

# Health Inequities and How to Effectively Tackle Them

David R. Williams, PhD, MPH

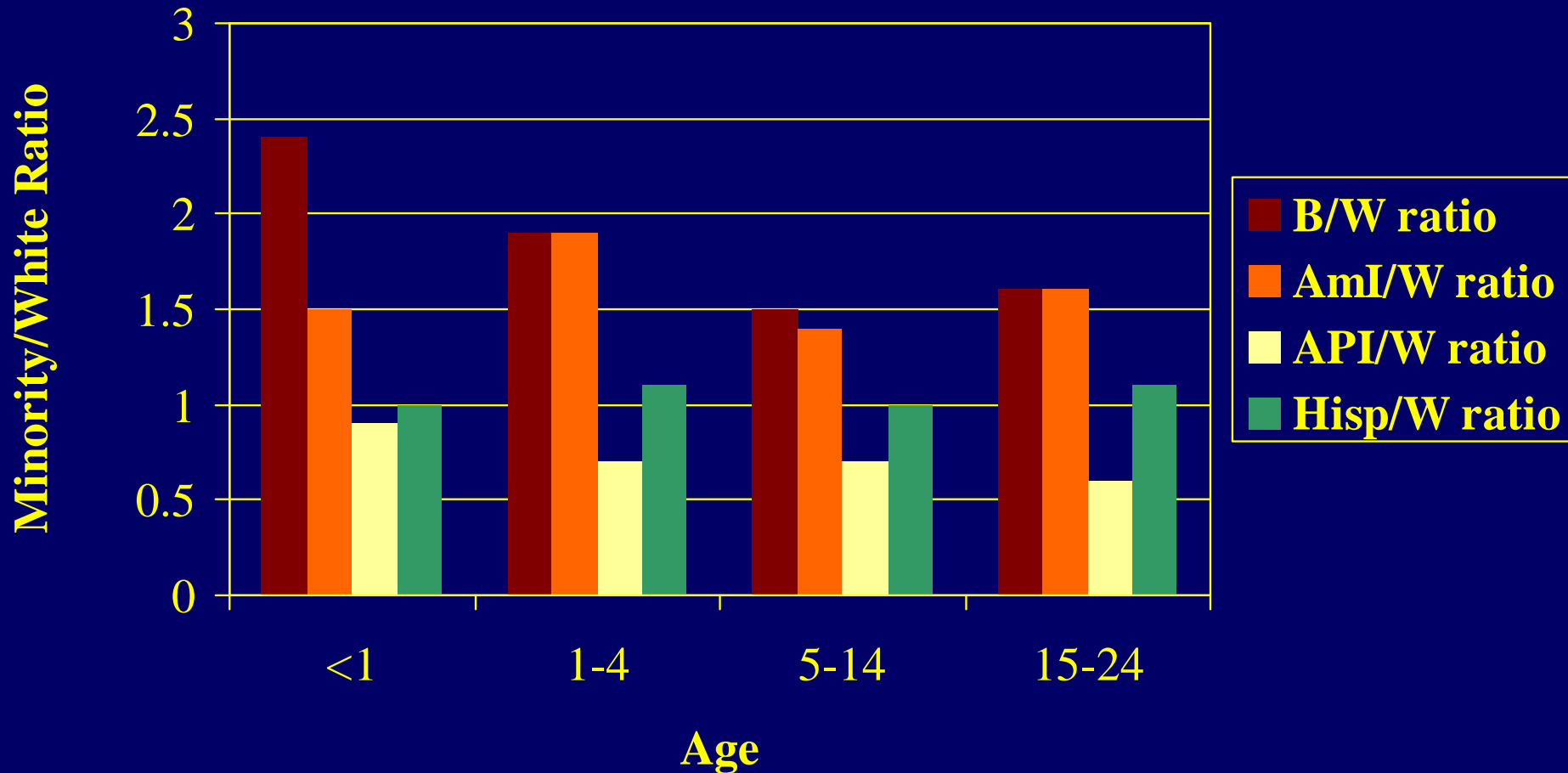
Florence & Laura Norman Professor of Public Health

Professor of African & African American Studies and of Sociology

Harvard University

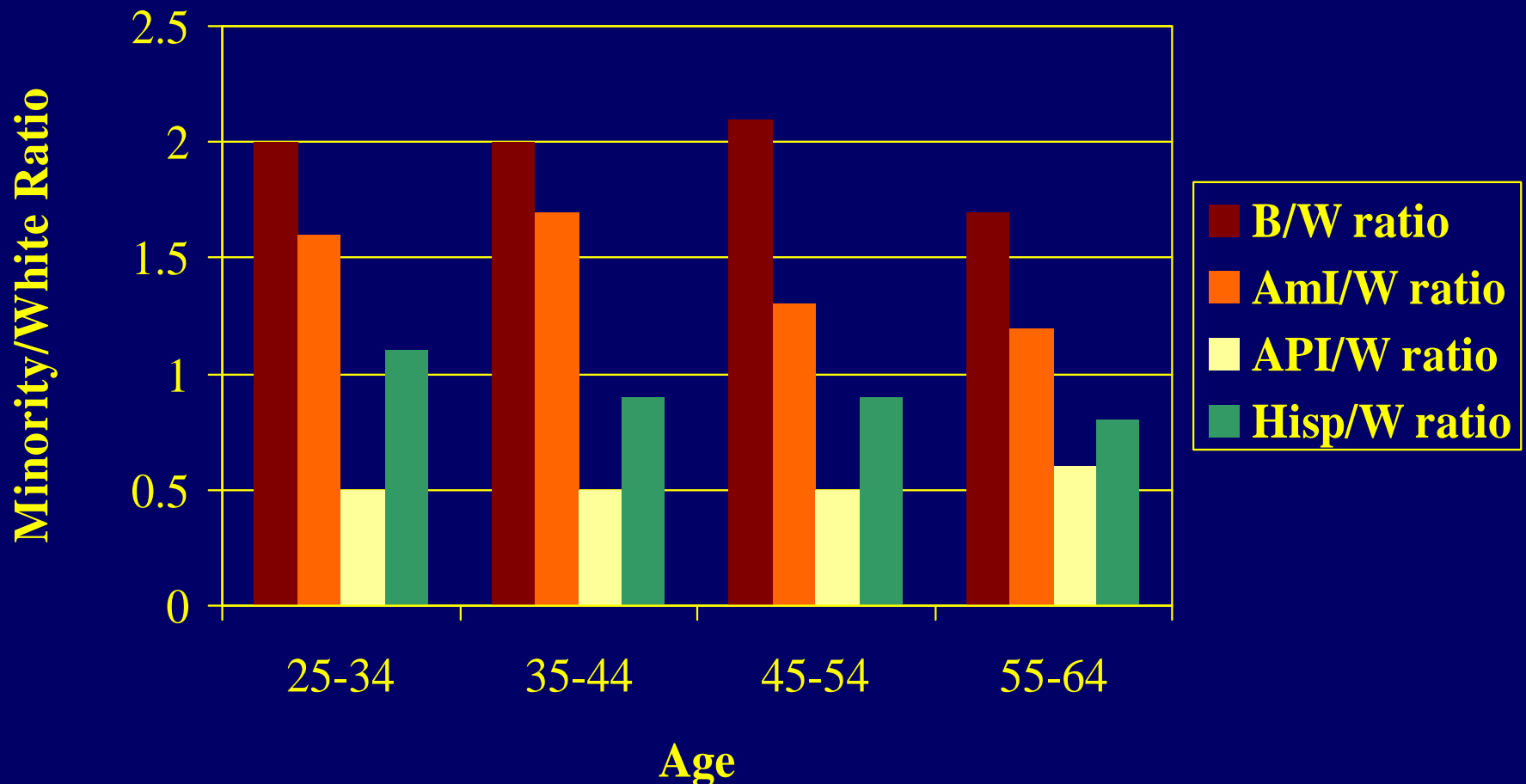
# There Is a Racial Gap in Health in Early Life: Minority/White Mortality Ratios, 2000

