

Public Health Challenges and Opportunities in California

together
WE BUILD A BRIGHTER FUTURE

TPMG Resident Health Policy Seminar Series

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Director, Disparities improvement and Quality Initiatives

October 2018

Health Care Priorities: Then and Now

Kaiser Permanente in the Shipyards

*“To provide high quality, affordable health care,
and to improve the health of our members and the communities we serve”*



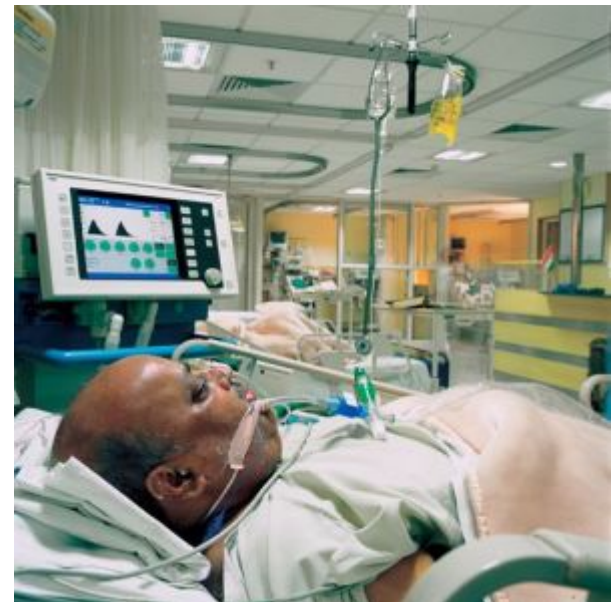
Noon-hour loudspeaker health education program in Kaiser Shipyard, Richmond.
Staff physician talking on the common cold

From *Industrial Medicine*, 14:4, April 1945

Our Patients today

The Leading Causes of Death in California

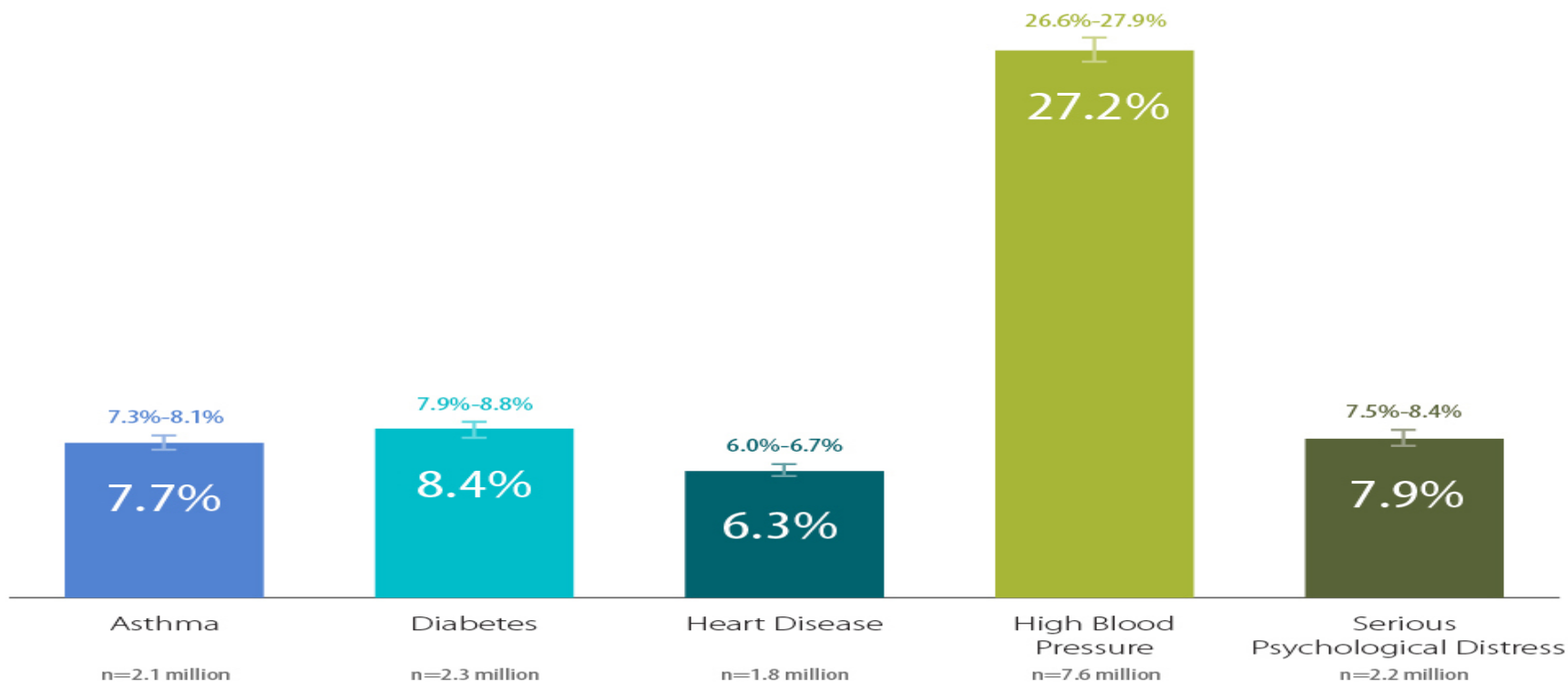
1. Heart Disease
2. Cancer
3. Stroke
4. Respiratory Disease
5. Unintentional Injuries



- **Disparities: Racial, nativity, and racial**
- **No clear path to prevention**
- **Climate Change: the New Normal**

Preventable or Inevitable?

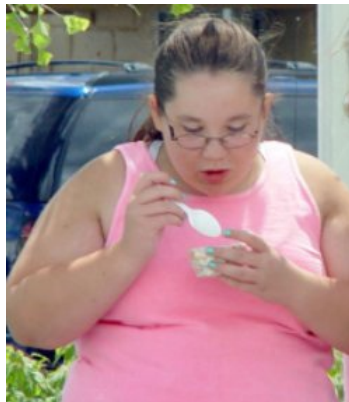
Prevalence of Chronic Conditions Among Adults California, 2011 to 2012



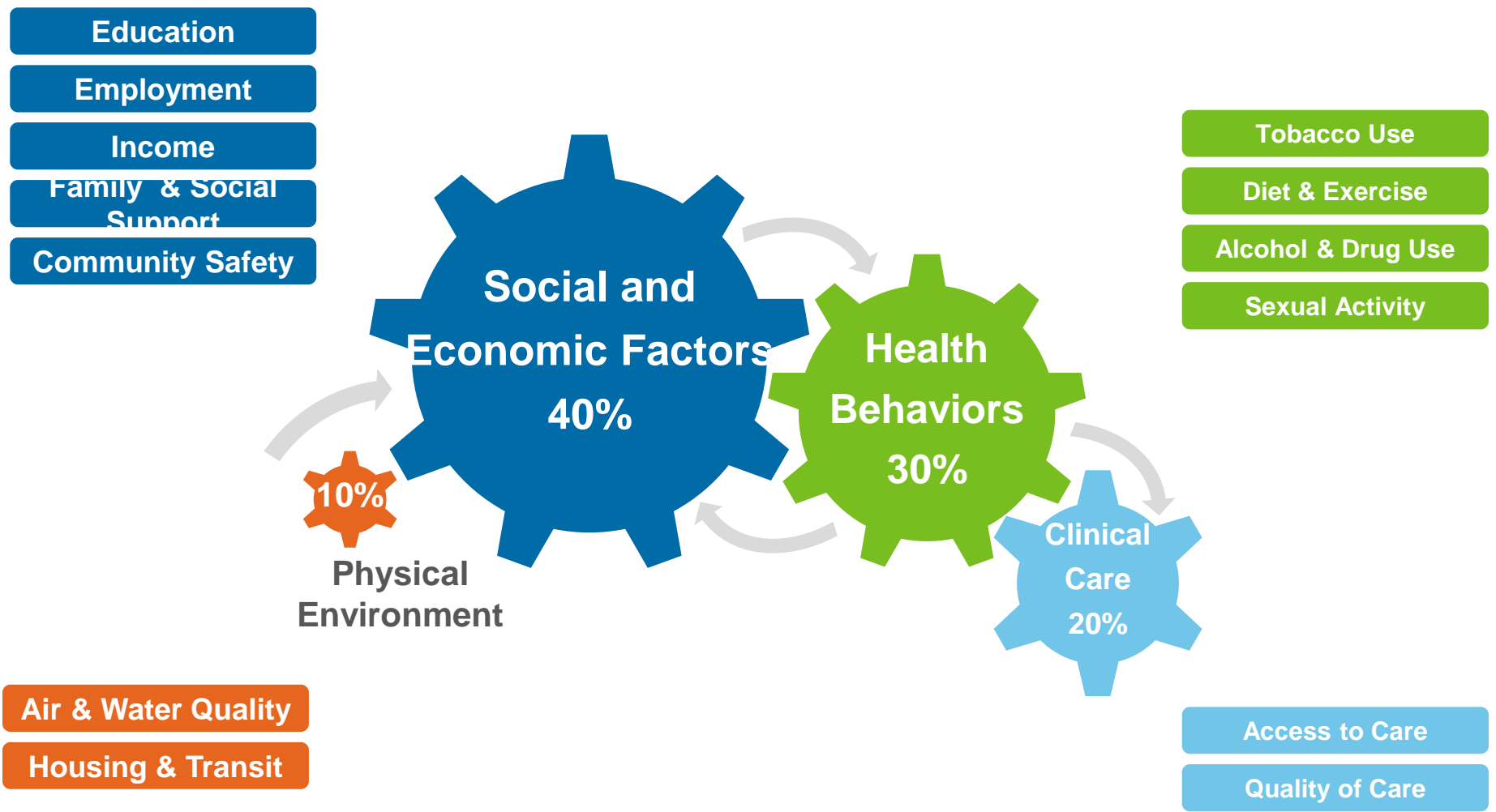
Notes: Adults are age 18 and older. Confidence intervals are shown as vertical lines. See definitions on page 44.
Source: UCLA, California Health Interview Survey (CHIS), 2011-2012.

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Our Patients Tomorrow?



Health is More than Health Care



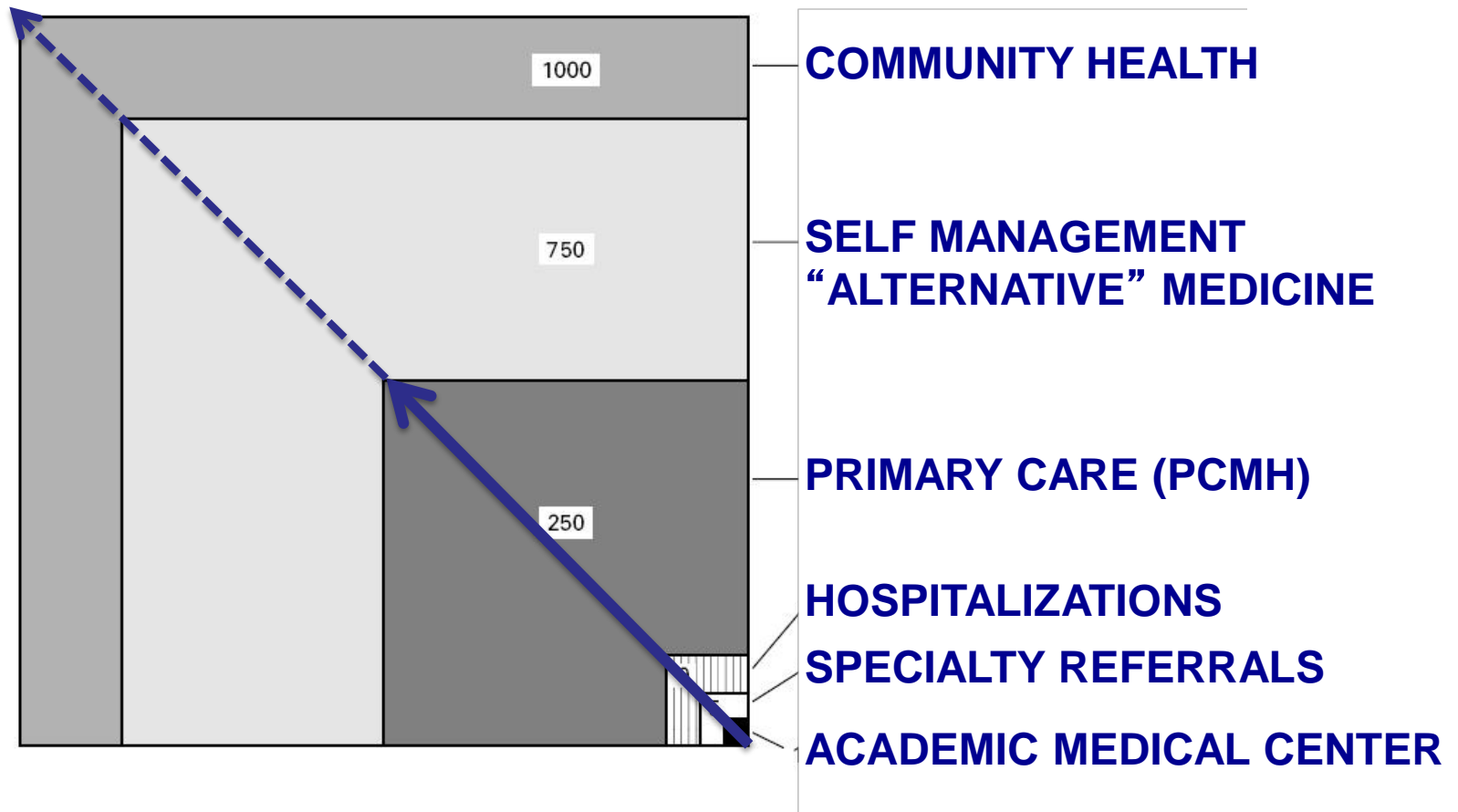


Figure 1. Monthly Prevalence Estimates of Illness in the Community and the Roles of Physicians, Hospitals, and University Medical Centers in the Provision of Medical Care.

