Social Inequalities in Health: Enduring 21st Century Crises

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The Big Picture

- U.S. ranks near the bottom of industrialized countries on health, and we are losing ground:
- 1960 = 11th on infant mortality;
- 2004 = 29th. US ranked behind Cuba, Korea, Czech Republic, Greece, N. Ireland and Hungary in taking care of our infants.
- And it is not just the minorities doing badly! In 2004, white America would be = 26th; Blacks = 35th (just behind Russia).

Life Expectancy

- 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

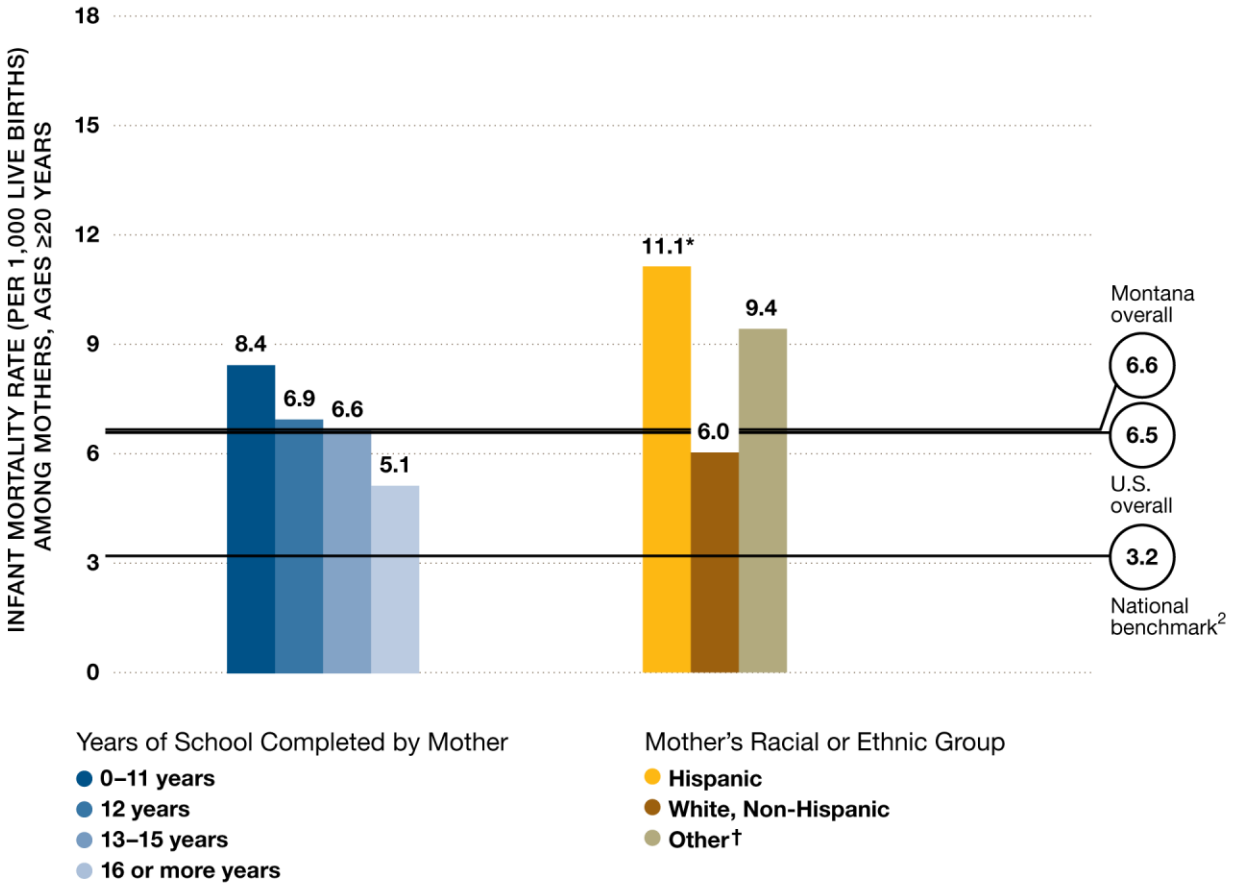
A Larger Context for Disparities

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

MONTANA:
Gaps in Infant Mortality

ROBERT WOOD JOHNSON FOUNDATION
Commission to Build a Healthier America



Infant mortality rates[1]—a key indicator of overall health—appear to vary by mother's education and racial or ethnic group in Montana.

- Although babies born to mothers with less education appear more likely to die before reaching their first birthdays, none of the differences across maternal education groups is statistically significant.
- Infant mortality rates also appear to be lower among babies born to white mothers compared with mothers in other racial or ethnic groups, but again these differences are not statistically significant.

Comparing Montana's experience against the national benchmark[2] for infant mortality reveals unrealized health potential among Montana babies across maternal education and racial or ethnic groups. Infants in every group 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.

Source: 2000-2002 Period Linked Birth/Infant Death Data Set.

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.

* Rate based on fewer than 20 infant deaths and considered statistically unreliable.

† 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.

Socioeconomic Status (SES) – often measured by income, education or occupational status is a key predictor of differences in health.

SAT Scores by Income

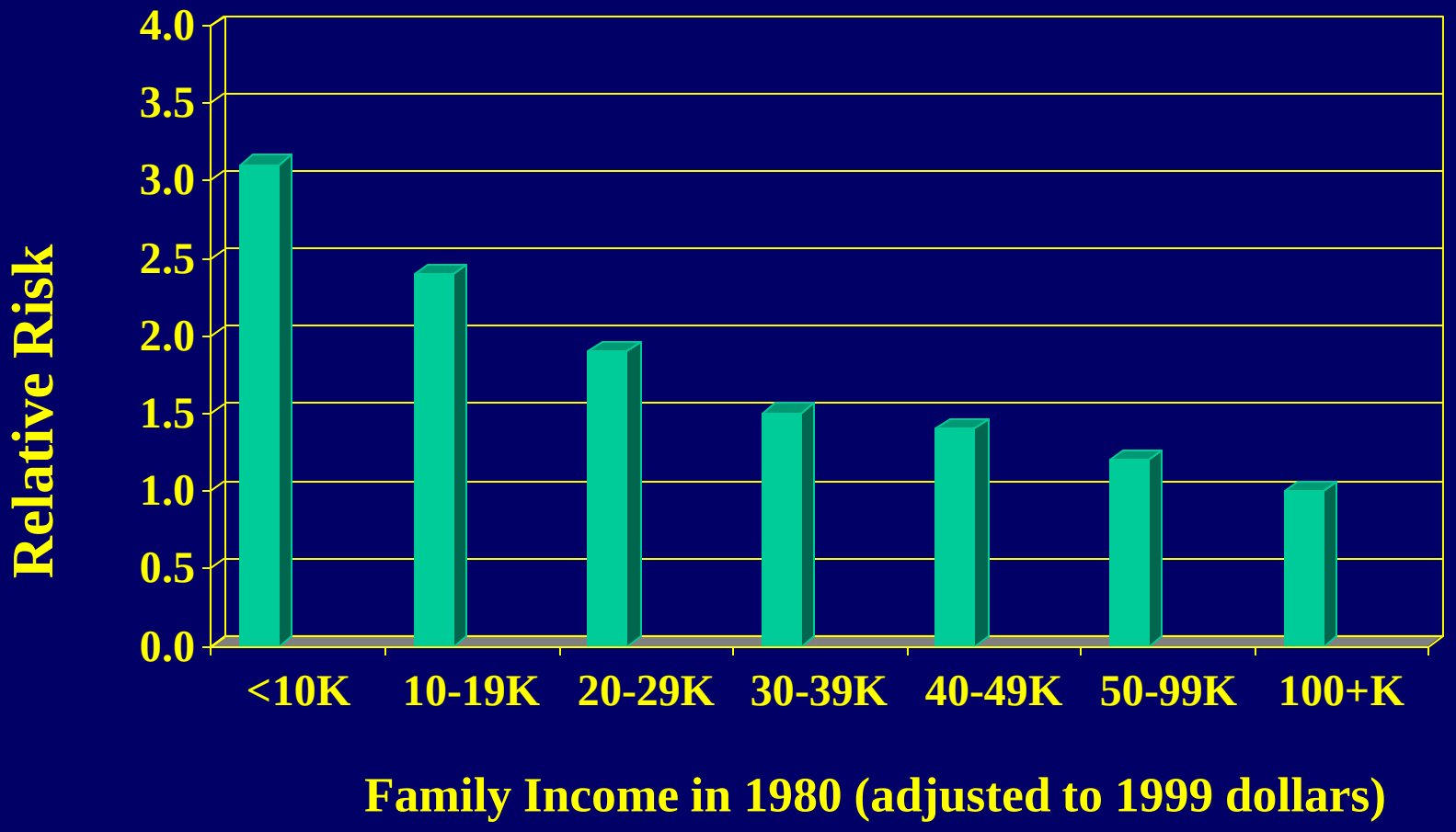
Family Income	Median Score
More than $100,000	1129
$80,000 to $100,000	1085
$70,000 to $80,000	1064
$60,000 to $70,000	1049
$50,000 to $60,000	1034
$40,000 to $50,000	1016
$30,000 to $40,000	992
$20,000 to $30,000	964
$10,000 to $20,000	920
Less than $10,000	873

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

SES: A Key Determinant of Heath

- 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.

Relative Risk of Premature Death by Family Income (U.S.)



