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State and Local Tobacco Control Policies Are Associated With Decreasing Cigarette Smoking Rates and Disparities

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KEY TAKEAWAYS

- > More than 60% of California cities in 2019 still had weak or no local tobacco policies.
- > Populations in neighborhoods with low socioeconomic status were least likely to have tobacco control policies protecting them.
- > State and local tobacco policies reduced smoking rates, especially among the priority populations living in neighborhoods with low socioeconomic status.

Summary: While California as a whole has made significant progress over the past three decades in reducing rates of cigarette smoking, progress across communities in the state has been uneven.¹ Using the 2014–2019 California Health Interview Survey (CHIS) combined adult data and existing state, county, and city tobacco control policies and neighborhood-level data on social drivers of health, this brief examines variations in local tobacco policies and their relationship with smoking behaviors, particularly among priority populations disproportionately impacted by tobacco.

Findings: In 2019, more than 60% of California cities still had weak or no local tobacco policies. Inequities in protection by tobacco control policies persist across priority populations, especially in areas with low neighborhood socioeconomic status (NSES). Reductions in adult cigarette smoking were greater in cities with strong local tobacco policies than in those with weak or no policies. Strong local policies were also associated with decreased smoking rates among adult (18+) populations disproportionately impacted by the tobacco epidemic, thereby reducing social inequalities in cigarette smoking. This study also found that the positive effect of local tobacco control policies on current adult smoking rates was further enhanced when the state-level tobacco policy (i.e., raising the tax from \$0.87 to \$2.87 per pack) was enacted in April 2017.

Although the number of [tobacco control] policies adopted increases each year, many Californians still live in communities where these policies are absent or where the strength of such policies is still very low.

INTRODUCTION

California is leading the nation in efforts to end the tobacco epidemic and eliminate tobacco-related inequities by fostering tobacco-free communities through state and local policies. This policy brief provides first-of-its-kind information on whether there are any inequities in tobacco control policy protection across adult priority populations and on the effects of these policies on smoking behaviors, especially in the reduction of tobacco-related disparities among priority populations. Priority populations are those disproportionately impacted by tobacco – e.g., racial/ethnic/sexual minorities; low-income, rural, or multiunit housing residents; or those living in neighborhoods with high concentrations of low-income or minority residents.

Specifically, this brief examines the following: variations in local tobacco control policies in terms of protecting residents, especially priority populations; the effects of state

and local policies on overall adult smoking behaviors (by looking at current cigarette smoking in the last 30 days among adults); and, importantly, the policies' effects on smoking behaviors among priority populations.

Effective April 1, 2017, the state substantially increased the cigarette tax, from 87 cents to \$2.87 per pack. However, even before state-level interventions, cities and counties in California had been at the forefront of adopting tobacco control policies. The American Lung Association (ALA) has categorized these policies into four primary areas: (1) smoke-free outdoor ordinances (including dining areas, recreational areas, and public events); (2) restrictions on smoking in multiunit housing; (3) tobacco retailer licensing requirements; and (4) ordinances regulating emerging issues such as flavored tobacco products.² According to the ALA, in 2018, about 50% of Californians still lived in communities unprotected by at least some of these policies.

Based on the ALA's overall tobacco control grade, more than

3 in 5 (60%)

cities in the state were assigned grades of D and F in 2019, representing weak or absent local tobacco policies.

Local policy adoption varies in California

Since 2013, the ALA has assigned grades indicating the strength of local tobacco control policies in four key areas/categories – smoke-free outdoor air, smoke-free housing, tobacco retailer licensing requirements, and emerging issues for 482 incorporated cities and all unincorporated cities in 57 counties (excluding San Francisco), which are covered by the policies of the county.

In 2014, 185 incorporated cities and 30 unincorporated areas were not covered by any local tobacco control policies. By 2019, the figure had declined further, to 128 incorporated cities and 20 unincorporated areas. Although the number of policies adopted increases each year, many Californians still live in communities where these policies are absent or where the strength of such policies is still very low. Based on the ALA's overall tobacco control grade, more than 60% of cities in the state were assigned grades of D and F in 2019, representing weak or absent local tobacco policies. Specifically, 211 cities were graded as F (43.8%) and 83 as D (17.2%), while only 40

