Making America Healthier for All: Challenges and Opportunities

David R. Williams, PhD, MPH
Florence & Laura Norman Professor of Public Health
Professor of African & African American Studies and of Sociology
Harvard University
Patterns of American’s Health

What are the Problems?
We Are Not the Healthiest

- U.S. ranks near the bottom of industrialized countries on health, and we are losing ground
- 1980 = 11th on Life Expectancy
- 2006 = 33rd, tied with Slovenia
- U.S. Ranked behind Cyprus, United Arab Emirates, South Korea, Costa Rica and Portugal
- And it is not just the minorities doing badly!
- In 2006, White America would be = 30th
- In 2006, Black America would be 58th
A Larger Context for Disparities

There are large racial, socioeconomic, and geographic disparities in health but they should be understood within the context of the larger national disparity.

All Americans are far less healthy than we could, and should be.
CALIFORNIA:
Gaps in Infant Mortality

Infant mortality rates—a key indicator of overall health—appear to vary by mother’s education and racial or ethnic group in California.

- Compared with babies born to the most-educated mothers, babies born to mothers with less education are approximately 50 percent more likely to die before reaching their first birthdays.

- The infant mortality rate among babies born to non-Hispanic black mothers is over twice the rates seen among babies of non-Hispanic white or Hispanic mothers.

Comparing California’s experience against the national benchmark for infant mortality reveals unrealized health potential among California babies in almost every maternal education and racial or ethnic group. Infants in most groups could do better.

Prepared for the RWJF Commission to Build a Healthier America by the Center on Social Disparities in Health at the University of California, San Francisco.


1 The number of deaths in the first year of life per 1,000 live births.

2 The national benchmark for infant mortality represents the level of mortality that should be attainable for all infants in every state. The benchmark used here—3.2 deaths per 1,000 live births, seen in New Jersey and Washington state—is the lowest statistically-reliable rate among babies born to the most-educated mothers in any state.

† Defined as any other or unknown racial or ethnic group, including any group representing fewer than 3 percent of all infants born in the state during 2000-2002.
Geographic Variations in Health

Health in America often varies dramatically from:

-- one zip code to another
-- one county to another
-- even one train stop to another
ZIP CODE VS. GENETIC CODE

- Montgomery County: 84 Years
- District of Columbia: 77 Years
- Arlington County: 83 Years
- Fairfax County: 84 Years
- Prince George's County: 78 Years
Health is Local: One County -100 year Gap

- King County, home of Seattle & Starbucks, has good health, only a couple years behind the best countries on LE
- If we look at the census tract level, the county’s overall “good” average hides huge disparities
- Some census tracts in King County are 40 years ahead of the best performing countries’ average life expectancy
- Other nearby census tracts, are almost 60 years behind
- There is much more variation by census tract within King County than there is by county within the U.S.
- Compared to the healthiest nations, it would take 100 years for the census tract with the lowest life expectancy in King County to catch up to where the highest ones are today

David W. Fleming, Director, Public Health, Seattle and King County
Socioeconomic Status (SES) is a central determinant of the distribution of valuable resources in society.
## SAT Scores by Income

<table>
<thead>
<tr>
<th>Family Income</th>
<th>Median Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than $100,000</td>
<td>1129</td>
</tr>
<tr>
<td>$80,000 to $100,000</td>
<td>1085</td>
</tr>
<tr>
<td>$70,000 to $80,000</td>
<td>1064</td>
</tr>
<tr>
<td>$60,000 to $70,000</td>
<td>1049</td>
</tr>
<tr>
<td>$50,000 to $60,000</td>
<td>1034</td>
</tr>
<tr>
<td>$40,000 to $50,000</td>
<td>1016</td>
</tr>
<tr>
<td>$30,000 to $40,000</td>
<td>992</td>
</tr>
<tr>
<td>$20,000 to $30,000</td>
<td>964</td>
</tr>
<tr>
<td>$10,000 to $20,000</td>
<td>920</td>
</tr>
<tr>
<td>Less than $10,000</td>
<td>873</td>
</tr>
</tbody>
</table>

Source: (ETS) Mantsios; N=898,596
Socioeconomic Status and Health

Life in America isn’t just better at the top....

It’s also healthier and longer
Relative Risk of Premature Death by Family Income (U.S.)

