

SELECT COMMITTEE ON TOBACCO HARM REDUCTION

Professor Emily Banks
Responses to Questions on Notice from
Hearing on Friday, 13 November 2020

QUESTION ON NOTICE 5: Is there any way of determining, if e-cigarettes were available broadly across the community and in many retail outlets so that there was an abundance of supply, what impact that would have on our overall smoking rates in Australia, including amongst young people? [Senator Henderson]

Response: evidence on the likely impact on smoking prevalence in Australia of increased smoking in young people resulting from use of e-cigarettes

On current evidence, **it is unknown** what the impact of a threefold increase in tobacco use among young users of e-cigarettes would be on the Australian population if e-cigarettes were readily available to young people. A reliable answer to this question, encompassing sufficient measures of uncertainty, would require a validated, dynamic model of population-wide smoking behaviours, disease, and mortality, with data on e-cigarette use inferred from populations elsewhere.

Current evidence however, does support a more general answer to the question of impact in relation to **any potential reversal** of the increasing trend in the proportion of smoke-free young Australians between 2001 and 2019 (64.5% never-smokers aged 15-24 years in 2001 up to 83.8% in 2019).¹ The Australian Institute of Health and Welfare reports that progress in tobacco control in Australia has primarily been driven by decreases in smoking initiation among young people. The majority of Australian smokers initiate smoking by the age of 24 years,² with 69% of smokers aged 18-49 years in 2016 reporting that they smoked their first full cigarette before the age of 18 years.³ Thus, any increase in smoking initiation among young people would risk significant **increases in overall population-wide smoking prevalence** that would be sustained as these age-groups get older.

The **impact** of hypothetical changes in population-wide smoking prevalence in Australia has been estimated in terms of the number of deaths from lung cancer (which accounts for around one third of all smoking-related deaths in Australia⁴). This peer-reviewed paper demonstrated that if overall smoking prevalence were to be reduced to 10% by 2025, an additional 97,432 lung cancer deaths in Australia could be prevented throughout this century.⁵ If, however, smoking prevalence in 2025 reverted to 2005 levels (22.5%), the published modelled estimates indicated that there would be **650,000 additional lung cancer deaths** in Australia throughout the 21st century.⁵

Australia is getting ever-closer to generations of young people with almost zero tobacco (and nicotine) exposure, which will ultimately lead to zero tobacco- and nicotine-related disease, disability, and health and social costs; and zero need for smoking cessation interventions. At a population health level, if we continue the trend of protecting younger Australians from smoking in order to drive smoking prevalence down, we will see significant reductions in not only the lung cancer burden over the longer term, but the many diseases and other cancers known to be caused by tobacco smoke. The current evidence indicates that availability and promotion of e-cigarettes to young people is a threat to continuing the trend of reduced smoking-caused disease in Australia.

References

1. Australian Institute of Health and Welfare. National Drug Strategy Household Survey 2019. (2020) doi:10.25816/E42P-A447.

2. Vaneckova, P. *et al.* Birth-cohort estimates of smoking initiation and prevalence in 20th century Australia: Synthesis of data from 26 surveys and 250,629 participants. *PLoS One*, Under review.
3. Australian Institute of Health and Welfare. *National Drug Strategy Household Survey 2016: detailed findings*. <https://www.aihw.gov.au/getmedia/15db8c15-7062-4cde-bfa4-3c2079f30af3/21028a.pdf.aspx?inline=true> (2017).
4. Scollo, M. M. & Winstanley, M. Tobacco in Australia: Facts and Issues. In., 3 edn. Available from www.TobaccoInAustralia.org.au: (2019).
5. Luo, Q. *et al.* Lung cancer mortality in Australia in the twenty-first century: How many lives can be saved with effective tobacco control? *Lung Cancer* **130**, 208–215 (2019).

