

Vaping of THC among Adults in Minnesota

Nearly 70,000 adults in Minnesota currently vape THC

Vaping of illicit cartridges containing tetrahydrocannabinol (THC), a psychoactive ingredient in marijuana, is linked to the recent lung injury outbreak.

Highlights:

1. According to the 2018 Minnesota Adult Tobacco Survey, nearly 70,000 adults (18 and older) in Minnesota currently vape THC. This number includes adults who use THC obtained through Minnesota's Medical Cannabis program and adults who vape illicit THC obtained via the informal market. Additives used in illicit THC vaping products are currently considered a leading factor in the 2019 vaping-associated lung injury outbreak.
2. Disparities in THC vaping exist, including disparities related to age, sex, education, and geography. Specifically, younger adults, males, individuals with lower education, and residents of the seven-county Twin Cities Metropolitan Area are more likely to vape THC.
3. Vaping THC-containing products is less common than vaping nicotine, but nearly 25% of adults who currently vape in Minnesota report using nicotine and THC or only THC.

Electronic cigarettes, also called vaping devices, produce aerosol by heating liquids containing nicotine and/or other substances. Users inhale these aerosols into their lungs. Since August 2019, Minnesota and states across the country have been experiencing an outbreak of e-cigarette, or vaping, product use-associated lung injury (EVALI).¹ The majority of EVALI patients report having vaped illicit THC; that is, THC-containing products obtained through channels other than state Medical Cannabis programs or markets where THC products are legally sold.¹ Additives used in illicit THC vaping products are currently considered to be a leading factor in the EVALI outbreak, particularly the additive Vitamin E Acetate^{1,2}. Seeking to further contextualize this outbreak, this brief outlines the prevalence of THC vaping among Minnesota adults to inform prevention and educational efforts aimed at addressing EVALI and illicit THC vaping.

According to the 2018 Minnesota Adult Tobacco Survey (MATS), approximately 1.7% of adults reported vaping marijuana/THC in the past 30 days, or an estimated 70,233 adults. This number includes adults who used THC obtained through Minnesota's Medical Cannabis program and adults who used illicit THC obtained from the informal market. Adults between the ages of 18

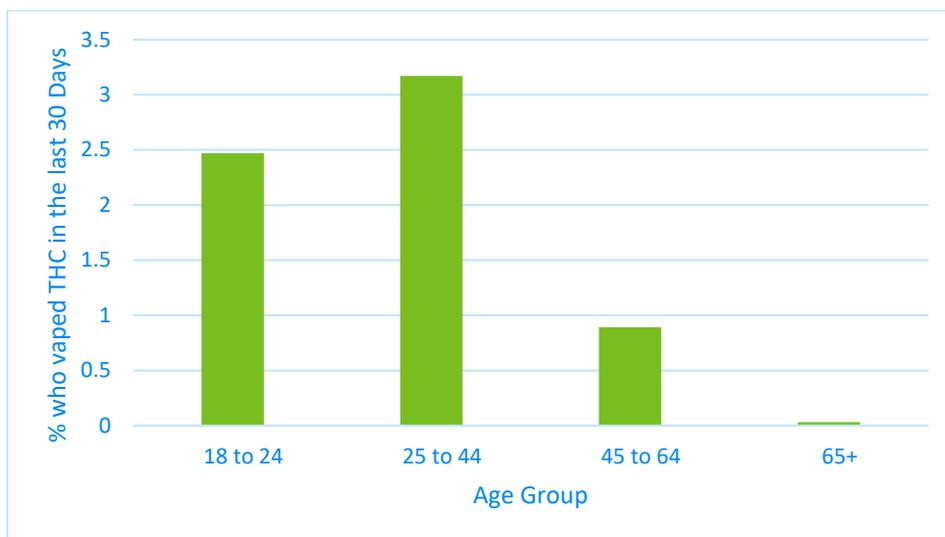
¹ Perrine et al. (2019). Characteristics of a multistate outbreak of lung injury associated with e-cigarette use, or vaping – United States, 2019. *Morbidity and Mortality Weekly Report MMWR*, 68, 860-864.

² Taylor J, Wiens T, Peterson J, et al. Characteristics of E-cigarette, or Vaping, Products Used by Patients with Associated Lung Injury and Products Seized by Law Enforcement – Minnesota, 2018 and 2019. *Morbidity and Mortality Weekly Report MMWR*, 68, 1096-1100.

