

Public Health

E-Cigarettes in Young People Who is the Man behind the Scenes?

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DOI: <https://doi.org/10.15354/si.24.pe162>

Funding: No funding source declared.

COI: The author declares no competing interest.

AI Declaration: The author affirms that artificial intelligence did not contribute to the process of preparing the work.

The prevalence of e-cigarette use among young people has become a growing concern, prompting the question of who is responsible for the promotion and marketing of these products to the vulnerable demographic: children and adolescents. The man behind the scenes in this scenario often is complicated. As we continue to navigate through the complexities surrounding e-cigarettes and youth consumption, it is essential that policymakers, public health officials, and parents work together to address this issue and prevent further harm to our future generations.

Keywords: E-cigarettes; Young Population; Marketing Promotion; Policy Maker; Future Generations

Science Insights, 2024 October 31; Vol. 45, No. 4, pp.1547-1550.

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E-CIGARETTES have gained significant popularity among youth, with numerous teenagers and young adults opting for vaping as a substitute for conventional cigarettes (Hunter & Martin, 2019; Mattingly & Hart, 2024). The increase in e-cigarette consumption among adolescents has elicited apprehensions regarding the associated health hazards and potential ramifications of this phenomenon (Barrington - Trimis et al., 2016; Chacón et al., 2024; Oliver et al., 2023). Although young individuals are the primary users of e-cigarettes, it raises the inquiry: who is the one orchestrating their decision to vape?

Manufacturers and retailers are pivotal entities in the e-cigarette sector, responsible for the production and sale of these products (Raves et al., 2023; Smith et al., 2023). These corporations frequently aim their marketing efforts at young people through eye-catching campaigns and enticing flavors,

rendering vaping appear enjoyable and fashionable (Giovenco et al., 2014; Jackson et al., 2024; Kasza et al., 2024; Wagoner et al., 2019; Xu et al., 2024). By idealizing vaping and portraying it as a fashionable and innocuous activity, these corporations successfully target a younger population and convince people to sample their goods.

A significant force in the e-cigarette sector comprises social media influencers and celebrities who advocate vaping to their audiences (Huang et al., 2018; Hrong et al., 2023; Kim et al., 2020; Kong et al., 2014). A significant number of young individuals admire these influencers and regard them as role models; hence, their engagement in vaping and promotion of e-cigarettes increases the likelihood of imitation among their followers (Cheng et al., 2023; Gu et al., 2022; Lim & Lee, 2023). Utilizing social media as a medium to promote e-cigarettes, these influences can engage a substantial audience of impres-

sionable youth and affect their behavior.

Parents and guardians significantly influence young people's perceptions of e-cigarettes (Kong et al., 2014). Parental smoking or vaping may accidentally promote similar behaviors in their children (Bandara et al., 2023; Hughes et al., 2015; Murthy, 2016). Furthermore, parents lacking awareness of the health hazards linked to e-cigarettes may fail to implement essential measures to deter their children from vaping (Jackson et al., 2024; *The Harmful Consequences of Vaping: A Public Health Threat*, 2020). By exemplifying positive conduct and instructing their children on the hazards of e-cigarettes, parents can mitigate the likelihood of their children participating in hazardous activities (Szoko et al., 2021).

Peer pressure is an aspect that affects the decision of adolescents to engage in vaping. Numerous adolescents and young adults may experience peer pressure to conform, prompting them to experiment with vaping despite a lack of early enthusiasm (Bandara et al., 2023; Cheng et al., 2023; Oliver et al., 2023; Rayes et al., 2023). By yielding to peer pressure, adolescents may encounter circumstances that increase the likelihood of experimenting with e-cigarettes and establishing a habitual vaping practice (Chacón et al., 2024; Foxon et al., 2024; Glantz et al., 2024; Kong et al., 2014; Murthy, 2016).

The media significantly influences young individuals' attitudes of e-cigarettes (Murthy, 2016; Pokhrel et al., 2024). Recent years have witnessed extensive media coverage regarding the possible health hazards of vaping, including stories of pulmonary injuries and fatalities associated with e-cigarette usage (Ferrara et al., 2020; Leslie, 2020; Singh et al., 2020; *The Harmful Consequences of Vaping: A Public Health Threat*, 2020). This coverage has increased awareness of the hazards of vaping; however, it has simultaneously piqued the curiosity of young individuals, prompting them to explore e-cigarettes to understand the associated hype.

