



# Point-of-sale marketing of little cigars and cigarillos on and near California Tribal lands

Sabrina L Smiley , Claradina Soto, Tess Boley Cruz , Natalie Kintz, Yaneth L Rodriguez, Steve Sussman, Lourdes Baezconde-Garbanati

Tobacco Center of Regulatory Science for Vulnerable Populations, Institute for Health Promotion and Disease Prevention Research, Department of Preventive Medicine, Keck School of Medicine, University of Southern California, Los Angeles, California, USA

## Correspondence to

Dr Sabrina L Smiley, Department of Preventive Medicine, Keck School of Medicine, Tobacco Center of Regulatory Science for Vulnerable Populations, Institute for Health Promotion and Disease Prevention Research, University of Southern California, Los Angeles CA 90032, USA; slsmiley@usc.edu

Received 11 June 2018

Revised 4 October 2018

Accepted 8 October 2018

Published Online First

1 November 2018

## ABSTRACT

**Introduction** American Indians have the highest cigarette smoking prevalence of any racial/ethnic group in the USA. Tobacco marketing at point-of-sale is associated with smoking, possibly due to easy access to cheap tobacco products. The sale of novel tobacco products like little cigars/cigarillos (LCCs) has increased in recent years which may further increase combustible tobacco use among American Indians.

**Methods** Between October 2015 and February 2017, trained community health workers collected LCC product and price information by conducting audits of tobacco retailers on Tribal lands (n=53) and retailers within a 1-mile radius of Tribal lands (n=43) in California. X<sup>2</sup> analyses were performed to examine associations among the availability and advertising of LCCs, including indoor price promotions and store location.

**Results** Overall, 85.4% of stores sold LCCs, 76.0% sold flavoured LCCs and 51.0% sold LCCs for less than \$1. Indoor price promotions were displayed at 45 (46.9%) stores. Stores within a 1-mile radius of Tribal lands sold significantly more LCC (p<0.01) and flavoured LCCs (p=0.01) than stores on Tribal lands. Stores within a 1-mile radius of Tribal lands also displayed significantly more LCCs priced at less than \$1 (p<0.01) than stores on Tribal lands.

**Conclusions** LCCs are widely available in stores on and near California Tribal lands. Stores located a short distance away from Tribal lands were more likely to sell LCCs, including flavoured versions, more likely to sell LCCs priced below \$1, and more likely to advertise little LCC price promotions than stores on Tribal lands. Policy-makers and Tribal leaders should consider regulations that would limit access to LCCs at point of sale to help prevent youth initiation and reduce smoking-related morbidity and mortality among American Indians.

## INTRODUCTION

American Indian/Alaska Native youth and adults have the highest cigarette smoking prevalence of any racial/ethnic group in the USA and are disproportionately at risk for smoking-related diseases.<sup>1</sup> Among high school students (9th–12th graders), percentage of American Indians/Alaska Natives who report past-month cigarette use is estimated to be 18.7%, compared with 11.1% of non-Hispanic whites, 7.0% of Hispanics/Latinos, 4.4% of non-Hispanic blacks and 2.2% of non-Hispanic Asians.<sup>2,3</sup> Among adults aged 18 years and older, percentage of American Indians/Alaska Natives who report past-month cigarette use is estimated to be 31.8%, compared with 16.6% of non-Hispanic whites,

16.5% of non-Hispanic blacks, 10.7% of Hispanics/Latinos and 9.0% of non-Hispanic Asians.<sup>4</sup>

The high prevalence of past-month cigarette use among American Indian/Alaska Native youth and adults could increase their risk of using novel cigar products like little cigars and cigarillos (hereafter referred to as LCCs).<sup>5</sup> Cigars are regulated as *tobacco products* by the US Food and Drug Administration (FDA).<sup>6</sup> However, cigars currently are subject to fewer FDA marketing regulations than cigarettes, despite their increasing popularity among vulnerable and underserved populations (ie, youth, young adults, blacks/African-Americans, Hispanics/Latinos).<sup>7</sup> LCCs are available in a variety of characterising flavours (eg, fruit, menthol, candy), thus appealing to novice smokers.<sup>5,8</sup> Additionally, LCCs have no federal packaging regulations. They are sold as singles and in small multipacks, and are cheaper than and sometimes virtually undistinguishable from cigarettes.

