



# Issue Brief

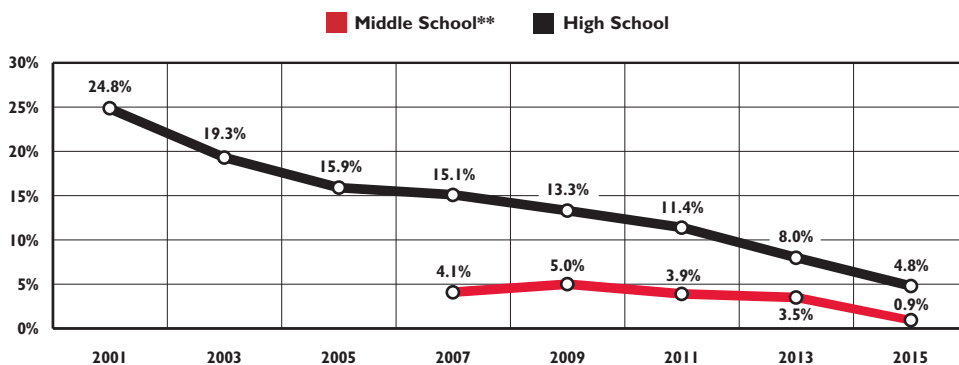
## Preventing Youth Tobacco Use in Rhode Island

Tobacco use is a major public health problem that affects many children, youth, and families. Tobacco use has caused over 20 million deaths in the U.S. since the 1960s, including 2.5 million deaths from secondhand exposure.<sup>1</sup> Smoking can reduce life expectancy by at least a decade and remains the leading cause of preventable death and disability.<sup>2,3</sup> In Rhode Island, 1,800 adults die each year from adverse health effects from smoking and an estimated \$640 million dollars is spent annually on smoking related medical expenditures.<sup>4</sup>

Tobacco prevention and cessation efforts should target adolescents and young adults because nearly all use begins before age 18. Adolescents are uniquely vulnerable to the effects of nicotine and may initiate smoking due to influences within their social and community environment.<sup>5,6</sup>

Rhode Island has made considerable progress in reducing tobacco use. There have been significant declines in youth cigarette use, and in 2015 Rhode Island had the lowest self-reported rate of current cigarette use for both middle (0.9%) and high school (4.8%) students among ranked states nationally.<sup>7,8</sup>

### Youth Cigarette Use\*, Middle School and High School Students, Rhode Island, 2001-2015



Source: Rhode Island Department of Health, *Youth Risk Behavior Survey*, 2001-2015.






Notes: \*Use is defined as currently smoking a cigarette at least one day during the 30 days before the survey. \*\*Middle school cigarette use data is not available prior to 2007.

- ◆ Continued tobacco prevention and treatment efforts are needed due to the emergence of new products. In 2015, 8.8% of Rhode Island middle school students and 25.1% of Rhode Island high school students reported using any tobacco product, including cigarettes, smokeless tobacco, cigars, or e-cigarettes in the previous 30 days.<sup>9</sup>
- ◆ Effective strategies used to reduce cigarette use should be replicated when addressing the use of other tobacco products, especially with the recent increase in the use of e-cigarettes.

## Types of Tobacco Products and Associated Usage

The tobacco industry consistently creates and markets new products to attract new users. Today, people can smoke, chew, or sniff tobacco, vaporize nicotine, or smoke loose tobacco in a hookah. Tobacco products that require burning for consumption (cigarettes, cigars, and hookah) are referred to as combustible products. E-cigarettes (i.e. e-cigars, e-pipes, vaping pipes/pens, e-hookahs/pens) are devices that allow users to inhale an aerosol which typically contains nicotine, flavorings, and other additives. The evolution of tobacco products over time has increased the complexity of tobacco control policies and enforcement.<sup>10,11,12,13</sup>

### Tobacco Product Use\* by Grade Level, Rhode Island, 2015

Type	Cigarette 	Smokeless Tobacco 	Cigars, Cigarillos, or Little Cigars 	Hookah 	E-Cigarette 
<b>2015 Rhode Island Middle School Current Usage Rates</b>	0.9%**	1.0%	1.1%**	N/A	7.6%
<b>2015 Rhode Island High School Current Usage Rates</b>	4.8%**	5.3%	8.4%**	11.8%	19.3%

Source: Rhode Island Department of Health, *Youth Risk Behavior Survey*, 2015.

Notes: \*Use is defined as current consumption of a given tobacco product at least one day during the 30 days before the survey. \*\*Significant declines in current cigarette use (down from 4.1% in 2007 for middle school students and down from 35.4% in 1997 for high school students) and cigar use (down from 5.4% in 2007 for middle school students and down from 14.0% in 2001 for high school students) have been seen. Trend data for other products is either not significant or not available.

### Federal Efforts to Regulate New and Emerging Tobacco Products

- ◆ In 2009, Congress passed the *Family Smoking Prevention and Tobacco Control Act*, which gave the U.S. Food and Drug Administration (FDA) authority to regulate the manufacturing, marketing, and sale of tobacco products. The FDA had immediate regulatory authority over cigarettes, smokeless tobacco, and roll-your-own tobacco. In May 2016, the FDA finalized a rule extending its authority to include all tobacco products, including e-cigarettes, cigars, hookah, dissolvables, nicotine gels, and pipe tobacco.<sup>14</sup> In August 2017, the FDA announced plans to launch a public health campaign to discourage the use of e-cigarettes by teens and to develop a new comprehensive plan for tobacco and nicotine regulation, which would explore lowering nicotine levels and restricting the use of flavors.<sup>15,16</sup>

## E-Cigarettes

- ◆ In 2015, the Rhode Island Department of Health began tracking the use of e-cigarettes by youth. Rhode Island's e-cigarette usage rates are consistent with national trends that show a steady rise in use. Nicotine exposure during adolescence from a variety of sources, including e-cigarettes, can cause addiction and harm to the developing brain.<sup>17</sup>
- ◆ The use of e-cigarettes by youth and young adults is strongly associated with the use of other tobacco products, particularly combustibles (cigarettes, cigars, cigarillos, and hookah). In 2015 among U.S. high school students who use combustible tobacco products, 58.8% reported also using e-cigarettes.<sup>18,19</sup>
- ◆ After increasing for a number of years, e-cigarette use has declined nationally among high school students between 2015 and 2016 (16.0% to 11.3%). Youth still report using these products more than all other tobacco products.<sup>20</sup> Reasons for this increase in use include curiosity, flavorings/taste, perception of product as a less harmful/less toxic alternative to conventional cigarettes, and avoidance of smoking restrictions and/or secondhand smoke complaints. Nationally, marketing and advertisements for these products have soared from an estimated \$6.4 million in 2011 to \$115 million in 2014, which may be another contributing factor for increased use.<sup>21,22</sup>
- ◆ In 2014, the Rhode Island General Assembly passed a law prohibiting the sale of e-cigarettes to minors. When enacting this legislation, the General Assembly did not define these substances as tobacco products. Rather, they created a separate definition for e-cigarettes called 'electronic nicotine-delivery systems'. As such, they are not immediately subject to various tobacco control provisions, including taxes.<sup>23</sup>
- ◆ Despite this prohibition, Rhode Island youth still report access to and use of e-cigarettes. In 2015, 7.6% of Rhode Island middle school students and 19.3% of high school students reported current use.<sup>24</sup>

