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Tobacco mythbusting—tobacco is not a major driver of foot traffic in low socio-economic small retail stores

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ABSTRACT

Background One of the opposing arguments to restricting or banning the sale of tobacco products stem from a perception that this would adversely impact on small retail stores that rely on tobacco sales for viability. It has also been argued that purchases of tobacco leads to unplanned purchasing of other items that yield income for small store owners. This study tested the veracity of these arguments in the Australian context.

Methods Consumer intercept surveys (n=1487) were conducted outside a comprehensive sample of small stores (n=136) selling tobacco in lower socioeconomic suburbs. Data were collected over a 2-hour period outside each store using the same methodology (36% consumer response rate). Descriptive statistics examined the proportion of tobacco and non-tobacco purchases and most common products purchased.

Results Purchasing tobacco was the primary motivation for store visits for only 3% of consumers. The vast majority of products purchased (92%) were not tobacco, with hot food, groceries and lottery tickets most frequent. Only 8% of consumers purchased tobacco. When unplanned purchasing patterns were compared, consumers' who purchased tobacco were no more likely to buy other products.

Conclusion Tobacco purchasing was rarely the reason for store visits, indicating that it is not a key driver of consumer foot traffic for small retailers. There was also no evidence that tobacco contributes to spontaneous purchases of other products that might bring retailers profit. Findings suggest that restricting the retail availability of tobacco would be unlikely to have a pronounced negative impact on small retail stores.

INTRODUCTION

While many of the successes in tobacco control internationally and in Australia have come from comprehensive strategies to reduce demand for this lethal product,[1] there is growing momentum around also strengthening 'supply side' measures. In contrast to the progress made in other areas of tobacco control, the continued widespread retail availability of tobacco products in Australia is a barrier to cessation[2 3] and undermines efforts to denormalise tobacco use.[4] Although Australia has a comparatively low prevalence of daily smoking among the general population (9.3%),[5] this masks substantial discrepancies across the population. People from lower socioeconomic areas are more likely to use tobacco products, with a prevalence of 18.9% in the most disadvantaged areas of Western Australia (WA) compared with 7.2% in the most advantaged.[6] Tobacco use is disproportionately high among Aboriginal and Torres Strait Islander people, with 41% of Aboriginal and Torres Strait Islander people in WA smoking daily, and this is often compounded by socioeconomic disadvantage.[7] This intersects with a much higher density per capita of tobacco retailers in lower socioeconomic areas[2] and higher prevalence of tobacco-related disease[8] inWA.

Regulations governing the retail availability of tobacco products are variable across Australian States and Territories, and WA is one of five jurisdictions that requires a retail licence to sell tobacco products (this includes cigarettes, cigars and loose tobacco).[9] Larger retailers and major supermarkets may hold both retail and wholesale tobacco licences.[9] In WA the price of tobacco products tends to be higher at smaller stores that hold only retail licences, compared with stores that have wholesale licences. The number of retailers selling tobacco in WA has remained relatively constant over the last 5 years, and equates to 139 tobacco retailers per 100 000 people.[10] Licensing schemes provide a mechanism for potentially reducing the availability of tobacco products,[11] but the perception that small retailers rely on tobacco sales for business viability is a substantial barrier to policy change. Retailer associations that are affiliated with the tobacco industry perpetuate the perception of negative economic consequences for small retailers, such as loss of tobacco sales revenue and customers.[12] However, findings from the USA,[13] UK[14] and New Zealand[15] challenge this assumption. Using direct observation, Lawman *et al*[13] found that the majority of consumers who visited corner stores in low socioeconomic areas of Philadelphia did not purchase tobacco products and that the amount spent on non-tobacco products was similar between consumers who purchased tobacco and those who did not.[13] An analysis of electronic point of sale data from small retailers in the UK yielded consistent findings; 79% of consumers did not purchase tobacco and spending on non-tobacco products was similar between consumers who did and did not purchase tobacco.[14] A study of purchases from convenience stores in New Zealand found that only 14% of transactions involved tobacco products and that consumers who purchased tobacco made slightly fewer purchases of non-tobacco products.[15] A recently published US study of convenience store purchases by young people suggests those who had ever used tobacco were significantly more likely to make a tobacco purchase,[16] highlighting that susceptibility to unplanned purchasing in convenient stores can vary.

To our knowledge there have been no studies that examine consumers' purchases of tobacco and non-tobacco products from small retail stores selling tobacco in the Australian context, and few that examine this through the lens of socioeconomically disadvantaged neighbourhoods. This study was designed to objectively assess the extent to which tobacco is a driver of consumer visits to small retailers, and whether purchasing tobacco in these retail environments is associated with planned and unplanned purchases of non-tobacco products.

