
Cancer Health Disparities: Definition, Patterns, Contributors, and Solutions

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Outline

- Definition of cancer health disparities
 - Patterns of cancer health disparities
 - Contributors to cancer health disparities
 - Focus on diet-related disparities in African Americans
 - Finding solutions to cancer health disparities
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Cancer Health Disparities: Definition

Cancer Health Disparities: Definition

The National Cancer Institute (NCI):

“adverse differences in cancer incidence (new cases), cancer prevalence (all existing cases), cancer death (mortality), cancer survivorship, and burden of cancer or related health conditions that exist among specific population groups in the United States.”

These population groups may be characterized by age, disability, education, ethnicity, gender, geographic location, income, or race. People who are poor, lack health insurance, and are medically underserved (have limited or no access to effective health care) - regardless of ethnic and racial background - often bear a greater burden of disease than the general population.

Cancer Health Disparities: Definition

- NCI's Center to Reduce Cancer Health Disparities:
 - *“inequalities that occur when members of certain populations of people have a higher incidence or mortality rate than another or when survival rates are less for one group than another.”*
 - *“The burden of cancer is too often greater for the poor, racial and ethnic minorities and the uninsured than for the general population.”*
- IOM report, Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care:
 - *“differences that remain after taking into account patient needs and preferences and the availability of health care”*

Cancer Health Disparities: Definition

“Inequities in disease and well-being that result in disproportionately higher rates of death, disease, and disability and have adverse consequences on the physical, mental, spiritual and social well-being of population groups, such as racial and ethnic minority populations and persons with lower incomes, who, historically and currently, do not experience equivalent social advantage.”

Workgroup on Engaged Institution for Eliminating Racial and Ethnic Health Disparities, 2007

Cancer Health Disparities: Definition

- First attempt at an official definition for "health disparities": September 1999, in response to a White House initiative
 - In 2000, United States Public Law 106-525 (2000), also known as the "Minority Health and Health Disparities Research and Education Act," which authorized the National Center for Minority Health and Health Disparities, provided a legal definition of health disparities:
 - *“A population is a health disparity population if there is a significant disparity in the overall rate of disease incidence, prevalence, morbidity, mortality or survival rates in the population as compared to the health status of the general population.”*
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Cancer Health Disparities Definition: Summary

- Cancer disparities can be broadly defined as “unequal health care and distribution of disease and disease risk factors for different segments of the population, resulting in inferior health outcomes for certain groups and an unequal burden in terms of disease incidence, morbidity, mortality, survival, and quality of life” (<http://www.cancer.gov/>)
 - Cancer health disparities reflect differences in cancer incidence, prevalence, mortality, and the burden of cancer between and within specific population subgroups
 - Cancer disparities are often defined on the basis of race and ethnicity, although factors contributing to disparities may be more associated with socioeconomic status rather than ethnicity or race
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Cancer Health Disparities: Patterns

U.S. Population Demographics

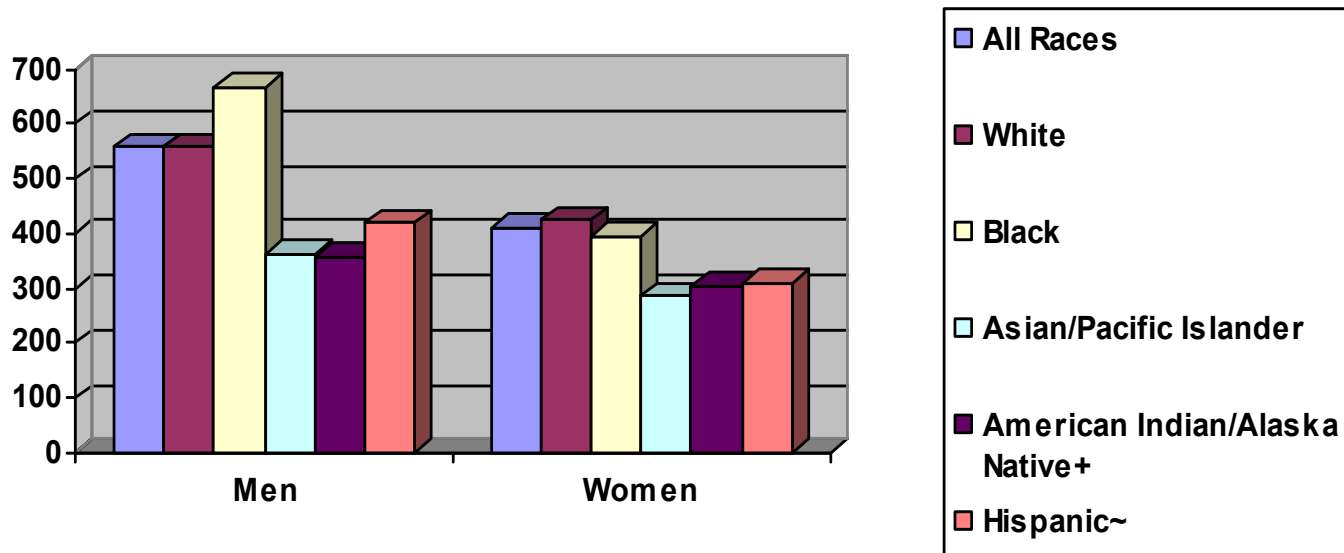
- Healthy People 2010 goal: eliminate health disparities among segments of the population, including differences that occur by race or ethnicity
- The United States is becoming increasingly diverse

U.S. Census Projections (%)

	<u>2004</u>	<u>2050</u>
Whites	81.6	74.9
Blacks	13	14.7
Hispanics-Latinos	13	24.3
Asian/Pacific Islanders	4.5	9.3
American Indians	0.9	1.1

Patterns of cancer disparities

Cancer incidence, prevalence, mortality and survival rates vary appreciably by race/ethnicity, with generally poorer outcomes for racial/ethnic minorities. For example, African Americans continue to suffer the greatest burden for each of the most common types of cancer. For all cancers combined, the death rate is 25 percent higher for African Americans than for Whites.



U.S. Cancer Incidence Rates, by Sex and Race/Ethnicity, SEER 17 Geographic Regions, 2000-2003