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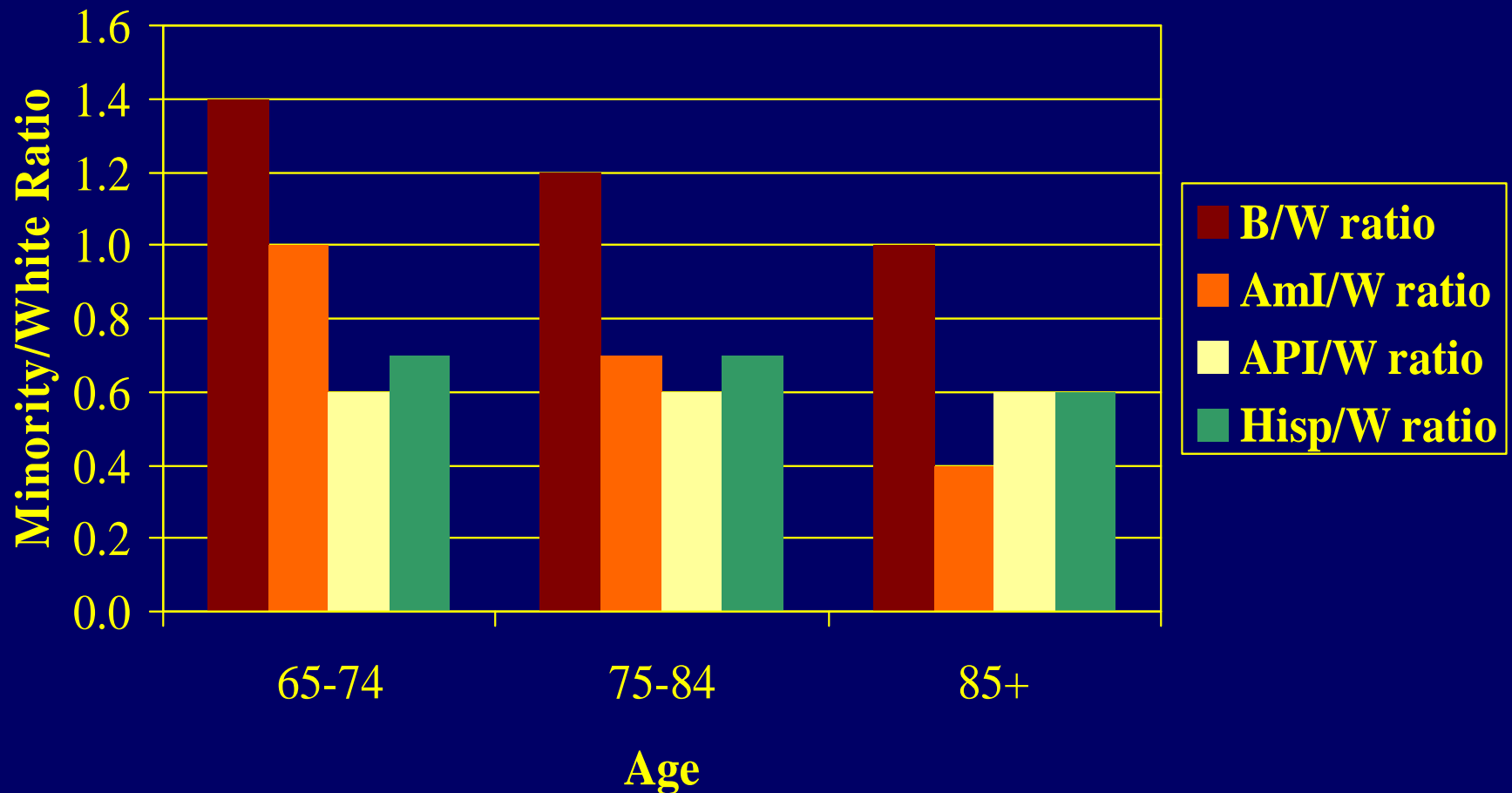


# There Is a Racial Gap in Health in Mid Life: Minority/White Mortality Ratios, 2000

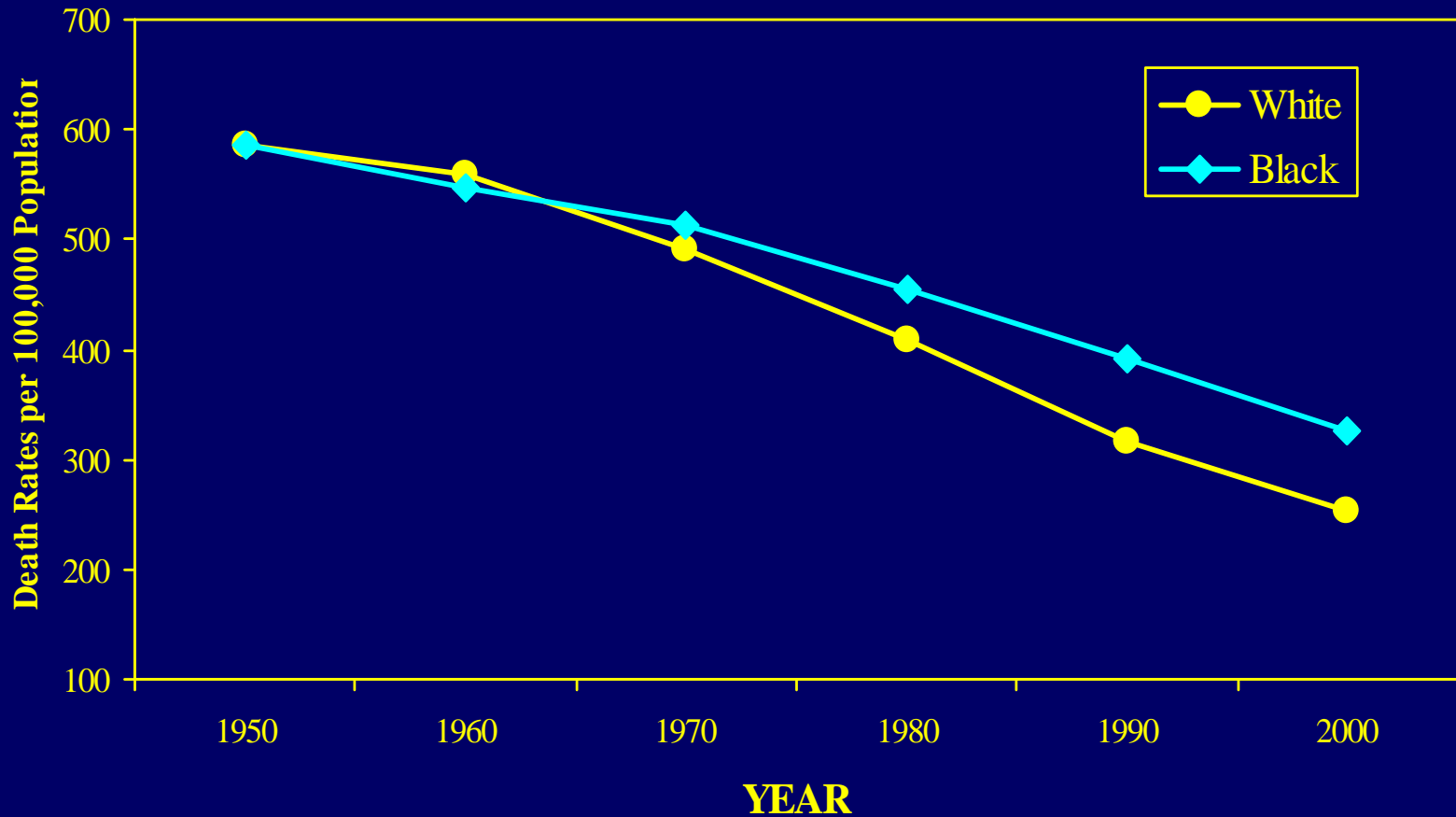
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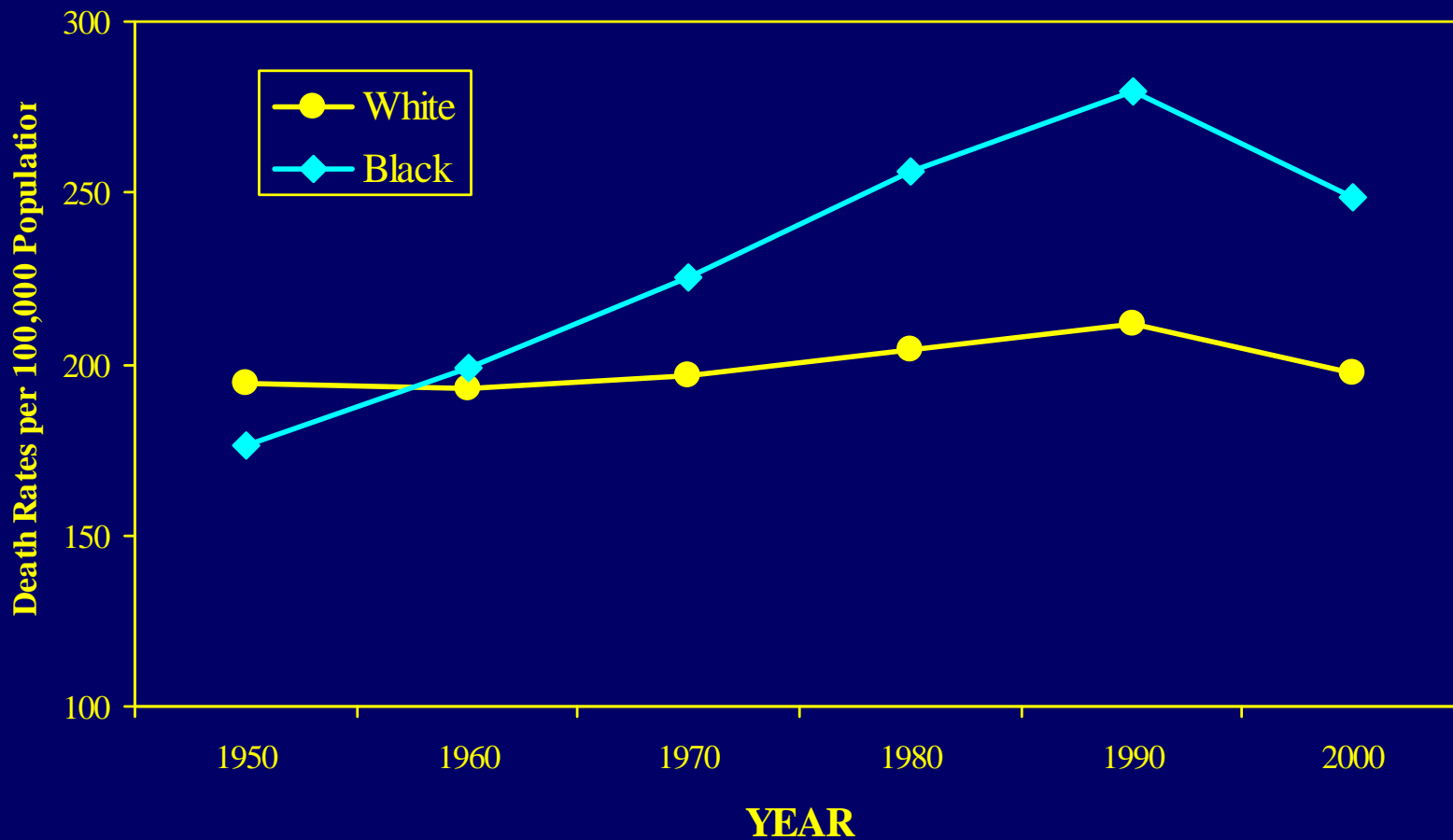
# There Is a Racial Gap in Health in Late Life: Minority/White Mortality Ratios, 2000



