

How and Why US Youth Use Disposable E-cigarettes

Prevalence, trends and correlates of disposable e-cigarettes use among US youth: Insights from the National Youth Tobacco Survey 2019-2023

Giang T. Vu 1,2, Tianze Sun 1,2, Jason P. Connor 1,2,3, Phong Thai 4, Coral Gartner 5, Wayne Hall 1, Janni Leung 1, Gary Chan 1

1 National Centre for Youth Substance Use Research (NSYCUR), The University of Queensland, Brisbane, Australia; 2 School of Psychology, The University of Queensland, Brisbane, Australia; 3 Discipline of Psychiatry, The University of Queensland, Brisbane, Australia; 4 Queensland Alliance for Environmental Health Sciences (QAEHS), The University of Queensland, Brisbane, Australia; 5 NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, School of Public Health, Faculty of Medicine, The University of Queensland, Brisbane, Australia;

WHY DO WE CARE?

Disposable e-cigarettes **targeting** youth

- Cheaper
- Offer all shapes, sizes and flavours
- High nicotine strength
- Can be easily purchased
- Popularised & glamourise on social media

Rising use among youth

- esp. in US (26.5%), UK (54.8%), AU (52%)

Adverse short & long-term **health effects**

Risk of **nicotine dependence**

DATA & ANALYSIS

US National Youth Tobacco Survey 2019-2023

Cross-sectional, nationally representative

Students **grade 6 to 12** (12-17 years old)

Main outcome:

- **Current (past 30 days) disposables use**

Correlates:

- Reason for current use, Nicotine contain, Flavors
- Harm perception
- Social norms (peer & at-home use)
- Exposure to social media content
- Psychological distress

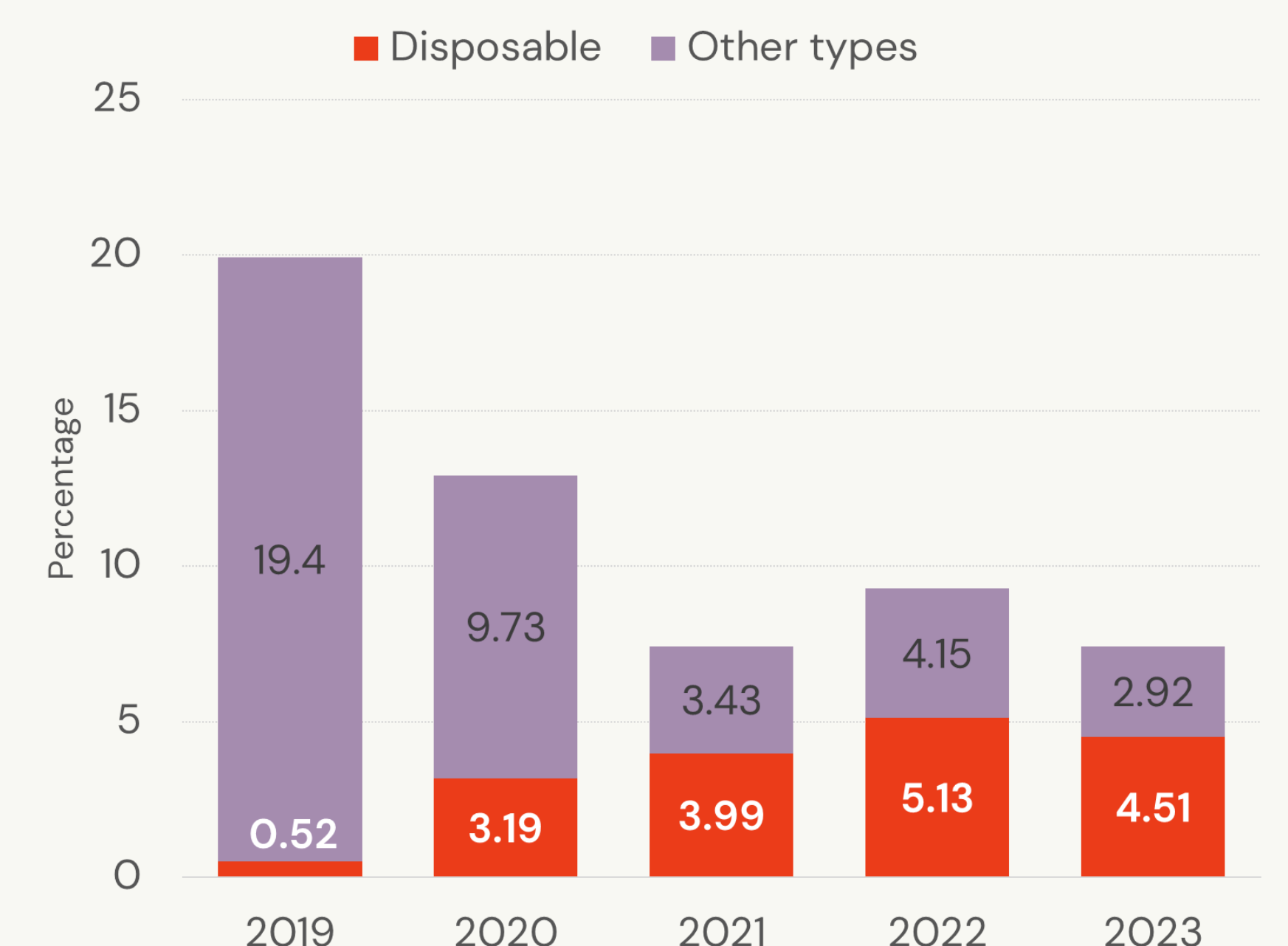


Figure 1: Prevalence of current e-cigarette use in US youth (2019-2023)