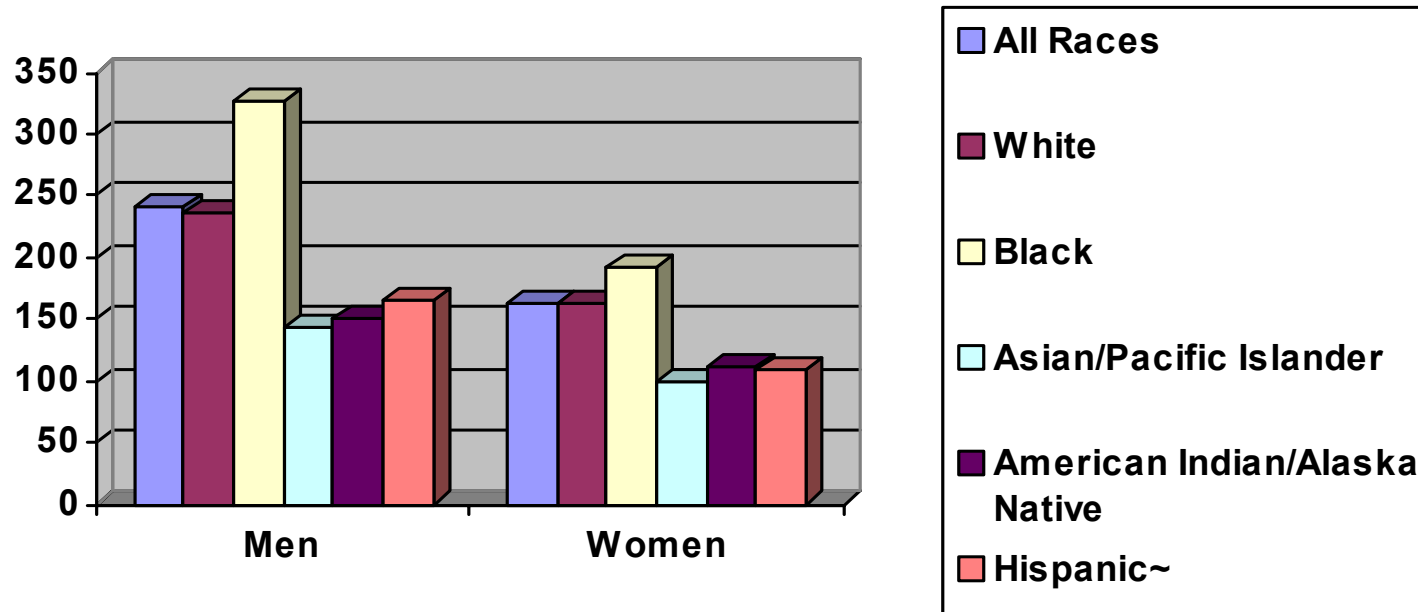
Patterns of cancer disparities

	White	African American	Asian/Pacific Islander	American Indian/Alaskan Native	Hispanic-Latino ³
INCIDENCE					
All Sites					
Males	555.9	696.8	392.0	259.0	419.3
Females	431.8	406.3	306.9	229.2	312.2
Breast (female)	140.8	121.7	97.2	58.0	89.8
Colon and rectum					
Males	64.1	72.4	57.2	37.5	49.8
Females	46.2	56.2	38.8	32.6	32.9
Lung/Bronchus					
Males	79.4	120.4	62.1	45.6	46.1
Females	51.9	54.8	28.4	23.4	24.4
Prostate	164.3	272.1	100.0	53.6	137.2
Stomach					
Males	11.2	19.9	23.0	14.4	18.1
Females	5.1	9.9	12.8	8.3	10.0
Uterine Cervix	9.2	12.4	10.2	6.9	16.8

Source: Ries LA, Eisner M, et al. 2003

Rates are per 100,000 and age-standardized to the 2000 U.S. population

Patterns of cancer disparities



U.S. Cancer Mortality Rates, by Sex and Race/Ethnicity, SEER 17 Geographic Regions, 2000-2003

Patterns of cancer disparities

	White	African American	Asian/Pacific Islander	American Indian/ Alaskan Native	Hispanic-Latino
MORTALITY					
All Sites					
Males	249.5	356.2	154.8	172.3	176.7
Females	166.9	198.6	102.0	115.8	112.4
Breast (female)	27.2	35.9	12.5	14.9	17.9
Colon and rectum					
Males	25.3	34.6	15.8	18.5	18.4
Females	17.5	24.6	11.0	12.1	11.4
Lung/Bronchus					
Males	78.1	107.0	40.9	52.9	40.7
Females	41.5	40.0	19.1	26.2	15.1
Prostate	30.2	73.0	13.9	21.9	24.1
Stomach					
Males	6.1	14.0	12.5	7.0	9.9
Females	2.9	6.5	7.4	4.2	5.3
Uterine Cervix	2.7	5.9	2.9	2.9	3.7

Source: Ries LA, Eisner M, et al. 2003

Rates are per 100,000 and age-standardized to the 2000 U.S. population

Patterns of cancer disparities

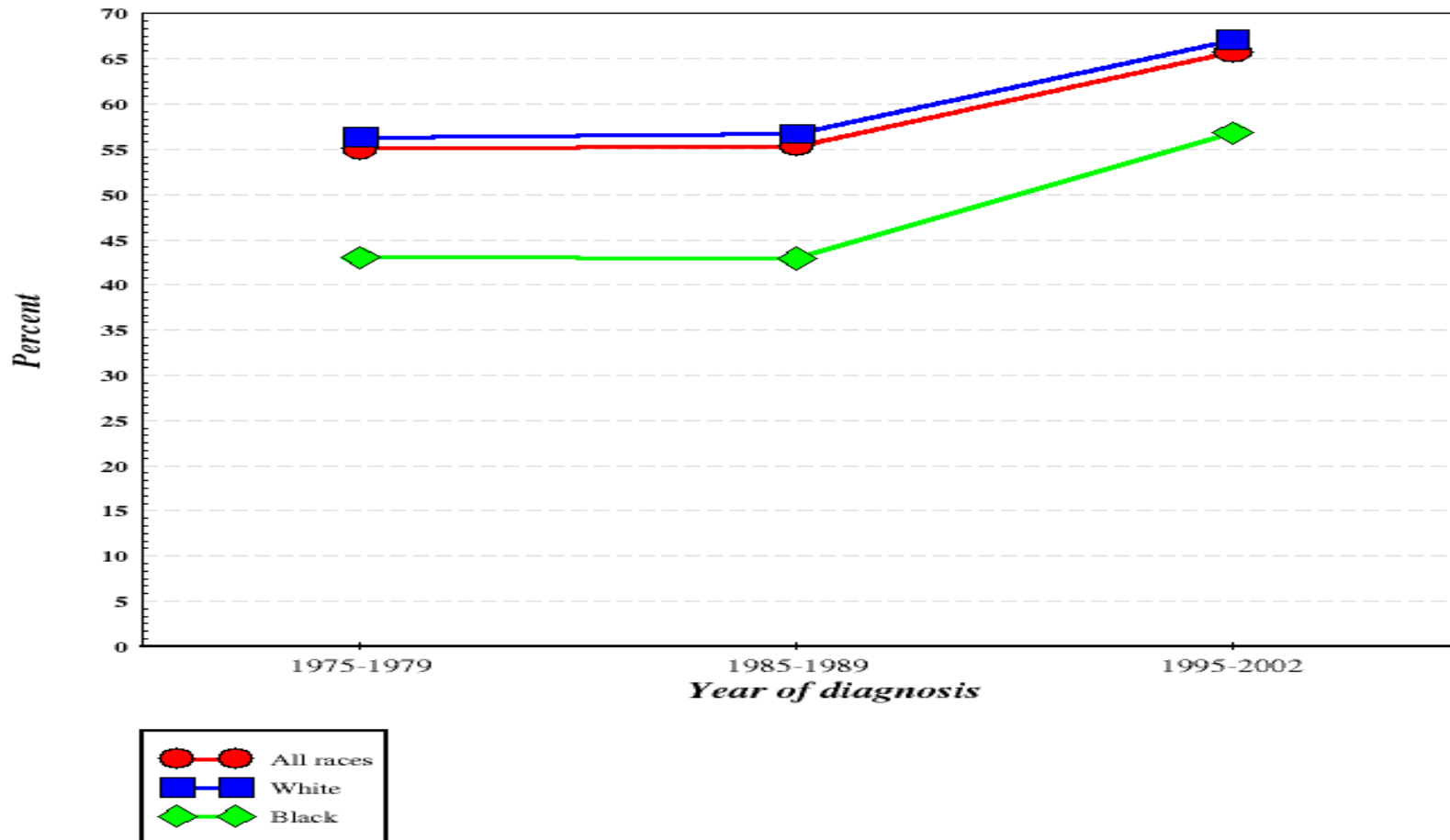
Cancer Survival*(%) by Site and Race,1995-2000

<u>Site</u>	<u>White</u>	<u>African American</u>	<u>Difference</u>
All Sites	66	55	11
Breast (female)	89	75	14
Colon	64	54	10
Esophagus	16	9	7
Leukemia	48	39	9
Non-Hodgkin lymphoma	60	51	9
Oral cavity	61	39	22
Prostate	100	96	4
Rectum	65	55	10
Urinary bladder	83	62	21
Uterine cervix	74	66	8

