

HS100

Health Status and Utilization

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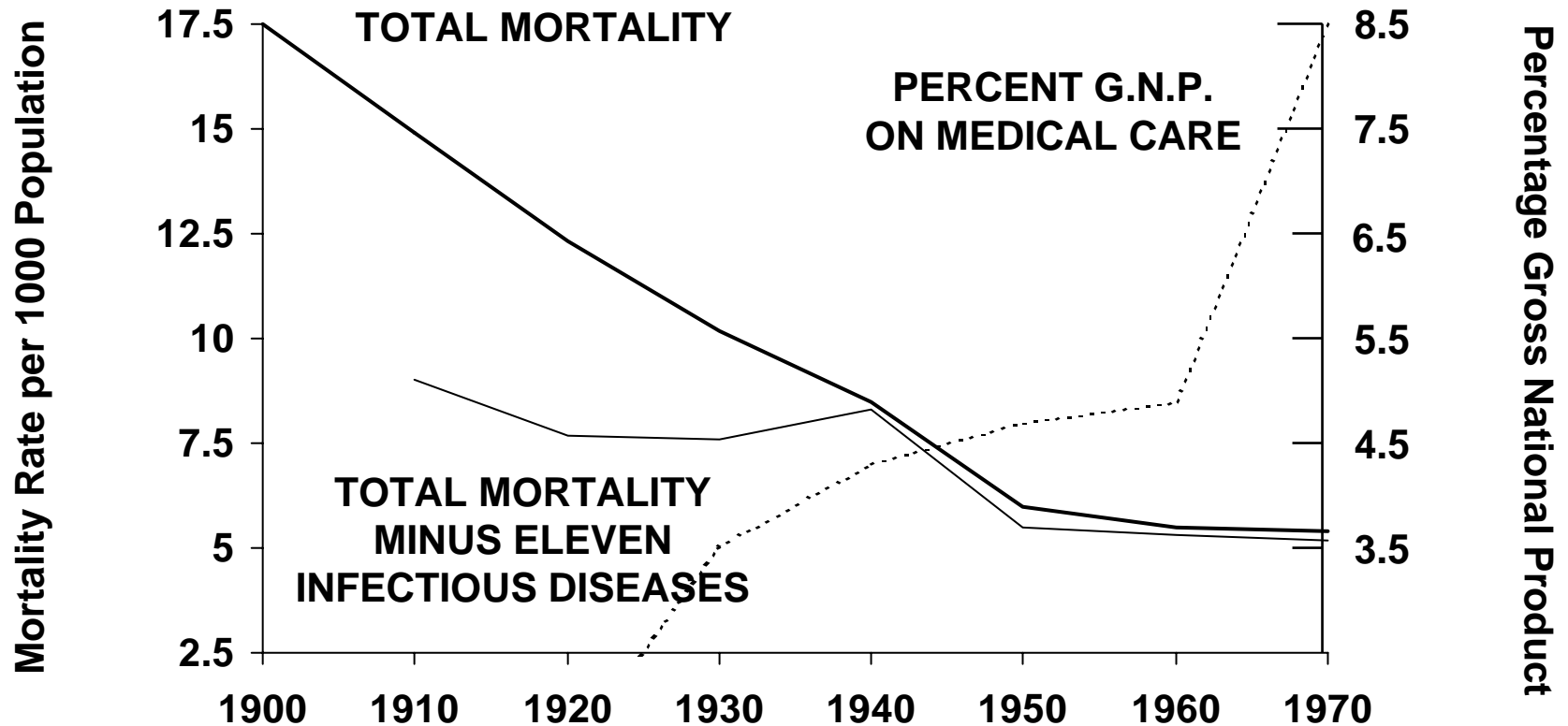
Outline of Lecture on Health Status and Utilization

- Health status changes and health policy
- Issues in understanding health services
 - Variations in health services
 - Disparities
- Health status concepts and health services
- Individual and system models of health services utilization

Health Status Changes and Health Policy

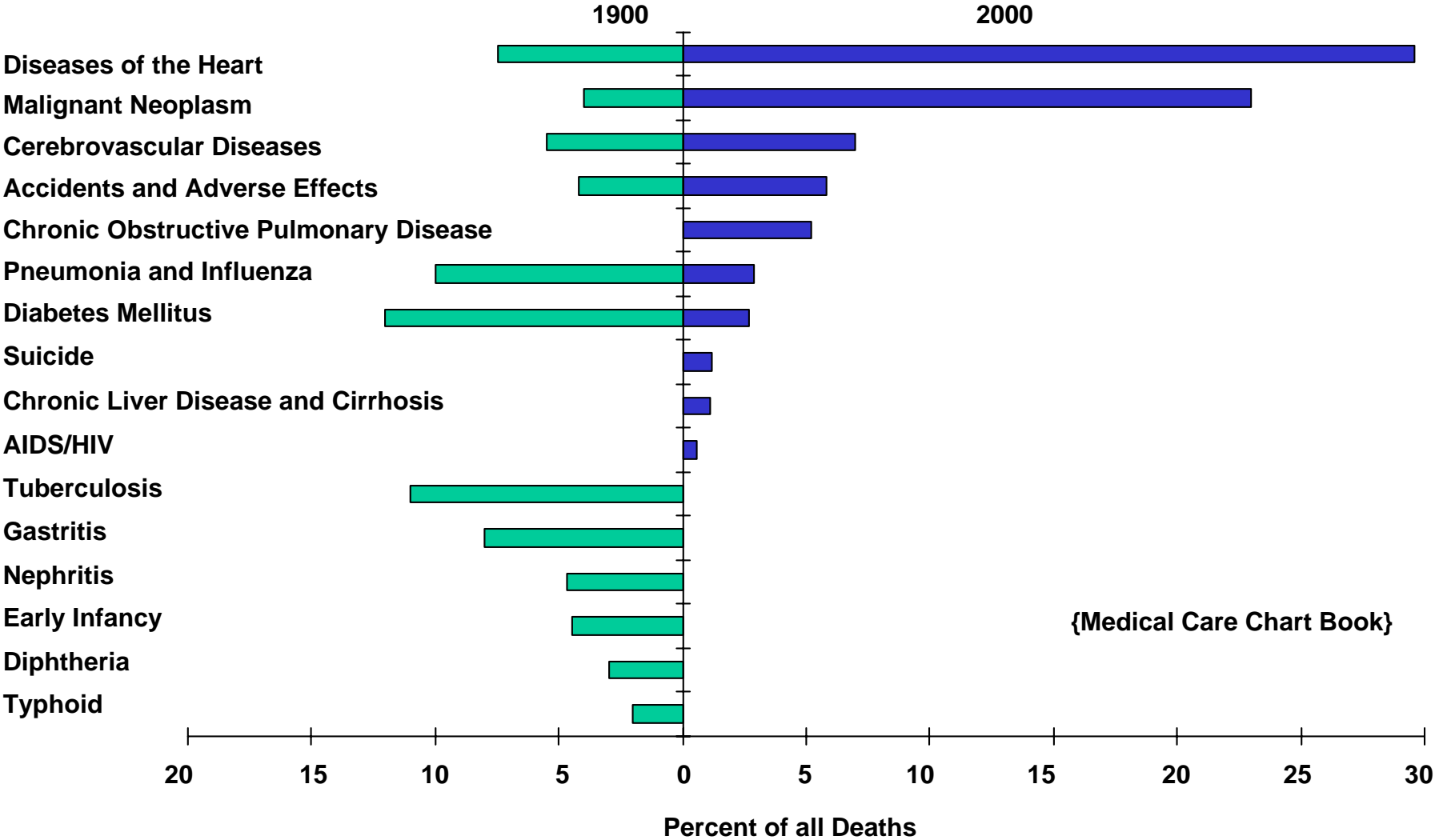
- Health status improvement and changes in causes of death
- U.S. health policy focus:
 - Individual vs. population health

Change in Mortality Rate Compared with Expenditures on Medical Care: 1900-1970.



Age-and Sex-Adjusted Mortality Rates for the United States Contrasted with the Proportion of the Gross National Product Expended on Medical Care

Leading Causes of Death: 1900 and 2000



{Medical Care Chart Book}

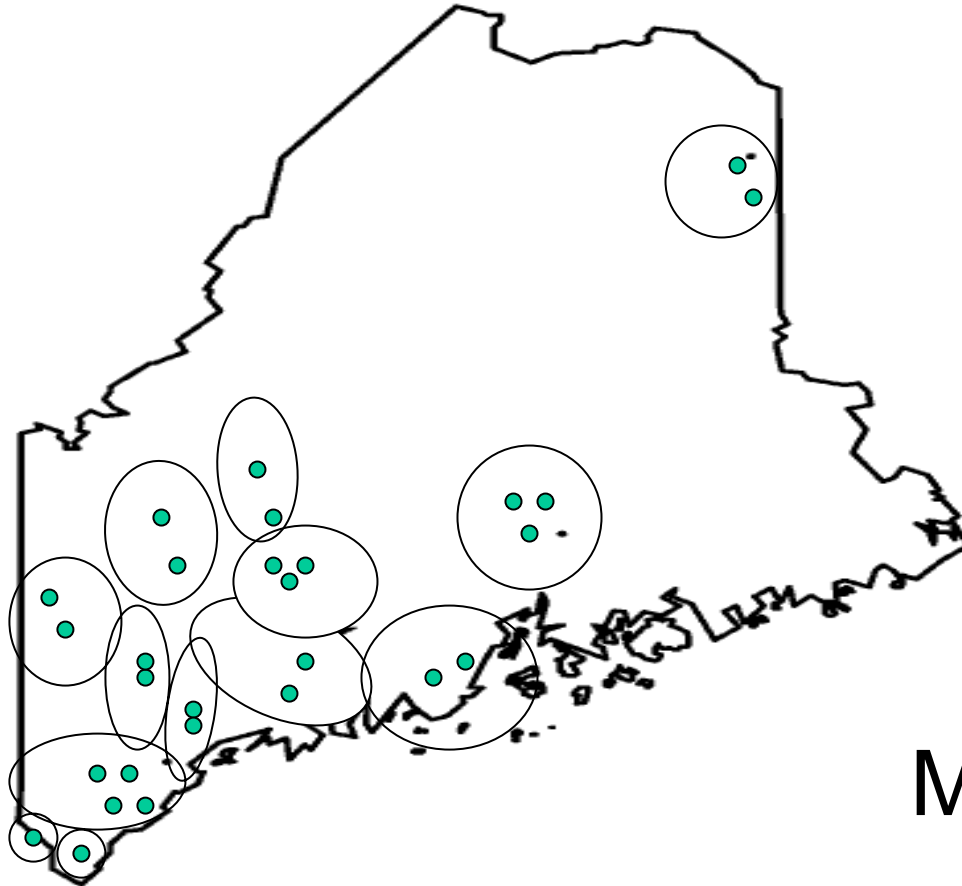
Issues in Understanding Utilization of Health Services

- Variations in Utilization Common
- Possible Explanatory Factors
 - biologic factors
 - behaviors
 - environment
 - health system factors
 - Providers
 - Organization
 - Financing

Variations in Surgical Procedures by Hospital Services Areas in the State of Maine

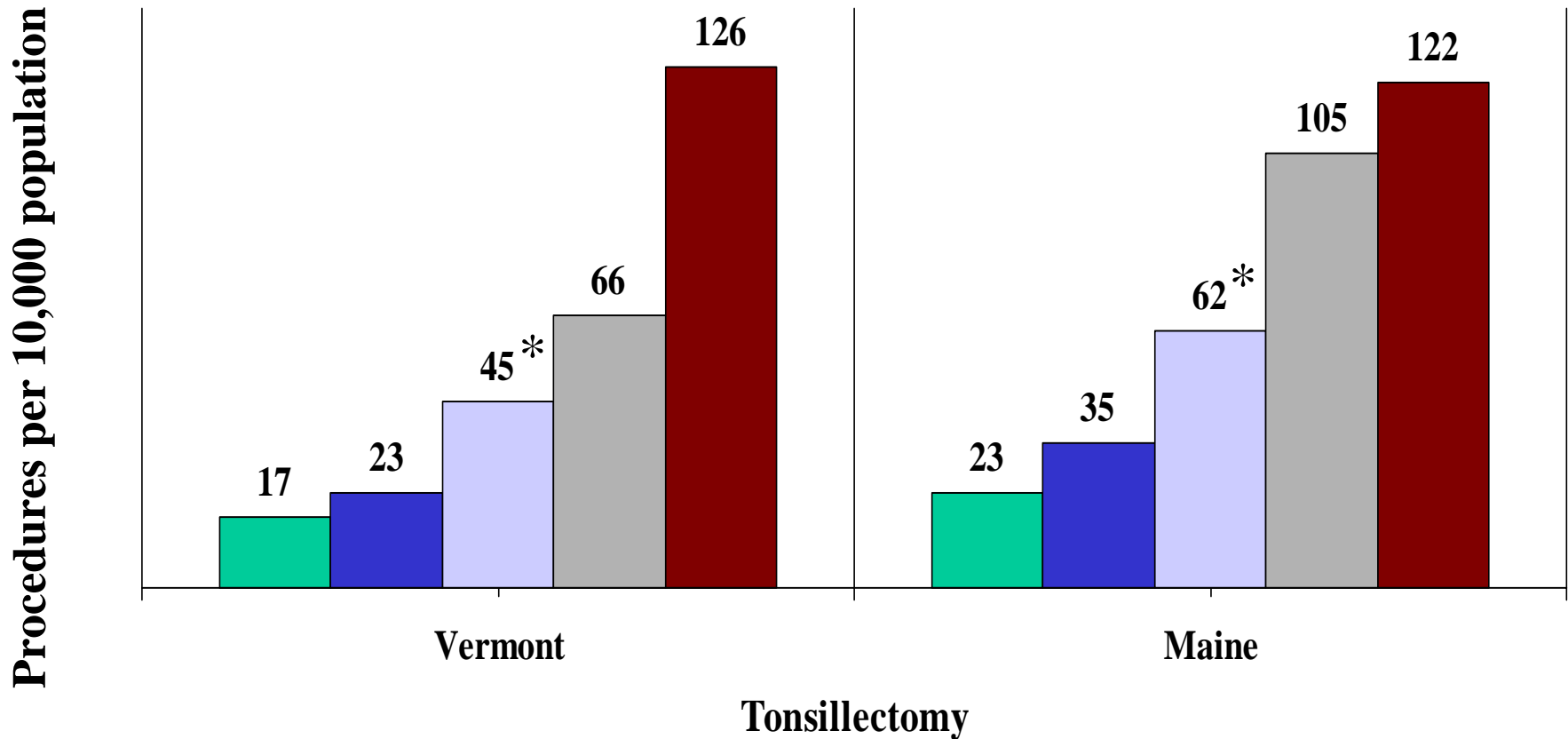
MAINE

www.50states.com



Maine

Common Surgical Procedure Use in Maine and Vermont Hospitals: Variations Among the Two Highest, Two Lowest, and State Averages



