HEALTHY COMMUNITIES DATA AND INDICATORS PROJECT

Short Title: Poverty Rate
Full title: Overall, Concentrated, and Child (under 18 years of age) Poverty Rate

1. **Healthy Community Framework:** Communities have health and social equity

2. **What is our aspirational goal:** Social equity

3. **Why is this important to health?**

Description of significance and health connection

Poverty limits the acquisition of basic material necessities and it can impact the ability to live a healthy life. It restricts people's access to housing, food, education, jobs, and transportation. Poverty is associated with societal exclusion and higher incidence and prevalence of mental illness. Poor people are more likely to live in dangerous or under-resourced environments and to work in hazardous conditions, with greater risk of injury, and greater exposure to pesticides, lead, and outdoor air pollution. Low income people are more likely to be uninsured and to have limited access to quality health care; are more likely to suffer from chronic diseases like diabetes and heart disease, acute and chronic stress, and to die prematurely. It's been estimated that 133,250 (6%) of the 2.4 million U.S. deaths in 2000 could be attributed to poverty.

The children of the poor grow up in environments that are harmful to their development and health and the schools they attend typically provide substandard education. Low educational attainment among poor children will affect their job prospects and income level in adulthood, which could perpetuate the poverty cycle across generations. Poverty tends to cluster geographically and the concentrated poverty rate, defined as the share of the poor living in neighborhoods where at least 40% of individuals live below the poverty level, has risen from 9.1% (2000) to 10.5% (2005-2009). Poverty is more common among ethnic minorities, the unemployed, the disabled, the homeless, the uneducated, and migrants.

Summary of evidence

There is ample evidence strongly linking poverty and health, with a progressive improvement in health measures with increasing income. The prevalence of psychiatric disorders, including neurotic disorders, functional psychoses and alcohol and drug dependence is consistently more common among lower income people. Self-reported poor or fair health status, as opposed to good or better, is 5 times more common among the poor (<100% Federal Poverty Level [FPL]) than high income people (≥400% FPL). Diabetes incidence rates (age-standardized) decrease from 11.2% among the poor to 5.4% among high income people. Uninsured rates for the poor and near-poor (<300% FPL) range between 30-39% and are significantly higher than those among the non-poor (≥300%FPL). Poor to middle income people (<400%FPL) have worse access to care and receive worse care than high income people. Householders earning an annual salary ≤$24,999 are five times more likely to live in inadequate housing than those earning ≥$75,000. In a longitudinal study it was observed that people living in concentrated poverty areas had higher rates of obesity, diabetes, and depression, than those that moved out of those same areas.

Key References

- Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services. *National Healthcare Disparities Report 2012*. AHRQ Publication No. 13-0003, 2013.
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- Braveman PA, Cubbin C, Egerter S, Williams DR, Pamuk E. Socioeconomic disparities in health in the United States: what the patterns tell us. *Am J Public Health*. 2010; 100(S1): S186–S196.
- Centers for Disease Control and Prevention. *Health Disparities and Inequalities Report - United States, 2011*. Morbidity and Mortality Weekly Report, 2011; 60: 1-113.
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- Kaplan G. *The Poor Pay More – Poverty's High Cost to Health*. The Robert Wood Johnson Foundation; 2009. Accessed Nov. 5th, 2013.
- Kneebone E, Nadeau C, Berube A. *The Re-Emergence of Concentrated Poverty: Metropolitan Trends in the 2000s*. Metropolitan Policy Program, Brookings Institution, 2011. Accessed November 5th, 2012.
- Murali V, Oyebode F. Poverty, social inequality and mental health. *Adv Psychiatr Treat* 2004; 10: 216-224.
- Wilkinson R, Marmot M, eds. *Social Determinants of Health: The Solid Facts*. 2nd ed. Copenhagen, Denmark: WHO; 2003. Accessed July 12th, 2012.

4. What is the indicator?

Detailed definition: Percentage of all individuals or children (under 18 years of age) whose income in the past 12 months is below the poverty level. Concentrated poverty was calculated as: $\sum_{i=1}^{n} Number\ of\ poor\ people_i / Total\ number\ of\ poor\ people \times 100$, where n is the total number of census tracts with ≥40% overall poverty in the city/town, county, region, or the state.

