Data Brief:
Tobacco Use Among Youth in New Hampshire

August 2012

CURRENT ESTIMATES OF CIGARETTE USE

Overview

Preventing young people from starting to use tobacco begins with increasing their knowledge of the dangers of tobacco use, changing their attitudes toward tobacco use, and increasing public support for policies that reduce the likelihood that they will use tobacco. The tobacco industry spends more than $10.5 billion per year on marketing. Young people are heavily exposed to pro-tobacco messages in and around retail stores, in magazines, in movies, and by smokers around them. Evidence shows that media campaigns, when combined with other interventions, are effective in reducing tobacco use by youth and keeping them from starting smoking.

Figure 1. Comparison of Current NH Youth Cigarette Use in Selected States in the United States, High School Students, NH YRBS, 2011
The 2011 Youth Risk Behavior Survey (YRBS) shows that 19.8% of New Hampshire high school students smoked cigarettes. In New Hampshire, the purchase or possession of tobacco by individuals under age 18 years and selling tobacco to a minor is illegal (RSA 126-K: 1-14). Students access tobacco products through different sources such as by: giving someone older money to buy them; borrowing them from someone; taking them from adults; or buying them illegally. In addition to changing young people’s attitudes toward tobacco use, there is evidence that certain policies, when implemented, reduce the likelihood that young people will begin smoking. Such policies include: increasing cigarette and other tobacco excise taxes; mass media campaigns; passing and enforcing laws that decrease young people’s access to tobacco; and implementing tobacco-free school policies\textsuperscript{14,15}. Policies such as these can help create an environment that supports a tobacco-free lifestyle among young people. Parents, guardians, doctors, dentists and other health professionals, teachers, and community members can also play an important role in helping kids to choose and maintain healthy behavior.

This data brief covers the most recent estimates and some trend data on tobacco use among youth in New Hampshire. The data were collected by surveying students in randomly selected New Hampshire high schools (grades 9 through 12).

YRBS is funded through a Centers for Disease Control and Prevention (CDC) grant and administered jointly by the NH Department of Health and Human Services (DHHS) and the NH Department of Education (DOE). For details on YRBS and the survey methodology, please visit http://www.cdc.gov/healthyyouth/yrbs/brief.htm.

Figure 2. Trends in Current Cigarette Smoking Among High School Students, NH YRBS, 1991 – 2011

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of Current Cigarette Use</th>
</tr>
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<tbody>
<tr>
<td>1991</td>
<td>35.0%</td>
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<tr>
<td>1993</td>
<td>29.6%</td>
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<tr>
<td>1995</td>
<td>23.0%</td>
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<tr>
<td>1997</td>
<td>19.0%</td>
</tr>
<tr>
<td>1999</td>
<td>16.0%</td>
</tr>
<tr>
<td>2001</td>
<td>14.0%</td>
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<tr>
<td>2003</td>
<td>13.9%</td>
</tr>
<tr>
<td>2005</td>
<td>8.8%</td>
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<tr>
<td>2007</td>
<td>8.0%</td>
</tr>
<tr>
<td>2009</td>
<td>8.0%</td>
</tr>
<tr>
<td>2011</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

* Percentage of NH High School students who smoked cigarettes on at least 1 day (during the 30 days before the survey).
** Data first collected 1991. Missing bars indicate that data were either unavailable or not weighted for the corresponding years for NH.
*** Master Settlement Agreement (MSA).
**** Use of Tobacco Products, E-cigarettes, or Liquid Nicotine on Public Educational Facility Grounds Prohibited.
Figure 3. Trends in Current Cigarette Smoking by Grade Level, NH YRBS, 1993 – 2011

Trends in Current Cigarette Smoking Among High School Students* by Grade Level, NH YRBS, 1993 - 2011

* Percentage of New Hampshire high school students who smoked cigarettes on at least 1 day (during the 30 days before the survey)

Figure 4. Trends in Current Cigarette Smoking by Gender, High School Students, NH YRBS, 1993 – 2011

Trend in Current Cigarette Smoking* Among High School Students by Gender, NH YRBS, 1993-2011

* Smoked cigarettes on at least 1 day (during the 30 days before the survey).
Changes in prevalence from 1993 - 2011

While there was an overall significant decrease in the current use of cigarettes by high school students over time, the behavior has either leveled off or begun to move in the opposite direction (Fig. 2). However for female students there has been a steady decrease in current cigarette smoking over time (Fig. 4).

Change in prevalence from 2009 - 2011

No Change

Figure 5. Current Cigarette Smoking for High School Student Among New England States, NH YRBS, 2005 and 2011
CURRENT ESTIMATES OF OTHER TOBACCO USE

Overview

The two main types of smokeless tobacco in the United States are chewing tobacco and snuff\(^3,4\). Smokeless tobacco is not a safe alternative to smoking cigarettes\(^4\), because its use can cause cancer, oral health problems, and nicotine addiction. The five largest tobacco manufacturers have spent record amounts of money on advertising and promotions of this product\(^3\). The two leading smokeless tobacco brands for users aged 12 years or older are—Skoal\(^\circledR\) (with 25% of the market share) and Copenhagen\(^\circledR\) (with 24% of the market share\(^5\)).

