



Racial/Ethnic Disparities in Health Care

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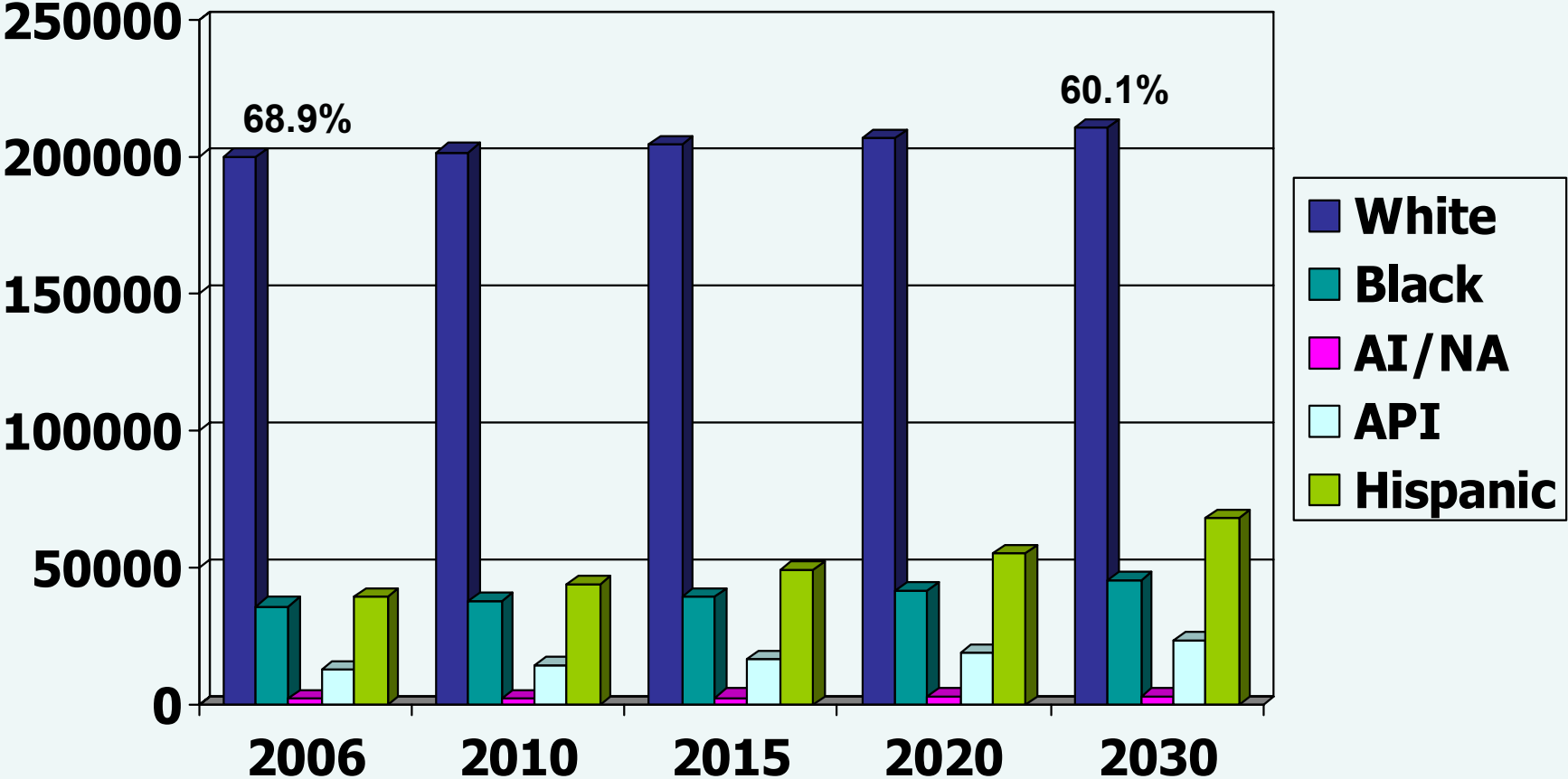


BRIGHAM AND
WOMEN'S HOSPITAL



HARVARD
MEDICAL SCHOOL
TEACHING AFFILIATE

US Population Becoming Increasingly Diverse: 2006-2030



Population Projections Program, Population Division, U.S. Census Bureau

Evidence of Racial and Ethnic Disparities in Healthcare

- Disparities consistently found across a wide range of diseases areas and clinical services
- Disparities are found even when clinical factors, such as stage of disease presentation, co-morbidities, age, and severity of disease are taken into account
- Disparities are found across a range of clinical settings, including public and private hospitals, teaching and non-teaching hospitals, etc.
- Disparities in care are associated with higher mortality among minorities (e.g., Bach et al., 1999; Peterson et al., 1997; Bennett et al., 1995)

Categories of Disparity

- Differences in access to health care services
- Differences in diagnostic testing, treatment, and the quality of care received within the health care system
- Differences in understanding health behaviors empathically

Examples of Racial and Ethnic Disparities in Healthcare

- Racial differences reported in receipt of analgesia and pain medication
- Lower rates of surgery for early stage lung cancer for Blacks compared to Whites associated with lower survival rates
- Blacks and Hispanics with HIV less likely to receive antiretroviral therapy and PCP prophylaxis than Whites

Examples of Racial and Ethnic Disparities in Healthcare

- Blacks in same managed care plan as Whites less likely than Whites to have HgA1c, lipid testing, eye exams, and flu vaccine (Chin, et.al. Diabetes Care 1998; 21: 1090-95; Schneider, et.al. JAMA 2002; 287: 1288-94)
- Black women less likely than white women to receive radiation treatment after surgery for breast cancer; also less likely to receive rehab services

