



2014 TOBACCO CONTROL PROGRAM DATA REPORT

# YOUTH TOBACCO USE IN RHODE ISLAND

# AUTHORS

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# ACKNOWLEDGEMENTS

Appreciation is extended to Seema Dixit, MS, MPH, for her steadfast and forward thinking leadership of the Tobacco Control Program from 2006-2012. Thanks also go to the Center for Health Data and Analysis at the Rhode Island Department of Health (HEALTH) for its oversight of Rhode Island's Middle School and High School Youth Behavior Risk Surveys. We would like to acknowledge Anne Berg, from HEALTH's Center for Public Health Communications, who so beautifully formatted this report. Thanks go to the Tobacco Control Program staff and its HEALTH and community partners who provided input on the report and who collaborate tirelessly on tobacco control every day of the year.

This publication was supported by the Cooperative Agreement Number: 5U58DP001988-03 from the Center for Disease Control and Prevention.

Publication date: June 2014



June 2014

Dear Rhode Islanders,

Every day, those of us who seek to protect children from the health dangers of smoking and other tobacco products face an uphill battle. In 2011, the tobacco industry spent more than \$8.4 billion on advertising and promotional expenses in the United States. Cheap and discreet new lines of smokeless and flavored tobacco packaged in colorful, candy-like wrappers tempt our youth through manipulation and deceit. As the tobacco industry's customer base dies off after using its products, the industry sets its sights on a replacement market: our children.

The good news is that we can stop the tobacco industry's recruitment of Rhode Island's youth before it's too late. Research suggests that if smokers do not begin before the age of 19, they most likely never will. Our job, then, is to meet our youth where they are with creative efforts to counter the tobacco industry's tactics.

Comprehensively banning smoking in public places, making cigarettes and other tobacco products expensive, and preventing youth access to tobacco are among the best practices to help prevent youth from beginning to smoke and use tobacco products. Ordinances banning flavored tobacco products and smoking in public places, as well as those requiring local tobacco vendor licenses, are becoming more common in our cities and towns, making it harder for youth to access tobacco and more difficult to find places to use it.

Our efforts are beginning to pay off. While 700 children become daily smokers each year in Rhode Island, the state has the third-lowest youth smoking rate in the country. Continuing to implement evidence-based tobacco control best practices will help us make progress toward eliminating this deadly burden altogether for generations to come.

And Fine

Michael Fine MD Director of Health



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#### **EXECUTIVE SUMMARY**

#### Tobacco is a public health priority

Tobacco use is the leading cause of preventable death, disease, and disability in the United States. Many adult smokers who smoke cigarettes on a daily basis report that they first smoked cigarettes by age 18. Persons who begin smoking during adolescence are more likely to experience smoking-related health problems. The younger that youth are when they start using tobacco, the more likely they will be addicted to nicotine, which prolongs tobacco use and can lead to severe health issues. Nearly half a million Americans die prematurely from tobacco use each year, and annual economic costs attributable to smoking and exposure to second-hand smoke have reached nearly \$300 billion.

On the national level, smoking rates in teens have dropped considerably between 1997 and 2003. Since 2003, rates have declined far more slowly. The marketing of tobacco products to adolescents and young adults is widespread, especially through targeted messages and images that portray smoking as an acceptable, appealing activity for young people. Compounding the issue of tobacco marketing are severe cuts in state tobacco programs since 2002. The slower rate of decline in national youth smoking rates reaffirms the need to identify and deliver effective anti-smoking interventions to reduce the prevalence of youth smoking initiation.

## **Purpose of this report**

The intended audience for this public health brief is tobacco control stakeholders in Rhode Island, including community partners, voluntary organizations, healthcare practitioners, policy makers, educators, and individuals who are interested in preventing youth tobacco and nicotine use. This tobacco brief provides a snapshot of tobacco use among Rhode Island middle school and high school students. The information will be updated periodically as new data and relevant information become available.

#### Primary data used in this report

This report focuses primarily on data from the Rhode Island High School and Middle School Youth Risk Behavior Survey (YRBS). The national YRBS is administered every two years across the United States by the Centers for Disease Control and Prevention to evaluate trends in the use of tobacco products among high school students in the US. The cross-sectional data are representative of public and private high school students in grades 9 to 12 in all 50 states and the District of Columbia.

The Rhode Island High School YRBS is administered to public high school students in grades 9 to 12 and the Rhode Island Middle School YRBS is administered to public school students in grades 6 to 8. Both surveys are administered every two years on the odd years. The self-reported data are weighted to be representative of Rhode Island public middle school and high school students statewide.

# **Prevalence - highlights**

# Current cigarette use among Rhode Island middle school students

- 4.2% of public middle school students currently smoke cigarettes.
- Current cigarette use is higher among Hispanic middle school students (6.5%) than among non-Hispanic white middle school students (3.5%).

# Current cigar use among Rhode Island middle school students

- 5.0% of Rhode Island middle school students currently smoke cigars, cigarillos, or little cigars.
- Current cigar use is higher among Hispanic middle school students (8.7%) than among non-Hispanic white middle school students (3.7%).

# Current smokeless tobacco use among Rhode Island middle school students

• About 3% of public middle school students currently use smokeless tobacco.

# Current cigarette use among Rhode Island high school students

- 8% of Rhode Island high school students currently smoke cigarettes.
- The prevalence of current cigarette use is higher among non-Hispanic white high school students (12.9%) than among Hispanic high school students (6.5%).

# Current cigar use among Rhode Island high school students

- 11.0% of Rhode Island public high school students currently smoke cigars, cigarillos, or little cigars.
- Non-Hispanic white high school students are more likely than Hispanic high school students to smoke cigars (11.8% vs. 7.9%).

# Current smokeless tobacco use among Rhode Island high school students

- 6.3% of public high school students currently use smokeless tobacco (e.g., chewing tobacco, snuff, or dip).
- Overall, the prevalence of current smokeless tobacco use is higher among male (9.7%) than female (2.5%) high school students; and higher among 12th-graders (8.3%) than 9th-graders (4.9%).

# **Priority populations**

African American youth, Hispanic/Latino youth, lesbian, gay, bisexual, and youth who are unsure of their sexual identity (LGBU), and youth with physical or emotional disabilities have been identified as priority populations in Rhode Island.

*Racial/ethnic minority youth:* Hispanic middle school students are nearly twice as likely to smoke cigarettes as non-Hispanic white middle school students. The sample size for non-Hispanic middle school students who currently smoke

cigarettes or smoke cigars is small and the 95% confidence intervals around these percentages are very wide and imprecise. Findings on racial/ethnic differences in current tobacco use between Hispanic and non-Hispanic middle school students should be interpreted with caution.

#### Lesbian, gay, bisexual, unsure (LGBU) youth

• Current cigarette smoking is nearly three times higher (28.2% vs. 9.7%) and current cigar smoking is nearly twice as high (19.0% vs. 10.1%) among LGBU high school students than their heterosexual peers.

## Youth with disabilities

- Youth with physical disabilities are more likely than those without physical disabilities to currently smoke cigarettes (18.0% vs. 10.1%), to smoke cigars (16.1% vs. 9.9%), or to use smokeless tobacco products (9.8% vs. 5.5%).
- High school students with emotional and learning disabilities are more likely than those without these disabilities to currently smoke cigarettes (21.2% vs. 9.4%), to smoke cigars (16.1% vs. 9.7%), or to use smokeless tobacco products (9.1% vs. 5.6%).

#### Prevention of youth tobacco use

The Rhode Island Tobacco Control Program (TCP) informs stakeholders on CDC best practices in tobacco control. Among the best practices are increasing tobacco taxes, implementing high quality media campaigns aimed at youth, and restricting youth access at the point of sale.

#### Conclusion

Despite the enormity of the challenge posed by the tobacco industry, the Rhode Island Tobacco Control Program has been successful and is nationally recognized for its accomplishments in implementing a high-quality, comprehensive statewide tobacco control program. Rhode Island continues to be a leader in promoting and enforcing smoke-free laws that provide for strong protection against exposure to secondhand smoke in workplaces and public places. The Tobacco Control Program continues to collaborate with CDC, and to work with its community partners, statewide voluntary agencies, and stakeholders to promote a state that is tobacco and nicotine-free and supports the growth, development, and health of all youth. The tobacco industry is an ever-morphing entity that continues to adapt its methods of manipulating youth to become addicted customers with ever-changing manufacturing and marketing of tobacco and nicotine products. There remains much work to be done to continue to protect our youth from the dangers of the use of these deadly products.





