

Improving the Health of the Communities We Serve: Harnessing Data to Achieve Population Outcomes

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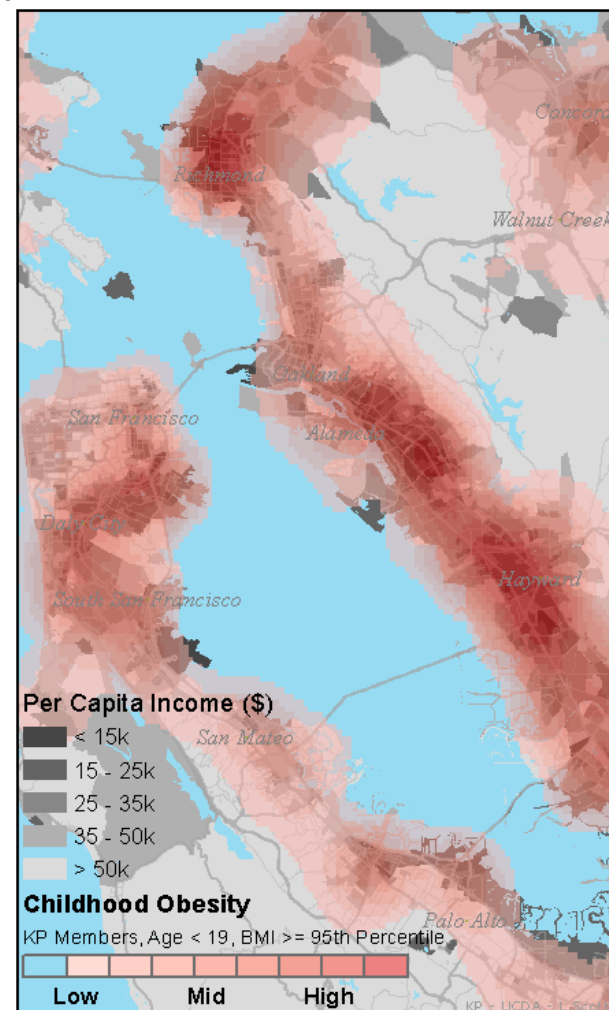
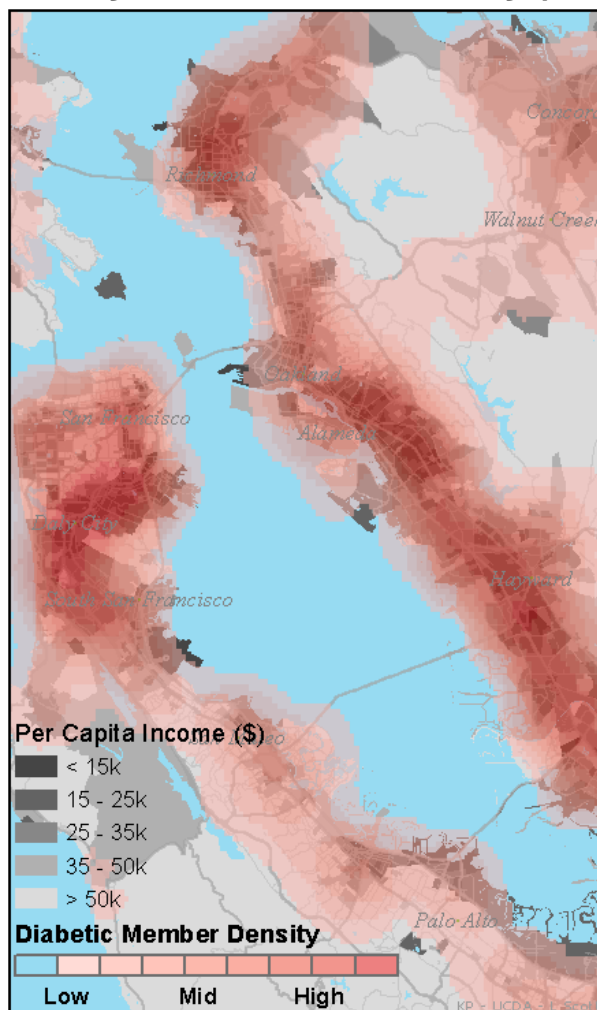
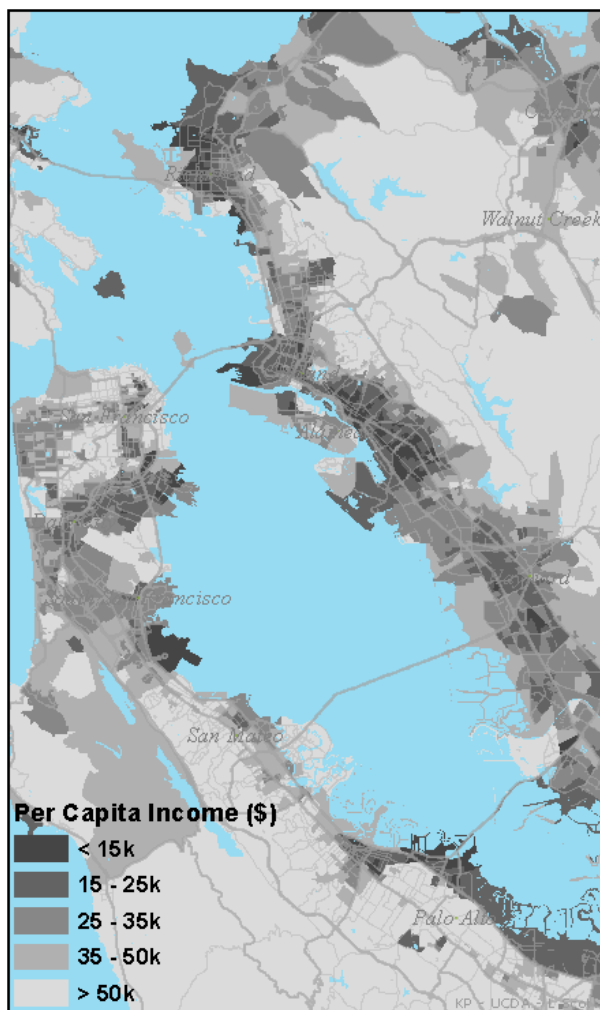
July 12, 2011

