



E-cigarettes: Holy Smoke!

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Medicine

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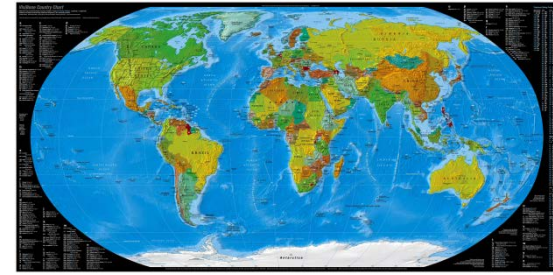
What is an e-cigarette?



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Brief history of e-cigarettes

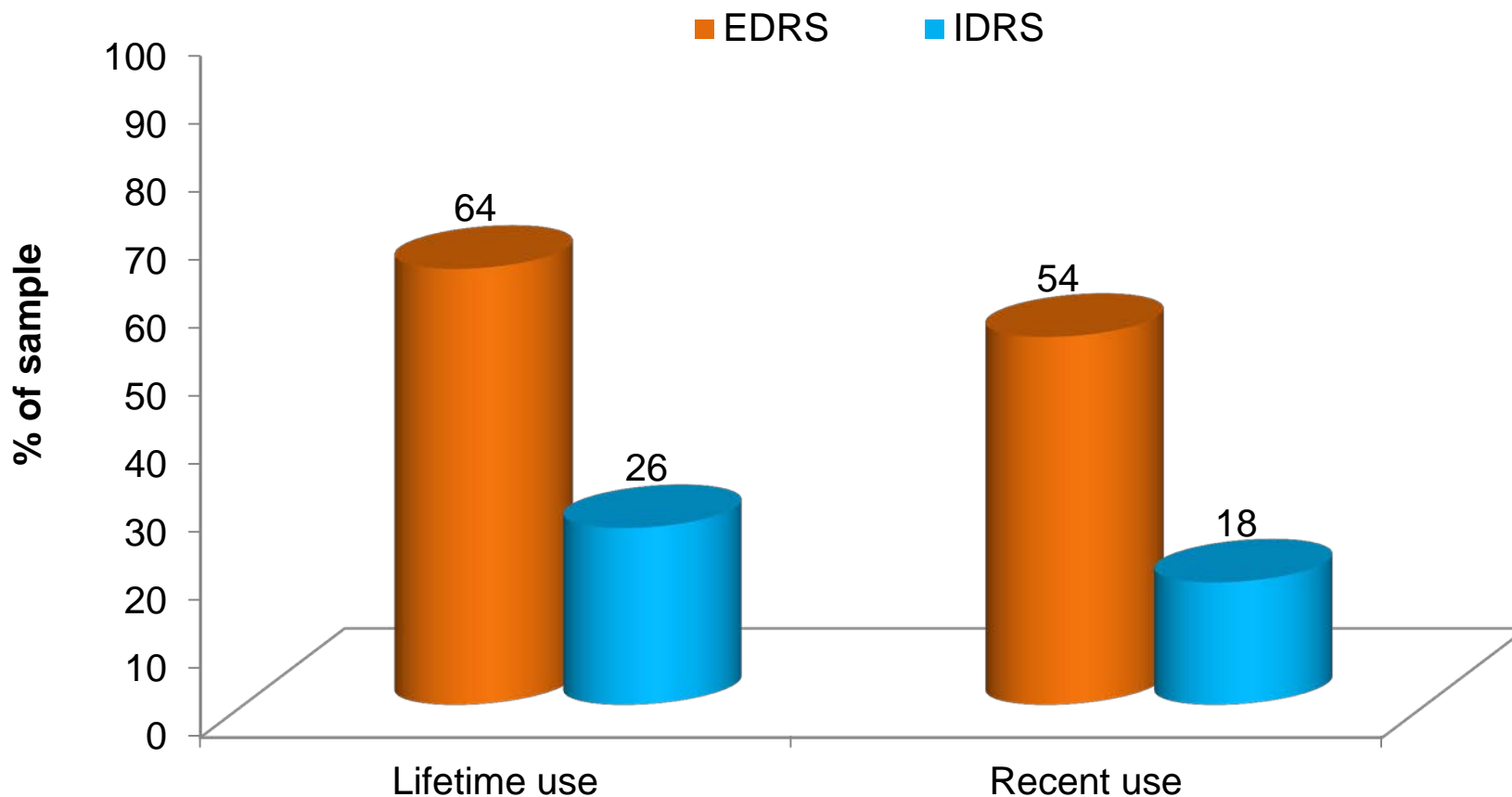


- Earliest e-cigarette can be traced back to Herbert Gilbert, 1963 → “smokeless non-tobacco cigarette”.
