

INTRODUCTION

What is an e-cigarette?

- An e-cigarette, also known as an electronic cigarette, is a battery powered device that allows users to mimic the physical mechanisms of smoking tobacco.
- E-cigarettes use a heating element, known as an atomiser, to vaporise the contents of a replaceable/refillable cartridge. The re-fill liquid is commonly known as e-liquid and can include propylene glycol (the chemical used in theatre smoke machines) or glycerol and a flavoured liquid that may or may not contain nicotine.
- Using e-cigarettes is commonly known as 'vaping'.



Figure 1: Diagram of a typical e-cigarette

What do we know about e-cigarettes?

- The popularity of e-cigarettes has exploded in recent years, with sales increasing so rapidly that some analysts predict that they will surpass cigarette sales within a decade.
- E-cigarettes are largely marketed as a healthier alternative to smoking conventional cigarettes (see Figure 2), or as a smoking cessation tool.
- However, health experts remain divided about the legal and health implications of using such devices. In particular, there is debate surrounding the safety of e-cigarettes, their efficacy as a smoking cessation tool, and whether they will renormalise smoking behaviours.



Figure 2: Example of how e-cigarettes are currently being marketed

AIMS + METHOD

This paper uses data from the South Australian Ecstasy & Related Drugs Reporting System (n=100) and Illicit Drug Reporting System (n=106) to:

- Examine the prevalence of e-cigarette use amongst regular psychostimulant users (RPU) & people who inject drugs (PWID) in Adelaide.
- Examine the correlates of e-cigarette use amongst RPU & PWID in Adelaide.
- Explore whether e-cigarettes are being used as an alternative to tobacco.

ACKNOWLEDGEMENTS

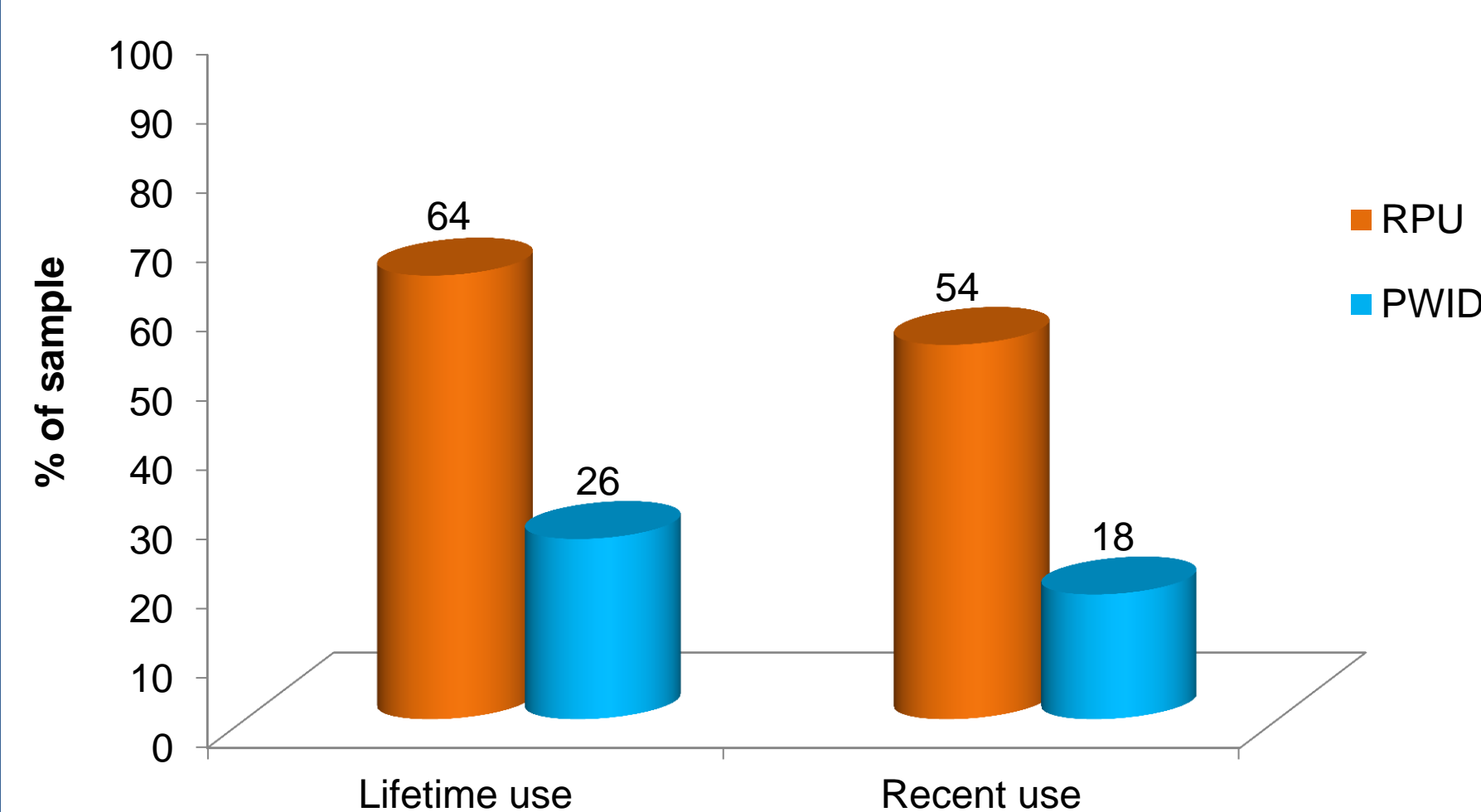
Many thanks to all the participants, service providers and interviewers involved in the IDRS & EDRS; and the current national co-ordinators, Natasha Sindich & Jenny Stafford. Funded by the Australian Government under the Substance Misuse Prevention and Service Improvement Grants Fund.

