

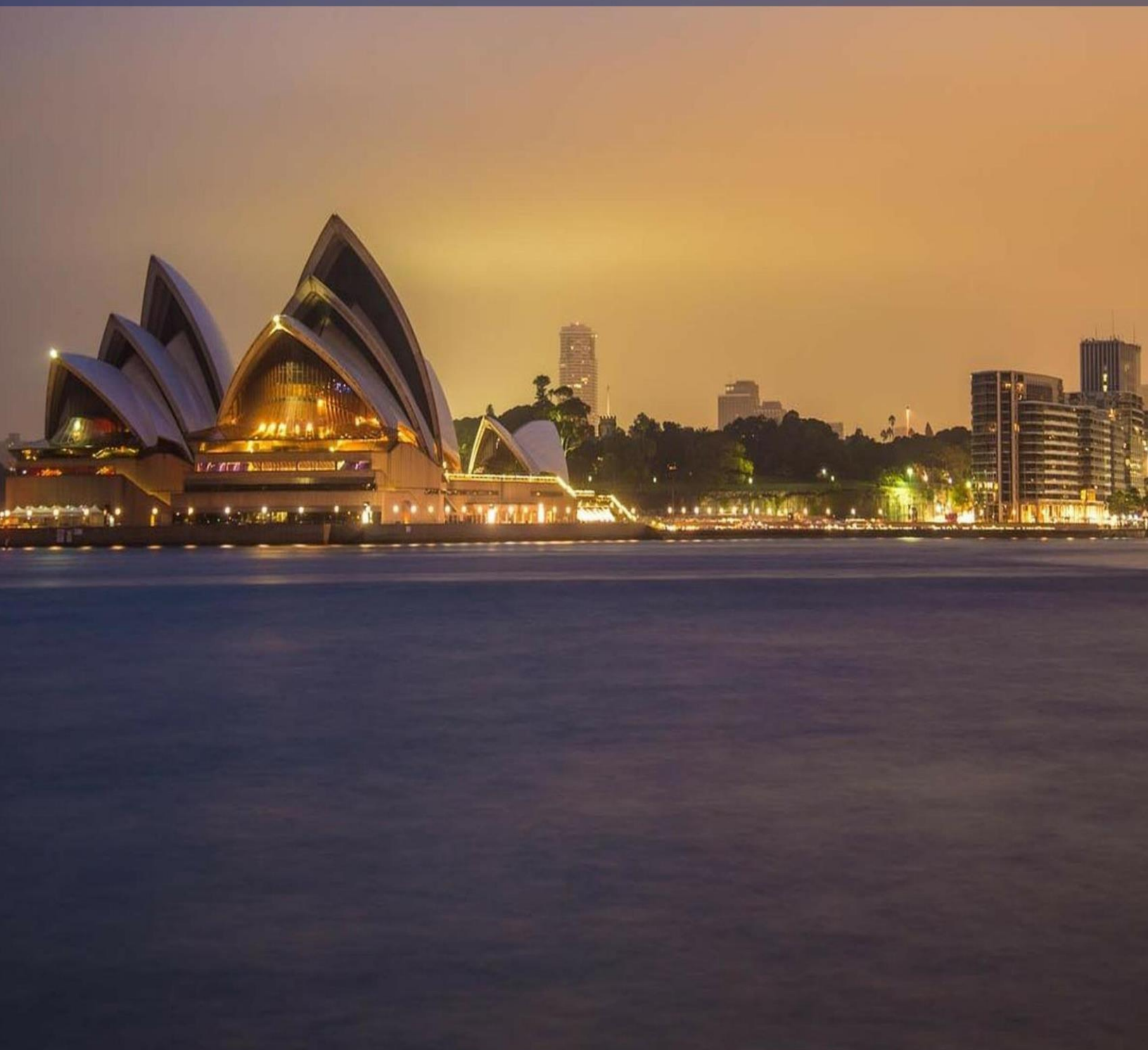
A MULTI-DISCIPLINARY STUDY INTO THE DRIVERS OF SMOKING CESSATION IN AUSTRALIA

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Preface

Smoking is one of the main risk factors for health. Tobacco consumption contributes to a variety of non-communicable diseases, including cancer, heart disease, stroke, chronic respiratory diseases, and diabetes. The WHO (2019) estimates that tobacco consumption is the leading cause of death for smokers; about one in every two smokers dies from smoking-related causes every year. Approximately eight million people a year die from diseases associated with smoking. In response to this, over the past four decades, numerous countries have introduced successful tobacco control policies, which have resulted in longer and healthier lives for their population. Since 2000, Australia, United Kingdom, Sweden and Canada have reduced their smoking prevalence by more than 40%, while Colombia, Norway, and Iceland have done so by more than 50%. Despite this, smoking persists, even in those countries where policies have been implemented, and especially among more disadvantaged social groups. Moreover, smoking reduction policies in other countries have hitherto not been as successful. Indeed, smoking rates in Egypt, Oman, Morocco, and Croatia have steadily increased from 2000 onwards.

The relatively long history of smoking cessation policies allows for a better understanding of what works, what does not, why, and how. Today, policy-makers seeking to further reduce the morbidity and mortality associated with tobacco smoking can learn from the experiences of countries that have succeeded in reducing smoking. However, the social, cultural, and regulatory complexity of smoking habits prevents any straightforward replication of successful policies within a different context, a different country, and a different period. Simply put, no law exists in a vacuum; rather, manifold factors simultaneously determine the success or otherwise of any policy. Yet, sound scientific research and reasoning do allow for the construction and verification of hypotheses and theories about how to replicate cessation elsewhere. Above all, the development of this knowledge will be of particular value for those nations that do not have successful histories of tobacco control; these are very often developing nations in which the vast majority of the world's smokers currently reside (World Health Organization, 2019).

