

Describing & Understanding Youth Death in the Sacramento Region



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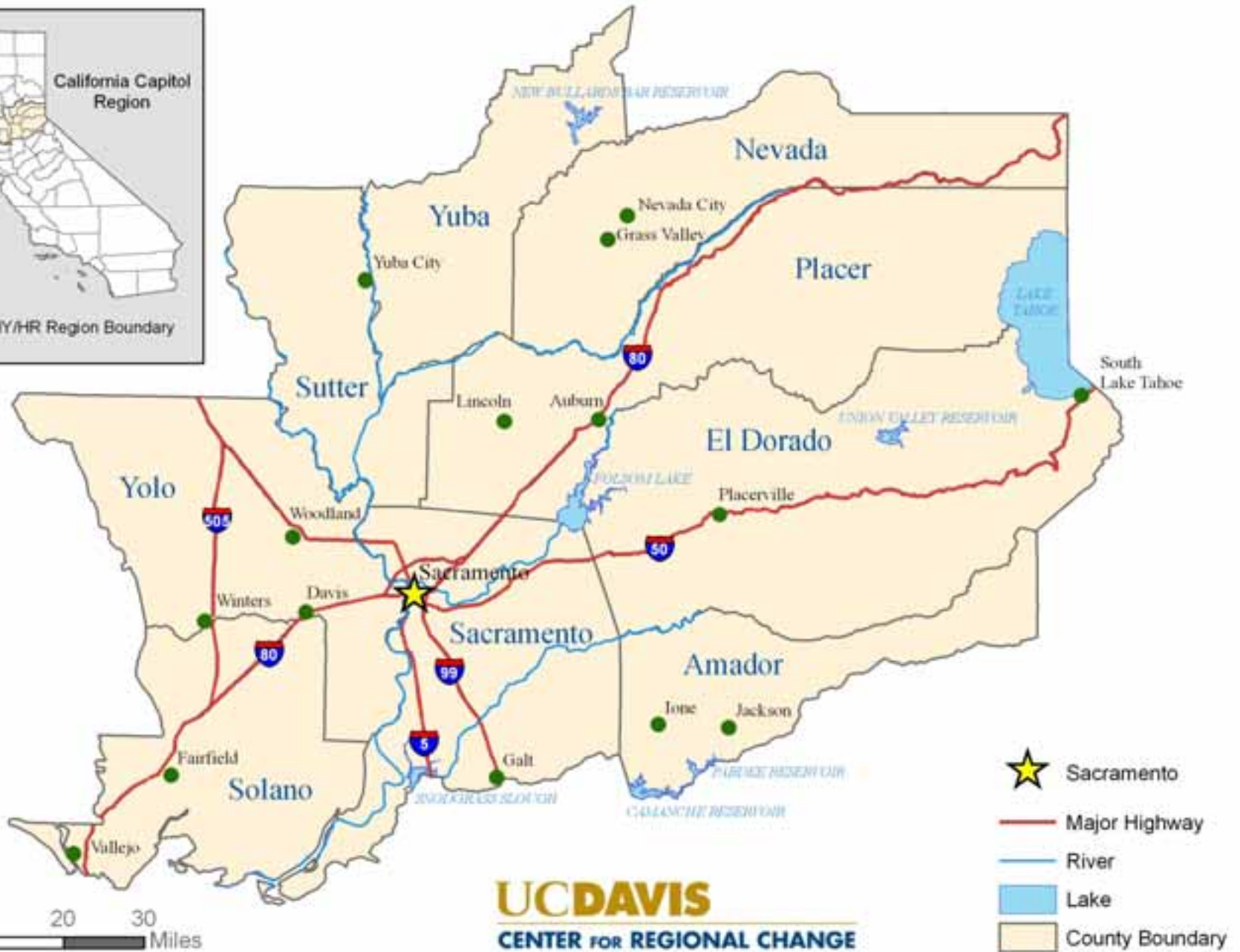
Outline

- Overview of the Healthy Youth/ Healthy Regions initiative
- Death & Youth Death
 - Spatial aspects of youth death
 - Temporal component of youth death
 - Qualitative data
- Implications

The HY/HR Initiative

- Goal: to promote stronger, more equitable youth outcomes in the Sacramento region by informing investment, policy development and practice
 - Quantitative methods
 - Qualitative methods
 - Youth voices (multiple media projects: video, comic books, Google map and more)

Healthy Youth / Healthy Regions

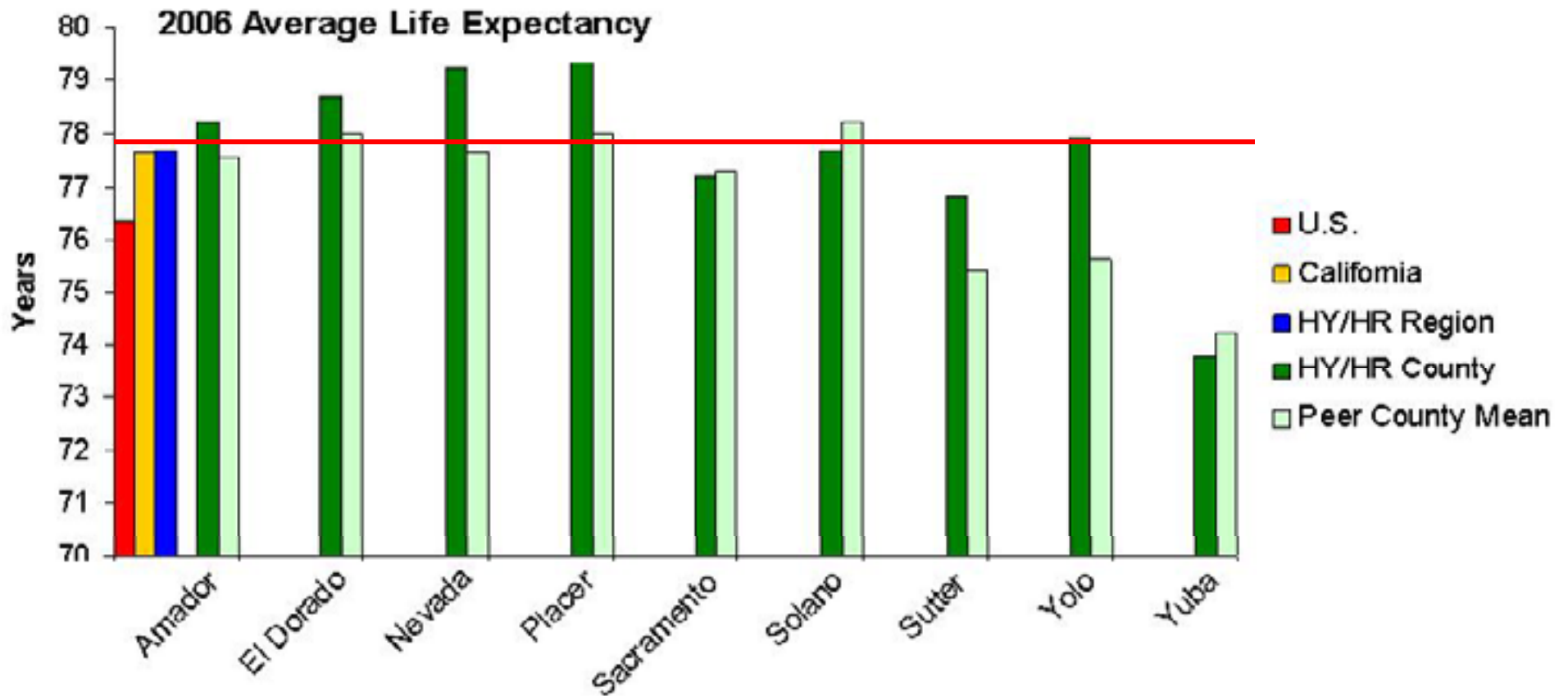


Life Expectancy

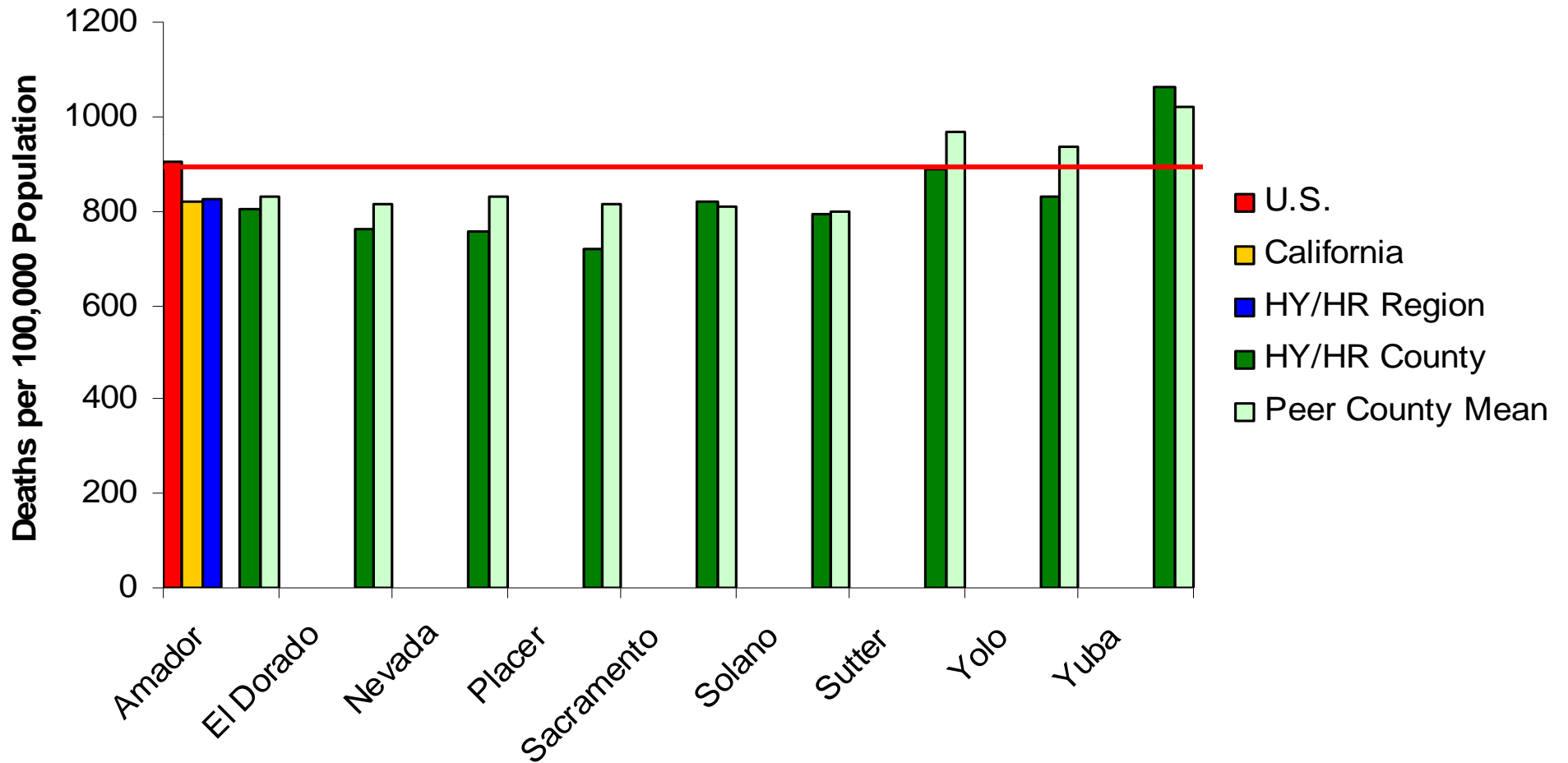
- One of the most common global measures of health and population well-being
- Increases in American longevity over the last 100 years attributable to:
 - improved living conditions
 - better nutrition
 - sanitation
 - healthier lifestyles
 - advances in medicine
- Longer life expectancies in certain places might be considered a surrogate measure for how healthy that place is to live for adults and youth alike

