



STATE OF MICHIGAN

DEPARTMENT OF HEALTH AND HUMAN SERVICES

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FINDING OF EMERGENCY

For the reasons below, the Michigan Department of Health and Human Services finds that the State of Michigan faces a vaping crisis among youth and recommends the promulgation of emergency rules to address this crisis.

Since 2014, e-cigarettes have been the most commonly used tobacco product among youth in the U.S.¹ Nationwide, e-cigarette use among middle and high school students increased 900% from 2011-2015.² From 2017 to 2018, e-cigarette use among youth increased 78% among high school students and 48% among middle school students.³ The total number of children who are currently using e-cigarettes rose to an astonishing 3.6 million in 2018, 1.5 million more than the previous year alone.⁴ From the years 2015-2016 and 2017-2018, counties across Michigan (cross section of 39 reporting) witnessed between a 30% and 118% increase in use among high school students who used an e-cigarette during the past month.⁵

E-cigarettes use an e-liquid that may contain nicotine, in addition to a combination of flavoring, propylene glycol, vegetable glycerin, and other ingredients.⁶ They may also contain toxic chemicals such as formaldehyde, acrolein, acrylonitrile, propylene oxide, crotonaldehyde and acetaldehyde (also found in cigarette smoke), as well as metal particles such as nickel, lead, and chromium, which can be inhaled into the lungs.⁷

The nicotine in e-cigarettes can rewire the brain to crave more of the substance and create a nicotine addiction. Resulting brain changes may have long-lasting effects on attention, learning, and memory.⁸ Research has also shown that youth who use e-cigarettes are significantly more likely to start smoking combustible cigarettes despite the well-known, documented, and often deadly health consequences such as lung cancer and heart disease.⁹

In December of 2018, the United States Surgeon General Jerome Adams officially declared e-cigarette use among youth in the United States an epidemic.¹⁰ Dr. Adams issued an advisory on e-cigarette use among youth, noting that action must be promptly taken to protect the health of young people.¹¹ Dr. Adams was joined by the Secretary of the U.S. Department of Health & Human Services, Alex Azar, who

called the historic increase in e-cigarette use by youth, which has outpaced any other substance, an “unprecedented challenge.”¹²

According to a recent study, 81% of youth e-cigarette users reported using a flavored e-cigarette at first use.¹³ This study concluded that flavored tobacco products may attract young users and serve as “starter products to regular tobacco use.” Another study revealed that nearly two thirds (63.6%) of current middle and high school tobacco users have used a flavored tobacco product in the past month.¹⁴

This epidemic can therefore be attributed in large part to the appeal of flavored vapor and alternative nicotine products to youth as well as the advertising and promotional activities by companies that glamorize use of nicotine products nationwide.

¹ U.S. Surgeon General’s Advisory on E-Cigarette Use among Youth, available at <https://e-cigarettes.surgeongeneral.gov/documents/surgeon-generals-advisory-on-e-cigarette-use-among-youth-2018.pdf>

² Surgeon General’s Advisory see footnote 1; citing Wang TW, Gentzke A, Sharapova S, et al. Tobacco Use Among Middle and High School Students – United States, 2011-2017. *MMWR Morbidity and Mortality Weekly Report*. 2018;67(22):629-633.

³ See <https://www.fda.gov/tobacco-products/youth-and-tobacco/2018-nyts-data-startling-rise-youth-e-cigarette-use> citing the most recent National Youth Tobacco Survey (NYTS) data.

⁴ See Footnote 3.

⁵ Michigan Profile for Healthy Youth Survey by MDE & MDHHS, 39 County Data from 2015-2016 and 2017-2018 for e-cigarette usage among high schoolers.

⁶ <https://www.fda.gov/tobacco-products/products-ingredients-components/vaporizers-e-cigarettes-and-other-electronic-nicotine-delivery-systems-ends#references>

⁷ <https://www.fda.gov/tobacco-products/ctp-newsroom/think-e-cigs-cant-harm-teens-health>

⁸ See footnote 6, referencing Abreu-Villaca. Y., Seidler, F. J., Tate, C. A., & Slotkin, T.A. (2003). Nicotine is a neurotoxin in the adolescent brain: critical periods, patterns of exposure, regional selectivity, and dose thresholds for macromolecular alterations. *Brain Res*, 979 (1-2), 114-128.

⁹ <https://www.fda.gov/tobacco-products/ctp-newsroom/think-e-cigs-cant-harm-teens-health>; referencing Berry KM, Fetterman JL, Benjamin EJ, Bhatnager A, Barrington-Trimis JL, Leventhal AM, Stokes A. Association of Electronic Cigarette Use with Subsequent Initiation of Tobacco Cigarettes in U.S. Youths. *JAMA Netw Open*. 2019;2(2)e187794. Doi: 10.1001/jamanetworkopen.2018.8894.

¹⁰ <https://e-cigarettes.surgeongeneral.gov/documents/surgeon-generals-advisory-on-e-cigarette-use-among-youth-2018.pdf>

¹¹ Id.

¹² <https://www.hhs.gov/about/leadership/secretary/speeches/2018-speeches/remarks-for-e-cigarette-press-conference.html>

¹³ Villanti AC, Johnson AL, Ambrose BK, et al. Flavored Tobacco Product Use in Youth and Adults: Findings from the First Wave of the PATH Study (2013-2014). *Am J Prev Med*. 2017;53(2):139–151. doi:10.1016/j.amepre.2017.01.026. <https://www.ncbi.nlm.nih.gov/pubmed/28318902>.

¹⁴ Dai H. Changes in Flavored Tobacco Product Use Among Current Youth Tobacco Users in the United States, 2014-2017. *JAMA Pediatr*. Published online January 07, 2019;173(3):282–284. doi:10.1001/jamapediatrics.2018.4595.