The tobacco industry has a lengthy history of marketing cigarettes to American Indians, sometimes using American Indian names and imagery to market their products (eg, Natural American Spirit), and sponsoring American Indian activities like pow wows, exposing American Indian youth to tobacco advertising.<sup>9–10</sup> Tobacco marketing in the retail environment may influence LCC initiation among American Indian youth and adults and undermine smoking cessation.<sup>11</sup> Yet, research on surveillance of LCC marketing among tobacco retailers on or near Tribal lands is sparse. California, specifically, has the largest American Indian population in the USA, and 109 of the 566 federally recognised tribes reside in the state.<sup>12,13</sup> Thus, the present study is an initial attempt to investigate the relationship between the availability and advertising of LCCs, including price promotions, in stores on and near California Tribal lands.

## METHODS

### Sample

To study LCC retail marketing practices that could reach tribal populations, we selected small, independent convenience stores with or without a gas station; liquor stores; small, independent groceries that primarily sold food; discount; tobacco shops; and stores such as doughnut shops or gas kiosks. The objective was to reach a target sample size of 100 tobacco retailers on or within a 1-mile radius of Tribal lands across Southern, Central and Northern California. Federally recognised tribes are sovereign nations, such that tribes have the right to self-govern their own Tribal lands, and are exempt from



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**To cite:** Smiley SL, Soto C, Cruz TB, et al. *Tob Control* 2020;**29**:122–124.

state laws such as state excise tax, smoke-free laws and state retail licensure to sell tobacco products.<sup>9–14</sup> Given the unique role of sovereignty, stores were selected using Google Maps and Esri 2014 Dun & Bradstreet Business Analyst data, in addition to a list of stores maintained by the California Department of Tax and Fee Administration.<sup>15</sup> There were not enough stores on Tribal lands for random selection, thus all stores on Tribal land or within a 1-mile radius were included in the sample. Data collection began by visiting all identified stores in Southern California and then moving up the state to stores in Northern and Central California. The sampling design process is described in detail elsewhere.<sup>16</sup> Using a store audit checklist adapted from the Standardized Tobacco Assessment for Retail Settings observation tool,<sup>17</sup> trained community health workers (n=7) who self-identified as American Indian, visited stores (n=100) between 30 October 2015 and 4 February 2017. Approval by Tribal councils and/or leaders was obtained prior to store participation. Store owners or clerks were consented to permit the store observational audit and received a gift card and a leave-behind packet containing fact sheets about the FDA's tobacco regulatory authority. Observational audits were completed in 96 stores (only four were refused by the store owner or clerk).

### Measures

Community health workers coded LCCo marketing along two domains: availability and advertising. Availability was assessed with yes or no responses to the following questions: Are little cigars/cigarillos sold here? Are flavoured little cigars/cigarillos sold here? Are little cigar/cigarillo singles sold here? Advertising was assessed with yes or no responses to the following questions related to store interior: Are little cigars/cigarillos advertised for less than \$1? Any little cigar/cigarillo price promotions (eg, '50 cents off', 'buy one get one free')? Percentage agreement across coders ranged from 73.3% to 93.3%. Frequency distributions and cross tabulations were used for descriptive statistics of little cigar/cigarillo availability, advertising and type of store on or within a 1-mile radius of Tribal lands.

### Statistical analysis

$\chi^2$  analyses were performed to examine associations among LCC availability and advertising and whether the store was located on or within a 1-mile radius of Tribal lands. Associations were considered significant at the p value of <0.05. Data were analysed using SAS V.9.3 (SAS Institute).

