

PREVENTING DREAMS
FROM GOING UP IN SMOKE

A Multimodal Response to Vaping

How are vapes different from other drug use?

- Highly accessible, appealing packaging, flavouring, scents and social media presence
- 74% of young people tried vapes out of curiosity
- 63% students (12-17) reported getting a vape from a peer, 8% from siblings, 7% from a parent and 12% purchased it themselves (ADF, 2023)
- Gateway Theory – Vaping has been associated with elevated risk of harmful (i.e., binge) drinking, 3.5 times higher likelihood of cannabis use and three times the odds of starting tobacco smoking in ‘never smokers’
- High degree of misinformation and delayed consensus from authorities

Prevalence of vaping in our youth

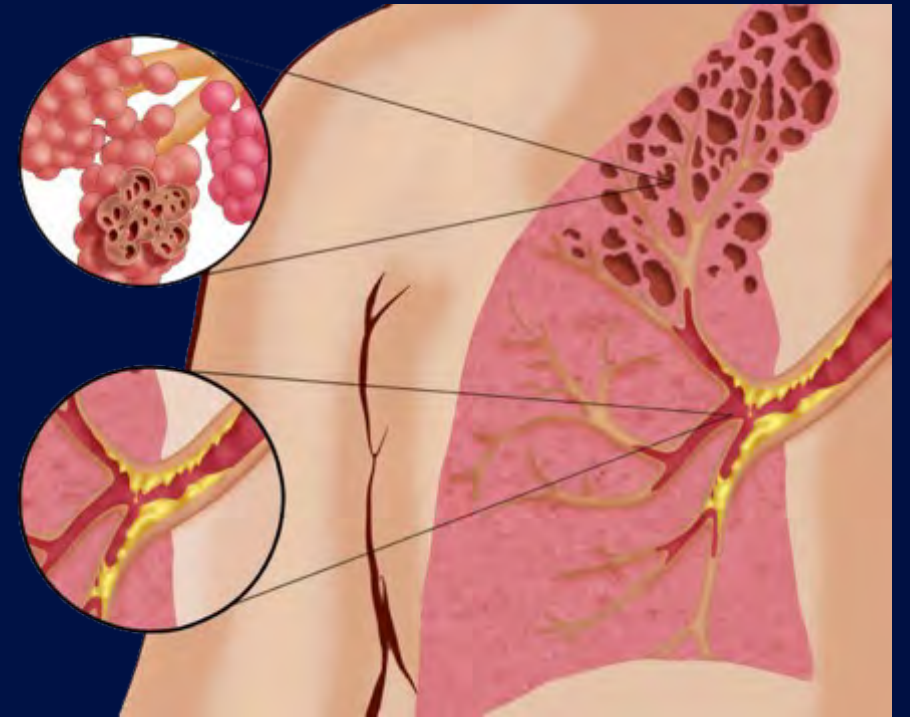
Australia is a global leader in reducing tobacco use from **26.7% in 1998** to **12.9%** adult population in 2019

- **In 2017** tobacco smoking rates in the past week: **3%** of 12-15 year-olds, **9%** of 16-17 year-olds and **8%** of 18-24 year-olds (Cancer Institute NSW)
- **In 2023** data on vape use in past month: **14.5%** of 14-17 year-olds and **19.5%** of 18-25 year-olds (Dept Health and Ageing)
- View global statistics with caution. However, experts all agree it is a global health problem

Are vapes harmful?

Vape Fluid is unregulated and can contain:

- Tobacco and tobacco smoke contains a complex mixture of over 9,500 chemical compounds – 80% are carcinogenic. Vapes have significantly less toxic compounds. However, the **chemicals which cause cancer** (formaldehyde and heavy metals) appear to be in **higher concentrations in vapes**
- Formaldehyde, pesticides, fungicides and heavy metals (mercury, arsenic)
- Flavourings – **Diacetyl** found in 75% of vape juices
- Propylene Glycol (PG) OR Vegetable Glycerine (VG) OR Combination
- Nicotine equivalent to **2-3 packs of cigarettes**
- **Not currently endorsed** by the Therapeutic Goods Administration in Australia



Liquid Nicotine

- Nicotine is a **highly addictive** drug ranking in the top five along with cocaine, heroin, methamphetamine and alcohol



TOXICITY WARNING



Under Qld Law, Liquid nicotine is classified as a dangerous poison by the Therapeutic Goods Administration of Australia.

