

# What type of vaping prevention materials young people perceive as effective

Comparing perceived effectiveness across five themes

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The University of Queensland**

# Acknowledgment & Appreciation

- All the young people who shared their time and valuable feedback.
- Logan Youth Action Group.



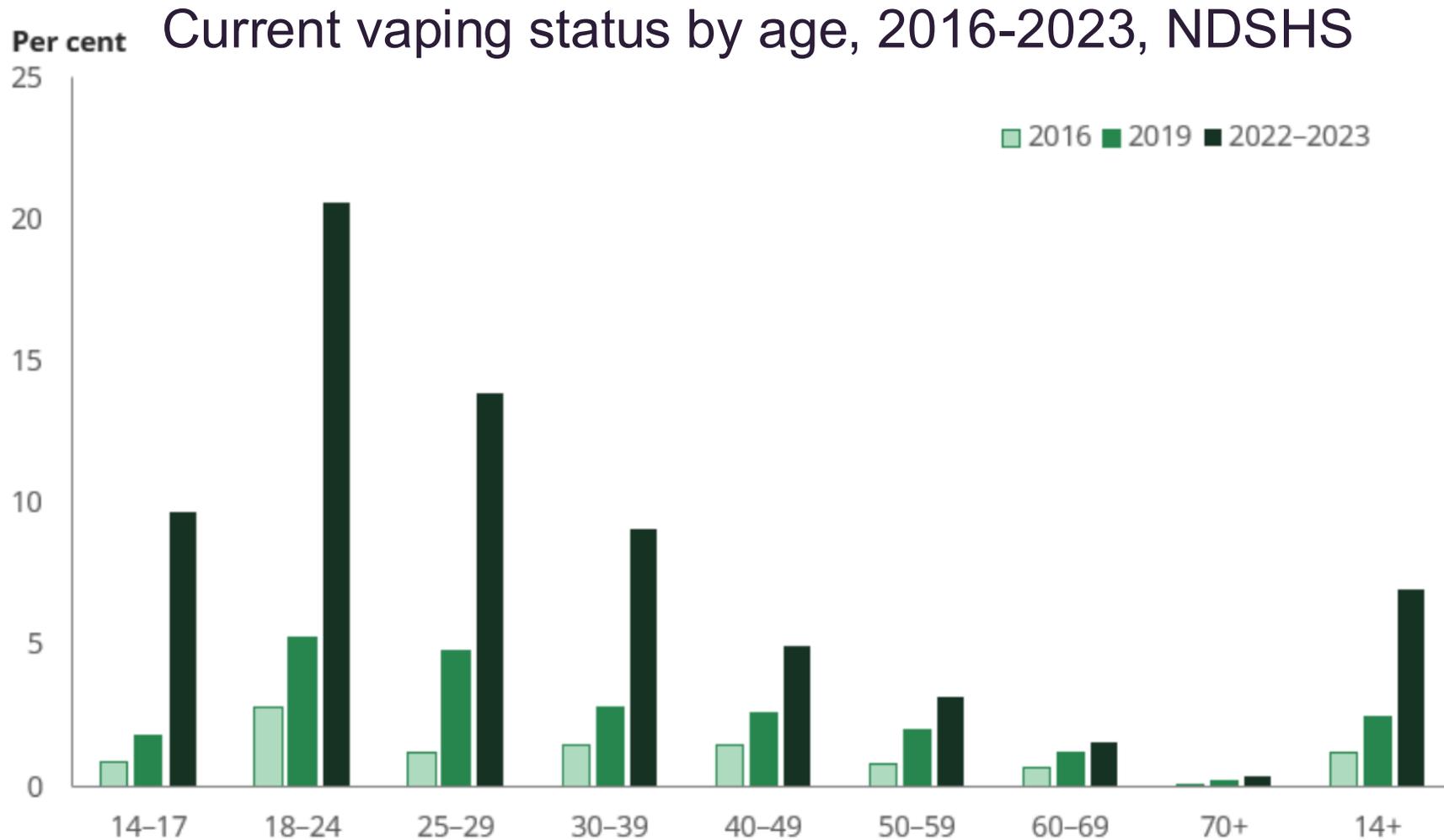
# Disclosure Statement

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The funding bodies had no role in the study design, collection, analysis or interpretation of the data, writing the manuscript, or the decision to submit the paper for publication.