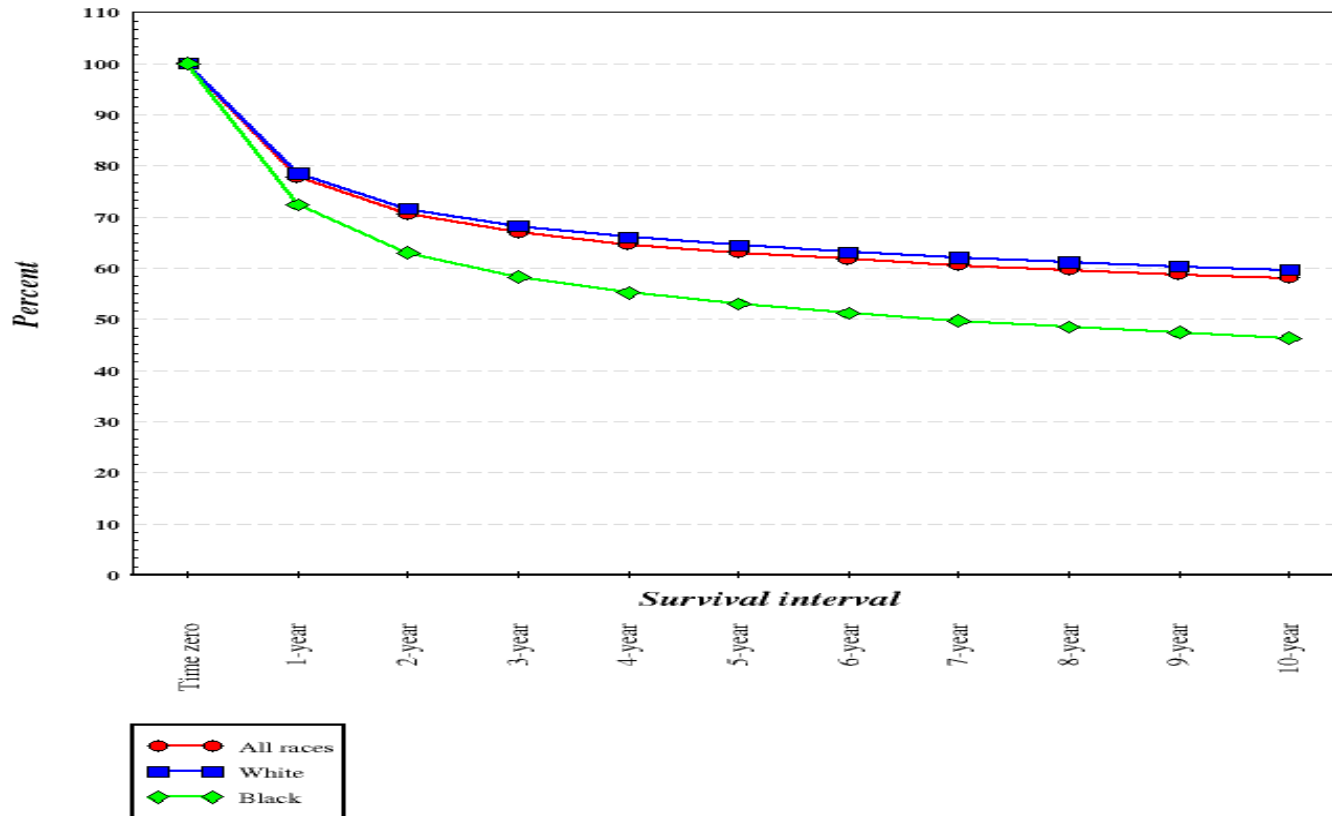
*5-year relative survival rates for cancer patients diagnosed from 1995 to 2000 and followed through 2001
Source: Surveillance, Epidemiology, and End Results Program, 1975-2001

Patterns of cancer disparities

**SEER 5-Year Relative Survival Rates by Race
For All Cancer Sites, All Ages, Both Sexes, All Stages
SEER 9 Registries for 1975-79, 1985-89, 1995-2002**



Patterns of cancer disparities



SEER Relative Survival Rates by Race
For All Cancer Sites, All Ages, Both Sexes, All Stages
SEER 9 Registries for 1988-2002

Patterns of cancer disparities

Female Breast Cancer Incidence and Mortality Rates

Racial/Ethnic Group	Breast	
	Incidence	Mortality
All	127.8	25.5
African American/Black	118.3	33.8
Asian/Pacific Islander	89.0	12.6
Hispanic/Latino	89.3	16.1
American Indian/Alaska Native	69.8	16.1
White	132.5	25.0

Statistics are for 2000-2004, age-adjusted to the 2000 U.S. standard million population, and represent the number of new cases of invasive cancer and deaths per year per 100,000 women.

Patterns of cancer disparities

- White women have the highest incidence rate for breast cancer, but African American women are most likely to die from the disease.
 - Lack of medical coverage, barriers to early detection and screening, and unequal access to improvements in cancer treatment may contribute to observed differences in survival between African American/Black and White women.
 - Also, research indicates that aggressive breast tumors (which are less responsive to standard cancer treatments) are more common in younger African Americans and Hispanic/Latinos living in low SES areas.
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Patterns of cancer disparities

Prostate Cancer Incidence and Death Rates

Racial/Ethnic Group	Prostate	
	Incidence	Mortality
All	168.0	27.9
African American/Black	255.5	62.3
Asian/Pacific Islander	96.5	11.3
Hispanic/Latino	140.8	21.2
American Indian/Alaska Native	68.2	21.5
White	161.4	25.6

Statistics are for 2000-2004, age-adjusted to the 2000 U.S. standard million population, and represent the number of new cases of invasive cancer and deaths per year per 100,000 men.

Patterns of cancer disparities

- African American men have the highest incidence rate for prostate cancer in the U.S. and are more than twice as likely as White men to die of the disease. The lowest death rates for prostate cancer are found in Asian/Pacific Islander men.
 - Genetic factors may account, in part, for these differences. Different combinations of variants in human DNA, that are associated with prostate cancer risk, have been found in men from different racial/ethnic backgrounds, and each combination is associated with higher or lower risk for prostate cancer.
 - Nearly all of the variants associated with elevated risk have been found most often in African American/Black men.
 - Also, low SES, lack of health insurance coverage, unequal access to health care services, and lack of a primary care physician are barriers to prostate cancer screening, and therefore timely diagnosis.
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Patterns of cancer disparities

Colorectal and Lung Cancer Incidence and Mortality Rates

Racial/Ethnic Group	Colorectal		Lung and Bronchus	
	Incidence	Mortality	Incidence	Mortality
All	51.6	19.4	64.5	54.7
African American/Black	62.1	26.7	76.6	62.0
Asian/Pacific Islander	41.6	12.3	39.4	26.9
Hispanic/Latino	39.3	13.6	33.3	23.6
American Indian/Alaska Native	40.8	17.0	44.0	39.9
White	51.2	18.9	65.7	55.0

Statistics are for 2000-2004, age-adjusted to the 2000 U.S. standard million population, and represent the number of new cases of invasive cancer and deaths per year per 100,000 men and women.

Patterns of cancer disparities

Cervical Cancer Incidence and Mortality Rates

Racial/Ethnic Group	Cervix	
	Incidence	Mortality
All	8.7	2.6
African American/Black	11.4	4.9
Asian/Pacific Islander	8.0	2.4
Hispanic/Latino	13.8	3.3
American Indian/Alaska Native	6.6	4.0
White	8.5	2.3

Statistics are for 2000-2004, age-adjusted to the 2000 U.S. standard million population, and represent the number of new cases of invasive cancer and deaths per year per 100,000 women.

Patterns of cancer disparities

- Hispanic/Latino women, however, have the highest cervical cancer incidence rate.
 - White women living in Appalachia suffer a disproportionately higher risk for developing cervical cancer than other White women.
 - The highest death rate from cervical cancer is among African American women.
 - The disproportionate burden of cervical cancer in Hispanic/Latino and African American women is primarily due to a lack of screening.
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Patterns of cancer disparities

Liver and Stomach Cancer Incidence and Mortality Rates

Racial/Ethnic Group	Liver and Bile Duct		Stomach	
	Incidence	Mortality	Incidence	Mortality
All	6.2	4.9	8.1	4.2
African American/Black	7.6	6.5	12.5	8.2
Asian/Pacific Islander	13.9	10.6	14.3	8.0
Hispanic/Latino	9.7	7.6	12.3	6.8
American Indian/Alaska Native	9.7	8.4	11.5	7.2
White	5.2	4.5	7.1	3.7

Statistics are for 2000-2004, age-adjusted to the 2000 U.S. standard million population, and represent the number of new cases of invasive cancer and deaths per year per 100,000 men and women.

