

## Tobacco Use Among Middle and High School Students—United States, 2011-2015

### **MMWR Introduction**

Tobacco use is the leading cause of preventable disease and death in the United States; if current rates continue, 5.6 million Americans younger than 18 years of age who are alive today will die prematurely from smoking-related disease. CDC and the Food and Drug Administration (FDA) analyzed data from the 2011-2015 National Youth Tobacco Surveys (NYTS) to determine the prevalence and trends of current (past 30-day) use of seven tobacco products (cigarettes, cigars, smokeless tobacco, e-cigarettes, hookahs, pipe tobacco, and bidis) among U.S. middle (grades 6–8) and high (grades 9–12) school students.

In 2015, e-cigarettes were the most commonly used product among middle (5.3%) and high (16.0%) school students. During 2011 and 2015, significant increases were observed among middle and high school students for current use of e-cigarettes and hookahs, while decreases were observed for current use of conventional tobacco products, such as cigarettes and cigars, resulting in no change in overall tobacco use.

In 2015, 25.3% of high school students reported current use of a tobacco product, including 13.1% who reported current use of  $\geq 2$  tobacco products. Among all high school students, e-cigarettes (16.0%) were the most common tobacco products used, followed by cigarettes (9.3%), cigars (8.6%), hookahs (7.2%), smokeless tobacco (6.0%), pipe tobacco (1.0%), and bidis (0.6%). Males reported higher use of any tobacco and use of  $\geq 2$  tobacco products compared to females. Among high school non-Hispanic white and Hispanic students, e-cigarettes were the most used tobacco product, while among non-Hispanic blacks, cigars were most commonly used. Cigarette use was higher among non-Hispanic whites compared to non-Hispanic blacks; and smokeless tobacco use was higher among non-Hispanic whites compared to other races.

Current use of any tobacco and  $\geq 2$  tobacco products among middle school students was 7.4% and 3.3%. E-cigarettes (5.3%) were the most commonly used tobacco product by middle school students, followed by cigarettes (2.3%), hookahs (2.0%), smokeless tobacco (1.8%), cigars (1.6%), pipe tobacco (0.4%), and bidis (0.2%). Males reported higher use of any tobacco compared to females. Hispanic middle school students reported higher use of any tobacco, use of  $\geq 2$  tobacco products, and use of e-cigarettes compared with that of other races/ethnicities.

These findings indicate that in 2015, 4.7 million middle and high school students were current tobacco product users, and, therefore, continue to be exposed to harmful tobacco product constituents, including nicotine. Nicotine exposure during adolescence, a critical window for brain development, can cause addiction, might harm brain development, and could lead to sustained tobacco product use among youths. Thus, comprehensive and sustained strategies are warranted to prevent and reduce the use of all tobacco products among U.S. youth.

### **MMWR Highlights**

#### **Tobacco use in the past 30 days among high school students, 2015**

- An estimated 25.3% (3.82 million students) used any tobacco product and more than half of these students (1.98 million) used 2 or more tobacco products.
- An estimated 16.0% used e-cigarettes, 9.3% used cigarettes, 8.6% used cigars, 7.2% used hookah pipes, and 6.0% used smokeless tobacco.
- By race/ethnicity, 26.2% of non-Hispanics whites used any tobacco product, followed by 25.4% of Hispanics, 25.3% of non-Hispanic other races, and 21.9% of non-Hispanic blacks.
- By sex, 30.0% of males and 20.3% of females used any tobacco product.

**Tobacco use in the past 30 days among middle school students, 2015**

- An estimated 7.4% (880,000 students) used any tobacco product, including an estimated 390,000 students who used 2 or more tobacco products.
- An estimated 5.3% used e-cigarettes, 2.3% used cigarettes, 2.0% used hookah pipes, 1.8% used smokeless tobacco, and 1.6% used cigars.
- By race/ethnicity, 10.6% of Hispanics used any tobacco product, followed by 6.6% of non-Hispanic blacks, 6.3% of non-Hispanic whites, and 5.6% of non-Hispanic other races.
- By sex, 8.3% of males and 6.4% of females used any tobacco product.