*Statewide Average

The Journal of the Maine Medical Association v.66, May 1975

Variations in Surgical Procedures

- **Surgical Procedures:** Hysterectomy, Tonsillectomy, Appendectomy, Inguinal hernia repair, Prostatectomy, Hemorrhoidectomy, Mastectomy, Varicose veins, & D&C
- **Provider Characteristics:** Hospital bed supply, Physician supply/specialist ratio, Insurance Coverage, Hospital type/service, Other health care services, & Case Mix
- **Individual and Community Characteristics:** Race/ethnicity, Income, Age, Education, Health Status, Employment status, Occupation, Poverty, Physician Access, Birthplace, Residential Stability, & Socioeconomic status

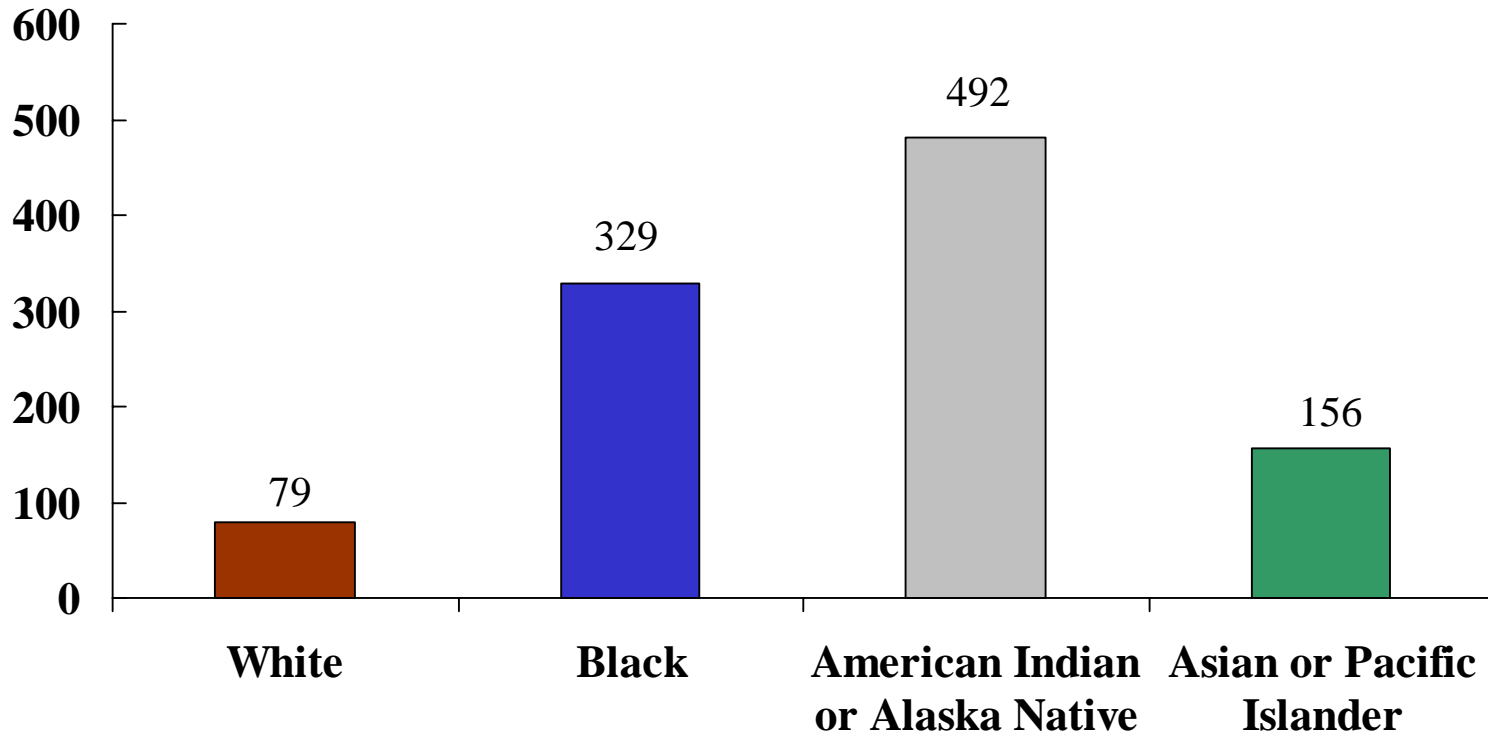
Source: Journal of Health Politics, Policy and Law 1987 v.2(1)

Health Status Disparities

- Race and ethnicity
- Age
- Gender
- Socio-economic status
- Geographic Region
- Access to care

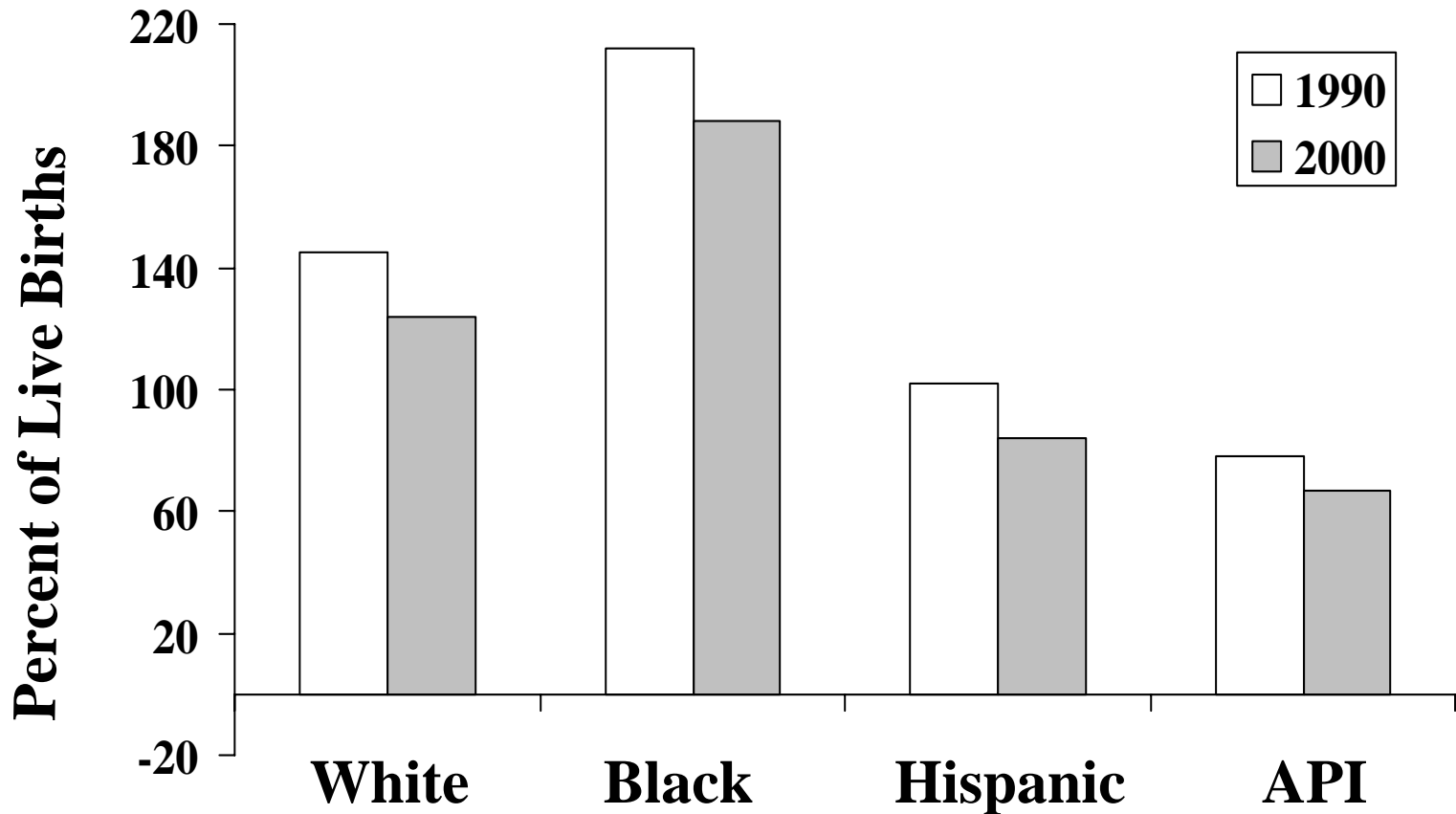
Persons with Diabetes and end-stage renal disease

Rate Per Million Population



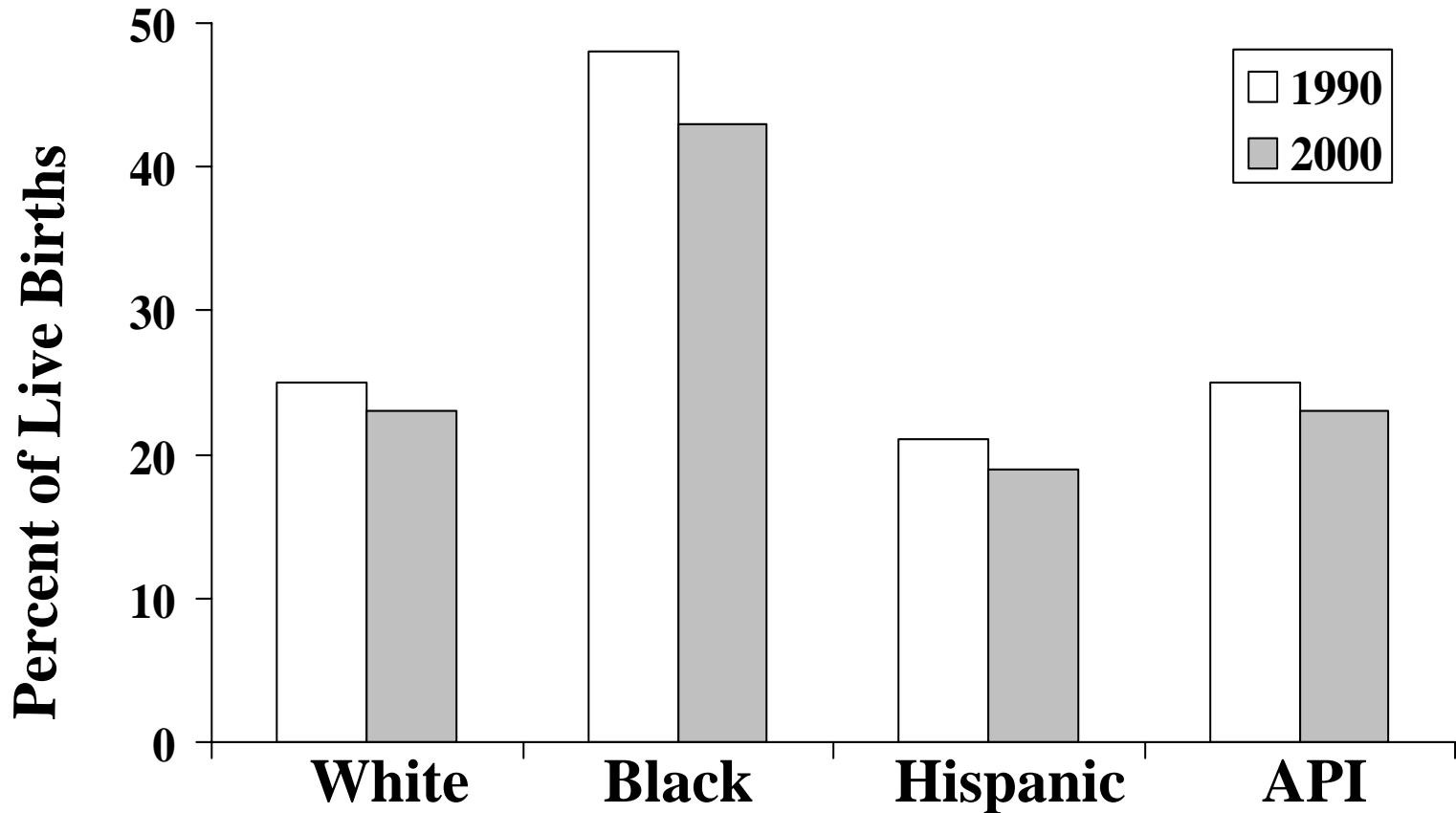
Source: NIH/NIDDK, U.S. Renal Data System 2000