Data are for persons 16 years of age and older. Reprinted from the 1961 report by White et al.¹

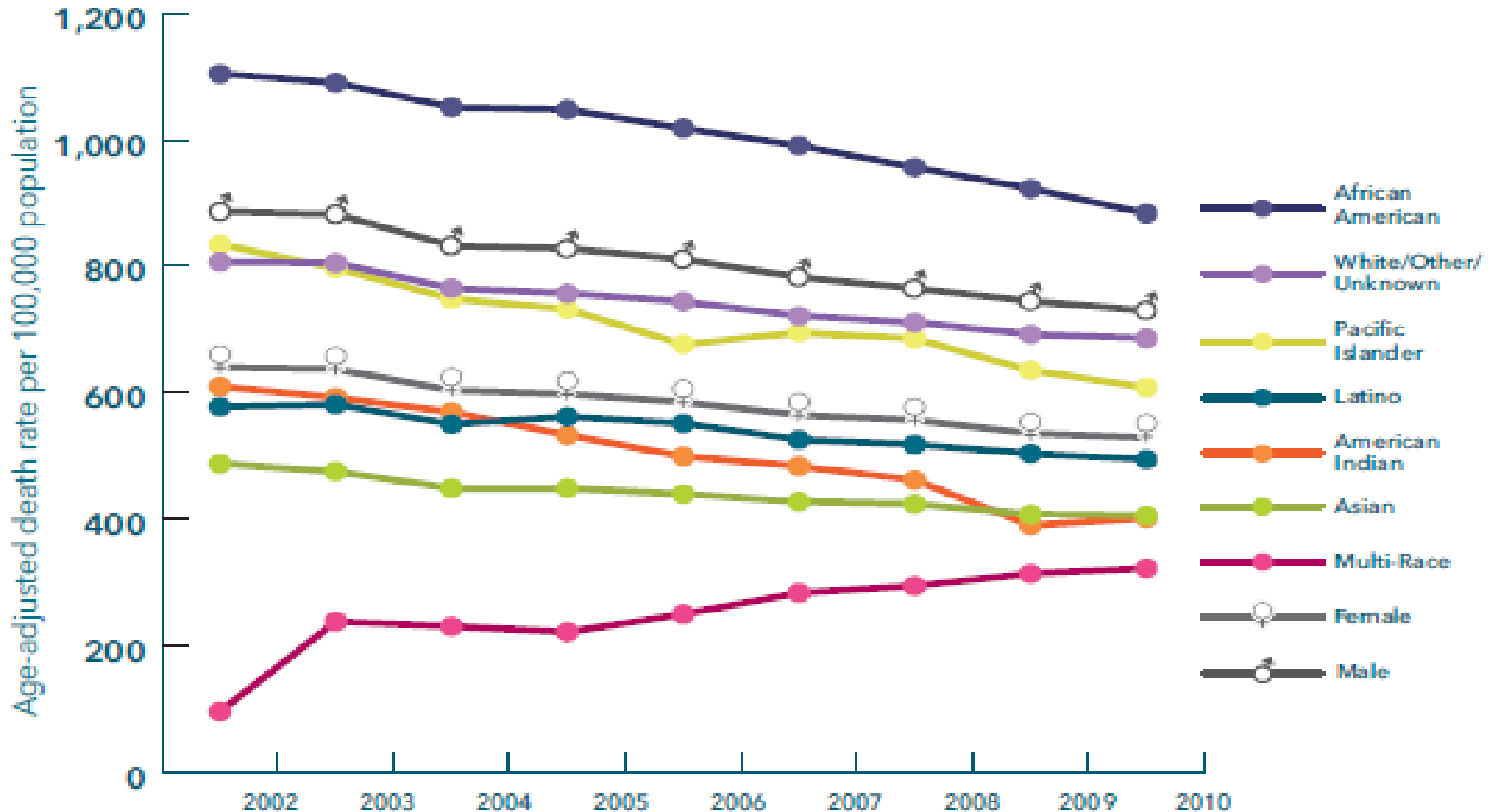
State of Health California : 2016

- **Life Expectancy at Birth: 2nd in USA**
- **1990 Rank: 24**
- **Life Expectancy born in 2016: 80.9 Years**
- **Biggest improvements since 1990: self harm, unintentional injuries, transport injuries, “other” non-communicable diseases**
- **Greatest increases in death (relative): neurologic disorders, COPD, diabetes**
- **Among 20 leading causes of death in US, California had no causes that were significantly higher than any other state**
- **Conditions most likely to be associated with social disparities: COPD, Diabetes**
- **Highest risk factors: high BMI, alcohol and drug use, dietary risks, tobacco, high fasting glucose**

- **Reference: the US Burden of Disease Collaborators, “The State of US Health”, JAMA, 2028; 319 (14): 1444- 1472**

California: the Land of Golden Opportunity

ALTHOUGH DEATH RATES IN CALIFORNIA HAVE DECLINED, DISPARITIES PERSIST, WITH AFRICAN AMERICANS HAVING HIGHER DEATH RATES THAN OTHER RACIAL/ETHNIC GROUPS



Selected outcomes for the United States, California, and racial/ethnic groups within California

| Outcome | US | California | Within California | | | | |
|---|-------|------------|--------------------|--------|------------------|------------------------|-------------------------------|
| | | | Non-Hispanic white | Latino | African American | Asian/Pacific Islander | American Indian/Alaska Native |
| Age-adjusted all-cause death rates per 100,000 population ^a | 729.9 | 619.1 | 686.4 | 514.4 | 807.6 | 394.5 | 380.2 |
| Life expectancy at birth (years) ^b | 78.9 | 80.8 | 79.8 | 83.2 | 75.1 | 86.3 | 80.2 |
| Infant mortality per 1,000 live births ^c | 6.0 | 4.7 | 3.9 | 4.6 | 9.4 | 3.8 | 5.9 |
| Uninsurance rate for the nonelderly (ages 0-64) ^d | 16.9% | 20.2% | 11.0% | 34.7% | 18.9% | 15.9% | 23.3% |
| Adults with incomes below the federal poverty level ^d | 13.5% | 14.2% | 10.2% | 19.1% | 22.6% | 11.7% | 21.3% |
| Adults ages 21 and older who did not graduate from high school ^d | 13.4% | 18.3% | 5.7% | 39.6% | 11.5% | 13.7% | 18.2% |

RACE COUNTS

RANK BY: Quadrant Disparity **Performance**

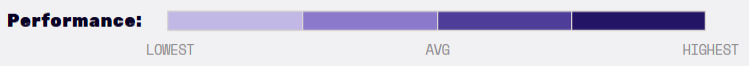
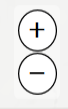
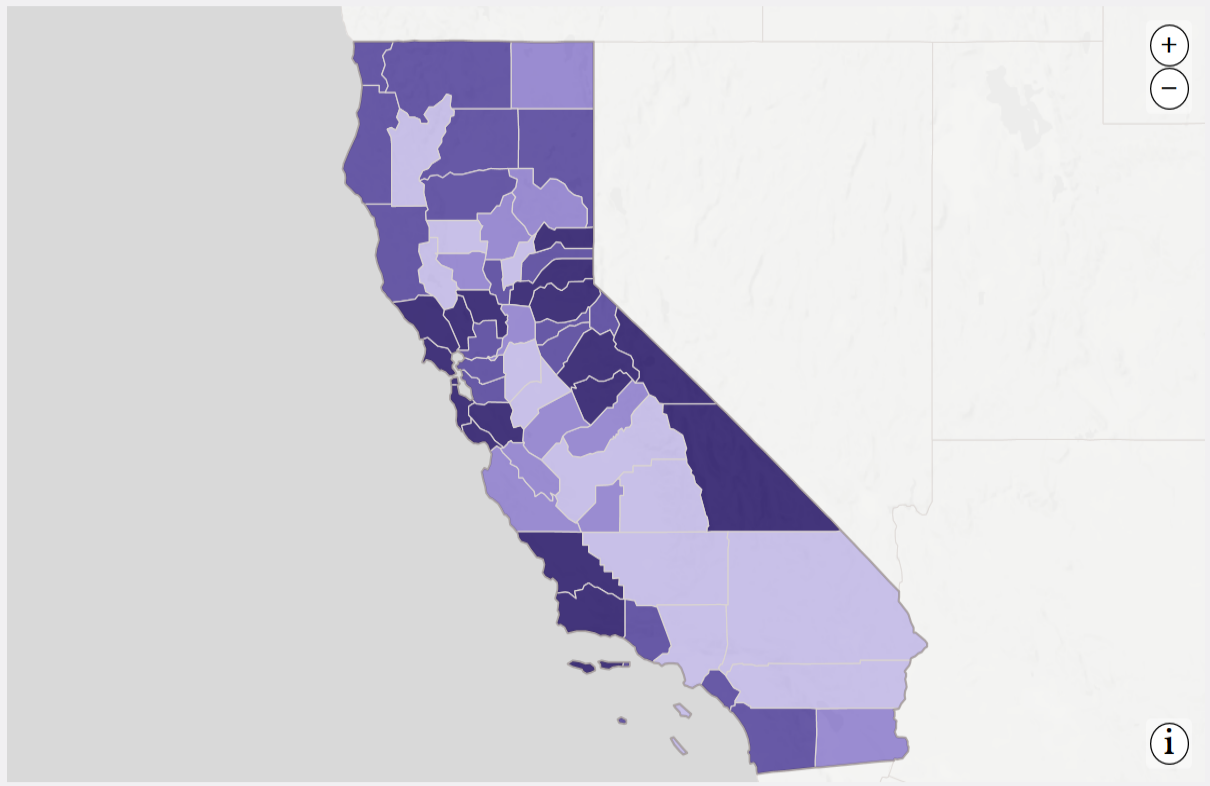
- FIND COUNTY ▾
- FILTER BY REGION ▾
- SELECT RACE ▾

FILTER BY KEY ISSUE

- All Issues
- Economic Opportunity
- Health Care Access**
- Education
- Housing
- Democracy
- Crime & Justice
- Healthy Built Environment

FILTER BY INDICATOR

- All Indicators**
- Life Expectancy
- Health Insurance
- Preventable Hospitalizations
- Low Birthweight
- Access to Federally Qualified Health Centers
- Usual Source of Care