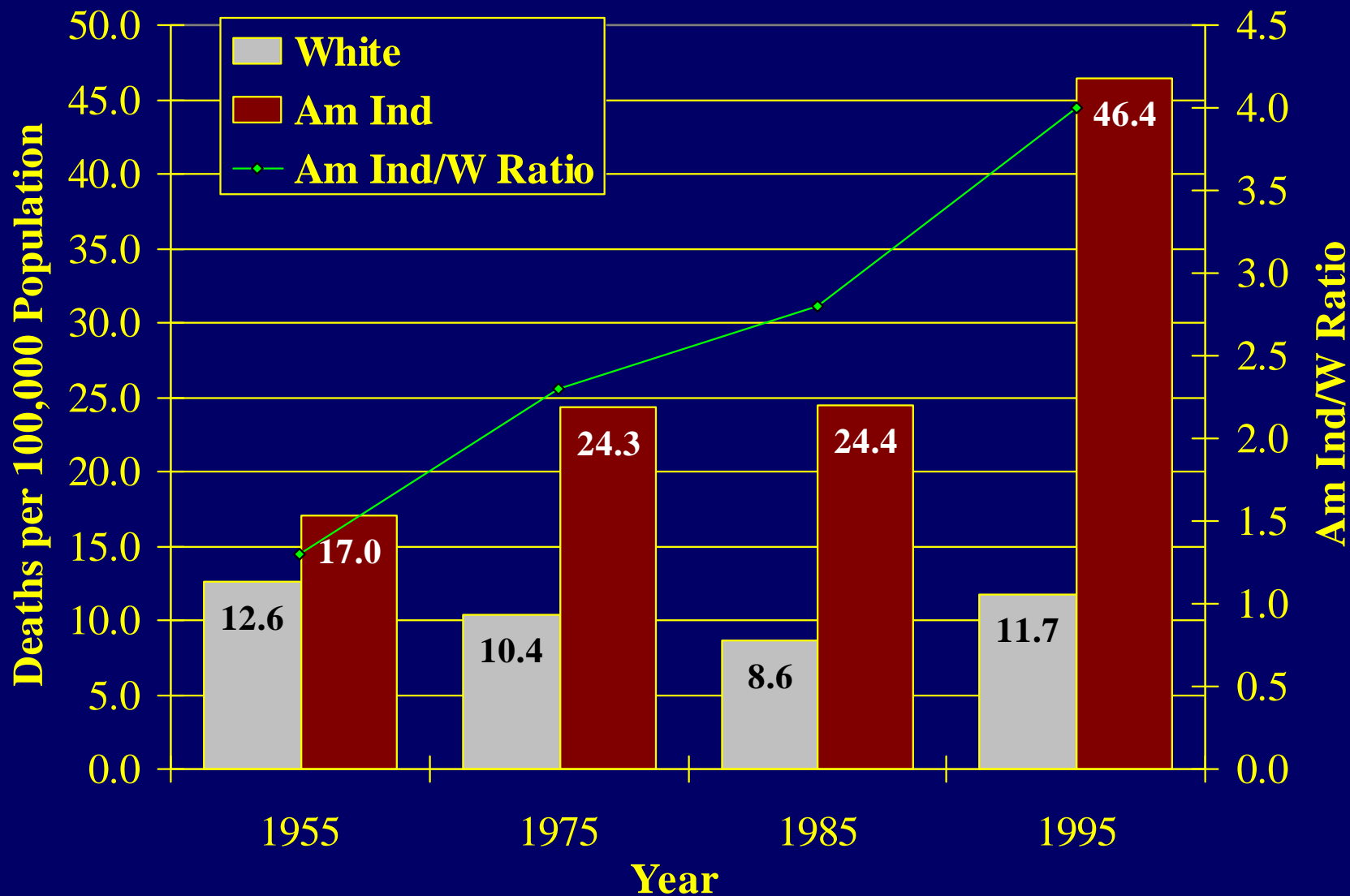
# Age-Adjusted Heart Disease Death Rates for Blacks and Whites, 1950-2000



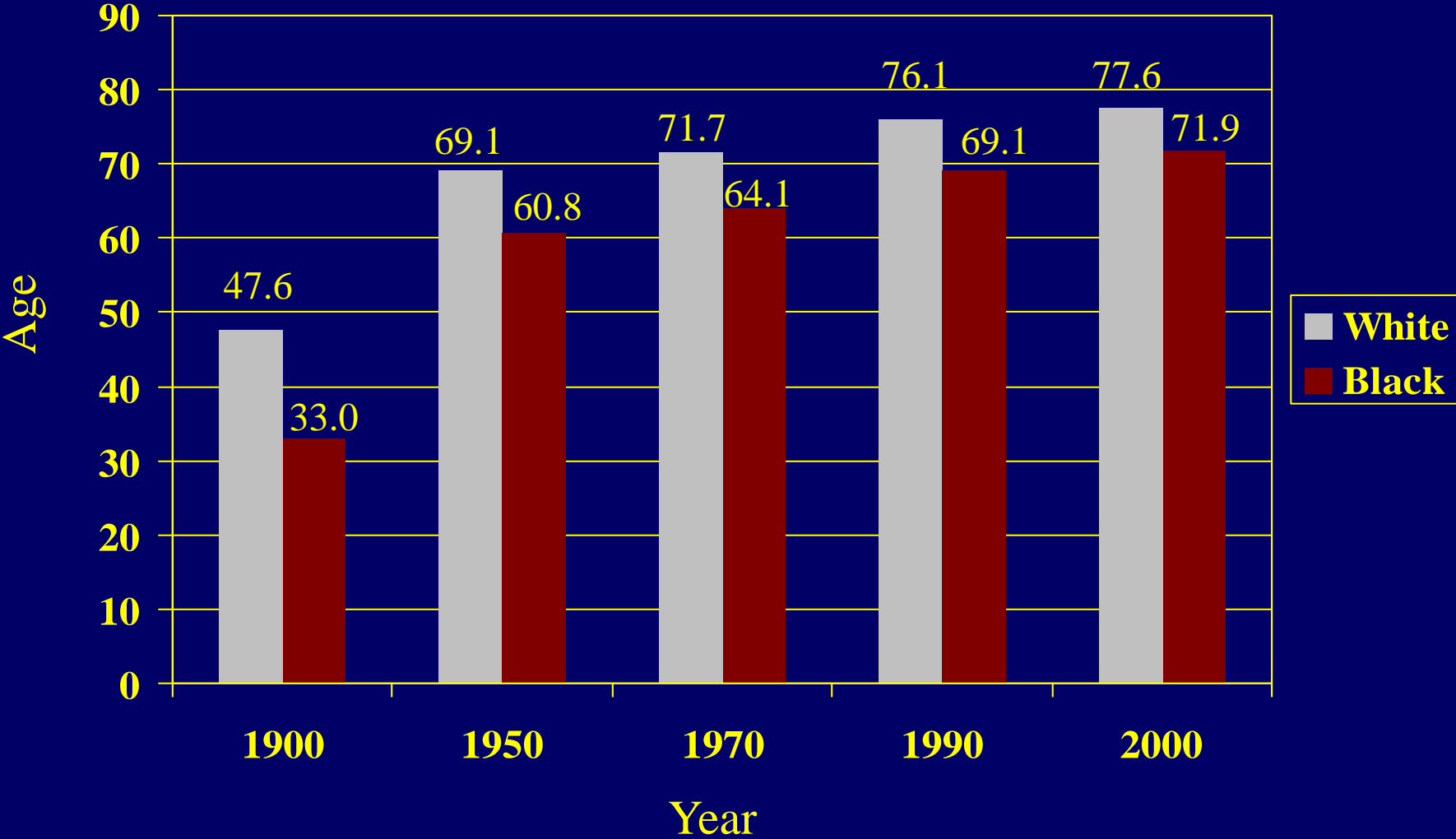
# Age-Adjusted Cancer Death Rates for Blacks and Whites, 1950-2000



