

## **Tobacco and Electronic Nicotine Delivery Systems (ENDS) Use Among New Hampshire Youth, 2010-2015, Stephanie Kelley, Health Promotion Research Center at Dartmouth**

Background: Most lifelong smokers begin before age 18, making youth prevention a key public health imperative. Unfortunately, Electronic Nicotine Delivery Systems (ENDS) (e.g., vaporizers, vape pens, hookah pens, electronic cigarettes, e-pipes) offer youth yet another path to access nicotine. In 2015 the Youth Risk Behavior Survey (YRBS) added questions about youth ENDS use. The New Hampshire (NH) Division of Public Health Services administers the NH YRBS and makes it publicly available on the platform NH Wisdom (<https://wisdom.dhhs.nh.gov/>). Therefore, we sought to provide the first estimates of ENDS use from a representative sample of NH high school students and to compare these estimates to combustible cigarette smoking.

Methods: We obtained data from the 2011, 2013, and 2015 NH YRBS and used 95% confidence intervals to determine significant differences between groups.

Results: In 2015, 9.3% (n=1,509, 95% CI [8.6, 10.0]) of students reported smoking in the last 30 days. Prevalence decreased from 13.8% (n=1,604, 95% CI [11.8%, 16.2%]) in 2013. Males (10.2%, 95% CI [9.3, 11.1]) were more likely than females (8.0%, 95% CI [7.2%, 8.9%]) to report smoking. In contrast, one in four (25.0%) reported ENDS use (95% CI [23.6%, 26.4%]) in 2015. One-third (32.4%) of 12th graders reported ENDS use at least one day in the past 30 days (95% CI [30.2%, 34.7%]).

Conclusions: While adolescent cigarette smoking in NH has decreased since 2011, adolescent prevalence of ENDS use in 2015 was nearly 3 times as high as that of smoking. ENDS products contain nicotine, which causes addiction, may harm neurological development, and can lead to continued or rising tobacco product use among youth. Future studies should work to apply previous interventions designed to prevent youth smoking to youth ENDS use. Preventing youth access to ENDS is a public health imperative to protect our youth from risk of nicotine addiction.

### Learning Objectives:

Describe trends in combustible cigarette smoking and electronic nicotine delivery systems (ENDS) use among youth in New Hampshire.

Compare prevalence of cigarette and ENDS use by gender and grade level.

Describe possible ways to address the rising use of ENDS in youth.