

# Hashtags, images, and promotions: E-cigarette messaging on social media associated with teenager smoking and e-cigarette use

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WORLD CONFERENCE ON TOBACCO CONTROL, DUBLIN, IRELAND  
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# Background

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## E-cigarette use in Ireland more prevalent than smoking among 16-year-olds

- 32% have ever used **e-cigarettes** and 15.7% are current users
- 23.7% have ever **smoked** and 11.7% are current smokers

## Established links between e-cigarette use and smoking initiation

### References

Hanafin J, Sunday S, Fitzmaurice H, Clancy L (2025). ESPAD Ireland 2024 Results from the European School Survey Project on Alcohol and Other Drugs. Dublin: TobaccoFree Research Institute Ireland (TFRI) for the Department of Health Ireland. ISBN: 978-1-90-045497-1 doi: 10.21427/bqh8-5p87

Sunday S, Hanafin J, Clancy L. (2022). Increased smoking and e-cigarette use among Irish teenagers: A new threat to Tobacco Free Ireland 2025. ERJ Open Research, doi:10.1183/23120541.00438-2021





Photo by John Tuesday on Unsplash

Despite regulations, the tobacco industry continues to target young people, with **social media** predominating for **e-cigarette** promotion.

Studies examining pro-e-cigarette use social media content have found that **exposure** to these messages leads to **increased susceptibility** to e-cigarette use among teenagers, shaping their perceptions, beliefs, and intent to use e-cigarettes.

#### References

Adekeye, O. T., & Exten, C. (2025). Exploring the Impact of Social Media on E-Cigarette Usage Among Adolescents: A Scoping Review. *Journal of Child & Adolescent Substance Use*, 1–16.

<https://doi.org/10.1080/29973368.2025.2488837>

Dai, L., He, Y., Tan, Y., Yu, Z., & Zhu, J. (2022). Online e-cigarette information exposure and its association with e-cigarette use among adolescents in Shanghai, China. *International Journal of Environmental Research and Public Health*, 19(6), 3329. <https://doi.org/10.3390/ijerph19063329>

# Objectives

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**This study examines:**  
**Irish teenagers' exposure to social media messaging about e-cigarettes & its association with smoking and e-cigarette use.**



# European School Survey Project on Alcohol and Other Drugs

## ESPAD Ireland

TobaccoFree Research Institute  
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## ESPAD

This study used the ESPAD Ireland 2024 questionnaire (European School Survey Project on Alcohol and Other Drugs).

ESPAD is a nationally representative, cross-sectional survey conducted every four years in up to 40 European countries with the aim of collecting comparable data on substance use among students aged 15–16 years in Europe to monitor trends within and between countries.

# Methods Sample



Our sample is drawn from a **representative national sample** of schools  
Stratification criteria: school size; school type; gender; religious affiliation; fee-paying/non-fee-paying; school-level disadvantage status; geographical region.



In **2024**, ESPAD target population comprised students born in 2008 (15-16 years in the year of the survey).

These students in Ireland are found in **Years 3, 4 and 5**.

Students in these three year-groups were surveyed.

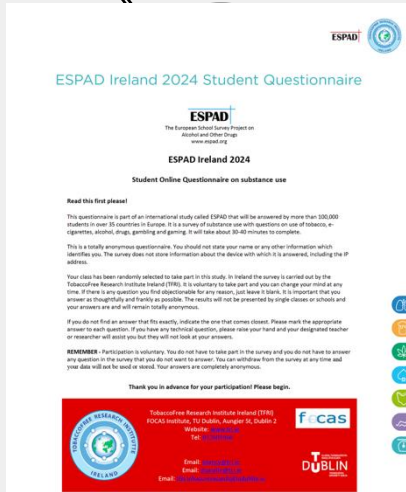


Total valid sample: **5,587 students aged 15 to 18-year-olds** from 268 classes in those three year-groups.

Sample representative of **half of post-primary school population** in Ireland.



# Methods Data



The ESPAD questionnaire consists of core, optional, and country-specific questions. Smoking and e-cigarette use questions are core, while the social media questions were country-specific to Ireland in 2024.

This study draws on the dataset of 5,587 students aged 15-18 years who completed the ESPAD Ireland 2024 questionnaire.