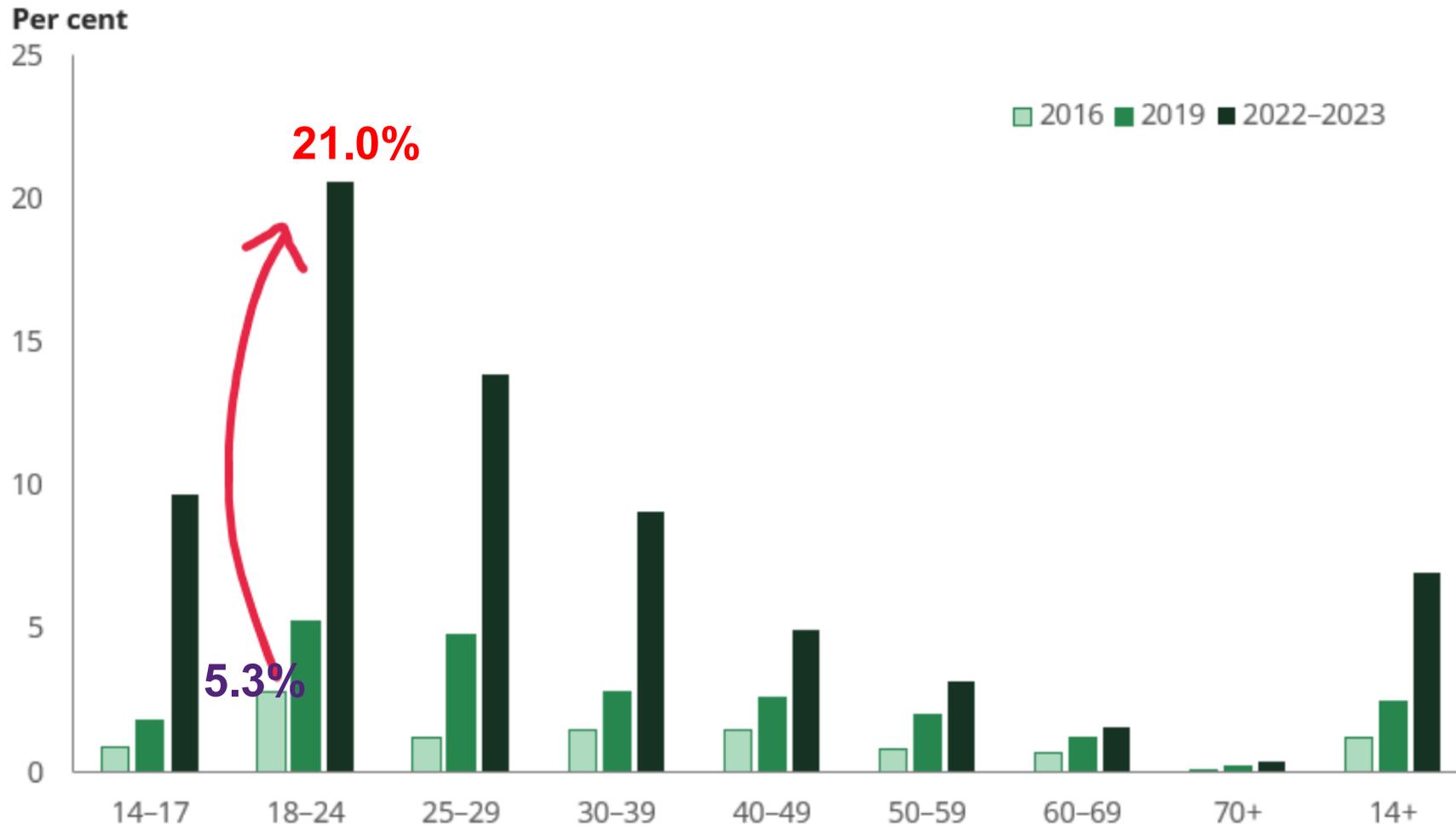
	Tobacco Industry	E-cigarette & nicotine product industry (excluding pharma)	Pharma Industry
The work being presented has received funding or other means of support from any of the following sources:	No	No	No
Any of the authors have received funding (including consultancy) from any of the following sources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

