Reimagining Community Based Prevention: *Place Matters*

Assembly Health Committee  
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Senior Vice President  
The California Endowment
Health ≠ Health care

Where You Live Matters

It Matters A LOT!
Does Your *Zip Code* Matter More Than Your *Genetic Code*?
There are no silver bullets!
Life expectancy...

... is the average lifespan a newborn can expect

Gapminder.org
EARNED IN V.S. ARMED FORCES: X
NATIONALITY: CAUCASIAN
14. YEARS IN OCCUPATION: 4

AGE: 69
SEX: M
MARITAL STATUS: NEVER MARRIED
DATE OF DEATH: 01/16/2007
MANNER OF DEATH: NATURAL
CAUSE OF DEATH: PNEUMONIA
IMMEDIATE CAUSE: PNEUMONIA
SECONDARY CAUSE: BRONCHITIS

PLACE OF DEATH: EDEN MEDICAL CENTER
ALAMEDA

CAUSE OF DEATH:
107. PRIMARY CAUSE OF DEATH: PNEUMONIA
108. IMMEDIATE CAUSE OF DEATH: PNEUMONIA
109. SECONDARY CAUSE OF DEATH: BRONCHITIS
110. ADDITIONAL CAUSE OF DEATH:
111. OTHER SIGNIFICANT CONDITIONS CONTRIBUTING TO DEATH BUT NOT PREVIOUSLY LISTED:
112. DEMENTIA
113. DEATH CERTIFICATION:
114. DATE OF CERTIFICATION: 01/16/2007
115. SIGNATURE AND TITLE OF CERTIFIER:
GARY WINSETT BROWN M.D.
A38865
116. Licensure Number:
117. Date of Birth:
02/03/1966
01/10/2007
118. Wrongful Death:
02935 STOCKTON BLVD, SACRAMENTO, CA 95817
119. Type of Injury:
120. Location of Injury:
121. Date of Injury:
122. Date of Death:
123. Place of Death:
ALAMEDA
124. Manner of Death:
NATURAL
125. Placed in Urn:
126. Description of Burial Occurrence:
127. Description of Burial:
128. Date of Burial:
129. Date of Interment:
130. Type, Title, and Signature of Person or Party:

STATE REGISTRAR:
A B C D E
72007010000029
FAK AUTH #
CENSUS TRACT:
0120070000073150
Race and Racism Matters: Health Inequities by Race/Ethnicity

Figure 5: Historical Life Expectancy at Birth, Alameda County

- White
- African American

Note: White and African American defined regardless of Latino origin.
Race and Racism Matters: Health Inequities by Race/Ethnicity

[Graph showing trends over years for different health metrics by race and ethnicity, including Overall White, Overall Black, without Homicides White, without Homicides Black, without AIDS White, without AIDS Black, without Both White, and without Both Black.]
Life Expectancy by Poverty Group 2000-2003

Alameda County

Poverty Rate

Life Expectancy (Years)
Tract Poverty vs. Life Expectancy

Alameda County

San Francisco County

Contra Costa County
Bay Area Poverty vs. Life Expectancy

BARHII Life Expectancy and Poverty by Tract

Poverty Rate vs. Life Expectancy (Years)
California Poverty vs. Life Expectancy

Life Expectancy v. Percentage Poverty

\[ y = -13.539x + 81.084 \]

\[ R^2 = 0.1183 \]
Cost of Poverty in San Francisco Bay Area

- Every additional $12,500 in household income buys one year of life expectancy

- (Benefit appears to plateau at household incomes above $150,000)

- Similar gradients in Baltimore, NYC, Philadelphia, Hennepin County (Minneapolis-St. Paul), Colorado, California, AND Cuyahoga County ($6304/year of life)
A 30 year longitudinal study of nearly 7000 Alameda County residents from 1965 forward. Those residents with household income 1 SD above mean were 25% less likely to die prematurely, 1 SD below mean were 35% more likely to die early.
A Potential Decline in Life Expectancy in the United States in the 21st Century

S. Jay Olshansky, Ph.D., Douglas J. Passaro, M.D., Ronald C. Hershow, M.D., Jennifer Layden, M.P.H., Bruce A. Carnes, Ph.D., Jacob Brody, M.D., Leonard Hayflick, Ph.D., Robert N. Butler, M.D., David B. Allison, Ph.D., and David S. Ludwig, M.D., Ph.D.

