HPA/MoH
Tobacco Control Webinar
June 8 2016

Richard Edwards on behalf of ASPIRE 2025
Who are we?

Co-Directors:
- Richard Edwards (UOW, Public Health), Janet Hoek (UO, Marketing)

Team Members
- Richard Jaine, George Thomson, Anaru Waa, Nick Wilson (UOW, Public Health)
- Brent Caldwell, Julian Crane (UOW, Medicine)
- Phil Gendall (UO, Marketing)
- Louise Marsh, Rob McGee (UO, Preventive and Social Medicine)
- Chris Cunningham (Massey University, Te Pumanawa Hauora Māori Research Centre)
- Stephanie Erick (ASH New Zealand)
- Heather Gifford (Whakauae Research for Māori Health and Development)
- El-Shadan Tautolo (AUT University, Centre for Pacific Health & Development Research)

Postgraduate Students
- Rebecca Gray (PhD, UOW Public Health /UO Marketing)
- Jude Ball (PhD, UoW, Public Health)
- Jessica Robertson (MCom Marketing, UO)
- Lindsay Robertson (PhD, UO Preventive and Social Medicine/Marketing)
Overview

**Trends and monitoring**
- Prevalence trends study
- Smokefree 2025 and politicians

**Legislation/Regulation/Policy**
- Turanga project on radical options
- Retail/supply interventions
- PoS evaluation
- ITC project

**Health Promotion/Public and Smoker Views and Behaviours**
- RYO work

**Cessation**
- Nicotine inhaler RCT
Māori Adult (age 15+)
Daily Smokers (%) 2006 - 2014

Ball et al. NZMJ (in press)
Smoking by age group and NZ Dep in 2006 and 2013 census
Smoking prevalence in young adults, 2006 and 2013 NZ Census

<table>
<thead>
<tr>
<th>Age</th>
<th>Smoking Prevalence 2006</th>
<th>Smoking Prevalence 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 Years</td>
<td>8.7%</td>
<td>3.2%</td>
</tr>
<tr>
<td>16 Years</td>
<td>14.4%</td>
<td>6.4%</td>
</tr>
<tr>
<td>17 Years</td>
<td>19.4%</td>
<td>10.0%</td>
</tr>
<tr>
<td>18 Years</td>
<td>24.8%</td>
<td>14.6%</td>
</tr>
<tr>
<td>19 Years</td>
<td>27.7%</td>
<td>17.5%</td>
</tr>
<tr>
<td>20 Years</td>
<td>29.2%</td>
<td>19.3%</td>
</tr>
<tr>
<td>21 Years</td>
<td>29.9%</td>
<td>20.8%</td>
</tr>
<tr>
<td>22 Years</td>
<td>29.5%</td>
<td>21.8%</td>
</tr>
<tr>
<td>23 Years</td>
<td>30.1%</td>
<td>22.5%</td>
</tr>
<tr>
<td>24 Years</td>
<td>30.4%</td>
<td>22.5%</td>
</tr>
</tbody>
</table>
Politicians and the 2025 smoke-free goal

~30,750 Releases and Speeches

Ben Healey, Richard Edwards, Janet Hoek, George Thompson
References to SF2025 by NZ politicians

Tobacco references per week
Goal references per week
Lukewarm support: politicians (not) talking about SF 2025

<table>
<thead>
<tr>
<th>Name</th>
<th>Period</th>
<th>SF2025 Goal</th>
<th>Tobacco</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tariana Turia</td>
<td>4/10-9/14</td>
<td>51</td>
<td>67</td>
</tr>
<tr>
<td>Sam Lotu-iiga</td>
<td>9/14-3/16</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Te Ururoa Flavell</td>
<td>4/10-3/16</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>Jo Goodhew</td>
<td>4/10-9/14</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Hone Harewira</td>
<td>4/10-9/14</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Marama Fox</td>
<td>9/14-3/16</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Peter Dunne</td>
<td>4/10-3/16</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Ian Lees Galloway</td>
<td>4/10-3/16</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Tony Ryall</td>
<td>4/10-9/14</td>
<td>2</td>
<td>49</td>
</tr>
<tr>
<td>Jonathan Coleman</td>
<td>9/14-3/16</td>
<td>0</td>
<td>19</td>
</tr>
</tbody>
</table>
Overview

Trends and monitoring
• Prevalence trends study
• Smokefree 2025 and politicians

Legislation/Regulation/Policy
• Turanga project on radical options
• Retail/supply interventions
• PoS evaluation
• ITC project

Health Promotion/Public and Smoker Views and Behaviours
• RYO work

Cessation
• Nicotine inhaler RCT
Future Directions to Achieve Smokefree 2025?
Stakeholder perceptions of the smokefree 2025 goal and selected ‘game-changer’ policies for achieving it.

