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#### INTRODUCTION

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# Analysis of cigar marketing expenditures by product category, placement strategy and geolocation in the USA, from 2017 to 2022

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### ABSTRACT

**Significance** The marketing of cigars, little cigars and cigarillos (CLCCs) and cigar wraps is under-regulated and understudied in the USA. To describe strategies CLCC manufacturers and vendors used to advertise their products across marketing channels, we systematically tracked CLCC marketing expenditures from January 2017 to July 2022.

**Methods** Using the Kantar Media's Strategy (presently Vivvix) platform, we collected marketing expenditures for 624 CLCC products, vendors, venues, events and media outlets. Advertising data were collected from consumer magazines, B-to-B magazines, newspapers, television, radio, outdoor and internet media. Advertising expenditures were aggregated by month, designated market area, manufacturer and product category. Results Across the study period, cigarillo marketing comprised the largest proportion of CLCC product expenditures (49.5%), followed by little/filtered cigars (44.7%). Cigarillos dominated advertising expenditures in 2018 (\$19.9M), declined to \$1.4M by 2020 when little/filtered cigars emerged as the most promoted category (\$10.4M); cigarillos re-surfaced as the top category in 2022. Radio advertising expenditures for CLCCs increased substantially in 2021. Outdoor CLCC vendor expenditures steadily increased during the period. Online marketing expenditures by CLCC vendors increased from 2020 to 2021, and newly reported mobile app expenditures occurred in 2021 (\$22K).

**Conclusion** Advertising expenditures for little/filtered cigars declined following the April 2021 Food and Drug Administration (FDA) announcement of forthcoming flavoured cigar sale restrictions. As the FDA considers prohibiting flavoured cigars, it is essential to monitor CLCC marketing expenditures to inform policy design, promotion and implementation efforts. Surveillance of new digital marketing channels is critical as they can readily reach minoritised populations.

# Sales of cigars, little cigars and cigarillos (CLCCs) have risen steadily in recent years in the USA: unit sales increased from 2.14 billion in 2017 to 2.33 billion in 2019.<sup>1</sup> CLCC sales growth was driven by cigarillos, which comprise the vast majority (94%) of CLCC products sold.<sup>1</sup> Common CLCC brands include Black & Mild (Altria), Swisher Sweets (Swisher) and White Owl (Swedish Match). CLCC smoking has many of the same health risks as cigarette use, including all-cause mortality, several types of cancer, and heart disease.<sup>2</sup>

# WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ While some research has examined cigars, little cigars and cigarillos (CLCC) promotion on specific marketing channels, this study looks at CLCC promotional expenditures across marketing channels and includes spending by CLCC vendors, events and media outlets.

#### WHAT THIS STUDY ADDS

- ⇒ We investigated the amount of CLCC promotional expenditures, placement strategy and geolocation for print, television, radio, internet and outdoor marketing channels.
- ⇒ Our findings show that CLCC marketing expenditures declined following the April 2021 announcement by the US Food and Drug Administration of forthcoming flavoured cigar sale restrictions.
- ⇒ We also found increased spending on digital promotion channels and newly reported spending on mobile apps.

# HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

- ⇒ Continued marketing surveillance of CLCC products can inform the implementation of and help better understand the effects of flavoured cigar sales restrictions as the FDA considers prohibiting flavoured cigar products.
- ⇒ Increased promotion of CLCC on digital channels and newly reported mobile app promotion is noteworthy because these channels are understudied and underregulated compared with traditional advertising mediums and can reach younger and hard-to-access minoritised populations.

CLCC marketing is generally not covered by restrictions placed on cigarette promotion.<sup>3 4</sup> CLCC products are available for sale via the internet and are increasingly marketed on social media.<sup>5 6</sup> Furthermore, unlike cigarettes, CLCCs are still available in various flavours,<sup>1</sup> which were banned in cigarettes by the US Food and Drug Administration's (FDA's) Family Smoking Prevention and Tobacco Control Act (FSPTCA) due to youth appeal in 2009.<sup>7 8</sup>

The FSPTCA flavoured cigarette sales restrictions were associated with a 34% increase in cigar and little cigar use among middle and high school students, suggesting that cigars and little cigars became a replacement product and helped tobacco manufacturers bypass the FDA's regulations.<sup>9</sup> Some little cigars were designed to be nearly identical to cigarettes to circumvent cigarette advertising bans and taxation policies<sup>10</sup> and have been marketed as cigarette alternatives.<sup>11-13</sup>

CLCC advertising strategies often mirror the marketing strategies that were historically used to promote cigarettes but banned due to their appeal to youth and novices. For instance, filters in CLCCs have been marketed to create perceptions of reduced harm.<sup>14</sup> Implied reduced-risk descriptors including 'natural leaf', 'mild' or 'premium' have also been used to make CLCCs appear safer.<sup>15</sup> Consequently, some young adults perceive little cigars and cigarillos as less harmful than cigarettes,<sup>16 17</sup> despite similar amounts of nicotine exposure and greater carbon monoxide exposure produced by these products compared with cigarettes.<sup>18</sup>

Furthermore, CLCCs are disproportionately popular among historically minoritised populations. CLCC users are more likely to be Black/African American, Hispanic/Latino and LGBTO.<sup>19 20</sup> Among high school students, 2.8% reported past 30-day use of CLCCs in 2022, with a higher prevalence (4.4%) among Black/African American students.<sup>21</sup> A key driver of CLCC use is the predatory marketing strategies targeting minoritised populations. While FSPTCA prohibited event sponsorships for cigarettes, it did not restrict such promotion for CLCC products.<sup>22</sup> CLCC manufacturers have taken advantage of the lack of marketing restrictions by sponsoring and promoting their products at events and venues frequently attended by Black/African Americans and other groups at increased risk of tobacco use.<sup>22</sup> Little cigar and cigarillo retail marketing also disproportionately targets non-White communities<sup>24</sup> with greater availability and lower prices in these communities.<sup>25</sup>

Further, some CLCC categories are taxed at lower rates than cigarettes in many jurisdictions in the USA.<sup>26-29</sup> CLCCs are sold in small pack sizes or singles, unlike cigarettes. Small CLCC packs thus tend to be cheaper than cigarette packs, which may appeal to price-sensitive populations such as youth and lower income/socioeconomic status individuals. These factors may contribute to increased smoking and youth initiation among minoritised populations.<sup>30 31</sup>

In April 2021, the FDA announced forthcoming regulations restricting flavoured cigar sales to help prevent the uptake of CLCCs among youth and minoritised populations.<sup>32</sup> As of April 2024, White House officials have postponed finalising the proposed rules indefinitely, citing the need for more time to consider the feedback provided in the public comment period.<sup>33 34</sup> As the tobacco industry responds to and potentially strategises to circumvent the proposed regulations, it is vital to monitor the promotion of CLCC products.

Data on advertising expenditures related to tobacco product promotion can reflect changes in strategies used to market established and newer tobacco and nicotine products over time in response to the evolving media and regulatory environments and major events. This research is critical to help detect the introduction of new brands and products, understand new marketing tactics and their effects and inform tobacco control policy decision-making and tobacco use prevention efforts.<sup>35–38</sup> Cigarette and smokeless tobacco manufactures are required to report their promotional expenditures to the Federal Trade Commission (FTC), but CLCC manufacturers are not. Between 2017 and 2022, the FTC reported an average of \$8.2M in cigarette promotional expenditures per year.<sup>39</sup> Researchers have also used data from media companies, such as Kantar Media, to track advertising of other tobacco product categories including e-cigarettes<sup>38</sup> and cigars in print magazines.<sup>36</sup> In addition to analysing CLCC marketing expenditures across media outlets by product

subcategory, our study adds to previous research by examining ad expenditure and placement strategies from January 2017 to July 2022 by manufacturers, vendors (eg, ad spending by retailers/ local stores that sell CLCC products), venues (eg, cigar lounges) and media outlets (eg, cigar lifestyle magazines) to help understand shifts in manufacturer and retailer promotional tactics in a rapidly changing media and regulatory ecosystem.

