Supporting Aboriginal and Torres Strait Islander people to stop vaping

Thursday 27 January 2022, 12.30pm AEST

Ms Alice Nugent
Prof Renee Bittoun

This activity has been developed in partnership with NACCHO and Prof Renee Bittoun. Materials or sections of materials from Prof Bittoun’s presentation should not be used without acknowledgment.

Presenters

Alice Nugent
NACCHO Pharmacist Advisor, Medicines Policy and Programs

Prof Renee Bittoun
Professor, Nicotine Addiction Unit, Lifestyle Medicine, Avondale University & Professor, Medical School, University of Notre Dame
No conflict of Interests
Acknowledgement of Country

We recognise the traditional custodians of the lands and seas on which we live and work.

We pay our respects to Elders past and present.

Learning outcomes

By the end of this webinar, participants will

1. Discuss approach to vaping and dual (tobacco and nicotine vaping products) use and cessation
2. Understand issues related to vaping in young people including NRT options
3. Identify validated tools for assessment and cessation support available
Context

- We all know smoking is bad!
- Smoking contributes to 30% of all deaths in Aboriginal and Torres Strait Islander peoples
- Last webinar with Professor Emily Banks Australian National University- National Centre for Epidemiology and Population Health discussed why **vaping is not the solution**

Do e-cigarettes help people to quit smoking?

- Not sure!
- Systematic review: >6,000 articles searched
- Major international reports, 12 RCTs
- Limited evidence nicotine e-cigarettes efficacious for smoking cessation compared to approved nicotine replacement or no intervention/standard care
- Freebase nicotine: no evidence on nicotine salts
Do e-cigarettes help people to quit smoking?

- Main trial (Hajek et al, 2019)
  - 886 smokers attending stop smoking clinic
  - 438 nicotine e-cigarettes, 446 usual care
  - Of those randomised to e-cigarettes, six months later, 18% quit smoking
    - 4% quit smoking and were not using e-cigarettes
    - 14% quit smoking and were still using e-cigarettes
    - 25% kept smoking and using e-cigarettes
  - In supported trial conditions, more dual users than quitters

NACCHOs work

- Health Promotion
- Continue to promote first line, evidence based treatments for smoking
- Share your stories- what is working to help prevent people start smoking or vaping? Talk to the kids that don’t vape!
- Ask! Should we be getting our software providers to add extra field about vaping to smoking demographics?
- Contribute to research
XXL Vape
Proports 1000 puffs
Note: Does not mark nicotine content

Mega Vape
Proports 3000 puffs
Bought and used by 15 year old
Prevalence Data

- Prevalence of vaping changing daily
- You can contribute by surveying usage in YOUR community
- Do a poll NOW
- Do another poll in 6 months
- What impact have YOU had?

Take a patient/client/consumer history
Appendix 1

Vaping Questionnaire for adults

NAME: DATE:
GENDER: DOB:

How long have you been vaping?
Do you vape every day?
What brand are you vaping?
Is there nicotine in your vapes?
Are there flavours in it? Do you have a favourite flavour?
Do you vape and smoke-dual use?
How much does your e-cigarette or vape pod cost you?
How much does it cost you each day? Per week?
Do you know that you need a prescription from your doctor to get electronic cigarettes from 1\textsuperscript{st} October? Yes/No
Will/Does that effect your using it? ....................

The Penn State [Electronic] Cigarette Dependence Index

1. How many times per day do you usually vape or use your electronic cigarette? (assume that one “time” consists of around 15 puffs or lasts around 10 minutes)
   (Scoring: 0=4 times/day = 0, 5=9 times/day = 1, 10=14 times/day = 2, 15=19 times/day = 3, 20=29 times/day = 4, 30=39 times/day = 5)

2. On days that you can use your electronic cigarette or vape freely, how soon after you wake up do you first use your electronic cigarette or vape?
   (Scoring: 0=5 mins = 5, 6=15 mins = 4, 16=30 mins = 3, 31=60 mins = 2, 61=120 mins = 1, 121 mins+ = 0)