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

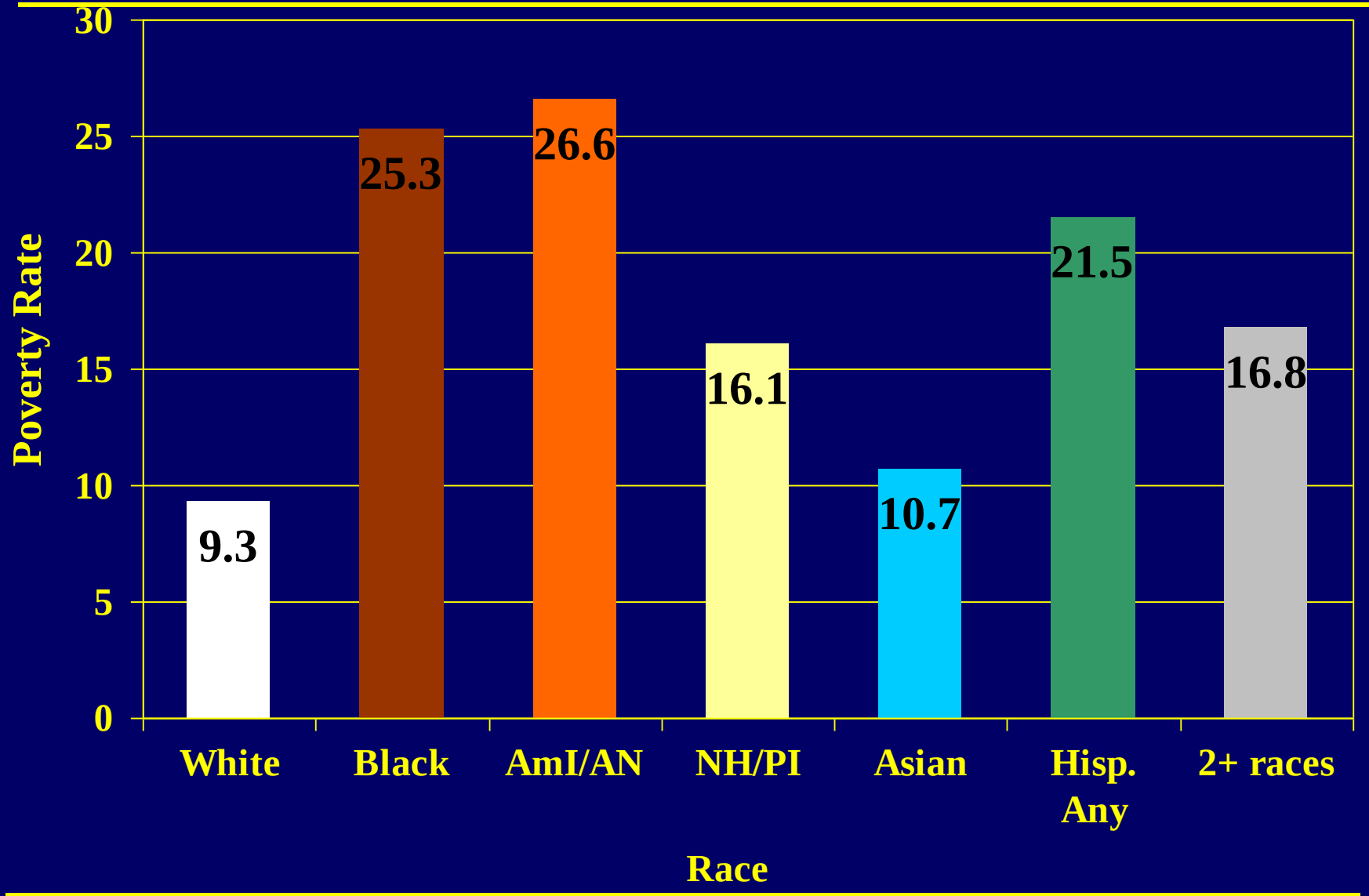
SES and Health Risks

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

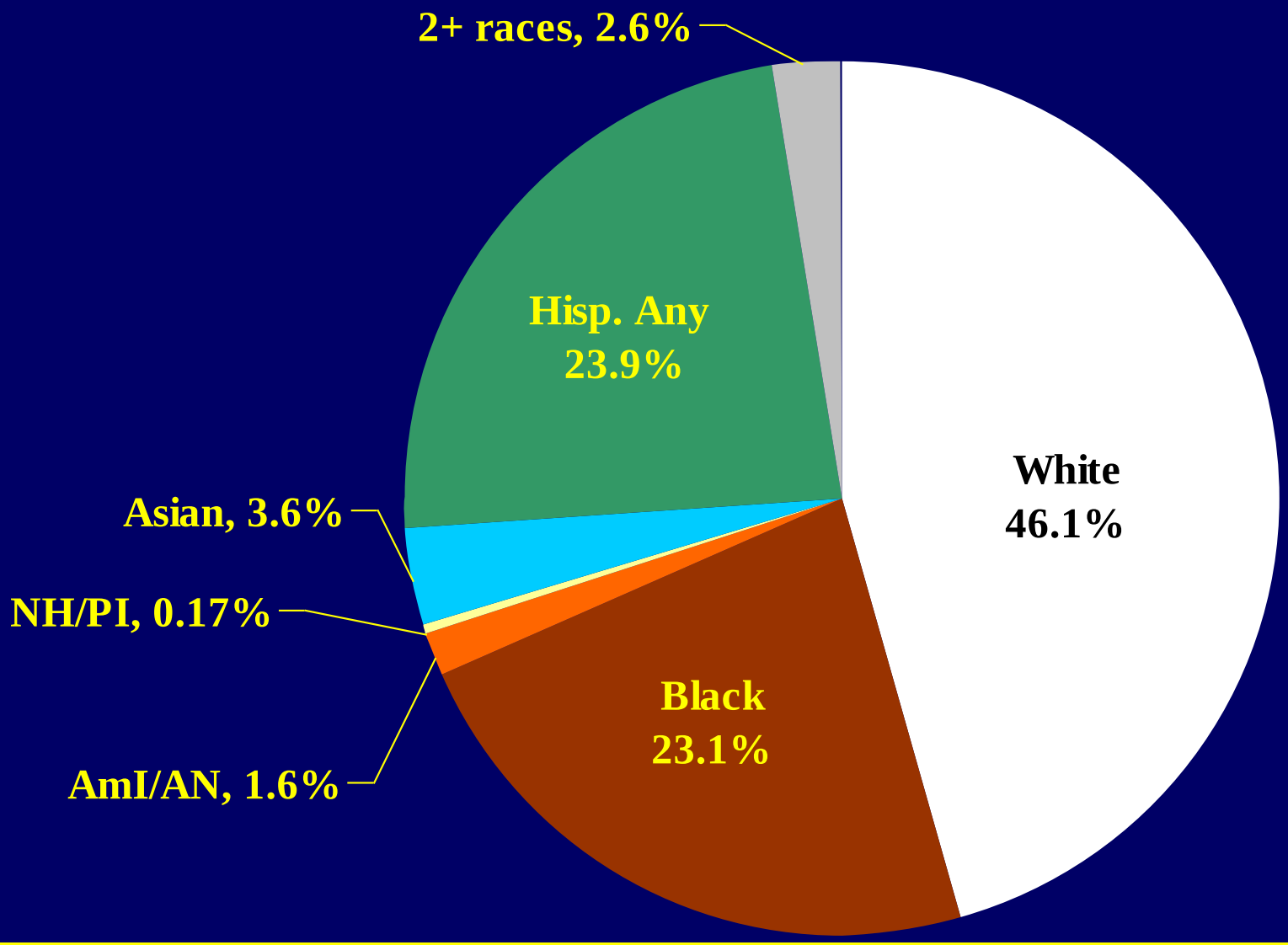
Health practices (smoking, poor nutrition, drinking, exercise, etc.) are all socially patterned

Percent Poor by Race/Ethnicity



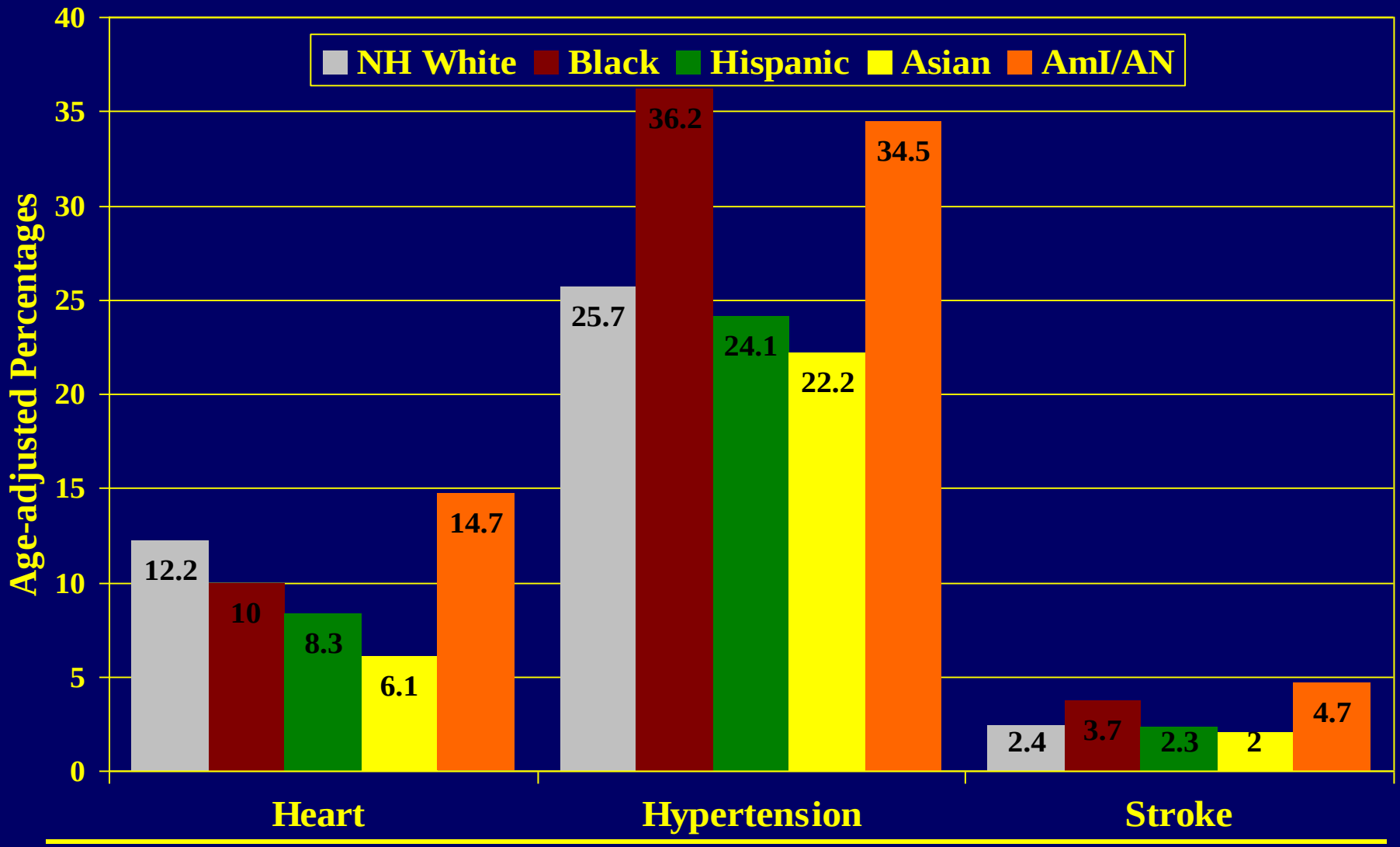
U.S. Census 2006

Composition of People in Poverty, U.S.



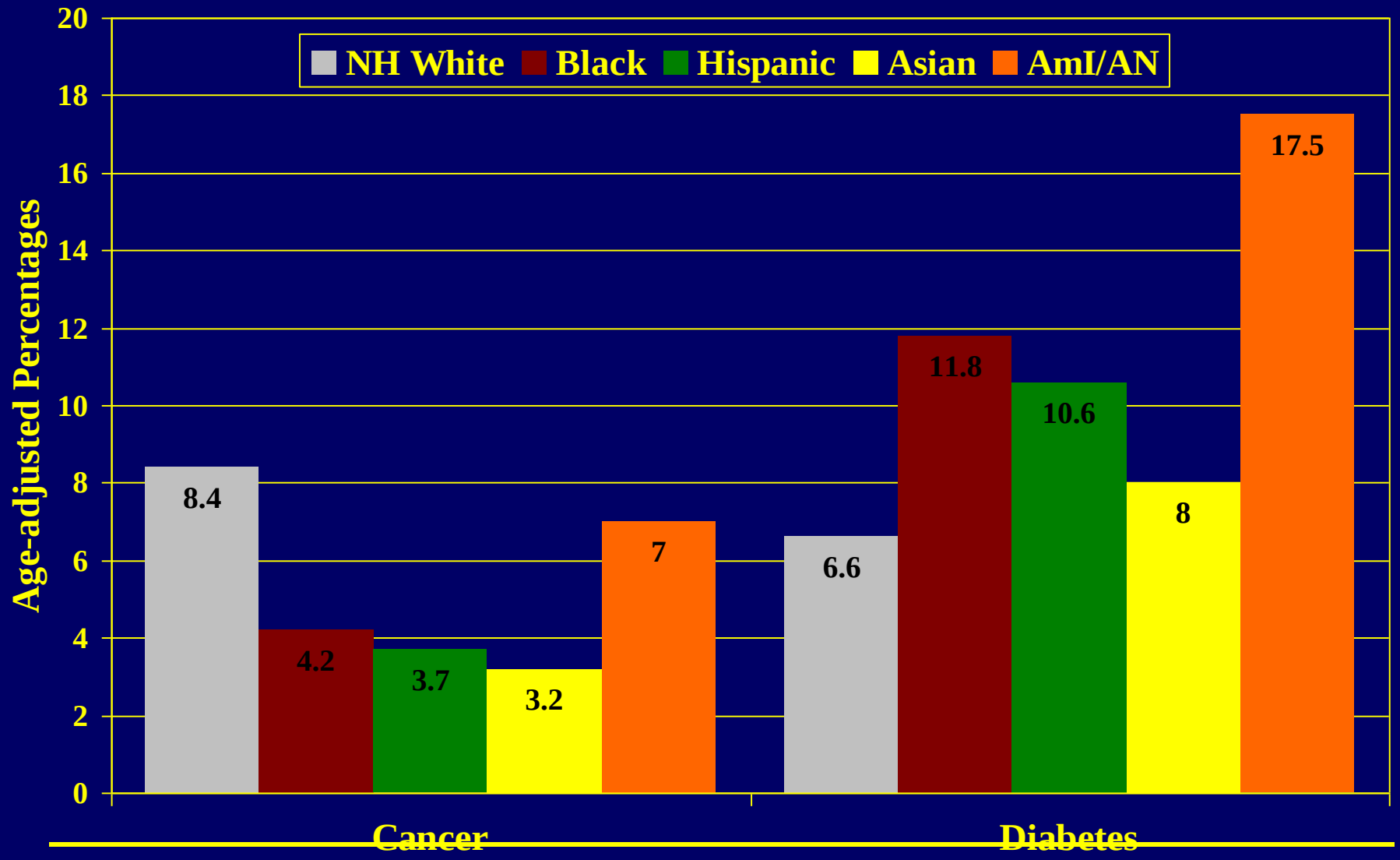
U.S. Census 2006

Circulatory Conditions by Race/Ethnicity Adults Age 18 years +



National Health Statistics Reports, 3/9/2010

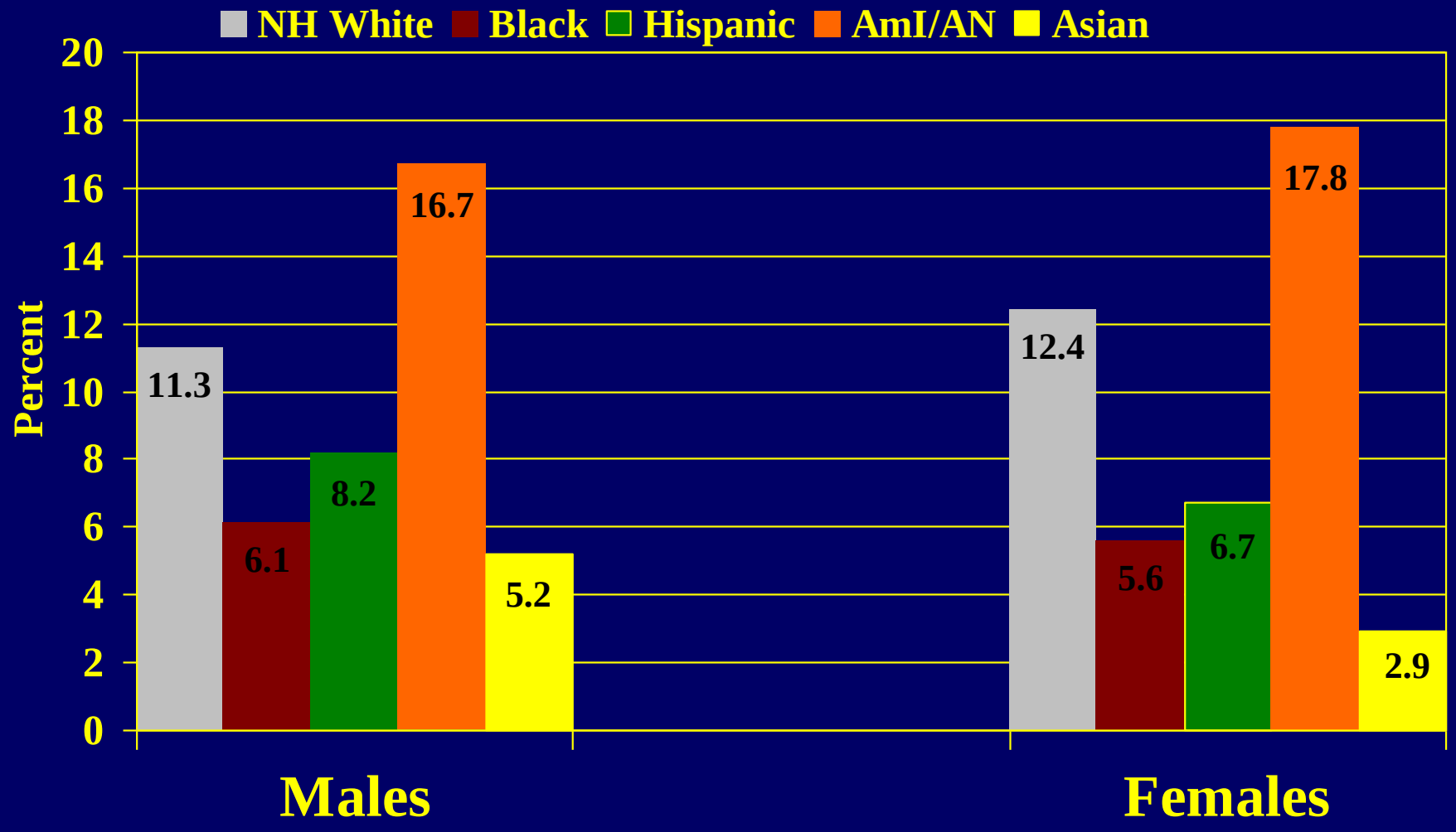
Cancer and Diabetes by Race/Ethnicity
Adults Age 18 years +