### **METHODS**

We used Kantar Media's Strategy (presently Vivvix) to collect marketing expenditures (in dollars) for the following marketing channels: consumer magazines, business-to-business (B-to-B) magazines (targeted to industry professionals), newspapers, television (cable, network and spot television), radio (local, network and national), outdoor (eg, posters, billboards and others featured outdoors, displayed in-store, etc.) and internet media including internet search (ads on search engine results pages), internet display (ads on websites accessed through personal computers), mobile web, mobile app and online video (streaming video ads on websites accessed through personal computers). Kantar creates expenditure estimates based on documents provided by advertising agencies, television and radio networks and publishers that state the prices of their ad inventory.

The following categories in the Kantar database were queried: Cigar & Tobacco, Smoking Materials and Accessories, Night Clubs & Discos and Magazines. These categories contained non-CLCC products such as smokeless tobacco and, thus, were filtered using the following CLCC-related terms: 'cigar', 'cigarillo', 'blunt' and 'wrap', a search strategy informed by prior literature.<sup>35</sup> Using product and brand information, two coders with tobacco-subject matter expertise double-coded advertising expenditures into eight mutually exclusive categories: cigars, cigarillos, little/filtered cigars (little cigars and all filtered cigars including filtered cigarillos and filtered little cigars), corporate promotion, other products (eg, various CLCC products, cigar wraps, blunts), events/venues and media outlets. Coder disagreements were resolved through discussion. In Kantar's Cigar & Tobacco category, coders identified corporate promotion through specific mentions of 'corporate promotion' in the product/brand fields or when the manufacturer itself was listed as the product/brand. CLCC vendor (online and physical smoke shops/cigar stores) expenditures were retrieved from the database by searching the 'Retailers' category for tobacco-related terms such as 'smok\*' and 'cigar'. When CLCC products were not explicitly mentioned in the store name, coders searched the internet to determine if the vendor sold CLCC products. Non-CLCC vendors were removed from the analyses.

We identified 216 products (including product line extensions, eg, Cohiba's Blue and Macassar cigars and Swisher Sweets' Silver and Coco Blue cigarillos), 342 vendors (eg, online and physical smoke shops/cigar stores such as cigarsinternational.com and Thompson Cigar Co.), 64 events/venues (eg, cigar lounges and clubs such as Match Cigar Bar and cigar festivals such as Cigar Aficionado Big Smoke Miami) and two media outlets (Cigar Aficionado magazine and Cigar Dave radio show/podcast) and collected advertising expenditures from January 2017 to July 2022, retrospectively, in October 2022.

We further categorised the advertising expenditures into four broader categories: CLCC products (cigars, cigarillos, little/ filtered cigars, other CLCC-related products and corporate promotion), CLCC events/venues (events, lounges and clubs), CLCC vendors (smoke shops/cigar stores) and CLCC media outlets (news/entertainment). CLCC product expenditures release about a forthcoming flavoured cigar ban (April 2021), decreasing by 86% from April 2021 to April 2022. (figure 1)

represent direct promotion by tobacco manufacturers of their respective CLCC products/brands (eg, a manufacturer promotes their cigarillo product in a magazine ad) or promoting the manufacturer itself (corporate promotion). In contrast, vendors carrying CLCC products advertise their establishments (eg, a cigar store runs a radio ad promoting the store and the CLCC products it carries), events/venues promote social events and gathering places for CLCC use (eg, a cigar lounge runs an ad promoting the lounge in the newspaper) and media outlets promote news/entertainment around CLCC products and lifestyles (eg, a cigar-related lifestyle magazine places an ad on a website to promote the magazine). For the CLCC product category, we examine spending for CLCC products overall and by product type. Advertising expenditures were aggregated by month, designated market area (DMA), product category, manufacturer and advertising channel. The dollar amount of advertising expenditures was adjusted for inflation based on the 2022 annual consumer price index.

#### RESULTS

Overall, the majority (63.0%) of CLCC-related advertising expenditures were for products (\$65.6M), followed by vendors (34.7%; \$36.1M), media outlets (1.2%; \$1.2M) and event/venue promotions (1.1%; \$1.1M). CLCC product expenditures decreased by 41.6%, from \$20.8 to \$12.1M from 2018 to 2021. Following a peak in spending in March 2021 (\$2.4M), product expenditures declined sharply after the first FDA press

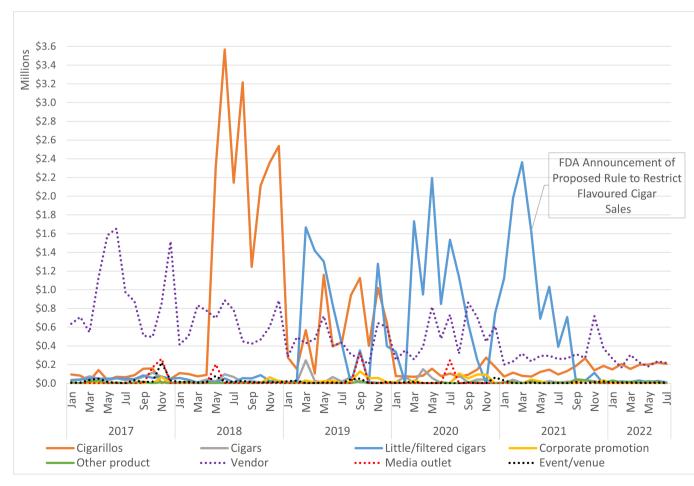
#### Marketing channels

During the study period, consumer magazines had the highest proportion (81.7%) of promotional expenditures, followed by B-to-B magazines (14.3%), radio (2.0%) and online (1.3%) (table 1). Newspapers, spot television and outdoor advertising each constituted less than 1% of advertising expenditures. No expenditures were reported for cable television, internet search, online video, mobile app or network radio.

Overall, consumer magazine expenditures were highest in 2018 (\$18.7M) and declined to \$10.0M spent in 2021. No consumer magazine expenditures were reported in 2022. B-to-B magazine expenditures declined from 2017 (\$2.2M) to 2019 (\$1.5M) and stayed the same from 2019 (\$1.5M) to 2021 (\$1.5M).

Local radio accounted for 58.0% of all radio spending (vs 42.0% national spot radio). Local radio expenditures increased from \$23K in 2020 to \$242K in 2021. National spot radio expenditures increased from \$86K in 2020 to \$165K in 2021, driven by cigarillos, which comprised 96.8% of radio spending from 2021 to 2022.

Mobile web expenditures increased from \$33K in 2019 to \$320K in 2020, driven by an individual cigarillo manufacturer (Swisher). Expenditures decreased to \$32K in 2021.



**Figure 1** Amount of cigars, little cigars cigarillos and (CLCC) product, vendor, event/venue and media outlet marketing expenditures from January 2017 to July 2022. Note: Solid lines represent direct CLCC product promotion by tobacco manufacturers/brands. Dotted lines represent promotion by other entities (vendors, media outlets and events/venues).

