Women of Color Health Data Book

OFFICE OF THE DIRECTOR

NATIONAL INSTITUTES OF HEALTH

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Women of Color Health Data Book

Adolescents to Seniors

OFFICE OF RESEARCH ON WOMEN'S HEALTH

OFFICE OF THE DIRECTOR

NATIONAL INSTITUTES OF HEALTH

FOREWORD

This edition of the *Women of Color Health Data Book* provides the most recent available information on different populations of women in the United States and represents a much desired update on the health of women of color. The first edition quickly became one of the most popular documents requested from this office. In fact, the first run was depleted in less than 6 months.

Originally published in 1997, and updated in 2002, this third edition of the *Women of Color Health Data Book* includes more information and updated statistics. The standards have been revised to include five minimum racial categories: American Indian or Alaska Native, Asian, black or African American, Native Hawaiian or Other Pacific Islander, and white. Ethnicity is reported as either "Hispanic or Latino" or "Not Hispanic or Latino." Whenever possible, the population labels and presentation of data in this volume conform to the recent revisions to Statistical Policy Directive No. 15, Race and Ethnic Standards for Federal Statistics and Administrative Reporting. These revisions were issued for comment by the Office of Management and Budget (OMB) in the mid-1990s, and their final version guided the data collection in the 2000 Census. The new race/ethnicity terminology was adopted by other federal entities by 2003.

This edition of the *Women of Color Health Data Book* continues to support recognition of the importance of women's health and, more specifically, the role of culture, ethnicity, race, socioeconomic background, geographic location, and other social and economic factors as important contributors to health status. The expanded concepts of women's health, and therefore research, focus on the study and understanding of women's health as a reflection of the myriad of elements that contribute to the overall quality of women's lives in the United States today.

In 1985, the Department of Health and Human Services (DHHS) published the *Report of the Secretary's Task Force on Black and Minority Health*, which documented disparate disease prevalence, progression, and health outcomes, including excessively high mortality rates, for minorities from many conditions that affect all segments of the U.S. population. Following that were many organizations both within and outside the Federal Government to address the health of minority women. The Joint Center for Political and Economic Studies, which prepared this report, first published data on the health of minority women in its 1992 report, *A Health Assessment of Black Americans: A Fact Book*, and has been among the most effective organizations working to focus our nation's attention on these issues.

The closing years of the 20th century were characterized by increased attention to women's health issues, resulting in the establishment of federal offices, programs, legislation, and policies to foster the study of women's health issues and to promote the broader inclusion of women and minorities in biomedical research. These changes reflect the recognition that, in order for the results of biomedical and behavioral research to be widely applicable, researchers and clinicians must understand how cultural, ethnic, and racial differences may influence the causes, diagnoses, progression, treatment, and outcomes of diseases among different populations, including women of diverse geographic locations and economic backgrounds. This data book will be of value to scientists, advocates, and policymakers in understanding the health status of women of color in this country in order to formulate policies and research priorities to improve the health of all women in the United States.

The challenge inherent in women's health research is to establish a scientific knowledge base that will permit reliable diagnoses and effective prevention and treatment strategies for all women, including those of diverse cultural and ethnic origins, geographic locations, and economic status. The ultimate goal is to increase medical knowledge through sound science and thereby to inform the development of policies and medical standards from which all women and men can benefit equally. Just as sex and gender constitute parameters that must be incorporated in the design of clinical research studies if the results of such research are to be widely applied through health care policies and interventions, so too must racial, ethnic, and cultural factors be taken into account in the design and implementation of research protocols.

Over the past two decades, evolving scientific, public, and political perceptions have led to policies that mandate broader inclusion of both women and men of diverse backgrounds in clinical research studies. The need for a better understanding of if and how sex, gender, cultural, and racial differences influence the

pathobiology, etiology, diagnosis, progression, treatment, and outcome of diseases among different populations has also resulted in changes in research topics and strategies.

Policies for the inclusion of women and minorities in clinical research funded by the National Institutes of Health (NIH) have their origins in the women's health movement. The publication of a report by the Public Health Service Task Force on Women's Health in 1985 prompted NIH to promulgate a policy urging the inclusion of women in clinical research. Later, in 1987, minority and other scientists at NIH recognized the need to address the inclusion of minority populations. So, in a later 1987 version of the *NIH Guide*, a policy encouraging the inclusion of minorities in clinical studies was first published. Following the release of a 1990 General Accounting Office (now called the Government Accountability Office) report documenting problems with the implementation of this policy and the subsequent establishment of the Office of Research on Women's Health in September 1990, this inclusion policy was strengthened and expanded. The NIH Revitalization Act of 1993 (Public Law 103-43) legislatively mandated the inclusion of women and members of minority groups in all research studies supported by NIH, thus superseding and expanding previous policies. The resulting modifications to the NIH guidelines on inclusion, published in March 1994, require that women and minorities and their subpopulations be included in all human subject research supported by NIH; that women and minorities and their subpopulations be included in Phase III clinical trials in numbers adequate to allow for valid analyses of differences in intervention effect; that cost is not allowed as an acceptable reason for excluding these groups; and that NIH initiate programs and support for outreach efforts to recruit and retain women and minorities and their subpopulations as volunteers in clinical studies. While the guidelines require inclusion, they also recognize that inclusion must be determined by science. Depending on the scientific issues under study, not every investigation requires the inclusion of every minority group or even, in some instances, both sexes. Most important, researchers have the opportunity to gather information on women and minorities when hypotheses are being formulated, thereby allowing for the variables of gender, race, ethnicity, and socioeconomic background to be taken into account while studies are being designed, and to design such studies, as appropriate, to allow for analysis by sex and gender.

Although investigators are now required by public law to include women and minority groups as subjects in clinical research, NIH recognizes that there are other barriers to overcome in recruiting and retaining women of diverse backgrounds as research subjects. Such barriers include the need for cultural diversity among researchers, closer relationships between researchers and the communities to be studied, overcoming significant logistical problems related to women's roles as care givers and as salaried workers, and an appreciation of differences in cultural beliefs of potential participants. The Office of Research on Women's Health is addressing these barriers through a number of programs and activities, of which this report is just one.

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HIGHLIGHTS

- The acquisition of quality care and the resulting health outcomes for women of color are shaped by various socio-cultural-economic factors. These include the physical and social environments (especially for American Indians or Alaska Natives, Latinos, and blacks), linguistic isolation (especially Asian Americans, Latinos, and Native Hawaiians or Other Pacific Islanders), and racism (especially blacks and Asian Americans).
- Although women of color generally have shorter life expectancies than white women, Asian women report the longest life expectancies among all women, while American Indian or Alaska Native women and black women report the shortest life expectancies.
- Despite declining death rates from heart disease over the past 50 years, diseases of the heart remain the major cause of death for all females, except Asian and Pacific Islander females and American Indian or Alaska Native females, for whom they are the second major cause of death.
- Cancer (or malignant neoplasms) is the leading cause of death for American Indian or Alaska Native and Asian and Pacific Islander women of all ages. It is the second leading cause of death for black women, Hispanic women, and white women of all ages.
- Lung cancer is the top cancer killer among women, while breast cancer ranks second. In 2002, black women had the highest death rate from breast cancer (nearly 35 per 100,000) despite the fact that white women had the greatest incidence of the disease. In contrast, black women had a slightly higher incidence of lung cancer, while white women had the highest death rate from this disease.
- In addition to heart disease and cancers, other prominent causes of death for women of color are: cerebrovascular diseases (primarily strokes), diabetes mellitus, and unintentional injuries.
- Among black women, human immunodeficiency virus ranked as the 10th leading cause of death in 2002. The death rates for women overall have remained unchanged from 1999–2003. Race and ethnicity are important factors in reviewing HIV/AIDS mortality data.
- Obesity is a growing problem for women of color. In 1999–2001, about two-thirds of black, Mexican American, and Native Hawaiian or Other Pacific Islander women ages 18 years and older were overweight, compared to about three-fifths of all Hispanic women and of American Indian or Alaska Native women, and one-quarter of Asian women.
- Obesity is related in part to sedentary lifestyles. In 1999–2001, more than 57 percent of Hispanic or Latino and more than 55 percent of black or African American and American Indian or Alaska Native women reported that they led sedentary lifestyles—never engaging in any vigorous, moderate, or light physical activities for at least 10 minutes at a time.
- The proportions of women who smoke vary greatly among the racial/ethnic subgroups. Asian women are the least likely to be current cigarette smokers (6.7 percent), while American Indian or Alaska Native women are the most likely to be current smokers (34.5 percent).
- Even within racial/ethnic groups, smoking varies greatly by subpopulation—for example, American Indians or Alaska Natives living in Alaska or in the northern Plains states are more than twice as likely as their counterparts in the Southwest to smoke. Among Hispanic women, Puerto Rican women are far more likely than Mexican or Cuban American women to smoke.
- Women of color were disproportionately represented among the estimated 21 million women who were uninsured in 2003. While women of color constituted 32 percent of the U.S. female population, they were more than half (51 percent) of uninsured women in the United States in 2003.

- Black mothers are much more likely to die from pregnancy complications or other maternity-related causes than are mothers of other racial/ethnic groups. The maternal mortality rate for black mothers in 2002 was almost 25 deaths per 100,000 live births, compared to nearly 6 deaths per 100,000 live births among white mothers and more than 7 deaths per 100,000 live births among Hispanic mothers.
- The infant mortality rate for infants born to black mothers (nearly 14 deaths per 1,000 live births) is nearly double the infant mortality rate for infants born to mothers of all other racial/ethnic groups (7 deaths per 1,000 live births).
- Many women of color do not avail themselves of health screening tests such as Pap smears and mammograms on a regular basis due to a variety of factors (availability of insurance coverage, accessibility of facilities, cultural beliefs, and lack of information). For example, a 2002 survey found that 26 percent of Vietnamese women in Seattle had never had a Pap smear, despite the high incidence of cervical cancer among Vietnamese women. Another survey of Vietnamese women in Seattle found that only 62 percent of the women believed regular Pap smears could detect cervical cancer early and only 61 percent believed cervical cancer was curable if detected early.
- The age-adjusted prevalence of diagnosed diabetes mellitus increased by 58 percent among all women in the United States between 1994 and 2002. Diabetes was most prevalent among American Indian/Alaska Native women—in 2002, 15.9 percent of American Indian or Alaska Native women of all ages reported the condition.
- In 2004, black women accounted for 62 percent of new HIV infections reported among all women, despite comprising slightly less than 13 percent of all women in the United States.
- Collecting data about women of color is problematic. Major issues include: undercounting, failing to collect data for the subpopulations within each racial/ethnic group, and misidentifying women of color.
- Enactment of the National Institutes of Health (NIH) Revitalization Act of 1993 resulted in more women of color being included in medical research programs and clinical trials. However, multiple factors, such as language, lack of transportation access, lack of trust of the research community, and pre-existing medical conditions remain as barriers to recruiting and retaining minority participants in these programs.

FACTORS AFFECTING THE HEALTH OF WOMEN OF COLOR

FACTORS AFFECTING THE HEALTH OF WOMEN OF COLOR

Ethnic and Racial Heritage

Of the nearly 294 million people estimated to be United States residents by the U.S. Census Bureau in 2004 (as of July 1, 2004), more than half (149,117,996 or 50.8 percent) were women. More than 48 million of these were women of color. These 48.3 million women of color were distributed as follows: 41 percent Hispanic, 39 percent black non-Hispanic, nearly 13 percent Asian non-Hispanic, 0.4 percent Native Hawaiian or Other Pacific Islander (non-Hispanic), and 2.3 percent American Indian/Alaska Native (non-Hispanic). An additional 4 percent of women of color identified themselves as belonging to two or more races. Women of color are nearly a third (32.4 percent) of all U.S. women. In raw numbers, there are nearly 19 million black (non-Hispanic) women, nearly 20 million Hispanic women, more than 1 million American Indian/Alaska Native (non-Hispanic) women, more than 6 million Asian (non-Hispanic) women, and more than 197,000 Native Hawaiian or Other Pacific Islander (non-Hispanic) women.[1]

The 2004 population estimates reflect an increase of 12 million over the 281 million people enumerated in the 2000 Census.[2] The proportion of women in the total 2000 population (50.9 percent) was about the same as in 2004, and more than 41 million of these women were women of color.[3] Women of color, at nearly 29 percent, however, constituted a slightly smaller share of all women in 2000 than in 2004. Another difference in 2000 as compared to 2004 was in the proportion of black (non-Hispanic) women (43 percent) relative to Hispanic women (41 percent) among all women of color. Between 2000 and 2004, Hispanic women remained 41 percent while black non-Hispanic women decreased to 39 percent. In raw numbers, in 2000, there were nearly 18 million black (non-Hispanic) women, slightly more than 17 million Latino women, more than 1 million American Indian/Alaska Native (non-Hispanic) women, more than 5.2 million Asian (non-Hispanic) women, and nearly 175,000 Native Hawaiian or Other Pacific Islander (non-Hispanic) women.[3]

Changes between the 1990 and 2000 censuses in the labeling of racial/ethnic groups and in the number of designations that may be selected have made it difficult to compare population totals in 2000 and beyond with figures from earlier censuses. Allowing respondents to select multiple racial/ethnic classifications in

TABLE 1A
Population by Race* and Ethnicity, 2004

2004 Bureau of the Census Annual Population Estimates

RACE	Race Alone	Percent of Total Population	Race Alone or in Combination**	Percent of Total Population**
Total Population	293,655,404	100.0	293,655,404	100.0
American Indian and Alaska Native	2,824,751	1.0	4,409,446	1.5
Native Hawaiian and Other Pacific Islander	505,602	0.2	976,395	0.3
Black or African American	37,502,320	12.8	39,232,489	13.4
White	236,057,761	80.4	239,880,132	81.7
Asian	12,326,216	4.2	13,956,612	4.8
Two or More Races	4,438,754	1.5	***	
HISPANIC OR LATINO AND RACE	**Race Alone**	**Percent of Total Population**	**Race Alone or in Combination****	**Percent of Total Population****
Total Population	293,655,404	100.0	293,655,404	100.0
Hispanic or Latino (of any race)	41,322,070	14.1		
Not Hispanic or Latino	252,333,334	85.9		
American Indian and Alaska Native	2,206,748	0.8	3,573,949	1.2
Native Hawaiian and Other Pacific Islander	398,161	0.1	802,794	0.3
Black or African American	35,963,702	12.2	37,426,144	12.7
White	197,840,821	67.4	201,148,336	68.5
Asian	12,068,424	4.1	13,529,769	4.6
Two or More Races	3,855,478	1.3	***	

* Data for the category "Some Other Race" are not provided in the Bureau of the Census population estimates.
** Numbers for the six race groups may add to more than the total population and the corresponding percentages may add to more than 100 percent because individuals may indicate more than one race.
*** The population reporting two or more races is reflected within each of the designated racial/ethnic categories above.
Source: Bureau of the Census, Population Division. *Table 3: Annual estimates of the population by sex, race and Hispanic or Latino origin for the United States: April 1, 2000 to July 1, 2004 (NC-EST2004-03).* Available at: *http://www.census.gov/popest/national/asrh/NC-EST2004-srh.html.* Date Accessed: 12/1/05.

TABLE 1B
Population by Race and Ethnicity, 2000

Census 2000

RACE	Race Alone	Percent of Total Population	Race Alone or in Combination*	Percent of Total Population*
Total Population	281,421,906	100.0	281,421,906	100.0
American Indian and Alaska Native	2,475,956	0.9	4,119,301	1.5
Native Hawaiian and Other Pacific Islander	398,835	0.1	874,414	0.3
Black or African American	34,658,190	12.3	36,419,434	12.9
White	211,460,626	75.1	216,930,975	77.1
Asian	10,242,998	3.6	11,898,828	4.2
Some Other Race	15,359,073	5.5	18,521,486	6.6
Two or More Races	6,826,228	2.4	**	
HISPANIC OR LATINO AND RACE	**Race Alone**	**Percent of Total Population**	**Race Alone or in Combination***	**Percent of Total Population***
Total Population	281,421,906	100.0	281,421,906	100.0
Hispanic or Latino (of any race)	35,305,818	12.5		
Not Hispanic or Latino	246,116,088	87.5		
American Indian and Alaska Native	2,068,883	0.7	3,444,700	1.2
Native Hawaiian and Other Pacific Islander	353,509	0.1	748,149	0.3
Black or African American	33,947,837	12.1	35,383,751	12.6
White	194,552,774	69.1	198,177,900	70.4
Asian	10,123,169	3.6	11,579,494	4.1
Some Other Race	467,770	0.2	1,770,645	0.8
Two or More Races	4,602,106	1.6	**	

* Numbers for the six race groups may add to more than the total population and the corresponding percentages may add to more than 100 percent because individuals may indicate more than one race.
** The population reporting two or more races is reflected within each of the designated racial/ethnic categories above.
Source: Bureau of the Census. *Census 2000 Summary File 1 (SF1).* American FactFinder. Available at: *http://factfinder.census.gov*. Date Accessed: 12/1/05.

the 2000 Census has resulted in at least two types of totals for each population group. One total is the number of persons who marked a given race/ethnicity only, and the other is the number of persons who indicated either the given race/ethnicity alone or in combination with other races/ethnicities. Having multiple totals for racial/ethnic categories in 2000 means that for a given population the growth rates between 1990 and 2000 are likely to differ depending on the category used in 2000. For example, the American Indian/Alaska Native population increased by nearly 38 percent between 1980 and 1990.[4] However, between 1990 and 2000, this population increased either by 26 percent (if one uses the population who selected American Indian/Alaska Native as their only racial designation in 2000), or by 110 percent (if one uses the population who selected American Indian/Alaska Native either as their only racial designation or in combination with other racial designations). Underlying these disparate growth rates are the 1.2 million women who identified themselves solely as American Indians or Alaska Natives versus the 2.1 million women who identified themselves either as American Indian/Alaska Native alone or in combination with some other racial/ethnic group(s) in 2000.[5]

Similarly, although the black population increased by 13 percent during the 1980–1990 decade, between 1990 and 2000 the black population increased by either 16 or 22 percent, depending on whether the 2000 count used reflects persons who chose this racial designation alone, or persons who chose this racial designation either alone or in combination with other racial designations. A difference of nearly 1 million women exists between those who designated their race as African American only and those who chose that designation alone or in combination with other racial/ethnic affiliations.[5] Despite changes in the definition of Latino subgroups in 2000, Hispanic origin was captured in a consistent manner in both 1990 and 2000. Between 1980 and 1990, the Hispanic population grew by 53 percent; between 1990 and 2000, this population increased by nearly three-fifths (58 percent).

Whenever possible, the population labels and presentation of data in this volume conform to the 1997 revisions to Statistical Policy Directive No. 15, Race and Ethnic Standards for Federal Statistics and Administrative Reporting.[6] These revisions were issued for comment by the Office of Management and Budget (OMB) in the mid-1990s, and their final version guided the data collection in the 2000 decennial census and for subsequent federal data collection. The new race/ethnicity terminology was adopted by other federal agencies as of January 1, 2003. To the extent that data are not available for some of the population subgroups as defined in the revisions to OMB Directive 15 (e.g., for Asians separate from Pacific Islanders), the most current

data are provided for the groups as available (e.g., Asians and Pacific Islanders jointly).[6]

The revised standards have five minimum racial categories: American Indian or Alaska Native, Asian, black or African American, Native Hawaiian or Other Pacific Islander, and white. Ethnicity is to be reported as either "Hispanic or Latino" or "Not Hispanic or Latino." "American Indians or Alaska Natives" includes persons who trace their origins to any of the indigenous peoples of North and South America (including Central America) and who maintain a tribal affiliation or community attachment. "Asians" are persons having their origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent. This includes persons from, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. "Black or African American" refers to any person having origins in any of the black racial groups of Africa. Although this group is dominated by descendants of Africans brought to the United States during the slave era, it also includes more recent migrants primarily from Africa and the Caribbean.[6,7]

"Native Hawaiian or Other Pacific Islander" includes persons who trace their origins to any of the indigenous peoples of Hawaii, Guam, Samoa, or other Pacific Islands. The term "Native Hawaiian" does not include individuals native to the state of Hawaii by virtue of being born there. Pacific Islanders include people with the following origins: Carolinian, Fijian, Kosraean, Melanesian, Micronesian, Northern Mariana Islander, Palauan, Papua New Guinean, Ponapean (Pohnpelan), Polynesian, Solomon Islander, Tahitian, Tarawa Islander, Tokelauan, Tongan, Trukese (Chuukese), and Yapese. "White" refers to persons having origins in any of the original peoples of Europe, the Middle East, or North Africa. "Hispanic or Latino" refers to a person of Cuban, Mexican, Puerto Rican, South or Central American (non-indigenous), or other Spanish culture or origin, regardless of race.[6] Population totals for Puerto Ricans residing in the Commonwealth of Puerto Rico are not included in the total U.S. Latino population; their totals are reported separately.[8]

In addition to using the five minimum race/ethnic categories designated by OMB, the 2000 Census also reported data for a sixth category, "some other race." In fact, population totals from both the 1990 and 2000 censuses were provided for the category "some other race." In 1990, nearly 4 percent (9.8 million people) of the enumerated population was of "some other race." By 2000, this share had increased to 5.5 percent and included nearly 15.4 million people who designated "some other race" as their only affiliation. When single and multiple racial designations both were tabulated, however, 18.5 million people (6.6 percent of the population enumerated in the 2000 census) selected "some other race." A majority (90 percent) of the 18.5 million persons who classified themselves as "some other race alone or in combination with one or more races" were Hispanic. This data book does not include findings for persons in this sixth category.[9]

In this data book, information for the population subgroups is presented in rough chronological order of the arrival date of any member of the group in what is now the United States. Thus, the order of presentation is: American Indian/Alaska Native, Native Hawaiian or Other Pacific Islander, Hispanic or Latino, black or African American, and Asian. For groups designated by two terms generally accepted as equivalent, such as "black or African American," the two terms are used interchangeably in the text.

In addition to the implications for the presentation of data in this volume resulting directly from revisions in the definitions of racial/ethnic groups between the 1990 and 2000 censuses, a change made in the base for age-adjusting health statistics also may influence the assessment of improvements or worsening of health status for different groups. In the year 2000, the National Center for Health Statistics changed the standard million population used for age-adjusting from the 1940 U.S. population age distribution to the 2000 U.S. population age distribution.[10] Changing the standard million population used for age-adjusting thus reflects the current population distribution, which has a larger proportion of persons 65 years of age or older. Age-adjusted rates are calculated by weighting the average of the age-specific rates, using weights determined by the age structure of the population standard. This change in methodology may make it difficult to distinguish between a true decline in a mortality rate, for example, which represents progress in closing the gaps in health status by race/ethnicity, and a decline associated solely with the use of a different standard million population. Because little, if any, data from years before 2000 are featured in this report, discrepancies of this sort are likely to be infrequent.

American Indians or Alaska Natives

The ancestors of the people known today as American Indians/Alaska Natives lived in North America many centuries before Europeans came. Although between 2 million and 18 million Indians were reported to be

in what is now the United States when Columbus arrived in 1492, in 2004, the Census Bureau estimated that more than 2.8 million people classified themselves as American Indian or Alaska Native only and more than 4.4 million classified themselves as all or part American Indian or Alaska Native.[1,11] Of the 2.8 million who identified as American Indian or Alaska Native alone, more than half (1.41 million) were women.[1] The 2004 population estimates for American Indians/Alaska Natives reflect a modest increase over the 2000 Census figures. The 2000 Census reported nearly 2.5 million people who classified themselves as American Indian or Alaska Native only and more than 4 million who classified themselves as all or part American Indian or Alaska Native.[2] The 2004 survey indicates a larger share of women, however, than the 2000 Census enumeration, which identified 1.24 million American Indian/Alaska Native women, slightly less than half of the 2.5 million people who designated themselves as American Indian/Alaska Native alone.[5]

American Indians/Alaska Natives constitute 562 federally recognized tribes, as well as an additional 200 tribes recognized by individual states.[12] Approximately 230 of these tribes are in Alaska, while the others are in 34 states in the continental United States.[13] More than 300 reservations in the lower 48 states and one reservation and approximately 500 government units in Alaska serve as homes to the tribes.[14,15]

The many American Indian/Alaska Native subpopulations are culturally distinctive, diverse, and complex, and are growing faster than the general population.[16] American Indians/Alaska Natives speak more than 200 distinct languages, which makes their dialects more diverse than the entire Indo-European language family.[12] This diversity, coupled with their many small population groups scattered throughout the United States, has made it difficult to provide a uniform, readily accessible health care system for American Indians/Alaska Natives. The 2000 Census reported that 57 percent of American Indians who identified as American Indian alone lived in urban areas, in contrast to smaller shares of Aleuts (53 percent) and Eskimos (39 percent).[17] Three-fifths (61 percent) of those identifying as solely or partly American Indian/Alaska Native live in urban areas.[18] Many urban Indians move back and forth between their homes in urban areas and their home reservations, with which they retain strong ties and visit for pow wows and other cultural and social events.[19]

Although American Indians/Alaska Natives are culturally diverse to the point that it often becomes meaningless to classify them together for any but the most gross comparisons, their shared experiences include: forced removal from their ancestral homelands, brutal colonization, and confinement to reservations.[20]

These experiences have fostered the development of several characteristics among American Indians/Alaska Natives that influence their behavior when seeking and responding to health care services. Native people are generally strongly autonomous, are non-linear thinkers (especially about time), use indirect communication and styles, and have a historical suspicion of authority.[21]

Receiving health services via the Federal Government, as American Indians/Alaska Natives do because of treaty obligations, influences their ability to access and use health care services. The U.S. government has signed numerous treaties with tribes, obligating them to maintain a reasonable level of education and health among American Indians/Alaska Natives.[22] The Indian Health Service (IHS)—since 1955 a part of the U.S. Public Health Service—provides health care through its clinics and hospitals to all American Indians or Alaska Natives who belong to federally recognized tribes and live on or near the reservations in its 12 service areas. These service areas contain 155 service units (analogous to county or city health departments) that operate hospitals, and health centers and stations.[23] Of the 155 units, the 63 administered by the IHS operated 36 hospitals and 110 health centers and stations as of October 1, 2001. The remaining 92 service units are operated by American Indian or Alaska Native tribal governments and administer 13 hospitals and 435 health centers, stations, and Alaska village clinics.[23]

Most IHS facilities are located on American Indian reservations, which most frequently happen to be in rural areas.[24] However, 34 Indian-operated urban projects, either health clinics or community services and referrals, provide care for the American Indians/Alaska Natives who live in urban areas and, therefore, have lost eligibility for IHS care near their reservations as the result of living away from them for 180 days.[25,26] These Indian-operated facilities also serve members of tribes that are not federally recognized, i.e., recognized only by their states.[18]

Services in urban areas and in nonreservation rural areas often are very limited and uncoordinated. Forty-six percent of all American Indians/Alaska Natives have no access to IHS facilities. In 2000, urban Indian health programs served an estimated 150,000 American Indians/Alaska Natives, or 6 percent of the entire American Indian/Alaska Native population. The IHS only appropriates 1 percent of its annual budget to

urban health programs, despite the fact that approximately 25 percent of all American Indians/Alaska Natives live in areas served by those programs.[26] Urban Indian clinics also charge for services, unlike IHS or tribal clinics, which generally provide services for free.[19] More than one-third (36 percent) of American Indians/Alaska Natives, however, live in urban areas served by neither urban Indian health programs nor IHS service facilities.[26]

In the 1997 and 1999 National Surveys of American Families, 16 percent of American Indians/Alaska Natives reported that IHS was their only form of health insurance coverage. Nearly half (49 percent) reported employer-sponsored coverage, private coverage, or Medicare. An additional 17 percent reported public health coverage, like Medicaid or the State Children's Health Insurance Program, and 19 percent were uninsured, without any form of health insurance coverage.[27] The IHS reported its user population for 2001 as more than 1.3 million. This is defined as "those American Indians and Alaska Natives who used IHS services at least once during the last 3-year period." More recent information indicates no change in access by American Indians or Alaska Natives to health care through the IHS, despite an increase in the size of the eligible population.[23]

Geographic disparities in the location of facilities and the small number of facilities in urban areas account in part for urban American Indian women having both greater difficulties in obtaining access to prenatal care and less likelihood of getting such care than women of other racial/ethnic groups.[28] There is only one IHS-operated service unit and one IHS-operated hospital (in addition to 22 tribal-run service units and one tribal-run hospital) to serve all the American Indians in the Nashville service area, which includes states from Maine to Florida.[23] Although the population eligible for care in the Nashville service area is relatively small—81,992—it includes more than 13 states in the Northeast, on the Atlantic seaboard, and on the Gulf Coast.[29]

As of the beginning of Fiscal Year 2002 (i.e., October 1, 2001), the number of service units within each service area ranged from two in the Tucson area to 27 in the California service area. Furthermore, both California (with a service population of 132,447) and Portland (159,618) had no IHS- or tribal-run hospitals, while Aberdeen (102,922) and Phoenix (150,651) each had eight hospitals.[23,29]

Another barrier to health care access for American Indians/Alaska Natives is the lack of federal funding for the IHS. Although the Federal Government is obliged by treaty to provide American Indians and Alaska Natives with a reasonable level of health care, the IHS does not guarantee services to its customer population as an entitlement. Instead, it provides services on the basis of federal funding available. In 1999, federal appropriations provided only 59 percent of the funding necessary to run IHS.[30]

How has the legacy of American Indians/Alaska Natives in this country influenced the health of the women of these groups? The major legacy of the forced relocation of American Indians throughout the United States has been to place them in communities in which they confront racism and hostility from their non-Native neighbors. An example of this hostility is provided by state-supported eugenic sterilization of Abenaki Indians during the 1920s and 1930s in Vermont. To avoid sterilization and even murder as a result of this program, the Abenaki lived a nomadic existence and hid their language, ceremonies, and customs so as not to be targeted by the eugenicists. As a result, their culture has been essentially wiped out.[31]

Forced relocation took place beginning with the Indian Removal Act of 1830, which relocated tribes from east of the Mississippi River to west of the Mississippi River. Later displacement took place during the 1950s and 1960s, when, in an attempt to end the United States' legal responsibility for American Indians and to mainstream them, the Bureau of Indian Affairs relocated 160,000 American Indians from rural reservations to urban areas.[32,33] Instead of mainstreaming, urban living brought continued unemployment and poverty to many American Indians/Alaska Natives. This migration placed American Indians in communities where their youth too often and too early encountered discrimination that resulted in their demoralization and engagement in delinquent and health-risk behaviors such as early substance abuse.[34]

Racism, coupled with a mistrust of the U.S. government, has engendered low self-esteem among many American Indians/Alaska Natives. Racism and discrimination also have contributed to the poverty in which nearly 26 percent of American Indians/Alaska Natives live.[17] Specifically, 26 percent of American Indians, 19 percent of Eskimos, and 17 percent of Aleutians reported incomes below the federal poverty level in 1999.[17] Poverty rates among female-headed American Indian/Alaska Native households are even greater than poverty rates for individuals; 33 percent of all American Indian/Alaska Native households were female-headed, and 38 percent of these households had incomes below the poverty level.[17] Forty-three

percent of individuals living in female-headed American Indian households lived in households with incomes below the poverty level, as did 30 percent and 25 percent of comparable Eskimo and Aleutian households.[17] More than one-third (34 percent) of all American Indian/Alaska Native children under the age of six are estimated to live in poverty.[17,*]

This poverty stems from the high unemployment rates among both American Indian/Alaska Native men and women. In 2000, although unemployment for men of all races was nearly 6 percent, among American Indian men the rate was 13 percent. American Indian women were slightly better off than American Indian men, with an unemployment rate of nearly 12 percent; the rate for women of all races was nearly 6 percent.[36]

Poverty and unemployment have in turn fostered welfare dependency and diets replete with government commodity foods, high both in fat and calories. The malnutrition that was a problem among American Indians/Alaska Natives two generations ago has been replaced by obesity. Seventy-seven percent of male and 61 percent of female American Indians/Alaska Natives are reported to be overweight and, therefore, at risk for diabetes and other illnesses.[37] Approximately 15 percent of American Indian/Alaska Native adults have diabetes, a rate twice that of the general U.S. population. However, the 15 percent rate is likely an underestimate because it accounts neither for persons with undiagnosed diabetes nor for the approximately 40 percent of American Indians/Alaska Natives who do not live on or near reservations, do not receive care from IHS or tribal health facilities and, therefore, are not captured in health data systems.[38]