• Funded by Tobacco Control Turanga.
• 19 Key informant interviews, Aug-Nov 2015.
• Appraisal of five radical options:
  • Dramatic tax increases (e.g. 40%)
  • Substantial reduction of availability/supply through comprehensive retail restrictions (e.g. to 600 outlets)
  • Denicotinisation of tobacco products
  • Regulation of additives to tobacco products
  • Tobacco-free generation
Overarching themes

- Lack of political will seen as a key barrier to any option being introduced.
- Māori expressed a sense that the spirit of the MASC report is not being carried through.

“We had faith that they would adhere to the recommendations that were suggested by the MASC report...We haven’t seen that happen, even the plain packaging of course, and many recommendations there. So no...[the Government has] no commitment.” (Māori key informant)
Overarching themes

• Participants expressed frustration at lack of bold action.

“I think the Ministry and the Government have been totally remiss in applying any innovative thinking or boldness at all. I think it’s just been more of the same... Reframing [cessation] services – you know, it’s marginal, marginal impacts. They need to be thinking about bold interventions.” (Policy key informant)
Appraisal of Options

• None of the options was universally supported by all key informants.
• Dramatic tax increases perceived to be most politically feasible and effective.
• Increased investment in cessation support and services to mitigate adverse effects on low income families (e.g. child abuse and neglect, food insecurity) seen as essential alongside tax increases.
<table>
<thead>
<tr>
<th>Policy Area</th>
<th>Perceived Effectiveness</th>
<th>Perceived Adverse Effects</th>
<th>Perceived Impact on Equity</th>
<th>Perceived Political Feasibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dramatic tax increases</td>
<td>High</td>
<td>Moderate/high</td>
<td>Positive</td>
<td>Moderate</td>
</tr>
<tr>
<td>Retail/supply restrictions</td>
<td>Mixed</td>
<td>Low/uncertain</td>
<td>Positive</td>
<td>Low</td>
</tr>
<tr>
<td>Denicotinisation</td>
<td>Mixed</td>
<td>High</td>
<td>Neutral</td>
<td>Low/uncertain</td>
</tr>
<tr>
<td>Regulation of additives</td>
<td>Mixed</td>
<td>Low</td>
<td>Neutral</td>
<td>Moderate/uncertain</td>
</tr>
<tr>
<td>Tobacco-free generation</td>
<td>Moderate</td>
<td>Low</td>
<td>Negative</td>
<td>Low/uncertain</td>
</tr>
</tbody>
</table>
Retail supply research

Louise Marsh and Lindsay Robertson
How many tobacco retailers are there in NZ?

5008 tobacco outlets identified

- 1 outlet per 617 adults
- 1 outlet per 129 smokers
- 32% of outlets licensed to sell alcohol
Greater access to tobacco in low SES areas

[Graph showing the relationship between the retailer meshblock NZDep2006 Index and the number of tobacco retailers and smoking rates.

- **Tobacco retailer (licensed to sell alcohol)**
- **Tobacco retailers (not licensed to sell alcohol)**
- **Smoking rate**

Retailer meshblock NZDep2006 Index (1=least deprived; 10=most deprived)
Access to tobacco around NZ high schools

- 46% of secondary schools have 1 or more outlets within 500m walk
- 76% of secondary schools have 1 or more outlets within 1000m walk
- 13% of tobacco retailers located within 500m of a high school
- 53% of tobacco retailers located within 1km of a high school

Marsh et al. (2013)
NZ students at high schools with larger number of tobacco outlets within 1km (vs no outlets) have:

- **Greater odds** of susceptibility to future smoking
- **Greater odds** of having tried to buy tobacco from a shop in past 30 days

Though:

- **Lower odds** of being a current smoker (possibly due to CPOs near schools)
- And no association with successful tobacco purchase nor experimental smoking

Marsh et al. Tobacco Control 2015
How is tobacco retail regulated overseas?

