

Vaping: A Research Update

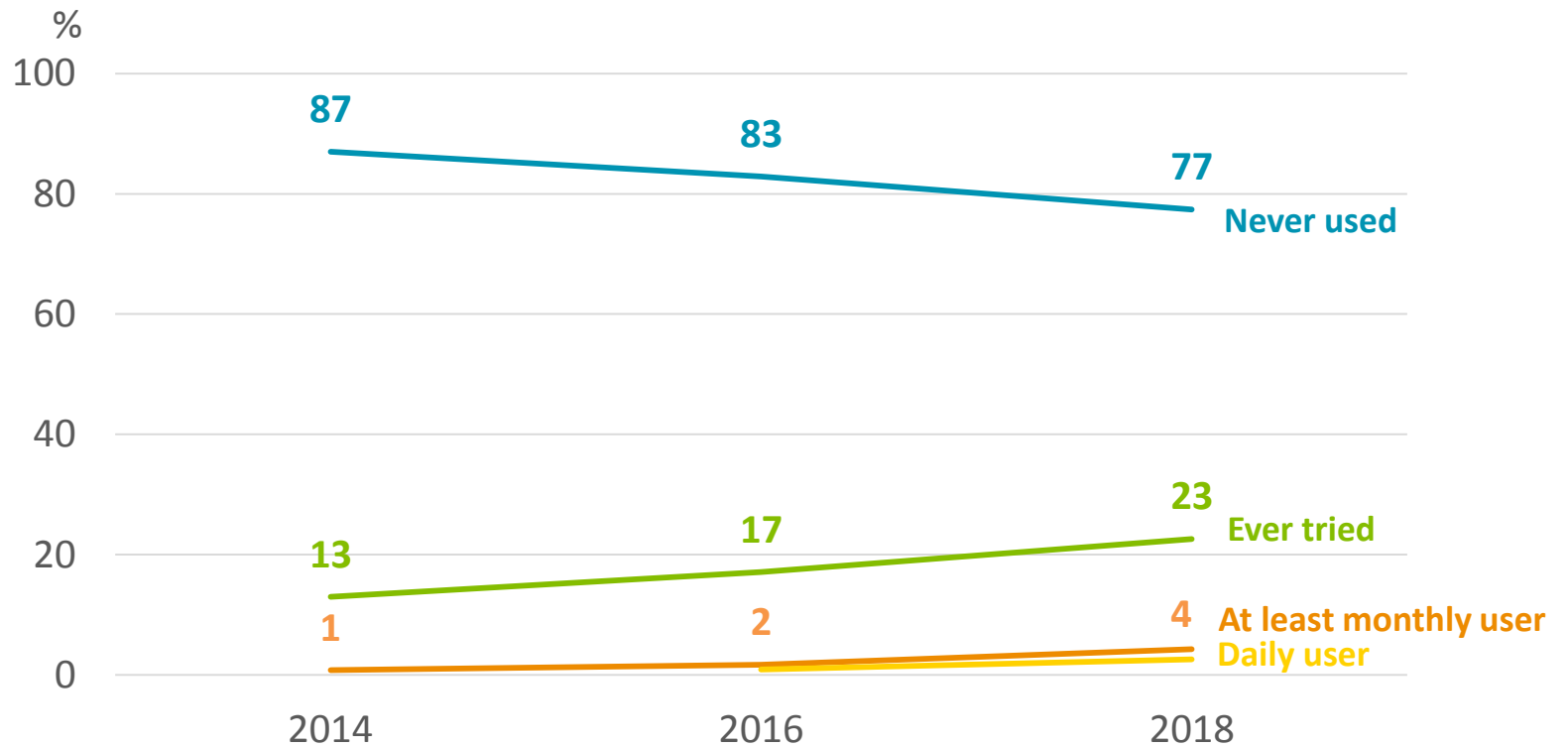
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Canterbury seminar 29 May 2019