- Stratification: race/ethnicity (8 groups)

Data Description:

- Data source: U.S. Census Bureau, Decennial Census 2000, and American Community Survey (ACS): 2005-2007, 2008-2010, and 2006-2010 (http://factfinder2.census.gov).
- Years available: 2000, 2005-2007 (3-year), 2008-2010 (3-year), and 2006-2010 (5-year)
- Updated: each year with rolling 3- and 5-years estimates.
- Geographies available: census tracts, cities/towns, counties, regions (derived), state

The percentage of all individuals and children living below the poverty level where obtained from the Census 2000 (DP3 table) and the ACS (DP03 table). Standard errors of the estimates were obtained from the margin of error provided by the Census (except 2000). Relative standard errors and 95% confidence intervals were calculated. Concentrated poverty was calculated using census tract (CT) data aggregated to city/town, county, region, or the state. ArcGIS was used to assign CT to the city/town in which the tract centroid was positioned. The number of poor people was calculated using the percentage of people in poverty and the total population by CT, obtained from the Census 2000 (DP1) and the ACS (B01001). Census tracts were excluded from the concentrated poverty calculation if (a) 50% or more of the population lived in group quarters; (b) 50% or more of the population was enrolled in college or graduate school; (c) a federal or state prison or youth correctional facility (YCF) was located in the CT; or (d) total population was 500 people or less. Group quarters and school enrolled population were obtained from Census 2000 (DP1 and QTP19) and ACS (B26001 and S1401). Lists of state and federal prisons and YCF were obtained from the Department of Corrections and the Federal Bureau of Prisons. Prisons were manually geocoded using published geographical coordinates (https://wiki.toolserver.org/view/GeoHack) and validated by observation using Google Maps and published addresses. Decile rankings of places and relative risk were calculated for all three poverty measures. Regional estimates were based on county groupings associated with California metropolitan planning organizations as reported in the *2010 California Regional Progress Report*.