ABSTRACT

Forecasts of life expectancy are an important component of public policy that influence age-based entitlement programs such as Social Security and Medicare. Although the Social Security Administration recently raised its estimates of how long Americans are going to live in the 21st century, current trends in obesity in the United States suggest that these estimates may not be accurate. From our analysis of the effect of obesity on longevity, we conclude that the steady rise in life expectancy during the past two centuries may soon come to an end.
Between 2000 and 2007, more than 80% of US counties fell in standing against the average of the 10 nations with the best life expectancies in the world, known as the international frontier.-IHME
“Geographic and racial disparities,” said first author Mark Cullen, MD, “are best understood as related to disparities in education, occupations and the like, which are strongly associated with outcomes in every county we studied, whether it was large, small, urban, rural, Southern or not.”
Social Gradients Various Jurisdictions

The chart illustrates the age-adjusted mortality rate across different poverty groups in various jurisdictions. Each line represents a different location:
- Philadelphia
- Cuyahoga County
- Hennepin County
- Bay Area
- Alameda County
- Colorado
- California
- Los Angeles County

The x-axis represents the neighborhood poverty group, ranging from <10% to 30+%. The y-axis shows the age-adjusted mortality rate, ranging from 500 to 1,400.
California Social Gradient

Graph showing the relationship between neighborhood poverty group and adjusted mortality rate. The x-axis represents the neighborhood poverty group (less than 10%, 10%-19.9%, 20%-29.9%, 30%+). The y-axis represents the adjusted mortality rate, ranging from 0 to 1,400.

The graph indicates a positive correlation, with mortality rates increasing as the poverty group percentage increases.
**Insured vs. Whole Population**

![Graph showing the comparison between Alameda County - Whole Population and Kaiser Permanente Enrollees in Alameda County across different neighborhood poverty groups.](image)

**Age-Adjusted Mortality Rate**

- **Alameda County - Whole Population**
- **Kaiser Permanente Enrollees in Alameda County**

**Neighborhood Poverty Group**

- **<10%**
- **10-19.9%**
- **20-29.9%**
- **30+%**

**% of AC pop’n**

- 32.3%
- 29.9%
- 26.0%
- 22.0%
The Lifelong Effects of Early Childhood Adversity and Toxic Stress

Advances in fields of inquiry as diverse as neuroscience, molecular biology, genomics, developmental psychology, epidemiology, sociology, and economics are catalyzing an important paradigm shift in our understanding of health and disease across the lifespan. This converging, multidisciplinary science of human development has profound implications for our ability to enhance the life prospects of children and to strengthen the social and economic fabric of society.
When the external becomes internal: How we internalize our environment

Allostatic Load

- Inadequate Transportation
- Long Commutes
- Housing
- Lack of social capital

Stress

- High Demand-Low Control Jobs
- Lack of access to stores, jobs, services
- Crime
Stress pathway from brain to body

- **STRESSOR**
- Hypothalamus
- CRH
- Pituitary Gland
- ACTH
- Adrenal Glands
- CORTISOL

Affects multiple organs & systems

Center on Social Disparities in Health, University of CA, San Francisco
Disparities are the tip of the iceberg...

- Policy
- Hopelessness
- Social Support
- Unemployment
- Racism
- Tobacco Use
- Access to Nutritious Food
- Neighborhood Quality
- Stress
- Poverty
- Poor Housing
- Low Educational Attainment
- Access to Health Care
The Health of White Americans
<table>
<thead>
<tr>
<th>Country</th>
<th>Life Expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>US White</td>
<td>78 years</td>
</tr>
<tr>
<td>Chile</td>
<td>78 years</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>78 years</td>
</tr>
<tr>
<td>Cuba</td>
<td>78 years</td>
</tr>
<tr>
<td>Slovenia</td>
<td>78 years</td>
</tr>
<tr>
<td>Kuwait</td>
<td>78 years</td>
</tr>
</tbody>
</table>

WHO Statistical Information System
US Whites Living Shorter Lives Than:

- 79 years: Belgium, Denmark, Finland, Malta, Portugal, Spain, Sweden, U.K., Korea
- 80 years: Austria, Cyprus, Germany, Greece, Ireland, Netherlands, Norway, New Zealand, Singapore
- 81 years: Canada, France, Iceland, Israel, Italy
- 82 years: Switzerland, Australia
- 83 years: Japan

26 countries
Understanding Health at the Macro Level

- Despite our wealth, the U.S. is unhealthier across the board than our peers.
- There is evidence that flattening the social gradient improves the health of all. (Not a zero sum proposition).
- Focused upstream interventions (policy and place) may offer promise.
A Framework for Health Equity