Life Expectancy by County

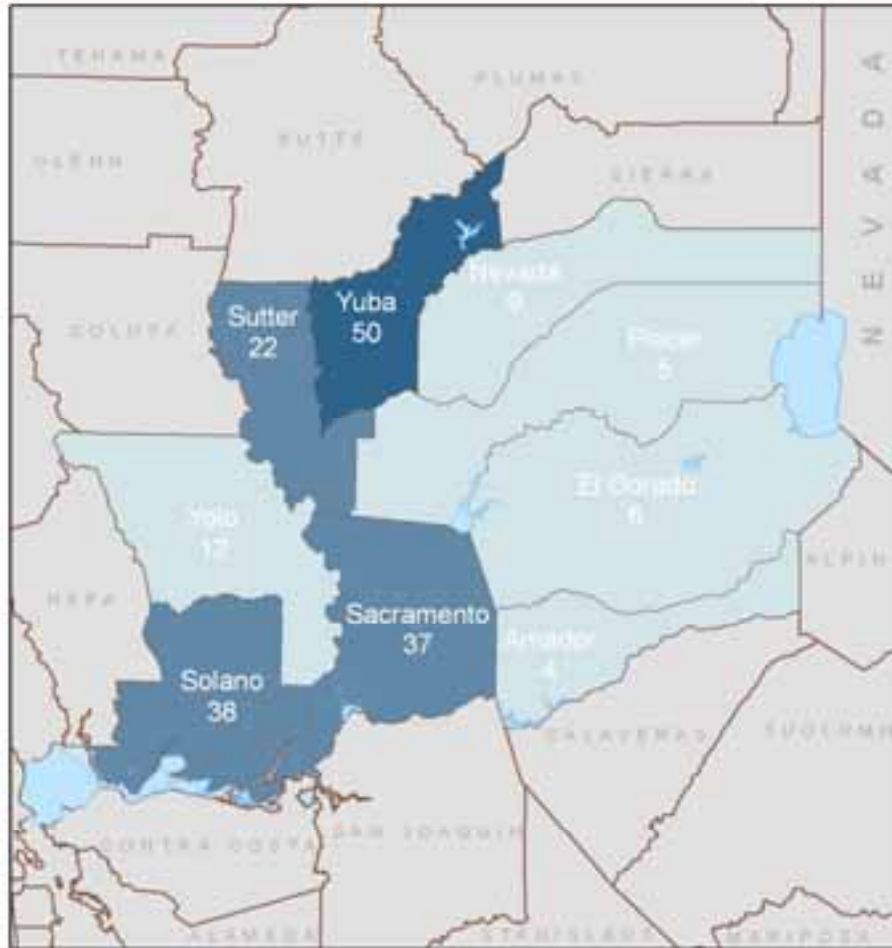
- US Life Expectancy in 2009 = 77.8 years



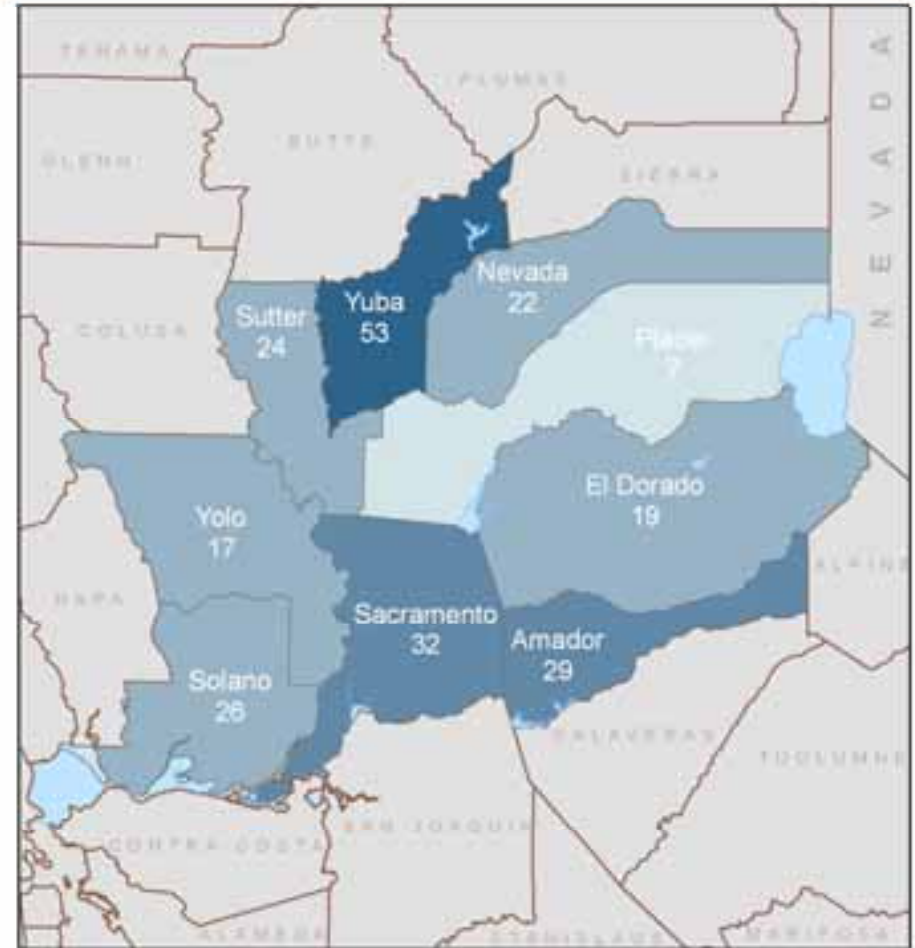
Deaths by County



Morbidity



Mortality



Rank Quartiles



Number indicates the HY/HR County's Rank within California. A lower number means "healthier." Similarly, the lightest color shading places the county within the top quartile of CA counties.

Notes: Data source is Robert Wood Johnson County Health Rankings Projection is California Teale Albers, North American Datum 1983. Classification by quartiles.

Excess Youth Death

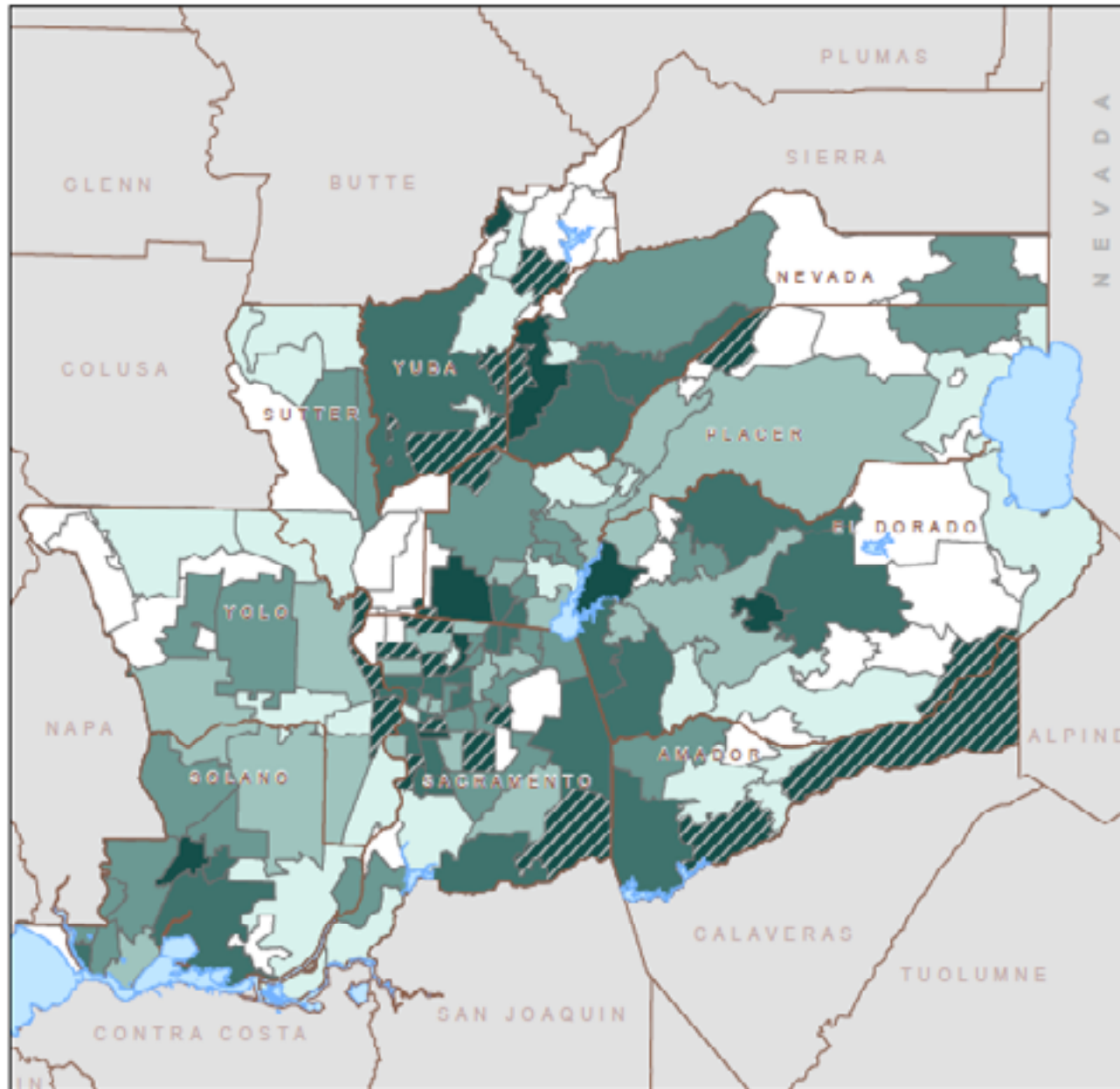
- US youth death rate is higher than many peer (industrialized) nations, especially violent deaths
 - Higher in homicide
 - Higher in suicide
- But how does one define ‘excess youth death’?