American Indians and Alaska Natives have among the highest Type II diabetes rates in the world, and these rates are increasing in epidemic proportions.[26] Although it remains less of a problem for Alaska Natives than for American Indians, the prevalence of diabetes mellitus among Alaska Natives increased 80 percent between 1985 and 1998.[39] End-stage renal (kidney) disease is 3.5 times as common among American Indians and Alaska Natives as among whites, and the diabetes-attributable prevalence of end-stage renal disease is three times that of whites.[40] Neuropathy and amputations also are common among American Indian diabetics. Age-adjusted death rates from diabetes mellitus among American Indians/Alaska Natives are nearly twice that for whites.[41]

A sedentary lifestyle and sharp decreases in hunting and gathering are implicated in the high prevalence of obesity and related health problems and mortality among American Indians/Alaska Natives. A survey examining the prevalence of cardiovascular disease (CVD) risk factors—hypertension, current cigarette smoking, high cholesterol, obesity, physical inactivity, and diabetes—among American Indians and Alaska Natives found that nearly one-half (47 percent) of American Indians/Alaska Natives had two or more CVD risk factors.[42] Of all the American Indian/Alaska Native women in another survey, 28 percent were hypertensive, 35 percent were current smokers, and 29 percent were obese (body mass index of 30 kg/m^2 or greater).[43]

Poverty has combined with the historical suppression of indigenous religions and medical practices to create health risks for American Indians/Alaska Natives due to environmental degradation. Exposure to local toxins is one source of health risks for American Indians/Alaska Natives. Of the more than 1,000 open dumps located on American Indian/Alaska Native lands identified in 1998, a third contained hazardous waste or waste that required special handling. The Alaska, Oklahoma and Phoenix service areas each had more than 100 open dump sites, while the Navajo service area had more than 200 open dump sites.[44]

Lacking a safe water supply or sewage disposal system or both, conditions that characterized 30,180 American Indian/Alaska Native homes in 2001, also places American Indians/Alaska Natives at risk of illness and disease.[45] One of every five homes lacks complete plumbing facilities. Fewer than half of homes on reservations are connected to a public sewer system. Therefore, 20 percent of homes must use other means of waste disposal, including "honeybucket" methods in which waste is collected and disposed of in lagoons outside the bounds of villages or reservations. After heavy rainfalls, this waste and sewage can wash back into the community, causing contamination and infection.[46] Forty percent of housing on reservations is considered inadequate, compared to about 6 percent of all homes in the United States.[46] Severe physical problems with housing include complete

* The poverty level differs for individuals and families by household composition and by size. For example, in 2003, although the poverty income level, or threshold, for four-person families averaged $18,810, this average includes a threshold of $18,660 for a four-person family with two children and two adults along with a threshold of $19,289 for a four-person family with one child and three adults.[35] Thus, it is difficult to report the income levels that represent poverty for the populations discussed.

lack of indoor plumbing (or of hot or cold water alone), no electricity or severe electrical problems, or prolonged dysfunction of heating equipment during the winter.[47]

The loss of access to traditional environments or ecosystems and the historical suppression of religious and medical practices also threaten the body of knowledge developed from plants and herbs. The fact that the IHS endorses the use of traditional healing practices in combination with Western medicine to treat patients in its facilities—for example, most Indian hospitals allow smoke detectors to be disconnected so that the practice of smudging can occur—is a cooperative activity that may help mitigate this.[48] Sharing facilities in this manner not only may help foster and preserve American Indian/Alaska Native heritage, but also may expose IHS health professionals to non-western healing practices from which they may be able to learn. Traditional gender roles (as hunters, horsemen, providers, and protectors) for many American Indian/Alaska Native males have been lost, as jobs have become scarce and opportunities to fish and hunt the land as their ancestors did are restricted on reservations. Some men internalize their feelings of loss and anger and channel their rage against American Indian/Alaska Native women, who must still fulfill the caretaker role for their families.[49] Family violence among American Indians/Alaska Natives takes many forms—child abuse and neglect, elder abuse, intimate partner violence and sexual assault, and sexual abuse of young children.[50–52] American Indian victims of intimate and family violence are more likely than victims of other races to be injured and need medical attention.[53]

Both the lack of tribal ordinances to deal with family violence and the refusal of local non-Indian law enforcement officials to take rapes reported by American Indian/Alaska Native women seriously (especially if they are alcoholics or substance abusers) limit the recourse of American Indian/Alaska Native women who seek help. In addition, many American Indian/Alaska Native women are reluctant to report mistreatment by the men in their lives to non-Indian authorities because of the history of harsh treatment of American Indian/Alaska Native men by the U.S. justice system, and by the frequency with which American Indian males commit suicide when imprisoned in certain locales.[21]

Alcoholism and its multigenerational effects are at the root of many of the health problems experienced by American Indian/Alaska Native women, as evidenced by the magnitudes of their death rates from alcoholism, cirrhosis, and other liver diseases. American Indian/Alaska Native women often cope with prior victimization (from incest, rape, and other forms of sexual assault), often experienced in childhood or adolescence, by escaping into alcohol or drugs; doing so, though, contributes to higher mortality rates from alcohol- and drug-related causes.[54,55] Among American Indian and Alaska Native women, death rates associated with alcoholism are much higher than among women of all races. For the 1996–1998 period, mortality related to alcoholism among American Indian/Alaska Native women ages 25 to 34 years was more than 23 per 100,000 population, in contrast to the 1 per 100,000 rate for women of all races. American Indian/Alaska Native women ages 45 to 54 had a mortality rate due to alcoholism of nearly 98 per 100,000 in 1996–1998, nearly 15 times the rate of their counterparts of all races.[29]

American Indian/Alaska Native women who are alcoholics or substance abusers, however, often do not receive hospitalization, detoxification, or counseling for their addictions. One study of American Indians on reservations showed that two-thirds of the women who had substance abuse problems had not received treatment in the past year.[56] Many factors serve as barriers to treatment for women, such as a lack of child care, transportation problems, the opposition of their partners, and fear of stigma. In the past, many addiction treatment programs were located outside of American Indian and Alaska Native communities and failed to incorporate healing elements from Native cultures. Though still true today, recently, more treatment programs have been developed close to or in American Indian and Alaska Native communities. These programs are tailored to the needs and cultural beliefs of American Indians and Alaska Natives and often incorporate elements of traditional medicine—such as talking circles, sweat lodges, and medicine wheels—into the services offered.[57] Such programs offer a more holistic form of treatment that focuses on the whole person, rather than just on the disease, as is often true in Western treatment models.

The prevailing life circumstances for many American Indian/Alaska Native women jeopardize their health in yet another way. Poverty, low self-esteem, alcoholism, and substance abuse often interfere with their ability to seek preventive health care. Preventive health care for cancers may be even longer in becoming a reality because, despite the growing prevalence of cancer in American Indian/Alaska Native communities, many American Indians and Alaska Natives still view cancer as a "white man's disease."[58] Cancer is often viewed as punishment and not discussed for fear of stigma

and shame. Some individuals with cancer are ostracized from their communities because of the belief that the person with cancer is contagious with the "cancer spirit." Many believe that discussing cancer will "invite the cancer spirit into one's body." Even when discussion of cancer and cancer prevention is acceptable in a community, cancer prevention can be hindered by other barriers. Cancer education materials requiring high literacy levels are often provided to communities where literacy rates and reading comprehension levels are low. Screening facilities are often located far from communities, and the lack of culturally sensitive providers can discourage American Indians and Alaska Natives from returning for care.[58]

The response to the human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) by American Indians/Alaska Natives reflects their long history of mistreatment by the U.S. government and, consequently, the complexities related to providing services to them.[59] Both geographic and cultural barriers make it difficult for American Indians/Alaska Natives to trust health care officials, health care systems, and researchers. Cultural barriers include prevailing feelings of distrust of the government. This distrust is due to a history of unethical medical research and health-related mistreatment by European colonizers in centuries past (whose use of smallpox-infested blankets killed millions of American Indians) and by the Federal Government and its Indian Health Service in more recent times (that conducted experimental surgeries and performed unapproved sterilizations on American Indians as recently as the 20th century).[59] Geographic barriers can prevent American Indian/Alaska Native communities from getting funding and other resources to initiate HIV/AIDS prevention and treatment services, due to the distance between many American Indian/Alaska Native communities and the state and county health agencies and HIV-related organizations that can provide resources.[59] The stigma and homophobia associated with HIV infection and AIDS within some American Indian/Alaska Native communities further compound the difficulty of addressing this health problem.[60]

Many American Indians/Alaska Natives also view the Federal Government's emphasis on multicultural outreach in funding for HIV/AIDS prevention as favoring black Americans and as resulting in racial/ethnic groups competing among themselves for very limited resources. American Indians/Alaska Natives find it difficult to identify HIV/AIDS as something that can affect them—believing it strikes other communities and populations, but not their own.[61] To help address the growing problem of HIV/AIDS among American Indians/Alaska Natives, the Centers for Disease Control and Prevention sponsored an initiative in partnership with the National Native American AIDS Prevention Center (NNAAPC) to destigmatize HIV/AIDS in American Indian/Alaska Native communities. The NNAAPC has been active in indigenous communities since 1988, and thus has earned the kind of respect from many American Indian/Alaska Native communities that enables it to effectively address this issue.[62]

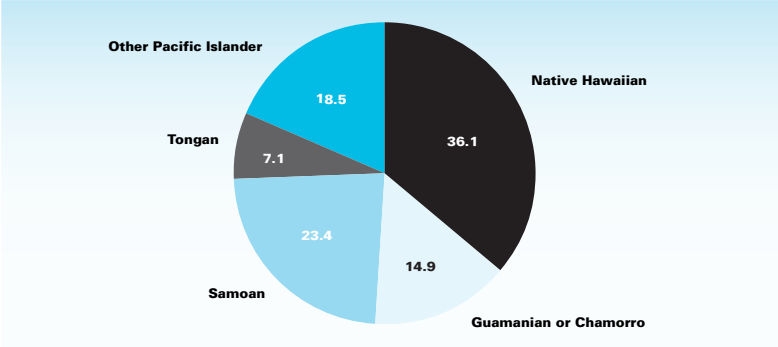
Native Hawaiians or Other Pacific Islanders

The 2000 Census counted nearly 400,000 people in the United States who identified themselves as Native Hawaiian or Other Pacific Islanders alone. More than 196,000 of the nearly 400,000 were women (both Hispanic and non-Hispanic).[3] The population who identified themselves as Native Hawaiian or Other Pacific Islanders in combination with other racial groups (more than 874,000), however, was more than double the number of people who selected this affiliation alone.[2] Of those who identified their race as Native Hawaiian or Other Pacific Islander only, Native Hawaiians are the largest subpopulation, constituting 36 percent of all Pacific Islanders (140,652), with Samoans the next largest group at nearly 23 percent (91,029). Additionally, Other Pacific Islanders were 19 percent of this population (71,978).[63]

Between 2000 and 2004, the Native Hawaiian or Other Pacific Islander population was estimated to increase—by 27 percent for persons who identified as Native Hawaiian or Other Pacific Islander alone and by nearly 12 percent for persons who identified as Native Hawaiian or Other Pacific Islander in combination with other racial groups. In 2004, the Census Bureau estimated that more than 505,000 people in the United States identified themselves as Native Hawaiian or Other Pacific Islanders alone (both Hispanic and non-Hispanic). More than 248,000 (slightly less than half) of the 505,000 were women (both Hispanic and non-Hispanic).[1] The population who identified themselves as Native Hawaiian or Other Pacific Islanders in combination with other racial groups (more than 976,000), however, was nearly double the number of people who selected this affiliation alone.[1]

Native Hawaiians or Other Pacific Islander Americans come from three major land areas—known as Polynesia, Micronesia, and Melanesia—located in the Pacific region.[64] The vast majority are from Polynesian islands, the islands in the central and south Pacific

FIGURE 1
Native Hawaiian or Other Pacific Islander* Population by Subgroup, 2000
Percent



*Based on populations who identified themselves as Native Hawaiian or Other Pacific Islander alone in Census 2000.

Source: Grieco EM. *The Native Hawaiian and Other Pacific Islander population: 2000.* Census 2000 Brief. Washington, DC: Bureau of the Census; 2001. Available at: *http://www.census.gov/prod/2001pubs/c2kbr01-14.pdf.* Date Accessed: 12/1/05.

that are farthest from Asia. In 2000, 68 percent of Pacific Islanders—consisting of nearly 141,000 Native Hawaiians, more than 91,000 American Samoans, and nearly 28,000 Tongans—were Polynesians.[65] Ninety-two percent of the residents of American Samoa are Native Hawaiian or Other Pacific Islanders, including both Samoans (who are 88 percent of the population) and Tongans (who are 3 percent of the population), in addition to the 3 percent who are Asian, 1 percent who are white, and the 4 percent who are of two or more other racial/ethnic groups.[66]

Micronesians are the second largest Pacific Islander group—about one in every seven Pacific Islanders—and Guamanians (more than 58,000 in 2000) are the largest Micronesian population.[63] Making up almost 15 percent of Native Hawaiians or Other Pacific Islanders who indicated only one race in the 2000 Census, most Guamanians are of mixed ancestry, descended from the indigenous Chamorro of Guam, who have intermarried with settlers primarily from Spain, Japan, the Philippines, and the United States.[63] The Chamorro are more than one-third of the residents of Guam, with Filipinos more than one-fourth, Chinese, Japanese, and Koreans together nearly 6 percent, and whites nearly 7 percent. Fourteen percent of the residents of Guam are of two or more races.[67]

The second largest Micronesian subpopulation is Marshallese (from the Republic of the Marshall Islands), who numbered nearly 5,500 in 2000. Other Micronesian Islands include the Carolines, the Marianas, the Republic of Palau, Pohnpei, Chuuk, and the Republic of Kiribati.[64] Melanesians are only 2 percent of Pacific Islander Americans, with nearly 9,800 Fijians (including both natives and descendants of the Asian Indians who came to work the coconut plantations in the late 1800s and early 1900s) the dominant group.[65] Other Melanesian populations include residents from Papua New Guinea, New Hebrides (now Vanuatu), New Caledonia, and the Solomon Islands. The United States maintains formal political associations with peoples from Polynesia and Micronesia, but not from Melanesia.[64]

In 2000, nearly the same number of Native Hawaiian and Other Pacific Islander Americans lived in California (29 percent) as in Hawaii (28 percent). An additional 6 percent lived in Washington, and 4 percent each resided in Utah and Texas.[65] The more than 113,000 persons who designated themselves as Native Hawaiian or Other Pacific Islanders alone and resided in Hawaii were more than 9 percent of the state's population; when considering those who selected Native Hawaiian or Other Pacific Islanders in addition to one or more other races, this number increases notably to more than 282,000 (23 percent of the state's population).[68] Although about the same number of Native Hawaiians and Other Pacific Islanders lived in California as in Hawaii, these groups constituted a much smaller share of California's 2000 population—0.3 percent for Native Hawaiians or Other Pacific Islanders alone and 0.7 percent for Native Hawaiians or Other Pacific Islanders in combination with other races.[65] In addition, nearly half (46 percent) of the Samoans counted in the 2000 Census lived in California.[17] Nearly one-fourth (24 percent) of all Tongan Americans lived in Utah, many of them Mormon converts brought to the United States by missionaries.[65,69]

Citizens of the autonomous governments of the islands in the Pacific Ocean to the west of Hawaii have a variety of political relationships with the United States and, partly as a result of this, have several different tiers of health care. Guam, the most developed of the islands in the western Pacific, has a relatively advanced system of health care. It has two hospitals—one that serves civilians and one that serves members of the military and their dependents.[70] Due to the boost the tourism industry has recently given its economy, Palau also has one of the best health care systems, with a universal health care system and a hospital that provides tertiary care.[71] Most health care in American Samoa is provided at the island's one hospital, which was built in 1968 and has been cited for major safety problems, such as fire code violations. A few satellite health clinics and private clinics also exist. The hospital does not provide tertiary health care services, however, so

patients must be referred off the island (mostly to Hawaii) for care. Tertiary care referrals consume 30 percent of American Samoa's health care budget and serve less than 1 percent of the population. Like American Samoa, the hospitals serving the Commonwealth of the Northern Marianas and the Federated States of Micronesia do not provide tertiary care, so patients must be referred off these islands. In both places, rules are being developed to cap the monies spent on off-island referrals. Equipment, supply, and drug shortages are common everywhere and result in the provision of lower qualities of care in these areas than on other islands.[70]

Native Hawaiians

Native Hawaiians are individuals whose ancestors were natives of the Hawaiian Islands prior to initial contact with Europeans in 1778.[64] Although the 1778 Native population of the seven inhabited Hawaiian islands is estimated as 300,000, one century after European contact (i.e., in 1878), the Native Hawaiian population had declined by more than 80 percent, to 57,985.[72] During the past 200 years, Native Hawaiians have faced traumatic social changes, resulting in the loss of their traditions and threatening their survival as a distinct group. Most of this decline was due to venereal diseases (resulting in sterility), miscarriages, and epidemics such as smallpox, measles, whooping cough, and influenza. Poor housing, inferior sanitation, hunger, malnutrition, alcohol, and tobacco use also contributed to the decline.[64]

As a result, the population of Hawaii today is multi-racial/ethnic with only an estimated 5,000 full-blooded Native Hawaiian descendants remaining.[73] However, more than 80,000 residents of Hawaii chose Native Hawaiian as their sole racial identification in the 2000 Census.[68] Native Hawaiians are today defined to include both "pure" Hawaiians and part-Hawaiians. They are the fastest growing racial/ethnic group on Hawaii. In 2000, Native and Part Hawaiians combined were a fifth of the population on Hawaii (20 percent) and accounted for more than a fourth (27 percent) of the newborns on the Hawaiian islands.[74]

Two of every five (i.e., 40 percent) Native Hawaiians/Part Hawaiians reside outside of the state of Hawaii, with 65 percent of these non-Hawaii residents living in the West (i.e., the Mountain or Pacific states of the continental United States). Nearly one-half (49 percent or 79,921) of the Native Hawaiian/Part Hawaiian population on the mainland United States lives in the states of California, Oregon, and Washington. In addition, 31 states report 1,000 or more Native Hawaiians/Part Hawaiians. Most statistics for Native Hawaiians, however, represent the 60 percent of the population residing in the state of Hawaii.[74]

The health problems of Native Hawaiians today in large measure reflect their socioeconomic status. In 2000, nearly 15 percent of Native Hawaiians lived in households with incomes less than $15,000, well below the 2000 federal poverty level of $16,270 for a family of three. This 15 percent of Native Hawaiians constituted 20 percent of all the individuals in the state of Hawaii in households with incomes at this level.[74] In addition, although 14 percent of all households in Hawaii had incomes at or below the poverty level in 2000, 19 percent of all Native Hawaiian households had poverty level incomes.[74]

Median household income of $45,381 for Native Hawaiians/Part Hawaiians, however, was close to the state median household income of $49,820 in 1999.[17] In 1999, families headed by Native Hawaiian females with no husband present had a median income of $26,145, considerably below the state median family income of $56,961 and the state median family income of households headed by females ($33,475).[17] Thirty-five percent of these female household heads had incomes below the poverty level. Of the 111,385 recipients of government assistance (TANF, Food Stamps, or Med-Quest, Hawaii's Medicaid program) in Hawaii in 2001, 28 percent were Native Hawaiian/Part Hawaiian, 8 percentage points greater than their share of the state population. Of the Native Hawaiian/Part Hawaiian recipients of government assistance, 37 percent received Temporary Assistance to Needy Families (TANF).[74]

Poverty among Native Hawaiian women is associated with their labor market outcomes. Although Native Hawaiian and Other Pacific Islander women were 8.3 percent of the females in the civilian labor force in Hawaii, they were 15.9 percent of the unemployed females in the civilian labor force in 2003. The 2003 unemployment rate for Native Hawaiian and Other Pacific Islander females and males combined was around 8 percent.[75]

Many Native Hawaiians engage in high-risk behaviors, and the group as a whole has poorer health outcomes (such as a lower life expectancy) than other groups in Hawaii. In one survey comparing whites, Japanese, Native Hawaiians, Filipinos, and Chinese in Hawaii, Native Hawaiians ranked highest in behavioral risk factors such as being overweight, smoking, and excessive use of alcohol, but not in risk factors such as physical inactivity.[76] Although the 1999 to 2001 National Health Interview Survey reported that 57 percent of all U.S. adults ages 18 years and

older were overweight, in 2001, 69 percent of Native Hawaiian/Part Hawaiians living in Hawaii were overweight.[77] In 2004, more than 71 percent of Native Hawaiians/Part Hawaiians in Hawaii were overweight.[76]

Obesity is implicated in the high rates of diabetes among Native Hawaiians, especially those 35 years and older, who accounted for 21 percent of all cases reported in the state of Hawaii in 2003.[78,79] In addition, 13.8 percent of all Native Hawaiians are known to be diabetic.[80]

In 2003, smoking rates among Native Hawaiian females living in Hawaii—26 percent reported being current smokers—also were significantly higher than among other females. Only 18 percent of white females, 10 percent of both Filipino and Japanese females, and 9 percent of Chinese females living in Hawaii during the same time period also reported being current smokers.[81] Native Hawaiian women (and men) who smoke also have a greater risk of developing lung cancer than white women and men who smoke.[82]

Native Hawaiians often enter medical treatment at late stages of diseases. They sometimes seek medical treatment only when self-care and traditional practices have not brought sufficient relief.[83] This pattern shows up in the entry into prenatal care by Native Hawaiian women, who are 26 percent of the pregnant women on Hawaii.[84] Although more than 78 percent of Native Hawaiian women throughout the United States began prenatal care in the first trimester in 2002, this is less than the more than 83 percent of all women in the United States who began care early in their pregnancies. Nearly 5 percent of all Native Hawaiian women waited until the third trimester to seek prenatal care or received no prenatal care.[41]

Heart disease and cancer are the major causes of death among Native Hawaiians, as among other populations in the United States. Hypertension, a major risk factor for both coronary heart disease and stroke, is also a problem for Native Hawaiians. The rate of hypertension risk for the Native Hawaiian population in 2003 was 26.6 percent, greater than the risk for hypertension among the general population of Hawaii. Thirty-five percent of Native Hawaiians/Part Hawaiians ages 45 to 54 are at risk for hypertension compared to 26 percent of all people ages 45 to 54 living in Hawaii. Fifty percent of Native Hawaiians/Part Hawaiians ages 55 to 64 are at risk for hypertension, compared to 39 percent of all residents of Hawaii ages 55 to 64.[80]

Breast cancer is the most common cancer among Native Hawaiian females.[85] Native Hawaiian females have the highest breast cancer incidence of all women in Hawaii. Because the perception of cancer in Hawaiian culture is bound up with beliefs about shame, guilt, and retribution, Native Hawaiian breast cancer patients often are fatalistic. Indeed, some patients may feel powerless to control the outcome of the disease and therefore do not fight their disease as vigorously as women of other racial/ethnic groups.[86]

AIDS also affects Native Hawaiian females, but less than would be expected given their share of the population in Hawaii. As of December 31, 2004, 11 percent of all AIDS cases reported in Hawaii since 1983 were among Native Hawaiians.[87] Between 2000 and 2004, nine cases of AIDS were reported among Native Hawaiian females, which represents one-eighth (12 percent) of all AIDS cases reported among females in the state of Hawaii during that period.[87]

Efforts to modify behavior among Native Hawaiians or Other Pacific Islanders and to improve their health are fraught with obstacles. For example, obesity is

TABLE 2
Native Hawaiian or Other Pacific Islander Population Alone or in Combination, 2000

	Number	Percent of Total Native Hawaiian or Other Pacific Islander Population**
Polynesian	**583,966**	**66.8**
Native Hawaiian	401,162	45.9
Samoan	133,281	15.2
Tongan	36,840	4.2
Tahitian	3,313	0.4
Tokelauan*	574	0.0
Polynesian, not specified	8,796	1.0
Micronesian	**115,582**	**13.2**
Guamanian or Chamorro	92,611	10.6
Mariana Islander*	141	0.0
Saipanese*	475	0.0
Palauan	3,469	0.4
Carolinian*	173	0.0
Kosraean*	226	0.0
Pohnpeian*	700	0.0
Chuukese*	654	0.0
Yapese*	368	0.0
Marshallese	6,650	0.8
I-Kiribati*	175	0.0
Micronesian, not specified	9,940	1.1
Melanesian	**14,163**	**1.6**
Fijian	13,581	1.6
Papua New Guinean*	224	0.0
Soloman Islander*	25	0.0
Ni-Vanuatu*	18	0.0
Melanesian, not specified*	315	0.0
Other Pacific Islander	**174,912**	**20.0**
Total	874,414	100.0

* Proportion smaller than .01
** The numbers by detailed Pacific Islander groups do not sum to the total population because respondents reporting multiple Pacific Islander groups were counted multiple times.

Source: Braun KL, Yee BWK, Browne CV, Mokuau N. Native Hawaiian and Pacific Islander elders, in: *Closing the Gap: Improving the Health of Minority Elders in the New Millennium*. Whitfield KE (ed). Washington, DC: The Gerontological Society of America; 2004.

acceptable within Polynesian cultures where large body size is equated with power and respect.[88] In addition, Native Hawaiian culture emphasizes the preservation of harmony, which sometimes results in the tendency for individuals to minimize the importance of events such as illnesses that may set them apart or reflect disharmony. This tendency results in delays in seeking services.[88]

One way to address the cultural barriers related to delivering health care services to Native Hawaiian women would be to incorporate traditional cultural systems such as Ho'oponopono (a family conference that ensures understanding, harmony, and agreement).[89,90] Because Native Hawaiian culture is focused on affiliation and close personal bonds to solve or cope with problems, Native Hawaiians are uncomfortable with impersonal bureaucracies and the reliance on expert authority within these systems. Having multidisciplinary teams of providers, including both Western-trained practitioners and traditional healers, could enable each care giver to learn from the other and would establish a bridge to enhance the provision of care to Native Hawaiians.[91]

Respect for the importance of 'Ohana (family, or interdependence and mutual help and connectedness from the same root of origin) also is critical to developing effective health care delivery systems for Native Hawaiians.[90] For example, one study of interventions to promote breast and cervical cancer screening among Native Hawaiian women in a rural county found that "Kōkua Groups" that delivered education and support through 'Ohana and friendship networks were well received and led to improvements in screening related behaviors.[92] The Papa Ola Lokahi clinics and the Native Hawaiian Health Care System are examples of community-based health care centers culturally sensitive to the needs of Native Hawaiians.[85,86]

Other Pacific Islanders

Samoa, a group of islands in the southern Pacific Ocean about halfway between Hawaii and Australia, is divided into two parts—American Samoa (an unincorporated territory of the United States) and Samoa (formerly Western Samoa), which has been an independent country since 1962.[93] On U.S. soil, most Samoans (the second most populous Pacific Islander group after Native Hawaiians) reside primarily in American Samoa, Hawaii, and California.[94] According to Census 2000, the population of American Samoa was 57,291; an additional 128,000 residents of the United States reported that they were Samoan alone or in combination with some other race.[17,95] Mainland residents maintain close ties to families in American Samoa by visiting on ritual occasions, sending monthly remittances, and helping new migrants to the mainland.[93]

Samoans are among the most obese populations in the world, with Samoans in Hawaii and California even more obese than those in American Samoa.[96] Hypertension is also a problem for adult Samoans. In 1994, in the U.S. territory of American Samoa, 24 percent of females ages 29 to 43 years and 42 percent of women ages 44 to 60 years had hypertension, compared to 3 percent and 25 percent, respectively, of their less modernized counterparts in the independent nation of Samoa. A similar disparity existed in diabetes prevalence—15 percent of women of both age groups, 29 to 43 years and 44 to 60 years, living in American Samoa had diabetes in 1994, compared to 3 percent and 8 percent, respectively, of their peers in Samoa.[97] No such disparity existed among the prevalence of high serum cholesterol, though both populations displayed high levels of high serum cholesterol—32 percent of 29- to 43-year-old and 57 percent of 44- to 60-year-old women in American Samoa, compared to 31 percent of 29- to 43-year-old and 54 percent of 44- to 60-year-old women in Samoa.[97]

Average life expectancy at birth for Samoans living in American Samoa is around 75 years, with Samoans sharing the major causes of death with other American subpopulations.[98,99] In decreasing order of frequency, the major causes of death among adult Samoans are: heart disease, cancer, accidents, cerebrovascular disease, chronic obstructive pulmonary disease (and allied conditions), and influenza and pneumonia. Breast cancer is the most common type of cancer diagnosed for Samoan women living in California and Hawaii.[94]

Access to health care among Samoans living on American Samoa is unique, in part because of the political relationship between the United States and its territory. Because this set of islands, the only U.S. territory south of the equator, located 240 miles southwest of Hawaii (the nearest site for tertiary care for residents of American Samoa), is medically underserved, American Samoa receives funding from the Federal Government for both the Medicaid and Medicare programs.[70] Most health care services for residents of American Samoa are provided at the Lyndon Baines Johnson (LBJ) Tropical Medical Center in Pago Pago on the island of Tutuila. For persons living on Tutuila, this aging facility built in 1968 is relatively accessible by car or is convenient by bus; however, for persons on other islands within the U.S. Territory of American Samoa, it can be difficult to access care. Fifty percent of American Samoans

are within one hour of the hospital. There is virtually no private health insurance market in American Samoa; most people have government health insurance or insurance through employment at canneries. Financial access to services at LBJ is not a problem for most Samoans because, although patients are supposed to make copayments, the fees are rarely collected. However, other things—such as an insufficient number and scope of needed health professionals, the unavailability of sophisticated diagnostic tools, and the lack of financing to replace the aging and increasingly outdated medical center—hinder the access to quality care in American Samoa.[70]

Access barriers for Samoans living on the U.S. mainland differ somewhat from barriers encountered on American Samoa. Samoans living on the U.S. mainland are more likely to be poor than other Americans. Eighteen percent of all Samoan families living on the U.S. mainland have incomes below the poverty level, compared to 6 percent of all white families.[17] Poverty and low-wage jobs among Samoans are related to their lower levels of education. Although more than 20 percent of the overall population in the United States completes college, fewer than 10 percent of Samoans have college degrees.[93] Samoan traditions as practiced in the U.S. Territory of American Samoa include a simple, close-knit way of life called fa'aSamoa, the Samoan way. Fa'aSamoa stresses respect for everyone, especially elders and the village chief, who has authority over everyone. Churches also play an important role in Samoan society—Samoan immigrants to Hawaii, California, Washington, and other mainland states tend to live in close-knit, well-defined communities with close ties to their local churches.[93]

Part of the difference in hypertension prevalence between Samoans in American Samoa and in the independent nation of Samoa may be attributed to the loss of the protective effect of the strong traditional social structure among older Samoans. The high rates of suicide among Samoans have been explained in a similar way. Many blame the increasing influence of Western culture, which results in conflict between traditional Samoan values and newly introduced values. Some see the high Samoan suicide rates as a response to the stress generated by conflicts between individuals and family members, as well as stresses raised by cultural expectations, economic situations, and social issues.[100]

Finally, Samoan beliefs about the etiology of disease often constitute a barrier for them when seeking care. Samoans attribute illness to imbalances among multiple factors, such as the supernatural world, morality, and social relationships. A disease could be caused by germs, one's actions, or punishment by God. The treatment considered necessary for a disease would depend on its cause. For example, a disease caused by offensive behavior to God would require confession, whereas a disease attributed to evil spirits or supernatural power would require the actions of a traditional healer. Illnesses defined as Western illnesses, such as tuberculosis, cancer, and diabetes, could be treated with Western medicine.[101]

Cancer is a major public health problem among Pacific Islanders. This is especially true in the Republic of the Marshall Islands (site of thermonuclear testing by the United States between 1946 and 1958). In the period 1985-1994, the overall cancer incidence for Marshallese females was 883 per 100,000.[102] This includes a cervical cancer incidence of 278 per 100,000, a breast cancer incidence of 149 per 1000,000, and a lung cancer incidence of 122 per 100,000. The incidence of thyroid cancer was 46 per 100,000. In comparison, in the Republic of Palau, the incidence of cervical cancer (the most common cancer among Palauan women) was 38 per 100,000. The next most common cancers among women of Palau were breast (25 per 100,000), uterine (19 per 100,000), and lung (13.1 per 100,000). In Guam, among Chamorro women, the most common forms of cancer in the 1971–1995 period were digestive system (14 per 100,000), lung (13 per 100,000), and breast (11 per 100,000).[102] (*Note*: Digestive system cancers include cancers of the esophagus, stomach, small intestine, colon, rectum/anus, liver, gall bladder, and pancreas.)

