

# HEALYAC Position Statement: Vaping and Student Health



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## WHO ARE WE?



### Human Environments Analysis Lab

- Established by Dr. Jason Gilliland in 2003
- Application of CBPR & GIS for public health
- **500** trainees & **100** different community collaborators



### Youth Advisory Council

- Established in 2018
- **16** students from secondary schools across London
- Advise HEALab & gain research experience

## PROBLEM

- Increase in overall teen vaping rates (Morean et al., 2015; Patrick et al., 2016)
- 50% of youth vapers buy/borrow vaping products from friends/relatives (Health Canada, 2017)
- Lack of enforcement, easy access to products, mental health issues, lack of evidence and awareness about health impacts (House of Commons, 2019; Dierker et al., 2015)



The HEALYAC is a Youth Advisory Council (YAC) in London, Ontario, Canada that informs youth-related health research conducted by the human environments analysis laboratory (HEAL). The HEALYAC represents the diverse voices and perspectives of 34 teenagers from across the city.

### POSITION STATEMENT: VAPING IN SCHOOLS AND STUDENT HEALTH

We, the HEALYAC, are concerned about the rising prevalence of vaping in our schools. Easy access to these products leaves all high school students, both those who vape and their peers, vulnerable to the uncertain consequences of vaping. The lack of evidence and awareness regarding the health effects of vaping and the impacts of exposure to vaping is a key health issue facing teenagers in Canada. We are calling for additional research, and prompt implementation of government regulation, improved detection and enforcement in schools, and cessation and coping support for youth.

#### THE PROBLEM

##### Vaping Enforcement and Exposure

In recent years, vaping products have gained significant traction in Canada (1-2). Vapes, or e-cigarettes, are becoming especially popular amongst teenagers, particularly in school settings (3-4). As members of the HEALYAC, we are not only concerned about our daily involuntary exposure to vaping, but also the distraction that e-cigarette use causes in educational environments. Despite potential consequences, many teens are using vaping products on school property at an alarming rate. This could be attributed to the fact that vaping is largely unenforced and restrictions remain unenforced. The undetectable nature of vaping allows for high school students to vape not only on the property surrounding school, but also in classrooms, gyms, and bathrooms (3,5). This poses both a distraction and a barrier to learning. We feel that most vaping occurs in areas that are not monitored or have little to no security, including bathrooms. This frequent and unmonitored exposure can lead to students feeling pressured by peers to experiment with vaping. Thus, we strongly encourage stricter enforcement in schools to mitigate this issue and reduce the prevalence of vaping in educational settings. Optimizing enforcement and restricting vaping within and around schools would improve adolescent health and foster safe spaces for learning.

##### Access to Products

The Tobacco and Vaping Products Act regulates the marketing, sale, and use of vaping devices and their associated products in Canada. Legally, only those of majority age (19+) in their province or territory may purchase vaping devices and products. However, teenagers have reported significantly elevated rates of nicotine and tobacco products use (6-7). In Canada, users report purchasing their devices from traditional retail outlets, which highlights the lack of regulatory enforcement enables teenagers to easily access vaping products in their community (8). In addition, online sales of vaping products in Canada do not require age verification upon purchase, and only include a loosely enforced guideline for age verification on delivery (9). It is clear the lack of enforcement, and desire to balance regulatory demands, has made it easier for us, and other teenagers, to access vaping devices, and associated nicotine-based products.

##### Vaping and Mental Health

In our schools, many students experience academic stress and anxiety, and we have noticed that some students are using vaping to cope with these feelings. We are deeply concerned about associated risks with vaping that can lead to nicotine addiction and physical dependence. Those who wish to quit may experience the hardship of withdrawal (10). Exposure to nicotine can lead to reduced impulse control, and cognitive and behavioural problems (9). Youth are especially susceptible to its negative effects, as it is known to alter their brain development and can affect memory and concentration (10). Stress during adolescence is a risk factor for the initiation of nicotine consumption and studies have shown that vaping is a mediator in the decision to start smoking in previously non-smoking adolescents (11, 12). Stress during adolescence may further augment the re-wiring properties of nicotine and alter behavioural responses to nicotine later in life. In addition, nicotine addiction can exacerbate symptoms of depression and anxiety (13). Further, given the prevalence of vaping in our schools, we believe that it has not only become a classroom distraction, but has also a new avenue for peer pressure to consume controlled substances.