## I. TOBACCO—A PUBLIC HEALTH PRIORITY

Tobacco use is the leading cause of preventable death, disease, and disability in the United States.<sup>1</sup> Many adult smokers who smoke cigarettes on a daily basis report that they first smoked cigarettes by age 18.<sup>2,3</sup> Persons who begin smoking

" I started smoking when I was a teenager. My parents smoked – my mother and step-father. I remember taking a pack of his Marlboro Reds; I was always a Marlboro Red smoker from then on."

> Chris, Former Smoker, North Providence

during adolescence are more likely to experience smoking-related health problems. The younger that youth are when they start using tobacco, the more likely they will be addicted to nicotine, which prolongs tobacco use and can lead to severe health issues.<sup>4</sup> Nearly half a million Americans die prematurely from tobacco use each year, and annual economic costs attributable to smoking and exposure to second-hand smoke have reached nearly \$300 billion.<sup>5</sup>

On the national level, smoking rates in teens have dropped considerably between 1997 and 2003 (Figure 1). Since 2003, rates have declined far more slowly. The marketing of tobacco products to adolescents and

young adults is widespread, especially through targeted messages and images that portray smoking as an acceptable, appealing activity for young people.<sup>6</sup> Compounding the issue of tobacco marketing are severe cuts in state tobacco programs since 2002.<sup>7,8</sup> The slower rate of decline in youth smoking rates reaffirms the need to identify and deliver effective antismoking interventions to reduce the prevalence of youth smoking initiation.



Nearly 500,000 Americans die prematurely from tobacco use each year, and annual economic costs attributable to smoking and exposure to second-hand smoke have reached nearly \$300 billion.



Figure 1. Trends in current cigarette smoking among high school students\* and adults\*\*–United States, 1965-2011, and Healthy People 2020 Tobacco Use Goals

\*Percentage of high school students who smoked cigarettes on 1 or more of the 30 days preceding the survey.

(Youth Risk behavior Survey, 1991-2011).

\*\*Percentage of adults who are current cigarette smokers (National Health Interview Survey, 1965-2010).

\*\*\*Healthy People 2020 are public health goals for the United States.

Data source: Centers for Disease Control and Prevention: http://www.cdc.gov/tobacco/data\_statistics/tables/trends/cig\_smoking/index.htm

# Healthy People 2020 Goals for the Nation

Healthy People 2020 is a compilation of disease prevention and health promotion objectives for the nation to achieve during the second decade of the 21st century.

# Healthy People 2020 Goals for Adolescents

- REDUCE OVERALL TOBACCO USE TO 21%
- REDUCE CIGARETTE SMOKING IN THE PAST 30 DAYS TO 16%
- REDUCE USE OF SMOKELESS TOBACCO (CHEWING TOBACCO OR SNUFF) PRODUCTS IN THE PAST 30 DAYS TO 7%
- REDUCE CIGAR SMOKING IN THE PAST 30 DAYS TO 8%

#### **National CDC Goals**

The Centers for Disease Control and Prevention (CDC) has identified reducing tobacco use as a winnable battle.<sup>9</sup> With support from CDC and statewide partners, the Rhode Island Tobacco Control Program is implementing evidence-based best practices for tobacco control that have been shown to succeed in reducing tobacco use among youth and adults. The CDC has developed four goals to address national tobacco control.<sup>10</sup>

## **Centers for Disease Control and Prevention National Tobacco Goals**

- 1) PREVENT INITIATION AMONG YOUTH
- 2) PROMOTE QUITTING AMONG ADULTS AND YOUTH
- 3) ELIMINATE NONSMOKERS' EXPOSURE TO SECONDHAND SMOKE
- 4) IDENTIFY AND ELIMINATE DISPARITIES AMONG POPULATION GROUPS

# **II. PURPOSE OF BRIEF**

The intended audience for this public health brief is tobacco control stakeholders in Rhode Island, including community partners, voluntary organizations, health care practitioners, policy makers, educators, and individuals who are interested in preventing youth tobacco and nicotine use. This tobacco brief uses data from the Rhode Island Youth Risk Behavior Survey (YRBS) to provide a snapshot of tobacco use among Rhode Island middle school and high school students. The information will be updated periodically as new data and relevant information become available.



# III. WHAT IS THE YOUTH RISK BEHAVIOR SURVEY (YRBS)?

The national YRBS is administered every two years by the CDC to evaluate trends in the use of tobacco products among high school students in the U.S. The cross-sectional data are representative of public and private high school students in grades 9 to 12 in all 50 states and the District of Columbia.<sup>11</sup>

The Rhode Island High School YRBS is administered to public high school students in grades 9 to 12 and the Rhode Island Middle School YRBS is administered to public school students in grades 6 to 8. Both surveys are administered every two years on the odd years. These weighted, self-reported findings are representative of Rhode Island public middle school and high school students statewide. Appendix B provides more information on the YRBS and the data presented in this report.

The CDC also analyzes data from the National Youth Tobacco Survey (NYTS), a school-based survey that has been conducted approximately every two years since 2000.<sup>12</sup> The NYTS collects information on tobacco use and related behaviors and attitudes from middle school students (grades 6 to 8) and high school students (grades 9 to 12). The survey includes additional measures not included on the national YRBS such as: use of pipes, bidis (small brown cigarettes wrapped in a leaf), kreteks (clove cigarettes which are now banned in the U.S.), access to tobacco products, exposure to tobacco advertisements, and susceptibility to initiation of cigarette smoking.<sup>13</sup> Rhode Island does not currently administer a state version of the NYTS.

# **IV. IMPROVING THE HEALTH OF RHODE ISLAND YOUTH**

One of the CDC's four primary tobacco control goals is to identify and eliminate tobacco-related disparities. Health disparities refer to differences between groups of people that are attributable to preventable factors such as poverty, inadequate access to healthcare, or disproportionate exposure to poor air quality, which can contribute to a host of health problems. The Rhode Island Tobacco Control

Program weaves both the CDC's goal of identifying and eliminating tobacco-related disparities throughout its work and addresses it as a separate goal.

Equity in health implies that ideally everyone could attain their full health potential and that no one should be disadvantaged from achieving this potential because of their social, environmental, or economic circumstances. The Rhode Island Department of Health Division of Community, Family Health, and Equity has adopted a health equity approach that emphasizes the importance of interventions with the most potential for improving the health of the greatest number of people (Figure 2).

The Rhode Island Tobacco Control Program works within the framework of the Health Equity Pyramid and focuses the majority of its limited resources on interventions that work on the level of policy, systems, and environmental changes. Achieving health equity requires that we also address the social determinants of health.



# Health Disparities<sup>14</sup>

Health disparities are preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations. Health equity is the equal and fair distribution of health and wellbeing where disparities in health status are eliminated across populations by race, ethnicity, gender, geography, disability, religion, sexual preference, and mental status.<sup>15</sup>

#### Figure 2. Health Equity Pyramid<sup>1</sup>



## **COLLABORATION, INTEGRATION, PARTNERSHIPS**

<sup>1</sup>This Pyramid is adapted from Thomas Frieden, MD, MPH, presentation at the Weight of the Nation conference, in Washington D.C., July 27, 2009

# **Social Determinants of Health**

Population health is often measured in terms of life expectancy, mortality and infant mortality, and the leading causes of death and disability. Our health is determined, in part, by access to social and economic resources available in our communities, such as the safety of our neighborhoods, the quality of local drinking water, and access to healthy foods. The physical environment of our communities explains, in part, why some Rhode Islanders are more likely to be healthier than other Rhode Islanders.

# V. WHAT FACTORS INFLUENCE YOUTH SMOKING?

The CDC has identified some of the factors that are associated with youth tobacco use. Of course, no single factor determines patterns of cigarette smoking and other tobacco use among youth. Peer influences, parental smoking, exposure to industry-targeted advertising, the price of tobacco products, and the capacity of communities to mount effective tobacco-control initiatives all influence whether a young person will start smoking and continue smoking through adolescence and young adulthood. One area the Tobacco Control Program pays close attention to is the influence of the community environment on youth smoking.

