprehensive Tobacco Control Programs* as well as other federal guidelines and recommendations for comprehensive tobacco control programs. VTCP aims to reduce adult and youth tobacco use in Vermont, eliminate exposure to secondhand smoke, and minimize the use of other tobacco products (OTPs) and tobacco substitutes, such as electronic cigarettes (e-cigarettes).

In the 16 years since VTCP was created by the Vermont Legislature, the program has achieved success in several key outcomes. Both adult and youth tobacco use in Vermont have declined significantly. The percentage of Vermont adults who currently smoke has decreased significantly from 22% in 2001 to 17% in 2013. Nearly 90% of U.S. smokers start smoking by the time they are 18 years old, and 99% start by the time they are 26 years old (CDC, 2014). Some smokers first use cigarettes in young adulthood, and a significant proportion of smokers establish regular smoking patterns during this period in

the life course (Freedman, Nelson, & Feldman, 2012). Because of the tremendous adverse health effects associated with smoking, in order to sufficiently address and overcome the tobacco use epidemic in Vermont, it is imperative to prevent youth from starting to use tobacco and becoming the next generation of Vermont tobacco users who suffer from nicotine and tobacco dependence and addiction. Since VTCP began, the prevalence of smoking among Vermont high school students has significantly decreased from 24% in 2001 to 13% in 2013.

Exposure to secondhand smoke in Vermont has also significantly decreased since VTCP began. The percentage of Vermont nonsmokers and smokers who voluntarily prohibit smoking in their homes and vehicles has increased significantly since VTCP began in 2000. The percentages of adult Vermonters, both nonsmokers and smokers, and Vermont middle school and high school students who report being exposed to secondhand smoke in the past 7 days in homes, vehicles, and in public have also decreased. These findings are a testament to the effectiveness of VTCP and its partners in promoting social norm changes where smoke-free environments are the norm in Vermont and in promoting and supporting Vermont legislation creating smoke-free environments. With promotion and support from VTCP and its program partners, the Vermont Legislature and local counties and towns have enacted and implemented numerous laws and policies creating smoke-free environments. Since 2005, Vermont has had a comprehensive statewide smoke-free air law in place. VTCP has successfully worked with the Vermont Legislature to remove loopholes and exemptions from Vermont's statewide smoke-free air law and has worked at the state and local levels to facilitate the implementation of new laws and policies creating additional smoke-free environments in Vermont.

CDC recommends that states pursue the following tobacco control strategies: increase the price of tobacco products, enact comprehensive smoke-free policies, fund hard-hitting mass media campaigns, and make cessation services fully accessible to tobacco users. Tobacco control interventions aimed at adolescents are critical for the long-term reduction in tobacco use and for preventing future incidence of tobacco-related death and disease. Research has shown that increasing the unit price of tobacco products, enacting comprehensive smoke-free air laws, and implementing comprehensive and adequately funded state tobacco control programs are effective strategies for reducing youth and adult smoking (CDC, 2014). CDC also indicates that reducing youth exposure to tobacco advertising and promotion in the retail environment is an effective strategy for reducing youth tobacco use (CDC, 2014).

VTCP's approach is consistent with CDC's guidelines and recommendations, and VTCP implements all of the overall and youth-focused tobacco control program strategies recommended by CDC with some measure of success in each area. VTCP works with state and community partners to deliver a suite of evidence-based interventions, including state and community efforts to implement legislation and policies that have been shown to reduce tobacco use and eliminate exposure to secondhand smoke; a comprehensive set of

cessation programs and services, such as cessation counseling and nicotine replacement therapies (NRT), offered at no cost to Vermont tobacco users through the 802Quits program; efforts to promote and facilitate health systems change to ensure that health systems and health care providers systematically screen for tobacco use and intervene with their patients regarding their tobacco use, including making referrals to 802Quits programs; working to expand health insurance coverage for and use of cessation treatments; and mass-reach health communication efforts, such as a wide variety of mass media, including television, digital media, social media, and targeted mass mailings designed to promote population-level quitting and drive tobacco users to VTCP's cessation programs offered through 802Quits. VTCP has evolved over time and adapted its approach to be consistent with new guidelines and recommendations from CDC and other federal agencies. VTCP has also been actively interested in emerging research and the experiences of other states. VTCP has adapted its program approach multiple times in response to evaluation findings, both from internal evaluation activities and from independent, external evaluation. VTCP has made multiple programmatic changes based on RTI's previous evaluation recommendations.