Family Income in 1980 (adjusted to 1999 dollars)

9-year mortality data from the National Longitudinal Mortality Survey
Low SES: Multiple Disadvantages

- Poor education in childhood and adolescence
- Insecure employment or unemployment
- Stuck in hazardous or dead-end jobs
- Living in poor housing
- Living in neighborhoods with fewer resources
- Trying to raise a family in difficult circumstances
- Living on an inadequate pension
- Eat poorly, forgo exercise, skip medications

WHO: The Solid Facts
Median Household Income and Race, 2009

- White: $51,861
- Black: $32,584
- Asian & Pacific Islander: $65,469
- Hispanic: $38,039

U.S. Census Statistical Abstracts. 2012. Table 691
### Median Household Income and Race, 2009

**Racial Differences in Income are Substantial:**

<table>
<thead>
<tr>
<th>Race</th>
<th>Income Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>1 dollar</td>
</tr>
<tr>
<td>Asian</td>
<td>1.26 dollar</td>
</tr>
<tr>
<td>Hispanic</td>
<td>73 cents</td>
</tr>
<tr>
<td>Black</td>
<td>63 cents</td>
</tr>
</tbody>
</table>

U.S. Census Statistical Abstracts. 2012. Table 691
Median Wealth and Race, 2007

Wolff, 2010
Median Wealth and Race, 2007

• For every dollar of wealth that Whites have, Blacks and Latinos have only 6 cents.

• If we exclude home equity, and only look at other financial assets, Blacks and Latinos have one penny for every dollar of financial wealth that Whites have.

Wolff.2010
Race and Health: Two Patterns

• Racial groups with a long history characterized by economic exploitation, social stigmatization, and geographic marginalization have markedly elevated levels of poor health outcomes:
  -- Blacks or African Americans
  -- American Indians and Alaskan Natives
  -- Native Hawaiians and other Pacific Islanders

• Immigrant groups tend to have better health than the U.S. average, but their health tends to worsen over time and across subsequent generations:
  -- Asians
  -- Hispanics or Latinos
Lifetime Prevalence of Psychiatric Disorder, by Race and Generational Status (%)
## Allostatic Load

<table>
<thead>
<tr>
<th>10 biomarkers</th>
<th>High-risk thresholds *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Systolic blood pressure</td>
<td>127 mm HG</td>
</tr>
<tr>
<td>2. Diastolic blood pressure</td>
<td>80 mm HG</td>
</tr>
<tr>
<td>3. Body Mass Index</td>
<td>30.9</td>
</tr>
<tr>
<td>4. Glycated hemoglobin</td>
<td>5.4%</td>
</tr>
<tr>
<td>5. Albumin</td>
<td>4.2 g/dL</td>
</tr>
<tr>
<td>6. Creatinine clearance</td>
<td>66 mg/dL</td>
</tr>
<tr>
<td>7. Triglycerides</td>
<td>168 mg/dL</td>
</tr>
<tr>
<td>8. C-reactive protein</td>
<td>0.41 mg/dL</td>
</tr>
<tr>
<td>9. Homocysteine</td>
<td>9 μmol/L</td>
</tr>
<tr>
<td>10. Total cholesterol</td>
<td>225</td>
</tr>
</tbody>
</table>

* = < 25th percentile for creatinine clearance; >75th percentile for others

Geronimus, et al., AJPH, 2006
What interventions, if any, can reverse the downward health trajectory of immigrants with length of stay in the U.S.?
Challenges to Understand

- Accelerated aging – earlier onset of disease
- Racial differences in the severity and progression of disease
- Persistence of a residual effect of race when SES is controlled
- Role of elevated exposure to psychosocial stressors and to experiences of discrimination and institutional racism
- Health is affected not only by current SES but by exposure to social and economic adversity over the life course
Life Expectancy Lags, 1950-2006

NCHS, Health United States, 2010
Racial/Ethnic Disparities in Health:
More than just Socioeconomic Status
## Life Expectancy At Age 25

<table>
<thead>
<tr>
<th>Group</th>
<th>White</th>
<th>Black</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>53.4</td>
<td>48.4</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Murphy, NVSS 2000
## Life Expectancy At Age 25

<table>
<thead>
<tr>
<th>Group</th>
<th>White</th>
<th>Black</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>53.4</td>
<td>48.4</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. 0-12 Years</td>
<td>50.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. 12 Years</td>
<td>54.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Some College</td>
<td>55.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. College Grad</td>
<td>56.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Difference</strong></td>
<td></td>
<td>6.4</td>
<td></td>
</tr>
</tbody>
</table>

Murphy, NVSS 2000; Braveman et al. AJPH; 2010, NLMS 1988-1998
# Life Expectancy At Age 25

<table>
<thead>
<tr>
<th>Group</th>
<th>White</th>
<th>Black</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>53.4</td>
<td>48.4</td>
<td>5.0</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. 0-12 Years</td>
<td>50.1</td>
<td>47.0</td>
<td></td>
</tr>
<tr>
<td>b. 12 Years</td>
<td>54.1</td>
<td>49.9</td>
<td></td>
</tr>
<tr>
<td>c. Some College</td>
<td>55.2</td>
<td>50.9</td>
<td></td>
</tr>
<tr>
<td>d. College Grad</td>
<td>56.5</td>
<td>52.3</td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>6.4</td>
<td>5.3</td>
<td></td>
</tr>
</tbody>
</table>