National Health Statistics Reports, 3/9/2010

The disparities start early

Smoking among 12-17 year olds, 2006-2008

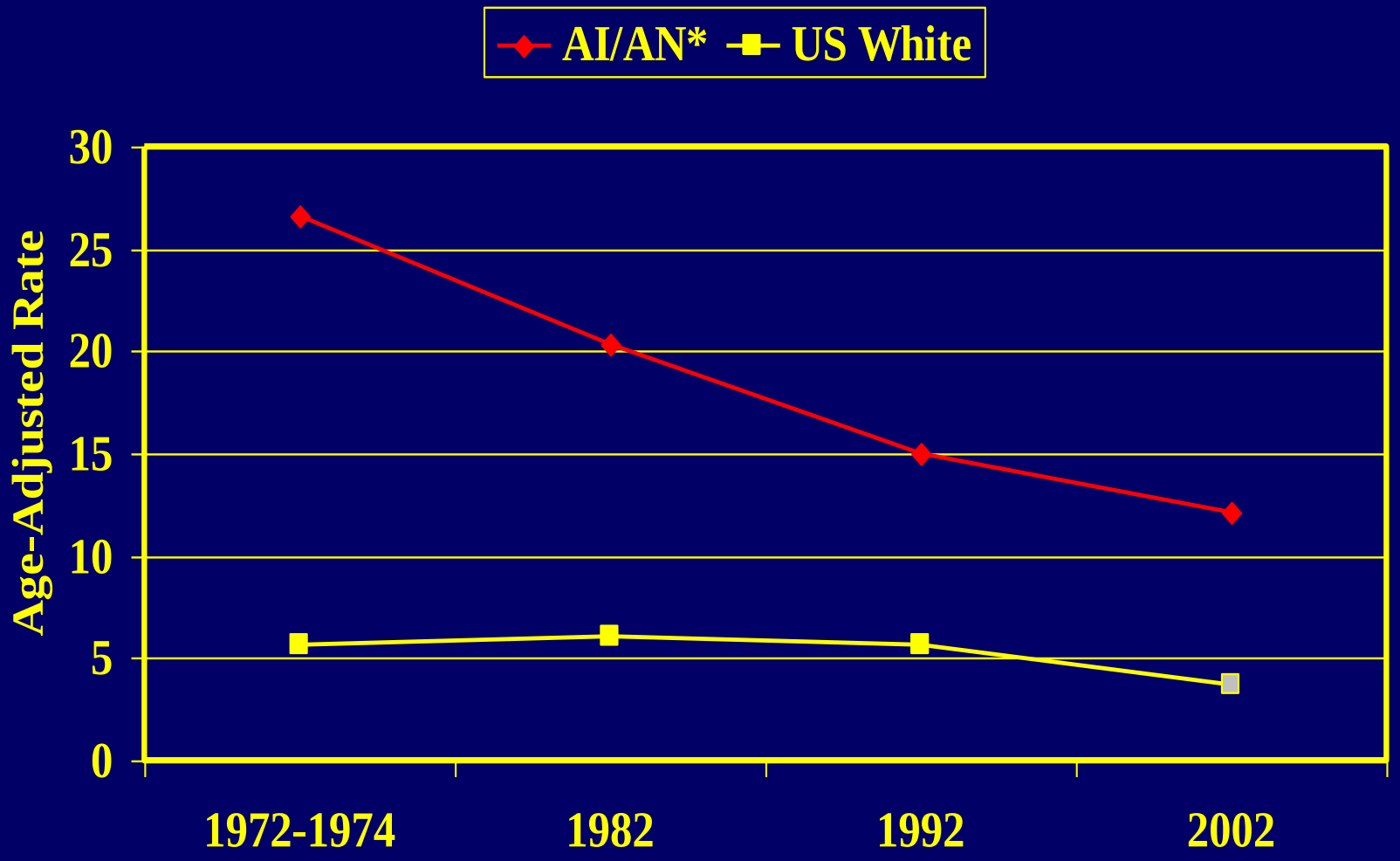


CDC, MMWR 2011

Racial Disparities in Health Persist

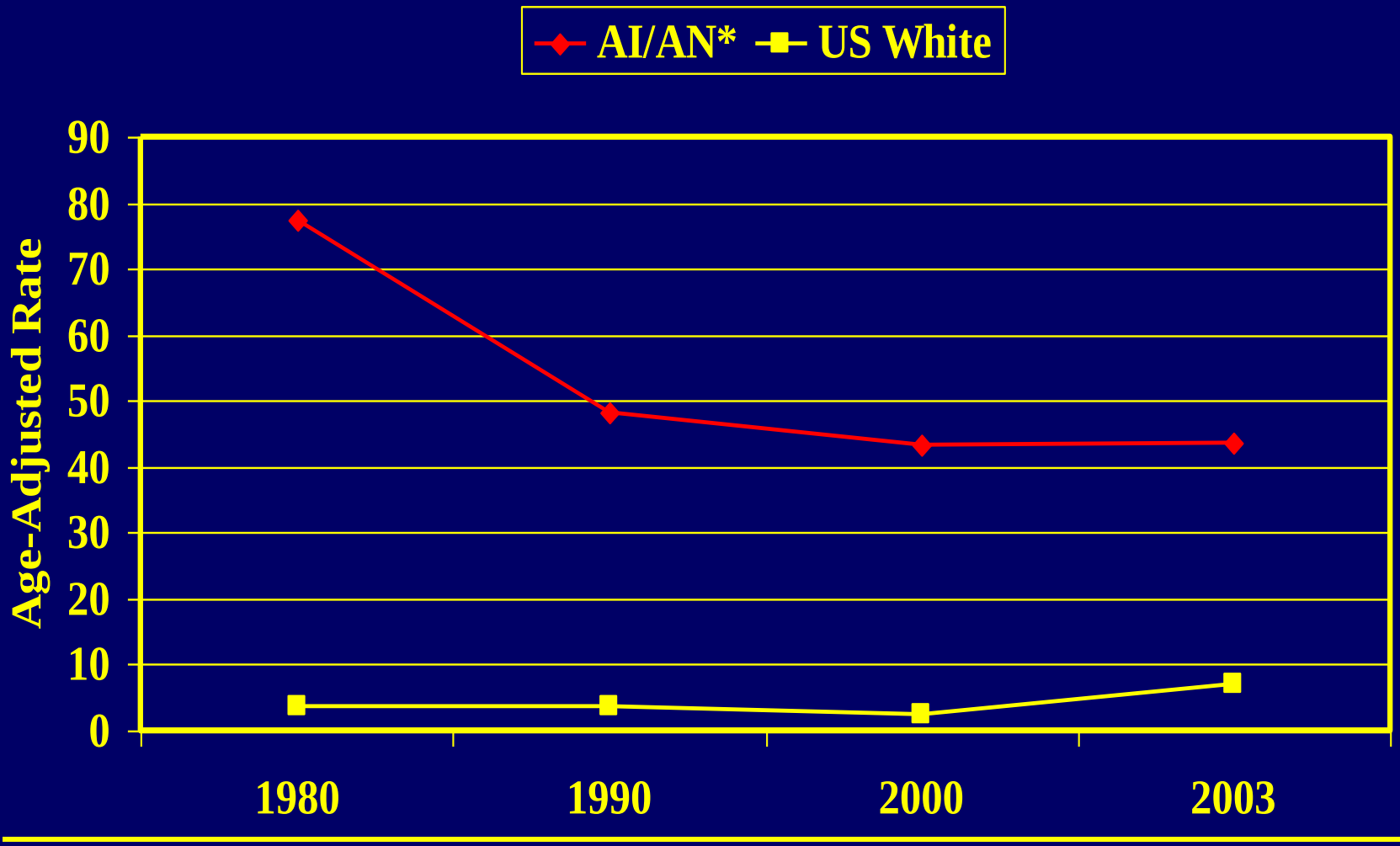
- But for many outcomes, the absolute rates are going down
- We need to build and accelerate the progress that has been made

Homicide Mortality 1972-2002



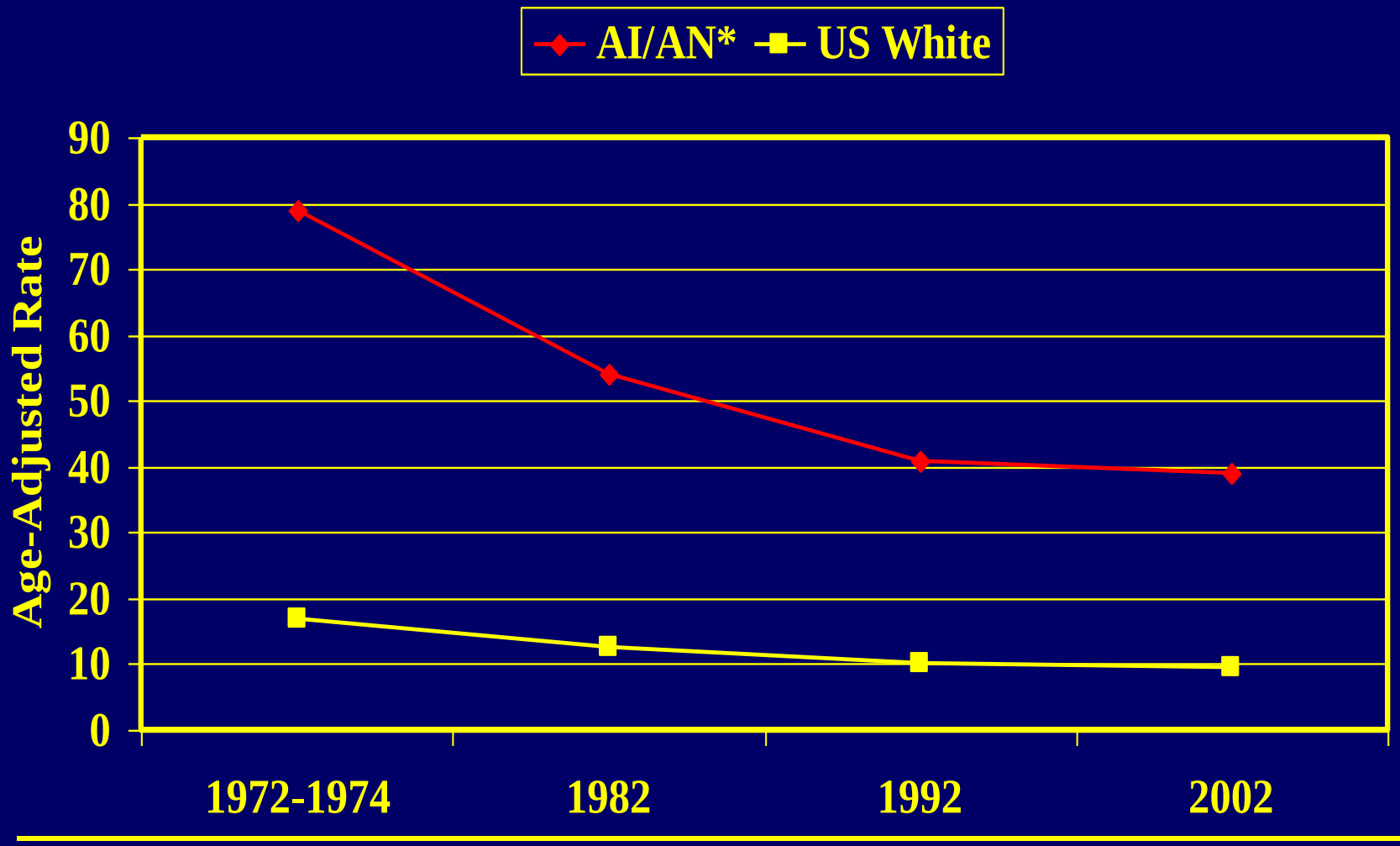
IHS, 2002-2003 *adjusted for misreporting of AI/AN race on death certificate

Alcohol-Related Mortality 1980-2003



IHS, 2002-2003 *adjusted for misreporting of AI/AN race on death certificate

Liver Cirrhosis Mortality 1972-2002



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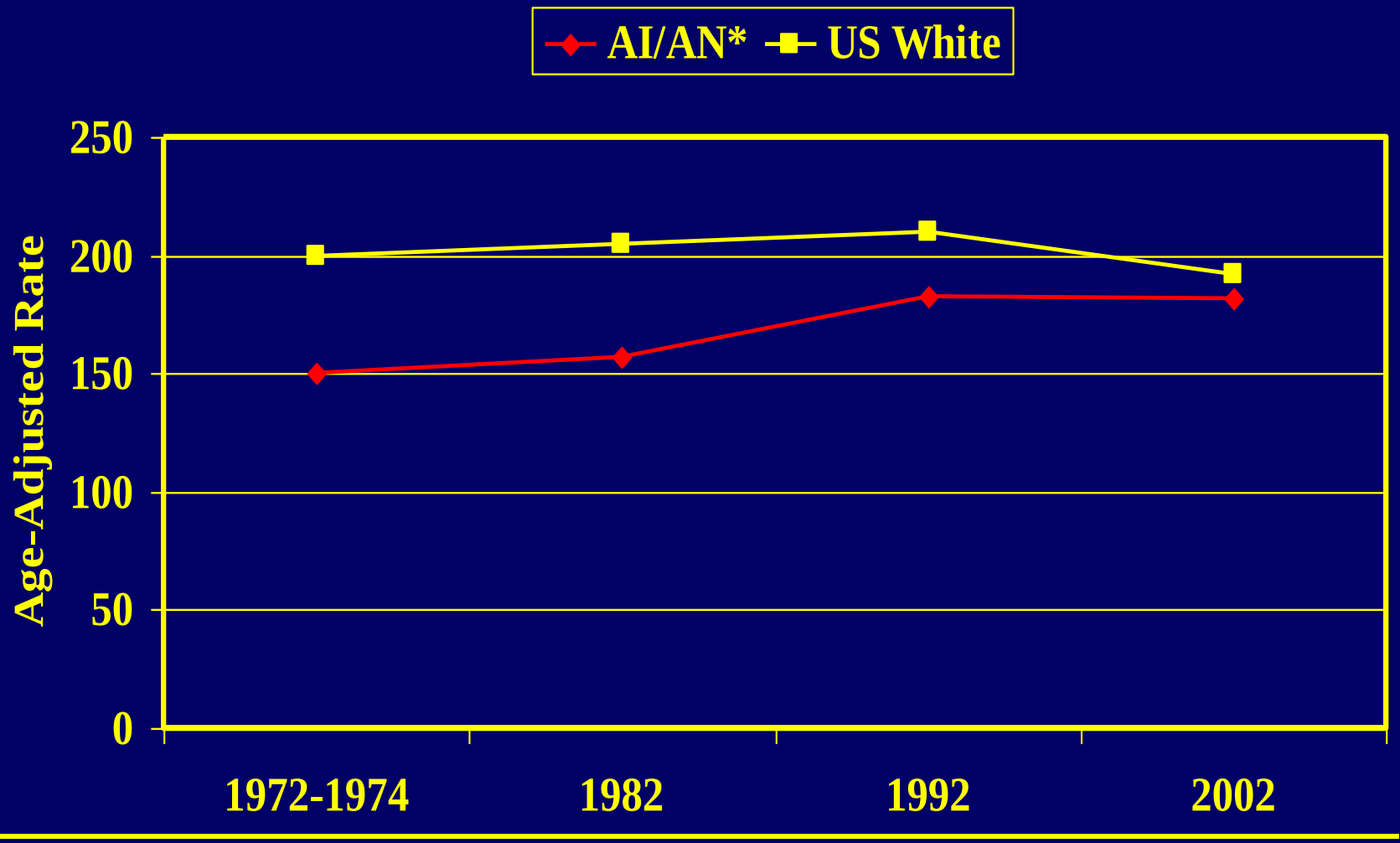
Cancer Mortality 1972-2002



