



# 2019 Healthy Stores for a Healthy Community Technical Report

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## Background

The California Department of Public Health, California Tobacco Control Program's first efforts in collecting data in the retail environment took place in the mid-1990s with "Operation Storefront," which exposed the targeted marketing of tobacco products to youth. The continued investments of the tobacco industry in marketing and promotions in the retail environment, totaling more than \$8 billion in 2011, along with conclusions by the 2012 Surgeon General's Report that exposure to tobacco marketing in stores increases tobacco experimentation and use by youth, renewed the California Tobacco Control Program's interest in a campaign to combat tobacco marketing in California stores.

In 2013, the California Tobacco Control Program kicked off the new Healthy Stores for a Healthy Community campaign by working collaboratively with the 61 county and municipal local lead agencies (LLAs)<sup>1</sup> to assess the tobacco retail store environment and its potential impact on youth. The Healthy Stores for a Healthy Community observational marketing survey measured the availability of a range of unhealthy and healthy products, as well as marketing practices for tobacco, alcohol, food and beverage items. The California Tobacco Control Program invited partners in the Nutrition Education and Obesity Prevention Branch at the California Department of Public Health and the Substance Use Disorders Program at the California Department of Health Care Services to join the campaign and look at the retail environment from a more comprehensive perspective, integrating tobacco, alcohol, and nutrition topics, as there were many local and state efforts examining one or more of these health issues in community stores. This collaboration was part of the state's continued effort to address the burden of chronic disease and to better understand the role that stores could play in making communities healthier. In 2013, the 61 LLAs completed the Healthy Stores for a Healthy Community survey in a total of 7,393 randomly selected stores that sell tobacco throughout the state of California. The information collected was used for educational purposes, informing local policy efforts to improve the retail environment in their community. The 2013 Healthy Stores for a Healthy Community survey Technical Report is available upon request.

In 2016, the LLAs completed a follow-up Healthy Stores for a Healthy Community observational survey in 7,152 randomly selected stores that sell tobacco statewide. The aim was to evaluate the campaign's impact since 2013, and to continue to monitor changes in the retail environment. The California Tobacco Control Program continued its collaboration with the Nutrition Education and Obesity Prevention program and the Substance Use Disorders program in 2016. The Sexually Transmitted Diseases Control Branch at the California Department of Public Health also joined the campaign in 2016 to better understand access to affordable condoms, in light of the growing rate of sexually transmitted diseases among young people in California. This joint effort fostered local partnerships and expanded the survey's reach to include assessing the availability and marketing of tobacco products, condoms,

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<sup>1</sup> Local Lead Agencies are legislatively designated as the 61 county and city health departments, or a governmental or private non-profit agency when the local health department is unable to fulfill the mandates of the local lead agency.

alcohol, and food products in the retail environment. The 2016 Healthy Stores for a Healthy Community survey Technical Report can be found online [here](#).

In 2019, the LLAs completed a second follow-up Healthy Stores for a Healthy Community observational survey in 7,969 randomly selected stores that sell tobacco statewide. Again, the focus was to evaluate the campaign's impact to date, and to continue monitoring changes in the retail environment and tobacco marketing practices. The California Tobacco Control Program continued its collaboration with the Nutrition Education and Obesity Prevention program, Substance Use Disorders Program, and Sexually Transmitted Disease Control Branch.

### **Survey Development and Testing**

In preparation for the 2013 data collection, the California Tobacco Control Program contracted with the Stanford Prevention Research Center to design the observational survey instrument. The Stanford Prevention Research Center team brought to the project many years of experience developing similar tools for other California and national observational tobacco retail marketing surveys. In conjunction with multiple partners, including LLA staff, the Tobacco Control Evaluation Center, state and local public health partners in the fields of nutrition and alcohol, and other experts, the California Tobacco Control Program and the Stanford Prevention Research Center finalized the tool in early 2013 and field-tested it in local communities before the statewide survey was launched.

In 2016 and 2019, the California Tobacco Control Program again partnered with the Stanford Prevention Research Center to update the previous year's survey instrument, collaborated with the statewide Nutrition Education and Obesity Prevention, Substance Use Disorders and Sexually Transmitted Diseases Control programs, and solicited feedback from the California Tobacco Control Program staff, LLA staff and the Tobacco Control Evaluation Center. The survey was programmed into a survey platform for use on handheld devices, called SurveyAnalytics, which syncs to an application called SurveyPocket and allows offline data collection. The Tobacco Control Evaluation Center provided technical support and training for LLA staff and volunteer data collectors on using the new survey platform. Each year's revised survey instrument was pilot tested with youth and adult data collectors to ensure revisions were understandable and that the survey application was easy to use.