Fatal dose for an adult is 40-60mg (1 tsp-1tbsp) – *based on body weight and skin morphology*

Rapidly absorbed through skin - Symptoms include *burning of mouth and throat, dizziness, abdominal pain, nausea, salivation, sweating, convulsions.*

Death can occur within minutes - *respiratory failure arising from paralysis of the muscles of respiration*



Strategy 1: Good Governance

- Support from **Executive** and **School Council**
- **Policies** and school **values, mission, ethos**, that support your approach
- Current or new **procedures** that could support intervention – Drug testing, restorative practice, psychological support
- Resources – **Staff** are always your greatest resource

TSS: Drug Testing Policy and Guidelines, TSS Values of Teamwork, Student Pledge to be Drug Free, Restorative Practice, Health Promotion School with a focus on Prevention and a Wellbeing Team including psychologists to treat addiction

Strategy 2: Universal Care: PRIMARY PREVENTION

- Create an environment where all students feel safe, have a sense of belonging and are socially rewarded for positive choices
- Health Promotion from year 4-12. Leading predictors for vaping is perceived peer drug use and parental risk-taking behaviour or attitudes
- Rotate presenters each year to offer different lens through which to view the same behaviour (i.e., ED physician)
- Create systems of prevention – vape detectors, cameras, prefect monitors, vigilant staff, Stymie



PRIMARY PREVENTION: Parent Engagement

The screenshot shows a Zoom meeting titled "On-Line Safety and Vaping Seminar". The main content is a presentation slide with the following elements:

- Header:** "Educating Students on Vaping" with a circular logo on the right.
- Left Panel:** "Cigarettes Vs. E-Cigarettes" with a comparison table. The table lists "CIGARETTES" and "E-CIGARETTES" with their respective health impacts.
- Right Panel:** "What's in Vape Fluid?" with a diagram of a vape bottle and its components. The components listed are: Water, Liquid Nicotine, Flavorings, Propylene Glycol (PG) OR Vegetable Glycerine (VG) Oil, and Combination.

On the right side of the screen, there is a video feed of a woman with long dark hair, wearing a white shirt and a dark jacket, who is the presenter. Below the video feed, there is a chat window with several messages from participants, including "Thank you for the presentation", "Great presentation", and "Thank you for the information".

Strategy 3: SECONDARY INTERVENTION

- **Social Consequences:**
 - Students need to see consequences (loss of leadership role, removal from boarding, in-school suspension, restorative conferences etc)
 - Mandatory completion of Online Health modules (videos, quizzes, Kahoots, case studies) during in-school suspension – Logical consequence
 - Close proximity to vape detector - monitoring and communication to parents
- Mandatory referral to Wellbeing Team for motivational interviewing session

Online Wellbeing Modules

MODULE 1: INTRODUCTION TO E-CIGARETTES

- **Question 1:** What are e-cigarettes?
- **Question 2:** What do e-cigarettes all have in common?
- **Question 3:** Do e-cigarettes contain nicotine?
- **Question 4:** How does nicotine impact the brain?
- **Question 5:** List three hazardous substances found in e-cigarette liquids.
- **Question 6:** How can a serious injury be caused from an e-cigarette?
- **Question 7:** List 4 health effects of e-cigarettes
- **Question 8:** There is a strong association between non-smoking youth using e-cigarettes and future smoking (*circle True or False*).
- **Question 9:** List three reasons why it's difficult to regulate the safety of e-cigarettes and liquids
- **Question 10:** Has the Therapeutic Goods Administration (TGA) approved the sale of e-cigarettes to help people quit smoking?
- **Question 11:** What are two reasons why nicotine-containing e-cigarettes can be dangerous?
- *The following questions are to be completed after watching the 'Teen Vaping Epidemic' video by the American Heart Foundation.*
- **Question 12:** What was the driving force behind Will and Claire vaping?
- **Question 13:** How did Will describe his first experience of vaping?
- **Question 14:** Before vaping, Will was a cross country runner and skier. How did he describe the impact of vaping on his performance?
- **Question 15:** Why did Claire continue using an e-cigarette?
- **Question 16:** How did Claire's parents react to her confession?

MODULE 2: HEALTH IMPACT OF VAPING

- **Question 1:** What does EVALI stand for?
- **Question 2:** How long does it take before vaping causes inflammation in your airways?
- **Question 3:** How does nicotine damage your body?
- **Question 4:** Vaping can increase your risk of developing asthma by 30% and chronic obstructive pulmonary disease (COPD) by 60% (please circle True or False)
- **Question 5:** List 3 respiratory symptoms commonly experienced directly after vaping.
- **Question 6:** List 5 cardiovascular health conditions reported after long term vaping use.
- **Question 7:** Which mental health problems are associated with smoking?
- **Question 8:** Up to two-thirds of long-term smokers live 10 years less compared to non-smokers. (please circle True or False).
- **Question 9:** Why are flavourings added to nicotine-containing vapes?
- **Question 10:** Which country banned all e-cigarette flavours at the beginning of 2020?
- **Question 11:** What can exposure to propylene glycol lead to?
- **Question 12:** Are liquid flavourings safe? If not, why?

MODULE 3: VAPING AND THE LAW

- **Question 1:** In Australia, it is illegal to sell or buy nicotine for use in e-cigarettes? (please circle True or False).
- **Question 2:** What is the main difference with regards to packaging between cigarettes and e-cigarettes?
- **Question 3:** List three safety concerns around e-cigarettes.
- **Question 4:** Do e-cigarettes fall under the same restrictions as Tobacco and Other Smoking Products?
- **Question 5:** How does the penalty for acquiring, using and/or possessing liquid nicotine in QLD compare with WA?