Patients are part of communities

Social and Economic Factors

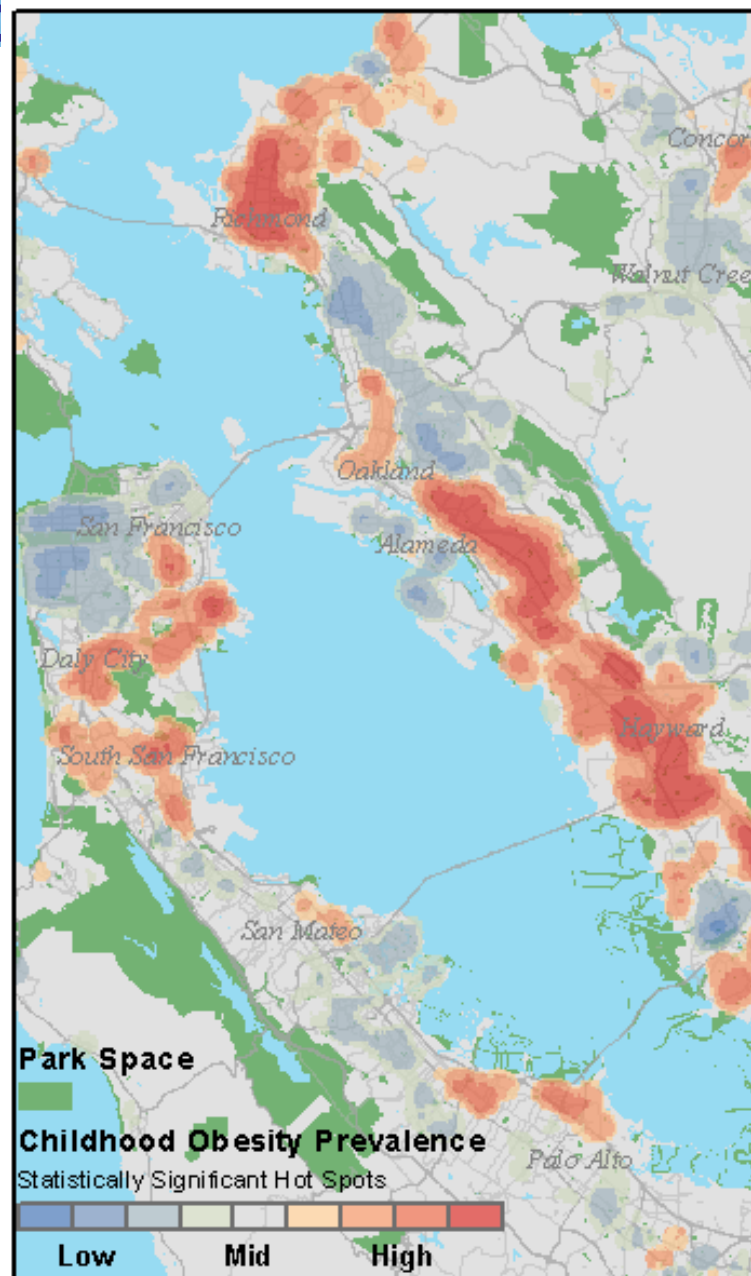
- Education/Literacy
- Employment
- Income
- Family and social support
- Community Safety
- Early Childhood
- Race and Ethnicity

San Francisco Bay Area – Kaiser Permanente Members Poverty, Diabetes and Obesity (2010)

