

RCORP-ETC Newsletter

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Effects of Rural Residency on Nicotine-Related Health Effects

Jordan Shipley

Tennessee has one of the most serious struggles with nicotine use in the country. It is ranked 47th among the states for smoking and 46th for vaping, according to the 2021 Behavioral Risk Factor Surveillance System.¹ In 2021, 19.5% of Tennessee adults smoked, and 9.1% used e-cigarettes.¹

One of the aspects putting Tennesseans at risk for tobacco and e-cigarette use is the proportion of the state's population who reside in rural areas. In 70 out of 95 Tennessee counties, at least 50% of the residents are rural.²

Rural areas are known to have higher rates of cigarette and smokeless tobacco use, and those residing in rural areas are at higher risk of serious health consequences or death due to tobacco use.^{3,4,5} People in rural areas are 18-20% more likely to die from lung cancer than urban residents, and four of the five leading causes of death for rural Americans - heart disease, cancer, chronic lower respiratory disease, and stroke - are caused by cigarette use.³

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“People in rural areas are **18-20%** more likely to die from lung cancer than urban residents.”
(CDC, 2022)

Finally, residents of rural areas may be more likely to trust tobacco companies’ messaging surrounding their products. Tobacco is grown in rural areas, and the companies’ influence on rural life may sway rural residents to consider their word more trustworthy than they otherwise might.⁵ Attempts to combat tobacco and e-cigarette use in rural Tennessee must consider all of these factors and more. Public health-oriented organizations should consider how they can reduce logistical and financial barriers that may be preventing residents from seeking cessation treatment. In addition, there is some evidence that residents of rural areas may be more likely to trust religious organizations and leaders, indicating that public health collaboration with faith-based organizations may be an effective avenue to promote health with rural residents⁵.

In addition, rural areas have higher rates of e-cigarette use than urban areas. The health effects of long-term e-cigarette use have yet to be discovered. People residing in rural areas also tend to have less access to tobacco cessation treatment resources. Rural challenges to access tobacco cessation resources are fueled by lack of access to medical care, travel to treatments such as support meetings, and difficulty finding time.⁴

“Rural residents tend to have **less** access to tobacco cessation treatment resources.”

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Vaping Prevention in Youth

Imelda Gutierrez

Health concerns are increasing rapidly with growth in vaping among youth. From 2011-2019, vaping has increased drastically by over 1700% among high school students, and 1650% among middle school students according to the American Lung Association. Vaping has become more popular than cigarettes among teens and young adults, and although policies have changed and awareness has been raised, its use continues to grow.³ E-cigarettes are one of the most used resources of vaping that contain nicotine, which is a highly addictive substance. Many young people now have developed a vaping addiction and have decreased the use of cigarettes overall, however; the risks of nicotine uptake still remains a concern for young adults for it may create physical, mental, and emotional challenges.³

Research suggests that the use of e-cigarettes poorly affects the lungs and can compromise cardiovascular health. E-cigarettes and vaping habits overall have recently become a public health concern due to its “link to a recent outbreak of lung injury and deaths among adults,” according to the CDC in 2020.

“From 2011-2019, vaping has increased drastically by over **1700%** among high school students, and **1650%** among middle school students according to the American Lung Association.”

Health Impacts of Youth Vaping

Imelda Gutierrez

The risks of vaping in youth is that it is unsafe because e-cigarettes contain nicotine which is highly addictive and can harm brain development in children up until their 20s. Nicotine is a highly addictive substance so it can be challenging to quit. If a person is addicted to the use of e-cigarettes and decides to quit, they may experience withdrawal symptoms such as feelings of anxiety, depression, irritability, nausea, and restlessness.² Nicotine addiction can easily become a source of stress for young people, which is why vaping prevention and intervention is vital in protecting the physical and mental health of children, teens, and young adults.²

Here are a few ways that you can help raise awareness to this public health concern. If you or someone you know uses tobacco or any nicotine product, it is never too late to quit. Please visit: [Smokefree.gov](https://www.smokefree.gov) or call 1-800-QUIT-NOW.

Parents can also access the [Talk With Your Teen About E-cigarettes](#) resource to begin the conversation early with their children about the harmful effects of e-cigarettes.² Below are additional resources that can help support the physical and mental health of young children and adults:

- [Find Treatment](#)
- [Stanford University Tobacco Prevention Toolkit](#)
- [Youth Vaping Prevention & Resources to Quit | Truth Initiative](#)
- [N-O-T: Not On Tobacco](#)
- [Behavioral Cessation Supports for Youth and Young Adults \(aap.org\)](#)
- [Policy Playbook for E-cigarettes](#)

Support your loved ones and stay informed of the resources available to you. Prevention is key and it is never too late to quit and spread awareness of this public health issue!

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Intersectional Risks of Vaping for Rural Youth

Jordan Shipley

Rural youth are especially susceptible to initiating vaping. The intersection of their age and rural residency create amplified risk for e-cigarette use.