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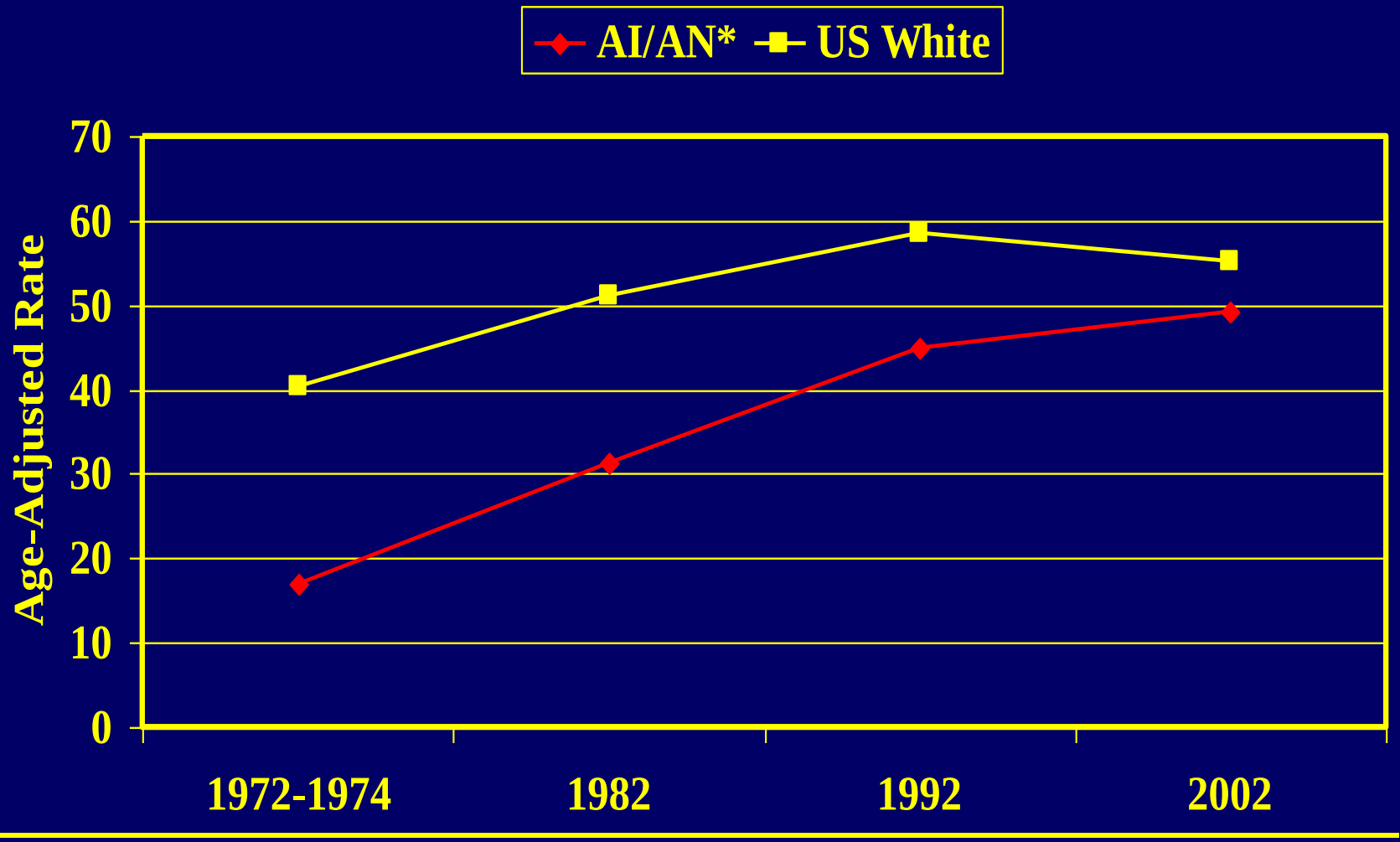
Lung Cancer Mortality 1972-2002



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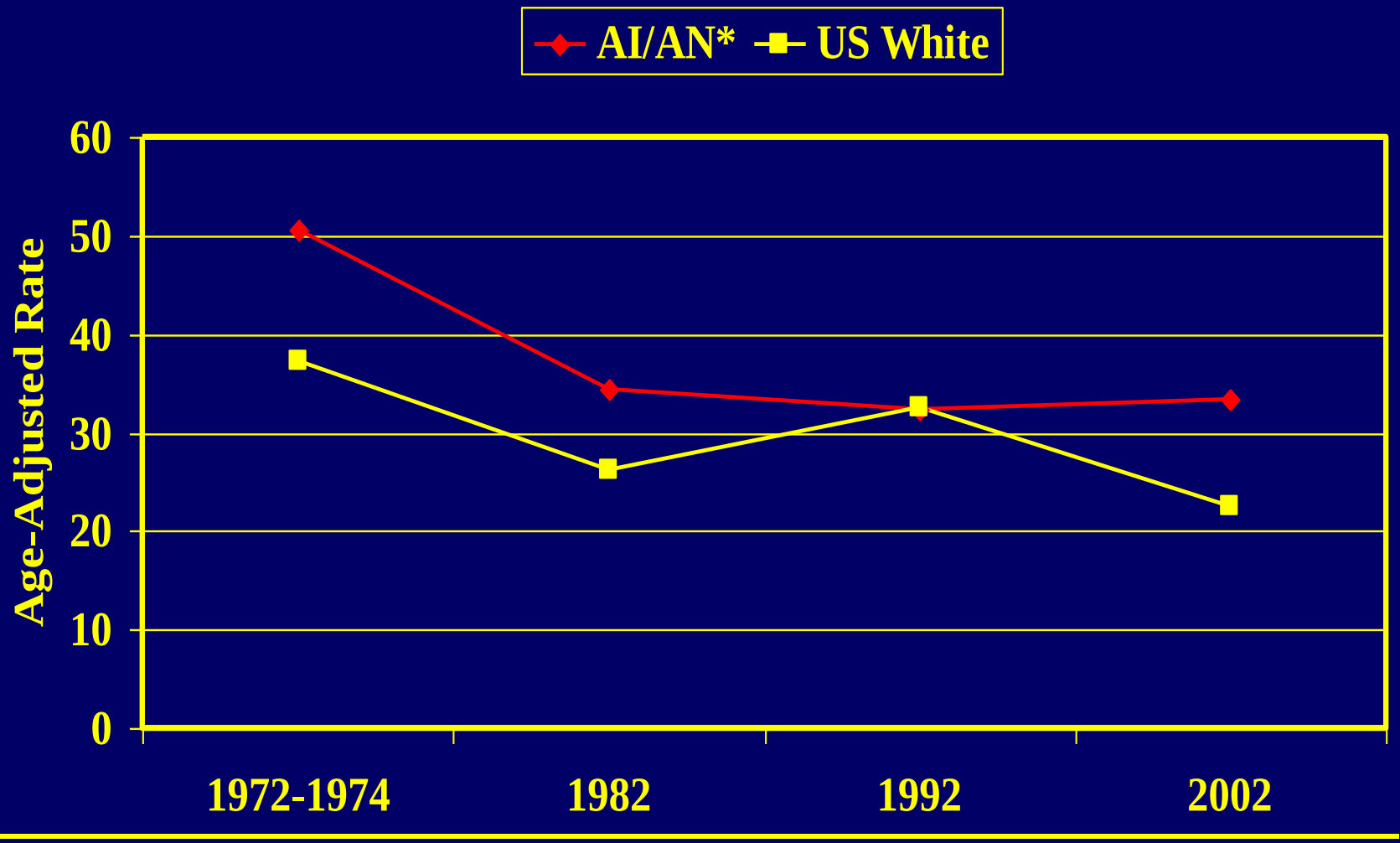
Flu and Pneumonia Mortality 1972-2002



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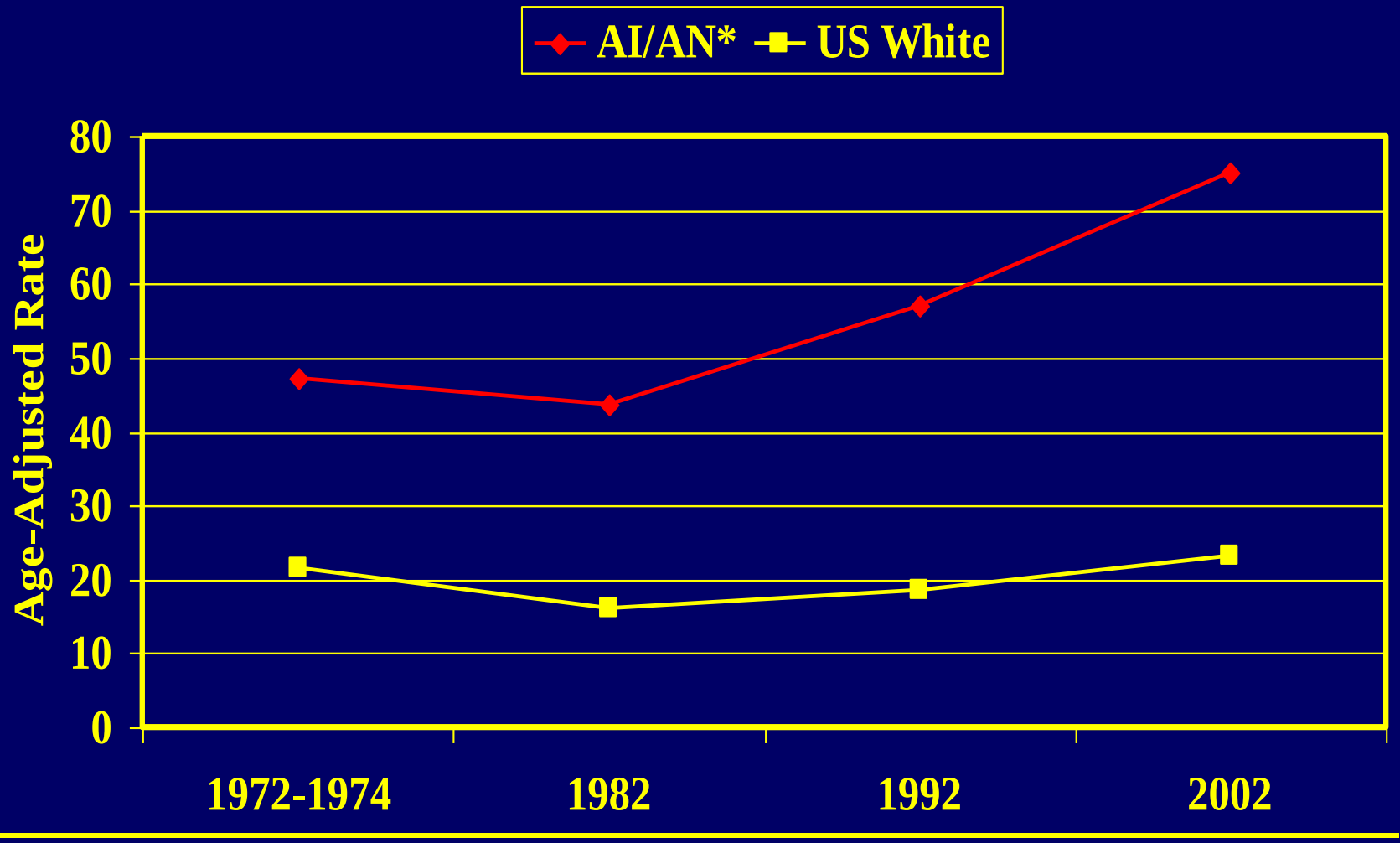
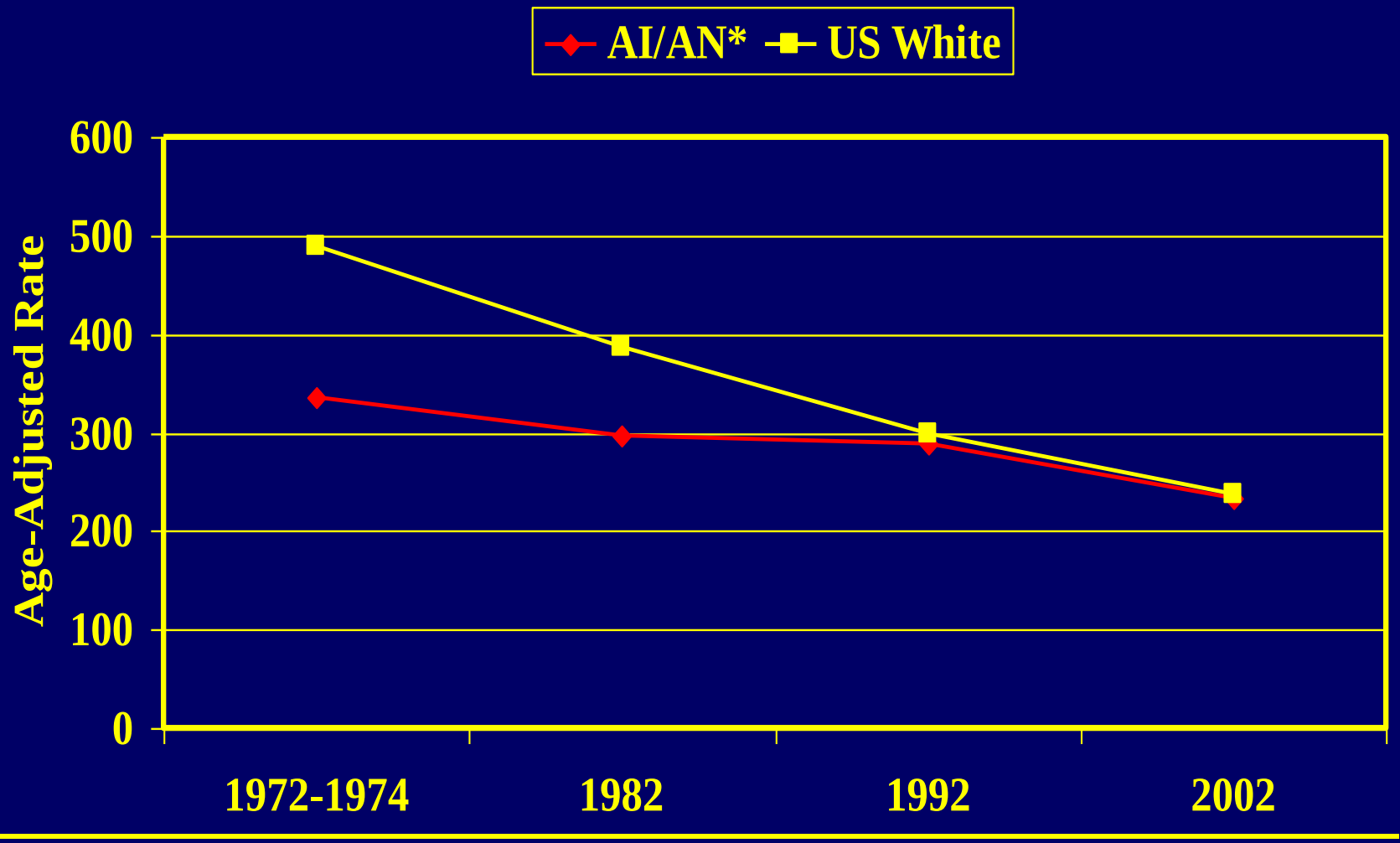
Diabetes Mortality 1972-2002