VTCP and its program partners, such as the Coalition for a Tobacco Free Vermont, have been highly effective at getting the Vermont Legislature to raise the cigarette excise tax rate. From 2001 through 2014, recognizing that raising the cigarette excise tax has the potential to reduce youth and adult smoking rates (CFTFK, 2012), the Vermont Legislature increased Vermont's cigarette tax rate 7 times from \$0.44 per pack in 2001 to \$2.69 per pack in 2014. When VTCP began in 2001, Vermont's cigarette tax rate was similar to the national average. From 2001 to 2014, Vermont went from the 21st highest cigarette tax rate in the United States to the 9th highest at \$2.69 per pack, which was \$1.16 more than the national average of \$1.52 per pack. Vermont has also had more success with increasing cigarette excise tax rates than other states. Vermont is one of only a handful of states that increased their taxes after 2010, with tax increases in 2011, 2014, and 2015. Most recently, Vermont lawmakers voted to enact Act 54, which raised the statewide tobacco tax yet again. Effective July 1, 2015, Vermont's cigarette tax will increase again by an additional \$0.33 per pack, bringing Vermont's cigarette tax rate to \$3.08 per pack, which is the 6th highest cigarette excise tax in the country (CFTFK, 2015).

CDC's (2014) *Best Practices* and the 2014 Surgeon General's report both highlight the substantial tobacco use disparities that exist across populations. Both of those documents recommend that tobacco control efforts need to address the overall population of tobacco users but also focus on subpopulations with a higher prevalence of tobacco use. In Vermont, the prevalence of smoking among adult Medicaid beneficiaries is nearly three times higher than the rate among non-Medicaid adults, and Medicaid smokers make up nearly half of the adult smokers in Vermont. Adults with low socioeconomic status (SES) and mental health issues also smoke at disproportionately high rates in Vermont. VDH is actively working to identify and address tobacco use disparities in Vermont and has focused specifically on

Medicaid smokers, low SES smokers, and smokers with mental illness as target groups. VTCP has designed specific intervention approaches and tailored mass-media strategies to reach each of these target subpopulations with interventions designed to help those smokers successfully quit.

Consistent with CDC *Best Practices* recommendations, VTCP has also effectively implemented and used mass-reach health communication interventions throughout its 16-year history with great success. The perceived prevalence of high school smoking among Vermont middle school students dramatically decreased from 2001 to 2013, which provides strong evidence that VTCP's "8 out of 10" media campaign was highly successful and worked as intended to correct misperceptions about youth smoking among Vermont youth. Over the past 16 years, VTCP's adult cessation media efforts have been shown to be effective at driving Vermont smokers to use evidence-based cessation treatments, such as counseling and NRT, that VTCP makes available to Vermont smokers at no cost to them through the 802Quits program. In the past few years, VTCP has begun using CDC *Tips From Former Smokers* ads, which have been demonstrated to have significant positive impacts on population-level cessation outcomes, such as quit attempts and successful quits. CDC *Tips* media ads have also been highly effective at driving smokers to use quitline services, both in Vermont and nationally. VTCP's mass media campaigns have also included the "Take It Outside" and "Smoke Free Zone" campaigns that encouraged adult smokers not to smoke around children for their health. These mass media campaigns may have been partially responsible for the significant increases in the proportion of Vermont smokers who prohibit smoking in their homes and vehicles and for the significant decreases in the percentage of Vermont adults and youth who are being exposed to secondhand smoke in homes, vehicles, and in public.