Age-adjusted Heart Disease Death Rates by Race/Ethnicity

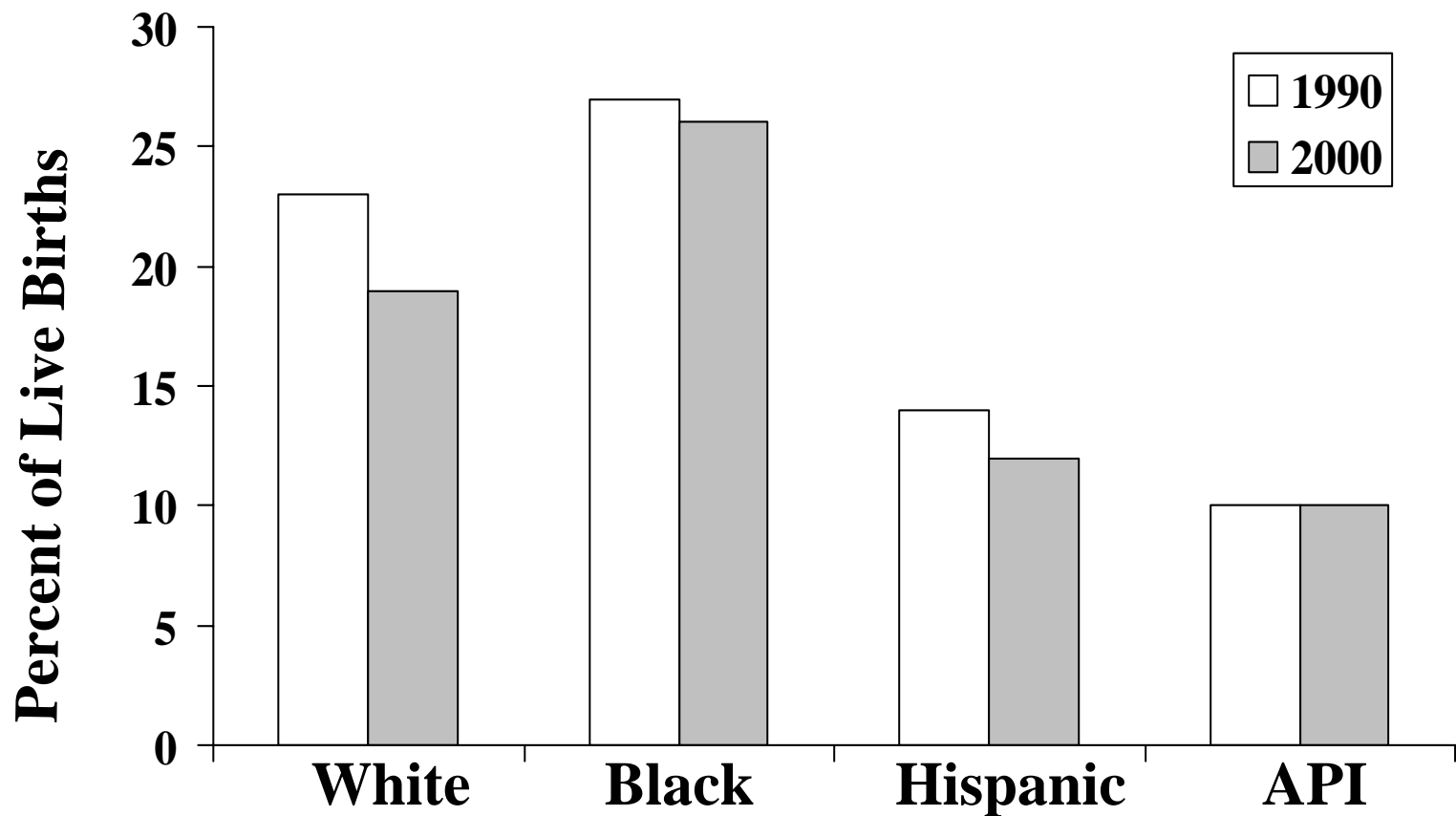


CDC: Health People
#23, Jan. 03

Age-adjusted Stroke Death Rates by Race/Ethnicity

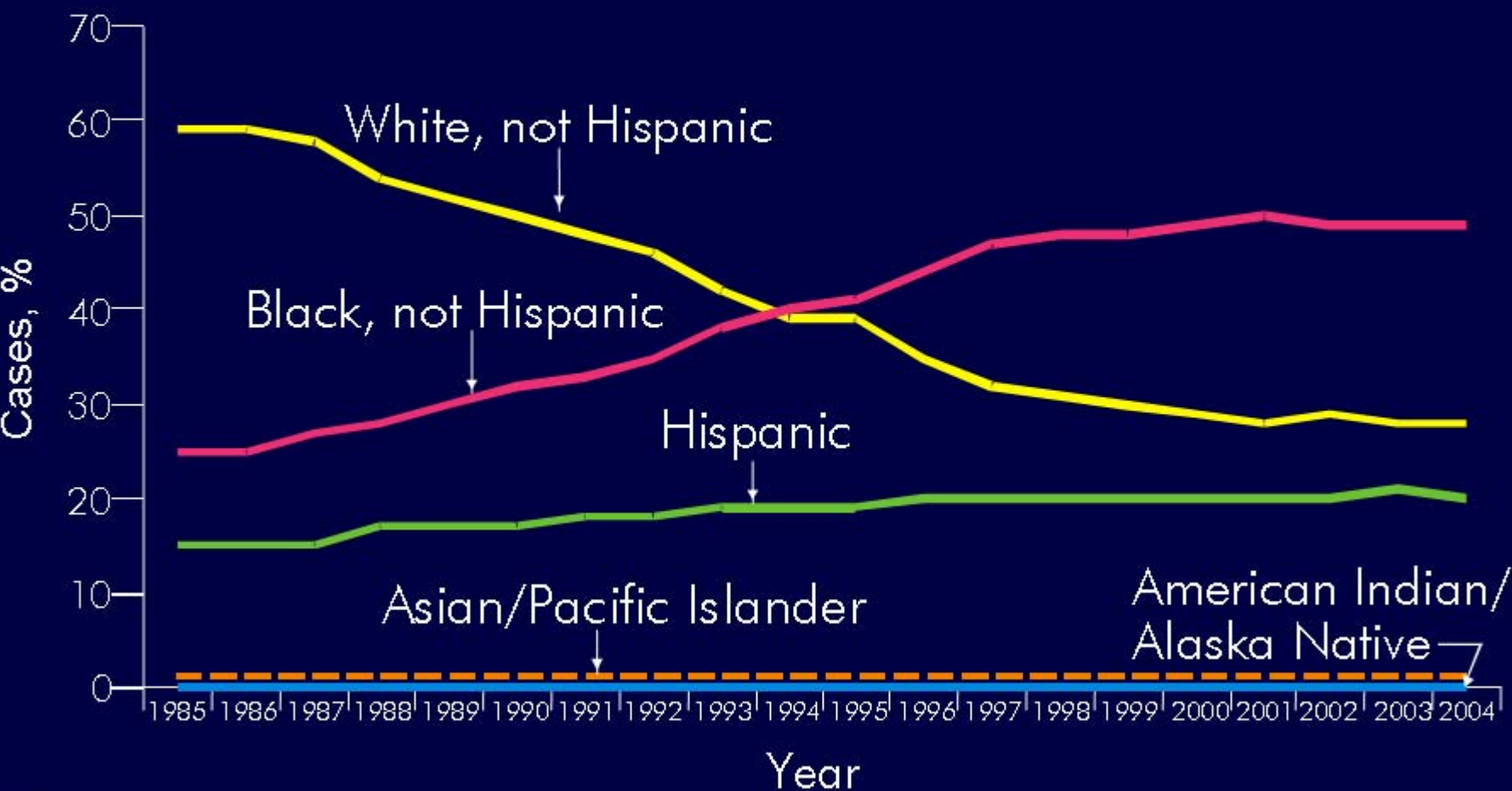


Age-adjusted Female Breast Cancer Death Rates by Race/Ethnicity



CDC: Health People
#23, Jan. 03

Proportion of AIDS Cases among Adults and Adolescents, by Race/Ethnicity and Year of Diagnosis 1985–2004—United States

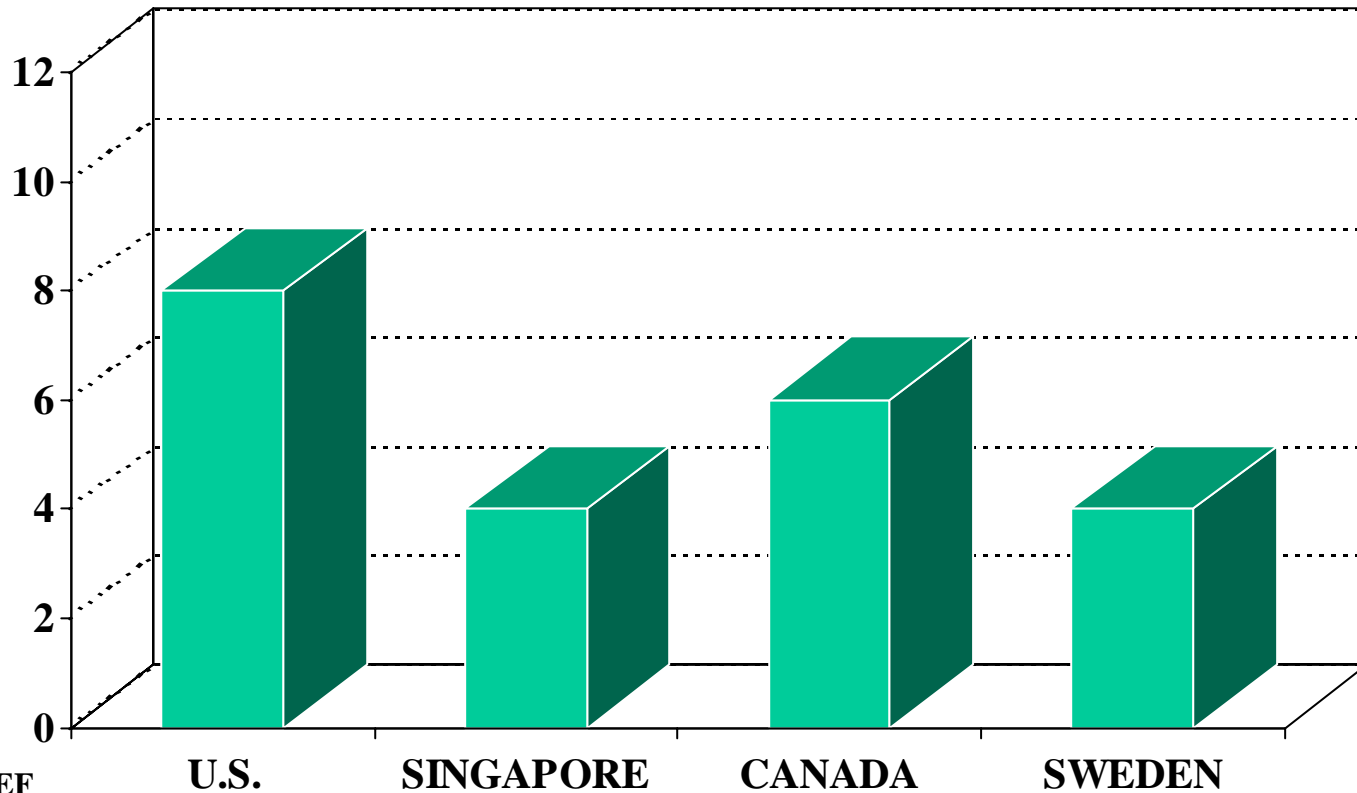


Note. Data adjusted for reporting delays.



