

# Second and Third-hand Smoke & Aerosol Impacts on Health

## Multi Unit Housing Policies in California



roles in prevention of toxic exposure to second and thirdhand smoke and aerosol



**Secondhand smoke** and the **harmful** chemicals in it are known causes of **Sudden Infant Death Syndrome**, **RESPIRATORY INFECTIONS**, **ear infections**, and **asthma attacks** in infants and children.

They are also known causes of **HEART DISEASE**, **stroke**, and **lung cancer** in adult nonsmokers.

# Did you know that **any** amount of **secondhand smoke can be harmful?**

- 41,000 non-smokers die from secondhand smoke each year in the U.S.<sup>1</sup>
- It is especially dangerous for children and can cause permanent damage to growing lungs<sup>1</sup>
- Marijuana secondhand smoke is harmful just like cigarette smoke<sup>2</sup>
- Vaping produces tiny droplets of harmful chemicals including lead. It is not harmless water vapor<sup>3</sup>



# What is Thirdhand Smoke?

Thirdhand smoke is a **toxic residue** that builds up on surfaces and furnishings when someone smokes indoors<sup>5</sup>

Children and pets are most likely to suffer from the effects of thirdhand smoke<sup>6</sup>



# Where are People Exposed to Second and Third-Hand Smoke the

## Most ?

→ SIDEWALKS

→ HOME

→ SHOPPING AREAS <sup>4</sup>



Children and pets are most susceptible to touching, coming in contact with, or mouthing items in the environment that have smoke or aerosol residues

# WHAT PRODUCTS CONTRIBUTE TO THIRDDHAND SMOKE?



Cigarettes



Vapes



Hookah



Cigars



Pipes



Cannabis



Little Hands Touch **EVERYTHING.**



[THIRDHANDSMOKE.ORG](http://THIRDHANDSMOKE.ORG)

**THIRDHAND**  
SMOKE Resource Center



# HOUSING & DISPARITIES IN SECOND HAND SMOKE EXPOSURE

**32% of Californians live in multi-unit housing**

(i.e., 11.8 million people)

**44%-46% of non-smokers in multi unit housing  
in CA are exposed.**

**Exposure to tobacco smoke, e-cigarette aerosol, and  
marijuana smoke **increased** between 2016-2018.**

**Disproportionate number of underrepresented groups <sup>6</sup>**

- 46.8% were lower income or under the poverty line
- 21.4% had less than HS diploma
- 23.4 were uninsured
- Adult smoking rate was more prevalent in MUH (17.5%)





Up to 65% of the air in an apartment can come from other units in the building

Smoke can enter through vents, electrical outlets, windows, and even tiny cracks in walls<sup>7</sup>





# SHARE WALLS NOT SMOKE

Almost 40% of nonsmokers living in rental housing are exposed to secondhand smoke.<sup>8</sup>