# Vaping in Australia



Source: Australian National Drug Strategy Household Survey

# Current vaping status by age, 2016-2023



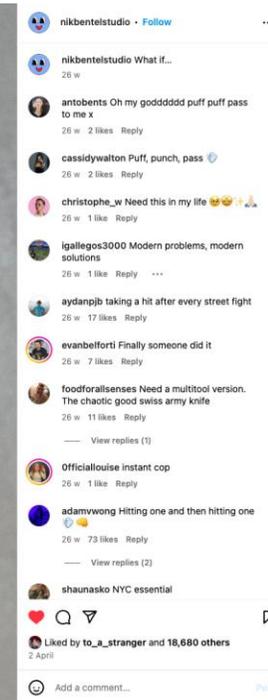
Source: Australian National Drug Strategy Household Survey

# Why young people vape?

Man this meal prep shit is EASY



## Pro-vaping content on social media



reject modernity



embrace tradition

# Countering pro-vaping content

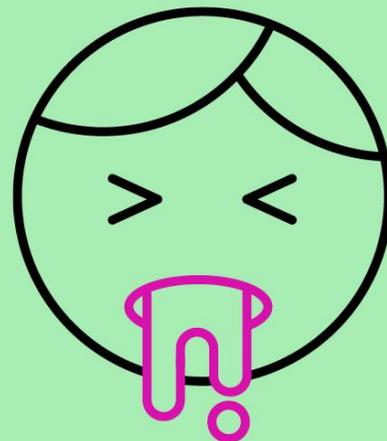
Date Launched	Content
2024-Sep	<b>Uncloud</b> - VicHealth/Mindaroo Foundation
2024-May	<b>Give Up for Good</b> - Australian Federal Government
2024-Jan	<b>Influencer partnership content</b> - Australian Federal Government <b>Every vape is a hit to your health</b> - NSW Health
2023-Sep	<b>Clear the Air</b> - Cancer Council WA <b>There's Nothing Sweet About Vapes</b> - Queensland Government
2023-May	<b>See through the haze</b> - Quitline/VicHealth
2022-Sep	<b>Dr Karl's Vape Truths</b> - Queensland Government
2022-May	<b>Do you know what you're vaping</b> - NSW Health
2022-Jan	<b>Unveil what you inhale</b> - Lung Foundation
2021-Sep	<b>Say no to vaping</b> - Central Coast Local Health District



# Countering pro-vaping content



**VAPES CAN CONTAIN HARMFUL CHEMICALS**  
**THEY JUST DON'T PUT IT ON THE PACK.**



**SAY NO TO SERIOUS HEALTH RISKS**

E-cigarettes contain or produce CHEMICALS KNOWN TO CAUSE LUNG DAMAGE AND CANCER. There are also thousands of cases of injuries caused by their BATTERIES EXPLODING.

**#SayNoToVaping**

NSW GOVERNMENT | Health Central Coast Local Health District

# Addiction-themed messages

An anti-vaping advertisement with a solid blue background. In the center, a black vape pen is shown with a thick, dark plume of smoke rising from it. The smoke is shaped into the outline of a human brain. The text "IF YOU DON'T THINK VAPING IS ADDICTIVE, IT MAY HAVE ALREADY ALTERED YOUR BRAIN." is written in white, bold, uppercase letters across the brain-shaped smoke. At the bottom of the image, a small white text box contains the message: "The nicotine in vapes can disrupt the development of the teenage brain and lead to addiction."