Patterns of cancer disparities

- Asian/Pacific Islanders, similar to Hispanic/Latinos, have lower incidence rates than Whites for most common cancers.
 - However, they suffer more often from cancers that are related to infections, such as those of the liver and stomach.
 - One risk factor for stomach cancer is infection with a bacterium called *Helicobacter pylori*, or *H. pylori*. Although additional study is needed, infection with *H. pylori* may explain, in part, why Asian/Pacific Islander populations have higher rates for this type of cancer.
 - Another possible risk factor is higher consumption of pickled/salty foods by Asians/Pacific Islanders.
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Patterns of cancer disparities

Kidney Cancer Incidence and Mortality Rates

Racial/Ethnic Group	Kidney and Renal Pelvis	
	Incidence	Mortality
All	12.8	4.2
African American/Black	14.3	4.1
Asian/Pacific Islander	6.3	1.7
Hispanic/Latino	12.4	3.6
American Indian/Alaska Native**	14.7	6.5
White	13.3	4.3

****Rates should be viewed with caution because the data currently available for American Indian/Alaska Native populations are not representative.**

Disparities are evident across the cancer continuum...

THE CANCER CONTROL CONTINUUM

PREVENTION

Tobacco control
Diet
Physical activity
Sun exposure
Virus exposure
Alcohol use
Chemoprevention

DETECTION

Pap test
Mammography
FOBT
Sigmoidoscopy
PSA

FOCUS

DIAGNOSIS

Informed
decision-
making

TREATMENT

Health services
and outcomes
research

SURVIVORSHIP

Coping
Health promotion
for survivors

CROSSCUTTING ISSUES

Communications

Surveillance

Social Determinants of Health Disparities

Genetic Testing

Decision-Making

Dissemination of Evidence-Based Interventions

Quality of Cancer Care

Epidemiology

Measurement

Cancer Health Disparities: Contributors

Contributors to cancer disparities

Factors that contribute to cancer disparities are multifaceted and complex:

- Factors related to social inequality: economic, social, cultural, and environmental factors
 - Health system factors
 - Behavioral and lifestyle cancer risk factors
 - Minority participation in research studies, including clinical trials
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Contributors to cancer disparities

Domains of Social Inequality

- Race/ethnicity and racism
- Socioeconomic status
 - age
 - gender
 - sexuality
 - housing status
- Environment
 - Radiation, chemicals, pesticides, toxic waste
- Language (literacy)
- Disability
- Immigrant status/acclulturation
- Geography
 - urban vs. rural residence

Contributors to cancer disparities

Health system factors

- Lack of health care insurance
 - Lack of health care access
 - Lack of access to state-of-the art cancer services
 - Late stage at diagnosis
 - Lack of adequate treatment
 - Inadequate post-treatment surveillance and treatment
-

Contributors to cancer disparities

Socioeconomic Characteristics, Health Care Coverage, and Medical Care Access, by Race/ Ethnicity

Racial/Ethnic Group	% With Income Below Poverty Level	% Graduated High School	% Under Age 65 With No Health Care Coverage	With No Regular Source of Medical Care
White (non-Hispanic)	8.0	85.5	11.9	13.9
African American	24.1	72.3	19.2	16.7
Hispanic-Latino	21.8	52.4	34.8	30.8
American Indian/Alaskan Native†	27.1	70.9	33.4	15.9
Pacific Islander	–	78.3	–	–
Asian	10.1	80.4	17.1	18.5
Asian/Pacific Islander	10.3	–	–	–

Sources: Poverty in the United States, 2002, US Census Bureau, September 2003; Poverty in the United States, 2000. U.S. Census Bureau, September 2001; Educational Attainment, 2000. US Census Bureau, August 2000; Health, United States, 2003 With Chartbook on Trends in the Health of Americans, Hyattsville, Maryland, 2003.

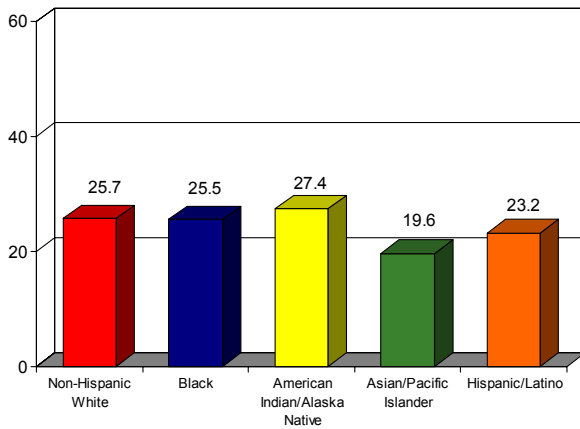
Contributors to cancer disparities

Behavioral and lifestyle risk factors

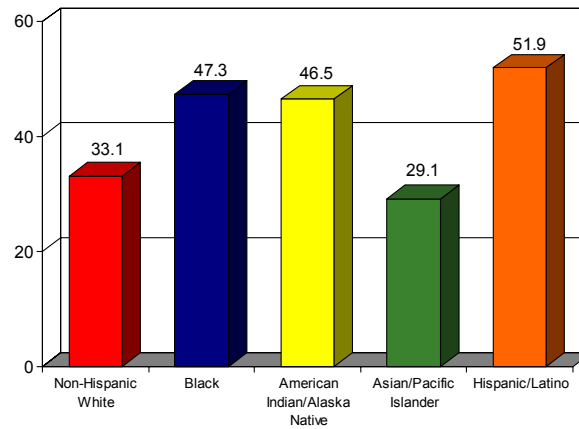
- Various lifestyle (modifiable) behaviors increase risk for many cancers, e.g.,
 - physical inactivity
 - smoking
 - low rates of cancer screening
 - obesity
 - diet, e.g., low consumption of fruits and vegetables and high fat consumption
 - The prevalence of these behavioral risk factors for cancer have also been found to differ markedly among racial/ethnic population groups, with generally less healthy behaviors for minority groups compared to Whites
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Contributors to cancer disparities

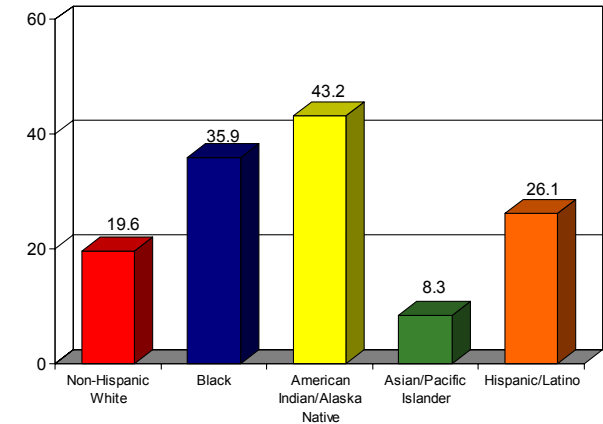
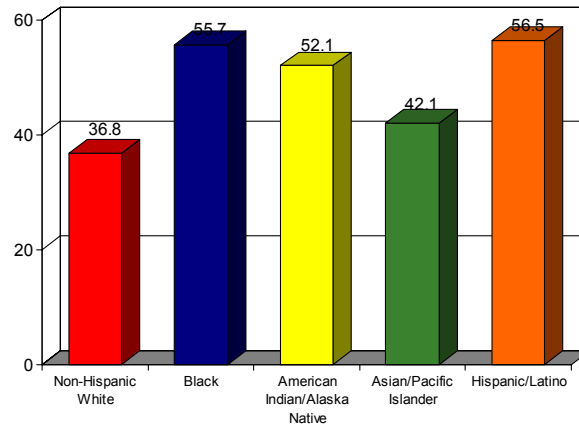
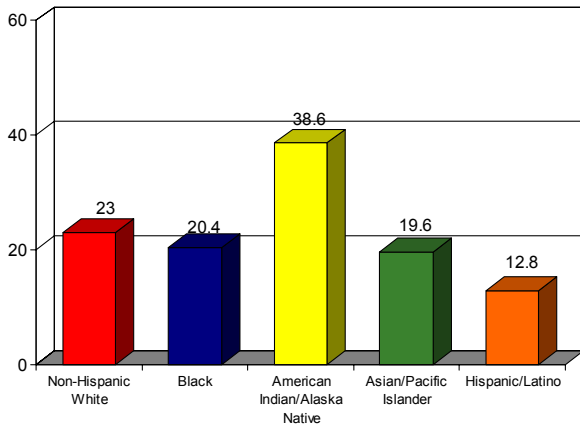
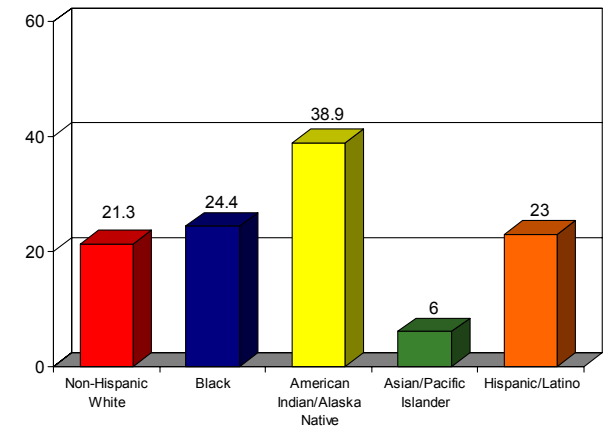
Current Smokers %



