

Background

Research relevant to the potential impacts of electronic cigarettes (e-cigarettes) on public health is continuing to evolve, including in areas such as product safety, cessation efficacy and trends in awareness and use. Based on early research on e-cigarettes and on past experience in tobacco control, Cancer Council Australia recommends action on three particular regulatory gaps to prevent uptake and use of electronic cigarettes by young people. Areas in need of priority attention for this purpose include the proper regulation of: (a) non-nicotine e-cigarettes (nicotine e-cigarettes are regulated under NSW Poisons legislation); (b) use in smoke-free environments; and (c) advertising.

To inform Cancer Council NSW's advocacy to the NSW Government regarding comprehensive e-cigarette regulation and to assist with developing education programs related to e-cigarettes, Cancer Council NSW conducted a survey of adults living in NSW. Issues captured by the survey included:

- Awareness of e-cigarettes
- Perceptions about the purpose of e-cigarettes
- Use of e-cigarettes
- Reasons for using e-cigarettes
- Beliefs about the safety and efficacy of e-cigarettes; and
- Support for e-cigarette regulation.

Methods

An online survey of 1,001 NSW adults aged between 18 and 64 was conducted during May 2015. Participants were recruited from a permission based panel. Data were post-weighted to reflect the NSW population using 2011 census data (see Table 1 for sample characteristics).

Table 1. Survey sample characteristics

Variable	Unweighted sample	Weighted sample (000s)		
-	n (%)	n (%)		
Sex				
Male	501 (50.0%)	2,339 (49.4%)		
Female	500 (50.0%)	2,398 (50.6%)		
Smoking status				
I smoke daily	105 (10.5%)	494 (10.4%)		
I smoke occasionally	59 (5.9%)	279 (5.9%) [′]		
I don't smoke now but I used to	237 (23.7%)	1,105 (23.3%)		
I've tried a few times, but never smoked regularly	133 (13.3%)	630 (13.3%)		
I've never smoked	455 (45.5%)	2,167 (45.7%)		
None/don't know	12 (1.2%)	61 (1.3%)		
Age				
18-24	146 (14.6%)	688 (14.5%)		
25-29	84 (8.4%)	413 (8.7%)		
30-34	132 (13.2%)	625 (13.2%)		
35-39	117 (11.7%)	551 (11.6%)		
40-44	104 (10.4%)	495 (10.4%)		
45-49	117 (11.7%)	556 (11.7%)		
50-54	118 (11.8%)	564 (11.9%)		
55-59	97 (9.7%)	452 (9.5%)		
60-64	86 (8.6%)	395 (8.3%)		

^{*}Percentages and weighted sample may not add to 100 due to rounding

Education		
Less than year 12	94 (9.4%)	444 (9.4%)
Year 12	123 (12.3%)	592 (12.5%)
TAFE/Diploma	330 (33.0%)	1,571 (33.2%)
Attended university	76 (7.6%)	341 (7.2%)
Under-graduate/Post-graduate university degree	378 (37.8%)	1,790 (37.8%)
Household income		
<40,000	82 (8.2%)	381 (8.0%)
\$40,000 - \$69,999	157 (15.7%)	741 (15.7%)
\$70,000 - \$89,999	116 (11.6%)	553 (11.7%)
\$90,000 - \$129,000	202 (20.2%)	947 (20.0%)
\$130,000 +	243 (24.3%)	1,128 (23.8%)
Prefer not to say	201 (20.1%)	987 (20.8%)
Location		
Sydney	657 (65.6%)	3,107 (65.6%)
Other NSW	344 (34.4%)	1,630 (34.4%)
Children under eighteen		
Yes	368 (36.8%)	1,724 (36.4%)
No	633 (63.2%)	3,013 (63.6%)
Total	1,001 (100%)	4,737 (100%)

Awareness of and perceived purpose of electronic cigarettes

Participants were provided with a description of e-cigarettes, specifically "e-cigarettes are electronic devices that contain a flavoured or nicotine-based liquid that is vaporised and inhaled. The liquids used in e-cigarettes are usually referred to as e-liquids or e-juice. E-cigarettes are battery powered, and when used, they produce a vapour instead of smoke. Some look like cigarettes and others look like pens or small pipes". They were then asked whether, prior to taking the survey, they had heard of electronic cigarettes.