Licensing of tobacco retailers:

- Scotland
- Ireland
- Canada
- New York states
- Fiji
- Australia
- Hungary
- Singapore
- Finland
- Several states in New York and California
- Cook Islands........... etc!

Robertson et al. NZMJ 1 April 2016, Vol 129 No 1432
Example 1: Hungary

- Tobacco sales only at government-licensed outlets
- Reduction in density of around 83% of tobacco outlets, from 42,000 to 7,000.
- Maximum 1 licence per 2,000 residents

Robertson et al. NZMJ 1 April 2016, Vol 129 No 1432
Example 2: Huntington Park (California)

No new tobacco retailer licences issued:

- In residential zones
- Within 500 feet of youth-populated area (e.g. schools, parks, libraries, arcades, childcare centres)
- Within 200 feet of existing tobacco retailer
- Maximum 1 licence per 1,000 residents

Robertson et al. NZMJ 1 April 2016, Vol 129 No 1432
Qualitative work with retailers:

- Some support for restricting availability and retailer licensing
- Support strongest for sales restrictions around schools
- Policies need to be equitable across retail outlets

Restricting tobacco sales around schools

“Yeah I’d be happy with that... ‘cos I think the government should be focusing on new smokers, not existing. That would be a good idea.”
IMPACT OF THE REMOVAL OF POINT OF SALE TOBACCO DISPLAYS

Richard Edwards, Ben Healey, Ali Ajmal, Janet Hoek

- Data from ASH Year 10 surveys 2007 + 2011-2014
### Before-after measures of PoS display ban impact

<table>
<thead>
<tr>
<th>Measure</th>
<th>Baseline (2011/2012) %</th>
<th>Follow-up (2013/2014) %</th>
<th>Adj OR / difference in proportions (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental smoker</td>
<td>23</td>
<td>17</td>
<td>0.73 (0.69 – 0.78)</td>
</tr>
<tr>
<td>Current smoker</td>
<td>9</td>
<td>7</td>
<td>0.71 (0.64 – 0.79)</td>
</tr>
<tr>
<td>Uptake in last year</td>
<td>13</td>
<td>11</td>
<td>0.91 (0.84 – 0.98)</td>
</tr>
<tr>
<td>Estimated 0-19% of peers smoke</td>
<td>17</td>
<td>21</td>
<td>1.30 (1.21 - 1.40)</td>
</tr>
<tr>
<td>Mean estimate of peer prevalence</td>
<td>43.7</td>
<td>40.6</td>
<td>3.0 (1.0-4.5)</td>
</tr>
<tr>
<td>Bought from shop = usual source of cigarettes (smokers)</td>
<td>18</td>
<td>11</td>
<td>0.74 (0.57-0.97)</td>
</tr>
<tr>
<td>Tried to buy from shop in last 30 days (smokers)</td>
<td>36</td>
<td>26</td>
<td>0.77 (0.63 – 0.91)</td>
</tr>
</tbody>
</table>

* Adjusted for age, sex, ethnicity, school decile, friend and parent smoking status, smoking in home

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Edwards et al. Tobacco Control (in press)
Association (aORs) between store visit frequency and current smoking

Reference = < weekly store visits
Association (aORs) between store visit frequency and experimental smoking

Reference = < weekly store visits
New Zealand ITC

- ITC = international collaboration following cohorts of smokers in 20+ countries
- Four core country cohorts (US, Canada, UK, Australia)
- Previous ITC waves in NZ 2007 and 2009
- ITC 2015-2018
  - Data collection in two waves 2016 and 2017
  - Sample recruited from NZHS participants (linkage possible)
  - Approx 1300 smokers (600 Māori, 120 Pacific) and 200 recent ex-smokers
  - Evaluate impact of policy measures and monitor evolution of smoking-related attitudes and behaviours
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Young Adult Smokers’ RYO Use and Rituals

Janet Hoek, Shelagh Ferguson and Erin Court

ASPIRE2025, University of Otago, New Zealand
Background

RYO tobacco has negative connotations
• “[an] old, poor, grumpy bloke in a pub” (p. iii77) (Young et al., 2006)
• “socially dysfunctional individuals such as tramps and prisoners” (p. 772) (Fry, Grogan, Gough, & Conner, 2008)

Yet RYO use is high in NZ as it remains more cost-effective

We explored the tension between cost-effectiveness and social identity among young adult RYO users

In-depth interviews with 20 RYO users
• Data analysed using a thematic analysis approach
Findings:

Establishing the superiority of RYO

- Participants asserted RYO’s superior cost-effectiveness, which they linked to improved control
  
  *I buy … the super slim … ah, green filters … which are like the smallest ones you can get. Um, so cigarettes are, like, much thinner in comparison, so you’re kind’ve smoking less tobacco and the tobacco goes a longer way* (Aimee, F, 19).

