

# Tobacco and e-cigarette use among two samples of people from Canberra, ACT who use illicit drugs.

Julia Uporova & Amy Peacock

National Drug and Alcohol Research Centre, UNSW Sydney

## Key Findings

- There was no indication of a decrease in any past six month tobacco use or in frequency of use from 2014 to 2019 among cross-sectional sentinel samples in the ACT who regularly use ecstasy and samples who inject drugs.
- In the ACT in 2019, four in ten participants who use ecstasy and one in ten participants who inject drugs reported recent e-cigarette use. Most participants who reported recent use of e-cigarettes had also used tobacco.
- There was some variation across samples and years in the percentage using e-cigarettes as a smoking cessation tool.

## Background

Daily tobacco use is continuing to decline in the ACT, whilst e-cigarette use is increasing. The National Drug Strategy Household Survey showed that the percentage of ACT residents aged 14 and older reporting daily smoking declined from 9.5% in 2016 to 8.2% in 2019. By contrast, the percentage of ACT residents aged 14 and older reporting current<sup>a</sup> use of e-cigarettes increased from 1.5% in 2016 to 2.0% in 2019.<sup>1</sup>

Electronic cigarettes, or e-cigarettes, are battery-driven devices that allow inhalation of nicotine, tetrahydrocannabinol (THC) and other chemicals in a vapour form. They can also contain other ingredients and come in many different flavours. Often, e-cigarettes are marketed as a smoking cessation tool.<sup>2</sup> In Australia, it is illegal to sell e-cigarettes that contain nicotine, and there has been an announcement by the Australian Government of potential further import restrictions from 2021.<sup>3</sup> In addition, the Therapeutic Goods Administration (TGA) has recently made an interim decision that nicotine-containing e-cigarettes can only be supplied with a doctor's prescription (decision currently open for public consultation).<sup>4</sup>

Despite the decrease of tobacco use in the general population in the ACT, smoking is significantly more pervasive among populations of people who use illicit drugs.<sup>5,6</sup> The patterns of e-cigarette use also differs between population data and different subpopulations of people who consumed illicit drugs. Previous research in 2015 showed that the majority of people that consumed illicit drugs had also consumed tobacco in the past six months, but use was higher in the group that injected illicit drugs compared to those that consumed ecstasy and related stimulant drugs.<sup>6</sup> In addition, the group that injected illicit drugs were less likely to have used e-cigarettes in the past six months, but were more likely to have used it as a smoking cessation tool.<sup>7</sup>

The aim of this bulletin is to provide a brief update on tobacco and e-cigarette use amongst two samples of people from Canberra, ACT who use illicit drugs.

## Methods

Data were used from the Ecstasy and Related Drugs Reporting System (EDRS; a sample of people who regularly consume ecstasy and other stimulant drugs) and the Illicit Drug Reporting System (IDRS; a sample of people who regularly inject illicit drugs), recruited annually in Canberra, ACT between April-June from 2014-2019. A total of 100 participants were interviewed per year and per project and were recruited via word-of-mouth, social media (mainly EDRS) and health services (mainly IDRS). The participants had to be a minimum of 17 years old, have lived in Canberra for at least 10 out of 12 months preceding interview and had injected (IDRS) illicit drugs or consumed ecstasy or other illicit stimulants (EDRS) on a  $\geq$ monthly basis in the past six months. Year on year chi-square comparisons for past six month use and year on year Mann-Whitney U test comparisons on frequency of use (median days) were conducted using SPSS. Consumption characteristics are reported descriptively.

<sup>a</sup>current use defined as 'reporting smoking e-cigarettes daily, weekly, monthly or less than monthly'. These data should be treated with caution due to large standard errors.