3. Do you sometimes awaken at night to use your electronic cigarette or vape?
   (Scoring: Yes = 1, No = 0)

4. If yes, how many nights per week do you typically use your electronic cigarette or vape?
   (Scoring: 0=1 night = 0, 2=2 nights = 1, 3=3 nights = 2)

5. Do you vape or use an electronic cigarette now because it is really hard to quit?
   (Scoring: Yes = 1, No = 0)

6. Do you ever have strong cravings to vape or use an electronic cigarette?
   (Scoring: Yes = 1, No = 0)

7. Over the past week, how strong have the urges to vape or use on electronic cigarette been?
   (Scoring: None/Slight = 0, Moderate/Strong = 1, Very Strong/Extremely Strong = 2)

8. Is it hard to keep from vaping or using an electronic cigarette in places where you are not supposed to?
   (Scoring: Yes = 1, No = 0)

9. When you haven’t used an electronic cigarette or vaped for a while, do you feel more irritable because you couldn’t vape or use electronic cigarette?
   (Scoring: Yes = 1, No = 0)

10. Did you feel nervous, restless, or anxious because you couldn’t vape or use electronic cigarette?
    (Scoring: Yes = 1, No = 0)

Scoing:
Total scoring: 0–3= not dependent, 4–8 low dependence, 9–12 medium dependence, 13+ high dependence.

From Fagerstcin Test for Nicotine Dependence & Heaviness of Smoking Index (FTND/HS).

From Balz et al., 2008.
From Hooked on Nicotine Checklist.
From Fiddler et al., 2011.

Reference:

From Fiddler et al., 2011.

Treatments for Adults to Quit Vaping

Appendix 3: Bittoun Combination Nicotine Replacement Therapy Algorithm for Adult Vapers (not smoking cigarettes)
Appendix 4: Bittoun Combination Nicotine Replacement Therapy Algorithm for Dual Smoking and Vaping

1. Apply patch just before sleep, change each night.
   - If within 4 days this...

2. Eliminates both smoking and vaping or urges to smoke or vape completely.
   - CO reading 0-5 ppm

3. Reduces smoking <15 but <10/day.
   - CO reading reduced 1/3 or less 7TPV
   - Add 4 mg nicotine gum/lozenge/ inhaler/sublingual tablet/oral spray for “breakout” smoking.
   - If smoking or vaping & urges to smoke eliminated (if not go to C)

4. Reduces smoking, but <10 (day)
   - CO reading reduced 1/3 or less 7TPV
   - Reduce vaping, but frequent puff/day
   - If smoking or vaping persists, go to B.
   - C: CO reading

5. Eliminates vaping or smoking, however urges/symptoms of withdrawal persist.
   - Either treat behaviour cues or go to B.
   - CO reading 0-5 ppm

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*Contraindications: recent cardiovascular event (within 48 hours).

**7TPV: Time for 50% of nicotine.

***Other 4 mg nicotine gum or lozenges depending on patient choice. An inhaler or sublingual tablet is recommended as best choice if patient needs faster reinforcement.

****No evidence in the literature or in our experience of toxicity. Consider reducing concentrations if nausea occurs.

*****Prasad et al. 2009.

**** There is no evidence in the literature for weaning or reduction of NRT strengths.

(Aboriginal and Torres Strait Islander Health. B. & J. Bittoun)
Nicotine in adolescents

• There is an increased susceptibility of adolescent brains to harms caused by early nicotine exposure – including greater risk of long-term nicotine addiction.

• ‘Never smokers’ who vape have three times the risk of smoking in future compared with those who never vape

• No evidence that Australian adolescents would have become smokers!

Key points

• Nicotine addiction can begin with the first cigarette/vape.

• The most susceptible youths lose autonomy over tobacco/vaping within a day or 2 of first inhaling nicotine.