Government restrictions and policies furthermore affect young individuals' access to e-cigarettes. In several nations, the sale of e-cigarettes to minors is forbidden, hence complicating access for youth to these goods (Becker & Rice, 2021). In nations with less stringent rules, young individuals may have

greater access to e-cigarettes and a higher propensity to experiment with them (Kennedy et al., 2016; Sreeramareddy et al., 2022). Governments can mitigate the incidence of vaping among youth by instituting more stringent laws and imposing age restrictions on e-cigarette sales (Huang et al., 2014).

Educational institutions also contribute to the prevention of youth vaping (Hammond et al., 2020; Padon et al., 2016). By integrating e-cigarette education into their curriculum and supplying students with information regarding the risks and repercussions of vaping, schools can enhance awareness of the hazards associated with e-cigarettes and deter students from participating in this activity (Foxon et al., 2024; Glantz et al., 2024; Wang et al., 2019). Furthermore, educational institutions might establish rules and initiatives to assist students in their efforts to cease vaping and furnish them with tools to aid in overcoming their addiction (Costantino et al., 2024; Maddu, 2019).

Healthcare providers and public health officials play a crucial role in informing adolescents about the hazards of vaping and advocating for healthy practices (Ferrara et al., 2020; Hammond et al., 2019; Oliver et al., 2023; Singh et al., 2020). Healthcare providers can mitigate the long-term repercussions of e-cigarette addiction among youth by providing counseling and support services, thereby promoting better decision-making (Bandara et al., 2023; Gaiha & Halpern - Felsher, 2020; Kim & Hong, 2024; Leslie, 2020). Public health officials can enhance awareness of the hazards of e-cigarettes through campaigns and activities designed to diminish the prevalence of vaping among youth.

In conclusion, multiple factors affect young individuals' choices to vape, including manufacturers, retailers, social media influencers, parents, peers, the media, government laws, educational institutions, healthcare providers, and public health officials. By addressing these variables and collaborating to promote healthy behaviors while discouraging harmful activities such as vaping, we can facilitate educated decision-making among young individuals regarding their health and well-being. All stakeholders must coordinate and implement proactive steps to safeguard youth from the potential hazards of e-cigarettes and assist them in making better choices. ■

References

- Bandara, N. A., Vallani, T., Gamage, R., Zhou, X. R., Palihawadane, S. H., Mannas, M., & Herath, J. (2023). A Multi-Faceted Approach to Communicate the Risks Associated with E-Cigarette Use to Youth. *Youth*, 3(1), 437-446. DOI: <https://doi.org/10.3390/youth3010030>
- Barrington-Trimis, J. L., Urman, R., Leventhal, A. M., Gauderman, W. J., Cruz, T. B., Gilreath, T. D., Howland, S., Unger, J. B., Berhane, K., Samet, J. M., & McConnell, R. (2016). E-cigarettes, Cigarettes, and the Prevalence of Adolescent Tobacco Use. *Pediatrics*, 138(2), e20153983. DOI: <https://doi.org/10.1542/peds.2015-3983>
- Becker, T. D., & Rice, T. R. (2021). Youth vaping: a review and update on global epidemiology, physical and behavioral health risks, and clinical considerations. *European Journal of Pediatrics*, 181(2), 453-462. DOI: <https://doi.org/10.1007/s00431-021-04220-x>
- Chacon, L., Mitchell, G., & Golder, S. (2024). The commercial promotion of electronic cigarettes on social