The prevalence of e-cigarette use among US youth has increased significantly over the last several years. The Surgeon General reported a 78% increase in US youth vaping between 2017 and 2018.¹ In 2022, the FDA found that 14.1% of high school students and 3.3% of middle school students reported current e-cigarette use.²

A study published by the American Academy of Pediatrics found a significant urban-rural disparity in the increase in e-cigarette use of teens. The study was performed in Kansas and recorded 132,803 participants. The researchers found that the overall prevalence of e-cigarette use increased in urban youth from 9.8% in 2018 to 11.9% in 2019, while e-cigarette use in urban youth increased from 6.7% in 2018 to 13.4% in 2019.³ In addition, Appalachian youth have particularly high risk and rates of tobacco and e-cigarette use.⁴

Some promising avenues for addressing e-cigarette use among rural youth have been found. Florida has begun marketing anti-vaping messaging through cooperative extension and 4-H programs, recognizing that rural parents are often preoccupied with multiple jobs and long commutes.⁵ In addition, studies have found that empowering youth to take a stand against vaping in their own communities has proven effective in reducing vaping rates and preventing teens from beginning to vape in the first place.⁶

Peer-led prevention and advocacy training in rural schools and after-school programming could be a highly effective method for reducing and preventing youth vaping. Understanding our rural communities, capitalizing on developmentally appropriate practices, and utilizing evidence-based practices are strategies by which to enhance rural adolescent health promotion. Using these tactics will help us to reduce rates of youth vaping and prevent youth from beginning to vape altogether.

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Oneida County Schools Youth Vaping Cessation Program

Dr. Melinda McCartt & Brooke Claborn

“Students who use vaping devices are being offered **multimodal interventions** aimed at restoring students to **healthier practices** by addressing vaping and addictive behaviors.”

According to Truth Initiative, 81% of youth said that they started using tobacco products to cope with stress, anxiety, and depression.¹ Likewise, The National Behavioral Health Network reports that the most prevalent motivator for teen vaping use is to alleviate stress.² While high schools all across America are struggling to control the influx of teen vaping and tobacco offenses through punitive interventions, Oneida High School (Scott County, TN) has opted to reframe and rethink how to approach the problem from a restorative perspective. Students who use vaping devices are being offered multimodal interventions aimed at restoring students to healthier practices by addressing vaping and addictive behaviors.

Project ASPIRE (Achieving Success through Positive Intervention and Rehabilitation Education), was composed for the Oneida Coordinated School Health Action Plan by Dr. Melinda McCartt and is being implemented by Oneida High School's assistant principal, Mr. Shawn West. Mr. West has built relationships with a collaborative team that includes students, parents, and stakeholders who provide a positive impact on student behavior through counseling, parental input, and student accountability. Mr. West collaborates with the team to customize an individualized behavioral contract that addresses overall mental health and wellness for personal success when students are charged with a vaping or tobacco offense.

Oneida County [continued]

Collaborations with educators, health coordinators, social workers, STAND (Students Together Allowing No Drugs), and the behavioral health counselor, are designed to monitor the progress of each student admitted to the program. Students are identified as using vaping devices either through bag checks and passage through a metal detector, which accounts for over half of the vaping devices discovered, or with time-stamped air quality detectors placed outside the school restrooms. The 2022 school year intervention consisted of a cohort of 36 students.

Requirements of the contract consist of a seven-week course with a behavioral health counselor, and random drug screening that extends throughout the seven-week course. The STAND Drug Coalition conducts random drug screens and provides the team with results and student progress.

Mountain Peoples Health Council therapists also collaborate with Oneida Special School District to provide students with behavioral strategies for vaping cessation, including addiction counseling, which is conducted on the

high school's campus. Services include individual sessions and weekly group counseling. The behavioral counseling options are offered for seven weeks with continuation if needed, along with the requirement of passing five, random drug screens throughout the seven weeks of the program.

Brooke Claborn, an addiction professional with Mountain Peoples Health Council knows that it is imperative to provide a safe space for students. Ms. Claborn allows students to share feelings while teaching them how to communicate their emotions and process how the addiction impacts their lives and impedes their desire for recovery and a healthier lifestyle.

This program provides education, prevention, and a discussion of how the addiction negatively influences their behavioral health. Currently, the program is showing positive results after the first year of implementation and continues to grow with support and understanding of how addiction evolves.

Oneida County [continued]

During the first week of implementation, 72.7% of those tested failed for nicotine. Among those who failed for nicotine, 87.5% also failed for marijuana. Marijuana, on the other hand never rose above the initial week of testing and positives dropped to zero by the end of March 2023. It is important to note that the peaks depicted throughout the graph represent new students entering the program throughout the school year. In the future, The Oneida Special School District aims to expand behavioral health services to the Oneida Middle School students.

36 students

**72.7% failed
for nicotine**

**Of which,
87.5% failed
for
marijuana**

Resources:

1. Truth Initiative (2021). Many young people turn to nicotine to deal with stress, anxiety, and depression but don't know it may be making them feel worse.
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Back Issues of the newsletter can be accessed at <https://tnopioid.utk.edu/rcorp-etc-reports/>