DOWNLOAD DATA

ADVANCEMENT PROJECT CALIFORNIA, 2017

SURVEY

RANK BY: **Quadrant** | **Disparity** | Performance

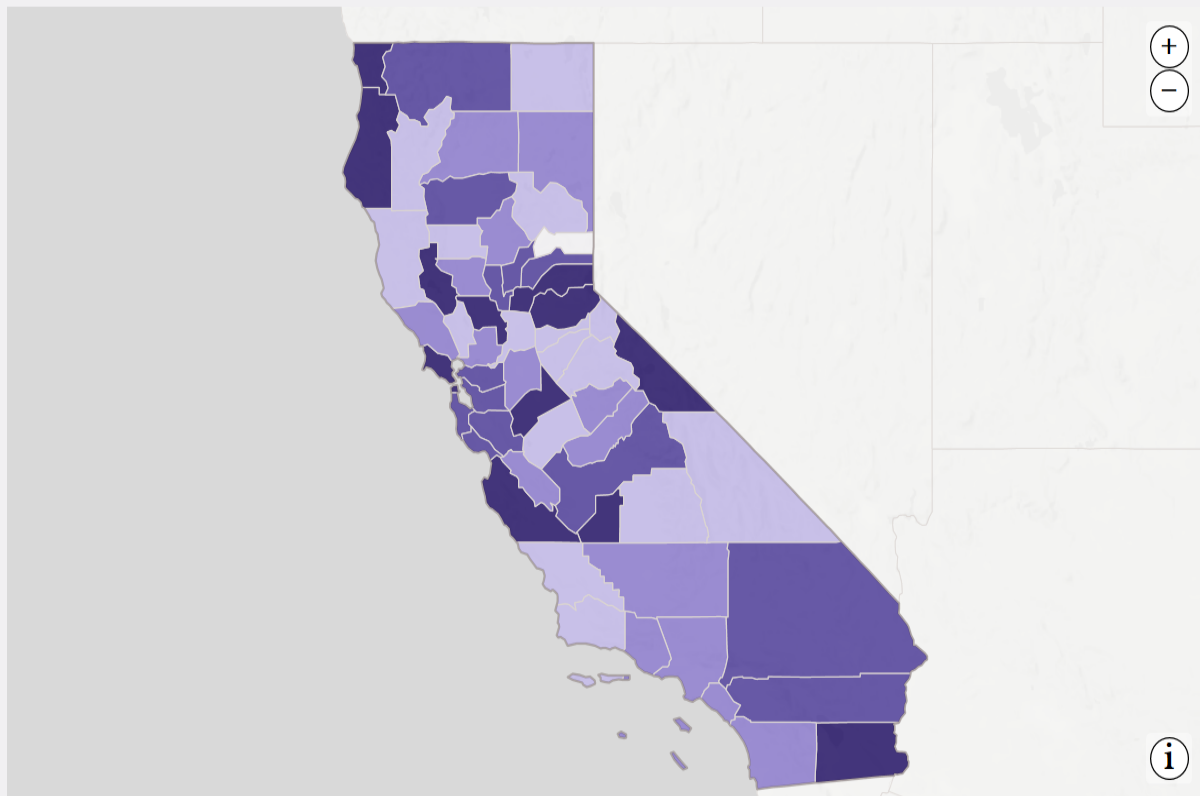
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SURVEY

State Averages & County Rankings

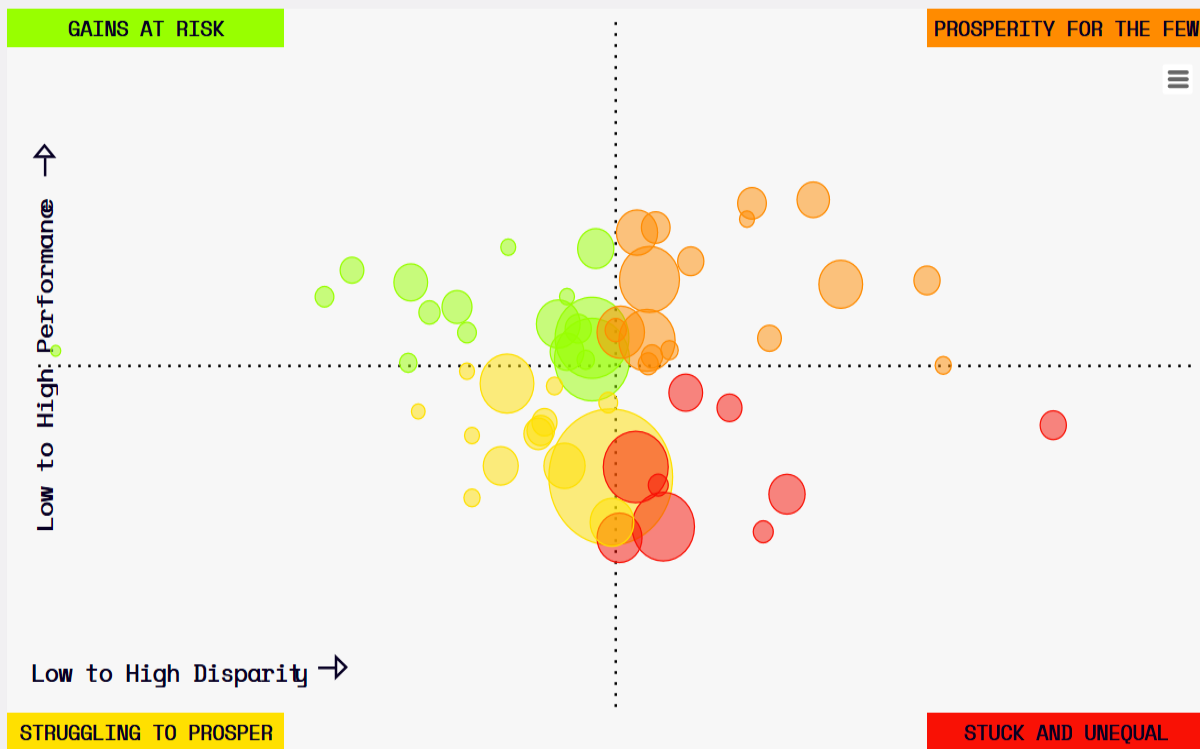
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SURVEY

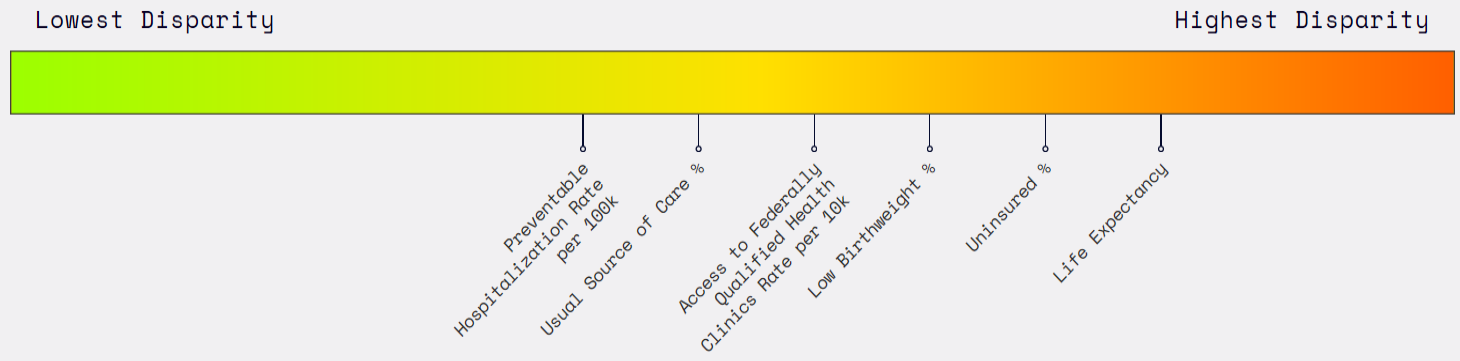
Life Expectancy

Asians have the longest life expectancy at 80.2 years, while Pacific Islanders have the second lowest at 72.6 years.

Birthweight

The low birthweight rate for babies born to African-American mothers is 9.5 or higher in every county in the state, while the state average rate is only 6.8.

Racial Disparity Across Indicators



SURVEY

RACE COUNTS

RANK BY: **Quadrant** | Disparity | Performance

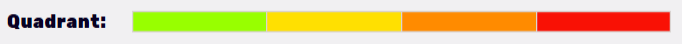
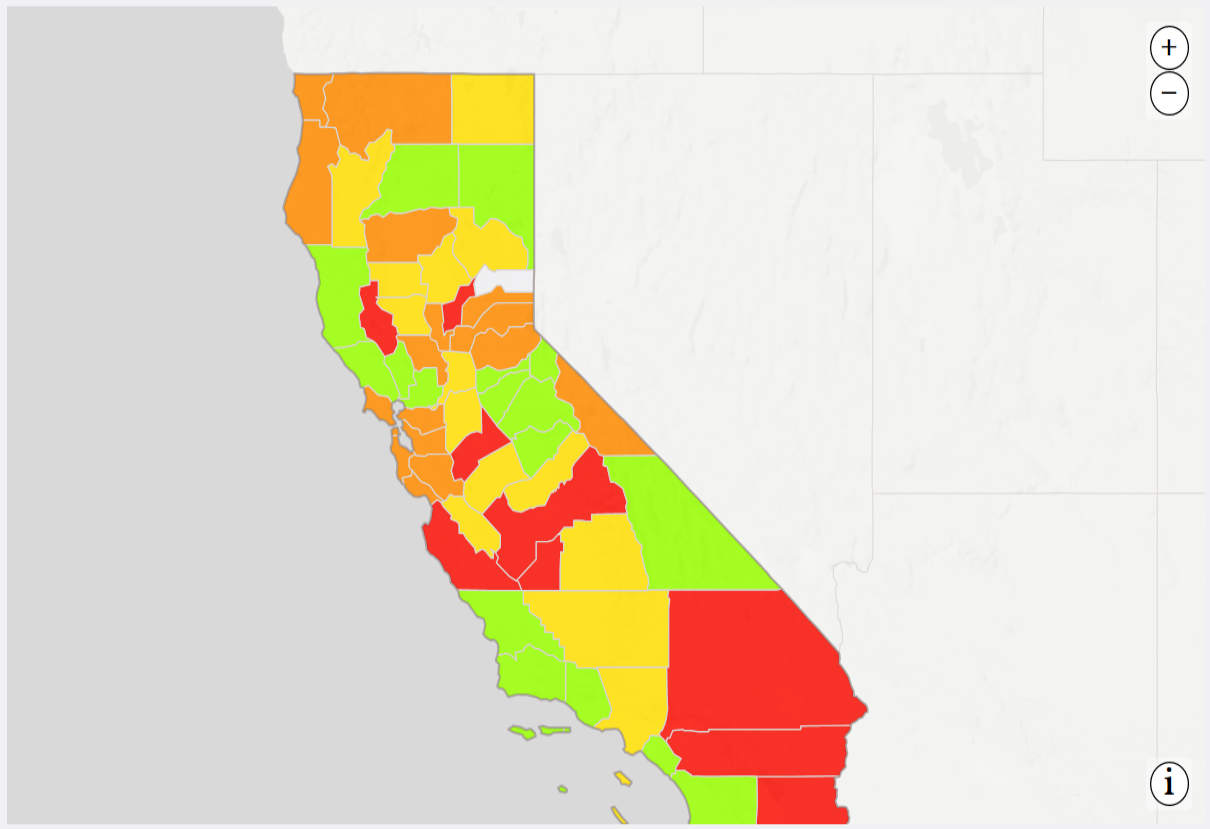
- FIND COUNTY
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FILTER BY KEY ISSUE

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FILTER BY INDICATOR

- All Indicators**
- Life Expectancy
- Health Insurance
- Preventable Hospitalizations
- Low Birthweight
- Access to Federally Qualified Health Centers
- Usual Source of Care



DOWNLOAD DATA

SURVEY

2012-2013 HEALTH PROFILES

| Health Outcomes | White | Latino | Black | Asian | Other/2+ | California |
|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------------------|
| | % (95% CI) | % (95% CI) | % (95% CI) | % (95% CI) | % (95% CI) | % (95% CI) |
| Serious psychological distress in the past year ⁵ | 8.1 (7.2 - 9.1) | 9.1 (8.0 - 10.2) | 11.5* (8.8 - 14.1) | 5.0* (3.9 - 6.2) | 15.6* (11.0 - 20.2) | 8.4 (7.8 - 9.1) |
| Fair or poor health ⁶ | 11.9* (11.0 - 13.0) | 30.8* (28.9 - 32.7) | 20.7 (17.5 - 24.4) | 20.5 (18.5 - 22.5) | 20.9 (17.0 - 25.5) | 19.7 (19.0 - 20.5) |
| Current asthma ⁷ | 9.4* (8.5 - 10.4) | 5.3* (4.5 - 6.2) | 14.0* (11.0 - 17.0) | 4.7* (3.7 - 5.7) | 14.8* (11.0 - 18.7) | 7.8 (7.2 - 8.3) |
| Ever diagnosed with diabetes ⁸ | 6.9* (6.3 - 7.5) | 10.6* (9.5 - 11.6) | 9.7 (7.2 - 12.3) | 8.5 (7.0 - 10.1) | 6.8 (4.6 - 9.0) | 8.6 (8.0 - 9.1) |
| Obese ⁹ | 21.2* (20.1 - 22.2) | 32.1* (30.3 - 33.9) | 35.9* (31.5 - 40.4) | 9.3* (7.5 - 11.1) | 26.1 (20.7 - 31.5) | 24.3 (23.5 - 25.1) |
| Ever diagnosed with high blood pressure | 30.1* (29.1 - 31.1) | 24.9* (23.3 - 26.6) | 36.9* (32.9 - 40.9) | 22.7* (20.6 - 24.8) | 26.4 (21.7 - 31.1) | 27.6 (26.8 - 28.3) |

