Office of Health Equity
Healthy Communities Data and Indicators Project

Short Title: Smoking.
Full Title: Prevalence of smoking in adults and youth.

1. Healthy Community Framework:
Quality and sustainability of environment.

2. What is our aspirational goal?
Tobacco and smoke free.

3. Why is this important to health?

a. Description of significance and health connection.

Smoking harms every organ of the body, causing many diseases and reducing the health of smokers in general. Smokers are more likely than nonsmokers to develop heart disease, stroke, and lung cancer, among other conditions. Smoking causes about 90% of all lung cancer deaths and about 80% of all deaths from chronic obstructive pulmonary disease (COPD).[1] In the period between 1964 and 2014, 20 million premature deaths in the U.S. were attributed to cigarette smoking. Smoking related diseases are also an economic burden because smokers have higher absenteeism from work and increased health care utilization and cost.[2]

Smoking rates in California among adults declined from 23.7% in 1988, to 11.7% in 2013; however, this decline has stalled in the last few years.[3] In 2004, approximately 35,000 deaths in California, among adults aged 35 and older can be attributed to smoking. Californian men have a higher smoking rate than women (15.1% vs. 8.5%, 2013 data). American Indian/Alaska Native men (25.6%) and women (32.6%) have the highest smoking rates among all race/ethnicities by gender in California (2011-2012); smoking prevalence is also high for other men of color (Korean, Vietnamese, Chinese, African American) and African American women. Adults living under the 100% Federal Poverty Level, without college education, and living in rural counties have higher smoking rates in California.[3,4] Aggregated data for the 2005 through 2010 period showed that the smoking prevalence for Californian lesbian, gay and bisexual populations was 27.4%, compared to 12.9% for heterosexual Californian adults.[5] The 30-day smoking prevalence rate among high school students (9th-12th grades) in California decreased from 21.6% in 2000 to 14.6% in 2008; smoking prevalence is highest among white adolescents.[6] These smoking rate estimates do not include electronic vapor products (EVP) which include electronic cigarettes and other products. The overall use of electronic cigarettes by adults nearly doubled between 2012 and 2013 (1.8% to 3.5%), and nearly quadrupled for young adults between the ages of 18-24 for the same time period (2.2% to 8.6%).[3]

b. References

1. Health Effects of Cigarette Smoking. Centers for Disease Control and Prevention Website. (http://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/. Updated February 6th, 2014. Accessed August 17th 2015.
2. U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General (http://www.cdc.gov/tobacco/data_statistics/sgr/50th-anniversary/index.htm).* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.
3. California Department of Public Health. *California Tobacco Facts and Figures 2015 (http://www.cdph.ca.gov/programs/tobacco/Documents/Resources/Fact%20Sheets/2015FactsFigures-web2.pdf).* Sacramento, CA: California Department of Public Health, California Tobacco Control Program, 2015.
4. California Department of Public Health. *Health & Economic Consequences (http://www.cdph.ca.gov/programs/tobacco/Documents/Archived%20Files/CTCPHealthEconCon_10.pdf).* Sacramento, CA: California Department of Public Health, California Tobacco Control Program, 2010.
5. California Department of Public Health. *Smoking among California's Lesbian, Gay and Bisexual Populations (http:/www.cdph.ca.gov/programs/tobacco/Documents/Archived%20Files/CTCPHealthEconCon_10.pdf).*. Sacramento, CA: California Department of Public Health, California Tobacco Control Program, 2010.
6. California Department of Public Health. *Youth Smoking (http://www.cdph.ca.gov/programs/tobacco/Documents/Archived%20Files/CTCPYouthSmoking_10.pdf).* Sacramento, CA: California Department of Public Health, California Tobacco Control Program, 2010.

4. What is the indicator?

a. Detailed Definition:

The definitions come from the California Health Interview Survey.

i. Percentage of adults (18 years and over) that are current smokers: An adult is considered a current smoker if the adult responds yes to smoking "at least 100 cigarettes in your entire lifetime" and indicates smoking every day or some days.

ii. Percentage of teenagers (12-17 years old) that are current smokers: For the 2003 data, a current smoker is an adolescent that smoked more than 3 cigarettes in

the 30 days preceding the interview. For the other years, a current smoker is an adolescent that has ever smoked and has smoked at least one day in the 30 days preceding the interview.

b. Stratification.

Type of smoker (adult or teen). Eight race/ethnicity groups (African American, American Indian/Alaska Native, Asian, Latino, multiple, Native Hawaiian/Other Pacific Islander, other and White).

c. Data Description.

i. Data sources: California Health Interview Survey (CHIS) confidential data files, http://healthpolicy.ucla.edu/chis/Pages/default.aspx.
ii. Years available: 2001, 2003, 2005, 2007, 2009, 2011 through 2012, 2013 through 2014.
iii. Updated: 2 year intervals.
iv. Geographies available: counties (and groups of counties) and state.

The percent of current smokers (variable SMKCUR) and its standard error were estimated from the CHIS confidential files by applying sample weights and using a SAS survey frequency calculation as recommended by CHIS. The numerator and denominator were also estimated by applying sample weights. Adult estimates were stratified by race/ethnicity and by counties; estimates for teens were only stratified by race/ethnicity. CHIS groups counties in geographical regions to obtain reliable estimates. When estimates for groups of counties were obtained, this average was applied to individual counties. For instance, the estimate obtained for the "Humboldt/Del Norte" group was applied to Humboldt and Del Norte counties individually.

Weighed population estimates below 500 were suppressed from the data file as recommended by CHIS. Relative standard error (RSE), confidence intervals, and relative risk were calculated.

5. Limitations.

CHIS is a telephone survey which underestimates smoking among youth since youth are not willing to report their smoking status at home via telephone. The California Department of Public Health conducts a paper-pen survey at school that provides rates of smoking prevalence in high school for the state (https://cdph.data.ca.gov/Diseases-and-Conditions/Smoking- Prevalence-in-High-School-by-Race-Ethnicit/u5mf-kje8). CHIS estimates for youth smoking at the county level for individual years were largely not reliable (if a threshold of RSE equal or higher to 30% is used) and were not included in the dataset. This indicator does not include electronic cigarette smoking. Cigarette smoking is declining among teenagers and young adults however electronic cigarette smoking is increasing.

6. Projects using this indicator.

1. California Health and Human Services Agency, Let's Get Healthy California. http://www.chhs.ca.gov/Pages/LGHCtab.aspx.