5. Limitations

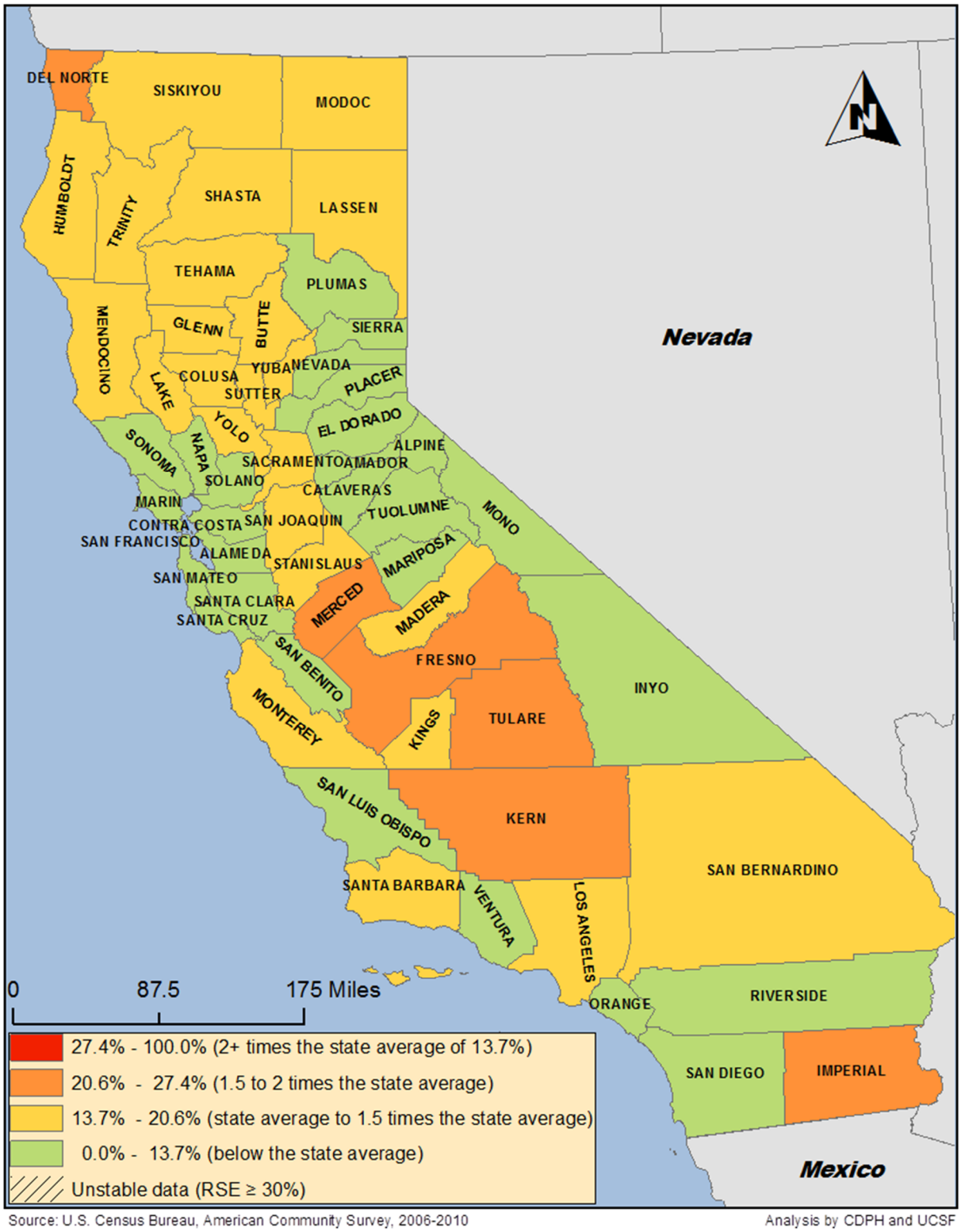
Poverty levels are not adjusted for differences in the cost of living. Caution should be exercised when comparing Census 2000 and ACS. The ACS collects income data on an ongoing monthly basis while the Census 2000 collected income data for a fixed period of time (1999). The ACS reports poverty for "people under 18 years" and the Census 2000 for "related children less than 18 years." Concentrated poverty for cities/towns was obtained after intersecting the Census tract (CT) centroids with the city/town. Underestimation could have occurred if a CT was partially contained within a city, but its centroid was outside the city limits. Overestimation could have occurred when the population living in the CT but outside the city limits was included in the calculation.

6. Projects using this indicator

- Baltimore Neighborhood Indicators Alliance. Vital Signs 10. Jacob France Institute: Baltimore Neighborhood; 2012. http://www.bniajfi.org/
- The Measure of Poverty: A Boston Indicators Project Special Report. Boston Indicators Project; 2011. http://www.bostonindicators.org/