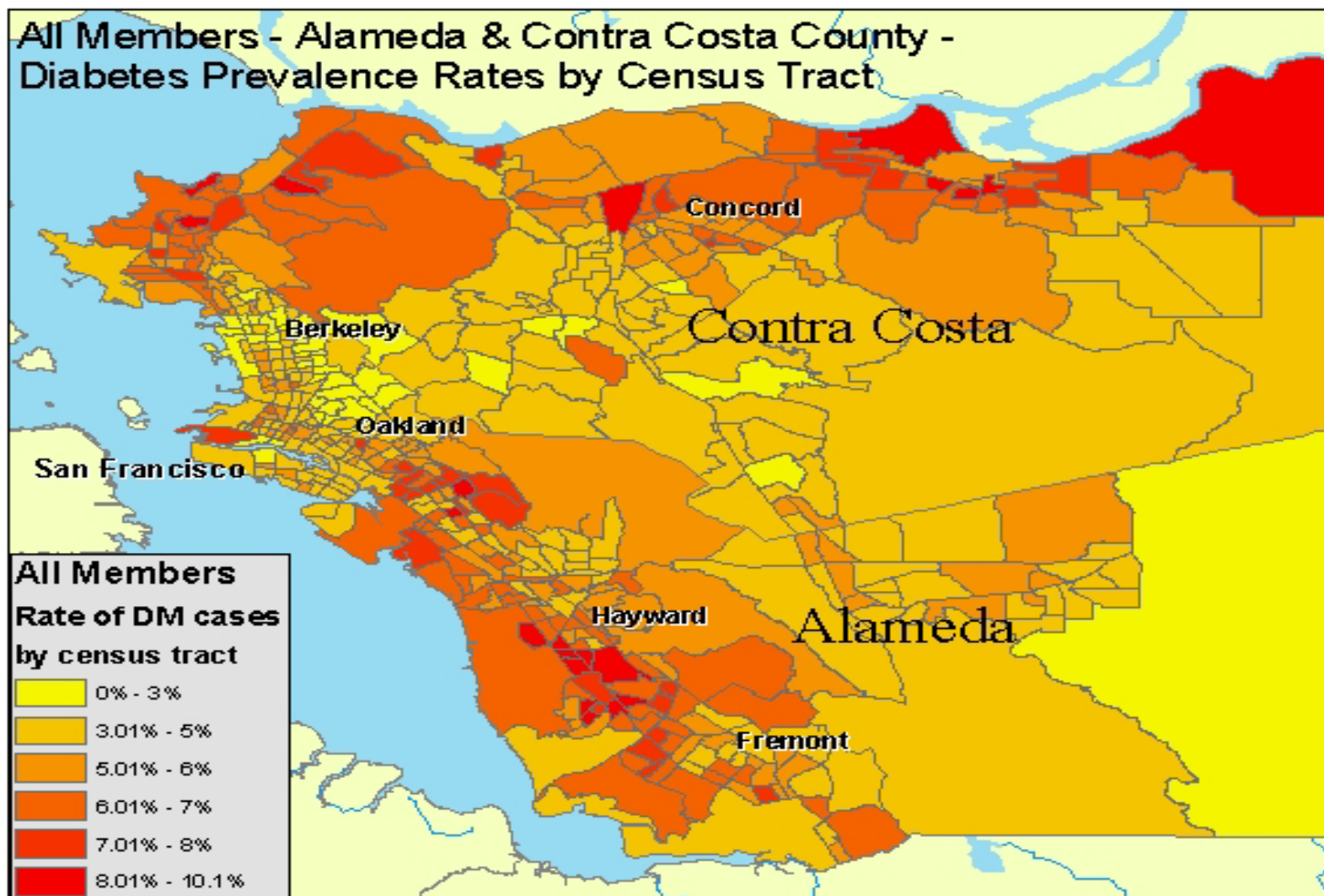


Communities and Environment shape the health of patient

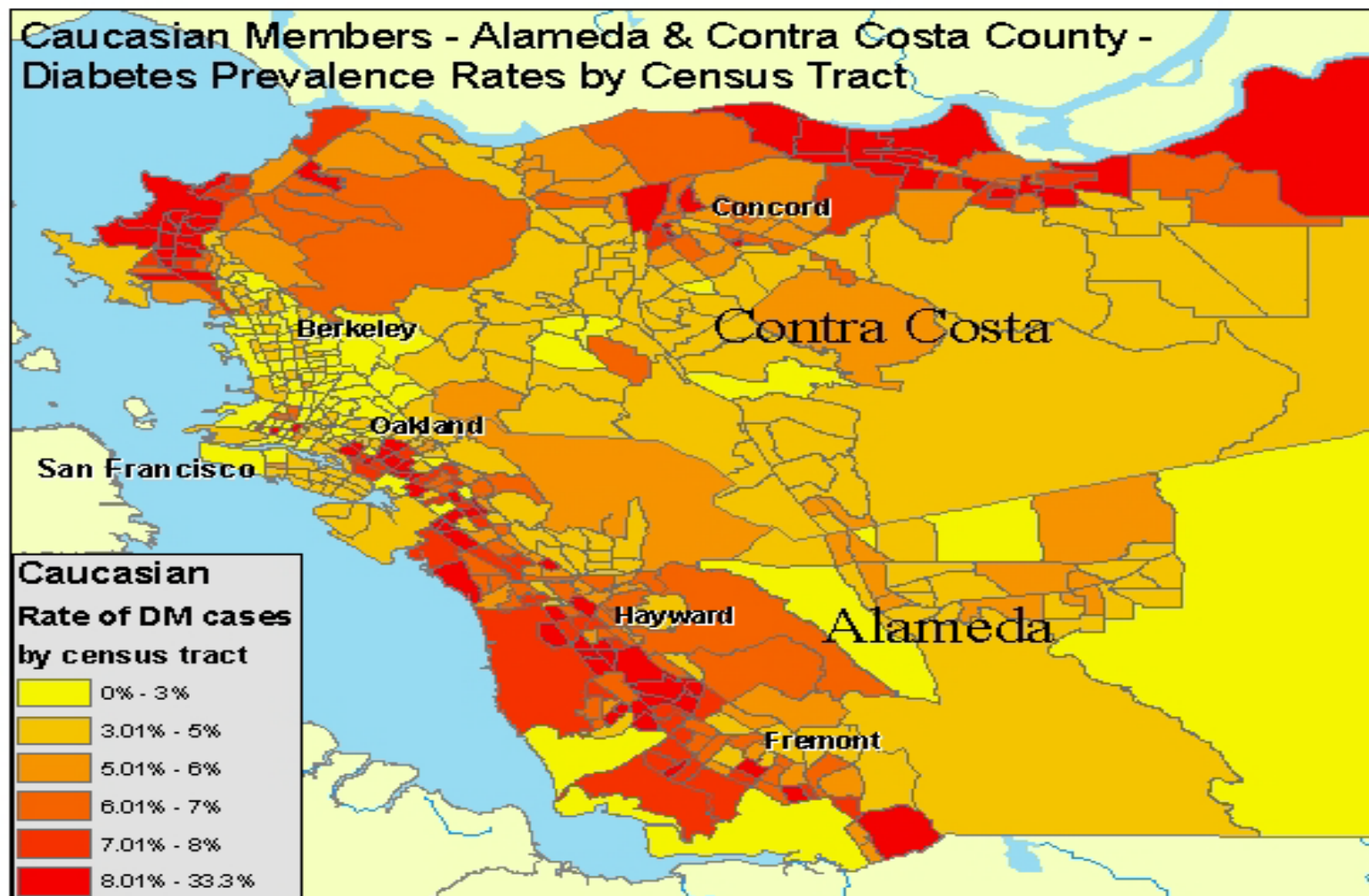
San Francisco Bay Area Kaiser Permanente Childhood Obesity and Park Space (2010)



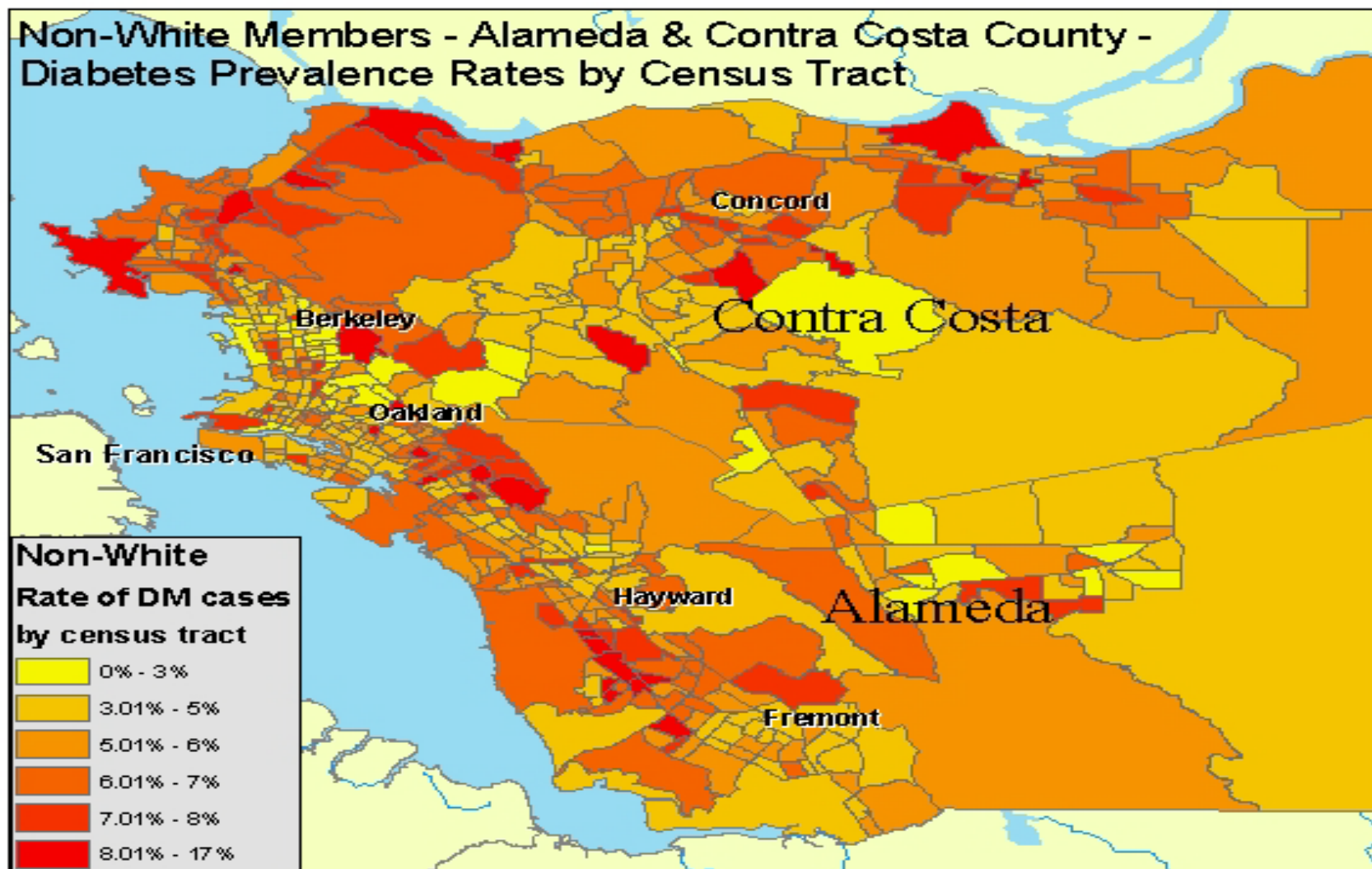
Diabetes affect our members differently depending where they live



