VAPING ECHO FOR EDUCATION MODEL TO ADDRESS ADOLESCENT E-CIGARETTE USE IN MIDDLE AND HIGH SCHOOLS: A RESTORATIVE JUSTICE APPROACH

Participating schools were trained to apply cessation best practices and restorative justice models in place of punitive measures that have historically contributed to disproportionate policing of Black and Hispanic youth.

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Introduction

The percentage of Kansas high school students using e-cigarettes daily doubled between 2017-2021. In 2021, we adapted the Extension for Community Healthcare Outcomes (ECHO) model and launched the first "Vaping ECHO for Education" to build school capacity to address this critical public health concern. Schools across Kansas were invited to apply to participate in pilot cohort I (school year 2021-2022) and II (school year 2022-2023).

Kansas Vaping ECHO for Education Pilot Schools Selection Map



Learning Objectives

- 1. Describe components of a public health ECHO.
- 2. Summarize program improvements to the pilot.
- 3. Apply the Vaping ECHO model in your community.

Materials and Methods:

Program Design and Curriculum:

Pilot program includes training across seven sessions with didactic and case-based learning, action plan development and implementation. We purposefully selected school teams considering rural/urban geography, socioeconomic status, racial/ ethnic composition and a multidisciplinary school team of up to 5 people (teachers, nurses, social workers, coaches, administrators, student resource officers, etc.) to ensure diversity. Some school teams included multiple schools within a district.

Evaluation:

Using a quasi-experimental pretest posttest design, outcomes were measured for both individual participants and school teams in each cohort. Across both pilot years, there were 167 participants (year 1 = 113, year 2 = 54) at baseline assessment and 108 (year 1 = 70, year 2 = 38) who completed the follow-up survey.

Components of a Vaping ECHO for Education, 2022-2023 School Year:

August		December	April
Orientation Summit	ECHO Session 1:ECHO Session 2:ECHO Session 3:Introduction to Addiction and Cessation into PracticePutting Cessation into PracticePolicy Best Practices and Legal Challenges	ECHO Session 4: Student- Centered ApproachECHO Session 5: Developing Community PartnershipsOne Month Break to Develop Action PlansSharin School Plans	Four Month Break to Inplement Action Plans Sharing School Progress

Results

Programmatic Improvements

Evaluation results of Pilot Year 1 informed programmatic changes to Year 2 including 1) greater diversification of breakout rooms across sessions to respond to requests for more inter-school collaboration and 2) additional capacity building session related to developing community partnerships after Cohort I identified capacity and lack of community support as barriers to effective, equitable policy and practice change in their schools.

Evaluation Improvements

Evaluation results of Pilot Year 1 informed Year 2 evaluation design to respond to programmatic changes and to allow further evaluation of the program's alignment with long-term outcomes, action planning and implementation of cessation best practices and restorative justice models.

Case-Based Learning

School teams in both cohort I and II were invited to submit cases related to vaping in schools for discussion and collaborative peer-learning to identify opportunities to apply evidence-based, restorative practices to real-life scenarios.

Discussion

Case-Based Learning:

Cobort	Case Type			
Conort	Student-Specific	System-Wide	lotal	
Cohort I (2021-2022 School Year)	13	9	22	
Cohort II (2022-2023 School Year)	7	6	13	

- **Student-Specific:** Talking with a specific student about vaping-related concerns
- **System:** Talking with your school board about making a change to district policy that makes it easier for students to get help to quit vaping

Cohort II Individual-Level Outcomes:

Capacity and Skill Building

Domain Enhanced	Number of Respondents	Percentage
Knowledge	32	86.5%
Ability to Apply Knowledge	28	75.7%
Performance	24	64.9%

*Number of respondents = 37.

Changes in Behavior and Barriers

- More than half (59.5 percent) of participants had an increase in the overall confidence to address vaping with students.
- The biggest increases in behavior were for non-punitive actions such as student referral to a toll-free tobacco or vaping Quitline (40.5 percent) and to tobacco or vaping counseling (37.8 percent).
- Respondents reporting NO barriers to effective vaping practice or policy change increased by more than five-fold (baseline = 5.4%, follow-up survey = 29.7%).
- Respondents reporting lack of knowledge as a barrier decreased by threefourths (baseline = 59.5%, follow-up survey = 13.5%).

Cohort II School-Team Level Outcomes: Action Plan Implementation

Recommendations

- Incentives for School Teams: Consider offering stipends or mini-grants based on school participation in programmatic and evaluation activities to support program completion.
- Asynchronous Learning: Consider evaluation of asynchronous learning options to support school staff with limited capacity and time.
- Evaluation Changes: Future cohorts will use greater variability in questions related to improvement (0-10 scale vs 0-100 scale) and consider both a shortterm and intermediate-term posttest to protect against sample mortality during the Spring.

Limitations

- Small Sample: Participation in the program decreases across the school year, limiting those who could be included in the follow-up survey. Participants cited capacity, staff turnover and competing priorities.
- Higher Baseline: Individual levels of expertise and confidence at baseline could limit the level of improvement seen in the follow-up survey.

Conclusion

The Vaping ECHO for Education offers a promising model for school team training related to vaping cessation best practices and student-centered approaches across diverse professional school teams and geographies.

Action Plan Objective	Number of School Action Plans	Description
Education initiatives	7	Education or awareness building activities across stakeholders including students, teachers, staff, parents and community members
Cessation strategies	6	Efforts to reduce vaping use through cessation programs, individual student interventions or other means
Policy change	5	Efforts to change their school policy, particularly related to reducing punitive approaches in disciplinary policy
Staff capacity	4	Efforts to increase staff capacity through training around best practices such as learning or implementing motivational interviewing techniques, compilation of information and resources related to cessation
Student engagement	3	Student engagement either through building a Resist chapter or other means of achieving student buy in and involvement

• Four months after implementation, an average of 61% of action plan objectives were achieved.

*10 of 13 school action plans submitted for review. 3 schools did not provide action plans due to staff shortages, competing priorities or technical issues. Additional objectives included community support (1) and hosting an assembly with professional speakers (1).

The project received partial funding from the Kansas Department of Health and Environment and DCCCA. The remaining funds were graciously provided by collaborating partners at no cost.

	Tobacco Industry	E-cigarette & nicotine product industry (excluding pharma)	Pharma Industry	
The work being presented has received funding or other means of support from any of the following sources:	NO	NO	NO	
Any of the authors have received funding (including consultancy) from any of the following sources in the past 5 years:	NO	NO	NO	

















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