Overall, 91% of participants reported that they had heard of e-cigarettes before participating in the research.

When asked what the purpose of e-cigarettes was (note: multiple responses were permitted), the most common response was to "help smokers to quit" (49%), followed by "a way for smokers to stop smoking, but still get nicotine" (41%) and "a way for smokers to cut down/smoke-less per day" (37%). These responses were common across all sub-groups.

Use of electronic cigarettes

Ever-use of e-cigarettes was low among participants, with just 13% reporting current or past use. Daily smokers (53%), followed by 18-24 year-olds (24%) and occasional smokers (21%) reported the highest use (Figure 1).

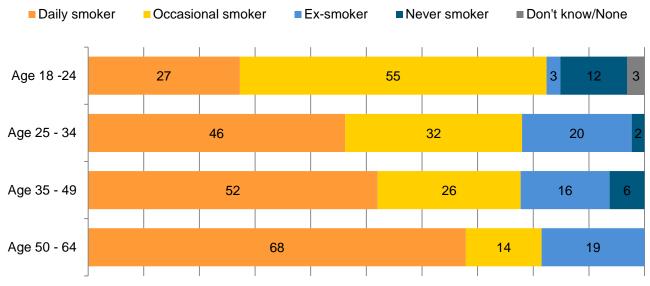
Among the 24% of 18-24 year-olds who reported e-cigarette use, 27% were daily smokers, 55% were occasional smokers, 3% were ex-smokers and 12% were never smokers (Figure 2).

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53% 24% 21% 18% 15% 13% 12% 10% 7% 6% 2% Daily Total Male Female 18-24 25-34 35-49 50-64 Occasional Ex-smoker Never smoker smoker smoker ALL Gender Age **Smoking Status**

Figure 1. 'Ever use' of electronic cigarettes by gender, age and smoking status

Figure 2. Smoking status of participants who have tried of who use e-cigarettes by age group



% participants who reported ever using an e-cigarette*

Reasons for using electronic cigarettes

Among those who have used an e-cigarette, the top three reasons given for first trying an e-cigarette were:

- 1. "to help quit smoking" (25%)
- 2. "because of the novelty" (22%); and
- 3. "because my friends use them" (12%)

Reasons for first using an e-cigarette differed by age-group and smoking status (Table 2). For example, young adults (those aged 18 to 24) were most likely to report novelty (32%)

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and use among friends (19%) as their main reason for trying an e-cigarette, whereas older adults (those aged 35 to 49 and 50 to 64) were most likely to report first using e-cigarettes to help to quit smoking (47%) or to help cut down (14%). Differences by smoking status are shown in Table 2.

Among those who reported continued use of e-cigarettes the primary reasons given for continued use were:

- 1. "to help quit smoking" (17%)
- 2. "to help cut down" (14%); and
- 3. "for enjoyment/because I like it" (13%)

Reasons for continued use also differed by age and smoking status (Table 2). While daily smokers and ex-smokers continued to use e-cigarettes to help quit smoking (21% daily smokers and 10% ex-smokers), cut down (21% daily smokers), or stop smoking but still get nicotine (17% daily smokers and 10% ex-smokers), occasional smokers and never-smokers were most likely to report novelty (14% occasional smokers and never-smokers) and enjoyment (14% occasional smokers and of never-smokers) as the main reasons for ongoing use. Among young adults novelty (21%), enjoyment (17%) and to save money (16%) were the most reported reasons for continued use.