**Rhode Island Middle School Students  
Use of E-Cigarettes by Subgroup, 2015**

	EVER TRIED	CURRENT USE*
Male	17.2%	8.2%
Female	14.1%	7.0%
Black**	21.3%	8.3%
White**	10.8%	5.6%
Hispanic***	23.7%	11.9%
6th Grade	9.1%	3.2%
7th Grade	17.4%	9.4%
8th Grade	19.8%	9.5%
<b>OVERALL</b>	<b>15.6%</b>	<b>7.6%</b>

**Rhode Island High School Students  
Use of E-Cigarettes by Subgroup, 2015**

	EVER TRIED	CURRENT USE*
Male	42.3%	20.2%
Female	39.5%	18.0%
Black**	31.5%	15.2%
White**	41.6%	21.0%
Hispanic***	44.9%	16.7%
9th Grade	30.9%	14.7%
10th Grade	42.7%	20.0%
11th Grade	41.9%	16.9%
12th Grade	47.3%	24.8%
<b>OVERALL</b>	<b>40.9%</b>	<b>19.3%</b>

Source: Rhode Island Department of Health, *Youth Risk Behavior Survey*, 2015.

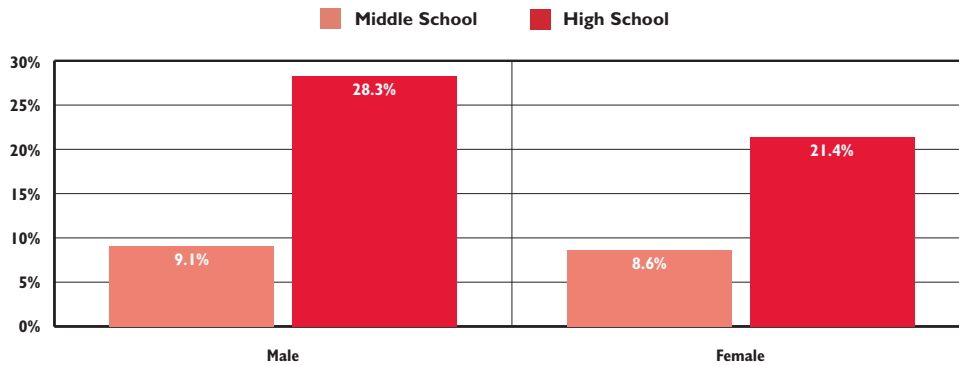
Notes: \*Current use is defined as use on at least one day during the 30 days before the survey. \*\*Non-Hispanic. \*\*\*Hispanic children can be of any race.

# Who Uses Tobacco Products?

## Gender

- ◆ While boys and girls both use tobacco, there are differences in product preferences and reasons for use. In Rhode Island in 2015, a higher percentage of males reported current tobacco use than their female peers. Rhode Island high school males also reported higher current use of cigars (11.7% vs 4.7%) and smokeless tobacco (8.0% vs 2.2%) products, while high school females reported higher hookah use (12.7% for girls vs 10.9% for boys).<sup>25</sup>

**Tobacco Use\* by Gender and Grade Level, Rhode Island, 2015**



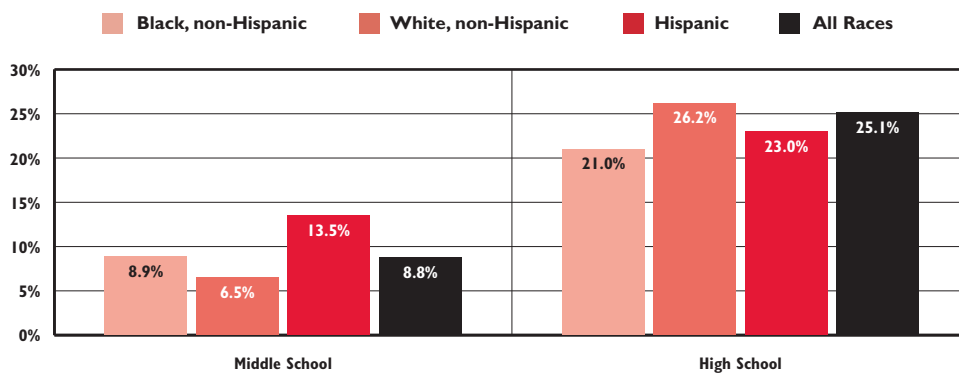
Source: Rhode Island Department of Health, *Youth Risk Behavior Survey*, 2015.

Note: \*Tobacco use is defined as current use of cigarettes, smokeless tobacco, cigars, or e-cigarettes on at least one day during the 30 days before the survey.

## Race and Ethnicity

- ◆ Students of all racial and ethnic backgrounds are current users of tobacco products, and are at risk for becoming addicted to nicotine. Ethnic identity, cultural norms, and tobacco marketing are contributing factors to disparities of youth tobacco use.<sup>26</sup>
- ◆ African American youth historically use cigarettes at lower rates than their White peers. Despite cultural norms that help constrain youth tobacco use, mass marketing efforts of menthol products specifically targeted to African Americans can contribute to tobacco initiation and use into adulthood.<sup>27</sup>
- ◆ In Rhode Island in 2015, White, non-Hispanic and Hispanic high school students reported higher rates of current tobacco use than their Black, non-Hispanic peers. In middle school, Hispanic students reported the highest current tobacco use.<sup>28</sup>

**Tobacco Use\* by Race/Ethnicity and Grade Level, Rhode Island, 2015**



Source: Rhode Island Department of Health, *Youth Risk Behavior Survey*, 2015.

Note: \*Tobacco use is defined as current use of cigarettes, smokeless tobacco, cigars, or e-cigarettes on at least one day during the 30 days before the survey. Asian and Native American youth data is not available due to insufficient sample.