### RESULTS

Of the 96 stores, 32 (33.3%) were gas/convenience stores, 28 were grocery (29.2%) and 21 (21.9%) were tobacco-focused stores (table 1). Fifty-three (55.2%) stores were on Tribal lands, and 43 (44.8%) stores were located within a 1-mile radius of Tribal lands. Tobacco-focused stores (30.2%) were the most frequently observed stores on Tribal lands, while gas/convenience stores (18.0%) and grocery stores (18.0%) were the most frequently observed store types within a 1-mile radius of Tribal lands. LCCs were sold in 82 (85.4%) stores, flavoured LCCs were sold in 73 (76.0%) stores and individual LCCs were sold in 49 (51.0%) stores. Compared with stores on Tribal lands, stores within a 1-mile radius of Tribal lands sold significantly more LCCs ( $p<0.01$ ), including flavoured LCCs ( $p=0.01$ ). Overall, LCCs were priced for less than \$1 at 49 (51.0%) stores and indoor price promotions were present at 45 (46.9%) stores. Stores within a 1-mile radius of Tribal lands displayed

**Table 1** Descriptive statistics of little cigar and cigarillo availability and advertising in tobacco retail stores on and within a 1-mile radius of California Tribal lands, 2015–2017

	Overall (n=96) n (%)	On Tribal lands (n=53) n (%)	One-mile radius of Tribal lands (n=43) n (%)
<b>Availability</b>			
Little cigars/ cigarillos	82 (85.4)	40 (75.5)	42 (97.7) *
Flavoured little cigars/cigarillos	73 (76.0)	35 (66.0)	38 (88.4) †
Single little cigars/ cigarillos	49 (51.0)	24 (45.3)	25 (58.1)
<b>Little cigar and cigarillo advertising</b>			
Price <\$1	49 (51.0)	20 (37.7)	29 (67.4) ‡
Price promotion	45 (46.9)	22 (41.5)	23 (53.5)
<b>Type of store</b>			
Gas/convenience store	32 (33.3)	14 (26.4)	18 (41.9)
Liquor store	2 (2.1)	0 (0)	2 (4.7)
Grocery store	28 (29.2)	10 (18.9)	18 (41.9)
Tobacco store	21 (21.9)	16 (30.2)	5 (11.6)
Other	13 (13.5)	13 (24.5)	0 (0)

\*Association between little cigars/cigarillos available for sale on Tribal lands and within a 1-mile radius of Tribal lands was statistically significant ( $\chi^2(1)=9.3$ ;  $p<0.01$ ), where little cigars/cigarillos were more likely to be available for sale within a 1-mile radius of Tribal lands than on Tribal lands.

†Association between flavoured little cigars/cigarillos available for sale on Tribal lands and within a 1-mile radius of Tribal lands was statistically significant ( $\chi^2(1)=6.5$ ;  $p=0.01$ ), where flavoured little cigars/cigarillos were more likely to be available for sale within a 1-mile radius of Tribal lands than on Tribal lands.

‡Association between little cigars/cigarillos priced at less than \$1 on Tribal lands and within a 1-mile radius of Tribal lands was statistically significant ( $\chi^2(1)=8.3$ ;  $p<0.01$ ), where little cigars/cigarillos were more likely to be priced at less than \$1 within a 1-mile radius of Tribal lands than on Tribal lands.

significantly more LCCs priced below \$1 ( $p<0.01$ ) than stores on Tribal lands.

### DISCUSSION

Our findings suggest that tobacco companies are actively using stores on and near California Tribal lands to market LCCs, including flavoured LCCs and individual LCCs. That stores outside but within a 1-mile radius of Tribal lands were more likely to sell LCCs, including flavoured versions, and at a price of less than \$1, could be explained in part by a greater number of gas/convenience stores located within a 1-mile radius of Tribal lands. LCCs are mostly sold in convenience stores and half of US youth visit a convenience store at least once a week.<sup>5 18 19</sup> This suggests that direct access to LCCs at low prices may: (1) provide opportunities for American Indian youth to attempt to purchase LCCs either on or near Tribal lands; (2) normalise LCC use in the Tribal communities as an acceptable behaviour and (3) contribute to disparities in commercial tobacco use among American Indians. Policy-makers and Tribal leaders should consider regulations (eg, tobacco flavour bans, minimum pack size standards) that would limit access to LCCs at point-of-sale to prevent and reduce youth smoking initiation and smoking-related morbidity and mortality among American Indians.