- Many noted improved taste, which they linked to reduced harm
  
  *They [TM cigarettes] have more chemicals and all that; they’re not so good for your health, like a little bit worse … than rollies* (Oona, F, 22).

- RYO facilitated interactions through sharing
  
  *I found that, I guess, as more of my smoking culture developed,.. you could …, connect and interact with people over like papers and filters or something like that, you know, ‘do you have a paper I can borrow?’ ‘Yeah, sure’ and that’s like almost an opening* (Meg, F, 23).
Ritual creation and performance

• RYO enabled users to showcase performances that generated social capital

Well, it’s just kind of a ritualistic thing where you actually have to put it together yourself as opposed to like a convenience item. Yeah, it feels more valuable because of that (Charlie, M, 25).

• RYO required purposeful precursor behaviours that made an RYO cigarette more meaningful than a TM cigarette:

There’s something nice and relaxing about rolling your own as opposed to just pulling one out of the packet, like it’s a ... the sort’ve process of it is quite enjoyable (Sam, M, 25).
Conclusions

RYO tobacco has mixed connotations:
- Less expensive
- **BUT** unwanted stereotypes

Elevating RYO practices into rituals adds value that offsets unfortunate stereotypes

Policy Implications
- Disrupt rituals by changing artefacts and linking these to unpleasant connotations
- Respond to widely held misperceptions of reduced harm by removing RYO from sale
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Nicotine inhaler

- Standard MDI technology
- Filled on contract in Auckland
- Nicotine lactate; anhydrous ethanol; menthol; HFA 134a.
- 100 and 200µg nicotine lactate/puff
- Subjects recruited via advertisement, registered online
- Smokers ≥ 9 cigarettes/day; FTND ≥ 3;
  - Exclusion: asthmatics using ICS
- 502 subjects randomised
  - Nicotine MDI + nicotine patch
  - vs Placebo MDI + nicotine patch
  - Followed for 6 months

Caldwell B, Crane J. NTR advanced access May 16 2016
<table>
<thead>
<tr>
<th>Table 2: Abstinence outcomes†</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>Not smoked on 7 consecutive days*</td>
</tr>
<tr>
<td>1 month</td>
</tr>
<tr>
<td>1 month biochemically verified</td>
</tr>
<tr>
<td>3 month</td>
</tr>
<tr>
<td>6 month</td>
</tr>
<tr>
<td>Prolonged 6 month</td>
</tr>
<tr>
<td>Prolonged 6 month biochemically verified (at 1 month)</td>
</tr>
</tbody>
</table>
Nicotine inhaler
Well tolerated

Coughing
  Common initially
  Resolved quickly

How to make inhaler widely available?

  No intellectual property

  1. Cheap (NZ$4-5/MDI 200 puffs)
  2. Needs some further development (stability)
  3. Needs Medsafe registration
Conclusion

Rapid delivery of nicotine via MDI is more effective
Inhaler has advantages over electronic cigarettes
1. Less appealing to youth
2. Tamper proof
3. No modelling of smoking behaviour
4. No heating so no creation of toxic substances
5. No refilling
6. No battery

Investment required to make inhaler available (Medsafe registration)
Nicotine by MDI more appropriate for cessation than e-cigarette
Other and future areas of work

- Plain packaging
- Smokefree messaging
- Dissuasive sticks
- Alcohol and smoking
- Smokefree movies
- BAT Agree-disagree campaign analysis
- Occupational smoking prevalence (census)
- Better help to quit target evaluation
- Investigation of hardening hypothesis
- Decline in adolescent (Year 10) smoking
- Informed choice project
- Smokefree cars and smokefree outdoors
- New Smokefree Act?
- E-cig work (e.g. FASE feasibility study)
- Indigenous NZ ITC cohort
- Denormalisation/impact of SF2025 on smokers

- Linkage with BODE³ – modelling impact of interventions, projections of smoking prevalence

- Seminar programme/international visitors/Summer School
Kia ora, thank you

Questions??

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www.aspire2025.org.nz