METHODS

Suburbs were selected from within the Greater Perth Area, which contains 79% of the population of WA.[17] The final sample consisted of 152 retail stores, across 27 suburbs. We selected suburbs that were in the lowest socioeconomic quintile, identified by the Index of Relative Socioeconomic Advantage and Disadvantage (IRSAD) published by the Australia Bureau of Statistics.[18] This list of suburbs was combined with an index of current retail tobacco licenses as of March 2018. Five store types were included in the sample (delis/lunchbars (The Australian usage of delis/lunchbars is similar stores internationally referred to a convenience or corner stores.), newsagents, independent grocers association stores and other independent grocers). Independent supermarkets are small local supermarkets that typically cater to convenience shopping. All small retail stores in the sample held a current tobacco licence. Due to logistical constraints 27 suburbs (40 stores) that had less than three eligible stores were excluded from the sample . The number of stores ranged from 3 to 18 in each suburb. Community consultation was undertaken and the consumer intercept survey was piloted to determine the times of anticipated peak activity at each store. Data were collected between July and October 2018 from each retail store for a period of 2 hours during the times of anticipated peak activity.

University students in their final year of public health undergraduate study undertook the fieldwork; the students were trained in the use of the data collection instruments, a consumer intercept survey and brief retail environment audit. Data were collected on iPads, using the Qualtrics survey application.[19] Fieldwork teams remained outside the store and invited all consumers exiting the store to complete the intercept survey. Consumers were excluded if they were under 18 or did not have sufficient English language skills to understand the survey questions. Store consent was not required.

The consumer intercept survey was designed to examine consumers' purchasing habits at small retail stores. Key questions included their major reason for visiting the store, the purchases they had made and whether they were planned or unplanned, whether they had purchased any tobacco products and if the retail store was their usual location for purchasing tobacco products.

Descriptive statistics summarised consumers' main reason for visiting the store, proportion of planned and unplanned purchases and, for those who purchased tobacco products, their usual purchasing location. χ^2 tests were used to examine the proportion of planned and unplanned purchases of non-tobacco products between consumers who purchased tobacco products and those who did not. Stata software, V.14, was used for the analysis.[20]

RESULTS

Of the 152 stores initially identified as having a tobacco license within the study suburbs, 6 (3.9%) no longer sold tobacco products, 6 (3.9%) had changed business type or permanently closed and 4 (2.6%) were unable to be located. The final sample was 136 small retail stores: 45% lunchbars/delis and corner stores, 28% independent grocers association Stores, 22% newsagents and 5% other independent grocers. In total, 1487 consumers agreed to participate in the intercept survey and 2625 declined participation primarily because they did not have time (response rate=36%). The number of surveys conducted at each store ranged from 5 to 27.

The purchase of tobacco products was not a key driver of foot traffic at the stores with only 3% of consumers reporting that buying tobacco was their primary motivation for visiting (table 1). The main reason for visiting varied according to store types (table 1). Only 121 (8%) consumers purchased tobacco and these consumers were no more likely to make unplanned purchases of non-tobacco products than those who did not purchase tobacco. A significantly greater number of consumers who did not purchase tobacco products made planned purchases of non-tobacco products.

DISCUSSION

This study found that the majority of consumers (97.5%) who visited small retail stores in low socioeconomic areas in the Greater Perth Region did not do so with the primary aim of purchasing tobacco, and very few (8.1%) made tobacco purchases. This adds weight to the findings of a recent study of consumers' purchases from convenience stores in New Zealand, where the majority of consumers did not purchase tobacco.[15] Contrary to the 'foot traffic' argument that has been promulgated in retail industry magazines, tobacco was rarely a primary reason for consumers' visits to the small retail stores in this study, with only 2.5% of consumers identifying tobacco as their main reason for visiting. By contrast, a far greater proportion of people visited stores to buy non-tobacco products. This is consistent with findings from a UK study which showed that for smaller retailers, tobacco is a high cost, low-profit product, and does little to drive footfall (ie, customers entering store).[14]

The purported reliance of small retailers on tobacco sales was further refuted in this study, with findings that even among the minority of consumers that did make tobacco purchases (8.1%), less than half identified the small retail store as their usual location for purchasing tobacco products. This could be due to the prices of tobacco products at small retail stores, which in Australia tends to be substantially higher than at major supermarkets.

A key finding from this study is that consumers who did not purchase tobacco products made significantly greater planned purchases of non-tobacco products. There was no significant difference in unplanned purchases of non-tobacco products between consumers who had purchased tobacco and those who had not. This is congruent with a previous study in the USA that found that consumers who purchased tobacco products did not purchase significantly greater numbers of non-tobacco products than consumers who did not purchase tobacco.[13] This is a salient point, given that the profit margin on tobacco itself is typically very small[14] and the counter argument to restricting tobacco availability has been that it 'leads to' other product purchases.