**IF YOU DON'T  
THINK VAPING IS  
ADDICTIVE, IT MAY  
HAVE ALREADY  
ALTERED YOUR  
BRAIN.**

The nicotine in vapes can disrupt the development  
of the teenage brain and lead to addiction.

# Industry manipulation-themed messages



# Financial impact-themed messages



# Social norms-themed messages



# Diverse message themes to engage different population

- Which theme more effective: Limited empirical evidence
- Perceived message effectiveness (PME)

Chemical  
Negative health harms



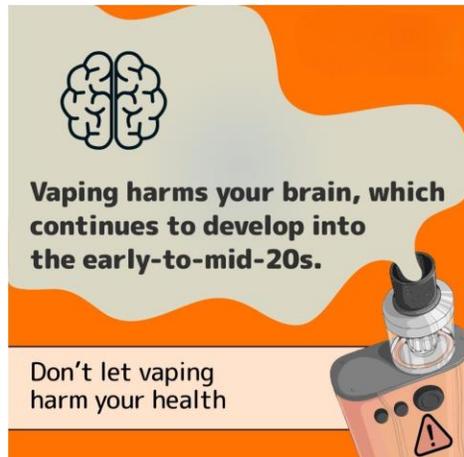
Industry targeting  
Environmental impact  
Flavour

# This study – comparison of 5 themes

- Perceived Message Effectiveness
- Vaping awareness campaign materials (ad)
- Five themes:
  - **Health consequences**
  - Nicotine addiction
  - Financial impact
  - Industry manipulation
  - Social norms

# The ads

## Health consequences



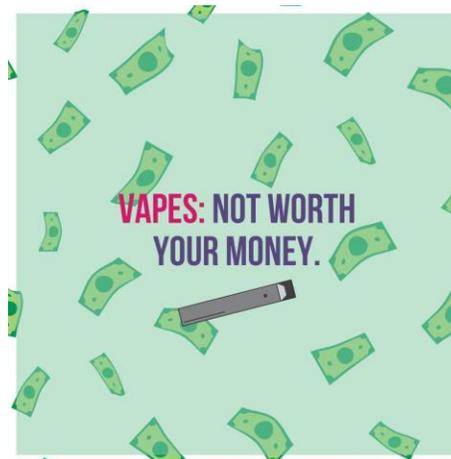
Effects of vaping on a person's health

## Nicotine addiction



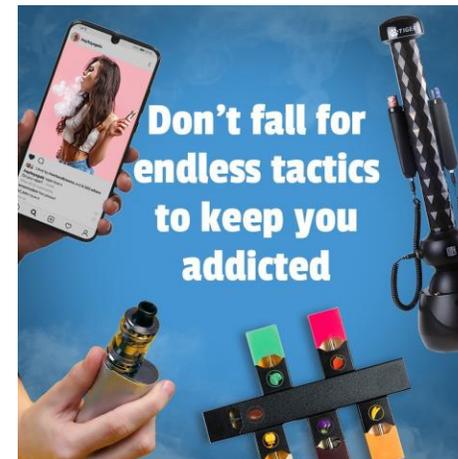
The process of nicotine in vapes leading to addiction.

## Financial impact



Monetary costs of vaping

## Industry manipulation



Deceptive marketing tactics

## Social norms



Challenged perceptions about peer acceptance and prevalence

# PME (adapted)

## Effect Perceptions

1. This ad makes me think vaping is:  
*(1) A very bad idea - (7) A very good idea.*
2. This ad \_\_\_\_\_ from vaping.  
*(1) Strongly discouraged me - (7) Strongly encouraged me.*

Lower score = higher PME

## Ad Perceptions

1. This ad grabbed my attention.
2. This ad provided useful information.
3. This ad was convincing.  
*(1) Strongly disagree - (7) Strongly agree.*