Diabetes is another major public health problem among Pacific Islanders. Approximately 30 percent of the adult population of the Marshall Islands suffers from diabetes, as does 11 percent of Guamanians.[103,104] As noted previously, in American Samoa, 15 percent of women have diabetes.[97] In response, in 1998, the Centers for Disease Control and Prevention established the Pacific Diabetes Today Resource Center, which helps to train health care professionals and community leaders in Hawaii, American Samoa, Guam, the Republic of the Marshall Islands, the Commonwealth of the Mariana Islands, and the Federated States of Micronesia to help prevent and control diabetes in their communities.[105]

Hispanics or Latinos

The earliest forebears of the group known today as Hispanic Americans or Latinos were Spanish colonists who came from Mexico in the late 1500s to live in what is now the southwestern United States. The descendants of these colonists and of other Spanish-speaking

populations who arrived after them constitute the largest of the ethnic groups in the United States today, numbering 35.3 million, with an additional 3.8 million Hispanics residing in the Commonwealth of Puerto Rico, according to the 2000 Census.[8] Latinos were 12.5 percent of the U.S. population at that time. The more than 17 million Hispanic women were a little less than half of the 2000 total Hispanic population.[106] In 2004, the Census Bureau estimated that 41.3 million Hispanics lived in the United States, including nearly 20 million Hispanic women.[1] In 2004, Latinos constituted 14 percent of the total U.S. population, an increase over their 2000 population share. The proportion of Latinas in the population remained the same, however, at 48 percent.

Today, those who identify themselves as Hispanic or Latino come from a variety of countries in Latin America, the Caribbean, and Europe, with nearly a fifth (19.3 percent) having arrived in the United States between 1990 and 2000.[107] The major Hispanic subgroups identified in the 2000 Census are Mexican Americans (more than 58 percent), Puerto Ricans (almost 10 percent), and Cuban Americans (nearly 4 percent). Those who identified themselves as Other Hispanics constituted about 28 percent of the more than 35 million Hispanics in the continental United States. This subgroup includes Central Americans (almost 5 percent of all Hispanics), South Americans (almost 4 percent of all Hispanics), persons from the Dominican Republic, known as Dominicans (more than 2 percent of all Hispanics), Spaniards (0.3 percent of all Hispanics), and an additional 17.3 percent of the Hispanic population who did not specify their country of origin ("All Other Hispanics").[8]

Reasons for Latino immigration have varied by subpopulations. In addition to the history of Spaniards and Mexicans in what is now the southwestern United States, Mexican immigration to the United States results from several factors—proximity of Mexico to the United States, the long shared border between the two countries, and the economic disparities between the two nations.[108] Since Puerto Rico is a United States Commonwealth and its residents are U.S. citizens, many Puerto Ricans move to the U.S. mainland, either temporarily or permanently, to pursue opportunities lacking in their homeland. Cubans have immigrated to the United States in several waves during the last 40 years. The earliest wave in the 1960s consisted of better educated and middle-class newcomers while later waves were less uniformly so. Central and South American Latino immigrants to the United States have come primarily as the result of civil war, poverty, and political oppression.[108] While Central American immigrants come from both rural backgrounds with little education and from urban backgrounds with higher education, South American immigrants tend to have higher educational attainment and to belong to elite or middle classes in their countries of origin.

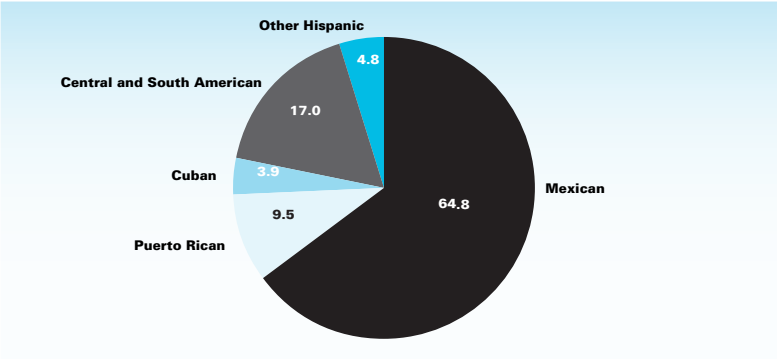
According to the Current Population Survey (a nationally representative monthly survey of 50,000 American households), two-fifths (40.2 percent) of all Hispanic Americans were foreign-born, and 63 percent of the infants born to Hispanic women in 2002 were born to women who themselves had been born outside the 50 states and Washington, D.C.[109,110]

More than 91 percent of the nation's Hispanic population is urban, with 46 percent living in the central cities of metropolitan areas.[109] Nearly 77 percent of the Hispanic population resides in seven of the most populous states (California, Texas, New York, Florida, Illinois, Arizona, and New Jersey), with the largest numbers in four cities—New York, Los Angeles, Chicago, and Houston.[8] The South (nearly 33 percent) and the West (44 percent) combined are home to more than three-fourths of all Hispanics. In the West, the Hispanic concentration is almost twice the national level (more than 24 percent of the total population versus almost 13 percent nationally).[8]

Many of the Hispanics in the West live in California, where this population has grown rapidly, increasing by 70 percent between 1970 and 2000 and reaching nearly 11 million in 2000. In 2000, California was home to two-fifths of the total U.S. population of Mexican descent and one-quarter of the Central and South American populations in the United States. Nearly one of every three Latinos in the United States lives in California, and by 2025, Latinos are projected to be the largest ethnic group in the state, comprising more than 40 percent of the population of California.[111]

The Hispanic population in the United States is diverse by many measures. Latinos can be of any race.[112] Thus, the population ranges from dark-skinned to light-skinned and includes all the shades in between; Latinos include people who are admixtures with Indians, blacks, whites, and Asians.[113] Hispanics also include people from Spanish-speaking countries (such as certain parts of El Salvador and various regions of Mexico) but whose primary language is not Spanish.[114] The Hispanic population includes farm workers—the laborers in this nation with a lower life expectancy and higher rates of death from hypertension, injuries, tuberculosis, respiratory diseases, and reproductive disorders than the general population.[115] Although farm workers have a lower overall cancer incidence

FIGURE 2
Hispanic Population by Subgroup, 2005
Percent



Source: Bureau of the Census (Current Population Survey, March Supplement 2005). DataFerrett. Available at: *http://dataferrett.census.gov/*. Date Accessed 12/1/05.

than the general population (likely due to lower smoking rates), they have higher rates of leukemia and of brain, cervical, skin, and prostate cancer than the general population, likely due to exposure to pesticides and overexposure to the sun.[116]

About 83 percent of all migrant farm workers self identify as Hispanics. This occupation is frequently characterized by lack of health insurance and of regular health care, resulting in an increased incidence of chronic illness and disease. In 2001–2002, only 23 percent of farm workers surveyed reported that they had health insurance. Half of those with insurance had employer-sponsored coverage, while 20 percent were covered by the government, and the rest were covered by other sources.[117] Many farm workers live in colonias, unincorporated areas within 150 miles of the U.S.–Mexico border, often lacking basic services such as septic tanks, sewers, and running water.[118]

Although median age for the Hispanic population is 26.0 years (compared to a median age of 35.4 years for the entire U.S. population in 2000), significant differences in age distribution exist among Latino subpopulations. While nearly two-fifths (37 percent) of Mexicans and more than a third of Puerto Ricans (34 percent) are under the age of 18, less than a fifth (18 percent) of Cubans are in this age group. A similar percentage of Cubans (19 percent) is older than 65. In 2000, the median age for Mexicans was 24.4 years, for Puerto Ricans, 27.7 years, and for Cubans, 40.3 years.[119]

Among Hispanic subpopulations, Mexican Americans appear to enjoy better health than would be predicted, given their socioeconomic status and the fact that they have low utilization rates for health care services for both physical and mental conditions.[120] Specifically, Mexican American women are less likely than white or black American women to have hypertension, despite their greater likelihood of being poor than white American women.[41] Puerto Ricans and Cuban Americans, however, use health care facilities at rates comparable to whites. Puerto Rican women are less likely to be hypertensive and more likely to be poor than Mexican American women. In short, there is such variation in the health of the Hispanic American subgroups that looking at aggregated measures can obscure meaningful intra-group differences.[112]

The socioeconomic and employment conditions of Hispanics, as of all populations in the United States, influence their access to health insurance and thereby to health care. In 1998, the Hispanic poverty rate was 25.6 percent, falling to 21.4 percent in 2001 before inching up to 22.5 percent in 2003.[35,121] Nearly 21 percent of all Hispanic families had poverty level incomes, as did nearly 16 percent of all Latino married-couple families.[122] In addition, in 2003, one quarter (25 percent) of Hispanic females lived below the poverty line.[123]

Rates of unemployment and labor force participation account for the poverty levels of Hispanics in part. In March 2002, the unemployment rate for the Spanish-origin population (both males and females) of 8.1 percent was 60 percent higher than the unemployment rate for the non-Hispanic white population of 5.1 percent.[109] This 8.1 percent unemployment rate was constituted by the 8.3 percent rate for males and the 7.9 percent rate for females.[124] The 69 percent share of the Hispanic population in the labor force reflects both the 79 percent share for Hispanic males (which exceeds both the 73 percent labor force participation rate for non-Hispanic white males and the 70 percent rate for non-Hispanic males of other races) and the 58 percent share for Hispanic females (which falls short of both the 60 percent labor force participation rate for non-Hispanic white females and the 61 percent rate for non-Hispanic females of other races).[125]

As with other measures, for Hispanics, there is variation by subgroup in unemployment and labor force participation rates. Unemployment rates for Mexican Americans (8.4 percent) are near the Hispanic population average of 8.1 percent, while the rate for Puerto Ricans is greater than this average (9.6 percent). The rate for Other Hispanics (8.6 percent) is comparable to the rate for Mexicans, and the rate for Cubans

(6.1 percent) and populations from Central and South America (6.8 percent) are below the Latino average.[109]

Hispanic family households also are more likely than non-Hispanic white family households to be headed by females; these female-headed households also are more likely than other types of households to have incomes below the federal poverty level. Nearly two of every five (more than 38 percent) Puerto Rican family households are headed by women, as are 26 percent of Other Hispanic, 24 percent of Central and South American, 20 percent of Mexican American, and 17 percent of Cuban family households.[126] Although 25 percent of all non-Hispanic female-headed households had incomes below the poverty level in 2001, the corresponding share of Latino female-headed households was 37 percent. This 37 percent share includes the 44 percent of all female-headed Puerto Rican households with poverty-level incomes, along with the 39 percent of female-headed Cuban households, 38 percent of female-headed Mexican households, and 26 percent of female-headed Central and South American households with comparably low incomes.[126]

Overall, more than two-fifths (43 percent) of poor Hispanic families are female-headed and are likely to face the combined stresses of poverty, lack of health insurance, lack of health care for themselves and their children, and lack of social support.[127] This arsenal of stressors places these women at risk for mental health problems as well as for substance and alcohol abuse. The lack of citizenship may be an added stressor for poor Hispanic women and may make them unwilling to use public clinics and other health facilities for fear of detection and deportation.[20]

When Hispanic women are employed, they tend to hold jobs of low status and with low pay. Hispanics, along with African Americans, are more likely than non-Hispanic whites to be among the working poor. Nearly 13 percent of all Hispanics and more than 12 percent of Hispanic women reported working full-time but earning poverty-level wages, as did more than 10 percent of all blacks and nearly 13 percent of black females. Only 5 percent of all non-Hispanic whites and 6 percent of non-Hispanic white women reported working for poverty-level wages in 2003.[128]

Hispanics are three times as likely as whites and twice as likely as African Americans to be full-time workers but to lack health insurance (36 percent for Hispanics, versus 10 percent for whites, and 18 percent for non-Hispanic blacks).[129] Thirty-three percent of the Hispanic population was not covered by health insurance for the entire year of 2003, with persons in the labor force accounting for many of the uninsured.[35] This share incorporates the 37 percent of Mexican Americans, the 33 percent of Other Hispanics, the 21 percent of Cubans, and the 20 percent of Puerto Ricans who were uninsured in 2002.[41] This lack of insurance is due in part to the fact that Hispanics are more likely than non-Hispanics to be employed in industries and occupations that do not provide health benefits.[107] In addition, within the various industries, Latinos are less likely than non-Latinos to be offered coverage by their employers. Also, because married Hispanics are younger than married whites, they are more likely to have young children at home and, therefore, more likely to be part of a family with only one worker through whose employment insurance might be gained.[107]

Although some Latinos have government-funded health insurance coverage, Medicaid coverage of Hispanics with comparably low incomes varies by state of residence, as do eligibility requirements and administrative practices under this health insurance program for the poor. Overall, however, 19 percent of Hispanics younger than 65 years of age are enrolled in Medicaid. This figure incorporates the 15 percent

TABLE 3
Hispanic Population by Subgroup, 2000

	Number	Percent of Total Hispanic Population
Mexican	20,640,711	58.5
Puerto Rican	3,406,178	9.6
Cuban	1,241,685	3.5
Dominican	764,945	2.2
Argentinean	100,864	0.3
Bolivian	42,068	0.1
Chilean	68,849	0.2
Columbian	470,684	1.3
Ecuadorian	260,559	0.7
Paraguayan*	8,769	0.0
Peruvian	233,926	0.7
Uruguayan	18,804	0.1
Venezuelan	91,507	0.3
Other South American	57,532	0.2
Costa Rican	68,588	0.2
Guatemalan	372,487	1.1
Honduran	217,569	0.6
Nicaraguan	177,684	0.5
Panamanian	91,723	0.3
Salvadorian	655,165	1.9
Other Central American	103,721	0.3
Spaniard	100,135	0.3
All Other Hispanic or Latino	6,111,665	17.3
Total	35,305,818	100.0

* Proportion smaller than .01

Source: Bureau of the Census, Current Population Survey, March 2002, Ethnic and Hispanic Statistics Branch, Population Division. Table 1.2: Population by Sex, Age, and Hispanic Origin Type: March 2002. Available at: *http://www.census.gov/population/socdemo/hispanic/ppl-165/tab01-2.pdf*. Date Accessed: 12/1/05.

of Cubans, the 18 percent of Mexican Americans, the 19 percent of Other Hispanics, and the 28 percent of Puerto Ricans who are covered by Medicaid.[41] For example, Hispanic residents of New York and California are more likely to be enrolled in Medicaid than are equally poor Hispanics in either Florida or Texas, although all four states are among the seven states in which 77 percent of U.S. Latinos reside.[129] Beyond the likely lack of employer-sponsored health insurance, the working poor face double jeopardy with respect to health care because they cannot afford to pay costly medical bills out-of-pocket and because they do not qualify for federal programs such as Medicaid. Some of the Hispanic working poor have the added disadvantage of lacking U.S. citizenship and thus are ineligible for federal health assistance programs, even if their incomes are low enough.[130]

Of the more than 7 million Hispanic women ages 16 years and older who worked in 2004, nearly 24 percent worked only part time, compared to 27 percent of white, 21 percent of Asian, and 17 percent of black women.[131] The major occupation of Hispanic women was service occupations (28 percent), with the next largest share (22 percent) in clerical and administrative support. This pattern differs, however, by Hispanic subgroup. While the leading occupation for Mexican, Central and South American, and Other Hispanic women is service occupations, clerical and administrative support is the leading occupation for Puerto Rican and Cuban women. Clerical and administrative support occupations are the second leading category for Mexican, Central and South American, and Other Hispanic women. Among Cuban and Puerto Rican women, service occupations are the second leading professions. Hispanic women from Central and South America are most likely to have service occupations, followed by clerical and administrative support, and then sales occupations.[132] Twenty percent of Hispanic women working full time, year-round made at least $35,000 in 2001, whereas 39 percent of non-Hispanic women earned the same.[133]

In addition, large proportions of Hispanic women work in the semiconductor and agriculture industries, both of which have occupational hazards.[134] Workers in the semiconductor industry experience occupational illnesses at three times the rate of workers in other manufacturing industries. Agricultural workers are exposed to pesticides, the use of faulty equipment, and to a range of health problems such as dermatitis, musculoskeletal and soft-tissue problems, communicable diseases, and reproductive disorders, as well as health problems related to climate.[134]

Along with socioeconomic status, cultural context or acculturation—the process of psychological and behavioral change individuals undergo as a consequence of long-term contact with another culture—plays a major role in the access of Hispanic populations to health care.[135] More acculturated Hispanics (as reflected by greater use and skill with the English language and greater involvement with the mainstream American culture) would be expected to adopt behaviors and have health outcomes similar to non-immigrant Americans. More acculturated Hispanics are more likely to engage in behaviors that can have negative effects on health (such as substance abuse and unhealthy dietary practices), but are also more likely to make use of health care (such as preventive screenings).[136]

Some less acculturated Hispanic immigrants, however, have a significantly lower likelihood of health problems (both physical and mental) and, therefore, less need for outpatient services. One example is the incidence of low-birthweight infants (which is highly correlated with the infant mortality rate) among less acculturated, first generation Mexican American women.[137] Less acculturated Hispanic women have a lower incidence of low-birthweight infants than white non-Hispanic women and higher acculturated Hispanic women.[138] Infant mortality prevalence among Puerto Ricans on the mainland and in the Commonwealth of Puerto Rico provides further support for the heterogeneity of Latinas. One recent study found that infant mortality is substantially lower among recent migrants to the U.S. mainland than it is among nonmigrant women in Puerto Rico. This finding and other research suggest that selective migration of healthier populations may also be an operative factor in birth outcomes for Latinas.[139,140] The so-called Latino health paradox seems to be relevant only for recent foreign-born Mexican immigrants.

Similarly, one study found that immigrants from Mexico to the United States have lower lifetime prevalence of psychiatric disorders, alcohol abuse or dependence, drug abuse or dependence, and major depression than native-born Mexican Americans and non-Hispanic whites.[141] A possible explanation for this is that, even if equally poor, immigrants from Mexico may have less of a sense of deprivation than native-born Mexican Americans, and it is this sense of deprivation that contributes to the prevalence of psychiatric disorders. If immigrants have lower social status than their native-born counterparts, they may be less distressed (than the native-born) by their socioeconomic position because it surpasses their standard of living in Mexico. Another explanation is that native-born

Mexicans with better mental health are more likely to immigrate to the United States than are their counterparts with impaired mental health—the selective migration hypothesis noted previously.[141]

Other research suggests that the relationship among perceived discrimination, acculturative stress, and mental health assessed using the CES–D (Center for Epidemiological Studies–Depression) scale may be more complex.[142] Although experiencing discrimination was directly related to depression, the extent of the resulting depression varied, with perceived discrimination and acculturative stress having a stronger and heightened effect on depression levels among U.S-born than among Mexican-born respondents.

Regardless of degree of acculturation, however, Hispanics are more obese, less physically active, and less likely to participate in lifestyles that promote cardiovascular health than are other populations. Hispanics who are more acculturated tend to have more abdominal obesity than their less acculturated peers and are therefore at high risk for chronic diseases such as diabetes and heart disease.[143] This physical inactivity even affects less-acculturated Mexican Americans and mitigates the generally better health outcomes of first generation Latino immigrants.[120,144] Environmental and economic barriers to accessing fitness facilities, safe recreational areas, and quality health care are part of the explanation for this finding. The lack of materials in Spanish explaining the benefits of an active lifestyle also may limit the physical activity of Latinas.[134] As a consequence, some Latinos are more likely to have diabetes than the general U.S. population. The prevalence of diabetes among Mexican American women is 50 percent higher than among white women.[145]

Another aspect of acculturation for the Hispanic American is encountering discrimination, prejudice, and exclusion (based either on language or skin color), perhaps for the first time, and incorporating into her or his identity a newly acquired "minority status."[134] Racial identification among Latinos is likely to be influenced by personal reactions to differences between the racial hierarchies and construction of race in the United States and in their homelands.[112] It also may be shaped by characteristics of the immigrant population, such as age at entry to the United States, socioeconomic status in country of origin, and ability to "pass" or be accepted as white in the United States.[113] The process of cultural adaptation and life experiences in the United States also influences the adoption of a racial moniker by Latinos and can have health effects as well.[112] For example, one study found that more highly acculturated Hispanic women were four times as likely as less acculturated women to have used illicit drugs or inhalants in their lifetimes. In addition, Hispanic women born in the United States were six times as likely as women born outside the United States to have used illicit drugs or inhalants in their lifetimes (regardless of acculturation level).[146]

Other aspects of culture that can influence health are religion, folk healing, and "familism," or family mores. Cultural mores that dictate that Hispanics should first try home remedies, seek the advice of family and friends, or engage folk healers before getting professional health care also can build delays into the care-seeking process that may be costly in terms of either morbidity or mortality.[147] Even while using professional biomedical health care, Hispanics may continue to use traditional medicines or alternative therapies as a complement, often without disclosing their use to their professional health care providers, a pattern that could have unforeseen negative consequences.[147] Additionally, some women may delay seeking health care due to stigmas against wasting money. Women may question spending money for health exams when they do not feel ill. Thus, low utilization of health care services, including preventive tests such as the Pap smear and mammography, can result from cultural beliefs as well as from socioeconomic barriers.[148]

Finally, HIV/AIDS among Puerto Ricans illustrates the socioeconomic, cultural, and political factors that may shape the transmission of a disease within the Hispanic community. Among Hispanic subpopulations, Puerto Ricans are disproportionately likely to have AIDS. Although less than 10 percent of the U.S. Latino population, in 2003, Puerto Ricans were 17 percent of the Hispanics in the United States infected with AIDS.[149] Puerto Ricans have several characteristics that distinguish them from other Hispanic subgroups and may contribute to their high rates of infection. All Puerto Ricans have U.S. citizenship and therefore have no need to marry non-Puerto Ricans to maintain residency in the United States. Thus, Puerto Ricans are likely to marry each other in greater proportions than do other Hispanic subpopulations in the United States and are, therefore, more likely to have sex with other Puerto Ricans than they are with non-Puerto Rican Hispanic or non-Hispanic people. These facts may contribute to the heterosexual spread of HIV/AIDS among Puerto Ricans, as has the existence of racially and ethnically homogeneous needle-sharing networks.[150]

Cultural factors also influence the spread of HIV infection and AIDS among Hispanics. In traditional Hispanic cultures, men and women have distinct gender roles, and women are not supposed to have advanced knowledge about sex and sexuality. In the home, females are provided less information and education about sexuality than males. Language barriers can prevent women from being educated elsewhere. Thus, women may not know the risk factors for HIV/AIDS and may engage in risky behaviors unknowingly. However, even if they know the risk factors for HIV/AIDS and want to engage in safer sexual behaviors, they could be considered immoral and promiscuous if they discuss condom use with their partners. This concern may lead some women to forgo condom use with their partners, rather than risk embarrassment and stigma. In addition, the belief in machismo among males may lead to lower levels of self-esteem and feelings of disempowerment among Hispanic females, further discouraging them from attempting to protect themselves.[151,152]

Black or African Americans

The black population of the United States consists primarily of U.S.-born African Americans, although sizable numbers of African and African Caribbean immigrants have become part of this group in recent years.[20] The African ancestors of the group known today as African Americans were brought to the shores of what is now the United States as slaves by Europeans beginning in 1619. In 2004, the Census Bureau estimated that 37.5 million people in the United States identified themselves as black or African American only, and 39.2 million people identified as black or African American in addition to one or more other racial affiliations. The 2004 estimates reflect a very slight increase in the African American population since the 2000 Census enumeration. The proportion of females remained the same (more than 52 percent) in 2000 and 2004.[1]

In the 2000 Census, nearly 34.7 million people (12.3 percent of the total population) identified themselves as black or African American only, and 36.4 million people (12.9 percent of the total population) marked black or African American as one of several racial affiliations.[2] More than half of all black Americans (18.2 million) in 2000 were females.[106] Many are of mixed ancestry, including individuals with Caribbean, Indian, and European lineage. Among the 1.8 million people who reported black and at least one other race, the most common combination was African American and white (45 percent).[153] Ten percent reported black and American Indian/Alaska Native, and six percent reported black, white, and American Indian/Alaska Native.

In addition, among African Americans, several cultural-ecological areas have been defined with varying history, economics, and social characteristics that result in considerable heterogeneity among their populations. These areas are: 1) Tidewater–Piedmont (eastern Maryland, Virginia, and North Carolina); 2) coastal Southeast (South Carolina and eastern Georgia); 3) Black belt (central and western Georgia, Alabama, Mississippi, parts of Tennessee, Kentucky, Arkansas, Missouri, Louisiana, and Texas); 4) French tradition (Louisiana, eastern coastal Texas, and southwestern Mississippi); 5) areas of Indian influence (Oklahoma and parts of Arkansas and Kansas); 6) Southwestern areas (west Texas, New Mexico, Arizona, and California); 7) old Eastern colonial areas (New Jersey, Pennsylvania, New York, and Massachusetts); 8) Midwestern and far Western areas (Illinois west to Washington state); and 9) post-1920 metropolitan North and West ghetto areas (major inner cities in such places as New York, Detroit, Chicago, and San Francisco).[154]

Heterogeneity within the U.S. black population also results from immigration from the Caribbean basin and Africa. In 2002, nearly 15 percent of all immigrants to the United States were from Africa (5.7 percent) and the Caribbean (9.1 percent), and a sizable proportion of these immigrants were of African descent.[155] The following factors have provided the impetus for much of the outmigration of Africans to the United States: drought, famine, civil and regional wars, and debt repayment burdens that divert resources from infrastructure development and much needed social services within African nations.

Approximately 8 percent of black Americans are foreign born, mainly French-speaking Haitians and other non-Spanish speaking Caribbean people, some of whom are farm workers in the United States.[129] These include residents from Dutch-speaking islands such as Aruba and the Netherlands Antilles and English-speaking persons from former British colonies in the Caribbean Sea and from the mainland territories of Belize and Guyana. The 1990 Census estimated that there were almost 1 million Americans of English-speaking West Indian or Caribbean ancestry, almost half a million of sub-Saharan African ancestry, and 300,000 of Haitian ancestry. By 2000, there were nearly 1 million foreign-born Africans (881,300) alone in the United States.[156] Foreign-born African immigrants to the Untied States come primarily from Western Africa (36 percent) but arrive from throughout the continent as well (24 percent from Eastern

Africa, 22 percent from Northern Africa, 8 percent from Southern Africa, 3 percent from Central Africa, plus 7 percent unclassified).[156]

Although the numbers of immigrants are small relative to the entire U.S. black population, in some places immigrants of African descent and their progeny constitute a substantial proportion of the population. Where this is true, marked differences in acculturation exist among black women and contribute to the diversity of their health outcomes. For example, in Boston, although African Americans are 25.5 percent of the population, the slightly more than 53,000 women there include numerous immigrants of African descent such as Somalis and Haitians. Data from Boston Medical Center indicates that among women in the United States 5 years or less (including Somalis and Haitians) 20 percent had never had a Pap smear. This contrasts with the 10 percent or less among immigrant women who had lived in the United States for more than 15 years.[157]

Black Americans are a largely urban population (more than 87 percent of all blacks in 2003) and reside in all 50 states.[158] In spite of their urbanity and their wider distribution among the states than other racial/ethnic groups, 54 percent of all black Americans counted in the 2000 Census lived in 13 Southern states—Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.[153] Nearly all of these 13 states had concentrations of African American residents much greater than their national average of more than 12 percent of the total population. Twenty percent of all Census respondents in the South were black, in contrast to 12 percent in the Northeast, 11 percent in the Midwest, and 6 percent in the West.[153] In addition, according to Census 2000 numbers, the largest increase of the black population occurred in the South.[159]

In spite of their disproportionate representation in Southern states (as evidenced by the fact that six of the ten states with the largest numbers of African Americans were Southern), several states with large numbers of African Americans were not in the South—California, Illinois, Michigan, and New York.[153] Using totals for the population that reported black or African American either alone or in combination with another population, 3.2 million African Americans resided in New York state, 2.5 million in California, 1.9 million in Illinois, and 1.5 million in Michigan in 2000.

Differences in the health of blacks and whites are many and varied. Blacks have more undetected diseases, higher disease and illness rates (from infectious conditions such as tuberculosis and sexually transmitted diseases), more chronic conditions (such as hypertension and diabetes), and shorter life expectancy than whites.[20] Thus, African Americans are sicker during their lifetimes and younger when they die than any other racial/ethnic group in the United States, except for American Indians/Alaska Natives.[23,41,160,161] Morbidity and mortality rates for African Americans from many conditions (cancer, HIV/AIDS, pneumonia, and homicide) exceed those for whites.[41] These findings exist even though black females are generally less likely than white females to report risk behaviors such as smoking cigarettes, consuming alcohol, or using other substances.[37]

Explanations for racial differences in health outcomes have been sought by experts, and many contributing factors have been identified.[162] Although the interactive mechanisms have not been clearly specified, links have been demonstrated between race, on one hand, and blood pressure, mental health, and general physical health status, on the other.[160] Many factors have been proposed to explain the health disparities between African Americans and members of other racial/ethnic groups. Three factors—genetics, health-related behaviors, and environmental and sociopolitical conditions (including racism)—generally are believed to have the greatest influence on the health of black Americans.[163,164] These factors are discussed below.

The murkiness of race as a concept to define black Americans, who range from fair-skinned and blue-eyed with straight hair to dark-skinned with dark eyes and coarse hair, makes purely genetic explanations of the health differences between blacks and whites questionable.[165] The fact that many genetically related populations in Africa and the Caribbean display much lower rates of cardiovascular disease, hypertension, and low-birthweight infants, and higher life expectancies than African Americans casts doubt on purely genetic explanations for racial health differences.[164] Instead of looking at population-related genetic differences, others link the racial differences in health to black subpopulations that are exposed to multiple risks—such as intravenous drug users, those living and working in hazardous environments, and the like.