- media and its influence on positive perceptions of vaping and vaping behaviours in Anglophone countries: A scoping review. *PLOS Global Public Health*, 4(1), e0002736. DOI: <https://doi.org/10.1371/journal.pgph.0002736>
- Cheng, H. G., Lizhnyak, P. N., & Richter, N. (2023). Mutual pathways between peer and own e-cigarette use among youth in the United States: A cross-lagged model. *BMC Public Health*, 23(1), 1609. DOI: <https://doi.org/10.1186/s12889-023-16470-5>
- Costantino, S., Torre, A., Randazzese, S. F., Mollica, S. A., Motta, F., Busceti, D., Ferrante, F., Caminiti, L., Crisafulli, G., & Manti, S. (2024). Association between Second-Hand Exposure to E-Cigarettes at Home and Exacerbations in Children with Asthma. *Children*, 11(3), 356. DOI: <https://doi.org/10.3390/children11030356>
- Ferrara, P., Franceschini, G., Corsello, G., Namazova-Baranova, L., Pop, T. L., Mestrovic, J., Giardino, I., Sacco, M., Vural, M., Nigri, L., Nagy, A., Szabo, L., & Pettoello-Mantovani, M. (2020). The Health Risks of Electronic Cigarettes Use in Adolescents. *The Journal of Pediatrics*, 219, 286-287.e3. DOI: <https://doi.org/10.1016/j.jpeds.2020.01.009>
- Foxon, F., Selya, A., Gitchell, J., & Shiffman, S. (2024). Increased e-cigarette use prevalence is associated with decreased smoking prevalence among US adults. *Harm Reduction Journal*, 21(1), 136. DOI: <https://doi.org/10.1186/s12954-024-01056-0>
- Gaiha, S. M., & Halpern-Felsher, B. (2020). Public Health Considerations for Adolescent Initiation of Electronic Cigarettes. *PEDIATRICS*, 145(Supplement_2), S175-S180. DOI: <https://doi.org/10.1542/peds.2019-2056e>
- Giovenco, D. P., Hammond, D., Corey, C. G., Ambrose, B. K., & Delnevo, C. D. (2014). E-Cigarette Market Trends in Traditional U.S. Retail Channels, 2012-2013. *Nicotine & Tobacco Research*, 17(10), 1279-1283. DOI: <https://doi.org/10.1093/ntr/ntu282>
- Glantz, S. A., Nguyen, N., & Da Silva, A. L. O. (2024). Population-Based Disease Odds for E-Cigarettes and Dual Use versus Cigarettes. *NEJM Evidence*, 3(3), EVIDoa2300229. DOI: <https://doi.org/10.1056/evidoa2300229>
- Gu, J., Abrams, L. C., Broniatowski, D. A., & Evans, W. D. (2022). An Investigation of Influential Users in the Promotion and Marketing of Heated Tobacco Products on Instagram: A Social Network Analysis. *International Journal of Environmental Research and Public Health*, 19(3), 1686. DOI: <https://doi.org/10.3390/ijerph19031686>
- Hammond, D., Reid, J. L., Rynard, V. L., Fong, G. T., Cummings, K. M., McNeill, A., Hitchman, S., Thrasher, J. F., Goniewicz, M. L., Bansal-Travers, M., O'Connor, R., Levy, D., Borland, R., & White, C. M. (2019). Prevalence of vaping and smoking among adolescents in Canada, England, and the United States: repeat national cross sectional surveys. *BMJ (Clinical Research Ed.)*, 365, I2219. DOI: <https://doi.org/10.1136/bmj.I2219>
- Hammond, D., Rynard, V. L., & Reid, J. L. (2020). Changes in Prevalence of Vaping Among Youths in the United States, Canada, and England from 2017 to 2019. *JAMA Pediatrics*, 174(8), 797. DOI: <https://doi.org/10.1001/jamapediatrics.2020.0901>