Standardized Mortality Rate

- A way to adjust mortality rates in order to compare the mortality rates of **places** without being skewed by the difference in age distributions from place to place
 - Requires a standard population
 - We used the U.S. population as a standard and calculated the SMR by zip code
 - Data obtained for 2004-2007, from California Dept of Public Health, Vital Statistics

Youth Mortality Rate, Ages 0-19 Years

Nine County Sacramento Area, 2004-2007



Death profiles by ZIP code are tabulations of the number of deaths to California residents by ZIP code of the decedent's residence. Data are obtained from registered death certificates for California residents who died in California.

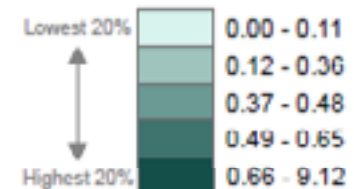
In order to make comparisons in the death rates among youth in the HY/HR study area over space and time, gender and age-adjusted mortality rates were calculated using the direct method with the U.S. population as the standard population. Age strata included were:

- 0-4 years
- 5-9 years
- 10-14 years
- 15-19 years

Striped ZIP codes denote areas where the age-adjusted mortality rate is higher than the HY/HR area's crude death rate, suggesting that these areas experience excess youth death.

The crude death rate for this population is: 0.81

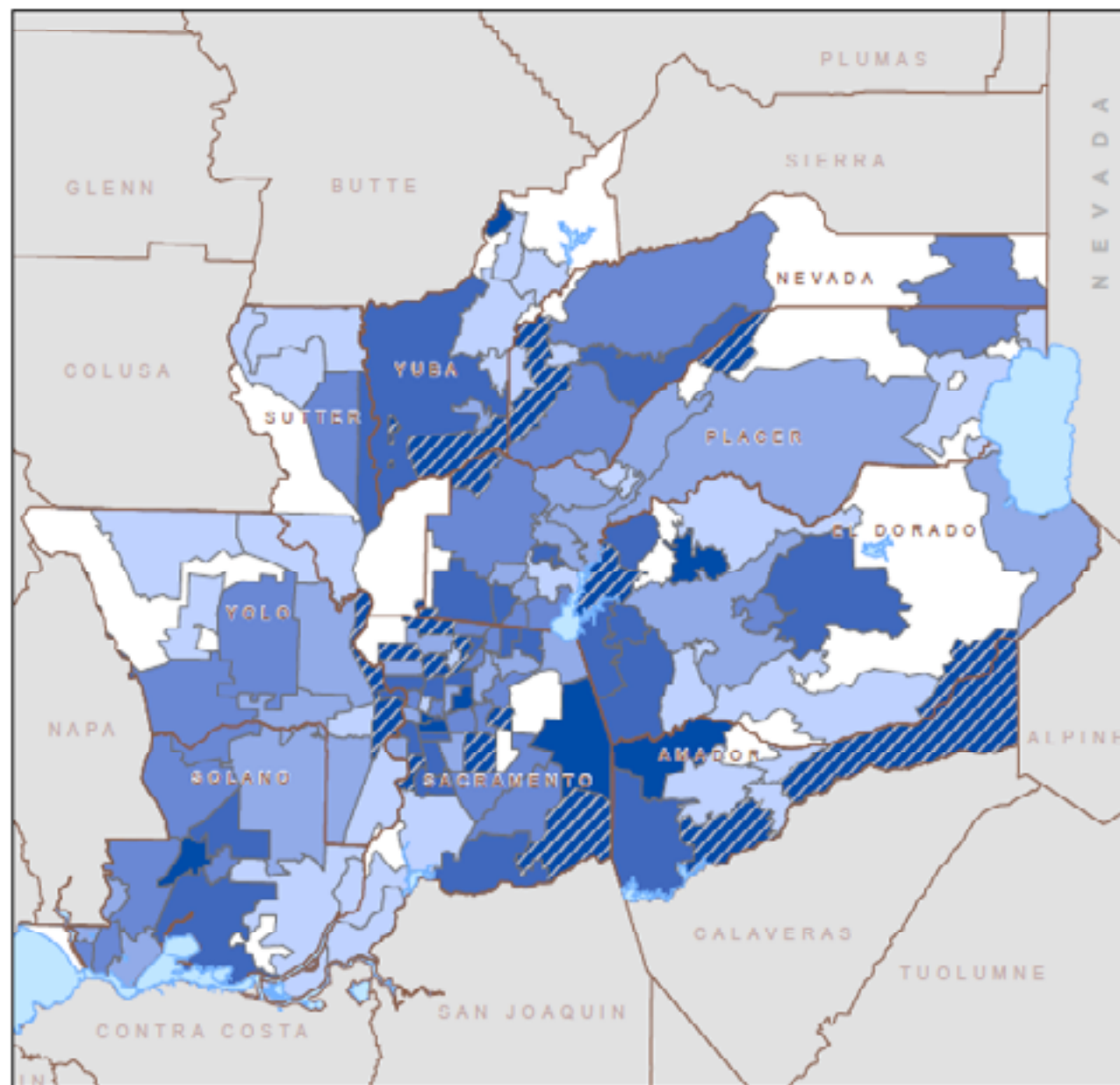
Age-Adjusted Mortality Rate per 1,000 Youth by ZIP code



Notes: Data source is California Department of Public Health, Office of Vital Records. White areas denote ZIP codes with fewer than 1,000 total population. Projection is California Teale Albers, North American Datum 1983. Classification by quantiles.

Mortality Rate For Male Youth Ages 0-19

Nine County Sacramento Area, 2004-2007



Death profiles by ZIP code are tabulations of the number of deaths to California residents by ZIP code of decedent's residence. Data are obtained from registered death certificates for California residents who died in California.

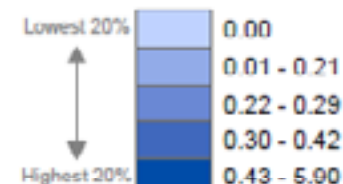
In order to make comparisons in the death rates among youth in the HY/HR study area over space and time, gender and age-adjusted mortality rates were calculated using the direct method with the U.S. population as the standard population.

The predominant causes of death in this age group are birth complications (including infant mortality), accidents (esp. motor vehicle) suicide and assault.

Striped ZIP codes denote areas where the age-adjusted mortality rate is higher than the HY/HR area's crude death rate, suggesting that these areas experience excess youth death.

The crude death rate for this population is: 0.52

Age-Adjusted Mortality Rate per 1,000 Males Ages 0-19 by Zip code



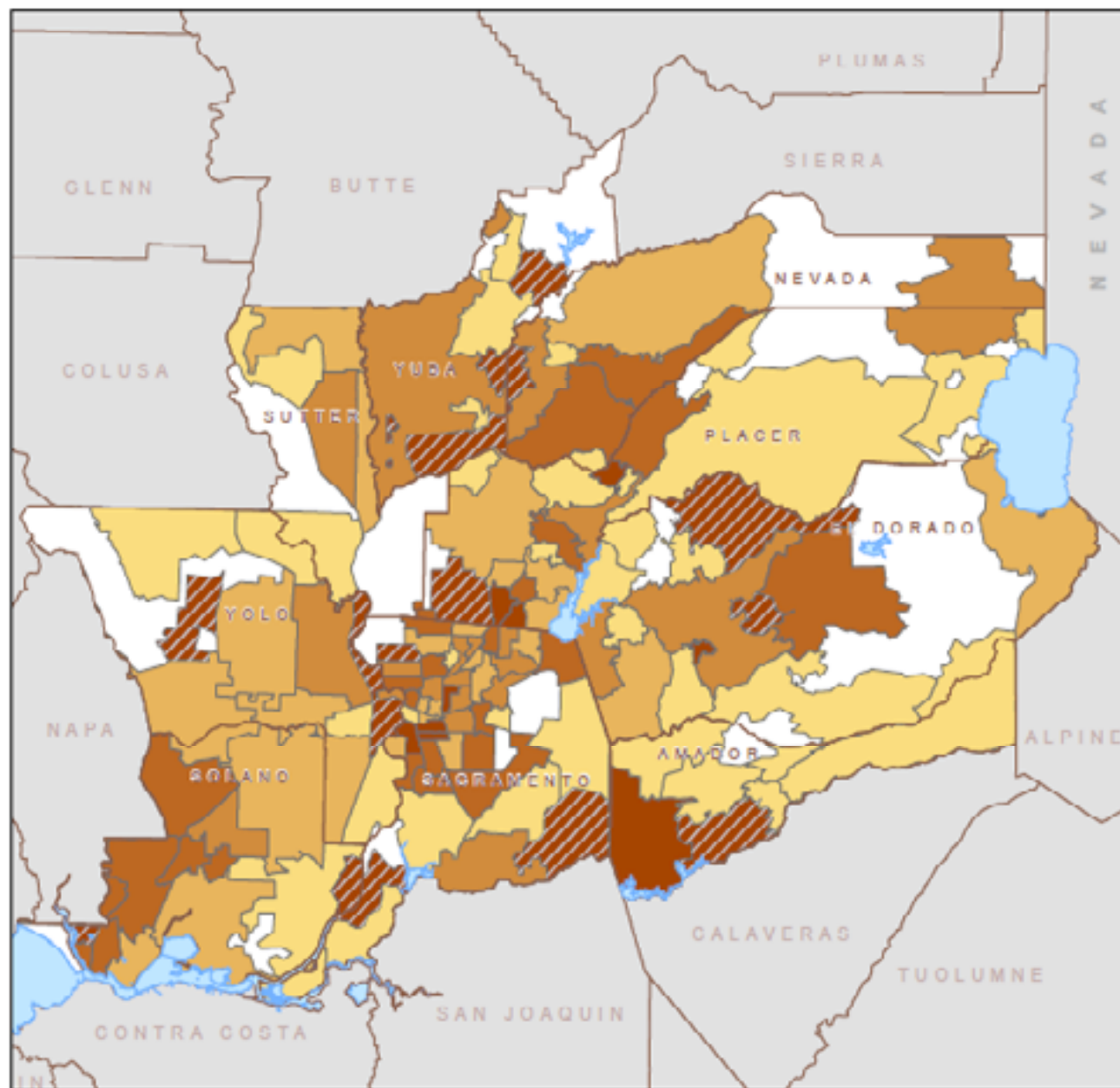
Notes: Data source is California Department of Public Health, Office of Vital Records.