## Student Subgroups Who Report Higher Tobacco Use

Increased risk for tobacco use is found among youth who are lesbian, gay, bisexual, or transgender; youth with physical, emotional, and/or learning disabilities; and youth who are Native American.<sup>29</sup> Tobacco is defined as cigarettes, cigars, smokeless, or e-cigarettes, unless otherwise noted below. Best available data is presented below; not all subgroups have state and/or national data available.

### Youth who are Lesbian, Gay, Bisexual, or Transgender

- ◆ Lesbian, gay, bisexual, transgender, or those unsure of their sexuality have been found to have increased usage of tobacco products compared to their straight peers. Factors contributing to initiation may include stress due to social stigma and isolation, emotional abuse, family rejection, and discrimination, as well as aggressive marketing from the tobacco industry. While there is limited access to effective cessation treatments for all youth, there is a lack of programs tailored specifically for LGBT youth.<sup>30</sup>
- ◆ In the U.S. in 2015, current tobacco use was higher among lesbian, gay, and bisexual (LGB) high school youth (40.5%) than their heterosexual peers (30.3%).<sup>31</sup> Data regarding tobacco use among transgender high school youth is not currently available at the national or state level.
- ◆ In Rhode Island in 2015, 9.8% of high school students identified as LGB. Compared to their straight high school peers, current tobacco usage was significantly higher among LGB youth (43.5% vs. 22.7%), and was the highest among any reported subgroup in Rhode Island.<sup>32,33</sup>

### Youth with Disabilities

- ◆ Tobacco use is high among students with physical, emotional, or learning disabilities. They may experience social exclusion and bullying and may use tobacco as way of gaining acceptance from their peers.<sup>34</sup>
- ◆ In 2015, 35.9% of Rhode Island high school students who self-identified as having any disability reported current tobacco use. Youth with disabilities had the second highest current tobacco use rate among any other reported subgroup in Rhode Island.<sup>35,36</sup>

### Native American Youth

- ◆ Nationally, American Indian and Alaskan Native youth have the greatest prevalence of commercial tobacco use than any other racial or ethnic subgroup. Traditionally in some Native American communities, tobacco holds an important storytelling and ceremonial role for healing and protection.<sup>37</sup> In 2015 in the U.S., American Indian and Alaskan Native high school youth reported higher current tobacco use (47.0%) than their Asian (17.5%), Black (26.3%), Hispanic (31.8%), and White (32.9%) peers.<sup>38</sup> Prevalence data of Rhode Island Native American youth is not available due to insufficient sampling in statewide surveys.<sup>39</sup>

### Heavy Users

- ◆ In Rhode Island in 2015, 19.1% of current high school tobacco users reported heavy use, which is defined as consuming cigarettes, cigars, smokeless tobacco, e-cigarettes, or hookah on 20 or more days in the past month.<sup>40</sup> Targeted interventions are needed for this population due to their strong addiction to nicotine.

### Multiple Product Users

- ◆ Concurrent use of multiple tobacco products is prevalent among youth. Symptoms of nicotine dependence are increased in users who use multiple tobacco products compared to those who use just one product. In Rhode Island in 2015, 50.2% of current high school tobacco users reported using two or more products (cigarettes, cigars, smokeless tobacco, hookah, or e-cigarettes) in the past 30 days.<sup>41,42,43</sup>

## Risk Factors for Youth Tobacco Use

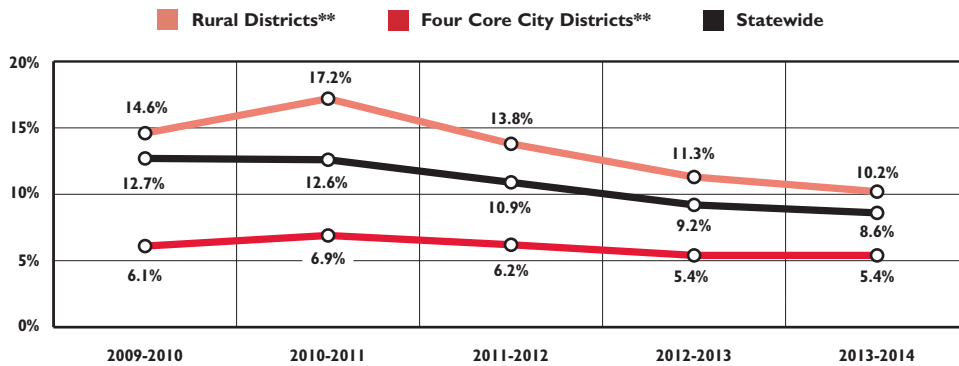
### Age

- ◆ Nearly all tobacco use is established in adolescence. Nationally, 88% of adult cigarette users who smoke daily report starting by the age of 18, and 99% of all tobacco initiation occurs by age 26. If adolescents and young adults can remain tobacco-free, very few will be tobacco users later in life. However, if children and youth use tobacco at a young age they are at an increased risk of becoming heavy users as adults.<sup>44,45</sup>
- ◆ Adolescence and young adulthood are key risk periods for tobacco initiation and use because adolescent brains are uniquely vulnerable to nicotine and nicotine addiction. Factors that can contribute to youth initiation include brain development, peer pressure, lack of engagement to schools and communities, family use, and industry marketing.<sup>46,47</sup>
- ◆ In Rhode Island in 2015, high school students were more likely to report current use of cigarettes, cigars, smokeless tobacco, or e-cigarettes (25.1%) than their middle school peers (8.8%). Current use increased by grade from 4.3% in 6th grade to 11.5% in 8th grade to 24.4% in 10th grade to 33.5% in 12th grade.<sup>48</sup>

### Rural Communities and Poverty

- ◆ Nationally, youth who reside in rural communities and/or have a low socioeconomic status are at risk for tobacco use initiation at a younger age, use more heavily, and are exposed to more secondhand smoke. Factors contributing to these disparities include stress, social norms about the acceptance of tobacco use, accessibility of tobacco products, and industry marketing.<sup>49,50</sup>

**Cigarette Use\* By District,  
Rhode Island High School Students, 2009-2014**



Source: Rhode Island Department of Education, *SurveyWorks!*, 2009-2014.

Notes: \*Use is defined as currently smoking a cigarette at least one day during the 30 days before the survey. \*\*The Rhode Island Department of Health classifies Burrillville, Coventry, Charlestown, Exeter, Foster, Glocester, Hopkinton, Jamestown, Little Compton, New Shoreham, Portsmouth, Richmond, Scituate, Tiverton, West Greenwich, and Westerly as rural communities. Four core cities are Central Falls, Pawtucket, Providence, and Woonsocket.