WHAT THE STUDY FOUND

Correlates of disposables use

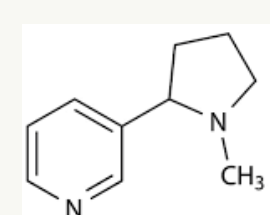
Use of nicotine-contain devices: 82.2%

Use of flavours:

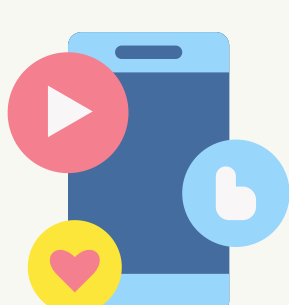
🍓 Fruit: 68%

🍬 Candy or sweet related: 37.5%

🌿 Mint: 31.6%



Daily exposure to vape-related content on social media: 25.35%



Number of:



- Friends using e-cigarettes: 6.9
- Friends smoking cigarettes: 3.7

of days in a week someone at home:



- Use e-cigarette: 2.3
- Smoke cigarette: 2.2

Moderate to severe **psychological distress**: 46%

Significant associations with disposables use

No e-cigarette nor cigarette use as referent outcome category

RRR

of friends using e-cigarettes

1.19

of days in a week someone at home use e-cigarettes

1.23

Saw vape-related content on social media daily

2.13

(ref. Never)

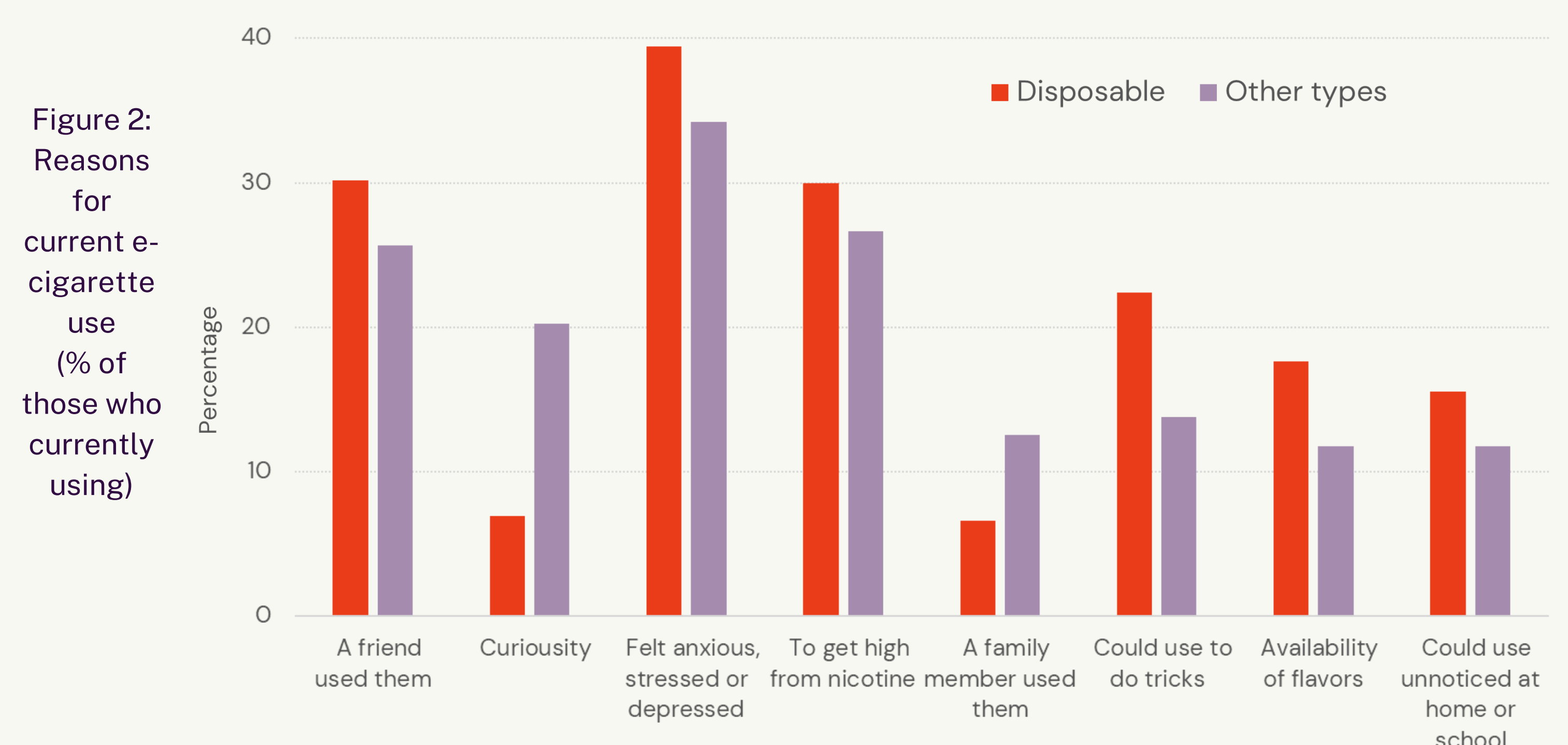
Psychological distress

(ref. None)

- Moderate
- Severe

1.94

2.20



WHAT FINDINGS SUGGEST

Common nicotine and flavour use:

- Address the sales of **nicotine vapes to under 18**
- Effective, carefully implemented **flavour bans**

Peer use

- Provide **accurate prevalence information** to youth
- Encourage anti-youth vaping norms

Vaping at home environment:

- Campaigns to pay more attention to **family influence**

Social media content exposure:

- **Stricter social media** regulations
- Legal frameworks enforce by the governments
- **Collaboration** between health authorities and social media platforms

Psychological distress:

- Integrating **mental health support** into e-cigarette prevention and cessation programs