



## OBJECTIVES

**Overview:** Despite tobacco advertising bans on multiple social media platforms, adolescents are often exposed to influencers promoting vapes or Electronic Nicotine Delivery Systems (ENDS) on social media.

**Objectives:**

1. To explore the extent to which adolescents are exposed to influencers promoting ENDS on social media, despite bans.
2. To determine whether the frequency of ENDS exposure on social media is associated with higher degrees of ENDS use.
3. To explain the significance of adolescent exposure to ENDS products through celebrities and influencers.

**Hypothesis:** Increased exposure to influencers promoting vapes on social media is associated with higher degrees of susceptibility to ENDS use and actual ENDS use.



Image 1 and 2: Influencers blowing vapor rings

## BACKGROUND

Curbing online promotion of ENDS has become a difficult game of whack-a-mole because of the substantial promotion avenues for companies to use online, including a growing community of paid and unpaid advocates (hereinafter influencers). Some platforms like Instagram and Facebook have taken further action to ban influencers' promotion of ENDS (Cavale, 2019). However, recent research has shown that influencer posts are still breaching the rules of the bans (Stead et al., 2021). Previous research has found that even brief exposure to ENDS-related influencer content is associated with a greater intention to use ENDS (Vogel et al., 2020).

From YouTube videos of ENDS users performing impressive tricks with vapor rings (Kong et al., 2019), to the millions of posts across Instagram and Twitter with hashtags like “#vape,” “#vapelif,” and “#vapfam,” (McCausland et al., 2020), the promotion of ENDS has effectively contributed to a subculture of devoted ENDS users and advocates who themselves promote ENDS use as peer/social models.

## MATERIALS AND METHODS

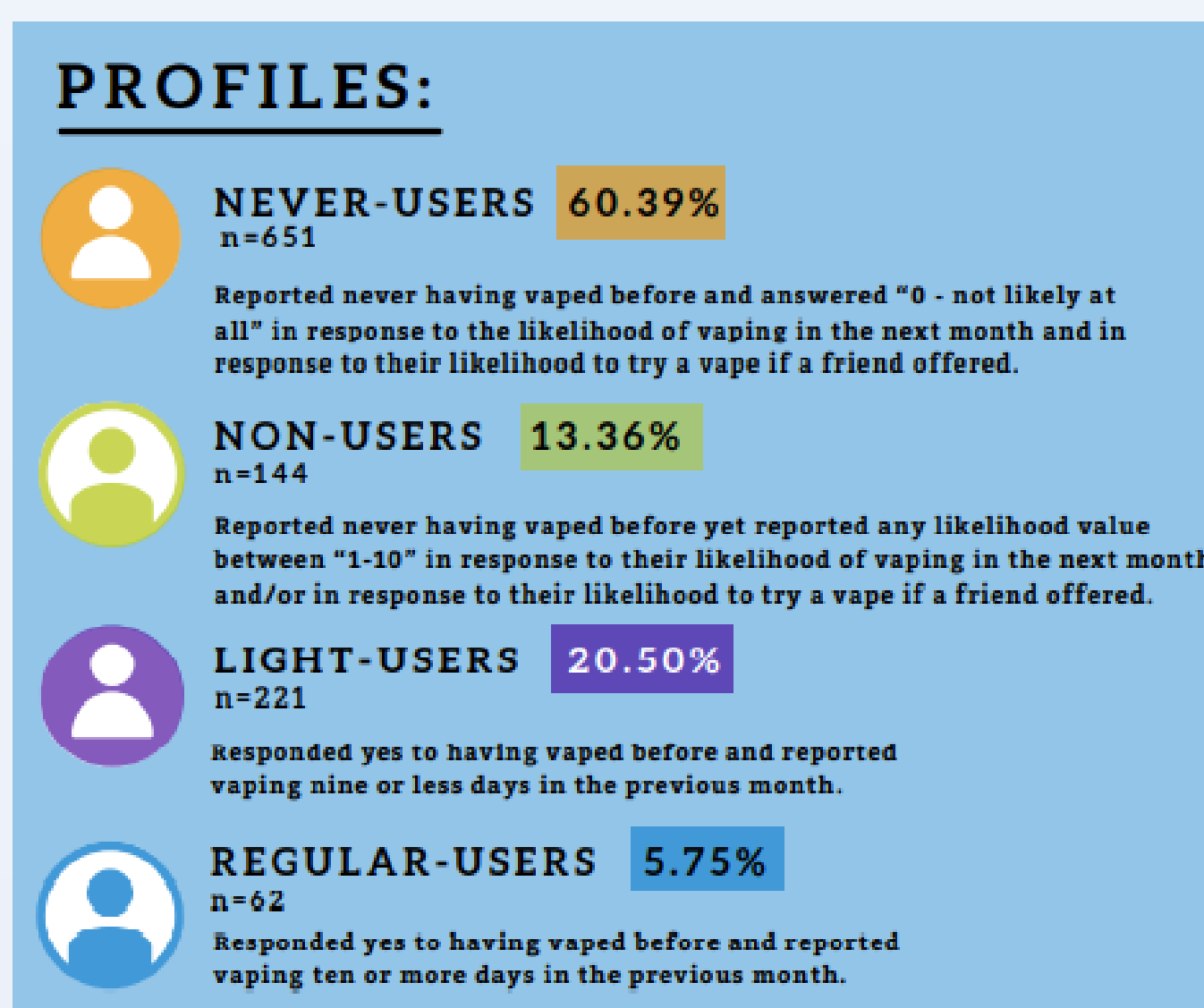
In May 2020, KDH Research & Communication (KDHRC) contracted a research firm to recruit and administer a one-time online survey (the Vaping Attitudes Youth Perspectives Survey (VAYPS) to youth, aged 13 to 17, across the United States. Qualification criteria was limited to age only and the final sample consisted of 1,100 youth. We achieved an equal mix of age and gender, with percentages of race closely mirroring national averages among this age range. The VAYPS consisted of 181 questions pertaining to ENDS-related attitudes and behaviors and explored demographic, psychographic, social, and behavioral variables.

