Australian Indigenous HealthInfoNet
Alcohol and Other Drugs Knowledge Centre

Smoking among disadvantaged and vulnerable groups

Presenter
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Core funding is provided by the Australian Government Department of Health

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Acknowledgement of Country

We would like to acknowledge the Traditional Owners
of the land we are standing on today,
the Whadjuk people of the Nyoongar nation,
and pay our respects to Elders past, present and future.

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The Difference is Research

Smoking among disadvantaged and vulnerable groups

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UNSW SYDNEY | Australia's Global University

Declaration of interests

- None to declare

Smoking tobacco

- Health risks are predominantly from tobacco smoke rather than nicotine
- Nicotine replacement is a harm reduction approach
- Smokers should be encouraged to stop smoking completely
    - Smoking just 1-2 cigarettes per day associated with cardiovascular risks

Disease burden - Australia

- 3 million aged 14 or over smoke
- No change in smoking rates between 2013-2016
- Social inequalities
  - Socially disadvantaged and low income groups are not quitting at the same rate as other Australians
- ~$31 billion social costs annually
- Pack (20) = ~AUS$(30)

Source(s): Australian Institute of Health and Welfare, Australia's health 2018
National Drug Strategy Household Survey (NDSHS) 2017

Smoking and disadvantage

- NDSHS data found no significant change (2013 to 2016) in Australian smoking rates despite multiple and prolonged tax increases
- Disadvantaged population groups:
  - disproportionately higher smoking rate
  - suffer more from tobacco related diseases
  - discontinue cessation treatments earlier &
  - face additional challenges in quitting

Source(s): National Drug Strategy Household Survey (NDSHS) 2017

Barriers to quitting

- Nicotine addiction / higher dependence
- Smokers in their social circles
- Multiple stressors
- Retail density / access to cigarettes
- Non-adherence to smoking cessation medications
- Financial stress (FS):
  - Smokers with high FS are less likely to quit
  - Ex-smokers with high FS are more likely to relapse
  - Interventions targeting FS may increase cessation

Source(s): Kotz et al. 2009 *Tob Control*
ANPHA Evidence Brief 2013
Siahpush et al. 2003 *Tob Control;* Siahpush et al. 2006 & 2009 *Addiction;* Siahpush et al. 2007 *Am J Public Health*

Aboriginal specific barriers to quitting

- Personal, social, cultural and environmental factors:
  - Stress (multiple life stressors)
  - Grief (smoking-related bereavement)
  - Limited knowledge about quitting
  - Lack of culturally relevant quitting resources
  - Social pressure to smoke
  - Social exclusion when quitting
  - Lack of role models

Source(s): Dawson et al. 2012 Int J Equity Health
Dawson et al. 2012 BMC Health Serv Res
DiGiacomo et al. 2007 Aust NZ J Public Health
Fletcher et al. 2011 Health Policy

Current treatments & services

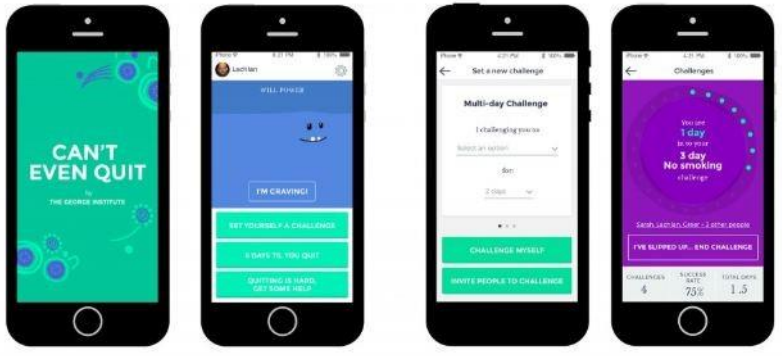
- Quitline use is low among smokers:
  - ~2% of US
  - ~3% Australian
- Australian prescriptions for quitting – 2017/18
  - ~ 301k varenicline (Champix) ($30.3 mill)
  - ~ 207k Nicotine patch ($8.5 mill)
  - ~ 21k bupropion (Zyban) ($1.8 mill)