Outline

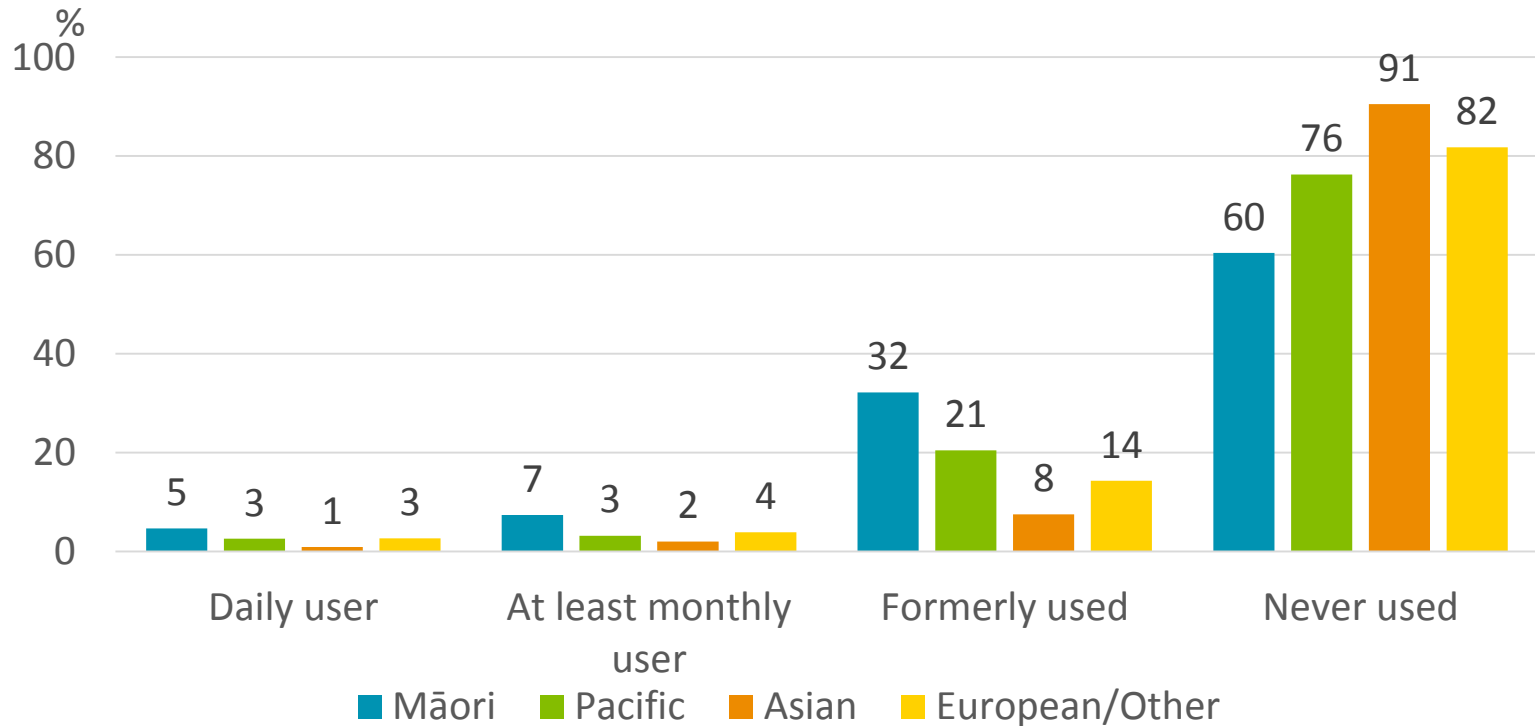
- Vaping in New Zealand
 - Who is vaping?
- How to evaluate the importance of different scientific studies
- Does vaping lead young non-smokers to smoke?

Vaping in New Zealand



Source: 2014-18 Health and Lifestyles Survey (HPA); 2015/16 and 2017/18 New Zealand Health Survey (MoH)