Evidence about a genetic basis for differences in health outcomes among African Americans and other U.S. populations is suggestive. Researchers studying the prevalence of hypertension among blacks have found that it varies with skin color and when in stressful situations related to racial stereotyping.[166] That is, lighter-pigmented blacks often have a lower prevalence of hypertension than darker-skinned blacks, and pigment is related to the degree of

admixture with whites, whose overall prevalence of hypertension is lower than that of African Americans. However, those same researchers have not measured actual genetic differences between lighter- and darker-pigmented blacks—instead, skin color differences were used as a proxy for presumed genetic differences. An alternate explanation for the hypertension disparity is that darker-pigmented blacks experience more racial discrimination than lighter-pigmented blacks, which results in higher levels of stress and hypertension.[166,167]

Another study found that darker-skinned individuals who identified with higher social class status were the most likely to have elevated blood pressures. Individuals with both light skin and high social status and with both dark skin and low social status reported lower blood pressure.[168]

Recent research about the smoking-related risk of lung cancer, however, provides support for the role of genetics in the health of African Americans. The risk of lung cancer associated with cigarette smoking is significantly greater for African American women (and men) than for white women (and men).[82] Variation in the metabolism of nicotine by blacks and whites has been hypothesized to underlie differences in smoking behavior (such as the depth and frequency of inhalation) and, thus, in the intake of carcinogens. Earlier research on the presence of cotinine, a metabolite of nicotine, in the bloodstreams of African Americans and white Americans suggests that (after controlling for the number of cigarettes smoked daily) African Americans retain more cotinine than whites. Research has also shown that smoking menthol cigarettes is linked to retaining higher levels of cotinine, and African Americans are more likely than whites to smoke menthol cigarettes.[169] Although this and other findings suggest the existence of a genetic factor among African American that may predispose them to certain conditions, environmental factors also play a role in health behaviors and, thus, health outcomes.[164] Research suggests that sociostructural factors (such as perception of racially discriminatory treatment) are also relevant to onset of unhealthful behaviors such as cigarette smoking.[170]

Nearly a fourth (24 percent) of all black Americans lived in poverty in 2003. In addition, a third of blacks under 18 years of age (34 percent) and nearly a fourth of blacks 65 years of age and older (24 percent) reported incomes below the poverty level.[171] More than one-fourth (27 percent) of all black women lived in poverty in 2003. In addition, single-parent, female-headed households—44 percent of all black-family households in 2003—were mired in poverty to a greater degree than the entire black population. Almost two-fifths (39 percent) of all people in black female-headed families, but only 8 percent of all people in black married-couple families, had incomes below the poverty level in 2003. In addition, 74 percent of the almost 2 million black families in poverty were maintained by women with no husbands present.[129] Median income for all black households in 2003 was $29,645, with median income for married-couple black families at $61,470. For black female-headed family households, 2003 median income was $26,371.[172]

More than half of the black work force (54 percent) is female, with many of these workers earning poverty-level wages. Of the 8.4 million black women (out of the total of more than 19 million black women) who were in the labor force at least 27 weeks during 2003, one-eighth (12 percent) lived in poverty. More than one-fourth (nearly 26 percent) of all young black female members of the labor force ages 16 to 24 lived below the poverty level.[173]

The largest shares of employed black women in 2001 had service occupations (27 percent), with the second largest share in administrative support (including clerical) occupations (23 percent).[174] Many of the black women in the work force—19 percent in 1993—held lower-level, low-wage jobs in the health care sector. Black women held 20 percent of all jobs in nursing homes and 26 percent of all positions as nursing home aides.[175] Black women also held about a fifth of all food service jobs (21 percent) and cleaning, building service, and laundry jobs (18 percent) in the health care sector. In 1999, blacks comprised nearly a third (almost 32 percent) of persons working in health service occupations.[4]

Inadequate income carries over into other aspects of daily life that impinge upon health. These include exposure to inadequate housing (which may increase exposure to communicable diseases, lead poisoning, and other harmful environmental agents), improper nutrition, chronic stress from constantly struggling to make ends meet with inadequate resources, dangerous jobs, violence, and reduced access to medical care (which leads to the receipt of little or no preventive medical care).[176] Malnutrition in young black girls may later result in low-birthweight babies and high infant mortality rates when these girls become mothers. Low-weight births are related to the intergenerational effects of the growth and development of a mother from her prebirth to childhood, which may in turn influence the intrauterine growth of her child. Studies have shown that the birthweight and early health of a mother can be greater predictors of subsequent low-weight births than socioeconomic status or early prenatal care.[177] Mothers who themselves had low weight

at birth are more likely to give birth to low-weight infants. Even achieving higher socioeconomic status intergenerationally does not completely mitigate that effect, so that a black middle-class mother may be giving birth to an infant whose health is markedly determined by the poverty of not only the mother, but the mother's mother.[178] An ongoing cohort study of middle-class black women that suggests an improvement in the incidence of low birthweights among infants born to subsequent generations of these women supports this explanation.[179]

The stresses of constantly struggling to make ends meet also may translate directly into the finding that blacks living below the poverty level, many of whom work, have the highest rate of depression for any racial/ethnic group.[154] Dangerous or hazardous jobs may disproportionately expose blacks to certain cancers.[180] Black women are more likely than white women—but equally or less likely than Latino women—to work in hazardous jobs. Hazards in their living environments also detract from the health of black Americans. One of the first major studies to link race with environmental hazards was a 1983 study by the U.S. General Accounting Office (now called the Government Accountability Office) that found that three of the four hazardous waste landfills in the Southeast were located in predominantly poor or black areas.[181] A 1992 report by the Environmental Equity Workgroup at the Environmental Protection Agency found that blacks suffer higher rates of lung cancer and chronic obstructive pulmonary disease and that blacks have greater exposure to poor air quality in the environments in which they live and work. This report, however, did not make a causal connection between these findings.[182]

African American mothers are more likely than white mothers to live in areas with high levels of air pollution (measured by levels of the pollutants ozone, carbon monoxide, nitrogen dioxide, and sulfur dioxide), regardless of educational status, age, region of the country, or marital status.[183] Exposure to environmental lead (via air, water, soil/dust, and food) and the prevalence of elevated lead levels in the blood (greater than 10 g/dl) also are much more common among non-Hispanic blacks than non-Hispanic whites (though about equally as common as among Mexican Americans). This holds true for black adults as well as for black children, and higher blood levels of lead were found to be associated with higher blood pressure levels among blacks.[184] In the period 1999–2002, 1.4 percent of non-Hispanic blacks and 1.5 percent of Mexican Americans of all ages had elevated blood lead levels, compared to 0.5 percent of non-Hispanic whites. However, black children were much more likely than children of other racial/ethnic groups to have elevated blood lead levels—3.1 percent of non-Hispanic black children ages 1 to 5 years, compared to 2.0 percent and 1.3 percent of Mexican American and non-Hispanic white children, respectively, in that age cohort. Encouragingly, though, the rate of elevated blood lead levels among non-Hispanic black children has decreased since the period 1991–1994, when 11.2 percent of non-Hispanic black children ages 1 to 5 years had elevated levels.[185]

Exposure to hazards in the work and living environments suggests that black Americans might have a greater need than other groups for preventive health care. Although African American men are less likely than African American women to make use of preventive health services, black women are no less likely than women of other racial/ethnic groups to receive preventive health care.[186,187] Black women receive Pap tests, mammograms, cholesterol screenings, and blood pressure screenings at about the same or higher frequencies than white women and women of other racial/ethnic groups.[187] In 2000, African American women were more likely than women of all other racial/ethnic groups to report a recent Pap smear. They were more likely than Hispanic, Asian, and American Indian and Alaska Native women to report recent mammograms and slightly less likely than non-Hispanic white women to report recent mammograms. African American women of different ages, however, vary in their likelihood of getting preventive screenings. For example (also in 2000) 78 percent of African American women ages 50 to 64 years reported having had a mammogram in the past two years, compared to 66 percent of their counterparts ages 65 years and older.[41]

Despite this similar use of preventive screenings, if diagnosed with breast cancer, African American women often face a worse prognosis than white women. Significantly fewer black than white women survive 5 years after diagnosis with breast cancer (75 versus 89 percent, respectively).[188] Black breast cancer patients tend to be diagnosed at a more advanced stage than either Hispanic or white breast cancer patients.[189] A greater incidence of more aggressive tumors could result in a later stage at diagnosis and the poorer survival rates that make breast cancer a disease with lower incidence but higher mortality among black than white women. Several factors have been identified as barriers to diagnosis, care, and treatment, including:

poor access to health care services, lack of education and knowledge about cancer prevention and screening, mistrust of the health care system, fear and fatalism concerning treatment, and dealing with other competing priorities, such as food, shelter, and safety.[190]

Racial discrimination and racism have remained significant operative factors in the health and health care of blacks over time. From as early as 1867, black spokespersons concluded that racism was a major contributor to the poor health of black Americans in two significant ways. First, "structural racism" creates barriers to getting access to adequate care, and, second, dealing with both structural barriers and racial insults may contribute to stress-related health problems such as pregnancy-induced hypertension among black women and long-term elevation of blood pressure levels.[191,192] Stress related to racism also may underlie the overeating and resultant obesity common in black women and may be associated with their twofold prevalence of diabetes relative to white women and their 50 percent greater prevalence of hypertension relative to white women.[41,193–195]

Stress related to racism has been linked to the high rates of high blood pressure in blacks.[196] "John Henryism," defined as the behavioral predisposition to work hard and strive determinedly against the constraints of one's environment, has been advanced as one explanation for the black–white differences in hypertension rates.[197,198] Working hard and striving determinedly against racism often results in higher rates of hypertension among blacks because the constraint does not yield to the effort applied. Other research suggests that blood pressure becomes elevated among blacks in connection with perceived racial discrimination at work, in reaction to movie scenes depicting angry and racist confrontations, and when discussing topics related to racism.[199] An analysis of the relationship between self-reported experiences of racial discrimination and blood pressure among black men and women indicates that blood pressure is lower among those who reported they challenged unfair treatment and expressed anger than among those who accepted racial discrimination as an unalterable part of the fabric of U.S. society and inhibited their anger.[199–201]

Another response to racism that affects the health of black women is the internalized rage of black men, which too often is redirected as anger and violent behavior against black women.[202] This violence has resulted in the highest reported spousal or ex-spousal homicide rate among black women—more than 3 per 100,000 in 2002. Deaths among black women due to boyfriend violence are even higher, with a rate of more than 4 per 100,000 in 2002.[203] Another statistic that may reflect the internalized rage of African American men directed at African American women is the pregnancy-associated homicide ratio. Using U.S. data for 1991 through 1999, a pregnancy-associated homicide ratio of 1.7 deaths per 100,000 live births was calculated.[204] The ratio for black women (6.4), however, was more than seven times the ratio for white women (0.9) during that period.

Racism even influences the response of black women to domestic violence. They often will not acknowledge this gendered violence as a way to counter the negative stereotypes of African American men.[20] This frequently translates, however, into their unwillingness to call police for fear that the police will brutalize the men who have battered them. Social pressure on black women to not report intimate partner violence may be especially intense if the abusive partners hold positions such as police officers or pastors, which are considered prominent within African American communities. African Caribbean women are noted to fall prey to similar abuses and unwillingness to report the same, believing that the consequences of leaving the abusing partner (i.e., ineligibility for public assistance, deportation) outweigh those of staying.[20]

Racial discrimination has limited the access of blacks to higher incomes, improved health care, adequate housing, and better education—all of which are necessary to achieve modern levels of health and mortality. The relegation of African Americans to segregated neighborhoods, often with concentrated poverty in many urban areas, is associated with limited access to healthy food options. Recent research in Detroit and Los Angeles also provides clear evidence that poverty and race both limit access to healthful nutrition for African Americans.[205,206]

Another example of what may be a psychophysiological response to racism is pregnancy outcome. Although socioeconomic status has been linked to differences in birth outcomes, socioeconomic status does not fully account for the disparity in infant mortality rates between black and white women. Black women of higher socioeconomic status have been found to have higher infant mortality rates than white women of lower socioeconomic status.[207] Mortality rates for infants born to black mothers with 13 or more years of education (from 1999 to 2001) were nearly three times the rates among infants born to white mothers with 13 or more years of education.[41] This excess mortality was due primarily to higher rates of death associated with premature delivery and low birthweights of black babies.[208] An additional difference between pregnancy outcomes

for black and white women is the fact that as black women age from adolescence to the early 40s, they are more likely to give birth to infants with either low birthweight or very low birthweight. This "weathering" effect is not noted in white women and may be evidence of the physiological response by black women to cumulative stressors such as racism, discrimination, and socioeconomic disadvantage.[209,210]

Although black women are more likely than white women to delay receiving prenatal care and are less likely to receive prenatal care at all, differences in the use of prenatal care and other differences during pregnancy do not fully account for disparities between black and white women in the incidence of births of infants with low and very-low weights.[207] Even when beginning prenatal care in the first trimester, black women still give birth to low-birthweight babies at a rate two times that among white women.[211] Other factors such as the frequency of short intervals between pregnancies and stresses associated with the relationship with the father also have been associated with the greater incidence of low-weight infants born to black women.[212] The presence of a significant other in the delivery room has been associated with a reduced likelihood of the birth of a very-low-weight infant to an African American woman.[213] However, young age, high numbers of previous pregnancies, and lower education levels are factors that may confound this disparity, for which a complete explanation is yet to be provided.

Immigrant black couples, when compared to native black couples, have a lower incidence of low-birthweight babies. This is true even after controlling for educational attainment. The rate of low-birthweight babies born to black immigrant women is lower than the rate among black native women for all educational levels (including fewer than 12 years of education, 12 years of education, 13 to 15 years of education, and 16 or more years of education). In fact, the rate of low-birthweight babies born to black immigrant women with fewer than 12 years of education is lower than the rate of low-birthweight babies born to native-born black women with 16 or more years of education. The incidence of low-birthweight babies among immigrant blacks is similar to that among white couples.[214] Black babies born in metropolitan areas with higher levels of residential segregation have higher rates of infant mortality than their counterparts born in less segregated areas, another suggestive finding that does not fully explain the differential incidence.[215] A study found that Somali immigrant women, many of whom are refugees from the Somali civil war of the 1990s, are less likely to deliver low-birthweight infants than either U.S.-born black women or U.S.-born white women. Somali immigrant women are also 9 times more likely than U.S.-born women to deliver postdate infants (born at or after a gestational age of 42 weeks), whereas U.S.-born black women are more likely to deliver infants prematurely.[216]

Significant disparities between black and white mothers also exist in regards to maternal mortality. Black women face a higher risk of pregnancy-related mortality, regardless of age, marital status, or the timing of prenatal care initiation during their pregnancy.[217] In 2002, black mothers were nearly five times as likely to die from pregnancy complications as white mothers; the mortality rate due to pregnancy complications for black mothers was also nearly four times the rate for Hispanic mothers.[41]

The experience of treating HIV/AIDS also is different for most whites than for people of color and the poor.[218] In particular, delays in seeking medical care, differences in preexisting health, and differences in drugs administered as treatment result in shorter survival times for blacks after diagnosis with AIDS. Eighty-nine percent of blacks survive for 12 months or more, compared to 92 percent of whites. The difference is even greater for survival rates of 36 months or more—80 percent of blacks and 86 percent of whites survive 36 or more months after being diagnosed with AIDS.[149] A recent study found that after controlling for differences in diagnosed health and drug therapy, blacks are 20 percent more likely to die from HIV/AIDS than whites.[219]

Women represent a growing share of the cases of AIDS reported in the United States, and African American women account for the majority of these. During 2004, more than one-fourth (27 percent) of all diagnosed cases of AIDS were reported among women, a somewhat larger share than the more than 19 percent of all AIDS cases reported by women from 1985 through the end of 2004. Black women reported the greatest number of cases of AIDS among women, both cumulatively since 1985 (102,107 cases) and during 2004 (7,586 cases). (Over these same periods, 34,677 cases and 1,972 cases, respectively, were reported among white women.) Sixty-four percent of all cases of AIDS reported among women during 2004 and nearly 60 percent of all ever-reported cases of AIDS among women were among black women.[149] Consistent with their high incidence of the disease, African American women are more likely than other women to die from AIDS. In 2002, AIDS was the leading cause of death for black women ages 25 to 44 and the third leading cause of death for black women ages 35 to 44.[220]

A majority of black women (52 percent) who were infected with HIV, the human immunodeficiency virus that causes AIDS, in 2004 could not or did not identify the source of their infection. Heterosexual contact (39 percent of cases) was the major reported source of HIV infection, followed by intravenous drug use (9 percent). Intravenous drug use was indicated as the cause of HIV infection for 14 percent of all cases ever reported (1985 through 2004) among black women, while heterosexual contact was indicated as the cause of infection for 45 percent of all cases ever reported among black women. This dual pattern among causes of transmission is the same for women of all racial/ethnic groups, although among American Indian or Alaska Native women, intravenous drug use was much more common as a cause of HIV infection. Cumulatively, 28 percent of all cases of HIV infection ever reported among American Indian or Alaska Native women are attributed to intravenous drug use and 45 percent to heterosexual contact.[149]

In light of these facts, it is surprising that less than half (43 percent) of African Americans surveyed in 2004 were very concerned about becoming infected with HIV. Twenty-four percent were not at all concerned about being infected. This lack of personal concern, however, coexisted with the findings that 66 percent of African American parents were very concerned about their children (ages 21 and younger) becoming infected with HIV. Additionally, nearly two-thirds (64 percent) of African Americans knew someone who had AIDS, had died of AIDS, or who tested positive for HIV infection. Two-thirds (67 percent) of African Americans reported having ever been tested for HIV infection.[221]

The prevalence of conspiracy beliefs and the lack of trust in the ability of the government to stop the epidemic are two key factors in the treatment disparities, the rapid transmission of, and the reported awareness about and perspectives on HIV/AIDS in the African American community. Much of this distrust is related to the legacy of slavery and discrimination towards blacks in the United States, including the infamous Tuskegee syphilis experiment.[222] More than 56 percent of the black women surveyed in a recent poll said they believed the government was holding back information regarding HIV/AIDS.[223] Nearly 14 percent of black women believed that AIDS was created by the government to control black people. A majority (nearly 52.5 percent) agreed with the statement "there is a cure for AIDS, but it is being withheld from the poor." Only 36.5 percent of the women agreed that "the medicines used to treat HIV are saving lives in the black community," and 43.6 percent believed that "people who take the new medicines for HIV are human guinea pigs for the government."[223]

These opinions are consistent with another finding that African Americans are less likely than whites or Hispanics to believe that progress is being made in the United States regarding the problem of HIV/AIDS. A majority of African Americans (56 percent) believe the United States is losing ground in the fight, compared to 33 percent of Hispanics and 30 percent of whites. Only 32 percent of African Americans believe progress is being made.[221]

A complex set of historical and contemporary factors (including racism, poverty, and segregation) interacts to create the life experiences and exposures of black or African Americans. These exposures are often to pollutants that make them ill and to stresses that do the same. Although the greatest amount of health-related research and data about any population of color exists for African Americans, being the most studied racial/ethnic population has not translated into their being the healthiest despite the nearly 400 years of Africans (and their descendants) in America.

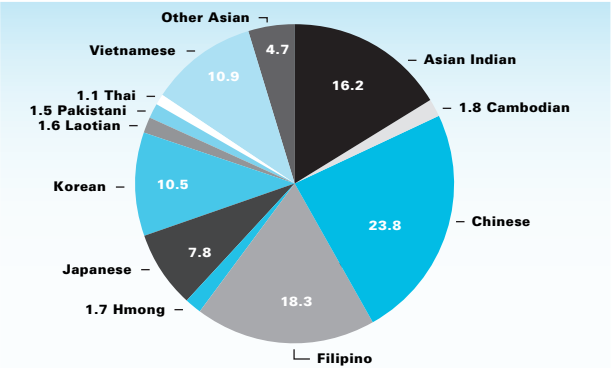
Asian Americans

Although health issues for Asian Americans and Pacific Islander Americans often are analyzed jointly, in this fact book, whenever possible, the groups are separated. In accordance with OMB Directive 15, factors related to the health of Pacific Islanders are discussed along with those for Native Hawaiians.[6] (See section on Native Hawaiians or Other Pacific Islanders.) Asian populations are discussed together here. An effort has been made throughout to disaggregate data about Asians from data about Pacific Islanders and to present findings for the groups separately. Aggregate statistics for Asians and Pacific Islanders are provided, however, when they are the only or the best data available.

Asian Americans have immigrated to the United States from more than 20 countries, such as China, India, Japan, the Philippines, Korea, Laos, Cambodia, Vietnam, and Thailand. Speaking more than 100 different languages, they and their descendants born in the United States represent more than 60 different ethnicities.[224] In the 2000 Census, the largest subpopulations who indicated that they belonged to only one racial group that was Asian were (in descending order) persons of Chinese, Filipino, Asian Indian, Korean, Vietnamese, and Japanese ancestry.[63]

In 1970, when Asians and Pacific Islanders were totaled together, this population (both males and females) was 1.5 million with Asians the overwhelm-

FIGURE 3
Asian American* Population by Subgroup, 2000
Percent



*Based on populations who identified themselves as Asian alone in Census 2000

Source: Bureau of the Census (Current Population Survey, March 2002, Ethnic and Hispanic Statistics Branch, Poulation Division). Table 1.2: Population by Sex, Age, and Hispanic Origin Type: March 2002.

ing majority of the total. The 1990 Census counted 7.2 million Asians and Pacific Islanders, with Asians totaling more than 6.9 million (96 percent). While more than 10 million Americans selected an Asian race as their only designation in the 2000 Census, an additional 1.6 million people indicated that their race was Asian along with another racial background.[2] Asians were more than 3 percent of the total U.S. population and about 15 percent of all people of color (who designated a single race category in 2000).[2] Asian women are 12.6 percent of all women of color and 52 percent of all Asian Americans.[5] In 2004, the Census Bureau estimated that 12.3 million Americans were Asian alone, including 6.4 million women (nearly 52 percent of all Asian Americans).[1]

The majority of Asian Americans—more than 91 percent—reside in metropolitan centers.[123] New York, Los Angeles, San Jose, San Francisco, and Honolulu were the five cities with the largest Asian populations in 2000. Sixty-two percent of the population of Honolulu county, Hawaii, is Asian.[225] The states with the largest estimated shares of Asians in 2000 were California, New York, and Hawaii. More than half of all Asians live in these three states, while large shares also live in Texas, New Jersey, Illinois, and Washington. Among all the states, Asians constitute the largest proportion of the population of Hawaii—58 percent.[225] However, in 2000, California was home to half of the Filipinos, two-fifths of the Chinese and Vietnamese, more than one-third of the Japanese, almost a third of the Koreans, and nearly one-fifth of the Asian Indians in the United States.[17]

When growth of the Asian populations by state is examined between 1990 and 2000 (comparing the Asian population in 1990 with the population of Asians alone in 2000), the five states with the largest increases were Nevada (156 percent), Georgia (135 percent), North Carolina (128 percent), Minnesota (84 percent), and Nebraska (84 percent). Only one of these states (Nevada) is near the West Coast, while the other states are not traditionally considered homes for large numbers of Asians.[225] Despite this recent pattern of state increases, nearly half (49 percent) of the Asian population resides in the Western region of the United States.[225]

A large share of the growth in the Asian population can be attributed to recent immigration.[226] In 2000, more than two of every three Asians (71 percent) in California were foreign-born, as were more than three of every four Asian Indians, Vietnamese, and Koreans in the United States.[17,227] Asians comprised 26 percent of the United States' foreign-born population in 2000 and an estimated 25 percent in 2003.[228,229] These immigrants came mainly from China, the Philippines, India, Vietnam, and Korea.[36] In 2000, among the foreign-born, Asians were second only to Europeans in the number of naturalized U.S. citizens.[230] Also, among the foreign-born in the United States, Asians reported the highest median household incomes.[231]

Major Subpopulations

The varied histories of the many Asian subpopulations who have immigrated to the United States contribute to the wide, bipolar distribution in their socioeconomic positions and health. Most Asian immigrants have come to the United States since 1965, with the passage of the 1965 Immigration Act that discouraged systematic discrimination against Asians and promoted family reunification. In 1965, Asians constituted 7 percent of immigrants, but by 1970, they made up nearly 25 percent of immigrants to the United States.[232]

Chinese immigration to this country, however, dates back to the late 1700s, when small numbers of Chinese came on trade and educational missions. Beginning in the mid-1800s with the decline of the African slave trade and the discovery of gold, Chinese immigration increased rapidly as waves of mostly male Chinese were brought to the United States as cheap, docile laborers to work in the mines and on the railroads in the Western states.[233] This new servant class became the new "negro" for the white majority and was even referred to as "nagurs" by some.[232] Later labeled the "yellow peril," or disease-ridden and heathen, the Chinese were barred from entering the United States on the basis of race alone by the Chinese Exclusion Act of 1882.[224] In

addition, Chinese wives of laborers were barred from entering the United States in 1884.[234] The National Origins Act (a.k.a. Oriental Exclusion Act) of 1924 sharply halted further Chinese immigration until the 1940s, when immigration restrictions began to relax in recognition of China's role as an ally to the United States during World War II. The Immigration Act of 1965 paved the way for increased immigration, and in 1981, the act was amended so that additional Chinese were allowed to emigrate to the United States.[235]

Between 1980 and 1990 alone, the Chinese American population doubled, mostly due to immigration. In 1990, more than 1.6 million persons of Chinese descent resided in the United States and constituted 23 percent of the Asian American population.[236] By 2000, this number had risen to 2.4 million who identified themselves as Chinese only, comprising nearly a quarter (about 24 percent) of all Asian Americans.[63] In 2003, the number was estimated as 2.7 million, about 24 percent of the Asian American population.[237] Today, 71 percent of all Chinese Americans are foreign-born.[227] In addition, only 10 percent of Chinese mothers who gave birth in 2002 had been born in the 50 U.S. states or the District of Columbia.[110] Although Chinese Americans live throughout the United States, the largest concentrations are in California (nearly 980,000) and in New York state (more than 420,000).[17]

The second largest Asian American population in the United States is Filipino Americans.[227] Some Filipinos define themselves by the "braiding of cultures" they represent—Asian, Spanish, American, African, and Pacific Islander.[224] Beginning in 1892 with the ceding of the Philippines to the United States following Spain's loss in the Spanish-American War, Filipinos have migrated to both Hawaii and the mainland United States in several waves. Between 1906 and 1934, a wave of Filipinos came to the United States, mainly Hawaii, where they worked on sugar plantations.[235] The 1920s was a decade of dramatic increase in the number of Filipino migrants to the United States, with some 45,000 migrating to the Pacific Coast, mainly as agricultural workers. They filled labor shortages on farms and in canneries on the West Coast that had resulted because of the exclusion of Chinese, Japanese, Koreans, and other Asians by the 1921 and 1924 immigration acts.[224] Yet another wave migrated after World War II to work in agriculture in Hawaii and on the mainland United States.[235]

The current wave of Filipino immigrants—consisting of fewer single men, more family groups, and more highly educated people—began after 1965 and continues today.[238] Nearly 68 percent of Filipino Americans are foreign-born.[227] The Filipino population of the United States increased 81 percent between 1980 and 1990 and the population has continued to grow since then. In 1990, Filipino Americans numbered 1.4 million and were 19 percent of Asian Americans.[236] According to Census 2000, more than 1.8 million people—18 percent of the Asian American population—were of solely Filipino ancestry.[227]

Asian Indians are now the third largest Asian American group. In recent years, their population doubled, from more than 800,000 in 1990 (11 percent of all Asian Americans then) to more than 1.6 million in 2000 (more than 16 percent of all Asian Americans at that time).[63] The largest share (nearly 550,000) of Asian Indians lives in the Northeastern region of United States, although more than 300,000 live in California alone. New York state is home to the second largest number (more than 250,000) of Asian Indians.[17] Most Asian Indians immigrants (82 percent) have migrated to the United States since 1980.[227] Asian Indians are one of the most diverse populations of Asian Americans in terms of education level, socioeconomic status, language, diet, and religion.[239]

Korean Americans, one of the most homogeneous Asian populations in terms of language, ethnicity, and culture, also are one of the fastest growing Asian populations in the United States.[240] Their numbers increased more than tenfold between 1970 (70,000 people) and 1990 (800,000), and by a quarter between 1990 and 2000 (more than 1 million) to make Korean Americans almost 11 percent of the total U.S. Asian population at the turn of the century.[63,236,241] Korean Americans migrated to the United States in response to unstable conditions such as drought, famine, and epidemics in their homeland in the late 1800s and early 1900s, which sent them to Hawaii and the US mainland primarily as contract laborers.[242] The first group of official Korean immigrants came to Hawaii in 1903 to work as laborers on sugar plantations.[243] Within the next few years, more than 7,000 additional Korean immigrants, mostly men, followed them to Hawaii to work on the plantations. The Gentlemen's Agreement allowed some Korean women to immigrate to join their husbands, along with "picture brides" who immigrated to marry men they had met only through the exchange of photographs. The second major wave of migration resulted from the United States-Korean interaction during the Korean War (e.g., wives of servicemen; orphans adopted by Americans). The third and largest wave of immigration followed the 1965 Immigration Act and continued through the 1980s.[244]

The Korean population of the United States more than doubled between 1980 and 1990, with most of the growth due to immigration; in 1990, more than 80 percent of all Korean Americans were foreign-born.[234] In 2000, roughly the same proportion (nearly 78 percent) of all Korean Americans was foreign-born.[227] Post-1965 Korean immigrants tended to come to the United States as families. Many of the immigrants were well educated but were unable to find employment in the United States, sometimes due to their lack of fluency in English, and opened small businesses instead.[244]

Japanese Americans are the only Asian population with primarily one immigration period (1880–1924) and with little subsequent immigration.[234] Immigration from Japan to both Hawaii and the mainland United States occurred in large numbers between 1890 and 1908, mostly by Japanese men attracted to the American Gold Rush. After 1908, with the enactment of the Gentlemen's Agreement, the wives, children, and parents of those male immigrants were allowed to immigrate to the United States, but further immigration by laborers was halted.[245] The Immigration Act, however, barred Japanese and other Asians from entering the United States after 1924 and contributed to the marked distinctions between the first-generation Japanese Americans (Issei) and second (Nisei) and subsequent generations.[245] Because first-generation Japanese Americans, many of whom were relocated and interned in prison camps in the United States during World War II, migrated to the United States when Japan had a single language without significant dialects, they have a stronger sense of Japanese nationalism than the immigrants constituting later generations. The Nisei, the first American-born generation of Japanese, on the other hand, became highly acculturated to U.S. society as a reaction to other Americans questioning their loyalty during World War II and thus identify less with Japanese nationalism.[246]

In 1990, a total of 847,562 Japanese Americans lived in the United States.[234] By 2000, the Japanese American population had declined in number to 795,051 (nearly 8 percent of all Asian Americans). The majority resided in California (289,155 people) and Hawaii (200,364 people).[17] More than 60 percent of all Japanese Americans were born in the United States, making them one of the most acculturated Asian populations, with a stable middle class composed largely of white collar workers and professionals.[227,234]

Southeast Asians began to migrate to the United States primarily after 1975, as the conflicts in that region in Cambodia, Laos, and Vietnam were winding down. The majority of refugees of these conflicts to come to the United States were Vietnamese, about 131,000 of whom left their homeland in 1975 with the fall of Saigon. Beginning in 1978, substantial numbers of Vietnamese refugees known as "boat people" began entering the United States.[247] Many Hmong (an indigenous migrant hill tribe native to southern China and Southeast Asia) also migrated to the United States following the end of the Vietnam War. Hmong soldiers had helped the U.S. Central Intelligence Agency wage a secret war in Laos from 1961 to 1973, and when the Lao coalition government fell and American forces withdrew from Laos, thousands of Hmong were forced to flee for their lives. Many fled to refugee camps in Thailand to avoid the ruling Communists in Laos, who sought to eliminate the Hmong in retaliation for opposition during the war. The Hmong were then given refugee status in the United States, and many resettled in large enclaves in California, Wisconsin, and Minnesota.[248]

The earlier waves of refugees during the post-1975 period generally were better educated and wealthier than later arrivals, many of whom—especially Hmong and Laotians—were poor, illiterate, and not at all used to Western culture at the time of their resettlement. The trauma of dislocation and resettlement is related to many of the health problems of these Asian subpopulations, including posttraumatic stress disorder.[246] Although many of the younger Southeast Asian refugees adequately adapted to their new homeland with the passage of time, older, middle-aged, and elderly refugees sometimes experienced social and emotional turmoil 10 to 15 years after their arrival, when they were likely no longer to be sheltered by younger family members.[246]

Compared to 32 percent of all foreign-born Asians, nearly 74 percent of foreign-born Cambodians, nearly 66 percent of foreign-born Laotians, and more than 46 percent of foreign-born Hmong entered the United States between 1980 and 1989.[227] About 615,000 Vietnamese, 149,000 Laotians, 147,000 Cambodians, and more than 90,000 Hmong resided in the United States in 1990.[249] According to Census 2000, the Vietnamese population alone numbered more than 1.1 million, in addition to more than 178,000 Cambodians, more than 170,000 Hmong, and nearly 168,000 Laotians. More Southeast Asians live in Western states than in any other region, led by the 40 percent of Vietnamese and the 40 percent of Cambodians living in California.[17]

Factors Affecting Health

In 1966, the "model minority" image replaced the negative stereotypes of Chinese and other Asian Americans

in the United States. Coming shortly after the 1965 Watts riots in Los Angeles, this labeling is viewed by some as an attempt to provide proof that the U.S. social system does work for people of color.[224,232,250] This "model minority" stereotype, however well-intentioned, has direct implications for the health and economic status of Asian Americans. It tends to trivialize the health problems of Asians, suggesting that they can take care of these problems on their own, and overlooks the diversity among Asians and the problems faced by some of the newest immigrants.[251]

The health problems of Asian Americans are worsened by a complex set of cultural, linguistic, structural, and financial barriers to care. In 2000, a language other than English was spoken at home by 79 percent of Asian Americans, compared to 18 percent among the total U.S. population.[227] More than two-thirds (69 percent) of Asian Americans are foreign-born, and, in 2002, only 17 percent of all Asian and Pacific Islander mothers who gave birth in the United States had themselves been born in the United States.[110,227] If residing illegally in the United States, Asian Americans may not seek medical care for fear that this would expose their illegal status and result in deportation. Fifty-nine percent of all Asian and Pacific Islander women were in the labor force in 2002, with 37 percent in managerial or professional occupations. More than 33 percent of Asian and Pacific Islander females had technical, sales, or administrative support occupations, while an additional 17 percent had service occupations.[252]

In 2002, poverty rates were generally low for Asians and Pacific Islanders. Only 10 percent of all individuals who identify themselves as Asians and Pacific Islanders, 7 percent of households headed by Asian and Pacific Islander married couples, and 15 percent of households headed by Asian and Pacific Islander females (with no husband present) reported incomes below the poverty level.[252] These averages, however, mask considerable variation among subpopulations. For example, the percent of the population below the poverty level ranged from a low of 6 percent among Filipino Americans to a high of 38 percent among Hmong in 1999 (compared to about 12 percent for the entire U.S. population). A relatively high proportion of Cambodian Americans also reported poverty-level incomes (29 percent).[227] The proportion of Vietnamese Americans reporting incomes below the poverty level in 1999 (16 percent) had decreased from 1990, when 24 percent of Vietnamese Americans lived in poverty. The poverty rate among Laotian Americans decreased significantly, from 66 percent in 1990 to 19 percent in 1999, while the poverty rate among Asian Indians increased from 7 percent to 10 percent during that same period of time.[227,253,254]

Both household and individual incomes for Asian Americans support the finding of disparate poverty rates among the subpopulations. In 1979, Asian Americans had average household income of $6,900, less than the U.S. average of $7,400. At that time, only Indonesian, Chinese, and Japanese Americans had average per capita incomes above the U.S. average.[249] In 1989, the median family income for Asians and Pacific Islanders was $35,900 (higher than the $35,000 median family income for non-Hispanic white Americans), and 37 percent of all Asian and Pacific Islander American households had annual incomes of at least $50,000. At that same time, more than 5 percent of Asian and Pacific Islander households had incomes of less than $5,000, and nearly 12 percent had incomes of less than $10,000.[255]

In 1999, the median family income for Asian Americans was $59,324.[227] By 2002, the estimated median family income for Asians had increased to $63,883, considerably higher than $55,938, the median family income for whites that same year.[172] Forty percent of Asian and Pacific Islander families had incomes of at least $75,000 in 2001.[252]

The employment status of Southeast Asian immigrants improved dramatically between 1980 and 2000. In 2000, although the unemployment rates among the Hmong (5.4 percent), Cambodians (4.8 percent), and Laotians (4.7 percent) exceeded the U.S. average (3.7 percent), these rates were considerably lower than in 1980. In 1980, unemployment rates for these groups were 20 percent (Hmong), 11 percent (Cambodians), and 15 percent (Laotians). [17,249]

Health insurance coverage varies among Asian American women, as do employment and income levels. Eighty-one percent of all Asian women and 97 percent of Asian women ages 65 years and older reported having some type of health insurance coverage in 2003.[256] More than 10 percent of Asian women reported Medicaid coverage and nearly 10 percent reported Medicare coverage. Nearly two-thirds (66 percent) of Asian and Pacific Islander women had private health insurance.