No Leisure-time Physical Activity (%)



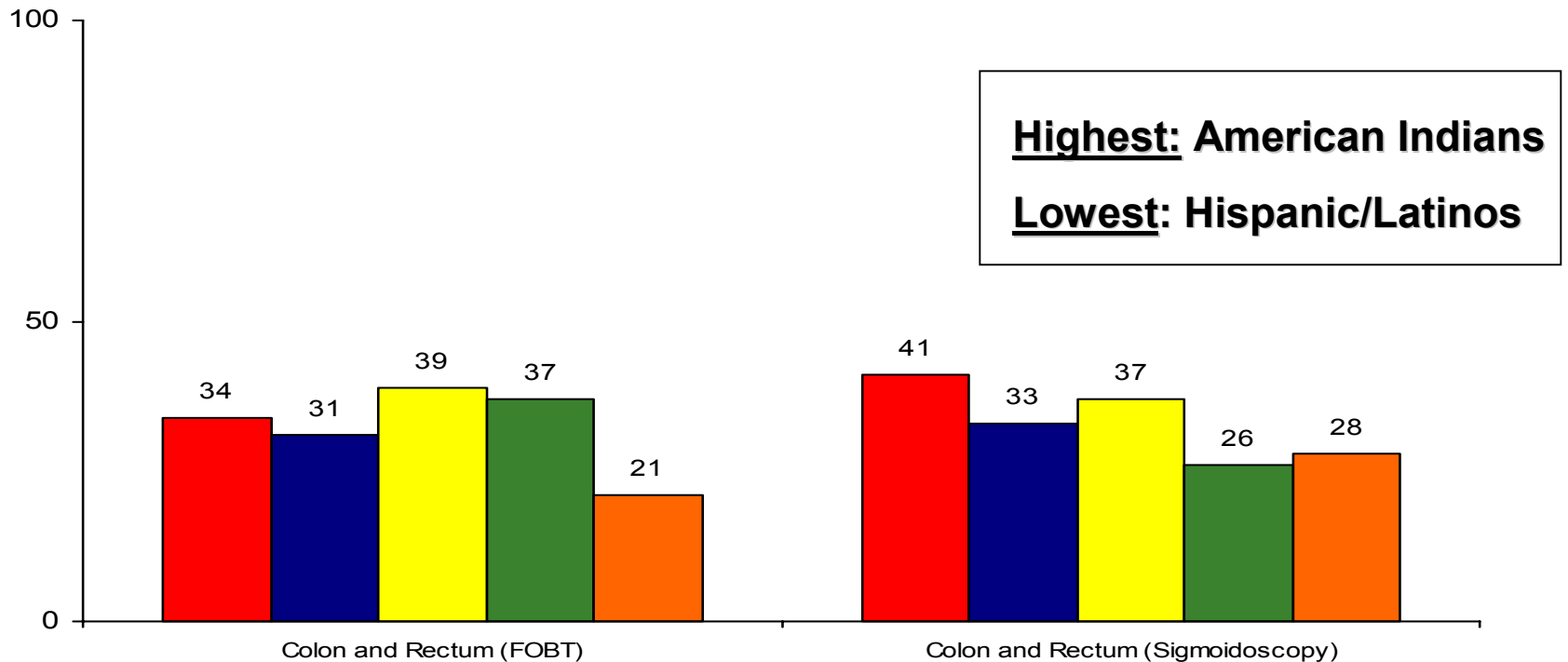
Obese (%)



Major cancer risk factors by race/ethnicity (%), US men (top) and women (bottom), 2000. Percentages are age-adjusted to the 2000 US standard population. (Data from the National Health Interview Survey 2000, National Center for Health Statistics, Centers for Disease Control and Prevention.)

Contributors to cancer disparities

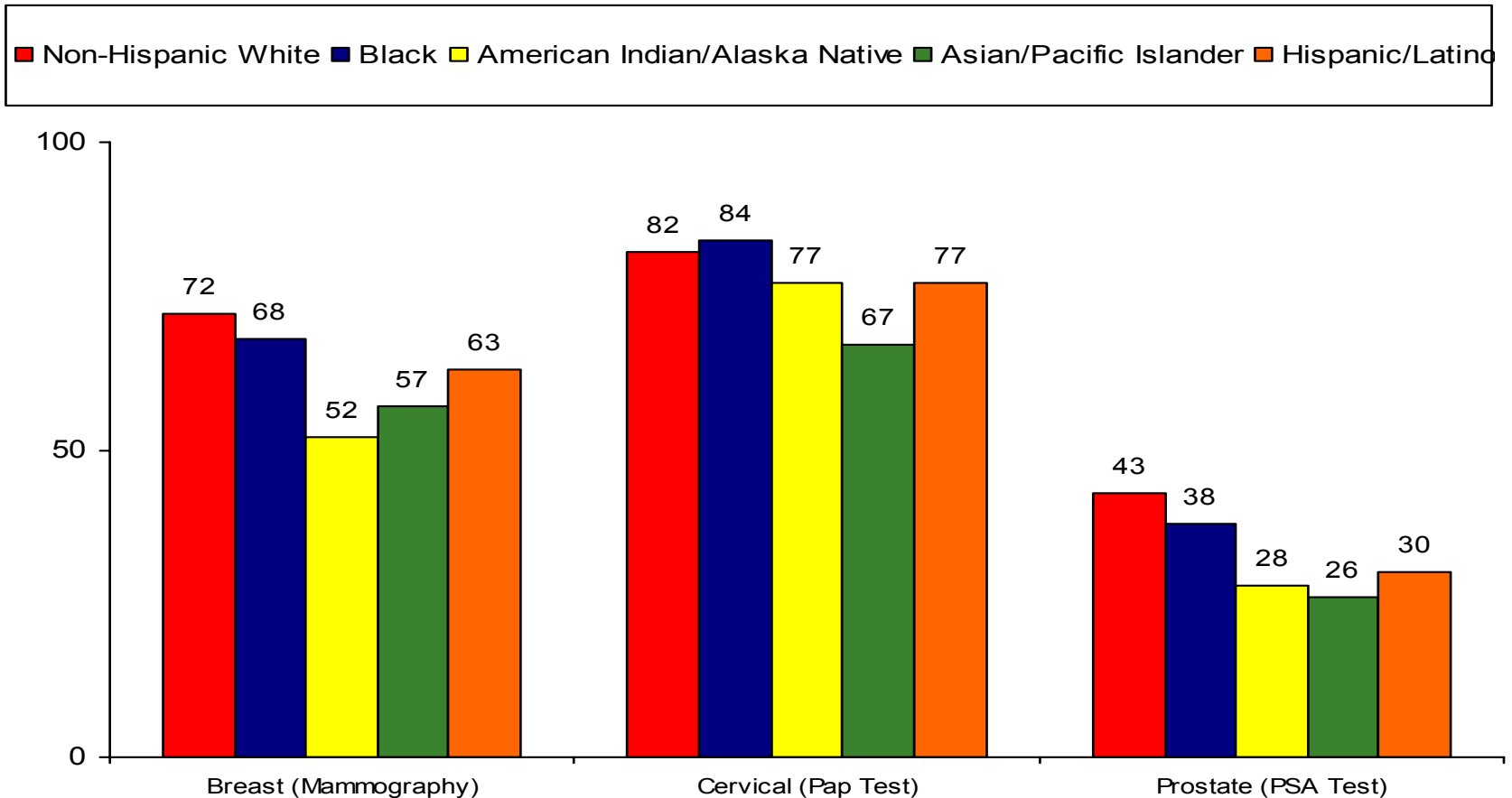
Cancer screening by race/ethnicity



Cancer screening by race/ethnicity, 2000. Age-adjusted to the 2000 US standard population. % of men and women over 50 who reported fecal occult blood test and within the past 2 years; and men and women who ever received a sigmoidoscopy. (Data from the National Health Interview Survey 2000, National Center for Health Statistics, Centers for Disease Control)