• The appearance of tobacco/vaping withdrawal symptoms and failed attempts at cessation can precede daily smoking/vaping

• It develops faster in girls.

• It is well underway prior to daily smoking/vaping.
A little about susceptibility

GENETICS

• High heritability to responding to nicotine in the brain
• High heritability to metabolising (breaking down) nicotine in the liver
• Fast metabolisers need more nicotine

Australian adolescent vaping

Adolescents (12-17 years of age)

• In Australia, around 14% of 12 to 17-year-olds have ever tried an e-cigarette, with around 32% of these students having used one in the past month.
• Students who had vaped most commonly reported getting the last e-cigarette they had used from friends (63%), siblings (8%) or parents (7%). Around 12% of students reported buying an e-cigarette themselves.
• Reports of lining up at school toilets to vape.
The dramatic increase in e-cigarette use among U.S. youth in 2018 was immediately preceded by the introduction of flavoured forms of these high-nicotine-content products to the e-cigarette product market.

Nicotine & the developing brain

Ages 12 - 25

Nicotine-exposed youths tend to have several mental health problems throughout their lives including:

- Poor academic performance: significant behavioral disruptions, including ADHD, aggressive behaviors, and future substance abuse.
- Higher risk of suicide and suicide ideation.
**ANALYSING THE NICOTINE IN VAPES**

Vapes volunteered for analysis to the TATU team by adolescents from years 7 to 10 - Redfern NSW

Samples analysis date: May 26, 2021

<table>
<thead>
<tr>
<th>Brand &amp; Flavour</th>
<th>Mg of nicotine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iget XXL Energy Drink</td>
<td>49.50</td>
</tr>
<tr>
<td>Iget Mixed Fruit</td>
<td>46.00</td>
</tr>
<tr>
<td>Iget BlueRazz</td>
<td>61.60</td>
</tr>
<tr>
<td>HQD Curvie Tangerine Ice</td>
<td>8.90</td>
</tr>
<tr>
<td>Iget Pineapple Ice</td>
<td>39.60</td>
</tr>
<tr>
<td>Iget Grape</td>
<td>52.30</td>
</tr>
<tr>
<td>HQD Curvie +Apple Peach</td>
<td>96.90</td>
</tr>
<tr>
<td>Iget Cola Ice</td>
<td>8.30</td>
</tr>
<tr>
<td>Iget Grape</td>
<td>57.20</td>
</tr>
<tr>
<td>Iget Grape</td>
<td>40.20</td>
</tr>
</tbody>
</table>

Analysed by the NSW Forensic & Analytical Science Service, Lidcombe NSW 1825
How does it affect adolescents?

Initially start doing it “For fun”- influencers, peers
- “Head-spin” or “Buzz”

Get a positive effect - or not
- “Like doing it” “Like a pacifier” “Calms you down”
- “Stress release”
- Weight control
- Become dependent very quickly
- Faithful to flavours
- Doing it daily → at home alone → as soon as they wake up

Signs of nicotine addiction

SIGNS OF WITHDRAWALS BETWEEN PUFFS
- Irritable
- Angry
- Headaches
- Poor concentration in class

SIGNS OF ADDICTION
- Wake up and do it within ½ hour
- Hide vapes close by - in bed/in pocket
- Strong cravings and urges to use
- Increase quantity and frequency
- Inability to restrain or quit
Negative physical effects
(NicSic) too much nicotine)

- Feel sick
- Throwing up
- Coughing
- Chest pains
- Asthma and phlegm

Other documented long-term health effects in adolescents exposed to nicotine:
- Impaired function of the endocrine, reproductive, respiratory, cardiovascular, and neurologic systems.

What can be done in the community?