Table 2. Top 3 reasons for first and continued use of e-cigarettes by gender, age and smoking status

		Gender			Age (group		Smoking status			
Rank	All	Male	Female	18-24	25-34	35-49	50-64	Daily smoker	Occasio -nal smoker	Ex- smoker	Never Smoker
REASON FOR FIRST USE											
1	Help quit smoking (25%)	Novelty (29%)	Help quit smoking (36%)	Novelty (32%)	Novelty (25%)	Help quit smoking (26%)	Help quit smoking (47%)	Help quit smoking (36%)	Novelty (34%)	Help quit smoking (33%)	Novelty (35%)
2	Novelty (22%)	Help quit smoking (16%)	Novelty (14%)	Use among friends (19%)	Help quit smoking (24%)	Help cut down (19%)	Help cut down (14%)	Novelty (10%)	Use among friends (21%)	Novelty (25%)	Enjoyme nt (14%)
3	Use among friends (12%)	Use among friends (14%)	Help cut down (12%)	Help quit smoking (11%)	Use among friends (14%)	Novelty (16%)	EC less harmful than cigarette (11%)	Stop smoking but still get nicotine (10%)	EC less harmful than cigarette (12%)	Help cut down (19%)	Other (14%)
REASON FOR CONTINUED USE											
1	Help quit smoking (17%)	Help quit smoking (19%)	EC less harmful than cigarette (16%)	Novelty (21%)	Help quit smoking (17%)	Help quit smoking (16%)	Help quit smoking (27%)	Help cut down (21%)	Novelty (14%)	Help quit smoking (10%)	Novelty (14%)

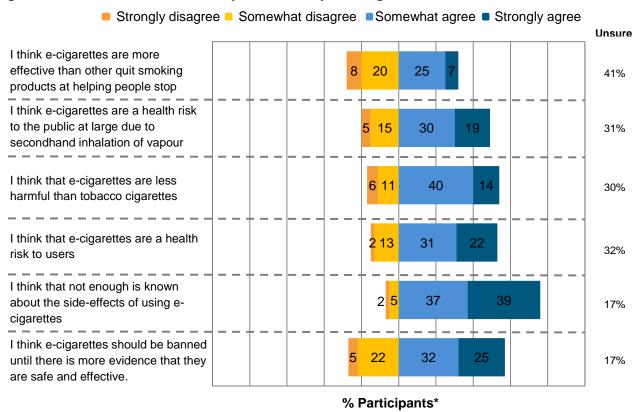
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2	Help cut down (14%)	Enjoyme nt (14%)	Help cut down (15%)	Enjoyme nt (17%)	EC less harmful than cigarette s (13%)	Enjoyme nt (13%)	Help cut down (27%)	Help quit smoking (21%)	Enjoyme nt (14%)	Stop smoking , but still get nicotine (10%)	Enjoyme nt (14%)
3	Enjoyme nt (13%)	Help cut down (14%)	Help quit smoking (15%)	Save money (16%)	Stop smoking but still get nicotine/ Use among friends (14%)	Help cut down (13%)	EC less harmful than cigarette s /Enjoym ent (14%)	Stop smoking , but still get nicotine (17%)	Help quit smoking /Save money (13%)	Use among friends/ Enjoyme nt (10%)	EC less harmful than cigarette (14%)

Perceptions of electronic cigarette safety and efficacy

There was uncertainty about the safety and efficacy of e-cigarettes (Figure 3). Most felt that not enough was known about the side-effects (76%) and about half felt that they were probably a health risk to users (53%) and bystanders (49%). Disagreement and uncertainty about the efficacy of e-cigarettes in comparison to approved NRT was found, with 41% unsure.

Figure 3. Attitudes about the safety and efficacy of e-cigarettes



Support for regulating the SALE of electronic cigarettes

Participants were informed that in NSW it is illegal to sell tobacco products to people under the age of 18, to promote or advertise cigarettes, and for cigarettes and other tobacco products to contain fruity or confectionary flavourings, but that none of these restrictions

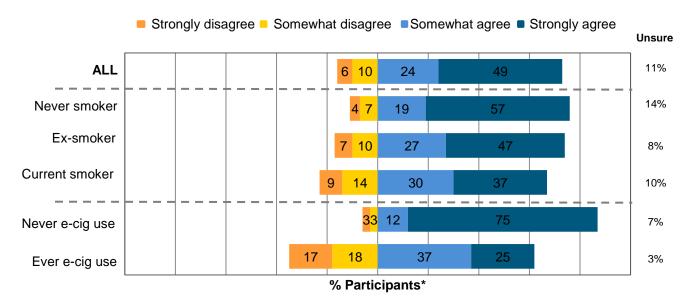
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apply to e-cigarettes. Participants were then asked to indicate their view about introducing restrictions on the sale of e-cigarettes.

