

Executive Summary: Effective, evidence-based school program to reduce the number of adolescents that initiate E-cigarette use and influence current adolescent E-cigarette users to quit.

According to the 2019 National Youth Tobacco Survey, 28% of high school students vape and 11% of middle school students vape. Vaping is the use of an electronic cigarette that heats a liquid solution (e-liquid) into an aerosol that is inhaled by the user. There are a variety of electronic nicotine delivery systems (ENDS) including e-cigarettes, e-pipes, vape pens and tank systems. The rising number of adolescent e-cigarette users is considered an epidemic by the Surgeon General and FDA. Dangerous health outcomes are associated with adolescent e-cigarette use. These include the following:

- EVALI (Electronic or vaping associated lung injury)
- Periodontal disease
- Cardiovascular disease
- Permanent cognitive and behavioral impairment for the developing adolescent brain

An adolescent's brain is continually developing until age 25. Studies have shown that vaping with products that contain nicotine and THC impair adolescent brain development. This outcome can negatively affect attention, memory, learning, and mental health.

Eighty-five percent of middle schoolers surveyed reported vaping because they liked the flavors. Some e-liquids are not regulated; therefore, nicotine may not be appropriately labelled. Nicotine dependence is a chronic relapsing condition. Peer pressure, social norms and youth-marketing tactics create an acceptable environment for vaping.

Years of research on behavior associated with cigarette smoking and prevention strategies have led to successful school-based prevention programs aimed at the individual student and their environment, empowering students with the knowledge and skills to make the decision to not use cigarettes. These highly replicable programs have been used as models for prevention interventions for e-cigarette use among adolescents.

This report discusses the evidence-based school prevention program known as CATCH My Breath (CMB). It is administered at the organizational level of the social-ecological model and developed using the Social Cognitive Theory. CMB was initially created for middle school students, but with measured success, 4 level programs have been developed to be given to students ages 11-18, or grades 5 through 12. The program can be given at one grade level or all grade levels. Each grade level package comes with four, 30-40-minute lessons designed to be presented to students once a week for 4 consecutive weeks.

Catch My Breath

FREE to schools that enroll Digital Platform Built teacher curriculum

Classroom learning Interactive models Refusal skills practical

Parent resources included Pre/Post student and teacher surveys

RE-AIM

Reach– Delivered to 1.4 million middle and high-school students in the United States since 2016 in 4,000 schools.

Effectiveness – Research shows students who participate in CMB are half as likely to use e-cigarettes than students who don't participate in CMB.

Adoption – FREE through sponsorship of CVS Health; Online platform for easy use and access.

Implementation– Designed to be implemented by educators once per week for 4 weeks, with optional physical education lessons and a parent toolkit.

Maintenance – Program evaluation by teacher and student pre and post surveys maintain currency and improve content

Norfolk Community Health Survey 2016 listed smoking as a significant health issue. There has been a dramatic increase of e-cigarette infractions across the Hampton Roads area schools from 2016-2019. Virginia Beach School systems reported to students and parents to treat vaping as a health crisis. Middle schools and high schools in the Hampton Roads area do not participate in the CATCH My Breath program. Implementing this program is free to school systems and would empower adolescents and their parents by teaching the dangers of vaping, therefore, decreasing the prevalence in the Hampton Roads area. CATCH My Breath is a primary prevention program that is superior to other interventions because it targets individual behavior change within a social environment, aiding in the creation of a healthy social norm.

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