IHS, 2002-2003 *adjusted for misreporting of AI/AN race on death certificate

Heart Disease Mortality 1972-2002



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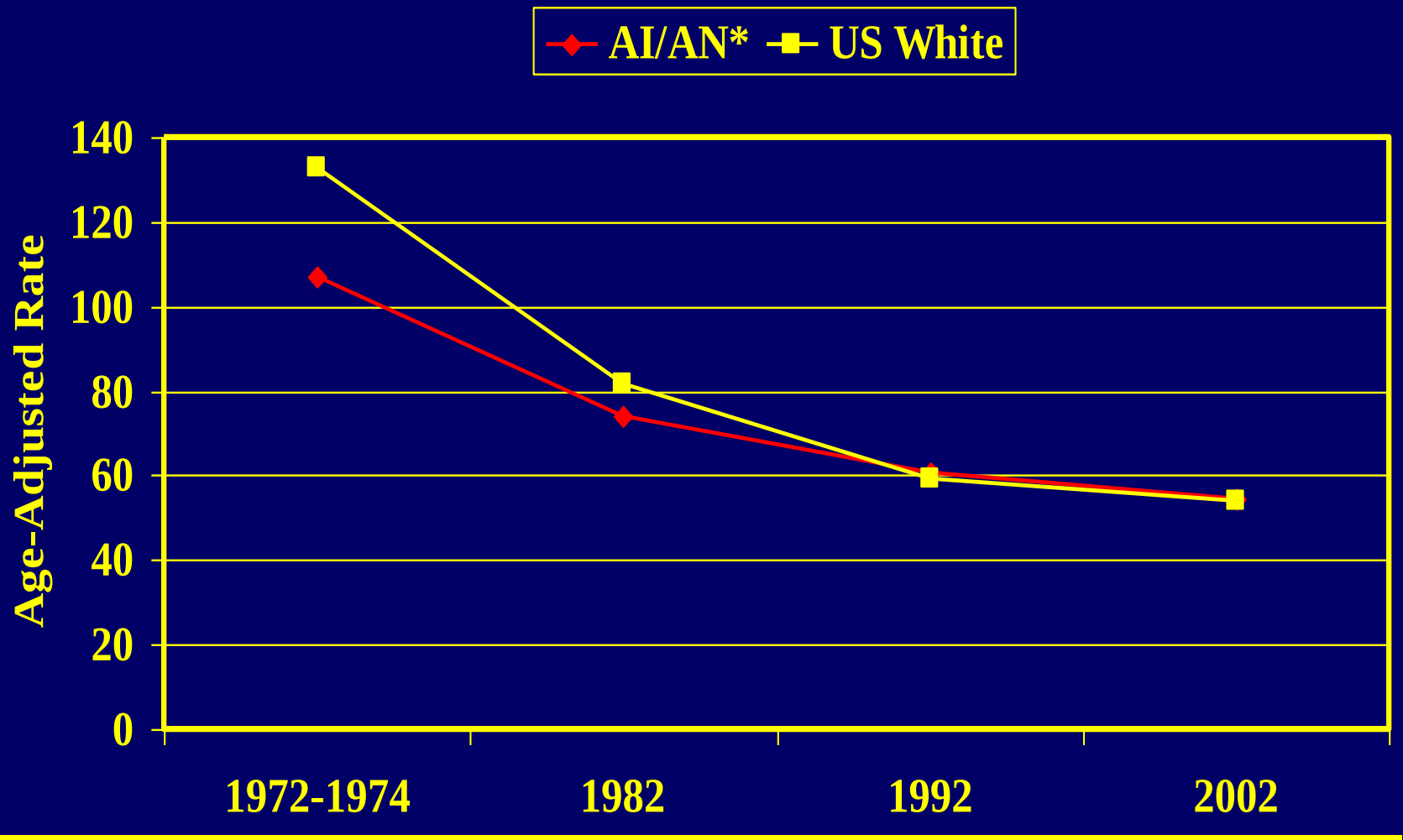
Stroke Mortality 1972-2002



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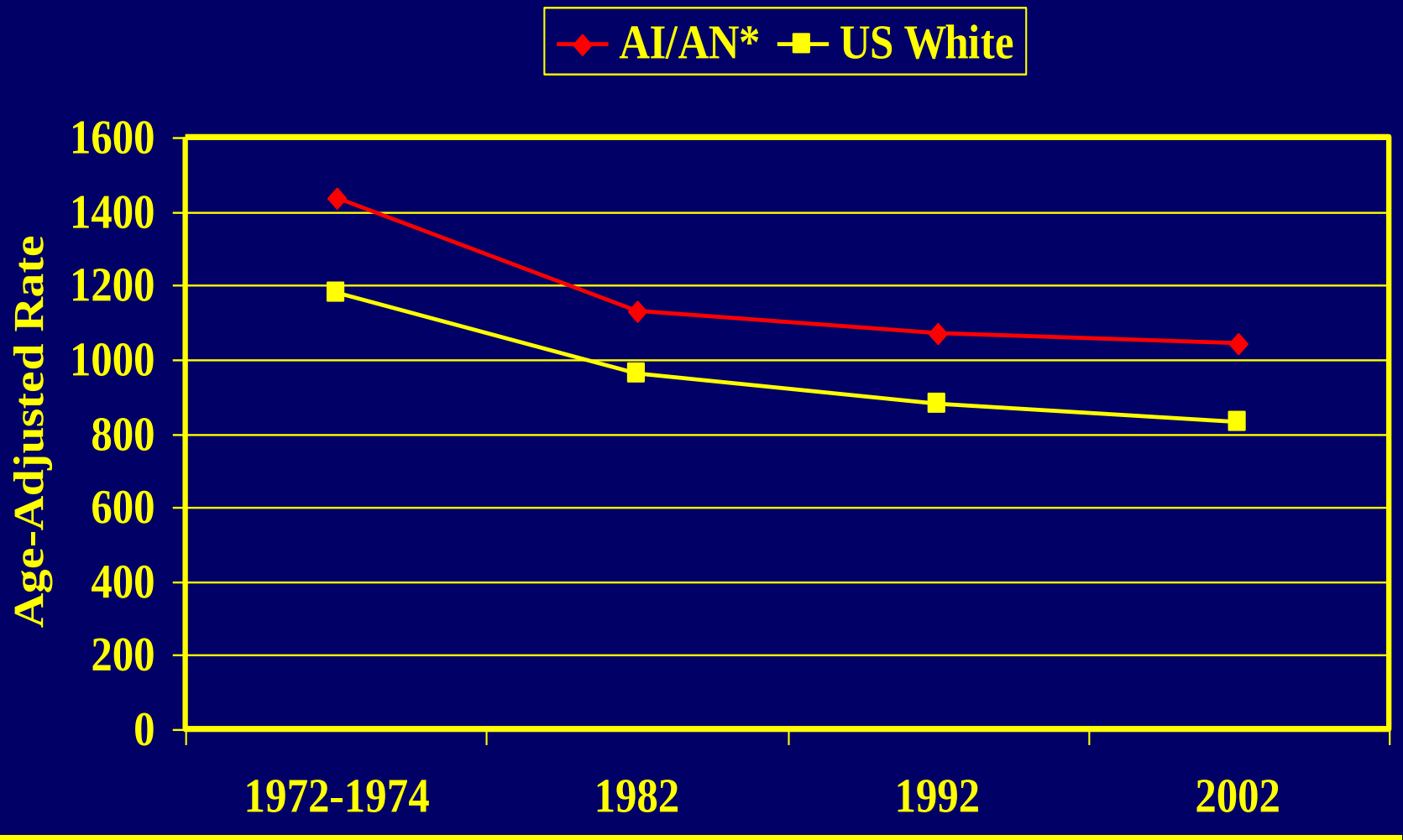
All Cause Mortality 1972-2002



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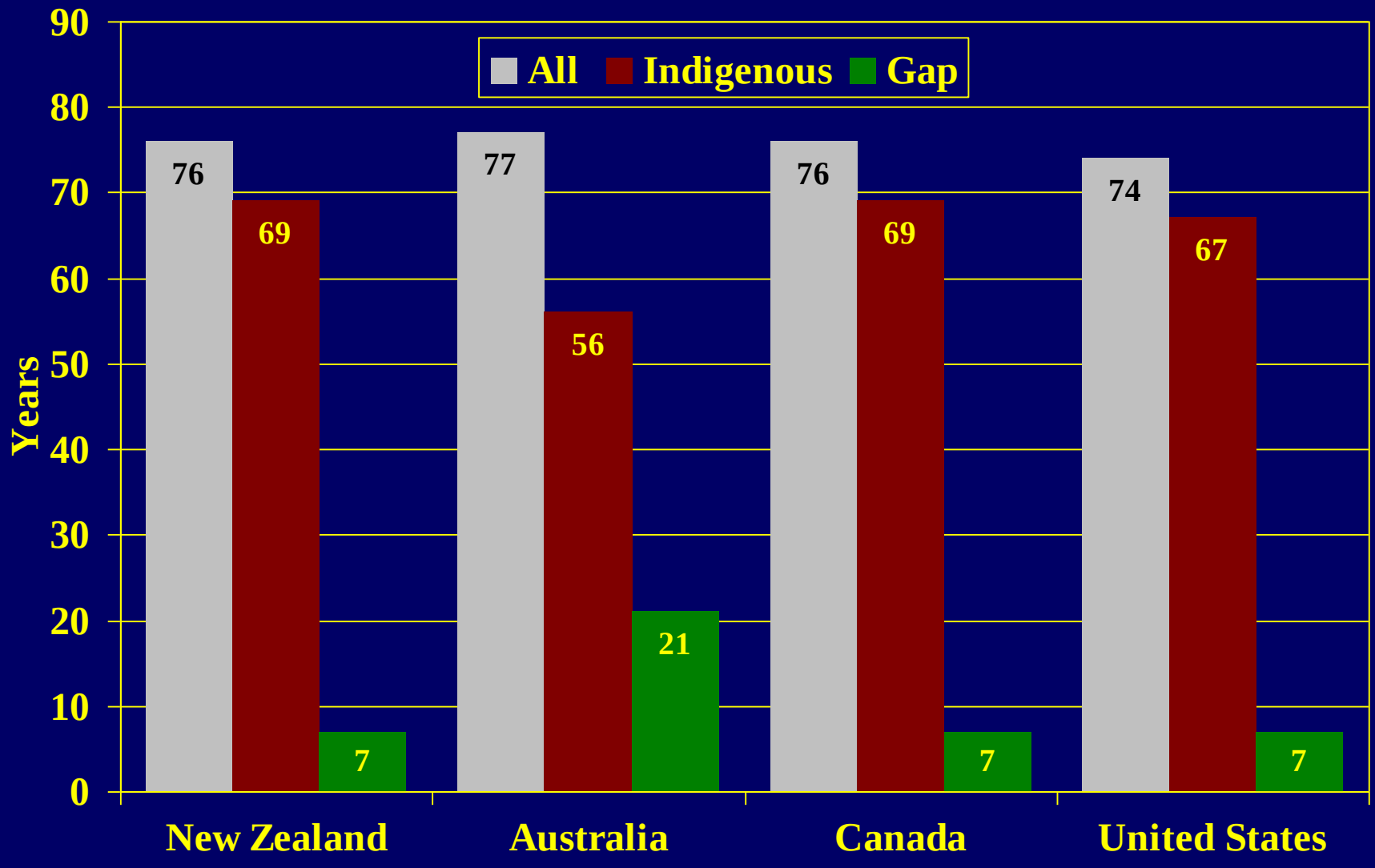
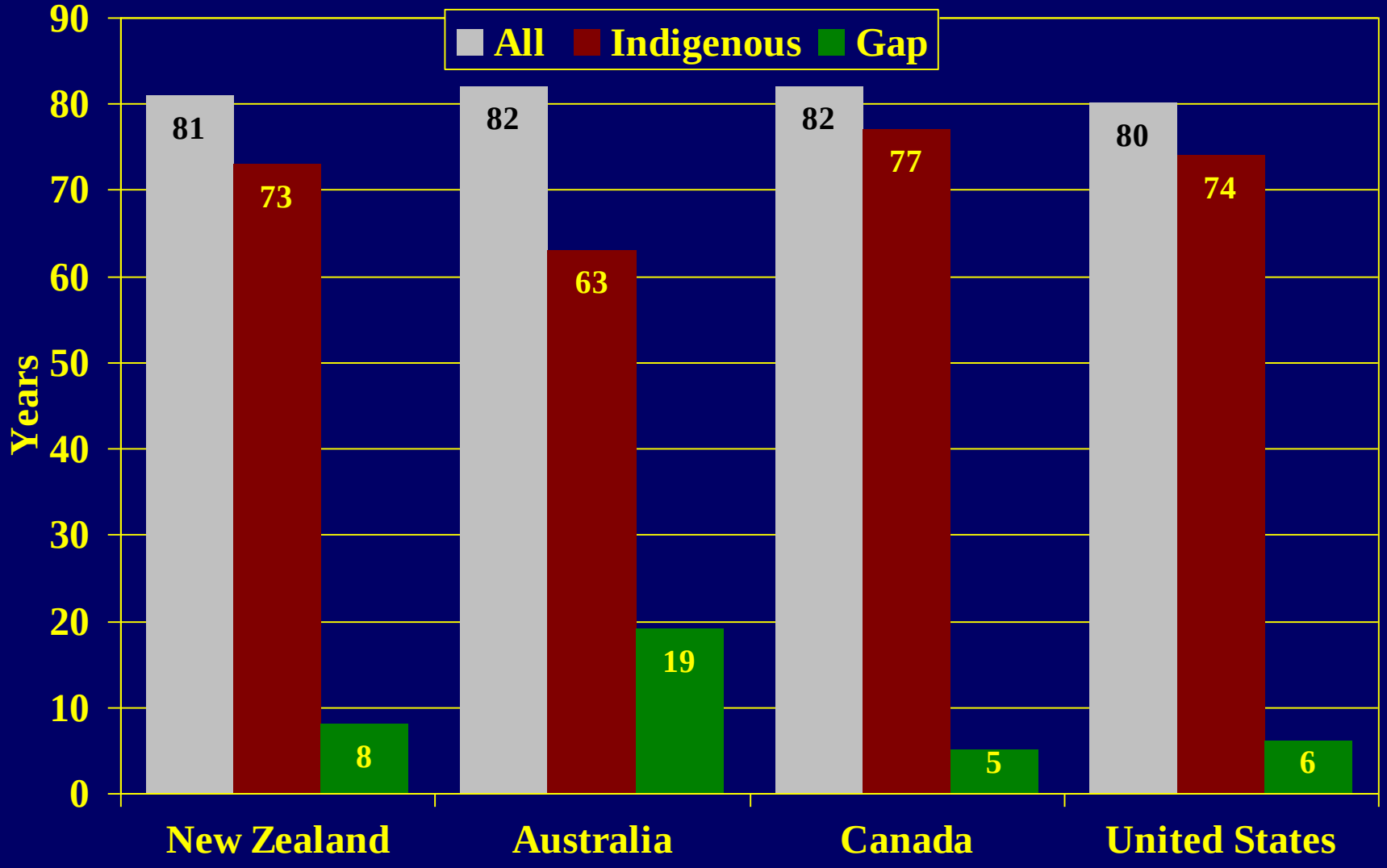
Life Expectancy Indigenous Men