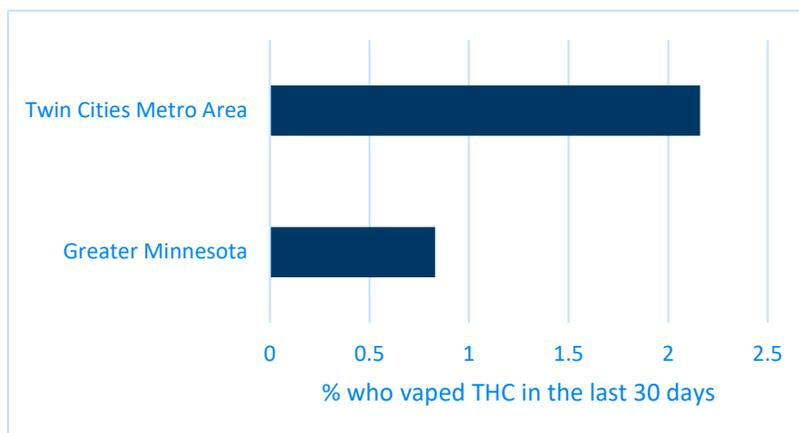
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and 44 are more likely to vape THC than those aged 45 and older. Men are also more likely to vape THC than women, and residents of the seven-county Twin Cities Metropolitan Area are more likely to vape THC than residents of Greater Minnesota. Individuals with less than a high school education also reported higher percentages of vaping THC than those who graduated high school. Vaping THC is also more likely among those who currently or formerly smoked cigarettes compared to those who have never smoked cigarettes.

Adults under the age of 45 are more likely to vape than adults 45 and older.

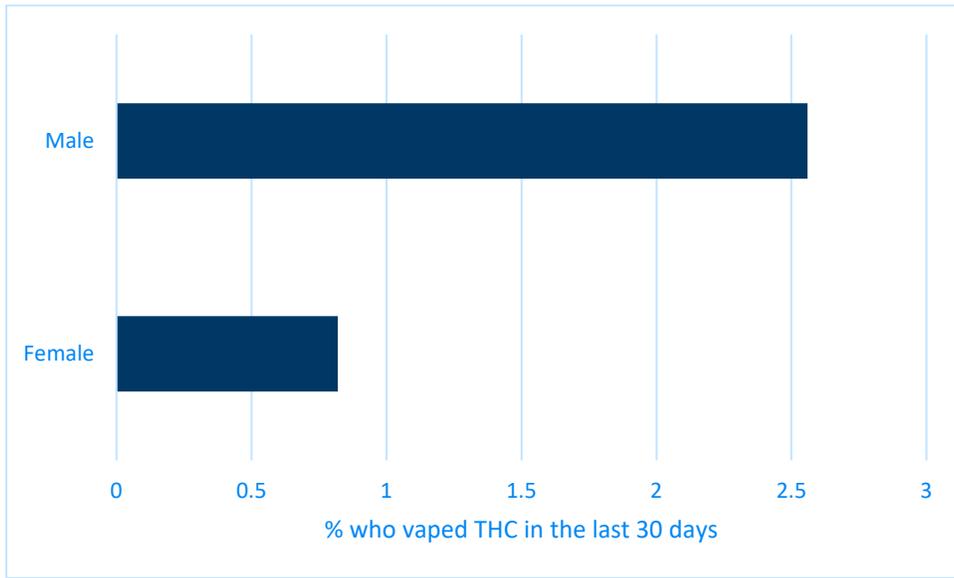


Adults living in the Twin Cities Metro Area are more likely to vape THC than those who do not.