White areas denote ZIP codes with fewer than 1,000 total population.

Projection is California Teale Albers, North American Datum 1983. Classification by quantiles.

Mortality Rate For Female Youth Ages 0-19

Nine County Sacramento Area, 2004-2007



Death profiles by ZIP code are tabulations of the number of deaths to California residents by ZIP code of decedent's residence. Data are obtained from registered death certificates for California residents who died in California.

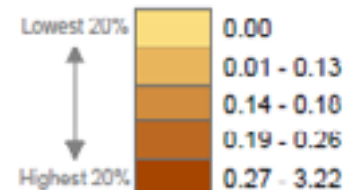
In order to make comparisons in the death rates among youth in the HY/HR study area over space and time, gender and age-adjusted mortality rates were calculated using the direct method with the U.S. population as the standard population.

The predominant causes of death in this group are birth complications (inc. infant mortality), accidents (esp. drownings and motorvehicle accidents) and cancer.

Striped ZIP codes denote areas where the age-adjusted mortality rate is higher than the HY/HR area's crude death rate, suggesting that these areas experience excess youth death.

The crude death rate for this population is: 0.32.

Age-Adjusted Mortality Rate per 1,000 Female Ages 0-19 by Zip code



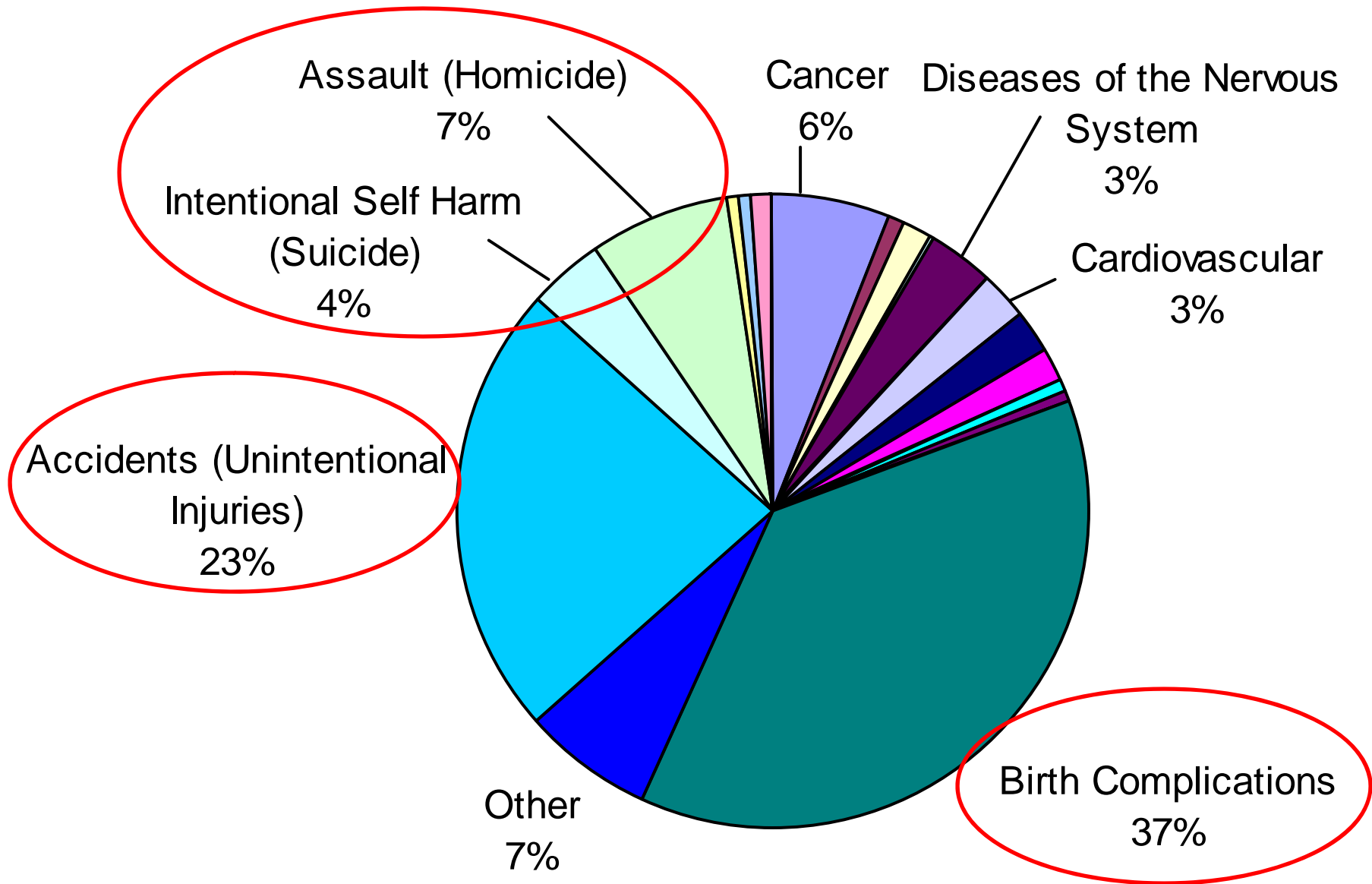
Notes: Data source is California Department of Public Health, Office of Vital Records. White areas denote ZIP codes with fewer than 1,000 total population.

Projection is California Teale Albers, North American Datum 1983. Classification by quantiles.

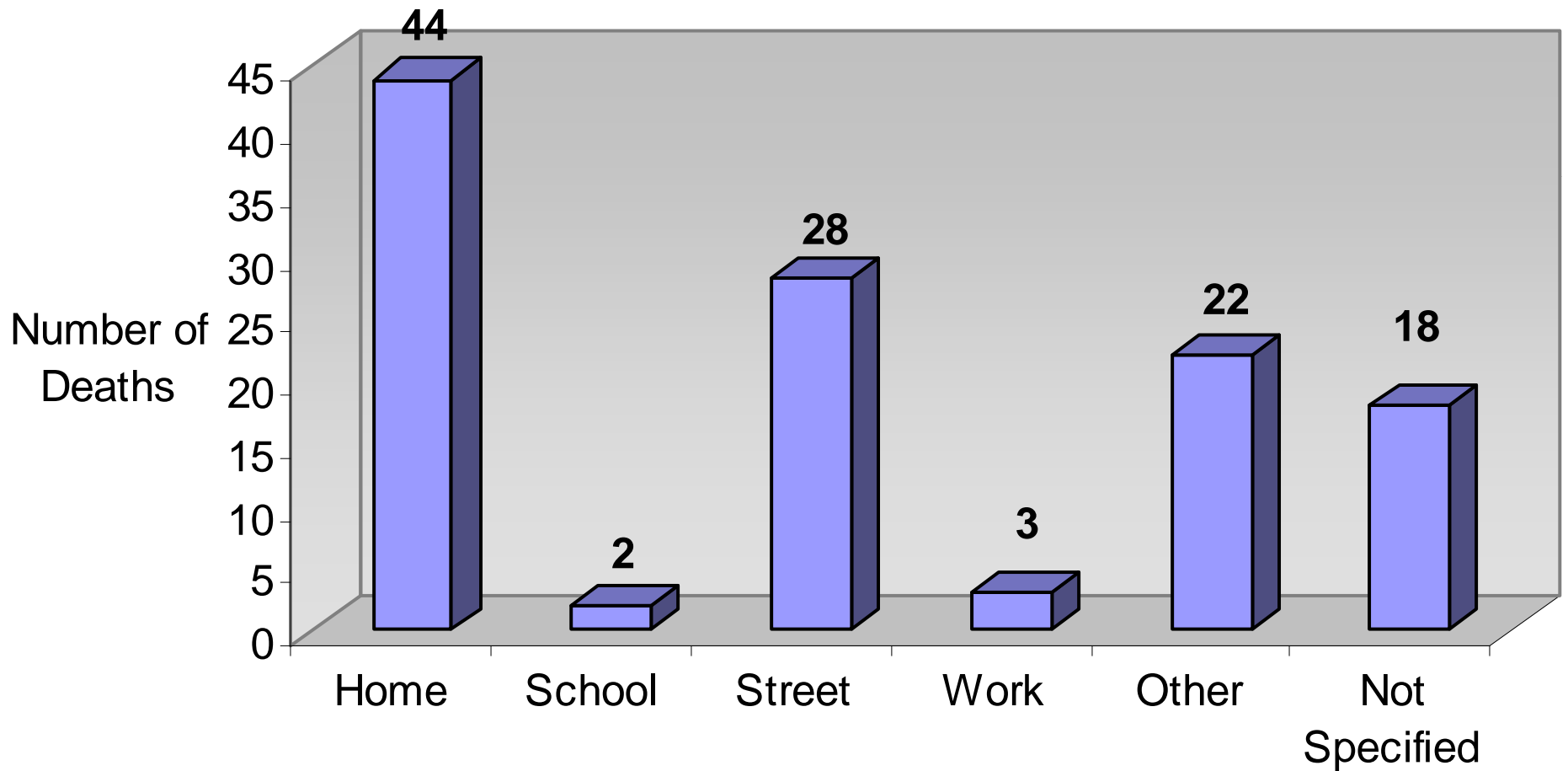
Regional Disparities

- HY/HR Youth had a slight mortality benefit when compared to all other California youth
 - Black youth had a disproportionately higher death rate in our region (18.43% of deaths, but only 9.39% of youth population)
 - Latino youth had less death than expected for population size (26.3% of deaths, 36% of youth population)
 - Boys have a higher mortality rate than girls
 - Highest mortality is also seen for age groups 0-4 and 15-19