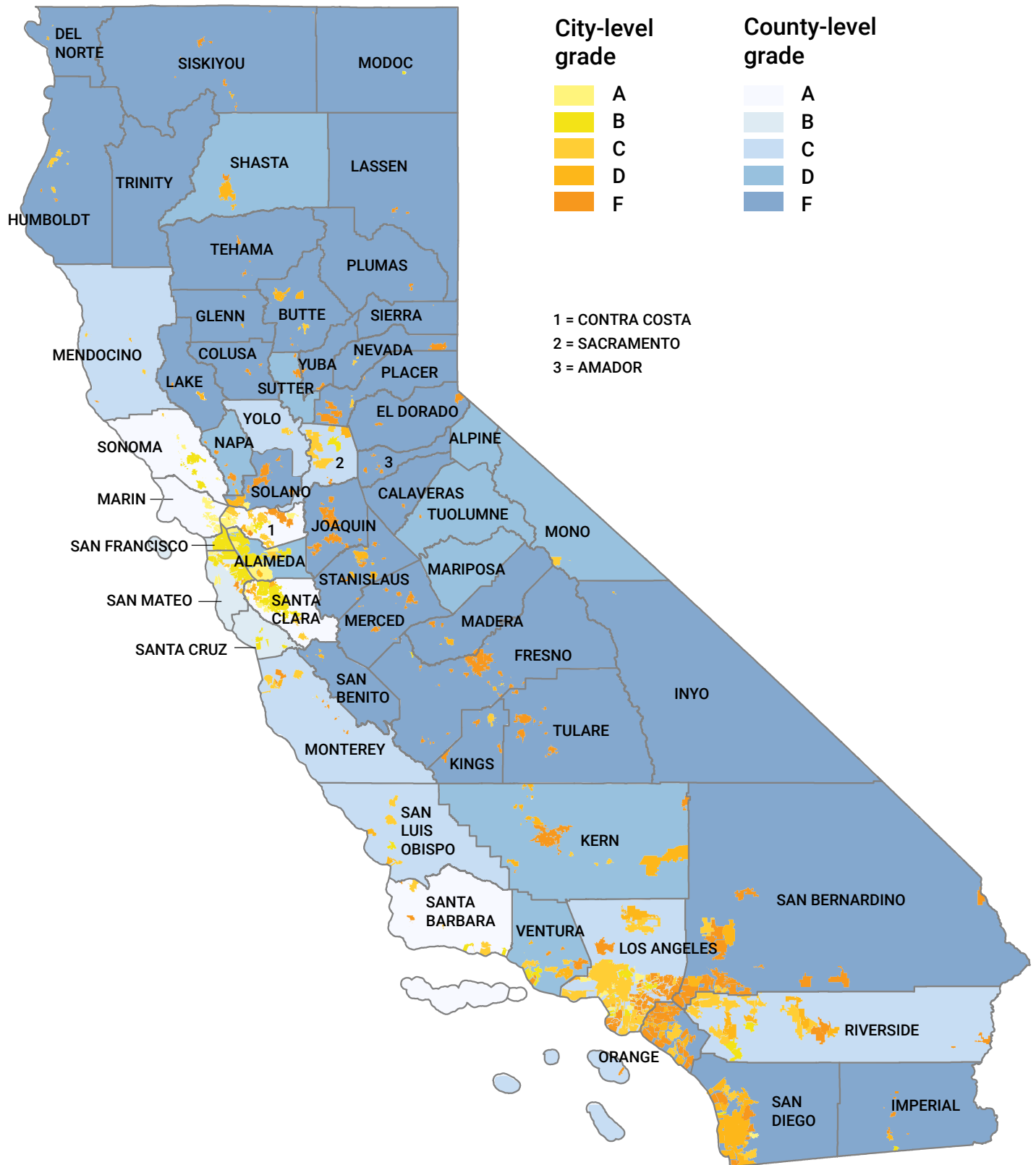
(8.3%) received an A, 53 (11.0%) received a B, and 95 (19.7%) received a C (Exhibit 1). Most cities in the Bay Area were covered by local tobacco control policies graded as A or B, while cities in the Central Valley were mostly covered by policies graded as D or F.

Population groups, especially those in areas with low neighborhood socioeconomic status, are less likely to be protected by local policies

People who had low family incomes (<400% of the federal poverty level [FPL]) or who lived in rural areas were less likely to be protected by local tobacco control policies than those in areas of high neighborhood socioeconomic status (NSES). Among those with low family incomes, 67% were unprotected by a smoke-free housing policy, and 65% were unprotected by a policy reducing sales of tobacco products. Among people living in rural areas, 53% were unprotected by a smoke-free outdoor air policy, while 80% were unprotected by policies reducing sales of tobacco products.

More than 17% of Black or African American and 25% of Latino adults living in low NSES areas were unprotected by local city-level tobacco control policies, compared with 8.5% of Black or African American and 7.5% of Latino adults living in higher NSES areas. Similarly, those who had family incomes of less than 400% FPL or who lived in multiunit housing in low NSES areas were less likely to be protected by local tobacco control policies compared with those living in higher NSES areas (20.8% vs. 9.9% and 17.8% vs. 9.8%, respectively) (Exhibit 2).