7. Examples of maps, figures, and tables

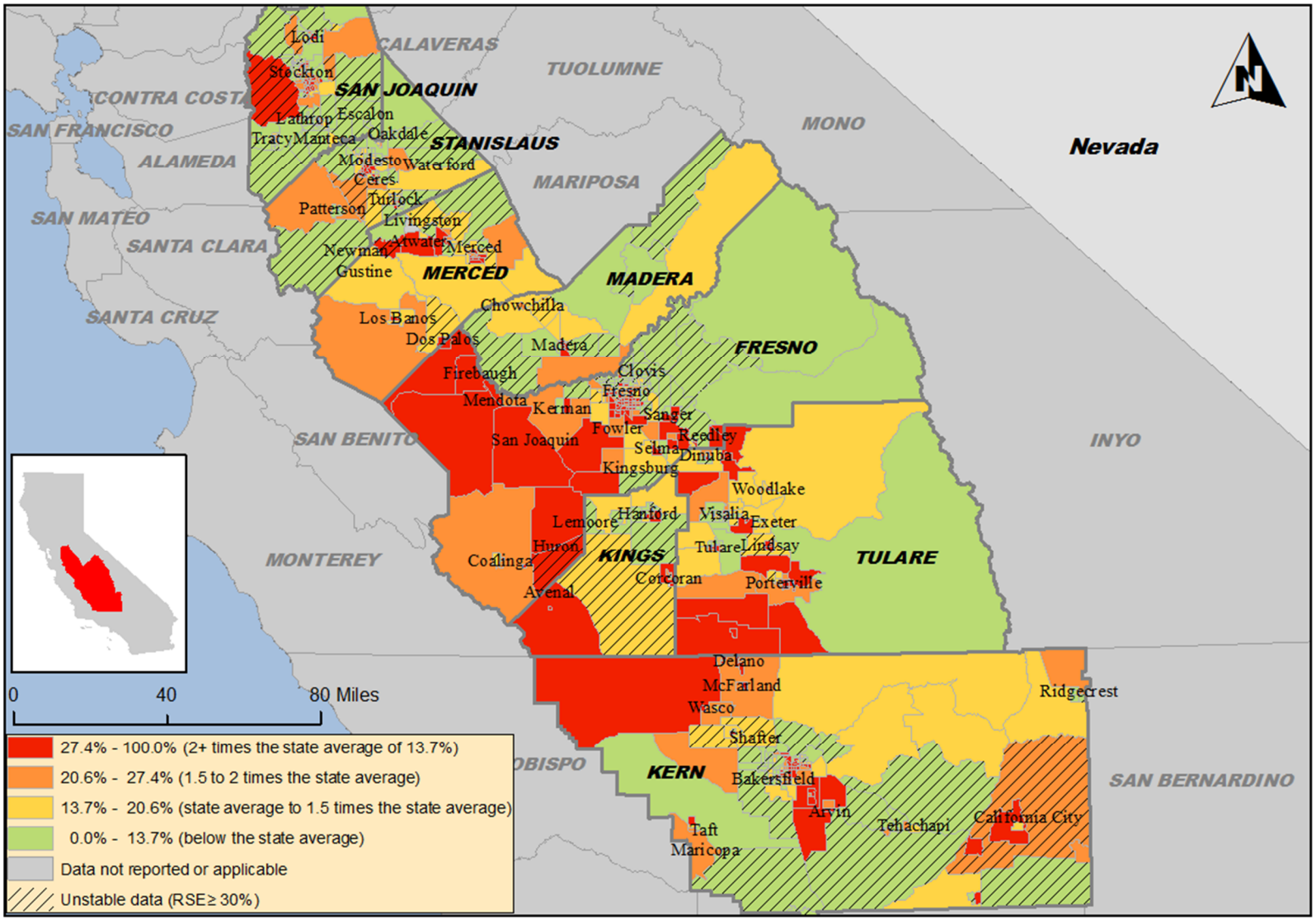
Map 1: Overall Poverty Rate, Counties, California, 2006-2010