5     %     %     5     %     %     5     %     %     5     %     %     5     %     %     5     %	CLCC product	2017		2018		2019		2020		2021		2022*		Total	
82.4   -   -     12.3   850750   51.7     0.8   -   -     0.8   -   -     3.4   742 808   45.1     2.0   450963   27.4     1.4   291 845   17.7     1.0   38732   2.4     0.3   4961   0.3     0.3   33771   2.1     0.3   33771   2.1     0.0   -   -     0.0   -   -     100.0   1645229   100.0		\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
12.3     850750     51.7       0.8     -     -       0.8     -     -       3.4     742808     45.1       2.0     450963     27.4       1.4     291845     17.7       1.0     38732     2.4       0.3     4961     0.3       0.8     33771     2.1       0.0     -     -       0.1     -     -       0.2     12939     0.8       100.0     1645229     100.0	Consumer magazines	809	0.0	18715568	90.06	14 185 139	89.5	10 637 41 1	83.7	10 001 706	82.4	I	I	53 540 980	81.7
0.8     -     -       3.4     742 808     45.1       2.0     450963     27.4       1.4     291 845     17.7       1.0     38732     2.4       0.3     4961     0.3       0.8     33771     2.1       0.0     -     -       0.1     -     -       0.2     12939     0.8       120.0     -     -       100.0     1645229     100.0	B-to-B magazines	2217941	91.9	1 866 773	9.0	1 485 186	9.4	1 489 1 36	11.7	1 489 688	12.3	850750	51.7	9399607	14.3
3.4     742 808     45.1       2.0     450963     27.4       1.4     291 845     17.7       1.0     38732     2.4       0.3     4961     0.3       0.3     4961     0.3       0.3     4961     0.3       0.3     4961     0.3       0.0     -     -       0.0     -     12939       0.2     12939     0.8       100.0     1645229     100.0	Newspapers	33316	1.4	3549	0.0	9592	0.1	71 91 7	0.6	93 795	0.8	I	I	212168	0.3
2.0 450963 27.4   1.4 291845 17.7   1.0 38732 2.4   0.3 4961 0.3   0.8 33771 2.1   0.0 - -   0.2 12939 0.8   100.0 1645229 100.0	Radio (total)†	21 794	0.9	4728	0.0	7386	0.0	108 727	0.9	407 440	3.4	742 808	45.1	1 292 884	2.0
1.4 291 845 17.7   1.0 38732 2.4   0.3 4961 0.3   0.8 33771 2.1   0.0 - -   0.2 12939 0.8   0.2 - -   100.0 1645229 100.0	Local radio	21 794	0.9	4728	0.0	7386	0.0	22 506	0.2	242 395	2.0	450963	27.4	749776	1.1
1.0     38732     2.4       0.3     4961     0.3       0.8     33771     2.1       0.0     -     -       0.2     12939     0.8       -     -     -       100.0     1645229     100.0	Natl spot radio	I	I	I	I	I	I	86 221	0.7	165045	1.4	291845	17.7	543113	0.8
0.3     4961     0.3       0.8     33771     2.1       0.0     -     -       0.0     -     -       0.2     12939     0.8       -     -     -       100.0     1645229     100.0	Online (total)	69203	2.9	154657	0.7	116657	0.7	373 995	2.9	127015	1.0	38732	2.4	880266	1.3
0.8 33771 2.1 0.0 – – – 0.2 12939 0.8 – – – – 100.0 1645229 100.0	Mobile web	1894	0.1	65171	0.3	32 800	0.2	320263	2.5	31816	0.3	4961	0.3	456908	0.7
0.0 – – – 0.2 12939 0.8 – – – – 100.0 1645229 100.0	Internet display	67309	2.8	89485	0.4	83 857	0.5	53 732	0.4	92 293	0.8	33771	2.1	420452	9.0
0.2 12939 0.8 100.0 1645229 100.0	Mobile web vid	N/A	N/A	N/A	N/A	I	I	I	I	2906	0.0	I	I	2906	0.0
 100.0 1645229 100.0	Dutdoor	67 495	2.8	48 891	0.2	37 627	0.2	24 456	0.2	22 736	0.2	12939	0.8	214147	0.3
100.0 1645229 100.0	Spot TV	2931	0.1	11191	0.1	I	I	I	I	I	I	I	I	14122	0.0
No spending was reported for cable television, internet search, online video, mobile app or network radio. Data for mobile web video was first collected in October 2019.	TOTAL	2 41 3 489	100.0	20 805 356	100.0	15 841 586	100.0	12 705 642	100.0	12142380	100.0	1 645 229	100.0	65 554 1 74	100.0
	Vo spending was reported *January 2022 to July 202	for cable television, i 2 only.	nternet seard	h, online video, m	obile app or n	etwork radio. Dat	a for mobile	web video was firs	t collected ir	1 October 2019.					

# Geolocation

Across the study period, CLCC product advertising expenditures were highest in the national market (\$63.0M), followed by Philadelphia (\$432K), Miami (\$202K), Tampa (\$166K), Houston (\$147K) and Baltimore (\$140K) DMAs.

# CLCC marketing expenditures by product category

Among CLCC products across the study period, cigarillos comprised the largest proportion of advertising expenditures (49.5%), followed by little/filtered cigars (44.7%), cigars (3.4%), corporate promotion (1.7%) and other (various CLCC products, cigar wraps, blunts) (<1%). While cigarillos dominated CLCC product expenditures from May 2018 to December 2018 with a monthly average of \$2.4M in advertising spending, cigarillo expenditures declined to \$153K by February 2019.

Around the start of the COVID-19 pandemic, little/filtered cigar spending increased by 196%, from \$11K in February 2020 to \$2.2M in May 2020, later plummeting to \$691K in May 2021 (following the April 2021 FDA announcement of a forth-coming flavoured cigar ban) and continuing to decline, to \$10K in July 2022. At the same time, cigarillo expenditures gradually increased from January 2021 (\$73K) to July 2022 (\$207K).

Cigarillos

Consumer magazines were the dominant marketing channel for cigarillos in 2018 and 2019, comprising 94.1% and 86.1% of cigarillo advertising expenditures, respectively (see online supplemental table 1). By 2020, cigarillo ad spending on consumer magazines ceased, and B-to-B magazines became the dominant marketing channel (\$1.1M; 76.2% of cigarillo ad spending). No radio ad spending on cigarillos occurred before 2021. However, by 2021, cigarillo radio ad spending comprised 25.2% of ad spending, and for the first half of 2022, it comprised 55.1%. From 2017 to 2019, online ad expenditures made up less than 1% of cigarillo ad spending. By 2020, this spending peaked substantially (\$0.3M; 23.8%) and declined to less than 1% thereafter.

The top two DMAs for cigarillo advertising include the national market (\$31.3M, 96.5%) and Philadelphia (\$0.4M, 1.3%). The top three tobacco manufacturers with the highest cigarillo advertising expenditures were Altria Group (\$25.4M), Swisher (\$2.8M) and Swedish Match (\$2.8M) (see online supplemental table 2).

Little/filtered cigars

In 2017 and 2018, B-to-B magazines were the most prominent advertising channels for little/filtered cigars, with 100% and 99.5% of little/filtered cigar advertising expenditures, respectively (see online supplemental table 3). From 2019 to 2021, consumer magazines became the prominent marketing channel for little/filtered cigar advertising, with an average of 99.2% of little/filtered cigar advertising expenditures. However, in the first half of 2022, no spending on consumer magazine ads occurred for these products. British American Tobacco spent minimally on little cigar advertising on the local radio (\$82 in 2017, \$102 in 2018, \$77 in 2019 and \$0 after 2019).