Murphy, NVSS 2000; Braveman et al. AJPH; 2010, NLMS 1988-1998
<table>
<thead>
<tr>
<th>Group</th>
<th>White</th>
<th>Black</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>53.4</td>
<td>48.4</td>
<td>5.0</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. 0-12 Years</td>
<td>50.1</td>
<td>47.0</td>
<td>3.1</td>
</tr>
<tr>
<td>b. 12 Years</td>
<td>54.1</td>
<td>49.9</td>
<td>4.2</td>
</tr>
<tr>
<td>c. Some College</td>
<td>55.2</td>
<td>50.9</td>
<td>4.3</td>
</tr>
<tr>
<td>d. College Grad</td>
<td>56.5</td>
<td>52.3</td>
<td>4.2</td>
</tr>
<tr>
<td>Difference</td>
<td>6.4</td>
<td>5.3</td>
<td></td>
</tr>
</tbody>
</table>

Murphy, NVSS 2000; Braveman et al. AJPH; 2010, NLMS 1988-1998
Infant Mortality by Mother’s Education

Years of Education

- <12
- 12
- 13-15
- 16+

NH White  Black  Hispanic  API  AmI/AN

Infant Mortality

- 17.3
- 14.8
- 12.3
- 11.4

- 9.9
- 7.9
- 6.5
- 5.4

- 6
- 5.7
- 5.9
- 5.1

- 5.5
- 7.9
- 5.1
- 4.4

- 4.2
- 5.7
- 4
Meharry vs Johns Hopkins

A 1958-65, all Black, cohort of Meharry Medical College MDs was compared with a 1957-64, all White, cohort of Johns Hopkins MDs. 23-25 years later, the Black MDs had:

- higher risk of CVD (RR=1.65)
- earlier onset of disease
- incidence rates of diabetes & hypertension that were twice as high
- higher incidence of coronary artery disease (1.4 times)
- higher case fatality (52% vs 9%)

Thomas et al., 1997 J. Health Care for Poor and Underserved
Why Race Still Matters

1. Health is affected not only by current SES but by exposure to adversity over the life course.

2. All indicators of SES are non-equivalent across race. Compared to whites, blacks & Hispanics receive less income at the same levels of education, have less wealth at the equivalent income levels, and have less purchasing power (at a given income level) because of higher costs of goods and services.

3. Personal experiences of discrimination and institutional racism are added pathogenic factors that can affect the health in multiple ways.

4. Higher Exposure to multiple stressors
Racism and Health: Mechanisms

- Institutional discrimination can restrict socioeconomic attainment and group differences in SES and health.
- Segregation can create pathogenic residential conditions.
- Discrimination can lead to reduced access to desirable goods and services.
- Internalized racism (acceptance of society’s negative characterization) can adversely affect health.
- Racism can create conditions that increase exposure to traditional stressors (e.g. unemployment).
- Experiences of discrimination may be a neglected psychosocial stressor.
Discrimination Persists

• Pairs of young, well-groomed, well-spoken college men with identical resumes apply for 350 advertised entry-level jobs in Milwaukee, Wisconsin. Two teams were black and two were white. In each team, one said that he had served an 18-month prison sentence for cocaine possession.

• The study found that it was easier for a white male with a felony conviction to get a job than a black male whose record was clean.

Devah Pager; Am J Sociology, 2004
Percent of Job Applicants Receiving a Callback

<table>
<thead>
<tr>
<th>Criminal Record</th>
<th>White</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>34%</td>
<td>14%</td>
</tr>
<tr>
<td>Yes</td>
<td>17%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Devah Pager; Am J Sociology, 2004
Race, Criminal Record, and Entry-level Jobs in NY, 2004

Devah Pager et al Am Soc Review, 2009; 169 employers
Perceived Discrimination:

Experiences of discrimination are a neglected psychosocial stressor.
Every Day Discrimination

In your day-to-day life how often have any of the following things happened to you?

- You are treated with less courtesy than other people.
- You are treated with less respect than other people.
- You receive poorer service than other people at restaurants or stores.
- People act as if they think you are not smart.
- People act as if they are afraid of you.
- People act as if they think you are dishonest.
- People act as if they’re better than you are.
- You are called names or insulted.
- You are threatened or harassed.

What do you think was the main reason for these experiences?
Discrimination & Health: An Example
Dr. Tene Lewis
Discrimination & Health: Tene Lewis et al

- Everyday Discrimination: positively associated with:
  - coronary artery calcification (Lewis et al., Psy Med, 2006)
  - C-reactive protein (Lewis et al., Brain Beh Immunity, 2010)
  - lower birth weight (Earnshaw et al., Ann Beh Med, 2013)
  - cognitive impairment (Barnes et al., J Intl Neuro Psy Soc, 2012)
  - poor sleep [objective & subjective] (Lewis et al, Hlth Psy, 2012)
  - visceral fat (Lewis et al., Am J Epidemiology, 2011)
Residential Segregation

Place Matters!