- Popularity of e-cigarettes has exploded in recent years.
- August 2013: e-cigarette market was estimated to be US\$2.1 billion globally.

Aims

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

Lifetime and recent use of e-cigarettes, 2014



Frequency of e-cigarette use, 2014

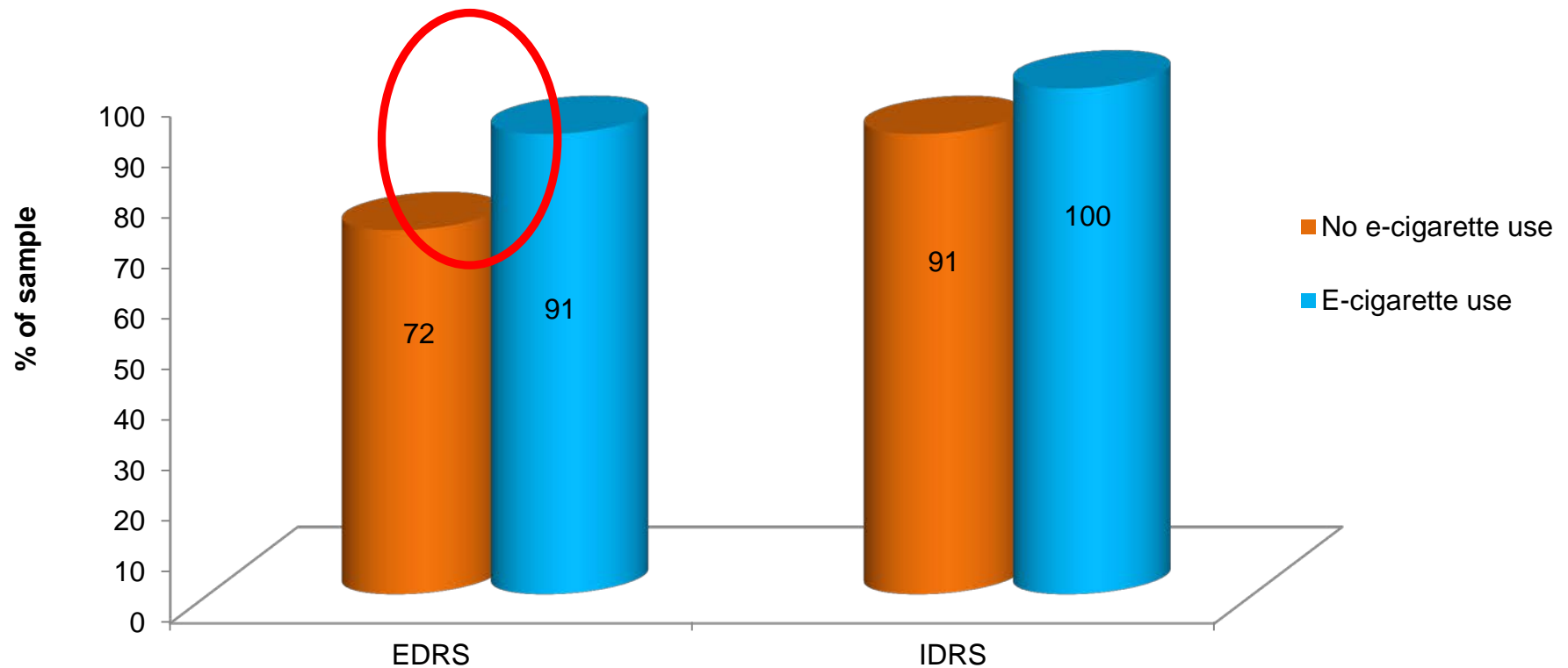
	EDRS	IDRS
Median number of days (range)	4 (1-180)	3 (1-180)