Data were collected online in 2024. Analyses were performed using SPSS v27.



# Methods

# Smoking Measure

The following questions are about tobacco smoking (traditional cigarettes, rolled cigarettes, cigarillos, cigars) EXCLUDING e-cigarettes (vapes) and alternative products (nicotine pouches, heated tobacco products, water pipe, moist snuff etc.)

**C06** **Have you ever smoked cigarettes (excluding e-cigarettes (vapes) and alternative smoking products)?**

- 1  Yes, in the last 30 days
- 2  Yes, in the last 12 months but not in the last 30 days
- 3  Yes, more than 12 months ago
- 4  Never

**C07** **How often have you smoked cigarettes (excluding e-cigarettes (vapes) and alternative smoking products) during the LAST 30 DAYS?**

- 1  Not at all
- 2  Less than 1 cigarette a week
- 3  Less than 1 cigarette a day
- 4  1–5 cigarettes a day
- 5  6–10 cigarettes a day
- 6  11–20 cigarettes a day
- 7  More than 20 cigarettes a day

# Methods

# E-cigarette Use Measure

The next questions are about e-cigarettes (vapes, mods) and alternative smoking products (nicotine pouches, water pipe (shisha), snus, heated tobacco products).

## C10 Have you ever used e-cigarettes?

- 1  Yes, in the last 30 days
- 2  Yes, in the last 12 months but not in the last 30 days
- 3  Yes, more than 12 months ago
- 4  Never

## C11 How often have you used e-cigarettes during the LAST 30 DAYS?

- 1  Not at all
- 2  Less than once per week
- 3  At least once a week
- 4  Almost every day or every day

# Methods

# Social Media Messaging Measure



Optional country question used only in Ireland

**O28** On an average day, how often do you see posts on any Social Media platform [Instagram, TikTok, WhatsApp, X, Facebook, Snapchat etc] about e-cigarettes (vapes)?

Mark one box for each line.

		Never	Less than 5 times a day	5-10 times a day	10-20 times a day	More than 20 times a day
<b>O28a</b>	Posts with hashtags about e-cigarettes (e.g. #vapes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C28b</b>	Posts with information about how to buy or get e-cigarettes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C28c</b>	Posts showing positive images of people using e-cigarettes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C28d</b>	Posts showing negative images of people using e-cigarettes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C28e</b>	Posts with e-cigarettes “challenges” (e.g. competitions)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C28f</b>	Posts about possible harm from e-cigarettes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>C28g</b>	Posts promoting e-cigarettes as an alternative to smoking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Current Smoking and E-cigarette Use (15-18 years)

