

EVIDENCE BRIEF

Vape Detector Effectiveness for School Property

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Introduction

There have been issues and concerns noted with respect to youth vaping in schools and on school property across Ontario. Compliance and enforcement of the *Smoke-Free Ontario Act (SFOA) 2017* has been a challenge for schools to manage. The Ministry of Education has responded to concerns with updated guidance and some additional resources to support school boards address vaping in schools. Conversations and questions with local schools and school boards are underway, for planning and implementation of local activities.

This evidence brief answers the question: **what is the effectiveness of vape detectors in schools and on school property?** This synthesis focuses on vape detector use in schools and on school property in the school-aged/youth population (18 years and younger).

Key Messages

At the time of the search there was no relevant, published evidence on the effectiveness of vape detector use in schools and on school property in the school-aged/youth population (18 years and younger).

Background

The *SFOA, 2017* outlines restrictions around smoking and vaping, in indoor spaces, on outdoor grounds including playgrounds and fields, and within 20 metres of school property.^{1,2} The *SFOA, 2017* legislation applies at all times to staff, students, parents, and visitors on school property, and includes parking lots, vehicles, and athletic fields. School staff and administration are charged with enforcing these regulations, with local public health units having a role in inspections and response to smoking and vaping complaints. Penalties, including charges and fines, can be issued for failing to comply with the *SFOA, 2017*.

Vaping products have gained popularity with youth since their entry into the market and have continued to gain popularity with their frequent evolution and design changes. The use of these products in places where there is legislative restrictions of use has increased since the design and function of many of these products does make it easier to conceal use. School staff, students, parents and health officials have been very vocal over vaping concerns at schools.^{3,4} School staff have also expressed challenges with attempting to manage use and reinforce compliance of smoking and vaping restrictions in schools. Media reports across the country have cited these concerns (ranging from inhaling to not letting aerosol escape, hiding vapes under sleeves, openly vaping in hallways, and vaping in restrooms⁵) and strategies that staff are implementing to address these issues.^{3,6,7} Several Ontario schools sought additional supports to help manage compliance with the installation and implementation of vaping detectors in areas of the schools that were known to have the highest rates of non-compliance among students.^{8,9}

The [Ministry of Education announced](#) actions they planned to take to address distractions in the classroom; this included vaping. On June 25, 2024, the Ministry issued [Policy/Program Memorandum 128 \(PPM 128\), The Provincial Code of Conduct and School Board Codes of Conduct](#), and this took effect on September 1, 2024.^{10,11} Through the release of this policy/program memorandum the Ministry of Education acknowledged the concerns and challenges that schools are facing to prevent vaping on school property. In addition to added direction on how schools and school boards should be addressing vaping on school property in the upcoming 2024–25 school year, the Ministry also announced additional funding for school boards to purchase and install vape detectors.^{8,9} There is a need to understand the effectiveness evidence on what works, to support vape-free compliance with schools and school boards, to better support local planning and implementation in schools. Thus, this synthesis sought to locate the best available evidence for the effectiveness of vape detectors in school and on school property.

Methods

A rapid review was conducted to facilitate timely response for decision making, feasibility, and to keep the review question within scope.¹² Public Health Ontario (PHO) Library Services conducted database searches of the published literature (MEDLINE, Scopus, Health Policy Reference Center, and ERIC) on October 28, 2024. PHO Library Services updated and re-ran those searches on March 25, 2025, and additionally provided a grey literature search strategy that was conducted in March 2025. One Public Health Ontario (PHO) staff member screened titles and abstracts for relevance with the content lead validating decisions regarding inclusions and exclusions. Sources were eligible for inclusion if they focused on school-aged populations (18 years and younger), and featured an evaluation of vape detector use (which could be quantitative or qualitative). Given that no relevant papers were located, quality appraisal and data extraction were not done.

Results

No relevant papers meeting the inclusion criteria for this research question were located by a broad, library-directed search strategy of the published literature. Only two papers cited vape detector use, with use taking place in vehicles and unrelated to school settings. Given the differences in settings and use in vehicles compared to schools, the evidence from these papers was not considered transferable and was not assessed in detail.

Limitations and Strengths

This synthesis is the result of a systematic review of published literature, and no evidence was available at the time of searches in October 2024. Grey literature searches were not conducted.

Conclusion

While there is interest in vape detector use in school settings, the current available evidence base does not match the level of interest. When vape detectors are implemented in schools, ideally their use will be evaluated and outcome data shared for consideration by education settings moving forward.

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The evidence in this document is current to March 25, 2025. New material in this revision is summarized in the table below. Revisions in the body of the text are highlighted.

Summary of amendments in 1st revision: Revision Number	Date of Implementation	Description of Major Changes	Page
1	April 2, 2025	Updated search, expanded search strategy to include grey literature. No new findings.	2

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