- ◆ Even though declines in adolescent current cigarette use were seen in all Rhode Island districts since 2009, rural high school students reported current use rates (10.2%) higher than their peers residing in the four core cities (5.4%) in 2014. Rhode Island rural students also reported large increases of current cigarette usage from middle school (2.0%) to high school (10.2%) in 2014.<sup>51</sup>

## Risk Factors for Youth Tobacco Use

### Marketing Exposure

- ◆ Advertisements of cigarettes and other tobacco products in movies, newspapers, magazines, and on billboards are all contributing factors that influence initiation of smoking among youth.<sup>52</sup> In 2014, more than \$9.1 billion dollars was spent on marketing and promotion of tobacco and nicotine, specifically to attract new users. The estimated portion spent for Rhode Island tobacco marketing each year is \$26.3 million.<sup>53</sup>

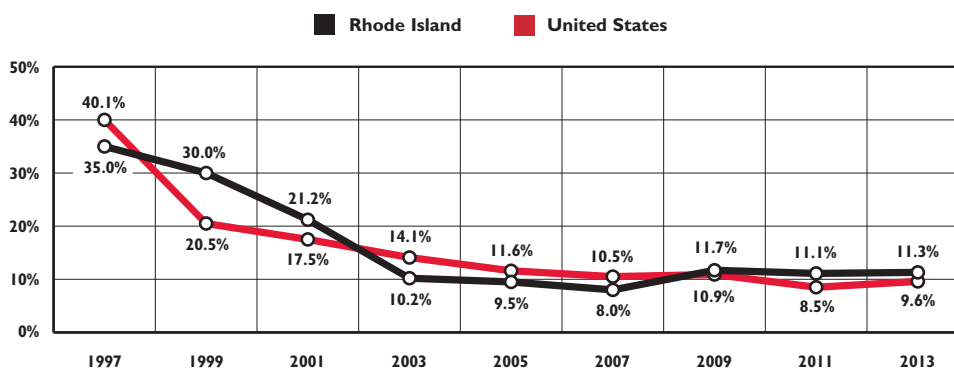
### Parental Tobacco Use

- ◆ Tobacco use among parents can increase the likelihood of a child initiating cigarette or other tobacco product use.<sup>54</sup> In Rhode Island in 2015, 34.0% of middle school students and 32.4% of high school students reported living with someone who smokes cigarettes.<sup>55</sup>

### Youth Access to Tobacco Products

- ◆ Experimentation with and initiation of tobacco among youth can be attributed to the ease of access to tobacco products through retailers.<sup>56</sup> In Rhode Island, tobacco retailers are prohibited from selling to minors and cannot distribute coupons/vouchers or provide tobacco giveaways. Retailers are also required to obtain a state license, verify age, and post signs and warnings.<sup>57,58</sup>
- ◆ Despite these protections, youth under age 18 still report purchasing tobacco products. In Rhode Island in 2015 among high school students under age 18 who currently used e-cigarettes, 22% reported purchasing those products at a retail establishment. In addition, Rhode Island adolescent self-reports of cigarette purchases were among the highest in the nation, with 20.5% of current high school smokers under age 18 reporting a purchase in 2015.<sup>59,60</sup>
- ◆ Retail establishments that fail to verify age are more likely to sell tobacco to minors.<sup>61</sup> In 2015, 44.1% of Rhode Island high school students who either attempted to buy or bought cigarettes reported being asked to show proof of age.<sup>62</sup>
- ◆ Federal legislation requires each state to conduct annual, random, and unannounced inspections of retail tobacco outlets to ensure that laws prohibiting the sale or distribution of tobacco products to minors are enforced. Based on these inspections, tobacco sales to minors have declined between Federal Fiscal Years (FFY) 1997 and 2013 in both the U.S. (40.1% to 9.6%) and Rhode Island (35.0% to 11.3%). While more recent national data is not available, Rhode Island violation rates have increased slightly to 12.0% in FFY 2017.<sup>63,64,65</sup>

**Retailer Violation Rates\* for Tobacco Sales to Minors, Rhode Island and US, FFY 1997-2013**



Sources: Substance Abuse and Mental Health Services Administration. (2016). *Synar*. Retrieved August 10, 2017, from [www.samsha.gov/synar](http://www.samsha.gov/synar)  
 Rhode Island Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals correspondence, 2017.

Note: \*Retailer violation rates are the percentage of inspected retail outlets that sold tobacco products to an inspector under age 18.

## Health Consequences of Tobacco Use

Tobacco products are unsafe because they contain numerous harmful chemicals that when absorbed can negatively impact nearly every organ of the body. Since there are no safe tobacco products or levels of tobacco exposure, adverse health effects can result from both direct use and secondhand smoke.<sup>66,67</sup>

### Immediate Health Effects of Smoking on Adolescents

- ◆ **Respiratory:** Teens who smoke are at risk of stunting the growth of their lungs, causing them to be smaller and weaker.<sup>68</sup> Smoking also has an effect on both the incidence and exacerbation of asthma in both children and adults.<sup>69</sup> Asthma is one of the most common chronic respiratory diseases among children.<sup>70</sup>
- ◆ **Cardiovascular:** At the onset of smoking, blood pressure rises and signs of heart stress emerge due to physical changes to the heart muscle and an increased resting heart rate. Smoking during adolescence also increases the amount of cholesterol and unhealthy fats circulating in the blood, which can lead to fatty deposits on artery walls and is an early sign of heart disease.<sup>71</sup>
- ◆ **Brain:** Use of and exposure to tobacco and nicotine during adolescence may alter brain development and growth as well as hinder the decision-making process. Youth also exhibit nicotine addiction at lower levels of consumption compared to adults.<sup>72,73</sup>
- ◆ **Immune System:** Adolescents who smoke have a weakened immune system and are more likely to get sick, have a higher white blood cell count, and exhibit diminished healing abilities.<sup>74</sup>

### General Health Consequences of Smoking

- ◆ **Diabetes:** Smoking during adolescence may increase the amount of belly fat within the body, which increases a teen's chance of getting type 2 diabetes. If a child already has diabetes, smoking makes it more difficult to control the disease.<sup>75</sup>
- ◆ **Pregnancy:** Smoking before, during, and after pregnancy is associated with many adverse outcomes for babies, such as low birthweight, preterm birth, and infant mortality.<sup>76</sup>
- ◆ **Oral Health:** Tobacco use has also been shown to be harmful to oral health. Oral cancer, periodontitis, cavities, diminished smell and taste, as well as tooth loss, tooth staining, and other oral health issues are common among tobacco users, including those who use smokeless tobacco.<sup>77</sup>
- ◆ **Other:** Additional health consequences of smoking include stunted bone growth, muscle deterioration, acne, and compromised vision and hearing.<sup>78,79</sup>