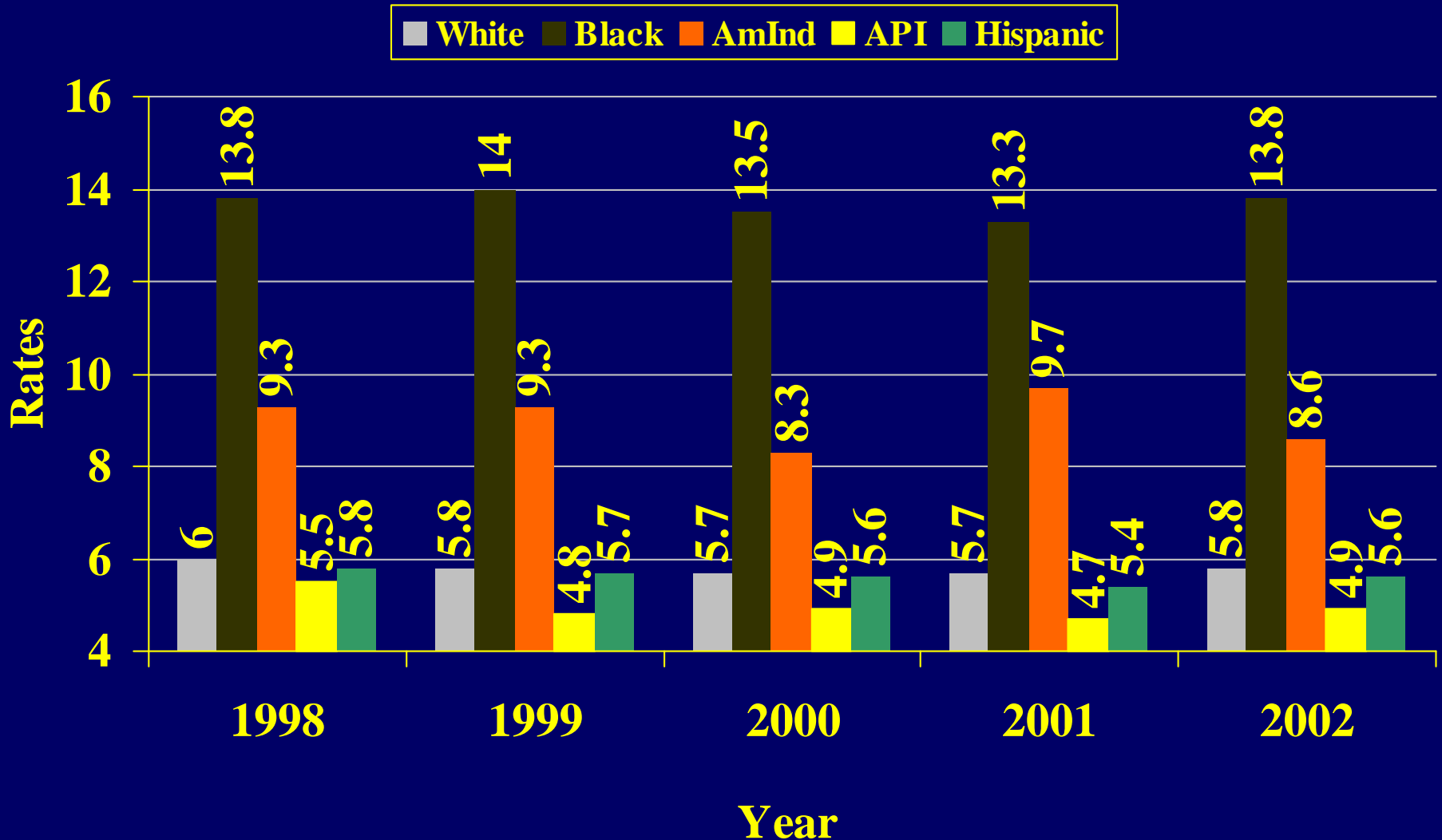
# Diabetes Death Rates 1955-1995



# Life Expectancy at Birth, 1900-2000



# Increasing Infant Mortality



# The Persistence of Racial Disparities

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- We have FAILED!
- In spite of:
  - a War on Poverty
  - a Civil Rights revolution
  - Medicare & Medicaid
  - the Hill-Burton Act
  - Major advances in medical research & technology

We have made little progress in reducing the elevated death rates of blacks and American Indians relative to whites.

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# SAT Scores by Income

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

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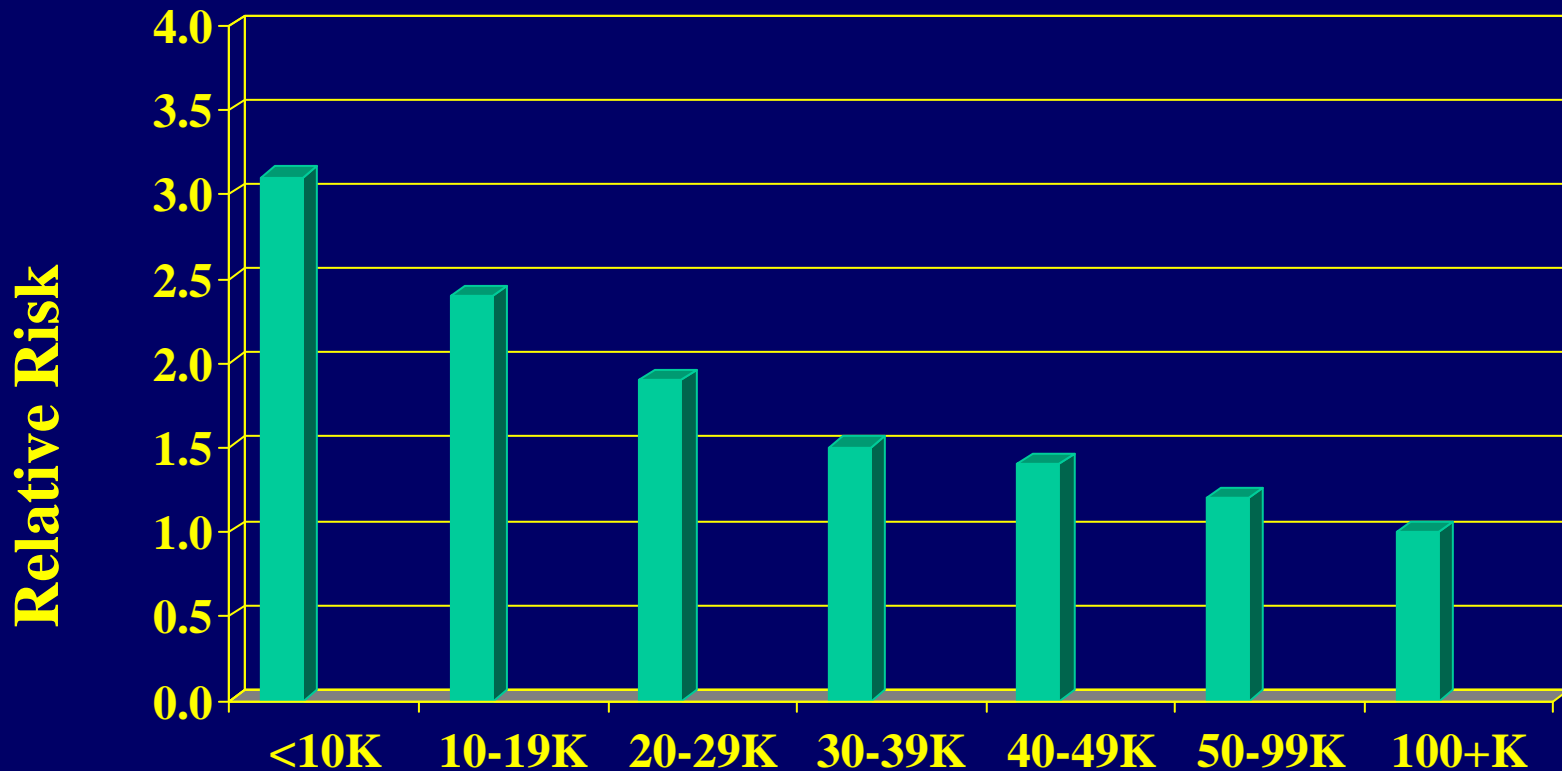
Source: (ETS) Mantsios; N=898,596

# SES: A Key Determinant of Health

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- **Socioeconomic Status (SES) usually measured by income, education, or occupation influences health in virtually every society.**
  - **SES is one of the most powerful predictors of health, more powerful than genetics, exposure to carcinogens, and even smoking.**
  - **The gap in all-cause mortality between high and low SES persons is larger than the gap between smokers and non-smokers.**
  - **Americans who have not graduated from high school have a death rate two to three times higher than those who have graduated from college.**
  - **Low SES adults have levels of illness in their 30s and 40s that are not seen in the highest SES group until after the ages of 65-75.**
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# Relative Risk of Premature Death by Family Income (U.S.)



Family Income in 1980 (adjusted to 1999 dollars)

# Percent of persons with Fair or Poor Health by Race, 1995

## Racial Differences

Race/Ethnicity	Percent	B-W	H-W	B-H
White	9.1	8.2	6.0	2.2
Black	17.3			
Hispanic	15.1			

Poor=Below poverty; Near poor+<2x poverty; Middle Income = >2x poverty but <\$50,000+

Source: Parmuk et al. 1998

# Percent of Women with Fair or Poor Health by Race and Income, 1995

Household Income	White	Black	Hispanic
<b>Poor</b>	<b>30.2</b>	<b>38.2</b>	<b>30.4</b>
<b>Near Poor</b>	<b>17.9</b>	<b>26.1</b>	<b>24.3</b>
<b>Middle Income</b>	<b>9.2</b>	<b>14.6</b>	<b>13.5</b>
<b>High Income</b>	<b>5.8</b>	<b>9.2</b>	<b>7.0</b>
<b>SES Difference</b>	<b>24.4</b>	<b>29.0</b>	<b>23.4</b>