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

Hypothesis: Participants using e-cigarettes as an alternative to tobacco, or as a smoking cessation tool, would have a lower prevalence and/or frequency of tobacco use.

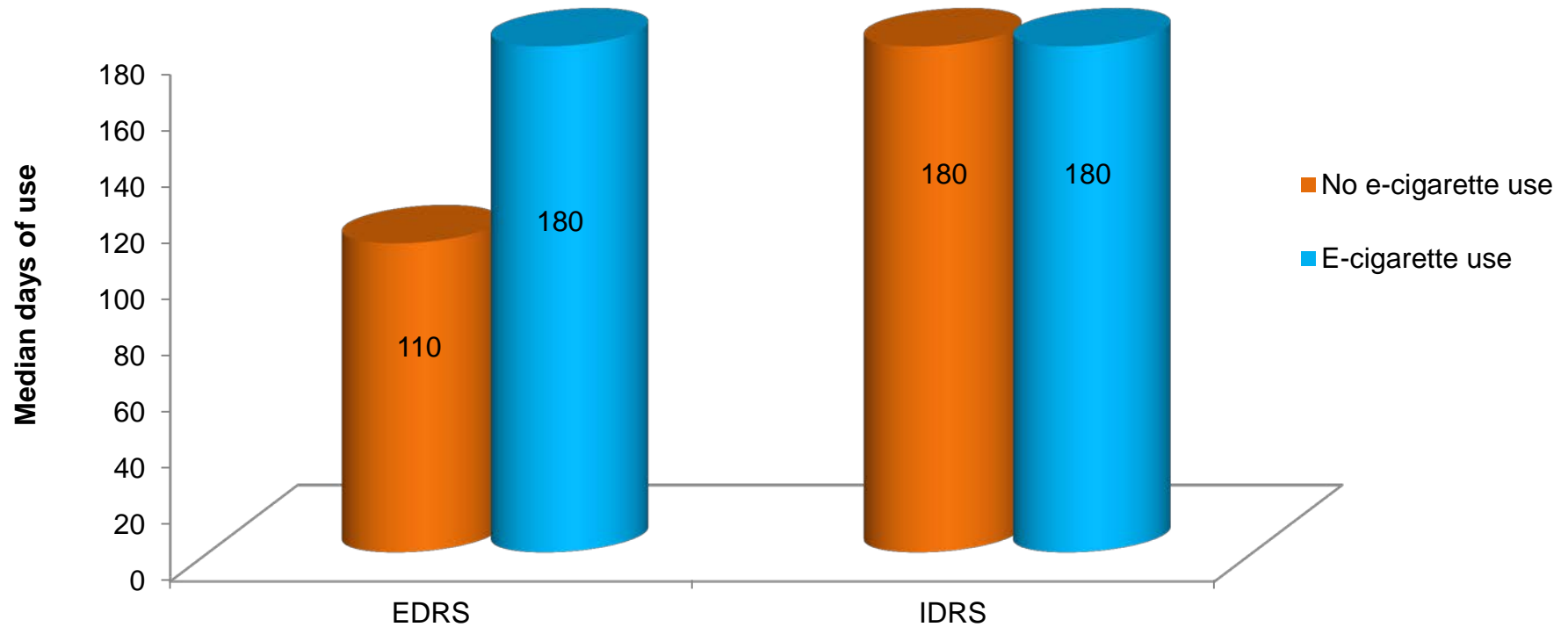
Are e-cigarettes being used as an alternative to tobacco?