W La AA As Ot

Health Behaviors

| | | | | | | |
|---|------------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|
| Engaged in regular walking in the past week ¹⁰ | 31.6 (30.3 - 32.9) | 33.8 (31.8 - 35.9) | 29.8 (25.6 - 34.0) | 34.0 (30.9 - 37.1) | 36.2 (30.0 - 42.4) | 32.7 (31.7 - 33.8) |
| Consumed one or more sodas per day ¹¹ | 8.2* (7.5 - 8.9) | 16.8* (15.2 - 18.4) | 11.3 (8.3 - 14.3) | 4.7* (3.4 - 5.9) | 11.3 (8.0 - 14.5) | 11.0 (10.4 - 11.6) |
| Current smoker ¹² | 14.3 (13.3 - 15.3) | 11.0* (9.9 - 12.2) | 19.5* (16.5 - 22.4) | 11.0* (9.1 - 12.8) | 20.9* (16.2 - 25.6) | 13.2 (12.5 - 13.9) |
| Binge drinking ¹³ | 33.6* (32.3 - 34.8) | 33.0 (31.1 - 34.9) | 26.0* (21.8 - 30.3) | 21.0* (18.5 - 23.4) | 31.9 (26.4 - 37.4) | 31.2 (30.3 - 32.0) |

Other Factors

| | | | | | | |
|---|---------------------|------------------------|------------------------|------------------------|-----------------------|-----------------------|
| Food insecure ¹⁴ | 7.7* (6.8 - 8.5) | 27.8* (26.1 - 29.6) | 21.3* (17.6 - 25.0) | 9.5* (7.6 - 11.5) | 17.9 (13.9 - 21.8) | 16.0 (15.3 - 16.7) |
| Limited English proficiency ¹⁵ | 3.1* (2.5 - 3.6) | 56.8* (55.5 - 58.1) | 2.0* (1.2 - 2.9) | 46.0* (43.2 - 48.8) | 2.8* (1.2 - 4.4) | 27.6 (27.0 - 28.1) |

Hypertension and “Fish Hook” geography

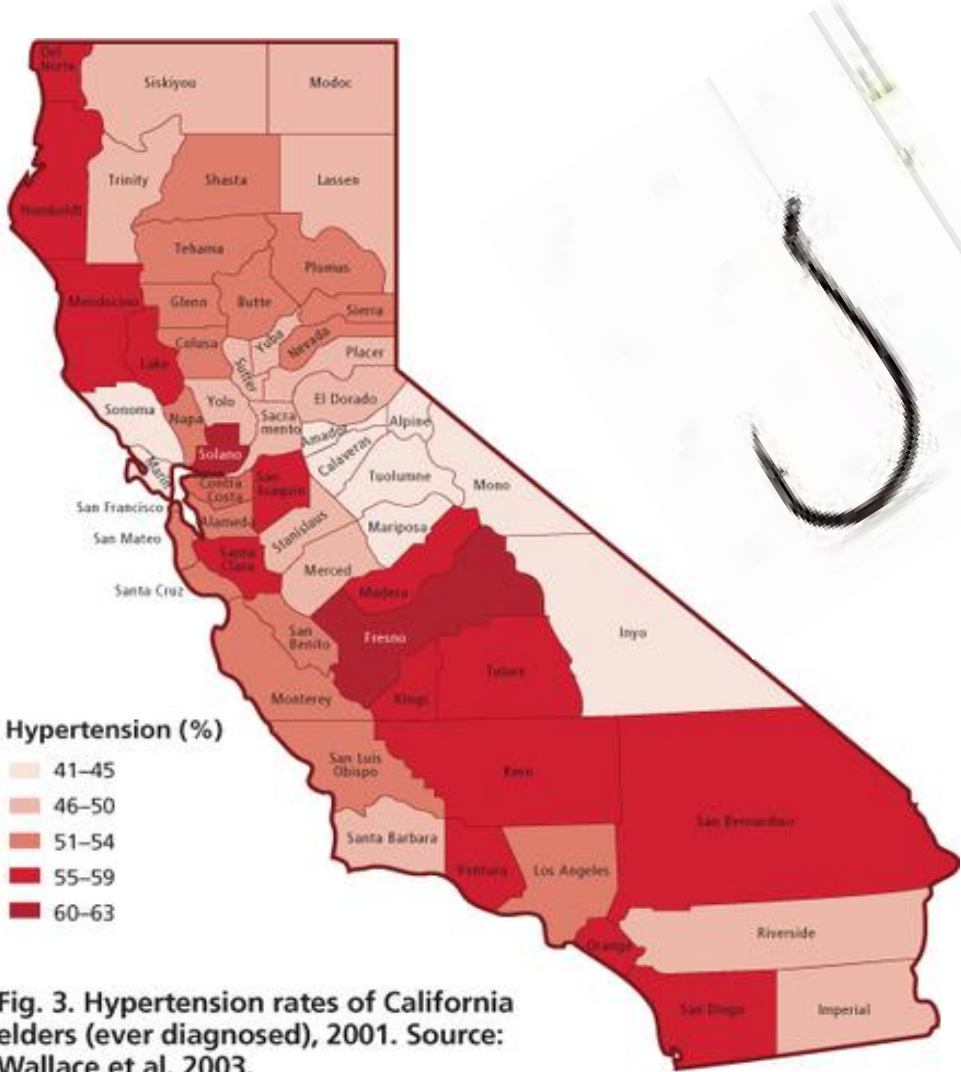
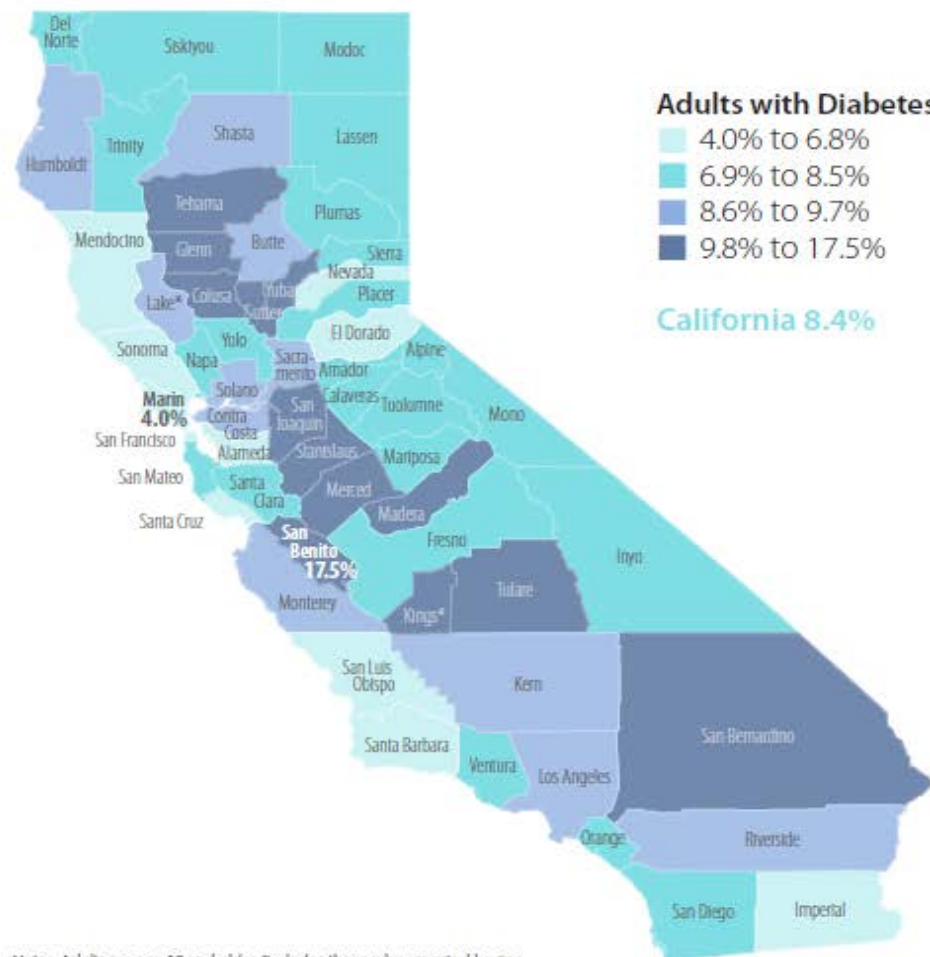


Fig. 3. Hypertension rates of California elders (ever diagnosed), 2001. Source: Wallace et al. 2003.

From the 2015 CHCF Report on Chronic Disease

Diabetes Among Adults, by County California, 2011 to 2012



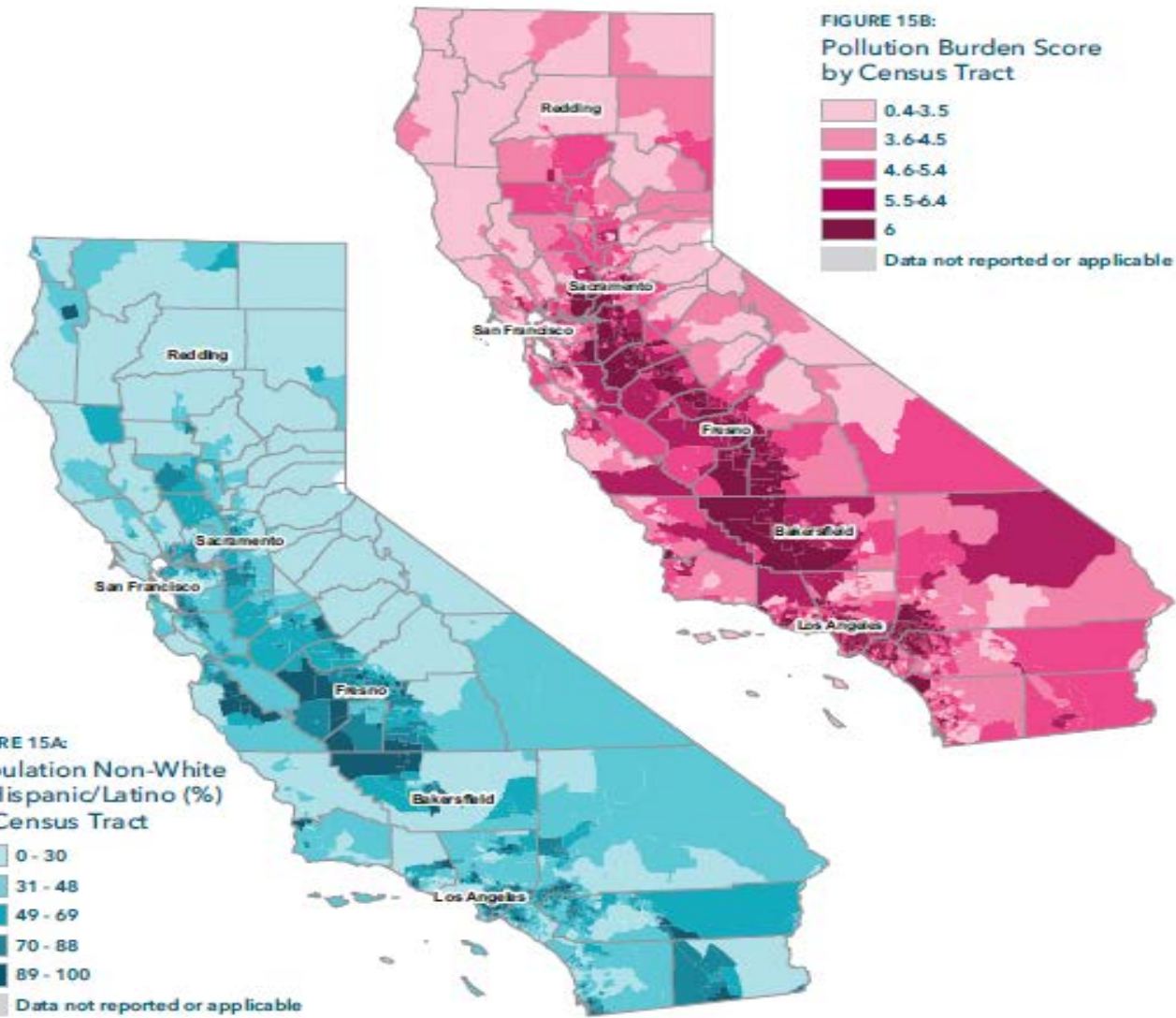
Chronic Conditions for Adults

Diabetes

Statewide, 8% of adult Californians reported being diagnosed with diabetes. The prevalence of diabetes varied widely from county to county; San Benito (18%), Tulare (15%), and Yuba (13%) Counties had the highest prevalence of diabetes. Marin County had the lowest (4%).