Examples of Racial and Ethnic Disparities in Healthcare

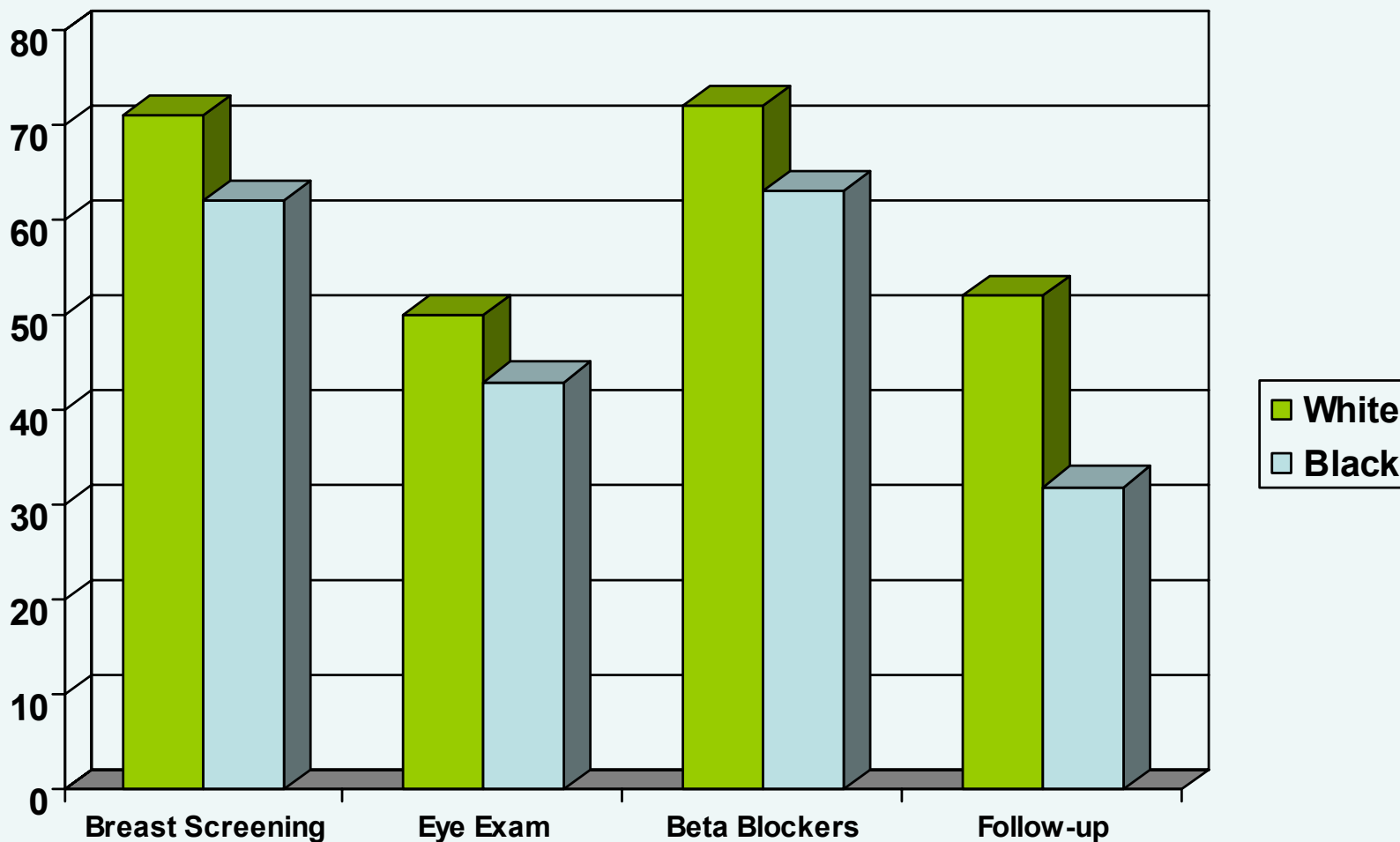
- Hispanic men less likely than white men to receive any pain medication during treatment in emergency departments for long bone fractures
- After viewing videotaped vignettes of African American and White “patients” with cardiac symptoms physicians recommended cardiac catheterization 40% less often for African American women despite them presenting with the same symptoms as Whites and men. (Schulman KA, et al. N Engl J Med 1999;340: 618-26)

Black and White Differences in Specialty Procedure Utilization Among Medicare Beneficiaries Age 65 and Older, 1993

	Black	White	Black-to-White Ratio
Angioplasty (procedures per 1,000 beneficiaries per year)	2.5	5.4	0.46
Coronary Artery Bypass Graft Surgery (procedures per 1,000 beneficiaries per year)	1.9	4.8	0.40
Mammography (procedures per 100 women per year)	17.1	26.0	0.66
Hip Fracture Repair (procedures per 100 women per year)	2.9	7.0	0.42
Amputation of All or Part of Limb (procedures per 1,000 beneficiaries per year)	6.7	1.9	3.64
Bilateral Orchiectomy (procedures per 1,000 beneficiaries per year)	2.0	0.8	2.45

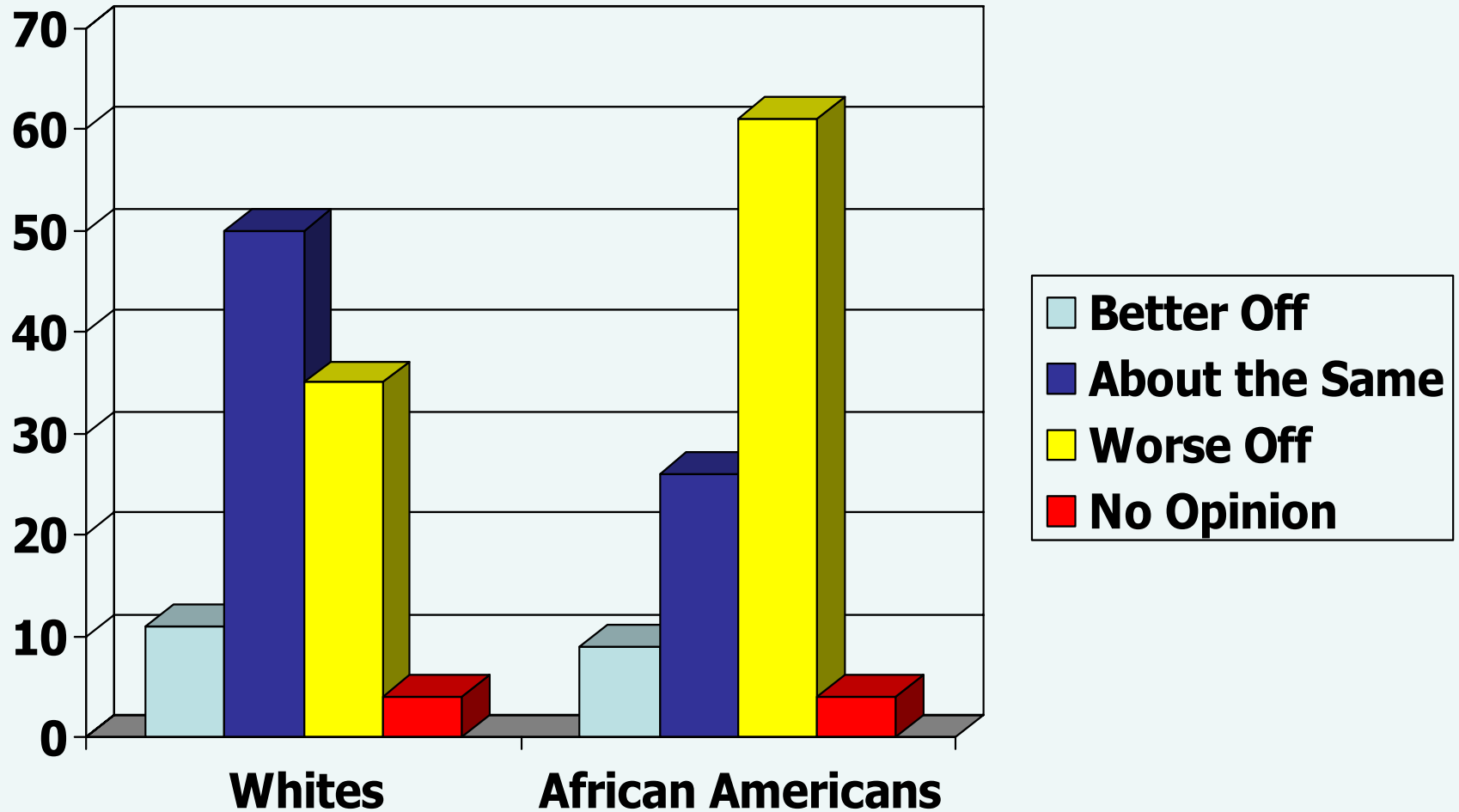
Source: Gornick et al., 1996

Among Medicare Beneficiaries Enrolled in Managed Care Plans, African Americans Receive Poorer Quality of Care



Source: Schneider et al., *JAMA*, March 13, 2002

Do you think the average African American is better off, worse off, or just about as well off as the average white person in terms of access to health care?