Causes of Death



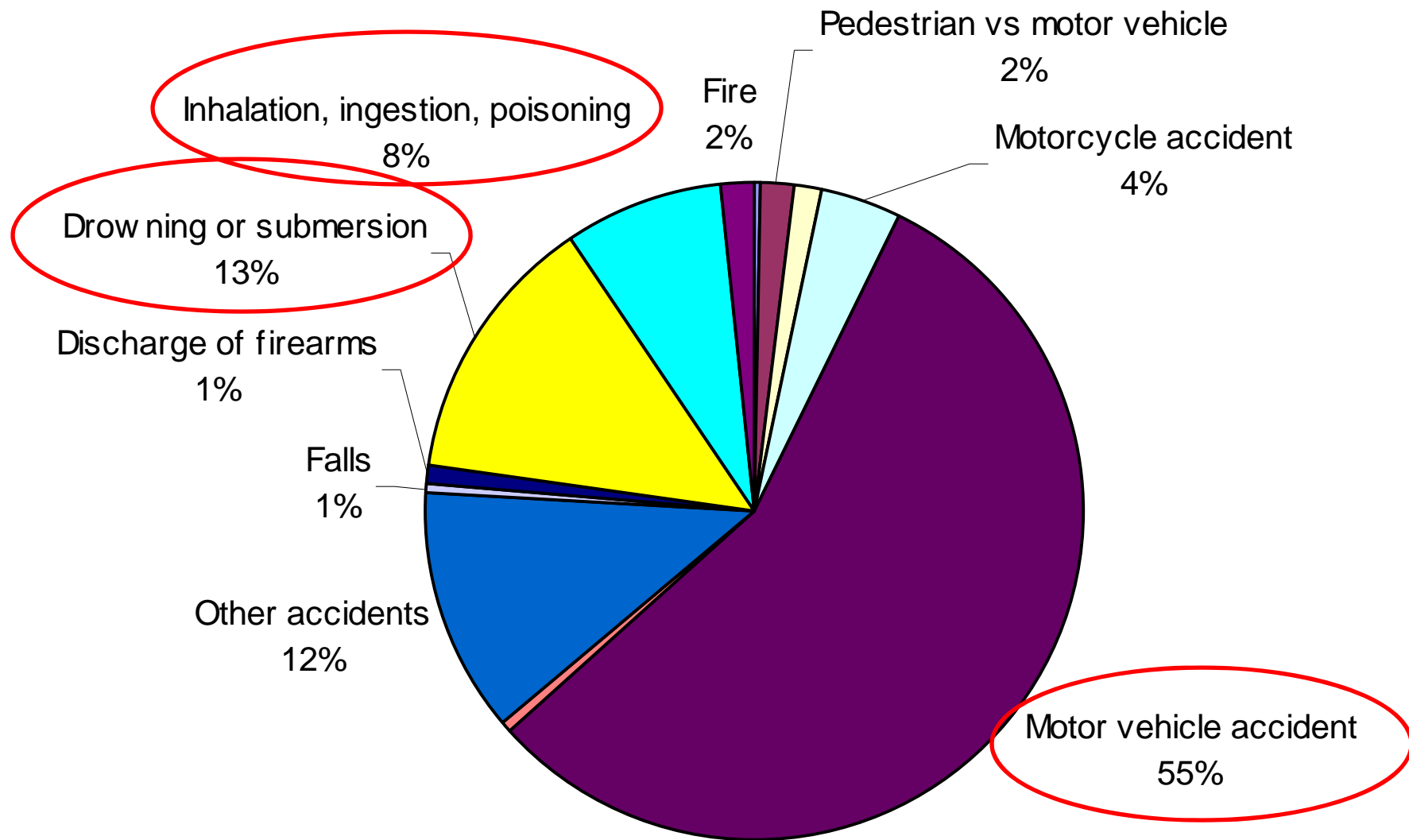
Where Homicides Occur



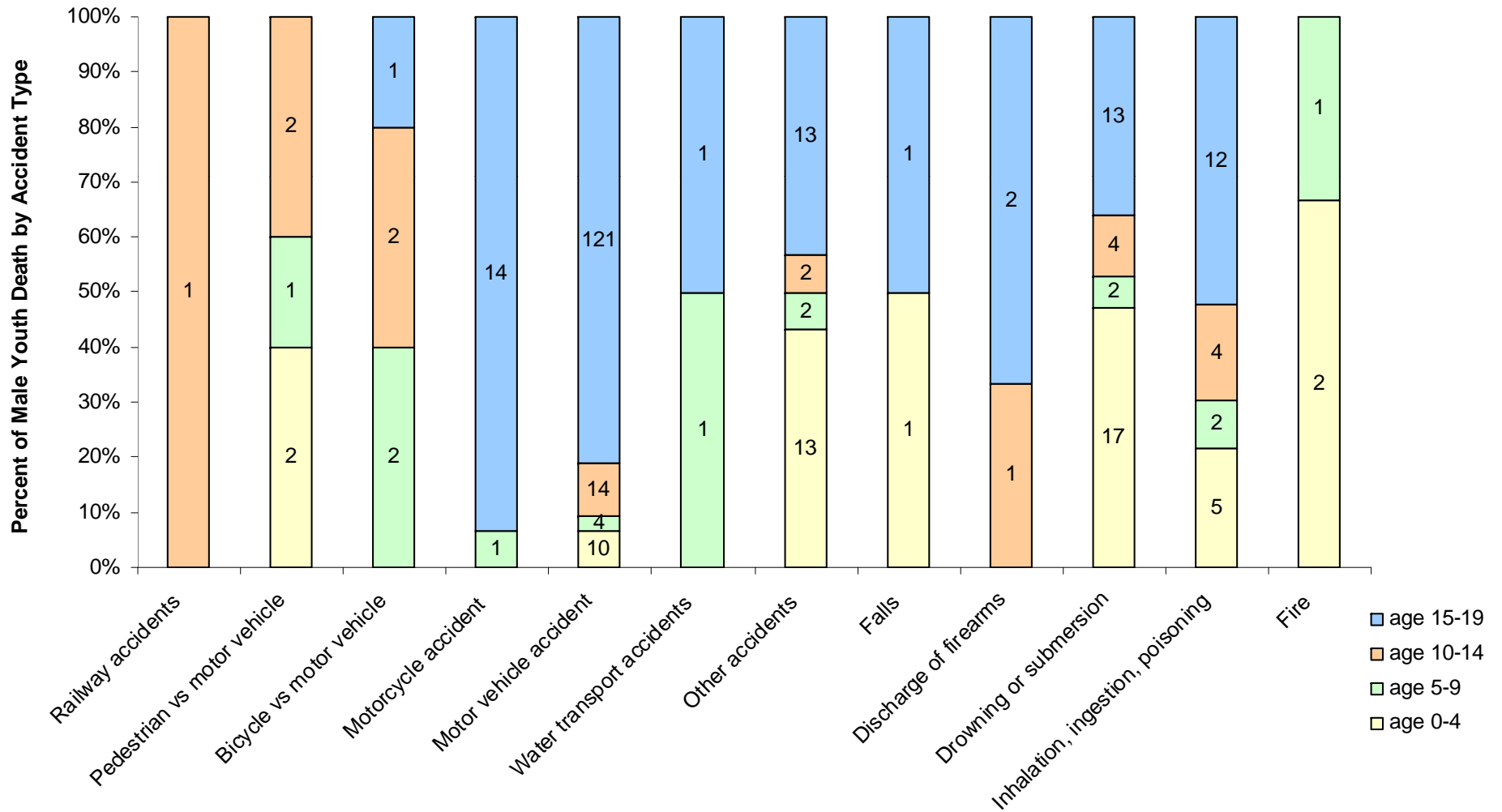
Violent Death Policy Implications

- Focus on precipitating circumstances:
 - Relationship problems
 - Interpersonal conflicts
 - Recent crises, depression
- By addressing:
 - Social isolation and lack of connectedness among persons, families and communities
 - Early development of social skills
 - Mental health needs
- Develop these competencies at home and school