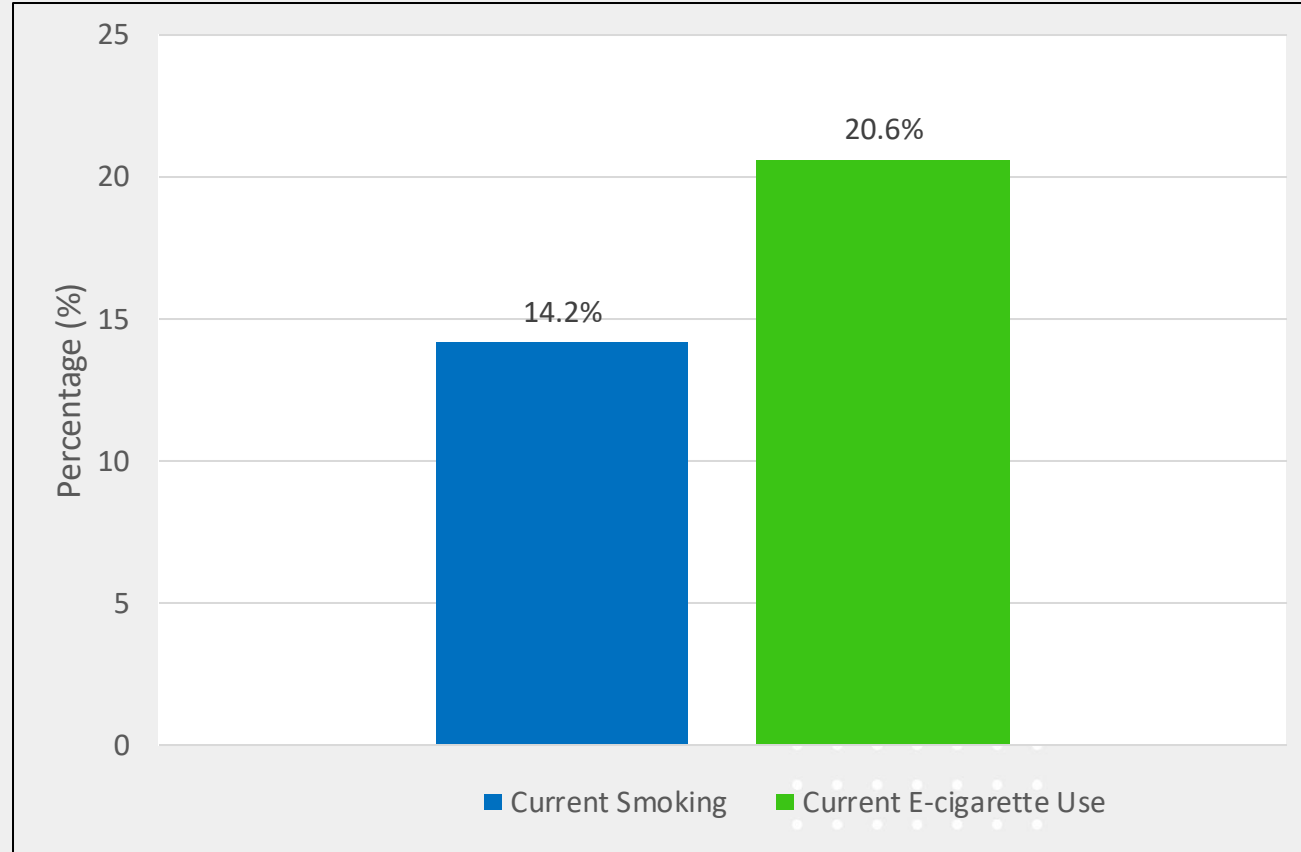
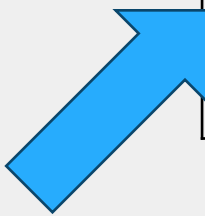


Figure 1: Prevalence of Current Smoking and E-Cigarette Use (15-18 year olds)

<b>On an average day, how often do you see posts on any Social Media platform about e-cigarettes</b>	Total
	5587
Never	<b>2643 (47.3)</b>
<b>At least once</b>	<b>2944 (52.7)</b>



**Table 1: Social Media messaging about e-cigarettes**



# Results

## Types and Frequency of Social Media Posts seen on an average day

On an average day, how often do you see posts on any Social Media platform	Total	Current Smoking (P<0.001)		Current E-Cigarette Use (P<0.001)	
		No	Yes	No	Yes
	5587	4578 (85.8)	758 (14.2)	4174 (79.4)	1083 (20.6)
Posts with <b>hashtags</b> about e-cigarettes (#vapes)					
Never	2506 (54.1)	2263 (90.5)	237 (9.5)	2139 (85.7)	358 (14.3)
Yes	2130 (45.9)	1740 (81.8)	388 (18.2)	1543 (72.6)	582 (27.4)
Less than 5 times a day	1610 (34.7)	1351 (84.0)	258 (16.0)	11192 (74.2)	414 (25.8)
<b>5-10 times a day</b>	310 (6.7)	243 (78.4)	67 (21.6)	222 (71.6)	88 (28.4)
<b>10-20 times a day</b>	95 (2.0)	64 (67.4)	31 (32.6)	59 (62.1)	36 (37.9)
<b>More than 20 times a day</b>	115 (2.5)	82 (71.9)	32 (28.1)	70 (61.4)	44 (38.6)
Posts with info about <b>how to buy or get</b> e-cigs					
Never	3412 (74.3)	3033 (89.1)	372 (10.9)	2826 (83.1)	574 (16.9)
Yes	1181 (25.7)	936 (79.3)	245 (20.7)	823 (69.7)	357 (30.3)
Less than 5 times a day	931 (20.3)	767 (82.4)	164 (17.6)	673 (72.3)	258 (27.7)
5-10 times a day	132 (2.9)	101 (76.5)	31 (23.5)	84 (64.1)	47 (35.9)
10-20 times a day	57 (1.2)	35 (61.4)	22 (38.6)	33 (57.9)	24 (42.1)
More than 20 times a day	61 (1.3)	33 (54.1)	28 (45.9)	33 (54.1)	28 (45.9)
Posts showing <b>positive images</b> of e-cigarette use					
Never	3044 (66.2)	2729 (89.9)	309 (10.2)	2552 (84.1)	483 (15.9)
Yes	1554 (33.8)	1246 (80.2)	308 (19.8)	1102 (71.1)	448 (28.9)
Less than 5 times a day	1159 (25.2)	966 (83.3)	193 (16.7)	855 (74.0)	301 (26.0)
5-10 times a day	255 (5.5)	193 (75.7)	62 (24.3)	169 (66.5)	85 (33.5)
10-20 times a day	70 (1.5)	47 (67.1)	23 (32.9)	38 (54.3)	32 (45.7)
More than 20 times a day	70 (1.5)	40 (57.1)	30 (42.9)	40 (57.2)	30 (42.9)

