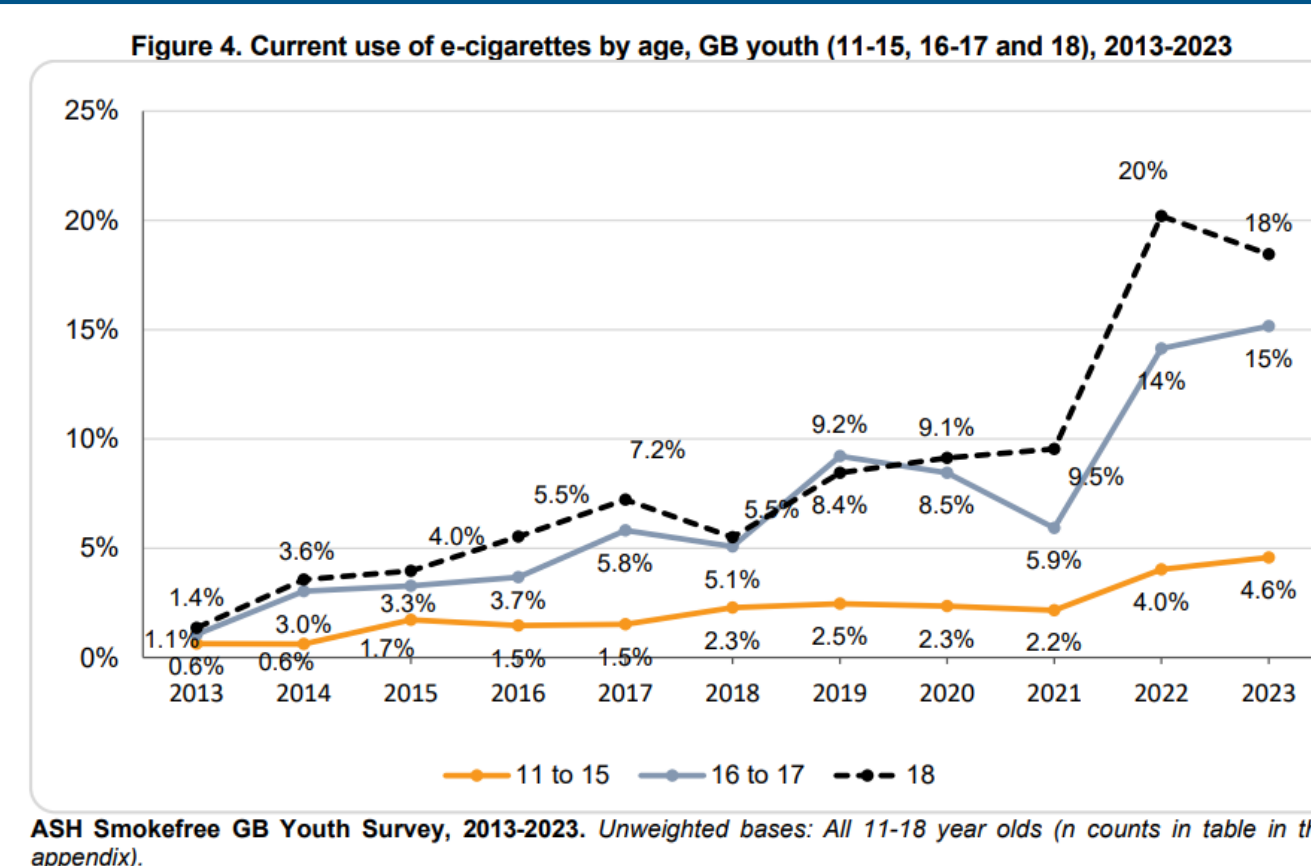


Adolescent vaping: using behavioural science to develop and evaluate a school-based intervention

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INTRODUCTION

Vaping among young people has emerged as a growing Public Health concern, with 20.5% of 11-17-year-olds reporting having ever used vapes in 2023¹. Given the uncertainty regarding the long-term health consequences associated with vaping, it is essential to understand (a) the nature of adolescent vaping, (b) the factors that contribute to this behaviour, and (c) how vaping cessation and prevention interventions can be developed. There is a demand for effective vaping interventions to be developed and evaluated for feasibility and impact within the UK.



OBJECTIVES

- To better understand factors that influence vaping among adolescents (aged 11-17) in North Yorkshire, which can guide intervention development.
- To develop educational materials that use behaviour change techniques to reduce vaping among adolescents.
- To evaluate educational materials in terms of feasibility and impact on vaping behaviour, which can support further refinement of intervention approach.

PROGRESS SO FAR

Identify key factors that influence youth vaping behaviours
 Develop educational materials that employ behaviour change techniques.

- This has been achieved by performing an initial review of the academic literature around adolescent vaping.
- COM-B² analysis was applied to the literature to (a) identify factors that influence adolescent vaping and (b) identify behaviour change techniques that have been used.
- These insights have informed the development of educational materials that employ behaviour change techniques to reduce vaping among adolescents.

COM-B Component	Description of influence	Behaviour Change Techniques incorporated into educational materials	
Capability	Physical (skills)	<ul style="list-style-type: none"> Ability to refuse experimentation and use of vapes Ability to refuse offers to vape 	<ul style="list-style-type: none"> Skills training/modelling of techniques to refuse vaping.
	Psychological (knowledge, skills, memory, attention, behavioural regulation)	<ul style="list-style-type: none"> Knowledge of negative impact on health Risk beliefs such as inhaling dangerous chemicals, becoming addicted Little knowledge about the health risks of vaping 	<ul style="list-style-type: none"> Education to increase knowledge of toxicity of chemicals in vapes and impact on adolescent health (e.g., respiratory, brain development)
Opportunity	Social (Interpersonal, social, and cultural norms)	<ul style="list-style-type: none"> Vaping status of friends and/or family members influences experimentation. Being offered vapes/pressured to vape 	<ul style="list-style-type: none"> Education on the reasons why people vape and opportunities to challenge these reasons Skills training/modelling of techniques to refuse vaping
	Physical (environmental context and resources)	<ul style="list-style-type: none"> Exposure to vaping advertisements influences vaping attitudes/behaviour 	<ul style="list-style-type: none"> Education on vape media/advertising to increase awareness and understanding of advertising strategies and messages
Motivation	Automatic (social role and identity, optimism, reinforcement, emotion)	<ul style="list-style-type: none"> Curiosity and low/no harm perceptions of vaping Positive or neutral emotional reaction to vaping 	<ul style="list-style-type: none"> Education to increase knowledge of harms and risks
	Reflective (social role and identity, beliefs about capabilities, optimism, beliefs about consequences, intentions)	<ul style="list-style-type: none"> Conscious decision-making processes (intentions) to not start vaping or to quit vaping Beliefs about consequences of vaping 	<ul style="list-style-type: none"> Goal setting/implementation intentions to not start vaping or to quit

NEXT STEPS

Evaluate the educational materials and refine.

- This will be achieved by piloting the resources with teachers and secondary school students to evaluate content (e.g., messaging, activities).

Engage in youth consultation to gain in-depth insight.

- Engagement event to discuss why NY adolescents choose to vape (or not) and identify barriers and facilitators of vaping to further inform intervention approach.

REFERENCES

1. Action on Smoking and Health (ASH). (2023). Use of e-cigarettes (vapes) among young people in Great Britain. <https://ash.org.uk/uploads/Use-of-vapes-among-young-people-GB-2023.pdf?v=1690455394> 2. Michie, S., Atkinson, L., & West, R. (2014). *The Behaviour Change Wheel*. Silverback Publishing.