Contributors to cancer disparities

Cancer screening by race/ethnicity



Cancer screening by race/ethnicity, 2000. Age-adjusted to the 2000 US standard population. % of men and women over 50 who reported fecal occult blood test and within the past 2 years; and men and women who ever received a sigmoidoscopy. (Data from the National Health Interview Survey 2000, National Center for Health Statistics, Centers for Disease Control)

Contributors to cancer disparities

Minority Participation in Cancer Research Studies, including Clinical Trials

- Minorities are generally underrepresented in research studies
 - Vital that they be included so that relevant information is collected and interventions are culturally appropriate
 - Barriers to participation include:
 - system-level factors, e.g.,
 - lack of health insurance
 - inadequate organization and delivery of health care services
 - lack of transportation,
 - lack of information/knowledge about the studies or programs, and
 - individual-level cognitive, cultural, and socioeconomic barriers, e.g.,
 - fatalistic attitudes and beliefs
 - mistrust in the medical system/fears of experimentation
 - competing demands of work and family
 - linguistic and cultural barriers
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Contributors to cancer disparities: Summary

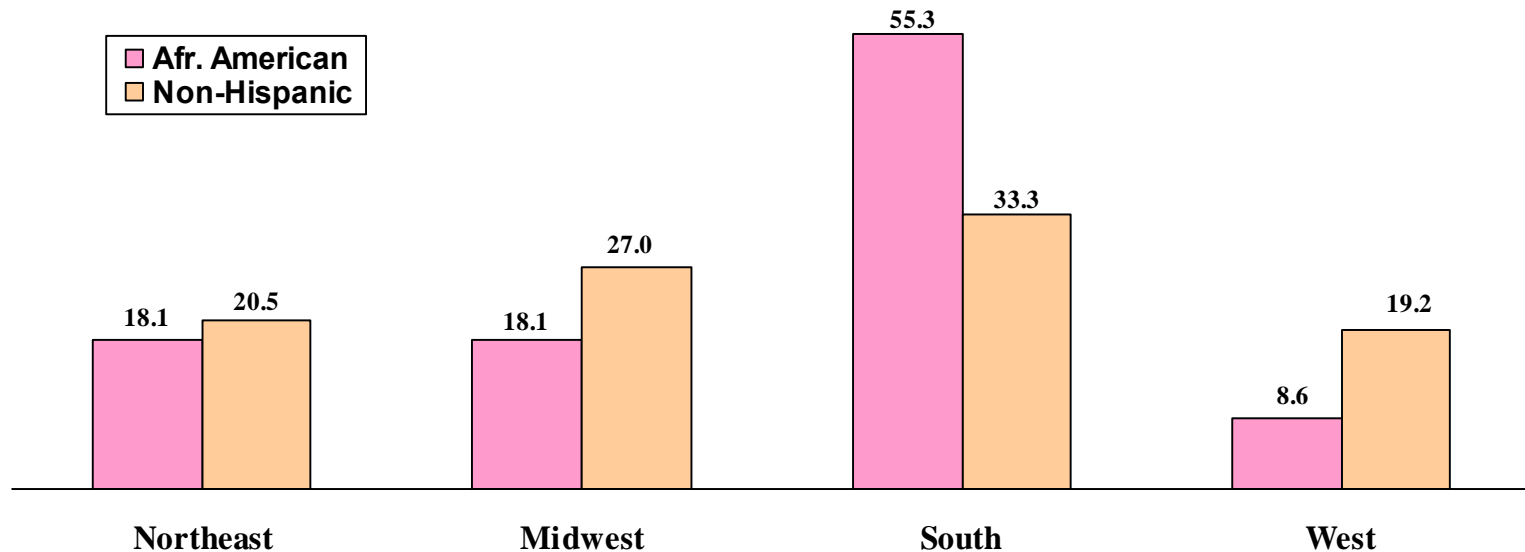
- Complex and interrelated factors contribute to cancer disparities among racial, ethnic, and underserved groups.
 - The most obvious factors are associated with a lack of health care coverage and low socioeconomic status (SES).
 - Interplay of low socioeconomic status, personal factors, behavior, and social injustice contribute to these disparities.
 - Individuals from medically underserved populations are more likely to be diagnosed with late-stage disease
 - Biologic and genetic characteristics are not considered key factors influencing cancer disparities, although they play important roles in the cancer development and progression
-

**Cancer Health
Disparities: Focus
on diet in African
Americans**

African Americans: Demographic Profiles

Comprise 12.9% of the U.S. population (Census 2000)

- 12.3%: self-identify as Black only
- 0.6%: Black plus at least one other race



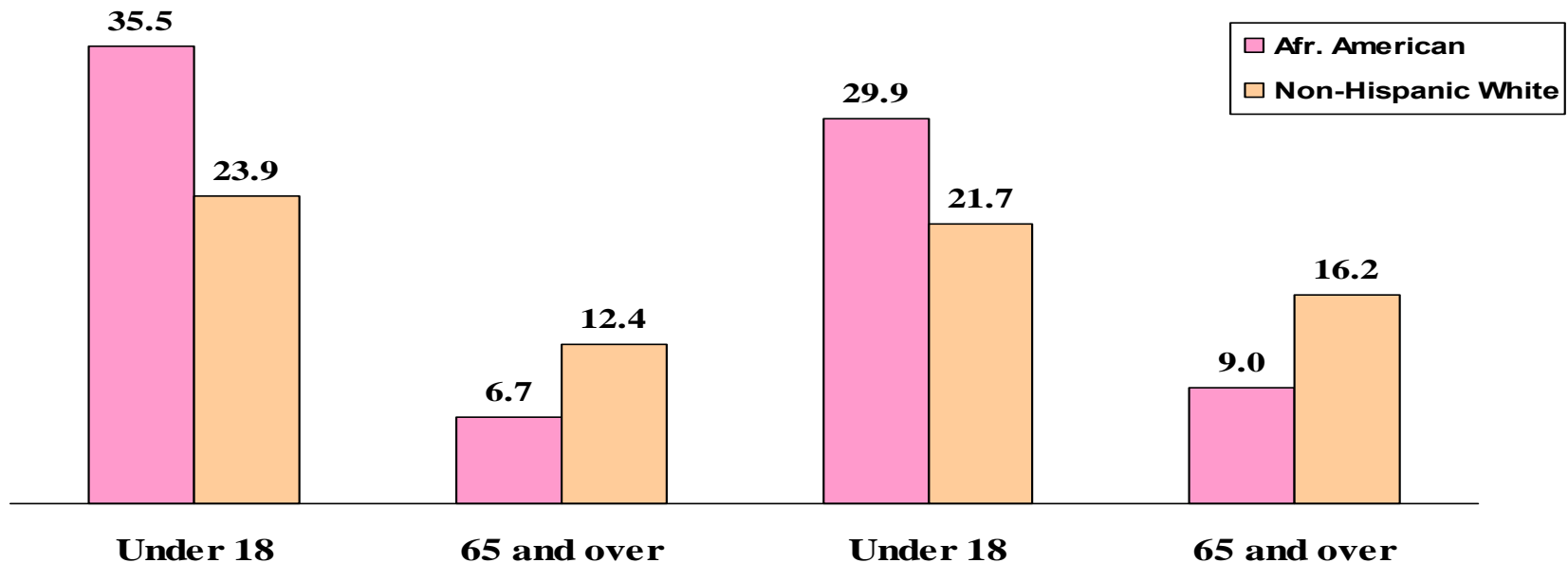
Region of Residence by Race: 2002 (Percent of population)