Source(s): North American Quitline Consortium 2010
Clare et al. 2015 *Nicotine Tob Res*
Pharmaceutical Benefits Scheme (2018)

Aboriginal specific resources and services

Deadly Choices (online resource)

https://deadlychoices.com.au/programs/quit-now/



Can’t even quit (mobile phone app)

https://aodknowledgecentre.ecu.edu.au/key-resources/programs-and-projects/3856/?title=Can%27t%20Even%20Quit

Cessation interventions targeting disadvantaged groups

- Limited number of Australian smoking cessation RCTs
- Overall methodological quality of studies is low

Journal & year	Population	N	Results
Preventive Med 2018	Social services	431	No effect
Nicotine Tob Res 2014	Psychotic disorder	205	No effect
BMC Public Health 2014	Indigenous	163	No effect
Addiction 2013	Prisoners	425	No effect
Med J Aust 2012	Indigenous	263	No effect
Am J Psychiatry 2006	Psychotic disorder	298	No effect

Source(s): Bonevski et al. 2018 Preventive Medicine
Courtney et al. 2015 Int J Environ Res Public Health
Bryant et al. 2011 Addiction
Michie et al. 2009 J Epidemiol Community Health

Addiction

TRIAL PROTOCOL

doi:10.1111/add.12669

A randomized clinical trial of a financial education intervention with nicotine replacement therapy (NRT) for low socio-economic status Australian smokers: a study protocol

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FISCALS - 'Supporting Smokers to Quit Study'

Aim: To test the efficacy of a financial education and support program with free nicotine replacement therapy (NRT) at reducing financial stress and increasing smoking cessation rates among socioeconomically disadvantaged smokers.

Participants: 18+, smoked 10+/day, Centrelink recipient (proxy for low-income)

FISCALS - demographics

Demographics	
Age (mean years)	46
Female	53%
Indigenous	7%
Primary only or some high school education	43%
Separated/divorced	30%
Children in household (<18 years)	36%
Smoking entrenched in social circles	
Partner or spouse smoker	57%
>1 adult smoking in household (not including partner/ spouse)	58%
Most or all of closest friends smoke	41%

FISCALS - demographics cont.

	n = 1047
Lack of financial freedom	
Expenditure on tobacco ($ per week)	$90
Unemployed/ not working	85%
Personal Income (<$579 before tax per week)	79%
Government pension or allowance received	
Newstart allowance	28%
Disability pension	36%
Carer payment or allowance	8%
Other	31%
≥ 1 person in household on pension/ allowance (excluding participant)	73%

FISCALS - Results

Financial stress	n = 1047	Mean score
In the last month because of a lack of money:		0 = Not at all, 10 = Extremely stressed
Asked for financial help from friends or family	53%	8.1
Could not pay bills	41%	8.4
Asked for help from a welfare/ community organisation	33%	7.9
Went without meals	29%	6.9
Could not pay the mortgage/ rent	16%	8.8
Pawned/sold something	28%	7.7
Unable to heat the home	14%	7.1
Spent money on cigarettes and went without household essentials e.g. food in the last month	43%	-

FISCALS - Results cont.

- Randomised 1047 participants
  - 32% Quitline, 23% Centrelink, 31% advertisements & 13% word of mouth
- 84% retention rate at 8-month follow-up
- Quit rate by treatment arm:

Outcome	Prevalence (%)		ITT analyses (n=1047)		Per-protocol analyses (n=771)	
	Control	Intervention	Odds ratio (95% CI)	*p*-value	Odds ratio (95% CI)	*p*-value
Verified prolonged cessation	5.0%	5.9%	0.84 (0.44, 1.59)	*p*=0.588	0.79 (0.37, 1.67)	*p*=0.529

Boland *et al. International Journal for Equity in Health* (2017) 16:196
DOI 10.1186/s12939-017-0689-5