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## Results

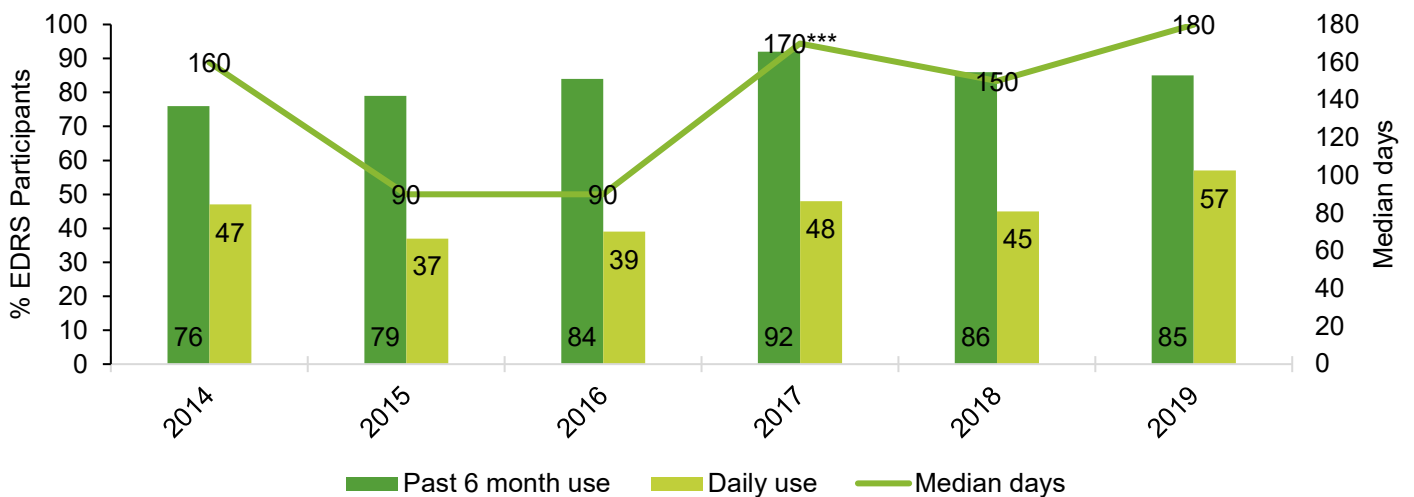
### Tobacco use

At least three-quarters of the EDRS sample reported past six month use of tobacco from 2014 to 2019, peaking at 92% in 2017. Daily smoking was reported by nearly three-fifths (57%) of the EDRS participants that reported past six month smoking in 2019, the highest number between 2014 and 2019 (Figure 1a). Median days of use was reported at 180 days (i.e., daily) in 2019.

At least nine in ten participants of the IDRS sample reported past six month tobacco use from 2014 to 2019. The percentage reporting daily smoking was higher than EDRS, with at least 89% reporting this behaviour, and median days of use in the past six months was consistently 180 (i.e., daily) (Figure 1b).

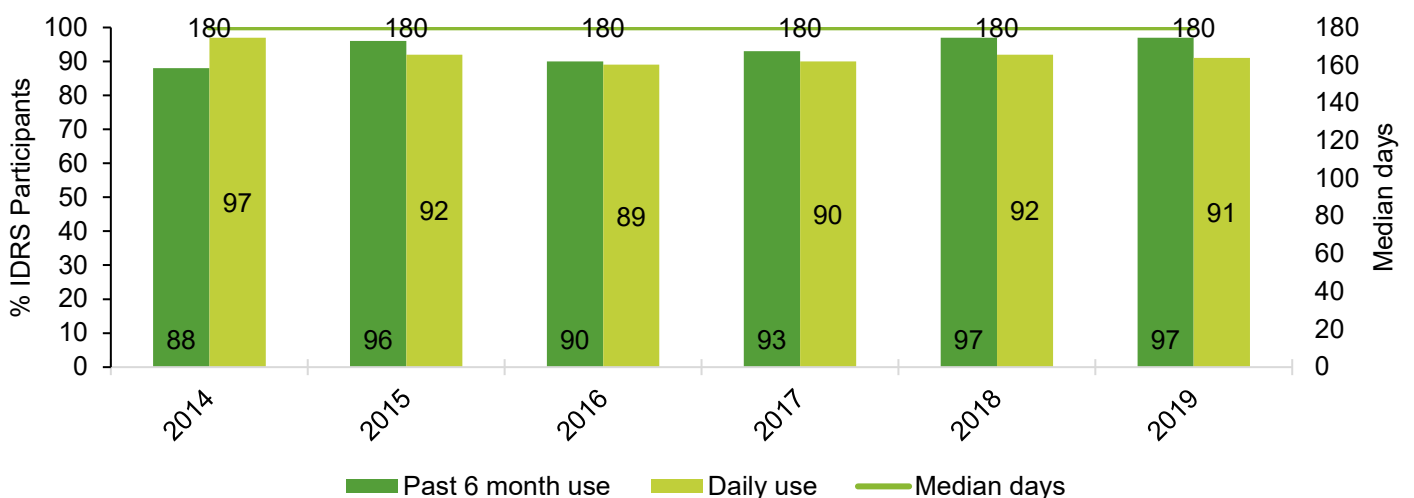
Figure 1. Past six month use, daily use and frequency of use of tobacco among EDRS and IDRS participants, ACT, 2014-2019.