We were also able to evaluate the presence of indoor price promotions for LCCs. While LCCs were more commonly sold

within a 1-mile radius of tribal lands, our findings reveal that stores on and near Tribal lands are displaying interior price promotions to attract consumers to buy LCCs. Price promotions result in more tobacco advertising and lower priced tobacco products which are associated with smoking uptake, particularly among youth.<sup>20</sup> Although most American Indians in California reside in urban cities like Los Angeles and San Francisco,<sup>21</sup> our results complement a recent study (Smiley et al., 2018, submitted) documenting the widespread availability of cheap, flavoured LCCs in stores located in Los Angeles County.

Our findings are limited to California Tribal lands and may not represent LCC availability and advertising differences on all Tribal lands in the USA. More research is needed to determine if LCC marketing and sales practices differ by store type and are concentrated on or off Tribal lands. Longitudinal studies are also needed to assess associations between exposure to point of sale LCC marketing and LCC experimentation, initiation, progression to regular use and cessation among American Indians. Notwithstanding these limitations, this study is the first investigation of LCC marketing at point-of-sale involving a sizeable sample of tobacco retail stores on and near Tribal lands.

### What this paper adds

- ▶ Our findings indicate that little cigars/cigarillos, including flavoured versions, are widely available, readily accessible and at a low cost in stores on and near tribal lands in California.
- ▶ This suggests that the tobacco industry is actively using stores on and near tribal lands to market little cigars/cigarillos, and that further research should be conducted to investigate the impact of little cigar/cigarillo marketing at point of sale on smoking behaviours among American Indians.
- ▶ Surveillance of little cigar/cigarillo advertising and promotions at point of sale on and near tribal lands is key for monitoring tobacco company marketing strategies and protecting American Indian youth from a lifetime of combustible tobacco use.

**Acknowledgements** The authors gratefully acknowledge other members of the study team: Drs Kacie Blackman, Ricky Bluthenthal, Myles Cockburn, Robert Garcia, Jimi Huh, Sheila Murphy, and Luanne Rohrbach; as well as Ms Rosa Barahona, Cynthia Begay, Patricia Escobedo, Leah Meza, Amy L Moerner, Nikishna Polequaptewa, Sheila Yu; and Mr Christopher Castro and Terry Coltra. The authors would also like to thank the cultural experts, community and scientific advisory committee members, partner agencies and community health workers for their contributions to the development and implementation of this study.

**Contributors** SLS conceptualised the study, led data analysis and wrote the article. CS and TBC contributed to writing and revisions. NK contributed to data analysis and revisions. YLR managed the data collection and contributed to revisions. SS contributed to revisions. LB-G contributed to revisions and was the principal investigator of the broader study.

**Funding** This study was supported by the National Cancer Institute of the National Institutes of Health (NCI/NIH), the Food and Drug Administration (FDA) Center for Tobacco Products (CTP) for the USC Tobacco Center of Regulatory Science for Vulnerable Populations (NCI P50CA180905) (Pentz/Samet, PIs) – Project 2:

Maximizing Retailers' Responsiveness to FDA Regulatory Authority in Minority Communities (Baezconde&Garbanati, Project Leader).

**Disclaimer** The content is solely the responsibility of the authors and does not necessarily represent the official views of NCI, NIH, FDA, CTP, or USC.

**Competing interests** None declared.

**Patient consent** Not required.

**Ethics approval** Institutional Review Board approval was obtained from the University of Southern California.

**Provenance and peer review** Not commissioned; externally peer reviewed.

### ORCID iDs

Sabrina L Smiley <http://orcid.org/0000-0003-3202-7534>

Tess Boley Cruz <http://orcid.org/0000-0002-5894-1802>

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