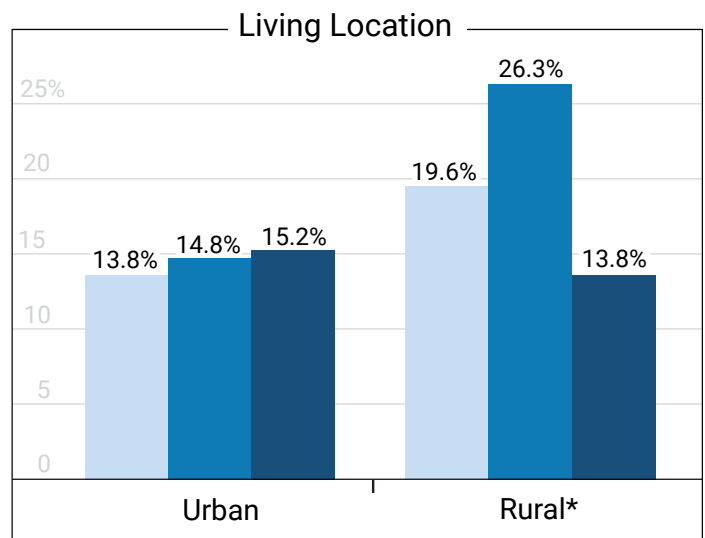
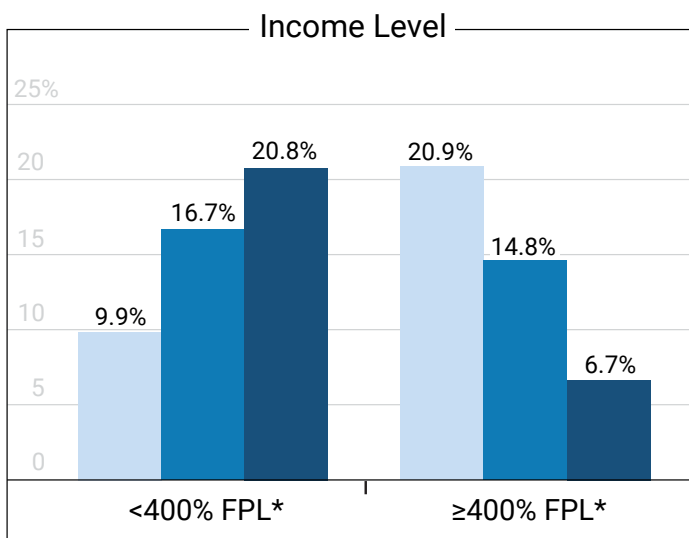
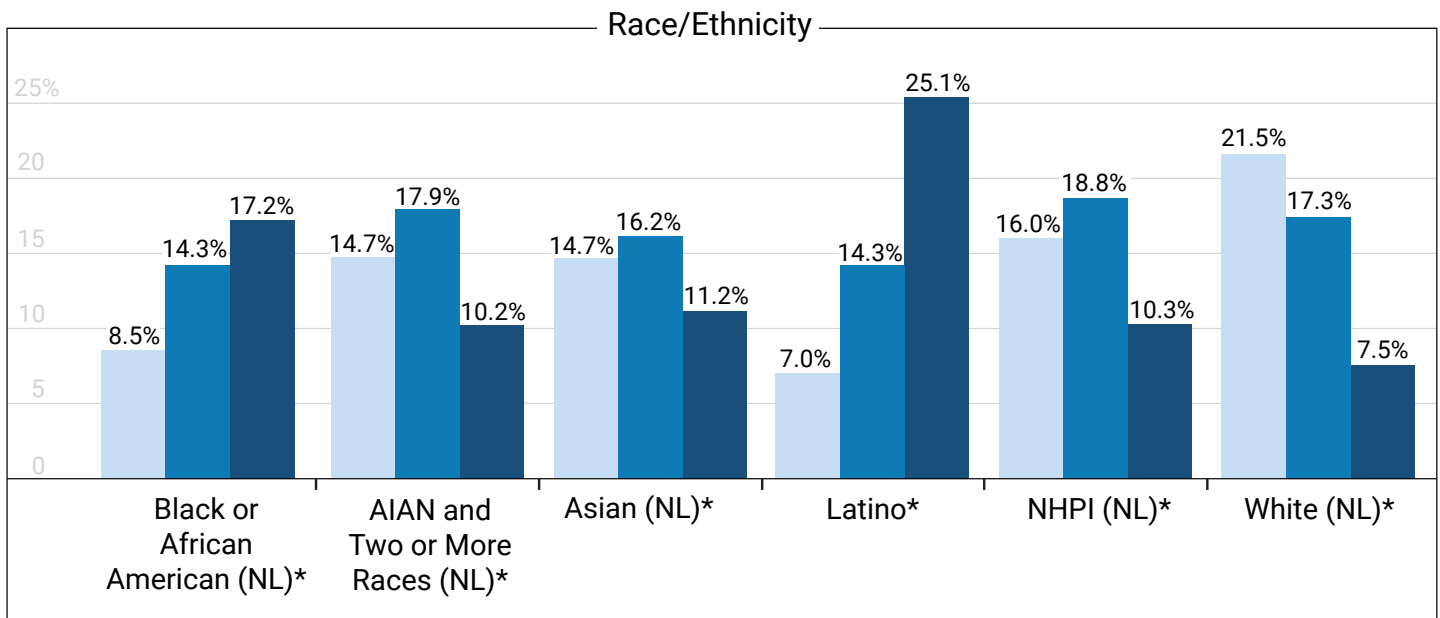
Exhibit 1 / Tobacco Control Policy Overall Grade by California City and County, 2019



Source: American Lung Association (ALA) local tobacco policy data

Exhibit 2 / Percentage of Populations Unprotected by Local Tobacco Control Policies by Neighborhood Socioeconomic Status, California Adults, 2014–2019

■ High neighborhood socioeconomic status
 ■ Middle neighborhood socioeconomic status
 ■ Low neighborhood socioeconomic status



Notes:

NL = Non-Latino; AIAN = American Indian or Alaska Native; NHPI = Native Hawaiian or Pacific Islander

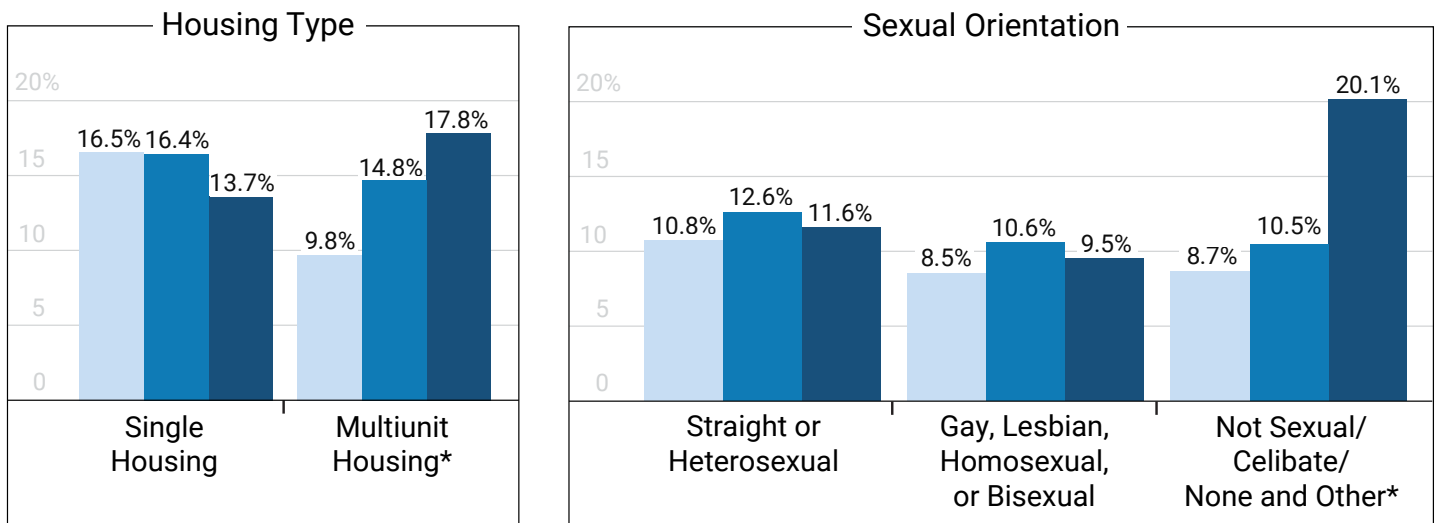
Neighborhood socioeconomic status is defined by the data from CalEnviroScreen generated by the Office of Environmental Health Hazard Assessment,³ which include census tract-level data such as educational attainment, linguistic isolation, poverty, unemployment, and housing-burdened low-income households. Local tobacco policy adoption/protection status (yes vs. no) was defined based on the length of local policy adoption, calculated using the American Lung Association (ALA) city-level policy score and accounting for a year lag, given that ALA does not list each policy's implementation date.

* Differences were statistically significant at $p \leq 0.05$.

Source: 2014–2019 California Health Interview Surveys and American Lung Association (ALA) local tobacco policy data

Exhibit 2 (continued) / Percentage of Populations Unprotected by Local Tobacco Control Policies by Neighborhood Socioeconomic Status, California Adults, 2014–2019

■ High neighborhood socioeconomic status ■ Middle neighborhood socioeconomic status ■ Low neighborhood socioeconomic status



* Differences were statistically significant at $p \leq 0.05$.

Source: 2014–2019 California Health Interview Surveys and American Lung Association (ALA) local tobacco policy data

Cities with strong local tobacco control policies have lower cigarette smoking rates

When we examined the relationship between local policy strength and current smoking rates, a strong association was found between more stringent local policies and lower smoking rates, while weak or absent policies were associated with higher smoking rates. For example, smoking rates were only 10.1% in locations with a strong overall tobacco control policy grade (A to C), in contrast to 11.5% in locations with poor grades (D and F). The percentage of current smoking was 9.6% among residents in cities with a smoke-free outdoor policy graded as A, B, or C, but 11.6% in areas with a policy graded as D or F. In cities with a grade of D or F for smoke-free housing, about 11.2% of residents reported currently smoking, but only 8.8% of those in cities with