Australia constitutes an ideal case-study through which to achieve this aim. This is because Australia is recognized as a leading country in tobacco control worldwide, due to its long history of tobacco control policies having lowered smoking prevalence over the years. This success was achieved via the combination of strict anti-tobacco regulations and strong social sensitization through enduring anti-smoking campaigns. At the same time, Australia represents a paradoxical situation, insofar as people have easier access to nicotine through traditional tobacco products than they do via the use of Electronic Nicotine Delivery Systems (ENDS), despite the latter being significantly less harmful to health than the former. These features, combined with the abundance of empirical studies on the country, allow for a sound and comprehensive policy analysis.

Adopting a rational approach to the analysis of policy experiences is critical for providing concrete guidance on how to reduce smoking. In this respect, policy-makers have to walk a delicate line that involves carrying out careful study prior to the enactment of new laws, alongside displaying evidence-based regulatory flexibility in implementing and enforcing these laws. The potential consequences from cutting funding to anti-smoking media campaigns, banning certain products, or increasing taxes, should be weighed

carefully to best serve the public interest for both current citizens and future generations. In the field of smoking policy, too often positions become polarized along ideological lines instead of being based on empirical evidence. Ordinarily, there is the argument between, on the one hand, the abstinence approach—from those who want nicotine to be completely banned because of the damage smoking poses to health—and, on the other, the harm reduction approach—from those who recognize the fact that some people still smoke despite all the adopted measures. The need to move beyond ideological positions and adopt a more pragmatic approach is particularly pertinent with respect to ENDS, which lie at the core of the present study.

I. Introduction

Alberto Aziani

A combination of strict anti-tobacco regulations, effective anti-tobacco policies, and strong sensitization through anti-smoking campaigns has led to a marked decrease in smoking prevalence in Australia over the years. Since 1945, the smoking prevalence has decreased by more than 70% in the country. In 1945, almost three out of four adult men (72%), and more than one in every four adult women (26%), were regular smokers (Woodward, 1984). In 2017-18, the estimated percentage of adult daily smokers was 13.8%. This is a low figure in comparison to other countries in the world (Australian Bureau of Statistics, 2018).