- Huang, J., Duan, Z., Kwok, J., Binns, S., Vera, L. E., Kim, Y., Szczycka, G., & Emery, S. L. (2018). Vaping versus JUULing: how the extraordinary growth and marketing of JUUL transformed the US retail e-cigarette market. *Tobacco Control*, 28(2), 146-151. DOI: <https://doi.org/10.1136/tobaccocontrol-2018-054382>
- Huang, J., Tauras, J., & Chaloupka, F. J. (2014). The impact of price and tobacco control policies on the demand for electronic nicotine delivery systems. *Tobacco Control*, 23(suppl 3), iii41-iii47. DOI: <https://doi.org/10.1136/tobaccocontrol-2013-051515>
- Hughes, K., Bellis, M. A., Hardcastle, K. A., McHale, P., Bennett, A., Ireland, R., & Pike, K. (2015). Associations between e-cigarette access and smoking and drinking behaviours in teenagers. *BMC Public Health*, 15(1), 244. DOI: <https://doi.org/10.1186/s12889-015-1618-4>
- Hunter, S. R., & Martin, C. A. (2019). Teen vaping boom: Electronic cigarette use, associated outcomes, and efforts in prevention. *Journal of the American Academy of Child & Adolescent Psychiatry*, 58(10), S71. DOI: <https://doi.org/10.1016/j.jaac.2019.07.435>
- Jackson, S. E., Tattan-Birch, H., East, K., Cox, S., Shahab, L., & Brown, J. (2024). Trends in Harm Perceptions of E-Cigarettes vs Cigarettes Among Adults Who Smoke in England, 2014-2023. *JAMA Network Open*, 7(2), e240582. DOI: <https://doi.org/10.1001/jamanetworkopen.2024.0582>
- Kasza, K. A., Rivard, C., Goniewicz, M. L., Fong, G. T., Hammond, D., Cummings, K. M., & Hyland, A. (2024). E-Cigarette Characteristics and Cigarette Cessation Among Adults Who Use E-Cigarettes. *JAMA Network Open*, 7(8), e2423960. DOI: <https://doi.org/10.1001/jamanetworkopen.2024.23960>
- Kennedy, R. D., Awopegba, A., De León, E., & Cohen, J. E. (2016). Global approaches to regulating electronic cigarettes. *Tobacco Control*, 26(4), 440-445. DOI: <https://doi.org/10.1136/tobaccocontrol-2016-053179>
- Kim, D. H., & Hong, J. M. (2024). Unveiling the Impact of Smokers' Self-Constructs on the Effectiveness of Smoking Cessation Campaigns: A Comparative Analysis of E-Cigarettes and Combustible Cigarettes. *International Journal of Public Health*, 69, 1606915. DOI: <https://doi.org/10.3389/ijph.2024.1606915>
- Kim, Y., Emery, S. L., Vera, L., David, B., & Huang, J. (2020). At the speed of Juul: measuring the Twitter conversation related to ENDS and Juul across space and time (2017-2018). *Tobacco Control*, 30(2), 137-146. DOI: <https://doi.org/10.1136/tobaccocontrol-2019-055427>
- Kong, G., Morean, M. E., Cavallo, D. A., Camenga, D. R., & Krishnan-Sarin, S. (2014). Reasons for Electronic Cigarette Experimentation and Discontinuation Among Adolescents and Young Adults. *Nicotine & Tobacco Research*, 17(7), 847-854. DOI: <https://doi.org/10.1093/ntr/ntu257>
- Le, T. T. H., Le, T. H., Le, M. D., & Nguyen, T. T. (2023). Exposure to E-Cigarette Advertising and Its Association with E-Cigarette Use Among Youth and Adolescents in Two Largest Cities in Vietnam 2020. *Tobacco Use Insights*, 16, 1179173X2311796. DOI: <https://doi.org/10.1179/173X2311796>