Source: Morin, 2001

Potential Sources of Disparities in Care

- Health Systems Level Factors:
 - Structure of Care – lack of stable relationships with primary care providers
 - Cultural and Linguistic Barriers
 - Fragmentation of health care financing and delivery
- Patient Level Factors:
 - Patient Preferences
 - Refusal of Treatment
 - Poor Adherence
 - Biological Differences
- Disparities arising from the clinical encounter

Social Factors: Unequal Distribution of Resources and Risk

- Poverty
 - Blacks, Latinos, American Indians and some Asians are 3 times more likely to be poor than are Whites
- Educational attainment
- Immigration status
- Employment
- Housing
- Geographic location

Personal Beliefs and Behaviors

- Reject certain treatment or preventive interventions
 - Kidney transplants, mammograms
- Health seeking behavior
 - Interpersonal interactions with physicians
- Belief about control of health status
 - Conflict between destiny vs. prevention
- Use of “non-traditional” or “non-Western” medicine

Disparities in Three Diseases

Infant Mortality

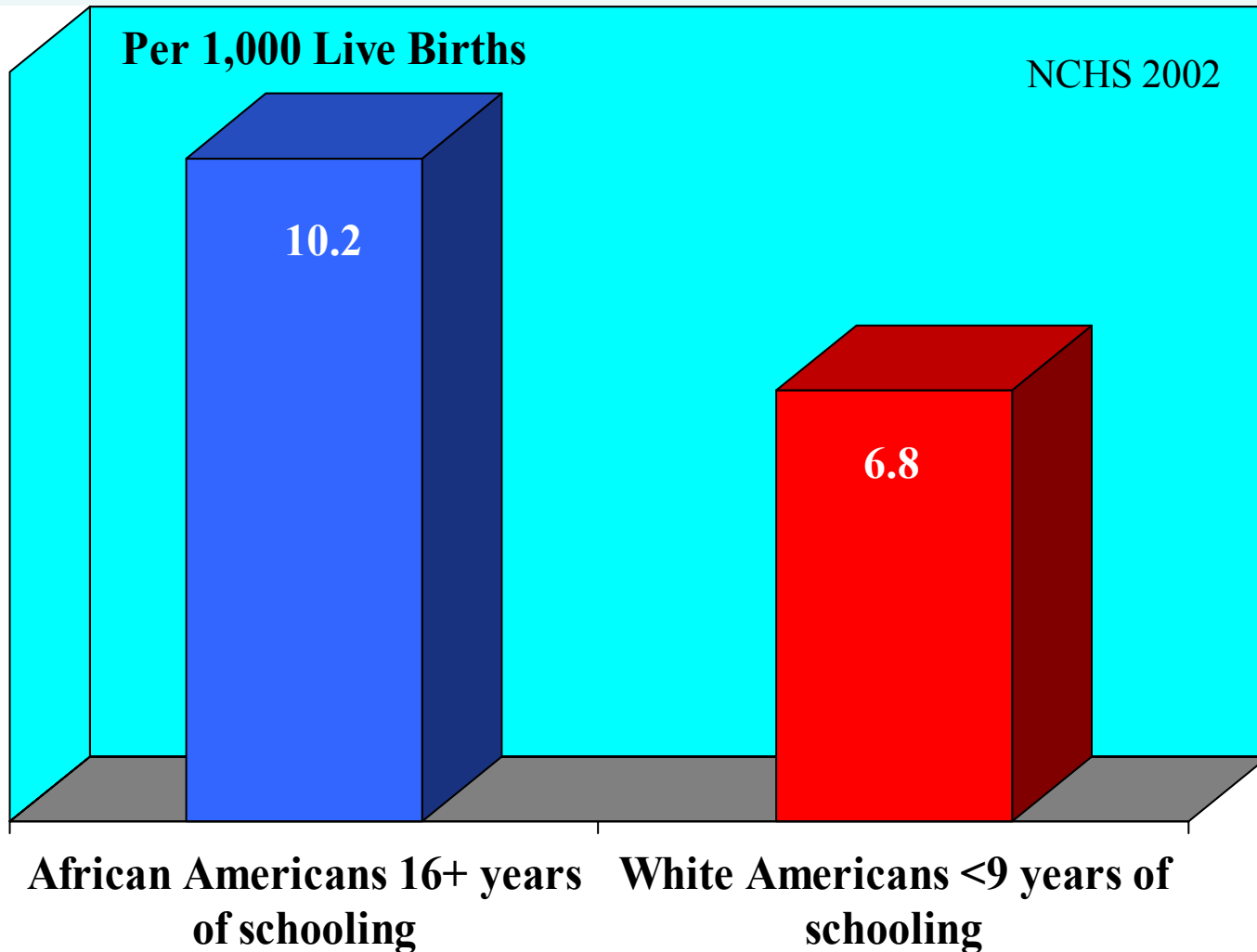
What is Infant Mortality?

- Infant mortality is the death of an infant in the first 12 months of life.
- Maternal/child outcomes are the most universally used outcomes to track the health of populations.
- Infant mortality is used as an indicator of the health of a nation.
- The U.S. ranks 27th among developed countries in infant mortality.