Since 1945, there has been a constant downward trend in tobacco consumption, with the exception of a reversed tendency around the 1970s. Between 1969 and 1976 smoking prevalence increased by 4.1%. Two main explanations have been advanced for the increase in tobacco consumption in the early 1970s. First, the widespread diffusion of television in the late 1950s, which began to broadcast advertisements for cigarettes that reached billions of viewers and families across Australia. Second, the social and cultural revolution of the 1960s that rejected the conservative values of the old generation, such as the importance placed on one's future health and economic security. During this period, many women also took up smoking as a statement of independence and equality (Scollo & Winstanley, 2019b). Subsequently, beginning in the 1980s, both male and female smoking prevalence began to decrease and has continued to do so to this day. As part of their new initiative to boost preventive health outcomes, the goal of the Australian federal government is to cut the smoking rate to less than 10% by 2025 (Department of Health, 2019).

Today, Australia is recognized as a leading country in tobacco control worldwide (Marmor & Lieberman, 2004; Wilensky, 2002; World Health Organization, 2019). In the 1970s, tobacco control efforts were instituted in response to the increasing smoking rates among the Australian population. Since then, the government has progressively strengthened smoking and advertising bans, raised tobacco taxes, promoted anti-smoking campaigns, and imposed severe restrictions on the content, packaging, and importation of tobacco (World Health Organization, 2019). Indeed, Australia was the first country in the world to adopt plain packaging legislation in 2011, followed by the UK in 2014, Ireland and France in 2015, and Hungary, New Zealand and Norway in 2016 (World Health Organization, 2018). From 2012 onwards health warnings occupy 75% of the front and 90% of the back of cigarette packs. Australia also has one of the highest prices for tobacco products in the world (World Health Organization, 2019). In 2018, the price of a 25-cigarette packet from one of the most popular cigarette brands was 33.65 AUD (NSW Retail Traders' Association, 2018). As a result of its taxation policy, by the end of 2020 the price of a 25-cigarette premium pack will reach almost 50 AUD (Wilkie & Piotrowski, 2020). Australia also has some of the strictest regulations on smoke-free environments in the world. With very few exceptions, smoking is banned in almost all public places across the entire country.

The primary goal of Australian tobacco control policy over the years has been to encourage smokers to quit and dissuade those who have never smoked from beginning. Generally speaking, the Australian federal government has not supported policies aimed at reducing tobacco-related harm by encouraging

smokers to obtain nicotine in less harmful forms (Hall et al., 2019). For this reason, e-cigarettes are highly regulated in Australia and the use of nicotine in these devices is prohibited. The sale and use of e-cigarettes containing nicotine, heat-not-burn products, and other smokeless products (e.g., snuff, paste, powder or chewing tobacco) are all banned in Australia. The Therapeutic Goods Administration (TGA) has thus far not authorized the use of any e-cigarette or other electronic device as an official smoking cessation aid. De jure, Electronic Non-Nicotine Delivery Systems (ENNDS) are the only devices that Australians can freely buy and use, since it is illegal to use, sell or buy nicotine for use in e-cigarettes in the country. Individual consumers may legally import liquid containing nicotine for personal use, if they have a prescription from an Australian medical doctor and are in compliance with the state or territory's poison laws (Therapeutic Goods Administration, 2019); nonetheless, doctors, who are trained in traditional quitting methods, such as the use of medications and counselling, tend to not provide their patients with these prescriptions (Mendelsohn, 2019).

In reality, vapers can easily obtain nicotine e-liquids through illicit channels, particularly via the internet from the neighboring jurisdiction of New Zealand, where e-liquids containing nicotine are legal, as well as under-the-counter from tobacconists (Karp, 2019). Analysis of vaping solutions by Australian health departments has confirmed that many illegally contain nicotine. In 2013, 43% of current Australian e-cigarette users reported vaping with nicotine, while a further 21% did not know if the e-liquid they were using contained nicotine or not (Fraser et al., 2015; NSW Health, 2013b). According to the NSW Ministry of Health, 70% of the e-liquids sampled for their scientific tests contained high-levels of nicotine even though the label did not include it as an ingredient (NSW Health, 2013a).