RESULTS

1. Prevalence of e-cigarette use

- Fifty-four percent of RPU and 18% of PWID reported using e-cigarettes in the six months preceding interview.
- However, frequency of use was low. RPU reported that they had used e-cigarettes on a median of 4 days in the preceding six months (range=1-180), whilst PWID had used e-cigarettes on a median of 3 days (range=1-180).

Figure 3: Lifetime and recent (past six month) use of e-cigarettes amongst RPU & PWID in Adelaide



2. Who is using e-cigarettes?

Table 1: Correlates of recent e-cigarette use amongst RPU in Adelaide, 2014

	Recent e-cigarette use		
	No	Yes	OR/t
Mean age	18	17**	$t_{98}=-3.41$
Age first tried ecstasy (mean)	23	20*	$t_{62}=-2.53$
Tertiary studies %	41	22*	0.41
Tobacco use# %	72	91*	3.86
Cannabis use# %	78	94*	4.72
No. of drug classes# (mean)	6	7*	$t_{98}=-2.30$

In the past six months
*p<0.05; **p<0.01

- RPU who had recently used e-cigarettes were more likely to: be younger; have initiated ecstasy use at a younger age; have recently used tobacco and cannabis; and to have higher levels of polydrug use. They were also less likely to have completed any tertiary education.

CONCLUSION

- The prevalence of e-cigarette use was found to be particularly high amongst RPU, with over half of the sample reporting that they had used e-cigarettes in the six months preceding interview. Surprisingly, one in five PWID also reported recent use of e-cigarettes.
- However, the frequency of e-cigarette use was low amongst both samples.
- Age and polydrug use were common predictors of recent e-cigarette use amongst both RPU and PWID.
- It appears that e-cigarettes are being used for recreational purposes, rather than as an alternative to tobacco or as a smoking cessation tool.

Contact: Rachel Sutherland
NDARC
University of New South Wales
Ph: (02) 9385 0256
Email: rachels@unsw.edu.au



- PWID who had used e-cigarettes in the six months preceding interview were more likely to: be female; younger; have used ecstasy in the six months preceding interview; have a higher level of polydrug use; and have overdosed on heroin in the past year.

Table 2: Correlates of recent e-cigarette use amongst PWID in Adelaide, 2014

	Recent e-cigarette use		
	No	Yes	OR/t
Mean age	43	38*	$t_{104}=2.51$
Male %	66	32**	0.24
Tobacco use# %	91	100	-
Ecstasy use# %	3	32***	12.92
Heroin OD (past year) %	8	60*	17.25
No. of drug classes# (mean)	5	7***	$t_{103}=-3.85$

In the past six months
*p<0.05; **p<0.01; ***p<0.001

3. Are e-cigarettes being used as an alternative to tobacco?

- It was hypothesised that if e-cigarettes were being used as an alternative to tobacco then participants who had used e-cigarettes in the past six months would be less likely to have used tobacco, or have a lower frequency of tobacco use.
- However, as seen in Table 1, RPU who had recently used e-cigarettes were almost four times more likely to have also used tobacco. They also had a higher frequency of tobacco use, although this was not statistically significant (see Figure 4).
- There were no significant differences in tobacco use amongst PWID who had recently used e-cigarettes.
- These findings, combined with the low frequency of e-cigarette use, suggest that **e-cigarettes are not being used as an alternative to tobacco**. Rather, it appears that they are largely being used alongside tobacco for recreational purposes.

Figure 4: Frequency of tobacco use amongst recent e-cigarette users, 2014