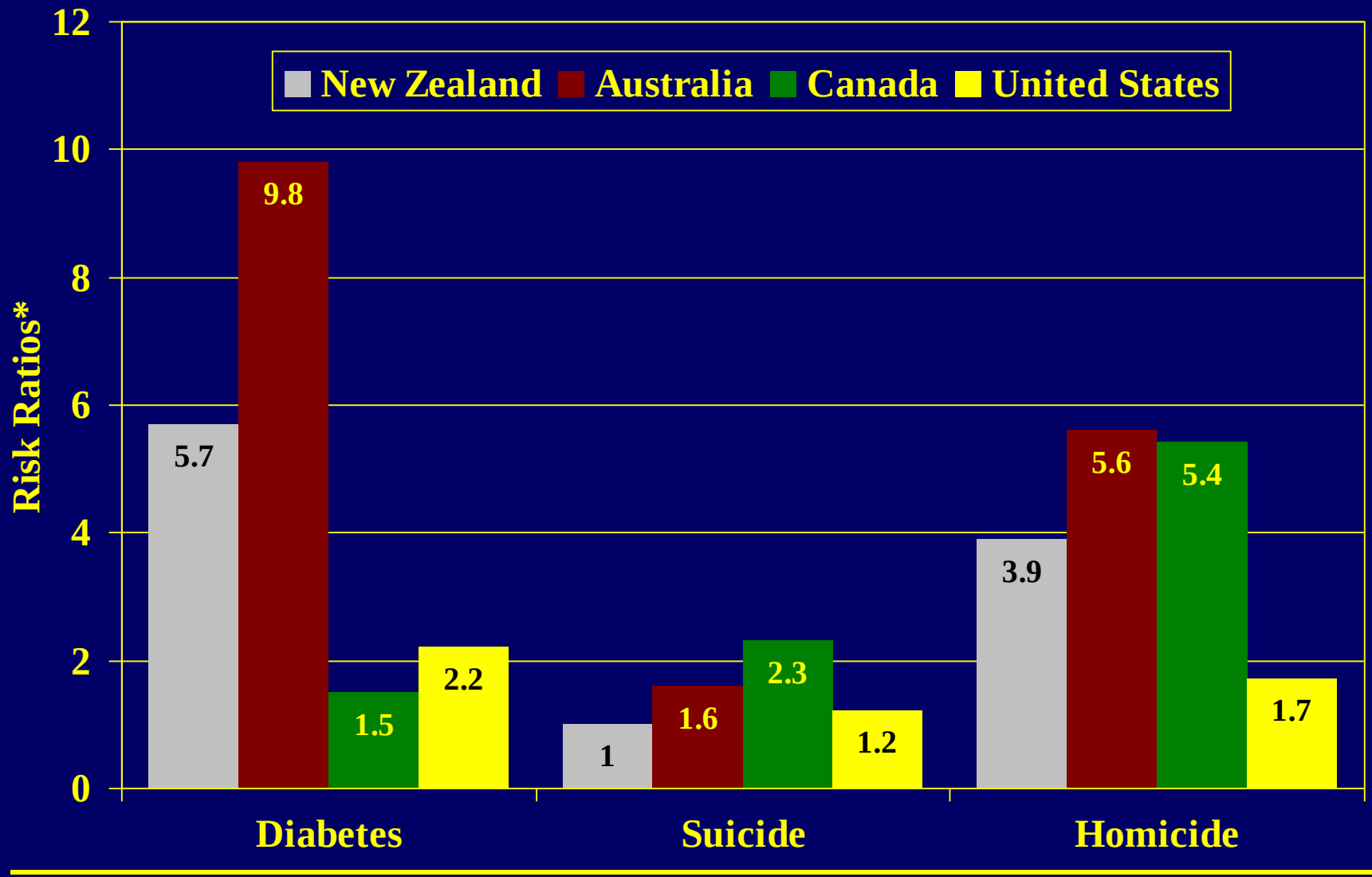
Indigenous= Maori, Aboriginal, First Nation, Am Indian and Alaskan Native; Bramley et al. 2004

Life Expectancy Indigenous Women



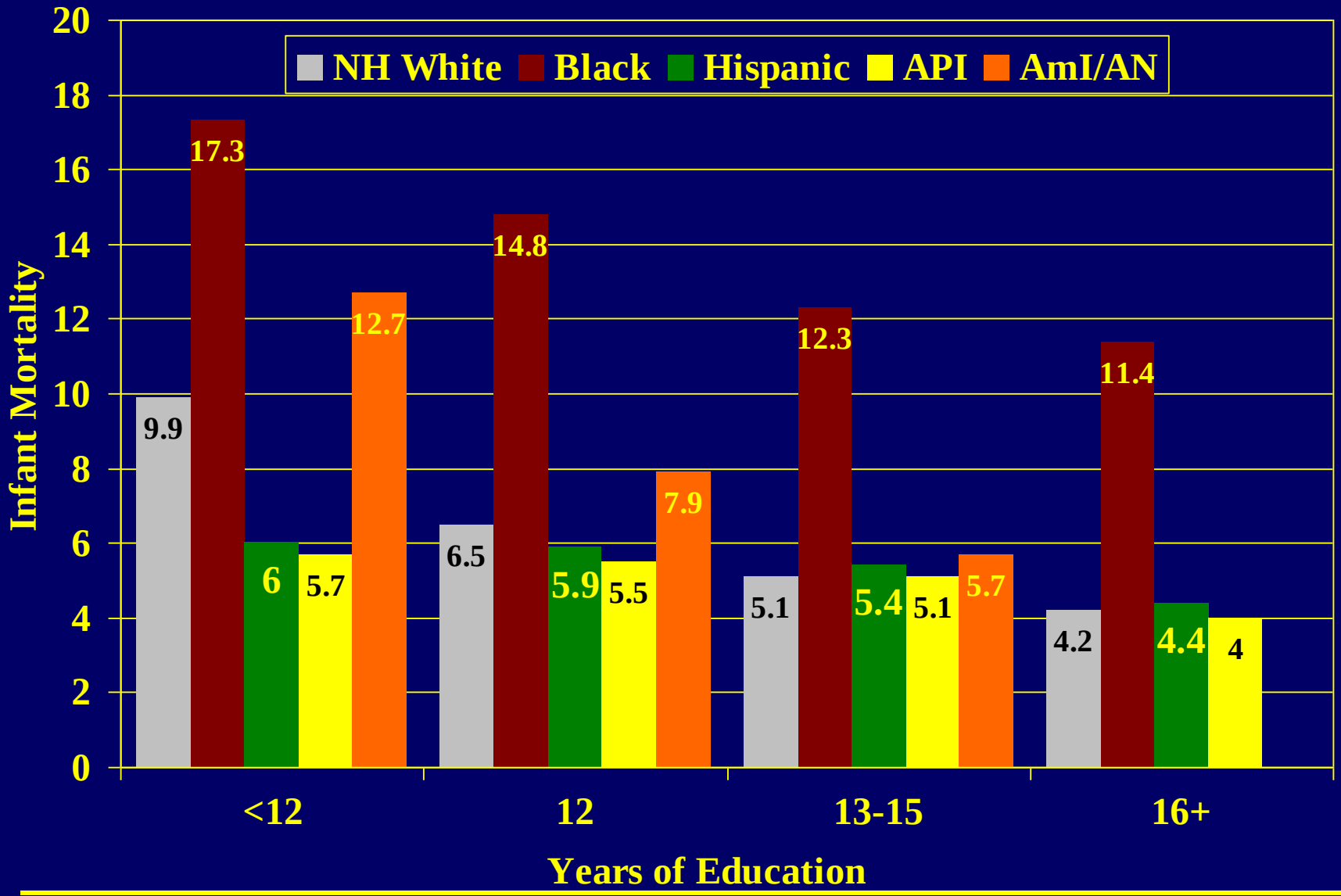
Indigenous= Maori, Aboriginal, First Nation, Am Indian and Alaskan Native; Bramley et al. 2004

Indigenous/Non-Indig Mortality Risk Ratios



*Age standardized mortality rates (per 100,000 population); Bramley et al. 2004

Infant Mortality by Mother's Education



NCHS, 1998

Why Race Still Matters

1. All indicators of SES are non-equivalent across race.

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.

Distinctive Social Exposures

The added burden of racism

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.

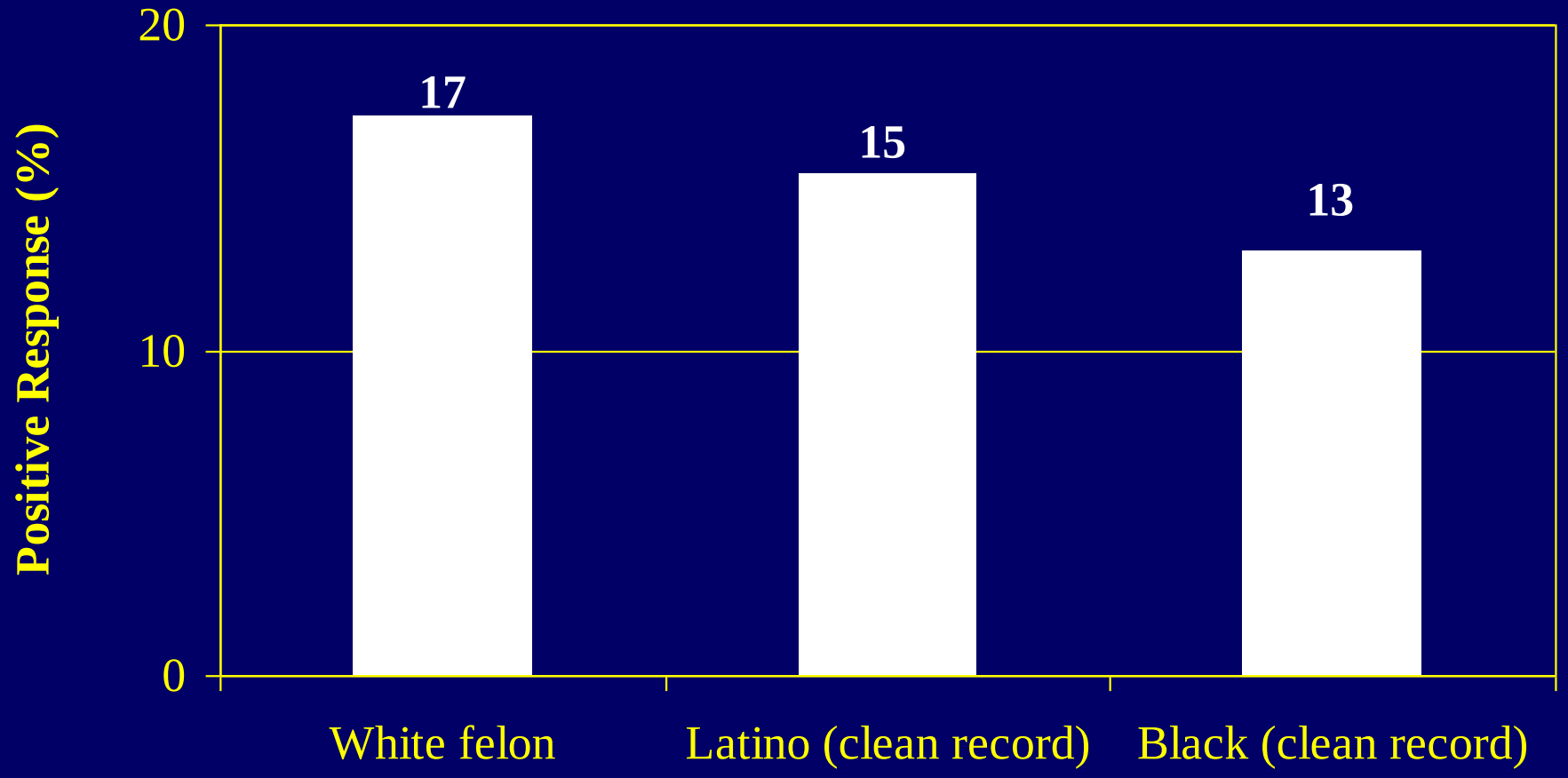
Devah Pager; Am J Sociology, 2004

Percent of Job Applicants Receiving a Callback

Criminal Record	White	Black
No	34%	14%
Yes	17%	5%

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

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.