VTCP has also had a number of successes in its work with and efforts to promote and implement health systems change, particularly in the past few years. VDH has successfully worked with the Department of Vermont Health Access (DVHA) to get Vermont Medicaid to expand benefits and increase coverage of proven, evidence-based cessation treatments for beneficiaries. VDH was able to get Medicaid to cover in-person cessation counseling from a health care professional for all Vermont Medicaid beneficiaries, beginning in December 2013. Previously, this benefit was only available to pregnant Vermont Medicaid beneficiaries. VDH also worked to publicize and promote this increase in cessation coverage through Vermont Medicaid using a variety of health communication and promotion strategies, including targeted mass mailings to health care providers and Medicaid members. The result of VDH's efforts to expand insurance coverage for cessation treatments for Medicaid smokers and to promote that benefit resulted in substantial increases in use of the in-person cessation counseling benefit, meaning a greater number of Vermont Medicaid smokers received in-person cessation counseling from a health care professional as a result of VDH's efforts. The number of Medicaid smokers receiving services

through VTCP's 802Quits has also increased as a result of VDH's efforts to promote the service to Vermont smokers, particularly Medicaid smokers. VTCP has been working to implement electronic referrals to 802Quits programs. Additionally, VTCP has been working with its cessation service provider, National Jewish Health, to take advantage of and implement new technologies and innovations for 802Quits programs, such as a text message service for Quit by Phone clients to help them with their quit attempts and special counseling protocols tailored to specific populations of interest, such as pregnant smokers.

Despite VTCP's successes since it began in 2000, and the favorable tobacco environment in Vermont, the program has faced challenges and barriers. Although the prevalence of cigarette smoking has declined significantly among youth and adults, declines have slowed in recent years, both in Vermont and nationally. Quit attempts are also stagnant. In Vermont, and nationally, nearly half of all smokers attempt to quit each year. However, the percentage of adult Vermont smokers making quit attempts has not changed significantly since VTCP began in 2000. While the prevalence of smoking varies widely and significantly by demographic subgroups, the percentage of adult smokers making quit attempts has not varied significantly by demographic subgroups other than age. The rate of sustained quitting has also remained extremely low at around 5% (CDC, 2011; Fiore et al., 2008; Zhu et al., 2012), and about half to three-quarters of smokers who attempt to quit relapse within 1 week (Hughes, Keely, & Naud, 2004).

The 2014 Surgeon General's Report concluded that the current rate of progress in tobacco control is not fast enough. The report authors found that "high levels of smoking-attributable disease and death costs will persist for decades unless more rapid progress is made in tobacco control" and that "the burden of death and disease from tobacco use in the United States is overwhelmingly caused by cigarettes and other combusted tobacco products" (USDHHS, 2014, p. 1,010). The 2014 Surgeon General's report offered the same tobacco control program strategies and recommendations as those outlined in CDC's 2014 *Best Practices* that VTCP implements. However, the 2014 Surgeon General's report also concluded that media campaigns, tobacco product regulation, litigation, and tobacco cessation treatments are sufficiently diverse and are effective at reducing tobacco use but need to be implemented on a larger scale to reach and affect all susceptible populations. CDC's 2014 *Best Practices* and the 2014 Surgeon General's report both highlight the changing nature of tobacco use in the United States. Use of multiple tobacco products, or polytobacco use, is becoming much more common, especially among youth and young adults, and cigar use has also surged. Use of e-cigarettes by adults and youth has increased rapidly (USDHHS, 2014).

Between 2011 and 2014, substantial increases were observed in current e-cigarette and hookah use among middle and high school students in the United States, resulting in an overall estimated total of 2.4 million e-cigarette youth users and an estimated 1.6 million hookah youth users in 2014. Over the same period, decreases were observed for current

use of more traditional tobacco products, such as cigarettes and cigars, resulting in no change in overall tobacco use (Arrazola et al., 2015). The increases in current use of e-cigarettes and hookah offset the decreases in current use of OTPs, resulting in no change in overall current tobacco use among middle and high school students. Consequently, 4.6 million middle and high school students continue to be exposed to harmful tobacco product constituents, including nicotine. Nicotine exposure during adolescence, a critical window for brain development, might have lasting adverse consequences for brain development, cause addiction, and might lead to sustained tobacco use. In 2014, one in four high school students and one in 13 middle school students used one or more tobacco products in the last 30 days. In 2014, for the first time in the National Youth Tobacco Survey (NYTS), current e-cigarette use surpassed current use of every other tobacco product, including cigarettes (Arrazola et al., 2015).