Advertising of cigarettes on billboards and in newspapers, magazines, and movies is one important factor that contributes to smoking initiation among adolescents.<sup>16</sup> Food and Drug Administration (FDA) regulations make the sale of tobacco products to persons younger than age 18 a violation of federal law. The FDA also requires photo identification for all tobacco sales to persons age 28 or younger.

Table 1. Individual and community factors associated with youth smoking: National picture

# **Individual Level Factors**

- Use and approval of tobacco products by peers and siblings
- Smoking by parents or guardians and/or lack of parental support or involvement with teenage children
- Low levels of academic achievement
- Low self-image or self-esteem
- Lack of skills to resist influences to use tobacco products
- Aggressive behavior (e.g., fighting, carrying weapons)

# Community Level Factors

- Accessibility, availability, and price of tobacco products
- Targeted advertising of cigarettes and other tobacco products
- Exposure to smoking in the movies
- Exposure to tobacco advertising

Data source: Centers for Disease Control and Prevention. Smoking and Tobacco Use. Youth and Tobacco Use. Accessed at: http://www.cdc.gov/tobacco/data\_statistics/fact\_sheets/youth\_data/tobacco\_use/index\_htm **Still, the tobacco industry aggressively advertises and markets pro-tobacco messages to youth.** Young people remain heavily exposed to stationary, outdoor cigarette advertising, especially in neighborhoods with high Black and Latino populations and in low-income communities.<sup>17,18</sup> Tobacco companies also aggressively promote smoking cigarettes with activities that appeal to youth, such as sports



and other outdoor activities.<sup>19</sup> Additionally, neighborhood stressors such as whether youth feel safe in their neighborhood may affect youth smoking.<sup>20</sup>

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There is no single intervention that will reduce youth initiation on its own. Rather, there are a number of interventions that, if implemented in a coordinated way, hold the most promise for reducing youth tobacco use. These interventions include: running high-quality media campaigns; keeping cigarette prices high; engaging youth in areas such as leadership development and media literacy, which can lead to important policy and social

norm changes; enforcing restrictions to youth access to tobacco; and implementing interventions that change the environment that influences youth to initiate smoking.<sup>21,22</sup> In summary, youth-focused tobacco prevention and control strategies are multi-faceted and seem to work synergistically.<sup>23</sup>

# **VI. PREVENTING INITIATION OF SMOKING AMONG YOUTH**

#### Why Preventing Youth Smoking is Important

Risk-taking increases between childhood and adolescence as a result of developmental changes around the time of puberty. Risk-taking is often a way teens assert their independence from parents and other adults. Thus, for young people, the transition to adulthood becomes replete with opportunities and risks. Given youth's propensity for risk-taking and independence asserting, adolescence is a critical time during which protection against tobacco use experimentation and uptake is imperative.

#### National Trends in Youth Cigarette Use

Data from the National Youth RiskBehavior Survey and the National Youth Tobacco Survey provide welcome news that current tobacco use has decreased.<sup>24,25</sup> Among U.S. high school youth, cigarette use was 36% in 1997, and declined to 18% in 2011; a decrease of 18 percentage points.<sup>26</sup> In 1997, 70% of U.S. high school students had ever smoked cigarettes, reaching a low of 45% by 2011; a decrease of 25 percentage points.<sup>27</sup> From 2000 to 2011 there was a significant decrease in current tobacco use (14.9% to 7.1%) and current cigarette use (10.7% to 4.3%).<sup>28</sup>

# **Definitions of Youth Tobacco Use**

#### **Ever smoked cigarettes**

Ever trying cigarette smoking, even one or two puffs

#### **Current cigarette use**

Smoked cigarettes on at least one day during the 30 days before the survey

# Current, frequent cigarette use Smoked cigarettes on 20 or more days during the 30 days before the survey

# **Rhode Island Trends in Youth Cigarette Use**

Between 2009 and 2013, there were no statistically significant reductions in the percentage of Rhode Island public middle school students who had ever smoked cigarettes or who currently smoked (Figure 3). Between 14% and 17% of middle school youth say that they have tried cigarette smoking at least once (ever smoked) and between 4% and 5% say that they currently smoke.

Figure 3. Trends in the percentage of Rhode Island public middle school students who reported lifetime (ever) smoking and current smoking, 2009 – 2013



Data source: 2009, 2011 & 2013 Rhode Island Middle School Youth Risk Behavior Survey weighted data files. Rhode Island Department of Health Center for Health Data and Analysis.

The percentage of Rhode Island public high school students who said that they currently smoked cigarettes shows an important downward trend and the percentage of those that report ever smoking cigarettes shows a significant drop in the past 15 years from a high of 69% in 1997 to 30% in 2013 (Figure 4). A decline in adolescent tobacco use is an encouraging sign for public health and prevention.





Figure 4. Trends in the percentage of Rhode Island public high school students who reported lifetime (ever) smoking, current smoking, and frequent cigarette use, 1997 - 2013

Data source: 1997 to 2013 Rhode Island High School Youth Risk Behavior Survey weighted data files. Rhode Island Department of Health Center for Health Data and Analysis.

The Rhode Island Tobacco Control Program is committed to meeting the Healthy People 2020 goals of reducing overall tobacco use in adolescents to 21% and has succeeded! As shown in Figure 4, 8% of Rhode Island public high school students currently smoked cigarettes in 2013. Rhode Island has the third lowest youth smoking rate nationally.

The Tobacco Control Program is finding new ways to reach and engage with teen audiences to keep young people from becoming new smokers and to help all adolescent and young adult smokers quit. Monitoring teen smoking trends enables the Tobacco Control Program and its partners to target prevention resources more effectively.



# Healthy People 2020<sup>29</sup>

Healthy People 2020 is a compilation of disease prevention and health promotion objectives for the nation to achieve during the second decade of the 21st century. The Healthy People 2020 tobacco objectives for adolescents are:

- Reduce overall tobacco use to 21%
- Reduce cigarette smoking in the past 30 days to 16%
- Reduce use of smokeless tobacco (chewing tobacco or snuff) products in the past 30 days to 7%
- Reduce cigar smoking in the past 30 days to 8%

# **Preventing Youth Initiation**

#### **Cigarette Smoking**

As noted earlier, smoking is highly addictive for young people, increasing the risk of serious health problems in adolescence and throughout the adult years. Most youth who begin smoking during adolescence are addicted to nicotine by age 18 and evidence shows that a young person can be addicted after one smoking experience.<sup>30</sup>



Data source: 2009, 2011 & 2013 Rhode Island Middle School Youth Risk Behavior Survey combined and weighted data file.

Policies that are effective in delaying initiation of smoking or preventing smoking in youth can help reduce the percentage of people with smoking-related health problems in the future. A highly effective CDC best practice is taxing tobacco products so that cigarettes and other tobacco products are expensive. High taxes on tobacco products have been shown to prevent the initiation of smoking and get smokers to quit smoking, with the greatest impact on youth and people with limited household income.<sup>31</sup> Rhode Island currently has the third highest tax in the U.S. at \$3.50 per pack.<sup>32</sup>

# Table 2. Projected public health benefits for Rhode Island from \$1.00cigarette tax rate increase

Percent decrease in youth smoking: 7.9%

Youth younger than age 18 kept from becoming adult smokers: 2,300

Current adult smokers who would quit: 3,300

Premature smoking-caused deaths prevented: 1,500

Five-Year number of smoking-affected births avoided: 400

Five-Year healthcare cost savings from fewer smoking-caused lung cancer cases: \$520,000

Five-Year healthcare cost savings from fewer smoking-affected pregnancies & births: \$1.11 million

Five-Year healthcare cost savings from fewer smoking-caused heart attacks & strokes: \$1.25 million

Five-Year Medicaid program savings for the state: \$1.44 million

Long-term healthcare cost savings from adult & youth smoking declines: \$102.30 million

Data source: Campaign for Tobacco-Free Kids, American Cancer Society Action Network. New Revenues, Public Bealth Benefits & Cost Savings from a \$1.00 Cigarette Tax increase in Rhode Island, March 10, 2014. Accessed at: http://www.tobaccofree-ri.org/FactSheet-H7805-S2460.pdf

#### **Cigars and Smokeless Tobacco Products**

Use of cigars and smokeless tobacco products is becoming more common among high school youth as the tobacco industry markets sweetened and flavored smokeless tobacco that can taste more like candy, which make these products more appealing to young people. While the U.S. Food and Drug Administration (FDA) banned certain flavored cigarettes in 2009,<sup>33</sup> tobacco companies rebranded flavored cigarettes as "cigarillos" or "cigars" to avoid FDA regulations. As shown on page 22, Camel Orbs Fresh is a tablet-type tobacco product which is similar in size and packaging to products such as Tic Tac mints. Orbs are often mistaken for mints or other candies by youth.