KP has the capacity to map diabetes by R/E



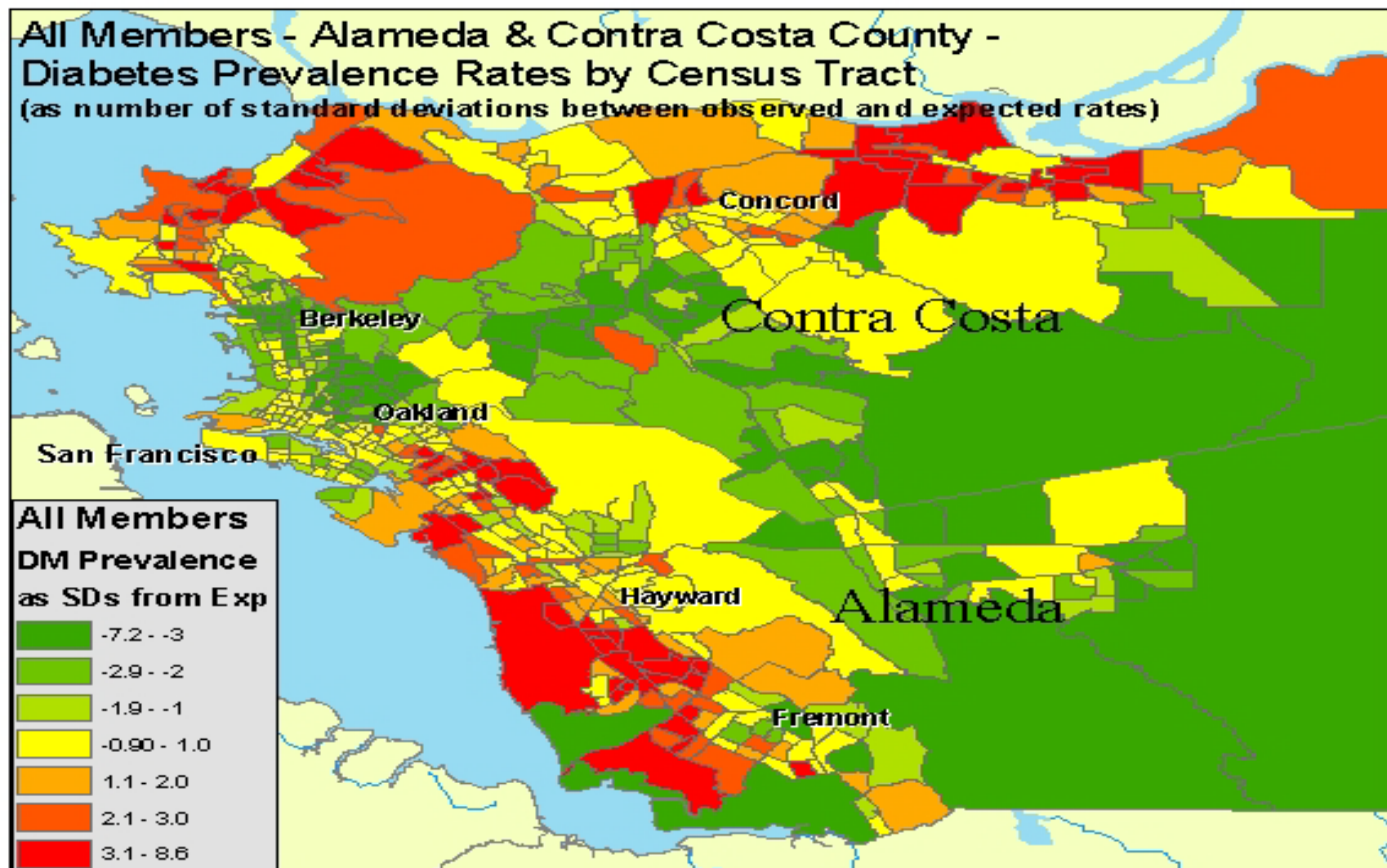
Non-white DM members are more likely to live in communities with lower resources