Australian statistics on the use of vaping products are scarce compared to both other countries and smoking-related statistics. Therefore, it is difficult to analyze in detail changes in e-cigarette consumption by Australians over the years. Despite this, it is clear that, from the mid-2000s when e-cigarettes were first introduced in the Australian market, their use has grown. In 2016, the daily prevalence of e-cigarette-use among Australians aged 14 years or older was 0.5%, while smokers aged 14 years or older who used e-cigarettes daily, weekly or less than weekly in 2016 represented 4.4% (Australian Institute of Health and Welfare, 2017). In 2016, the estimated prevalence in the lifetime use of e-cigarettes among Australians aged 14 years or older was 31.0% for smokers, 4.9% for non-smokers, and 8.8% for the general population. The marked increase in the use of e-cigarettes is also confirmed by the expansion in the value of the market for these products (Euromonitor International, 2018).

Quitting and reducing smoking are the primary reasons cited for using e-cigarettes by current e-cigarette users, along with being one of the principal reasons cited by all types of users. In 2016, 46.7% of Australian current e-cigarettes users declared that they used the devices in an attempt to quit smoking; 36.0% cited using them to cut down on the number of cigarettes they smoked; 31.2% used them to prevent going back to smoking regular cigarettes; while 42.2% of them believed that e-cigarettes were less harmful than regular cigarettes (Australian Institute of Health and Welfare, 2017). In 2016, 98% of smokers aged 12 years or older had already smoked combustible cigarettes prior to trying e-cigarettes. These figures in Australia appear to confirm the findings of empirical studies from several other countries: the main reasons for using e-cigarettes are to quit smoking and to use a product that is less harmful than cigarettes (Pepper & Brewer, 2014).

The skepticism towards the use of e-cigarettes stems primarily from the possibility that these devices will serve as facilitators for smoking among young people (e.g., Soneji et al., 2017), and lead to the subsequent uptake of traditional cigarette smoking among non-smokers (e.g., Bell & Keane, 2012; Flouris & Oikonomou, 2010; McKee & Capewell, 2015). However, several studies have argued that this is unlikely the case (e.g., Hallingberg et al., 2020; Kristjansson et al., 2019; Watkins et al., 2018). In Australia, e-cigarette users are in favor of vaping products being regulated, provided these regulations do not impede their ability to obtain devices and refill solutions, which they view as integral to them continuing to abstain from smoking (Fraser et al., 2015).

The effectiveness of the Australian government in reducing smoking rates over the years, in conjunction with the strict ban on smokeless devices, makes Australia a relatively unique case to study to assess the dynamics of smoking cessation. Several lessons can be learned from the Australian context that might inform tobacco control policy in other contexts, while new directions can also be foreseen for the future of smoking habits in the country. Bearing in mind that countries differ in their histories, cultures, legal and regulatory frameworks, enforcement capacities, healthcare systems, gender norms, political environment, and economic priorities, the results from the Australian case can still inform the design of future policies, both within those countries that already have a low-level of tobacco consumption and those that are at the embryonic stage of their smoking reduction policies.

The aim of the present study is to understand what the historical drivers of smoking cessation are in Australia and to suggest steps forward for policies to further reduce smoking in the next future. Given the growing number of studies at the international level analyzing the potential effects of e-cigarettes on quitting (e.g., Beard et al., 2020; Farsalinos & Niaura, 2020; Jackson et al., 2019; Kalkhoran et al., 2019), this study also explores their potential role in driving smokers to quit in the Australian context. To achieve this aim, the study discusses and frames smoking cessation drivers within Australia's history, culture and social structure, as well as its economic and regulatory framework, media activity and healthcare system. In doing so, this study provides an evaluation of the effectiveness of the drivers of smoking cessation, assesses the extent to which their impact varies across populations and territories and, based on this, draws policy implications.

References

Australian Bureau of Statistics. (2018). *National Health Survey: First Results, 2017–18*. Australian Bureau of Statistics.