The generally high prevalence of smoking among Vermont 11th and 12th grade students, marijuana use, and the rapid proliferation of e-cigarette use among adults and youth are all substantial threats to the progress VTCP has made in reducing smoking in Vermont. Vermont has deceptively low youth smoking rates. Although smoking prevalence among Vermont high school students is comparable to the national average and has declined significantly since 2001, the prevalence of smoking among older Vermont high school students is unacceptably high. From 2009 through 2013, the prevalence of smoking among 11th and 12th graders in Vermont was equal to, or higher than, the adult smoking rate in Vermont. Without interventions to combat the high smoking prevalence among Vermont's 11th and 12th grade students, those Vermont youth are entering and replenishing the adult smoking population and are being set up for a lifetime of adverse health consequences associated with smoking. In 2014, Vermont had the third highest prevalence of past 30-day marijuana use in the United States. Marijuana users smoke cigarettes at substantially higher rates, and the increasing social acceptability of marijuana use has serious implications for youth smoking in Vermont. VTCP has valid concerns that continued increases in the social acceptability of marijuana use, which is expected to be spurred on further by marijuana legalization, has the potential to counteract reductions in youth smoking rates in Vermont and actually result in increases in youth smoking rates.

Unless VTCP takes decisive action to address these threats to tobacco control in Vermont, VTCP will not be able to end the tobacco epidemic in Vermont or make continued progress toward the program's goals of reducing adult and youth tobacco use in Vermont. One of the biggest challenges that VTCP faces that will likely prevent the program from being able to take sufficient action to address these threats to tobacco control is that VTCP, like most state tobacco control programs, has been chronically underfunded. Despite comparing favorably to other states, Vermont's funding for tobacco control has consistently been well below CDC recommended funding levels. Although the Vermont Legislature made a commitment to the health and well-being of Vermonters by establishing VTCP in 2000, the

Vermont Legislature has consistently undermined the potential effectiveness and success by never funding VTCP at more than 50% of CDC recommended funding since VTCP was created. VTCP was initially funded in FY 2001 at \$6.5 million annually, which was only 41% of CDC's recommended funding. In the 15 years VTCP has been in existence, the Vermont Legislature has cut program funding in 6 of those years. Not accounting for inflation, VTCP's total budget in FY 2015 was only 60% of what it was when the program began in FY 2001. Accounting for inflation, VTCP's FY 2015 budget of \$3.9 million was less than half of the initial FY 2001 budget (which translates to about \$8.6 million in real, inflation-adjusted, 2014 dollars). Allocating just 7% of the annual revenues from cigarette taxes and MSA payments to tobacco control programming would meet CDC's recommended funding level for VTCP of \$8.4 million per year. A firm commitment to tobacco control will require strong and decisive action from the Vermont Legislature. This includes providing VTCP with sufficient and sustainable funding to implement evidence-based interventions that will reach a large enough proportion of Vermont tobacco users, including subpopulations with disproportionate tobacco use,

Over the past 16 years, the Vermont Legislature could have, and should have, done a better job funding VTCP using the ample money that was available through tobacco taxes and MSA payments. Given the available money from the landmark MSA settlement, the Vermont Legislature has an opportunity to strike a major blow to tobacco use in Vermont by devoting sufficient resources to the state's tobacco control program, but chose not to do so. As the Campaign for Tobacco-Free Kids presented in its report, titled "Broken Promises to Our Children," by not sufficiently funding VTCP over the past 15 years, the Vermont Legislature has done a tremendous disservice to the youth of Vermont and ensured that the cycle of tobacco dependence and addiction will continue in Vermont for generations to come. Having a resilient, and potentially growing, population of youth tobacco users in Vermont will ensure future generations of Vermonters who are addicted to tobacco and suffer from its tremendous health consequences and will experience continued and prolonged periods of tobacco-related disease, death, and health care costs.