Source: U.S. Census Bureau, American Community Survey, 2006-2010

Analysis by CDPH and UCSF

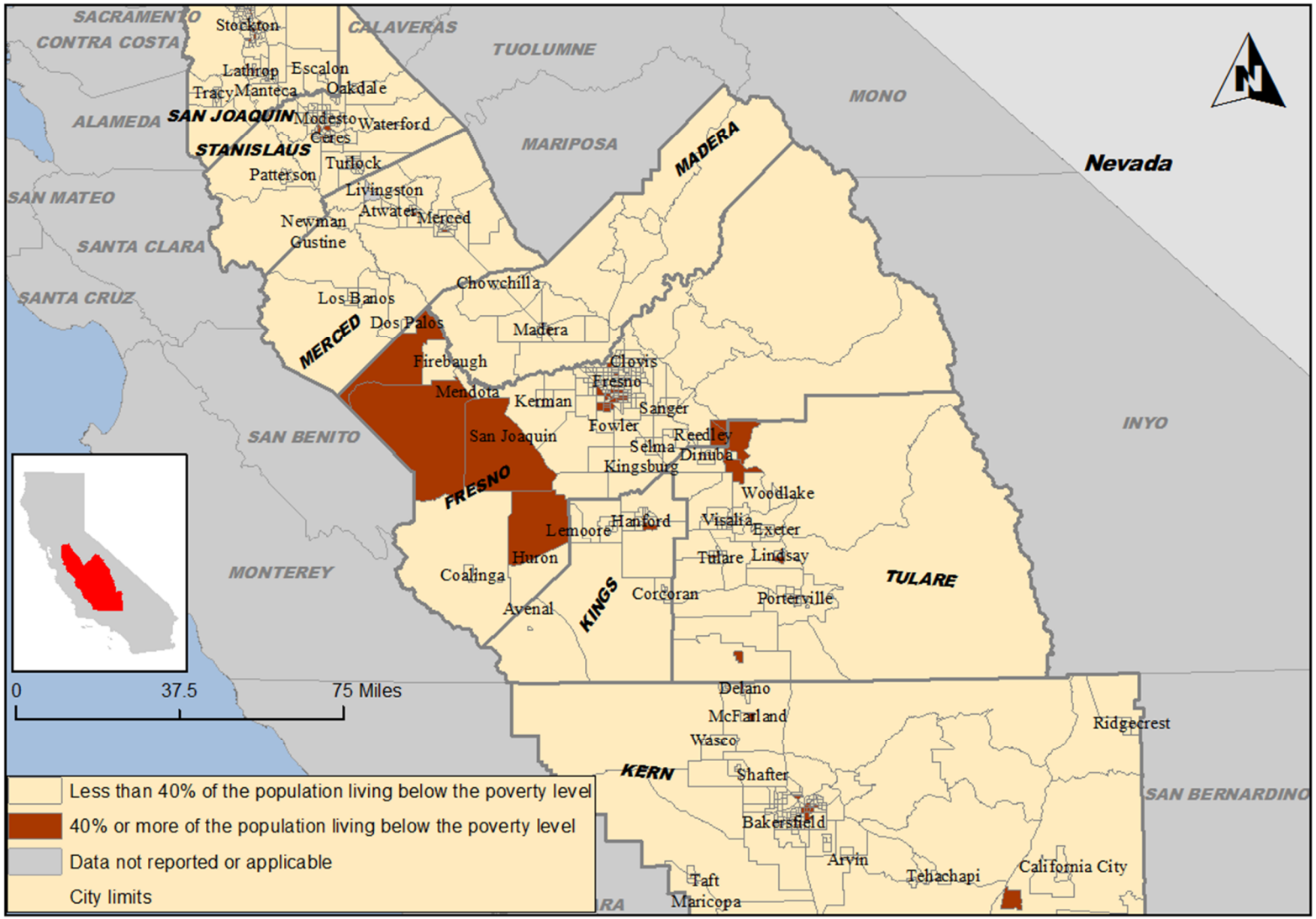
Map 2: Overall Poverty Rate, Census Tracts in the San Joaquin Valley, California, 2006-2010



Source: U.S. Census Bureau. American Community Survey. 2006-2010

Analysis by CDPH and UCSF

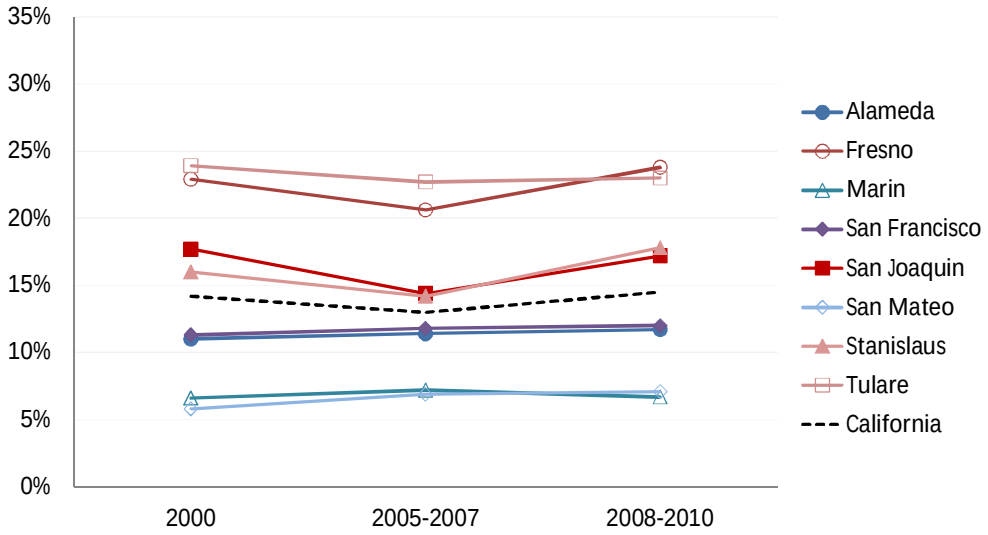
Map 3: Concentrated Poverty Census Tracts in The San Joaquin Valley, California, 2006-2010: Tracts where 40% or More of the Population are Living Below the Poverty Level