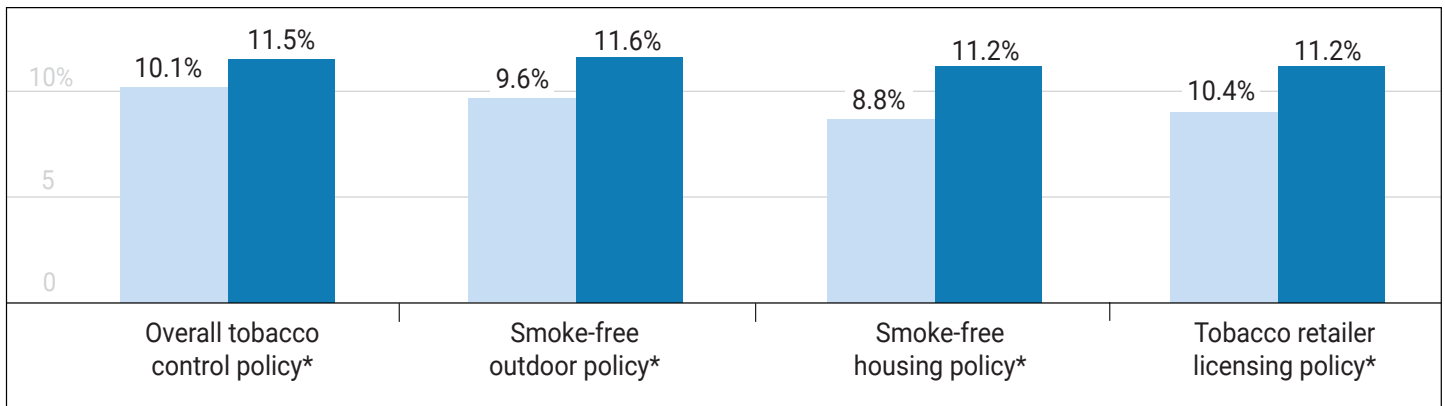
strong policies (grades A, B, or C) reported currently smoking (Exhibit 3).

State and local tobacco control policies work in synergy to further decrease smoking rates

The adoption of both state and local policies further accelerates reductions in current smoking. Overall, 12.5% of Californians reported current cigarette smoking where neither local nor state policies were in place (before April 2017). Smoking rates declined to 11.5% where only local policies had been adopted, and they decreased to 7.7% where both state and local policies were in place (after April 2017). For each local tobacco control policy, current smoking rates could be further reduced by about 3 percentage points where local policies are adopted, given the existing state policy context (Exhibit 4).

Exhibit 3 / Current Smoking Rate by Tobacco Control Policy Strength, California Adults, 2014–2019

■ Grade = A, B, or C ■ Grade = D or F

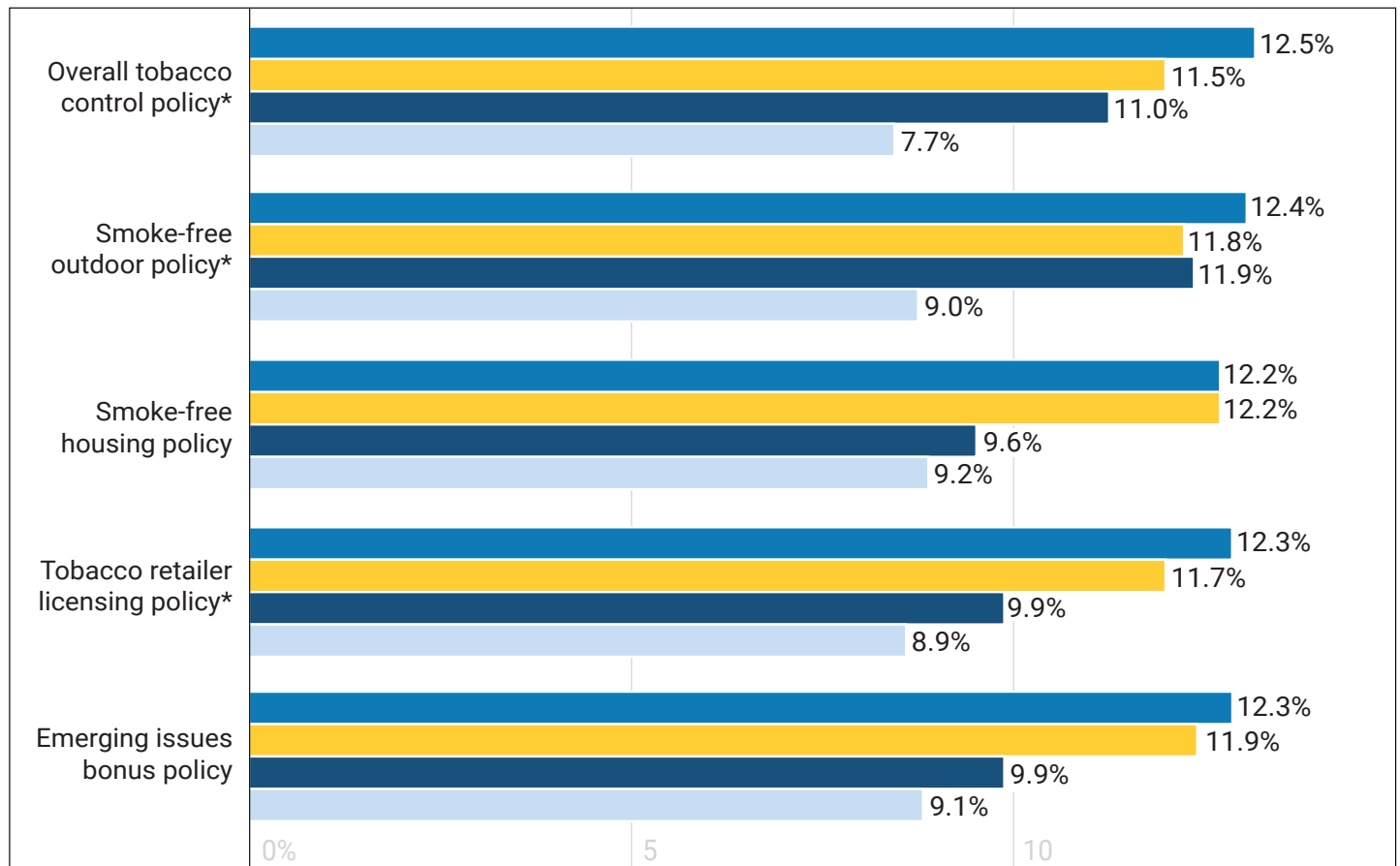


*Differences were statistically significant at $p \leq 0.05$.