#### A. Tobacco use among ACT EDRS participants



Note. \* $p < 0.050$ ; \*\* $p < 0.010$ ; \*\*\* $p < 0.001$  for year on year analyses. Daily use and median days displayed among those reporting past six month use.

#### B. Tobacco use among ACT IDRS participants



Note. Daily use and median days displayed among those reporting past six month use.

## Results Cont.

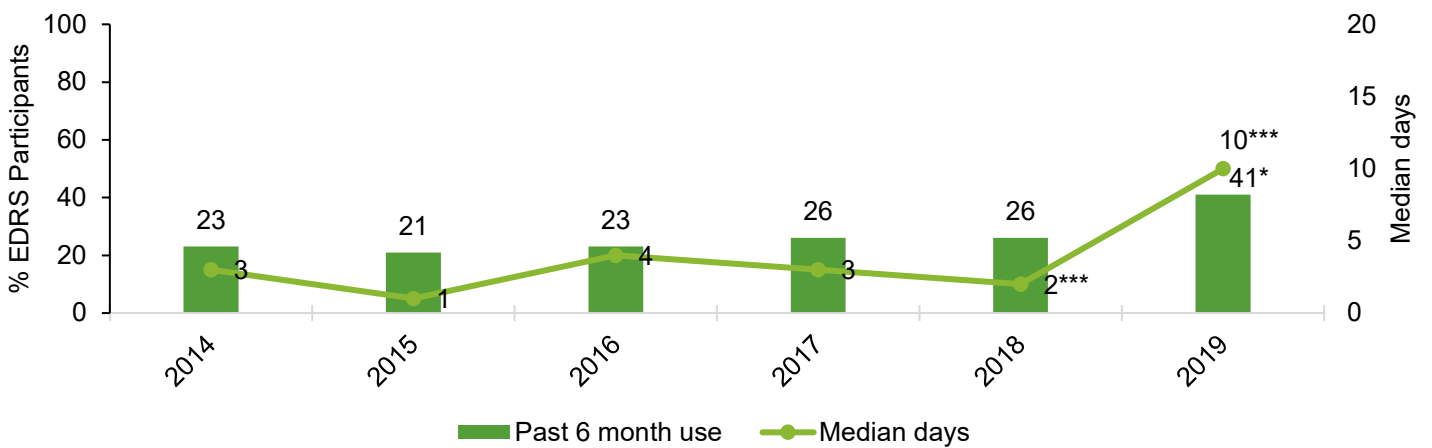
### E-cigarette use

Past six month use of e-cigarettes among the EDRS sample was mostly stable between 2014 and 2018, however, significantly more participants reported having used e-cigarettes in 2019 compared to 2018 ( $p < 0.05$ ). In 2019, median days of use was reported as 10 days, significantly higher than 2018 (2 days:  $p < 0.001$ ) (Figure 2a).

Compared to EDRS, fewer IDRS participants reported past six month use of e-cigarettes between 2014 and 2019 (10%-24%). In 2019, one in ten participants (10%) reported past six month use, the lowest number in that time period. There was greater variation in median days (2-17 median days between 2014-2019) which is expected due to smaller numbers reporting (Figure 2b).