In previous RTI annual reports, we have cautioned that underfunding for tobacco control in Vermont, combined with consistent and continued budget cuts to the program, were likely slowing progress on key outcomes VTCP is trying to influence, such as adult and youth smoking in Vermont and exposure to secondhand smoke. During the 2014–2015 Vermont legislative session, the Vermont Legislature considered a budget proposal from Vermont's governor that would have eliminated VTERB in FY 2016 as a way to fill a state budget gap. The Vermont Legislature, recognizing that it created VTERB in 2000 for a specific purpose, opted not to eliminate VTERB. However, VTERB was left with no funding for FY 2016 and had to take money away from the operational budgets of the VTCP component organizations. The end result will be a noticeable reduction in VTCP's program capacity and implementation starting in FY 2016. VTERB will have reduced administrative and

management capacity, and the other VTCP component organizations will have reduced operational budgets that may affect their ability to continue providing services at the same level. VDH has already had to cut funding to Community Tobacco Coalitions, and at least one coalition will be defunded as a result of the FY 2016 VTCP funding cut. This reduced capacity will certainly slow progress on promoting policy change in Vermont communities and using the coalitions to educate policy makers and build support for statewide policy initiatives. The FY 2016 VTCP funding cut will also result in substantially reduced, or eliminated, external evaluation of the program. Combined with additional budget cuts expected to be discussed and possibly enacted during the 2015–2016 Vermont legislative session, the future of VTCP and its likely impact on tobacco use and secondhand smoke exposure in Vermont remains uncertain. Given these challenges and the current stagnating of tobacco use outcomes in Vermont, it is unlikely that the program will reach its 2020 goals for reduced tobacco use in Vermont.

Given the harsh funding realities that VTCP is facing, the program will likely struggle to continue implementing all of its current activities and interventions. VTCP will almost certainly fail to achieve its overall program goals and Healthy Vermonters 2020 goals of reducing adult cigarette smoking to 12% by 2020 and reducing youth smoking in Vermont to 10% by 2020. Combined with the extreme reduction, or perhaps complete elimination, in independent, external evaluation services, VTCP may no longer be able to call itself a comprehensive tobacco control program. As the program’s capacity to continue delivering interventions contracts, VTCP will be reaching fewer Vermont smokers with its efforts. As a result, Vermont may not only begin to struggle to hold its ground with adult and youth tobacco use but also begin to see increases in the use of tobacco products among youth and adults.

Looking forward to the next 5 years of tobacco control in Vermont from 2015–2020, RTI offers the following recommendations to VTCP for working toward its overall goals of reducing adult and youth cigarette smoking, reducing exposure to secondhand smoke, and minimizing the use of OTPs. For each recommendation, we also include a brief description of our rationale.

- Work to secure sufficient, stable, and sustainable funding for VTCP.
 - The most important thing Vermont can do is to fund VTCP sufficiently to continue implementing a comprehensive, evidence-based, tobacco control program. VTERB and VTCP partner organizations, such as the Coalition for a Tobacco Free Vermont, should actively lobby the Vermont Legislature to statutorily secure sufficient, stable, and sustainable funding for VTCP. Other states have done this through constitutional amendments securing funding for the state tobacco control program or by earmarking a percentage of tobacco taxes or MSA revenues to be allocated for the tobacco control program.