<https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4364.0.55.0012017-18?OpenDocument>

Australian Institute of Health and Welfare. (2017). *National Drug Strategy Household Survey 2016. Detailed findings* (No. 31; Drug Statistics Series). AIHW.

<https://www.aihw.gov.au/getmedia/15db8c15-7062-4cde-bfa4-3c2079f30af3/aihw-phe-214.pdf.aspx?inline=true>

Beard, E., West, R., Michie, S., & Brown, J. (2020). Association of prevalence of electronic cigarette use with smoking cessation and cigarette consumption in England: A time-series analysis between

- 2006 and 2017. *Addiction (Abingdon, England)*, 115(5), 961–974.
<https://doi.org/10.1111/add.14851>
- Bell, K., & Keane, H. (2012). Nicotine control: E-cigarettes, smoking and addiction. *International Journal of Drug Policy*, 23(3), 242–247. <https://doi.org/10.1016/j.drugpo.2012.01.006>
- Department of Health. (2019). *National Press Club address—Long Term National Health Plan*. Australian Government - Department of Health; Australian Government Department of Health. <https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/national-press-club-address-long-term-national-health-plan>
- Euromonitor International. (2018). *Tobacco 2018. Passport database*.
- Farsalinos, K. E., & Niaura, R. (2020). E-cigarettes and Smoking Cessation in the United States According to Frequency of E-cigarette Use and Quitting Duration: Analysis of the 2016 and 2017 National Health Interview Surveys. *Nicotine & Tobacco Research: Official Journal of the Society for Research on Nicotine and Tobacco*, 22(5), 655–662. <https://doi.org/10.1093/ntr/ntz025>
- Flouris, A. D., & Oikonomou, D. N. (2010). Electronic cigarettes: Miracle or menace? *BMJ*, 340. <https://doi.org/10.1136/bmj.c311>
- Fraser, D., Weier, M., Keane, H., & Gartner, C. (2015). Vapers' perspectives on electronic cigarette regulation in Australia. *International Journal of Drug Policy*, 26(6), 589–594. <https://doi.org/10.1016/j.drugpo.2015.01.019>
- Hall, W., Morphett, K., & Gartner, C. (2019). A critical analysis of Australia's ban on the sale of electronic nicotine delivery systems. *Neuroethics*. <https://doi.org/10.1007/s12152-019-09402-x>
- Hallingberg, B., Maynard, O. M., Bauld, L., Brown, R., Gray, L., Lowthian, E., MacKintosh, A.-M., Moore, L., Munafò, M. R., & Moore, G. (2020). Have e-cigarettes renormalised or displaced youth smoking? Results of a segmented regression analysis of repeated cross sectional survey data in England, Scotland and Wales. *Tobacco Control*, 29(2), 207–216. <https://doi.org/10.1136/tobaccocontrol-2018-054584>
- Jackson, S. E., Kotz, D., West, R., & Brown, J. (2019). Moderators of real-world effectiveness of smoking cessation aids: A population study. *Addiction (Abingdon, England)*, 114(9), 1627–1638. <https://doi.org/10.1111/add.14656>
- Kalkhoran, S., Chang, Y., & Rigotti, N. A. (2019). E-cigarettes and Smoking Cessation in Smokers With Chronic Conditions. *American Journal of Preventive Medicine*, 57(6), 786–791. <https://doi.org/10.1016/j.amepre.2019.08.017>
- Karp, P. (2019, September 7). Vaping debate rages in Australia as critics accuse government of smokescreen. *The Guardian*. <http://www.theguardian.com/society/2019/sep/08/vaping-debate->