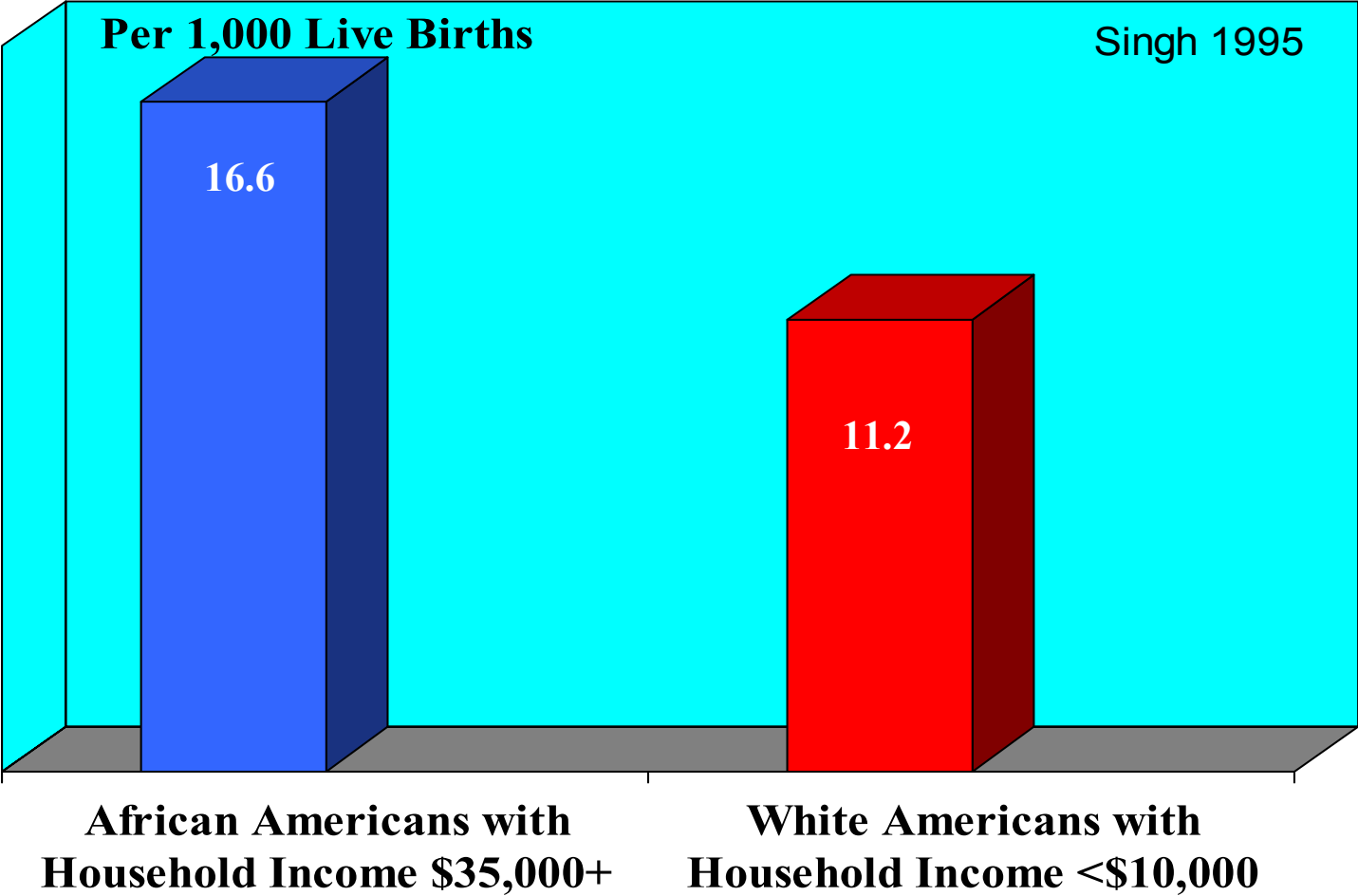
Infant Mortality – National Data

- The infant mortality rate for black infants is 14.6 deaths per 1,000 compared to 5.8 deaths for white infants
- The infant mortality rate for black infants is higher than the rate for any other racial/ethnic group
- Black infants are 2 times more likely to be born low-birth weight (less than 2,500g) than white babies
- Black infants are more likely to die of causes related to prematurity/low birth weight than infants of other racial/ethnic groups
- These differences are not explained by differences in educational attainment or household income

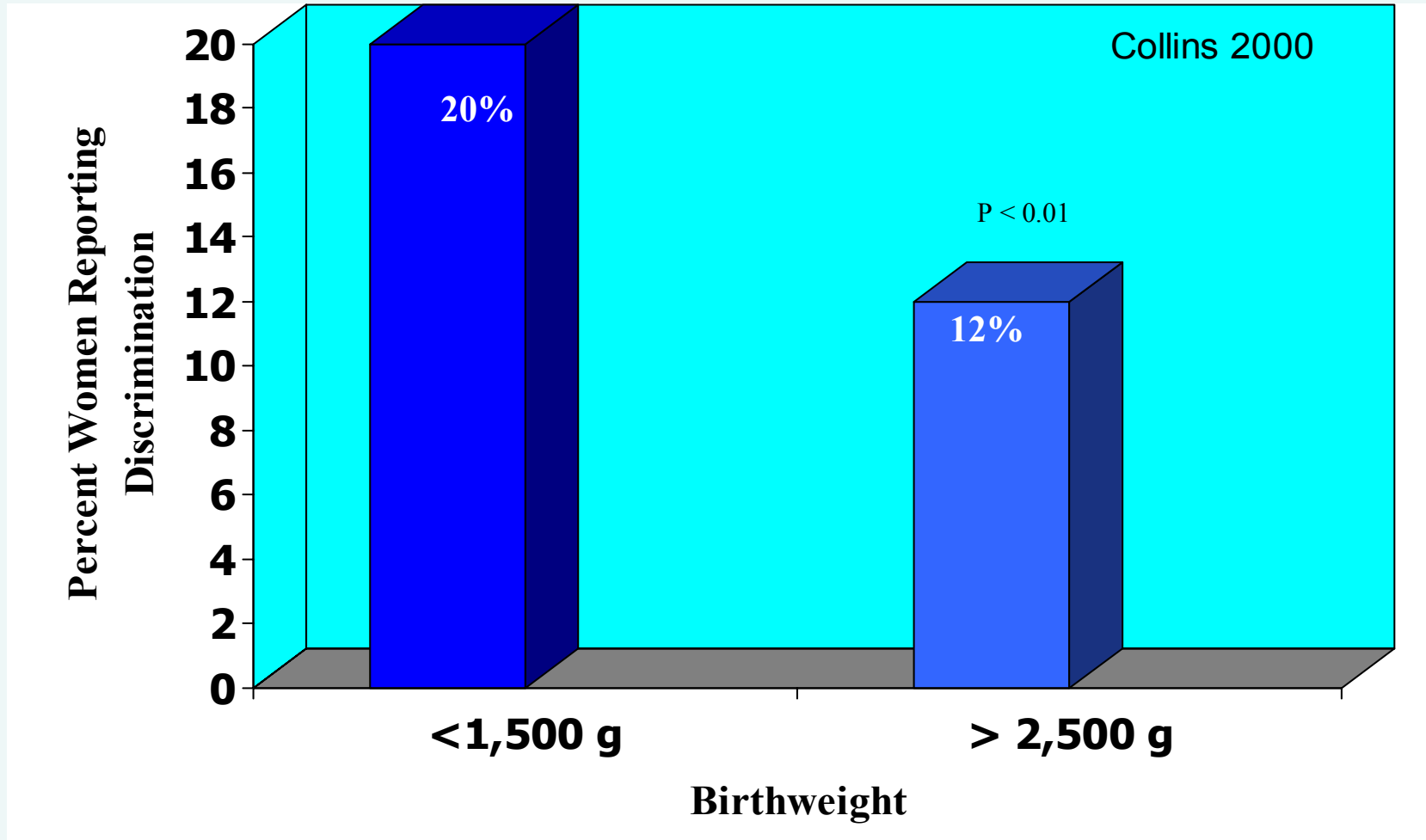
Racial & Ethnic Disparities - Infant Mortality & Education