Table 2a: Frequency of Seeing Social Media Posts about E-cigarettes

## Types and Frequency of Social Media Posts seen on an average day

On an average day, how often do you see posts on any Social Media platform	Total 5587	Current Smoking (P<0.001)		Current E-Cigarette Use (P<0.001)	
		No 4578 (85.8)	Yes 758 (14.2)	No 4174 (79.4)	Yes 1083 (20.6)
Posts with <b>negative images</b> of e-cigarette use					
Never	2552 (55.6)	2282 (89.6)	266 (10.4)	2153 (84.7)	390 (15.3)
Less than 5 times a day	1584 (34.5)	1344 (85.0)	238 (15.0)	1193 (75.4)	390 (24.6)
5-10 times a day	321 (7.0)	251 (78.2)	70 (21.8)	215 (67.4)	104 (32.6)
10-20 times a day	74 (1.6)	55 (74.3)	19 (25.7)	52 (70.3)	22 (29.7)
More than 20 times a day	60 (1.3)	36 (60.0)	24 (40.0)	36 (60.0)	24 (40.0)
Posts with e-cigarettes <b>“challenges”</b> (competitions)	3721 (81.0)	3293 (88.6)	422 (11.4)	3054 (82.3)	655 (17.7)
Never	870 (19.0)	675 (77.6)	195 (22.4)	594 (68.3)	276 (31.7)
Yes	669 (14.6)	542 (81.0)	127 (19.0)	472 (70.6)	197 (29.4)
Less than 5 times a day	112 (2.4)	81 (72.3)	31 (27.7)	75 (67.0)	37 (33.0)
5-10 times a day	42 (0.9)	27 (64.3)	15 (35.7)	23 (54.8)	19 (45.2)
10-20 times a day	47 (1.0)	25 (53.2)	22 (46.8)	24 (51.1)	23 (48.9)
Posts about possible <b>harm</b> from e-cigarettes					
Never	2571 (56.0)	2308 (89.9)	258 (10.1)	2182 (85.1)	381 (14.9)
Yes	2017 (44.0)	1657 (82.2)	359 (17.8)	1464 (72.7)	549 (27.3)
Less than 5 times a day	1592 (34.7)	1332 (83.7)	260 (16.3)	1172 (73.8)	417 (26.2)
5-10 times a day	302 (6.6)	245 (81.4)	56 (18.6)	217 (72.1)	84 (27.9)
10-20 times a day	71 (1.5)	52 (73.2)	19 (26.8)	49 (69.0)	22 (31.0)
More than 20 times a day	52 (1.1)	28 (53.8)	24 (46.2)	26 (50.0)	26 (50.0)
Posts promoting e-cigarettes as <b>alternative</b> to smoking	3213 (70.1)	2859 (89.1)	348 (10.9)	2676 (83.5)	527 (16.5)
Never	1372 (29.9)	1103 (80.4)	269 (19.6)	967 (70.6)	403 (29.4)
Yes	1074 (23.4)	903 (84.1)	171 (15.9)	777 (72.5)	295 (27.5)
Less than 5 times a day	199 (4.3)	147 (73.9)	52 (26.1)	136 (68.3)	63 (31.7)
5-10 times a day	51 (1.1)	28 (54.9)	23 (45.1)	28 (54.9)	23 (45.1)
10-20 times a day	48 (1.0)	25 (52.1)	23 (47.9)	26 (54.2)	22 (45.8)