1. Prevalence of tobacco use amongst e-cigarette users



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

2. Frequency of tobacco use amongst e-cigarette users



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 sensations of smoking tobacco.
- E-cigarettes use a heating element, known as an atomiser, to replicate the sensation of a combustible tobacco cigarette. The e-liquid (also commonly known as e-juice) is not burnt, instead people inhale the aerosolised liquid in the atomiser (vapor) and a flavour (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 increased in recent years, with sales here rising so rapidly that some analysts predict that they will surpass regular tobacco within a decade.
- E-cigarettes are legally marketed as a healthier alternative to smoking combustible 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 also debate regarding the safety of e-cigarettes, their efficacy as a smoking cessation tool, and whether they will normalise smoking behaviour.

Regular cigarette contains well over **4,000 harmful toxic chemicals.**



Start Vaping - Stop Smoking!

Figure 2. Photograph of a pack of e-cigarettes is increasingly being used to label.

AUSIM +METHOD

This paper uses data from the South Australian Survey of 2. National Drug Reporting System (NDRS) and the 3. Drug Reporting System (DRS).

- Examining the prevalence of e-cigarette use amongst regular combustible cigarette users (RPU) 2. people who use e-cigarettes (EPU) in Australia.
- Examining the variables of a e-cigarette to use amongst RPU 2. EPU in Australia.
- Explore whether e-cigarettes are being used as an alternative to tobacco.

ACKNOWLEDGEMENTS

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RESULTS

1. Prevalence of e-cigarettes use

- 70% (four percent) of RPU and 10% of EPU reported using e-cigarettes in the six months preceding interviews.
- However, frequency of use was less. RPU reported that they had used a e-cigarette on an average of 4 days in the preceding six months (range 0-100) whilst EPU had used a e-cigarette on an average of 2 days (range 0-100).

Figure 3. 1. Below and second bar chart overall use of e-cigarettes, amongst RPU 2. EPU in Australia.



CONCLUSION

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

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2. Who is using e-cigarettes?

Table 1. Characteristics of recent e-cigarette use amongst RPU in Australia, 2014.

	%	n	OR (95% CI)
Age (reference category: 18-24)	24	10	1.0
25-34	24	10	1.0
35-44	24	10	1.0
45-54	24	10	1.0
55-64	24	10	1.0
65-74	24	10	1.0
75+	24	10	1.0

- RPU who had recently used e-cigarettes had more than double the odds of being a regular cigarette user (OR 2.0, 95% CI 1.0-4.0).
- They were also less likely to have used tobacco in the last six months.

- EPU who had used a e-cigarette in the six months preceding interviews were more likely to be a female, younger, have used smoking in the six months preceding interviews, have a higher level of education, and have a lower level of income in the last six months.

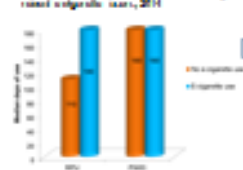
Table 2. Characteristics of recent e-cigarette use amongst EPU in Australia, 2014.

	%	n	OR (95% CI)
Age (reference category: 18-24)	24	10	1.0
25-34	24	10	1.0
35-44	24	10	1.0
45-54	24	10	1.0
55-64	24	10	1.0
65-74	24	10	1.0
75+	24	10	1.0

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

- It was hypothesised that e-cigarettes were being used as an alternative to tobacco for participants who had used e-cigarettes in the past six months could 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 used tobacco. They also had a higher frequency of tobacco use, although this was not statistically significant (see Figure 4).
- There was no significant difference in tobacco use amongst EPU 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.



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