The DMA with the highest little/filtered cigar ad expenditures was the national market (\$29.3 M, 100%). Advertising expenditures in Las Vegas, Los Angeles and Salt Lake City, the DMAs with the next highest expenditures, were each below \$3K. The top three tobacco manufacturers with the highest little/filtered cigar advertising expenditures were Altria Group (\$28.1 M), Kretek International (\$0.4 M) and Cheyenne International (\$0.3 M).

Cigars

In 2017, B-to-B magazines were the marketing channel with the highest cigar advertising expenditures in 2017 (70.2%), followed by outdoor (10.8%) and online (9.6%) (see online supplemental table 4). By 2019, consumer magazines became the top marketing channel (\$347K; 71.1% of cigar ad spending), which continued until 2020. In 2021, online arose as the top marketing channel (\$112K; 58.5%), while in the first half of 2022, B-to-B magazines (41.9%), online (38.5%) and outdoor (15.1%) comprised the highest proportions of cigar marketing expenditures.

The top DMAs were the national market (\$1.9 M) and Tampa (\$0.1 M). The top three manufacturers were Thompson & Co. (\$529K), Drew Estate (\$417K) and Tatuaje Nation (\$224K).

#### **CLCC** vendors

Across the study period, CLCC vendor expenditures declined from \$11.5M in 2017 to \$3.8M in 2021 (table 2). Consumer magazines accounted for the highest proportion (47.4%) of vendor advertising expenditures, followed by newspapers (26.2%), outdoor advertising (14.1%), spot television (4.9%), radio (4.7%) and online (mobile web/video/app, display, search, online video) (2.6%). B-to-B magazines constituted less than 1% of CLCC vendor advertising expenditures. No advertising expenditures were reported for cable television and network radio.

Overall consumer magazine expenditures for CLCC vendors declined from \$7.7M in 2017 to \$577K in 2021. Newspaper expenditures were highest in 2020 (\$2.4M) and lowest in 2021 (\$891K). Outdoor advertising expenditures for CLCC vendors steadily increased from \$792K in 2017 to \$1.1M in 2021. Local radio expenditures were variable: highest in 2017 (\$346K) and lowest in 2021 (\$287K). Spot television expenditures increased from \$228K in 2017 to \$546K in 2021.

CLCC vendor advertising expenditures for online channels decreased from \$169K in 2017 to \$22K in 2019, subsequently increasing to \$159K in 2020 and \$367K in 2021. Internet display and mobile web expenditures increased from 2020 to 2021, by 70% and 203%, respectively. In January 2021, Kantar collected mobile app data for the first time, and the first spending occurred that month. In 2021, \$22K in advertising spending was reported for mobile app, and spending continued in 2022, with \$12K spent from January to July.

CLCC vendor expenditures were highest in the national market (\$21.0M), followed by Las Vegas (\$2.7M), Orlando (\$919K), New York (\$866K), Los Angeles (\$748K) and Buffalo (\$656K) DMAs. The vendors/vendor parent companies spending the most on advertising were Swedish Match (\$9.6M), Thompson & Co., Inc. (\$5.4M), Cigar.com (\$2.7M) and New Global Marketing, Inc. (\$1.3M).

#### **CLCC** event/venue promotion

Event/venue promotion expenditures declined steadily across the study period, from \$450K in 2017 to \$106K in 2021 (see online supplemental table 5).

#### **CLCC** media outlets

CLCC media outlets spending on advertising decreased from \$433K in 2017 to \$206K in 2018. They reached \$333K in 2019 and, in 2020, decreased to \$250K. No spending was reported in 2021 or 2022 (see online supplemental table 6).

# DISCUSSION

From 2017 to 2022, cigarillos and little/filtered cigars were the most promoted CLCC product categories. Ad spending

for these two categories (both dominated by Altria Group) varied in opposition to one another, with cigarillo ad spending increasing when little/filtered cigar ad spend decreased and vice versa. Notably, both cigarillos and little cigars have the most flavour offerings among CLCC products. Flavoured products appeal to youth and young adults and are perceived by some young adults as less harmful than cigarette smoking. However, there are currently no marketing restrictions to prevent youth exposure.

Overall, CLCC product marketing expenditures increased from 2017 to 2018 and declined from 2018 to 2021, particularly after the FDA's April 2021 announcement about forthcoming restrictions on flavoured cigar products. This pattern suggests that CLCC manufacturers may have redirected their spending to non-CLCC products in response to the proposed ban. The decline in CLCC product expenditures after the announcement of the ban was driven by a decline in little/filtered cigar promotion. While there were previous dips in little/filtered cigar expenditures in 2019 and 2020, expenditures rebounded to their highest levels. However, after the 2021 FDA announcement, little/filtered cigar spending remained low. By contrast, cigarillo expenditures gradually increased through July 2022. It is unclear whether flavoured or unflavoured products drove this increase in cigarillo marketing. Continued surveillance of CLCC marketing is necessary as the FDA considers prohibiting flavoured cigars.

Our findings suggest that advertising dollars spent on both CLCC products and CLCC vendor advertising shifted away from print (magazines, newspapers) to other channels of promotion, consistent with the sustained trend of declining print media revenue.<sup>40</sup> Consumer magazine expenditures for these categories declined after 2018. Notably, from 2018 to 2020, consumer magazines made up most of the cigar and cigarillo advertising expenditures (65.2% on average), and from 2017 to 2018, they made up the majority of *vendor* advertising expenditures (61.4%) on average). Little/filtered cigar ad spending was also concentrated in consumer magazines (95.2% of total ad spending) across the study period, increasing from 2019 (\$7.6 M) to 2021 (\$10.0 M). No spending on the promotion of cigars, cigarillos or little/ filtered cigars occurred via consumer magazines in 2022. Cigarillo ad spending on radio increased substantially from 2020 to 2022 as radio listenership rebounded following the COVID-19 pandemic with the return of commuting to onsite work and school.<sup>41</sup> Outdoor ad spending on the promotion of CLCC vendors increased across the study period, particularly from 2020 to 2021, likely due to post-pandemic recovery. However, outdoor ad spending for cigars (comprising 9.1% of total cigar ad spending) by manufacturers slowly declined. Cigarillo and little/filtered cigar outdoor spending by CLCC manufacturers constituted less than 1% of the total ad spending. Thus, outdoor advertising appeared to be used more frequently by vendors as a preferred promotional channel.