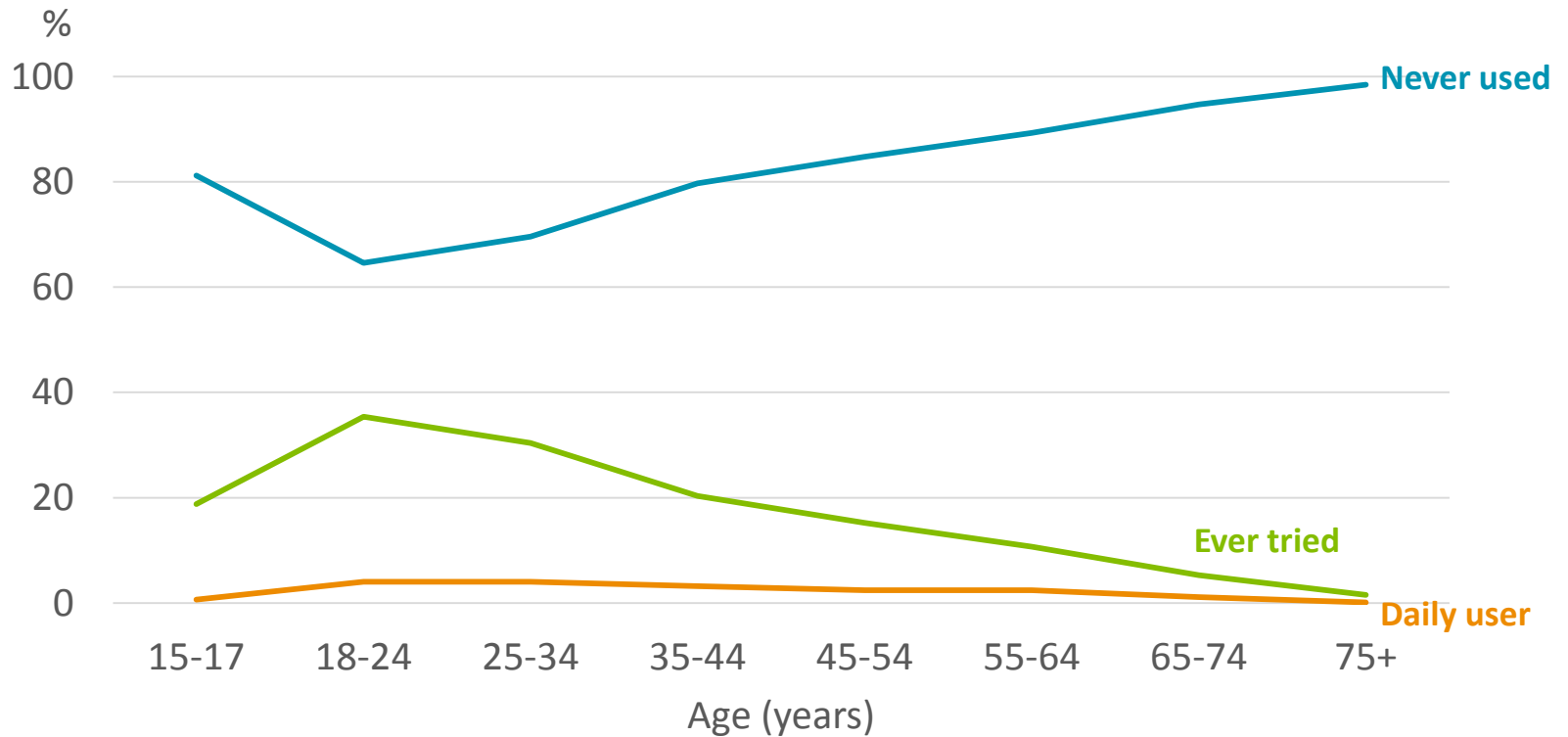
Who is vaping? Ethnicity



Māori adults 2 times more likely to vape daily
Asian adults less likely to vape daily

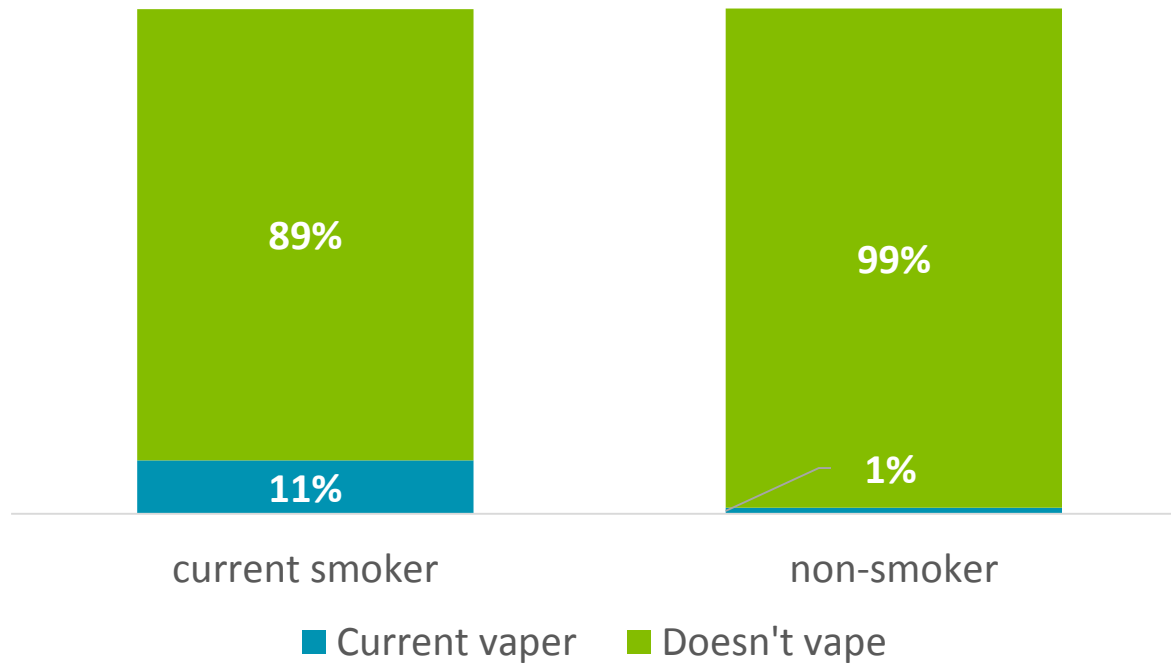
Source: 2017/18 New Zealand Health Survey (MoH)