Despite high rates of coverage in general, selected populations lack health insurance, and this lack of health insurance causes some Asian American women to become frequent users of hospital emergency rooms. Among all U.S. Asian populations, almost 19 percent were without health insurance in 2003.[35] When examining the lack of health insurance coverage by ethnic

subgroup, however, the proportions uninsured range from a low of 8 percent among third generation and higher Asian and Pacific Islander Americans, to a high of 34 percent among Koreans, and 27 percent among Southeast Asians. Koreans and Southeast Asians were also the least likely to have health insurance coverage through their employers (48 and 49 percent, respectively). However, Koreans also were the subpopulation most likely to have privately purchased insurance coverage (14 percent). Southeast Asians were the group most likely to have Medicaid coverage (18 percent) during 1997, a marked decline from the more than two-fifths (41 percent) reporting this coverage in 1994. This decline is doubtless associated with the severing of the link between welfare recipiency and Medicaid eligibility when the AFDC (Aid to Families with Dependent Children) welfare program was reformed into the TANF (Temporary Assistance for Needy Families) welfare program in 1996. Medicaid enrollment dropped during this period for all populations.[257] However, although all Asian and other racial/ethnic subgroups witnessed a decline in Medicaid coverage between 1994 and 1997, Southeast Asians experienced the most precipitous decline.[24]

One study of Korean American residents in Los Angeles County in 1999 found that 49 percent of those under 65 years of age and 24 percent of those 65 years of age and older had no health insurance.[258] Among Asian ethnic groups in California, Koreans are most likely to be uninsured (45 percent). This is higher than the uninsured rate among Hispanics or Latinos (36 percent), the ethnic group most likely to be uninsured in California. Vietnamese and Chinese residents of California also have high rates of uninsurance (29 percent and 28 percent, respectively). Overall, 23 percent of Asian and Pacific Islanders in California are uninsured. However, the uninsured rate among Asian and Pacific Islanders in California who have lived in the United States for three or more generations (and are therefore more acculturated) is 15 percent.[259] Thus, acculturation seems to be associated with greater likelihood of health insurance coverage for Asian Americans.

Although Asian American women overall exhibit healthful lifestyle behaviors, such as a lower smoking prevalence (10 percent) than all American women (16 percent), there is variation by subpopulation in both healthful behaviors and the prevalence of illness.[37] For example, in one California study, 8 percent of all Asian women were found to be current smokers, including 6 percent of Chinese women and nearly 11 percent of Filipino women.[260] Even though Asian women smoke less than their female counterparts of other races, Asian men of some subgroups (for example, Cambodians and Vietnamese) have high smoking prevalences, exposing the females in their homes to noxious levels of second-hand smoke.[261] A survey of Asians in Pennsylvania and New Jersey found that 38 percent of those surveyed had been exposed to second-hand smoke in their homes during the last week, including 30 percent of Chinese, 42 percent of Korean, 44 percent of Cambodian, and 45 percent of Vietnamese respondents.[262]

The risk of hypertension also varies by subpopulation. In the 2001 California Health Interview Survey, 18 percent of all Asians reported having ever been diagnosed with hypertension. Hypertension was more of a problem for Japanese (28 percent) than for Filipinos (22 percent), Koreans (18 percent), Vietnamese (17 percent), Chinese (16 percent), or South Asians (11 percent). In the same survey, 22 percent of all Californians reported having ever been diagnosed with hypertension.[263]

Other conditions, such as tuberculosis, are more common among Asian populations than among other racial/ethnic groups. The prevalence of tuberculosis among Asian Americans, the highest among all groups, was nearly 21 times that for white non-Hispanic Americans in 2004. This higher prevalence is due primarily to the facts that a larger percentage of Asian Americans than other racial/ethnic groups is foreign-born and that foreign-born Americans have much higher tuberculosis rates than native-born Americans—nearly 9 times as much.[264,265]

The lack of knowledge of risk factors or preventive behaviors for various diseases also is a problem for Asian Americans. One study of Vietnamese women in San Francisco revealed that although 96 percent of the women had heard of cancer, they did not know risk factors, common symptoms, or signs of breast or cervical cancer.[266] In another survey of Vietnamese women in San Francisco, 73 percent of women reported that they had never heard of a Pap test, 49 percent had never heard of a clinical breast exam, and 32 percent had never heard of a mammogram. The lack of knowledge about cancer risk factors can result in the failure to conduct breast self-examinations or to get screening such as mammography or Pap smears to foster early detection of breast or cervical cancer.[266]

The failure of Asian women to get regular screenings relates not only to a lack of knowledge of risk factors but also to knowledge and beliefs about cancer. A study conducted in Philadelphia found that 71 percent of Cambodian American and Vietnamese American women did not know what cancer is.[267] One survey

of Vietnamese women in Seattle found that nearly two-fifths (39 percent) did not believe that cervical cancer is curable, even if detected early.[268] More than one-third (35 percent) believed illness was "a matter of karma or fate." Cervical cancer, which is associated with infection by the human papillomavirus (HPV), disproportionately affects certain Asian women. Fewer than one-fourth (23 percent) thought Vietnamese women were more likely to get cervical cancer than white women, although Vietnamese women have one of the highest incidences of invasive cervical cancer of racial/ethnic subgroups in the United States (43 per 100,000).[268,269] The incidence of invasive cervical cancer among Korean American women exceeds 15 per 100,000.[270] Cervical cancer is the most frequently occurring type of cancer among Laotian women in California, and it is the second most common cancer among Cambodian women in California.[267]

Despite these high incidence rates, Asian women often do not avail themselves of screening with a Pap smear, which can detect cervical cancer at an early treatable stage. In a survey of Vietnamese women in Seattle, only 62 percent believed that regular Pap smear tests could reduce the risk of cervical cancer, and only 61 percent believed cervical cancer was curable if caught early.[268] Combined with concerns about modesty, as well as concerns about pain and discomfort associated with this test, this lack of confidence in the importance of cervical cancer screening no doubt contributes to low testing rates. Only 62 percent of the women in the survey reported having had a Pap test in the past two years. Married Vietnamese women are much more likely than single, divorced, or widowed women to have had recent Pap smears. This may be related to the existing stigma in the Vietnamese culture against unmarried women who are sexually active.[268] Fewer Cambodian American women in Seattle—less than half (47 percent)—reported recently receiving a Pap test.[267]

Women belonging to other Asian subgroups and living in California report comparable Pap testing rates. Although 78 percent of Filipino American women reported receiving a Pap test in the preceding two years, smaller proportions of Chinese American (56 percent) and Korean women (65 percent) reported having had the procedure.[271]

Hmong women also have high cervical cancer incidence rates and, once diagnosed, are less likely to accept standard Western medical treatment for cervical cancer. For example, the rate among Hmong women in California during the period 1996–2000 was 33.7 per 100,000, a decrease from their rate of 50.5 per 100,000 during the period 1992–1995. However, the rate of 33.7 per 100,000 was still more than three times the rate among all Asian/Pacific Islander women and more than four times the rate among white non-Hispanic women during that time period. Most striking, though, was the difference in rates of first course treatment for cervical cancer. Whereas fewer than 6 percent of all Asian/Pacific Islander women and fewer than 5 percent of white non-Hispanic women declined first course treatment, 51 percent of Hmong women declined treatment. This difference is attributed to lower literacy and education rates, less access to health care, more linguistic and cultural isolation, and differences in beliefs surrounding treatments—namely, a greater focus among the Hmong on traditional healing rituals than on Western medicine.[272]

The reluctance of Cambodian and other Southeast Asian women to access health screening such as the Pap smear often relates to the traumas that resulted in their resettlement in the United States. Although experiences such as torture, starvation, rape, forced labor, and witnessing murder are shared by many refugees who have come to the United States, among recent waves of immigrants, Cambodians are thought to be the most traumatized by the turmoil in their homeland during the Khmer Rouge regime. "Ghosts of things over and done with" often assume a "seething presence" (of a lost child, a lost village, or a war remembered in detail) that presents itself and must be addressed during a clinical exam.[273] Ironically, in the case of Pap testing, the technology (applied via the use of a speculum) that is intended to relieve suffering instead very often invokes it.[274] Thus, the disparity in rates of cervical cancer between Cambodian (and other Southeast Asian) women and white non-Hispanic women is not only about the prevalence of a preventable disease within this population of women but also about colonial history, education, communist ideology, U.S. retaliation, and then relocation to the United States.

Mammography, another form of screening for early disease detection, is underused by Asian women. As with the Pap smear and cervical cancer, the failure to get mammograms is of particular concern because of the increase in breast cancer rates among Asian women (especially Chinese, Japanese, and Filipino) over time after their migration to the United States. Breast cancer rates among Asian women in their native countries are only 25 to 50 percent as high as those among Asian women in the United States. Within 10 years of immigration, however, breast cancer rates among Asian women increase to mirror the

higher overall rates in the United States.[275] Breast cancer is the most common cancer among Chinese, Filipino, Japanese, and Korean women, and the second most common cancer for Vietnamese women.[276]

Prenatal care is yet another form of preventive care that many Asian American women do not receive. This is due to a variety of cultural and socioeconomic factors, including lack of knowledge about its importance. Hmong women, for example, may not seek prenatal care because they do not consider pregnancy an illness that necessitates the use of Western medicine and care. However, studies suggest that when they are educated about prenatal care, Hmong women are likely to comply and seek out the recommended care. Even among Southeast Asian women who seek out care, further barriers arise. As suggested by their reluctance to get a Pap smear, the pelvic exam is often one such barrier. For some Hmong women, in particular, the pelvic exam may cause flashbacks to sexual assault and rapes they experienced in Laos or Thailand before immigrating to the United States. Traditional Hmong beliefs also hold that pelvic exams can expose infants to cold wind, which can then cause miscarriage or illness to the baby. Thus, education and cultural awareness are necessary to encourage Hmong women, and many other Asian American women, to receive prenatal care.[277]

Fear of difficulties in communicating—compounded by shame, guilt, anger, depression, and other responses to certain stigmatized conditions such as mental illnesses and substance abuse—often deter Asian Americans from seeking care promptly.[233] For example, many Chinese Americans will seek treatment for the physical symptoms resulting from depression or other mental health disorders but will not directly attribute those symptoms to their mental health origins, a phenomenon known as somatization. However, if properly prompted or asked directly, they will also report psychological factors and symptoms. This pattern of reporting symptoms could be due to a lack of awareness of mental disorders and of the possibility that symptoms have psychological rather than physical origins, or to a belief that health care providers are more interested in physical symptoms.[278] Some Cambodians perceive mental health problems as the result of evil spirits that must be warded off. Because of their religiosity, Korean Americans are likely to confuse hallucinations with spiritual voices and not seek care. They also are likely to self-medicate for conditions that may not respond to medication. Japanese Americans, however, are most concerned about who knows that they are in treatment and have canceled appointments for fear of running into someone who knows them when leaving a mental health care facility.[279]

The traumas due to war, leaving one's homeland, and resettling in another land often result in unique medical conditions, such as the psychosomatic or non-organic blindness reported among Cambodian women 40 years of age and older.[273] Cambodians have the highest levels of psychological stress of all Southeast Asian groups.[280] Depression and post-traumatic stress disorder are widely prevalent among Cambodians and other Southeast Asians, even after years of living in the United States.[233,281] Some immigrants, such as the Hmong, have been found to be particularly susceptible to developing substance abuse problems in the wake of their resettlement. Some use alcohol to alleviate insomnia, pain, and emotional stress. Opium use to cure physiological and psychological problems also has been reported. The use of alcohol and opium among the Hmong to cure medical problems may stem from their distrust of Western medicine. However, it also may be a result of cultural factors; it is apparently common for some Southeast Asian populations to attempt to cure medical problems through drug and alcohol use.[280] Although most of the Hmong treated for substance abuse are male, these problems of Hmong males affect the households in which the men live with their wives and other family members.

To compound their stresses and trauma, some poor Southeast Asian immigrants resettle in violent, inner-city environments in the United States.[246] A study of Cambodian refugees who resettled in California found that, post-migration, 34 percent had seen a dead body in their neighborhood, 28 percent had been robbed, 17 percent had been seriously threatened with a weapon, and 14 percent had experienced a serious accident in which someone was hurt or died.[282] Although psychological problems are often found among such resettled immigrants, depression is also found among Korean Americans, most of whom are recent immigrants but who migrated to the United States without war-related trauma. Depression, in fact, is more common among Korean Americans than it is among either Chinese, Japanese, or Filipino Americans. Paradoxically, depression levels among Korean Americans decrease among those with higher levels of acculturation (measured by language use) but also increase among those whose greater assimilation into U.S. culture has resulted in some loss of a connection with traditional Korean culture and identity.[283]

Even if Asian American patients seek care, language barriers (lack of English proficiency and a shortage of health care providers who possess the necessary cultural and language skills) limit nearly half of the Asian/Pacific Islander population's ability to access the mental health care system.[233] Although Asian American patients prefer trained interpreters, sometimes patients' children or grandchildren are used to translate at medical appointments due to a lack of trained interpreters. However, family members may not be familiar enough with medical terminology to adequately translate, or may be reluctant to fully translate out of embarrassment or discomfort. This can compromise the quality of the patient's care.[284]

In addition, not all English medical/health terminology can be readily translated into the various Southeast Asian languages, nor can many Southeast Asian expressions describing physical and mental conditions be directly translated for U.S. health care providers. For example, there are no words in the Khmer language for medical terms such as "Pap testing," a fact that creates a barrier to increasing cervical cancer screening rates among Cambodian women.[285] Not only do many Hmong (especially those born in Laos) have no knowledge of the human body organs or how they work, but most English medical and anatomical terms also have no equivalents in the Hmong language. Translators may need to use several sentences to translate a term that would require one word in English. In addition, Hmong from Laos are not familiar with chronic illnesses that can be "controlled but not cured." In Laos, "you got sick and you either got better or you died." Thus, it is difficult for many Hmong to understand diagnoses and treatments.[286] Vietnamese women, due to cultural norms and modesty, generally do not distinguish between anatomical parts when discussing their genital area. Whereas "Americans distinguish every part," Vietnamese "talk generally about the bottom area of a woman," often referring to the cervix and uterus interchangeably. This can create difficulties for patient-physician communication, especially for a physician who is unaware of such cultural norms.[287]

Differences in cultural patterns, even among highly acculturated Asian Americans, suggest different interpretations of etiology, personal control, and responsibility with respect to health. For example, many Chinese follow the Confucian principle of behavior that discourages individuals from sharing upsetting information with other people. Thus, Chinese Americans may delay sharing health concerns with family or friends for fear of causing pain or discomfort. Likewise, they may be reluctant to consult physicians about health problems, believing that the problem is a personal issue best kept to themselves or among close family members.[288] Japanese Americans, on the other hand, see health as a matter of will, with a strong emphasis on the mind–body connection. They are likely to believe that thinking about getting sick can make one sick. Filipino Americans, however, are more likely to emphasize the relationship between body and soul for health maintenance and illness prevention. For them, health is a moral statement about the correct fulfillment of social (particularly kin) obligations.[234]

If Asian Americans get to health care providers and if translators are available, communication still is not guaranteed, and appropriate care still may not be received.[289] For example, differences between the medical systems in the United States and China constitute a further deterrent to Chinese Americans born in China but in need of health care in the United States. In China, physicians generally prescribe and dispense medication, charging only a nominal fee for their services; the major cost for the visit is the medications.[290] Because the idea of a visit to a medical professional for a checkup without getting prescriptions for medications does not live up to the expectations of many Chinese Americans, they are reluctant to make visits for routine or preventive care.[290]

Some Korean Americans (especially the elderly), many of whom have extreme difficulty with English, report using the traditional Korean medicine hanbang, and other over-the-counter Korean home remedies rather than going to physicians in the United States. They avoid going to physicians because of communication and cultural difficulties. However, Korean Americans are more likely to use traditional medicine as a supplement to Western medicine than traditional medicine alone.[291]

Other cultural characteristics that influence the health of Asian Americans are collectivism, familism, respect for authority, and a desire to preserve harmony within groups. Asian cultures—like Hispanic cultures—often emphasize family decisionmaking. All family members are typically involved in learning all the details of a patient's condition, and decisions regarding care are made (often by the eldest son in the family) with the good of the overall group in mind.[292] In Korea, doctors are given absolute authority regarding treatment and Koreans generally trust doctors to make treatment choices. Thus, Koreans in the United States are often uncertain when faced with the practice of informed consent (which is required before surgical procedures in the United States) and must adjust to

the idea of having the ultimate choice in the course of medical treatment they undergo.[293]

Although little research has been done on either alcohol or substance abuse among Asian American women, available research suggests that Asians use and abuse alcohol and other substances less frequently than members of other racial/ethnic groups.[294] This has been attributed, in part, to the fact that Asians (especially Chinese, Japanese, and Koreans) are sensitive to ethanol, and drinking alcohol can result in facial flushing, or "flushing syndrome." Although this sensitivity to alcohol is rare among whites, 40 to 50 percent of Japanese possess it.[294] Low drinking rates among all Asian American groups seem to be due to high percentages of abstainers.[37]

One study of Asian populations found that Japanese Americans were the most likely to report having consumed any alcohol in the past year (38 percent), followed by Filipinos (32 percent), Koreans (29 percent), Chinese Americans (20 percent), and Vietnamese Americans (18 percent).[294] High rates of alcohol consumption also have been noted among persons with one Asian and one Caucasian parent. The rate of substance use among Chinese and Vietnamese American adolescents of mixed heritage (primarily mixed with whites) has been found to be up to four times that of unmixed-heritage adolescents from those same groups.[294] Alcohol use among Asian Americans tends to increase with acculturation, although other factors, such as socioeconomic status and religious affiliation, also play a large role in determining alcohol use.[295] Although risk factors for and patterns of substance use and abuse have been identified among selected Asian youth populations, prevalence is generally lower than among youth of other racial/ethnic groups.[296]

The vast differences between Asian societies and the United States mean that the most basic economic and socioemotional needs of new immigrants may not be met by existing institutions. False expectations about the "Gold Mountain" to be found in the United States may exacerbate adaptational stress in the years following migration and may produce a high prevalence of mental illness among Asian Americans.[246] Some of this mental illness results from prolonged and intense stress encountered in social situations and the occupational environment, especially among those of higher socioeconomic status.[297] In addition, when Southeast Asian women, in particular, achieve greater upward mobility (relative to Southeast Asian men) as a result of paid employment in the United States, marital tensions sometimes result that may lead to marital conflict or spousal abuse.[298]

Among the major mental health problems for Asian Americans, though, are racism and racial discrimination—which adversely affect their psychoeconomic status, as they do for other people of color. From Japanese Americans who lived on the West Coast and were interned during World War II to contemporary Chinese Americans living in Los Angeles, racism both blatant and subdued has been and continues to be part of the life of Asian Americans.[246] One recent study of both individual (self perceived) and institutional (segregation and redlining, for example) racial discrimination found that both were associated with poor health among Chinese Americans living in Los Angeles.[299] This study found that both individual and institutional measures of discrimination were associated with health status, after controlling for acculturation, sex, age, social support, income, health insurance, employment status, education, neighborhood poverty, and housing value.

Adolescent Females of Color

Although differing ages are used to define adolescence, if one considers the population between 10 and 19 years of age as adolescents, then an estimated 41.7 million people belonged to this group in 2003, making adolescents 14.3 percent of the U.S. population.[300] Despite the projected continued increase in their numbers through 2050, the adolescent population is expected to grow at one-third the rate of the overall U.S. population. If realized, this projection would cause the adolescents' population share to decline in the future.[301]

The adolescent population already is more racially diverse than the U.S. population of all ages, and in the future, the representation of adolescents of color is expected to increase. In 2000, blacks or African Americans were 12.9 percent and Hispanics 12.5 percent of the population of all ages; however, African Americans were 14.8 percent and Latinos were 15.5 percent of people ages 10 to 19 at that time.[3,8,153] In 2000, 37 percent of all adolescents were members of a racial/ethnic group other than white non-Hispanic, with this share predicted to reach 40 percent by the year 2020.[3]

Within the respective racial/ethnic groups, the shares of adolescents have remained relatively stable since 1990. For example, adolescents were 18 percent of the 1990 populations of American Indians/Alaska Natives, Native Hawaiians, Hispanics, and blacks.[302,303] Female American Indian/Alaska Native adolescents were nearly 19 percent of all female American Indians/Alaska Natives and 49 percent of all American Indians/Alaska Natives ages 10 to 19 in 2000.[3] Similarly, Native

Hawaiian or Other Pacific Islander adolescent females were about 18 percent of the females of these respective populations. In 2000, an estimated 47 percent of the Hispanic population was age 19 years or younger, with female Hispanic adolescents 48 percent of all Latino adolescents.[3] In 2000, 34 percent of all blacks and 33 percent of black females were age 19 years or younger, with adolescents constituting 16 percent of all black females.[3]

The share of the Asian American adolescent population also exhibits this constancy. Adolescents were 16 percent of the 1990 Asian American population.[302,303] By 2000, adolescents' share of the Asian American population had fallen slightly, to 13 percent. Females comprised 49 percent of all Asian American adolescents in 2000.[3] Twenty-seven percent of Asian Americans are 19 years of age or younger.[3]

Adolescents (ages 12 to 17) often live in single-parent families (33 percent), and many youth (birth to 18 years old) live in poverty (nearly 18 percent).[171,304] The adolescent population most beset by these dual disadvantages is African American teens. Thirty-two percent of black youth (ages 5 to 17) lived in poverty in 2003, with an even greater share (61 percent) of black youth ages 5 to 17 years living in single-parent homes.[305] Overall, 38 percent of youth (ages 5 to 17 years) in female-headed families live in poverty. This includes 48 percent of Hispanic, 46 percent of black non-Hispanic, and 33 percent of white non-Hispanic youth these ages in female-headed families.[305]

According to the National Longitudinal Study of Adolescent Health, 65 percent of adolescents in the lowest-income group ($10,000 or less) live in single-parent homes. In addition, pronounced income differentials exist by race/ethnicity—teenagers of color comprised more than half of all adolescents whose families had incomes less than $20,000.[306] Living in poverty plays a critical role in access to health care services and in shaping health outcomes for adolescents, as it does for adults.

Access to Services

Adolescents have low rates of physician contact and of medical examinations. In 2001, nearly 15 percent of females ages 12 to 17 reported they had not had contact with a health care professional in more than a year.[307] In addition, between 1994 and 1996, nearly one-third of white and black (both 31 percent) youth ages 11 to 21 reported receiving no medical exam in the last 12 months, while 36 percent of Hispanic and 41 percent of Asian or Pacific Islander youth reported the same.[308]

The lack of a regular source for routine medical care and the lack of a particular provider for sick care may account for the infrequent receipt of health care services by adolescents of color. While 5 percent of white, black, and American Indian/Alaska Native youth under the age of 18 each reported having no place for medical care in 2002, the same was true for 6 percent of Asian and Pacific Islander youth and 11 percent of Hispanic youth.[309]

Health insurance and the coverage of adolescents under family policies are key to the use of services and access to care for teens and partially explain the findings noted above. Approximately 65 percent of adolescents ages 10 to 18 are covered by private health insurance. In 2002, 75 percent of white, 47 percent of black, 40 percent of Hispanic, and 61 percent of other adolescents of color had private health insurance.[310] For many youth of color, however, public health insurance, generally Medicaid, provides the pathway to health care services and may provide only limited access to the full range of needed services. Among adolescents ages 10 to 18 years, 39 percent of black, 31 percent of Hispanic, and 23 percent of other youth of color were covered by Medicaid or another source of public health insurance in 2002, compared to 15 percent of white adolescents.[310]

Nearly 13 percent of all adolescents ages 12 to 17 years were uninsured, however, with this incorporating the nearly 9 percent of white non-Hispanic youth, 16 percent of Asian youth, more than 16 percent of black non-Hispanic youth, 17 percent of Native Hawaiian or Other Pacific Islander youth, more than 18 percent of American Indian/Alaska Native youth, and more than 24 percent of Hispanic youth who were uninsured in 2003.[129] During the period 1998–2001, one survey found that 29 percent of Hispanic adolescents ages 12 to 17 were uninsured at the time of interview. The rate of uninsured adolescents varied greatly by subgroup—35 percent of Mexican adolescents and 30 percent of Central or South American adolescents were uninsured, compared to 12 percent of Puerto Ricans. During that same period, 8 percent of non-Hispanic white adolescents were uninsured.[311]

White non-Hispanic adolescents with health insurance coverage are twice as likely as their counterparts with no insurance to have made a health care visit in the preceding 12 months. However, insured Hispanic adolescents were more than twice as likely and insured black non-Hispanic adolescents were three times as likely as their uninsured counterparts to have made a health care visit in the past year.[312]

Although the lack of health insurance and family poverty often constitute insurmountable barriers to adolescents in need of health care services, nonfinancial barriers also interfere with the ability of adolescents to get care and contribute to limited frequency of contact and the lack of relationships with providers. Services often are fragmented and do not address the specific needs of adolescents.[313] Depending on the location of facilities, getting there sometimes is problematic. Issues of client–provider confidentiality vis-á-vis parents also serve as barriers to adolescents who might otherwise seek care. Real or imagined fears about one's reputation or about disapproval by the provider, family, or peers may keep adolescents away from needed health services as well.[314]

Mental Health

Most of the data on the health of adolescents are on their high-risk behaviors, such as unprotected sexual intercourse, alcohol use, and substance abuse, which are discussed in the following section. The limited information on the mental health of adolescent females of color suggests, however, that their life circumstances and the low self-esteem that often emanates from these circumstances contribute to their reporting of depression and suicide attempts. Young Asian American women have the highest depression rates for any group in the United States, and the second highest suicide rate for females ages 15 to 24. One study of California college students found many young Asian American women suffered from low self-esteem and a limited sense of control over their lives. These women, many of whom came from Asian immigrant families, cited conflicting Asian and American cultural values, familial expectations, and an emphasis on internalizing mental problems to "save face" as contributing factors. Additionally, many Asian women noted a lack of culturally sensitive mental health and support services on college campuses.[315]

Adolescent females are about twice as likely as adolescent males to report severe depressive symptoms and to consider or attempt suicide. Adolescents of lower socioeconomic status are also at higher risk for depression.[316] Some studies have shown that American Indian/Alaska Native adolescents and Hispanic or Latino adolescents report the highest prevalence of depressive symptoms while white and black adolescents report lower prevalences of depressive symptoms.[317] Female Latino adolescents indicate a greater number of depressive symptoms than either their black or white counterparts.[318] Other studies have shown that Asian adolescents also report higher prevalence of depressive symptoms than white adolescents.[319]

Although more than one in every five Hispanic (23 percent) and white (21 percent) female high school students reported having thought seriously about attempting suicide during the 12 months preceding the Youth Risk Behavior Survey, a smaller share of black females (15 percent) reported similar thoughts. Consistent with reported suicide ideation, 15 percent of adolescent Hispanic females attempted suicide at least once during the 12 months preceding the 2003 survey, while slightly more than 10 percent and 9 percent of white and black adolescent females, respectively, reported attempts.[320] Among Hispanic, black, and white adolescent females, risk factors for suicide attempts include: previous suicide attempt, the attempted or completed suicide of a friend, drug or alcohol use, violent victimization, and a history of mental health treatment.[321]

American Indian/Alaska Native adolescents are more likely than other teens to attempt suicide and to die as a result of it. According to the Indian Adolescent Health Survey, 22 percent of American Indian/Alaska Native females had attempted suicide.[322] In a 2001 survey, 19 percent of American Indian/Alaska Native adolescent females reported that they had attempted suicide in the past year.[323] In 2002, American Indian/Alaska Native females ages 15 to 19 had the highest suicide mortality among all racial and ethnic groups in their age cohort, at 7.2 deaths per 100,000 population.[324] The completed suicide rate for American Indian/Alaska Native youth is more than twice the rate for white adolescents, and, in contrast to the national pattern, suicide is more likely to occur among younger adolescents than older ones.[325] Major risk factors identified for suicide attempts among American Indian/Alaska Native adolescents include: female gender; somatic symptoms (like headaches and stomach problems); knowledge of a suicide attempt by a friend or family member; a history of physical or sexual abuse; and a history of being in a special education class.[322]

In 2001, nearly 20 percent of females ages 12 to 17 received mental health treatment or counseling, compared to 17 percent of males ages 12 to 17. Asian adolescents (males and females combined) were the least likely of all racial/ethnic groups to receive mental health treatment—9.8 percent. American Indian/Alaska Native adolescents were the most likely to receive treatment (22 percent), followed by white, black (both 19 percent), and Hispanic (17 percent) adolescents.[326]

Health Risk Behaviors

Most of the behaviors discussed below can place adolescents at risk of unhealthful outcomes. Unprotected sexual intercourse, substance use or abuse, and

operating a motor vehicle in an unsafe manner all can result either in morbidity or death. Sound nutrition and regular physical activity, two health enhancing behaviors, also are discussed for adolescent females of color. As noted in a report by the National Research Council and the Institutes of Medicine, "the U.S. Centers for Disease Control and Prevention has noted that six categories of behavior are responsible for 70 percent of adolescent mortality and morbidity: unintentional and intentional injuries, drug and alcohol abuse, sexually transmitted diseases and unintended pregnancies, diseases associated with tobacco use, illnesses resulting from inadequate physical activity, and health problems due to inadequate dietary patterns."[327] Because most of the information both about health-risk and healthful behaviors is gathered in surveys administered to students in junior high and high schools, these figures may perhaps best be thought of as underestimates of high-risk and overestimates of healthful behaviors among youth, if one believes that high-risk behaviors are more prevalent among out-of-school youth than among youth who remain in school. Since dropout rates are higher among youth of color than among white adolescents, the figures discussed below may well underestimate the health-risk behaviors among the racial/ethnic subpopulations of youth.