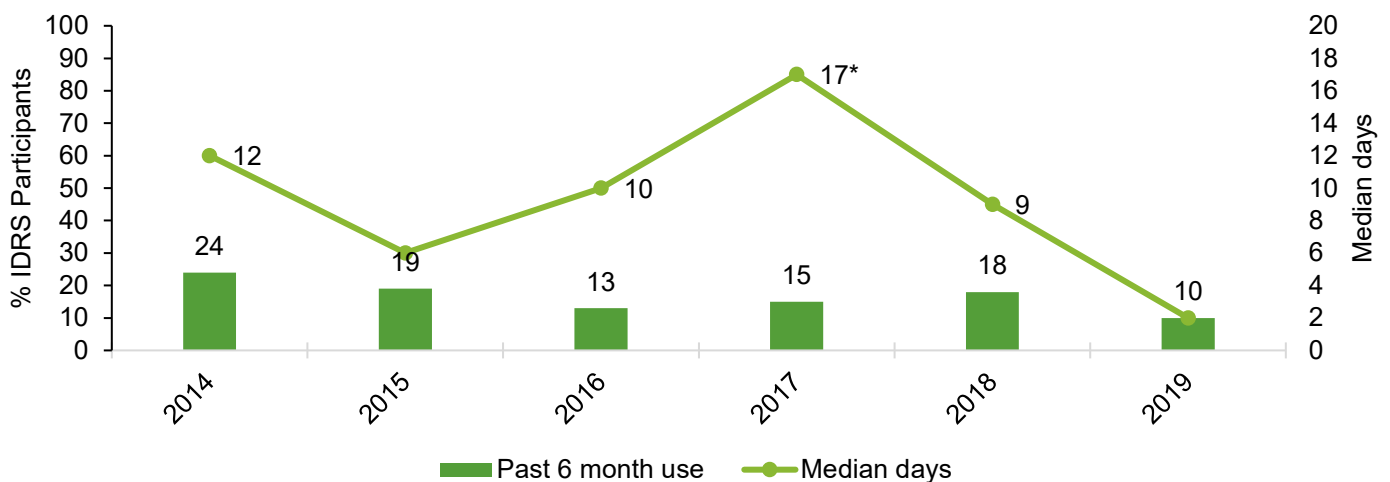
Figure 2. Past six month use and frequency of use of e-cigarettes among EDRS and IDRS participants, ACT, 2014-2019.

#### A. E-cigarette use among ACT EDRS participants



Note. \* $p < 0.050$ ; \*\* $p < 0.010$ ; \*\*\* $p < 0.001$  for year on year analyses. Median days displayed among those reporting past six month use. Second y-axis reduced to 20 days to improve visibility (range 1-180).

#### B. E-cigarette use among ACT IDRS participants



Note. \* $p < 0.050$ ; \*\* $p < 0.010$ ; \*\*\* $p < 0.001$  for year on year analyses. Median days displayed among those reporting past six month use. Second y-axis reduced to 20 days to improve visibility (range 1-180).

## Results Cont.

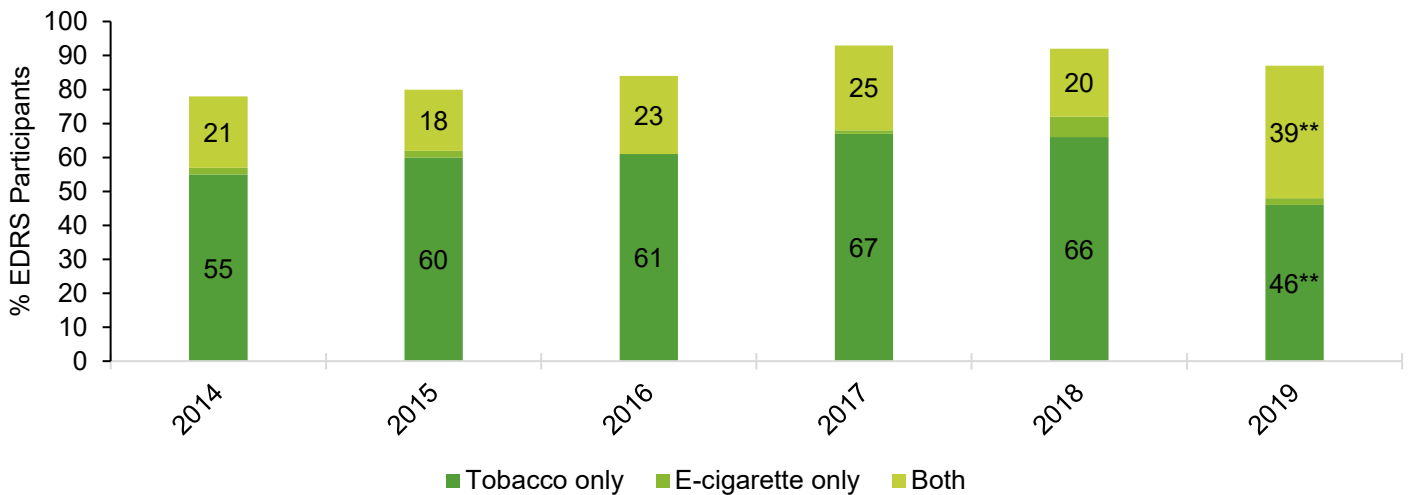
### Dual tobacco and e-cigarette use

Past six month use of tobacco and e-cigarettes – independent and dual use - was stable between 2014 and 2018 among the EDRS sample. In 2019, there was an increase in those reporting using both tobacco and e-cigarettes ( $p<0.01$ ) and a decrease in those reporting using tobacco only ( $p<0.01$ ) compared to 2018. Low numbers reported using e-cigarettes only ( $n\leq 5$ ) (Figure 3a).