Who is vaping? Age



Source: 2017/18 New Zealand Health Survey (MoH)

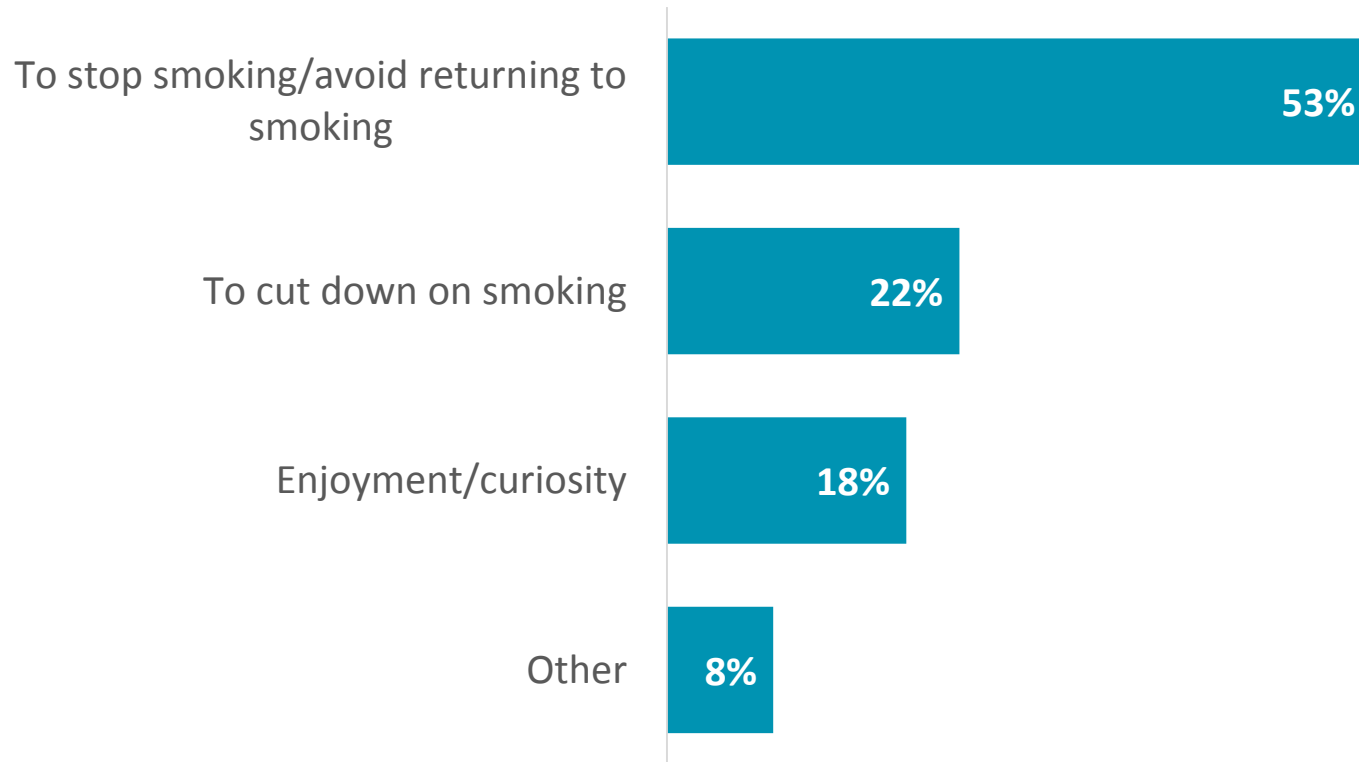
Who is vaping? Smoking Status



64% of current vapers are also smokers
Only a small proportion of non-smokers are current vapers

Source: 2016 Health and Lifestyles Survey, as presented in Oakly & Martin (2019)