We used data from VAYPS to create four profiles of varying degrees of ENDS use to compare weekly exposure to influencers promoting ENDS. We designed these profiles to represent incremental intensity of ENDS use ranging from: never-users, who have no or low likelihood to initiate ENDS use to regular-users who already use ENDS regularly. We present the questions and answer choices we used to create these use profiles in Table 1 and the usage profile breakdowns in Figure 1.

Table 1: Questions and answer choices to create ENDS use profiles

Questions	Answer Choices								
How likely are you to try a vape in the next month?	11-pt scale from “0-Not at all likely” to “10-Extremely likely”								
If one of your five closest friends offered you a vape in the next month, would you try it?	11-pt scale from “0-Not at all likely” to “10-Extremely likely”								
In the past 30 days, on how many days did you vape?	<table border="0"> <tr> <td>“0 days”</td> <td>“10 to 19 days”</td> </tr> <tr> <td>“1 to 2 days”</td> <td>“20 to 29 days”</td> </tr> <tr> <td>“3 to 5 days”</td> <td>“All 30 days”</td> </tr> <tr> <td>“6 to 9 days”</td> <td></td> </tr> </table>	“0 days”	“10 to 19 days”	“1 to 2 days”	“20 to 29 days”	“3 to 5 days”	“All 30 days”	“6 to 9 days”	
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“6 to 9 days”									

Figure 1: ENDS use profile breakdown



## MEASURES

**Promotion exposure:** We asked respondents, “In the past 30 days, roughly how often did you see vapes in celebrities/influencers’ posts on social media?” Answer choices included, “everyday”, “a few times a week”, “once a week”, “a few times”, “never”, “I don’t know”, and “prefer not respond”.

**Social media accounts:** Respondents were asked to respond “yes” or “no” to having an account on the following platforms: Instagram, Facebook, Snapchat, Tik Tok, Reddit, and Other.

To explore whether higher frequency of exposure to influencers promoting ENDS is associated with higher degrees of adolescent ENDS use, we performed pairwise t-tests comparing weekly promotion exposure between each profile comparison.



Image 3: Influencer promoting vaping

Image 4: Social media “likes”

## RESULTS

Nearly 25% of all adolescents surveyed reported seeing influencers promoting ENDS on social media at least weekly, while 49% of respondents reported seeing such promotions at least a few times in the past 30 days. Finally, among 150 respondents who reported not having any social media accounts, nearly 17% reported seeing ENDS promotions on social media, revealing that adolescents without social media accounts are still able to access social media content and be subjected to these types of ENDS promotions.

Table 2: Exposure to influencer promotion of ENDS on social media

Variable	Exposure Frequency	Never-users	Non-users	Light-users	Regular-users	Overall
In the past 30 days, how often did you see vapes in celebrities’/ influencers’ social media posts?	At least once a week or more	90 (15.4%)	47 (34.8%)	73 (35.3%)	32 (53.3%)	245 (24.6%)
	Frequency (Percentage)					

Table 2 shows the frequency and percentage of respondents from each profile that reported seeing vapes promoted by influencers on social media at least once a week in the past 30 days.