Infant Mortality, 2000

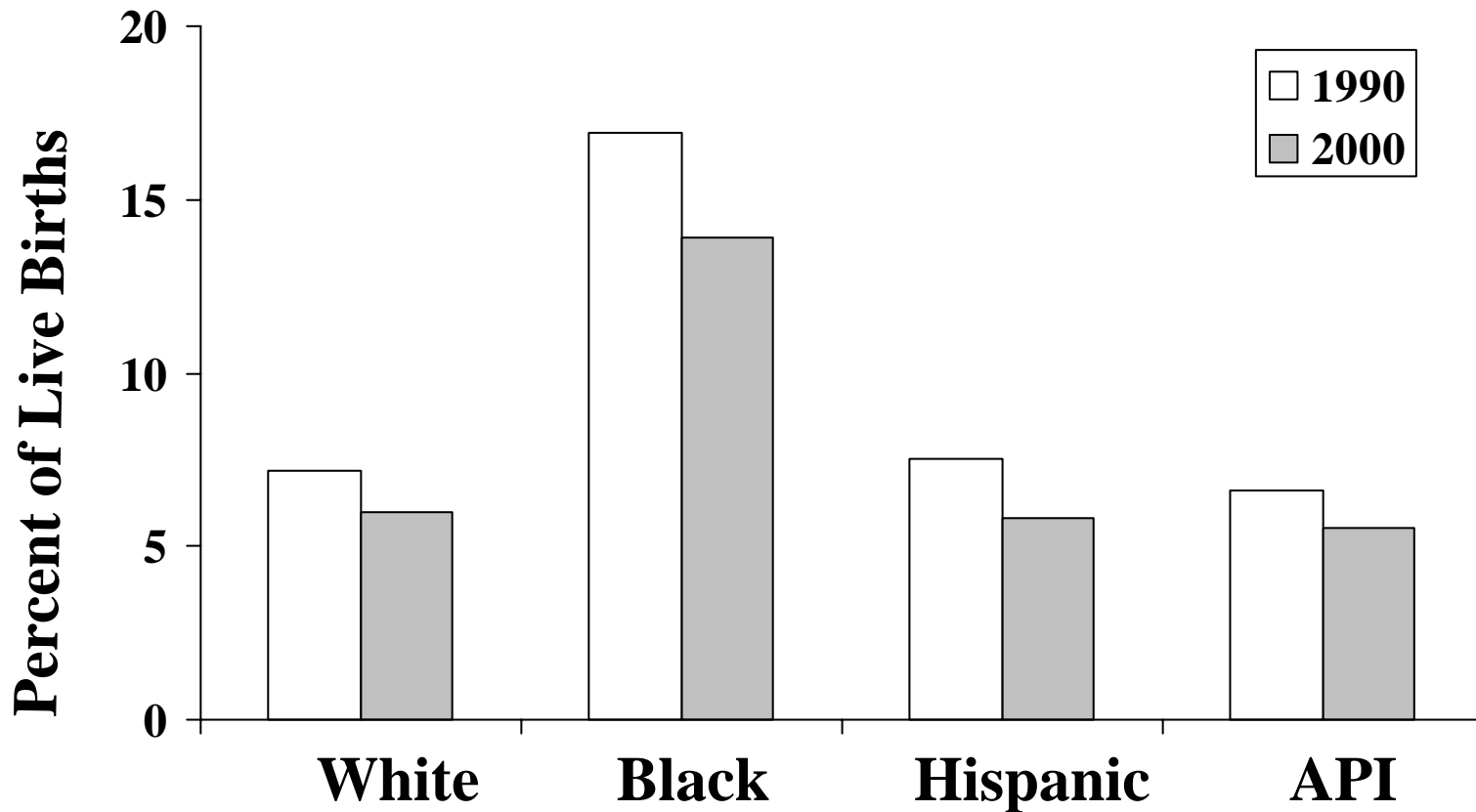
PER 1000 BIRTHS



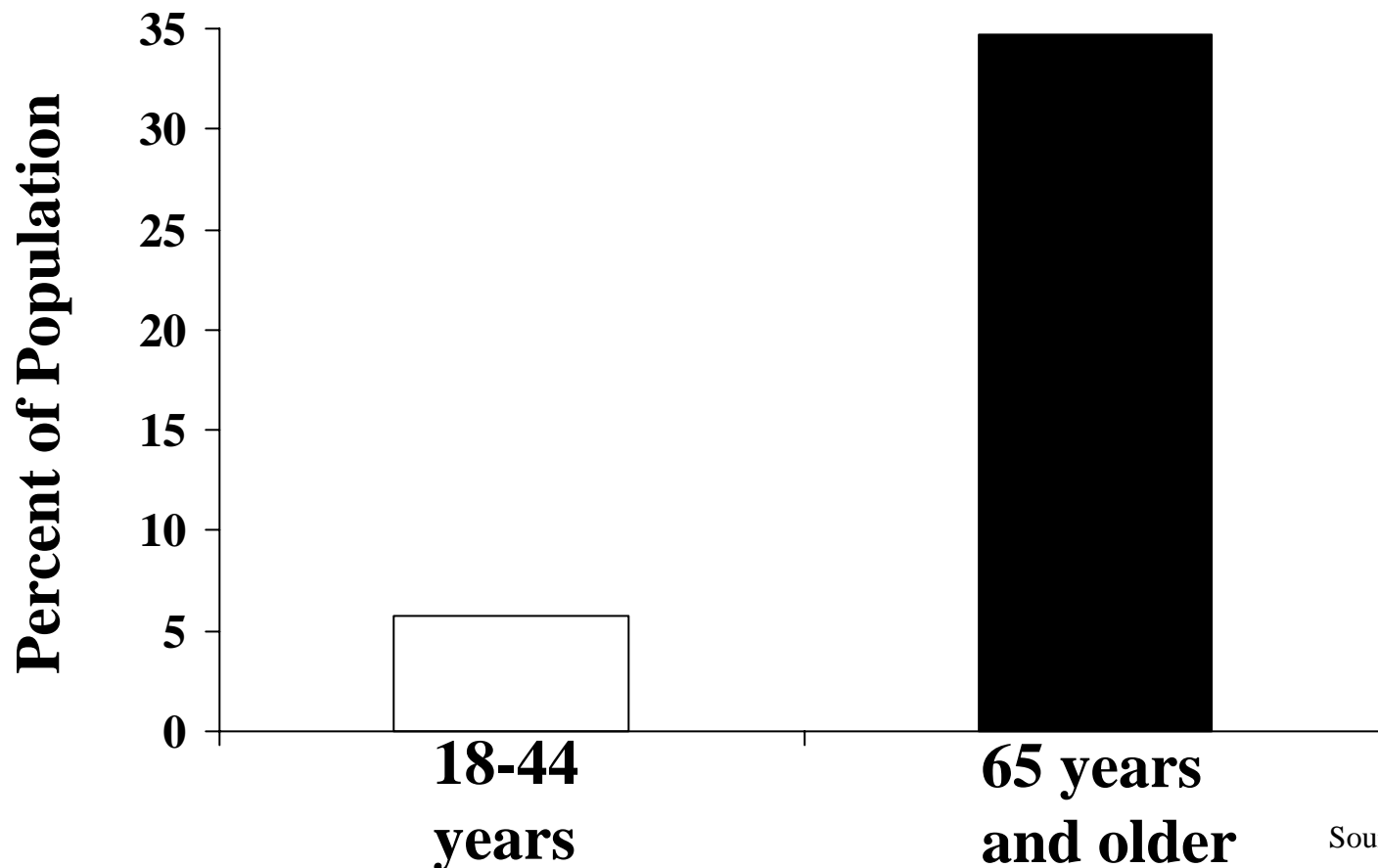
Source: UNICEF

Infant Mortality, 2000

Infant Mortality by Race/Ethnicity



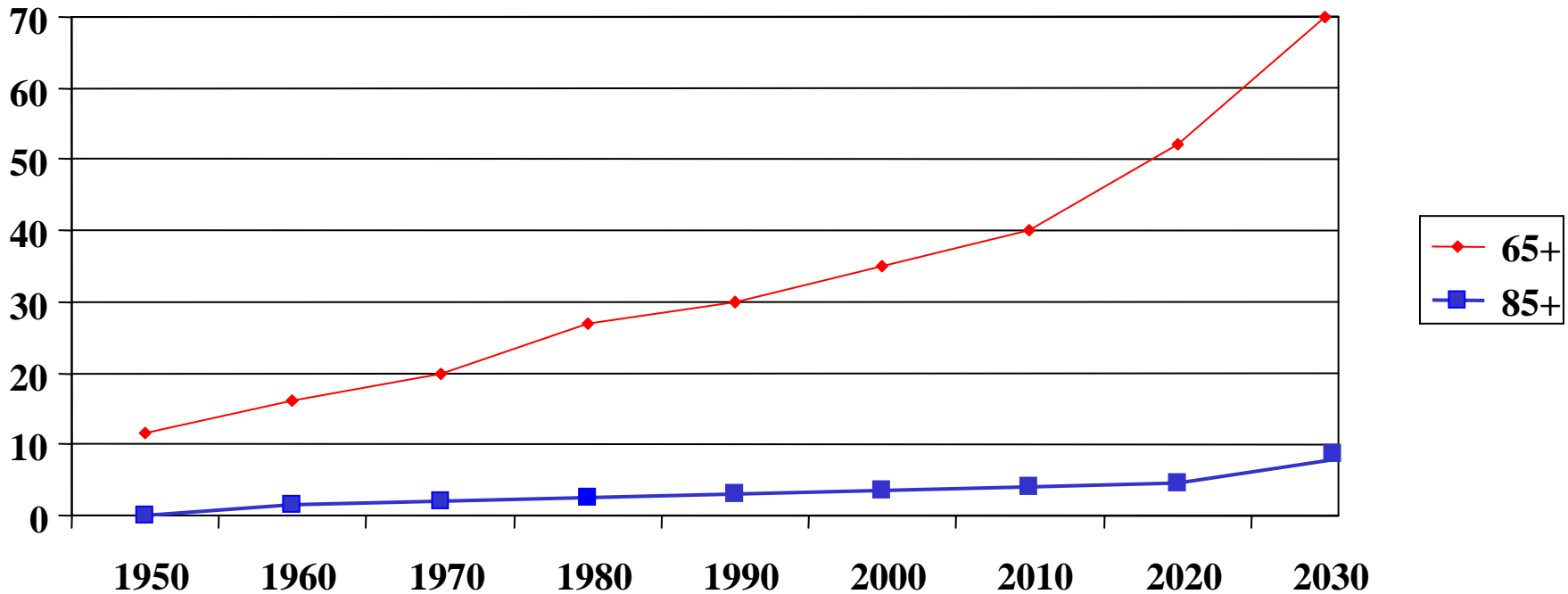
Unable to Carry on Major Activity, Due to Chronic Conditions, 2000 (Age)



Source: NHIS, 2000

Population 65 years of age and over: United States, 1950-2030

Figure 1. Population 65 years of age and over: United States, 1950-2030

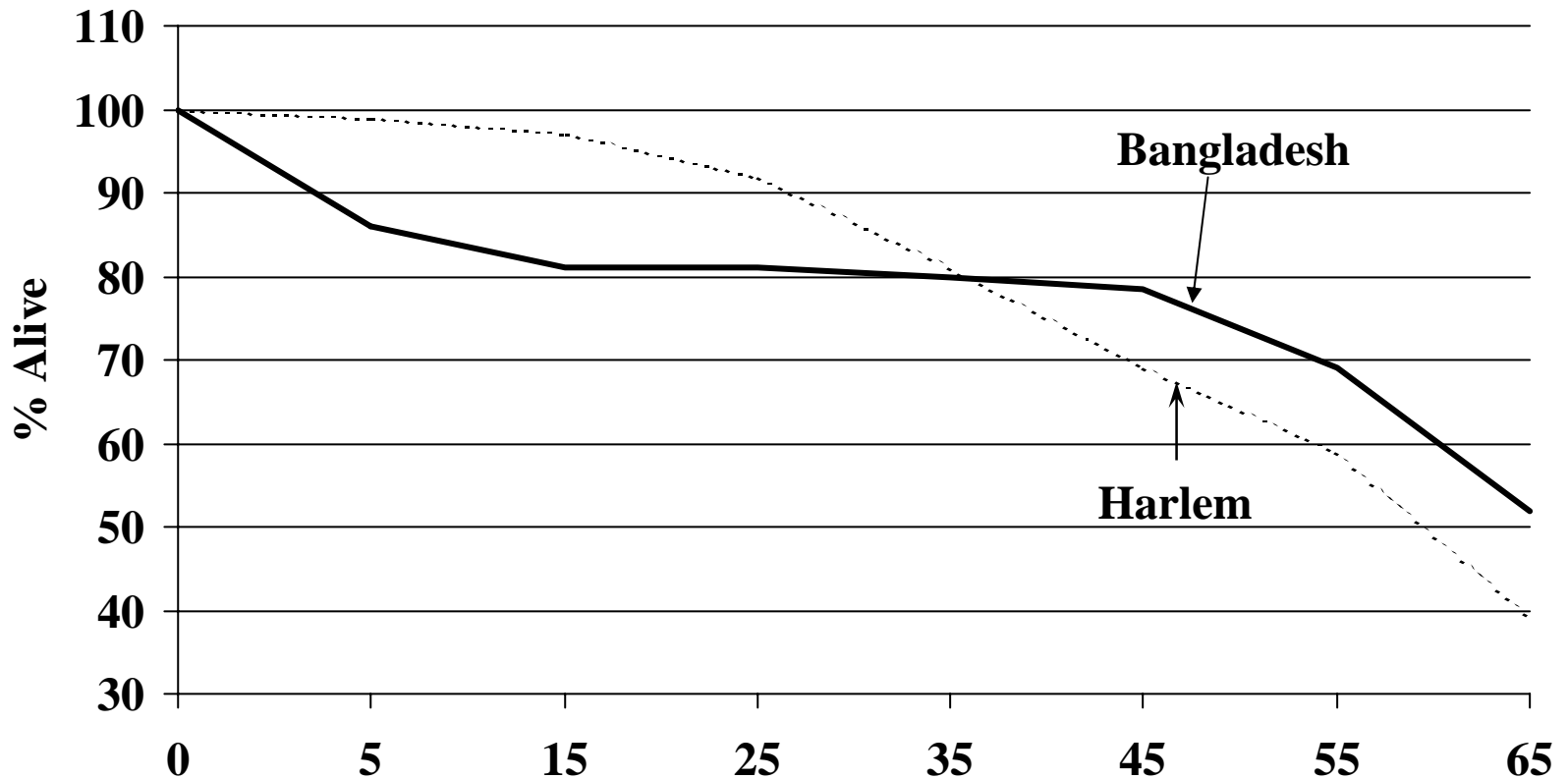


NOTES: Figures for 1950-90 are based on decennial censuses. Figures for 2000-30 are middle series population of the U.S. Bureau of the Census.
SOURCES: See *Health United States*, 1999 table 1 for data years 1950-90. For data years 2000-30, see U.S. Bureau of the Census - Day JC
Population projections of the United States by age, sex, race, and Hispanic Origin: 1995 to 2050. Current population reports: P25-1130.
Washington: U.S. Department of Commerce. 1996

Health Status and Health Care Disparities by Race and Ethnicity

- Surgeon General, IOM Report
- Blacks: CVD, CA, HIV/AIDS, disability, general health
 - Lower DX, RX
- Hispanics: Diabetes, CA, “Latino Paradox”
 - Lower DX, RX, communication
- Asians: Variable
 - Vietnamese Cervical CA high
 - Filipino Prostate CA high
 - more communication problems in care

Survival of Men: Harlem (U.S.) & Bangladesh



Source: Freeman NEJM 322:173, 1989

Age

History of Health and Quality of Life Concepts: a Paradigm Shift

- Changes in survival, epidemiology
- Limits of medical technology
- Public health and policy: populations
 - mass public health measures

History of Health and Quality of Life Concepts: a Paradigm Shift (con't.)

- Medico-legal crises
 - malpractice insurance
- Chronic disease treatment: individuals
 - focus on life-style, function, and well-being
- Cost-containment and consumerism
 - demonstration of health care value

Definitions of Health

- Disease vs. illness: biomedical model
- WHO definition: bio-psycho-social
- QOL: consumer/health system
- Significance of health
 - need, outcome

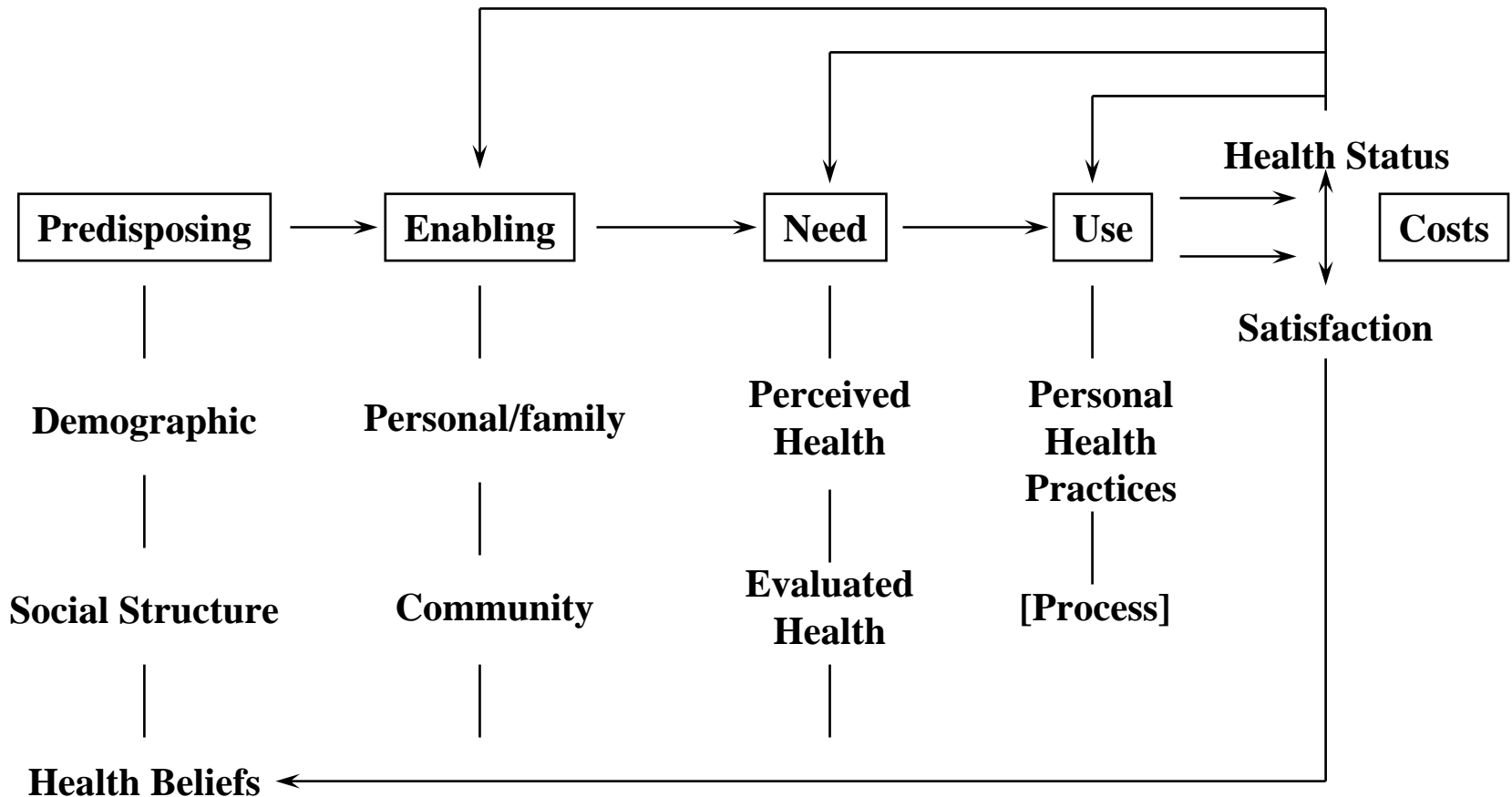
Quality of Life: functioning and well-being

- Ability to engage in daily functions:
 - physical (e.g. self-care)
 - role
 - social
- Perceived well-being versus distress

Why Is Health Status Important?