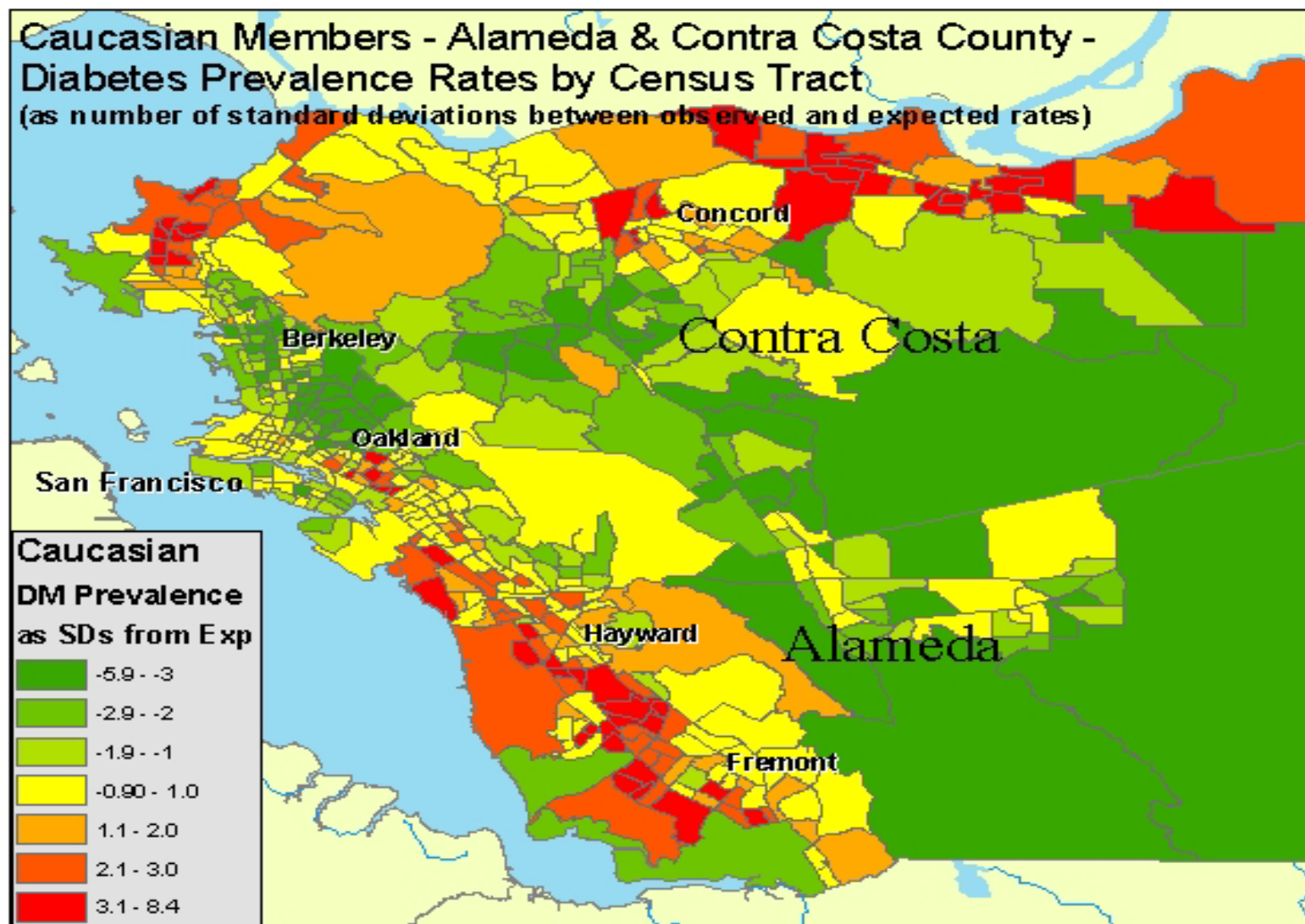
A more sophisticated map confirms the same disparity pattern

- The above maps are not bad, but there is a potential problem with just looking at prevalence rates by census tract. For tracts with few members, prevalence rates can easily be very high!
- A solution is to ask the question
 - Does diabetes prevalence in each census tract differ from the overall prevalence for both counties?
- To answer this question
 - Assume the prevalence of diabetes is evenly distributed across race/ethnicity and geography in these two counties.
 - Calculate the standard deviation around the expected rate for each tract.
 - The difference between the observed and expected rate divided by the standard deviation can be thought of as test statistic for determining if the observed rate is significantly different from the expected rate.
 - This test statistic (called the “standardized deviation” here) can be used to shade the tracts, highlighting where there are more diabetes cases than expected.
- The following maps use this “standardized deviation”, which is just the number of standard deviations between the observed rate and the expected rate.

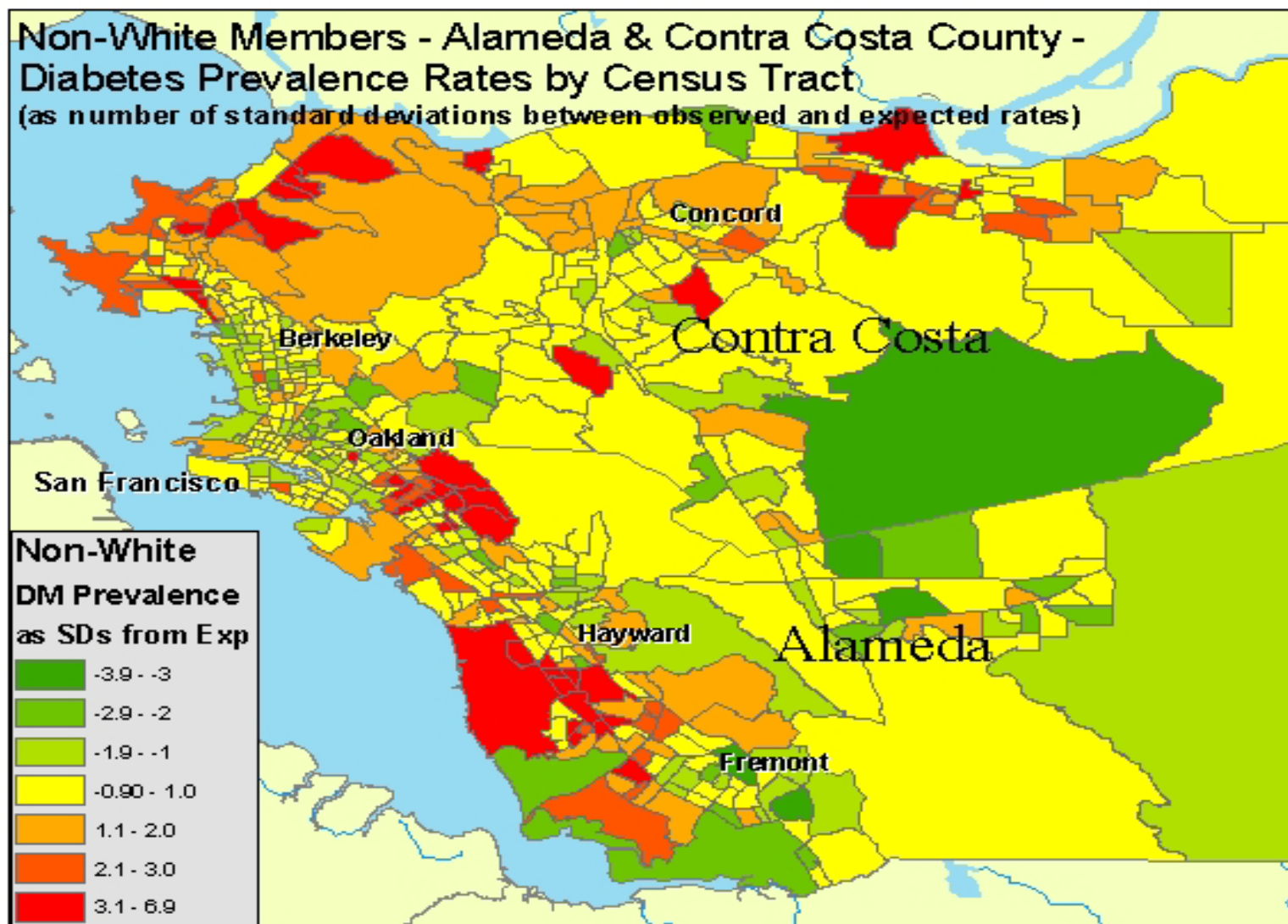
Deviation of census tract prevalence from expected – All KP members



