

Requested and supplementary material for the Māori Affairs Select Committee from the University of Otago, Wellington

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George Thomson*, Nick Wilson, Richard Edwards, Tony Blakely, Anaru Waa

*For Correspondence: Email: george.thomson@otago.ac.nz

Introduction

At our presentations to the Committee on May 19th, we received requests for further material from Committee members, and questions which suggested to us that additional information may be helpful.

The specific requests were for:

Request 1) Data on the wishes by New Zealand smokers to give up smoking, and regret for starting (from Mr Henare)

A) Wish to give up smoking and quitting behaviour

Our survey work (from over 1300 New Zealand smokers) on this issue has been presented at an international conference, and is attached:

(Bullen C, Wilson N, Edwards R, Weerasekera D, Gifford H. Quitting Intentions and Behaviour of Smokers by Ethnicity, Deprivation and Financial Stress. [POS3-54]. Joint Conference of SRNT and SRNT-Europe, Dublin, Ireland; 27-30 April 2009.) It is available at:
http://www.wnmeds.ac.nz/academic/dph/research/HIRP/Tobacco/posters/Bullen%20et%20al%20Quitting_Intentions%20-%20Final.pdf)

We found that the intention to quit was over 60% in all ethnic groups (Māori, European, Pacific and Asian). See graph in the presentation (as per the above URL). Also: “Quitting intention did not vary significantly by level of deprivation (63.1% in the least deprived quintile and 69.3% in the most deprived quintile intended to quit in the future).” Data on actual quitting behaviour is detailed in the table below.

Table 1: ITC Project Survey Results (Wave 1) showing results for quitting behaviour (all percentages are weighted and adjusted for complex sample design (Current smokers only)

| Variable | Quit history | | |
|---------------------|---------------------------|---|---|
| | <i>Never Tried</i> (%) | <i>Tried one year ago (≥1 yr.)</i> (%) | <i>Tried within last year (< 1 yr.)</i> (%) |
| <i>All (n=1223)</i> | 41.6 | 21.5 | 36.9 |
| <i>95% C.I.</i> | (37.9 – 45.3) | (18.6 – 24.4) | (33.2 – 40.6) |

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| | <i>Never Tried</i> (%) | <i>Tried one year ago (≥1 yr.)</i> (%) | <i>Tried within last year (< 1 yr.)</i> (%) |
| <i>Gender</i> | | | |
| Male (n=461) | 41.4 | 18.8 | 39.8 |
| Female (n=762) | 41.8 | 24.3 | 33.9 |
| <i>Age Group</i> | | | |
| 18-24 (n=124) | 51.9 | 12.1 | 36.0 |
| 25-34 (n=305) | 33.9 | 15.6 | 50.5 |
| 35-44 (n=316) | 46.3 | 22.1 | 31.6 |
| 45-54 (n=260) | 45.0 | 26.3 | 28.7 |
| 55+ (n=218) | 32.9 | 31.8 | 35.3 |
| <i>Daily/Non daily Smoker</i> | | | |
| Daily smoker (n=1159) | 40.9 | 22.1 | 37.0 |
| Non daily smoker (n=64) | 53.5 | 11.5 | 35.0 |
| <i>NZDep (quintiles)</i> | | | |
| 1&2 (least deprived) (n=105) | 46.0 | 15.4 | 38.6 |
| 3&4 (n=182) | 42.3 | 24.1 | 33.6 |
| 5&6 (n=208) | 39.9 | 19.1 | 41.0 |
| 7&8 (n=276) | 40.6 | 25.0 | 34.4 |
| 9&10 (most deprived) (n=452) | 41.4 | 21.1 | 37.5 |
| <i>Ethnicity</i> | | | |
| European (includes Other) (n=554) | 40.8 | 23.3 | 35.9 |
| Maori (n=549) | 46.4 | 20.9 | 32.7 |
| Pacific (n=71) | 34.7 | 9.6 | 55.7 |
| Asian (n=49) | 37.4 | 12.1 | 50.5 |

B) Regret about starting smoking

Our New Zealand survey work has shown high levels of regret by smokers of all groups (see attached):

(Wilson N, Edwards R, Weerasekera D. High levels of smoker regret by ethnicity and socioeconomic status: national survey data. N Z Med J 2009;122(1292):99-100; <http://www.nzma.org.nz/journal/122-1292/3549/>).

We asked for the level of agreement or not with the statement: “If you had to do it over again, you would not have started smoking”.