- Reflects need for services
- Effective services improve health outcomes

The Basic Behavioral Model of Health Services Utilization



Adapted from Andersen 1968

Key Problems With US Health Care System

- Access to care
 - ~ 45 million without health insurance
- Cost of care
 - 2004 expenditures ~ \$1.3 Trillion
- Quality of care
 - not all care delivered is beneficial
 - not all needs are met

Goals of Care System

- Provide equitable, cost effective care
 - maximize access to needed care
 - minimize costs
 - maximize quality (effectiveness)

Health Services and Policy: Improving Health Systems

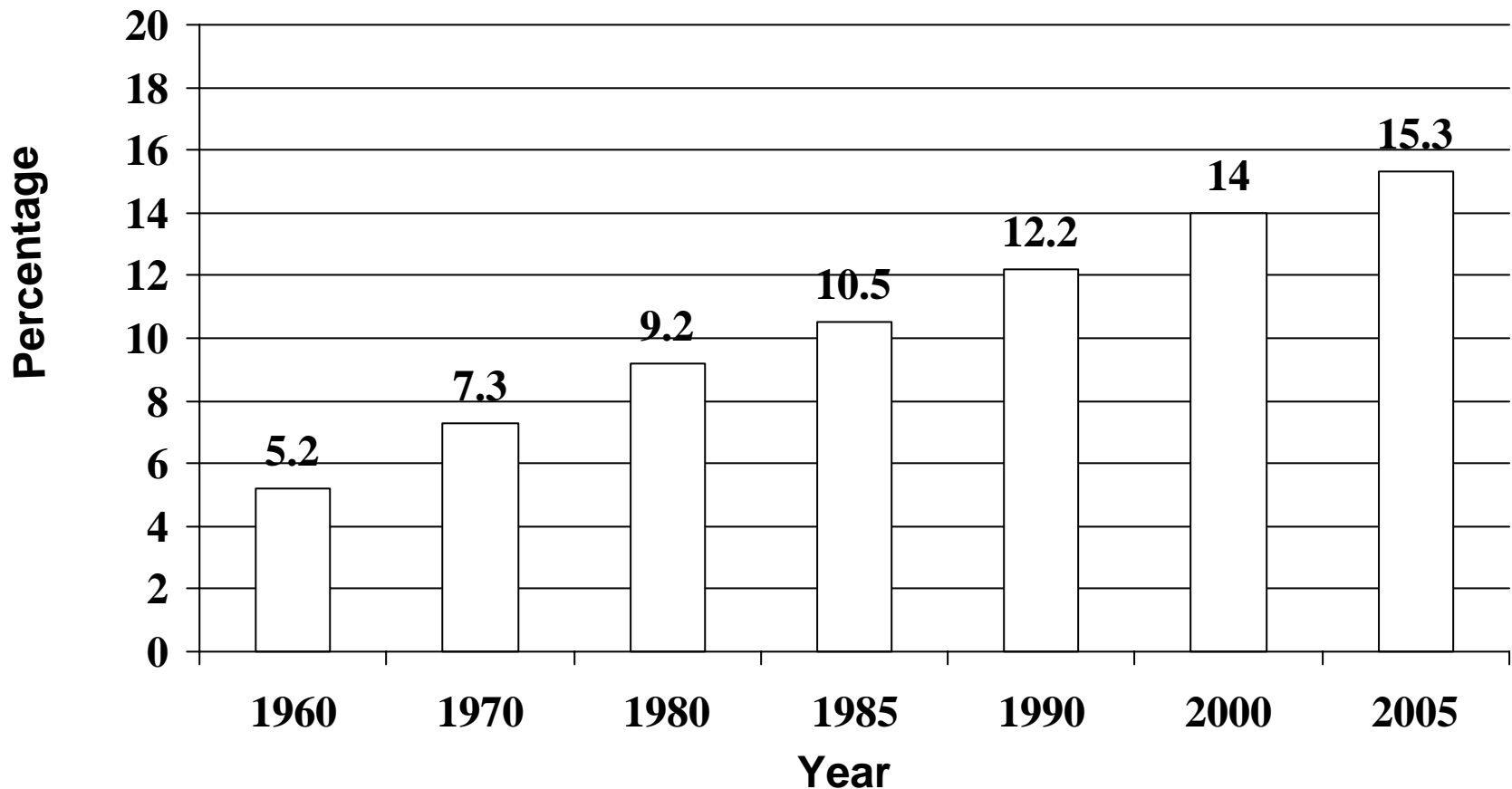
Criteria:

- Equity - needed care provided
- Efficiency - costs are minimized
- Effectiveness - quality care improves health outcomes

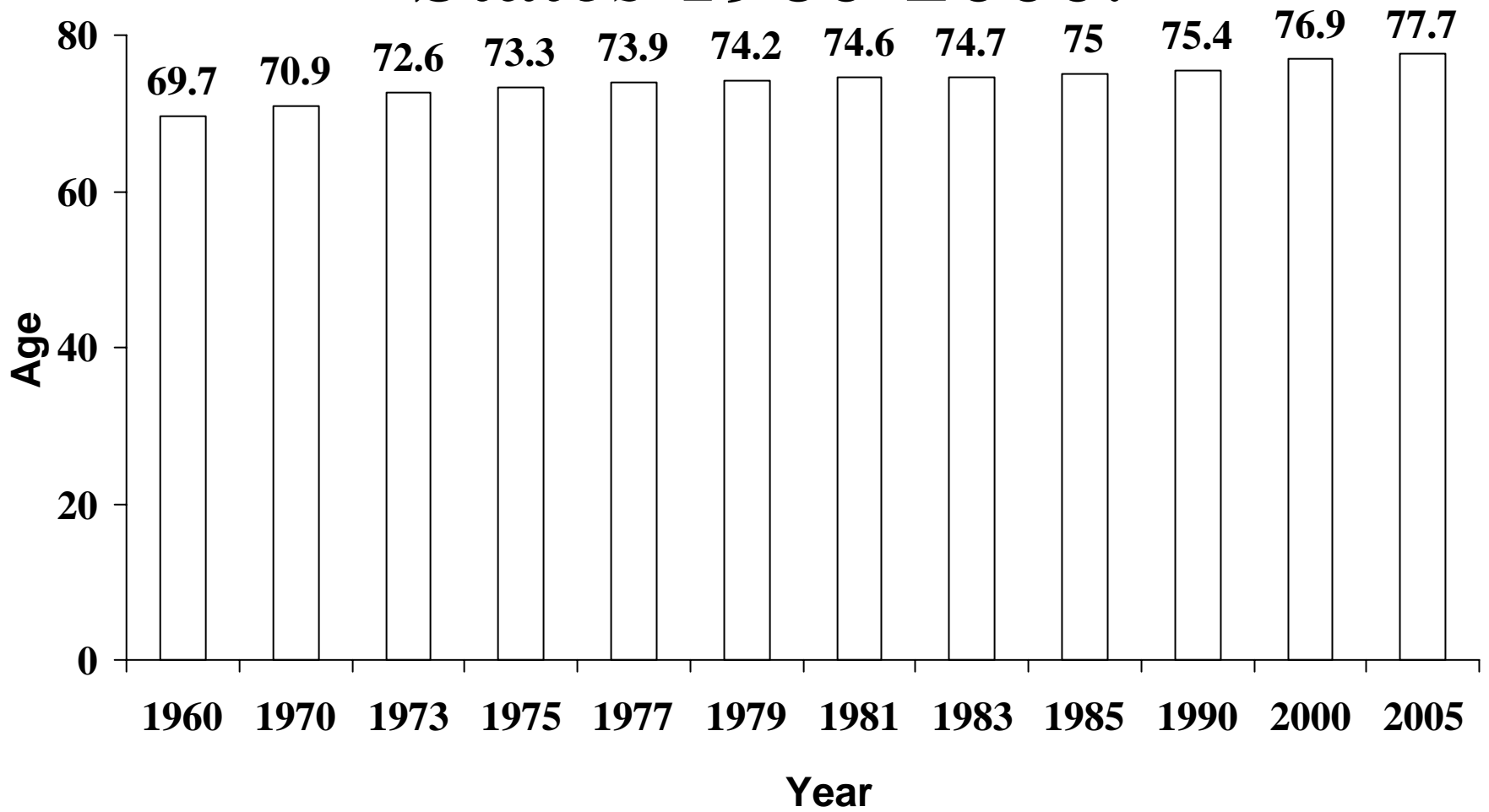
Application

- Evaluate policy, interventions, secular trends

Health Expenditures as a Percentage of the U.S. Gross National Product, 1960-2005



Life Expectancy at Birth United States 1960-2000.



Spending by U.S. Businesses for Health Care

(% of Business Expense or Profit)

	Percent of Labor Compensation		Percent of Corporate Profits	
	Wages and Salaries	Fringe Benefits	Before Tax	After Tax
1965	2	22	8	14
1970	4	29	20	36
1975	5	29	21	34
1980	6	32	27	47
1985	7	39	51	90
1986	8	41	58	110
1987	7	41	49	90
1988	8	43	48	85
1989	8	45	55	98
1990	9	46	61	108

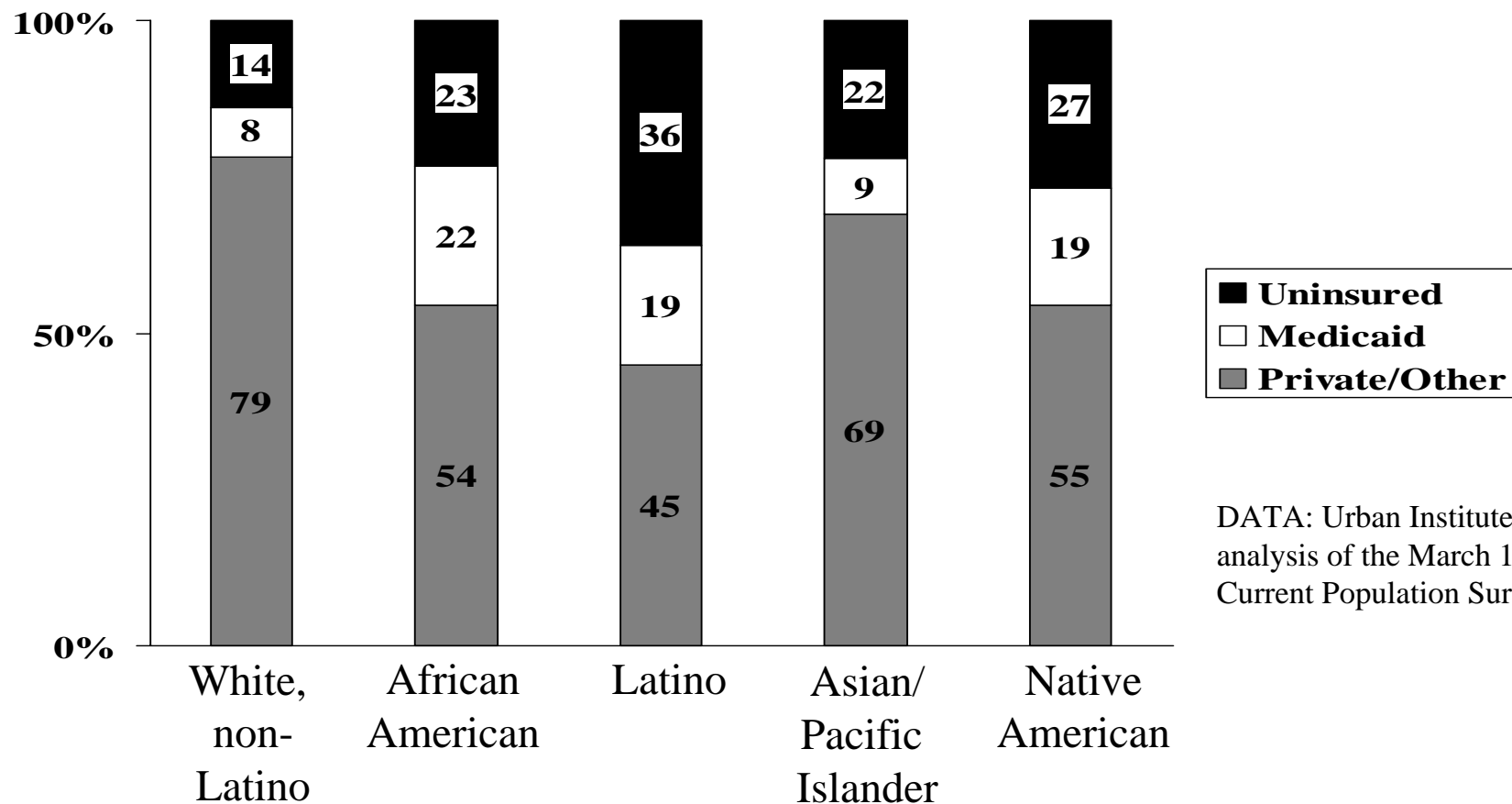
Ref: Iglehart JK. The American Health Care System: Private Insurance. NEJM 1992;326(25):1715.