- <https://doi.org/10.1177/1179173x231179676>
 Leslie, F. M. (2020). Unique, long-term effects of nicotine on adolescent brain. *Pharmacology Biochemistry and Behavior*, 197, 173010. DOI: <https://doi.org/10.1016/j.pbb.2020.173010>
- Lim, Y., & Lee, J. Y. (2023). A Comparative Analysis of E-Cigarette and Cigarette Posts on Instagram. *International Journal of Environmental Research and Public Health*, 20(4), 3116. DOI: <https://doi.org/10.3390/ijerph20043116>
- Maddu, N. (2019). What is e-Cigarette and Associated Health Risks. In *IntechOpen eBooks*. DOI: <https://doi.org/10.5772/intechopen.84747>
- Mattingly, D. T., & Hart, J. L. (2024). Trends in Current Electronic Cigarette Use Among Youths by Age, Sex, and Race and Ethnicity. *JAMA Network Open*, 7(2), e2354872. DOI: <https://doi.org/10.1001/jamanetworkopen.2023.54872>
- Murthy, V. H. (2016). E-Cigarette Use Among Youth and Young Adults. *JAMA Pediatrics*, 171(3), 209. DOI: <https://doi.org/10.1001/jamapediatrics.2016.4662>
- Oliver, B. E., Jones, S. E., Hops, E. D., Ashley, C. L., Miech, R., & Mpofo, J. J. (2023). Electronic Vapor Product Use Among High School Students — Youth Risk Behavior Survey, United States, 2021. *MMWR Supplements*, 72(1), 93-99. DOI: <https://doi.org/10.15585/mmwr.su7201a11>
- Padon, A. A., Maloney, E. K., & Cappella, J. N. (2016). Youth-Targeted E-cigarette Marketing in the US. *Tobacco Regulatory Science*, 3(1), 95-101. DOI: <https://doi.org/10.18001/trs.3.1.9>
- Pokhrel, P., Kawamoto, C. T., Lipperman-Kreda, S., Amin, S., Charles, P., Danko, A., Valente, T., & Sussman, S. (2024). Young adult peer crowds, e-cigarette advertising exposure, and e-cigarette use: Test of a mediation model. *Drug and Alcohol Dependence*, 256, 111064. DOI: <https://doi.org/10.1016/j.drugalcdep.2023.111064>
- Rayes, B. T., Alalwan, A., AbuDujain, N. M., Darraj, A., Alammam, M. A., & Jradi, H. (2023). Prevalence, Trends, and Harm Perception Associated with E-Cigarettes and Vaping among Adolescents in Saudi Arabia. *Archives of Clinical and Biomedical Research*, 7(2), 147-156. DOI: <https://doi.org/10.26502/acbr.50170327>
- Singh, S., Windle, S. B., Filion, K. B., Thombs, B. D., O'Loughlin, J. L., Grad, R., & Eisenberg, M. J. (2020). E-cigarettes and youth: Patterns of use, potential harms, and recommendations. *Preventive Medicine*, 133, 106009. DOI: <https://doi.org/10.1016/j.ypmed.2020.106009>
- Smith, M. J., MacKintosh, A. M., Ford, A., & Hilton, S. (2023). Youth's engagement and perceptions of disposable e-cigarettes: a UK focus group study. *BMJ Open*, 13(3), e068466. DOI: <https://doi.org/10.1136/bmjopen-2022-068466>
- Sreeramareddy, C. T., Acharya, K., & Manoharan, A. (2022). Electronic cigarettes use and 'dual use' among the youth in 75 countries: estimates from Global Youth Tobacco Surveys (2014-2019). *Scientific Reports*, 12(1), 20967. DOI: <https://doi.org/10.1038/s41598-022-25594-4>
- Szoko, N., Ragavan, M. I., Khetarpal, S. K., Chu, K., & Culyba, A. J. (2021). Protective Factors Against Vaping and Other Tobacco Use. *Pediatrics*, 148(2), e2020048066. DOI: <https://doi.org/10.1542/peds.2020-048066>
- The Harmful Consequences of Vaping: A Public Health Threat. (2020). *Journal of Addictions Nursing*, 31(2), E3-E4. DOI: <https://doi.org/10.1097/jan.0000000000000342>
- Wagoner, K. G., Reboussin, D. M., King, J. L., Orlan, E., Ross, J. C., & Sutfin, E. L. (2019). Who Is Exposed to E-Cigarette Advertising and Where? Differences between Adolescents, Young Adults and Older Adults. *International Journal of Environmental Research and Public Health*, 16(14), 2533. DOI: <https://doi.org/10.3390/ijerph16142533>
- Wang, T. W., Gentzke, A. S., Creamer, M. R., Cullen, K. A., Holder-Hayes, E., Sawdey, M. D., Anic, G. M., Portnoy, D. B., Hu, S., Homa, D. M., Jamal, A., & Neff, L. J. (2019). Tobacco Product Use and Associated Factors Among Middle and High School Students — United States, 2019. *MMWR Surveillance Summaries*, 68(12), 1-22. DOI: <https://doi.org/10.15585/mmwr.ss6812a1>
- Xu, K., Lee, T., Reyes-Guzman, C. M., Lynn, B. C. D., Kofie, J. N., Rostron, B. L., Chang, C. M., & Chang, J. T. (2024). Use patterns of flavored non-cigarette tobacco products among US adults, 2010-2019. *Preventive Medicine*, 180, 107870. DOI: <https://doi.org/10.1016/j.ypmed.2024.107870>

Received: August 29, 2024

Revised: September 08, 2024

Accepted: September 18, 2024