Strategy 4: TERTIARY INTERVENTION

Vaping as a coping strategy

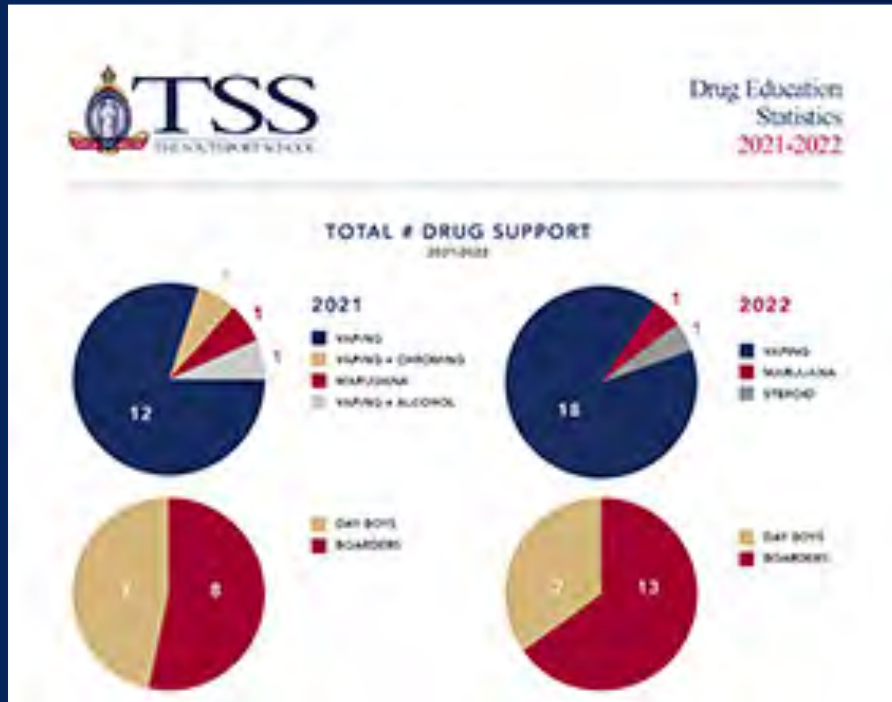
Almost 75% of common mental health problems emerge before the age of 25.

Individuals engage in substance use for a range of reasons. Accessing support is essential.

- Critical brain development is occurring during adolescence and the areas most affected by nicotine relate to the same required for learning – attention, memory, concentration, impulse control and mood
- Adolescent brain is more susceptible to rewards and therefore vulnerable to addictions
- Positive reinforcement of feeling good and the major dopamine hit from nicotine can lead to dependency that requires professional support
- Environmental cues such as visiting a bathroom where teens vape or being in the company of a person you have vaped with can unleash intense craving signals that can lead to relapse

Strategy 4: TERTIARY INTERVENTION

Tracking our efforts



REASONS FOR VAPING

- Year 7-9 boys more likely to 'experiment' with the novelty of 'steaming up' with the vape sticks.
- Year 10-12 boys more likely to 'experiment' in a vaping machine.

FREQUENCY OF VAPING

- Year 7-9 boys reported vaping 1-3 times - 'social occasions about 'turning off' occasions.
- Year 10-12 boys reported more frequent vaping yet still they are having the day + month or high 'dosed' but also taking 1 week breaks and/or one a day; some boys use to increase additional frequency.

LOCATION AND REASON FOR VAPING

- Year 7-9 boys most likely vape introduced in a group setting with friends (after not being the best 'ing' or by their parents (and in some cases alcohol) parents are offering their best advice) a room in the home environment to prevent their friends from using or social settings - very infrequently.
- Year 10-12 boys more likely to vape alone in a 'quiet' bedroom/room - rather than 'solo' situations on the preparation for bed.

CONTENT MOST COMMONLY DELIVERED:

- All boys are quite shocked at the health consequences (and in the content that more than 90% must be made a better decision! They are all aware that vapes are not 'just like the more serious' of the physical environment but are also aware of the laws if they are caught).
- The boys are very keen to receive education (and support, because they are focused on their management strategies, they continue to go, back and forth - providing support for parents (and in a few instances support, talking from and that often other support is also offered normally, saying ask to friends who can support you with your decision to stop, they keep saying - 'I don't know what to do next'.

Group Task – Pick a strategy and Team Up

- 1. Good Governance Group** – what are your policies, values, processes & resources?
- 2. Primary Prevention Group** – what are your systems of rewarding positive choices, what health promotion occurs for students/parents/staff and what are your monitoring systems of prevention?
- 3. Secondary Intervention Group** – what are your pastoral interventions and who oversees them? What are your social consequences and systems of monitoring and communication?
- 4. Tertiary Intervention Group** – what supports or pathways of referral do you offer for addicted teenagers? How are you decreasing the stigma and secrecy associated with addictions?