Source: 2014–2019 California Health Interview Surveys and American Lung Association (ALA) local tobacco policy data

Exhibit 4 / Current Smoking Rates by State and Local Tobacco Control Policy Adoption Status Among California Adults, 2014–2019

■ Neither state nor local policy (2014–2016) ■ Local policy only (2014–2016)
 ■ State policy only (2017–2019) ■ Both state and local policies (2017–2019)



* Differences were statistically significant at $p \leq 0.05$.

Source: 2014–2019 California Health Interview Surveys and American Lung Association (ALA) local tobacco policy data

A strong association was found between more stringent local policies and lower smoking rates, while weak or absent policies were associated with higher smoking rates.

Strong local tobacco policies are associated with a decrease in smoking rates among priority populations

Beyond reducing overall smoking rates, stronger local tobacco policies are also associated with decreased smoking rates among priority populations. Among American Indian or Alaska Natives or adults of two or more races, the rate of currently smoking was 14.4% where the overall tobacco policy was graded A through C, but the rate was 19.3% among their counterparts living in areas with a policy grade of D or F (Exhibit 5). In areas with policy grades of A, B, or C, those who had family incomes of <400% FPL, lived in multiunit housing or rural areas, or identified as a sexual minority (gay/lesbian/homosexual/bisexual) had rates of current smoking of 12.5%, 11.8%, 10.1%, and 14.2%, respectively. In contrast, the rates of current smoking among their counterparts in areas with weaker local policies (graded D or F) were 14.2%, 14.5%, 14.6% and 17.3%, respectively.

Community members' opinions on local tobacco policies

To understand public opinions on why local tobacco policies are adopted or not, as well as differences in the implementation and

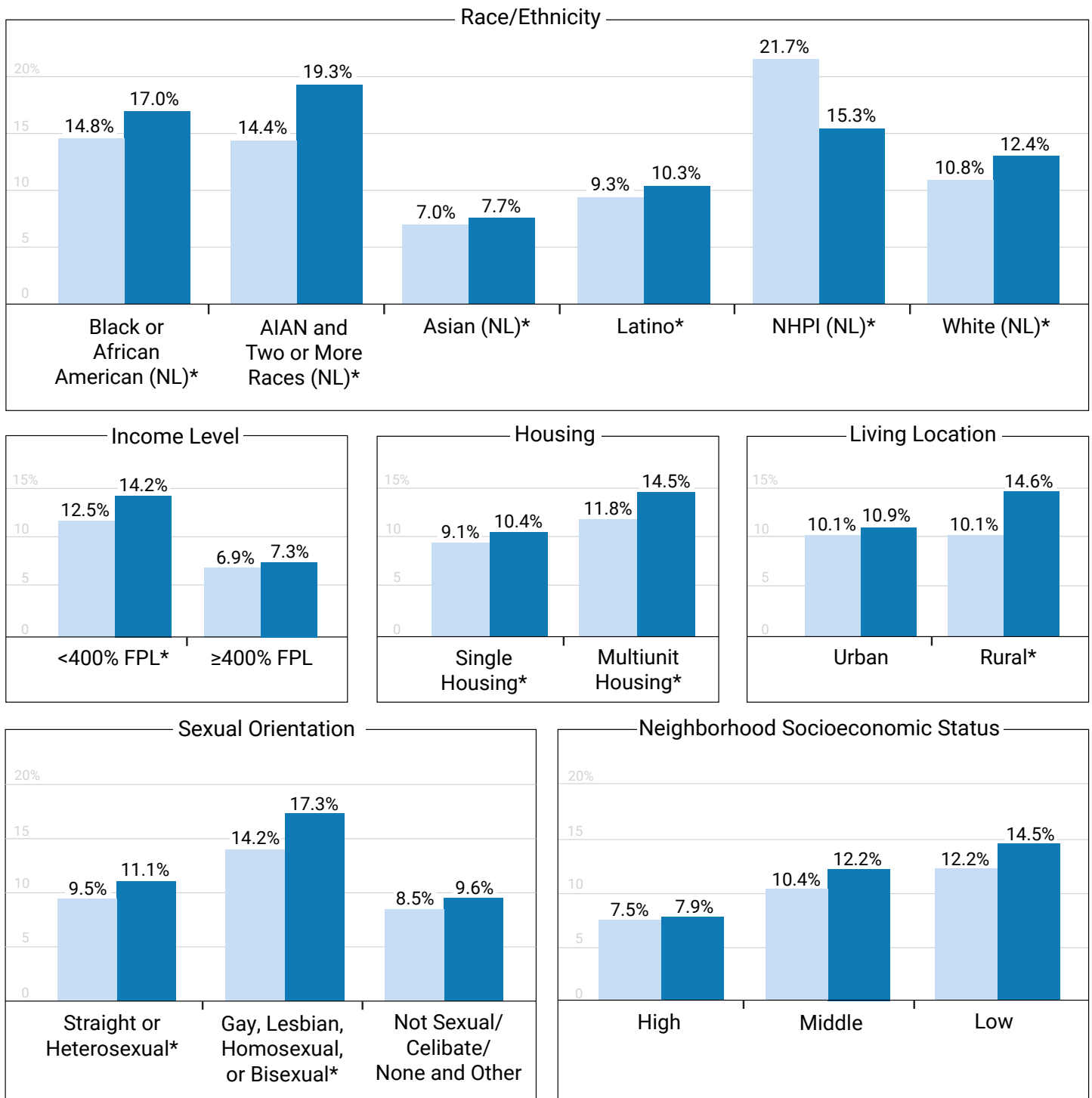
enforcement of these policies, the California Health Collaborative staff helped us conduct community outreach and recruitment of policymakers and stakeholders to participate in key informant interviews or focus groups in selected areas with and without policies. We conducted six focus groups in different areas/regions of California, with a total of 48 participants, and 21 key informant interviews. Participants represented a diverse range of sectors in the community – parents, young adults, students, tobacco control professionals, public health administrators, volunteer organizations, and policymakers. The findings are summarized below.