“The results, weighted to reflect the national population of smokers in New Zealand, showed that most smokers (83.3%; 95%CI = 80.2% to 86.4%) showed regret about starting smoking. There were no significant differences in the level of regret by ethnicity (Europeans 82.8%, Māori 84.7%, Pacific peoples 89.2% and Asian peoples 75.5%). Similarly, there were no significant differences by small area deprivation quintile (range: 81.1% to 85.8%, using NZDep2006).”

This work also noted:

“These results are fairly similar to those reported for youth smokers in New Zealand for a very similar question. The *NZ Tobacco Use Survey* found that 72.3% of youth smokers aged 15-19 years regretted starting smoking (82.2% for Māori and 68.7% for non-Māori).”

Request 2: For volumes of tobacco sold through different areas within the New Zealand retail sector (Mr Lees-Galloway)

Our 2007 report has a range of estimates:

(Thomson G, Edwards R, Hudson S, Hoek J, Gifford H. *Out of sight: Evidence on the tobacco retail environment in New Zealand and overseas (Report for ASH NZ and the Cancer Society)*. University of Otago. Wellington. February 2008. <http://www.wnmeds.ac.nz/academic/dph/research/heppru/research/Out%20of%20sight%2011-07e.doc>)

Of these estimates, the following is the most relevant,

‘The NZTUS survey of 2006 reported that 25% of tobacco products currently smoked came from supermarkets, 23% from service stations, and 43% from dairies/other.(Ministry of Health, 2007)’

The NZTUS 2008 survey reported (age-standardised) that 51% of smokers bought from supermarkets in the last month, 47% from service stations, 67% from dairies, 5% from duty-free, and 8% from pubs/bars, (note that smokers bought from several sources).

(Ministry of Health. *Tobacco Trends 2008: A brief update of tobacco use in New Zealand*. Appendix 1: Online data tables of the 2008 New Zealand Tobacco Use Survey. Wellington: Ministry of Health, <http://www.moh.govt.nz/moh.nsf/indexmh/tobacco-trends-2008-appendix1>, 2009)

Request 3: Quitting at each age group (Mr Henare)

Looking at the 2006 census, the proportion of smokers falls from 29% at 20-24 years to 25% at 30-39 years, 18% by 50-59yrs, and 8% by 65+ years. The ratio of ex to

current smokers suggests that by 40-49 years half of smokers have given up. By 60-64 years, 2/3rds have given up, and by 65+ years over 80% have given up. Selective attrition may affect these estimates, as ex-smokers have better survival, but this will be a major factor only in the older age groups e.g. 65+ years. Therefore, these figures show that most smokers are quitting over their lifetime i.e. cessation services are having a very great impact. The problem is that new smokers continue to join the population of smokers each year, so that the net decline in smoker numbers, and hence prevalence is modest.

If this cessation *wasn't* occurring, then we would expect *overall* prevalence to be close to the 20-24 year old prevalences from previous cohorts (reduced somewhat by selective attrition of smokers) – so it would be something near to 30%, rather than close to 20%.

(Data from: Ponniah S, Bloomfield A. Sociodemographic characteristics of New Zealand adult smokers, ex-smokers, and non-smokers: results from the 2006 Census. *N Z Med J* 2008;121:34-42.)

To explain the progression further, we have attempted to break down the process:

1. Every year about 20,000 people start smoking (nearly all aged between 8-25), and about 16,000 smokers move into the 20-24 age group.
2. Since 1991, quitters plus smoker deaths have been the same, or only slightly more than smoker starters. Part of this because since 2000, tobacco affordability has increased, negating tobacco control efforts.
3. To reduce prevalence, either starters are reduced, or quitters increased.
4. To reduce prevalence quickly, both starters must be reduced, and the % of smokers quitting increased.
5. To maximise quitting requires a change in the smoking context (e.g. mass media campaigns, changes where people can smoke, ending tobacco in 10 years), implementing 'triggers' to quit (e.g. tax increases) and providing appropriate options for smokers to quit.
6. Quitters are made up of those who Quitline help (about 3000/year) plus those helped by other direct government help (GPs etc), plus those helped indirectly by government (information, tax, etc).
7. The two areas of government action that clearly lead to long term quitting, where we have the best hard evidence, are price increase through large tax changes (20% or more), and the Quitline.
8. Of the cessation service options, we have the best evidence for the Quitline (about 3000/quits year with NRT), however other providers such as Auakati Kai Paipa and mainstream services providing NRT (GPs etc) make an important difference.