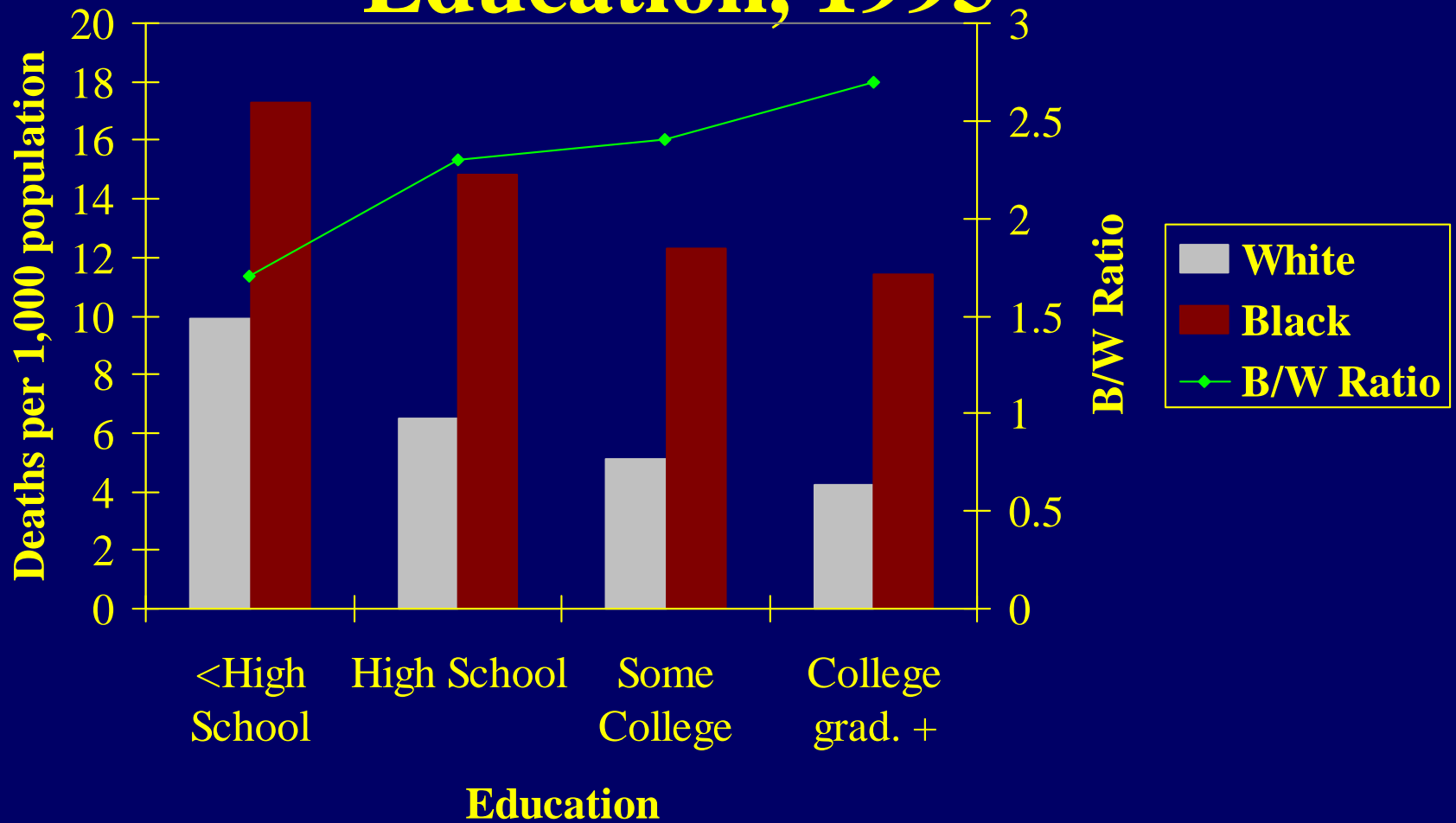
Poor=below poverty; Near Poor=<2x poverty; Middle Income=>2x poverty but <\$50,000; High Income=\$50,000+

Source: Pamuk et al. 1998

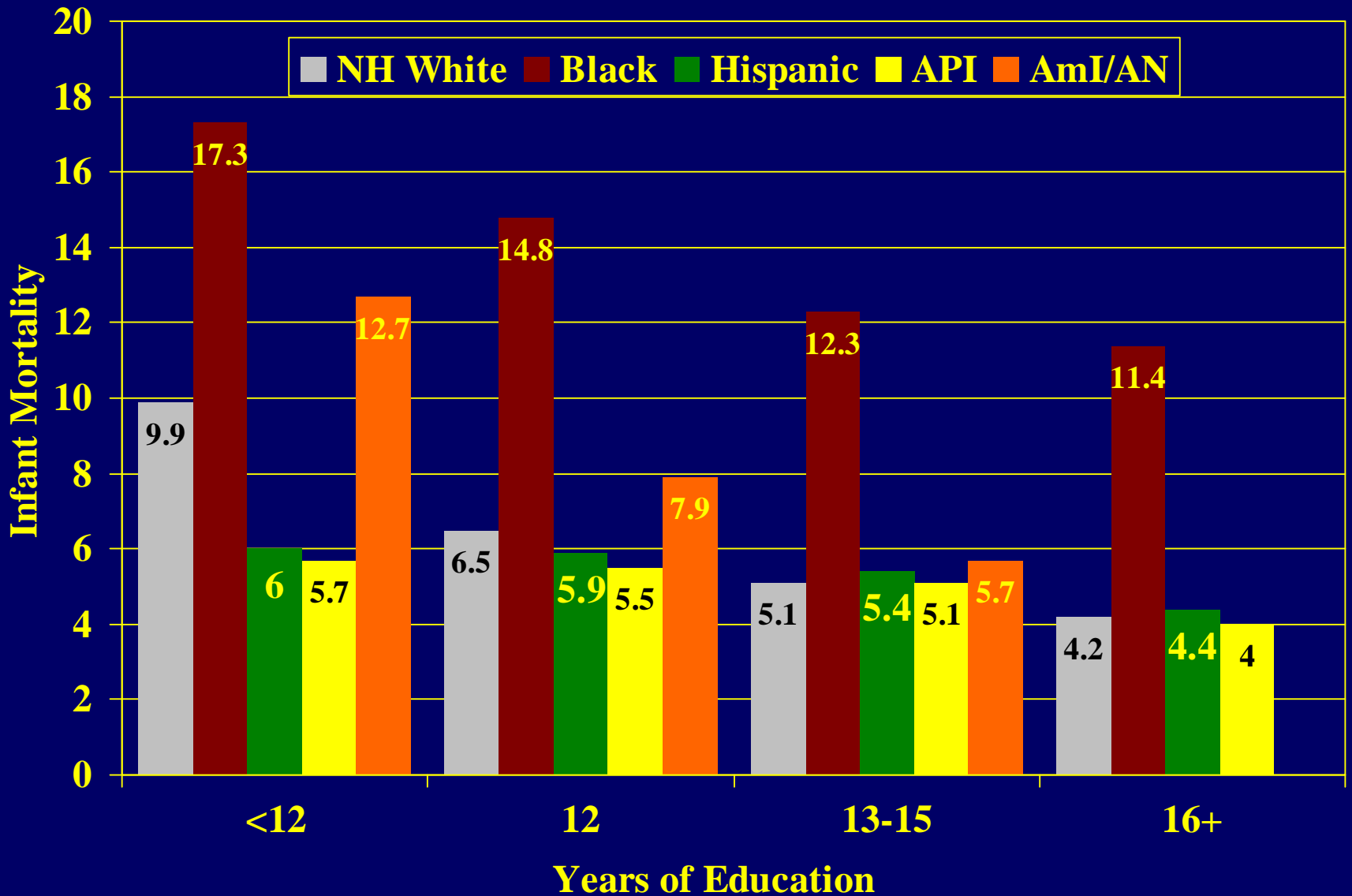
# Race/Ethnicity and SES

- Race and SES reflect two related but not interchangeable systems of inequality
- In national data, the highest SES group of African American women have equivalent or higher rates of infant mortality, low birth-weight, hypertension and overweight than the lowest SES group of white women