In comparison, the IDRS sample also showed low use of e-cigarettes, with no one reporting e-cigarette only use in 2015 and from 2017-2019, and  $n\leq 5$  reporting doing so in the 2016 sample. As such, nearly all participants reporting e-cigarette use in the IDRS sample also reported tobacco use (i.e., dual use), although the small percentage reporting any e-cigarette use should be noted (Figure 3b).

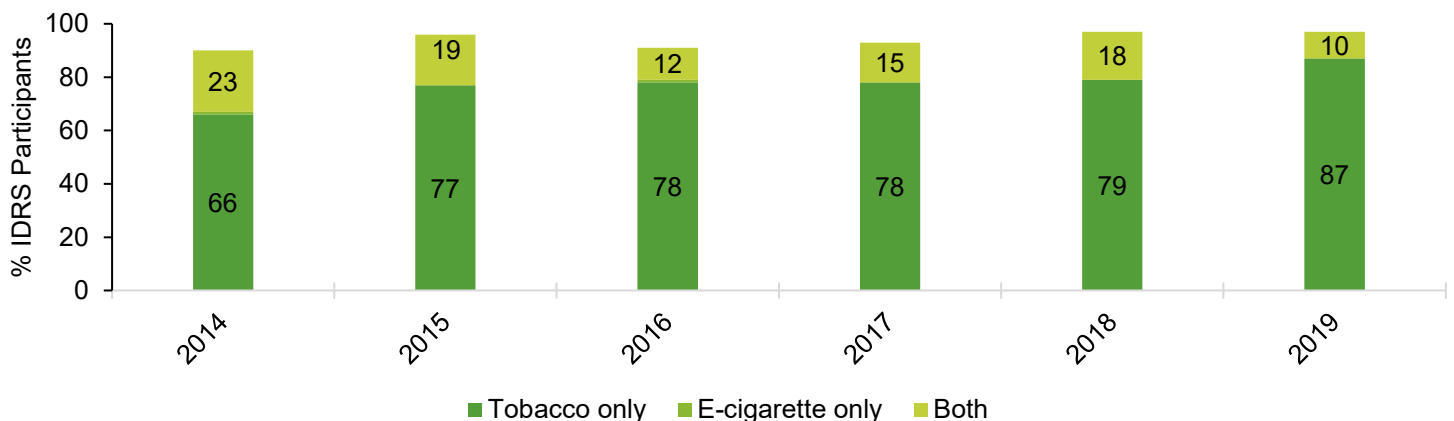
Figure 3. Past six month use of tobacco only, e-cigarette only or both tobacco and e-cigarette use among EDRS and IDRS participants, ACT, 2014-2019.

#### A) Tobacco only, e-cigarette only or dual use among the ACT EDRS participants



Note. \* $p<0.050$ ; \*\* $p<0.010$ ; \*\*\* $p<0.001$  for year on year analyses. Data labels have been removed from figures with small cell size (i.e.  $n\leq 5$ ).

#### B. Tobacco only, e-cigarette only or dual use among the ACT IDRS participants



Note. Data labels have been removed from figures with small cell size (i.e.  $n\leq 5$ ).