Camel Orbs Fresh is a tablet-type tobacco product... often mistaken for mints or other candies by youth.

Photo by Andrew Seidenberg, courtesy Harvard School of Public Health, as printed in the American Public Health Association newsletter, The Nation's Health. August 2010; 40(6):1-14.

Like cigarette smoking, smokeless tobacco use is almost always initiated and established during adolescence. National Youth Risk Behavior Survey (YRBS) data show that in 2011, 13% of U.S. high school age adolescents currently smoked cigars, cigarillos, or little cigars; about the same percentage as in 2005 (14%).<sup>34</sup> About 8% of U.S. high school students used chewing tobacco, snuff, or dip in 2011, which also showed little change since 2005.<sup>35</sup> Data also show that 11.7% of high school students believe smokeless tobacco products are safer than cigarettes.<sup>36</sup>

Data from the 2011 National Youth Tobacco Survey (NYTS) showed that among middle school students the most commonly used forms of tobacco, after cigarettes, were cigars (3.5%), smokeless tobacco (2.2%), pipes (2.2%), bidis (1.7%), and kreteks (1.1%). Among high school students, the most commonly used forms of tobacco after cigarettes were cigars (11.6%), smokeless tobacco (7.3%), pipes (4.0%), bidis (2.0%), and kreteks (1.7%).<sup>37</sup> Hookahs, bidis, and kreteks all consist of fruit and candy flavors that are less harsh than regular cigarettes. Hookahs are water pipes used for smoking flavored tobacco. Bidis are thin, flavored, unfiltered cigarettes. Kreteks are clove cigarettes. Each of these products contains hazard-ous toxins similar to regular cigarettes.

# Youth Smoking in Rhode Island: Who is at Risk?

Tables 3 and 4 show the use of cigarettes, cigars, and smokeless tobacco products among Rhode Island middle school and high school students, by age group, sex, grade level, and race/ethnicity. Race/ethnicity data were analyzed only for non-Hispanic white high school students and Hispanic high school students of any race. The numbers of non-Hispanic black middle school and high school students who currently smoke cigarettes or used other tobacco products were too small for meaningful analysis.



#### Current cigarette use among Rhode Island middle school students.

In Rhode Island, 4.2% of public middle school students have smoked cigarettes on at least one day during the 30 days before the survey (i.e., current cigarette use; Table 3). The prevalence of current cigarette use ranged from 4.0% among 13-year-old students to 8.7% among youth ages 14 to 16. About 6.5% of 8th-grade students currently smoke. Overall, the prevalence of current cigarette use was higher among Hispanic middle school students (6.5%) than among non-Hispanic white middle school students (3.5%).

#### Current cigar use among Rhode Island middle school students.

Overall, 5.0% of public middle school students have smoked cigars, cigarillos, or little cigars on at least one day during the 30 days before the survey (i.e., current cigar use; Table 3). The prevalence of current cigar use was higher among 14-to 16-year-olds (7.9%) than younger students (4.2%); higher among male (6.1%) than female (3.7%) middle school students; higher among eighth graders (5.9%) than seventh graders (3.8%); and higher among Hispanic middle school students (8.7%) than among non-Hispanic white middle school students (3.7%).

*Current smokeless tobacco use among Rhode Island middle school students.* About 3% of public middle school students have used smokeless tobacco (e.g., chewing tobacco, snuff, or dip) on at least one day during the 30 days before the survey (i.e., current smokeless tobacco use; Table 3). Characteristics of middle school students who have used smokeless tobacco products are shown for males, eighth graders and Hispanic middle school students. The sample size for other groups shown in Table 2 was too small to weight the data to be representative of middle school students statewide. About 4.0% of boys and 3.4% of eighth graders have used smokeless tobacco products, as have 6.4% of Hispanic middle school students.



# **Middle School Students**

Table 3. Characteristics of Rhode Island middle school youth by type of tobacco product, 2009 - 2013

Tobacco use <sup>1</sup>	Current cigarette use		Current cigar use			Current smokeless tobacco use			
Characteristics <sup>2</sup>	Weighted population	Weighted percentages	(95% CI) <sup>3</sup>	Weighted population	Weighted percentages	(95% CI) <sup>3</sup>	Weighted population	Weighted percentages	(95% CI)⁵
Total population	1,264	4.2	3.1–5.3	1,552	5.0	3.0-6.5	952	2.5	1.7–4.5
Age									
10 to 12 years old	4			576	4.2	1.0–7.5			
13 years old	427	4.0	3.0-5.0	459	4.2	3.6-4.8			
14 to 16 years old	538	8.7	6.7–10.7	511	7.9	6.7–9.2			
Sex									
Female	582	4.0	3.1–4.8	555	3.7	2.5–4.9			
Male	667	4.3	2.8-5.8	973	6.1	4.3–7.8	622	3.9	2.2–5.6
Grade									
6th									
7th				419	3.8	2.7–5.5			
8th	693	6.5	4.8-8.2	664	5.9	4.8–7.0	374	3.4	2.6-4.2
Race/ethnicity									
Hispanic	382	6.5	3.2–9.8	540	8.7	3.4–14.1	395	6.4	1.0-11.7
Non-Hispanic black									
Non-Hispanic white	675	3.5	2.7–4.3	738	3.7	3.1-4.4			

<sup>1</sup> Definitions:

<sup>1</sup> Definitions:
<sup>2</sup> Current cigarette use. Smoked cigarettes on at least 1 day during the 30 days before the YRBS survey.
<sup>2</sup> Current cigar use. Smoked cigars, cigarillos, or little cigars on at least 1 day during the 30 days before the survey.
<sup>2</sup> Current smokeless tobacco use. Used smokeless tobacco (chewing tobacco, snuff, or dip), on at least 1 day during the 30 days before the survey.
<sup>2</sup> The characteristics describe Rhode Island adolescents who used tobacco products. For example, 4.0% of middle school girls reported smoking cigarettes on at least 1 day during the 30 days before the survey (i.e., current cigarette use) as did 4.3% of middle school boys.
<sup>3</sup> 95% CI = 95% confidence intervals. Groups being compared are considered to be significantly different if the 95% confidence intervals do not overlap.

<sup>4</sup> A dash (--) indicates that there were < 100 respondents for the subgroup and data were not weighted.

Data source: 2009, 2011 & 2013 Rhode Island Middle School Youth Risk Behavior Survey combined and weighted data file.

#### Current cigarette use among Rhode Island high school students

In Rhode Island, 11% of public high school students have smoked cigarettes on at least 1 day during the 30 days before the survey (i.e., current cigarette use; Table 3). As shown in Figure 4, only 8% of Rhode Island high school students currently smoked cigarettes in 2013. Figure 4 shows yearly trends in youth tobacco use between 1997 and 2013. Table 4 combines data from the 2009, 2011 & 2013 Rhode Island High School Youth Risk Behavior Survey to increase sample size in order to better understand the characteristics of youth who use tobacco products. The combined data set generates an average percent over all three years (13% + 11%+ 8%/3 years = 11%). Thus, the percentages shown in Figure 4 and in Table 4 are slightly different.

The prevalence of current cigarette use ranged from 8.4% among 15-year-old students to 14.4% among youth ages 17 to 18. Twelfth-grade students (15.2%) were more likely to report that they currently smoked cigarettes than ninth graders (7.8%). The prevalence of current cigarette use was higher among non-Hispanic, white high school students (12.9%) than among Hispanic high school students (6.5%).

#### Current cigar use among Rhode Island high school students

Overall, 10.9% of public high school students have smoked cigars, cigarillos, or little cigars on at least one day during the 30 days before the survey (i.e., current cigar use; Table 4). The prevalence of current cigar use was higher among 17- to 18- year-old youth (15.6%) than younger students (6.2%); higher among male (15.6%) than female (5.7%) high school students; and higher among 12th graders (16.2%) than 9th graders (6.8%). Non-Hispanic white high school students were more likely than Hispanic high school students to smoke cigars (11.8% vs. 7.9%).