Reasons current vapers vape



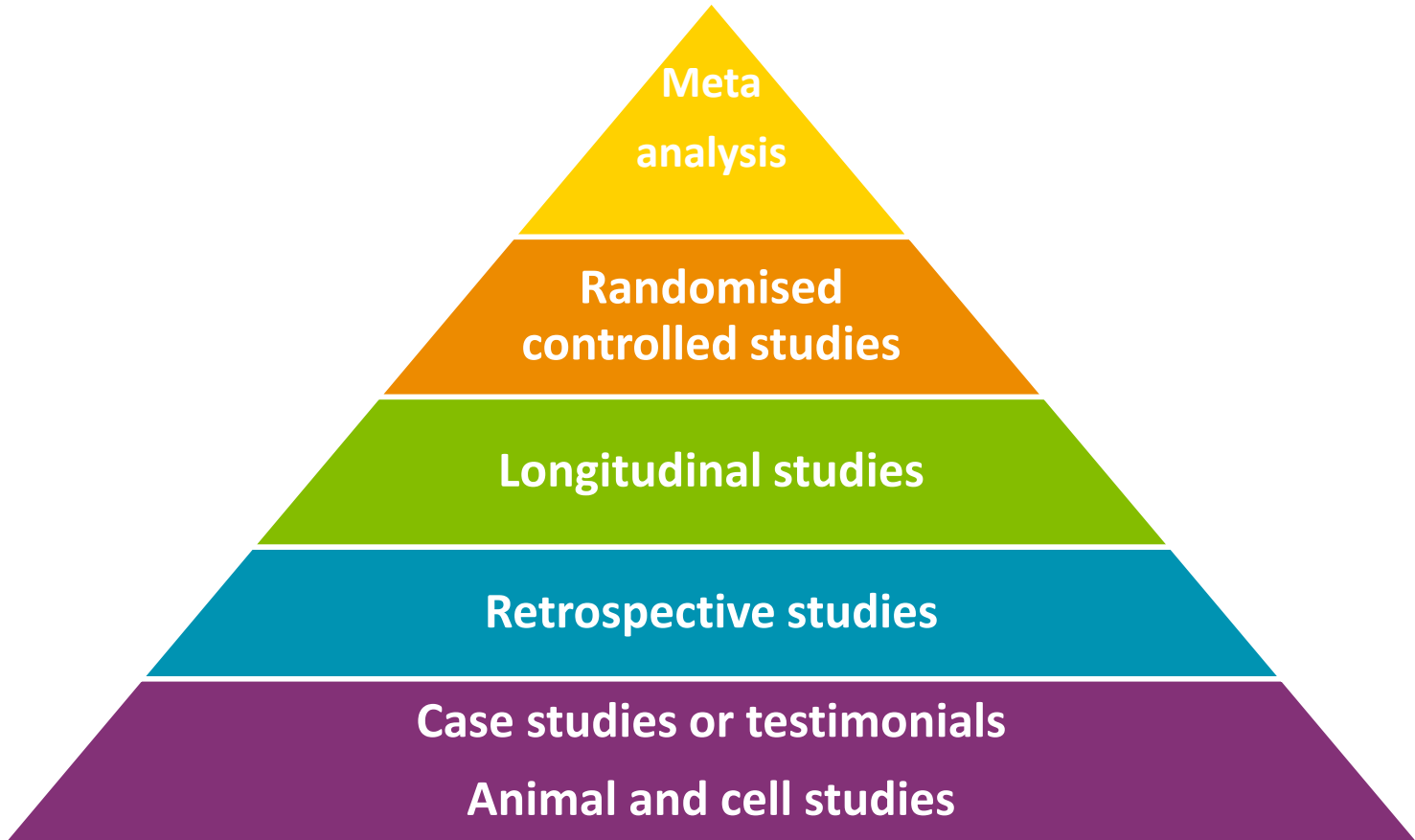
Source: 2018 Health and Lifestyles Survey

Which evidence is the strongest?

Most robust



Least robust



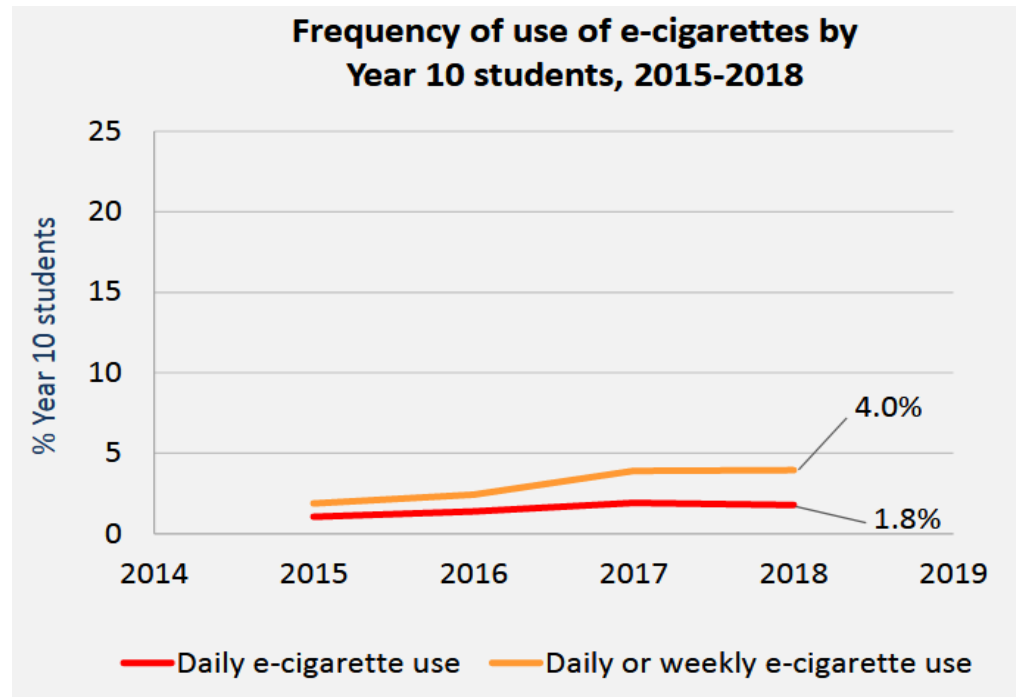
Does vaping lead young people to smoke?