Sexual Intercourse

Sexual intercourse can place adolescent females of color at risk for sexually transmitted diseases, including HIV infection/AIDS, and pregnancy during years when their bodies are still developing and are, therefore, exceptionally vulnerable to such assaults. Adolescent females of color too often have low self-esteem and use their fertility to seek approval from the males with whom they have intercourse.[328] In the 2003 Youth Risk Behavior Survey (YRBS), among female high school students (grades 9 through 12), 43 percent of white, 46 percent of Hispanic, and 61 percent of black adolescent females reported having ever had sexual intercourse.[320] By contrast, according to combined data from the 1991, 1993, and 1995, and 1997 Youth Risk Behavior Surveys, 72 percent of Asian American and Pacific Islander females reported they had never had sexual intercourse.[329]

In a 2000 survey of American Indian/Alaska Native high school students, 52 percent of the females queried reported having had sexual intercourse, and nearly 6 percent of these sexual initiates reported having had first sexual intercourse before age 13.[323] Nearly 7 percent of all black adolescent females reported in the 2003 YRBS that they first had sexual intercourse before age 13; an even larger share (16 percent) indicated that they had engaged in sex with four or more partners. Smaller shares of Hispanic and white adolescent females reported both having sexual intercourse before age 13 (more than 5 percent of Hispanics and more than 3 percent of whites) and having had four sexual partners (11 percent of Hispanics and 10 percent of whites).[320] Significantly smaller shares of Asian and Pacific Islander students reported comparable sexual activity. Thirty percent of Asian and Pacific Islander female high school students reported having had vaginal intercourse, and less than 5 percent had sexual intercourse before age 13.[330] Slightly more than 6 percent had four or more sexual partners.[329]

Black adolescent females were most likely to report currently being sexually active (44 percent), with about a third of Hispanic (nearly 36 percent) and white (33 percent) adolescent females also reporting current sexual activity. Among currently sexually active adolescent females, a larger percentage of blacks (64 percent) than whites (57 percent) or Hispanics (52 percent) reported condom use during last sexual intercourse, however.[320] More than a third (36 percent) of Asian and Pacific Islander adolescents reported using condoms at all times.[330] Birth control pill use before last sexual intercourse was more common among white adolescent females (more than 26 percent) than among either blacks (more than 12 percent) or Hispanics (nearly 12 percent).[320]

As a result of unprotected or inadequately protected sexual intercourse, adolescent females of color often become pregnant; many also become mothers. High rates of teen pregnancy are found among young Hispanic and black women, although teen birth rates have steadily and markedly declined since peaking in the early 1990s. In 2002, the birth rate for Hispanic females ages 15 to 17 years was 51 per 1,000 women, more than double the rate of 21 per 1,000 women for non-Hispanic white females the same age. Among 18- to 19-year-old Hispanic females, their birth rate of 133 per 1,000 women was nearly double the rate of 68 per 1,000 non-Hispanic white females. Teen pregnancy rates among black adolescent females are lower than the rates among Hispanic adolescent females but higher than the rates among white adolescent females, with the birth rates for blacks at 40 per 1,000 females ages 15 to 17 and 108 per 1,000 females ages 18 to 19.[110] Birth rates to Asian and Pacific Islander teens were the smallest reported in 2002. Only nine per 1,000 Asian and Pacific Islander females ages 15 to 17 years and 32 per 1,000 Asian and Pacific Islander females ages 18 to 19 years reported live births in 2002.[110] The racial/ethnic group with the smallest share of births to females

younger than 20 years of age is Asian Americans. Births to females younger than 20 years of age, however, range from less than 1 percent among Chinese adolescents to nearly 5 percent among Filipino adolescents.[110]

Although Asian and Pacific Islander teens as a group are less likely than other female teens to become pregnant and give birth, selected Southeast Asian populations report high teen pregnancy rates. In California, between 1989 and 1998, Laotian girls had the highest teen pregnancy rate (189 per 1,000 teens) in the state, well above the state average rate of 118 per 1,000 teen females. The second highest rate in the state (183.9 per 1,000) was among Other Asians—including Malaysians and Indonesians. Chinese, Asian Indian, and Korean teen females in California had rates around 10 per 1,000. Different cultural norms (favoring marriage and pregnancy during the teen years) and the lack of materials targeted to preventing pregnancy among teens of these racial/ethnic groups are among the factors associated with these rates.[331]

Birth rates also are high for other selected teen populations. Adolescent childbearing is twice as common among American Indian/Alaska Native females as it is among females of all races combined, with 46 percent of all American Indian/Alaska Native mothers younger than age 20 when they had their first child.[29] In addition, 21 percent of live births among the IHS service population between 1996 and 1998 were to American Indian/Alaska Native mothers under the age of 20.[29] Birth rates for American Indian/Alaska Native adolescent females were 31 per 100,000 for 15 to 17 year olds, and 89 per 100,000 for 18 to 19 year olds in 2002.[110] Native Hawaiian women also are likely to give birth when younger than 20 years of age; in 2002, nearly 15 percent of births to Native Hawaiian mothers were to this cohort.[110]

In addition to pregnancy or birth, sexual intercourse can also result in sexually transmitted infections, including HIV/AIDS. (See Health Assessment for detailed data.) From 1985 through 2001, although the total number of women of each racial/ethnic group who were diagnosed with HIV infection and AIDS varied greatly, female teens of color made up comparable percentages of all women who had been diagnosed with these conditions. Teen females of color accounted for between 4 percent (Asians and Pacific Islanders) and 9 percent (American Indians/Alaska Natives) of females of color of all ages who were diagnosed with HIV infection through December 2001. However, these percentages correspond to 9 cases among Asian and Pacific Islander female teens, 23 cases among American Indian/Alaska Native teens, and 2,716 cases among black non-Hispanic teens. Five percent of 5,455 cases of HIV infection diagnosed among Hispanic females (256 cases) were diagnosed among Hispanic females ages 13 to 19 years.[332] Because it takes time for AIDS to develop from HIV infection, only one percent of each group of females of color was diagnosed with AIDS while between the ages of 13 years and 19 years. However, this one percent also represents very different numbers of females—four American Indians/Alaska Natives, eight Asians and Pacific Islanders, 316 Hispanics, and 1,250 black non-Hispanics.

Substance Abuse

The use by adolescent females of substances such as cigarettes, smokeless tobacco, alcohol, marijuana, and cocaine or crack cocaine can negatively influence present and future health. Lung cancer, emphysema, oral cancers, cirrhosis, and addictions are health conditions most commonly associated with the use and abuse of these substances. In addition, active cigarette smoking has been identified as a cause of cervical cancer.[333]

Majorities of Hispanic (60 percent), white (59 percent), and black (57 percent) adolescent females reported in 2003 that they had tried cigarette smoking, even if only one or two puffs were taken.[320] Smaller shares reported current cigarette use (defined as smoking on at least one occasion during the past 30 days): 27 percent of white, 18 percent of Hispanic, and 11 percent of black adolescent females.[320] These rates have decreased notably since 1999, when 39 percent of white, 32 percent of Hispanic, and 18 percent of black female teens reported they were current smokers.[334]

Smoking is more prevalent among American Indian/Alaska Native high school students, however. In 2001, 89 percent of American Indian/Alaska Native adolescent females reported having ever tried cigarette smoking, and 57 percent reported they were current smokers.[323] In contrast, only 18 percent of Asian American and Pacific Islander adolescent females (the same rate as for Hispanic adolescent females) reported being current smokers, according to combined data from the 1991, 1993, 1995, and 1997 Youth Risk Behavior Surveys.[329]

Although smokeless tobacco is used more commonly by males than females, smokeless tobacco is used by teen females, primarily American Indians/Alaska Natives. A 2001 survey of teens attending Bureau of Indian Affairs-funded high schools found that nearly 15 percent of American Indian/Alaska Native adolescent females were current smokeless tobacco users.[323] The 2003 YRBS reported that more than 3 percent of Hispanic, 2 percent of black, and nearly 2 percent of white adolescent females also used smokeless tobacco.[320]

As with cigarettes, most female adolescents have tried alcohol. In 2003, large majorities of Hispanic (81 percent), white (77 percent), and black (74 percent) adolescent females reported having had at least one drink of alcohol.[320] Smaller shares of all adolescent females reported current alcohol use (defined as having a drink on at least one of the preceding 30 days), with white and Hispanic adolescent females both reporting current alcohol use rates of 48 percent.[320] A comparable share (47 percent) of American Indian/Alaska Native high school females reported current alcohol use in 2001.[323] Rates of current alcohol use were smaller among black adolescent females (37 percent) and Asian American and Pacific Islander adolescent females (25 percent).[320,329] Although there is limited survey information about substance use among Native Hawaiian or Other Pacific Islander youth, among ethnic groups in Hawaii in one survey, Native Hawaiian youth reported the highest rates.[335]

Marijuana remains a drug of interest to adolescent females. Identical shares of white, Hispanic (both nearly 39 percent), and black (nearly 38 percent) high-school-age adolescent females surveyed in the 2003 YRBS had tried marijuana. About a fifth of Hispanic (20 percent), white (20 percent), and black (18 percent) adolescent females reported current marijuana use.[320] The prevalence of marijuana use during the past year among eighth-grade Mexican American females (19.5 percent) is about the same as the proportion among their high-school-age counterparts who reported current use in the Monitoring the Future study.[336] However, marijuana use during the past 12 months was less among eighth-grade females who were Puerto Rican (16.5 percent) and Other Latin American (10.9 percent). Marijuana use is much more prevalent among American Indian/Alaska Native adolescent females—more than three-quarters (77 percent) reported having ever tried marijuana and nearly half (48 percent) reported that they were current users of marijuana.[323]

Current marijuana use, however, was acknowledged by much smaller shares of adolescent females of color in both 1985–1989 and 1999. In 1985–1989, 24 percent of American Indian/Alaska Native female high school seniors reported current marijuana use (i.e., used at least one time during the preceding 30 days), as did 20 percent of white female and 14 percent of Mexican American female high school seniors.[337] However, just 10 percent of both black and Puerto Rican and other Latin American female high school seniors reported current marijuana use in 1985–1989, along with 8 percent of Asian American female high school seniors.

Although small shares of all female high school seniors in 1985–1989 reported current cocaine use (used at least once during the preceding 30 days), since the late 1990s, the most likely users of both cocaine and crack (or freebase cocaine use) have been Hispanic females. In 1985–1989, 9 percent of American Indian or Alaska Native and 4 percent of white female high school seniors acknowledged cocaine use during the preceding 30 days. About 3 percent of Mexican American, Puerto Rican and Other Latin American, and Asian American females, along with 1 percent of black females, also reported use.[337] According to the 1999 YRBS, however, Latina adolescents were the most likely to report ever having tried any form of cocaine (12 percent) and the most likely to acknowledge current cocaine use (5 percent).[334] Nine percent of white adolescent females and only 1.5 percent of African American adolescent females reported ever having tried cocaine in any form, with smaller shares (3 percent of whites and 1 percent of blacks) admitting current use.[334]

In the 2003 YRBS, among adolescent females, Latinas remained the most likely to report ever having tried any form of cocaine (powder, crack, or freebase)—13 percent. Hispanic females in grades 9 through 12 are the group most likely (nearly 6 percent) to acknowledge current use of cocaine as well. Eight percent of comparable white females and only 1.4 percent of comparable black females reported ever having tried cocaine or crack, or freebase use of cocaine, with smaller shares (nearly 4 percent of whites and fewer than 1 percent of blacks) admitting current cocaine use.[320]

Unsafe Motor Vehicle Operation

Because motor vehicle accidents are a major cause of death for adolescents, high-risk behaviors when operating or riding in motor vehicles are noteworthy. In the 2003 YRBS, nearly 16 percent of Hispanic adolescent females and black adolescent females reported rarely or never using a seat belt when riding in a car or truck driven by someone else. More than 14 percent of white adolescent females reported this same failure to use seat belts.[320] In addition, 40 percent of Hispanic adolescent females reported that one or more times during the preceding 30 days they rode with a driver who had been drinking, and 9 percent reported that they themselves had driven after drinking alcohol. This is higher than the comparable shares of both black and white adolescent females (30 percent) who reported riding one or more times during the preceding 30 days with a driver who had been drinking alcohol. A larger share of white females (10 percent) than black females (5 percent), however, indicated having driven after drinking alcohol.[320]

Healthful Behaviors

Dietary practices and physical activity can be health affirming for adolescents, as for adults. However, small proportions of adolescent females eat multiple servings of fruits and vegetables and drink milk daily. About a fifth of adolescent Hispanic (nearly 22 percent), black (more than 20 percent), and white (nearly 20 percent) females reported that they had eaten five or more servings of fruits or vegetables on the day preceding the 2003 YRBS. Smaller proportions of adolescent females reported drinking more than three glasses of milk a day during the week preceding the survey, however. Nearly 13 percent of white female teens reported this behavior, as did 9 percent of Hispanic, and fewer than 8 percent of black adolescent females. Adolescent females of all three racial/ethnic groups were significantly less likely than their male counterparts to drink more than three glasses of milk a day.[320]

A majority of white non-Hispanic adolescent females (58 percent) reported that they participated in vigorous physical activity (activity that caused sweating and hard breathing for at least 20 minutes) on at least three of the seven days preceding the administration of the 2003 YRBS. About half of black and Hispanic adolescent females—45 percent of blacks and 52 percent of Hispanics—also reported participating in vigorous physical activity. Smaller shares of white (23 percent), Hispanic (21 percent) and black (18 percent) adolescent females reported participating in moderate physical activity (that is, walking or bicycling for at least 30 minutes) on 5 or more of the 7 days preceding the 2003 YRBS.[320]

Elderly Women of Color

The elderly population generally is defined as persons 65 years of age and older, with persons ages 65 to 74 years referred to as the "young-old," persons ages 75 to 84 years as the "older-old," and persons ages 85 years and older as the "oldest-old."[338] Despite this convention, persons may be recognized as elderly at widely divergent ages. For example, the age at which American Indians are recognized as elders varies by tribe, although American Indian advocates commonly use age 55 (the minimum age for voting membership in the National Indian Council on Aging) as the age at which one is recognized as an elder in the American Indian community.[51] This recognition may reflect the fact that as early as 55, many American Indians, for example, have physical, emotional, and social impairments characteristic of the general U.S. population 65 years of age and older. In addition, nearly three times as many American Indians/Alaska Natives (41 percent) as whites (14 percent) die before reaching the age of 55.[339]

During the previous century, the elderly population of the United States increased more than tenfold, from 3.1 million in 1900 (about one in every 25 Americans) to nearly 35 million in 2000 (about one of every eight Americans).[63] By 2003, the elderly population was estimated to be nearly 36 million, and it is projected to continue to grow to 87 million by 2050.[340] Although the 65-year-old-and-older population historically has grown faster than the general population, this did not hold true between 1990 and 2000, reflecting the relatively small number of people who were born during the Depression in the late 1920s and 1930s.[63] Whites dominate the elderly population at present, though their share is projected to decline over the next 50 years as the numbers of elderly of color increase.[341] In 1980, populations of color were more than 10 percent of the elderly, with their share increasing to 13 percent in 1990.[342] In 2000, racial/ethnic subpopulations were estimated to be more than 16 percent of the elderly.[343] By 2050, members of racial/ethnic groups are projected to be nearly two-fifths of the elderly.[340]

Of the nearly 36 million elderly in 2003, an estimated 30 million, or 83 percent, were white non-Hispanic. Non-Hispanic blacks (3 million) were more than 8 percent of the elderly population, with Hispanics (2 million), and Asians (nearly 1 million) accounting for nearly 6 percent and nearly 3 percent, respectively. Persons of other races alone or in combination (including American Indian/Alaska Natives and Native Hawaiians and Pacific Islanders) constituted 1 percent of the elderly (nearly 400,000 people).[340] By the year 2020, the share of white non-Hispanics among the elderly is projected to fall to 77 percent, with the share of black non-Hispanics increasing to more than 9 percent, Hispanics increasing to nearly 9 percent, Asians and Pacific Islanders increasing to 4 percent, and American Indians/Alaska Natives increasing to 0.5 percent of the population 65 years of age and older.[344] In the year 2050, whites are projected to be more than three-fifths (61 percent) of the elderly, with Hispanics more than 17 percent, non-Hispanic blacks 12 percent, and Asians nearly 8 percent. All other races are projected to make up nearly 3 percent of the elderly population. The Hispanic elderly are expected to grow the most rapidly, from an estimated 2 million in 2003 to more than 15 million by 2050.[340]

The number and proportions of elderly vary considerably in the states and regions of the United States. For example, nearly 18 percent of Florida's population was older than the age of 65 in 2000. Although the more populous states of California and New York

have a larger number of adults ages 65 years and older, the older adult populations in Pennsylvania (nearly 16 percent) and West Virginia (more than 15 percent) are greater proportions of those states' populations. More than 12.4 million elderly live in the South, comprising more than 12 percent of the population in that region, while the more than 7.3 million elderly residing in the Northeast make up nearly 14 percent of that region's population.[345] Because of residence patterns noted earlier for the various racial/ethnic populations, elderly persons of color would be expected to reside primarily in the South and West.

Into the middle of the 21st century, the population 85 years and older—those most likely to need health care and economic and physical support—is projected to be the fastest growing segment of the elderly population, increasing from about 4 million people in 2000 to nearly 21 million in 2050.[340] The share of whites among the elderly subpopulation 85 years of age and older also is expected to decrease—from 89 percent in 2000 to 70 percent in 2050—while the shares of racial/ethnic populations are expected to increase. The Hispanic population 85 years of age and older, as a share of all persons 85 years of age and older, is expected to more than triple over that period, from nearly 4 percent to nearly 14 percent; the corresponding share among the Asian and Pacific Islander elderly is projected to grow from 1.5 percent in 2000 to more than 5 percent in 2050. The black population 85 years and older is projected to comprise nearly 10 percent of this elderly subpopulation, an increase from more than 7 percent in 2000. The proportion of the elderly population 85 years of age and older that is American Indian/Alaska Native is expected to change very little. Although projected to double, this increase is from only 0.3 percent in 2000 to 0.7 percent in 2050.[3,341]

Demographics

As noted above, population projections have been made for the elderly (females and males combined) through 2050. The most recent data for elderly women of color, however, are from the 2000 Census. Thus, the information in this section about elderly women is of that vintage, and data about projections are for elderly people of color (women and men combined).

American Indians or Alaska Natives

The elderly (65 years of age and older) were a small share of the American Indian/Alaska Native population in 2000—only 6 percent, which was less than half the share of the elderly among non-Hispanic whites at that time.[3] Among American Indian/Alaska Native women, the elderly were a similar share in 2000—7 percent.[3] Women ages 65 to 74 years were 4 percent of all American Indian/Alaska Native females in 2000. In addition, among the total elderly population of American Indian/Alaska Natives, women were 57 percent.[3] These figures were nearly identical to the comparable 1990 data.[302]

Most elderly American Indians/Alaska Natives reside in the South and West, as does the majority of this population under age 65. Four in five American Indian/Alaska Native elderly live in Western and Southern states, with 37 percent in Oklahoma, California, and Arizona combined.[346] Contrary to popular belief, most elderly American Indians/Alaska Natives do not return to their reservations as they age. American Indians/Alaska Natives prefer to "age in place" as do many elderly, and a sizable elderly population is found among the majority of American Indians/Alaska Natives who live in urban areas.[347]

The American Indian/Alaska Native population 85 years of age and older is growing, with the projection that this age cohort will increase from nearly 10 percent of all American Indian/Alaska Native elderly in 2000 to nearly 24 percent in 2050.[17,341] This increase among the oldest-old would mean that greater numbers of younger American Indians/Alaska Natives in their 50s and 60s will have surviving elders. The Parent Support Ratio (number of persons aged 85 and older per 100 persons ages 50 to 64) for American Indians/Alaska Natives will increase by a factor of more than six, from 4 to 25.[17,341,348]

Native Hawaiians or Other Pacific Islanders

The distribution of the elderly Native Hawaiian or Other Pacific Islander population counted in the 2000 Census was very similar to that of the Native Hawaiian population counted in 1990.[3] In 2000, the population 65 years and older was slightly greater than 5 percent of all Native Hawaiians or Other Pacific Islanders, with elderly women a slightly larger share (6 percent) of all Native Hawaiian or Other Pacific Islander women. Women ages 65 to 74 years were nearly 4 percent of all these women, and Native Hawaiian or Other Pacific Islander women were a majority (55 percent) of this entire elderly population. Although available data limit our ability to make a rigorous comparison, the Parent Support Ratio for Native Hawaiian or Other Pacific Islanders is projected to increase fourfold between 2000 and 2050, from four (for Native Hawaiians or Other Pacific Islanders) to 18 (for Asian and Pacific Islanders combined).[17,341]

In 1990, the elderly were 5 percent of the total Native Hawaiian population and 3 percent of the total

Samoan population.[302] Elderly Native Hawaiian women constituted 6 percent of all Native Hawaiian women, while the younger elderly Native Hawaiian women (ages 65 to 74) were 4 percent of this total female population.[302] Among all elderly Native Hawaiians, however, 57 percent were women.[17] Most elderly Native Hawaiians and Samoans live in the South and West.

Hispanics or Latinos

Elderly persons constituted 5 percent of the U.S. Hispanic population in 2000.[3] As does the population younger than 65 years of age, the Hispanic elderly primarily live in the South and West; three of every four elderly Hispanics live in these regions.[349] In 2000, half of the Hispanic elderly (50 percent) were of Mexican origin, 17 percent Cuban, 11 percent Puerto Rican, and 24 percent of other Hispanic subgroups.[350] Cuban elders make up a disproportionately large proportion of Hispanic elderly because the Cuban American population consists of many refugees who fled to the United States as adults in the 1960s. In addition, 21 percent of the total Cuban population was elderly in 2000, compared to 4 percent of Mexican Americans, 5 percent of Americans of South American and Central American origins, and 6 percent of Puerto Ricans.[350] Many older Latinos report speaking little or no English. Part of this limited English proficiency relates to age at immigration, with a sizable proportion of Hispanics, particularly Cubans, having immigrated to the United States at age 55 years and older.

Nearly 6 percent of all Hispanic females were elderly, with about 4 percent ages 65 to 74 in 2000.[3] Women also are the majority of all elderly Hispanics. They constituted 59 percent of the Latino population 65 years and older and 62 percent of the population ages 75 years and older in both 2000 and 1990.[302] The population of elders 85 years and older is projected to grow from 9 percent of all Hispanic elderly in 2000 to 20 percent in the year 2050. Because of this growth, the Parent Support Ratio is projected to increase fourfold for Hispanics over this period, from 5 to 20.[17,341]

Black or African Americans

The elderly were 8 percent of the entire African American population in 2000, with more than half of these persons living in Southern states.[3] As with other racial/ethnic groups, the older-old population is the fastest growing segment of the black elderly. Eleven percent of elderly blacks were 85 years and older in 2000, and this proportion could increase to nearly two in ten by the year 2050.[17,341] This population growth could cause the Parent Support Ratio for African Americans to increase from 8 (persons 85 years of age and older per every 100 persons 50 to 64 years of age) in 2000 to 21 by the year 2050.[17,341]

Elderly black women (65 years and older) were 10 percent of the black female population in 2000, slightly more than the 8 percent share that all the elderly were of the entire black population.[3] In 2000, the majority of black elderly females (54 percent) were ages 65 to 74 years, and these black women were also the majority (59 percent) of all blacks who were ages 65 to 74 years. Females were 62 percent of all elderly blacks but represented 66 percent of elderly blacks ages 75 years and older. These patterns also held true in 1990 for black elderly.[302]

Asian Americans

Data for Asian Americans alone in 2000 reveal a similar story to that for Asian and Pacific Islanders in 1990. Eight percent of the Asian population was elderly, and nearly 9 percent of all Asian women were elderly.[3] Women are 58 percent of all Asians 65 years of age and older and constitute equivalent shares of the elderly subpopulations 65 to 74 years of age (57 percent) and 75 years of age and older (58 percent). Among Asians and Pacific Islanders in 1990, 6 percent of the population was elderly, and 55 percent of these elderly lived in three states—California, Hawaii, and Washington.[342,351]

As with other elderly populations, persons ages 85 and older are the fastest growing segment, projected to increase from 8 percent of all elderly Asians in 2000 to 19 percent of all elderly Asians and Pacific Islanders in 2050.[17,341] Although available data limit our ability to make a rigorous comparison, the ratio of persons ages 85 years and older per 100 persons ages 50 to 64 years (the Parent Support Ratio) is projected to increase more than fourfold, from 4 (for Asians alone) to 18 (for Asians and Pacific Islanders combined).[17,341] (***Note:*** The comparisons are between Asian Americans in 2000 and Asians and Pacific Islanders in 2050 because the projections are based on data for Asians and Pacific Islanders combined.)

Access to Health Care

Elderly women of color share with all elderly women several characteristics that influence their access to health care. First, elderly women of color outnumber elderly men of color. Among the general population of all ages, the sex ratio (males per 100 females) was 96 men per 100 women in 2002.[352] This ratio declines to 83 for persons ages 65 to 74 years, and to 67 for the 75- to 84-year-old cohort. The sex ratio for the

population 85 years old and older is 46 males per 100 females, less than half that of the general population. The sex ratio for the population ages 65 years and older is 73.[352] Although the sex ratios among the major racial/ethnic elderly subpopulations (ages 65 years and older) in 2002 were less than 100, they ranged from a low of 65 elderly black men per 100 elderly black women to a high of 77 elderly Asian and Pacific Islander men per 100 elderly Asian and Pacific Islander women.[352] The low sex ratio for elderly African Americans mirrors the generally lower ratios for all age cohorts. For example, the sex ratio for blacks ages 35 to 44 is slightly lower than the sex ratio for non-Hispanic whites ages 65 to 74.[352] The high-end sex ratio for elderly Asians may reflect the historical gender imbalance among Asian immigrants to the United States, with Asian men often migrating alone initially.[351]

Second, elderly women of color are more likely to be widowed than are elderly men of color. These differences are striking among even the younger-old (65 to 74 years), but become more pronounced for women of color in older age groups. For example, 37 percent of non-Hispanic black women 65 to 74 years of age were widowed, compared to 14 percent of black males. Sixty-nine percent of black women ages 75 years and older were widowed, versus 28 percent of black males.[353] In 2003, 78 percent of women of all races ages 85 or older were widowed, versus 35 percent of men of all races ages 85 and older.[340] Widowed women often are impoverished because of the loss of the financial support of their husbands. Third and finally, the longer women of color live, the more likely they are to be affected by chronic illness, disability, and dependency, as is true among all elderly women.

In addition to the characteristics shared with all elderly women, the health of elderly women of color reflects the cumulative effects of living in a society in which they often faced disadvantages because of their color. These disadvantages are reflected in limited resources available throughout their lives to meet health care and other needs.[20] Socioeconomic status is indeed a notable factor in health differences between women of color and whites because many older women of color need to continue working to try to make ends meet. The need to continue working despite declining physical stamina and other health concerns adds to stresses experienced by these women that may ultimately manifest as health problems.[20]

The greater proportions of households headed by women of color (compared to white women) in all age groups, combined with the greater incidence of poverty among these female-headed households (relative to households headed by males), suggest that as women of color age and those with spouses become widows, the proportion of impoverished women of color would only increase. Recent data support this reasoning. Among unmarried women 65 years of age and older, black and Hispanic women are more likely than white women to be poor or near poor. In 2001, more than two-fifths of unmarried black elderly women (nearly 42 percent) and about half of unmarried Hispanic elderly women (49 percent) who lived alone were poor, compared to fewer than one-fifth (17 percent) of both non-Hispanic white and Asian elderly women.[350]

Foreign-born elderly women are more likely to be poor than are native elderly women. In 1999, 11.5 percent of native elderly women were poor, compared to 14.9 percent of foreign-born elderly women. However, foreign-born elderly women were less likely than native elderly women to live alone—41.1 percent of native elderly women lived alone in 2000, compared to 25.5 percent of foreign-born elderly women.[354]

For many elderly women of color in need of health care, a lack of social and psychological coping resources is often accompanied by a physical lack of facilities, as exemplified by the limited availability of skilled nursing facilities and intermediate- to long-term care facilities on American Indian/Alaska Native reservations. Although the Indian Health Service is responsible for providing for the health care needs of American Indians and Alaska Natives, IHS has limited its self-defined responsibility to the provision of acute care, not long-term care.[339] Currently, few such facilities exist among the more than 300 American Indian/Alaska Native reservations. This shortage means that most American Indian/Alaska Native elderly are cared for within the communities in which they live, usually by family members, regardless if they have the resources to use such facilities. If they travel away from their home communities to facilities, they may face language and cultural barriers and experience feelings of isolation.[355]

Like elderly American Indians/Alaska Natives, elderly Hispanics are more likely to be cared for within Hispanic communities than in nursing homes. The same is true for elderly African American patients whose families are more likely to use informal support networks and less likely to use in-home care services and nursing homes than are whites.[356] These facts are due both to cultural norms that focus on the strength and centrality of family values and to economic or

health necessity.[357] Evidence of this pattern is suggested in the percentages of older women who live alone. Only 22 percent of Hispanic women ages 65 and older live alone—76 percent live with their spouse or other relatives. This compares to the 42 percent of non-Hispanic white and 40 percent of black elderly women who live alone.[340]

The change of roles for elders vis-á-vis younger persons within Asian families that have migrated to the United States has implications for both the living arrangements of and access to care among elders. Although Asian elders may help with childcare or perform household duties for their families, they no longer can offer financial support, land, or other material goods as they might have been able to when living in their homelands. Thus, as the case of Chinese elders illustrates, few live with their children, who have left the central cities in which the families first settled. Instead most Chinese elderly remain in Chinatowns where their needs for social interaction and health care services are more easily met.[358]

Greater future unmet need both for health insurance and for health care services thus might be anticipated among elderly women of color than among elderly white women. Currently, though, racial/ethnic elders report lower rates of utilization than whites, despite their greater per capita needs for health care services. Among elderly women enrolled in Medicare, access to health care services varies by race. More than 7 percent of African American elders with Medicare coverage reported delays in receipt of health care due to cost, as did more than 6 percent of Hispanics and more than 4 percent of whites.[359] These findings may relate to the degree of poverty among women of color who are enrolled in Medicare. In 2002, while only 17 percent of the 33 million whites who were Medicare beneficiaries had incomes less than $10,000, more than double this share of the 4 million African American beneficiaries (46 percent) and of the 3 million Hispanic beneficiaries (42 percent) reported incomes at this level.[360]

Because Medicare does not cover all the health expenses incurred by the elderly population, many choose to supplement Medicare with private insurance, Medicaid, or other types of insurance. Supplemental insurance coverage and type of coverage, however, differ by race. Sixty-five percent of the white elderly have both Medicare and private insurance, considerably higher than the percent of blacks (39 percent) with this same combination.[361] Elderly of color, however, are substantially more likely to have Medicare coverage—either alone or in combination with Medicaid; about two-thirds of each of the groups mentioned has this coverage.[362]

Other barriers to care are sociocultural and political. For example, because they ascribe ill health and debility to the normal aging process, American Indians/Alaska Natives may be less likely than others to seek care for conditions that are treatable and curable.[347] Similar sociocultural and political barriers may interfere with the access of elderly black women to health care services. Many elderly black women, especially those who live in rural areas, are unaware of their breast cancer risk and the need for mammography. Part of this is due to a failure by physicians and health care providers to refer elderly black women for screening. Studies have shown that if a physician or other community health worker informs a woman of her cancer risk and suggests mammography, she is much more likely to get a mammogram, even though she may still avoid screening due to a sense of fatalism or fear of cancer.[363]

This avoidance of breast cancer screening by elderly, rural black women contrasts with the national finding that elderly black women are as likely to get mammograms as elderly women of other racial/ethnic groups. (In 2000, 66 percent of non-Hispanic black women ages 65 and older reported having had a mammogram within the past 2 years. This rate is comparable to the 68 percent of non-Hispanic white and 68 percent of Hispanic elderly women who reported being screened during the same period.[41]) Although poverty also is a factor in this lack of access to preventive services, it is not the entire explanation. One legacy of the history of official as well as *de facto* discrimination within the rigidly segregated health care systems of the Old South is that older black women may perceive an unwelcoming attitude within predominantly white health care systems. Black elders often turn to kin and friends rather than to the local health care system for support and information.[364]

Even if elderly black women get into the health care system to see providers, diagnosing and treating their conditions become complicated by communication and scientific barriers. Communication styles developed by black elders as coping mechanisms for functioning in a racist society may interfere with the process of sharing information with providers to enable them to diagnose medical conditions. Black elders may be reluctant to offer information about themselves or their medical histories, and they may be difficult to engage in a medical encounter for fear of displaying weakness.[356] They also may be hesitant

to report that treatments are not satisfactory for fear of being ignored or receiving retaliation. In addition, conditions among the black elderly sometimes are misdiagnosed because most standard medical texts do not include discussions of the way skin color may affect the presentation or manifestation of disease.[365] Because pressure sores or jaundice may manifest differently in patients with darker skin tones, potentially significant conditions may not be detected until they are in advanced stages, or benign conditions may be diagnosed as being more serious than they really are.