*Current smokeless tobacco use among Rhode Island high school students* In Rhode Island, 6.3% of public high school students have used smokeless tobacco (e.g., chewing tobacco, snuff, or dip) on at least one day during the 30 days before the survey (i.e., current smokeless tobacco use; Table 4). Overall, the prevalence of current smokeless tobacco use was higher among male (9.7%) than female (2.5%) high school students; and higher among twelfth-graders (8.3%) than ninthgraders (4.9%).

#### Used hookah to smoke tobacco

In Rhode Island, 13.1% of high school students report using a hookah to smoke tobacco in the past 30 days. The percentage of Hispanic youth who used a hookah to smoke tobacco (19.3%) was higher than among non-Hispanic white youth (11.5%).

# hookah to smoke tobacco (19.3%) was higher than among non-Hispanic white youth (11.5%).

# **High School Students**

#### Table 4. Characteristics of Rhode Island high school youth by type of tobacco product, 2009 - 2013

Tobacco use <sup>1</sup>	Current cigarette use			Current cigar use			Current smokeless tobacco use		
Characteristics <sup>2</sup>	Weighted population	Weighted percentages	(95% CI) <sup>3</sup>	Weighted population	Weighted percentages	(95% CI) <sup>3</sup>	Weighted population	Weighted percentages	(95% CI)⁵
Total Population	4,814	11.0	9.8–12.3	5,010	10.9	10.0–11.8	2,860	6.3	5.6–7.0
Age									
12 to 14 years old				432	6.2	4.9–7.5			
15 years old	925	8.4	6.2–10.7	814	7.1	5.7–8.5	443		
16 years old	1,382	12.5	10.9–14.0	1,276	10.9	9.1–12.7	720	6.2	5.1–7.3
17 to 18 years old	2,130	14.4	12.1–16.7	2,484	15.6	14.1–17.1	1,297	8.3	6.4–10.1
Sex									
Female	2,271	10.4	9.0–11.8	1,307	5.7	4.8-6.7	565	2.5	1.9–3.0
Male	2,508	11.6	10.1–13.2	3,617	15.6	13.9–17.3	2,223	9.7	8.4–11.0
Grade									
9th	973	7.8	6.2–9.4	891	6.8	5.5-8.2	634	4.9	4.0-5.8
10th	1,100	10.0	8.2–11.7	1,035	8.9	7.6–10.2	628	5.5	4.4-6.5
11th	1,174	11.6	9.8–13.4	1,274	12.0	9.8–14.2	599	5.7	4.6–7.3
12th	1,470	15.2	12.4–18.0	1,683	16.2	13.9–18.5	856	8.3	6.2–10.4
Race/ethnicity									
Hispanic	520	6.5	4.9-8.0	683	7.9	6.4–9.3	568	6.7	5.4–7.9
Non-Hispanic black									
Non-Hispanic white	3,734	12.9	11.1–14.7	3,562	11.8	10.3–13.3	1,808	6.0	5.6–7.0

<sup>1</sup> Definitions:

Current cigarette use. Smoked cigarettes on at least 1 day during the 30 days before the Rhode Island Youth Risk Behavior Survey.

Current cigar use. Smoked cigars, cigarillos, or little cigars on at least 1 day during the 30 days before the survey.

<sup>2</sup> The characteristics describe Rhode Island adolescents who used tobacco, snuff, or dip), on at least 1 day during the 30 days before the survey. <sup>2</sup> The characteristics describe Rhode Island adolescents who used tobacco products. For example, 10.4% of high school girls reported smoking cigarettes on at least 1 day during the 30 days before the survey (i.e., current cigarette use) as did 11.6% of high school boys.

<sup>3</sup> 95% CI = 95% confidence intervals. Groups being compared are considered to be significantly different if the 95% confidence intervals do not overlap.

<sup>4</sup> A dash (--) indicates that there were < 100 respondents for the subgroup and data were not weighted.

Data source: 2009, 2011 & 2013 Rhode Island High School Youth Risk Behavior Survey combined and weighted data file

#### Table 4. (continued)

Tobacco use <sup>1</sup>	Used hookah to smoke tobacco						
Characteristics <sup>2</sup>	Weighted population	Weighted percentages	(95% CI) <sup>3</sup>				
Total Population	5,624	13.1	9.5–16.7				
Age							
12 to 14 years old							
15 years old							
16 years old							
17 to 18 years old	2,590	17.5	11.5–23.5				
Sex							
Female	2,941	13.9	10.0- 17.8				
Male	2,550	11.9	8.4–15.4				
Grade							
9th							
10th							
11th							
12th	2,054	20.5	12.9– 28.1				
Race/ethnicity							
Hispanic	1,646	19.3	15.2–23.3				
Non-Hispanic black							
Non-Hispanic white	3,159	11.5	7.1–16.0				

<sup>1</sup> Definitions:

<sup>3</sup> 95% CI = 95% confidence intervals. Groups being compared are considered to be significantly different if the 95% confidence intervals do not overlap.

<sup>4</sup> A dash (--) indicates that there were < 100 respondents for the subgroup and data were not weighted.

Data source: 2009, 2011 & 2013 Rhode Island High School Youth Risk Behavior Survey combined and weighted data file

Hookah use: Smoked tobacco using a hookah on at least 1 day during the past 30 days before the Rhode Island Youth Risk Behavior Survey. A hookah is a large water pipe in which a tobacco mixture, called shisha, is smoked.

<sup>&</sup>lt;sup>2</sup> The characteristics describe Rhode Island adolescents who used tobacco products. For example, 13.9% of high school girls reported using a hookah to smoke tobacco as did 11.9% of high school boys.

# VII. PRIORITY POPULATIONS FOR TOBACCO USE PRODUCTS

# **National Priority Populations**

In 2001, a consortium of national networks was formed for tobacco control and prevention. The National Networks for Tobacco Control and Prevention provides leadership and expertise in the development and promotion of policy-related initiatives to reduce smoking among U.S. youth and adults. In 2006, the CDC Office on Smoking and Health funded six Networks to address tobacco-related disparities in priority populations for the nation. The consortium focused their efforts on reducing disparities in youth and adult smoking rates in population subgroups defined as African American/non-Hispanic black; American Indian/Alaska Native; Asian/Pacific Islander; Hispanic /Latino; lesbian, gay, bisexual, and transgender (LGBT); and people of low socioeconomic status.<sup>38</sup>

National survey data show striking racial/ethnic disparities in adolescent smoking behavior (Figures 5 and 6). Non-Hispanic white and Hispanic youth are more

likely than African American youth to be current or daily smokers throughout adolescence and also appear to start smoking earlier.<sup>39</sup> This finding is attributed, in part, to the higher initiation rates among African Americans during the early adult years. African American adult smokers, however, have lower cessation rates than among white smokers as adults.<sup>40</sup>



Non-Hispanic white and Hispanic youth are more likely than African American youth to be **Current or daily smokers throughout adolescence.** 



Figure 5: Percentage of US middle school students currently using tobacco products, 2012

#### Figure 6: Percentage of US high school students currently using tobacco products, 2012



tIncludes use for ≥1 day in the past 30 days of any of the following: cigarettes, cigars, smokeless tobacco, tobacco pipes, bidis, kreteks, hookahs, snus, dissolvable tobacco, or electronic cigarettes.

Data source: Centers for Disease Control and Prevention. Tobacco product use among middle and high school students — United States, 2011 and 2012.

MMWR: November 15, 2013 / 62(45); 893-897. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6245a2.htm

The tobacco industry has a long history of targeting its marketing efforts toward African Americans as well as to other racial/ethnic minority populations, especially to minority youth. For many populations, such as African Americans, tobacco marketing strategies are compounded by inequities in neighborhood environments, socio-economic circumstances, and access to medical care–all important factors in initiating and maintaining racial disparities in health.<sup>41</sup>



Tobacco-related disparities in the U.S. are also reflected in tobaccorelated illness and death. More than 70% of African American smokers use menthol cigarettes. Menthol appears to increase the amount and degree of tobacco smoke inhaled and subsequent exposure to toxins. African American male smokers have more than 30% higher risk of tobacco-related lung cancer than their White counterparts.<sup>42</sup> The relationship between menthol cigarettes, tobacco exposure, and disease risk among smokers by age, sex, and race/ethnicity is a new and important area in tobacco research.