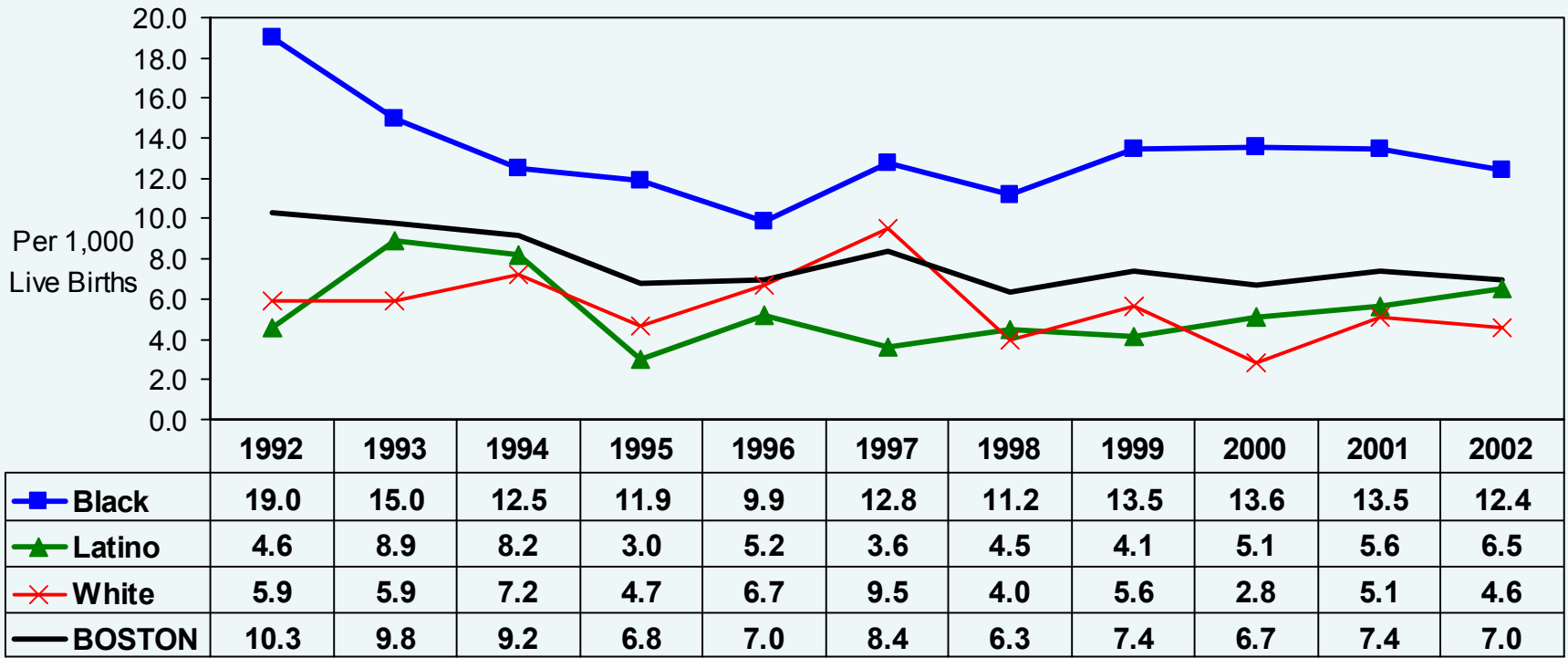
Racial & Ethnic Disparities - Infant Mortality & Household Income



Racial & Ethnic Disparities - Low Birth Weight & Racism



Infant Mortality Rate By Race/Ethnicity Boston, 1992-2002



NOTE: IMRs for Asian births are not shown because for several years too few deaths occurred to permit rate calculation
 SOURCE: Boston resident live births and infant deaths, Massachusetts Department of Public Health
 ANALYSIS: Boston Public Health Commission Research Office

Asthma

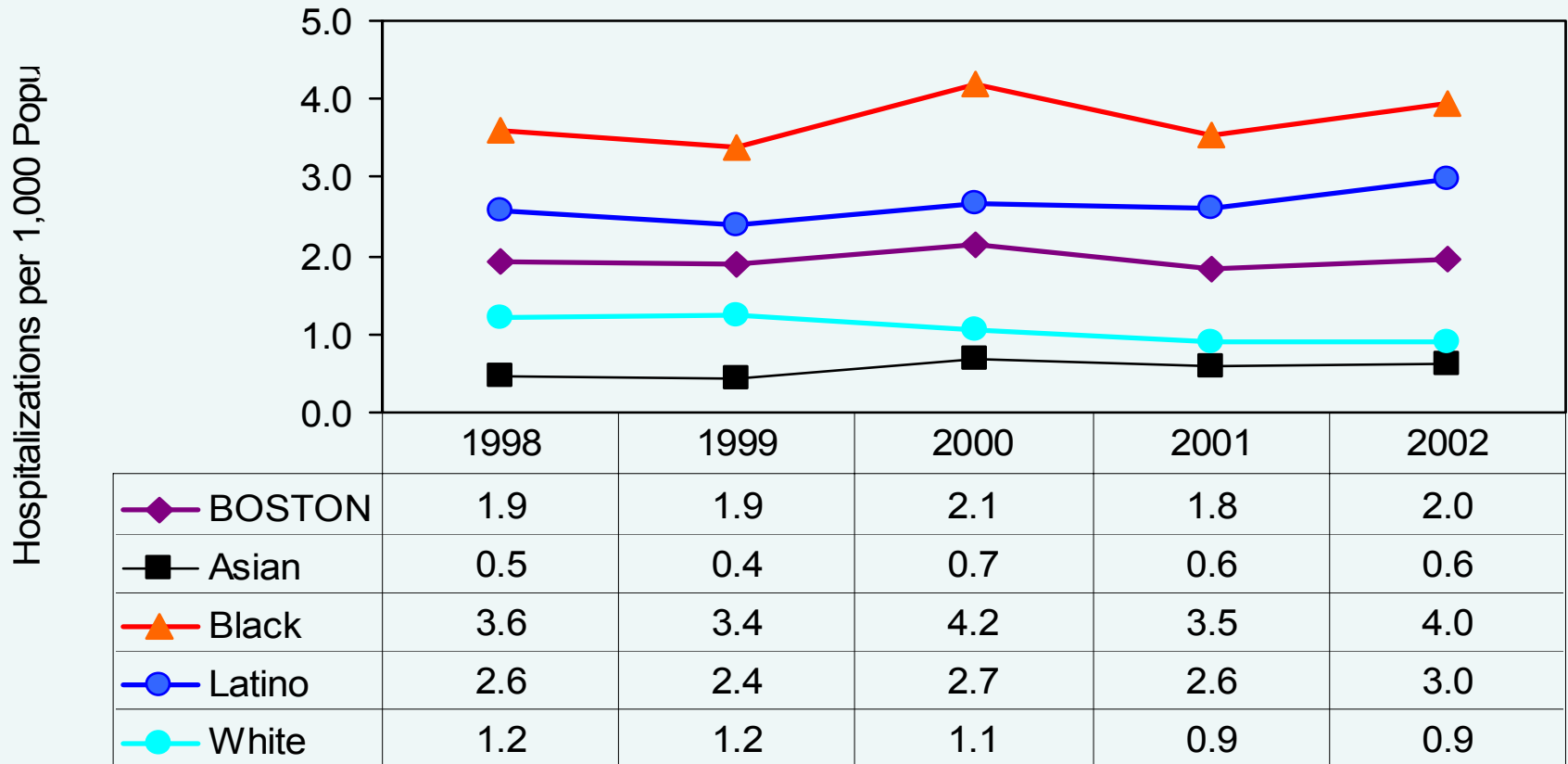
What is Asthma?

