



## **New study finds Minnesota youth with asthma are more likely to vape**

8.20.19 A new analysis by the Minnesota Department of Health (MDH) finds that Minnesota high school and middle school students who have asthma are more likely than their peers without asthma to vape, smoke, and be exposed to secondhand smoke.

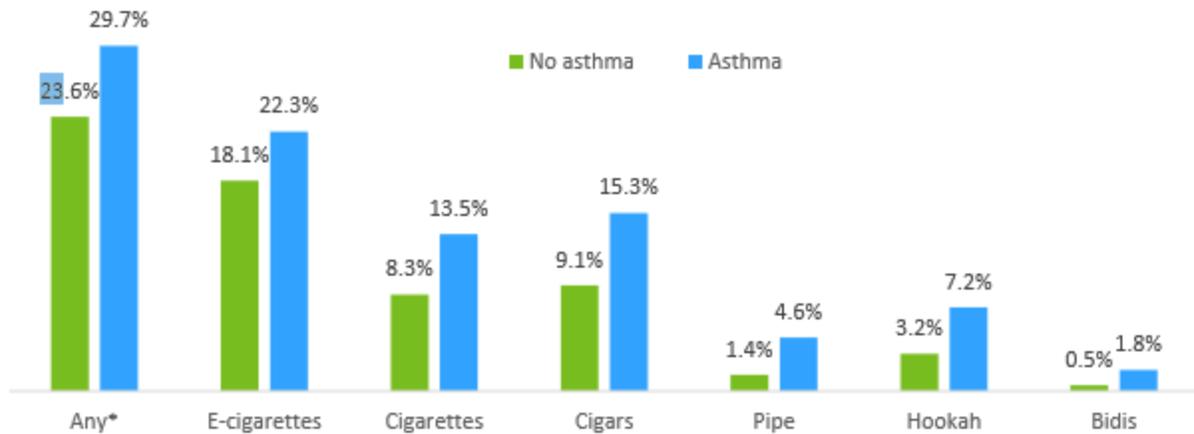
Analyzing data from the 2017 Minnesota Youth Tobacco Survey, MDH researchers found nearly 30% of youth who have asthma are using a tobacco product compared to 24% of youth without asthma. E-cigarettes are the most commonly used tobacco products among youth with or without asthma.

About one in five students in grades 6-12 reported they have asthma, according to the survey. Of those students, Minnesota youth who vaped or smoked were more likely to have frequent asthma symptoms in the past 30 days.

Tobacco smoke is a powerful trigger of asthma. Tobacco smoke contains irritating substances (a mixture of more than 7,000 chemicals) and when inhaled, it irritates the linings of the lungs. These substances can bring on an asthma symptoms or an asthma attack.

E-cigarette aerosol – commonly called vape smoke – also contains harmful chemicals, such as ultrafine particles, heavy metals like nickel, tin and lead, and other cancer-causing chemicals. E-cigarette use can cause increased coughing and wheezing in teenagers, and an increase in asthma symptoms, according to a recent [report by the National Academies of Sciences, Engineering and Medicine \(PDF\)](#).

Figure 1. Current use of tobacco products by high school students with and without asthma



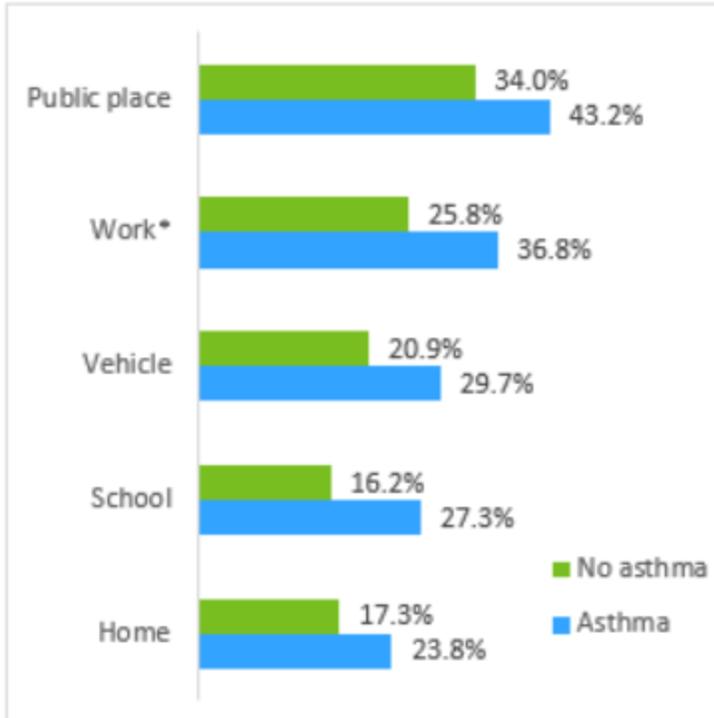
Source: 2017 MYTS; all differences in prevalence between groups are statistically significant (e-cigarette prevalence is marginally significantly different at  $p = .06$ ); weighted data.

\* Includes any use of e-cigarettes, cigarettes, cigars, pipe, hookah, or bidis.

“The current epidemic of e-cigarette use among young people is bad in many ways, and youth who have asthma are particularly vulnerable,” said Minnesota Assistant Commissioner of Health Dr. Courtney Jordan Baechler. “That’s why it is so important for us to get the word out. Any use of tobacco, including e-cigarettes and vapes, is harmful, but youth with asthma who smoke or vape are likely to experience more intense symptoms and need more medical care.”

It is unknown why youth with asthma are more likely than their peers to smoke or vape. However, reasons could include health inequities related to income, race and social influence by peers and family members who may also use these products. In Minnesota, a higher percentage of teens with asthma reported that close friends smoke or vape (17.0% versus 10.1%) and that they live with someone who uses tobacco (46.9% versus 37.7%).

**Figure 2. Exposure to secondhand smoke in past 7 days, by location of exposure**



*Source: 2017 MYTS; differences are statistically significant; weighted percentages; \*among students who worked*

In addition, studies show a clear link between secondhand smoke and asthma in children. Researchers have also found Minnesota middle and high school students with asthma have a higher risk of exposure to secondhand smoke at home, in schools, and other public places, according to the Minnesota Youth Tobacco Survey. Youth who have asthma are also more likely to be exposed to e-cigarette aerosol with 33% of kids who have asthma being exposed to the aerosol during the past 30 days compared to 22% of kids who do not have asthma. Asthma is one of the most common chronic diseases in pediatric and young adult populations. It causes inflammation or swelling and a narrowing of the airways, making it difficult to breathe. In 2016, there were 18,200 emergency department visits and 1,900 hospitalizations for asthma in Minnesota. Every day

10 Americans die from asthma.

Most people who smoke want to quit. The good news is free help is available to all Minnesotans including youth who want to stop using tobacco products, including e-cigarettes. Adult and youth resources are available at [Quitting Tobacco](#).

Families can also talk to their health care provider about [managing asthma](#), including how to develop a plan to eliminate exposure to tobacco or vape smoke. Download the brief: [Tobacco Use and Asthma \(PDF\)](#). Learn more at [Tobacco NUMBRS](#).

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