National data also indicate that among youth ages 12-17, smoking rates have declined for male and female youths of all racial/ethnic backgrounds, except non-Hispanic black youth.<sup>43</sup> Smoking rates among non-Hispanic black youths, although low, have stalled in recent years. In 2012, 16.7% of non-Hispanic black youth reported smoking cigars at more than double the rate in 2009.<sup>44</sup> Due to the lack of decline in smoking rates among non-Hispanic black youth, much more needs to be done to reduce youth smoking in this priority population.

# **Rhode Island Priority Populations**

The Rhode Island Tobacco Control Program has identified five priority populations for tobacco use prevention among youth from our statewide data:

1. Hispanic/Latino youth. Rhode Island Middle School Youth Risk Behavior Survey (YRBS) data show that Hispanic middle school students are nearly twice as likely to smoke cigarettes as non-Hispanic white middle school students (Table 2: 6.5% versus 3.5%), and 2.4 times as likely to smoke cigars (8.7% versus 3.7%). The sample size for non-Hispanic middle school students who currently smoke cigarettes or smoke cigars is small and the 95% confidence intervals around these percentages are wide and imprecise. Therefore, racial/ethnic differences in current tobacco use between Hispanic and non-Hispanic middle school students should be interpreted with caution.

The percentage of non-Hispanic white high school students who currently smoke cigarettes or smoke cigars is significantly higher than for Hispanic high school students (see Tables 4 and 5). About 12.9% of non-Hispanic, white high school students currently smoke cigarettes and 11.8% smoke cigars. Among Hispanic high school students, 6.5% currently smoke cigarettes and 7.9% smoke cigars. Both groups of high school students reported similar use of smokeless tobacco

products (6% of non-Hispanic white high school students and 6.7% of Hispanic high school students). About 19.3% of Hispanic high school students report using a hookah to smoke tobacco in the past 30 days compared to 11.5% of Non-Hispanic, white high school students.

Rhode Island YRBS data cannot tell us why cigarette smoking rates among non-Hispanic, white high school students exceed those of Hispanic high school students. One possible answer may be differences in student graduation rates. In the 2009-2010 academic year (the most recent national data available), the average freshman graduation rate in Rhode Island was 76.4%. The average graduation rate for Hispanic high school students was 69.1% compared with 78.3% for white students and 74.2% for black students.<sup>45</sup> It is possible that high school students who drop out of school are more likely to smoke cigarettes than high school students who stay enrolled in school but the Rhode Island Youth Risk Behavior Survey only collects data from adolescents still in school.

A study of seventh through twelfth graders drawn from three communities in the southwestern U.S. found that students who dropped out of school reported smoking more than did their peers who were attending school, even more than students who were academically at-risk but stayed in school. Not only did students who dropped out of school smoke more than their peers who remained in school, but students who dropped out of school were more likely to be heavy smokers.<sup>46</sup> The relationship between school dropout rates and cigarette smoking among Rhode Island youth is a topic for further study.



Early smoking in middle school predicts many highrisk behaviors among older adolescents (Grade 12) such as dropping out of school or abusing alcohol and drugs.<sup>47</sup> 2. African American youth. As shown in Table 4 and Table 5, race/ethnicity data from the Rhode Island High School Youth Risk Behavior Survey (YRBS) were not analyzed for non-Hispanic Black high school students. The number of non-Hispanic black high school students who report smoking cigarettes or using other tobacco products in the Rhode Island YRBS is too small for meaningful comparisons with non-Hispanic white and Hispanic students. Despite our lack of data, given what we know about the tobacco industry's targeting of African American youth, African American youth and young adults are a priority population in Rhode Island.

*3. Native American youth.* Native Americans and Alaska Natives smoke at rates that are higher than any other racial/ethnic subgroup in the U.S., although rates do vary across different tribes. In 2011, the Native American/Alaskan Native youth smoking rate was 31.2%, followed by non-Hispanic whites (20.3%), Hispanics (17.5%), non-Hispanic blacks (10.5%), and Asian Americans and Pacific Islanders



(7.6%).<sup>48</sup> The number of Native American youth who participate in the Rhode Island YRBS is too small to analyze, even when data years are combined. As such, we are not able to report on smoking rates of Native American youth of Rhode Island. The Rhode Island Tobacco Control Network reaches out to diverse stakeholders across the state and has worked with representatives from Native American groups within Rhode Island. The Tobacco Control Network differentiates between the use of ceremonial and commercial use of tobacco and acknowledges the deep and sacred relationship that some Native American tribes have with ceremonial tobacco.

*4. Lesbian, gay, bisexual, and unsure (LGBU) youth.* The Rhode Island Youth Risk Behavior Survey measures sexual orientation by asking high school respon-

dents which of the following best describes them: heterosexual (straight), gay or lesbian, bisexual, or not sure. Among Rhode Island high school students, tobacco use is more common among lesbian, gay, and bisexual youth, and youth who are unsure of their sexual orientation (LGBU) than among other high school students (Table 5). Current cigarette smoking is nearly three times higher (28.2% vs. 9.7%) and current cigar smoking is nearly twice as high (19% vs. 10.1%) among LGBU high school students. The data do not tell us why there is high use of tobacco products among LGBU high school students in Rhode Island. Smoking may be due to stressors unique to the sexual identities and experiences of LGBU youth, including discrimination and lack of family acceptance. Nationally, LGBU youth smoke at much higher rates (38-59%) than all adolescents during the same time period (28%-35%).<sup>49</sup>

**5.** *Youth with disabilities.* Current tobacco use is also high among Rhode Island high school youth with physical and/or emotional disabilities (Table 5). Youth with physical disabilities are more likely than those without physical disabilities to currently smoke cigarettes (18% vs. 10.1%), to smoke cigars (16.1% vs. 9.9%), or to use smokeless tobacco products (9.8% vs. 5.5%). High school students with emotional and learning disabilities are more likely than those without these disabilities to currently smoke cigarettes (21.2% vs. 9.4%), to smoke cigars (16.1% vs. 9.7%), and to use smokeless tobacco products (9.1% vs. 5.6%). Since youth with disabilities are often excluded from peer-initiated social activities and are frequently bullied they may see smoking as a way of gaining acceptance from others. The 2011 and 2013 Rhode Island Youth Risk Behavior Surveys asked students if in the past 12 months they had been bullied (in general) and if they had been bullied electronically.



# **Priority Populations**

Table 5. Priority populations for tobacco prevention among Rhode Island high school youth by current tobacco use, 2009 – 2013

Tobacco use <sup>1</sup>	Current cigarette use			Current cigar use			Current smokeless tobacco use		
Characteristics <sup>2</sup>	Weighted population	Weighted percentages	(95% CI) <sup>3</sup>	Weighted population	Weighted percentages	(95% CI) <sup>3</sup>	Weighted population	Weighted percentages	(95% CI)⁵
Total Population	4,814	11.0	9.8–12.3	5,010	10.9	10.0–11.8	2,860	6.3	5.6–7.0
Race/ethnicity									
Hispanic	520	6.5	4.9-8.0	683	7.9	6.4-9.3	568	6.7	5.4–7.9
Non-Hispanic black									
Non-Hispanic white	3,734	12.9	11.1-14.7	3,562	11.8	10.3-13.3	1,808	6.0	5.6-7.0
Self-identify as gay, lesbian, bisexual									
No	3,917	9.7	8.6-10.9	4,277	10.1	9.1-11.2	2,386	5.7	5.0-6.4
Yes	789	28.2	23.2-32.2	621	19.0	14.7-23.5			
Have physical disabilitie	25								
No	3,906	10.1	9.0-11.3	4,034	9.9	9.1-10.7	2,227	5.5	4.7–6.3
Yes	748	18.0	14.4-21.6	744	16.1	13.2-19.1	443	9.8	7.6–12.0
Have emotional proble	ms or learning	disabilities							
No	3,492	9.4	8.2-10.9	3,785	9.7	8.8-10.6	2,148	5.6	4.8-6.3
Yes	1,122	21.2	23.0-32.2	940	16.1	14.1-18.1	520	9.1	7.3-11.1

<sup>1</sup> Definitions:

Current cigarette use. Smoked cigarettes on at least 1 day during the 30 days before the YRBS survey.

Current cigar use. Smoked cigars, cigarillos, or little cigars on at least 1 day during the 30 days before the survey.