Geographic location determines exposure to risk factors and resources that affect health.
Residential Segregation is a place-based example of Institutional Discrimination that has pervasive adverse effects on health.
Segregation in the 2000 Census

- Dissimilarity index declined from .70 in 1990 to .66 in 2000
- Decline in segregation due to blacks moving to formerly all white census tracts
- Segregation declined most in small growing cities where the percentage of blacks is small
- Between 1990 and 2000, number of census tracts where over 80% of the population was black remained constant
- The decline in segregation has had no impact on a) very high percentage black census tracts, b) the residential isolation of most African Americans, and c) the concentration of urban poverty.

Source: Glaeser & Vigdor, 2001
Racial Segregation Is ... 

1. …"basic" to understanding racial inequality in America (Myrdal 1944).

2. …key to understanding racial inequality (Kenneth Clark, 1965).

3. …the "linchpin" of U.S. race relations and the source of the large and growing racial inequality in SES (Kerner Commission, 1968).

4. …"one of the most successful political ideologies" of the last century and "the dominant system of racial regulation and control" in the U.S (John Cell, 1982).

5. …"the key structural factor for the perpetuation of Black poverty in the U.S." and the "missing link" in efforts to understand urban poverty (Massey and Denton, 1993).
How Segregation Can Affect Health

1. Segregation determines quality of education and employment opportunities.

2. Segregation can create pathogenic neighborhood and housing conditions.

3. Conditions linked to segregation can constrain the practice of health behaviors and encourage unhealthy ones.

4. Segregation can adversely affect access to high-quality medical care.

Source: Williams & Collins, 2001
Residential Segregation and SES

A study of the effects of segregation on young African American adults found that the elimination of segregation would erase black-white differences in

- Earnings
- High School Graduation Rate
- Unemployment

And reduce racial differences in single motherhood by two-thirds

Cutler, Glaeser & Vigdor, 1997
# Race and Job Loss

**Economic Downturn of 1990-1991**

<table>
<thead>
<tr>
<th>Racial Group</th>
<th>Net Gain or Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLACKS</td>
<td>59,479 LOSS</td>
</tr>
<tr>
<td>WHITES</td>
<td>71,144 GAIN</td>
</tr>
<tr>
<td>ASIANS</td>
<td>55,104 GAIN</td>
</tr>
<tr>
<td>HISPANICS</td>
<td>60,040 GAIN</td>
</tr>
</tbody>
</table>

*Wall Street Journal* analysis of EEOC reports of 35,242 companies
### Race and Job Loss

<table>
<thead>
<tr>
<th>Company</th>
<th>Percent Black</th>
<th>Work Force</th>
<th>Losses</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sears</td>
<td>16</td>
<td>54</td>
<td></td>
<td>Closed distribution centers in inner-cities; relocated to suburbs</td>
</tr>
<tr>
<td>Pet</td>
<td>14</td>
<td>35</td>
<td></td>
<td>Two Philadelphia plants shutdown</td>
</tr>
<tr>
<td>Coca-Cola</td>
<td>18</td>
<td>42</td>
<td></td>
<td>Reduced blue-collar workforce</td>
</tr>
<tr>
<td>American Cyanamid</td>
<td>11</td>
<td>25</td>
<td></td>
<td>Sold two facilities in the South</td>
</tr>
<tr>
<td>Safeway</td>
<td>9</td>
<td>16</td>
<td></td>
<td>Reduced part-time work; more suburban stores</td>
</tr>
</tbody>
</table>

*Source: Sharpe, 1993: Wall Street Journal*
<table>
<thead>
<tr>
<th>Unhealthy Community</th>
<th>Healthy Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsafe even in daylight</td>
<td>Safe neighborhoods, safe schools, safe walking routes</td>
</tr>
<tr>
<td>Exposure to toxic air, hazardous waste</td>
<td>Clean air and environment</td>
</tr>
<tr>
<td>No parks/areas for physical activity</td>
<td>Well-equipped parks and open/spaces/organized community recreation</td>
</tr>
<tr>
<td>Limited affordable housing is run-down; linked to crime ridden neighborhoods</td>
<td>High-quality mixed income housing, both owned and rental</td>
</tr>
<tr>
<td>Convenience/liquor stores, cigarettes and liquor billboards, no grocery store</td>
<td>Well-stocked grocery stores offering nutritious foods</td>
</tr>
</tbody>
</table>
## Our Neighborhood Affects Our Health