Among CLCC vendors, we observed increased marketing expenditures on mobile web and newly reported marketing expenditures on mobile app. This may reflect cigar/smoke shops responding to transitions to online shopping<sup>42</sup> and the development of mobile services for cigar delivery in response to the coronavirus pandemic.<sup>43</sup> In January 2021, when Kantar began tracking mobile app expenditures, we observed spending from this first month of data collection through March 2022. It is important to continue monitoring such spending because digital channels are understudied and underregulated, compared with traditional advertising channels, and can reach younger and hard-to-access minoritised populations. Surveillance, prevention

Table 2 Cigars, little ci	Cigars, little cigars and cigarillos vendor marketing expenditures	s vendor m	arketing expe		inflation-adju	sted 2022 U	(in inflation-adjusted 2022 US dollars) from January 2017 to July 2022 by marketing channel	ן January 2	017 to July 20	22 by mark	ceting channel			
CLCC vendor	2017		2018		2019		2020		2021		2022*		Total	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
Consumer magazines	7728453	67.3	4 280 492	55.4	1 926 476	36.6	2 327 496	37.4	576956	15.3	270 985	17.0	17111070	47.4
Newspapers	2215300	19.3	1 820 623	23.6	1812407	34.4	2 359 430	37.9	890557	23.5	351681	22.1	9450138	26.2
Outdoor	791 758	6.9	798 066	10.3	912388	17.3	815702	13.1	1115150	29.5	643667	40.4	5 076 807	14.1
Spot TV	228231	2.0	323 626	4.2	275420	5.2	240 220	3.9	545 986	14.4	170064	10.7	1 783 577	4.9
Radio (total)†	345933	3.0	347592	4.5	314141	6.0	319052	5.1	287 060	7.6	99074	6.2	1 712 852	4.7
Local radio	345933	3.0	344189	4.5	308368	5.9	316338	5.1	287060	7.6	87 706	5.5	1 689 620	4.7
National spot radio	I	I	3403	0.0	5773	0.1	2714	0.0	I	I	11 368	0.7	23 258	0.1
Online (total)	168650	1.5	146073	1.9	21 662	0.4	158707	2.6	367 085	9.7	59297	3.7	921 490	2.6
Internet display	26294	0.2	72 541	0.9	12131	0.2	99 560	1.6	169513	4.5	33 336	2.1	413383	1.1
Mobile web	5099	0.0	26820	0.3	3187	0.1	57952	0.9	175430	4.6	13 933	0.9	282 427	0.8
Internet search	137257	1.2	46711	0.6	5510	0.1	I	I	I	I	I	I	189480	0.5
Mobile web vid	N/A	N/A	N/A	N/A	I	I	1059	0.0	I	I	I	I	1059	0.0
Online video	I	I	I	I	834	0.0	136	0.0	I	I	I	I	970	0.0
Mobile app	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22 142	0.6	12 028	0.8	34171	0.1
B-to-B magazines	I	I	9325	0.1	ļ	I	I	I	ļ	I	I	I	9325	0.0
TOTAL	11 478 325	100.0	7 725 797	100.0	5 262 493	100.0	6220606	100.0	3 782 794	100.0	1 594 768	100.0	36065284	100.0
No spending reported for cable television or network radio. Data for mobile app were first collected in January 2021 and data for mobile web video were first collected in October 2019. *January 2022 to July 2022 only. †Duplication is possible between local radio and national spot radio due to Kantar methodology. CLCC, cigars, little cigars and cigarillos.	le television or netwi mly. een local radio and n cigarillos.	ork radio. Da ational spot	ta for mobile app radio due to Kan	were first col. tar methodolo	lected in January gy.	2021 and dat	a for mobile web	video were f	irst collected in 0	october 2019.				

and regulation efforts should be inclusive of promotion on these channels.

We found nominal expenditures on ads for little/filtered cigars on local radio from 2017 to 2019. The Little Cigar Act of 1973 prohibits little cigar advertising on radio, television or other media regulated by the Federal Communications Commission.<sup>44</sup> Although this spending ceased after 2019, it emphasises the importance of marketing surveillance to help evaluate the efficacy of tobacco policy.

Overall, advertising expenditures focused on reaching a national audience. The top location for advertising CLCC products and vendors was the national market, with \$63.0 and \$21.0M in advertising expenditures, respectively. Among the top five DMAs, Florida was the state where both CLCC products, specifically cigars and cigarillos, and CLCC vendors were promoted the most (Orlando, Miami and Tampa DMAs). Apart from Florida, CLCC products (cigars and cigarillos) and vendors received the most promotion in distinct regions. CLCC products were most marketed in Philadelphia, Houston and Baltimore DMAs, while CLCC vendors were highly promoted in Las Vegas, New York, Los Angeles and Buffalo DMAs. These DMAs in which both CLCC products and vendors were promoted are among the most densely populated in the USA. Coupled with the fact that ad expenditures primarily target the national market, our findings demonstrate that CLCC product and vendor ad spending potentially aimed at reaching the largest audience across media outlets. It is also noteworthy that the top five DMAs with the highest levels of CLCC product expenditures (eg, Philadelphia, Baltimore, Miami, Houston, Tampa) align with metropolitan statistical areas (MSA) where 38% to 70% of the population is non-white (higher than 72% to 97% of all MSAs).<sup>45</sup> The DMAs where *vendors* advertise the most align with MSAs characterised by relatively low median household income (ie, below the national average).<sup>46</sup> Further research is needed to investigate how and to what extent this marketing specifically targets historically minoritised and lower-income communities.

#### Limitations

This study is not without limitations. Kantar Media/Vivvix data collection methods are proprietary and unverifiable, which makes it difficult to estimate the extent to which these data capture total expenditures across all potential marketing channels. Thus, outdoor expenditures may be underrepresented. About \$1.1M of outdoor spending captured in Kantar's Cigars & Tobacco category was not itemised, with no brand or parent company identified. As a result, these advertising expenditures could not be filtered using CLCC keywords or coded to ensure the inclusion of only CLCC products and, thus, were excluded from analysis. In addition, social media marketing expenditures (paid or unpaid) are not captured. Previous research found that X (formerly Twitter) has been a prominent platform for messaging and information sharing about CLCCs, with about one-quarter of CLCC tweets authored by social media influencers.<sup>6</sup> Viral marketing campaigns for tobacco products that leverage branded content in concert with influencer promotion and consumer engagement strategies are common on social media.<sup>5</sup> <sup>6</sup> These campaigns reach and influence target audiences that are most vulnerable, such as youth. Thus, it is essential to monitor social media platforms for promotional content. Despite these limitations, Kantar/ Vivvix data have been widely used in peer-reviewed research on tobacco product marketing expenditures,<sup>36-38</sup> and Kantar

is considered to be among the most comprehensive expenditure data providers as it tracks the largest range of the USA and worldwide media.

#### Conclusions

We must continue marketing surveillance of CLCC products to improve our understanding of the effects of the evolving tobacco industry's marketing strategies. Given the increased expenditures on digital channels for promoting CLCC products and vendors, more research is required on the effects of exposure to CLCC advertising on these channels across population groups. It will be particularly important to investigate effects among youth and hard-to-access minoritised populations who may have more exposure to these channels and ensure that prevention and regulation efforts address promotion on these channels.<sup>47-49</sup>

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#### REFERENCES

- 1 Wang X, Kim Y, Borowiecki M, et al. Trends in Cigar Sales and Prices, by Product and Flavor Type-the United States, 2016-2020. Nicotine Tob Res 2022;24:606–11.
- 2 Chang CM, Corey CG, Rostron BL, et al. Systematic review of cigar smoking and all cause and smoking related mortality. BMC Public Health 2015;15:390.
- 3 National Association of Attorneys General. Master settlement agreement. 1998.
- 4 Federal Trade Commission. Title 15, chapter36 cigarette labeling and advertising act. 2024. Available: https://www.ftc.gov/sites/default/files/documents/statutes/federalcigarette-labeling-advertising-act-1966/federal\_cigarette\_labeling\_and\_advertising\_ act\_of\_1966.pdf
- 5 Kresovich A, Norris AH, Carter CC, et al. Deciphering Influence on Social Media: A Comparative Analysis of Influential Account Detection Metrics in the Context of Tobacco Promotion. Soc Media + Soc 2024;10:20563051231224268.
- 6 Kostygina G, Tran H, Shi Y, *et al.* "Sweeter Than a Swisher": amount and themes of little cigar and cigarillo content on Twitter. *Tob Control* 2016;25:i75–82.