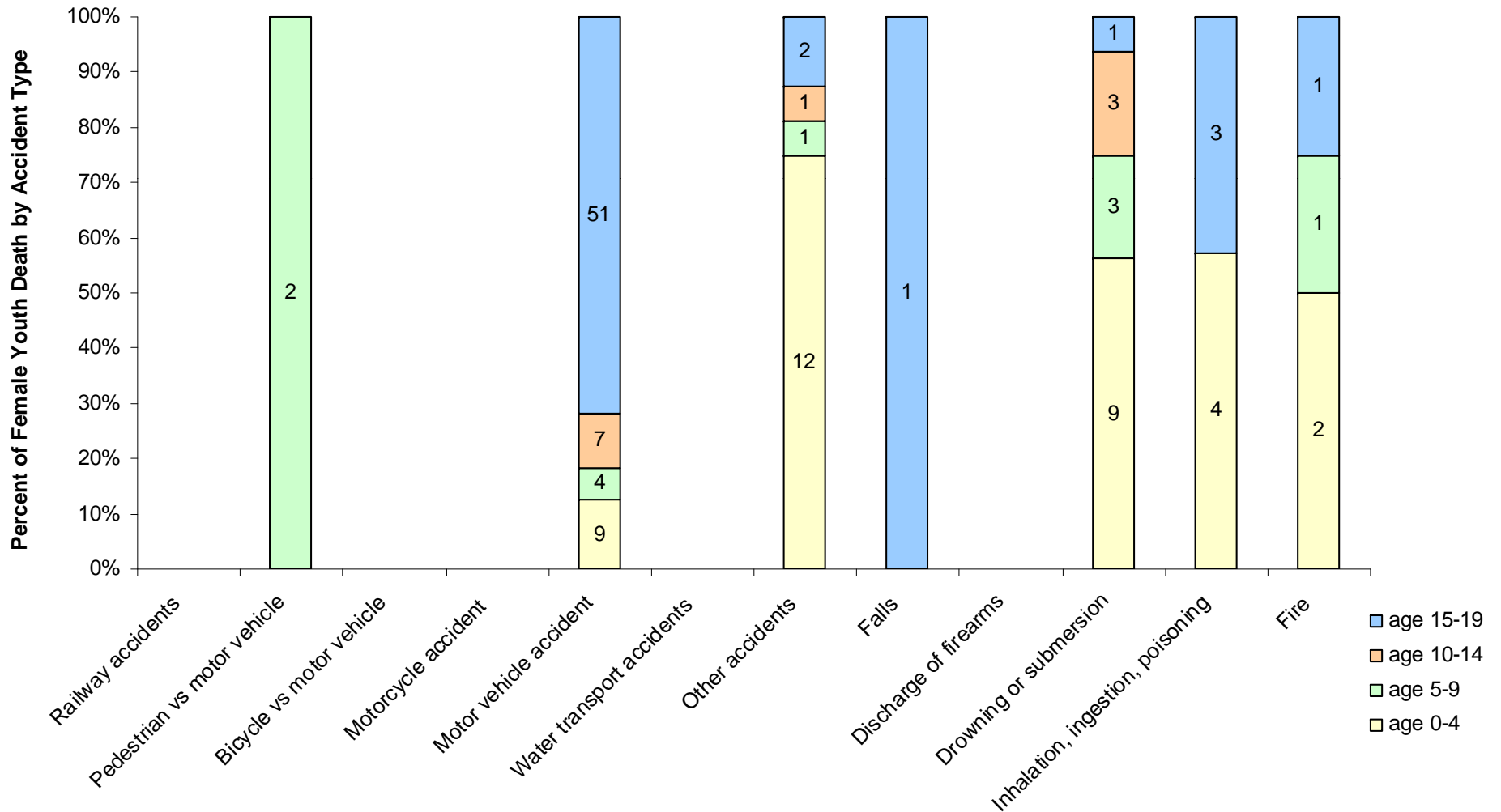
Accidental Injuries



Cause of Accidental Death by Age, Male



Cause of Accidental Death by Age, Female



Motor Vehicle Accidents

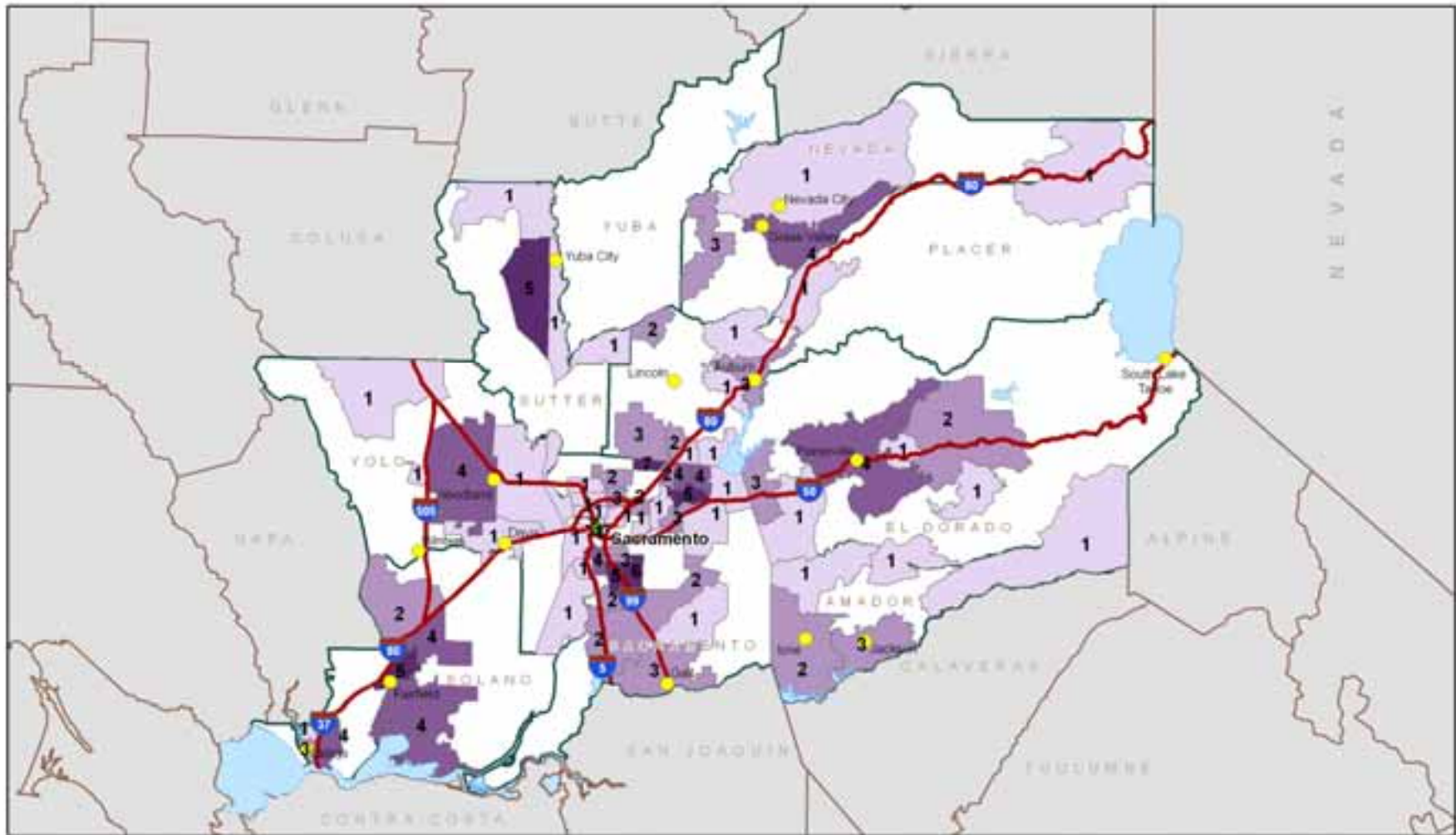
- In our region, most occur in June, July and October
 - No clear association with Halloween or Homecoming Dances
- Most occur on Friday, Saturday or Monday
 - No clear association with holiday weekends (though 4 of 42 MVA deaths were on Labor Day weekend)

MVA's Continued

- Major causes:
 - Inexperience, overconfidence, peer pressure and showing off
- Most accidents occur at night (multiple occupants)
- Prevention should be aimed at:
 - Drug and alcohol cessation
 - Increasing driver training/safety courses
 - Seat belt usage
 - Road improvements and/or lower speed limits in trouble areas

Youth Motor Vehicle Deaths

Nine County Sacramento Area, 2004-2007



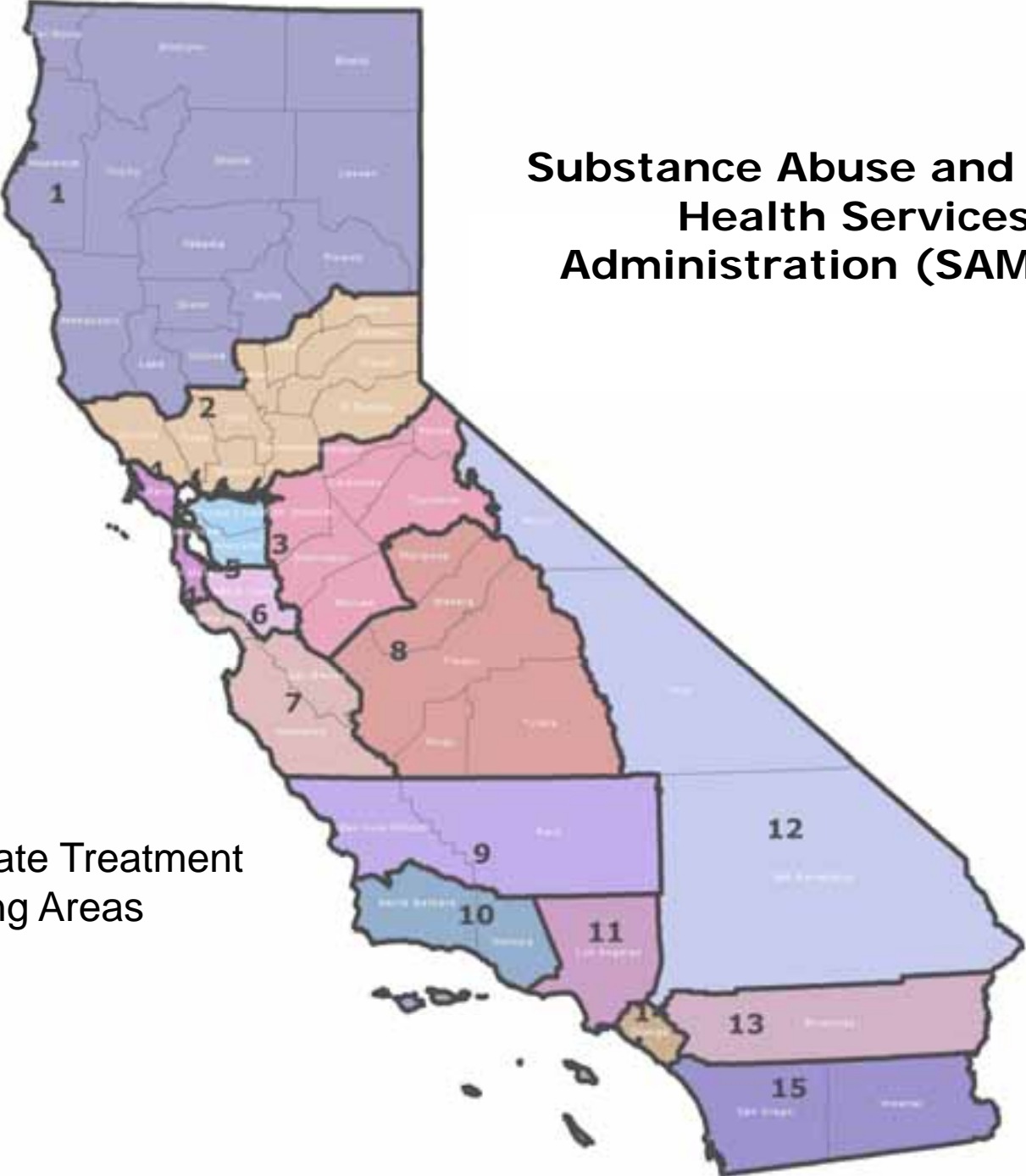
Number of Motor Vehicle Accidents
by Zip Code of Residence



Motor Vehicle Accidents are the leading cause of accidental injury in young people in the U.S. This map shows the number of youth deaths in a zip code from a motor vehicle accident. Also shown are the major highways in the region and the largest cities. A total of 220 youth deaths from motor vehicle accidents occurred between 2004 and 2007.

