



E-cigarette Use among Australian Females of Reproductive Age: Implications for Unplanned Pregnancies

Bethany Grice^{1,2}, Annelies Robijn², Mark Chambers³, Alys Havard^{2,4}

The Difference is Research

Introduction



Both e-cigarettes and tobacco cigarettes can contain nicotine and other harmful constituents.¹



Tobacco smoking is the leading cause of preventable adverse reproductive and pregnancy outcomes.²



The effects of e-cigarettes in pregnancy are unknown.



30% of pregnancies are unplanned³, therefore there is a risk that a mother may unintentionally be exposing her foetus to potentially harmful substances in e-cigarettes.



To understand the extent of this risk, we need to determine the prevalence of regular e-cigarette use among females of reproductive age and quantify the extent to which they are used for constructive reasons.

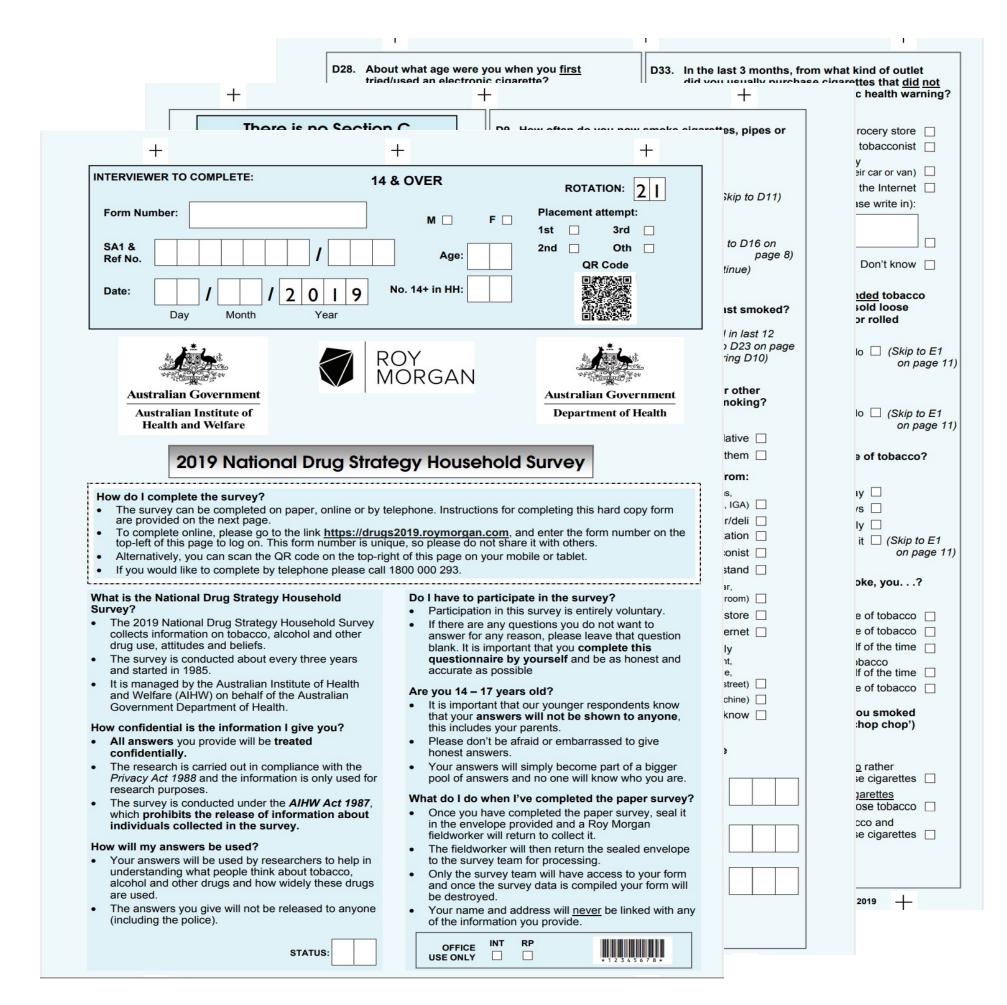
Aims

- 1. Determine the prevalence of regular e-cigarette use in Australian females of reproductive age
- 2. Identify the proportion of regular e-cigarette use that is for constructive motivations

Methods

We conducted a cross-sectional study based on data from the 2019 National Drug Strategy Household Survey, a national survey conducted every three years.

Population of interest: females aged 14 to 44 years in Australia. Subdivided into 10-year age groups given age-related variation in fertility.