# Infant Death Rates by Mother's Education, 1995



# Infant Mortality by Mother's Education, 1995



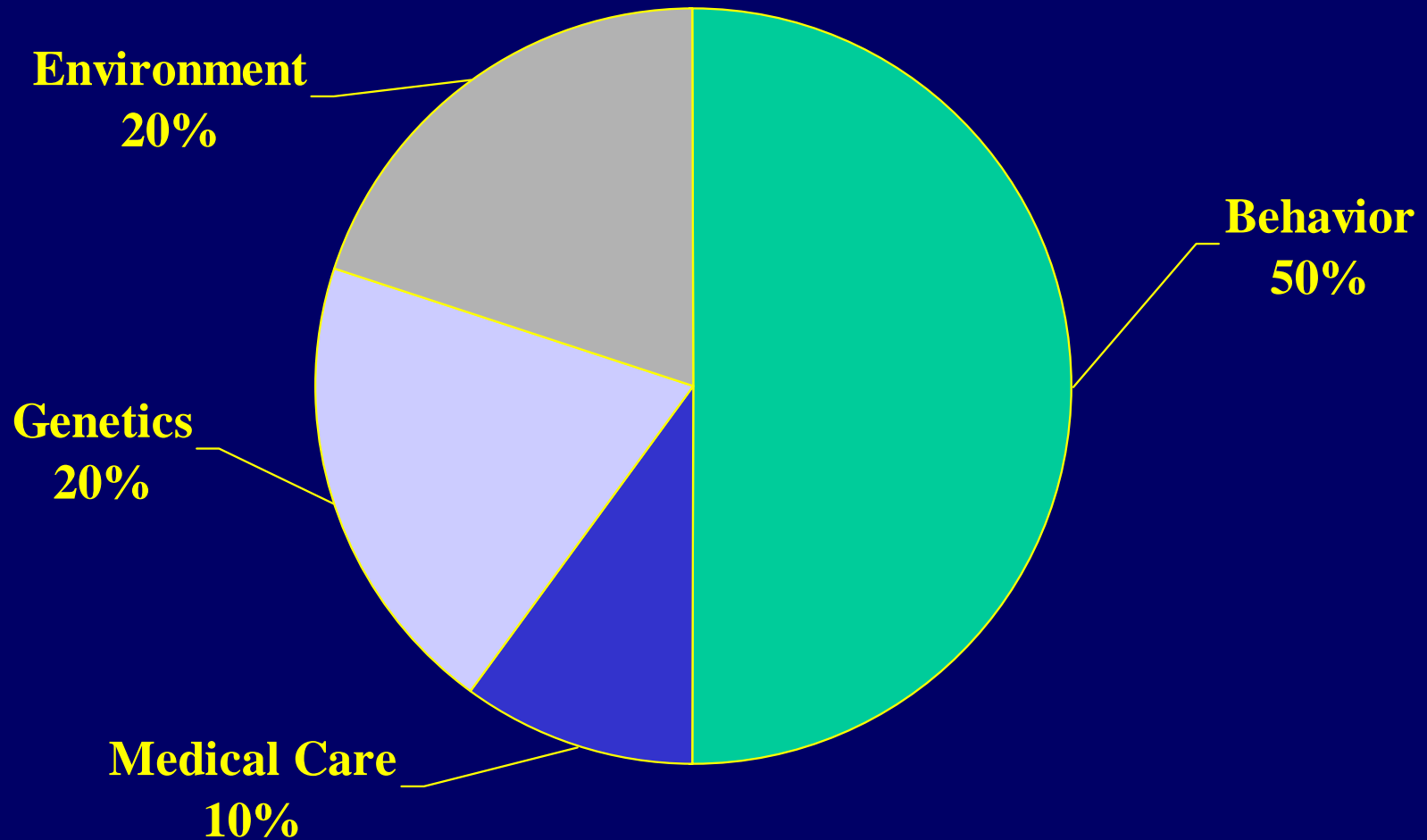
# Why Race Still Matters

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- 1. All indicators of SES are non-equivalent across race. Compared to whites, blacks 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 level of income) because of higher costs of goods and services.**
  - 2. Health is affected not only by current SES but by exposure to social and economic adversity over the life course.**
  - 3. Personal experiences of discrimination and institutional racism are added pathogenic factors that can affect the health of minority group members in multiple ways.**
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# Determinants of Health in the U.S.

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# Needed Behavioral Changes

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- Reducing Smoking
  - Improving Nutrition and Reducing Obesity
  - Increasing Exercise
  - Reducing Alcohol Misuse
  - Improving Sexual Health
  - Improving Mental Health
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# Reducing Inequalities I

## Reducing Negative Health Behaviors?

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**\*Changing health behaviors requires more than just more health information. “Just say No” is not enough.**

**\*Interventions narrowly focused on health behaviors are unlikely to be effective.**

**\*The experience of the last 100 years suggests that interventions on intermediary risk factors will have limited success in reducing social inequalities in health as long as the more fundamental social inequalities themselves remain intact.**

# Changes in Smoking Over Time -I

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Successful interventions require a coordinated and comprehensive approach:

- The active involvement of professionals and volunteers from many organizations (government, health professional organizations, community agencies and businesses)
- The use of multiple intervention channels (media, workplaces, schools, churches, medical and health societies)

# Changes in Smoking Over Time -2

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The use of multiple interventions –

- Efforts to inform the public about the dangers of cigarette smoking (smoking cessation programs, warning labels on cigarette packs)
- Economic inducements to avoid tobacco use (excise taxes, differential life insurance rates)
- Laws and regulations restricting tobacco use (clean indoor air laws, restricting smoking in public places and restricting sales to minors)

Even with all of these initiatives, success has been only partial

# **Moving Upstream**

**Effective Policies to reduce inequalities  
in health must address fundamental  
non-medical determinants.**

**WHY?**

**WHY?**

# Centrality of the Social Environment

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

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

Social Policies can make it easier or harder to make healthy choices

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# SES and Health Risks

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SES is linked to:

- \*Exposures to health enhancing resources
- \*Exposures to health damaging factors
- \*Exposure to particular stressors
- \*Availability of resources to cope with stress

Health practices (smoking, poor nutrition, drinking, exercise, etc.) are all socially patterned

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# Making Healthy Choices Easier

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Factors that facilitate opportunities for health:

- Facilities and Resources in Local Neighborhoods
  - Socioeconomic Resources
  - A Sense of Security and Hope
  - Limited Exposure to Physical, Chemical, & Psychosocial Stressors
  - Enhanced Psychological, Social & Material Resources to Cope with Stress
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# Redefining Health Policy

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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
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# Policy Implications

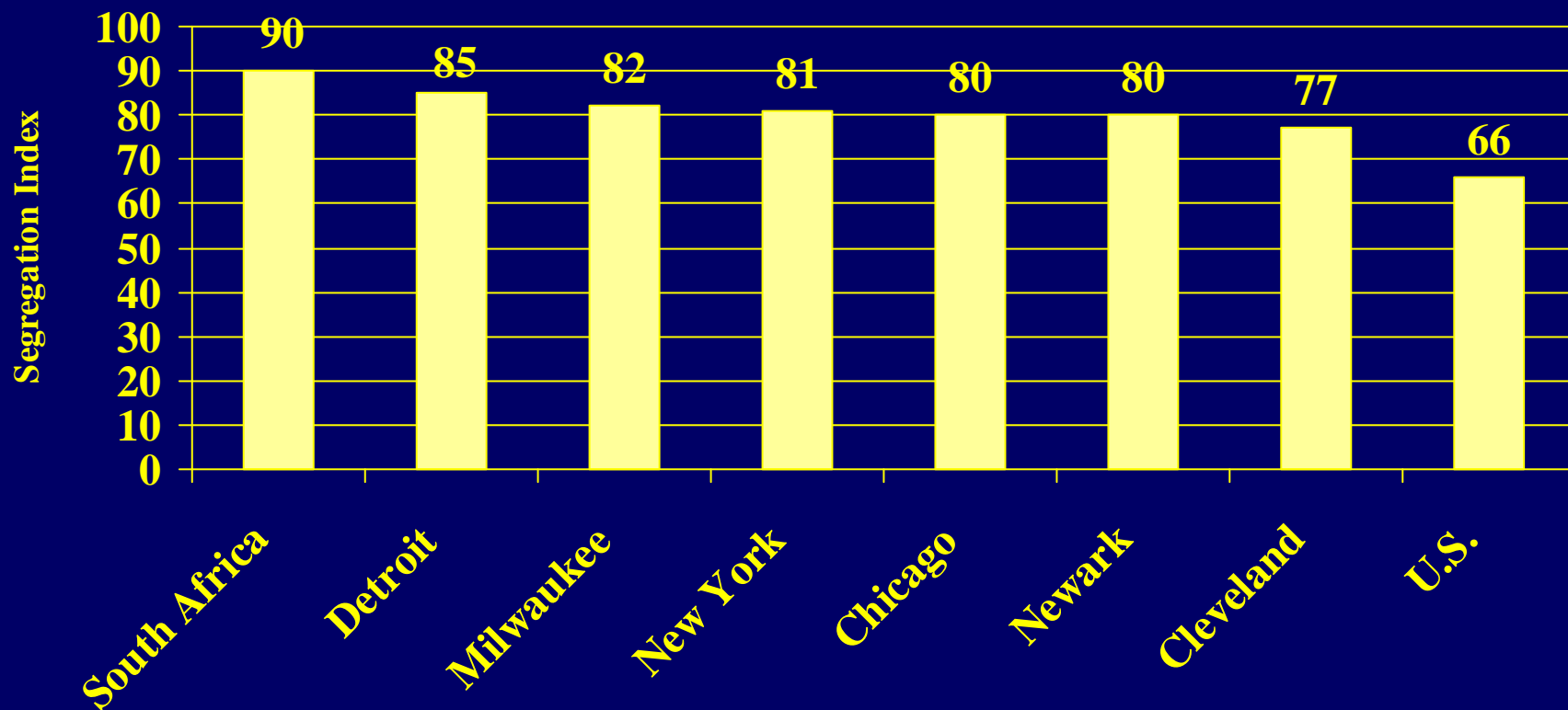
**Since the socio-political environment and SES is a key determinant of health, improving social and economic conditions is critical to improving health and reducing health disparities**

# Policy Area

Place Matters!

Geographic location determines exposure to risk factors and resources that affect health.

# American Apartheid: South Africa (de jure) in 1991 & U.S. (de facto) in 2000



Source: Massey 2004; Iceland et al. 2002; Glaeser & Vigitor 2001

# How Segregation Can Affect Health

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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.