## Results Cont.

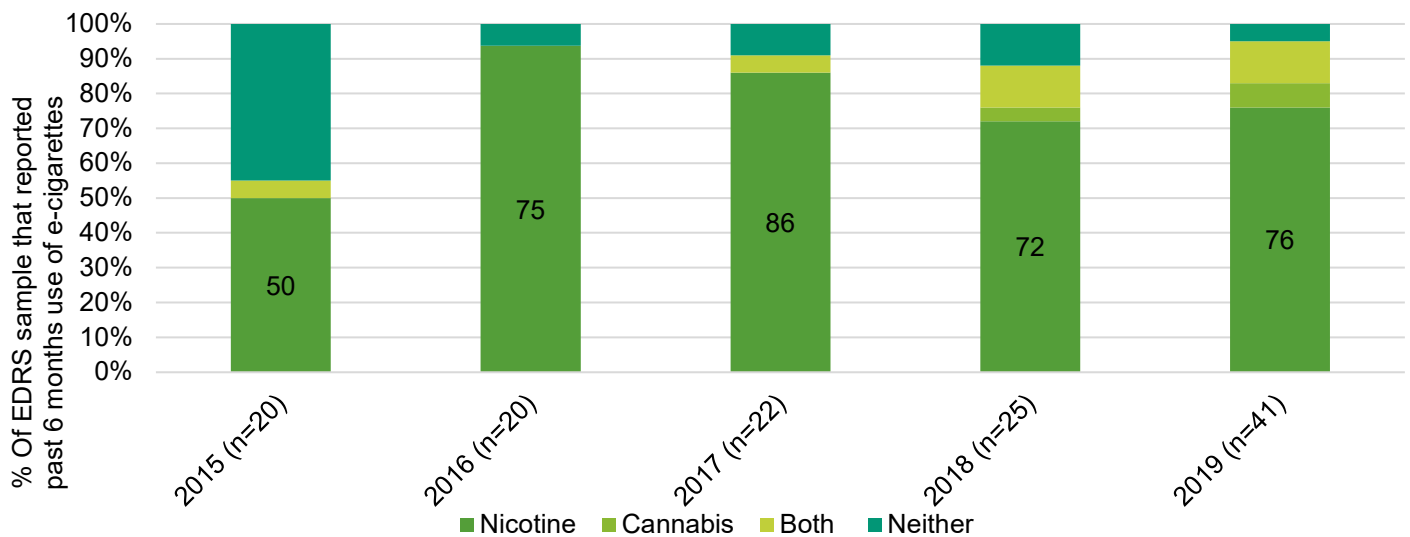
### Characteristics of e-cigarette use

Of the EDRS participants that reported past six month use of e-cigarettes and were able to comment, the majority reported their e-cigarettes to contain nicotine across all years, although with some variability (Figure 4a). Across all years, two-fifths or less reported to have used e-cigarettes as a smoking cessation tool (25%-42%) (Table 1).

A similar percentage in the IDRS sample reported nicotine as a main ingredient in their e-cigarettes between the years 2015 and 2018 (61%-100%; Figure 4b), with a variable percentage (33%-77%) reported using e-cigarettes as a smoking cessation tool compared to the EDRS (small numbers reporting to be noted here; Table 1).

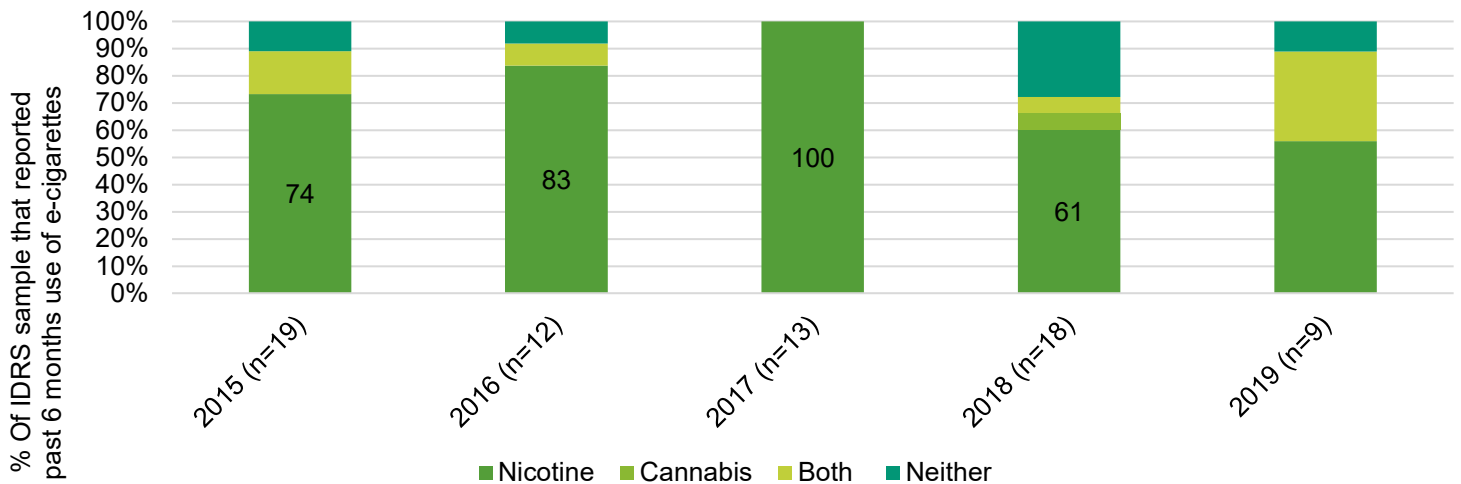
Figure 4. Reports of main ingredient in e-cigarettes among EDRS and IDRS participants that reported past six month use of e-cigarettes, ACT, 2015-2019.