## RESULTS (Cont.)

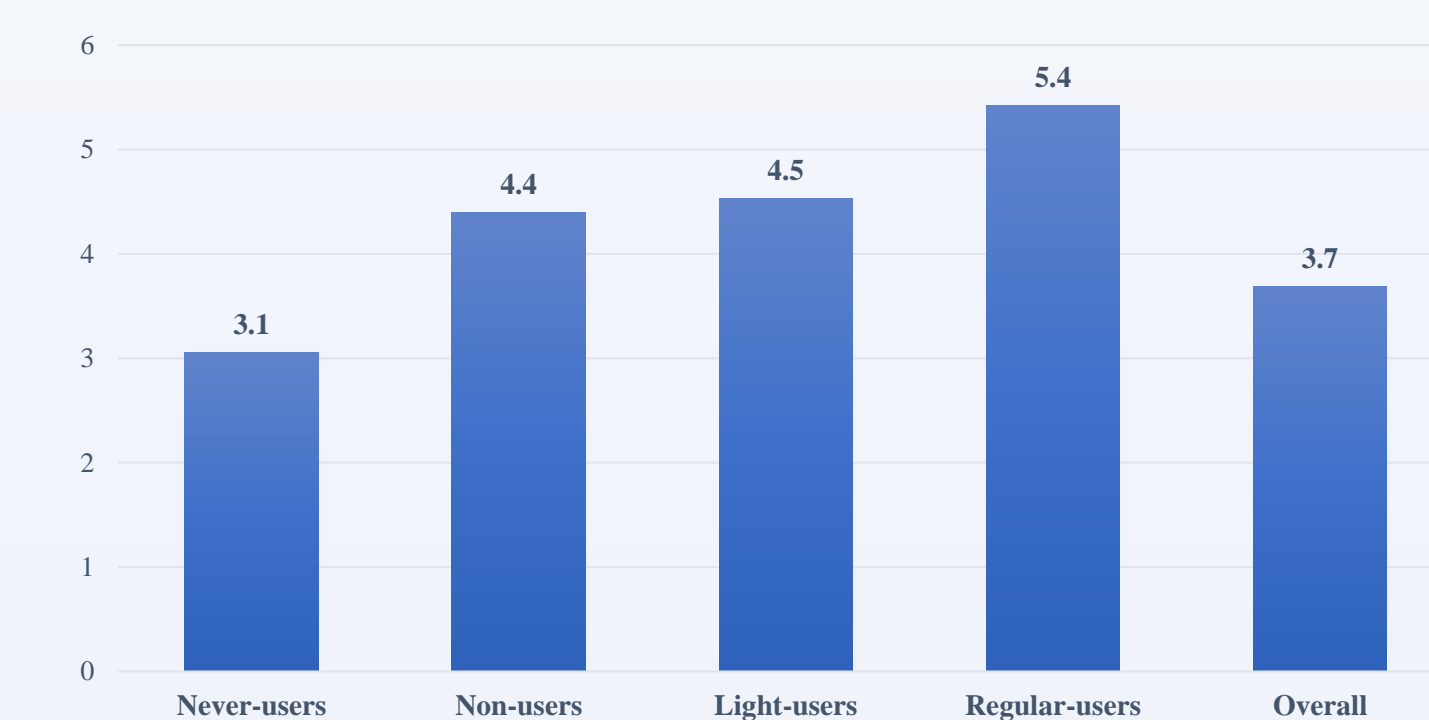
Pairwise t-tests between profiles revealed that non-users, light-users, and regular-users were all significantly more likely to be exposed to weekly promotion of ENDS by influencers than never-users, all with (p<0.001).

Two comparisons were significant at the 0.05 level; however, did not meet the significance threshold adjusted with Bonferroni’s correction of p≤0.008. Regular-users were more likely to be exposed to weekly promotion of ENDS by influencers than non-users and light-users, both with (p=0.01).

On average, regular-users reported significantly more perceived influence from celebrities and influencers than never-users (p<0.001), non-users (p=0.02), and light-users (p=0.04).

The graph below in Figure 2 shows the average reported ratings from an 11-point subjective scale (0-10) for youth perception of peer influence. Graph results are from two-sample t-tests conducted between each profile comparison.

Figure 2: Youth self-reported influences by celebrities and influencers



## DISCUSSION

Adolescents who are more susceptible to using or who already use ENDS may be particularly curious about ENDS and thus drawn to influencers who promote use. Furthermore, algorithms that connect consumers with content deemed of personal interest may target youth who have previously clicked on ENDS-related images or links.

Because youth may be unaware that these “influencers” are often getting paid to promote products, they may trust influencers more than they trust traditional advertisements.

Limitations of the study include our reliance on self-reported recollections of frequency of seeing an influencer with ENDS products. Additionally, we are limited to associative rather than causal inferences as our VAYPS study was only administered once.

## CONCLUSION

As hypothesized, youth with higher vape usage have significantly greater exposure to influencers promoting ENDS and report significantly more perceived influence from celebrities and influencers.

Youth, especially those with higher vape usage, are susceptible to celebrity and influencer posts that may encourage negative habits like ENDS usage. The role of influencers in inspiring adolescents to engage in unhealthy behaviors merits further research to inform regulations that may better protect adolescents.

## RECOMMENDATIONS

1. Use longitudinal approaches to continue researching the extent that exposure to influencers promoting ENDS may increase susceptibility to ENDS initiation and degree of ENDS usage.
2. Advocate for clearer, stronger policies and regulations against influencer posts promoting ENDS usage across social media platforms.



Image 5: Social media icons

## REFERENCES

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