# Segregation: Distinctive for Blacks

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- **Blacks are more segregated than any other racial/ethnic group.**
- **Segregation is inversely related to income for Latinos and Asians, but is high at all levels of income for blacks.**
- **The most affluent blacks (income over \$50,000) are more highly segregated than the poorest Latinos and Asians (incomes under \$15,000).**
- **Thus, middle class blacks live in poorer areas than whites of similar SES and poor whites live in much better neighborhoods than poor blacks.**
- **African Americans manifest a higher preference for residing in integrated areas than any other group.**

# Residential Segregation and SES

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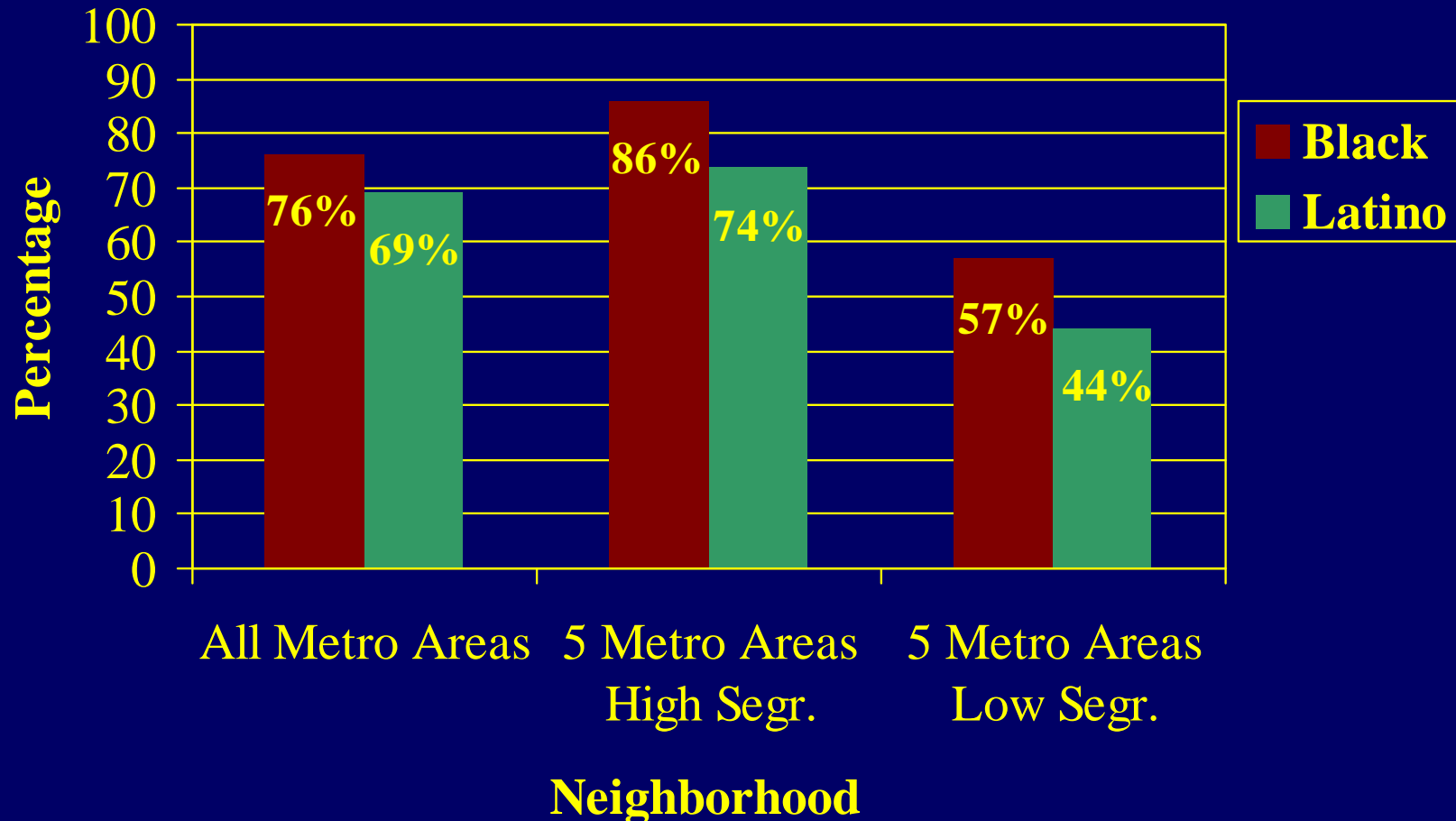
A study of the effects of segregation on young African American adults found that the elimination of segregation would erase black-white differences in

- Earnings
- High School Graduation Rate
- Unemployment

And reduce racial differences in single motherhood by two-thirds

# Proportion of Black & Latino Children in Poorer Neighborhoods Than Worst Off White Children

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# Reducing Inequalities II

## Address Underlying Determinants of Health

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- Improve conditions of work, re-design workplaces to reduce injuries and job stress
  - Enrich the quality of neighborhood environments and increase economic development in poor areas
  - Improve housing quality and the safety of neighborhood environments
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# Neighborhood Renewal and Health - I

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- A 10-year follow-up study of residents in 5 neighborhood types in Norway found that changes in neighborhood quality were associated with improved health.
- The neighborhood improvements: a new public school, playground extensions, a new shopping center with restaurants and a cinema, a subway line extension into the neighborhood, a new sports arena & park, and organized sports activities for adolescents.
- Residents of the area that had experienced these dramatic improvements in its social environment reported improved mental health 10 years later
- This effect was not explained by selective migration

# Neighborhood Renewal and Health - II

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- Neighborhood improvement in a poorly functioning area in England was linked to improved health and social interaction.
- Improvements: housing was refurbished (made safe & sheltered from strangers), traffic regulations improved, improved lighting & strengthening of windows, enclosed gardens for apartments, closed alleyways, and landscaping. Residents involved in planning process.
- One year later:
  - Levels of optimism, belief in the future, identification with their neighborhood, trust in other neighbors, and contact between the neighbors had all increased.
  - Symptoms of anxiety and depression had declined.

# Neighborhood Change and Health

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- The Moving to Opportunity Program randomized families with children in high poverty neighborhoods to move to less poor neighborhoods.
- It found, three years later, that there were improvements in the mental health of both parents and sons who moved to the low-poverty neighborhoods.

# Reducing Inequalities III

## Address Underlying Determinants of Health

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- Improve living standards for poor persons and households
  - Increase access to employment opportunities
  - Increase education and training that provide basic skills for the unskilled and better job ladders for the least skilled
  - Invest in improved educational quality in the early years and reduce educational failure
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# Increased Income and Health

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- A study conducted in the early 1970s found that mothers in the experimental income group who received expanded income support had infants with higher birth weight than that of mothers in the control group.
- Neither group experienced any experimental manipulation of health services.
- Improved nutrition, probably a result of the income manipulation, appeared to have been the key intervening factor.

# Income Change and Health

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- A natural experiment assessed the impact of an income supplement on the mental health of American Indian children.
- It found that increased family income (because of the opening of a casino) was associated with declining rates of deviant and aggressive behavior.

# Economic Policy is Health Policy

In the last 50 years, black-white differences in health have narrowed and widened with black-white differences in income

# Changes in Mortality Rates per 100,000 Population, Age 35-74, Between 1968 and 1978 (Men)

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Year	White	Black
1968	2,119.7	2,919.8
1978	1,738.2	2,331.8
Change	-381.5	-588.0
% Change	18.0	20.1

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# Changes in Life Expectancy at Birth Between 1968 and 1978 (Women)

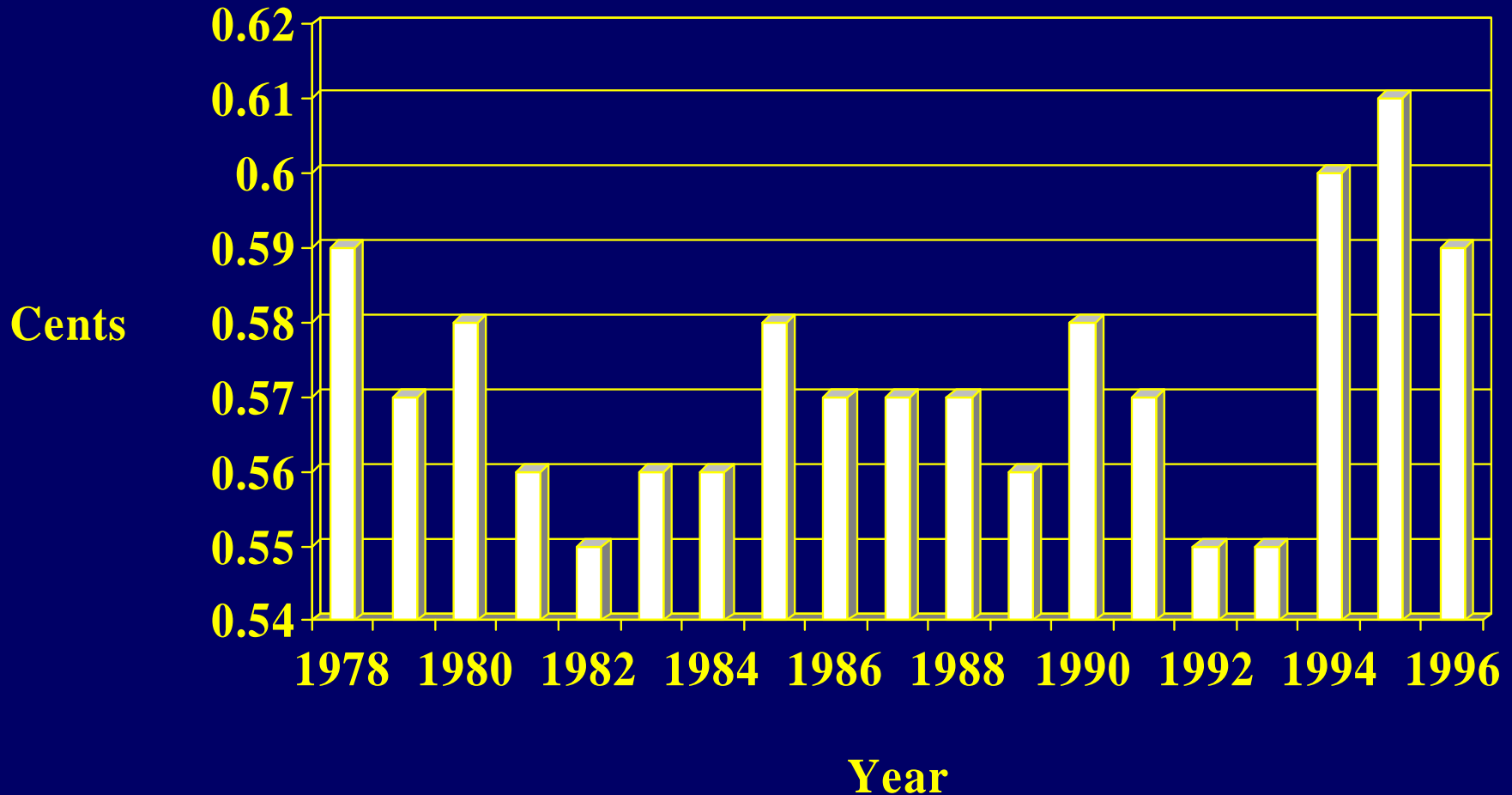
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Year	White	Black
1968	75.0	67.9
1978	77.8	73.6
Change	2.8	5.7
% Change	3.7	8.4