Although the inability to speak English constitutes a major barrier for some elderly Asian women when seeking health care, it is not the only impediment. Cultural differences in communication style can often create unintended problems. For example, elderly Asians may nod and smile while doctors are speaking to them, as a way to show respect for the doctor's authority. However, if the doctor is unaware of this cultural norm, he may interpret the nodding to indicate understanding or agreement. An elderly Asian patient who disagrees with a course of treatment may not feel that it is appropriate to then express this disagreement to the doctor, the authority figure.[366] Asian women as well as Native Hawaiian and Other Pacific Islander women may fail to seek care if they feel it might impinge upon the honor and integrity of the family. In particular, Southeast Asian refugee women have been found to avoid seeking treatment for substance abuse or mental illness because of the potential impact on their families of the stigma or shame associated with doing so.[246]

The perception of illness by elderly Asian Americans, which focuses primarily on symptoms such as pain, weakness, dizziness, or nausea, also can serve as a barrier to seeking care.[351] This perception of illness makes it difficult for Asian Americans to conceptualize—and thus seek treatment for—diseases such as cancer, hypertension, or diabetes mellitus. Symptoms are not viewed as possible indicators of a chronic or degenerative disease, but rather as a disruption in the balance of "chi," or life energy. For example, a study in Boston's Chinatown revealed that no word for Alzheimer disease exists in any Chinese language. This is because Alzheimer disease is conceptualized differently by the Chinese.[367]

Another example is the difficulty older Asian American women experience in the conception of illness in the female reproductive organs.[351] This may partially explain the low percentages of Asian American women who report getting mammograms and Pap smears. Cultural masking of the breasts and vagina after menopause often result in modesty and a deferment of examination of these organs.[368] In addition, Asian women ages 65 years and older (83 percent) also were less likely to report having their blood pressure measured within the past year than other women (87 percent white, 85 percent Hispanic, and 90 percent black elderly women) and most likely to report (7 percent) never having their blood pressure checked or having had it checked three or more years ago.[369]

Health Assessment

Elderly people of color, especially Hispanics and African Americans, have a greater number of functional disabilities (as measured by limitations in activities of daily living, required use of assistive devices, and cognitive disabilities) than elderly whites of the same ages.[370] In part reflecting these functional disabilities, in the period 2000–2002, black and Hispanic elderly women were more likely than white elderly women to rate their health as fair or poor—43, 39, and 24 percent, respectively.[340] Activity limitations due to arthritis increase with age for all women, but are especially severe for African American and Other women (including American Indian/Alaska Native women and other non-Hispanic or non-white women) among the nearly 16 million people 65 years of age and older reporting this condition.[371]

Osteoporosis, often the cause of hip fractures among elderly women, is widely known to be more common in Asian women than in other racial/ethnic groups of elderly women.[372] Although the decrease in calcium absorption with age is implicated in the incidence of osteoporosis among Asian women, the lack of exercise among this subpopulation also is a causal factor. Even with hip fractures in black women occurring about half as frequently as in white women, the rate of these fractures in black women is considerable and is associated with higher incidences of comorbid illnesses. The proportion of African American women hospitalized for hip fracture who die in the hospital is twice that of white women.[373]

American Indian/Alaska Native women ages 65 and older reported a greater incidence of diabetes than all United States women in 2002—nearly 30 percent of American Indian/Alaska Native elderly women had been diagnosed with diabetes, compared to nearly 16 percent of all elderly women in the United States. Diabetes mellitus is a chronic conditions that may contribute to functional disability and impairment, as well as premature death.[38] As it was in earlier adult years, diabetes also continues to be a

problem among black and Hispanic women 65 years of age and older. Among black women, diabetes can be termed epidemic, with 26 percent of black women ages 65 to 74 and 20 percent of black women ages 75 and older with the disease, nearly double these rates among white women.[145]

Racial/ethnic elders have been found to be somewhat more likely than other elderly persons to experience psychosocial distress. This is especially true for those elderly people of color who have experienced lives with low incomes, minimal education, substandard housing, and a general lack of opportunity, and thus have fewer social and psychological coping resources available to them. These characteristics can apply to elderly women born in the United States, as well as to elderly immigrant women whose arrival in and adjustment to the country has been more recent.[246]

At the same time, the accuracy of reports of psychiatric illnesses among African Americans has been questioned. Diagnostic biases have been found to result in greater likelihood of a diagnosis of schizophrenia among blacks than is warranted based merely on an assessment of patient symptoms.[374] Erroneous diagnoses are attributed to the social distance between the treating psychiatrists and the patients, the presence of racism, and unconscious fears related to working with patients different from themselves. These erroneous diagnoses often result in the increased use of restraints and higher doses of drugs being prescribed for black elderly patients (than for white elderly patients) with mental health problems.[375]

Effective responses to mental problems vary by racial/ethnic group. For example, having strong social networks and many close, supportive relationships has been found to buffer psychological distress among elderly blacks.[376] The same has been found to be true among older Latinos.[377]

The major causes of death for racial/ethnic elderly subpopulations include diabetes and hypertension. Diabetes is a prominent cause of death among African American, Hispanic, and American Indian/Alaska Native elders, while hypertension is a major killer of both Asian and Pacific Islanders and of African American elders.[340] The six leading causes of death in 2001 for elderly American Indians were heart disease, cancers, cerebrovascular diseases, diabetes mellitus, chronic lower respiratory diseases, and pneumonia and influenza.[340]

In 2002, elderly Hispanic females were found to have lower death rates than elderly non-Hispanic whites females for diseases of the heart, cerebrovascular diseases, suicide, motor vehicle accidents, and cancers.[41] However, older Latino women had higher death rates due to diabetes mellitus, and chronic liver disease and cirrhosis than did non-Hispanic whites.[378]

Although age-adjusted mortality rates generally are lower for Asian Americans than for whites, there is great variety in the rates reported by subgroups of Asians.[351] Asian and Pacific Islander women 65 years of age and older have a death rate from suicide (nearly seven per 100,000) that is six times that of elderly black women (one per 100,000) and 1.5 times that of elderly white women (more than four per 100,000).[41] Suicide rates among elderly Chinese American women, in particular, are known to exceed suicide rates among non-Asian women of the same ages. Chinese American women ages 65 years and older have a suicide rate three times that of white women ages 65 years and older and Chinese American women ages 75 years and older have a suicide rate seven times that of white women in the same age cohort.[379] The majority of elderly Chinese suicide victims are foreign-born.

Death rates among some racial/ethnic elderly populations differ from those among whites due in part to the "mortality crossover" effect observed among American Indians. The mortality crossover effect is a pattern of selective survival in which the least robust American Indians die at earlier ages and hardier ones survive to much older ages.[380] This explains why life expectancy for whites exceeds that for American Indians until age 75, but the reverse becomes true after age 85—that is, life expectancy for American Indians exceeds that for whites.[339]

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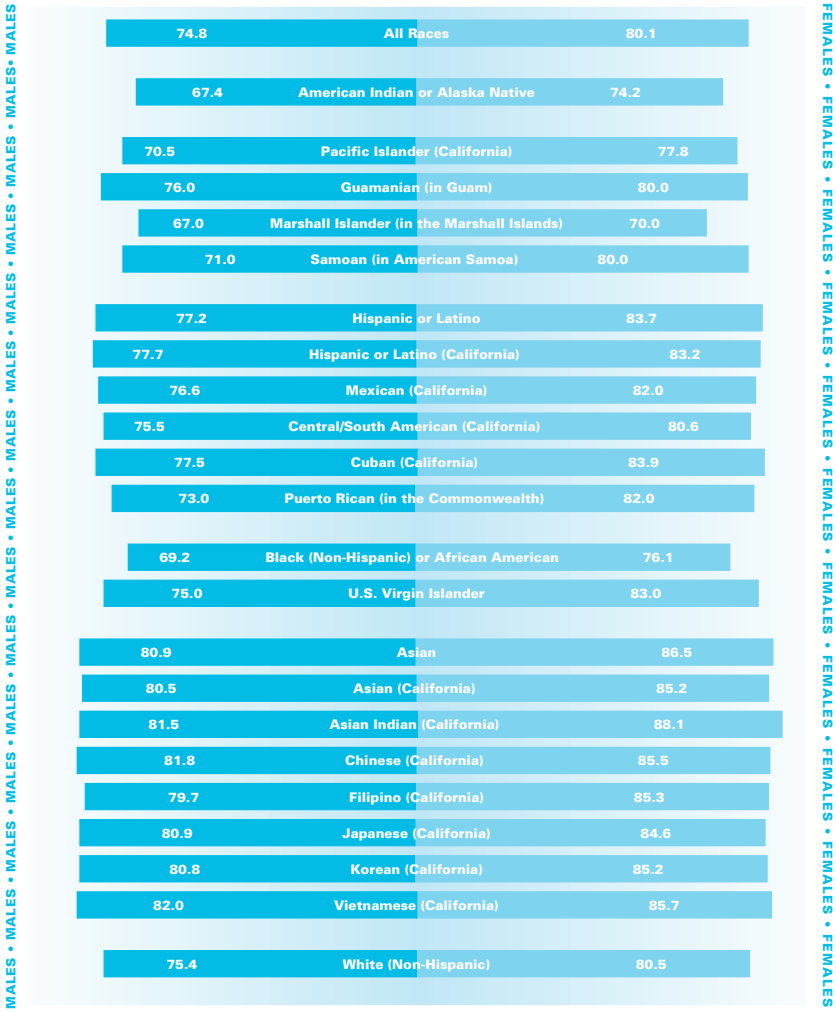
HEALTH ASSESSMENT OF WOMEN OF COLOR

Life Expectancy

- Among both whites and people of color, life expectancy is greater for women than for men. The greatest gaps in life expectancy are reported between women and men in American Samoa and the Commonwealth of Puerto Rico (9 years each).[1]
- In the past, life expectancies of white non-Hispanic men and women exceeded those of most people of color. Life expectancies for many Asian women living in California (85.2 years) and for Latino women living in California (83.2 years) equal or exceed that of white women in California (80.1 years), however. Similarly, Asian men (80.5 years) and Latino men in California (77.7 years) are expected to live longer than white men (75.5 years).[2]
- The life expectancy in 2000 for Hispanics in California was 83.2 years for women and 77.2 years for men.[2] For the population living in Puerto Rico, female life expectancy from birth is 82 years, while for men it is 73 years.[1] Hispanic women in the United States have a longer life expectancy (83.7 years) than either American Indian and Alaska Native or black women (74.2 and 76.1 years, respectively).[3,4]
- The predominantly black population of the U.S. Virgin Islands reports life expectancies at birth for women and men that exceed these expectancies for other black Americans. Life expectancy for females in the Virgin Islands is 83 years, compared to 76.1 years for black females elsewhere in the United States. The gap in life expectancy is even greater between males in the Virgin Islands (75 years) and black males elsewhere in the United States (69.2 years).[1,4]

FIGURE 4
Life Expectancy at Birth in Years by Race and Sex, 1996–1998, 1999, 2000, 2002, 2003

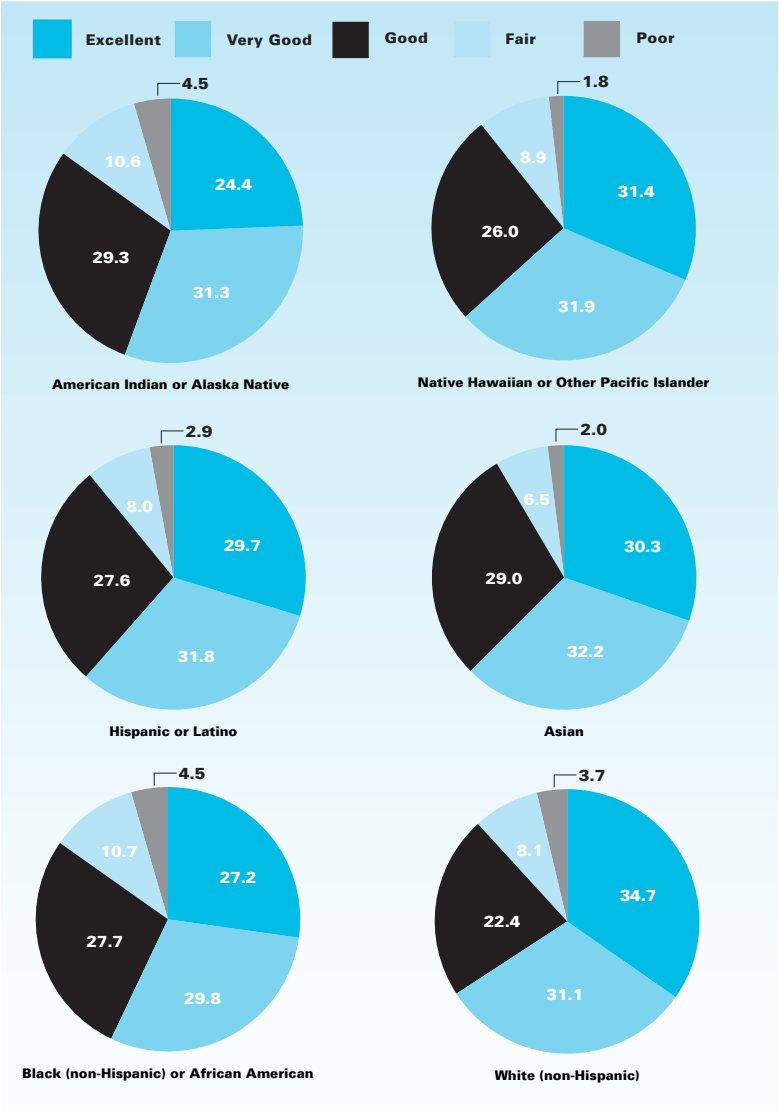

MALES • MALES • MALES •

- Life expectancy from birth for Native Hawaiian females living in Hawaii was slightly more than 77 years in 1990, the most recent year for which data are available.[5,6] Life expectancy for Samoan women living in the U.S. Territory of American Samoa is 80 years; for Guamanian women, life expectancy is also 80 years.[1]
- American Indian/Alaska Native women in the majority of Indian Health Service (IHS) service areas had a life expectancy of more than 74 years between 1996 and 1998. This average life expectancy for American Indian/Alaska Native women reflects service areas such as Bemidji, where life expectancy is slightly greater than 68 years, and California, where life expectancy is more than 78 years.[3]
- American Indian females in California (1996–1998) had a higher life expectancy at birth (78.4 years) than their counterparts in all other IHS service areas (68.3 to 76.7 years), but lower than all women in the United States (79.4 years) at that time.[3]
- Life expectancy at birth for Asian populations is the highest among all racial groups (86.5 years for women and 80.9 years for men).[7] In 2000, the average life expectancy for Asian females in California was 85.2 years. The life expectancy among Asian women in California was highest for Asian Indian women (88.1 years), followed by Vietnamese women, Chinese women, Filipino women, and Korean women, all with expectancies between 85 and 86 years.[2]

Self-reported Health Ratings

- Self-reported health ratings by patients have generally proven to be sound indicators of later life health and mortality. In addition, they tend to be good measures of overall health that correlate well with other assessments of patient health. This is true across racial/ethnic subpopulations, except among some newer Hispanic immigrants, possibly due to the immigrant epidemiological paradox or the influence of the generally optimistic outlook of new residents on their health.[8]
- In 2004, among all women of color, more than half believed they were in excellent or very good health. More than 61 percent of Hispanic or Latino women and 57 percent of black non-Hispanic women ranked their health as excellent or very good.[9] This contrasts with findings from a 1993 survey that only 48 percent of Hispanic women and 44 percent of black women rated their health excellent or very good.[10]
- A majority of white non-Hispanic women (nearly 66 percent), Native Hawaiian or Other Pacific Islander women (more than 63 percent), and Asian women (more than 62 percent) rated their health as excellent or very good.[9]
- American Indian or Alaska Native women were the most likely to report they were in fair or poor health.[11] In 2004, 15.1 percent of American Indian or Alaska Native women reported fair or poor health, compared to 15.2 percent of black non-Hispanic women, 11.8 percent of white non-Hispanic women, and 10.9 percent of Hispanic women.[9]
- Data from the 2000–2002 National Health Interview Surveys reveal that among adults ages 65 and older, black non-Hispanic women and Hispanic women rated their health significantly worse than did non-Hispanic black men and Hispanic men. The same was true for white women and men, with white women reporting worse health than white men.[12]

FIGURE 5
Self-reported Health Ratings among Women by Race/Ethnicity, 2004
Percent



Source: Bureau of the Census. *Current Population Survey, March Supplement 2004.* DataFerrett. Available at: *http://dataferrett.census.gov/.* Date Accessed: 12/1/05.

- Of women ages 65 and older in 2000–2002, Hispanic women (39.2 percent) and black non-Hispanic women (42.5 percent) were most likely to rate their health as fair or poor, followed by white non-Hispanic women at 23.8 percent.[12]
- Among women ages 65 and older, a higher percent of non-Hispanic whites (76.2 percent) than non-Hispanic blacks (57.5 percent) and Hispanics (60.8 percent) reported their health as good to excellent between 2000 and 2002.[12]

- In the period 1997–2000*, among both men and women of Hispanic origin, Puerto Ricans were the most likely to report their health as fair or poor (17 percent), while Cubans were the least likely (10 percent). Thirteen percent of Mexicans reported fair or poor health.[13] Among persons of Asian origin, Vietnamese Americans were the most likely (40 percent) and Chinese Americans the least likely (11 percent) to report fair or poor health in 2001. In addition, 29 percent of Korean Americans and 17 percent of all Asian Americans rated their health as fair or poor.[14]
- Between 1997 and 2000*, 67 percent of Cubans assessed their health as excellent or very good, while 60 percent of Puerto Ricans and 59 percent of Mexicans reported the same. In the same time period, 17 percent of Puerto Ricans, 13 percent of Mexicans, and 10 percent of Cubans reported fair or poor health.[13]

* The most recent period for which data are available for these subgroups.

Major Causes of Death

- Although death rates from heart disease have been falling for the past 50 years, diseases of the heart remain the major cause of death for most females, except Asian and Pacific Islander females and American Indian or Alaska Native females, for whom they are the second major cause of death, behind cancers.[15]
- Age-adjusted death rates from diseases of the heart ranged from a high of 263 per 100,000 black or African American women to a low of 108 per 100,000 Asian and Pacific Islander women in 2002. Death rates for Hispanic women and American Indian/Alaska Native women—150 per 100,000 and 124 per 100,000, respectively—are less than the rates reported by both black women (noted above) and white women (192 per 100,000). In 2002, diseases of the heart accounted for as much as 29 percent of all deaths to white females and as little as 19 percent of all deaths to American Indian or Alaska Native females. Deaths due to heart disease account for comparable shares of the deaths to black (28 percent), Hispanic or Latino (25 percent), and Asian or Pacific Islander (25 percent) females.[15]
- Death rates from diseases of the heart varied considerably by age cohort for women of color. In 2002, rates among women ages 45 to 54 years were markedly lower than the rates reported for women of all ages. Among black or African American women, 125 per 100,000 died, as did 30 per 100,000 Hispanic women, and 16 per 100,000 Asian and Pacific Islander women. The death rate from heart disease for American Indian or Alaska Native women ages 45 to 54 dropped considerably—from 51 in 1999, to 43 in 2001, to 30 per 100,000 in 2003. Among all women ages 55 to 64 years, black or African American women remained the most likely to die from diseases of the heart—at the rate of 312 per 100,000. Their death rate was seconded by white women (132 per 100,000), then by American

TABLE 4
Leading Causes of Death for Women by Race/Ethnicity, 2002

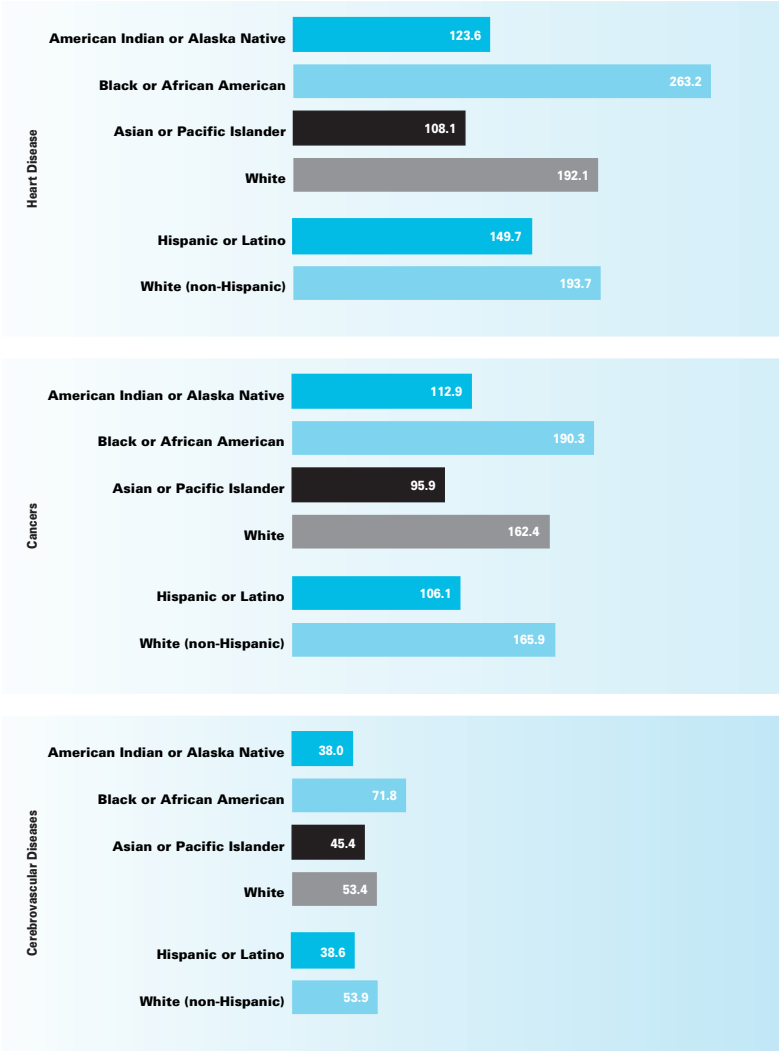
American Indian or Alaska Native	
all causes	5,665
malignant neoplasms	1,094
diseases of the heart	1,055
accidents (unintentional injuries)	485
diabetes mellitus	408
cerebrovascular diseases	331
chronic lower respiratory diseases	232
chronic liver disease and cirrhosis	228
pneumonia and influenza	160
nephritis, nephrotic syndrome, and nephrosis	124
septicemia	100
Hispanic or Latino	
all causes	51,432
diseases of the heart	13,089
malignant neoplasms	10,906
cerebrovascular diseases	3,448
diabetes mellitus	3,133
accidents (unintentional injuries)	2,408
chronic lower respiratory diseases	1,433
pneumonia and influenza	1,426
certain conditions originating in the perinatal period	1,050
Alzheimer disease	1,010
chronic liver disease and cirrhosis	972
Black or African American	
all causes	143,216
diseases of the heart	40,527
malignant neoplasms	29,990
cerebrovascular diseases	11,028
diabetes mellitus	7,480
nephritis, nephrotic syndrome, and nephrosis	4,061
accidents (unintentional injuries)	3,901
chronic lower respiratory diseases	3,490
septicemia	3,434
pneumonia and influenza	3,103
human immunodeficiency virus infection	2,534
Asian or Pacific Islander	
all causes	17,849
malignant neoplasms	4,805
diseases of the heart	4,460
cerebrovascular diseases	1,931
diabetes mellitus	711
accidents (unintentional injuries)	700
pneumonia and influenza	535
chronic lower respiratory diseases	395
nephritis, nephrotic syndrome, and nephrosis	329
Alzheimer disease	231
Essential (primary) hypertension and hypertensive renal disease	221
White (non-Hispanic)	
all causes	1,077,393
diseases of the heart	309,972
malignant neoplasms	232,614
cerebrovascular diseases	86,760
chronic lower respiratory diseases	59,986
Alzheimer disease	39,184
pneumonia and influenza	32,965
accidents (unintentional injuries)	32,399
diabetes mellitus	30,349
nephritis, nephrotic syndrome, and nephrosis	16,765
septicemia	15,191

Source: National Center for Health Statistics. *Health, United States, 2004 With Chartbook on Trends in the Health of Americans*. Hyattsville, MD: National Center for Health Statistics, 2004, p.156-157.

Indian/Alaska Native women (124 per 100,000) and Hispanic or Latino women (106 per 100,000).[15]

- Among women ages 65 to 84, black or African American women also had the highest rate of deaths from heart disease—734 per 100,000 women ages 65 to 74 and 1,822 per 100,000 women ages 75 to 84.[15]
- However, among women ages 85 years and older, white women had the highest mortality rate from heart disease—5,351 white women per 100,000 died in 2002, a higher rate than any women of color subpopulation in that age cohort. More than 5,100 per 100,000 black or African American women, 4,000 per 100,000 Hispanic women, and nearly 3,100 per 100,000 Asian and Pacific Islander women died from heart disease in 2002. More than 2,300 per 100,000 American Indian or Alaska Native women 85 years and older died of heart disease as well.[15]
- Cancers (malignant neoplasms) are the second most common cause of death for all females except Asian and Pacific Islander females and American Indian or Alaska Native females, for whom it is the main cause of death. Twenty-seven percent of all deaths to Asian and Pacific Islander females and 19 percent of all deaths to American Indian or Alaska Native females in 2002 were due to cancers.[15]
- Black or African American and white women reported the highest death rates from all forms of cancer in 2002. The age-adjusted death rate for black or African American women of 190 per 100,000 exceeded the rate for white women (162 per 100,000), as well as the rates of American Indian or Alaska Native (113 per 100,000), Asian or Pacific Islander (96 per 100,000), and Hispanic (106 per 100,000) women.[15]
- The third-ranked killer of most females is cerebrovascular diseases (primarily strokes). American Indian or Alaska Native women provide the only exception to this. Cerebrovascular diseases rank fifth among the causes of death for American Indian or Alaska Native women, behind unintentional injuries and diabetes mellitus, respectively.[15]
- Death rates from cerebrovascular diseases also were highest among black or African American women (72 per 100,000). The second highest death rate from cerebrovascular diseases in 2002 was reported for white non-Hispanic women (54 per 100,000), with rates for Asian and Pacific Islander women (45 per 100,000), Hispanic or Latino women (39 per 100,000), and American Indian or Alaska Native women (38 per 100,000) the lowest among the groups.[15]
- Unintentional injuries kill many females, although their ranking among the top ten causes of death varies by racial/ethnic group. Unintentional injuries are those caused by accidental or unintended exposure to mechanical force, energy, chemicals, heat, radiation, or electricity in amounts beyond the limits of human tolerance.[16] Unintentional

FIGURE 6
Age-adjusted Mortality Rates from Major Causes of Death among Women by Race/Ethnicity, 2002
Deaths per 100,000 population



Source: National Center for Health Statistics, *Health, United States, 2004 With Chartbook on Trends in the Health of Americans.* Hyattsville, Maryland: 2004, p. 156-157.

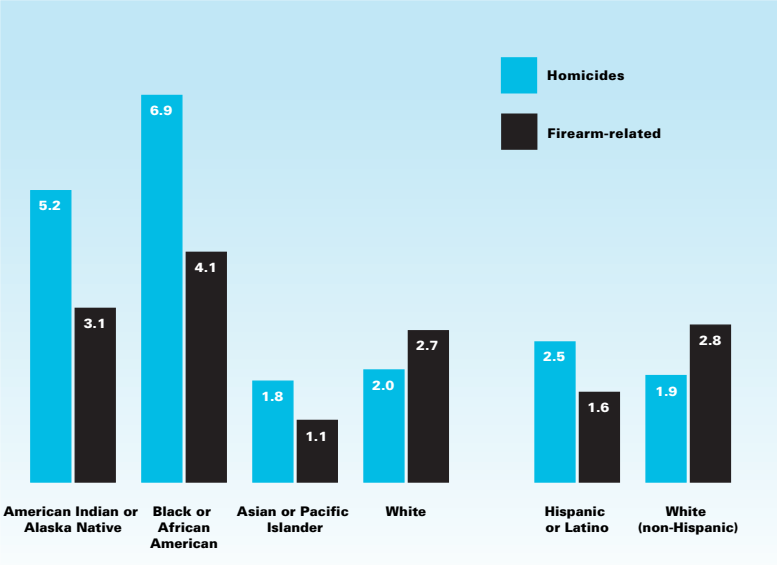
injuries or other types of accidents took the lives of more women than did firearm-related events, motor vehicle-related accidents, and homicides.