Notes: Data source is California Department of Public Health, Office of Vital Records. White areas denote no drowning deaths. Projection is California Teale Albers, North American Datum 1983. Classification by quantiles.

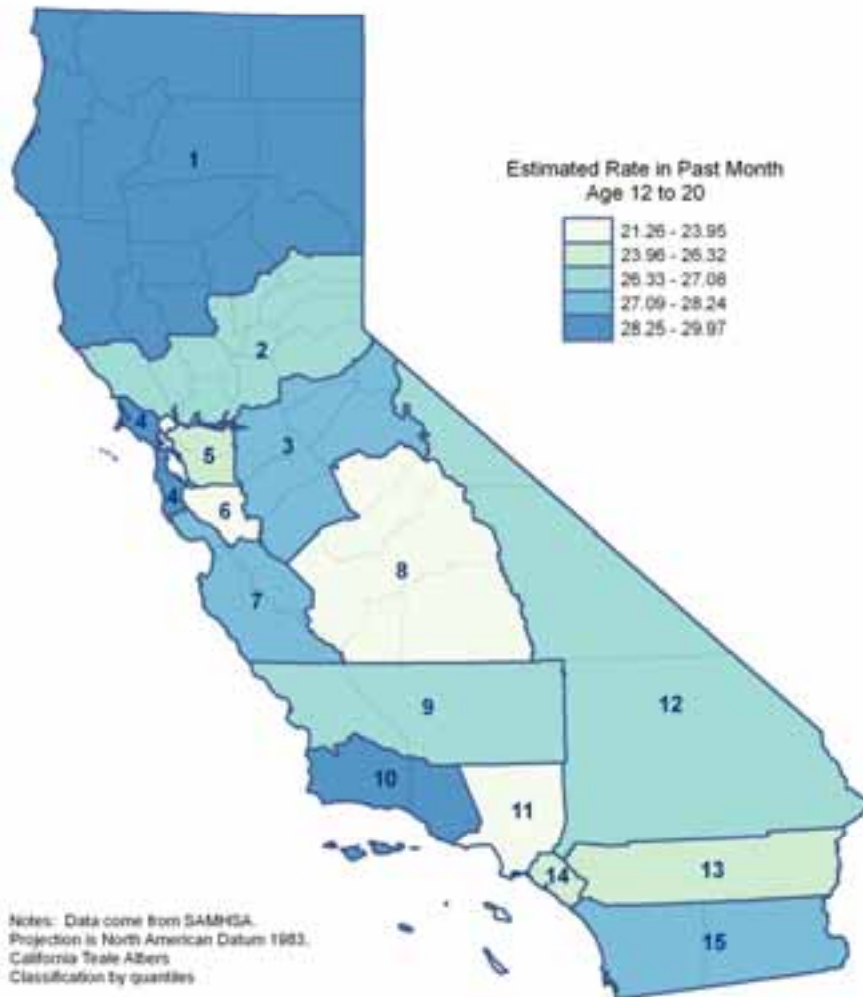
**Substance Abuse and Mental
Health Services
Administration (SAMHSA)**



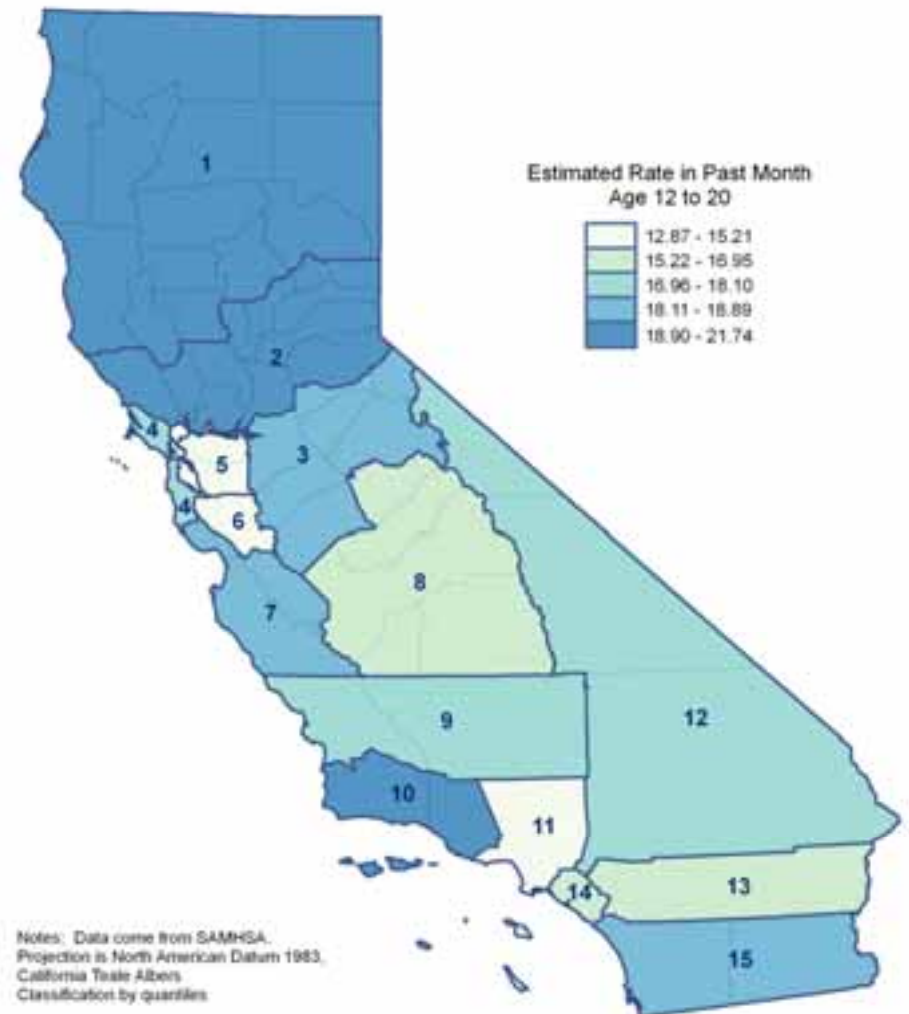
California State Treatment
Planning Areas