9. The Quitline service (of support plus NRT) increases a smoker's chance of being quit at 6 months by over three times, compared to all smokers attempts without NRT and Quitline support.
10. More capacity by among cessation providers, in particular Quitline, would help reduce smoking prevalence, if tobacco affordability and marketing did not increase. Capacity includes the media campaigns to get smokers to contact cessation help.

Responses to questions

Besides the specific requests, the questions from Committee members suggested to us that further material may be of help to the Committee.

4) Effect of retail displays on smokers

There is substantial evidence from around the world (Paynter & Edwards, 2009), and evidence from New Zealand (Paynter, Edwards, Schluter et al., 2009) (see attached), that point of sale tobacco displays not only encourage uptake among children, but undermine cessation among smokers wishing to quit and who have recently quit.

We have evidence from our research which suggests high support by smokers for a retail tobacco display ban (Edwards, Wilson, Weerasekera et al., 2010) (see attached copy). A key conclusion was:

“The higher support from smokers [for display bans] who had recently quit, had a history of quitting or were planning to quit is consistent with other findings which suggest that smokers who have quit recently or actively wish to quit welcome PoS display bans, as they may make it easier for them to stay quit. The finding of a high level support for PoS bans among smokers provides additional support for regulatory action on this persisting loophole in the tobacco marketing restrictions used in this country.”

Another publication we were involved in (using Health Sponsorship Council data) also showed high public support for similar restrictions. That is, 53.4% agreed that “tobacco companies should not be allowed to promote cigarettes by having different brand names and packaging” and 65.6% of the respondents wanted fewer tobacco retailers (Thomson, Wilson & Edwards, 2010). We have also published other work that suggests that allowing point-of-sale displays represents a form of “policy incoherence” in the New Zealand setting (Wilson, Thomson, Blakely et al., 2010). That is despite New Zealand having major restrictions on marketing and sponsorship: “the important marketing measures of point-of-sale displays, branding and use of positive imagery and wording on the tobacco packaging itself, continues to be permitted.”

The importance of a precautionary approach: Where there is a significant risk to children and others from tobacco marketing, it seems reasonable that the removal of point-of-sale displays and other tobacco marketing should follow a precautionary approach. In such an approach, the onus would be on opponents of interventions such

as the tobacco-free displays and plain packaging of tobacco products, to prove that such actions would not improve health outcomes. In the absence of such proof, a precautionary approach means that a government concerned with protecting children and other citizens should act immediately to require the removal of such displays and all other permitted forms of tobacco marketing (eg, positive imagery and wording on tobacco packaging).

5) Examples of effective cap and trade systems & the relevance for tobacco

We have proposed a “sinking lid” on tobacco sales – with tradable quota. This approach has been used for the control of other hazardous substances elsewhere. The sulphur dioxide cap and trade system in the USA is a prime example and one that has been found to have been effective (Chestnut & Mills, 2005). Indeed, its success has resulted in its extension to cover nitrogen oxides (US Environmental Protection Agency, 2010). The largest multi-country, multi-sector greenhouse gas emission trading system world-wide has also been running in Europe since 2005 (European Commission, 2010). There is evidence it has been successful in reducing emissions despite various limitations during implementation (Grubb, Brewer, Sato et al., 2009). In the resource management area there is evidence that ‘individual transferable quotas’ have improved the management of fisheries (Costello, Gaines & Lynham, 2008).

Furthermore, there is evidence that governments are able to run such annual auctions for quota effectively given the experience of the US Environmental Protection Agency (EPA) annual auctions of sulphur dioxide allowances (US Environmental Protection Agency, 2010). Various governments (Sweden, Germany, Canada and the USA) have also run spectrum auctions (for electromagnetic wavelengths).

These quota systems mentioned above are focused on reducing a hazard – but they potentially can be modified to *eliminate* a hazard. For example, if a particular fish species becomes endangered then a government can reduce the annual quota available for harvesting that species to zero (temporarily or permanently). Similarly a long term goal of becoming a zero-carbon emissions society – can feasibly be reached by reduced emissions quota annually down to zero over a period of time (though other regulatory measures are likely to accompany such a transition). For example, Iceland seeks to become a carbon neutral country and legislation in the UK requires a 80% cut in the UK's carbon emissions by 2050 (compared to 1990 levels) (source: http://en.wikipedia.org/wiki/Low-carbon_economy). The UK is part of the European Union Emissions Trading System, but it is also using a range of other measures to reduce its emissions.