Higher score = higher PME

# The sample

## Online panel

- N=614
- mean age=20.5 (SD=2.9), range 18-26)
- balanced gender distribution
- never vaped: 54.4%

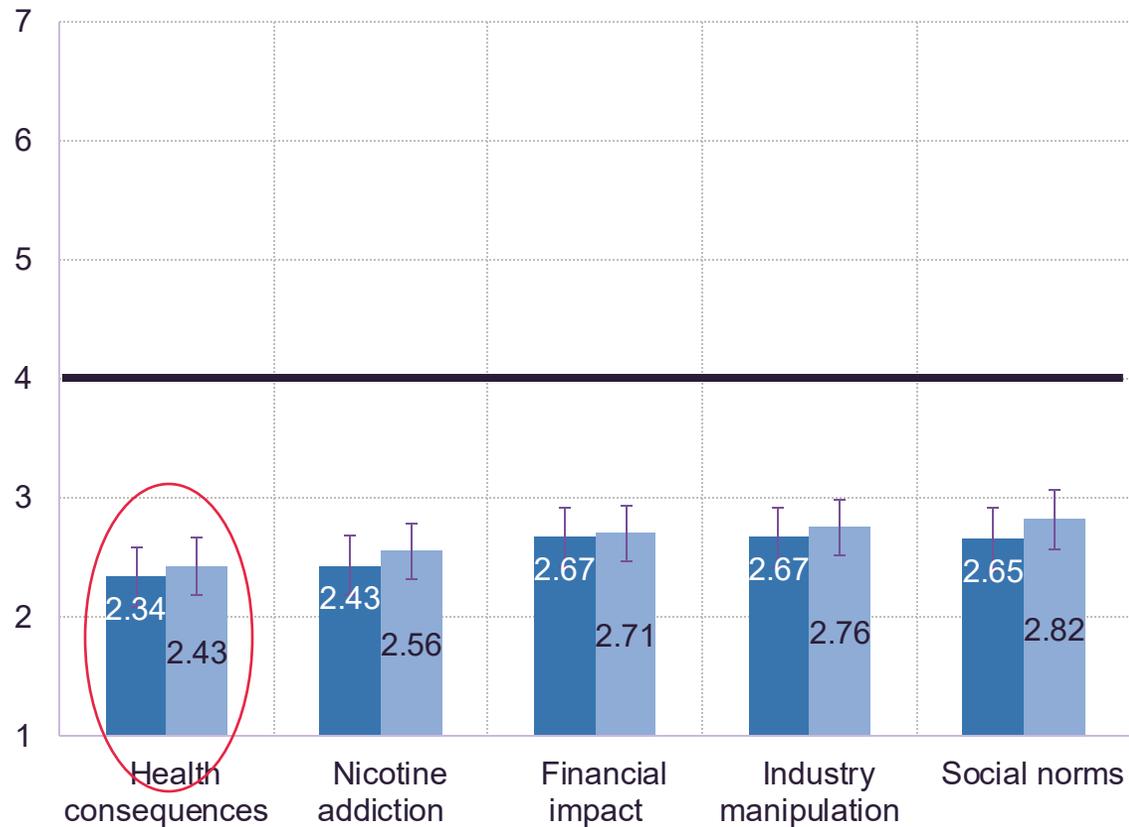
## University

- N=149
- mean age=19.5 (SD=1.7), range 16-24
- predominantly female (71.1%)
- never vaped: 55.0%