International Journal for Equity in Health

RESEARCH Open Access

"I'm not strong enough; I'm not good enough. I can't do this, I'm failing": a qualitative study of low-socioeconomic status smokers' experiences with accessing cessation support and the role for alternative technology-based support

Veronica C. Boland[1*], Richard P. Mattick[1], Hayden McRobbie[2], Mohammad Siahpush[3] and Ryan J. Courtney[1]

FISCALS - Qualitative Study

Aim:

To explore low-SES smokers' recent quitting experiences, assess the factors that impact treatment engagement, and examine the acceptability of alternative smoking cessation support

FISCALS - Qualitative design

Method:

- 5 ex-smokers and 19 smokers participated in a focus group or individual interview
- Thematic analysis was conducted
- Analysis was deductive from the interview guide and supplemented inductively
- Patterns were observed in the data and codes grouped into themes

Feedback from FISCALS smokers

Smoker related stigma

Guilt and shame

Identity was a motivator that promoted or undermined quitting:

Positive smoker identity

Ex-smoker identity

Motivational influences & quitting strategies differed by:

Positive smoker identity

Ex-smoker identity

Feedback from low-SES smokers cont.

- Need for alternative to Quitline support
- Receptive to mobile phone-based platforms
- E-cigarettes:
  - perceived ‘unsafe’ due to their legality;
  - Lack of information about use, safety and efficacy;
  - Would ‘try’ if offered

"Actually too, there's the whole other thing of it being a part of your identity for so long. This is your… this is just part of your personality or something."
(Female, Smoker)

"I think it's important to emphasise that it would be interactive texting as opposed to just receiving a message." (Female, Smoker)

"I was walking along the footpath with a cigarette talking on my phone and someone at the table screamed out, 'You can't smoke four metres from food being served'."
(Male, Smoker)

"Because if you're calling Quitline then you're accepting defeat of some form. People just don't like doing that stuff." (Male, Ex-smoker)

E-cigarettes for smoking cessation

Nicotine replacement using e-cigarettes

- Provides a clean source of nicotine
- Deliver nicotine swiftly and effectively to reduce nicotine withdrawal symptoms
- Cost significantly less than tobacco
- Appear to be less harmful than smoking tobacco, but:
  - Most vapers are current or former smokers
  - E-cigarettes have not been around long enough to observe association with disease

Current evidence and implications

- 3 RCTs provide limited evidence
- More data is needed
- NHMRC CEO Statement (April 2017):

  "..there is currently insufficient evidence to support claims that e-cigarettes are safe, and further research is needed to enable their long-term safety, quality and efficacy to be assessed."

Source(s): Hajek et al. 2019 *NEJM*
Hartmann-Boyce et al. 2016 *Cochrane Database Syst Rev*

Vaping in Australia

- Devices are legal to purchase except to minors
- Nicotine is a scheduled 7 dangerous poison unless approved for therapeutic use (NRT) or tobacco prepared for smoking (cigarettes)
- Sale and possession of nicotine e-liquid is illegal without a valid prescription:
  - Prepared from a compounding pharmacy
  - TGA Personal Importation Scheme allows 3 months supply at a time with a valid script

Source(s): https://www.tga.gov.au/publication/personal-import-scheme

A randomised clinical trial comparing e-cigarettes to nicotine replacement therapy for smoking cessation among low-SES smokers

Aim and Design

Aim: Assess the effectiveness, safety & cost-effectiveness of e-cigarettes compared to NRT* on 6-months verified abstinence among low-SES Australian smokers

Participants: 1058 (529 in each arm)

Study design: Single-blind randomised clinical trial

Recruitment: Print and online advertising

Data collection:

- Baseline & 7-month follow-up via Contract Research Organisation
- Safety & adherence via 2 calls by NDARC team
- Health economics via data linkage with MBS & PBS

*Nicotine replacement therapy

Eligibility

Inclusion criteria

- Government pension or allowance (proxy low-SES)
- ≥18 years of age
- Current daily smoker
- Want to quit
- Willing to use e-cigarette or NRT*
- Verbal informed consent
- Access to a telephone
- Willing to complete study procedures