Major Trend in Health Insurance Policy

- Shift of risk to individuals
- Applies to private sector and government – Federal, State

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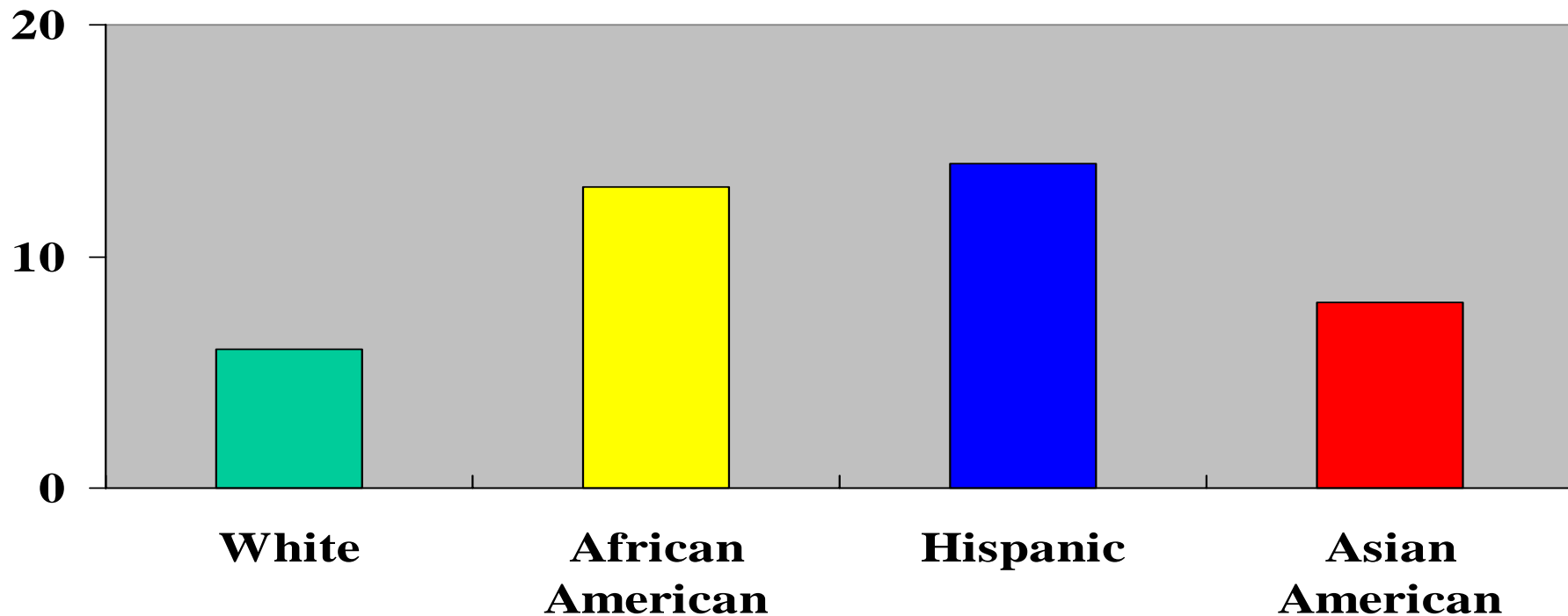
Health Insurance Status, by Race and Ethnicity, 1997: Total Nonelderly Population



DATA: Urban Institute analysis of the March 1998 Current Population Survey

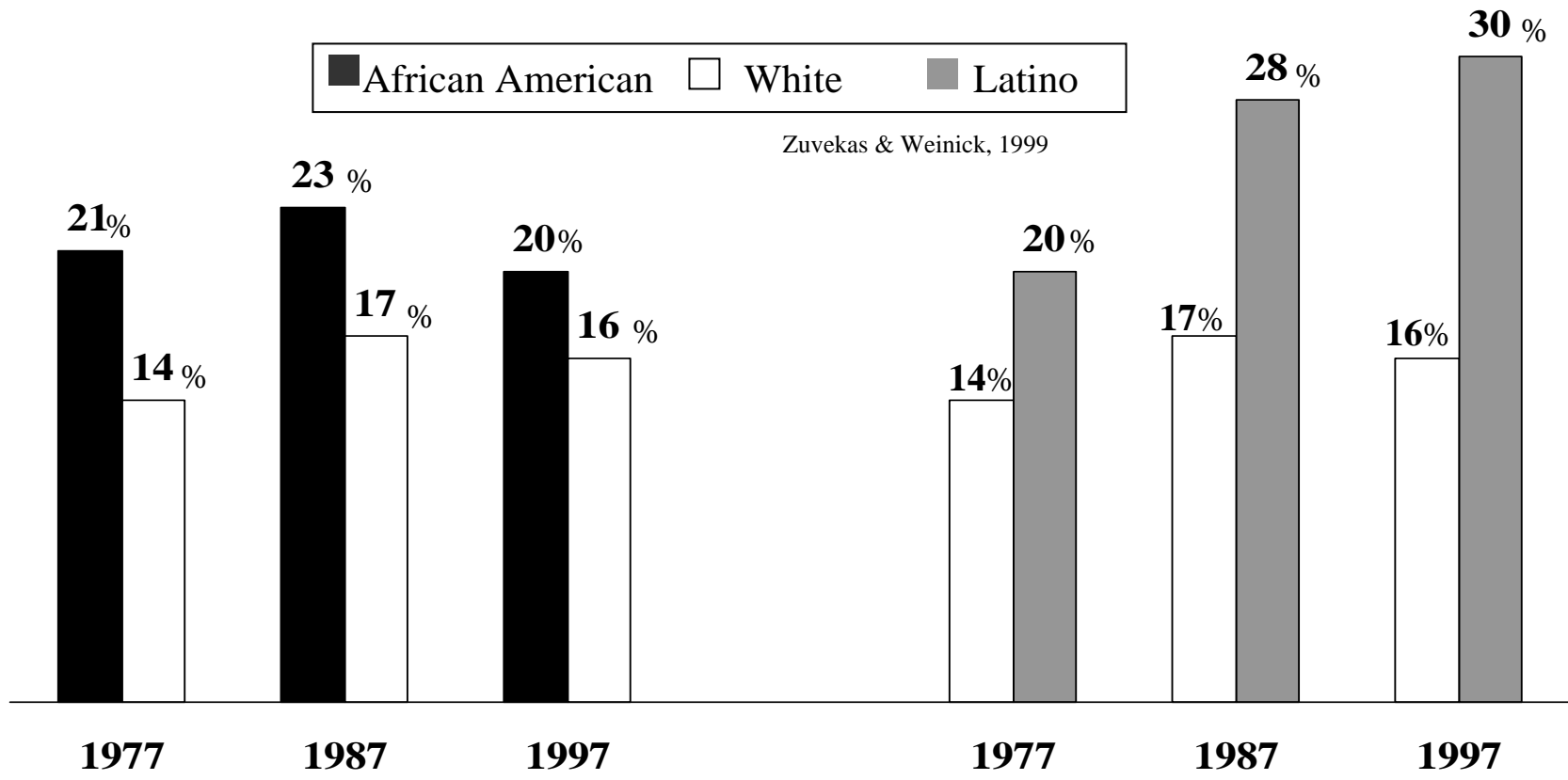
African Americans and Hispanics More Likely to Have No Regular Source of Care and Use ERs

Percent of adults reporting emergency room or none as regular source of care



Source: The Commonwealth Fund 2001 Health Care Quality Survey.

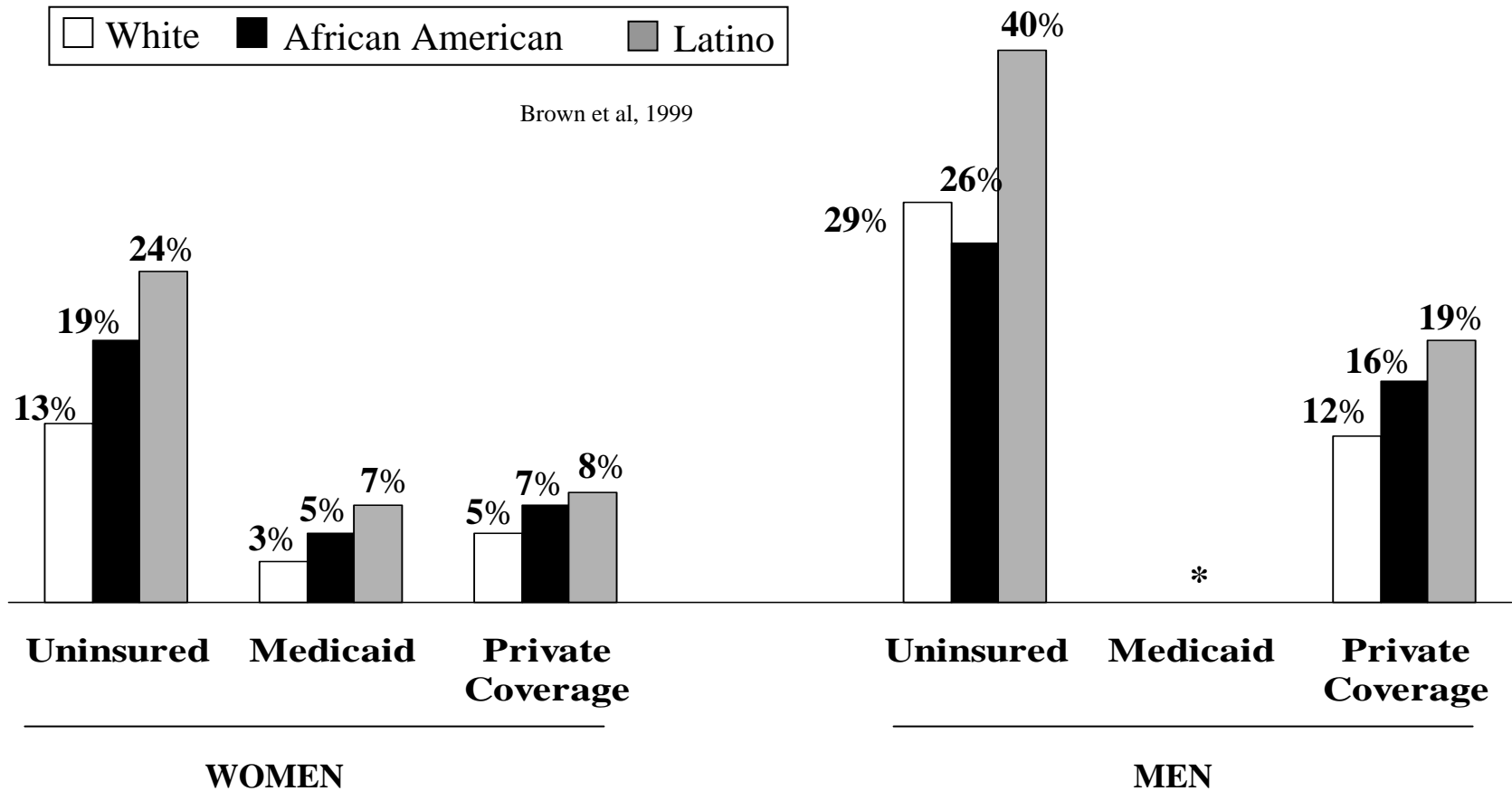
No Usual Source of Medical Care, 1977 to 1997