Source: U.S. Census Bureau

African Americans: Demographic Profiles

Age, sex, and marital status distribution

- The African American population is younger than the non-Hispanic White population



Region of Residence by Race: 2002 (Percent of population)

Source: U.S. Census Bureau

African Americans: Demographic Profiles

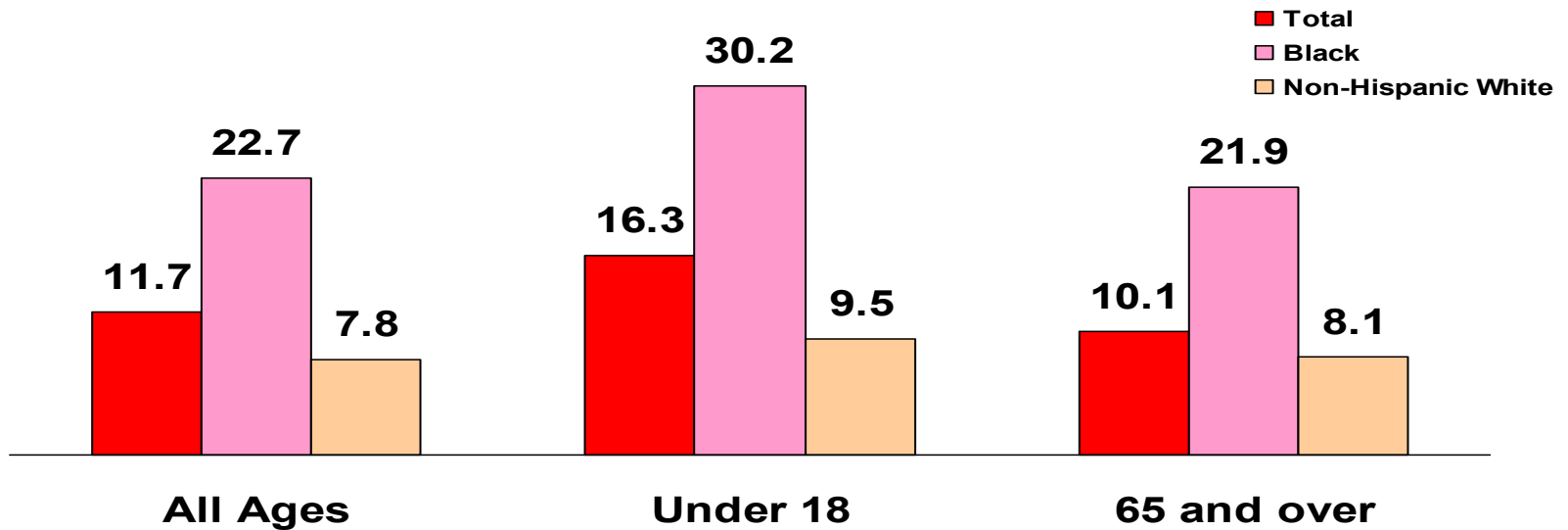
Educational attainment, marital status, family type, and family size

- More African American women than African American men aged 25 and over have earned at least a bachelor's degree
 - African Americans are less likely to be married than non-Hispanic Whites.
 - Fewer African American families are married-couple families.
 - African American families are larger than non-Hispanic White families.
-

African Americans: Demographic Profiles

Poverty Status

- African Americans accounted for about one quarter of the population in poverty in 2001



Region of Residence by Race: 2002 (Percent of population)
Source: U.S. Census Bureau

African Americans: Cancer health disparities

- In 2001, the age-adjusted mortality rate for cancer was 25.4% higher for African Americans than for Whites
 - African American women are more likely to be diagnosed with breast cancer at an earlier age and more likely to die of breast cancer than are women of any racial or ethnic group
 - The 5-year survival rate for cancer among African Americans is appreciably lower than for Whites
 - African American men in North Carolina have the highest incidence rates for prostate cancer in the world.
-

African Americans: Diet-related disparities

In general, research suggests that compared to Whites, racial and ethnic minorities have less healthy dietary behaviors:

- High in fat, particularly saturated fat
 - Low in fruits and vegetables
 - High in salt
 - High in refined carbohydrates
-

African Americans: Diet-related disparities

Least square means of total energy intake and selected macronutrient intakes by race/ethnicity, the SWAN study¹

Dietary factor	White (n=1502)	African American (N=860)	Hispanic (n=271)	Chinese (n=244)	Japanese (n=256)
Total energy (kcal)	1806	1910	1775	1811	1837
Energy-adjusted carbohydrate (g)	230.8	237.2	230.2	253.2	240.0
Energy-adjusted protein (energy-adjusted)	70.7	65.0	73.1	76.3	73.1
Energy-adjusted total fat (g)	68.0	69.5	67.6	59.5	63.3
Energy-adjusted saturated fat (g)	21.8	22.2	21.4	16.5	19.0
Energy-adjusted polyunsaturated fat (g)	12.5	13.7	12.3	10.7	12.8
Energy-adjusted dietary fiber (g)	12.5	11.5	14.2	13.9	11.5
Alcohol (g)	57.4	33.6	24.1	9.5	36.2

SOURCE: Huang et al, 2002

¹ Study of Women's Health Across the Nation (SWAN) Study

African Americans: Diet-related disparities

Least square means of selected vitamin and mineral nutrient intakes by race/ethnicity, the SWAN study^{1,2}

Dietary factor	White (n=1502)	African American (N=860)	Hispanic (n=271)	Chinese (n=244)	Japanese (n=256)
Vitamin A (IU)	6014.3	6573.8	6381.4	8556.7	5507.7
Vitamin C (mg)	115.8	128.3	114.3	136.6	100.4
Vitamin E (α -TE)	9.3	9.5	9.0	8.6	7.4
Folate (mcg)	273.1	264.6	271.8	236.2	243.3
Iron (mg)	12.2	11.8	12.0	13.1	13.3
Zinc (mg)	9.1	8.4	9.1	8.6	9.0
Calcium (mg)	824.6	660.2	791.9	674.9	652.4
Diadzein (mcg)	440.2	130.3	177.8	3317.9	7760.0
Genistein (mcg)	883.6	270.9	310.3	6398.3	11165.7

SOURCE: Huang et al, 2002

¹ Study of Women's Health Across the Nation (SWAN) Study

² All p <0.0001

African Americans: Diet-related disparities

Mean weekly frequency of consumption of various foods in African American and Whites, The North Carolina Colon Cancer Study, 1996-2000

Food Group	African Americans (n=676)	Whites (n=933)
Fruits & Fruit Juices	8.99 (6.3)	9.12 (97.2)
Vegetables	13.89 (7.0)	17.71 (8.1)
Cereals	17.33 (7.4)	16.23 (6.2)
Dairy	7.49 (6.2)	11.66 (8.8)
Red Meat	7.94 (4.8)	7.15 (4.4)
Fat, oils, and sweets	25.62 (14.5)	25.08 (15.8)
Dark green leafy fruits and vegetables	4.07 (2.9)	3.89 (3.0)
Citrus Fruits and Juices	3.45 (3.8)	3.11 (3.8)
Alcohol Beverages	1.66 (6.7)	2.74 (5.8)

African Americans: Diet-related disparities

Logistic regression analysis [OR (95% CI)] for American adults meeting USDA fruit and vegetable guidelines by sociodemographic characteristics.