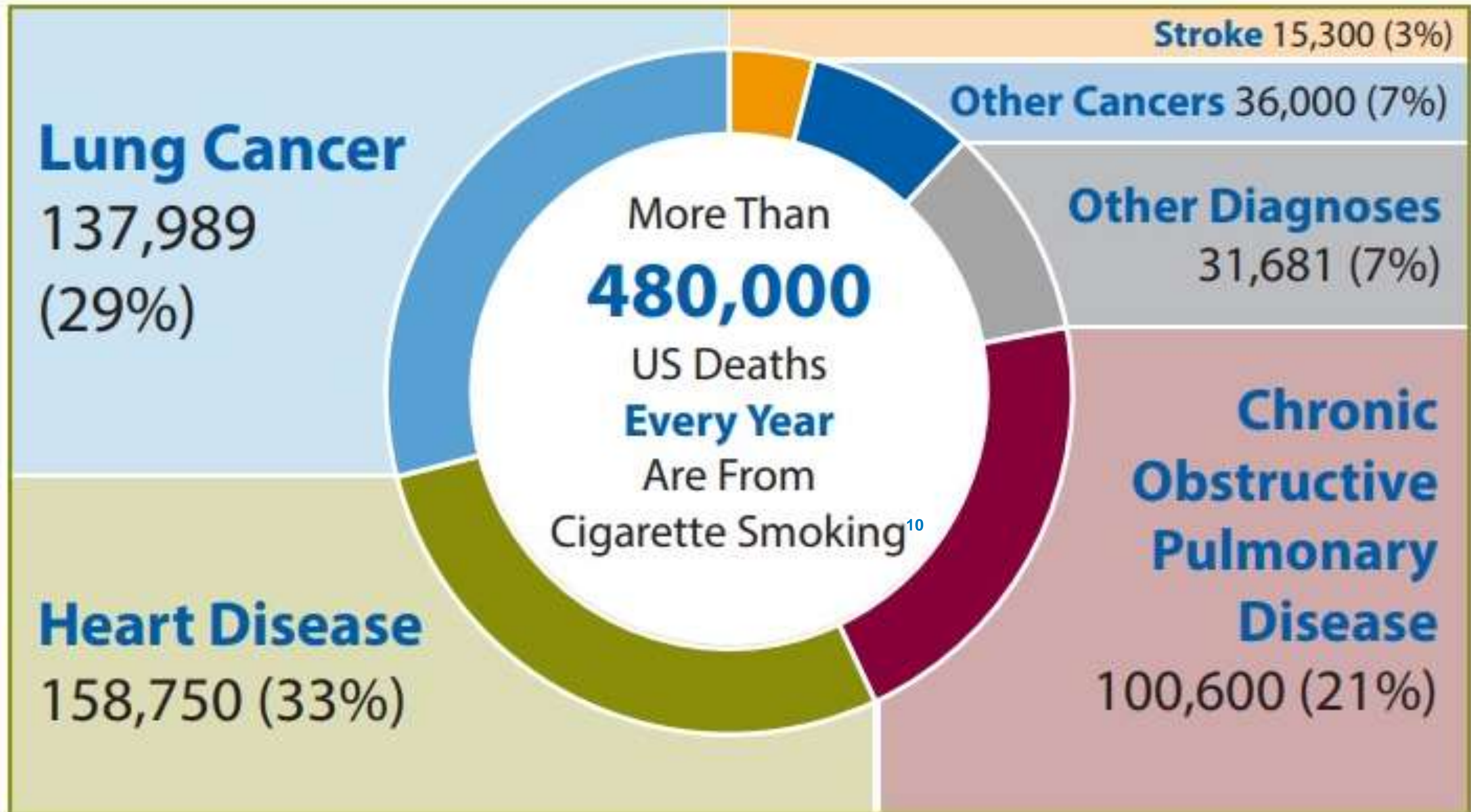


# How does smoking and its definition relate to 2<sup>nd</sup> & 3<sup>rd</sup> hand smoke?

California law defines “smoking” as inhaling, **exhaling**, **burning**, or carrying any lighted or heated tobacco or plant product intended for inhalation, whether natural or synthetic, in any manner or in any form. This includes the use of an electronic smoking device <sup>9</sup>



# Public Health Significance





As of April 1, 2024

**84 California municipalities have enacted an ordinance at the city or county level that prohibits smoking in private units of rental multi-unit housing properties**

**7 COUNTIES**

**Alameda Contra Costa Marin San Mateo Sonoma Santa Clara Del Norte**

**84 MUNICIPALITIES**

**Windsor Santa Rosa Richmond Fresno Rohnert Park Benicia San Rafael Petaluma**

**These policies represent over 6,000,000 Californians-approximately 15% of the state population**

Of these municipalities, 77 have laws that prohibit smoking in 100% of private units of both rental and owner-occupied multi-unit housing properties. <sup>11</sup>



*Funding for*  
**Health And Social Policy Institute's**  
**Communities Addressing Nicotine program provided by:**