Among the health effects caused by smokeless tobacco, cancer and poor oral health are more common. This product contains 28 cancer-causing agents (carcinogens)\(^4,6\), is a known cause of cancer in humans, and increases the risk of developing cancer of the oral cavity\(^6,7\). It is also strongly associated with leukoplakia—a pre-cancerous lesion of the soft tissue in the mouth that consists of a white patch or plaque that cannot be scraped off. Oral health issues like recession of the gums, gum disease, and tooth decay are also associated with the use of smokeless tobacco.
Figure 7. Trends in Current Use of Other Tobacco Products, NH YRBS, 1991 – 2011

Trends in Current Use of Other Tobacco Products Among High School Students*
New Hampshire YRBS, 1991 - 2011

*Percentage of high school students who used chewing tobacco, snuff, or dip on at least 1 day during the 30 days before the survey.
Missing bars indicate that data were either unavailable or not weighted for the corresponding years for NH.

Figure 8. Trends in Current Use of Other Tobacco Products by Grade Level, NH YRBS, 1995 – 2011

Trends in Current Use of Other Tobacco Products by Grade Level, New Hampshire YRBS, 1995 - 2011

* Percentage of New Hampshire High School students who used chewing tobacco, snuff, or dip on at least 1 day (during the 30 days before the survey).
Figure 9. Trends in Current Use of Other Tobacco Products by Gender, NH YRBS, 1995 – 2011

Trend in Current Other Tobacco Product Use* Among High School Students by Gender, New Hampshire, YRBS, 1995-2011

* Percentage of New Hampshire High School students who used chewing tobacco, snuff, or dip on at least 1 day (during the 30 days before the survey).

Change in prevalence from 1995 - 2011

The percentage of high school students who used chewing tobacco, snuff, or dip on one or more of the past 30 days increased over time, but then leveled off (Fig. 7). The same trend in the behavior was observed for both males and females (Fig. 9). The percentage of female other tobacco users is significantly lower than the male students.

Change in prevalence from 2009 - 2011

No Change
CURRENT ESTIMATES OF CIGAR USE

Overview

A cigar is defined as a roll of tobacco wrapped in leaf tobacco or in a substance that contains tobacco (as opposed to a cigarette, which is defined as a roll of tobacco wrapped in paper or in a substance that does not contain tobacco)\(^8,9\). The three major types of cigars sold in the United States are large cigars, cigarillos, and little cigars\(^8,9,10\).

Cigars contain the same toxic and carcinogenic compounds found in cigarettes and are not a safe alternative to cigarettes\(^8,9\). Regular cigar smoking is associated with an increased risk for cancers of the lung, esophagus, larynx (voice box), and/or oral cavity (lip, tongue, mouth, throat)\(^8,9,10\). Cigar smoking is linked to gum disease and tooth loss.\(^11\) Heavy cigar smokers and those who inhale deeply may be at increased risk of developing coronary heart disease\(^8,9,10\). Heavy cigar smoking increases the risk for lung diseases such as emphysema and chronic bronchitis\(^8,9,11\).

Figure 10. Trends in Current Use of Cigars, Cigarillos, Or Little Cigars by Year, NH YRBS, 2003 – 2011

Smoked cigars, cigarillos, or little cigars on at least 1 day (during the 30 days before the survey)
Figure 11. Trends in Current Cigars, Cigarillos, or Little Cigars Use by Grade Level, NH YRBS, 2003 – 2011

Figure 12. Trends in Current Cigar, Cigarillos, Or Little Cigar Use by Gender, NH YRBS, 2003 - 2011

Change in prevalence from 2003 - 2011¹

The percentage of high school students who are current users of cigars, cigarillos, or little cigars on one or more of the past 30 days increased slightly over time, but not enough to be a significant linear change and then leveled off (Fig. 10).

Change in prevalence from 2009 - 2011²

No Change
Factors Associated with Youth Tobacco Use

Some factors associated with youth tobacco use include\textsuperscript{11,12}:

- Use and approval of tobacco use by peers or siblings
- Lack of skills to resist influences to tobacco use
- Smoking by parents or guardians and/or lack of parental support or involvement
- Accessibility, availability, and price of tobacco products
- A perception that tobacco use is normal
- Aggressive behavior (e.g., fighting, carrying weapons)

Tobacco use during adolescence is associated with the following health risk behaviors\textsuperscript{3,13}:

- Use of alcohol
- Use of other drugs
- High-risk sexual behavior

Reducing Youth Tobacco Use

National, state, and local program activities that have reduced and prevented youth tobacco use in the past have included combinations of the following\textsuperscript{14,15}:

- Counter advertising mass-media campaigns (i.e., TV and radio commercials, posters, and other media messages targeted toward youth to counter pro-tobacco marketing)
- Comprehensive school-based and youth group-based, tobacco-use prevention policies and programs (e.g., tobacco-free campuses and educational campaigns, like Legacy’s \textit{truth} campaign)
- Community interventions that reduce tobacco advertising, promotions, and commercial availability of tobacco products
- Higher costs for tobacco products through increased excise taxes
- Comprehensive smoke-free policies and other policies like the recent Food and Drug Administration policies with proper enforcement that are found to be more effective in preventing youth from smoking
CDC Recommendations on Funding

CDC makes recommendations on the level at which each state should fund state tobacco control activities. CDC’s recommendation for each state is in the range of $15 to $20 per capita, depending on the state’s population, demography, and prevalence of tobacco use.16

References

1. Based on trend analyses using a logistic regression model controlling for sex, race/ethnicity, and grade. Logistic regression analysis is used to test for change over all the years of available data. Logistic regression does not consider the oldest and the most recent data points only. Logistic regression analysis provides an appropriate test of change over long periods of time.

2. Based on t-test analyses, p < 0.05. T-test analysis is used to test for change between just 2009 and 2011.