- Young never smokers who try vaping products are 3.6 times more likely to try smoking
- Important to note:
 - We don't know if **vaping causes smoking**. It may be that something else leads to both behaviours, such as novelty seeking.
 - “trying smoking” isn't the same as “regular smoking”

Source: Soneji et al., 2017; Public Health England, 2018; NASEM, 2018

Does vaping lead young people to smoke?

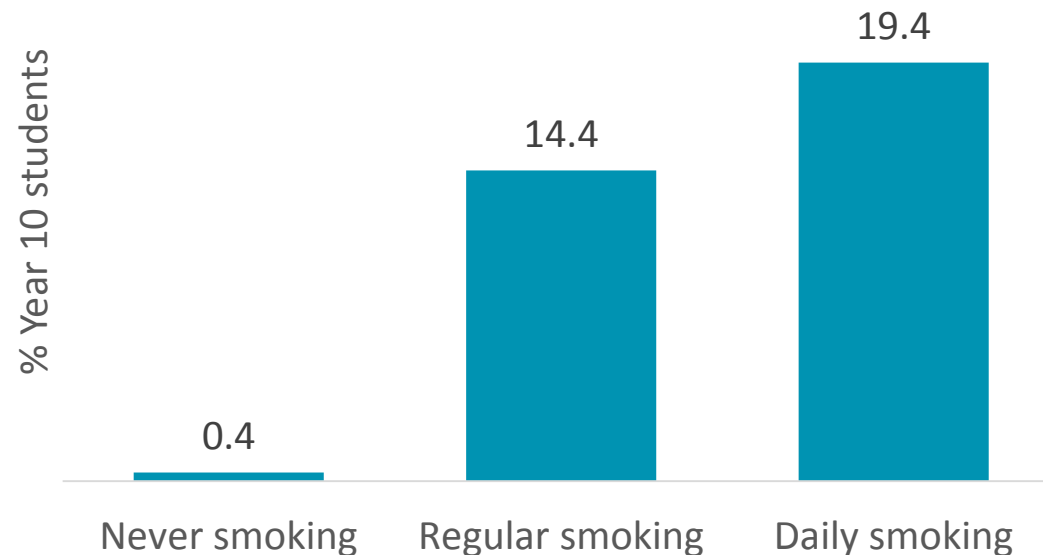
- Ever vaping is increasing in New Zealand, but more frequent use is still low in 14 – 15 years old



Source: 2015-18 ASH Year 10 Snapshot (ASH, HPA)

Does vaping lead young people to smoke?