Tobacco policy adoption facilitators

The most effective facilitators for local policy adoption are the existence of community coalitions; participation of diverse organizations; increased awareness through education and media; and youth involvement. Coalitions are essential for mediating the relationship between those in power and the rest of the community, bridging members of different communities, and uniting the community for policy adoption. Organizations utilize a variety of strategies to educate the community. Increased community awareness and education can be achieved through a variety of means, such as media campaigns, surveys, and language translation, to facilitate policy adoption. Youth involvement impacts policy adoption by empowering disadvantaged people to band together and prompt those in power to act. By sharing the dangers of tobacco, protesting, and showing up at policy meetings, youth action brings light to the dangers of inaction.

Exhibit 5 / Current Smoking Rates Among Varying Populations by Strong or Weak Local Policies, California Adults, 2014–2019

■ Grade = A, B, or C ■ Grade = D or F



Notes:

NL = Non-Latino; AIAN = American Indian or Alaska Native; NHPI = Native Hawaiian or Pacific Islander
 Neighborhood socioeconomic status is defined using the data from CalEnviroScreen generated by the Office of Environmental Health Hazard Assessment, which include census tract-level data such as educational attainment, linguistic isolation, poverty, unemployment, and housing-burdened low-income households.

* Differences were statistically significant at $p \leq 0.05$.

Source: 2014–2019 California Health Interview Surveys and American Lung Association (ALA) local tobacco policy data

Barriers to public support for local tobacco policies

Pro-business bias and competing community priorities are the main barriers to public support for tobacco policy adoption.

Business interests are the primary influence on elected officials with the power to enact local tobacco policies, especially in smaller and rural communities where business bias is tied to economic stability concerns. Local business sectors, chambers of commerce, profit interests, and the tobacco industry are contributing factors. The COVID-19 pandemic heightened economic concerns of officials and local businesses, weakening tobacco policy efforts.

Awareness of the adoption and enforcement of local tobacco policies

Most participants in the community were aware of existing policies and those recently adopted or currently in progress toward being adopted. The tobacco control policies that participants were most aware of included those for outdoor recreation areas, tobacco retail licensing, outdoor dining, and smoke-free multiunit housing. Some were aware of emerging issues such as flavored tobacco retail sales bans and retailer location restrictions under new tobacco retail licensing ordinances. Tobacco policy enforcement was perceived by participants as limited, inconsistent, and ineffective for most policies. Three enforcement methods mentioned by the participants were:

Unequal policy protection was found across priority populations.

1. **Monitoring and complaint methods** (mentioned frequently). The monitoring authority and complaint recipient is most likely an agency in the jurisdiction. In some instances, such as housing, it may be the property owner.
2. **Code enforcement** (mentioned by some). Code enforcement may be through a city health department or other code enforcement unit, such as housing or retail business licensing.
3. **Fines and civil litigation** (mentioned by a few).

DISCUSSION/POLICY RECOMMENDATIONS

From 2014 to 2019, California experienced a significant decline (from 11.8% to 6.8%) in cigarette smoking rates following the adoption of local and state tobacco control policies based on the findings of the study. However, more than 60% of cities in the state still had weak or absent local tobacco policy ordinances in 2019. Unequal policy protection was found across priority populations. Those living in areas with low NSES were less likely to be protected by local tobacco policies compared to those in higher NSES areas. Cities with strong local policies had lower smoking rates than those with weak or absent policies.



Strong local policies were also associated with lower smoking rates among priority populations. This study also found that the positive effect of local tobacco control policies on current smoking rates was further enhanced by the enactment of state-level tobacco policy.

