

# Who is Starting Smoking?

## An Investigation of Uptake Among All Ages Using Prospectively Collected Data

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### Background

New Zealand has adopted the goal to be Smokefree by 2025. Achieving and sustaining a very low prevalence will require marked reductions in smoking initiation and increases in quitting.

The tobacco industry argues that the decision to smoke is an informed choice by adult smokers. If true, this suggests that smoking initiation should occur across a range of ages as individuals decide to start smoking after weighing up the pros and cons. A counter argument is that smoking initiation largely occurs among children and young adults who are less able to make a truly informed choice, for example due to immaturity of decision-making, influence of peers and role models, hazardous drinking patterns and lack of detailed knowledge of risk and meaning of health effects many years in the future.

Previous investigations of initiation have mostly focused on the experience of children and youth, with a smaller number studying initiation among younger adults. There is little research investigating smoking initiation across all adult age groups.

#### The tobacco industry and informed choice

*“The risks associated with smoking are universally known, and ... smoking is, and should continue to be, a matter of informed adult choice”*

Imperial Tobacco NZ Ltd 2010: Submission to the Māori Affairs Select Committee Enquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Māori

### Aim

We set out to test the tobacco industry arguments by assessing initiation rates among adults aged 15 years and older using prospectively collected data.

### Methods

We used data from the Survey of Family, Income and Employment (SoFIE), a nationally representative longitudinal study of 22,000 people living in private households conducted from 2002 to 2010 in New Zealand (more details in Carter et al. Int J Epid 2010; 39: 653-659.)

During annual face-to-face interviews, information was obtained on individual and family factors such as education, marital status and household income; and in Waves 3 (2004/05), 5 (2006/07) and 7 (2008/09) on smoking status.

Responses to two questions about cigarette smoking were used to determine the respondents' smoking status at each wave as never, ex- or current smoker.

A respondent was classified as initiating smoking if they changed from a never smoker in Wave 3 to a current smoker in Wave 5, or were a never smoker in Waves 3 and 5 and reported being a current smoker in Wave 7.

Our analysis included 15,095 subjects aged 15 years and above who responded in all of Waves 3,5 and 7 (68% response rate from wave 1).

### Results

#### Smoking prevalence by age group

Figure 1 shows the smoking prevalence in the SoFIE sample by age group at Wave 3.