<table>
<thead>
<tr>
<th>Unhealthy Community</th>
<th>Healthy Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streets and sidewalks in disrepair</td>
<td>Clean streets that are easy to navigate</td>
</tr>
<tr>
<td>Burned-out homes, littered streets</td>
<td>Well-kept homes and tree-lined streets</td>
</tr>
<tr>
<td>No culturally sensitive community centers, social services or opportunities to engage with neighbors in community life</td>
<td>Organized multicultural community programs, social services, neighborhood councils or other opportunities for participation in community life</td>
</tr>
<tr>
<td>No local health care services</td>
<td>Primary care through physicians’ offices or health center; school-based health programs</td>
</tr>
<tr>
<td>Lack of public transportation, walking or biking paths</td>
<td>Accessible, safe public transportation, walking and bike paths</td>
</tr>
</tbody>
</table>
Disturbing Trend

Increasing levels of residential segregation and isolation of Hispanics in the U.S.
Proportion of Black & Latino Children in Poorer Neighborhoods Than Worst Off White Children

- All Metro Areas:
  - Black: 76%
  - Latino: 69%

- 5 Metro Areas High Segr.:
  - Black: 86%
  - Latino: 74%

- 5 Metro Areas Low Segr.:
  - Black: 57%
  - Latino: 44%
American Apartheid:

Source: Massey 2004; Iceland et al. 2002; Glaeser & Vigitor 2001
Improving American’s Health

What Can We Do?
Moving Upstream

Effective Policies to reduce inequalities in health must:

Address fundamental non-medical determinants

Focus on Place-based solutions, in addition to people-based solutions
Centrality of the Social Environment

An individual’s chances of getting sick are largely unrelated to the receipt of medical care.

Where we live, learn, work, play and worship determine our opportunities and chances for being healthy.

Social Policies can make it easier or harder to make healthy choices.
Redefining Health Policy

Health Policies include policies in all sectors of society that affect opportunities to choose health, including, for example,

- Housing Policy
- Employment Policies
- Community Development Policies
- Income Support Policies
- Transportation Policies
- Environmental Policies
Needed Steps

• The best way to improve America’s health and reduce our medical bills would be to invest in:
  – Schools
  – Sidewalks
  – Produce markets
  – Preschool programs
  – Parks
  – Jobs
  – Housing
  – Transportation
Improving America’s Health

Enhancing neighborhood and Housing quality to Improve health
3 Major HUD Initiatives in 1990s

• Residential Relocation: Moving to Opportunity: helping poor families move from high-poverty public housing

• In-Place Services and Incentives: Jobs-Plus: saturating public housing with high-quality employment services and rent-based financial incentives

• Suburban Job Linkage: Bridges to Work: help residents of high-poverty, central-city communities find jobs in opportunity-rich suburban areas
Lessons from HUD Initiatives

- Interventions can increase income, improve safety and security and improve physical and mental health
- Families will respond to real opportunities
- Meaningful change requires sustained effort over time
- People need help in finding jobs and in keeping jobs (retention, advancement, commuting costs, child care)
- Programs must tackle all of the major barriers: housing, safety, health, employment, education

Turner & Rawlings, Urban Institute, 2005 “Overcoming Concentrated Poverty…"
Moving to Opportunity

• The Moving to Opportunity Program randomized families with children in high poverty neighborhoods to move to less poor neighborhoods.

• Three years later, there were improvements in the mental health of both parents and sons who moved to the low-poverty neighborhoods.

• 10 to 15 years later, movers had lower levels of obesity, severe obesity & diabetes risk ($\text{HbA}_{1c}$)

Leventhal and Brooks-Gunn, 2003; Ludwig et al. NEJM, 2011
Yonkers Housing Intervention

City-wide de-concentration of public housing

- Half of public housing residents selected via a lottery to move to better housing
- 2 years later, **movers reported** better overall health, less substance abuse, neighborhood disorder and violence than those who stayed
- Movers also reported greater satisfaction with public transportation, recreation facilities and medical care
- Movers had higher rates of employment and lower welfare use

*Fauth et al. Social Science and Medicine, 2004*
Improving Residential Circumstances

• Policies need to address the concentration of economic disadvantage and the lack of an infrastructure that promotes opportunity that co-occurs with segregation for African Americans, American Indian reservations and increasingly for Latinos

• Nothing inherently negative about living next those of one’s own race

• Major infusion of economic capital to improve the social, physical, and economic infrastructure of disadvantaged communities

• One should not have to move to live in a better neighborhood

Williams and Collins 2004
Green Areas and Health

Probability sample of 2000 Danish adults:

- Access to green areas (e.g. parks, forests, gardens) was associated with
  - Lower levels of stress
  - Lower rate of obesity
- Controlling for education, urbanicity, 2nd home, bicycling to work
- Benefits of greenery only partly explained by use

Nielsen & Hansen, Health and Place, 2007
Built Environment, Travel and BMI

Atlanta study of 10,878 adults:
• Each additional hour spent driving associated with 6% increase in obesity
• Each kilometer walked/day associated with 5% reduction in obesity
• Residents in areas of more commercial non-residential land walk more
• Each quartile increase in land use mix was associated with 12% reduction in obesity

1996 Olympic Games

- Residents of Atlanta reduce driving to reduce downtown traffic congestion
- Peak traffic volumes decrease by 23%
- ER visits for asthma decline by 44%
- Peak ozone levels drop by 28%
- Levels returned to normal days after Olympics end

Friedman et al. 2001, JAMA
Benefits of High Gas Prices?