Notes: Adults are age 18 and older. Excludes those who reported having borderline diabetes. See Appendix D for detail by county.

LATINO OR NON-WHITE POPULATIONS ARE MORE LIKELY TO LIVE IN AREAS WITH A HIGH BURDEN OF POLLUTION



Source: California Environmental Protection Agency (CalEPA) and the Office of Environmental Health Hazard Assessment (OEHHA), California Communities Environmental Health Screening Tool, Version 2.0 (CalEnviroScreen 2.0), 2014.

1 IN 4 CHILDREN IN CALIFORNIA DOES NOT HAVE ENOUGH FOOD TO EAT

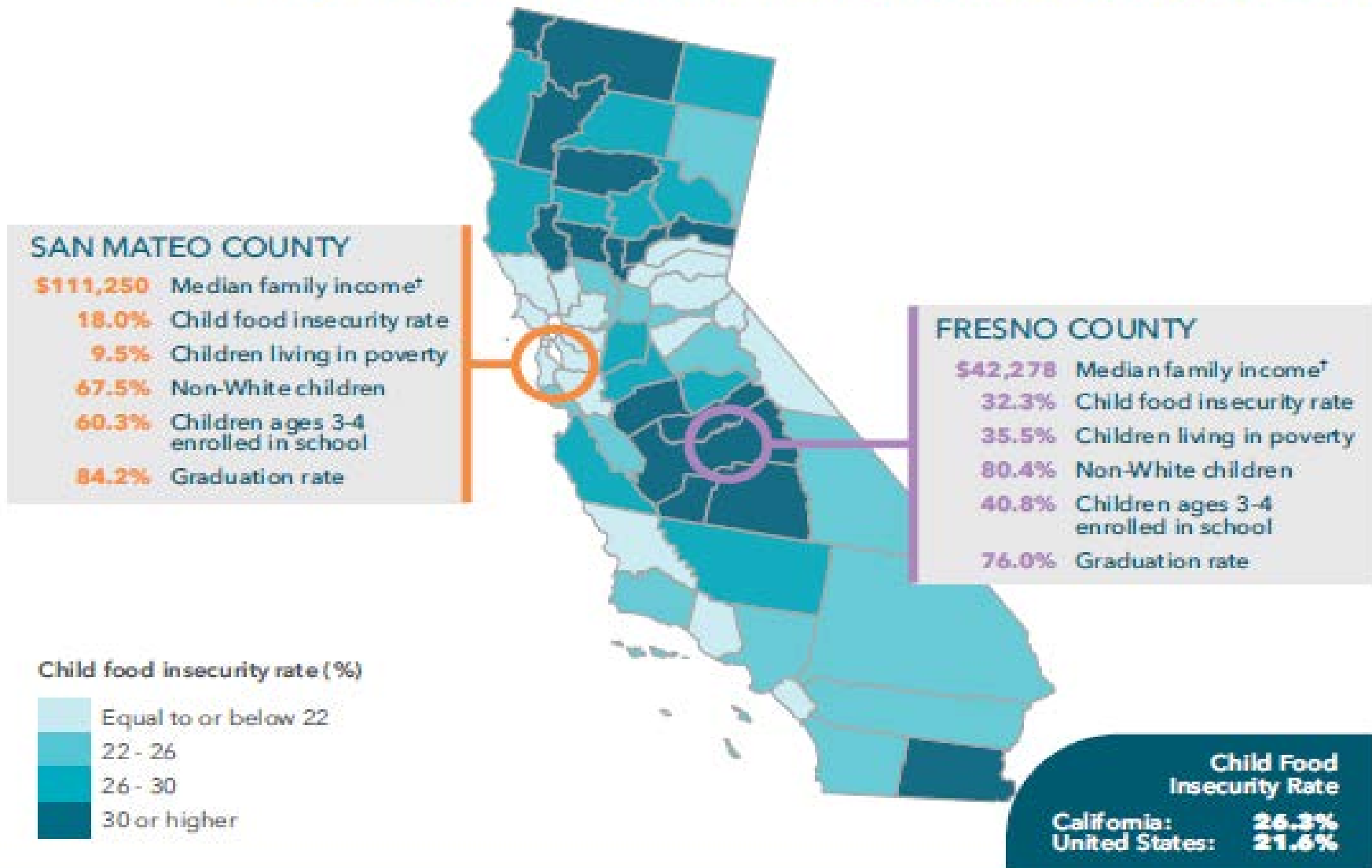
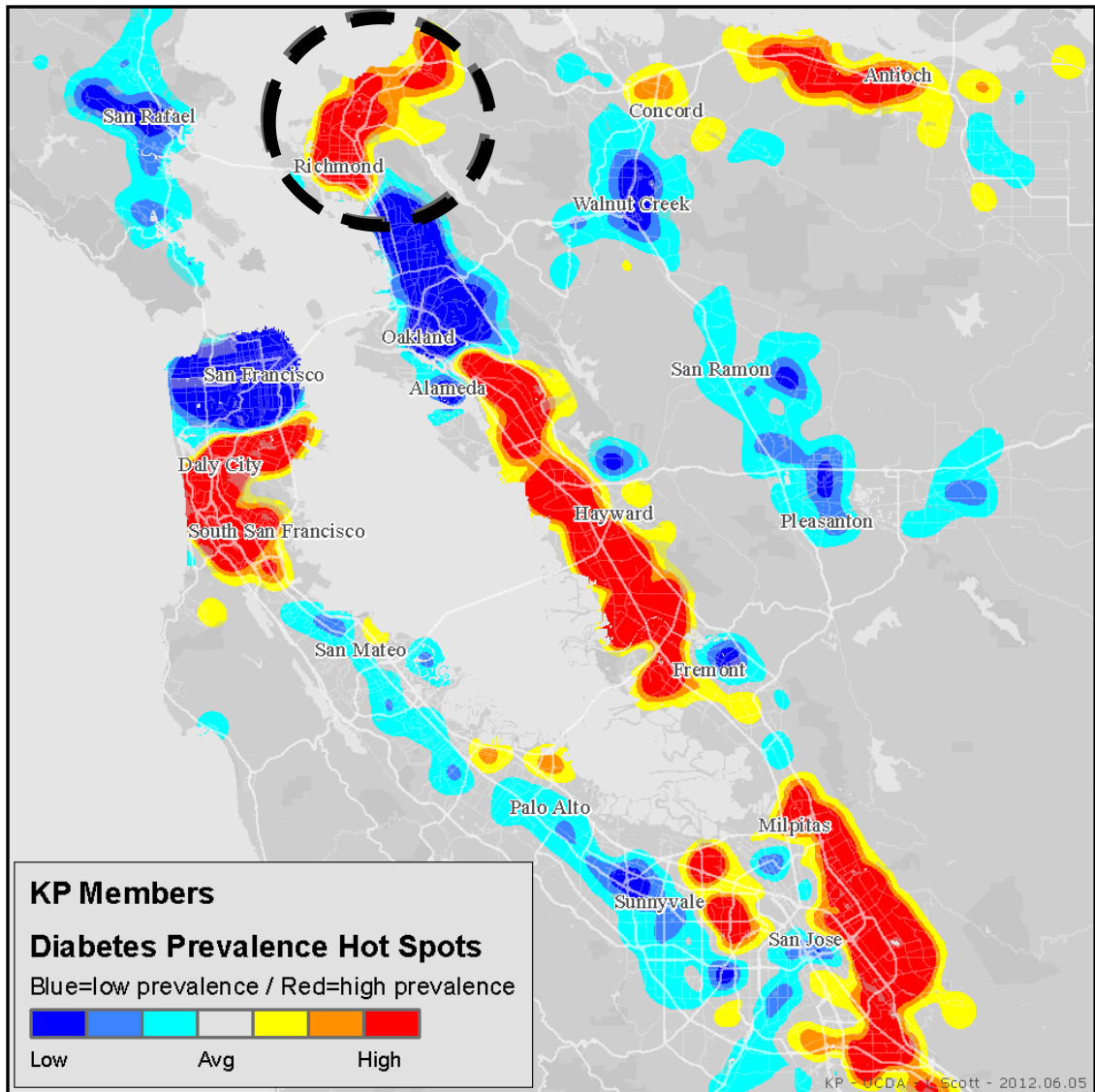


FIGURE 8: Child food insecurity rate: percentage of children under 18 years old who are food insecure, California, 2012.

Sources: Feeding America, *Map the Meal Gap, 2012*; U.S. Census Bureau, *American Community Survey, 3-Year Estimates (2009-2011)* and *5-Year Estimates (2008-2012)*; and California Department of Education, *Graduation Data, 2011-2012*.
†Median family income with own children under 18 years.

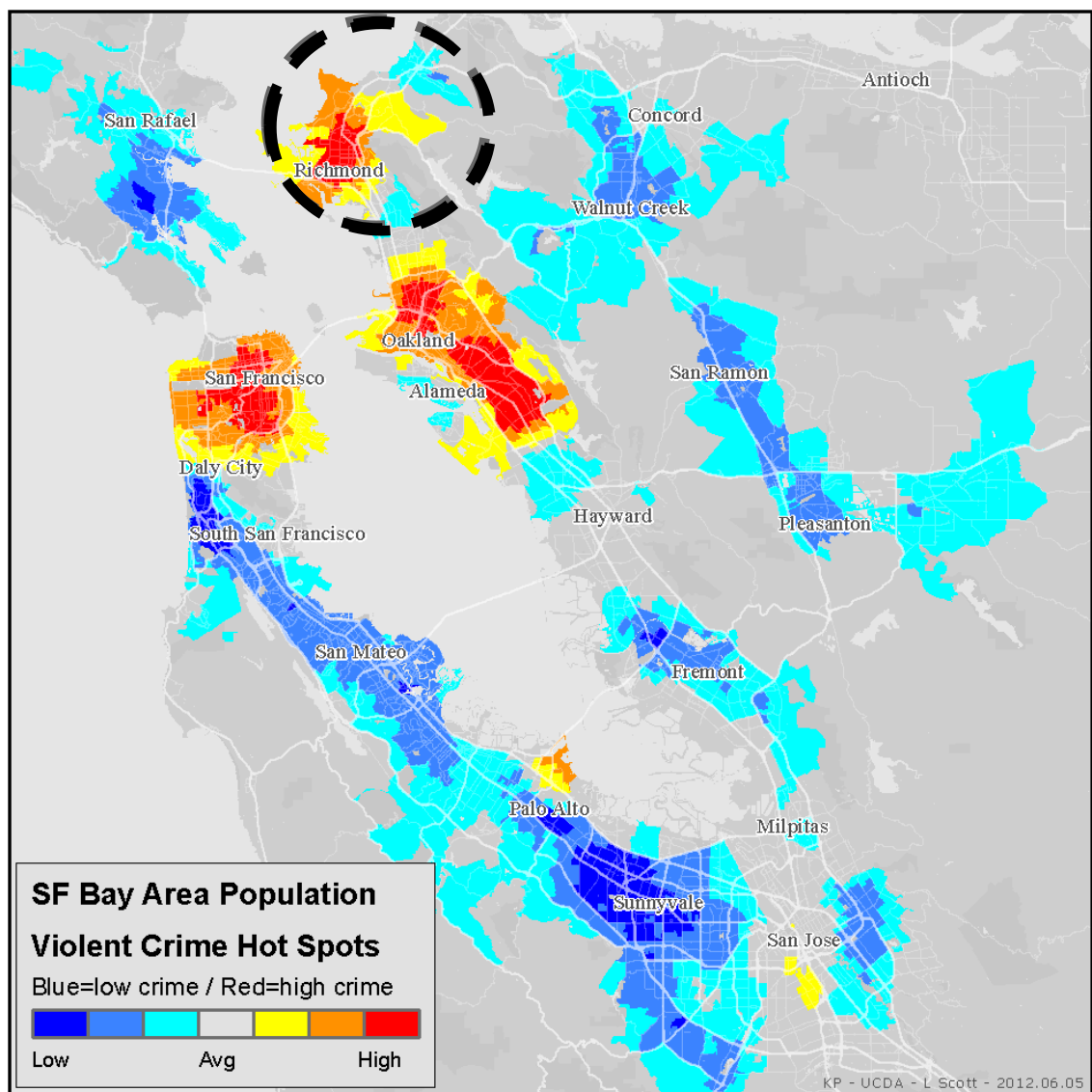
Data for clinical and public health



Richmond Area

- KP members have:
 - Some higher than average asthma prevalence
 - Higher hypertension prevalence
 - Higher obesity prevalence
 - Higher diabetes prevalence