Cigarette smoking remains the leading cause of preventable death and disease in California and in the United States overall.⁴ Previously, the majority of tobacco control interventions focused primarily on individual and interpersonal levels, which had limited impact on sustained improvements or reductions in disparities.⁵ Since May 2018, the California Tobacco Prevention Program (CTPP) of the California Department of Public Health (CDPH) has undergone a paradigm shift from "tobacco control" to "the endgame initiative," which aims to eliminate the tobacco industry's influence in California, make all California communities tobacco-free, and end the tobacco use epidemic in California. The strategies are

to change the social norms surrounding tobacco use by "indirectly influencing current and potential future tobacco users by creating a social milieu and legal climate in which tobacco becomes less desirable, less acceptable, and less accessible."⁶ To change tobacco-related social norms and move communities forward with meeting the "endgame" goals, the CTPP is funding a statewide media campaign and has launched a Priority Populations Initiative⁷ focused on policy, system, and environmental change.

The findings of this study indicate that state and local policies are effective strategies for advancing the goal of eliminating tobacco use and its resultant harms, as well as for addressing tobacco-related disparities in California. However, the adoption and enforcement of local policies are still insufficient, and protections by these policies, especially for the priority populations, are still unequal.

State and local policies are effective strategies for advancing the goal of eliminating tobacco use and its resultant harms, as well as for addressing tobacco-related disparities in California.



We recommend the following:

Strengthen efforts to develop and adopt local tobacco control policies. To achieve equity in protection, more effort is needed to develop and adopt local policies, especially within communities with low NSES status and high concentrations of priority populations, which include but are not limited to racial/ethnic minorities, LGBTQ people, people with low NSES status, rural residents, current smokers, and school-age youth. It is also important to enact stronger tobacco control laws at the state level, particularly those related to limitations on secondhand smoke and tobacco sales.

Effectively inform, engage, and empower priority populations. To eliminate disparities and redress the structural, political, and social drivers that sustain California's tobacco-related inequity, it is critical to empower members of priority communities via community engagement/partnerships and sufficient resources. It is vital to continue funding

targeted interventions, such as the Priority Populations Initiative, which focuses on promoting the adoption and implementation of policy, system, and environmental changes, community engagements, and partnerships on policy and systems change efforts in priority communities.

Increase public awareness of and capacities for implementing "endgame" strategies.

Interventions are needed to heighten public awareness about the existing state and local laws in communities (e.g., lack of enforcement). Efforts could also be made to encourage those in communities suffering from a lack of enforcement to engage in actions aimed at the promotion and implementation of state and local policies.

This study provides insights into tobacco-related disparities and furthers knowledge of the effects of local and state policy, system, and environmental approaches benefiting priority populations.

Study findings indicate that strategies to improve and strengthen local policies and to further the adoption of new state and local policies are warranted to ensure a continued decline in the prevalence of cigarette smoking and to reduce tobacco-related disparities.

Data Sources and Methods

The policy brief used the 2014–2019 California Health Interview Survey (CHIS) adult data linked with the city-level tobacco control grades from the American Lung Association (ALA) and the neighborhood socioeconomic status data from the CalEnviroScreen generated by the Office of Environmental Health Hazard Assessment, which are defined using census tract-level data including educational attainment, linguistic isolation, poverty, unemployment, and housing-burdened low-income households. We used the responses to several questions to define cigarette smoking behaviors. The "currently smoking" data are based on the CHIS question: "Do you now smoke cigarettes every day, some days, or not at all?" The answers to every day or some days were combined to define "current smoking."

We used the American Lung Association (ALA) categorization of these policies into four primary areas: (1) smoke-free outdoor ordinances (including dining areas, recreational areas, and public events), (2) restrictions on smoking in multiunit housing, (3) tobacco retailer licensing requirements, and (4) ordinances regulating emerging issues such as flavored tobacco products.² Each city and county is given a point value based on the strength of its local ordinances. For example, in the smoke-free outdoor air category, a value

of 4 is assigned if "all outdoor dining areas at bars and restaurants are 100% smoke-free," but a value of 0 is given if there are "no smoking restrictions in outdoor dining areas." Based on the 2023 ALA report, these points are then added to calculate a total score, which is then converted into a letter grade (A to F) to better display the strengths of different categories of local tobacco control policies.⁸ The points also present an overall tobacco control grade based on all of the other subcategories, with the following scale: A (11–14), B (8–10), C (5–7), D (2–4), F (0–1).⁹ Qualitative data were collected from key informant interviews conducted August 2022–March 2023 and from focus groups conducted May 2022–March 2023.

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The California Health Interview Survey covers a wide array of health-related topics, including health insurance coverage, health status and behaviors, and access to health care. It is based on interviews conducted continuously throughout the year with respondents from more than 20,000 California households. CHIS interviews were offered in English, Spanish, Chinese (both Mandarin and Cantonese), Vietnamese, Korean, and Tagalog. CHIS is designed with complex survey methods requiring analysts to use complex survey weights in order to provide accurate variance estimates and statistical testing. CHIS is a collaboration of the UCLA Center for Health Policy Research, the California Department of Public Health, the California Department of Health Care Services, and the Public Health Institute. For other information about CHIS, visit chis.ucla.edu.

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Endnotes

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