Table 2b: Frequency of Seeing Social Media Posts about E-cigarettes

# Results

# E-cigarettes posts seen daily

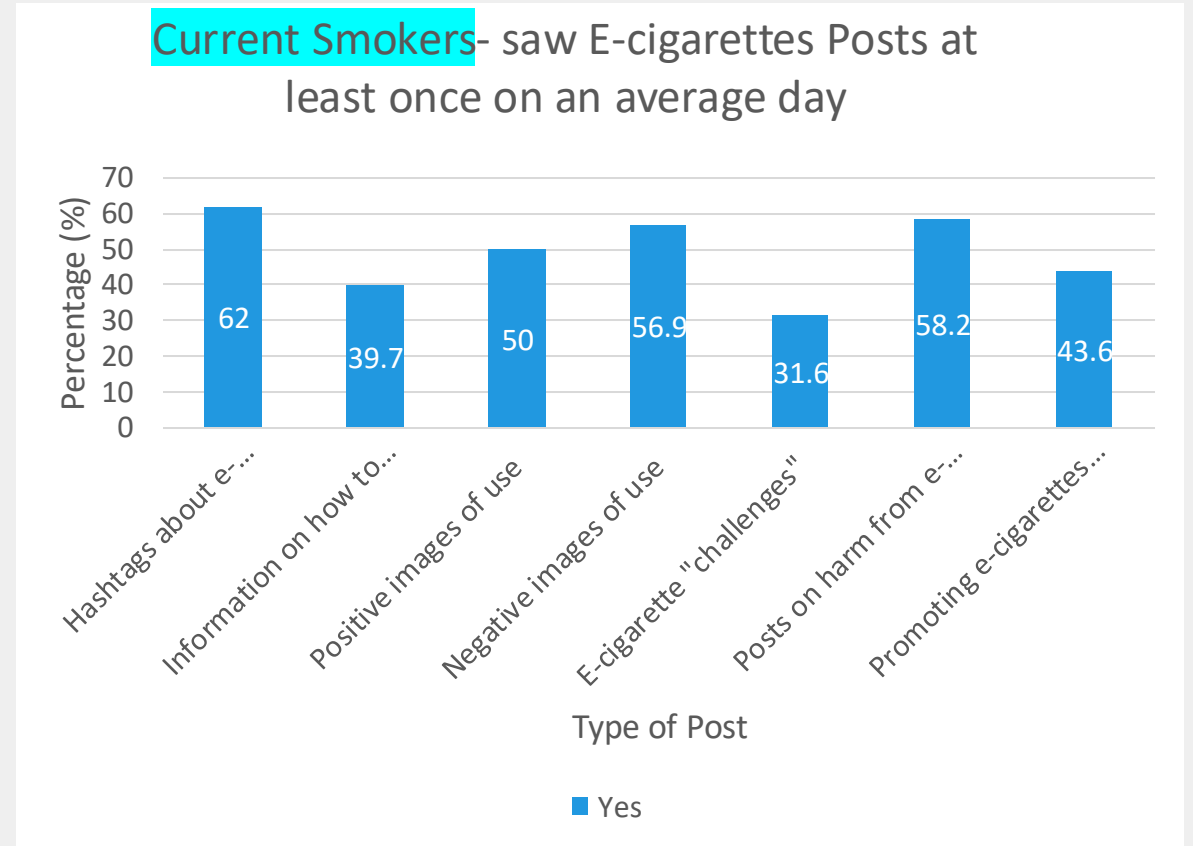
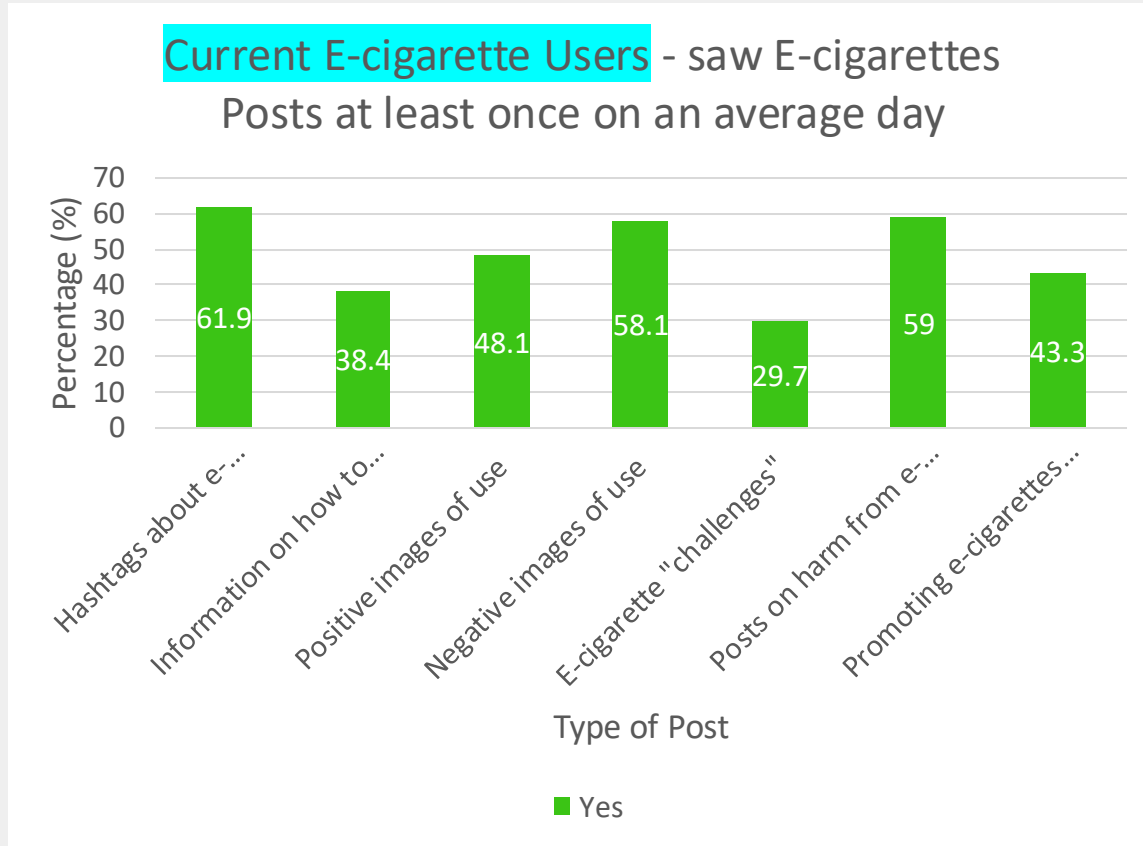