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# Median Family Income of Blacks per \$1 of Whites

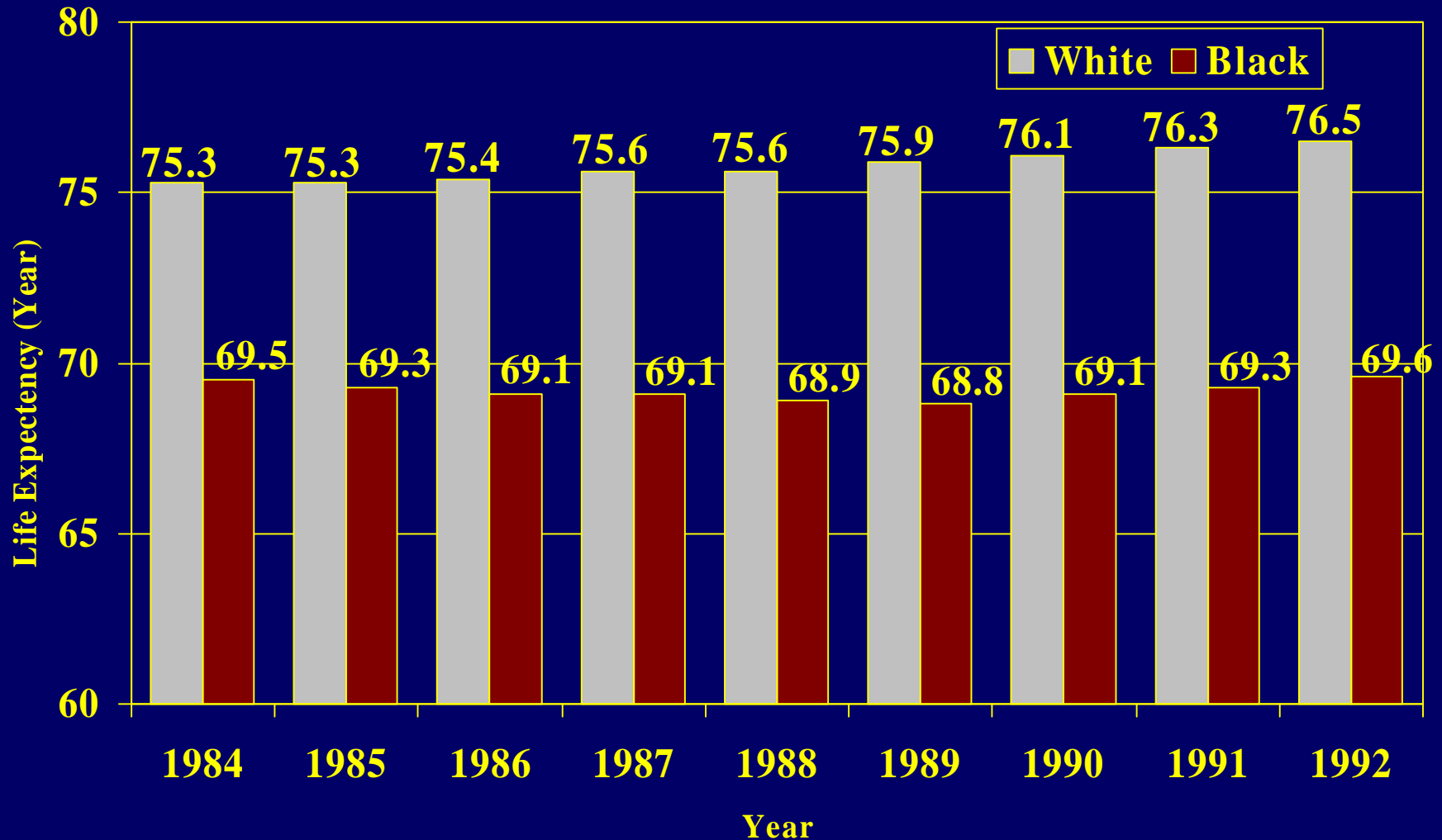
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Source: Economic Report of the President, 1998

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



# Policy Area

Reducing Childhood Poverty

Challenges and Opportunities

# Childhood Poverty, U.S., 1996

## Percent of Children Under Age 18

<b>Income</b>	<b>Poor</b>	<b>Near Poor</b>	<b>Economically Vulnerable</b>
All	20.5	22.7	43.2
White, non-Hispanic	11.1	19.7	30.8
Asian or Pacific Islander	19.5	16.4	35.9
Black, non-Hispanic	39.9	28.1	68.0
Hispanic	40.3	31.7	72.0

Source: U.S. Census Bureau (Pamuk et al. 1998)

# 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.

<b>Country</b>	<b>% Children</b>	<b>Child Poverty (%)</b>	
	<b>1 Parent HH</b>	<b>1 Parent</b>	<b>Other</b>
<b>Spain</b>	<b>2</b>	<b>32</b>	<b>12</b>
<b>Italy</b>	<b>3</b>	<b>22</b>	<b>20</b>
<b>Mexico</b>	<b>4</b>	<b>28</b>	<b>26</b>
<b>France</b>	<b>8</b>	<b>26</b>	<b>6</b>
<b>Ireland</b>	<b>8</b>	<b>48</b>	<b>14</b>
<b>Germany</b>	<b>10</b>	<b>51</b>	<b>6</b>
<b>United States</b>	<b>19</b>	<b>55</b>	<b>16</b>
<b>United Kingdom</b>	<b>20</b>	<b>46</b>	<b>13</b>
<b>Sweden</b>	<b>21</b>	<b>7</b>	<b>2</b>

Source: UNICEF (United Nations Children's Fund), 2000

## Child Poverty Rates

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Country	Before Taxes	After Taxes
Netherlands	16.0	7.7
Spain	21.1	12.3
Sweden	23.4	2.6
Canada	24.6	15.5
Italy	24.6	20.5
United States	26.7	22.4
Australia	28.1	12.6
France	28.7	7.9
United Kingdom	36.1	19.8
Poland	44.4	15.4

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Source: UNICEF (United Nations' Children's Fund), 2000

# Policy Matters

**Investments in early childhood programs in the U.S. have been shown to have decisive beneficial effects**

A large, light-skinned hand is shown from the top right, holding a smaller, darker-skinned hand from the bottom left. The hands are positioned centrally, with the larger hand's fingers gently gripping the smaller hand. The background is a solid, vibrant blue. The text is overlaid on this image.

# The High/Scope Perry Preschool Study to Age 40

Larry Schweinhart

*High/Scope Educational Research Foundation*

[www.highscope.org](http://www.highscope.org)

# High/Scope Perry Preschool

- **123 young African-American children, living in poverty and at risk of school failure.**
- **Randomly assigned to initially similar program and no-program groups.**
- **4 teachers with bachelors' degrees held a daily class of 20-25 three- and four-year-olds and made weekly home visits.**
- **Children participated in their own education by planning, doing, and reviewing their own activities.**

# Results at Age 40

- **Those who received the program had better academic performance (more likely to graduate from high school)**
- **Program recipients did better economically (higher employment, annual income, savings & home ownership)**
- **The group who received high-quality early education had fewer arrests for violent, property and drug crimes**
- **The program was cost effective: A return to society of \$17 for every dollar invested in early education**

# Conclusions

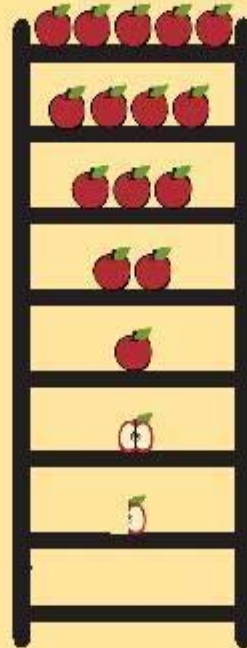
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1. Inequalities in health are created by larger inequalities in society.
  2. SES and racial/ethnic disparities in health reflect the successful implementation of social policies.
  3. Eliminating them requires political will for and commitment to new strategies to improve living and working conditions.
  4. Our great need is to begin in a systematic and comprehensive manner, to use all of the current knowledge that we have.
  5. Now is the time
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[www.macses.ucsf.edu](http://www.macses.ucsf.edu)

## REACHING FOR A HEALTHIER LIFE

*Facts on Socioeconomic Status and Health in the U.S.*



The John D. and Catherine T. MacArthur Foundation Research Network on Socioeconomic Status and Health