- rages-in-australia-as-critics-accuse-government-of-smokescreenback-in-australian-spotlight-but-critics-say-a-smokescreen-surrounds-its-dangers
- Kristjansson, A. L., Allegrante, J. P., Sigfusson, J., & Sigfusdottir, I. D. (2019). Do population trends in adolescent electronic cigarette use coincide with changes in prevalence of cigarette smoking? *Preventive Medicine Reports*, *15*(100913), 1–19. <https://doi.org/10.1016/j.pmedr.2019.100913>
- Marmor, T. R., & Lieberman, E. S. (2004). Tobacco Control in Comparative Perspective: Eight Nations in Search of an Explanation. In E. Feldman & R. Bayer (Eds.), *Unfiltered: Conflicts over Tobacco Policy and Public Health* (1 edition, pp. 275–293). Harvard University Press.
- McKee, M., & Capewell, S. (2015). Evidence about electronic cigarettes: A foundation built on rock or sand? *BMJ*, *351*. <https://doi.org/10.1136/bmj.h4863>
- Mendelsohn, C. (2019, April 15). Doctors who prescribe nicotine. We need YOU! *ATHRA*. <https://www.athra.org.au/blog/2019/04/15/doctors-who-prescribe-nicotine-we-need-you/>
- NSW Health. (2013a). *Are electronic cigarettes and e-liquids safe?* <https://www.health.nsw.gov.au/tobacco/Factsheets/e-cigs-are-they-safe.pdf>
- NSW Health. (2013b). *NSW Health Alert—Warning on e-liquids*. https://www.health.nsw.gov.au/news/Pages/20131023_00.aspx
- NSW Retail Traders' Association. (2018). *Price lists—Cigarettes. The Retail Tobacconist of NSW*.
- Pepper, J. K., & Brewer, N. T. (2014). Electronic nicotine delivery system (electronic cigarette) awareness, use, reactions and beliefs: A systematic review. *Tobacco Control*, *23*(5), 375–384. <https://doi.org/10.1136/tobaccocontrol-2013-051122>
- Scollo, M., & Winstanley, M. H. (2019). Introduction. In M. Scollo & M. H. Winstanley (Eds.), *Tobacco in Australia: Facts and issues*. Cancer Council Victoria. <https://www.tobaccoinaustralia.org.au/chapter-12-tobacco-products/attachment-12-1-health-warnings/12a-8-future-directions-for-warnings>
- Soneji, S., Barrington-Trimis, J. L., Wills, T. A., Leventhal, A. M., Unger, J. B., Gibson, L. A., Yang, J., Primack, B. A., Andrews, J. A., Miech, R. A., Spindle, T. R., Dick, D. M., Eissenberg, T., Hornik, R. C., Dang, R., & Sargent, J. D. (2017). Association Between Initial Use of e-Cigarettes and Subsequent Cigarette Smoking Among Adolescents and Young Adults: A Systematic Review and Meta-analysis. *JAMA Pediatrics*, *171*(8), 788. <https://doi.org/10.1001/jamapediatrics.2017.1488>
- Therapeutic Goods Administration. (2019). *Electronic cigarettes*. Australian Government, Department of Health. <https://www.tga.gov.au/community-qa/electronic-cigarettes>

- Watkins, S. L., Glantz, S. A., & Chaffee, B. W. (2018). Noncigarette Tobacco Products-Gateway or Diversion?-Reply. *JAMA Pediatrics*, *172*(8), 784–785.
<https://doi.org/10.1001/jamapediatrics.2018.1076>
- Wilensky, H. L. (2002). *Rich Democracies: Political Economy, Public Policy, and Performance*. University of California Press; JSTOR. <https://www.jstor.org/stable/10.1525/j.ctt1pn955>
- Wilkie, K., & Piotrowski, D. (2020, January 20). Aussies smokes will be paying up to \$48.50 for a pack this year. *Daily Mail Australia*. <https://www.dailymail.co.uk/news/article-7905915/Aussies-smokes-paying-48-50-pack-year.html>
- Woodward, S. D. (1984). Trends in cigarette consumption in Australia. *Australian and New Zealand Journal of Medicine*, *14*(4), 405–407. <https://doi.org/10.1111/j.1445-5994.1984.tb03604.x>
- World Health Organization. (2018). *Tobacco plain packaging: Global status update* (WHO/NMH/PND/NAC/18.9).
- World Health Organization. (2019). *WHO report on the global tobacco epidemic*. https://www.who.int/tobacco/surveillance/policy/country_profile/aus.pdf