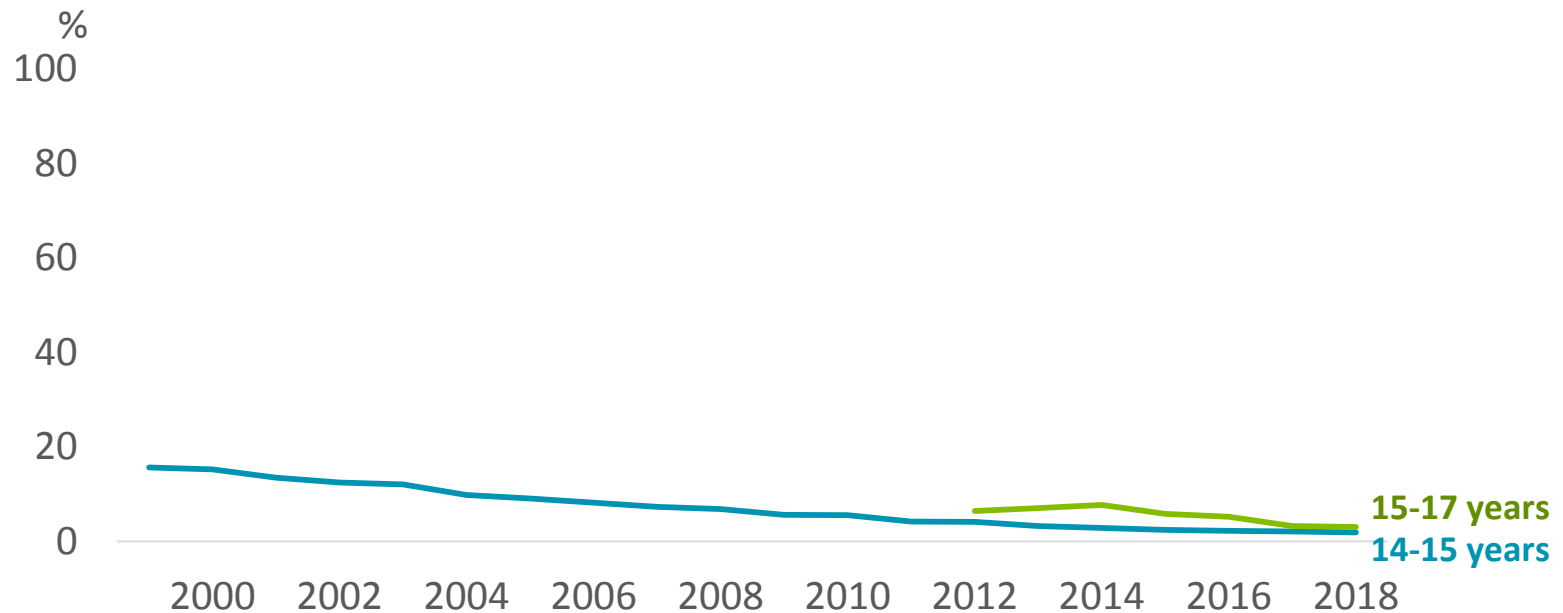
- Fewer than 1% of 14-15 year olds who report never smoking vape daily



Source: 2018 ASH Year 10 Snapshot (ASH, HPA)

Does vaping lead young people to smoke?

- Current smoking rates in young people are still declining even with an increase in vaping



Source: 2000-18 ASH Year 10 Snapshot (ASH, HPA; 2012/14-2017/18 New Zealand Health Survey (MoH))

A note on US teen vaping

PUBLIC HEALTH

Surgeon General Warns Youth Vaping Is Now An 'Epidemic'

December 18, 2018 · 12:08 PM ET



ROB STEIN



> Lifestyle > Family > Parenting

We are facing a teen vaping epidemic - how worried should parents be?



HEALTH AND SCIENCE

Tobacco company Reynolds blames teen vaping crisis on Juul in fighting FDA plan to rein in e-cigarettes

PUBLISHED THU, MAY 2 2019 · 1:00 PM EDT | UPDATED THU, MAY 2 2019 · 2:02 PM EDT



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SHARE

Progress Erased: Youth Tobacco Use Increased During 2017-2018

4.9 million middle and high school students used tobacco products in 2018

[Español \(Spanish\)](#)