#### A) Main ingredient in e-cigarettes among ACT EDRS participants that reported past six month use



Note. Data labels have been removed from figures with small cell size (i.e.  $n \leq 5$ ).

#### B. Main ingredient in e-cigarettes among ACT IDRS participants that reported past six month use



Note. Data labels have been removed from figures with small cell size (i.e.  $n \leq 5$ ).

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## Results Cont.

Table 1. Reports of e-cigarette use as a smoking cessation tool among EDRS and IDRS participants, ACT, 2015-2019

	2015	2016	2017	2018	2019
<b>EDRS: Used e-cigarettes as a smoking cessation tool %</b>	n=20	n=20	n=22	n=25	n=41
No	85	74	75	69	59
Yes	-	26	25	31	42
<b>IDRS: Used e-cigarettes as a smoking cessation tool %</b>	n=19	n=13	n=15	n=18	n=10
No	47	-	40	67	-
Yes	53	77	60	33	-

Note. Data suppressed when small numbers (i.e.  $n \leq 5$ ). Among those who commented.

## Conclusion

Despite tobacco use declining amongst the general population in the ACT,<sup>1</sup> different patterns were observed amongst the sentinel groups of people who use illicit drugs reported on here. In particular, there was no indication of a decrease of any past six month tobacco use or frequency of use among the ACT EDRS and IDRS samples. In addition, the IDRS samples showed higher engagement in daily tobacco smoking compared to the EDRS samples.

Even though current e-cigarette use is relatively uncommon among the ACT population,<sup>1</sup> a much higher percent of people who use illicit drugs report past six month use of e-cigarettes, particularly among the EDRS sample. In 2019, four in ten EDRS participants and one in ten IDRS participants reported any past six month use of e-cigarettes. For the first time since monitoring began, an increase in any use of tobacco and of e-cigarettes was reported among the EDRS sample in 2019, whereas the smallest number reported doing so among the IDRS sample. Notably, in both groups, most participants who reported e-cigarette use had engaged in dual use (i.e., use of both tobacco and e-cigarettes in the past six months).

The majority in both groups reported to have used e-cigarettes mainly containing nicotine and there were people in both samples reporting using e-cigarettes for cessation purpose. Specifically, there was some variation in the percent doing so over time in the IDRS samples, and an increase over time in the percent reporting this in the EDRS samples. Despite people reporting using e-cigarettes as a smoking cessation tool in the IDRS and the EDRS groups, past six month use of tobacco consumption has not decreased over time.

It is imperative to continue to monitor these groups and their use of tobacco and e-cigarettes as the patterns observed in these two samples are different to those of the general population. Such findings suggest that current efforts to reduce tobacco smoking in the ACT population may not be reaching those groups represented by IDRS and EDRS, although there is some evidence that a proportion of both groups may be attempting to use e-cigarettes for this purpose.

## Acknowledgments

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## Participating Researchers and Research Centres

- Antonia Karlsson, Julia Uporova, Daisy Gibbs, Rosie Swanton, Olivia Price, Professor Louisa Degenhardt, Professor Michael Farrell and Dr Amy Peacock, National Drug and Alcohol Research Centre, University of New South Wales;
- Cristal Hall, Dr Campbell Aitken and Professor Paul Dietze, Burnet Institute Victoria;
- Tanya Wilson and Associate Professor Raimondo Bruno, School of Psychology, University of Tasmania;
- Jodie Grigg and Professor Simon Lenton, National Drug Research Institute, Curtin University, Western Australia;
- Chris Moon, Northern Territory Department of Health;
- Catherine Daly and Dr Caroline Salom, Institute for Social Science Research, The University of Queensland.

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