# **Original research**

- 7 Sterling KL, Fryer CS, Nix M, et al. Appeal and Impact of Characterizing Flavors on Young Adult Small Cigar Use. *Tob Regul Sci* 2015;1:42–53.
- 8 Goldenson NI, Leventhal AM, Simpson KA, et al. A Review of the Use and Appeal of Flavored Electronic Cigarettes. Curr Addict Rep 2019;6:98–113.
- 9 Courtemanche CJ, Palmer MK, Pesko MF. Influence of the Flavored Cigarette Ban on Adolescent Tobacco Use. *Am J Prev Med* 2017;52:e139–46.
- 10 Lindblom EN, Johnson AC, Gray T, et al. How and Why Consumers View "Little Cigars" as Legally-Defined Cigarettes. *Tob Regul Sci* 2019;5:124–34.
- 11 Delnevo CD, Hrywna M. "A whole 'nother smoke" or a cigarette in disguise: how RJ Reynolds reframed the image of little cigars. *Am J Public Health* 2007;97:1368–75.
- 12 Mead-Morse EL, Delnevo CD, Singh B, et al. Characteristics of Cheyenne little filtered cigar Instagram ads, 2019–2020. Tob Control 2024;33:131–4.
- 13 King BA, Tynan MA, Dube SR, et al. Flavored-little-cigar and flavored-cigarette use among U.S. middle and high school students. J Adolesc Health 2014;54:40–6.
- 14 Cummings KM, Proctor RN. The changing public image of smoking in the United States: 1964-2014. *Cancer Epidemiol Biomarkers Prev* 2014;23:32–6.
- 15 Sterling KL, Vishwakarma M, Ababseh K, *et al.* Flavors and Implied Reduced-Risk Descriptors in Cigar Ads at Stores Near Schools. *Nicotine Tob Res* 2021;23:1895–901.
- 16 Sterling KL, Fryer CS, Fagan P. The Most Natural Tobacco Used: A Qualitative Investigation of Young Adult Smokers' Risk Perceptions of Flavored Little Cigars and Cigarillos. *NICTOB* 2016;18:827–33.
- 17 Wackowski OA, Delnevo CD. Young Adults' Risk Perceptions of Various Tobacco Products Relative to Cigarettes: Results From the National Young Adult Health Survey. *Health Educ Behav* 2016;43:328–36.
- 18 Pickworth WB, Rosenberry ZR, Koszowski B. Toxicant exposure from smoking a little cigar: further support for product regulation. *Tob Control* 2017;26:269–76.
- 19 Nyman AL, Sterling KL, Weaver SR, *et al*. Little Cigars and Cigarillos: Users, Perceptions, and Reasons for Use. *tobacco reg sci* 2016;2:239–51.
- 20 King BA, Dube SR, Tynan MA. Current Tobacco Use Among Adults in the United States: Findings From the National Adult Tobacco Survey. *Am J Public Health* 2012;102:e93–100.
- 21 Park-Lee E. Tobacco product use among middle and high school students United States. MMWR Morb Mortal Wkly Rep; 2022. Available: https://www.cdc.gov/mmwr/volumes/71/wr/mm7145a1.htm
- 22 Lundeen RE. Tobacco under the FDA: a summary of the Family Smoking Prevention and Tobacco Control Act. *Health Care Law Mon* 2009;2009:2–9.
- 23 Ozga JE, Smiley SL, Hart JL, et al. Premium Cigar Festivals: A Potential Target for Marketing Restrictions. Nicotine Tob Res 2023;25:S81–3.
- 24 Smiley SL, Kintz N, Rodriguez YL, et al. Disparities in retail marketing for little cigars and cigarillos in Los Angeles, California. Addict Behav Rep 2019;9:100149.
- 25 Cantrell J, Kreslake JM, Ganz O, et al. Marketing little cigars and cigarillos: advertising, price, and associations with neighborhood demographics. Am J Public Health 2013;103:1902–9.
- 26 Children's health insurance program reauthorization act of 2009. 2009 Available: https://www.govinfo.gov/content/pkg/PLAW-111publ3/pdf/PLAW-111publ3.pdf
- 27 Government Accountability Office. TOBACCO taxes: large disparities in rates for smoking products trigger significant market shifts to avoid higher taxes. Washington, DC; 2012.
- 28 Bugher T. Federal excise tax increase and related provisions. Tax and Trade Bureau; 2017. Available: https://www.ttb.gov/main-pages/federal-excise-tax-inrease-andrelated-provisions
- 29 Campaign for Tobacco-Free Kids. State excise tax rates for non-cigarette tobacco products. n.d. Available: https://assets.tobaccofreekids.org/factsheets/0169.pdf

- 30 Robertson L, McGee R, Marsh L, et al. A systematic review on the impact of point-ofsale tobacco promotion on smoking. *Nicotine Tob Res* 2015;17:2–17.
- 31 Henriksen L, Schleicher NC, Feighery EC, et al. A longitudinal study of exposure to retail cigarette advertising and smoking initiation. *Pediatrics* 2010;126:232–8.
- 32 Office of the Commissioner. FDA. FDA commits to evidence-based actions aimed at saving lives and preventing future generations of smokers. 2021.
- 33 Noguchi Y. Biden administration abandons plan to ban menthol cigarettes, citing "feedback. NPR. 2024 Available: https://www.npr.org/sections/health-shots/2024/ 04/26/1247581028/biden-administration-abandons-plan-to-ban-menthol-cigarettesciting-feedback
- 34 Liptak K, Hassan C. CNN. Biden administration delays proposed ban on menthol cigarettes. 2024. Available: https://www.cnn.com/2024/04/26/health/fda-mentholcigarettes/index.html
- 35 Emery SL, Binns S, Carter CC, et al. Characterising advertising strategies and expenditures for conventional and newer smokeless tobacco products. *Tob Control* 2023;32:795–8.
- 36 Ganz O, Wackowski OA, Gratale S, et al. The Landscape of Cigar Marketing in Print Magazines from 2018-2021: Content, Expenditures, Volume, Placement and Reach. Int J Environ Res Public Health 2022;19:16172.
- 37 Ozga JE, Cornacchione Ross J, Hrywna M, et al. Oral nicotine product marketing expenditures in the USA from 2016 to 2023: trends over time by brand and targeted media outlets. *Tob Control* 2024.:tc-2023-058537.
- 38 Ali FRM, Marynak KL, Kim Y, et al. E-cigarette advertising expenditures in the USA, 2014-2018. Tob Control 2020;29:e124–6.
- 39 Federal Trade Commission. Cigarette report for 2022. 2023. Available: https://www. ftc.gov/system/files/ftc\_gov/pdf/2022-Cigarette-Report.pdf
- 40 US Census Bureau. Service annual survey shows continuing decline in print publishing revenue. 2024. Available: https://www.census.gov/library/stories/2022/06/internetcrushes-traditional-media.html
- 41 New nielsen consumer study: workplace commuting increases sharply, time spent in the car soars, and audio listeners are more likely to make major purchases as am/fm radio is the soundtrack of the american economic recovery | westwood one. 2022. Available: https://www.westwoodone.com/blog/2022/05/02/new-nielsen-consumerstudy-workplace-commuting-increases-sharply-time-spent-in-the-car-soars-and-audiolisteners-are-more-likely-to-make-major-purchases-as-am-fm-radio-is-the-soundtrackof-the-amer/
- 42 Jensen JLK, Rebentisch K, Tripp HL, et al. Price, convenience, the buying experience, and other motivations for purchasing tobacco and e-cigarettes online. *Tob Induc Dis* 2022;20:74.
- 43 7 best cigarette delivery apps in 2024. 2023. Available: https://freeappsforme.com/ cigarette-delivery-apps/
- 44 Federal Communications Commission. The public and broadcasting | federal communications commission. 2024. Available: https://www.fcc.gov/media/radio/ public-and-broadcasting
- 45 U.S. Census Bureau. American community survey. 2021. Available: https://data.census. gov/
- 46 U.S. Census Bureau. American community survey. 2022. Available: https://data.census. gov/
- 47 Smith A, Anderson M, Smith A, et al. Social media use in 2018. 2018.
- 48 Seidenberg AB, Jo CL, Ribisl KM, et al. A National Study of Social Media, Television, Radio, and Internet Usage of Adults by Sexual Orientation and Smoking Status: Implications for Campaign Design. Int J Environ Res Public Health 2017;14:450.
- 49 Gottfried J. Americans' social media use. Pew Research Cent; 2024. Available: https:// www.pewresearch.org/internet/2024/01/31/americans-social-media-use/