- In March and April 2008:
  - Spike in gas prices
  - Decrease in gas sales (3%)
  - Decline in miles drive (4%)
  - Motor vehicle deaths plummet (22%)

- Less driving on risky roads? Greater declines by risky drivers? Driving slower to save gas?

U of MI, Transportation Research Institute, July 2008
Walking to Public Transit

CDC study of 3,312 commuters who use mass transit

- Commuters get plenty of physical exercise walking to and from the bus or train
- 30% get recommended dose of physical activity by walking to and from transit
- Transportation policy is health policy

Factors that Affect Walking

• Good infrastructure
• Nearby destinations
• Greenery
• Other people walking
• Absence of crime
Leave No Child Inside

- National movement to reconnect children to the natural world
- Giving kids a break from TV and the computer
- Re-connecting kids to the outdoors
- Fun-family outdoor activities
- Encouraging the building of residential areas that connect kids with nature
Built Environment & Childhood Obesity

- 2007 National Survey of 91,642 children from birth to age 17
- Rates of childhood obesity was 20-60% higher in neighborhoods with unfavorable social conditions
- Perceptions of neighborhood safety, trash, rundown housing and graffiti all correlated with increased obesity
- No access to sidewalks, parks, recreation centers and libraries predicted higher rates of obesity

Singh et al. 2010, Health Affairs
Built Environment & Childhood Obesity

- Girls aged 10-11 most vulnerable: in neighborhoods with few health promoting amenities, they were 276% more likely to be obese and 121% more likely to be overweight than those in areas with most amenities.
- 27% of parents all US children reported no access to sidewalks, 19% no access to parks, 35% no access to recreation centers and 14% no access to libraries.
- Children living in least health-promoting neighborhoods were 61% more likely to be physically inactive and 25% more likely to watch more than 2 hours of TV every day.

Singh et al. 2010, Health Affairs
Purpose Built Communities

Instead of addressing poverty, urban blight, failing schools, crime and unemployment piecemeal, community activists and philanthropists in Atlanta took them on at once (integrative strategies include cradle-to-college educational opportunities, mixed-income housing, early child development, recreational opportunities).

Atlanta’s East Lake District results:
- A 95% reduction in crime since its launch in 1995
- Employment rate of low-income: from 13% to 70%
- Striking school achievement: East Lake students at or above grade level increase from 5% at start to 96%
- Purpose Built Communities in Atlanta, New Orleans, Indianapolis, Charlotte, among others.
Improving American’s Health

Improve economic well-being
Improving Economic Well-Being

• 2007 Task Force Report from the Center for American Progress, (“From Poverty to Prosperity”) outlines a roadmap to cut poverty in half in 10 years. These include:
  • Promoting inner-city revitalization, unionization, employment of ex-offenders
  • Expanding Pell Grants, tax credits for low-income
  • Encouraging savings for education, home ownership, retirement
  • Connecting vulnerable youth to school and work
  • Raising min. wage, providing child assistance
Increased Household Income and Health

- A study by Hoynes et al. used variation in the federal Earned Income Tax Credit (EITC) over time and the presence of state EITC’s to examine the effect of these cash awards on birth outcomes.
- Findings: income from EITC reduced the rate of low birth weight and increased mean birth weight.
- These effects were evident for both blacks and whites but were larger for blacks.
- Another study by Strully et al. using changes in state EITC as a natural experiment found that state EITCs increased birth weights and reduced maternal smoking.

Social Security and the Health of the Elderly

• An analysis of the impact of the social security program in increasing the SES of the elderly was conducted

• It found that the initial implementation of the program was associated with mortality declines for the elderly

• Subsequent increases in the level of social security benefits were also associated with mortality declines for the elderly

Great Smoky Mountain Study, NC

- A natural experiment assessed the impact of additional income on the health of American Indians who were to 9 to 13 years old at baseline.
- During this longitudinal study Indian households received extra income due to the opening of a Casino.
- The study found declining rates of deviant and aggressive behavior among adolescents whose families received additional income.
- After four years of cash supplements, the level of psychiatric symptoms was similar to those of adolescents who had never been poor.
- Lower risk of psychiatric disorders in adolescence when youth lived at home persisted into young adulthood when most had moved out of their childhood home.