# Effect Perceptions (lower score = more effective)

■ Vaping perception ■ Behavioural intent

## Online panel



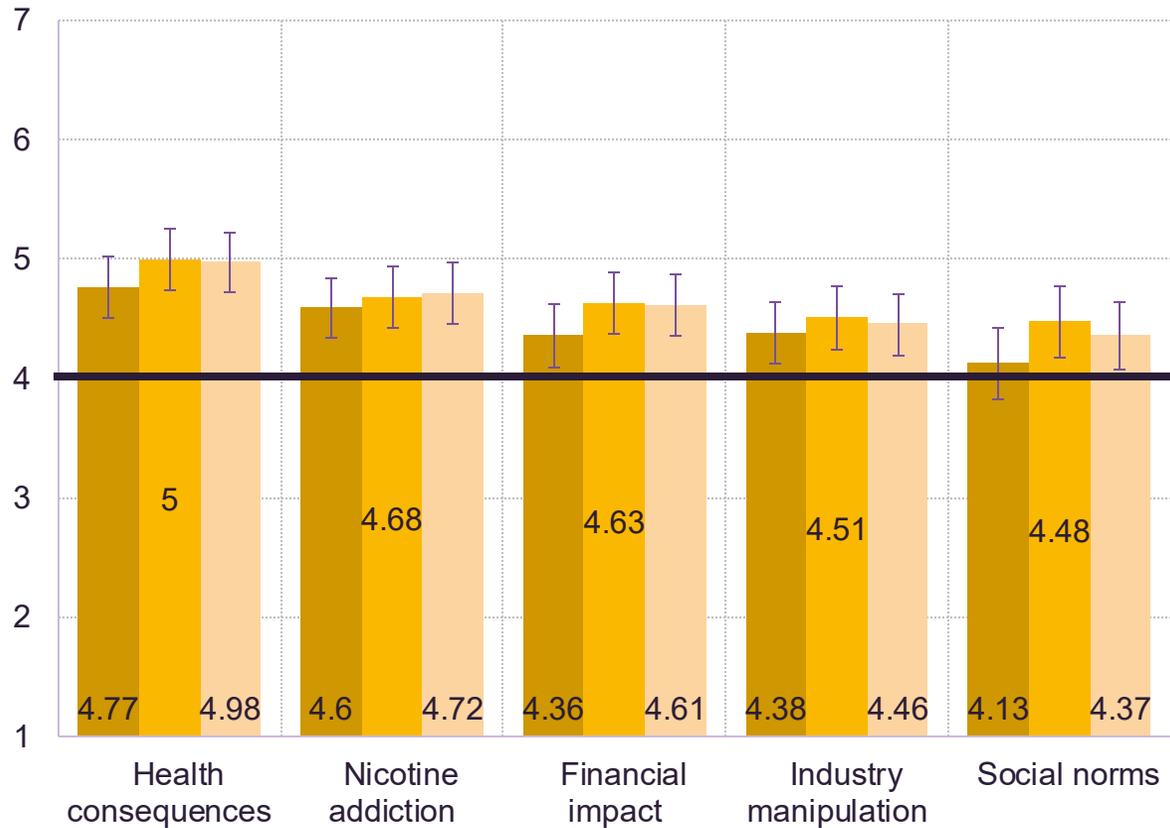
## University



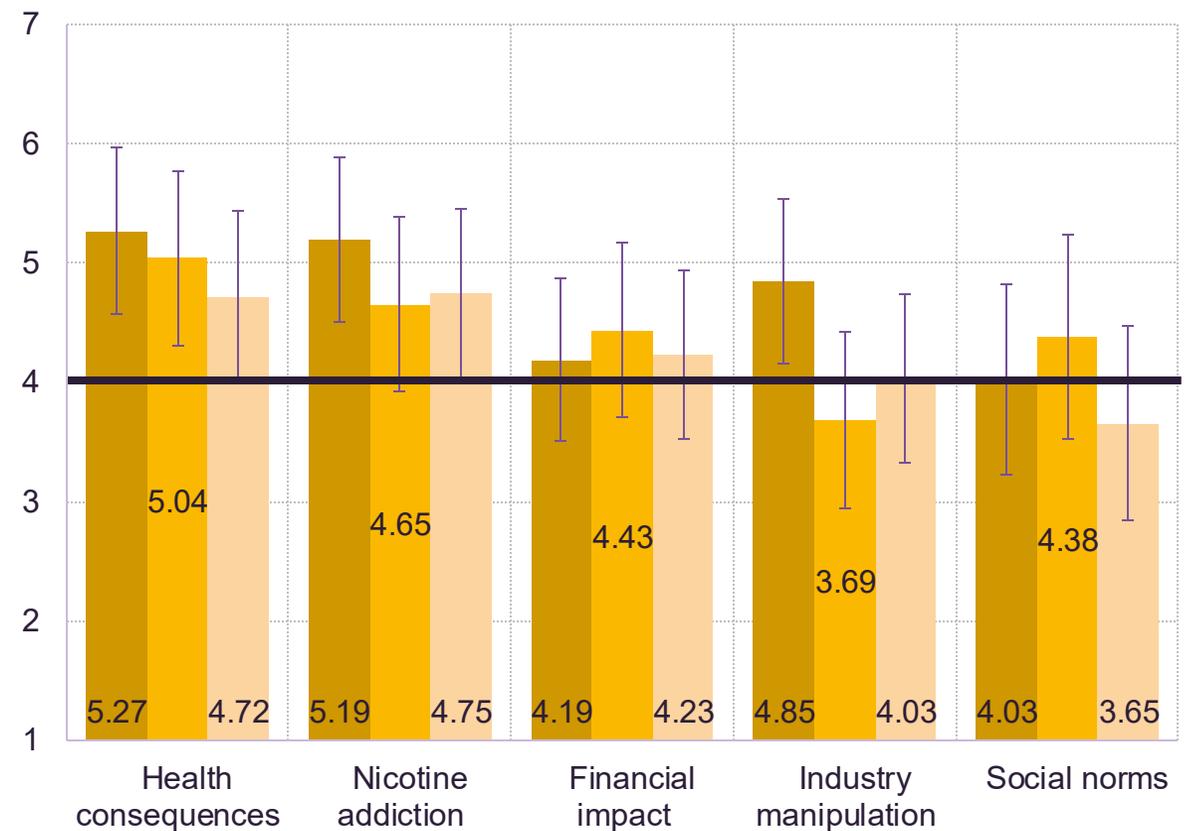
# Ad Perceptions (higher score = more effective)

■ Attention ■ Information ■ Convincingness

## Online panel



## University



## Compared to Health consequences theme

	Effect perceptions			
	Vaping perception		Behavioural intent	
	b	95% CI	b	95% CI
<b>Online panel</b>				
<b>Nicotine addiction</b>	0.11	(-0.01, 0.23)	0.11	(-0.01, 0.23)
<b>Financial impact</b>	0.30***	(0.18, 0.42)	0.27***	(0.16, 0.39)
<b>Industry manipulation</b>	0.31***	(0.2, 0.43)	0.29***	(0.18, 0.41)
<b>Social norms</b>	0.38***	(0.24, 0.53)	0.40***	(0.25, 0.54)
<b>University</b>				
<b>Nicotine addiction</b>	0.19	(-0.07, 0.44)	0.16	(-0.08, 0.4)
<b>Financial impact</b>	0.68***	(0.42, 0.93)	0.51***	(0.27, 0.76)
<b>Industry manipulation</b>	0.65***	(0.39, 0.9)	0.56***	(0.32, 0.8)
<b>Social norms</b>	0.84***	(0.53, 1.16)	0.76***	(0.47, 1.06)

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# Compared to Health consequences theme