Medical Model

INDIVIDUAL HEALTH KNOWLEDGE

GENETICS

DOWNSTREAM

Risk Factors & Behaviors
- Smoking
- Nutrition
- Physical activity
- Violence
- Chronic Stress

Disease & Injury
- Infectious disease
- Chronic disease
- Injury (intentional & unintentional)

Mortality
- Infant mortality
- Life expectancy

HEALTH STATUS

Adapted by ACPHD from the Bay Area Regional Health Inequities Initiative, Summer 2008
A Framework for Health Equity

Socio-Ecological

Medical Model

UPSTREAM

DOWNSTREAM

Health Inequities

Health Disparities

- Adapted by ACPHD from the Bay Area Regional Health Inequities Initiative, Summer 2008
A Framework for Health Equity

Socio-Ecological

Medical Model

UPSTREAM

Discriminatory Beliefs (ISMS)
- Race
- Class
- Gender
- Immigration status
- National origin
- Sexual orientation
- Disability

Institutional Power
- Corporations
- Government
- Schools

Social Inequities
- Neighborhood conditions
- Social supports
- Racial segregation
- Workplace conditions

DOWNSTREAM

INDIVIDUAL HEALTH KNOWLEDGE

GENETICS

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- Smoking
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Disease & Injury
- Infectious disease
- Chronic disease
- Injury (intentional & unintentional)

Mortality
- Infant mortality
- Life expectancy

HEALTH STATUS

HEALTHCARE ACCESS

Inequities

Disparities

- Adapted by ACPHD from the Bay Area Regional Health Inequities Initiative, Summer 2008
A Framework for Health Equity

**Socio-Ecological**
- Discriminatory Beliefs (ISMS)
  - Race
  - Class
  - Gender
  - Immigration Status
  - National origin
  - Sexual orientation
  - Disability
- Institutional Power
  - Corporations & other businesses
  - Government agencies
  - Schools
- Social Inequities
  - Neighborhood conditions
  - Poverty
  - Residential segregation
  - Workplace conditions

**Upstream**
- Family & Culture

**Medical Model**
- Individual Health Knowledge
- Genetics

**Downstream**
- Risk Factors & Behaviors
  - Smoking
  - Nutrition
  - Physical Activity
  - Violence
  - Chronic Stress
- Disease & Injury
  - Infectious disease
  - Chronic disease
  - Injury (intentional & unintentional)

**Consequences**
- Mortality
  - Infant mortality
  - Life expectancy

**Health Status**
- Adapted by ACPHD from the Bay Area Regional Health Inequities Initiative, Summer 2008
A Framework for Health Equity

Socio-Ecological

Medical Model

UPSTREAM

Discriminatory Beliefs (ISMS)
- Race
- Class
- Gender
- Immigration status
- National origin
- Sexual orientation
- Disability

Institutional Power
- Corporations & other businesses
- Government agencies
- Schools

Social Inequities
- Neighborhood conditions
  - Social
  - Physical
- Residential segregation
- Workplace conditions

DOWNSTREAM

School Absence/Truancy

Grade Failure

Drop-Out

- Adapted by ACPHD from the Bay Area Regional Health Inequities Initiative, Summer 2008
A Framework for Health Equity

Socio-Ecological

UPSTREAM

Narrative → Policy → Place

Risk Factors & Behaviors
- Smoking
- Nutrition
- Physical activity
- Violence
- Chronic Stress

Disease & Injury
- Infectious disease
- Chronic disease
- Injury (intentional & unintentional)

HEALTH STATUS
- Infant mortality
- Life expectancy

Medical Model

INDIVIDUAL HEALTH KNOWLEDGE

GENETICS

DOWNSTREAM

Mortality

- Adapted by ACPHD from the Bay Area Regional Health Inequities Initiative, Summer 2008
A Framework for Health Equity

- Adapted by ACPHD from the Bay Area Regional Health Inequities Initiative, Summer 2008
The Interface Between The Clinic & The Community

- Health homes
- Promotoras
- In home interventions (asthma, nurse home visitation)
- Telehealth
- Cooking, shopping and gardening programs
- SBHCs
health happens here
Contact Information

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The California FreshWorks Fund is a public-private partnership loan fund intended to finance grocery stores and other forms of fresh food retail and distribution in underserved communities throughout CA. It is modeled after the PA Fresh Food Financing Initiative and it has been developed to align with the National Healthy Food Financing Initiative.

**Fund Size:** $264 million

**Uses of Capital:** Loans & Grants to Grocery Stores & Other Fresh Food Retailers & Distributors

**Capitalization:** Debt & Grants

**Program Eligibility:** Program Guidelines to be released shortly

**Launch:** July 2011