- Chronic respiratory disease characterized by small airway inflammation and narrowing
- “Triggers”:
 - allergens – dust mites, pets, pest infestation
 - infections
 - exercise
 - exposure to airway irritants like tobacco smoke
 - environmental pollution including diesel exhaust, dust, ground level ozone

Asthma – National Data

- National data/research: burden from asthma in the US has increased over the past 20 years
- National extent of racial disparities in asthma:
 - Blacks had higher asthma mortality rates than all other racial/ethnic groups
 - Asthma death rates in black children were 4.6 times higher than white children in 1997-1998
 - Blacks also had higher hospitalization rates and ED visit rates
 - Asthma prevalence rate among Blacks is 10% higher than Whites and 40% higher than Latinos.
- Reasons for disparity:
 - Access to health care
 - Environmental
 - Differences in provider treatment
 - Stress

Asthma Hospitalization Rates for Adults by Race/Ethnicity and Year, Boston, 1998-2002

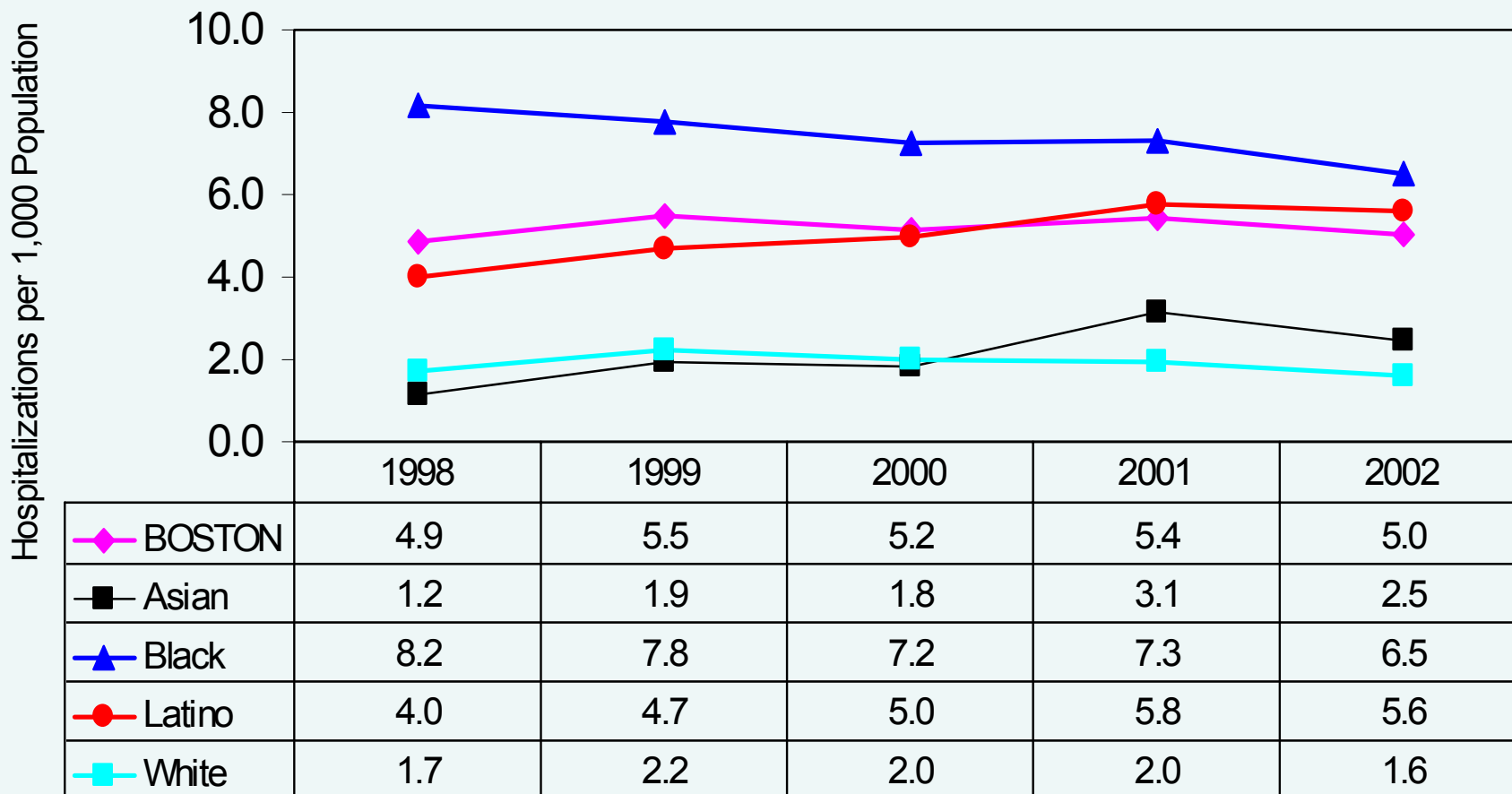


NOTE: Latinos may be found in any of the above categories. In 2001 and 2002, rates for Blacks and Latinos were significantly different from rates for Whites ($p < .05$). Rates for Blacks were also significantly different from rates for Latinos.

DATA SOURCE: Acute Care Hospital Case Mix, Massachusetts Division of Health Care Finance and Policy

DATA ANALYSIS: Boston Public Health Commission Research Office

Asthma Hospitalization Rates for Children Under the Age of 18 by Race/Ethnicity and Year, Boston, 1998-2002



NOTE: In 2001 and 2002, Rates for Black and Latino children were significantly different from those of White and Asian children ($p < .05$).

Latinos may be found in any of the above categories.

DATA SOURCE: Acute Care Hospital Case Mix, Massachusetts Division of Health Care Finance and Policy

DATA ANALYSIS: Boston Public Health Commission Research Office

Diabetes

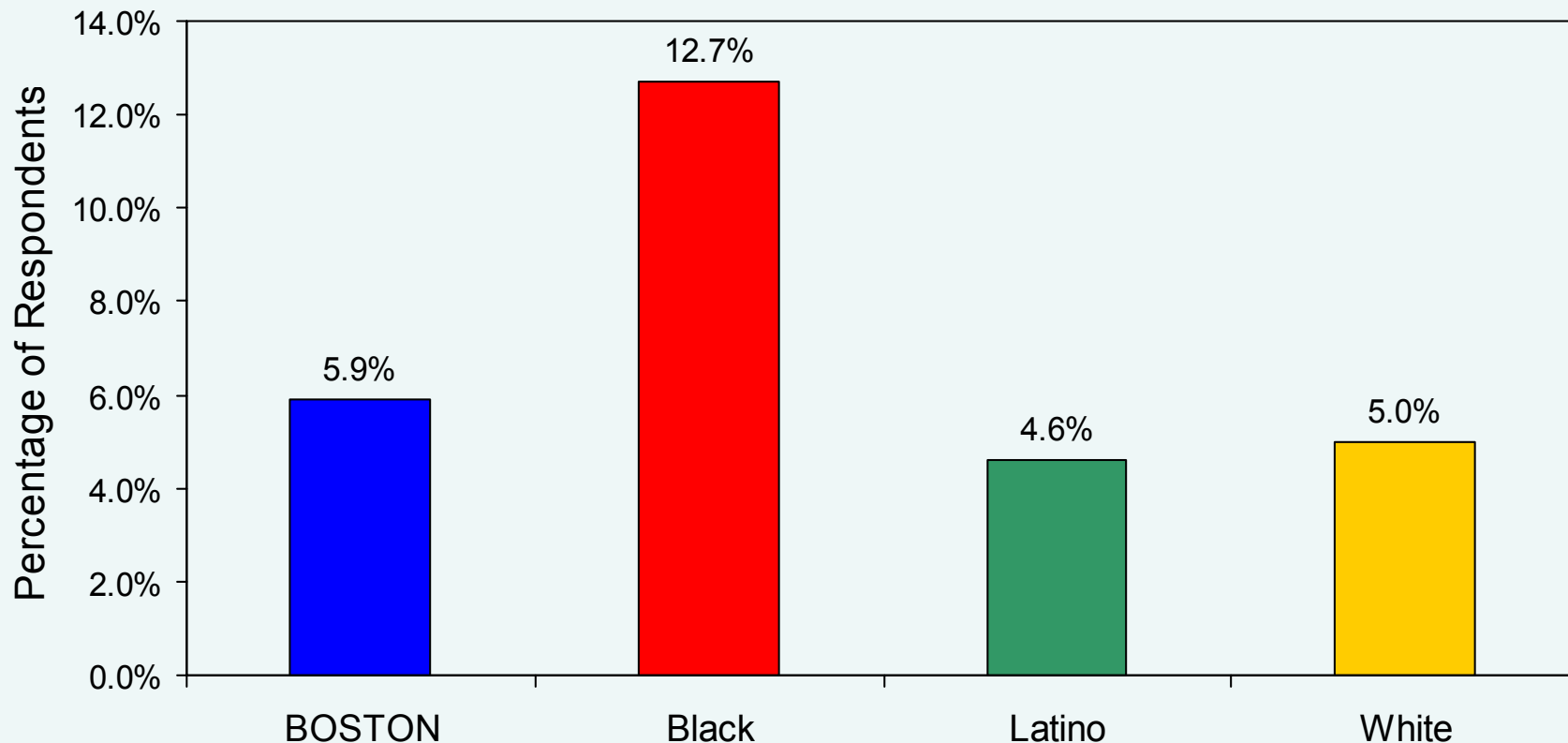
What is Diabetes?