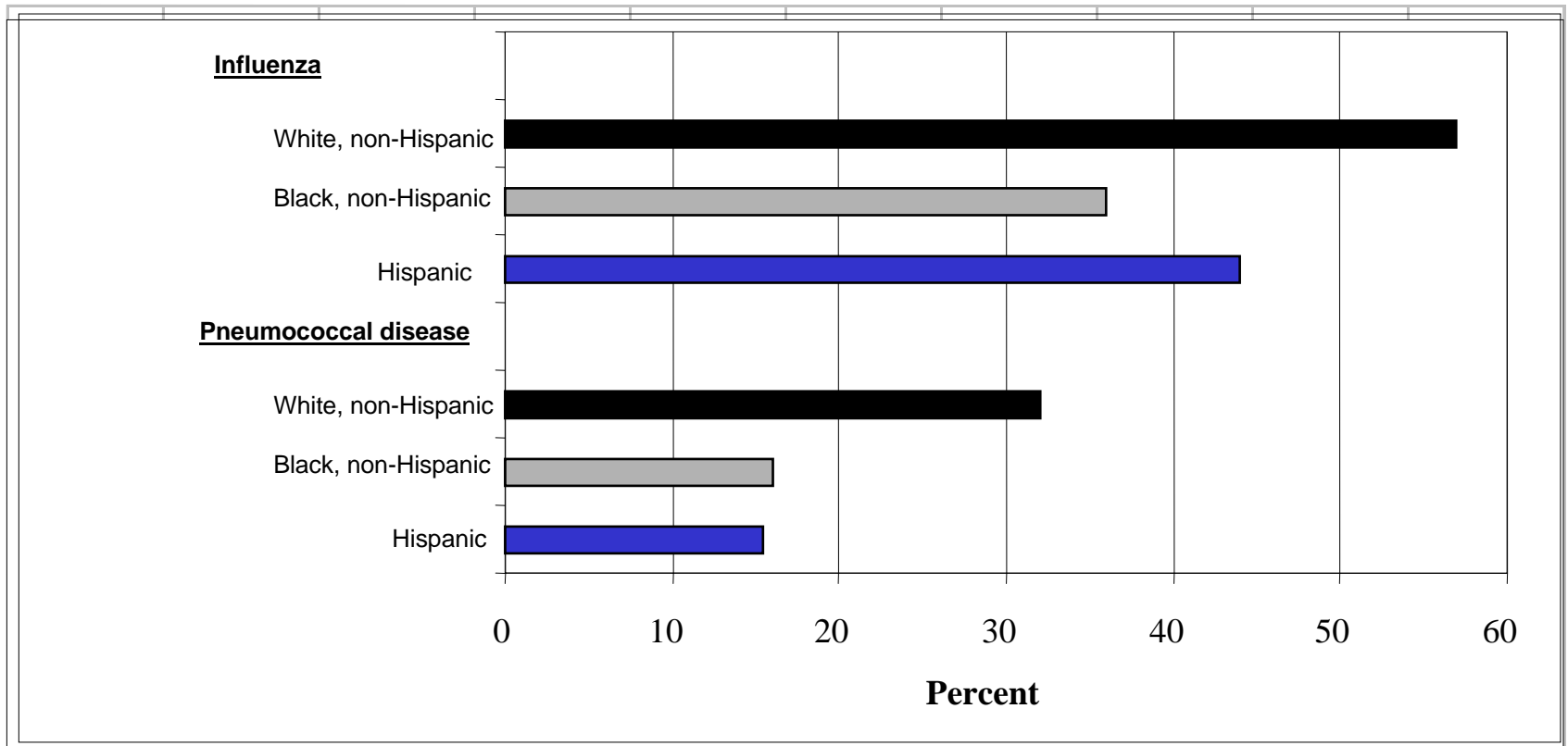
African Americans compared to Whites

Latinos compared to Whites

Percent with No Doctor Visit in Past Year: Adults 18-64 in Fair to Poor Health



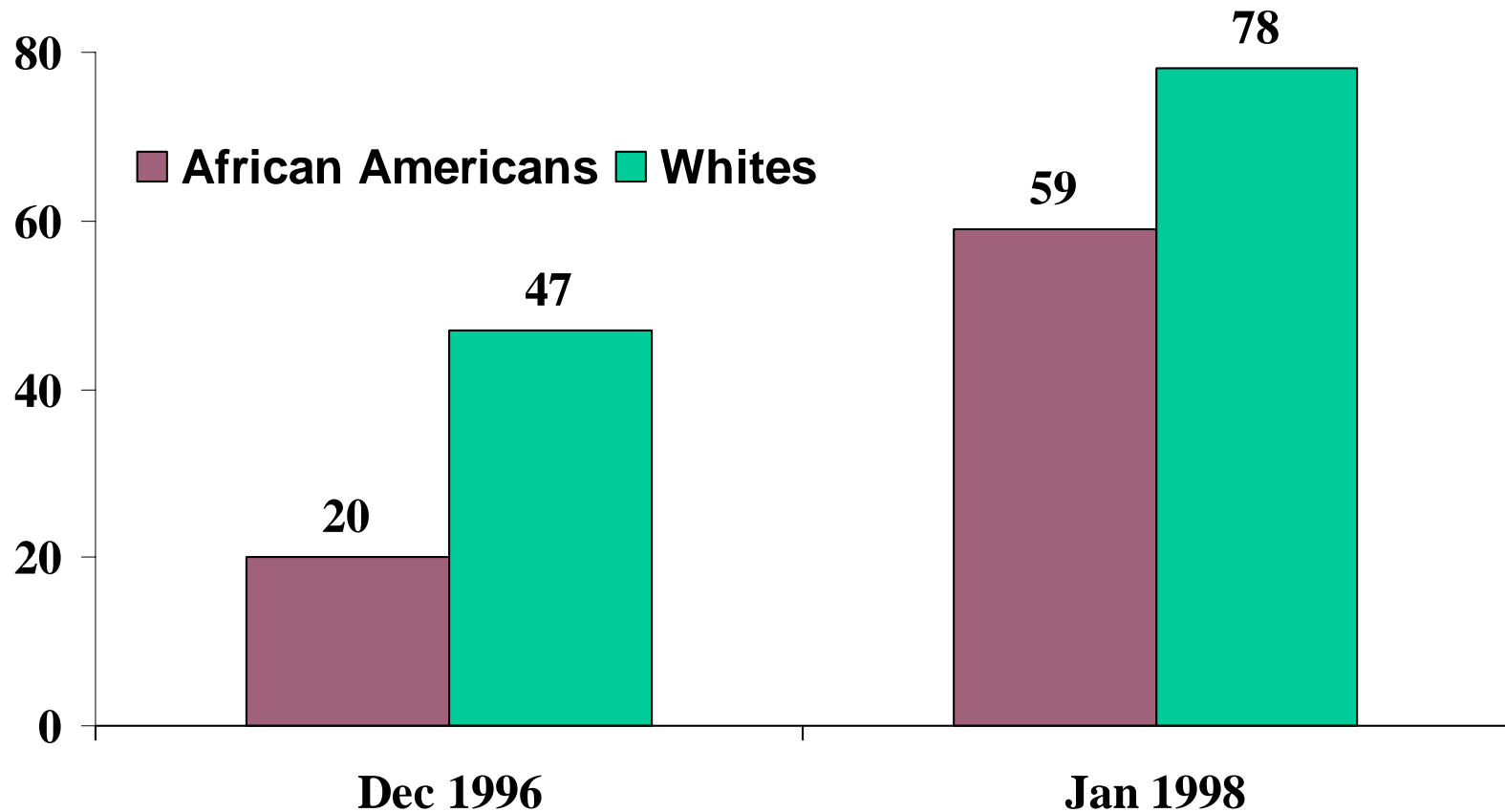
Percent vaccinated against influenza and pneumococcal disease among persons 65+ years by race/ethnicity



United States, 2000

Source: CDC. National Center for Health Statistics. National Health Interview Survey.

Percent of African Americans and Whites Who Ever Received Advanced Treatment for HIV



Cunningham, et al., JAIDS 2000 Both $p < .001$

Odds of Receiving 3 Cardiovascular Procedures in LA Hospitals by Race/Ethnicity (Compared to Whites)

	Black	Latino	Asian
Angio	0.59	0.53	0.71
CABG	0.56	0.67	0.92^{NS}
PTCA	0.50	0.45	0.70

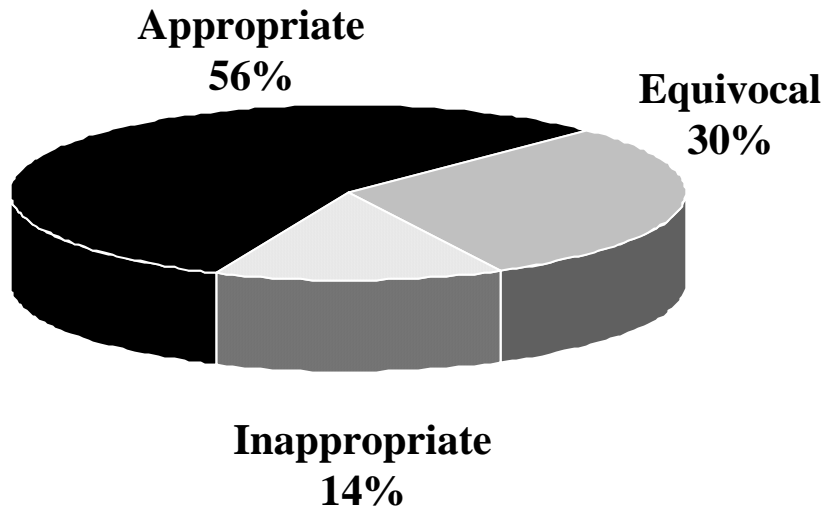
* Controlling for age, gender, and primary diagnoses

^{NS}Non-Significant

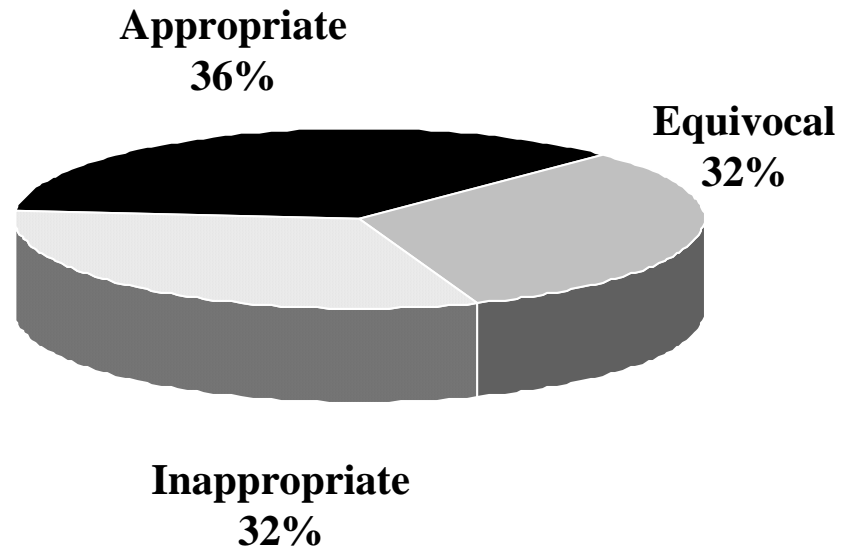
Source: David Carlisle 1997

Appropriateness of CABG and Carotid Endarterectomy in U.S.