### Long-Term Consequences of Smoking

- ◆ **Death:** An estimated 5.6 million children under age 18 in the U.S. are projected to die prematurely if the current adolescent smoking rate persists.<sup>80</sup>
- ◆ **Cancer:** Lung cancer was the first of many deadly diseases discovered to be caused by smoking. It is now the nation's leading cause of cancer death in both men and women. Smoking is also a cause of colorectal, stomach, liver, pancreatic, mouth, throat, and esophagus cancer and can increase mortality rates in cancer patients.<sup>81</sup>
- ◆ **Chronic Diseases:** Smoking is linked to and complicates the treatment of a number of other chronic diseases, including coronary artery disease, chronic bronchitis, tuberculosis, and rheumatoid arthritis.<sup>82</sup>



## Behaviors Associated with Youth Tobacco Use

- ◆ Tobacco use among youth has been shown to be associated with other negative behaviors and outcomes.
- ◆ Numerous studies have found a positive association between smoking and mental health conditions, depression, and anxiety among adolescents. Adolescents who suffer from these mental health conditions are more likely than their non-depressed peers to initiate smoking and become regular users.<sup>83,84</sup>
- ◆ Cigarette smoking also has a strong association with the use of other substances. Early initiation of smoking by adolescents is a risk factor for the future use of alcohol and drugs.<sup>85</sup>
- ◆ Youth whose peers are anti-social or who bully others have higher rates of tobacco use. Those at particular risk are youth who both perpetrate and are victims of bullying activities. These youth often referred to as “bully-victims” may initiate use to gain peer acceptance and/or relieve stress.<sup>86,87</sup>

### Negative Behaviors and Health Outcomes by Tobacco Use\*, Rhode Island High School Students, 2015

MENTAL HEALTH	NOT CURRENT TOBACCO USER	CURRENT TOBACCO USER	DRUG/ALCOHOL USE	NOT CURRENT TOBACCO USER	CURRENT TOBACCO USER
Acute Depression	22.1%	<b>39.7%</b>	Current Alcohol Use	16.9%	<b>58.6%</b>
Seriously Considered Suicide	10.2%	<b>25.8%</b>	Current Marijuana Use	12.4%	<b>60.4%</b>
Suicide Attempt	6.6%	<b>21.9%</b>	<hr/>		
Bullied on School Property	12.3%	<b>25.0%</b>	<b>ORAL HEALTH</b>		
Electronically Bullied	8.5%	<b>23.8%</b>	Infrequent Dental Visit	19.7%	<b>29.0%</b>
Any Type of Bullying	16.1%	<b>34.6%</b>	Teeth/Sore Painful	41.1%	<b>50.3%</b>
Bullied Someone Else	5.1%	<b>15.5%</b>	<hr/>		
			<b>ACADEMIC ACHIEVEMENT</b>		
			Receive Poor Grades	20.7%	<b>38.6%</b>

Source: Rhode Island Department of Health, *Youth Risk Behavior Survey*, 2015.

Notes: \*Tobacco is defined as cigarettes, smokeless tobacco, cigars, or e-cigarettes. Use is defined as current use in the last 30 days prior to taking the survey; other measures refer to occurrence within the 12 months prior to taking the survey unless noted otherwise below. All differences and values are statistically significant at the 95% confidence level.

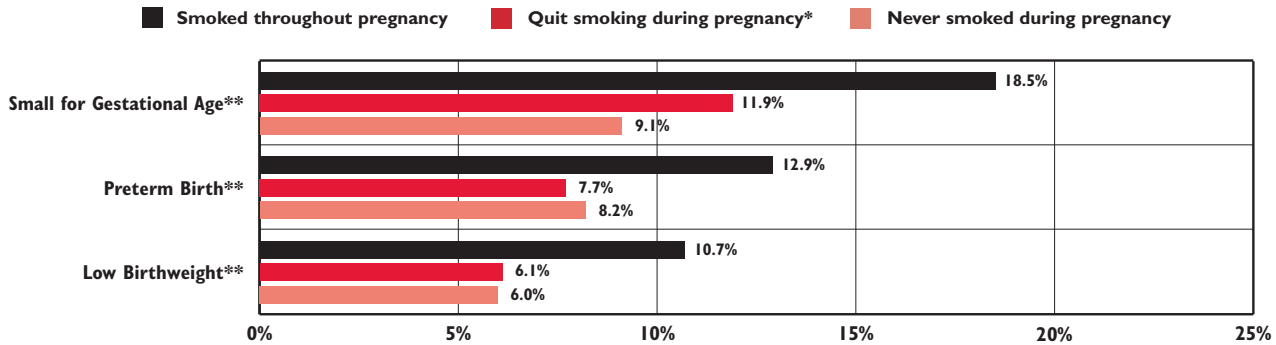
Definitions: **Acute Depression** (sad or hopeless every day for 2+ weeks, past year); **Electronically Bullied** (bullied through e-mail, chat rooms, instant messaging, websites, or texting); **Any Type of Bullying** (bullied electronically or on school property); **Bullied Someone Else** (bullied someone electronically or on school property); **Infrequent Dental Visit** (never or more than a year ago); **Teeth/Sore Painful** (painful or sore 1+ times, past year); **Receive Poor Grades** (grades in school mostly C's, D's or F's).

- ◆ In 2015, Rhode Island high school students who currently used tobacco reported engaging in more risky behaviors and experiencing more adverse health outcomes than their non-tobacco using peers. While these risk factors show association (and not causation or direction), Rhode Island high school students who currently use tobacco are more likely to report depression, consider suicide, attempt suicide, experience or engage in bullying, consume alcohol and use marijuana, have infrequent oral health care and dental pain, and exhibit poor academic achievement.<sup>88</sup>

## Maternal and Child Health

- ◆ It is recommended that clinicians screen all adults for tobacco use, including those planning to become pregnant or who are pregnant, and help them quit through behavioral intervention and counseling.<sup>89</sup> Smoking before pregnancy can cause fertility and pregnancy complications. Smoking while pregnant is one of the most common preventable causes of poor birth outcomes, including low birthweight, preterm birth, restricted fetal growth, sudden infant death syndrome (SIDS), birth defects, and in rare cases may result in preterm related deaths. Infants are at an increased risk for respiratory and ear infections, asthma, and death from SIDS through exposure to secondhand smoke.<sup>90</sup>