This study also found that the additional income received by adolescents was associated with higher levels of education and lower incidence of minor criminal offenses in young adulthood and the elimination of racial disparities on both of these outcomes

These effects existed only for the households that were poor at the time of the inception of income supplements. Improved parenting appears to be responsible for the effects.

Conditional Cash Transfer (CCT) Programs

Provide cash payments to low income families contingent on regular health care visits, school attendance or participation in educational programs.

- A program in Mexico in which families had been randomized to receive cash transfers led to:
  - Reduced illness rates and child stunting (Rawlings & Rubio, 2005)
  - Increased the quality of prenatal care (Barber & Gerter, 2009)
  - Reduced rural infant mortality by 17% (Barham, 2011)

Economic Policy is Health Policy

In the last 60 years, black-white differences in health have narrowed and widened with black-white differences in income.
<table>
<thead>
<tr>
<th>Health Effects of Civil Rights Policy I</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Civil Rights policies narrowed black-white economic gap</td>
</tr>
<tr>
<td>• Gains greater for women than men</td>
</tr>
<tr>
<td>• <strong>Black women had larger gains in life expectancy during 1965 - 74 than other groups (3 times as large as those in the decade before)</strong></td>
</tr>
<tr>
<td>• Between 1968 and 1978, black males and females, aged 35-74, had larger absolute and relative declines in mortality than whites</td>
</tr>
</tbody>
</table>

Kaplan et al. 2008; Cooper et al. 1981
Health Effects of Civil Rights Policy II

- Black women born 1967-69 had lower risk factor rates as adults and were less likely to have infants with low-birth weight and low APGAR scores than those born 1961-63.
- Desegregation of Southern hospitals enabled 5,000 to 7,000 additional Black babies to survive infancy between 1965 to 1975.

Almond & Chay, 2006; Almond et al. 2006
Median Family Income of Blacks per $1 of Whites

U.S. Life Expectancy at Birth, 1984-1992

Year


White

Black

NCHS, 1995
Policy Area

Family Structure
Consequences for SES and Health

Neighborhood Conditions & Place?
Family Structure and SES

Compared to children raised by 2 parents those raised by a single parent are more likely to:

- grow up poor
- drop out of high school
- be unemployed in young adulthood
- not enroll in college
- have an elevated risk of juvenile delinquency and participation in violent crime.

McLanahan & Sandefur 1994; Sampson 1987
Determinants of Family Structure

- Economic marginalization of males (high unemployment & low wage rates) is the central determinant of high rates of female-headed households.
- Marriage rates are positively related to average male earnings.
- Marriage rates are inversely related to male unemployment.

Bishop 1980; Testa et al. 1993; Wilson & Neckerman 1986
Social Context of Homicide

1. Lack of access to jobs produces high male unemployment and underemployment
2. This in turn leads to high rates of out of wedlock births, female-headed households and the extreme concentration of poverty.
3. Single-parent households lead to lower levels of social control and guardianship
4. The association between family structure and violent crime is identical in sign and magnitude for whites and blacks.
5. Racial differences at the neighborhood level in availability of jobs, family structure, opportunities for marriage and concentrated poverty underlie racial differences in crime and homicide.

Sampson 1987
Racial Differences in Residential Environment

• “The sources of violent crime…are remarkably invariant across race and rooted instead in the structural differences among communities, cities, and states in economic and family organization,” p. 41

• In the 171 largest cities in the U.S., there is not even one city where whites live in ecological equality to blacks in terms of poverty rates or rates of single-parent households.

• “The worst urban context in which whites reside is considerably better than the average context of black communities.” p. 41

Sampson & Wilson 1995
Policy Matters

Social Policy can cushion the negative effects of family structure on poverty and child outcomes
<table>
<thead>
<tr>
<th>Country</th>
<th>% Children 1 Parent HH</th>
<th>Child Poverty (%)</th>
<th>1 Parent</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>2</td>
<td>32</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>3</td>
<td>22</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>4</td>
<td>28</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>8</td>
<td>26</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>8</td>
<td>48</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>10</td>
<td>51</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>19</td>
<td>55</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>20</td>
<td>46</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>21</td>
<td>7</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

## Child Poverty Rates

<table>
<thead>
<tr>
<th>Country</th>
<th>Before Taxes</th>
<th>After Taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netherlands</td>
<td>16.0</td>
<td>7.7</td>
</tr>
<tr>
<td>Spain</td>
<td>21.1</td>
<td>12.3</td>
</tr>
<tr>
<td>Sweden</td>
<td>23.4</td>
<td>2.6</td>
</tr>
<tr>
<td>Canada</td>
<td>24.6</td>
<td>15.5</td>
</tr>
<tr>
<td>Italy</td>
<td>24.6</td>
<td>20.5</td>
</tr>
<tr>
<td>United States</td>
<td>26.7</td>
<td>22.4</td>
</tr>
<tr>
<td>Australia</td>
<td>28.1</td>
<td>12.6</td>
</tr>
<tr>
<td>France</td>
<td>28.7</td>
<td>7.9</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>36.1</td>
<td>19.8</td>
</tr>
<tr>
<td>Poland</td>
<td>44.4</td>
<td>15.4</td>
</tr>
</tbody>
</table>

