A Proposed Framework

The Context of Health:
What Are We Really Doing To Change It?

Iton, Witt, Siegel & Raya 5-07
Goal 1: Increase Quality and Years of Healthy Life

- The first goal of Healthy People 2010 is to help individuals of all ages increase life expectancy and improve their quality of life.

Goal 2: Eliminate Health Disparities

- The second goal of Healthy People 2010 is to eliminate health disparities among segments of the population, including differences that occur by gender, race or ethnicity, education or income, disability, geographic location, or sexual orientation.
BARHII Framework
Figure 18: Life Expectancy at Birth, Alameda County, 1960-2003
Life Expectancy at Birth

- Overall White
- Overall Black
- without Homicides White
- without Homicides Black
- without AIDS White
- without AIDS Black
- without Both White
- without Both Black

Graph showing the life expectancy at birth for various categories from 1960 to 2001.
Leading Causes of Death, Alameda County, 2001-2003 (N=28,790)

- Heart Disease: 26.9%
- Cancer: 23.7%
- Stroke: 8.3%
- Chronic Lower Resp Dis: 4.5%
- Unintentional Injuries: 3.6%
- Influenza & Pneumonia: 3.2%
- Diabetes Mellitus: 3.0%
- Alzheimer's Disease: 2.1%
- Chronic Liver Dis/Cirrhosis: 1.4%
- Homicide: 1.3%

Total Deaths: 67%
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Trend Overall</th>
<th>Health Inequity¹</th>
<th>African American</th>
<th>Asian/API</th>
<th>Latino</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>All-cause Mortality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coronary Heart Disease</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitalization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stroke</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitalization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortality²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitalization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Cancer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incidence³</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lung Cancer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colorectal Cancer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incidence³</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female Breast Cancer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incidence³</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prostate Cancer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asthma Hospitalization (All Ages)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asthma Hospitalization (&lt;5 years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What Do We Know?

- Big Gap in Life Expectancy
- Driven by Chronic Diseases
Mortality

Infant mortality

Life expectancy
Mortality

Access to health care

10-15%

Chronic disease

Infectious disease

Injury (intentional and unintentional)

Disease and Injury

Mortality

Genetics 10-15%

Access to health care 10-15%
Causes of Differences in Health Outcomes By Race

- Genetics* 10-15%
- Access to health care 10-15%

15% + 15% = only 30%

What causes the other 70%???

*genes ≠ race
Individual health knowledge

70% ??

Medical Model

Smoking

Nutrition

Physical activity

Risk Behaviors

Disease and Injury

Mortality

Violence
Is This All About Personal Responsibility???

The Medical Model Assumes that “Risk Behaviors” are the Missing 70%
Medical Model Interventions

“SERVICES”

- Tend to focus is on individuals
- Tend to be remedial in nature
- Do not address underlying conditions
- Expensive and difficult to sustain
- No sustained impact on health disparities
- Majority of Health, Social Services & Criminal Justice budget spent on these kind of interventions
Annual Medical Expense by Age and Gender

Kaiser Permanente's Center for Health Research-Mark C. Hornbrook, PhD
Visits to physician offices and hospital OPDs

10% of people account for 70% of health care outlays
“Services Overkill?”

How Government Human Service Agencies Behave
“Services Overkill?”

How Government Human Service Agencies Behave
Service Intensity FY05-06
Alameda County Public Health Department

Includes MCAH, Nursing, Cmty Probation, PM160, PM357

Source: CAPE.
Service Intensity FY05-06
Alameda County Public Health Department

Includes CCS, Asthma, Diabetes

Source: CAPE.
Service Intensity FY05-06
Alameda County Public Health Department

Includes IPOP, ECC, Special Start, SIDS

Source: CAPE.
Social Services

Source: CAPE, with data from SSA.

Recipients as of Oct 2006.
Social Services

Source: CAPE, with data from SSA.
Recipients as of Oct 2006.
Social Services

Source: CAPE, with data from SSA.