### Prevalence of Adverse Birth Outcomes by Maternal Smoking Status During Pregnancy, Rhode Island, 2012-2014

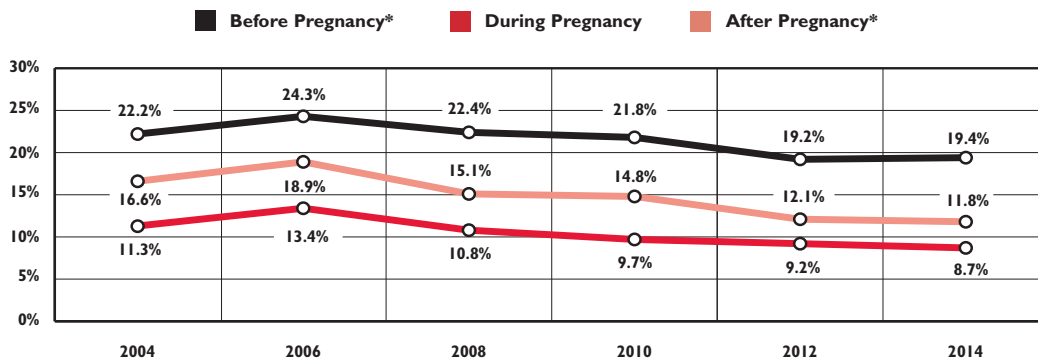


Source: Rhode Island Department of Health, *Pregnancy Risk Assessment Monitoring System*, 2012-2014.

Notes: \*Quit smoking during pregnancy is defined as those who quit before the last three months of pregnancy. \*\*Small for gestational age is defined as a birthweight <10th percentile; preterm births are defined as births occurring before the 37th week of pregnancy; low birthweight is defined as infants born weighing less than 2,500 grams (5 pounds, 8 ounces).

- ◆ Between 2012 and 2014, Rhode Island women who never smoked during their pregnancy experienced lower rates of adverse birth outcomes compared to those who smoked throughout their pregnancy. Quitting smoking before and during pregnancy greatly improves birth outcomes. Rhode Island women who quit smoking before the last three months of pregnancy greatly reduced their prevalence of experiencing an adverse birth outcome.<sup>91</sup>

### Trends in Maternal Smoking Rates, Rhode Island, 2004-2014



Source: Rhode Island Department of Health, *Pregnancy Risk Assessment Monitoring System*, 2004-2014.

Note: \*Before pregnancy is defined as the three months prior to being pregnant. After pregnancy is defined as the 2-6 months after their baby's delivery.

- ◆ Since 2004 in Rhode Island, there have been declines in smoking before, during, and after pregnancy and increases in cessation rates during pregnancy (from 49% in 2004 to 55% in 2014). Between 2012 and 2014, Rhode Island women most at risk for smoking while pregnant were those age 20-29 (11.1%), White (10.0%), had less than a high school education (17.6%), or had an income less than \$26,000 (15.4%).<sup>92,93</sup>

### Youth Trying to Quit

- ◆ Since nicotine is addictive, quitting smoking and other tobacco products is difficult. An estimated 60-85% of young tobacco users have unsuccessfully tried to quit at least once. Quitting may be more difficult for adolescents than adults because they become addicted to nicotine at lower levels of use.<sup>94,95</sup> In Rhode Island in 2015, 46% of high school students who were current cigarette smokers reported trying to quit in the past 12 months.<sup>96</sup>
- ◆ Youth are more likely to try to quit on their own by decreasing the number of cigarettes they buy and use. They are also less likely to seek out professional help or be aware of medications and programs that can help them quit.<sup>97</sup>

### Importance of Youth Quitting

- ◆ Screening for tobacco use is one of the most cost-effective clinical preventive services. Medical and oral health professionals should screen youth, clearly communicate the importance of abstaining, and refer smokers to counseling interventions. Clinicians should also address parental tobacco dependence and educate parents who are not ready to quit about the importance of a smoke-free home.<sup>98,99</sup>
- ◆ The American Academy of Pediatrics does not recommend the use of e-cigarettes as a substitute for cigarettes and other tobacco products due to a lack of evidence and potential harm.<sup>100</sup>

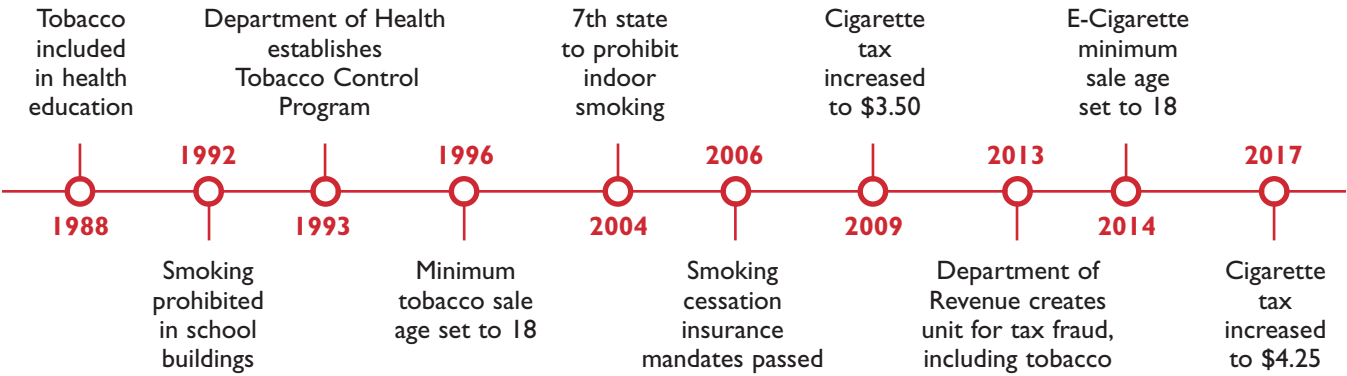
### Rhode Island Tobacco Cessation Policies and Resources

- ◆ To help individuals quit, the Rhode Island General Assembly passed legislation in 2006 that requires all health plans to cover cessation benefits.<sup>101</sup> Rhode Island's Office of the Health Insurance Commissioner is responsible for ensuring all individual and group commercial health insurance plans provide uniform coverage for smoking cessation without any preset limitation. Mandated benefits include prescription cessation medications, over-the-counter therapies, counseling sessions, and various nicotine replacement products.<sup>102</sup> Rhode Island's RIte Care/Medicaid program provides identical tobacco benefits and services as those provided by commercial health plans.<sup>105</sup>
- ◆ The Rhode Island Department of Health offers free cessation support through an evidence-based smokers' helpline (1-800-QUIT-NOW), which provides services such as counseling, quit tips, materials, and nicotine replacement products.<sup>104,105</sup> Health care providers can connect patients to the smokers' helpline and receive progress updates through the QuitWorks RI referral program.<sup>106</sup>
- ◆ Both the Rhode Island Department of Health and the Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals partner with community organizations to educate Rhode Islanders on the risks associated with tobacco use, especially among vulnerable populations and youth.<sup>107,108</sup>