	Ad perceptions					
	Attention		Information		Convincingness	
	b	95% CI	b	95% CI	b	95% CI
<b>Online panel</b>						
<b>Nicotine addiction</b>	-0.09	(-0.27, 0.09)	-0.17	(-0.37, 0.03)	-0.11	(-0.28, 0.06)
<b>Financial impact</b>	-0.35***	(-0.53, -0.17)	-0.28**	(-0.49, -0.08)	-0.31**	(-0.48, -0.13)
<b>Industry manipulation</b>	-0.26**	(-0.44, -0.08)	-0.38***	(-0.58, -0.18)	-0.37***	(-0.54, -0.19)
<b>Social norms</b>	-0.54***	(-0.76, -0.32)	-0.39**	(-0.64, -0.14)	-0.47***	(-0.68, -0.26)
<b>University</b>						
<b>Nicotine addiction</b>	-0.09	(-0.49, 0.31)	-0.33	(-0.82, 0.16)	-0.14	(-0.57, 0.28)
<b>Financial impact</b>	-0.87***	(-1.27, -0.47)	-0.72**	(-1.22, -0.23)	-0.73**	(-1.15, -0.31)
<b>Industry manipulation</b>	-0.37	(-0.78, 0.03)	-0.92***	(-1.42, -0.43)	-0.79***	(-1.21, -0.37)
<b>Social norms</b>	-1.20***	(-1.69, -0.7)	-0.85**	(-1.46, -0.25)	-1.09***	(-1.6, -0.57)

# Compared to Health consequences theme

	Ad perceptions					
	Attention		Information		Convincingness	
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# Summary of findings

- All message themes: effective
- Health consequences theme: consistently outperformed
- Nicotine addiction theme: second in all except convincingness in ad perceptions
- Social norm theme: consistently rated as least effective.

# Practical Implications

- **PRIORITISE** health consequences theme
- **COMPLEMENT** with addiction-focus theme
- **INTEGRATE** social norms theme alongside other themes
- **TAILOR** to specific subgroups

# Take-home messages

- Health and addiction-focus themes: perceived as most effective.
- Social norm theme: lower effectiveness ratings in isolation.
- Incorporating multiple themes with health consequence as primary



# Acknowledgement

## Co-authors:

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National Centre for Youth Substance Use Research  
The University of Queensland

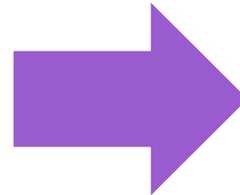


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# Limitation & Future Research

## Current Study

- Perceived effectiveness
- Young adults sample (mean age 20)
- Themes assessed in isolation

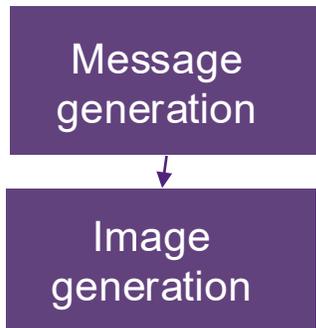


## Next steps

- Behavioural outcomes: e.g. vaping intention
- Adolescent sample
- Combined versus single theme assessment

# The process

## 1. Seeding material



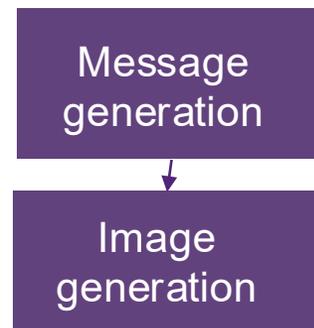
Generating initial set of AI- seeding material.

## 2. Feedback



Focus groups with local Youth Action Groups.

## 3. Refine



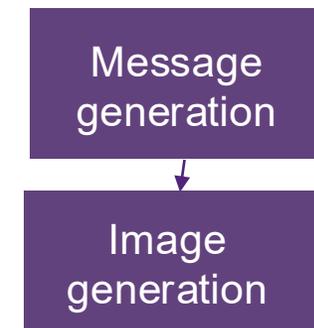
Revision of seeding material based on focus group feedback.

## 4. Feedback



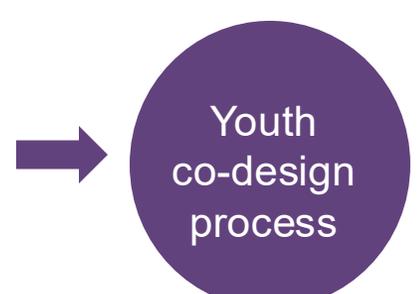
Structured interviews for revised AI material.

## 5. Refine



Revision of revised AI material based on interview feedback.

## 6. Feedback



Evaluating message effectiveness of materials (youth & experts).