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YEARS

# An analysis of e-cigarette marketing in New Zealand tobacco retail outlets prior to legislative change

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# Introduction

- ENDS use has increased internationally,
  - Yet public health community divided over ENDS' impact.
- ENDS containing nicotine could not be sold at time of data collection,
  - But were available through online and covert sales.
- In 2017, the NZ Government announced plans to legalise sales of nicotine-delivering ENDS.
- Proposed policy change prompted assessment of ENDS marketing ahead of legislation.

# Objectives

- To explore this rapidly changing retail environment, we estimated:
  - the proportion of convenience stores, supermarkets and service stations selling ENDS,
  - the POS marketing evident.
- We also examined associations between ENDS availability and:
  - outlet type,
  - area-level deprivation,
  - study region,
  - and proximity to a secondary school.

# Methods

- Sample
  - Proportional random sample of convenience stores, supermarkets and service stations (n=281).
  - Equal numbers drawn from Otago and Wellington regions.
  - Stratified by area-level deprivation using NZDep2013 Index.



# Methods

- Measures and Protocol
  - Identified outlets selling ENDS by phone
  - Conducted in-store assessments for those who reported stocking ENDS using adapted 'Standardised Tobacco Assessment for Retail Settings Vape Shops' tool
  - Inter-coder reliability = 96%

**Business type (as listed in database):**  
 Supermarket  Convenience store  Service station

1. How would you classify the store? (tick the one that fits best)  
 Supermarket  Small grocery store  Dairy/convenience store  
 Petrol/service station  Newsagent  Other (please specify)

2. Can you survey this store? (if no, select an option from below and stop survey)  
 Yes  No, store does not exist  No, store is  
 No, environment unsafe  No, asked to leave by retailer  No, other

3. Can you see any form of advertising for e-cigarette products on the store's exterior wall?  
 Yes  No

4. Can you see any signs/boards advertising e-cigarette products on the footpath outside?  
 Yes  No

5. What types of smoked tobacco products are sold in store?  
 Tailor-made cigarettes  Pouch tobacco (RYO)  Shisha

6. Does the store sell any alcoholic beverages?  
 Yes  No

7. Does the store sell any e-cigarettes, vaping devices or e-liquids?  
 Yes  No (if no, stop the survey)

8. E-cigarettes and vaping devices – product range, availability and placement

Sold here?	Disposable devices that resemble a cigarette (cigalike)	Disposable device resemble a cigarette (hookah/e-cigarette)
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N

\*\*\*If you tick 'No' above, please fill in 'n/a' for the following questions

Do they contain nicotine?	<input type="checkbox"/> n/a <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Unsure	<input type="checkbox"/> n/a <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Unsure
Are they flavored (e.g. fruit)?	<input type="checkbox"/> n/a <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Unsure	<input type="checkbox"/> n/a <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Unsure
Are they sold at POS?	<input type="checkbox"/> n/a <input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> n/a <input type="checkbox"/> Y <input type="checkbox"/> N
Is a service display present?	<input type="checkbox"/> n/a <input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> n/a <input type="checkbox"/> Y <input type="checkbox"/> N
Is the service accessible to children?	<input type="checkbox"/> n/a <input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> n/a <input type="checkbox"/> Y <input type="checkbox"/> N
Are they displayed within 40cm of lollies, or single-serve ice creams?	<input type="checkbox"/> n/a <input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> n/a <input type="checkbox"/> Y <input type="checkbox"/> N
Are promotions visible?	<input type="checkbox"/> n/a <input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> n/a <input type="checkbox"/> Y <input type="checkbox"/> N
Do they record the cheapest price for each device in each category?	<input type="checkbox"/> n/a <input type="checkbox"/> \$.....	<input type="checkbox"/> n/a <input type="checkbox"/> \$.....

Additional devices displayed (tick as many that apply):

# Methods

- Analysis
  - Descriptive statistics to report ENDS availability and the various measures of ENDS promotion;
  - Logistic regression model to examine associations between ENDS availability and:
    - outlet type,
    - area-level deprivation,
    - study location,
    - and proximity to a secondary school.

# ENDS Availability

- Of the 281 tobacco retailers assessed, 61 (22%) sold ENDS products.
- These were typically convenience stores (85%) in areas of high deprivation (53%).



# ENDS Availability

**Table 1: ENDS availability and outlet type, area-level deprivation, geographic location and proximity to a high school**

<b>Dependent: ENDS Availability</b>		<b>Odds Ratio</b>	<b>95% Confidence Interval</b>
<b>Outlet Type</b>	<b>Petrol Station</b>	<b>1</b>	
	<b>Supermarket</b>	<b>4.11</b>	<b>0.81 – 20.85</b>
	<b>Convenience Store</b>	<b>13.68***</b>	<b>3.18 – 58.76</b>
<b>Area-level deprivation</b>	Low (deciles 1-3)	1	
	Mid (deciles 4-7)	0.74	0.29 – 1.85
	High (deciles 8-10)	1.43	0.61 – 3.38
<b>Region</b>	Otago	1	
	Wellington	0.71	0.37 – 1.34
<b>High School within 1 km of the outlet (road network)</b>	No	1	
	Yes	1.24	0.67 – 2.32



# Visibility and accessibility of ENDS displays



- Of the 61 outlets selling ENDS:
  - 54 had POS displays,
  - 9 had self-service displays, 4 of which were accessible by children,
  - 9 had displays within 40cm of lollies, toys or single serve ice creams.

# Promotion of ENDS products

- Of the 61 outlets selling ENDS:
  - 6 advertised ENDS on external walls and doors,
  - 19 advertised ENDS within the store,
  - 15 displayed minimum purchase age requirements,
  - 2 allowed customers to trial different devices,
  - 5 allowed customers to sample different e-liquids.
- Advertising primarily promoted ENDS as cheaper than smoking.
- None of the stores surveyed promoted ENDS as:
  - safer than smoking,
  - a cessation aid,
  - or means of avoiding smoke-free area restrictions.
- None provided any health warning about ENDS or nicotine.



# Discussion

- ENDS already available in many convenience stores,
  - young people visit these stores more often than service stations or supermarkets.
- Association between ENDS promotion at POS and use amongst children and young people is unclear,
  - but several studies document association between tobacco POS displays, and use among children and young people.
- Evidence that some stores had child-friendly displays of ENDS is problematic.
- Marketing of ENDS may promote (or impede) full transition from smoking to ENDS use.

# Conclusion

- NZ Government views ENDS as part of a harm-reduction strategy.
- Policy makers need to ensure regulatory changes target only current smokers.
- Allowing ENDS marketing to include POS displays near children's products may promote youth uptake.
- Disallowing POS displays would reduce the likelihood of ENDS being marketed to people who do not already smoke.
- Restricting ENDS' sales to R18 specialist vape stores would also minimise exposure to product displays and in-store marketing.