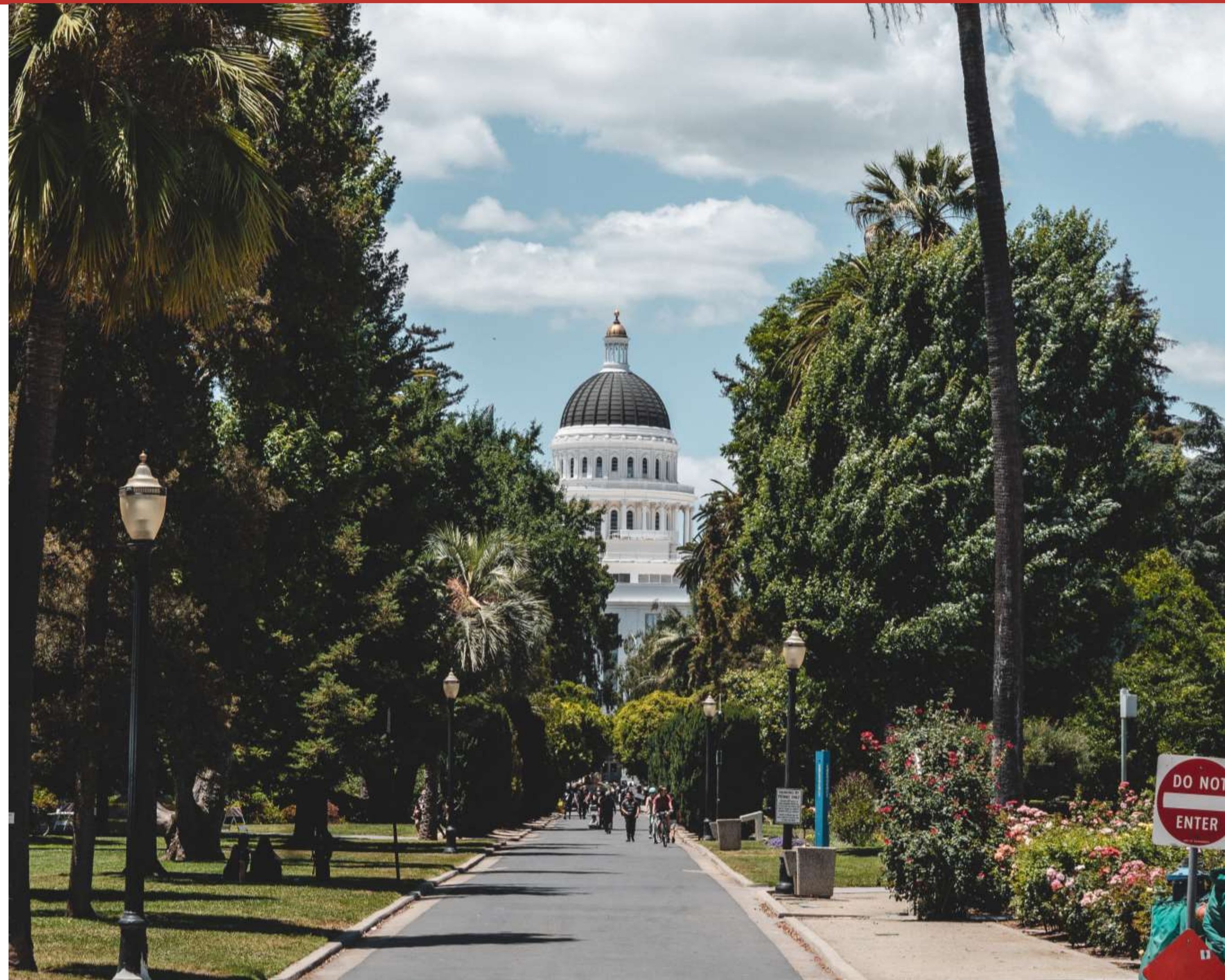
*This project is funded by the State of California-Tobacco Tax of 2016, known as Proposition 56*

***This program operates under the***

***California Tobacco Prevention Program CTPP,***

***which is a division of the.....***

***California Department of Public Health CDPH***





# Citations

- <sup>1</sup>Sources: Andrea, SL, et al. Attitudes, Experiences, and Acceptance of Smoke-Free Policies Among US Multiunit Housing Residents. *American Journal of Public Health*, 102.10 (2012): 1868-71. U.S. Department of Health and Human Services. The Health Consequences of Smoking—50 Years of Progress. 2014. U.S. Department of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke. 2006. California Department of Public Health. Thirdhand Smoke. 2017
- <sup>2</sup>Graves, BM, et al. (2020). Comprehensive characterization of mainstream marijuana and tobacco smoke. *Scientific Reports*, 10(1), 7160. <https://doi.org/10.1038/s41598-020-63120-6>
- <sup>3</sup>National Academies of Sciences, Engineering, and Medicine. (2018). *Public Health Consequences of E-Cigarettes*
- <sup>4</sup>2019 Online California Adult Tobacco Survey, Wave 1 and 2
- <sup>5</sup>Chambers C, Sung HY, Max W. Home Exposure to Secondhand Smoke among People Living in Multiunit Housing and Single Family Housing: A Study of California Adults, 2003-2012. *J Urban Health*.2015;92(2):279–290. doi:10.1007/s11524-014-9919-y
- <sup>6</sup>Chambers C, Sung HY, Max W. Home Exposure to Secondhand Smoke among People Living in Multiunit Housing and Single Family Housing: A Study of California Adults, 2003-2012. *J Urban Health*.2015;92(2):279–290. doi:10.1007/s11524-014-9919-y
- <sup>7</sup>Center for Energy and Environment. (2004). *Reduction of Environmental Tobacco Smoke Transfer in Minnesota Multifamily Buildings Using Air Sealing and Ventilation Treatments*
- <sup>8</sup> Snyder, K., et al. (2016). Smokefree multiunit housing: a review of the scientific literature. *Tobacco Control*, 25(1), 9–20.
- <sup>9</sup> Section 22950.5(c), in California Business and Professions Code
- <sup>10</sup> [https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/fast\\_facts/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/index.htm)
- <sup>11</sup> American Nonsmokers' Rights Foundation. © Copyright 1998 – 2024 American Nonsmokers' Rights Foundation/© 2024, California Department of Public Health