Past New Zealand successes at complete hazard elimination

We take this opportunity to note that New Zealand society has successfully banned or eliminated a range of hazards: a ban on leaded petrol (Wilson & Horrocks, 2008), the end of asbestos imports, the law against nuclear energy generation (and visiting nuclear-powered ships), and the successful law against smoking inside public places (including restaurants and pubs) (Edwards, Thomson, Wilson et al., 2008).

Similarly dramatic in terms of prevention successes have been the complete elimination of some vaccine preventable diseases in New Zealand (eg, polio (Ministry of Health, 2006)) while other diseases have been made extremely rare eg, *Haemophilus influenzae* type b (Hib) disease (Wilson, Wenger, Mansoor et al., 2002). Diseases that impacted on both animals and humans (hydatids, and brucellosis) have also been eliminated from New Zealand (Davidson, 2002).

6) What level of tobacco tax revenue should be used to fund tobacco elimination in New Zealand?

A 2007 report by one of us (Dr Thomson) suggested that (and provided evidence for):

- The present funding system has not worked adequately for tobacco control in New Zealand. Tobacco control is chronically under-funded (on a comparative cost-efficiency basis) and a dedicated tax is the most practical long-term answer to this under-funding.
- The present funding system extracts tobacco tax revenue from Maori (as a group) and from low-income households disproportionately, without using that revenue to help ensure equal health outcomes for Maori and non-Maori, and for households of all incomes. This is contrary to general government policy on health inequalities.
- A tobacco tax rise that is dedicated to tobacco control is far more likely to get public and smoker support, than one that is not.
- There are equity and ethical issues around the use of a lethal, addictive substance to raise government revenues that need addressing, and a dedicated tobacco tax will help to do this.

And recommended, as part of a tobacco tax strategy that:

1. That an increasing portion of the tobacco tax revenue be dedicated to tobacco control activities encouraging and assisting smokers to cease smoking and deterring non-smokers from starting smoking.
2. That the initial amount of dedicated tax revenue should be at least \$100 million, (compared to current spending on these activities of about \$40 million), and should be targeted initially to increase to at least \$200 million within five years.

Source (whole document attached):

Thomson G. *Dedicated tobacco taxes - experiences and arguments [Report for Smokefree Coalition and ASH NZ]*. Smokefree Coalition and ASH NZ. Wellington. November 2007.

<http://www.uow.otago.ac.nz/academic/dph/research/heppru/research/DedicatedTaxNovember%2007.doc>

In addition, recently published research indicates that most (59%) of New Zealand smokers would support a tobacco tax increase if it was dedicated, with the funds going to smoking cessation and health promotion (Wilson, Weerasekera, Edwards et al., 2010) (attached).

7) The nature of the multinational companies that market tobacco in New Zealand

We attach our research on the international industry:

Thomson G, Wilson N. (2008). The Tobacco Industry. In. *International Encyclopedia of Public Health*. Eds. Kris Heggenhougen and Stella Quah. Amsterdam, Elsevier: 331-337.

We also attach research published in the NZ Medical Journal on 28 May 2010, on current tobacco marketing to New Zealand women:

Wilson N, Hoek J, Peace J, Gifford H, Thomson G, Edwards R. Marketing tobacco to New Zealand women: 8 ways to reflect on “World No Tobacco Day”. *N Z Med J* 2010;123(1315):84-90.

<http://www.nzma.org.nz/journal/123-1315/4141/>

Final comment

We thank the Committee for considering ways to end the tobacco epidemic and its harm to Maori and other New Zealanders. As before we remain willing to provide further information – particularly on the critical topic area of an endgame strategy which presents a clear plan for ending tobacco harm in Aotearoa.

Attachments

- Bullen C, Wilson N, Edwards R, Weerasekera D, Gifford H. Quitting Intentions and Behaviour of Smokers by Ethnicity, Deprivation and Financial Stress. [POS3-54]. Joint Conference of SRNT and SRNT-Europe, Dublin, Ireland; 27-30 April 2009
- Wilson N, Edwards R, Weerasekera D. High levels of smoker regret by ethnicity and socioeconomic status: national survey data. *N Z Med J* 2009;122(1292):99-100; <http://www.nzma.org.nz/journal/122-1292/3549/>
- Edwards R, Wilson N, Weerasekera D, et al. (2010). Increasing support by smokers for bans on point-of-sale tobacco displays: National survey data. [Poster presentation POS3-12]. SRNT, 15th Annual Meeting 24 – 27 February, Baltimore, Maryland, USA.
- Paynter J, Edwards R, Schluter PJ, et al. (2009). Point of sale tobacco displays and smoking among 14-15 year olds in New Zealand: a cross-sectional study. *Tob Control*, 18, 268-74.
- Thomson G. *Dedicated tobacco taxes - experiences and arguments [Report for Smokefree Coalition and ASH NZ]*. Smokefree Coalition and ASH NZ. Wellington. November 2007