Cigarillos	201	7	2018		2019	)	2020	)	2021		2022	a	TOTA	L
Marketing Channel	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
Consumer magazines	-	0.0	18,701,433	94.1	6,228,887	86.1	-	0.0	-	0.0	-	0.0	24,930,320	76.9
B-to-B magazines	962,191	99.6	1,159,093	5.8	955,447	13.2	1,068,844	76.2	1,206,014	74.7	600,450	44.9	5,952,039	18.4
Radio (total) <sup>b</sup>	-	0.0	-	0.0	-	0.0	-	0.0	406,268	25.2	738,192	55.1	1,144,460	3.5
Natl spot radio	-	0.0	-	0.0	-	0.0	-	0.0	165,045	10.2	289,895	21.7	454,940	1.4
Local radio	-	0.0	-	0.0	-	0.0	-	0.0	241,223	14.9	448,297	33.5	689,520	2.1
Online (total)	3,745	0.4	5,641	0.0	49,514	0.7	333,349	23.8	2,906	0.2	-	0.0	395,155	1.2
Mobile web	1,685	0.2	1,559	0.0	31,809	0.4	320,103	22.8	-	0.0	-	0.0	355,155	1.1
Mobile web vid	-	0.0	-	0.0	-	0.0	-	0.0	2,906	0.2	-	0.0	2,906	0.0
Internet display	2,060	0.2	4,082	0.0	17,706	0.2	13,246	0.9	-	0.0	-	0.0	37,094	0.1
TOTAL	965,936	100.0	19,866,167	100.0	7,233,849	100.0	1,402,193	100.0	1,615,188	100.0	1,338,642	100.0	32,421,975	100.0
Designated Market Area <sup>c</sup>	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
National Market	965,852	100.0	19,866,167	100.0	7,233,849	100.0	1,402,193	100.0	1,208,919	74.8	600,450	44.9	31,277,431	96.5
Philadelphia	3	0.0	-	0.0	-	0.0	-	0.0	112,729	7.0	318,925	23.8	431,657	1.3
Miami	-	0.0	-	0.0	-	0.0	-	0.0	102,018	6.3	85,239	6.4	187,256	0.6
Baltimore	-	0.0	-	0.0	-	0.0	-	0.0	40,981	2.5	98,811	7.4	139,791	0.4
Dallas	-	0.0	-	0.0	-	0.0	-	0.0	122,411	7.6	9,926	0.7	132,336	0.4
Houston	-	0.0	_	0.0	-	0.0	-	0.0	-	0.0	86,020	6.4	86,020	0.3
TOTAL (all DMAs)	965,936	100.0	19,866,167	100.0	7,233,849	100.0	1,402,193	100.0	1,615,188	100.0	1,338,642	100.0	32,421,975	100.0

**Supplemental Table 1.** Cigarillo marketing expenditures (in inflation-adjusted 2022 U.S. dollars) from January 2017 to July 2022 by marketing channel

Note: <sup>a</sup>January 2022 to July 2022 only. <sup>b</sup>Duplication is possible between local radio and national spot radio due to Kantar

methodology. <sup>c</sup>Marketing expenditures are reported for the national market and the top five DMAs.

Column totals reflect marketing expenditures across all DMAs, and column percentages reflect the proportion of ad spending across all DMAs. No spending was reported for newspapers, internet search, online video, cable television, network radio, mobile app, outdoor and spot television.

# Supplemental Table 2. Total marketing expenditures of the top five CLCC manufacturers for cigarillos, little/filtered cigars and

Cigarillos	\$	Little/filtered cigars	\$	Cigars	\$
Altria Group Inc.	25,390,819	Altria Group Inc.	28,131,649	Thompson & Co Inc.	528,766
Swisher International Inc.	2,801,515	Kretek International	373,993	Drew Estate Inc.	416,521
Swedish Match Ab	2,755,935	Cheyenne International LLC	319,023	Tatuaje Nation	223,790
Inter-Continental Cigar Corp.	1,144,460	Swedish Match Ab	277,756	JC NewmanCigar Co.	146,140
Imperial Brands Plc	247,961	Grand River Enterprises	60,966	Holts Cigar Co.	142,545

cigars, Jan 2017 to July 2022 (in inflation-adjusted 2022 dollars)

# Supplemental Table 3. Little/filtered cigar marketing expenditures (in inflation-adjusted 2022 U.S. dollars) from January 2017 to July

# 2022 by marketing channel

Little/filtered cigars	201	7	201	8	2019	)	2020		2021		202	2 <sup>a</sup>	TOTA	L
Marketing Channel	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
Consumer magazines	-	0.0	-	0.0	7,608,782	98.9	10,300,466	99.2	10,001,706	99.6	-	0.0	27,910,954	95.2
B-to-B magazines	638,536	100.0	430,107	99.5	84,164	1.1	83,852	0.8	45,106	0.4	123,052	100.0	1,404,818	4.8
Local radio	98	0.0	119	0.0	88	0.0	-	0.0	-	0.0	-	0.0	305	0.0
Outdoor	-	0.0	1,981	0.5	2,289	0.0	-	0.0	-	0.0	-	0.0	4,271	0.0
TOTAL	638,634	100.0	432,207	100.0	7,695,323	100.0	10,384,318	100.0	10,046,813	100.0	123,052	100.0	29,320,347	100.0
Designated Market Area <sup>b</sup>	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
National Market	638,536	100.0	430,107	99.5	7,692,946	100.0	10,384,318	100.0	10,046,813	100.0	123,052	100.0	29,315,771	100.0
Las Vegas	-	0.0	-	0.0	2,289	0.0	-	0.0	-	0.0	-	0.0	2,289	0.0
Los Angeles	-	0.0	1,981	0.5	-	0.0	-	0.0	-	0.0	-	0.0	1,981	0.0
Salt Lake City	98	0.0	119	0.0	88	0.0	-	0.0	-	0.0	-	0.0	305	0.0
TOTAL (all DMAs)	638,634	100.0	432,207	100.0	7,695,323	100.0	10,384,318	100.0	10,046,813	100.0	123,052	100.0	29,320,347	100.0

Note: <sup>a</sup>January 2022 to July 2022 only. <sup>b</sup>Marketing expenditures are reported for the national market and the top five DMAs.