Socio-demographics Matter (Race, Income & Crime)



Richmond Area

- KP members have:
 - Some higher than average asthma prevalence
 - Higher hypertension prevalence
 - Higher obesity prevalence
 - Higher diabetes prevalence
- KP workforce has:
 - Higher obesity prevalence
 - Higher diabetes prevalence
- Population:
 - Is more Black/African American or Hispanic/Latino
 - Deals with higher poverty rates
 - Suffers higher violent crime rates

HOUSEHOLD WEALTH IS UNEVENLY DISTRIBUTED ACROSS RACIAL/ETHNIC GROUPS IN CALIFORNIA

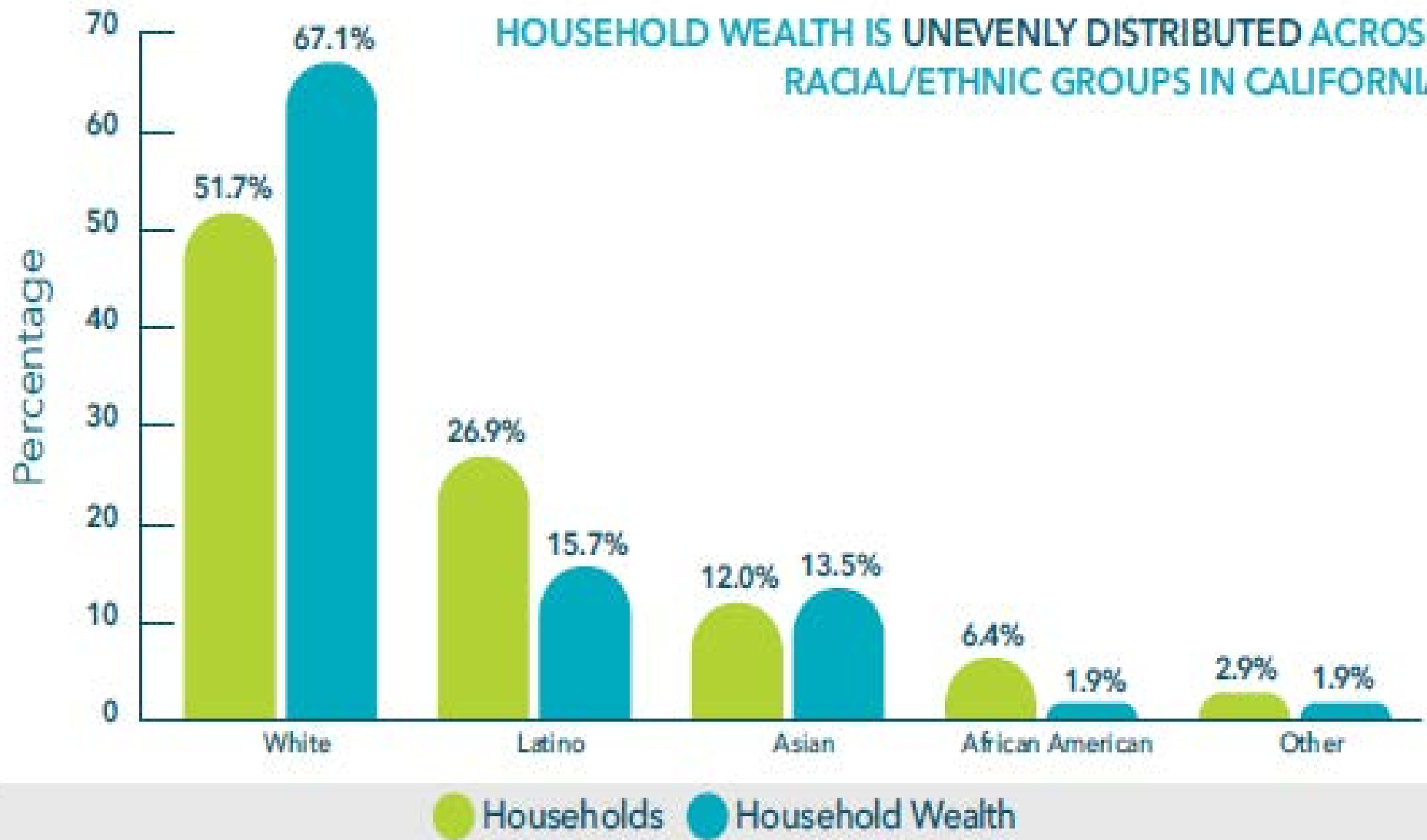


FIGURE 5: Percentage of California's households and household wealth (net worth), by race/ethnicity, California, 2010.

Source: U.S. Census Bureau, Census 2010, Summary File 2; and Survey of Income and Program Participation (Panel 2008, Wave 7).

PHYSICAL ACTIVITY AMONG TEENAGERS IS ASSOCIATED WITH PLACE AND ACCESS TO PARKS

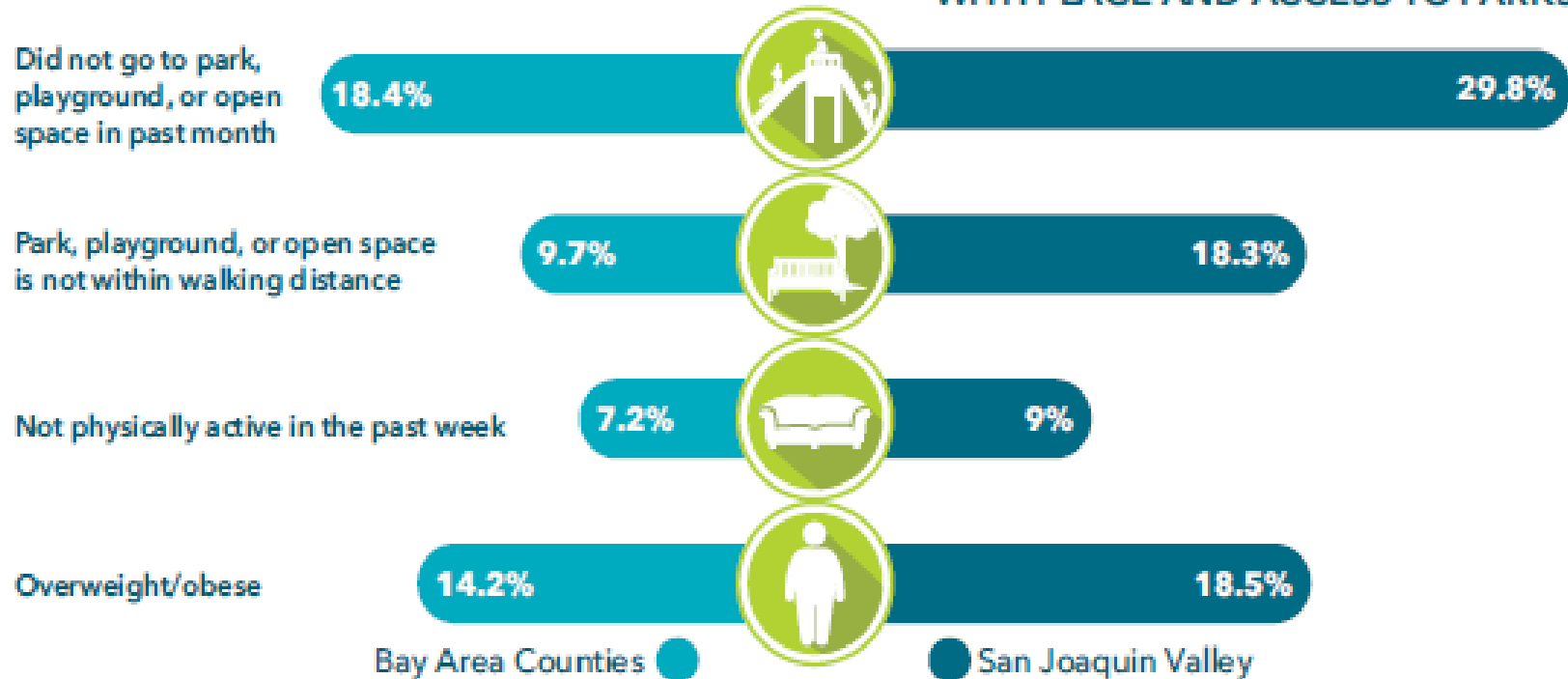


FIGURE 17: Percentage of teenagers from the Bay Area counties and San Joaquin Valley who reported not having access to parks, playgrounds, or open spaces; not being physically active; and being overweight or obese, California, 2011-2012.

Source: University of California Los Angeles, California Health Interview Survey 2011-2012.

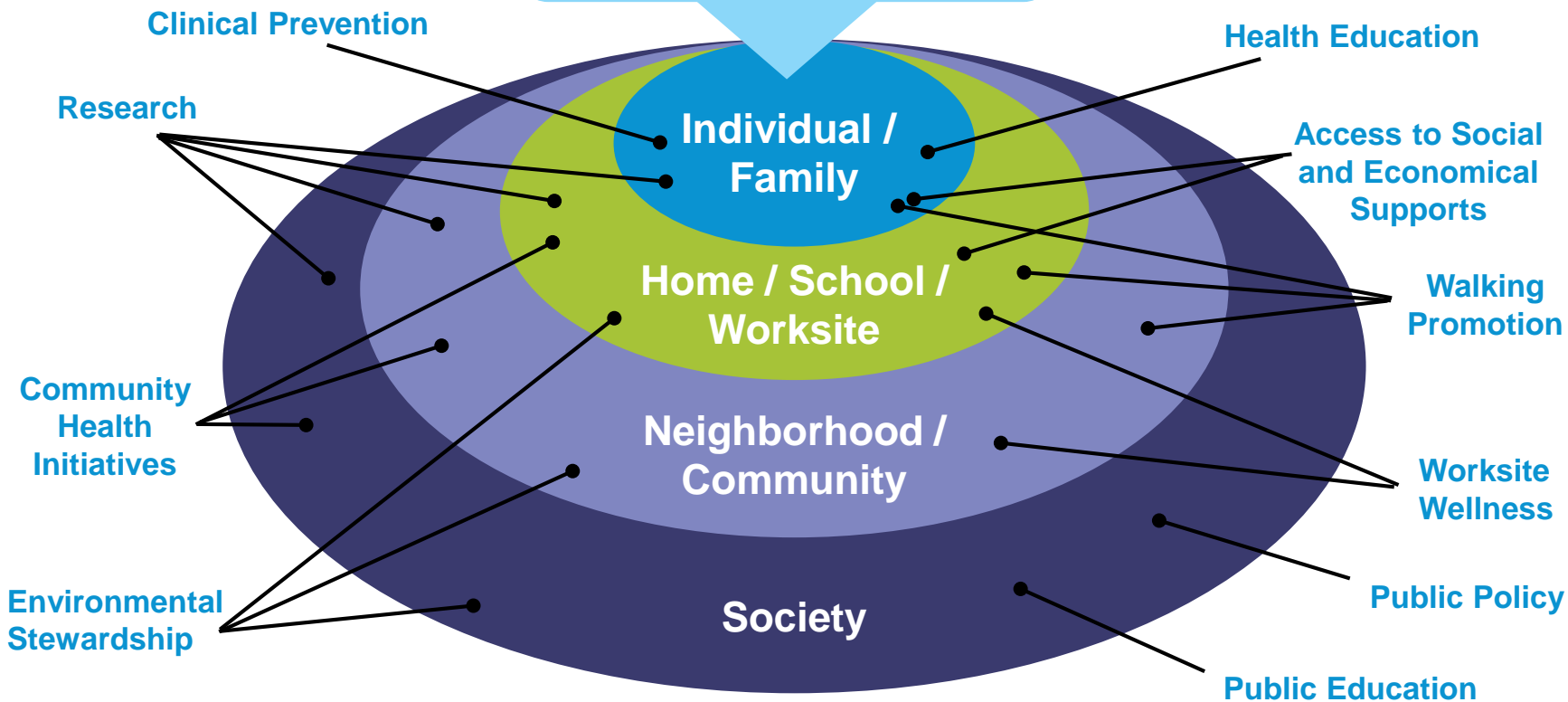
To Sum Up, the keys to California's Public Health Challenges

- Where you live, really
- How much you make
- Race, ethnicity, immigration status and the opportunities those imply

How does public health and PCMH fit in our patient's lives?