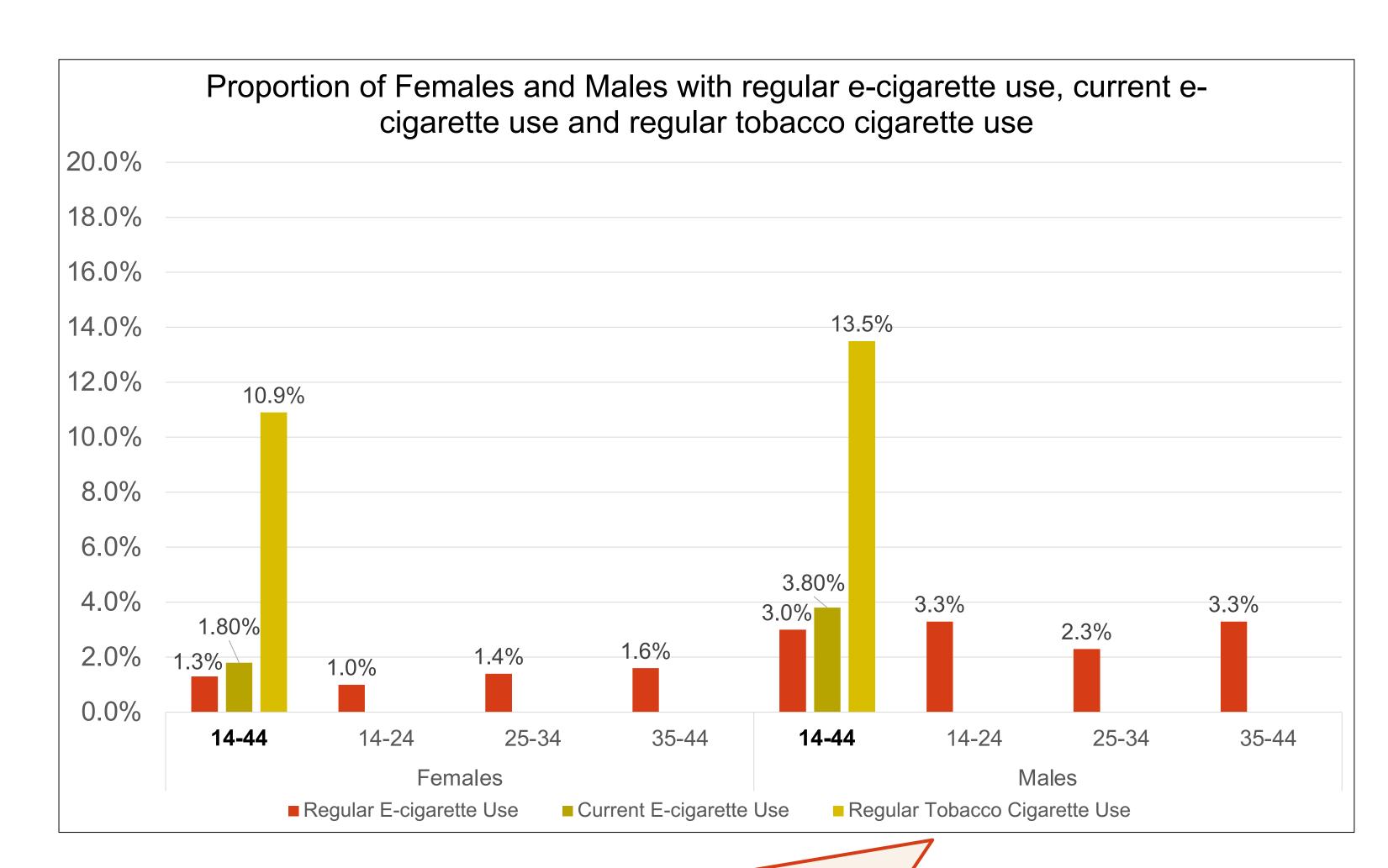


The 2019 National Drug Strategy Household Survey⁴

Acknowledgements

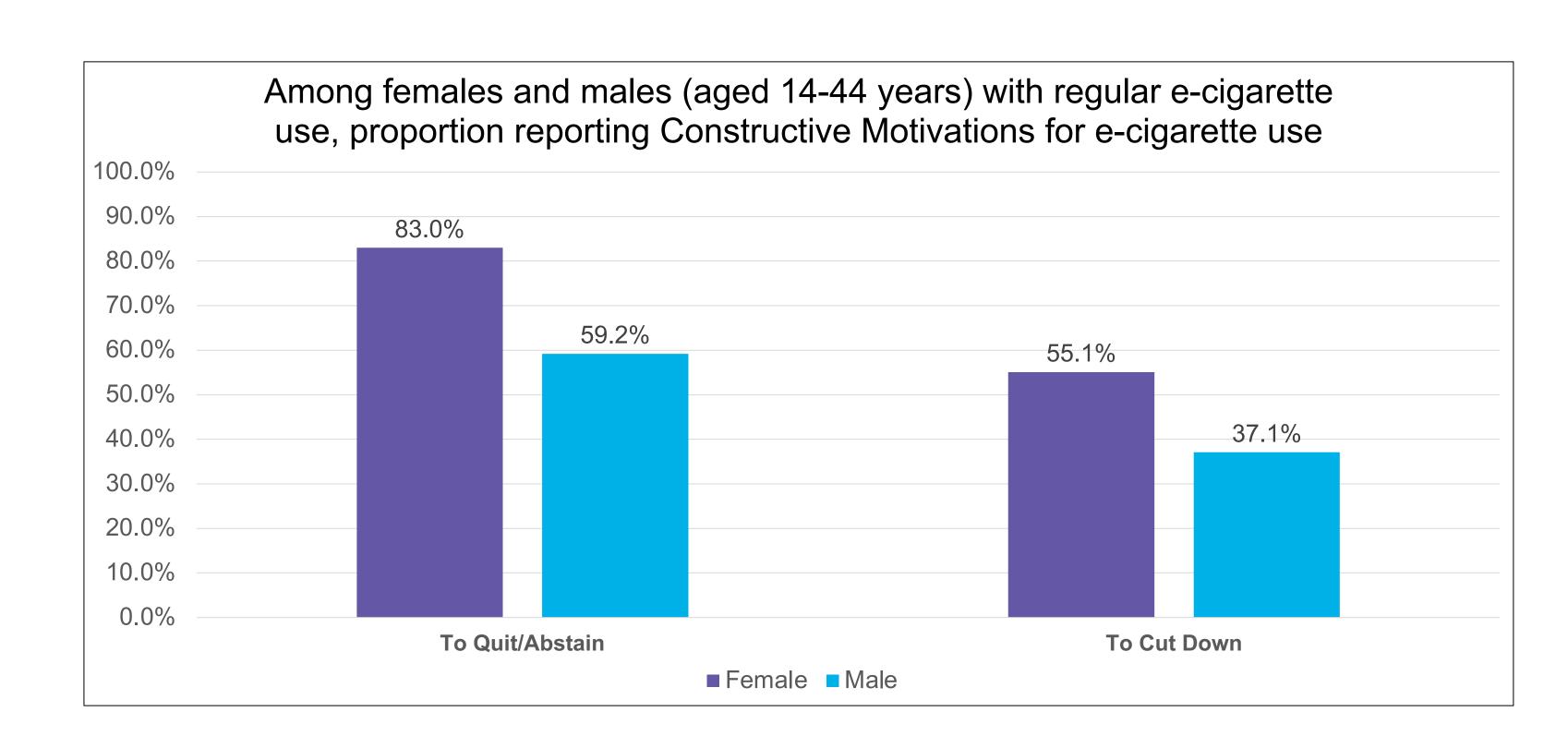
We thank the Australian Institute of Health and Welfare for provision of the National Drug Strategy Household Survey (NDSHS) data and the Australian Data Archive for managing our application for access.

Results



Regular use: at least weekly; Current use: at least monthly

Regular use is the exposure of interest as it likely poses more of a health risk during pregnancy than less frequent use. Current e-cigarette use and regular tobacco cigarette are presented for context



Conclusion

- In 2019, regular e-cigarette use among females of reproductive age was low overall, with little variation between age subgroups
- This is encouraging, given the high rate of unplanned pregnancies in females of reproductive age
- Most regular e-cigarette use was reported as being for constructive reasons (such as to help quit smoking), which is perhaps a more tolerable risk than e-cigarette exposure among those using them recreationally

Implications

• While regular e-cigarette use among females of reproductive age was low in 2019, continued monitoring is needed, given the evolving landscape of e-cigarette policy

References

- 1 Jankowski, M., et al. E-Cigarettes are More Addictive than Traditional Cigarettes-A Study in Highly Educated Young People. International Journal of Environmental Research and Public Health 16 doi: 10.3390/ijerph16132279 (2019).
- 2 Gould, G.S., Oncken, C. & Mendelsohn, C.P. Management of smoking in pregnant women. *Australian Journal for General Practitioners* **43**, 46-51 (2014).
- 3 Rassi, A., Wattimena, J. & Black, K. Pregnancy intention in an urban Australian antenatal population. *Australian and New*
- Zealand Journal of Public Health 37, 568-573 (2013).

 A Australian Institute of Health and Wolfers, National Drug Stratogy Household Survey 2010, https://www.gibyy.gov.gu/about.com/
- 4 Australian Institute of Health and Welfare. National Drug Strategy Household Survey 2019. https://www.aihw.gov.au/about-our-data/our-data-collections/national-drug-strategy-household-survey/2019-ndshs (AIHW, Canberra, 2020).