	Meeting guidelines for fruits (≥2) and vegetables (≥3)	
	NHANES II, 1988-1994, (n=14,997) OR (95% CI)	NHANES III, 1999-2002, (n=8910) OR (95% CI)
Ethnicity		
Non-Hispanic white	Ref.	Ref.
Non-Hispanic black	0.45 (0.39--0.53)	0.57 (0.46--0.70)
Mexican American	0.78 (0.68--0.88)	0.95 (0.81--1.11)
Other	0.92 (0.71--1.20)	0.94 (0.74--1.21)
Poverty to income ratio (PIR)		
≤1.0 (poor)	Ref.	Ref.
1.0--1.25 (near poor)	1.40 (1.10--1.77)	0.89 (0.65--1.22)
1.25--2.5 (average)	1.44 (1.22--1.69)	1.31 (1.06--1.61)
>2.5 (high income)	2.06 (1.77--2.39)	1.65 (1.37--1.99)
Education		
<High school	Ref.	Ref.
High school diploma	1.14 (1.00--1.31)	1.21 (1.00--1.47)
>High school	1.78 (1.57--2.02)	1.90 (1.62--2.22)

African Americans: Diet-related disparities

Intakes (least square means) of total energy and selected nutrients among ethnic subgroups of Black Americans

Dietary factor	Non-Hispanic U.S. Blacks (n=4062)	Non-Hispanic Blacks born outside the U.S. (n=241)	Hispanic Blacks born outside the U.S. (n=104)
Total energy Intake (kcal)	2147 ^a	1885 ^b	1855 ^b
Total fat (g)	85.1 ^a	71.8 ^b	66.6 ^c
% energy from total fat	34.7 ^a	28.4 ^b	26.0 ^c
% energy from saturated fat	11.3 ^a	9.4 ^b	8.0 ^c
Fiber (g/1000)	7.0 ^a	8.4 ^b	9.3 ^b
Vitamin E (α -TE)	8.6	8.6	9.4
Folate (mcg)	240.2 ^a	289.4 ^b	342.1 ^b
Calcium (mg)	642.5 ^a	688.4 ^b	741.2 ^{a,b}

SOURCE: Lancaster et al, 2006

Means with different superscripts are statistically significantly different ($p < 0.05$)

African Americans: Diet-related disparities

Factors that affect dietary behavior

- Demographic characteristics
 - Psychosocial factors
 - Environmental factors
 - Cultural attributes

 - Heredity (not modifiable)
-

African Americans: Diet-related disparities

Demographic characteristics that affect diet among African Americans:

■ Age

- Younger age → higher fat intake
- Older age → higher fruit/vegetable intakes

■ Sex

- Males → lower fruit/vegetable intakes
- Limited data on fat (most studies include only women)

■ Employment status

- Being employed → higher fat intake (most studies)
-

African Americans: Diet-related disparities

Demographic characteristics...

■ Education

- Lower education → higher fat intake

■ Income

- Lower income → higher fat intake

■ Family structure/composition

- Fewer children in the home → lower fat intake

■ Smoking status

- Current smoking → higher fat intake
-

African Americans: Diet-related disparities

Psychosocial factors that affect African Americans' diets include:

- Self-efficacy (confidence in ability to...)
 - Higher self-efficacy → lower fat, higher fruit/vegetable intakes
 - Beliefs about diet and disease
 - Belief in a relationship between diet and disease → lower fat, higher fruit and vegetable consumption
 - Need for information about healthy eating
 - Need for information about healthy eating → higher fat intakes
-

African Americans: Diet-related disparities

Psychosocial factors...

- Familiarity with the food guide pyramid
 - Familiarity → lower fat, higher fruits/vegetable intakes

 - Knowledge of dietary recommendations
 - Knowledge → higher fruit/vegetable intakes

 - Social support
 - High level of social support → higher fruits/vegetable intakes
-

African Americans: Diet-related disparities

Studies have shown that, in general, African Americans

- Accept or are comfortable with larger body sizes
 - May limit extent to which healthy eating efforts are sustained
 - Feel less guilt about over-eating
 - Consider eating a social experience
 - Are less likely to practice unhealthy dieting behaviors, such as over-exercising or purging
 - Perceive a greater health benefit from “getting enough rest” than from exercising
-

African Americans: Diet-related disparities

Environmental influences on what and how African Americans eat include

- Availability of healthy choices
 - Convenience of purchasing healthy foods
 - Cost of healthy foods
 - What others are eating
 - Learned behaviors
 - e.g., childhood dietary patterns
-

Afr. Americans: Individual-level strategies for addressing diet-related disparities

- **Targeted nutrition education and dietary intervention programs:**
 - Demographic characteristics
 - Psychosocial factors
 - Environmental attributes
 - Literacy
 - **Address cultural and environmental attributes:**
 - “body image” issues
 - approaches to increase the palatability of “healthy” foods
 - highlight culturally salient features of programs, e.g., modification of ethnic meals, socio-cultural identification with study staff
-

Afr. Americans: Individual-level strategies for addressing diet-related disparities

- Innovative approaches for delivering nutrition education and interventions, e.g.,
 - Adapting successful intervention programs and theoretical frameworks/models for use in African American populations
 - Novel channels for delivering intervention and education programs, e.g.,
 - Churches
 - Elementary and secondary schools
 - Historically black colleges and universities
 - The Internet
 - Identify strategies for improving recruitment/retention in interventions
 - Social support
 - Family participation
 - Cultural context, e.g., ethnically-matched study staff
-

Afr. Americans: Societal-level strategies for addressing diet-related disparities

- Increasing healthy food options in low-income neighborhoods
 - Increasing healthy options in schools
 - Built environments to encourage physical activity
 - Addressing other barriers to behavioral change
 - Poverty
 - Lack of health insurance
 - Lack of access to medical care and practitioners
-

Cancer Health Disparities: Finding Solutions

Cancer Disparities: Finding Solutions

- Research
 - Training
 - Society/Community/Individual
 - Other
 - Cultural competency
 - Focus on ethnic subgroups
-

Cancer Disparities: Finding Solutions

Research

Conduct state-of-the art **research studies** aimed at understanding the root causes of health disparities and testing of strategies to eliminate them

- **Basic research** on the behavioral, social, and biomedical pathways that give rise to cancer health disparities
 - **Applied research** that translates existing knowledge to development, testing, and dissemination
 - Effective **interventions** that reduce cancer health disparities
 - Develop and sustain effective **community partnerships**
 - to facilitate and support research and interventions that reduce cancer health disparities
-

Cancer Disparities: Finding Solutions

Research: Social Determinants

- Describe health disparities in cancer and associated economic, social, cultural, psychological, behavioral, and biological mechanisms over time and across the cancer continuum
 - Develop effective and culturally appropriate/relevant interventions to reduce cancer health disparities related to socioeconomic, cultural, and environmental attributes
 - Develop strategies for efficiently disseminating research knowledge and evidence-based interventions.
-

Cancer Disparities: Finding Solutions

Research: Improved Surveillance

- Enhance data collection, with detailed information on incidence, morbidity, mortality, and survivorship information on diverse population groups
 - Enhance data collection, with much more detail on socioeconomic factors and diagnosis and treatment-related information
 - Develop registries with diverse population groups
-

Cancer Disparities: Finding Solutions

Examples of National Cancer Institute Initiatives

- **African American 9 A Day Campaign:** Designed to encourage African American men to eat 9 servings of fruits and vegetables a day. <http://www.9aday.cancer.gov>
 - **National Breast & Cervical Cancer Early Detection Program (NBCCEDP):** NBCCEDP provides breast and cervical cancer screening, diagnosis, and treatment to low income, medically underserved, and uninsured women through states, tribes and territories. <http://www.cdc.gov/cancer/nbccedp>
 - **Screen for Life:** Screen for Life is a national colorectal cancer action campaign designed to inform all Americans, particularly racial/ethnic minorities and underserved persons about the benefits of colorectal cancer screening for all adults aged 50 or over. <http://www.cdc.gov/cancer/screenforlife>
-

Cancer Disparities: Finding Solutions

Training

Programs and initiatives should be strategically developed to increase the number of **scholars** who conduct health disparities research

- It is vital to train the next generation of researchers who will have competency in the conduct of health disparity research
 - Trainees (graduate students, post-doctoral fellows, and faculty) should be fully versed in the competencies needed to address and understand cross-cutting health disparity issues across the cancer continuum from etiology and primary prevention to survivorship and across multiple disciplines.
-

Cancer Disparities: Finding Solutions

Cultural competency

- Defined as “being sensitive and responsive to issues related to culture, race, ethnicity, gender, age, socioeconomic status, and sexual orientation...and indicates a translation of cultural sensitivity and awareness into credible behaviors and actions” [Guidelines for Cultural Competence, 1999]
- Cultural competency training should be **strongly encouraged** for health care providers and those involved in population-based and intervention research

Focus on ethnic subgroups

- Black ethnic groups
 - Asian sub-groups
 - Hispanic/Latino subgroups
-

THANK YOU!

QUESTIONS?