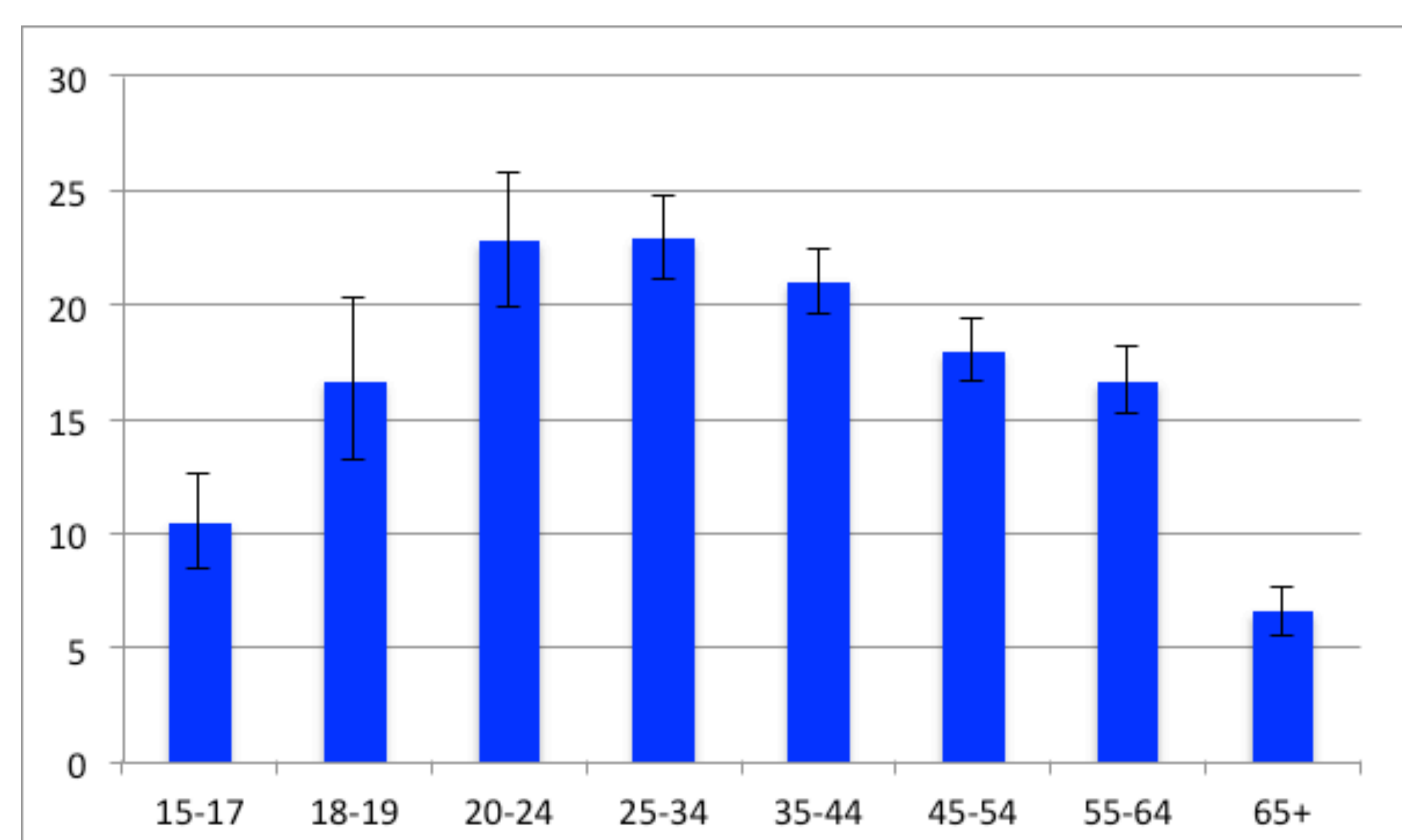


Figure 1 – Smoking prevalence (% current smokers with 95% confidence limits) by age group, Wave 3 data (2004/5)

#### Smoking initiation

Figure 2 shows initiation of smoking by age group between Waves 3, 5 and 7. Initiation between 2004/5 and 2008/9 was 14.2% for 15-17 year olds, 7.0% for 18-19 years, 3.1% for 20-24 years, and 1.4% for 25-34 years; with low initiation (<1.0%) among older age groups. Initiation between Waves 3 and 5 was higher than between waves 5 and 7 but there was a similar pattern by age, with initiation mostly restricted to 15-24 years, and rare over 24 years.