Exclusion criteria

- Pregnant or breastfeeding
- Current use of cessation medications
- Participating in another program
- Hospitalised for heart related conditions (stroke/heart attack) in last 2-weeks

Study arms

- Intervention arm:
  - 2 devices plus 8 weeks supply of nicotine e-liquid (tobacco/menthol/strawberry/mixed)
  - Behavioural quit support
- Control arm:
  - 8 weeks supply of 4mg NRT* (gum or lozenge)
  - Behavioural quit support
- Medication delivery:
  - Medication provided and mailed for free
  - Express registered post (next day delivery)

*Nicotine replacement therapy

Outcomes and implications

- Outcomes of interest:
  - Assess differences in adverse (AE) and serious adverse events (SAE) by treatment group
  - Assess differences in 6-month verified abstinence by treatment group (CO confirmed; ≤9 ppm)
- Implications:
  - Provide evidence for the role of e-cigarettes on cessation
  - Provide cost-effectiveness of e-cigarettes compared to NRT*
  - Safety of e-cigarette use compared to NRT*

Significance

- Contribute to a regulatory framework that is based on evidenced-based research
- May lead to the adoption of e-cigarettes as a cessation aid in disadvantaged populations who smoke at higher rates & encounter barriers when quitting

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- NHMRC Project Grant funding
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Tobacco

Tobacco (cigarette) smoking among Aboriginal and Torres Strait Islander people has led to many negative outcomes in terms of health and wellbeing. Smoking is now common in many Aboriginal and Torres Strait Islander communities, despite it not being a traditional part of Aboriginal or Torres Strait Islander cultures [1].

Tobacco comes from the dried leaves of the tobacco plant. It contains nicotine, a stimulant drug that speeds up messages travelling between the brain and the body. Nicotine is the drug in tobacco that causes addiction [2].

As well as nicotine, there are more than 7000 chemicals in tobacco, and at least 250 are known to be harmful [3]. Of these 250 harmful chemicals, at least 60 can cause cancer. These chemicals are the reason why people get sick and experience long term harms from smoking.

Smoking can contribute to a number of short and long term harms. Short terms harms include: increased heart beat; reduced appetite; stomach cramps and nausea; and loss of taste and smell. In the long term smoking causes cancer and lung disease [2].

Tobacco and Aboriginal and Torres Strait Islander people

A large number of Aboriginal and Torres Strait Islander people smoke [4][1]. In recent years, almost half of the population above the age of 15 and over were current daily smokers. Recent tobacco control efforts have seen a substantial drop in the number of Aboriginal and Torres Strait Islander people smoking, but tobacco is still the major cause of ill-health and disease for Aboriginal and Torres Strait Islander people. The number of Aboriginal and Torres Strait Islander people smoking in rural and remote areas is also a concern, as tobacco control efforts do not seem to be as effective in these areas.

There are a number of reasons why smoking is so high in Aboriginal and Torres Strait Islander communities, including: higher levels of stress; because it's considered 'normal' in some communities (like flour and sugar, tobacco was given out as part of rations for labour); because of grief over past injustices; and because of social disadvantage such as poor housing or unemployment [5][6][1] .

Prevalence
Prevention and education
Regulation and control
Treatment and support

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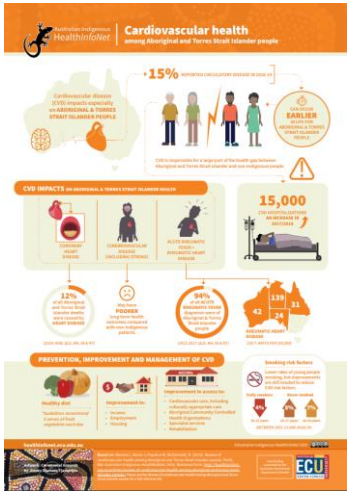
Review of cardiovascular health among Aboriginal and Torres Strait Islander people, available now



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Thank you!

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