Alcohol & Binge Alcohol Use

Alcohol Use

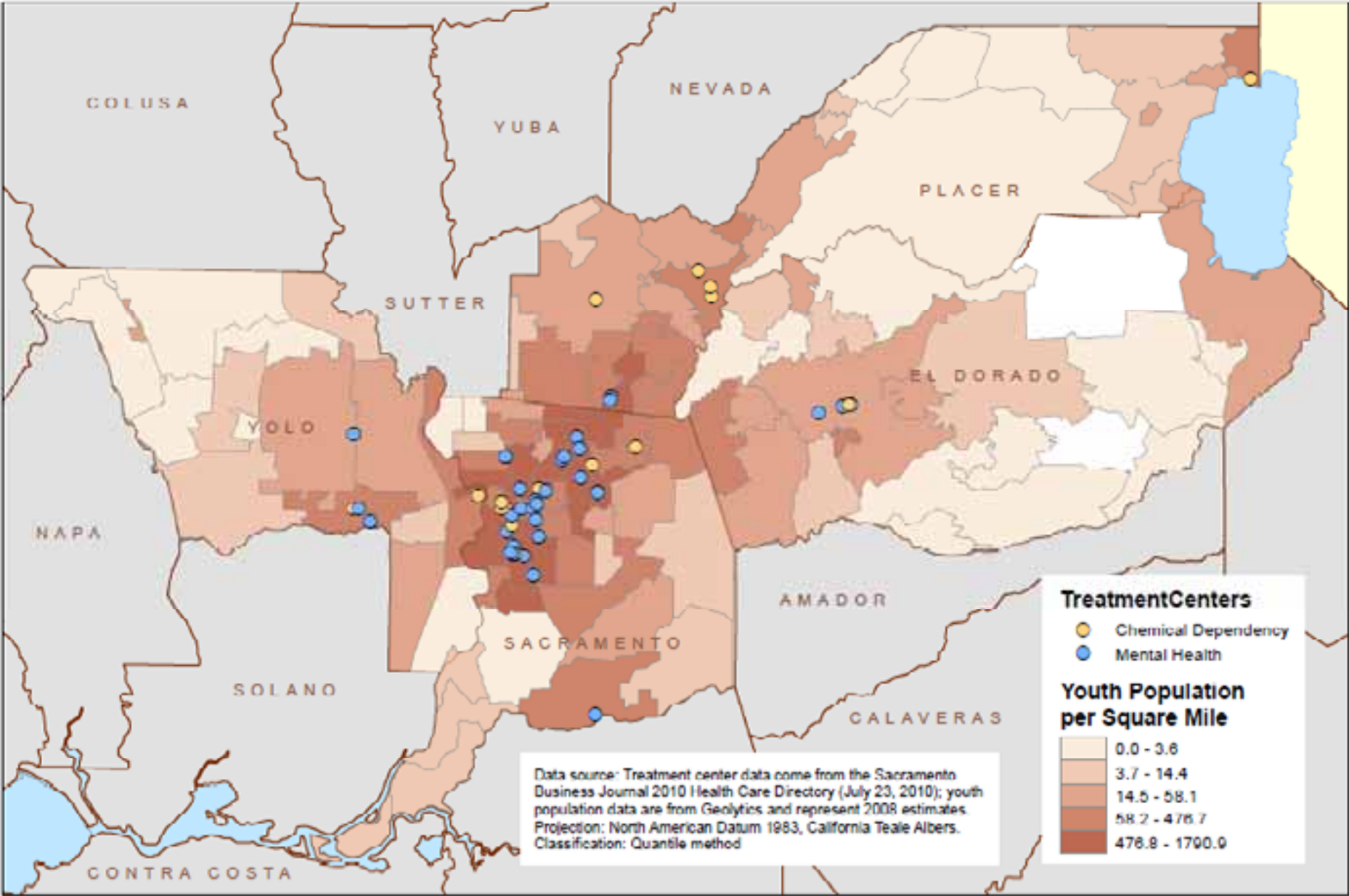


Binge Alcohol Use



Mental Health Treatment Centers

Sacramento Area

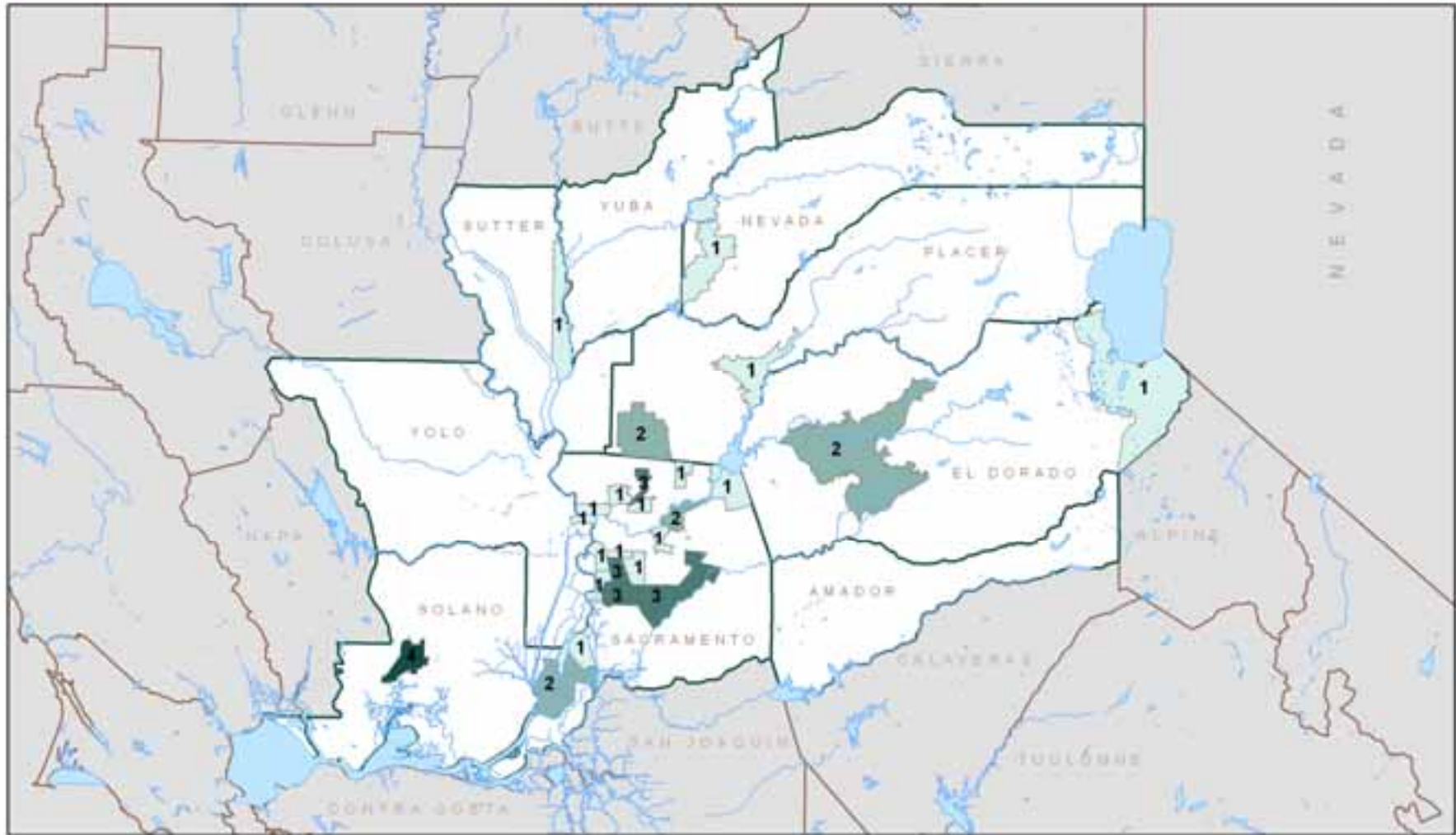


Mental Health/Substance Use Implications

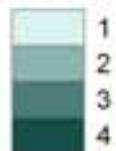
- El Dorado County has the fewest treatment centers
- Physical accessibility may be an issue in Placer County due to long distances to treatment centers
- Stigma of mental health / chemical dependency is always an issue in seeking care
 - Must change cultural attitudes and norms surrounding mental illness

Youth Death from Drownings

Nine County Sacramento Area, 2004-2007



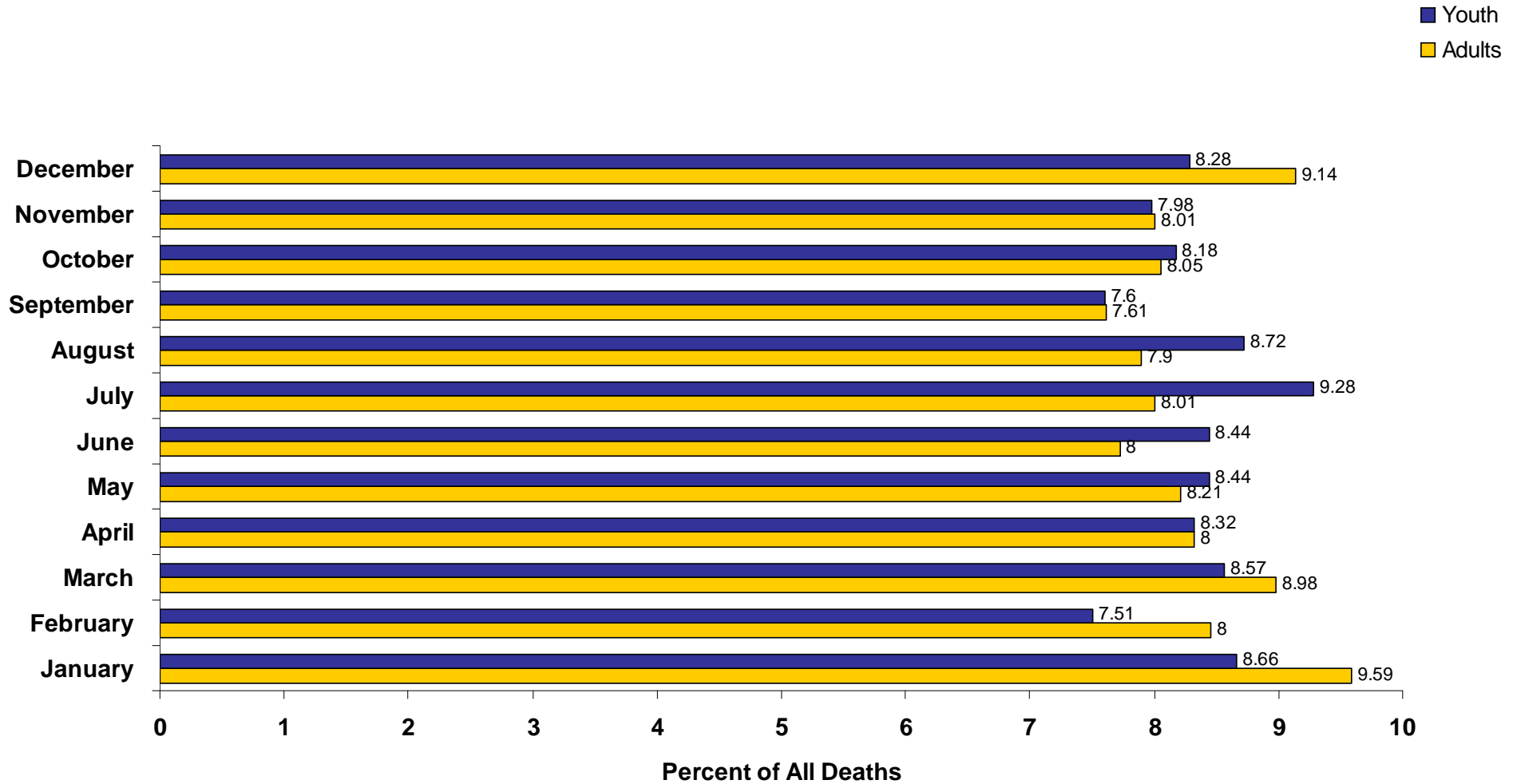
Number of Drownings
per Zip Code of Residence



In the HY/HR region, during the years 2004-2007, 52 drowning deaths were recorded, making drowning an important cause of accidental death compared to the rest of California. Drowning may be partly related to an individual's proximity to bodies of water, however caution should be used in interpretation since some drownings occur at home (in pools and bathtubs).

Notes: Data source is California Department of Public Health, Office of Vital Records. White areas denote no drowning deaths. Projection is California Teale Albers, North American Datum 1983. Classification by equal interval.

Deaths by Month, California



Qualitative Data

- We interviewed 16 young adults in the region to learn about the issues they face, their coping mechanisms and help-seeking strategies
- Transportation (walking, biking, skateboarding):
 - Heavily used traffic routes (lg trucks, fast cars)
 - Limited bike lanes subject to noise, fumes
 - The experience is intimidating, potentially dangerous, unpleasant
 - With 12 deaths from pedestrian/bicycle accidents involving a motor vehicle, improvements in youth transportation corridors could save lives

Qualitative Data, cont.

- Violence in communities
 - Gangs in neighborhoods (members as young as 10 and 11)
 - Shootings
 - Stabbings
 - Other assault
 - Robberies
 - Police/law enforcement/911 – responses were late, if at all, and ineffectual
 - Adjust patrols to focus more on neighborhood crime and less on highway patrol

Qualitative Data, cont.

- Violence in homes
 - Parents fighting with threats/gestures of deadly force
 - One young person witnessed mother's attempted suicide
- Violence in schools
 - Fighting in general and by gangs

Qualitative Data, cont.

- Drugs
 - Many youth learned about drugs/alcohol from a parent who was either a user or tolerated/encouraged child's use of drugs
- Death
 - 4 interviewees were close to someone who died prematurely
 - 2 violently
 - 1 drowning
 - 1 cancer

Summary/Conclusions

- Despite sometimes extreme challenges, youth are tremendously resilient and optimistic about the future
- Youth death is tragic and often highly preventable
- Interventions should be targeted at home environments and interpersonal skills
- Boys ages 15-19 are at highest risk
- Provide safe places for kids to 'hang out' during weekends and summer months

Thank you for your attention

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