- Type I: chronic disease in which the body produces no insulin; usually juveniles; about 10% of diabetes mellitus
- Type II: chronic disease in which the body does not produce enough insulin or the body is resistant to the effects of insulin
- Diabetes related complications: heart disease, stroke, kidney disease, amputations, blindness, neurological (loss of sensation), reduced ability to fight infection, and birth defects and other complications of pregnancy

Diabetes – National Data

- According to the American Diabetes Association, in 2003, 6.3% of whites, 11.2% of American Indians/Alaska Natives and 8.9% of blacks reported suffering from diabetes
- Latinos have the highest lifetime risk for diabetes among all ethnic groups with 52.5% of women and 45.4% of men likely to develop the disease
- 49% of black women and 41.4% of black men are likely to develop diabetes in their lifetimes as compared with 31.2% of white women and 26.7% of white men
- 16 million people in the U.S. have “pre-diabetes” or Impaired Glucose Tolerance. If untreated this can intensify the risk for developing Type 2 diabetes and amplifies the risk of heart disease by 50%

Diabetes by Race/Ethnicity, Boston, 2001*



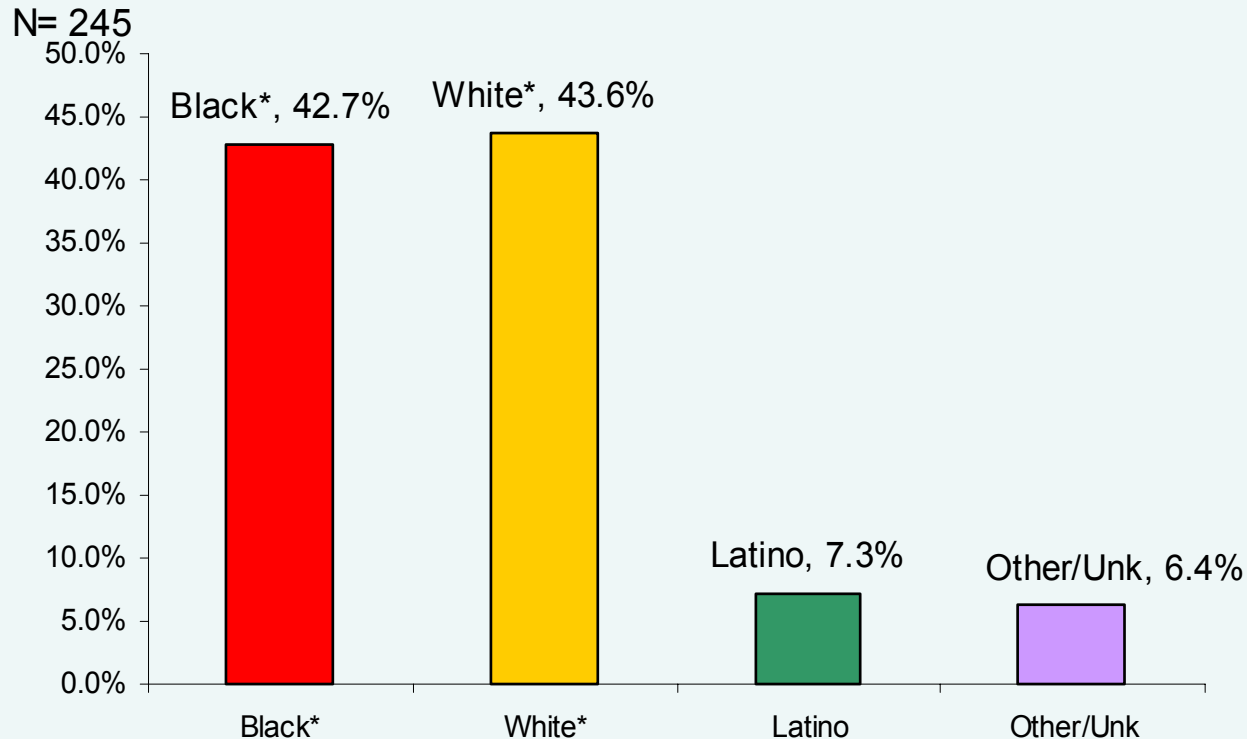
*Includes data collected from January 2001 through May 2002.

* The rate for Black residents is significantly different from the rate for Latinos and the rate for Whites.

DATA SOURCE: Behavioral Risk Factor Survey, Behavioral Risk Factor Surveillance System (BRFSS), 2001, Massachusetts Department of Public Health and Boston Public Health Commission

DATA ANALYSIS: Boston Public Health Commission Research Office

Hospitalizations for Lower Limb Amputations Due to Diabetes by Race/Ethnicity, Boston, 1997-2002



*Includes Latinos

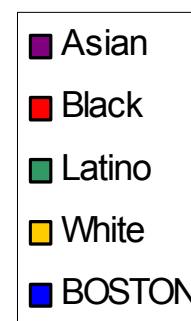
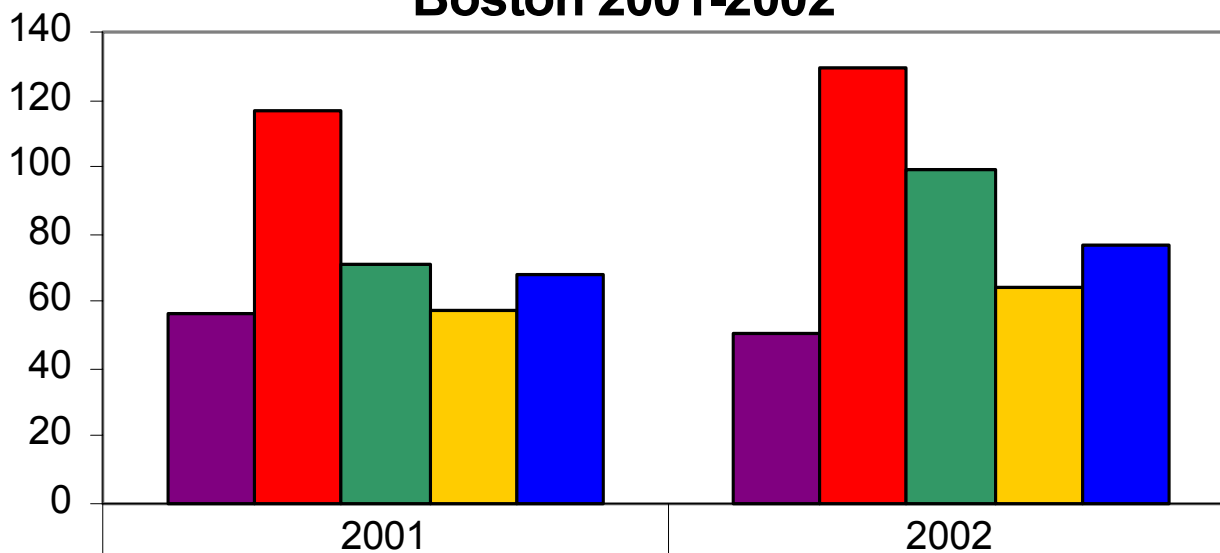
NOTE: Based on diabetes as primary diagnosis