- Seek cost-sharing and partnership opportunities.
 - While working toward getting sufficient and secured funding for the program, VTCP’s component organizations should look for cost-sharing or partnership opportunities. VDH has been successful at doing this in a number of areas already.
- Work to maintain a comprehensive tobacco control program.
 - Given current funding cuts and the likelihood of successive upcoming funding cuts in the next Vermont legislative session, VTCP will be hard-pressed to continue being a comprehensive program. VTCP should make all possible efforts to maintain the comprehensive nature of the program. Following CDC *Best Practices* guidelines and recommendations, comprehensive tobacco control programs include state and community efforts, mass-reach health communication interventions, cessation interventions, surveillance and evaluations, and administration and management. VTCP will likely have a difficult time fully implementing all of these elements but should look to see if any less critical aspects of the program can be cut if necessary so that VTCP can remain a comprehensive program.
- Focus on evidence-based interventions that reach the largest percentage of Vermont smokers.
 - If VTCP is no longer able to remain a comprehensive program—either because the program cannot afford certain components of a comprehensive program or because the program does not have enough funds to implement all interventions with a minimal level of reach necessary to have an impact on desired outcomes—then VTCP should prioritize and focus on evidence-based interventions that reach the largest percentage of Vermont smokers. VTCP should favor interventions that result in durable outcomes, such as implementing smoke-free air or POS policies.
- Try to maintain program capacity and infrastructure.
 - CDC *Best Practices* recommends continuing to fund the program’s administration, management, and infrastructure at recommended levels, even if the rest of the program is not funded at recommended levels. This is because once institutions are eliminated, it is very difficult to bring them back again in the future or to build back the capacity and momentum that was lost. As VTCP faces substantial budget cuts that potentially affect its composition, organization, administration, or infrastructure, VTCP should seek to maintain the organizational capacity and infrastructure of key program elements, such as VTERB. Contracted services can be brought back more easily in the future if additional funding becomes available again.
- Continue to maintain independent oversight of VTCP by VTERB.
 - VTERB experienced some significant challenges during the 2014–2015 Vermont legislative session. Although VTERB emerged from that still in existence, it also lost the majority of its funding. At this time, the future of VTERB and its funding situation is unknown. VTCP should continue to lobby and fight to keep VTERB in its current role because it serves as a critical mechanism for coordinating the program across VTCP’s component organizations, collecting feedback and input, and facilitating collaboration and decision making across VTCP’s multicomponent program. VTERB’s independent status allows VTERB to lobby for the program in ways that other program organizations cannot. Finally, VTERB’s independent status allows it to hold other VTCP organizations accountable.

- Continue to evaluate the program, either internally or externally.
 - Evaluation of VTCP is a critical component of a comprehensive, evidence-based state tobacco control program. Currently, VTCP uses both internal evaluation conducted primarily by VDH and independent, external evaluation conducted by RTI International. VDH also uses external evaluation services from John Snow Inc. (JSI). Given the program’s limited budget for FY 2016 and perhaps long-term reductions in VTCP’s budget for FY 2017 and beyond, VTCP may no longer be able to afford to conduct independent, external evaluation. If VTCP can no longer afford independent, external evaluation, the program should look to continue doing internal evaluation of the program. VDH currently performs a number of surveillance and evaluation activities for the program. If external evaluation services are not possible, VDH or other program component organizations should continue analyzing and assessing available surveillance and evaluation data to monitor the program’s progress and inform program implementation.
- Continue working to promote and implement durable policy change.
 - Over the past several years, VTCP and its program partners have been successful at getting the Vermont Legislature to pass statewide laws creating smoke-free environments, and Vermont’s Community Tobacco Coalitions have been working to help their communities implement smoke-free and POS policies. Durable policy changes, such as state laws or local ordinances, do not require additional funding once they are enacted; they can reach and cover a broad population of tobacco users, and they have been shown to be effective. Data from the VT ATS, LOLS, and VDH Macro Polls indicate that there is a base level of support for a number of smoke-free air law policies and POS policies. If the program has the resources, VTCP and program partners such as Community Tobacco Coalitions should focus on educating policy makers, engaging and mobilizing the community, and garnering support and buy-in for durable statewide laws and policies that will cover the largest proportion of tobacco users. VTCP should not focus efforts or use program resources to work on voluntary policies, policies that will cover a small proportion of Vermont tobacco users, or policies that are not expected to have a meaningful impact on tobacco use behaviors.
- Continue implementing mass media using CDC *Tips* campaign ads.
 - VTCP may not have enough funding to continue implementing mass media campaigns at the same level or frequency as the program has been doing recently. If the program is able to continue conducting mass media, VTCP should prioritize CDC’s *Tips From Former Smokers* campaign ads because they have been shown to be effective at promoting population-level quit attempts. The other media campaigns currently being used by VTCP do not have as much evidence supporting their effectiveness. Relative to other potential intervention activities, RSCG’s social branding campaigns, such as *Down & Dirty*, may not provide as much benefit for the money as running CDC’s *Tips* ads.

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