- Education and workshops about vaping-debunking myths
- Discuss and describe addiction to nicotine and long-term consumption
- Vape detectors in school and other public toilets as deterrents
- Non-vaper rights
- Do people and youth have the confidence to discuss and describe passive vaping as they once did about passive smoking?
Adolescent Vaping

• Rising costs → “chroming” or cigarette use
• Effects on adolescent development, particularly brain

Treatments for Adolescents to Quit Vaping
Take a patient/client/consumer history

Appendix 2

Hooked On Nicotine Checklist (HONC)
(Adapted to be an adolescent vaping questionnaire by Renee Bittoun)

Name: Date:
DOB: Gender: Age:

- How long have you been vaping?
- Do you vape every day?
- What do you vape?
- Do you have a preferred flavour?
- Do you vape and smoke tobacco as well?
- How soon after you wake up do you vape?

HONC questions adapted for vaping for adolescents:

Nicotine dependence if “Yes” to any of the questions below:

Have you ever tried to quit vaping, but couldn’t?
Do you vape now because it is really hard to quit?
Have you ever felt like you were addicted to vaping?
Do you ever have strong cravings to vape?
Have you ever felt like you really needed to vape?
Is it hard to keep from vaping in places where you are not supposed to?

When you haven’t vaped for a while do you...

- Find it hard to concentrate?
- Feel more irritable?
- Feel a strong need or urge to vape?
- Feel nervous, restless or anxious?

Valid Behavioural Interventions
Appendix 6: Behavioural Strategies for Vapers (compiled by R. Bittoun)

Managing acute urges:

- **NRT**: Offer and encourage in any, and all, forms and in combinations that are available. Enquire about prior use, debunk myths about overdose, advise proper use. Use oral nicotine prior to smoking/vaping.
- **Exercise**: Short, intense 1-minute indoor exercise (if possible), such as up and down a staircase, push ups, wall presses, on the spot run etc. (This mimics a nicotine hit).
- **Glucose tablets/jelly beans**: (due to acute hypoglycaemia-especially after a meal).
- **Diversional activities**: Example - progressive muscle relaxation.
- **Caffeine reduction**: Reduce to half all types of caffeinated drinks (caffeine toxicity, due to reduced PAHs mimics nicotine withdrawals) but do not eliminate (caffeine withdrawals mimics nicotine withdrawals).
- **Alcohol reduction**: Reduce or eliminate alcohol altogether for the time being (it stimulates an urge to vape)
- **Quitline**: 13 78 48
- **Smartphone apps**

Strategies for the longer term:

**Smoke free/vape free home**:
- Make your home vape free (even if you are a vaper).
- Put up NO SMOKING/VAPING HERE signs in your house.
- If you live with a smoker/vaper? Avoid the smoke/vape as much as possible (contains nicotine)

**Reasons**:
- Remind yourself of the reasons why you want to stop.

**Visualisation**:
- Learn temptation skills- called “temptation therapy”.
- Practice scenarios where you may have smoked and picture yourself saying “No”.

**Other ideas**:
- Do you buddy up with someone? Maybe... It can go either way.
- Can your friend or partner who doesn’t smoke/vape help? If they nag it’s not a good idea (counterproductive), if they are supportive but not “on your case” all the time, called “invisible support” — that’s good!
- Fast acting NRTs can be “rescue medication”. Get a script sent to you or your pharmacist.
Nicotine Addiction & Smoking Cessation
Post-graduate Microcredential Course

Lecturer - Professor Renee Bittoun

Enquire now for 2022
0405 445 151
References


References cont...


Morphett, K., Doug Fraser,1Ron Borland, Wayne Hall, Natalie Walker, Chris Bullen, Coral Gartner (2021) A pragmatic randomised comparative trial of e-cigarettes and other nicotine products for quitting or long-term substitution in smokers. Nicotine and Tobacco Research https://doi.org/10.1093/ntt/nrtab266


References cont...


Useful resources


Useful resources cont...


- Have GPs been supported for vaping to go prescription-only from October? [https://www1.racgp.org.au/newsgp/clinical/have-gps-been-supported-for-vaping-to-go-prescript](https://www1.racgp.org.au/newsgp/clinical/have-gps-been-supported-for-vaping-to-go-prescript)

Any questions...