Limitations in this research include sampling only within the Perth metropolitan area and the exclusion of other socioeconomic areas, it is possible that there may be differences in consumer purchasing behaviour in small retail stores in regional or remote locations and in areas of higher advantage. The response rate of 36% and once-off period of data collection are additional limitations as the participants may not have been

Table 1 Consumer purchases at small retail stores

	Store type N (%) of consumers at each store type				
	Lunchbars/delis	Independent grocers association stores	Newsagents	Other independent grocers	Total consumers N (%)
Main reason for visiting the store					
Hot food	470 (69.9)	10 (2.4)	13 (4.0)	1 (1.4)	494 (33.2)
Groceries	41 (6.1)	243 (57.7)	8 (2.5)	46 (63.0)	338 (22.7)
Lottery tickets	4 (0.6)	8 (1.9)	208 (64.8)	0 (0.0)	220 (14.8)
Cold drinks	67 (10.0)	47 (11.2)	10 (3.1)	10 (13.7)	134 (9.0)
Snack food	47 (7.0)	43 (10.2)	6 (1.9)	10 (13.7)	106 (7.1)
Newspapers	9 (1.3)	5 (1.2)	38 (11.8)	2 (2.7)	54 (3.6)
Tobacco	8 (1.0)	17 (4.0)	12 (3.7)	0 (0.0)	37 (2.5)
Milk	5 (0.7)	20 (4.8)	1 (0.3)	1 (1.4)	27 (1.8)
Other	9 (1.3)	9 (2.1)	19 (5.9)	2 (2.7)	39 (2.6)
Bread	3 (0.4)	16 (3.8)	1 (0.3)	0 (0.0)	20 (1.3)
Gifts	1 (0.1)	3 (0.7)	5 (1.6)	0 (0.0)	9 (0.6)
Coffee	9 (1.3)	0 (0.0)	0 (0.0)	0 (0.0)	9 (0.6)
Tobacco purchases					
Did not purchase tobacco	641 (95.4)	362 (86.0)	296 (92.2)	67 (91.8)	1366 (91.9)
Purchased tobacco	31 (4.6)	59 (14.0)	25 (7.8)	6 (8.2)	121 (8.1)
Planned and unplanned purchases of non-tobacco products†					
Planned purchase of non-tobacco product (by consumers who did not purchase tobacco)	254 (39.6)	48 (13.2)	40 (13.5)	11 (16.4)	353 (25.8)*
Planned purchase of non-tobacco product (by consumers who purchased tobacco)	8 (25.8)	2 (3.4)	1 (4.0)	0 (0.0)	11 (9.1)
Unplanned purchase of non-tobacco product (by consumers who did not purchase tobacco)	57 (8.8)	57 (15.7)	18 (6.1)	13 (19.4)	145 (10.6)
Unplanned purchase of non-tobacco product (by consumers who purchased tobacco)	5 (16.1)	5 (8.5)	1 (4.0)	0 (0.0)	11 (9.1)
Usual purchasing location for tobacco products‡					
Purchased at usual location	7 (25.9)	39 (66.1)	7 (28.0)	4 (66.7)	57 (48.7)
Do not have a usual purchasing location	16 (59.2)	18 (30.5)	16 (64.0)	0 (0.0)	50 (42.7)
Not purchased at usual location	4 (14.8)	2 (3.4)	2 (8.0)	2 (33.3)	10 (8.6)
Supermarket§	4 (100.0)	2 (100.0)	2 (100.0)	2 (100.0)	10 (100.0)

*P<0.001.
†After identifying their main reason for visiting the store and corresponding purchase, consumers were asked 'Did you purchase any other products?' and, if an additional purchase was identified, 'Did you plan to purchase this product prior to entering the store?'.
‡Usual purchasing location asked only of consumers' who purchased tobacco; respondents to usual purchasing question n=117, N and % of respondents reported.
§Consumers who did not purchase at their usual location were asked 'Where do you usually purchase tobacco products?'.

representative of consumer purchasing behaviour at the store. Other limitations include the exclusion of participants under the age of 18 years and that the amount of time spent in stores by consumers was not recorded.

CONCLUSIONS

Findings from this study counter the perception and argument that small retail stores substantially depend on the sales of tobacco products either directly or indirectly as driver for consumer visits to stores and subsequent purchase of non-tobacco products. Given that tobacco is a product that kills two thirds of its consumers,[21] its pernicious presence in local community retail outlets is anathema. Nonetheless, public health advocates should not be insensitive to the economic impacts on tobacco retailers, hence this study's investigation of consumer purchasing patterns at smaller retailers for whom it has been argued, restrictions on selling tobacco would 'hit hard'. These findings however suggest that tobacco sales account for a minority of consumer purchases from small retail stores in low socioeconomic areas. With an existing licensing system for all tobacco retailers, WA is well placed to lead the way nationally in discouraging tobacco sales from small retailers, thus reducing the pervasiveness of tobacco availability while not threatening the livelihood of small business owners.

What this paper adds

- ⇒ A common perception fuelled by tobacco industry is that tobacco sales are central to the viability of small retailers in Australia. However, few studies have objectively examined consumer purchases at small retailers.
- ⇒ Tobacco was not a primary reason for visiting small retail stores.
- ⇒ Ninty-two per cent of consumers did not purchase tobacco products, this suggests that tobacco sales account for only a minority of consumer purchases from small retail stores in low socioeconomic areas in Western Australia

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