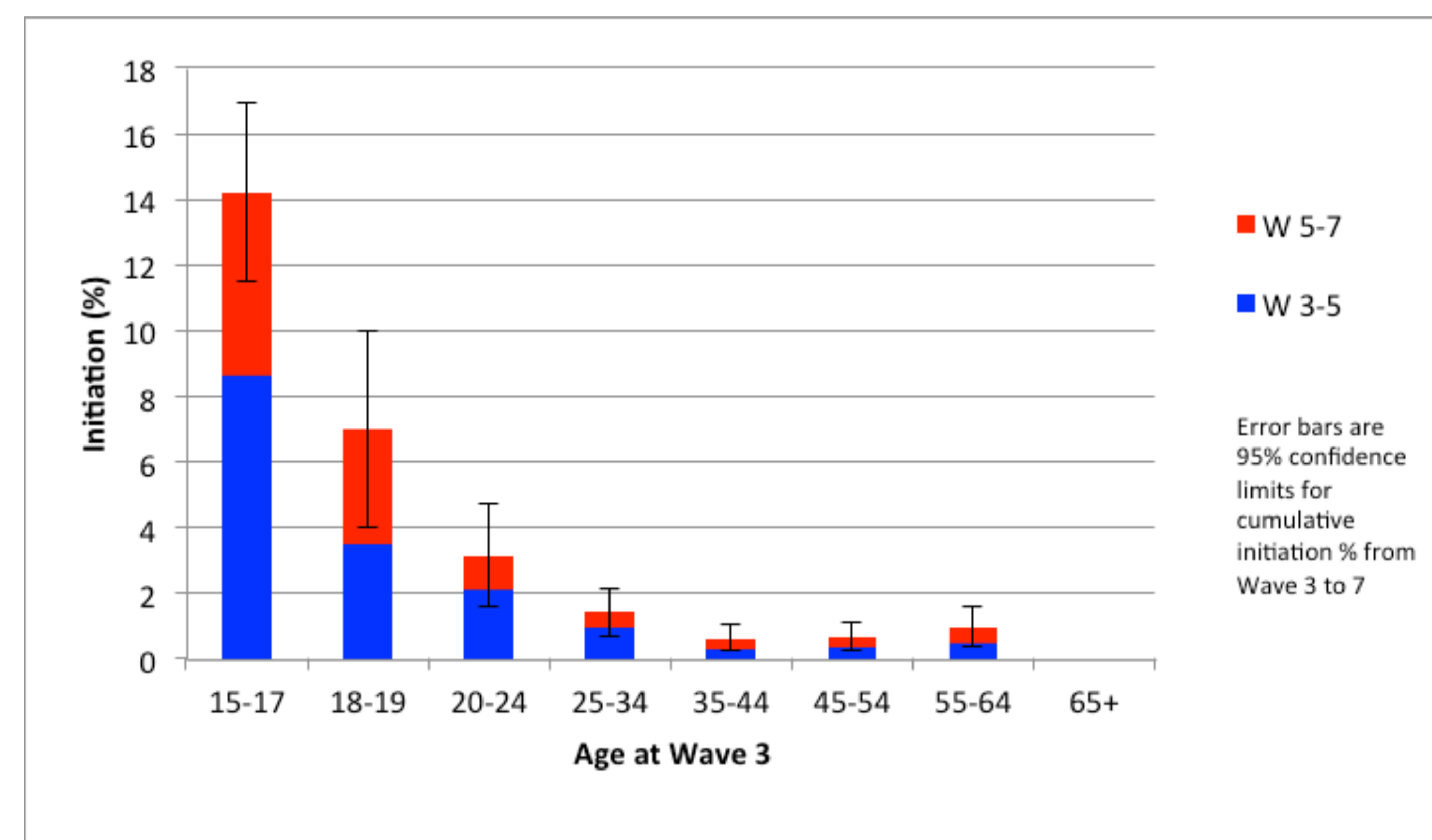


Figure 2: Cumulative smoking initiation rates (%) between Waves 3, 5 and 7

### Conclusions

We found strong age related gradients in smoking initiation. Starting smoking after the age of 24 years was rare.

Further work is needed to explore and monitor patterns of initiation particularly among high smoking prevalence populations, such as Māori and Pacific in New Zealand.

Major strengths included the prospective study design, large sample size, inclusion of all age groups and collection of data at three time points. Weaknesses included high loss to follow up (32% of Wave 3 respondents - higher in high prevalence groups such as Māori, Pacific peoples and low SES groups) resulting in possible underestimation of initiation. Lack of a 'social' or occasional smoker category may also have resulted in an underestimate of initiation, particularly among younger age groups where social smoking is common (Pierce et al. *Nicotine and Tobacco Research* 2009, 11; 171-177).

The findings suggest that initiation among young adults is an important component of the initiation of smoking in New Zealand. The rarity of smoking initiation among mature adults provides evidence that industry arguments that smoking is an 'informed choice' are false, and that in reality the industry relies on recruiting minors and young adults who due to their immaturity of decision-making and vulnerability to social and environmental influences are less able to exercise a truly informed choice.

Efforts to prevent initiation of smoking should include a strong focus on smoking uptake among older youth and young adults. Additional research, development of specific interventions and allocation of resources in this area of tobacco control will be required.

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#### Declaration of interests

The authors declare that they have no competing interests, though for completeness note that RE has carried out occasional consultancy work for health related NGO's and Government agencies.

#### Statistics New Zealand Security Statement

Access to the data used in this study was provided by Statistics New Zealand in a secure environment designed to give effect to the confidentiality provisions of the Statistics Act, 1975. The results in this study and any errors contained therein are those of the author, not Statistics New Zealand.



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