- Wilson N, Weerasekera D, Edwards R, **Thomson G**, Devlin M, Gifford H. Characteristics of smoker support for increasing a dedicated tobacco tax: National survey data from New Zealand. *Nicotine Tob Res* 2010;12:168-173.
- Thomson G, Wilson N. (2008). The Tobacco Industry. In. *International Encyclopedia of Public Health*. Eds. Kris Heggenhougen and Stella Quah. Amsterdam, Elsevier: 331-337.
- Wilson N, Hoek J, Peace J, Gifford H, Thomson G, Edwards R. Marketing tobacco to New Zealand women: 8 ways to reflect on “World No Tobacco Day”. *N Z Med J* 2010;123(1315):84-90.

References

- Chestnut LG, Mills DM (2005). A fresh look at the benefits and costs of the US acid rain program. *J Environ Manage*, 77, 252-66.
- Costello C, Gaines SD, Lynham J (2008). Can catch shares prevent fisheries collapse? *Science*, 321, 1678-81.
- Davidson RM (2002). Control and eradication of animal diseases in New Zealand. *N Z Vet J*, 50, 6-12.
- Edwards R, Thomson G, Wilson N, et al. (2008). After the smoke has cleared: evaluation of the impact of a new national smoke-free law in New Zealand. *Tob Control*, 17, e2.
- Edwards R, Wilson N, Weerasekera D, et al. (2010). Increasing support by smokers for bans on point-of-sale tobacco displays: National survey data. [Poster presentation POS3-12]. SRNT, 15th Annual Meeting 24 – 27 February, Baltimore, Maryland, USA.
<http://www.wnmeds.ac.nz/academic/dph/research/HIRP/Tobacco/posters/Edwards%20et%20al%20-%20Point-of-Sale%20displays.pdf>.
- European Commission (2010). Emission Trading System (EU ETS).
http://ec.europa.eu/environment/climat/emission/index_en.htm
- Grubb M, Brewer T, Sato M, et al. (2009). *Climate Policy and Industrial Competitiveness: Ten Insights from Europe on the EU Emissions Trading System*. Washington, DC., The German Marshall Fund of the United States.
<http://www.climatestrategies.org/our-reports/category/17/204.html>.
- Ministry of Health (2006). *Immunisation Handbook 2006*. Wellington, Ministry of Health. <http://www.moh.govt.nz/moh.nsf/indexmh/immunisation-handbook-2006>.
- Ministry of Health. *New Zealand Tobacco Use Survey 2006*. Ministry of Health. Wellington. June 2007.
- Paynter J, Edwards R (2009). The impact of tobacco promotion at the point of sale: a systematic review. *Nicotine Tob Res*, 11, 25-35.
- Paynter J, Edwards R, Schluter PJ, et al. (2009). Point of sale tobacco displays and smoking among 14-15 year olds in New Zealand: a cross-sectional study. *Tob Control*, 18, 268-74.
- Thomson G, Wilson N, Edwards R (2010). Kiwi support for the end of tobacco sales: New Zealand governments lag behind public support for advanced tobacco control policies. *N Z Med J*, 123(1308), 106-111.
- US Environmental Protection Agency (2010). *Clean air markets: Annual Auction*, US Environmental Protection Agency.
<http://www.epa.gov/airmarkets/trading/auction.html>
- US Environmental Protection Agency (2010). *Clean air markets: NOx trading programs*, US Environmental Protection Agency.
<http://www.epa.gov/airmarkt/progsregs/nox/index.html>.
- Wilson N, Horrocks J (2008). Lessons from the removal of lead from gasoline for controlling other environmental pollutants: a case study from New Zealand. *Environ Health*, 7, 1.
- Wilson N, Thomson G, Blakely T, et al. (2010). A new opportunity to eliminate policy incoherence in tobacco control in New Zealand. *N Z Med J*, 123(1311), 89-92.

- Wilson N, Weerasekera D, Edwards R, et al. (2010). Characteristics of smoker support for increasing a dedicated tobacco tax: National survey data from New Zealand. *Nicotine Tob Res*, 12, 168-173.
- Wilson N, Wenger J, Mansoor O, et al. (2002). The beneficial impact of Hib vaccine on disease rates in New Zealand children. *N Z Med J*, 115, U122.