Current smokeless tobacco use. Used smokeless tobacco (chewing tobacco, snuff, or dip), on at least 1 day during the 30 days before the survey, such as Redman, Levi Garrett, Beachnt, Skoal, Skoal Bandits or Copenhagen.

<sup>2</sup> The characteristics describe Rhode Island adolescents who used tobacco products. For example, 28.2% of high school students who self-identified as gay, lesbian, or bisexual reported smoking cigarettes on at least 1 day during the 30 days before the survey (i.e., current cigarette use) compared to 9.7% of students who did not self-identify as a sexual minority.

<sup>3</sup> 95% CI = 95% confidence intervals. Groups being compared are considered to be significantly different if the 95% confidence intervals do not overlap.

<sup>4</sup> A dash (--) indicates that there were < 100 respondents for the subgroup and data were not weighted.

Data source: 2009, 2011 & 2013 Rhode Island High School Youth Risk Behavior Survey combined and weighted data file.

# **Other At-Risk Youth**

Many of the factors associated with youth smoking shown in Table 1 are not included in the Youth Risk Behavior Survey (YRBS). This keeps the survey shorter, thus keeping respondent burden to a minimum. The YRBS does ask high school students: During the past 12 months, how would you describe your grades in school? Options include "mostly A's," through "mostly F's." The better a student does academically, the less likely he or she is to become a smoker.

Table 6. Academic grades and current cigarette use among Rhode Island high school students, 2011

Grades mostly A & B	Current	smoker	95% Cl <sup>1</sup>
	Ν	%	
Yes	1,892	7%	5% - 8%
No	2,752	21%	15% - 28%

<sup>1</sup>CI = confidence intervals

Data source: 2011 Rhode Island High School Youth Risk Behavior Survey weighted data file.



# **VIII. PROMOTING QUITTING AMONG YOUTH**

Studies show that many students want to quit smoking.<sup>50</sup> National data show that more than half of middle school students (55%) and high school students (61%) who smoke wanted to stop smoking. Fifty nine percent of high school smokers report they tried to quit smoking at least once during the last 12 months.<sup>51</sup> Although many adolescent smokers have wanted to quit, quitting smoking is difficult and often requires multiple attempts.

Overall, about 52% of Rhode Island high school students who currently smoke cigarettes daily have tried to quit smoking cigarettes (averaged over six years; Figure 7). A two-year longitudinal National Youth Smoking Cessation Survey conducted between 2003-2005 found that most smokers ages 16-24 who had tried to quit were more likely to use unassisted quitting methods than assisted quitting methods.<sup>52</sup> The most commonly used unassisted strategy was decreasing the number of cigarettes smoked, which was tried by 88.3% of young smokers. Other frequently used unassisted strategies were not buying cigarettes (56.0%), exercising more (51.0%), trying to quit with a friend (47.5%), telling others they no longer smoked (44.5%), and switching to light cigarettes (36.1%). More research is needed to determine best practices for helping youth ages 16-24 quit smoking.



Figure 7. Percentage of public high school students who tried to quit smoking cigarettes,<sup>1</sup> by year, Rhode Island, 2001-2013

<sup>1</sup>Among students who currently smoked cigarettes, a quit attempt is defined as: During the past 12 months, did you ever try to quit smoking cigarettes? Data course: 2001 to 2012 Phode Island High School Youth Pick Pohavier Survey weighted data files. Phode Island Depar

Data source: 2001 to 2013 Rhode Island High School Youth Risk Behavior Survey weighted data files. Rhode Island Department of Health Center for Health Data and Analysis.



# IX. WHAT ARE THE HEALTH EFFECTS OF SECONDHAND SMOKE?

The CDC and the United States Environmental Protection Agency (EPA) have identified the health effects of exposure to second and tobacco smoke for children and adults (Table 7). Second hand smoke comes from the burning end of a

cigarette, pipe, or cigar, and is exhaled by smokers. The smoke contains many substances that can have damaging health effects. The Surgeon General of the United States has determined that there is no risk-free level of contact with secondhand smoke; even brief exposure to secondhand smoke can be harmful to a person's health.<sup>53</sup>



Table 7. Health effects of secondhand smoke: national picture

#### Health effects of secondhand smoke for U.S. children

#### **Ear infections**

More frequent and severe asthma attacks Respiratory symptoms (e.g., coughing, sneezing, shortness of breath) Respiratory infections (i.e., bronchitis, pneumonia) Greater risk of sudden infant death syndrome (SIDS)

# Health effects of secondhand smoke for U.S. adults who are nonsmokers<sup>53,54,55</sup>

- Higher risk of a heart attack
- Higher risk of a heart disease
- Higher risk of deaths heart disease
- Higher risk of lung disease
- Higher risk of deaths from lung disease

#### Secondhand Smoke<sup>55</sup>

Secondhand smoke is also called environmental tobacco smoke (ETS). Exposure to secondhand smoke is sometimes called involuntary or passive smoking.

# How common is exposure to secondhand smoke in the home among Rhode Island youth?

The Rhode Island Middle School Youth Risk Behavior Survey (YRBS) asks students if they live with someone who smokes. The percentage of middle school students who live with a smoker has decreased in the past five years from 37% in 2009 to 32% in 2013. Although the decrease is not statistically significant, it represents a milestone in the work of the Rhode Island Tobacco Control Program to implement programs and policies to protect the health of children from exposure to secondhand smoke. Nevertheless, there is an important difference between Rhode Island middle school students who do and who do not live with a smoker. Youth who live with a smoker are much more likely to smoke themselves.

## Among middle school students (Figure 8):

- 25% who live with a smoker have ever smoked cigarettes, but only 11% of students who do not live with a smoker have ever smoked
- 5% who live with a smoker started smoking before age 11, but only 2% of students who do not live with a smoker started smoking at an early age
- 7% who live with a smoker currently smoke cigarettes but only 3% of students who do not live with a smoker also smoke cigarettes

Figure 8. Percentage of Rhode Island middle school students who report living with someone who smokes cigarettes by smoking status



Data source: 2009, 2011 & 2013 Rhode Island Middle School Youth Risk Behavior Survey combined and weighted data file. Rhode Island Department of Health Center for Health Data and Analysis.

In the United States, 292,950 of children's frequent ear infections each year are directly attributable to secondhand tobacco exposure in the home.

# What is Rhode Island doing to reduce exposure to secondhand smoke?

In 2004, the Rhode Island legislature passed the Smoke Free Public Places and Workplaces Act,<sup>57</sup> a comprehensive statewide ban on smoking in all indoor public places of business such as restaurants and bars, healthcare facilities, shopping areas, and offices. Building on this momentum, the Rhode Island Department of Health launched a new statewide, smoke-free housing campaign in 2012. The Live Smoke Free RI campaign was created in response to a growing demand for smoke-free housing, as tobacco smoke from individual apartments migrates throughout multi-unit housing through cracks, doors, and ventilation systems. The campaign

was designed to help landlords, tenants, and housing authorities make residences smoke-free and to give landlords, tenants and public housing authorities the resources needed for establishing smoke-free housing policies. Campaign materials are in English and Spanish and include an internet site and an easy-touse toolkit with information and educational resources for landlords, realtors, tenants and the general public.

Live Smoke Free RI also features advertising and marketing materials, in both English and Spanish, to support and increase awareness of the campaign. Outdoor paid media components include billboards, bus



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www.livesmokefree.ri.gov





posters and bus shelters, while paid broadcast media includes radio and television spots. Other marketing materials include signs, banners, posters, and campaign inserts for smoking cessation resource guides. There are 25 housing authorities in Rhode island, and 21 have adopted smoke-free policies. These housing authorities include **Bristol**, **Burrillville**, **Central Falls**, **Coventry**, **Cranston**, **Cumberland**, **East Greenwich**, **East Providence**, **Johnston**, **Lincoln**, **Newport**, **Pawtucket**, **South Kingstown**, **Portsmouth**, **Providence**, **Smithfield**, **Warren**, **Warwick**, **Westerly**, and **Woonsocket**.<sup>58</sup>

Figure 9. Smoke free public housing authorities in Rhode Island



#### X. POLICIES: PRICE, MEDIA, POINT-OF-SALE

The Rhode Island Tobacco Control Program, together with the Rhode Island Tobacco Control Network and other community-based partners, implement the CDC's best practice interventions aimed at preventing youth initiation of tobacco use. One such practice is to keep the price of cigarettes high given that higher tobacco prices have the greatest impact on youth.