Changes to the previous years' survey instruments were made only when necessitated by changes in the retail environment or program priorities. Otherwise, questions remained as close to the previous survey as possible to ensure comparability of the results. Each year, the survey format consisted of a core set of required questions and four optional modules the LLAs could elect to complete. The 2019 core survey consisted of 47 questions. The optional modules in 2019 included the Flavored Tobacco Products Module (13 questions), the Price and Promotions Module (12 questions), the Vaping Products Module (11 questions), and Placement and Exterior Ads Module (10 questions).

### **Sampling Methodology**

The sampling frame was based on the California Department of Tax and Fee Administration list of stores that sold tobacco and had applied and paid for a state tobacco retail license. The 2019 survey used the same random sample of zip codes as the 2016 and 2013 surveys, updating the list of licensed tobacco retailers as of October 2018 (which consisted of 31,100 total stores). LLAs were provided with the same required zip codes to survey, but, as in 2013 and 2016, they were given the opportunity to increase their sample size, and were encouraged to survey the same randomly selected zip codes beyond the minimum required sample that were surveyed in 2013 and/or 2016. All stores within the zip code that

met the survey’s inclusion/exclusion criteria were again included in the sample. Data from non-randomly selected stores were analyzed separately by the LLA and were not included in local, regional and statewide estimates provided on the Healthy Stores for a Healthy Community website.

The sample excluded all stores that prohibited youth from entering their premises, such as bars or nightclubs that sell alcohol. In addition, stores were not included if they required paid memberships (e.g., Costco), required payment for entry (e.g., state parks), or were otherwise restricted to the public (e.g., military bases).

### Data Collection

Data collection was completed using handheld devices, such as iPod Touches. Using the SurveyPocket application, data collectors inputted data into a mobile application that saved the data without requiring internet or data connectivity. Using SurveyAnalytics, the administrative website for the SurveyPocket application, the Tobacco Control Evaluation Center created a master account and provided each LLA with access credentials to the mobile survey, which were then entered into all data collection devices. The survey application was downloaded onto each device via Wi-Fi connection. The data were then collected offline. Once the devices were within Wi-Fi range, data were automatically sent to the survey database and were then accessed by the password-protected administrative website. The survey instruments used by the LLAs in 2019 included the required core survey questions plus any additional optional survey modules selected by the LLAs, described above.

Between March and June 2019, over 700 people participated in data collection efforts statewide, with over 300 of them youth volunteers. During this time, the Tobacco Control Evaluation Center created a hotline and answered calls from LLAs in order to ensure that all technical assistance needs were met. LLAs partnered with numerous organizations to collect data, including local nutrition and alcohol partners, youth coalitions, college campus organizations, law enforcement groups, and community organizations, including Friday Night Live, local chapters of the American Lung Association, faith-based groups, and county offices of education.

Of the 7,969 total tobacco retail stores accessible to minors surveyed in 2019, 3,365 (42.2%) were convenience stores (with or without gas stations), 347 (4.4%) were drug stores or pharmacies, 986 (12.4%) were liquor stores, 613 (7.7%) were supermarkets or large grocery stores, 1,050 (13.2%) were small markets, 411 (5.2%) were tobacco stores/vape shops, and 1,197 (15.0%) were other types of stores (e.g. discount stores, gas station booths, hookah bars, etc.) (See Table 1 below.)

Table 1. Types of stores that were surveyed, 2019

Total	Convenience stores	Drug stores/ pharmacies	Liquor stores	Supermarket/ large grocery stores	Small markets	Tobacco Stores/Vape Shops	Other
7,969	3,365	347	986	613	1,050	411	1,197
100%	42.2%	4.4%	12.4%	7.7%	13.2%	5.2%	15.0%

### Data Analyses

Local, regional, and state-level analyses were conducted using Healthy Stores for a Healthy Community survey data. In 2016, of the list of over 9,000 stores sent to LLAs, 7,955 stores met all eligibility requirements, and 7,152 surveys were successfully completed, for a 90% completion rate. In 2019, of the list of over 9,000 stores sent to LLAs, 8,465 stores met all eligibility requirements, and 7,969 surveys were successfully completed, for a 94% completion rate. Reasons for non-completions included that the store was out of business, the store environment was unsafe for the data collector, or the data collector was asked to leave the store before completing the survey.

The Tobacco Control Evaluation Center performed periodic monitoring of the data as LLAs uploaded their survey results during the data collection period. The function of the monitoring was to ensure that for each LLA, the number of results communicated matched the number of results in the database. Once the Tobacco Control Evaluation Center performed these checks, they confirmed the match with each LLA. Using a template for uniformity, emails were sent to the LLAs confirming the quantity of stores and devices, device names, data collector ID #s, date/date ranges, module(s), and the total number of completed surveys. Once all 61 LLAs completed data collection from all the stores in their sample, the Tobacco Control Evaluation Center sent the data to the Stanford Prevention Research Center team for data cleaning and analysis. The final datasets were sent to the LLAs, via email, upon ensuring that they signed and returned a Data Security Form stating their understanding that the data must be kept confidential prior to the statewide media activities.