Perceived Discrimination:

Experiences of discrimination may be a neglected psychosocial stressor

Every Day Discrimination

In your day-to-day life how often do the following things happen 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.

Perceived Discrimination and Health

- Discrimination is associated with elevated risk of
  -- C-reactive protein (CRP)
  -- coronary artery calcification (CAC)
  -- breast cancer incidence
  -- uterine myomas (fibroids)
  -- subclinical carotid artery disease (IMT; intima-media thickness
  -- Delays in seeking treatment, lower adherence to treatment regimes, lower rates of follow-up
- Discrimination accounts, in part, for racial/ethnic disparities in health, in U.S., and elsewhere

Williams & Mohammed, J Behav Med 2009

Unequal Treatment

- **Across virtually every therapeutic intervention, ranging from high technology procedures to the most elementary forms of diagnostic and treatment interventions, minorities receive fewer procedures and poorer quality medical care than whites.**
- **These differences persist even after differences in health insurance, SES, stage and severity of disease, co-morbidity, and the type of medical facility are taken into account.**
- **Moreover, they persist in contexts such as Medicare and the VA Health System, where differences in economic status and insurance coverage are minimized.**

Institute of Medicine, 2003

Ethnicity and Analgesia

A chart review of 139 patients with isolated long-bone fracture at UCLA Emergency Department (ED):

- **All patients aged 15 to 55 years, had the injury within 6 hours of ER visit, had no alcohol intoxication.**
- **55% of Hispanics received no analgesic compared to 26% of non-Hispanic whites.**
- **With simultaneous adjustment for sex, primary language, insurance status, occupational injury, time of presentation, total time in ED, fracture reduction and hospital admission, Hispanic ethnicity was the strongest predictor of no analgesia.**
- **After adjustment for all factors, Hispanics were 7.5 times more likely than non-Hispanic whites to receive no analgesia.**

Todd, et al. 1993

Unconscious Discrimination

- When one holds a negative stereotype about a group and meets someone who fits the stereotype s/he will discriminate against that individual
- Stereotype-linked bias is an
  - Automatic process
  - Unconscious process
- It occurs even among persons who are not prejudiced

Addressing Disparities

What Do We Need to Do?

Reducing Inequalities
Health Care

- Improve access to care and the quality of care
  - Give emphasis to the prevention of illness
  - Provide effective treatment
  - Develop incentives to reduce inequalities in the quality of care

More Primary Care

- Care that will improve health and reduce disparities must be primary care
- Access to regular primary care can improve health status and reduce health disparities at all levels of income
- Primary care is the most significant health care variable associated with better health status

Politzer et al. 2001

Care that Addresses the Social context

- Effective health care delivery must take the socio-economic context of the patient's life seriously
- The health problems of vulnerable groups must be understood within the larger context of their lives
- The delivery of health services must address the many challenges that they face
- Taking the special characteristics and needs of vulnerable populations into account is crucial to the effective delivery of health care services.
- This will involve consideration of extra-therapeutic change factors: the strengths of the client, the support and barriers in the client's environment and the non-medical resources that may be mobilized to assist the client

Service Delivery and Social Context

•244 low-income hypertensive patients, 80% black (matched on age, race, gender, and blood pressure history) were randomly assigned to:

- Routine Care: Routine hypertensive care from MD
- Health Education Intervention: Routine care, plus health professional-run weekly clinic meetings for 12 wks
- Outreach Intervention: Routine care, plus home visits by lay health workers*. Provided info on hypertension, discussed family difficulties, financial strain, employment opportunities, and, as appropriate, provided support, advice, referral, and direct assistance.
- Recruited from the local community, one month of training to address social and medical needs of persons with hypertension.

Syme et al. 1978

Service Delivery and Social Context: Results

After seven months of follow-up, patients in the outreach group:

1. **Were more likely to have their blood pressure controlled than patients in the other two groups.**
2. **Knew twice as much about blood pressure as patients in the other two groups. Those in the outreach group with more knowledge were more successful in blood pressure control.**
3. **Were more compliant with taking their hypertensive medication than patients in the health education intervention group. Moreover, good compliers in the outreach third group were twice as successful at controlling their blood pressure as good compliers in the health education group.**

Source: Syme et al.

Nurse Family Partnership

- Nurses make prenatal and postnatal visits to pregnant women.
- Nurses enhance parents' economic self-sufficiency by addressing vision for future, subsequent pregnancies, educational and job opportunities.
- Three randomized control trials (Elmira, NY; Memphis, TN; Denver, CO)
- Improved prenatal behaviors, pregnancy outcomes, maternal employment, relationships with partner.
- Reduces child abuse and neglect, subsequent pregnancies, welfare and food stamp use
- $17,000 return to society for each family served

Olds 2002, Prevention Science

Needed Behavioral Changes

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

Reducing Inequalities
Reducing Negative Health Behaviors?

***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.**

House & Williams 2000; Lantz et al. 1998; Lantz et al. 2000

Moving Upstream

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

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

Making Healthy Choices Easier

Factors that facilitate opportunities for health:

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

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

- **We have a science base that tells us exactly what needs to be done**
- **We know how to do it**
- **We know that it works on the ground**

Improving Residential Circumstances

Policies to reduce racial disparities in SES and health should address the concentration of economic disadvantage and the lack of an infrastructure that promotes opportunity that co-occurs with segregation and exists on many American Indian reservations.

That is, eliminating the negative effects of segregation on SES and health requires a major infusion of economic capital to improve the social, physical, and economic infrastructure of disadvantaged communities.

Source: Williams and Collins 2004

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Our Neighborhood Affects Our Health

Unhealthy Community	vs	Healthy Community
Unsafe even in daylight		 Safe neighborhoods, safe schools, safe walking routes
Exposure to toxic air, hazardous waste		 Clean air and environment
No parks/areas for physical activity		 Well-equipped parks and open/spaces/organized community recreation
Limited affordable housing is run-down; linked to crime ridden neighborhoods		 High-quality mixed income housing, both owned and rental
Convenience/liquor stores, cigarettes and liquor billboards, no grocery store		 Well-stocked grocery stores offering nutritious foods

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Our Neighborhood Affects Our Health

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

Neighborhood Change and Health

- 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.

Leventhal and Brooks-Gunn, 2003

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 Education

- **In 2006, the Education Trust published a report entitled,**
- **Yes We Can: Telling Truths and Dispelling Myths About Race and Education in America**
- **It indicates, for example, that teacher quality is the single biggest predictor of student performance**
- **It provides examples of schools of excellence in poor African American, Latino and American Indian communities**

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 Income and Health

- 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.

Kehrer and Wolin, 1979

Conditional Cash Transfer Programs

- Mexico's PROGRESA (now Oportunidades) established in 1997
- Low income families, randomized at the community, level to receive additional cash conditional on children's school attendance, preventive care visits and participation in health information sessions
- Compared to controls, the intervention group had decreased illness rates, child stunting, BMI and improvements in endurance, language development, memory, and height for age
- Additional cash is key determinant of program success

Rawlings & Rubin, 2005; Paxson & Shady, 2007; Fernand et al. 2008

‘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

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
- Community conference room in store
- All store managers on local community boards
- 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 turn-over
- Same volume of fruit and vegetables sales
- Higher poultry and fish sales

Supermarkets: Engine of economic re-vitalization

- 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)

Early Childhood Assistance

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

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, income, savings & home ownership)
- The group who received quality early education had fewer arrests for violent, property & drug crimes
- The program was cost effective: A return to society of $17 for every dollar invested in early education

Schweinhart & Montie, 2005

Costs of Inaction

Racial Disparities in health are really costly to our society

Total Costs of Racial Disparities, 2003-2006

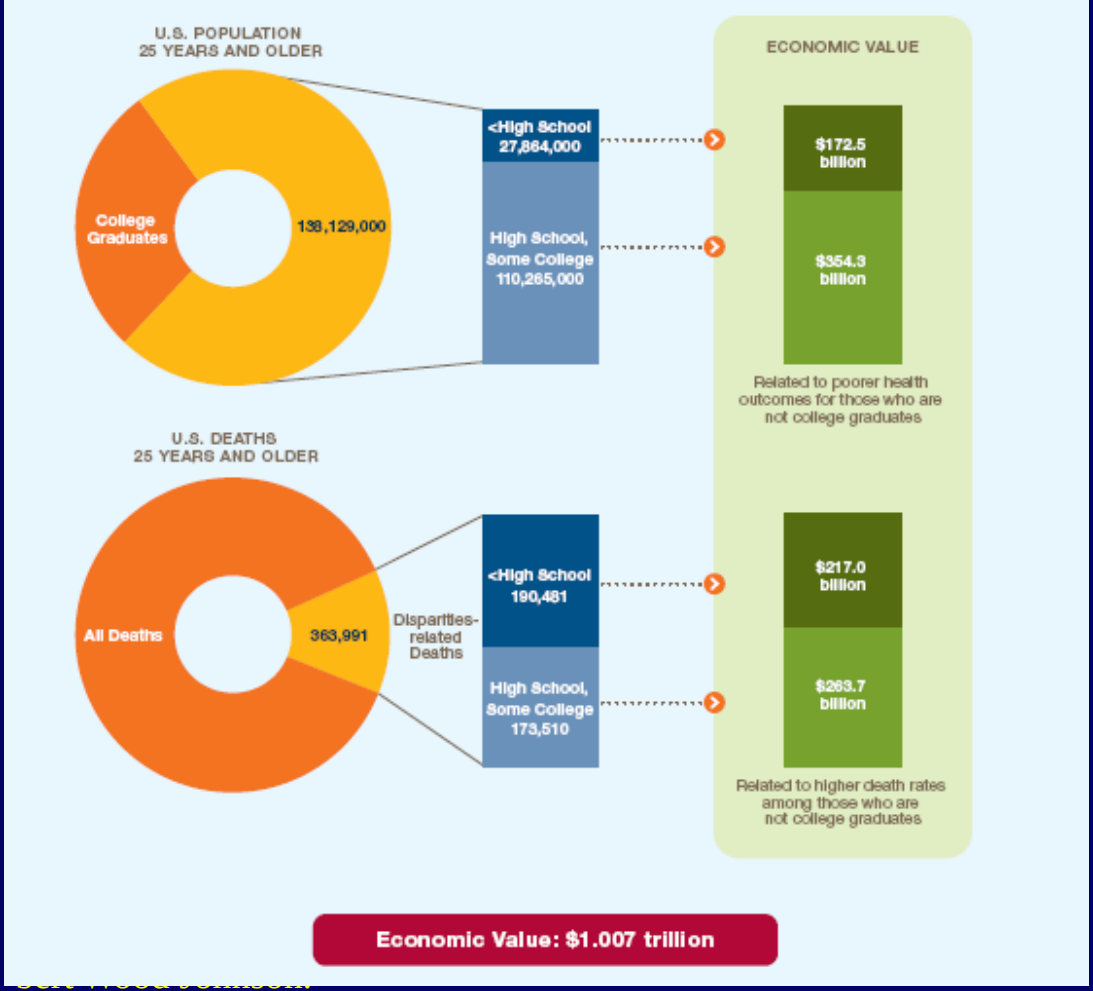
- Medical Care Costs = $229.4 Billion
- Lower worker productivity & premature death costs = $1,008 Trillion
- **Total Costs =** $1.24 Trillion
- $309.3 Billion annual loss to the economy
- More than GDP of India (12th largest economy)
- Social Justice can be cost effective
- Doing nothing has a cost that we should not continue to bear

LaVeist et al. 2009, Joint Center for Political & Economic Studies

How large are the expected economic gains from reducing social differences in health?

- If adult Americans who have not completed college experienced the lower death rates and better health status of college graduates, they would live longer and healthier lives.
- These improvements would translate into potential gains of

$1.007 trillion annually.



Resources

So what makes us sick in the first place?

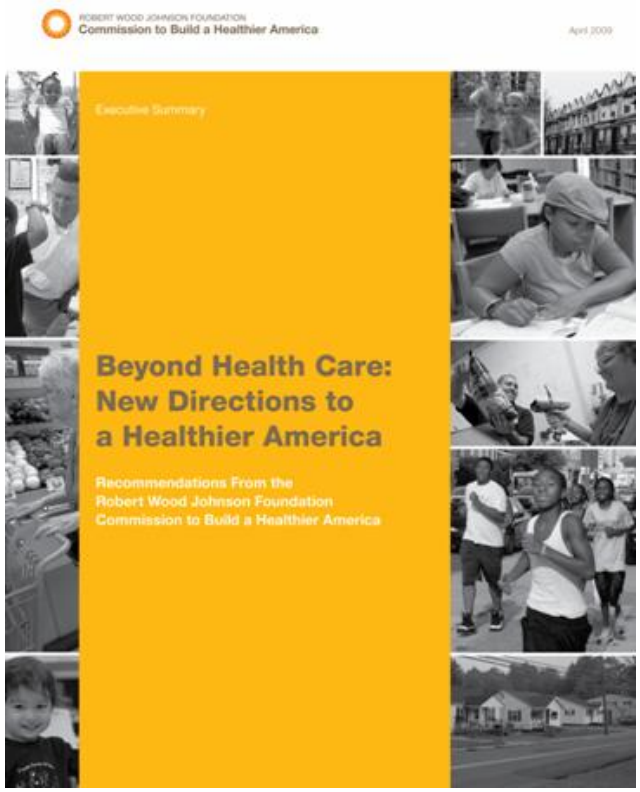
And why are some Americans so much healthier than others?