Figure 2: Percentage who saw posts about e-cigarettes at least once on an average day



On an average day, how often do you see posts on any Social Media platform about e-cigarettes	Total	Current Smoking P<0.001		Current E-Cigarette Use P<0.001	
		No	Yes	No	Yes
Never	2643 (47.3)	2132 (46.6)	263 (34.7)	1982 (47.5)	338 (31.2)
At least once	2944 (52.7)	2446 (53.4)	495 (65.3)	2192 (52.5)	745 (68.8)

**Table 3: Associations between Social Media messaging and Smoking /E-cigarette Use**



# Conclusions

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## Prevalence of smoking/e-cigarette use increases with age

- 14.2% current smoking 20.6% e-cigarette use (15-18yrs)

## Social media messaging to teenagers about e-cigarettes is commonplace

- On an average day, 52.7% saw posts about e-cigarettes
- Some reported exposure 20+ times per day

## Those exposed more likely to smoke and use e-cigarettes

- even minimal exposure
- found for positive & negative messaging



# Recommendations

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Our findings emphasise the need for:

- **stricter regulation of e-cigarette advertising, promotion, and messaging on social media platforms**
- **educational campaigns that teach teenagers critical literacy to equip teenagers to analyse and evaluate intent, structure, language, images, and other features of social media posts and content**
- **tailored health promotion messaging on social media platforms including anti-e-cigarette content that effectively counters pro-e-cigarette messages.**



## Contact

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# Thank you

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