# State Tobacco Control Policies

## Rhode Island Tobacco Control Milestones

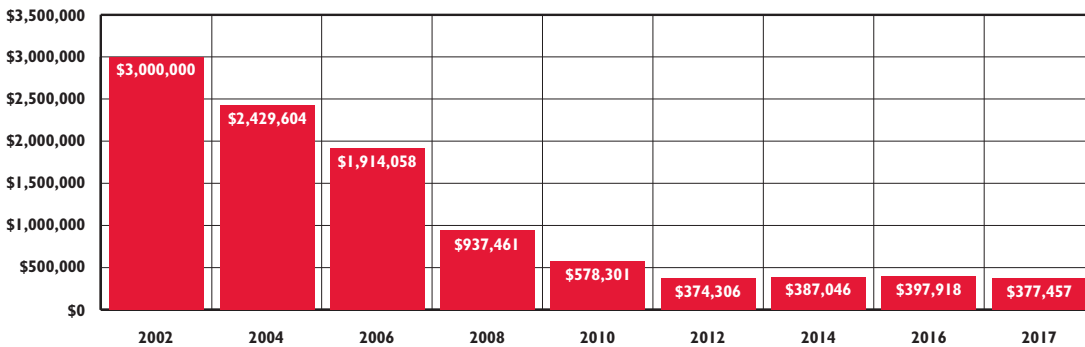
State implemented policies play a key role in preventing youth from obtaining and using tobacco products. Rhode Island has a successful history of enacting tobacco control programs and policies.<sup>109,110,111,112,113</sup>



## Overview of Tobacco Control Funding

- ◆ Evidence-based, statewide tobacco control programs that are comprehensive, sustained, and accountable are effective at reducing smoking rates as well as tobacco-related diseases and deaths. Comprehensive programs promote interventions that reduce tobacco use and exposure, enact media campaigns, provide cessation interventions, and perform surveillance and evaluation activities.<sup>114</sup>
- ◆ For Rhode Island to successfully implement this comprehensive model of tobacco control, the Centers for Disease Control and Prevention recommend \$12.8 million to be allocated annually. As a first step in a multi-year effort to achieve this funding level, Rhode Island public health organizations recommend increasing state funding of tobacco control to \$3.1 million annually.<sup>115</sup> Currently, \$1.8 million in both federal (\$1.5 million) and state (\$377,475) funds is spent on tobacco control; the state share has decreased.<sup>116</sup>

### Tobacco Control Funding, Rhode Island General Revenue, State Fiscal Year (SFY) 2002-2017



Source: Rhode Island Department of Health Correspondence, 2017. Note: In addition to these funds, the Rhode Island Department of Health Tobacco Control Program receives on average between \$1 million and \$1.3 million federal grants per year.

- ◆ Cigarette excise taxes pose a potential funding stream for state tobacco control programs.<sup>117</sup> Between SFY 2002-2017, Rhode Island cigarette tax revenue increased from \$79.4 million to \$138.7 million and state tobacco funding decreased from \$3 million to \$377,457. Only 0.27% of the cigarette tax in SFY 2017 went toward tobacco control.<sup>118,119,120</sup>
- ◆ In SFY 2018, the General Assembly increased the cigarette tax by \$.50 to \$4.25, making Rhode Island's cigarette tax the second highest in the U.S. Even though this is projected to raise an additional \$7.5 million, the enacted budget eliminated the Governor's proposed allocation of \$500,000 for tobacco cessation.<sup>121,122,123</sup>

## Community and Business Efforts to Reduce Youth Smoking

Tobacco Free Rhode Island is a statewide network working to reduce tobacco use. Highlighted below are some local tobacco ordinances they track. This information is current as of September 2017. The definition of tobacco varies by community, with some including e-cigarettes.

### Retail Ordinances

- ◆ **Local Tobacco Retail Licensing:** Many communities adopt their own tobacco retailer licensing policies to broaden their tobacco control efforts, provide merchant education, raise funds for enforcement, levy fines for non-compliance, and control retailer location and/or concentration.<sup>124</sup> Currently, there are 12 cities/towns in Rhode Island with a local tobacco retail license: *Barrington, Central Falls, Coventry, Cranston, Johnston, Middletown, Providence, Richmond, Tiverton, Warwick, West Warwick, and Woonsocket*. They assess licensing fees up to \$120, institute compliance checks, and enact fines up to \$1,500.<sup>125</sup>
- ◆ **Restrictions on Flavored Tobacco Products:** Flavored products are popular among youth due to their candy-like taste, youth beliefs that they are safer, and widespread availability; however, these flavored products are just as addictive and harmful and often act as a starter product. Enacting restrictions on flavored products is an effective strategy to limit use by youth.<sup>126,127,128</sup> In Rhode Island, 5 cities/towns have restricted the sale of all types of flavored tobacco products: *Barrington, Central Falls, Johnston, Middletown, and Providence*.<sup>129</sup>
- ◆ **Restrictions on Tobacco Couponing and Promotions:** The price of tobacco products affects the level of initiation and continued use of tobacco among young adults and minors, who are price-sensitive.<sup>130</sup> Rhode Island state law prohibits giveaways and the distribution of coupons/vouchers, but does not regulate the redemption of such promotions.<sup>131</sup> In Rhode Island, 5 cities/towns restrict both the distribution and redemption of tobacco coupons and vouchers: *Barrington, Central Falls, Johnston, Middletown, and Providence*.<sup>132</sup>

### Smoke-Free Environments

- ◆ There is strong support to expand smoke-free protections in Rhode Island.<sup>133</sup> Currently, there are 25 cities/towns in Rhode Island that enact smoke-free policies on various town properties: *Barrington, Bristol, Central Falls, Charlestown, Coventry, Cranston, Cumberland, Gloucester, Jamestown, Johnston, Little Compton, Lincoln, Middletown, Narragansett, Newport, New Shoreham, North Providence, Pawtucket, Portsmouth, Providence, Scituate, Warren, Westerly, West Warwick, and Woonsocket*.<sup>134</sup>

### Business's Role in Tobacco Prevention

- ◆ Business can play an important role in restricting youth access to tobacco products.<sup>135</sup> On September 3, 2014, CVS Health was the first and only national retail pharmacy to remove tobacco from more than 7,800 retail stores in 47 states nationwide. Research has shown that this action helped reduce the number of cigarette purchases across all retail settings. CVS Health has also invested \$50 million into the Be the First campaign to extend its commitment to help people lead healthier lives and deliver the first tobacco-free generation.<sup>136,137,138</sup>