Source: U.S. Census Bureau, American Community Survey, 2006-2010

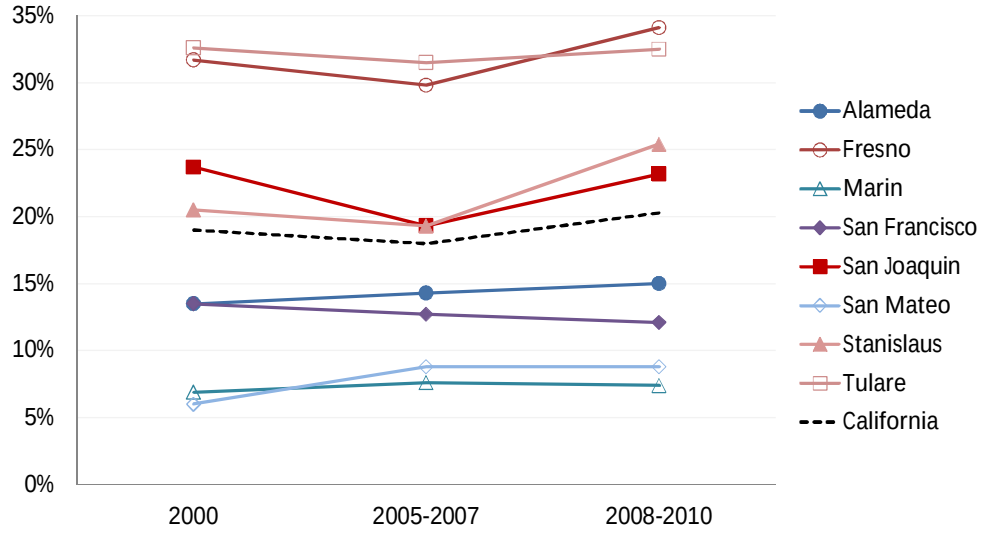
Analysis by CDPH and UCSF

Overall Poverty Rate in Selected Counties of the Bay Area and the San Joaquin Valley, California 2000, 2005-2007, 2008-2010