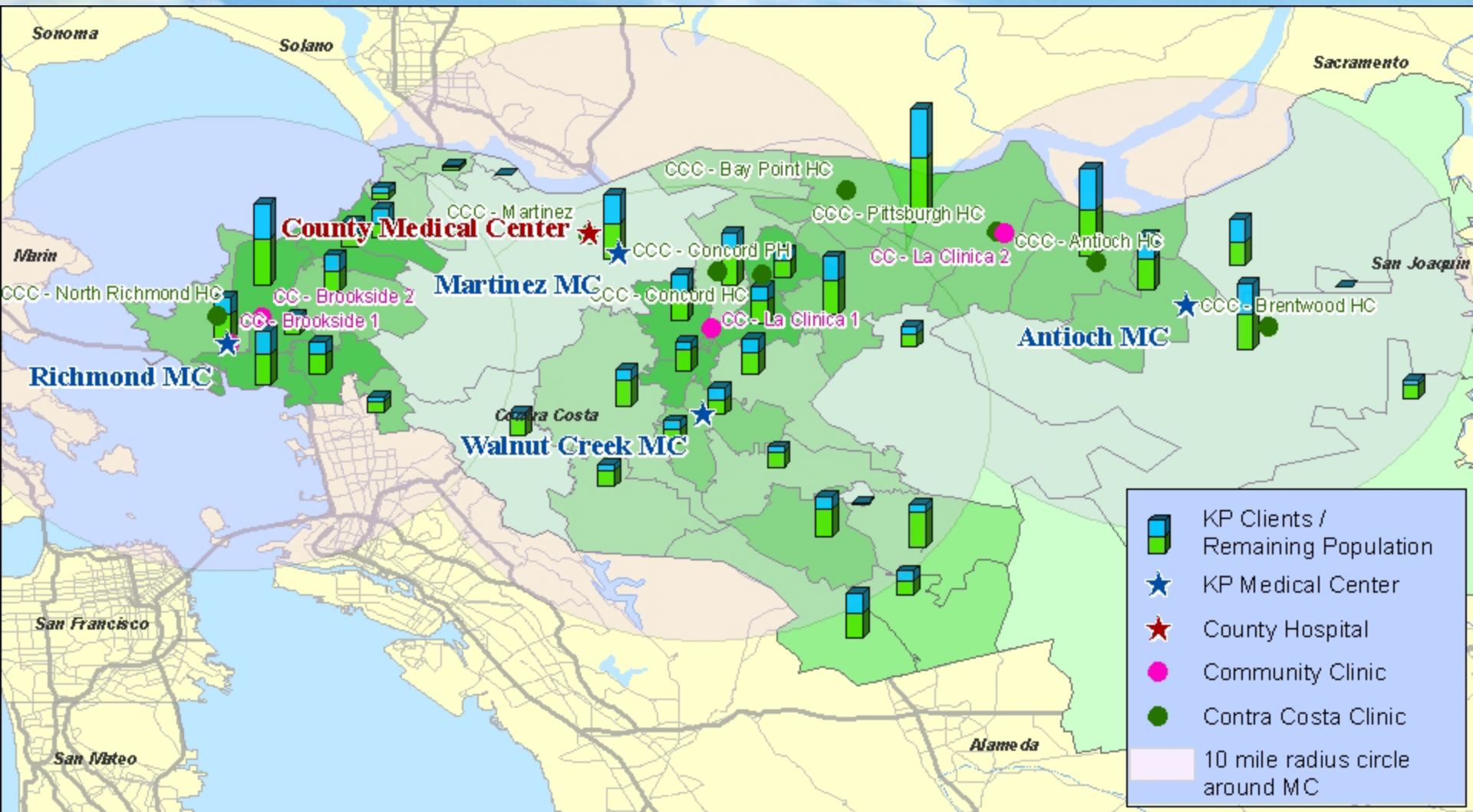
Deviation of census tract prevalence from expected – Caucasian KP members



Deviation of census tract prevalence from expected – Non-White KP members

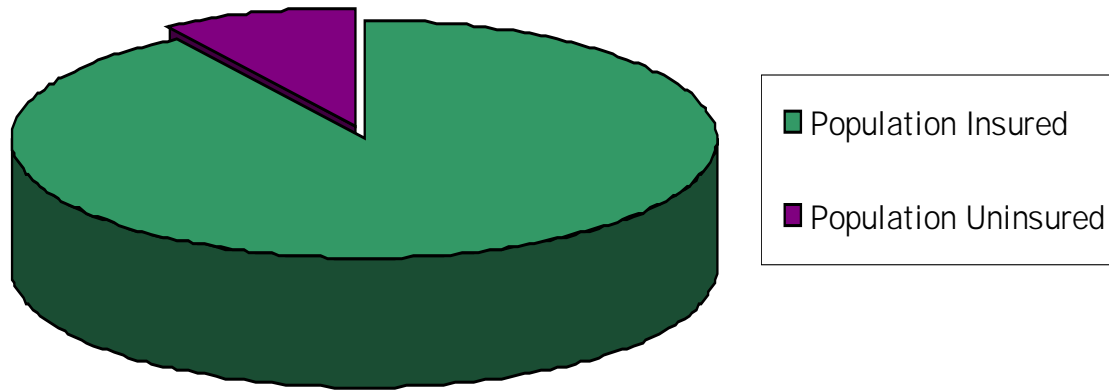


KP provides care in communities with safety net providers: we share target populations

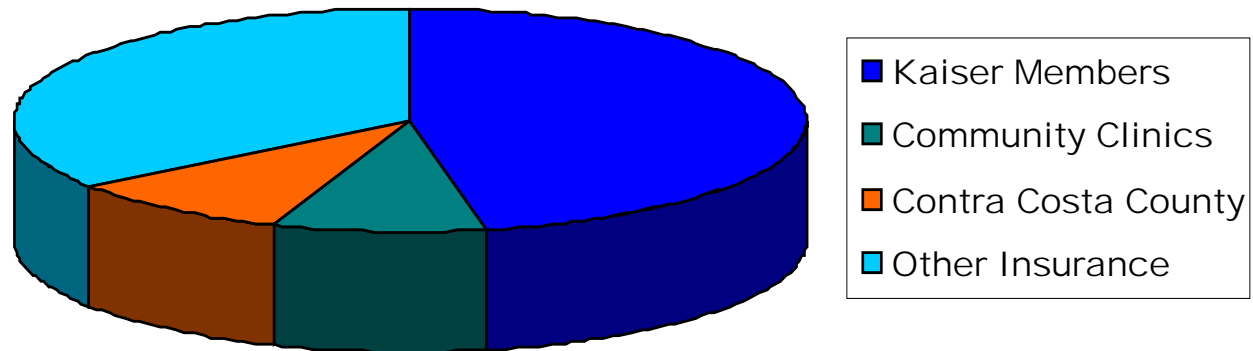


Example: KP, the county, and safety net provide care to the majority of people in Contra Costa country