Where we Live, Learn, Work and Play has a greater impact on how long and how well we live than medical care

The Commission's Recommendations

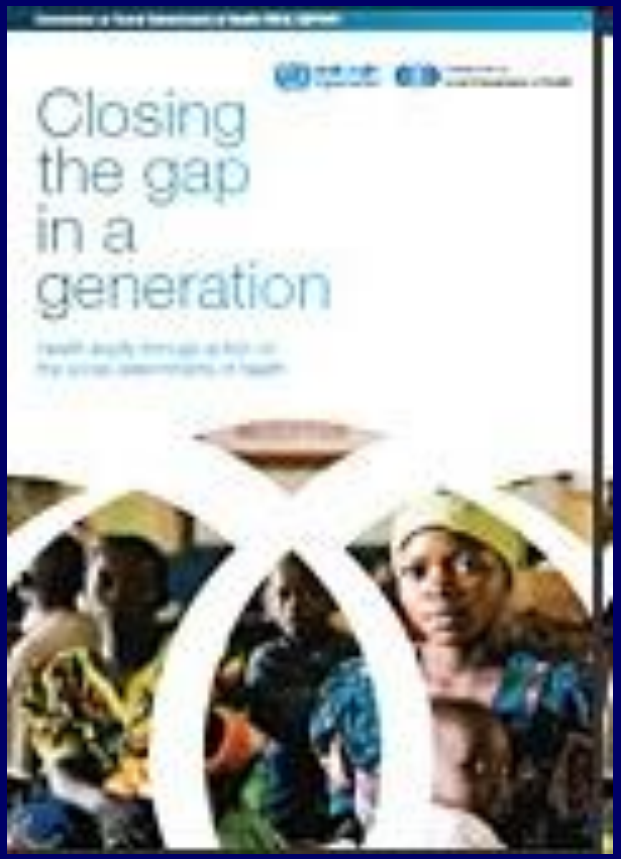
A twin philosophy: Good health requires personal responsibility and a societal commitment to remove the obstacles preventing too many Americans from making healthy decisions

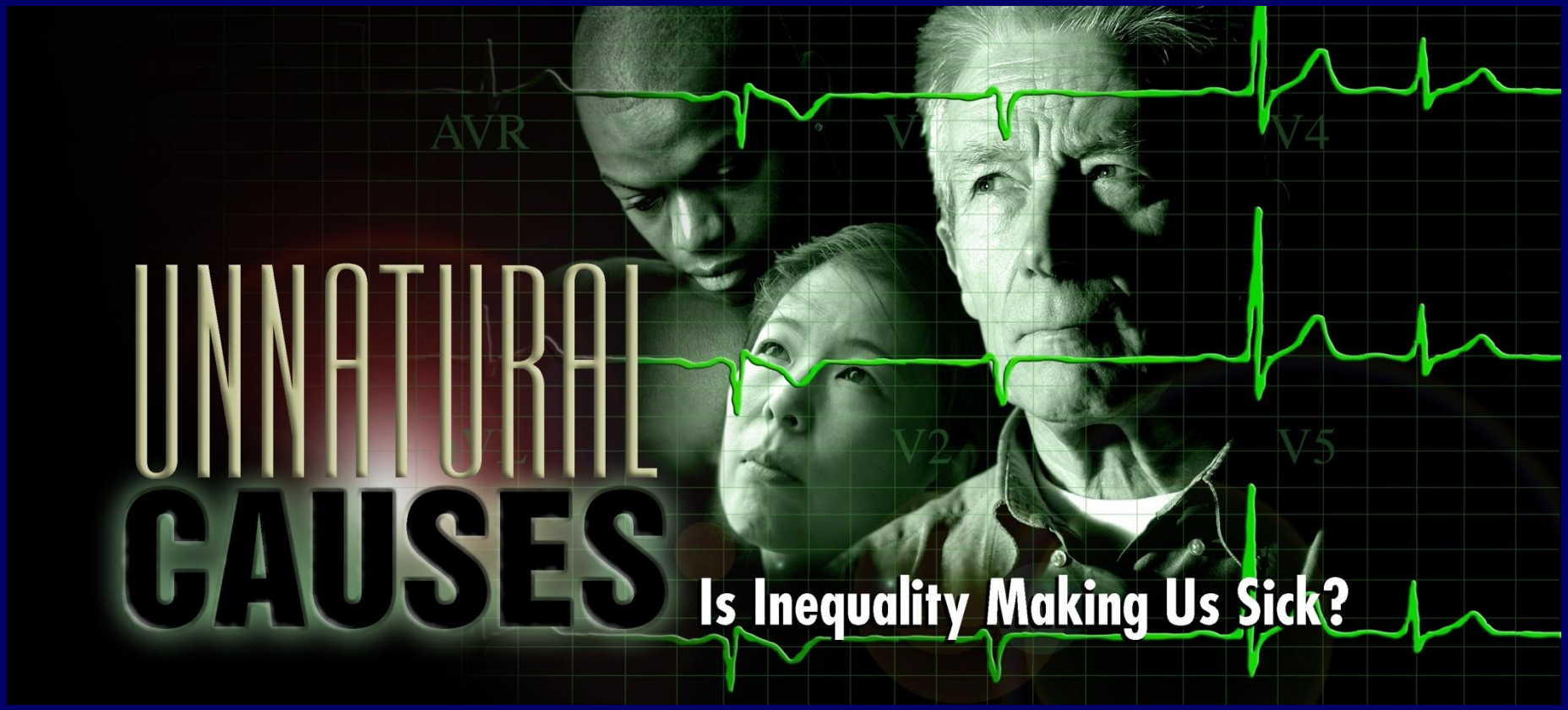


The recommendations focus on people and the places where we spend the bulk of our time:

- Homes and Communities
- Schools
- Workplaces

Building a healthier America is feasible in years, not decades, if we collaborate and act on what is making a difference


Closing
the gap
in a
generation



A 7-part documentary series & public impact campaign

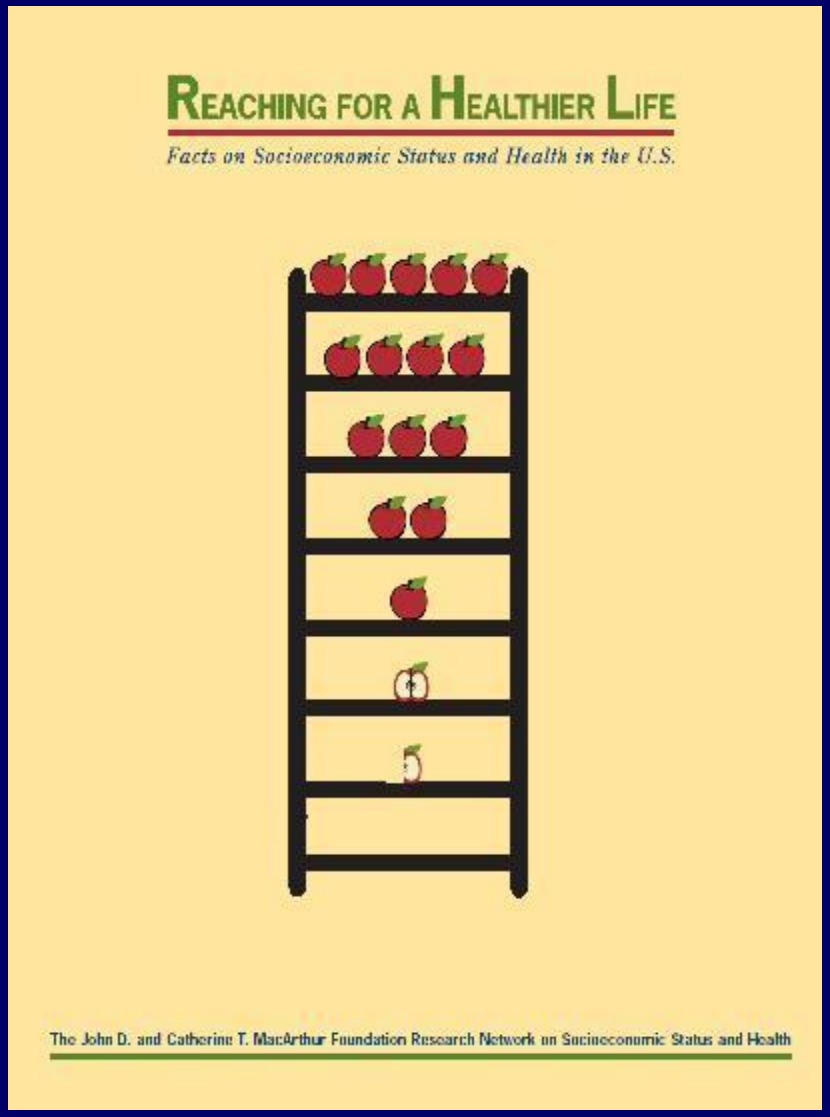
www.unnaturalcauses.org

Produced by California Newsreel with Vital Pictures

Presented on PBS by the National Minority Consortia of Public Television

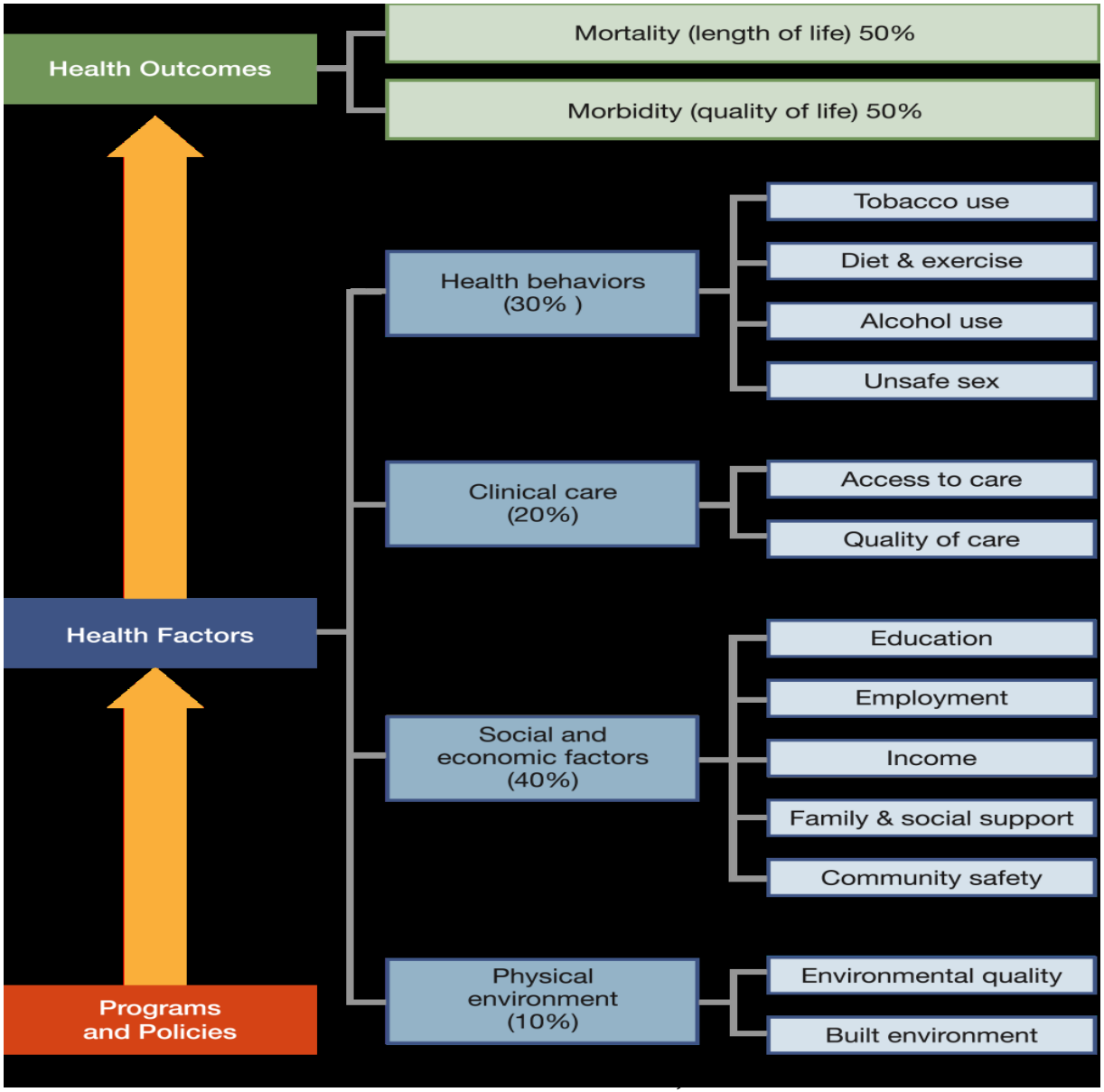
Impact Campaign in association with the Joint Center Health Policy Institute

www.macses.ucsf.edu



County Health Rankings

Mobilizing Action Toward Community Health



www.countyhealthrankings.org

Conclusions

1. Social disparities in health are large, pervasive and persistent over time.
2. Inequalities in health are created by larger inequalities in society, of which racism is one determinant.
3. Racial differences in health reflect the successful implementation of social policies. Eliminating them requires political will and commitment to implement new strategies to improve living and working conditions.
4. Eliminating disparities in health requires (1) acknowledging and documenting the health consequences of racism, and (2) efforts to ameliorate their negative effects, dismantle the structures of racism and/or establish countervailing influences to the pervasive processes of racism.

A Call to Action

"The only thing necessary for the triumph [of evil] is for good men to do nothing."

Edmund Burke, Irish Philosopher