Another related activity is educating community members and decision-makers on the importance of tax parity. Youth and low income people, who are most affected by price increases, switch to cheaper tobacco products when other tobacco products are significantly less expensive than cigarettes. The Rhode Island Tobacco Control Network has advocated for tax parity so that little cigars and cigarillos are taxed at more appropriate rates and according to best practices in prevention of youth initiation.

In the spring of 2012, the Rhode Island Tobacco Control Program launched a youth media/communications campaign with short-term funds awarded through a federal American Reinvestment and Recovery Act grant. The "Be an Original" campaign utilized traditional forms of media as well as social media to engage youth to resist becoming replacement smokers for those adult smokers who are dying of tobacco-related illnesses.

The retail environment, or "point-of-sale," is often referred to as the last frontier for the tobacco industry for reaching populations receptive to experimenting with and initiating tobacco use. In this point-of-sale environment, the tobacco industry can interface with potential smokers to create a new generation of smokers. In the U.S., adolescents who reported at least weekly exposure to retail tobacco advertising were more likely to have tried smoking.<sup>59</sup> Teen smokers preferred the brands that were most heavily advertised in the convenience store closest to their school.<sup>60</sup> The Rhode Island Tobacco Control Program monitors the density of such tobacco shops and through our community partners, educate communities about these stores and the potential they have to influence their children's uptake of smoking.

#### **Community Partner Spotlight**

The Rhode Island Tobacco Control Program works with community partners to inform community members and decision makers on important tobacco control and prevention issues. In fact, it is our community partners and voluntary partner organizations that helped create the social norms change that ushered in the comprehensive ban on indoor smoking in 2004. Rhode Island was a pioneering state as it became the 7th state in the U.S. to adopt such a ban. Additional examples of policies that have been spearheaded by the Tobacco Control Program





include a policy passed in the City of Cranston increasing the fee for local tobacco vendor licensing from \$25 to \$100. Another policy passed in the City of Woonsocket bans the sale of tobacco and illicit drug paraphernalia within 200 feet of schools, child care centers, parks, and venues where youth recreate. A town ordinance was passed in North Kingstown requiring a retail ban on self-service displays for all tobacco products.

An unprecedented partnership is the one between the Rhode Island Tobacco Control Program and

the City of Providence's Mayor's Substance Abuse Prevention Council. Tobacco Free Providence is the state-city partnership that emerged as a result of a Centers for Disease Control (CDC) grant award that supported the City of Providence's Mayor's Substance Abuse Prevention Council. In partnership with the Tobacco Control Program, Tobacco Free Providence addresses tobacco control initiatives in the City of Providence. Tobacco Free Providence has been extraordinarily successful. In just two years they:

- Launched a comprehensive, emotional, hard-hitting counter-marketing media campaign;
- Wrote and gained passage of multiple new city ordinances restricting tobacco marketing to youth, tobacco vendor marketing and point-of-sale practices and zoning governing tobacco vendor density and proximity to schools;
- Created a new Providence tobacco vendor registration requirement;
- Enhanced police enforcement of tobacco vendor compliance;
- Piloted a smoke-free policy in seven high rise buildings for elderly and disabled Providence Housing Authority residents and piloted the same initiative at three family development sites;
- Enhanced the Providence Public School policy on smoking by creating smokefree campuses and restricting tobacco use at sporting events both on and off campus; and
- Provided cessation counseling and nicotine replacement therapy to approximately 300 uninsured and underinsured Providence residents.

The Rhode Island Tobacco Control Program continues to work with communitybased partners to further CDC's National Tobacco Control Program goals.



## **XI. CHALLENGES AHEAD**

The tobacco industry is busy creating and marketing products that will continue to entice new tobacco users to become regular, addicted tobacco and nicotine users. Toward this end, the tobacco industry has been creating and marketing novel combustible and other smokeless/spitless tobacco products to appeal to youth. Fruit-flavored single cigars wrapped in colorful and sweet smelling packaging are less expensive than cigarettes and can be purchased for as little as \$.99.

Other smokeless, spitless products like mint-flavored snus (small teabag-like pouches that are placed between the cheek and gum) are inexpensive and can be used discreetly by young people. Tobacco companies even portray smokeless tobacco products as a "healthier" alternative to cigarettes or as an aid to quit smoking for those who smoke.<sup>61</sup>





Photo by Michele Late as printed in the American Public Health Association newsletter, The Nation's Health. August 2010; 40(6):1-14.

Other alluring tobacco products like hookahs (flavored tobacco smoked in a water pipe) are making their way into young people's lives. In 2013, the YRBS began monitoring hookah use among youth. A full 13% of Rhode Island youth report smoking tobacco with a hookah. Another emerging product is dissolvable tobacco that comes in shapes and packaging that looks like candy and is used by smokers to maintain nicotine use in locations where smoking is banned. Novel products, like the candy-like Camel Orbs Fresh, contain a form of nicotine that is rapidly absorbed in the mouth.<sup>62</sup> Dissolvable tobacco products are not designed to help people quit, but rather to maintain one's addiction to nicotine. A big problem is that adolescents and young adults often perceive these tobacco products as less dangerous than cigarettes. These novel products now come under the jurisdiction of the US Food and Drug Administration's tobacco regulation authority.

#### **XII. CONCLUSION**

The U.S. Department of Health and Human Services published the Strategic Action Plan in November 2010, making a national commitment to fighting the use of tobacco products and having a vision for a society without tobacco-related death and disease.<sup>63</sup> In its framework, the Strategic Action Plan was designed to address key tobacco-related objectives of Healthy People 2020: reduce tobacco use by adults and adolescents and reduce the initiation of tobacco use among children, adolescents, and young adults. The Rhode Island Tobacco Control Program has similar objectives and will continue its efforts to reduce smoking rates among youth and adults.

Despite the enormity of the challenge posed by the tobacco industry, the Rhode Island Tobacco Control Program has been successful and is nationally recognized for its accomplishments in implementing a high-quality, comprehensive, statewide tobacco control program. Rhode Island continues to be a leader in promoting and enforcing smoke-free laws that provide strong protection against exposure to secondhand smoke in workplaces and public places. The Tobacco Control Program continues to collaborate with the Centers for Disease Control and Prevention, and to work with its community partners, statewide voluntary agencies, and stakeholders to promote a state that is tobacco and nicotine-free and supports the growth, development, and health of all youth. The tobacco industry is an evermorphing entity that continues to adapt its methods of manipulating youth to become addicted customers with an evolving manufacturing and marketing of tobacco and nicotine products. There remains much work to be done to continue to protect our youth from the dangers from using these deadly products.

the Rhode Island Tobacco Control Program has been successful and is nationally recognized for its accomplishments.



# **APPENDIX A. GLOSSARY**

The following abbreviations and terms are used in this brief.

CDC = Centers for Disease Control and Prevention

**YRBS** = Youth Risk Behavior Survey

**Point-of-sale** = Point-of-sale tobacco advertising on billboards near or in stores that sell tobacco products greatly influences teenagers' desire and willingness to smoke.

**Other tobacco products** = Other tobacco products refer to snuff, chew, spit tobacco and cigars. Some tobacco products present special concerns for youth, because they are sold in sweet flavors and are marketed as alternatives to cigarettes. Though these products are often portrayed as safe, they aren't and in some cases, are more harmful than cigarettes. Examples include kreteks (clove cigarettes), bidis (flavored cigarettes) and hookahs (water pipes).

# APPENDIX B. YOUTH RISK BEHAVIOR SURVEY

The Rhode Island Youth Risk Behavior Survey (YRBS) is the primary source of statewide data on health risk behaviors among public middle school and high school students. The YRBS is a collaboration between the Rhode Island Department of Health and the Rhode Island Department of Elementary and Secondary Education. Tables and figures show data that are weighted. The weighted data can be used to make important inferences concerning health-risk behaviors.

# **APPENDIX C. READING TABLES AND FIGURES**

Figures and tables show the average response to a question, represented by a percentage or mean. But how well does the average response represent the Rhode Island population? A confidence interval addresses this issue because it provides a range of values that is likely to contain the population percentage or mean of interest. This brief sets the confidence level at 95%. This means that the true population parameter (percentage or mean) lies somewhere between the range of values in approximately 95% of the cases.

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