i. Regulate e-cigarettes in a similar way to tobacco products

Overall, there was agreement that e-cigarettes should be regulated in a similar way to tobacco products, with 73% in agreement and 16% disagreeing (Figure 4). Majority support was found among all sub-groups, including among current smokers (67%) and those who had used an e-cigarette (62%).

Figure 4. Agreement with the statement "I think similar restrictions to cigarettes and tobacco products should be applied to e-cigarettes"



ii. Ban the sale of e-cigarettes to minors

There was strong support for banning the sale of e-cigarettes to persons under the age of 18, with 85% expressing support for this policy measure (Figure 5).

iii. Regulate advertising and promotion of e-cigarettes

There was majority agreement (61%) that advertising and promotion, including in store displays of e-cigarettes should be banned. Majority support persisted across all subgroups, except for among those who had used an e-cigarette where 50% agreed and 44% disagreed that advertising and promotions should be banned (Figure 6).

iv. Ban the sale of fruity, sweet and confectionary-like e-cigarettes and e-liquids

Most participants (55%) agreed that fruity, sweet and confectionary-like e-cigarettes and e-liquids should be banned, however after banning e-cigarettes completely this was the least favoured policy option. Parents of children under the age of 18 showed the greatest support for this policy option (Figure 7). Most participants (55%) who reported e-cigarette use did not support banning these flavourings (Figure 7).

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Figure 5. Agreement with the statement "I think it should be illegal for shops to sell ecigarettes to people under the age of 18"

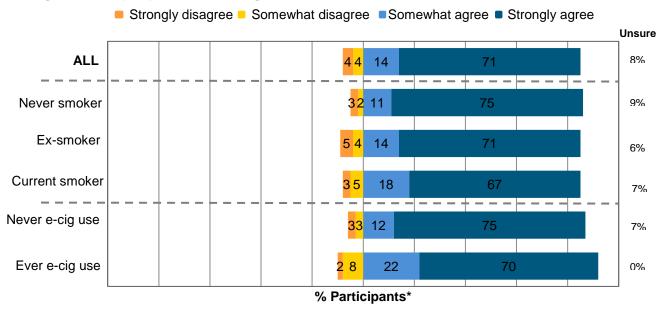
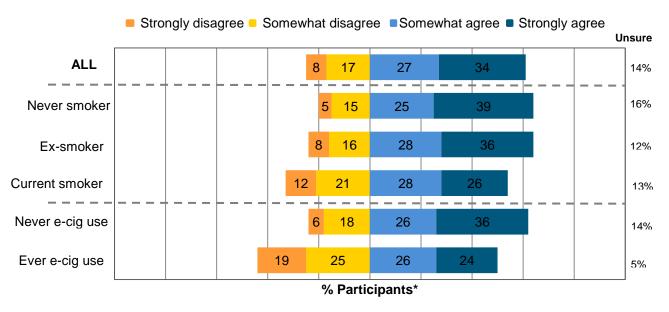
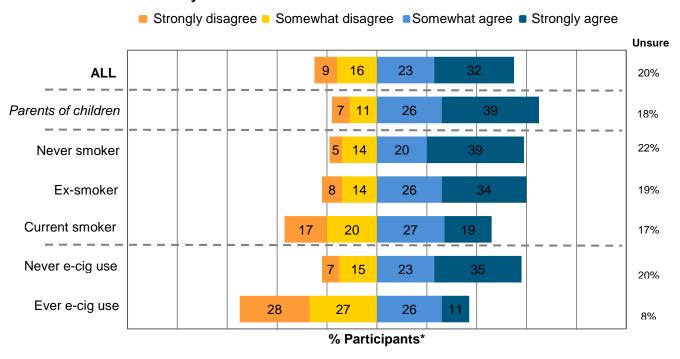