In 2019, 7,969 stores selected from the random sample were visited and surveys were completed and analyzed. A weight was applied to compensate for the different proportion of zip codes that were selected in each jurisdiction for the statewide estimates. A cluster sampling design effect was also accounted for in the analysis of statewide and local-level analyses. Results were suppressed for items with a small sample size ( $n \leq 5$ ) and for results considered unreliable (coefficient of variation greater than or equal to 0.5). Exceptions were made for county-level results for counties with a total sample size less than 5. While data for three city health departments (Berkeley, Long Beach and Pasadena) were analyzed separately, results for Alameda County included the city of Berkeley and results for Los Angeles County included the cities of Pasadena and Long Beach.

The distance between a surveyed store and the nearest K-12 public school boundary was calculated using Geographic Information Systems (GIS) software (ArcGIS) and was provided by the Stanford Prevention Research Center, using public school boundary files from the [California School Campus Database](#). Stores were counted as being near a school if they were located within 1,000 feet Euclidean (straight line) distance of the school boundary. This process was also used on the [California Community Health Assessment Tool](#) web site which includes a detailed description of the methodology.

A majority of LLAs completed at least one optional module: 36 of the 61 LLAs completed the Flavored Products Module, 20 completed the Price and Promotions Module, 28 completed the Placement and Exterior Advertising Module, 31 completed the Electronic Smoking Devices Module, and 13 LLAs completed all four optional survey modules. (See Table 2 below.) Data from the survey modules were analyzed separately by the LLA.

Table 2. Number of LLAs completing 2019 Optional Survey Modules

Module	# of LLAs completing
Flavored Products	36
Price & Promotions	20

Placement & Exterior Ads	28
Electronic Smoking Devices	31
All Four Modules	13

Two maps were developed for the Healthy Stores for a Healthy Community 2019 Campaign. The first map is available on the Healthy Stores for a Healthy Community website homepage and displays the number of tobacco retailers licensed by the California Department of Tax and Fee Administration in each county. The second map is available on the Healthy Stores for a Healthy Community county pages and displays the number of licensed tobacco retailers near schools and the median household income by zip code. The maps were created using data from the [California Community Health Assessment Tool](#). The tool was created by the [Stanford Prevention Research Center](#) and [GreenInfo Network](#), with funding from the [Tobacco-Related Disease Research Program](#) grant #22RT-0142 and CDPH grant 17-10041.

Staff members from the California Tobacco Control Program, the Tobacco Control Evaluation Center, the LLAs, and the statewide Nutrition Education and Obesity Prevention, Substance Use Disorders and Sexually Transmitted Diseases Control programs selected priority variables for analysis. The results of these analyses were shared with the LLAs and guidance was provided on interpreting findings.

Variables analyzed include<sup>2</sup>:

- Percent of stores selling vaping products<sup>3</sup>
- Percent of stores selling flavored non-cigarette tobacco products<sup>4</sup>
- Percent of stores selling little cigars/cigarillos
- Percent of stores selling chewing tobacco
- Percent of stores selling single little cigars/cigarillos
- Percent of stores selling menthol cigarettes
- Percent of stores with tobacco marketing in kid-friendly locations<sup>5</sup>
- Percent of stores with healthy storefront advertising<sup>6</sup>
- Percent of stores with unhealthy storefront advertising<sup>7</sup>
- Percent of stores selling alcohol
- Of the stores that sell alcohol, percent of stores that sell alcopops
- Of the stores that sell alcohol, percent of stores with alcohol ads near candy, toys, or below three feet
- Percent of stores selling fresh fruit or vegetables

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<sup>2</sup> An Excel spreadsheet with all 61 health departments' data, including confidence intervals, can be found on the Healthy Stores for a Healthy Community website in the Campaign Resources page.

<sup>3</sup> Electronic smoking devices include e-cigarettes, e-hookah, e-cigars, refill cartridges, vape pens, mods/tanks, and e-liquids.

<sup>4</sup> Non-cigarette tobacco products include electronic smoking devices and all other tobacco products except cigarettes.

<sup>5</sup> This variable is a composite of four survey questions assessing whether a store has: any tobacco product within 6 inches of candy; candy and tobacco on/next to the front counter; tobacco advertising within three feet of candy or toys; or tobacco advertising below three feet.

<sup>6</sup> Healthy storefront advertising is defined as advertising for fruit or vegetables (fresh, frozen, or canned), or healthy beverages (water, 100% juice, low or non-fat milk).

<sup>7</sup> Unhealthy storefront advertising is defined as advertising for tobacco products (including e-cigarettes), sugary drinks (soda, chocolate milk, sports/energy drinks), or alcoholic beverages, products or branded merchandise.

Percent of stores selling low-fat or non-fat milk

Percent of stores selling sugary drinks at the check-out area

Percent of stores that advertise sugary drinks on the storefront

Percent of stores that sell condoms

Percent of stores that have condoms accessible on the shelf or counter and unlocked