Recipients as of Oct 2006.
Recipients as of Oct 2006.
Alameda County Parolees, May 2005

Source: CAPE, with data from California Department of Corrections.
Alameda County Probationers FY05-06

Source: CAFE, with data from Probation Department.
Alameda County Probationers FY05-06

Probationers/1000 Population
- 22.7 - 48.0
- 12.0 - 22.6
- 5.1 - 11.9
- 0.2 - 5.0

Source: CAFE, with data from Probation Department.
Top 30 Tracts Receiving Services - PHD

Source: CAPE, with data from Public Health Department.
Top 30 Tracts Receiving Services - SSA

Source: CAPE, with data from Social Services Agency.
Top 30 Tracts Receiving Services - Parole

Source: CAPE, with data from California Department of Corrections.
Community Trajectories

How Much Does *Place* Matter?
Alameda County

Life Expectancy (Years) vs. Poverty Rate

- Linear trend showing a negative correlation between poverty rate and life expectancy.
- Points indicating lower life expectancy at higher poverty rates.
Tract Poverty vs. Life Expectancy

Alameda County

Contra Costa County
Life Expectancy by Tract

High school grads: 81%
Unemployment: 6%
Poverty: 10%
Home ownership: 52%
Non-White: 59%

1964 Oakland Residential Segregation Study

“It shows how the lines of discrimination are drawn. It shows the area pattern of social exclusion; a pattern that follows very closely community graded indices of wealth, status, health, education, and social behavior. It grades fairly evenly from low to high, beginning with the Bay-flats region, and extending to the upper portion, the “hill area”. If one bases status on the social exclusion factors inherent in income, occupation, and education differentials, it shows at a glance the family-status gradations of Oakland.”

Six Pilot Areas Picked For City Housing Survey

Six Oakland pilot areas for a survey of housing conditions were agreed on last night by the Citizens’ Committee for the enforcement of building and housing codes.

The committee was named by Mayor Clifford E. Rishell last month at the request of the City Council to determine the scope of needed housing renovation in the city.

It was agreed that one block would be selected by lot in each of the six pilot areas. Health Department inspectors under the supervision of Health Officer Dr. J. C. Geiger were given three weeks to make the survey.

At the completion of the survey Chairman C. H. McCaslin will call a meeting of the whole committee to discuss the revelations of the survey.

The six areas were selected by a subcommittee headed by Robert As of the Central Labor Council and approved by the whole committee.

A description of the areas as "of good quality, two of me..."
Housing Survey Provides Guide for Urban Renewal

The map shows the condition of Oakland's housing by census tracts. The highest score indicates most blighted and the lowest score indicates the least blighted.

1. Ten Indices of Residential Quality
- Substandard lots
- Rental level
- Population density
- Mixed land use
- Age of dwellings
- Dilapidated dwellings
- Pedestrian traffic accidents
- Overcrowded dwellings
- Juvenile delinquency
- Income of residents

Score Legend:
- Highest: 88-117
- Second Highest: 62-80
- Next Highest: 30-57
- Low: 0-29
- Non-residential

This map was published in the Oakland Tribune on Sunday, July 22, 1956.

---

Housing Survey Provides Guide for Urban Renewal

Motte said it is interesting to note that Oakland's first urban renewal area, the 78-block Clinton Park section, falls within the grouping next to "most blighted." He said the study confirms that city officials were "on the right track" in selecting Clinton Park as needing attention and in diagnosing the proper treatment needed for rehabilitation.

Motte and his staff made a detailed analysis of the housing conditions in various census tracts. The highest score indicates the most blighted tracts, whereas the lowest score indicates the least blighted tracts.

---

In Census Tracts 30 and 31, it was found that they are the most blighted tracts. They are followed by Census Tracts 38, with a score of 112, and Tract 33, with a score of 111. The lowest score is in Census Tracts 35 and 41, indicating that they are the least blighted tracts.