Column totals reflect marketing expenditures across all DMAs, and column percentages reflect the proportion of ad spending across all DMAs. No spending was reported for newspapers, internet search, internet display, online video, cable television, spot television, network radio, national spot radio, mobile app, mobile web video, or mobile web.

Cigars	201	7	201	8	201	9	202	20	202	1	202	.2ª	TOTA	L
Marketing Channel	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
Consumer magazines	809	0.1	14,135	4.1	347,471	71.1	336,946	69.4	-	0.0	-	0.0	699,360	31.5
B-to-B magazines	439,033	70.2	119,871	35.1	46,526	9.5	22,031	4.5	21,948	11.5	35,963	41.9	685,372	30.9
Online (total)	59,872	9.6	141,357	41.4	55,999	11.5	28,764	5.9	111,632	58.5	33,025	38.5	430,649	19.4
Mobile web	40	0.0	59,448	17.4	907	0.2	160	0.0	30,941	16.2	4,961	5.8	96,456	4.3
Internet display	59,832	9.6	81,910	24.0	55,093	11.3	28,603	5.9	80,691	42.3	28,064	32.7	334,193	15.1
Outdoor	67,495	10.8	46,910	13.7	27,095	5.5	23,552	4.9	22,736	11.9	12,939	15.1	200,726	9.1
Newspapers	33,316	5.3	3,549	1.0	4,364	0.9	71,917	14.8	33,265	17.4	-	0.0	146,410	6.6
Radio (total) <sup>b</sup>	21,696	3.5	4,610	1.3	7,198	1.5	2,250	0.5	1,172	0.6	3,916	4.6	40,842	1.8
Natl spot radio	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1,250	1.5	1,250	0.1
Local radio	21,696	3.5	4,610	1.3	7,198	1.5	2,250	0.5	1,172	0.6	2,666	3.1	39,592	1.8
Spot TV	2,931	0.5	11,191	3.3	-	0.0	-	0.0	-	0.0	-	0.0	14,122	0.6
TOTAL	625,152	100.0	341,622	100.0	488,653	100.0	485,459	100.0	190,753	100.0	85,843	100.0	2,217,481	100.0
Designated Market Area <sup>c</sup>	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
National Market	498,610	79.8	244,022	71.4	449,685	92.0	457,318	94.2	151,455	79.4	68,165	79.4	1,869,255	84.3
Tampa	14,601	2.3	28,197	8.3	22,520	4.6	23,653	4.9	23,264	12.2	14,493	16.9	126,728	5.7
Houston	54,757	8.8	5,800	1.7	89	0.0	36	0.0	-	0.0	-	0.0	60,682	2.7
New York	25,524	4.1	12,953	3.8	2,552	0.5	-	0.0	3,827	2.0	-	0.0	44,855	2.0
Richmond	2,931	0.5	11,191	3.3	4,364	0.9	-	0.0	-	0.0	-	0.0	18,486	0.8
Miami	0	0.0	14,466	4.2	-	0.0	-	0.0	-	0.0	-	0.0	14,466	0.7
TOTAL	625,152	100.0	341,622	100.0	488,653	100.0	485,459	100.0	190,753	100.0	85,843	100.0	2,217,481	100.0

**Supplemental Table 4.** Cigar marketing expenditures (in inflation-adjusted 2022 U.S. dollars) from January 2017 to July 2022 by marketing channel

Note: <sup>a</sup>January 2022 to July 2022 only. <sup>b</sup>Duplication is possible between local radio and national spot radio due to Kantar

methodology. <sup>c</sup>Marketing expenditures are reported for the national market and the top five DMAs.

Column totals reflect marketing expenditures across all DMAs, and column percentages reflect the proportion of ad spending across

all DMAs. No spending was reported for internet search, online video, cable television, network radio, mobile app, and mobile web

video.

# Supplemental Table 5. CLCC event/venue marketing expenditures (in inflation-adjusted 2022 U.S. dollars) from January 2017 to

# July 2022 by marketing channel

CLCC event/venue	201	7	201	8	201	9	202	0	202	1	202	.2ª	TOTA	L
Marketing Channel	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
Newspapers	308,652	68.7	22,757	9.7	25,885	13.3	12,873	11.3	5,532	5.2	2,188	4.2	377,887	32.9
Online (total)	9,709	2.2	75,737	32.4	63,940	33.0	68,823	60.6	37,243	35.2	1,684	3.2	257,137	22.4
Mobile web video	-	-	-	-	-	-	5,566	4.9	33,533	31.7	-	-	39,098	3.4
Mobile web	265	0.1	21,527	9.2	28,435	14.7	55,964	49.3	928	0.9	853	1.6	107,972	9.4
Internet display	9,444	2.1	53,708	23.0	35,505	18.3	7,287	6.4	920	0.9	831	1.6	107,695	9.4
Online video	-	-	502	0.2	-	-	7	0.0	1,862	1.8	-	-	2,372	0.2
Spot TV	47,590	10.6	47,409	20.3	20,857	10.8	5,370	4.7	31,172	29.5	24,341	46.4	176,738	15.4
Radio (total) <sup>b</sup>	51,559	11.5	55,429	23.7	40,990	21.1	8,978	7.9	4,860	4.6	1,726	3.3	163,542	14.2
Local radio	42,801	9.5	55,429	23.7	40,990	21.1	8,978	7.9	4,860	4.6	1,726	3.3	154,784	13.5
Natl spot radio	8,757	1.9	-	-	-	-	-	-	-	-	-	-	8,757	0.8
Outdoor	24,570	5.5	14,796	6.3	5,426	2.8	7,644	6.7	20,140	19.0	22,465	42.9	95,041	8.3
Consumer magazines	7,504	1.7	17,575	7.5	33,963	17.5	9,894	8.7	6,799	6.4	-	-	75,735	6.6
TOTAL	449,584	100.0	233,703	100.0	193,943	100.0	113,582	100.0	105,746	100.0	52,404	100.0	1,148,963	100.0

Note: <sup>a</sup>January 2022 to July 2022 only. <sup>b</sup>Duplication is possible between local radio and national spot radio due to Kantar

methodology.

No spending was reported for B-to-B magazines, internet search, cable television, network radio, and mobile app.

# Supplemental Table 6. CLCC media outlet marketing expenditures (in inflation-adjusted 2022 U.S. dollars) from January 2017 to

# July 2022 by marketing channel

CLCC media outlet	201	7	201	8	201	9	202	0	20	21	202	22ª	TOTA	L
Marketing Channel	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
Newspapers	432,157	99.9	202,356	98.3	327,124	98.3	247,727	99.1	-	-	-	-	1,209,364	99.0
Radio (total)	230	0.1	3,446	1.7	5,590	1.7	2,341	0.9	-	-	-	-	11,607	1.0
Local radio	230	0.1	3,446	1.7	5,590	1.7	2,341	0.9	-	-	-	-	11,607	1.0
Online (total)	182	0.0	-	-	-	-	-	-	-	-	-	-	182	0.0
Internet display	182	0.0	-	-	-	-	-	-	-	-	-	-	182	0.0
TOTAL	432,569	100.0	205,802	100.0	332,714	100.0	250,068	100.0	-	-	-	-	1,221,153	100.0

Note: <sup>a</sup>January 2022 to July 2022 only.

No spending was reported for consumer magazines, B-to-B magazines, internet search, online video, mobile web, mobile web video,

mobile app, cable television, spot television, network radio, national spot radio, and outdoor.