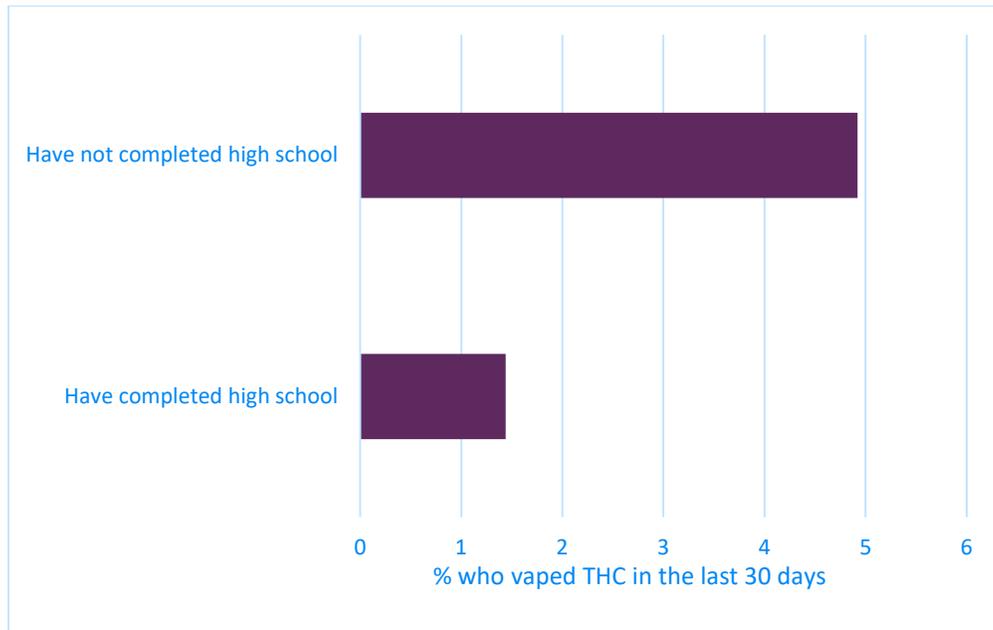


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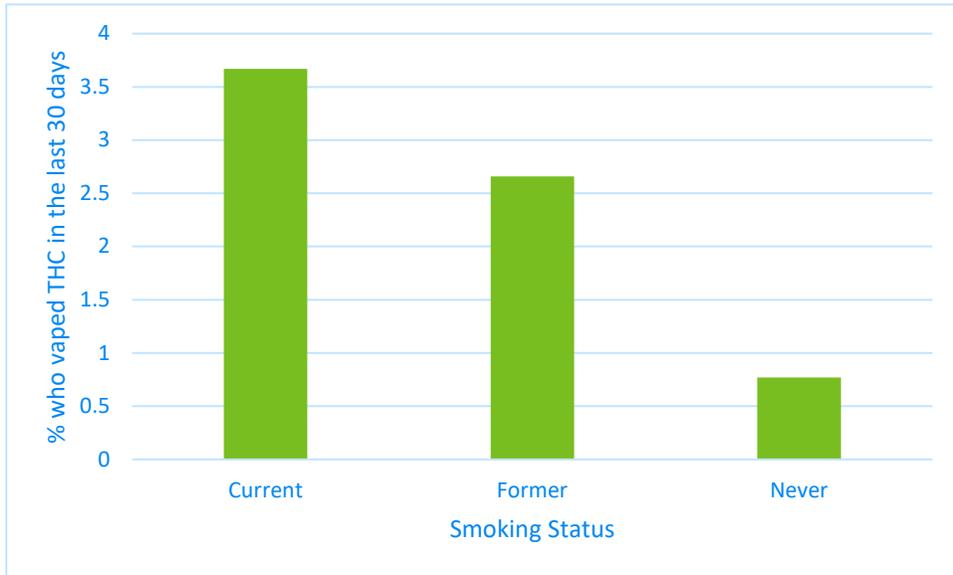
Men are more likely to vape THC than women.



Adults who have not completed high school are more likely to vape THC than adults who have graduated.



Vaping THC is more common among current or former smokers than among those who have never smoked.

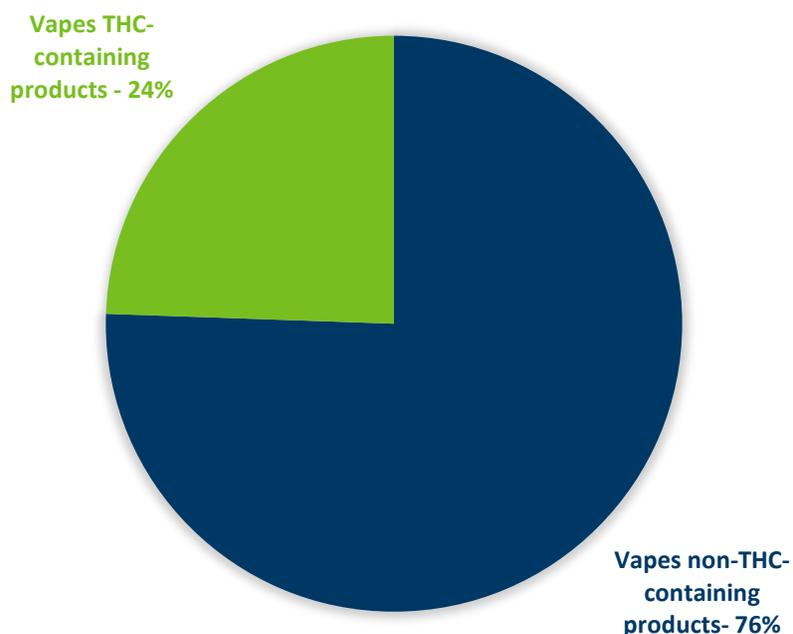


Vaping of Other Substances beyond THC

While the majority of patients in the EVALI outbreak report vaping illicit THC, patients also reported vaping other and multiple substances, including nicotine.¹ According to MATS, a sizable fraction of adults in Minnesota vape THC alone, but vaping nicotine is more common in the general population than vaping THC. In addition, a portion of Minnesota adults vape both THC and nicotine.

Among the estimated 287,215 (6.9%) adults in MATS who have used an e-cigarette or other vaping devices in the past 30 days, the majority used only nicotine. However, 12% vaped only THC, and an additional 12% vaped both nicotine and THC (See Figure 1).

Figure 1. Approximately 24% of adults who vape use THC-containing products.



Conclusion and Key Takeaways

Public health practitioners and medical professions should remain aware of EVALI as more than 70,000 Minnesotans currently vape marijuana. Adults who currently vape marijuana in Minnesota include those who vape THC products obtained legally through the state’s Medical Cannabis program, as well as those who vape illicit THC products, which are considered to be a leading factor in the multistate EVALI outbreak of 2019. It is important to note that even though a sizable number of adults currently vape marijuana, the majority of adult Minnesotans who vape primarily vape nicotine-containing products and not strictly THC. It will remain critical to continue the surveillance of vaping behavior in Minnesota, and especially vaping of marijuana with a focus on illicit THC-containing products.

Suggested Citation

Parks M, Cole C. Report: Vaping of THC among adults in Minnesota. March 2020. Injury and Violence Prevention Section, Minnesota Department of Health.

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02/25/20

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