---

The survey also noted the importance of addressing overcrowding, dilapidated dwellings, and juvenile delinquency. The map provides a comprehensive overview of the residential quality across different census tracts in Oakland, guiding urban renewal efforts.

---

After careful consideration, each indicator was assigned a score ranging from 0 to 117, with 117 being the most blighted.
High school grads: 90%
Unemployment: 4%
Poverty: 7%
Home ownership: 64%
Non-White: 49%

High school grads: 81%
Unemployment: 6%
Poverty: 10%
Home ownership: 52%
Non-White: 59%

High school grads: 65%
Unemployment: 12%
Poverty: 25%
Home ownership: 38%
Non-White: 89%

Life Expectancy

>80
74.3 - 80
<74.3
Why Do Some Neighborhoods Look Like This?
Opportunities to Build Resiliency

PH Program
Sports League
Community Center
Peers
School
Government
Family
Faith Congregation
Business
CBO
Sports League
Community Center
Peers
School
Government
Family
Faith Congregation
Business
CBO
By surveying 100,000 6th to 12th-grade youth in 213 U.S. towns and cities, Search Institute identified 40 measures (8 categories) of healthy development that help young people grow up healthy, caring and responsible.

1. Support
2. Empowerment
3. Boundaries & Expectations
4. Constructive Use of Time
5. Commitment To Learning
6. Positive Values
7. Social Competencies
8. Positive Identity
The Power of Developmental Assets

Alcohol Use
Violence
Illicit Drug use
Sexual Activity

Search Institute
Promoting Positive Attitudes and Behaviors

In addition to protecting youth from negative behaviors, having more assets increases the chances that young people will have positive attitudes and behaviors, as this chart shows.
**FIGURE 1**

High-Risk Behaviors* and Developmental Assets, by Race/Ethnicity

On average, young people with more developmental assets engage in fewer high-risk behaviors (out of 10 that are measured) than youth with fewer assets.

* The 10 high-risk behaviors measured in this survey are problem alcohol use, tobacco use, illicit drug use, sexual intercourse, depression and/or attempted suicide, antisocial behavior, violence, school problems, driving and alcohol, and gambling.

**FIGURE 2**

Thriving Behaviors* and Developmental Assets, by Race/Ethnicity

On average, young people with more developmental assets engage in fewer high-risk behaviors (out of 10 that are measured) than youth with fewer assets.

* The 8 thriving behaviors measured in this survey are succeeds in school, helps others, values diversity, maintains good health, exhibits leadership, resists danger, delays gratification, and overcomes adversity.
Disease and Injury Risk Behaviors

Physical environment
Social environment

Residential segregation

Neighbor- hood Conditions

Risk Behaviors

Disease and Injury

Mortality
Disease and Injury Risk Behaviors

Neighborhood Conditions

Institutional Power

Government agencies

Schools

Corporations and businesses

Mortality

Disease and Injury

Risk Behaviors

Neighborhood Conditions

Institutional Power

Government agencies

Schools

Corporations and businesses
CST 4th Grade Reading
Oakland Unified, by Ethnicity

CST 8th Grade Reading
Oakland Unified, by Ethnicity

CST 11th Grade Reading
Oakland Unified, by Ethnicity

In Oakland, African American and Latino 7th graders read below the level of White 3rd graders.

### Highest Achieving Low-Income Students Attend Postsecondary at Same Rate as Bottom Achieving High Income Students

<table>
<thead>
<tr>
<th>Achievement Level (in quartiles)</th>
<th>Low-Income</th>
<th>High-Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>First (Low)</td>
<td>36%</td>
<td>77%</td>
</tr>
<tr>
<td>Second</td>
<td>50%</td>
<td>85%</td>
</tr>
<tr>
<td>Third</td>
<td>63%</td>
<td>90%</td>
</tr>
<tr>
<td>Fourth (High)</td>
<td>78%</td>
<td>97%</td>
</tr>
</tbody>
</table>