Press Release

Source: cdc.gov, Cullen et al., 2018

A note on US teen vaping

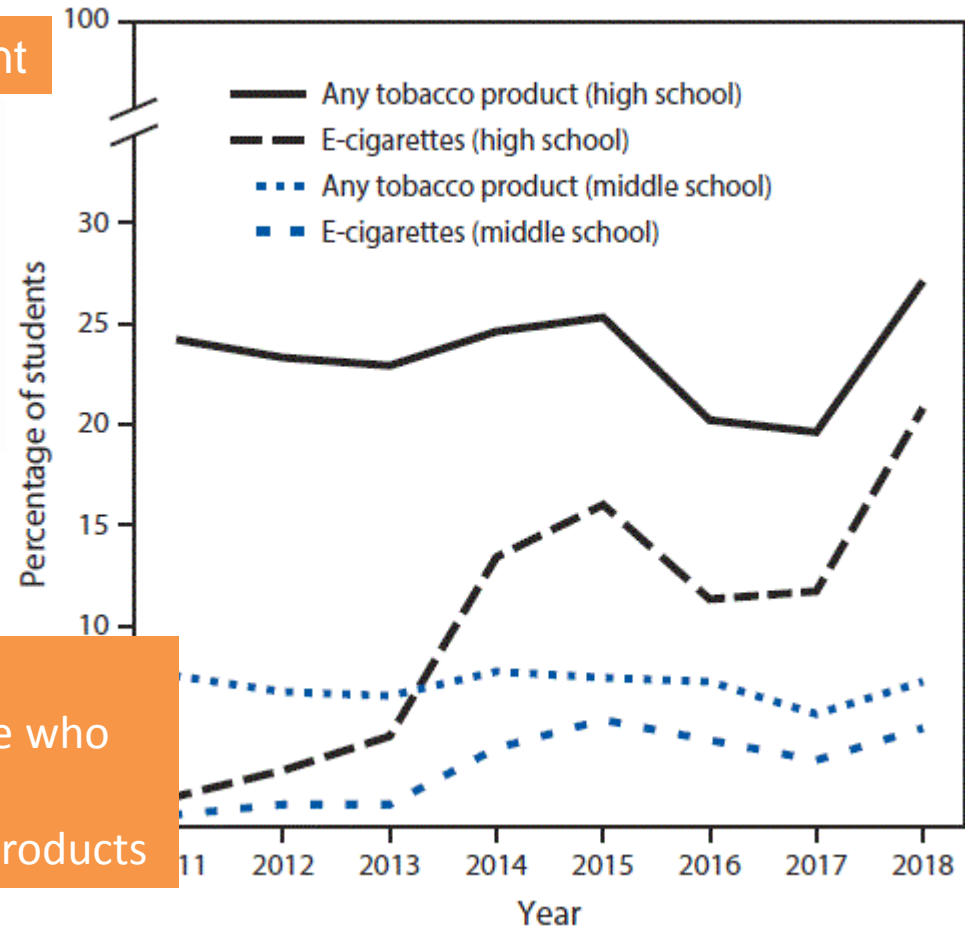
Axes are important

Among high school students, current e-cigarette use increased from 1.5% (220,000 students) in 2011 to 20.8% (3.05 million students) in 2018 ($p < 0.001$) (Figure). During 2017–2018, current e-cigarette use increased by 78% (from 11.7% to 20.8%, $p < 0.001$).

Relative increases look bigger.
The absolute increase is only 9%

Check definitions:

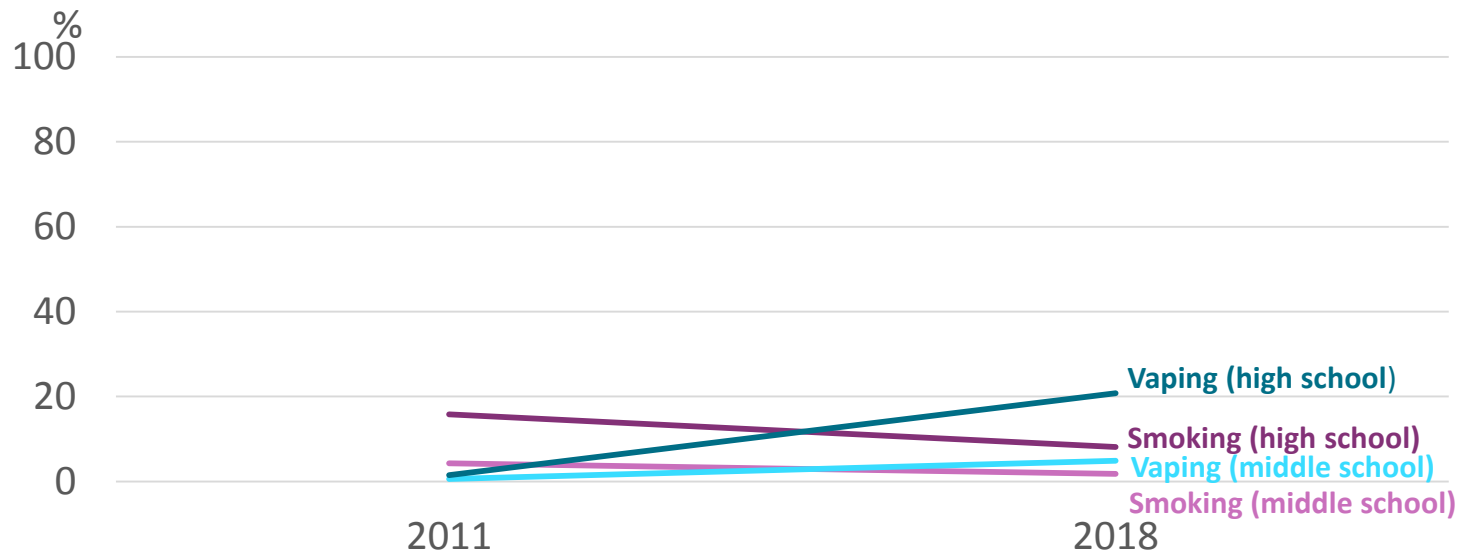
- “past 30 day use” includes mostly people who have used on fewer than 5 days
- “any tobacco product” includes vaping products



Source: cdc.gov, Cullen et al., 2018

A note on US teen vaping

- More accurate axes, smoking rates exclude vaping products



Vaping is increasing, but daily use likely to be a much smaller increase
Smoking rate still decreasing

Source: 2011-18 National Youth Tobacco Survey (CDC)

Conclusions

- The popularity of vaping in NZ is increasing
- Current smokers and Māori are more likely to vape currently or daily
- A single study is unlikely to change the body of evidence
- We can't say from the current data whether vaping leads young people to smoke