Figure 6. Agreement with the statement "I think advertising and promotion, including in-store displays of e-cigarettes should be banned"



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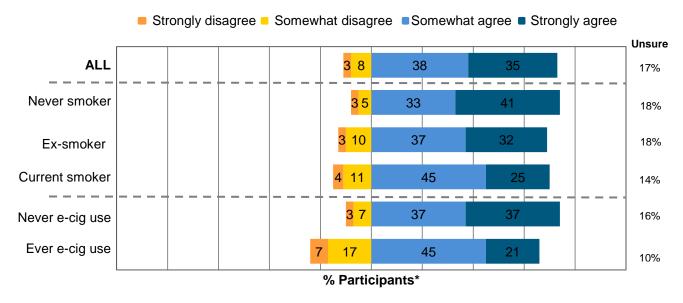
Figure 7. Agreement with the statement "I think e-cigarettes and e-liquids with a fruity, sweet or confectionary-like flavour should be banned"



v. Regulating e-cigarettes in the same way as other nicotine replacement therapies

There was strong support (73%) for regulating e-cigarettes in the same way as other pharmaceutical nicotine replacement therapies (NRT), with just 11% against this regulatory option. Majority support for this measure was found among all sub-groups including among current smokers (70%) and among those who has used an e-cigarette (66%: Figure 8).

Figure 8. Agreement with the statement "I think that e-cigarettes should be classified as a drug based product (same as other pharmaceutical nicotine replacement therapies, like patches and gum)



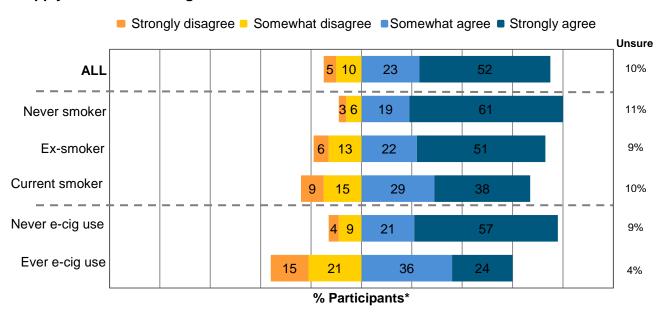
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Support for regulating the USE of electronic cigarettes

Participants were informed that in NSW there are various places indoors and outdoors where people are not allowed to smoke, for example shopping centres, restaurants, pubs and clubs, workplaces, public transport, near children's play equipment, and at sports stadiums, but that none of these restrictions apply to e-cigarettes. Participants were then asked to indicate their views about introducing restrictions on the use of e-cigarettes.

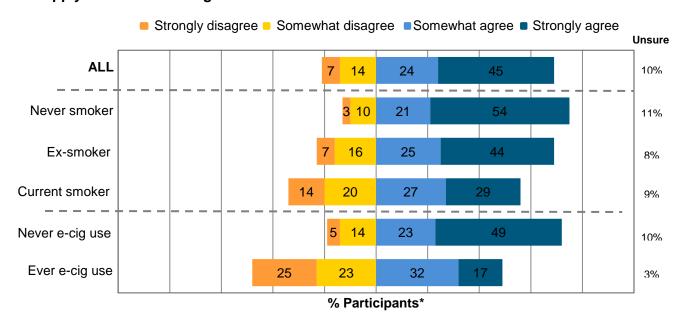
Overall, there was agreement that use of e-cigarettes should be restricted at indoor (75% agreement) and outdoor places (69% agreement) where smoking is banned. For bans on indoor use majority support was found across all subgroups (Figure 9). For outdoor bans, majority support was found for all sub-groups, except among those who had used an e-cigarette where agreement was divided (49% support vs. 48% against: Figure 10).

Figure 9. Agreement with the statement "I think the same indoor restrictions should apply to the use of e-cigarettes"



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Figure 10. Agreement with the statement "I think the same outdoor restrictions should apply to the use of e-cigarettes"



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