**Source:** NELS: 88, Second (1992) and Third Follow up (1994); in, USDOE, NCES, NCES Condition of Education 1997 p. 64
“A review of the scientific literature shows associations between education and health across a broad range of illnesses, including coronary heart disease, many specific cancers, Alzheimer's disease, some mental illnesses, diabetes, and alcoholism.” - NIH

RFA OB-03-001-PATHWAYS LINKING EDUCATION TO HEALTH
Mortality Rate and % HS Education
Alameda County Census Tracts
2000-2003

The scatter plot shows the relationship between the percentage of the population with a high school education or better and the mortality rate in Alameda County Census Tracts from 2000 to 2003. The trend line indicates a negative correlation, suggesting that areas with higher percentages of high school education tend to have lower mortality rates.

Source: Pew Hispanic Center tabulations of SIPP data from the 1996 and 2001 panels.
All Persons in California
Associated Average Household Wealth by Ethnic Group, 2000

Source: California Research Bureau, California State Library using the 1996-2000 SIPP Survey.
Figure 6

All Persons in California
Distribution of Associated Household Wealth by Ethnic Group, 2000

Source: California Research Bureau, California State Library using the 1996-2000 SIPP Survey.
Note: The above household wealth categories are quartiles based on the wealth of all persons in California.
Despite Progress, Minority Homeownership Rates Still Lag

Homeownership Rates (percent)

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whites</td>
<td>70</td>
<td>75</td>
</tr>
<tr>
<td>All Minorities</td>
<td>55</td>
<td>60</td>
</tr>
<tr>
<td>Asians/Others</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>Blacks</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>Hispanics</td>
<td>30</td>
<td>35</td>
</tr>
</tbody>
</table>

Notes: Whites, blacks and Asians/others are non-Hispanic. Hispanic householders may be of any race. Asians/others include Pacific Islanders, Aleuts and Native Americans.

Source: Table A-7.
Exhibit 3-1
Trends in Homeownership Rates by Race and Ethnicity 1940-2000

Notes: White and Black rates for 1970 through 2000 exclude Hispanics. "Asian" rate for 1950 is proxied by non-White, non-Negro urban households, which comprise a large majority of the Asian population. (The comparable rate for 1940 was 15.4 percent compared to the 16.3 percent actual rate.)

FIGURE 1. U-Shaped Curve: Average Annual Federal Housing Benefits (Subsidies and Tax Deductions) by Total Household Income

Notes: The sample is restricted to individuals less than 65 years old. Chart includes households without subsidies. Housing subsidies include federal public housing and Section 8. Deductions include mortgage and property tax deductions. Not included are the exclusion of net imputed rental income, deductions such as the exception from passive loss rules for $25,000 of rental loss, or accelerated depreciation on rental housing.
Figure 1.10: Income Inequality, Alameda County, 1980-2000

Income equally shared

1980

1990

Census 2000 relationship in Alameda County

Cumulative share of income

Cumulative share of people
Disease and Injury Risk Behaviors
Neighbor-hood Conditions
Institutional Power
Social Inequalities
Race/ethnicity
Class
Gender
Immigration status
Disease and Injury
Mortality
Results of the statistical comparison of weather and deaths over 12 years show that blacks and those with a high school education or less are most likely to die on extremely hot days. — Harvard School of Public Health study of almost 8 million deaths in 50 cities from 1989 to 2000.
Chicago also suffers from an everyday "emergency in slow motion" that its leaders refuse to acknowledge. The heat wave was a particle accelerator for the city: It sped up and made visible the hazardous social conditions that are always present but difficult to perceive. Yes, the weather was extreme. But the deep sources of the tragedy were the everyday disasters that the city tolerates, takes for granted, or has officially forgotten.-Eric Klineberg, author of Heat Wave
A Proposed Model

Understanding Health In Context
Healthy People 2010 recognizes that communities, States, and national organizations will need to take a multidisciplinary approach to achieving health equity—an approach that involves improving health, education, housing, labor, justice, transportation, agriculture, and the environment.