Contra Costa County Population



Of those insured, they receive coverage from:

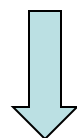


Shared population can result in population management partnerships

Lifelong Medical Center Oakland
La Clinica de la Raza Oakland
Asian Health Services Oakland
South of Market Health Center San Francisco
San Francisco General Hospital San Francisco
Mission Neighborhood Health Center San Francisco
San Mateo Medical Center San Mateo
Alameda County Medical Center Hayward
Ravenswood Family Health Center East Palo Alto
Gardner Family Health Network San Jose
Santa Clara Valley Health & Hospital System San Jose

C
V
D

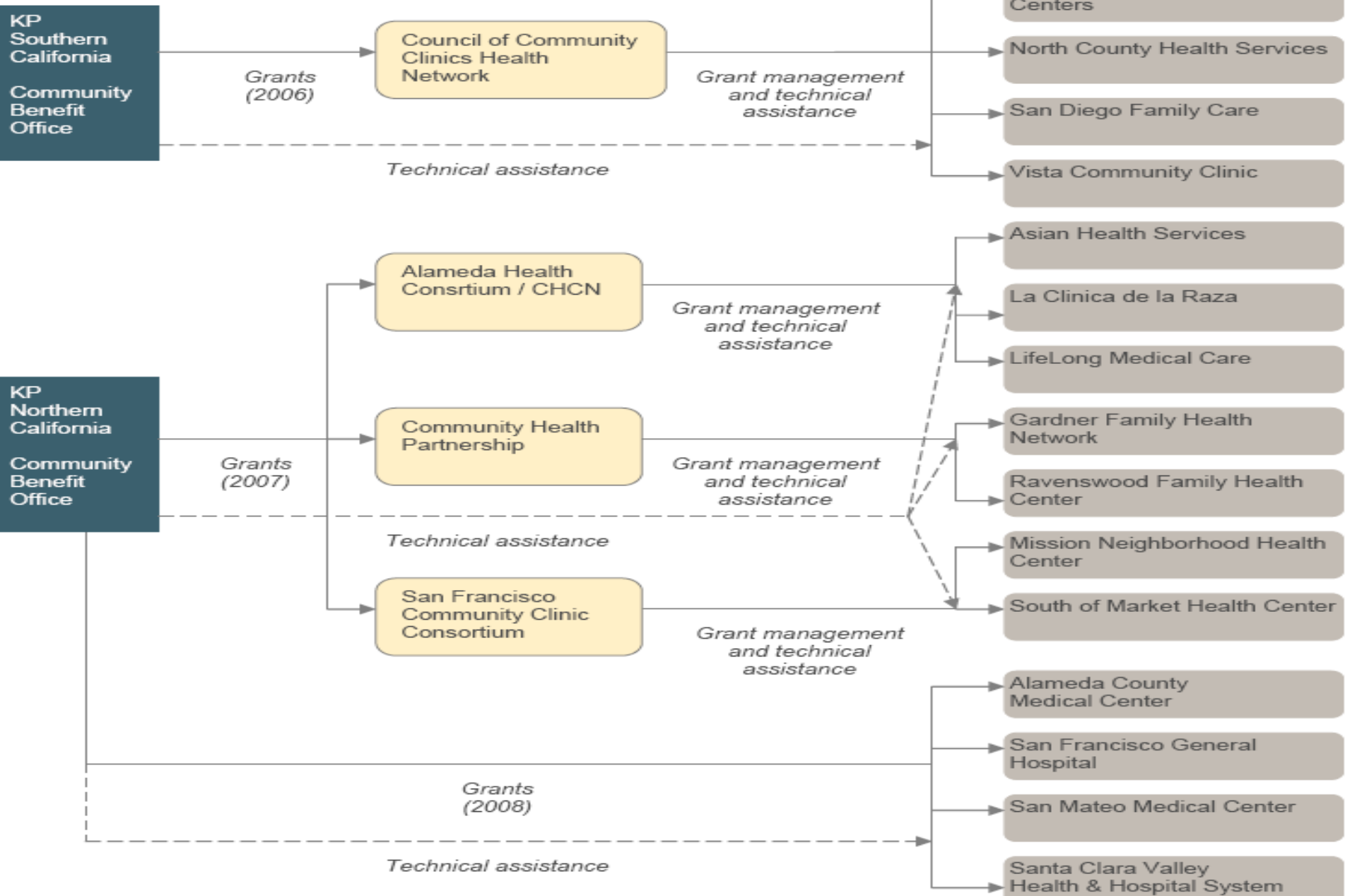
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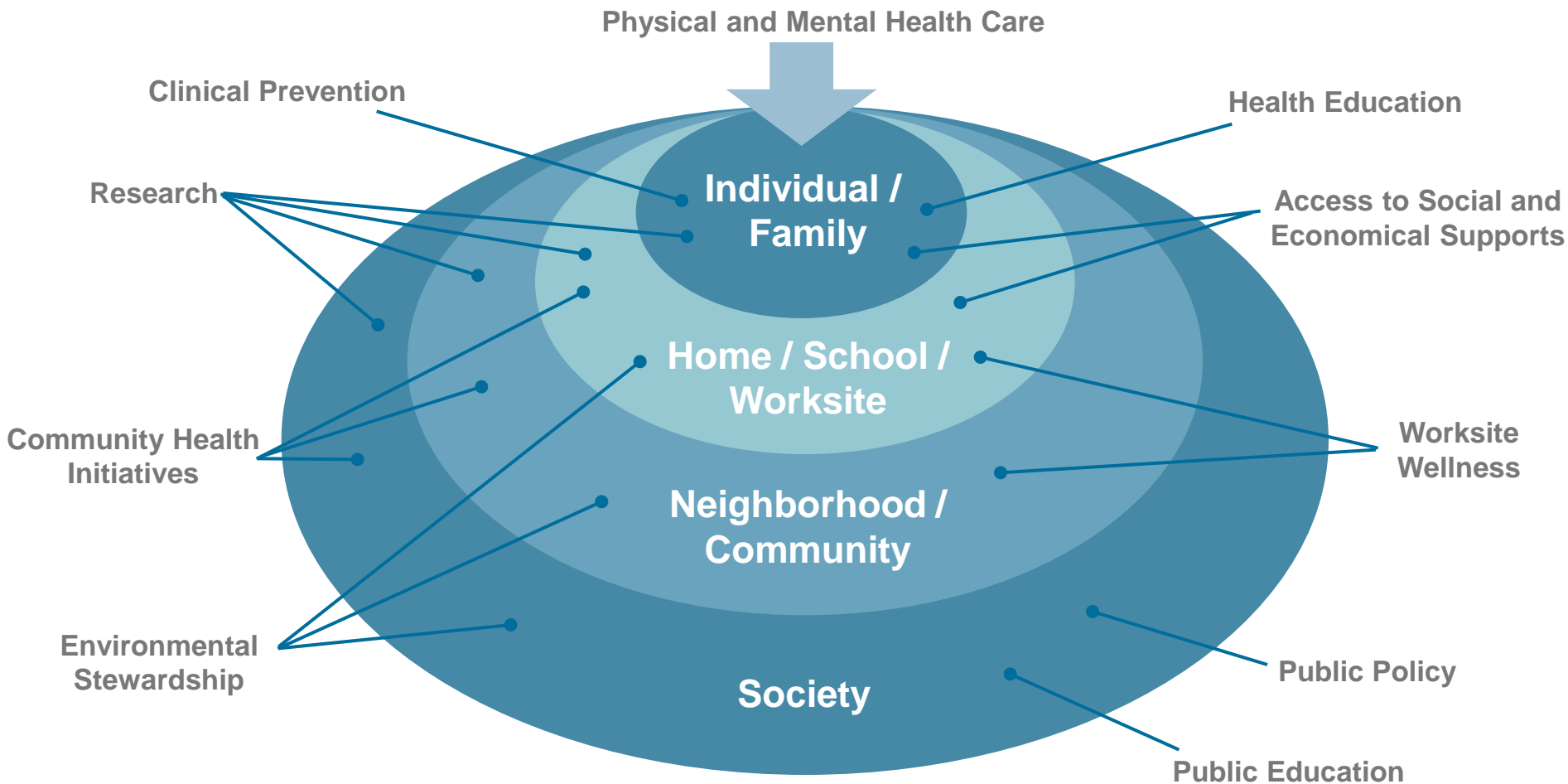
Program