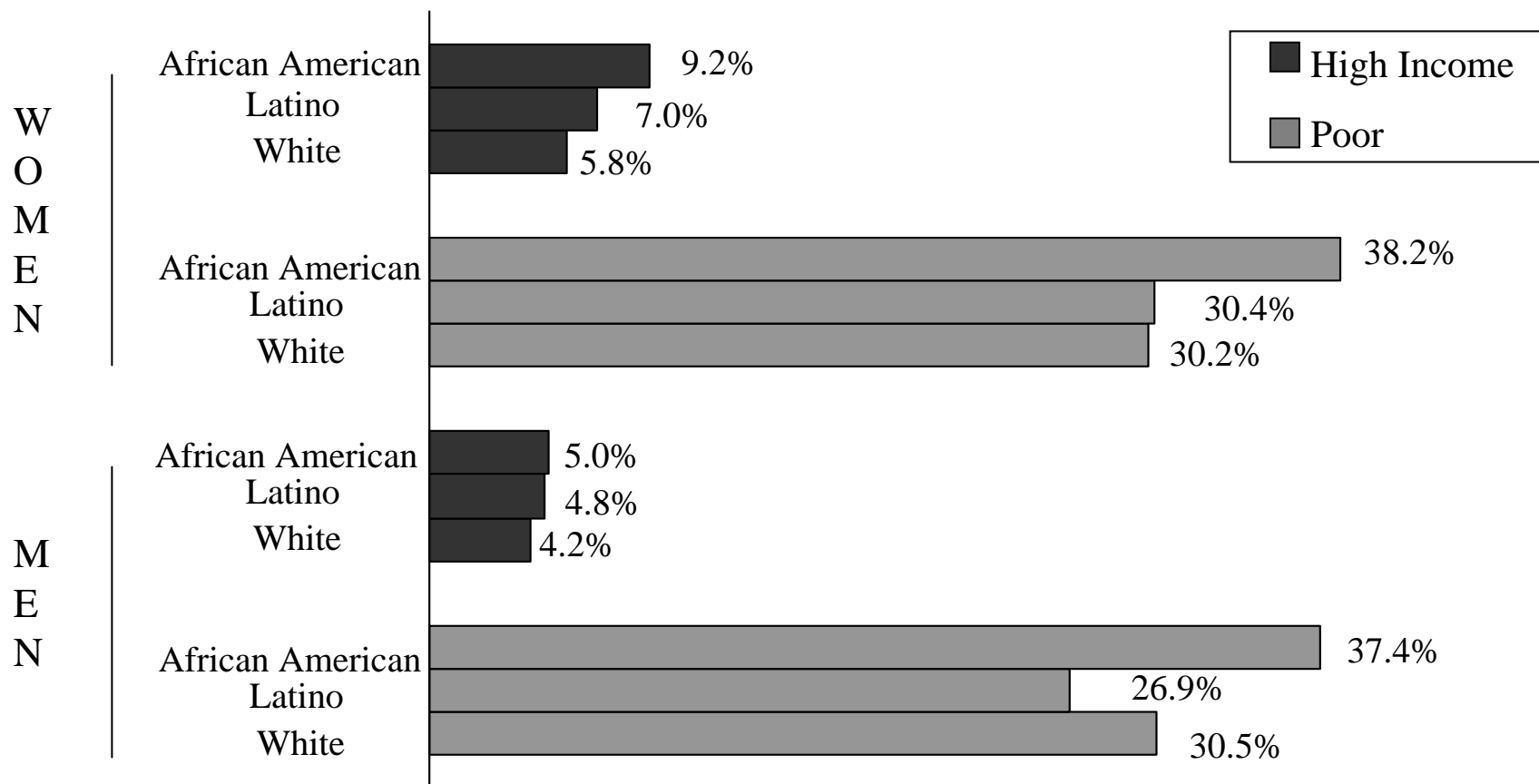
CABG



CEA

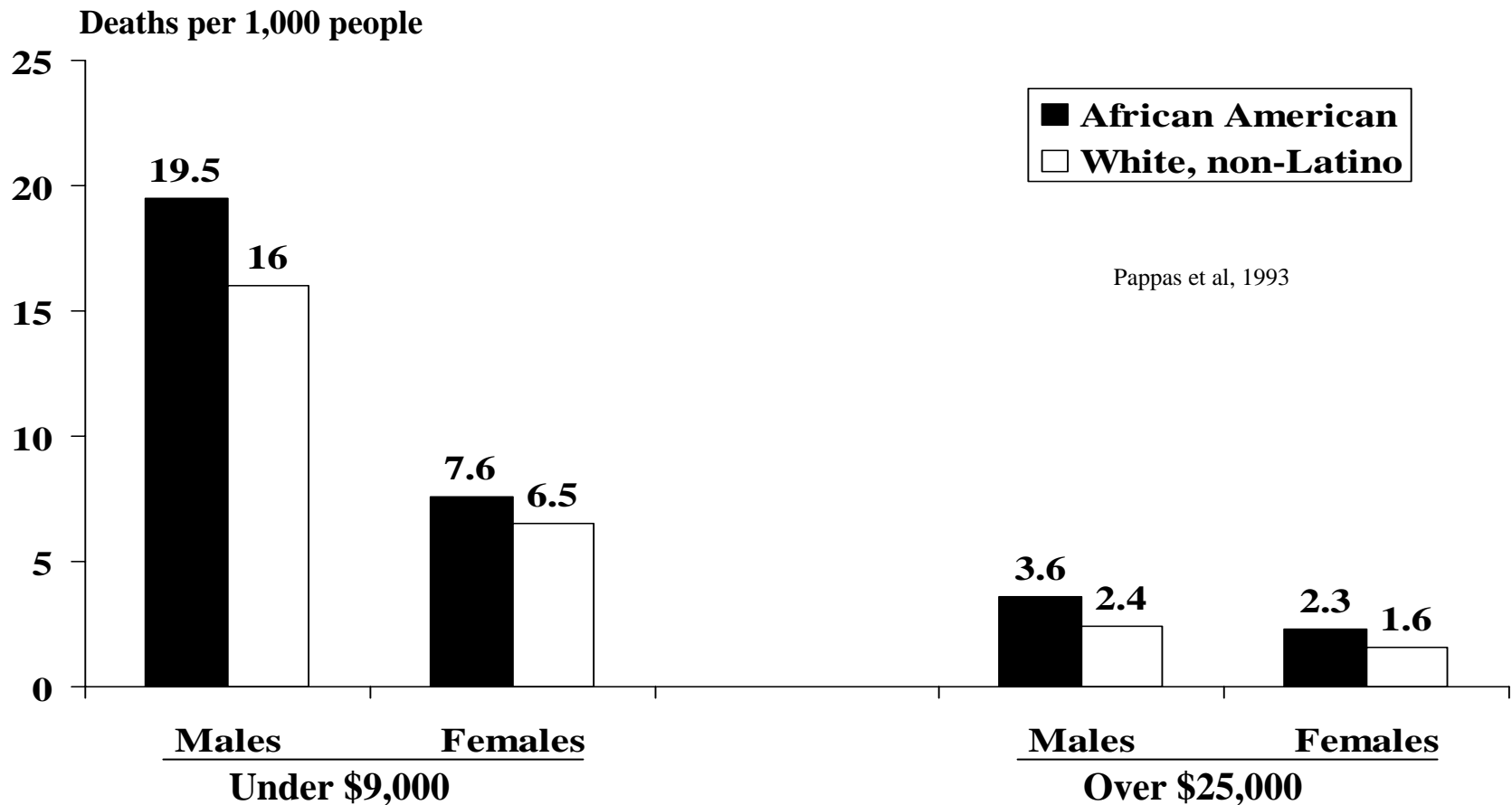


Fair or Poor Health by Race, Gender, and Family Income

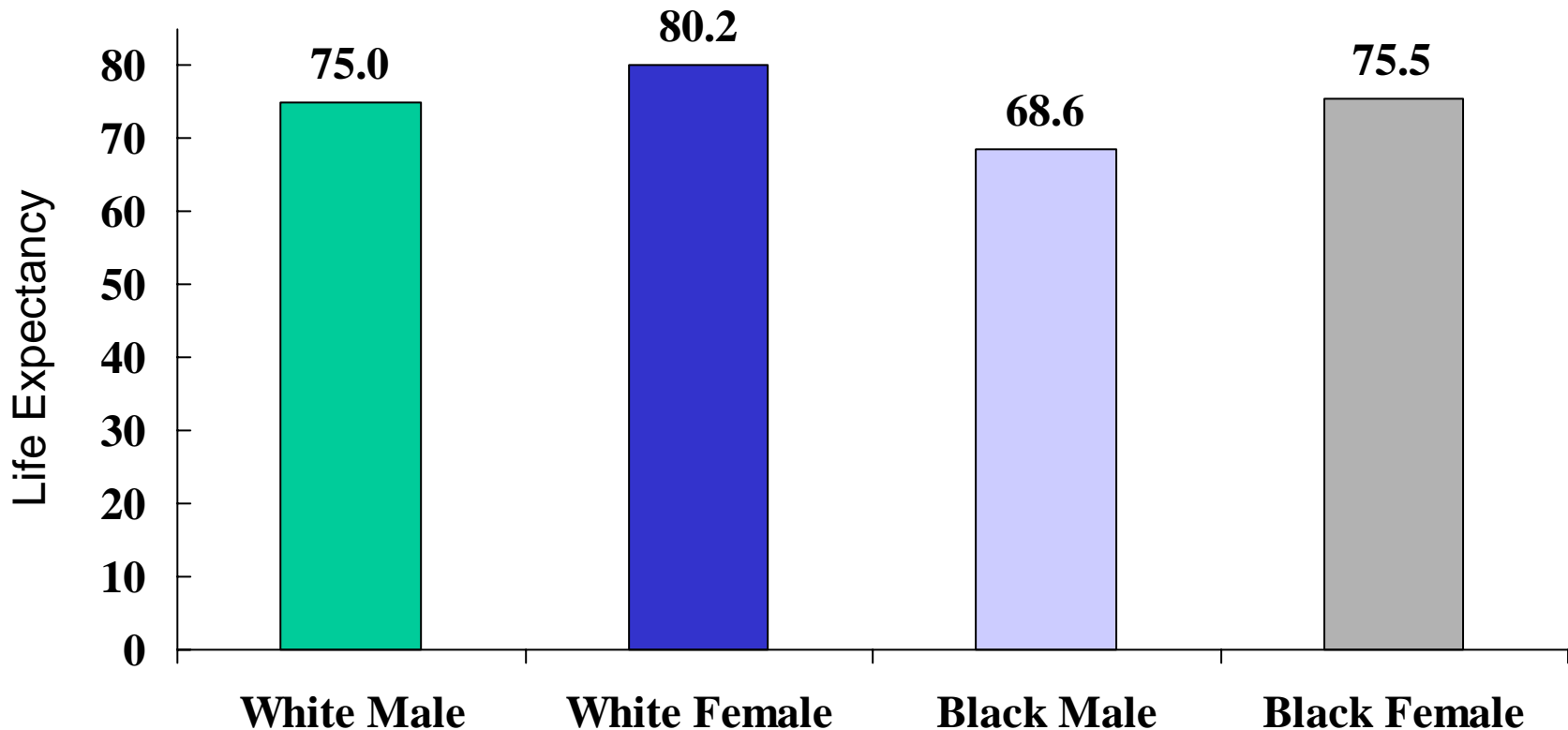


DHHS, *Health, United States, 1998*

Mortality Rates by Family Income, Race and Gender for Adults 25-64



Life Expectancy at Birth By Race and Gender, 2001



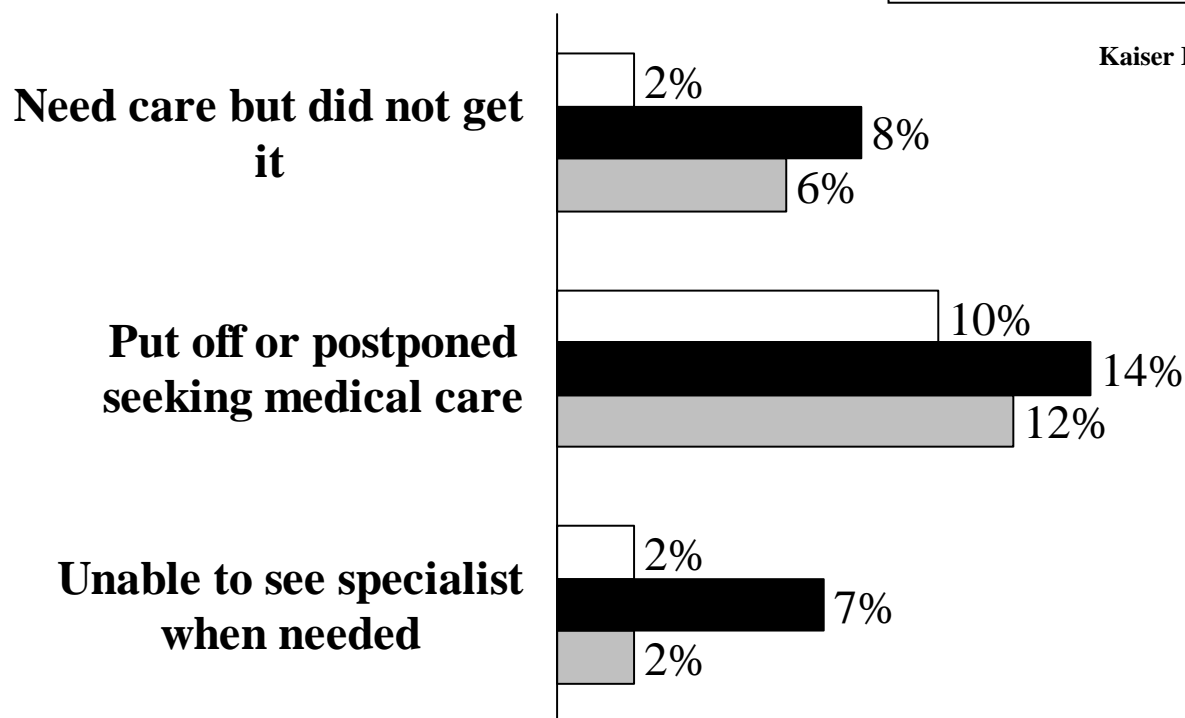
Source: Health, United States, 2003

Access to Care Problems of Medicare Beneficiaries, by Race and Ethnicity, 1997

Percent reporting access problems

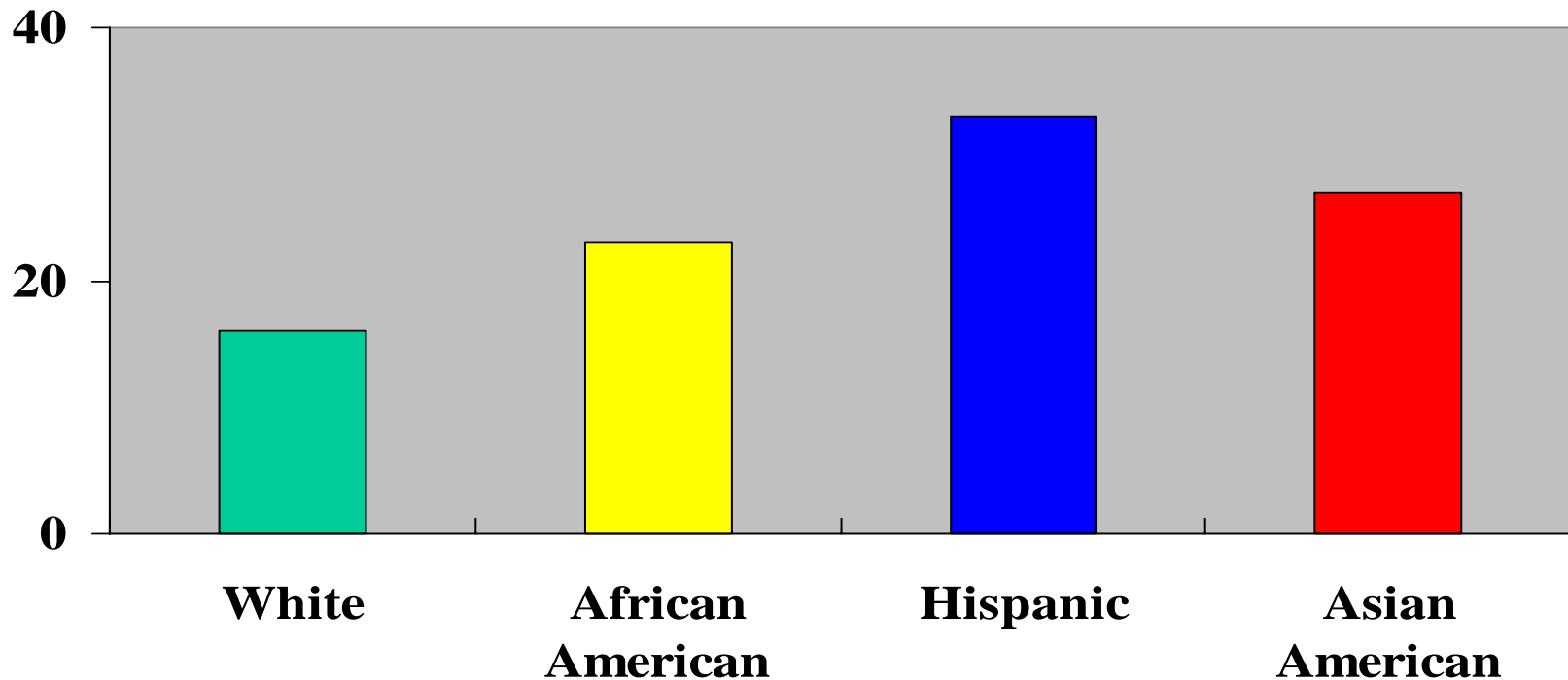


Kaiser Family Foundation. *The Faces of Medicare*, 1999



Minorities Face Greater Difficulty in Communicating with Physicians

Percent of adults with one or more communication problems*

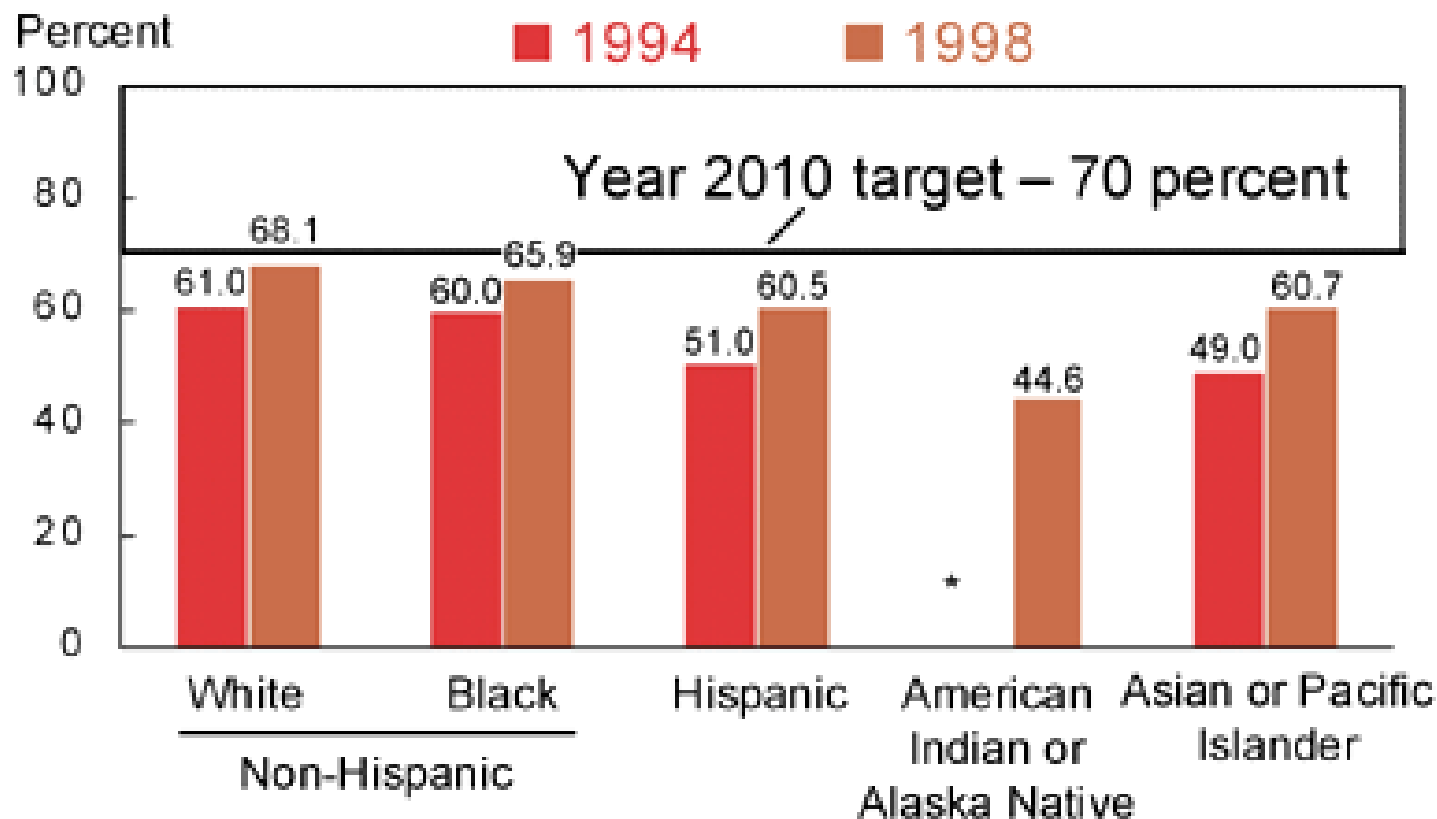


Base: Adults with health care visit in past two years.

*Problems include understanding doctor, feeling doctor listened, had questions but did not ask.

Source: The Commonwealth Fund 2001 Health Care Quality Survey.

Mammogram in last two years among women 40 years of age and older (age adjusted to the year 2000 standard population)



*Data are statistically unreliable

SOURCE: CDC/NCHS, National Health Interview Survey

A Behavioral Model of Health Services Use for Understanding Access to Medical Care