Source: UNICEF (United Nations’ Children’s Fund), 2000
Learning from the Military

- Black men in the military earn more than civilian peers
- The command and control, bureaucratic structure of the military has created a more race-blind environment than larger society
- Military benefits include family housing, day care centers, school-age activity centers
- Active duty military service promotes marriage over cohabitation, increased the likelihood of 1st marriage, and leads to greater stability of marriage. Effects greater for blacks than for whites
- Economic resources eliminates disparities in marriage

Teachman 2007; Teachman and Tedrow 2008; Teachman 2009
Policy Matters

Investments in early childhood programs in the U.S. have been shown to have decisive beneficial effects
High/Scope Perry Preschool

Program: Black children, living in poverty & at risk of school failure
- Random assignment
- Daily classes and weekly home visits

At age 40, those who received the program:
- Were more likely to graduated from high school
- Had higher employment, income, savings, home ownership
- Had fewer arrests for violent, property and drug crimes
- Cost-benefit: $17 return for every dollar invested

Reynolds et al. 2007; Muennig et al. 2009
What we need Now

American Innovation at its Best
Addressing ‘Food Deserts’ in PA

- The Food Trust – Building strong communities through healthy foods
  -- Farmer’s markets, Co-ops, school initiatives
- Fresh Food Financing Initiative’s Supermarket Campaign in collaboration with the Reinvestment Fund and the Philadelphia Urban Affairs Coalition (a public private partnership)
- 58 new supermarkets in urban and rural underserved areas
An Angel in Pennsylvania?
Jeffrey Brown & ShopRite

• Operates 10 stores
• Half in urban under-served areas
• Opened a 65K sq ft supermarket store in inner-city, AA, low income area last summer
• Area had been without a supermarket for 30 years
• Same price in all stores
• Same hours as other stores (7am-11pm)
• All stores have community rooms (free)
Innovation

• Customized customer service: market research with churches and community organizations
• Good community citizen
• All company managers on local community boards
• Respect for customers, e.g. Shopping Carts (not metal; no physical barriers, electronic fence)
• Support entrepreneurship with minority businesses
• 40 of 280 employees are ex-offenders (technical and life-skills training)
• Quarterly: gifts for guns prog. ($100 cert) (400 guns)
Shattering Myths

• No higher level of shrinkage in inner-city supermarkets
• High training costs but low turnover
• Same volume of fruit and vegetables sales
• Higher poultry and fish sales
Supermarkets: Engine of economic revitalization?

- Property values increase
- Stimulates other retail shopping
- Seniors can walk to store
- Attracts more capital
- Community resource and outreach center (health screening; WIC, CHIP, Food Stamps outreach)
Keys to Success

• Show respect, treat all with dignity
• Good shopping experience: food safety and cleanliness
• Customized service
• Community responsibility
• Affordability
• Listening to and working with the community
• Cookie-cutter approach will not work
• Public and Private partnership (training costs, acquiring the land)
It is About All of Us

• The Health of America depends on the health of all Americans
• Yet, too many Americans are sicker and dying younger than they should
• Millions of Americans are suffering from diseases that should be avoided
• America’s health problems hurt our productivity
• When people are sick, they don’t do as well at school, at home or at work
• Improving America’s Health will not only improve the economy, it will improve the quality of life for millions of Americans
Time to Act: Investing in the Health of Our Children and Communities

Recommendations From the Robert Wood Johnson Foundation
Commission to Build a Healthier America
Recommendations:

1. Make investing in America’s youngest children a high priority.

2. Fundamentally integrate health into community development.

3. Broaden our focus from treating illness to helping people lead healthy lives.
A 7-part documentary series & public impact campaign

www.unnaturalcauses.org

Produced by California Newsreel with Vital Pictures
Presented on PBS by the National Minority Consortia of Public Television
Impact Campaign in association with the Joint Center Health Policy Institute
Conclusions

• Inequalities in health are created by inequalities in society -- place-based inequalities are central

• Opportunities for health and barriers to healthy choices are shaped by neighborhood and other contextual factors

• We need new place-based initiatives to make healthy choices easier in the built environment – housing, schools, parks, neighborhood and transportation

• Our greatest need is for political will and a new commitment to use current knowledge to improve health

• Now is the time
“The only thing necessary for the triumph [of evil] is for good men to do nothing.”

Edmund Burke, Irish Philosopher