Physical and Mental Health Care



The Evolution of the U.S. Healthcare System

**Sick
Care System**

TREAT
Acute Illness



**Coordinated
Health Care System**

MANAGE & IMPROVE
Health and Well-being of
Individuals



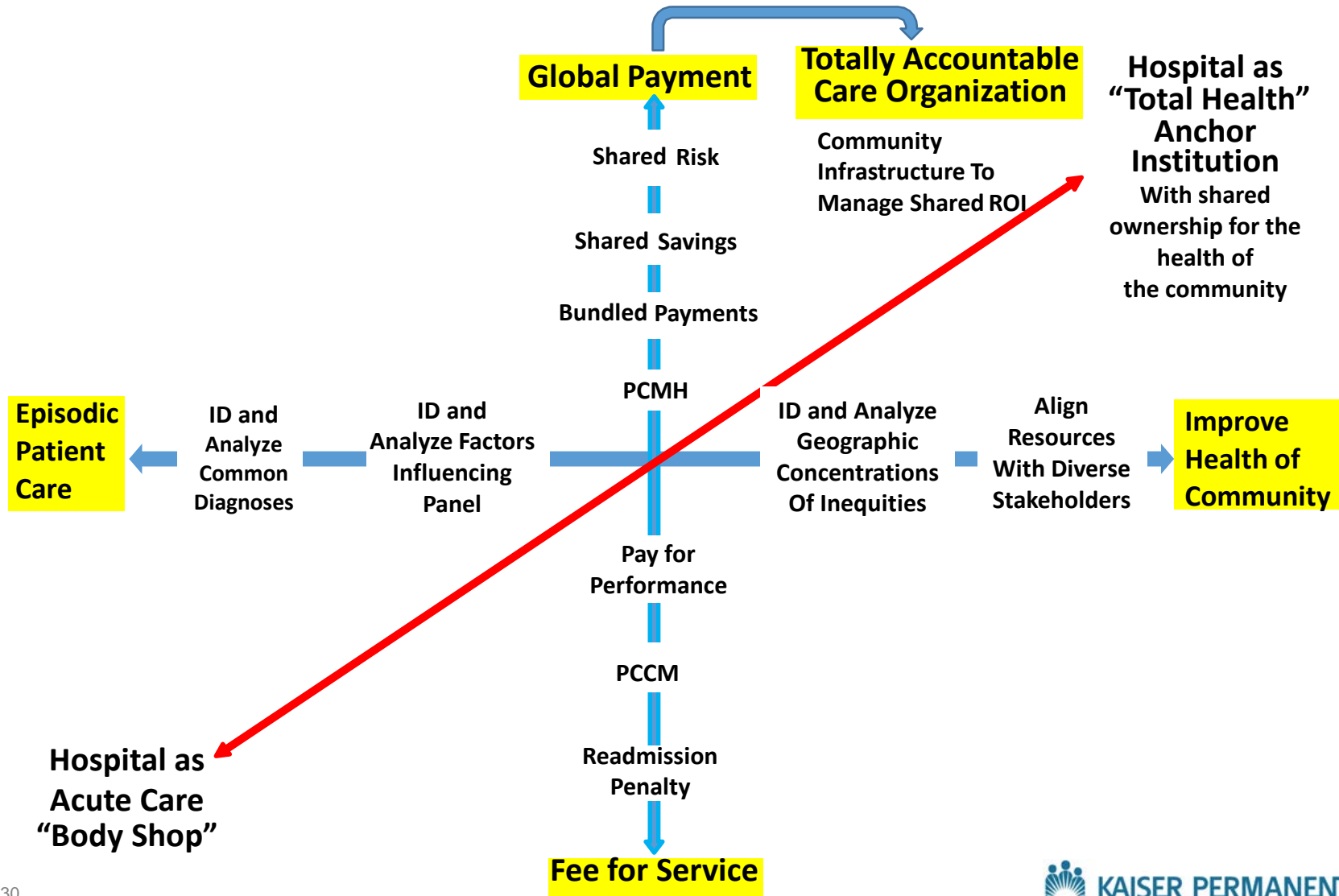
**Community Integrated
Health System**

IMPROVE
Health and
Well Being
of Individuals
and
Communities



U.S. Healthcare System

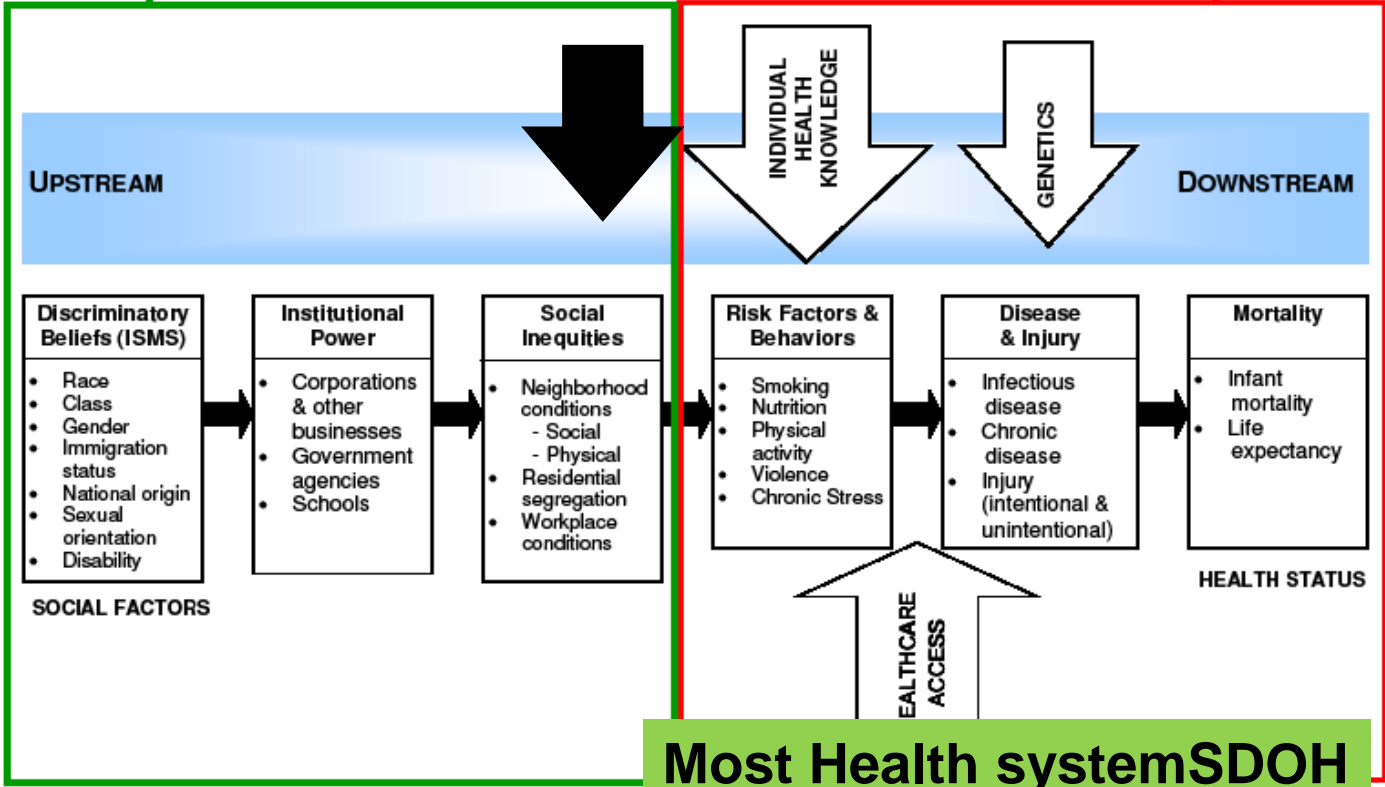
Health Care Transformation Continuum



A Framework for Health Equity

Socio-Ecological

Medical Model



- Adapted by ACPHD from the

Most Health system SDOH Efforts exist in this space

A PUBLIC HEALTH FRAMEWORK FOR REDUCING HEALTH INEQUITIES
 BAY AREA REGIONAL HEALTH INEQUITIES INITIATIVE

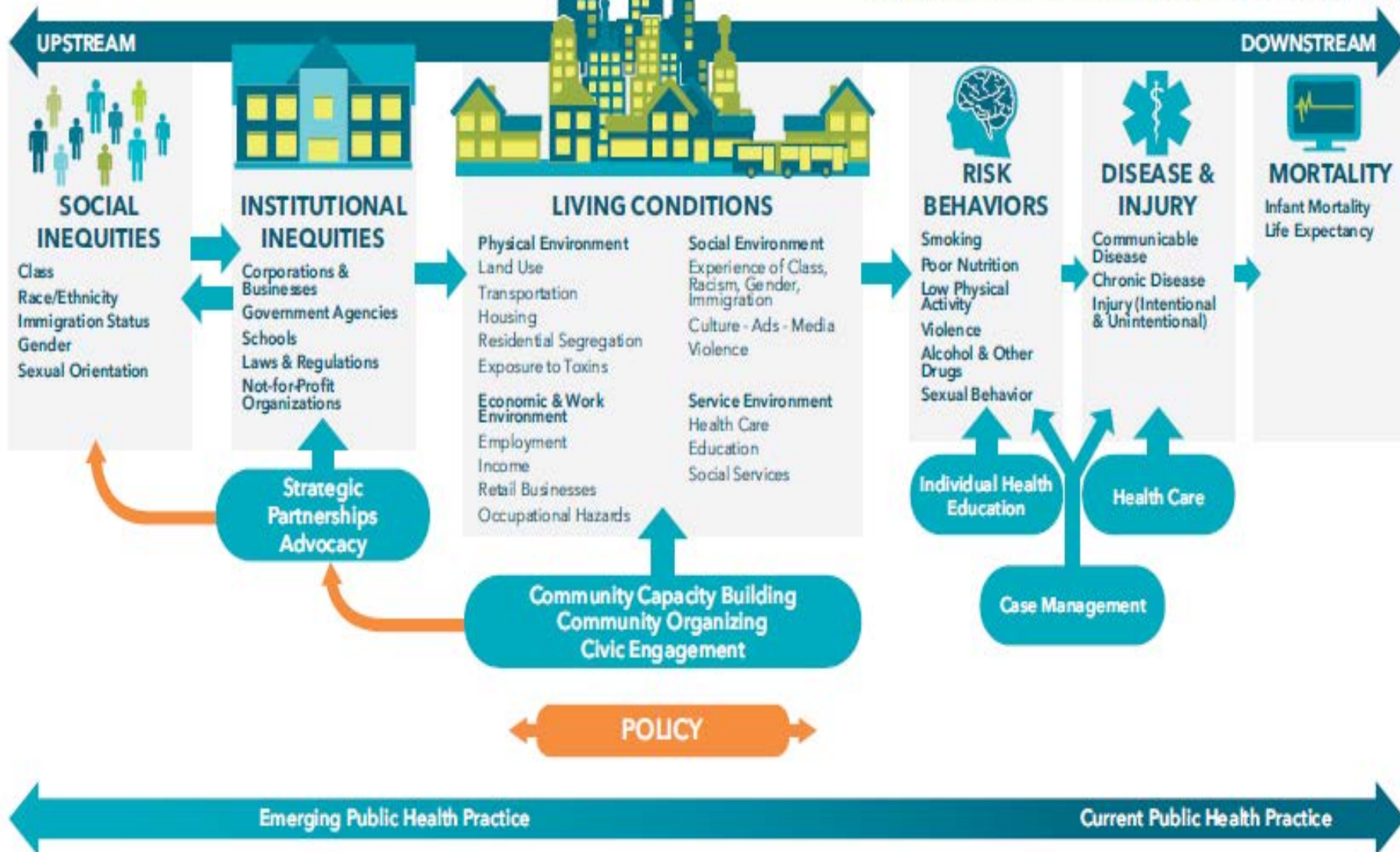
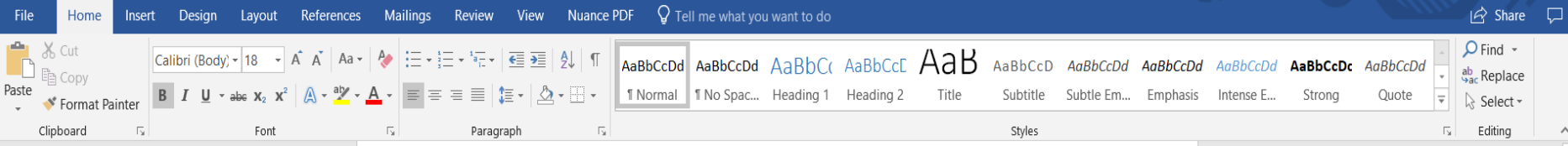


FIGURE 3: Bay Area Regional Health Inequities Initiative (BARHI) Conceptual Framework, 2006.