DATA SOURCE: Acute Care Hospital Case Mix files, Massachusetts Division of Health Care Finance and Policy

DATA ANALYSIS: Boston Public Health Commission, Research Office

Diabetes Age-Adjusted Mortality Rates by Race/Ethnicity, Boston 2001-2002

Age-Adjusted Rates per 100,000



	2001	2002
Asian	56.5	50.9
Black	116.6	129.1
Latino	71.4	98.7
White	57.5	63.9
BOSTON	68.4	77.1

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health

DATA ANALYSIS: Research Office, Boston Public Health Commission

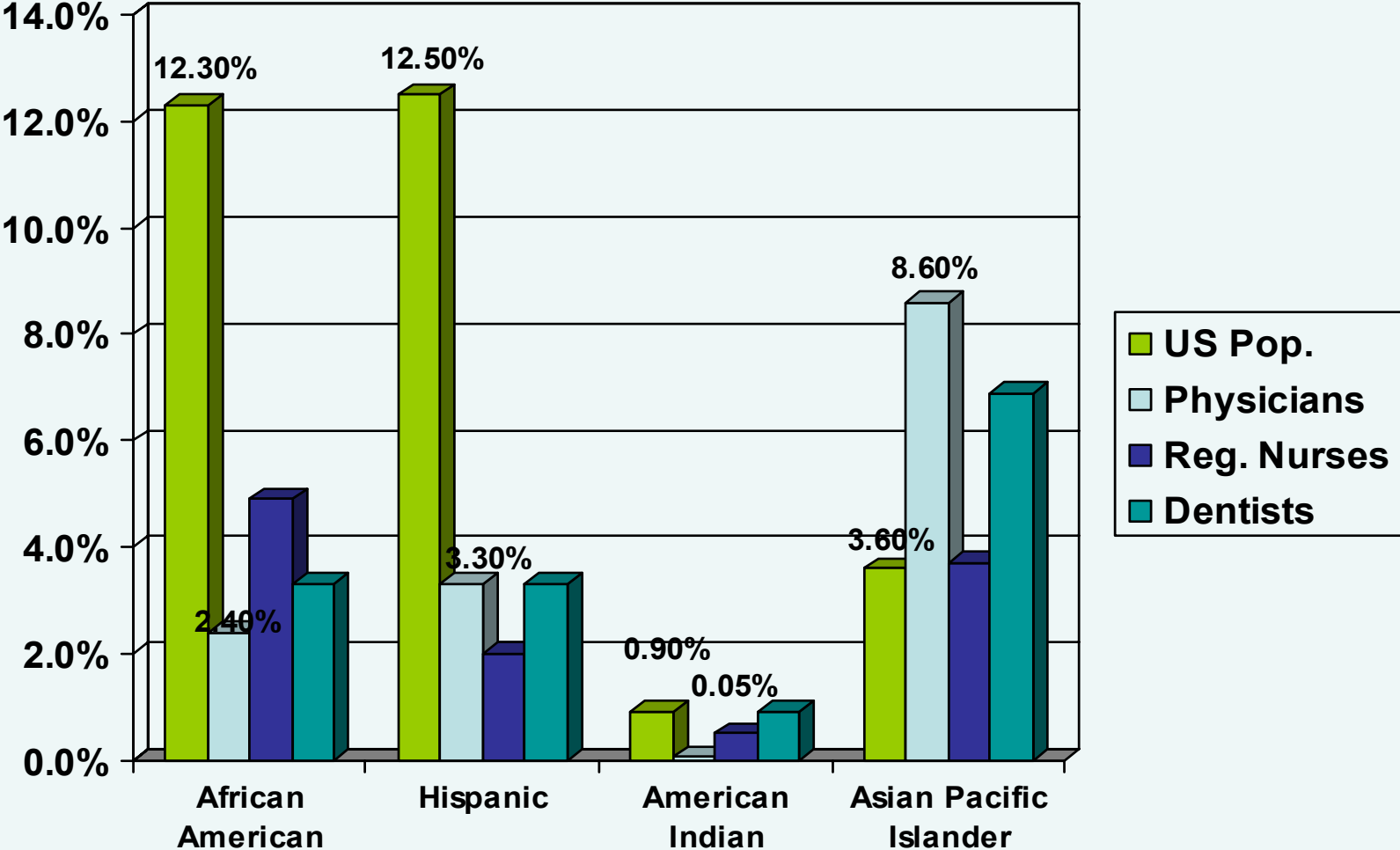
NOTE: Data include deaths with diabetes listed as primary or underlying causes of death.

Diversity and Health Disparities

- IOM (2003): Under Represented Minority Health Professionals Essential to Reduce Disparities
 - Current conditions cause less and lower quality of care:
 - HIV/AIDS
 - Diabetes
 - Heart Disease
 - Mental Health

- Today's Health Professionals:
 - Have too little resemblance to populations served
 - Leaves many feeling excluded
 - Current trends will worsen ratios
 - Could place health one third of the population at risk

US Population vs. Health Professional Racial and Ethnic Distribution



Source: Missing Persons: Minorities in the Health Professions, 2004

Sullivan Commission (2004)

- Recommendations
 - Culture of health professions schools must change
 - Non-traditional paths should be explored
 - Commitments at highest levels of governance/management

Strategies for Change

Vision

Improvement in the health status of non-dominant populations can be addressed by incorporating strategies in all our activities that focus on both political and economic issues of lack of equal opportunity, discrimination, and exposure to differential risks and on specific policies and practices within the health care system that perpetuate inequities.

Mayor's Task Force on Health Inequalities - 2004

Strategies for Change

- **Promoting a diverse workforce and leadership team**
- **Establishing institutional and personal cultural competence**
- **Targeting initiatives to eliminate the gap in health outcomes**
- **Measuring progress and establishing accountability**
- **Building and sustaining partnerships**

A Comprehensive Multi-level Strategy to Eliminate Disparities in Health

- Universal Health Insurance
- Ensure Equal Quality Care – (Data collection – standardized race, ethnicity, education and language data collection; track health care outcomes)
- Patient Education
- Health Care Systems that meet the needs of minority populations

A Comprehensive Multi-level Strategy to Eliminate Disparities in Health

- Cultural Competence – core competencies, training and assessment of provider behavior
- Workforce Diversity – minority faculty development, pipeline and career ladder programs
- Public Health Programs
 - Address social determinants
- Identify Research Needs

Brigham and Women's Hospital Response

- In-depth strategic planning with Board of Trustees focused on eliminating disparities
- Implementing an integrated community health and health care equity program that results in elimination of health care disparities
- Focus of new \$7.5M community commitments Launching BWH Center for Surgery and Public Health
- Major programs in workforce development and Minority Faculty Development