ALL (Bundled Rx Initiative) partnerships



Healthy communities requires multi-tiered intervention



Interventions Occur Across the Spectrum of Care, Prevention, and Wellness

Example: Addressing obesity

MEDICAL OFFICE VISIT INTERVENTIONS

- BMI Screening
- Physician Counseling
- Patient Education Materials
- Referral and Follow-Up

WEIGHT MANAGEMENT INTERVENTIONS

- Individual Counseling
- Group Programs
- Intensive Programs
- Internet Resources

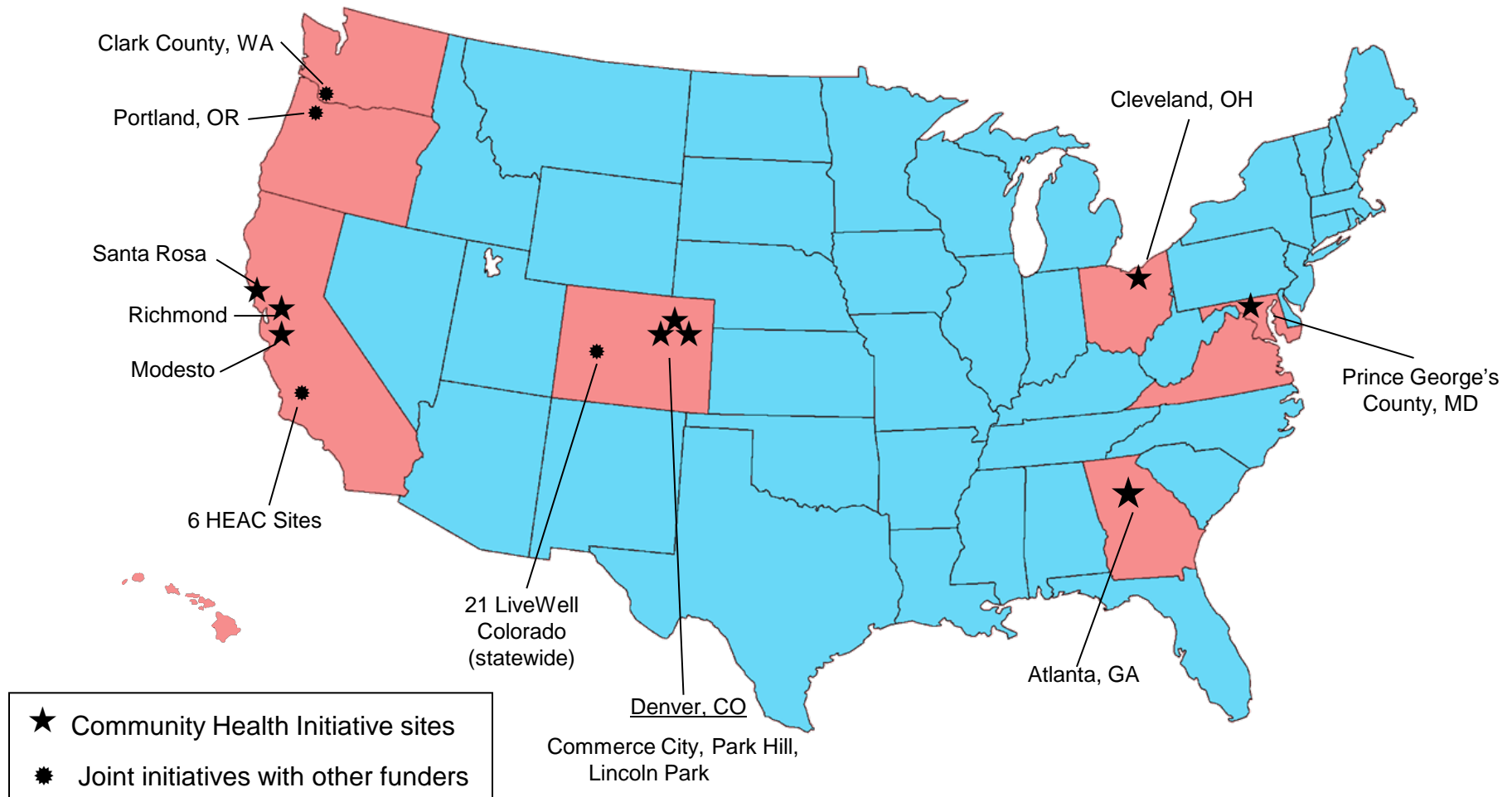
ENVIRONMENTAL CHANGES

- School Programs
- Work Site Programs
- Community Programs
- Legislation & Partnerships

- Medical Office Visit Interventions
- Weight Management Interventions
- Environmental Changes

Healthy Eating Active Living goes beyond clinical and medical intervention

We Support 40+ Communities



Future: Linking clinical with social determinants

Social and Economic Factors

- Education/Literacy
- Adverse Childhood Event exposures
- Economic sustainability
- Violence prevention
- Open space per capita
- Early Childhood
- Race and Ethnicity