##### Lack of Evidence and Awareness Related to Health Impacts of Vaping

There is a lack of scientific evidence available for young people to make informed decisions about vaping. The liquid solution used in vapes contains several ingredients that are potentially harmful and addictive, including nicotine, propylene, and glycol. Vaping devices can also be used to consume marijuana or cannabis products (14). While the consequences of inhaling vaping products are unclear, recent studies provide preliminary evidence related to the health effects of nicotine and tobacco use. For example, studies show that daily e-cigarette use is associated with an elevated risk of heart attack (14), and with regard to youth and adolescents specifically, nicotine use has been found to negatively affect brain development (10,13,14) and lead to tobacco smoking initiation (17). Furthermore, the risk that vaping times may pose to bystanders is unknown. Our concerns are that teens are either unaware of the potential health effects of vaping or that the uncertainty of the evidence around vaping is leading to an assumption that there are no negative consequences.

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## RECOMMENDATIONS -from students, for students

### Improve Enforcement and Reduce Exposure

- **Detection:** Vape detection sensors
- **Training:** Teachers & staff for prevention
- **Security:** Regular supervision of common places of usage

### Develop Youth-Oriented Educational Campaigns

- Make government messaging more youth-oriented
- Disseminate by channels & platforms accessed by youth

### Promote Mental Health and Coping Strategies

- Offer vaping cessation services to students
- Provide vape prevention strategies to schools

### WARNING IN SCHOOLS AND STUDENT HEALTH

Given the serious consequences that vaping can have on youth's health and wellbeing, we believe immediate action is necessary. As representatives of youth in our community, we propose the following recommendations to address this complex public health issue.

#### RECOMMENDATIONS

##### Conduct Longitudinal Research

Although research is limited on the health impacts of vaping, we believe there is enough evidence to justify efforts to prevent the use of vaping products by youth. The long-term safety of inhaling some of the chemicals found in vaping liquid is unknown and should continue to be assessed. Identifying the health impacts of these chemicals, and the differences between adolescents and adults in response to vaping, particularly at measures associated with nicotine addiction and mental health, is critical to creating effective prevention and reduction programs and policies.

##### Promote Mental Health and Coping Strategies

Vaping is not intended for youth and non-smokers, nor is it an appropriate tool for stress management. Early addiction to nicotine can exacerbate symptoms of depression and alter brain development. Since stress is often cited as a reason to engage in vaping, effective stress management programs that are age appropriate should be created. Conversations with youth should include facts of mental health issues and consequences of nicotine addiction that may arise from vaping. We should have improved access to support and healthier alternatives to vaping to cope with stress and anxiety. Teachers, school administrators, parents, and students should be provided with information on effective vaping prevention and cessation strategies, as well as mental health resources for teens.

##### Control Access to Products

In no case should those younger than 19 years be able to access vaping devices and associated products. We recommend that local, provincial, and federal regulations be modified to introduce strict marketing rules, and new safeguards on the online purchase of vaping products. Local: Local governments should dedicate resources to the monitoring and inspection of retail outlets selling vaping devices and their products. In addition, the sale of vaping devices and their products should be banned at establishments frequented by youth.

Provincial: The health curriculum should be modified to discourage vaping and inform students about the negative health effects of using vaping-associated products. The program should work with the federal government to establish a secure electronic identity system to verify the age of online purchases of vaping products.

Federal: Government agencies should invest in research to understand the health effects and uptake of vaping among young people, and work with local and provincial governments to ensure enforcement of existing regulations on vaping.

##### Develop Youth-Oriented Educational Campaigns

Given the overall uncertainty and lack of awareness surrounding vaping, we emphasize that, in addition to policy and government action to restrict vaping, greater efforts should be made to educate students and the wider public about the potential health-related consequences. We feel that the current messaging from the government about the consequences of vaping need to be more youth oriented. We recommend that health education campaigns about vaping be developed with content and messaging relevant to and targeted at youth, and subsequently disseminated through channels and platforms accessed by youth.

##### Improve Enforcement and Reduce Exposure

We would like to see vaping prohibited on school property. We recommend that education infrastructure is a key area for intervention, specifically in relation to detection, training and awareness, and security.

Detection: Infrastructure additions, such as vape detection sensors, could reduce the prevalence of vaping in schools and deter teens from vaping on school property.

Training: Training for teachers and school staff to recognize and detect the presence of vaping on school property could prove to be an effective means for enforcing vaping regulations in schools.

Security: Additional security and monitoring in educational settings may curb the use of vapes and e-cigarettes. Regular supervision of common areas of use, such as areas that have high instances of vaping (e.g., gyms, hallways, classrooms, libraries) is needed.

#### REFERENCES

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**THANK YOU**

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