## Tobacco to 21

- ◆ The American Academy of Pediatrics, Institute of Medicine, and the Centers for Disease Control and Prevention, all recommend increasing the minimum legal age to purchase tobacco products to 21 to delay access and initiation among youth.<sup>139,140,141</sup> Rhode Island, like most states, sets the minimum purchase age at 18. Nationally, five have set the age to 21 (CA, HI, ME, NJ, OR) and D.C. There are 256 localities that have increased the purchase age to 21, two of which are in Rhode Island (Barrington and Central Falls).<sup>142,143,144</sup>

## School's Role in Tobacco Prevention and Cessation

- ◆ All Rhode Island schools are required to be a smoke-free environment. For the first time in 2017, the General Assembly passed legislation prohibiting the use of e-cigarettes in schools, which will take effect on January 1, 2018.<sup>145</sup>
- ◆ Comprehensive health education that includes information on tobacco is required in Rhode Island schools. The Rhode Island Health Education Framework recommends providing strong prevention messaging and teaching about the consequences of tobacco use and secondhand smoke, addictive dangers of nicotine, trends of youth use, and the social, cultural and industry influences contributing to use.<sup>146</sup>
- ◆ In 2016, 93.7% of Rhode Island middle and high school health teachers reported increasing student knowledge about tobacco-use prevention through a required course. In addition, a majority of middle and high school principals reported prohibiting tobacco use (98%), posting signs marking a tobacco-free zone (77.1%), and prohibiting tobacco use by all individuals at all times, on school grounds, at school functions, in school vehicles, and at off-site school events (61%).<sup>147</sup>
- ◆ Effective tobacco prevention programs encourage students and staff to quit using tobacco and provide families consistent messaging about tobacco use prevention.<sup>148</sup> In Rhode Island in 2016, nearly a quarter of middle and high school principals reported directly providing tobacco cessation services for students (21.9%) and faculty/staff (13.2%) or having arrangements with organizations and health care professionals in the community to provide needed tobacco cessation services for students (24%) and faculty/staff (23.7%). In addition, 27.3% of Rhode Island middle and high schools reported providing tobacco-use prevention information to parents and families in 2016.<sup>149</sup>
- ◆ Currently, Rhode Island Student Assistance Services, a statewide school-based, alcohol, tobacco, and other drug abuse prevention/early intervention program is implementing Project SUCCESS in 25 high schools and 21 middle schools. Components of this evidence-based program include classroom instruction, individual and group counseling, school-wide awareness activities, parent programs, and referral and follow-up, which reduce risk factors and enhance protective factors against the initiation of tobacco use and other substances. In 2016, 5,346 students received this education, and 3,600 students were screened and given a brief intervention for alcohol, tobacco, other drug use, and mental health issues.<sup>150</sup>

### Tobacco-Free College Campuses

- ◆ Nearly 99% of all smokers report initiating tobacco use by age 26, making college and university campuses a critical environment for tobacco control. As of July 2017, there are 1,913 100% smoke-free campuses in the U.S. according to the Tobacco-Free College Campus Initiative, which supports the implementation of tobacco-free policies across campuses nationwide.<sup>151,152</sup>
- ◆ There are a few college campuses across Rhode Island that have taken a stand against smoking and implemented a 100% tobacco-free policy, as defined by the Tobacco-Free College Campus Initiative: *Brown University's Warren Alpert Medical School, Johnson and Wales University, and Rhode Island College's School of Nursing*. Other Rhode Island higher education institutions follow state law by incorporating no smoking policies in and around all college buildings and residence halls, as well as establishing designated and limited outside areas for smoking.<sup>153,154,155,156</sup>

## Recommendations

Preventing, identifying, and treating youth and adult tobacco use requires the complementary and sustained efforts of health care providers, public health officials, parents, policymakers, educators, school administrators, and others.

- ◆ **Implement youth prevention activities:** Rhode Island should build on its success in decreasing youth cigarette use by continuing comprehensive prevention efforts. State agencies, schools, educators, community organizations, healthcare providers, and public health officials should educate and engage youth in the design of tobacco prevention activities, media campaigns, interventions, curriculum, and advocacy efforts. Youth who are especially vulnerable to tobacco and nicotine products use should be prioritized.
- ◆ **End e-cigarette loopholes:** Rhode Island and local communities should enact or amend existing tobacco policies, ordinances, and legislation to include language about e-cigarettes. Prevention efforts should also focus on new and emerging products such as e-cigarettes.
- ◆ **Promote quitting:** Medical and oral health providers should continue to screen all individuals, including youth and pregnant women, for tobacco use and should connect tobacco users to cessation interventions. Schools, community organizations, and businesses should continue to connect tobacco users to available cessation supports. Efforts should be inclusive of new technology platforms and practices.
- ◆ **Consider raising the purchase age:** Rhode Island should consider increasing the statewide legal minimum sale age for all tobacco products to age 21 similar to five other states (CA, HI, ME, NJ, OR) to reduce smoking initiation.
- ◆ **Enact retail restrictions:** Increased funding is needed to support enforcement and education activities at retail establishments to prevent tobacco sales to minors. Funds raised from retail licenses and taxes should be used to support a variety of tobacco control activities, including enforcing restrictions on the availability of products to minors, restricting flavored products, and controlling retail density. Pharmacies and other health focused retailers should consider prohibiting the sale of all tobacco products.
- ◆ **Continue using tobacco pricing as a prevention strategy:** The state should replicate retail and monetary strategies that have been effective in reducing cigarette use for all other tobacco products. Examples include establishing minimum pack sizes and increasing prices to encourage price sensitive users to quit and to fund prevention and treatment efforts.
- ◆ **Prevent secondhand smoke:** The state and local communities should expand smoke-free outdoor protections at beaches, parks, recreational areas, college campuses, technical schools, and healthcare establishments.
- ◆ **Increase tobacco control funding:** Support and sustain evidence-based, comprehensive statewide tobacco use prevention and cessation programs by returning state funding to pre-recession levels.
- ◆ **Continue data collection and reporting:** The Rhode Island Department of Health and the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities and Hospitals should continue current student surveys, including the *Youth Risk Behavior Survey* and the *Rhode Island Student Survey*, to monitor self-reported youth tobacco use and related behavior. The Rhode Island Department of Education and school districts should increase capacity to collect youth tobacco use data in district surveys or report cards. All survey instruments should sufficiently sample youth with disabilities, Native American, Asian, and LGBTQ youth so that reliable prevalence data can be reported.

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