Will new schema lead to new paradigm?

Value-based purchasing drives move to accountable health

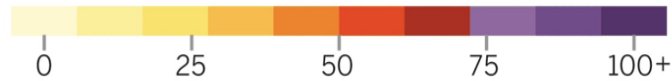
- The health system is moving toward rewarding health outcomes over volume; thus all factors affecting health must be mobilized
- Accountable care = holding providers responsible for *better management of clinical conditions* in a patient population
 - Requires link to community/social needs to prevent readmissions and recurrence
- Accountable health = shared responsibility for the health of a community or patient population *across all sectors*
 - Requires link across all sectors to improve health



More forest fires

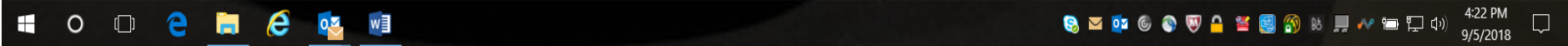
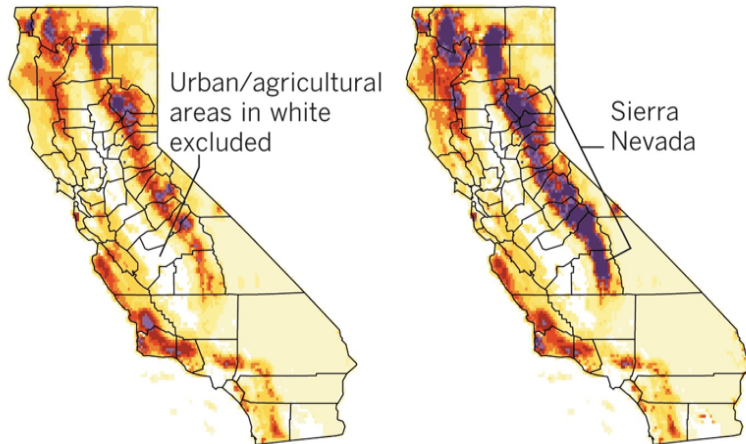
As climate change helps drive more wildfires in California, the greatest increase is expected in the forests of the Sierra Nevada and southern Cascade mountain ranges. In parts of the Sierra, the annual average burn area could more than double, or even quadruple, compared to the period 1961-1990.

2.471 acres or 10,000 square meters



Mean area burned (2070-2099)

Moderate emissions (RCP 4.5) **High emissions (RCP 8.5)**




The California Accountable Communities for Health Initiative



An Accountable Community for Health is:

A structured and enduring platform for bringing together the health care delivery system, public health, social services and community based programs, other related sectors and institutions, and residents in order to collectively improve the health of the community.



The California Accountable Communities for Health Initiative will:

Assess the feasibility, effectiveness, and potential value of a more expansive, connected and prevention-oriented health system

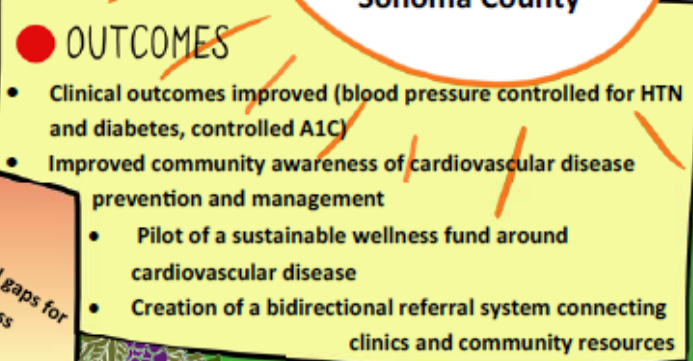


TELLING OUR ACH STORY: Sonoma Health Action ● KEY STRENGTHS AND ASSETS

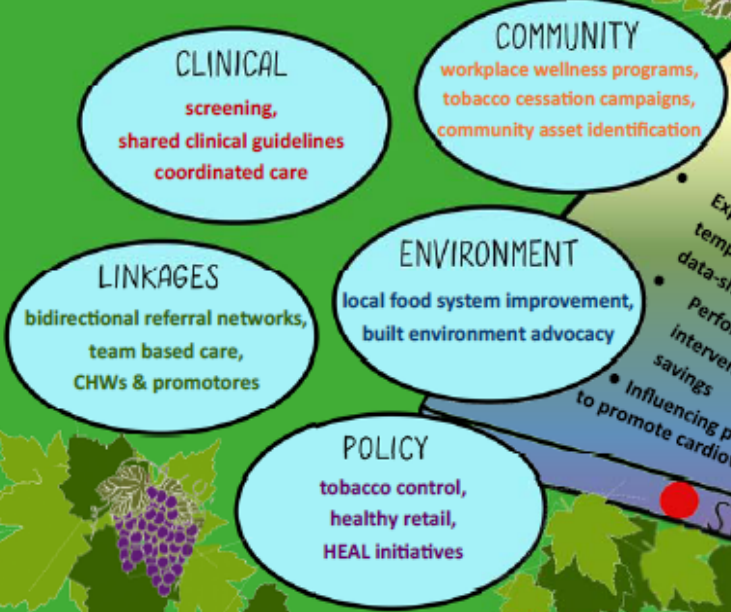
SELECTED HEALTH CONDITION: Cardiovascular Disease



- Established, successful multi-sector collaborative with strong alignment
- Local strategic plans for health improvement
- Commitment to community engagement
- Experience with data sharing and capacity for data analytics



● PORTFOLIO OF INTERVENTIONS



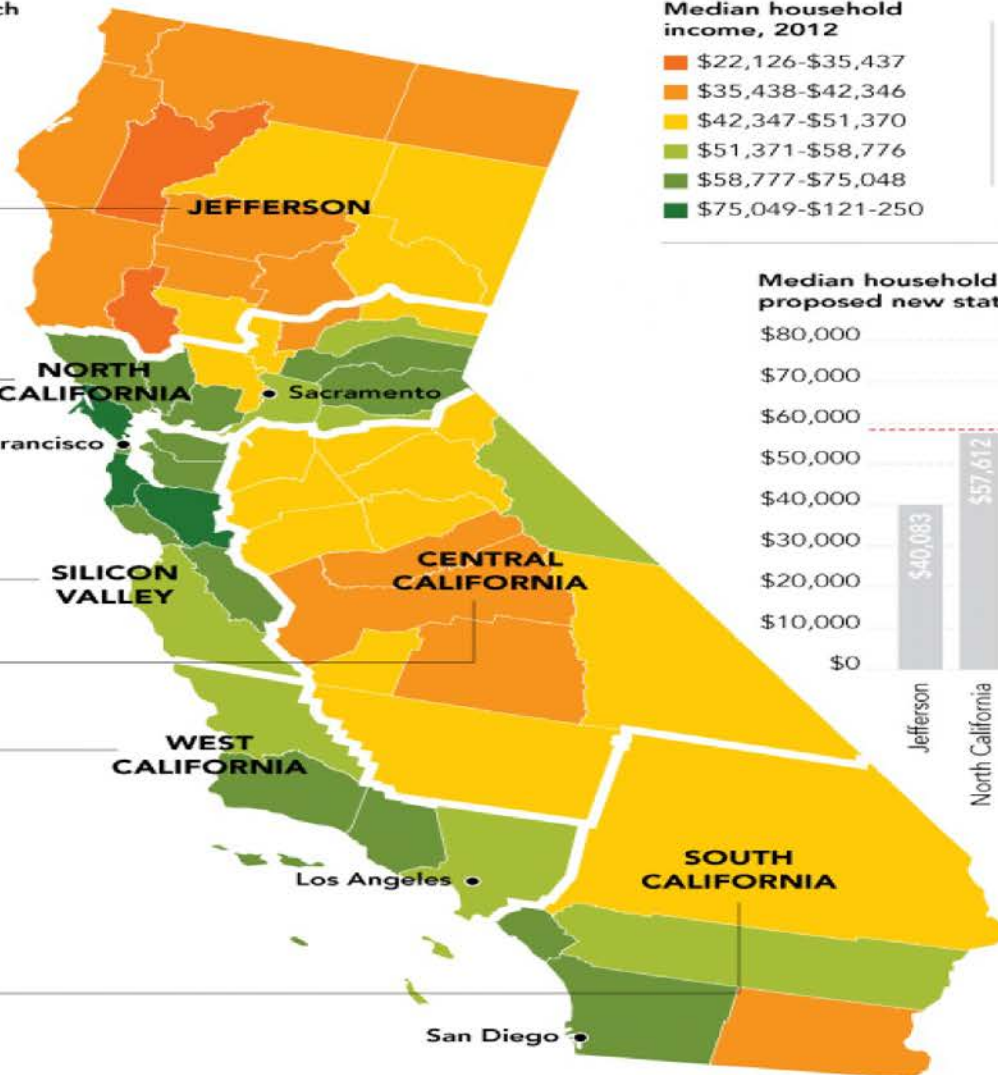
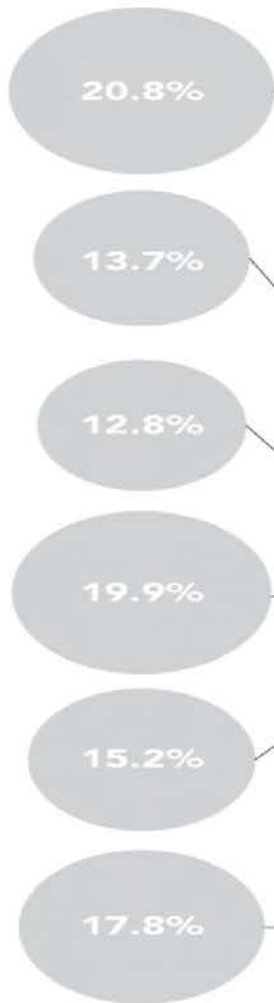
“Transformative Twelve” Policy Domains



The Real Problem With Breaking Up California

A Silicon Valley investor's proposal to divide California into six separate states would create stark divides along lines of poverty and income.

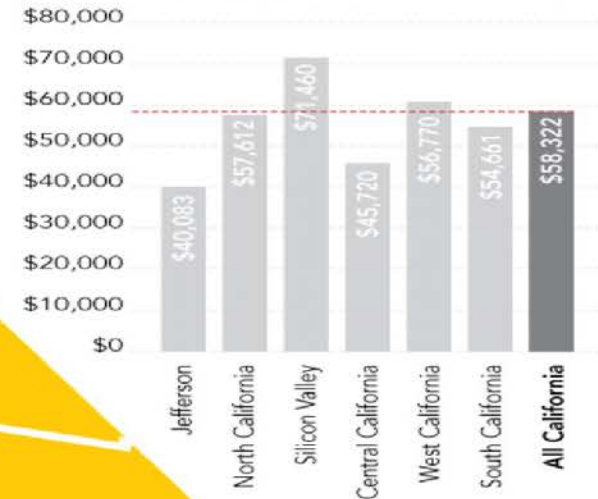
Percent living in poverty in each proposed new state, 2012



Percent living in poverty in all of California, 2012



Median household income of each proposed new state, 2012



Fundamental Issues in California's Public Health

- **Glaring disparities in geography in the 3rd largest state in the union; accordingly: access disparities**
- **State with the single largest group of people below the poverty line (8 million) and varying distribution across the counties**
- **County-centric public health approaches**
- **Racial, ethnic, citizenship status disparities**
- **Uneven sector growth; e.g. housing and tech industry**