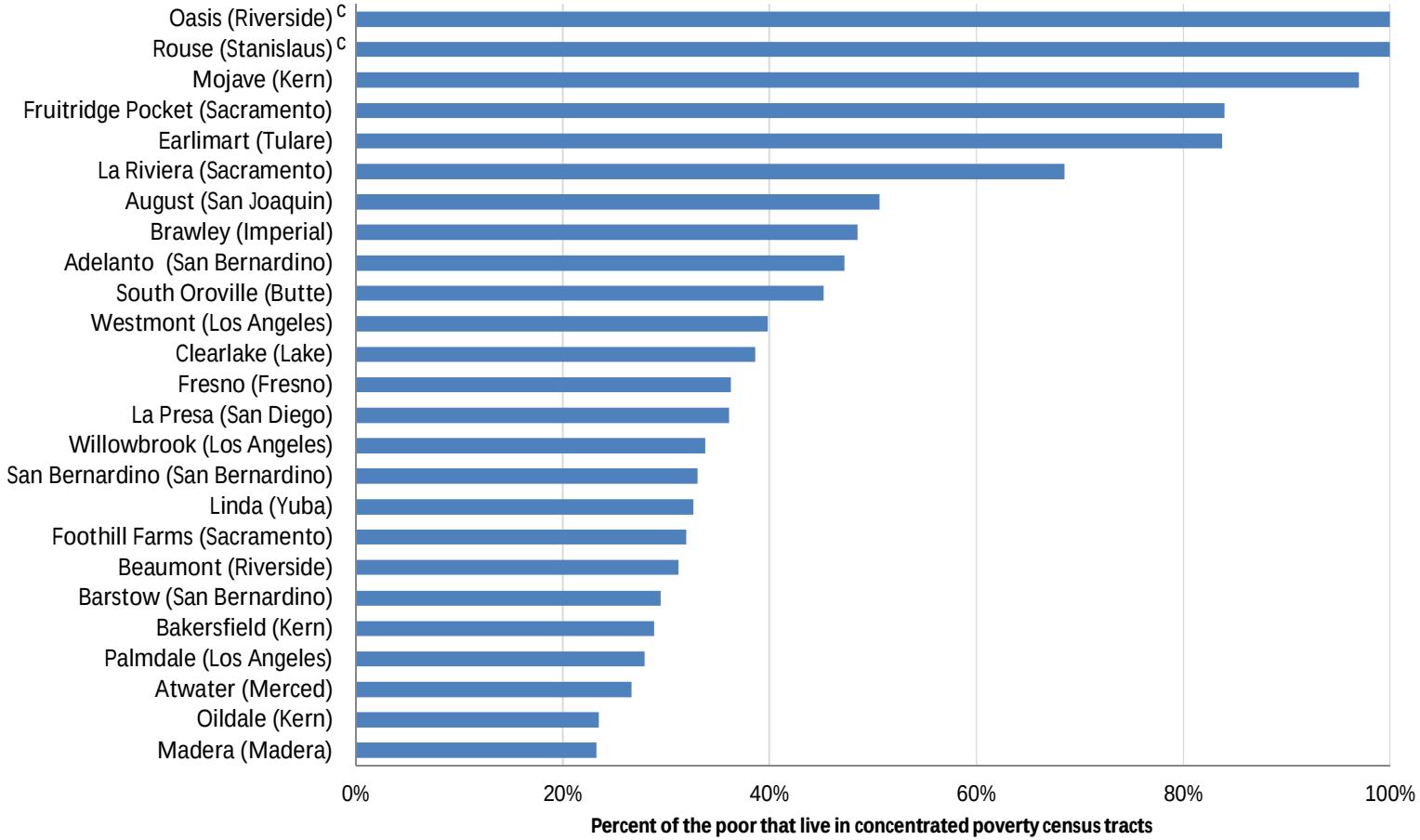
Source: U.S. Census Bureau, 2000 Decennial Census and American Community Survey (2005-2007, 2008-2010).

Child Poverty Rate in Selected Counties of the Bay Area and the San Joaquin Valley, California 2000, 2005-2007, 2008-2010



Source: U.S. Census Bureau, 2000 Decennial Census and American Community Survey (2005-2007, 2008-2010). Note: the child category includes individuals from 0 to 18 years of age.

Top 25 Cities/towns[a] with Highest Concentrated Poverty[b] in California, 2006-2010



Source: U.S. Census Bureau, American Community Survey (2006-2010). [a]54 cities in the state were found to have concentrated poverty tracts. [b]Percent of the poor that live in census tracts where 40% or more of the population lives below the poverty level. [c] Area of city is smaller than the concentrated poverty census tract thus the reported concentrated poverty could be an overestimate.

Table 1. Concentrated Poverty in California by Race/ethnicity, 2000 and 2006-2010: Percent of the Poor that Live in Census Tracts where 40% or More of the Population Live below the Poverty Level

	2000			2006-2010		
Race/Ethnicity	Poor population (N)	Poor population living in extreme poverty census tracts (N)	Concentrated poverty (%)	Poor population (N)	Poor population living in extreme poverty census tracts (N)	Concentrated poverty (%)
American Indian/ Alaska Native	36,692	0	0	30,379	0	0
Asian	467,054	31,656	7	491,802	12,999	3
African American	488,751	63,625	13	441,447	21,201	5
Latino	2,423,609	308,406	13	2,677,775	265,059	10
Native Hawaiian/Other Pacific Islander	15,872	362	2	16,438	-	-
White	1,233,710	23,541	2	1,253,884	20,074	2
Multiple	131,855	759	1	96,534	0	0
Other	11,612	-	-	14,958	-	-
All race/ethnicities	4,809,774	467,799	10	5,019,309	388,045	8