- As noted earlier, unintentional injuries are the third-ranked killer of American Indian or Alaska Native women. They are the fifth-ranked cause of death for Hispanic or Latino and Asian or Pacific Islander females, the sixth-ranked killer for black females, and the seventh-ranked killer of white females. The mortality rate for unintentional injuries among American Indian or Alaska Native women was 35 per 100,000 for 1999 to 2001, compared to more than 22 per 100,000 for white and black women, more than 16 per 100,000 for Hispanic or Latino women, and almost 13 per 100,000 for Asian or Pacific Islander women.[15,17]
- Although its ranking varies, diabetes mellitus is among the top ten causes of death for all women. It is the fourth-ranked cause of death for African American, American Indian or Alaska Native, Hispanic, and Asian or Pacific Islander females. Diabetes mellitus is the eighth-ranked killer of white females. Since 1980, diabetes mellitus has increased in its ranking as a top killer of women of color (up from fifth among black or African American and Asian or Pacific Islander women and sixth among American Indian or Alaska Native women), while decreasing in the rankings of top killers of white women (down from sixth).[15]
- Chronic lower respiratory diseases, the fourth-ranked cause of death for white females, are a major killer of women of other racial/ethnic groups, but to a lesser extent. They are the sixth-ranked killer of Hispanic or Latino females and American Indian or Alaska Native females, and the seventh-ranked killer of black females and Asian or Pacific Islander females.[15]
- Several conditions are notable because they cause large numbers of deaths mainly among women of color. In 2002, chronic liver disease and cirrhosis were the seventh cause of death among American Indian or Alaska Native women, and the tenth cause of death among Hispanic women.[15] American Indian or Alaska Native women have extremely high mortality rates for cirrhosis and chronic liver disease—19.2 per 100,000 from 1999 to 2001. This is twice the next highest rate for this time period (9.1 per 100,000 Hispanic women) and three times the rate for white and black women (6.2 per 100,000 and 6.1 per 100,000, respectively).[17]
- Among women of all races and in all age categories, white females ages 45 to 64 years (at 7.5 per 100,000) and American Indian females ages 15 to 24 years (at 7.4 per 100,000) have the highest death rates due to suicide. These top rates are followed by Asian or Pacific Islander women ages 65 and older for whom the death rate is 6.8 per 100,000.[15]
- Although it was the eighth leading cause of death in 1996, since 1997, human immunodeficiency virus (HIV) infection has not been one of the top 15 causes of death for the female population in the United States.[18] HIV infection, the ninth cause of death for Hispanic females in 1993, was no longer one of the ten top causes of death for that population in 2002. HIV infection, however, remains one of the ten most frequent causes of death among all black women, ranked 10th in both 2002 and 1999.[15] In addition, in 2002, HIV infection was the leading cause of death among black women ages 25 to 34 and the third leading cause of death among black women ages 35 to 44.[19]

Other Causes of Death

- Other noteworthy but less common causes of death among women of color include assault (homicide), firearm-related events, motor vehicle accidents, and drug- and alcohol-related deaths. American Indian or Alaska Native women and black or African American women most frequently report these causes of death.[15,17]
- In 2002, among women, black or African American women had the highest mortality rates both from assault (homicides) and from firearm-related events (nearly 7 per 100,000 and more than 4 per 100,000, respectively). American Indian or Alaska Native women had the next highest homicide mortality rate at more than 5 per 100,000 deaths. The homicide rate was 2.5 per 100,000 Hispanic or Latino women, 2.0 per 100,000 for white women, and 1.8 per 100,000 for Asian or Pacific Islander women. Firearm-related mortality rates fell in the range from 3.1 per 100,000 to 1.1 per 100,000 for American Indian or Alaska Native, Asian or Pacific Islander, Hispanic or Latino, and white women.[15]
- More than twice as many American Indian or Alaska Native women (19.3 per 100,000) died in motor vehicle-related accidents in 2002 as did black, Hispanic, and Asian or Pacific Islander women. The age-adjusted motor vehicle death rate for most women of color was between 6.2 per 100,000 (Asians or Pacific Islanders) and 8.2 per 100,000 (blacks). The motor vehicle-related death rate of American Indian or Alaska Native women also was nearly double that of white women (9.8 per 100,000).[15]
- During the period 1999–2001, alcohol-induced deaths were more common among American Indian or Alaska Native women than other women. Their death rate was 17.9 per 100,000, many times the rates for black non-Hispanic women (4.2 per 100,000), white non-Hispanic women (3.1 per 100,000), Hispanic women (2.7 per 100,000), or Asian or Pacific Islander women (0.6 per 100,000).[17]
- The range for the rates of drug-induced deaths among women was much narrower. However, American Indian or Alaska Native women still topped the list at 5.9 deaths per 100,000, followed closely by black non-Hispanic women at 5.3 per 100,000, white non-Hispanic women at 5.1 per 100,000, and Hispanic and Asian or Pacific Islander women at 2.4 per 100,000 and 0.9 per 100,000, respectively.[17]

FIGURE 7
Death Rates from Homicides and Firearms among Women by Race/Ethnicity, 2002
Deaths per 100,000



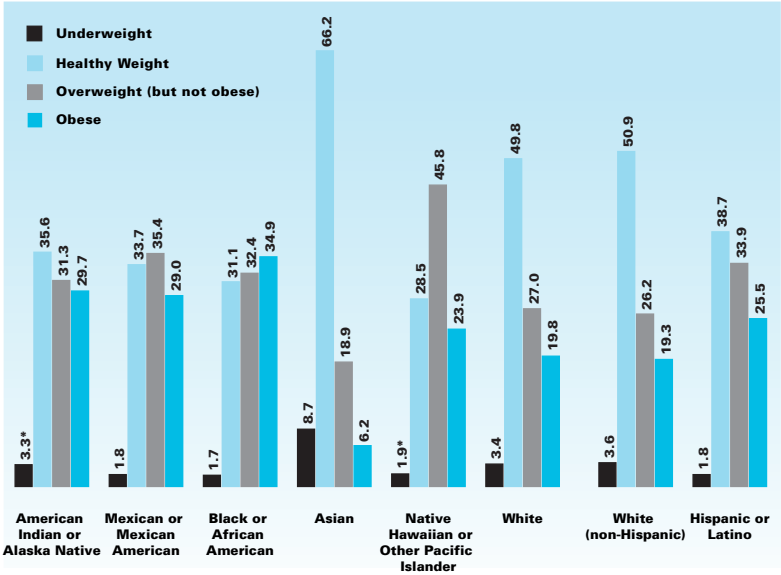
Source: National Center for Health Statistics, *Health, United States, 2004 With Chartbook on Trends in The Health of Americans.* Hyattsville, Maryland: 2004, p. 195-202.

Behavior and Lifestyles

Body Weight: Women of Color

- Body weight that is termed overweight or obese is associated with increased risk for adverse health outcomes. Among adults, overweight and obesity are identified using the Body Mass Index (BMI), a measure that adjusts body weight for height. Overweight generally is defined as a BMI of 25 and above, while obesity is defined as having a BMI of 30 and above.[15] Underweight is defined as a BMI less than 18.5.[20]
- The prevalence of both overweight and obesity within the U.S. population has increased in recent years.[21] In particular, obesity—a condition that carries with it an increased risk of heart disease, diabetes, high blood pressure, respiratory disorders, arthritis, and some cancers—is a problem for many women of color. Obesity among many subgroups of women of color is related in part to their sedentary lifestyles and to diet.[22]
- In the period 1999–2002, white non-Hispanic women ages 20 and older were much more likely to be at a healthy weight than either their Mexican American or black non-Hispanic counterparts. More than 70 percent of both Mexican American and black women ages 20 to 74 were overweight (71.2 and 77.1 percent, respectively), compared to 57.2 percent of white women in the same age group.[15]
- More Asian American women are underweight (defined as BMI less than 18.5) than any other group. In 1999–2001, 8.7 percent of Asian American women older than age 18 were underweight. White women were in distant second place with 3.4 percent defined as underweight. Nearly 2 percent of Hispanic or Latino and black or African American women were underweight.[20]
- Based on 1999–2001 data, the percentage of overweight females ages 18 and older ranged from 25.1 percent of Asian women to 67.3 and 69.6 percent of black and Native Hawaiian or other Pacific Islander women, respectively. Nearly three-fifths (59.5 percent) of all Hispanic or Latino women were classified as overweight in the same time period.[20]
- In 2000, more than 60 percent of Mexican American females were overweight, as were comparable shares of Cuban women (59.7 percent) and Puerto Rican women (58.4 percent).[23]
- Asian American women, in general, are the least likely to be overweight. However, among Asian subpopulations in a national sample there was a range; 26 percent of Filipino American, 25 percent of Asian Indian, 18 percent of Japanese American, and 9 percent of both Vietnamese and Chinese American women were overweight, according to 1992–1995 data.[24]
- More recent data for Asian women in Hawaii reveal that higher percentages are overweight. According to 2001–2003 survey data of women in Hawaii, 34.6 percent of Filipino women were overweight, as were 32.6 percent of Japanese and 26.1 percent of Chinese women.[25]
- In the period 1999–2001, 61.0 percent of American Indian and Alaska Native women were found to be overweight, with 29.7 percent classified as obese.[20] Prevalence of obesity varied by residence, from 20.2 percent of American Indian and Alaska Native women living in the Pacific region to 24.6 percent of those living in the Southwest, and to 31.1 percent of those living in Alaska.[11]
- Women of color who have resided in the continental United States for shorter periods of time are much less likely to be overweight or obese than their counterparts who have lived in the United States for longer periods of time. For example, while 19 percent of Puerto Rican women who had lived in the continental United States for 2 or fewer years were obese, 39 percent of Puerto Rican women who had lived in the continental United States for 10 or more years were obese.[26]
- The 2000 National Health Interview Survey revealed that for

FIGURE 8
Age-adjusted Percent of Women by Body Weight, 1999–2001



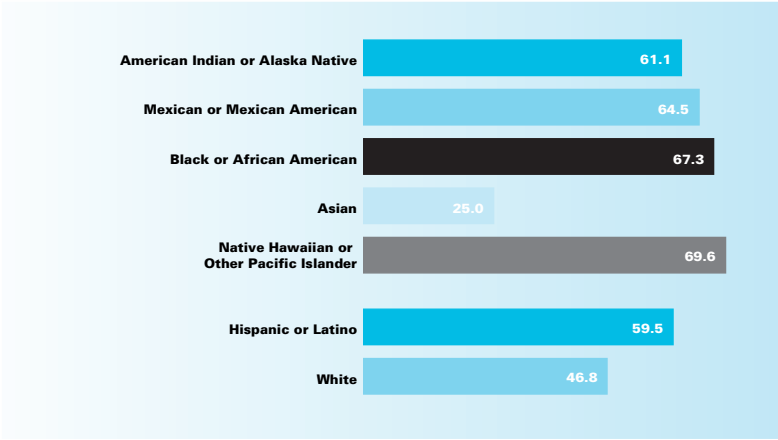
* Figures do not meet standards of reliability or precision. Sum of percentages overweight and obese does not equal percent reported obese in this same survey. (See other graph)

Source: Schoenborn CA, Adams PF, Barnes PM, Vickerie JL, Schiller JS. Health behaviors of adults: United States, 1999-2001. *Vital Health Statistics* 2004 Feb; 10(219):1-79. Hyattsville, MD: National Center for Health Statistics, p. 62.

most immigrants, living in the United States for more than 10 years is associated with a significantly higher body mass index. Eight percent of Asian, white, and Hispanic immigrants who had lived in the United States for less than one year were obese, compared to 19 percent of those who had lived in the United States for 15 or more years. However, for foreign-born blacks, increased years of residence in the United States did not lead to a significant increase in the likelihood of obesity.[27]

- The prevalence of obesity among American women has been increasing rapidly in recent years. Obesity prevalence among black non-Hispanic women increased 11.5 percent between the 1988–1994 and 1999–2000 periods. It increased 7.2 percent among white non-Hispanic women and 4.4 percent among Mexican American women in that same time period.[28]
- When compared with low income groups, women in higher income groups tend to have a lower prevalence of obesity and a higher prevalence of healthy weight, although the prevalence of underweight is similar. In 1999–2001, 29.2 percent of all women living below the poverty level were obese, compared to 15.8 percent of women with incomes at four or more times the poverty level.[20] Across racial/ethnic groups, women of lower socioeconomic status (≤ 130 percent of poverty threshold) are 50 percent more likely to be obese than women of higher socioeconomic status (>130 percent of poverty threshold), whereas men of lower and upper socioeconomic status are equally likely to be obese.[29]
- More than 40 percent of Hispanic, black, and white women reported attempting to lose weight in 2000—47.7, 44.5, and 45.8 percent, respectively.[30] A 2000 study also found that 29.1 percent of American Indian women in Minneapolis were trying to lose weight.[31]

FIGURE 9
Age-adjusted Percent of Women Age 18 and Older Who Were Overweight* by Race/Ethnicity, 1999–2001



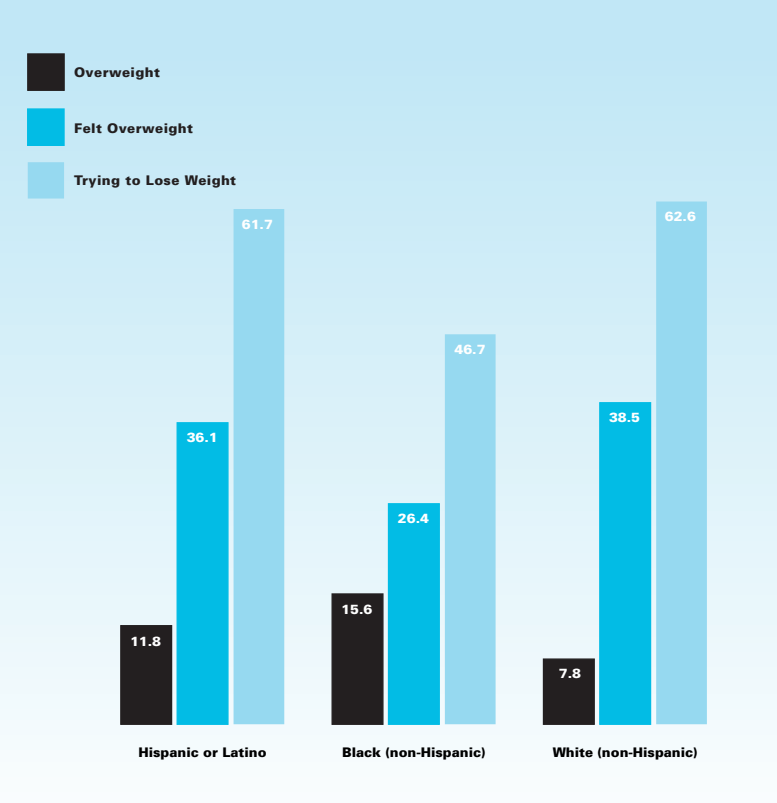
* Definition of overweight does not always match the result of combining the separate categories of overweight (not obese) and obese because of differences in the BMI thresholds used for these concepts.

Source: Schoenborn CA, Adams PF, Barnes PM, Vickerie JL, Schiller JS. Health behaviors of adults: United States, 1999-2001. *Vital Health Statistics* 2004 Feb; 10(219):1-79. Hyattsville, MD: National Center for Health Statistics, p. 59.

Body Weight: Adolescent Females of Color

- A 2003 national survey of high school students reported that nearly two of every five young Hispanic and white females (36 and 39 percent, respectively) felt they were overweight, compared to more than one of every four young African American females (26 percent). This contrasts with the survey findings that black female youth are more likely to be overweight (almost 16 percent) than either Hispanic females (nearly 12 percent) or white females (close to 8 percent). (In this survey, overweight is defined as being at or above the 95th percentile for body mass index (BMI) by age and sex, based on reference data).[32]
- Data from the National Health and Nutrition Examination Survey (NHANES) for 1999–2002 revealed that nearly two of every five non-Hispanic black and Mexican American females ages 12 to 19 (39.3 percent of each group) were "overweight or at-risk for being overweight." (Overweight or at-risk of being overweight is defined as BMI, or body mass index, at the 85th percentile or greater according to the age- and sex-specific percentiles of the Centers for Disease Control and Prevention BMI-for-age growth charts.) This compares with 26.5 percent of non-Hispanic white females overweight or at-risk for being overweight by this reference.[33]
- When overweight is defined as having a body mass index (BMI) at or above the sex- and age-specific 95th percentile BMI cutoff points from the Centers for Disease Control and Prevention (CDC) Growth Charts, the prevalence is higher among Mexican American and non-Hispanic black than among white female adolescents; 12.7 percent of white female adolescents were overweight, while more than 23 percent of black female teens and nearly 20 percent of Mexican American female teens were overweight.[33]

FIGURE 10
Body Image and Weight Loss Attempts among Female Adolescents by Race/Ethnicity, 2003
Percent



Source: Grunbaum JA, Kann L, Kinchen S, Ross J, Hawkins J, Lowry R, Harris WA, McManus T, Chyen D, Collins J. Youth Risk Behavior Surveillance — United States, 2003. In: Surveillance Summaries, May 21, 2004. *MMWR*. 2004:53(No. SS-2), p. 79-85. Available at: *http://www.cdc.gov/mmwr/PDF/SS/SS5302.pdf*. Date Accessed: 12/1/05.

- A majority of Hispanic and white female high school students reported attempting to lose weight in 2003—63 percent of whites and 62 percent of Hispanics—but only 47 percent of blacks reported the same.[32]
- Of those trying to lose weight, the vast majority attempted to do so by exercising (70 percent of white, 64 percent of Hispanic, and 49 percent of black female high school students). More than 56 percent of Hispanic females, 51.5 percent of white high school females, and 49.3 percent of black females were enrolled in a physical education class. Of these high school females enrolled in a physical education class, 73.5 percent of Hispanic and 66.7 percent of black female students reported exercising or playing sports for more than 20 minutes during those classes, compared to 76.6 percent of their white counterparts.[32]
- The second most popular method employed by young women to lose weight was dieting—eating less food, ingesting fewer calories, or eating foods low in fat. More than half of Hispanics and whites (55 and 61 percent, respectively) and almost two-fifths of blacks (39 percent) restricted their caloric intake to lose weight. Some of these youth engaged in unhealthy dieting—18.5 percent of white females, 18.2 percent of Hispanic females, and more than 14 percent of black high school females went without eating for more than 24 hours in order to lose weight or keep from gaining weight.[32]

- Adolescent females engaged in other unhealthy behaviors to lose weight. Some used laxatives and vomiting—9.7 percent of Hispanic high school females, 8.5 percent of white females, and 5.6 percent of black females. In addition, 5 percent of African American females, 11.7 percent of Hispanic females, and 13 percent of white females took diet pills to induce weight loss.[32]

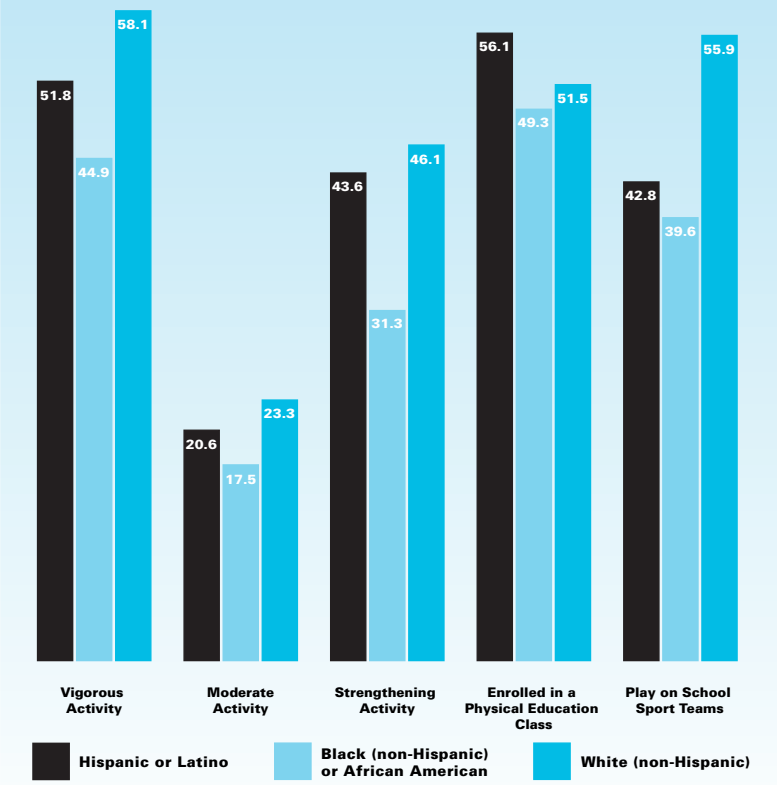
- Among middle and high school students in Minnesota, Hispanic, Asian American, and Native American girls were most likely to report low body satisfaction—57.3, 54.7, and 52.2 percent, respectively. Fewer than half of white and African American girls (46.7 and 33.8 percent, respectively) reported low body satisfaction. Although only 6.6 percent of Asian American girls were classified as obese,* 8.5 percent perceived themselves to be "very overweight." For all other racial/ethnic groups, higher percentages of girls were actually obese than felt overweight. For example, more than 22 percent of African American and nearly 19 percent of Native American girls were obese, but only 8.1 and 7.9 percent, respectively, felt very overweight.[34]

* Obese is defined as having a BMI at the 95th percentile or greater, according to the gender- and age-specific cut-off points based on Centers for Disease Control and Prevention growth charts.

Exercise

- Physical activity provides multiple benefits to adolescents and adults. For example, one study illustrated a significant decrease in substance abuse and depression and an increase in physical fitness and scholastic achievement among "at-risk" youth participating in a fitness program.[35]
- Diseases related directly to a lack of exercise, such as type 2 diabetes, are more prevalent among adolescents of racial/ethnic subpopulations.[36]
- About half of women of color in 1999-2001 led sedentary lifestyles—never engaging in any vigorous, moderate, or light physical activities for at least 10 minutes at a time. Nearly three-fifths of Hispanic women (57.2 percent), more than 55 percent of black or African American and of American Indian or Alaska Native women, and 42.6 percent of Asian women were sedentary, compared to 38.3 percent of white women and only 27.1 percent of Native Hawaiian or other Pacific Islander women.[20]
- According to a 2003 national youth survey, 58 percent of white, 52 percent of Hispanic, and 45 percent of black high school females engaged in vigorous physical activity several times a week; in addition, 23 percent of white, 21 percent of Hispanic, and 18 percent of black females engaged in moderate physical activity several times a week. Moderate activity is defined as physical activity that did not make the student breathe hard or sweat (like fast walking, mopping floors, or slow bicycling) and in which the student participated for at least 30 minutes a day, five or more days of the week. Vigorous activities are those that involve hard breathing and sweating for at least 20 minutes, three times a week.[32]
- A 2001–2002 study of Latina immigrants in North Carolina found that more-acculturated women (measured by the frequency of English use in writing, speaking, and thinking) were twice as likely as less-acculturated women to meet current physical activity recommendations. Women who had arrived in the United States when they were younger than 25 years old were also more likely to meet physical activity recommendations than those who immigrated when they were older than 25 years old.[37]

FIGURE 11
Female Adolescents by Race/Ethnicity Participating in Various Physical Activities, 2003
Percent

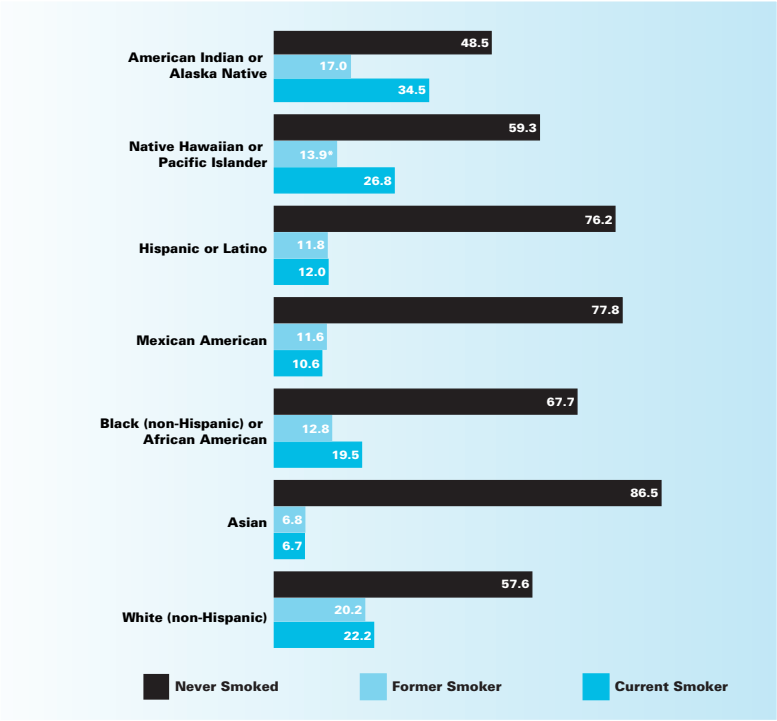


Source:Grunbaum JA, Kann L, Kinchen S, Ross J, Hawkins J, Lowry R, Harris WA, McManus T, Chyen D, Collins J. Youth Risk Behavior Surveillance — United States, 2003. In: Surveillance Summaries, May 21, 2004. *MMWR.* 2004:53(No. SS-2), p. 79-85. Available at: *http://www.cdc.gov/mmwr/PDF/SS/SS5302.pdf.* Date Accessed: 12/1/05.

Tobacco Use among Women of Color

- Current cigarette smoking among black and white females has declined since the late 1980s. However, younger Hispanic and Asian American women have made little progress in reducing consumption or have actually increased it. Targeted advertising to women and racial/ethnic subpopulations by the tobacco industry may be associated with these trends.[38]
- Although data tend to vary by survey, between 1999 and 2001, the percentages of women ages 18 and older (age-adjusted) who reported currently smoking cigarettes (defined as having smoked at least 100 cigarettes in her lifetime and currently smoking) ranged from a low of 6.7 percent (Asian women) to a high of 34.5 percent (American Indian or Alaska Native women). The proportions reporting smoking among Hispanic, black non-Hispanic, white non-Hispanic, and Native Hawaiian or Pacific Islander women were in the middle of this range (12.0, 19.5, 22.2, and 26.8 percent, respectively).[20]
- Smoking prevalence varies by Latino subpopulations, with Puerto Rican women most likely to smoke and Mexican American women least likely. Between 1999 and 2001, 27.3 percent of Puerto Rican women, 17.5 percent of Cuban women, 16.9 percent of Central or South American women, and 15.6 percent of Mexican women reported that they smoked during the previous month.[39]
- Among American Indian or Alaska Native women in 1997–2000, smoking prevalence varied by location, from 17.4 percent in the Southwest to more than double that share in the northern Plains states (38.6 percent) and in Alaska (39.6 percent).[11,38]
- Based on data from 1999–2001 and 2001–2002, the prevalence of smoking among Asian American female subpopulations (18 years of age and older) ranged from a low of less than 1 percent among Vietnamese American women to a high of 11 percent among Cambodian American women.[40] Among other Asian populations, it is estimated that 3 percent of Asian Indian women, 6 percent of Chinese American women, and 7 percent of Filipino American women are current smokers.[39]
- Asian and Pacific Islander American women are the most likely population to never try smoking.[38] According to data from the 1999–2001 period, 86.5 percent reported never trying smoking. In comparison, 76.2 percent of Hispanic, 67.7 percent of black non-Hispanic, and 57.6 percent of white non-Hispanic women had never tried smoking.[20]
- More than one-fifth of Samoan women (22.5 percent) are current smokers, with smoking prevalence highest among Samoans living in American Samoa, followed by their counterparts in Hawaii and Los Angeles. A report published in 2005 found that Samoan women were less likely to smoke than Samoan men, 31.4 percent of whom were current smokers.[41]
- On a daily basis, white and American Indian or Alaska Native women tend to smoke more than black or African American and Hispanic or Latino women. More than 70 percent of African American and Latino female smokers consume fewer than 15 cigarettes per day, compared to 47 percent of white women and 43 percent of American Indian or Alaska Native women who do the same. (A pack of cigarettes contains 20 cigarettes.) Less than 4 percent of African American and Latino female smokers are heavy smokers, while more than 12 percent of white female smokers are heavy smokers (smoke 25 or more cigarettes a day). (Federal data indicate that more

FIGURE 12
Age-adjusted Percent of Women 18 Years and Older by Smoking Status and Race/Ethnicity, 1999–2001



* Percent does not meet standards of reliability or precision

Source: National Center for Health Statistics, *Health, United States, 2004 With Chartbook on Trends in the Health of Americans.* Hyattsville, Maryland: 2004, p.26.

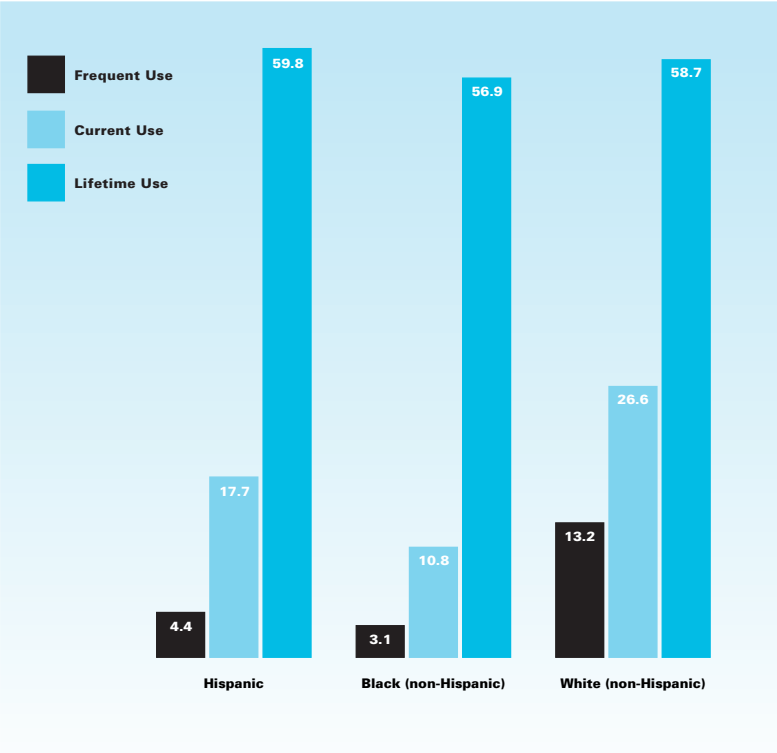
than 22 percent of American Indian or Alaska Native female smokers also are heavy smokers. However, this figure does not meet federal data reliability standards).[20] Among Hispanic subgroups, Mexican American women and Puerto Rican women (4 percent and less than 7 percent, respectively) are less likely to be heavy smokers than are Cuban women (more than 10 percent) and women belonging to Other Hispanic groups (nearly 18 percent).[38]

- Smoking rates among women also differ by age group. In the 2000–2002 period, 18- to 29-year-old white females were the most likely to be current smokers (29.9 percent). However, the largest percentages of Hispanic or Latino and black or African American females who reported smoking were the 13.9 percent of 45- to 64-year-old Hispanic females and the 27.6 percent of 35- to 44-year-old African American females.[15]
- Smoking rates also differ by level of education among black or African American and white women ages 25 years and older (age-adjusted). Data from 2000 to 2002 show that rates of smoking decline as education increases, from 29 percent of African American females with no high school diploma or GED to 16 percent of African American females with some college or more. The decline is greater among white females—from 40 percent among those without high school diplomas or a GED to 16 percent with some college or more. However, smoking rates among Hispanic or Latino women do not vary by level of education; 11 percent of those with no high school diploma or GED and 10 percent of those with some college or more smoke cigarettes.[15]
- Smokeless tobacco use has declined markedly among women in recent years. In 2000, 1.3 percent of black non-Hispanic women, 0.2 percent of white non-Hispanic women, and no Hispanic women were current users of smokeless tobacco products. Fewer than 1 percent (0.5 percent) of "Other" women (including American Indian/Alaska Native women) were current users of smokeless tobacco products.[42] In 1998, 7 percent of black, 6 percent of white non-Hispanic, and 3 percent of Hispanic women reported having used smokeless tobacco at least once in their lifetimes.[43]
- In recent years, very few women reported smoking cigars or pipes. The 2000 National Health Interview Survey found that 0.2 percent of all women were current cigar smokers.[42] An older survey (1997), however, found that 2 percent of Hispanic females and white non-Hispanic females and almost 3 percent of black non-Hispanic females had smoked cigars in the preceding month.[43] Consistent with the average for all women, one study found that 0.2 percent of American Indian/Alaska Native women and 0.1 percent of all other women smoked cigars or pipes. Another study, however, indicated that 0.5 percent of American Indian/Alaska Natives were cigar smokers.[38]

Tobacco Use among Adolescent Females of Color

- In the past, smoking was perceived as a male activity, but that picture is slowly changing. In 2003, the prevalence of cigarette use was equivalent among male and female white non-Hispanic high school students—58.7 percent of females reported having ever used cigarettes, compared to 57.4 percent of males. Male and female high school students who were Hispanic and black non-Hispanic also reported cigarette use at comparable rates. Sixty percent and 64 percent of Hispanic high school females and males, respectively, reported having smoked at least once. Among black non-Hispanic high school students, 57 percent of females and 60 percent of males had ever tried cigarettes.[32]
- However, adolescent females of color are less likely than white adolescent females to currently smoke cigarettes (2003 data). Twenty-seven percent of white high school females reported current smoking, compared to 18 percent of Hispanic and 11 percent of black high school females. Furthermore, 13.2 percent of white females smoked frequently (i.e., on at least 20 of the 30 days preceding the survey). On the other hand, very few black high school females (3.1 percent) smoked cigarettes as frequently as their white counterparts. Hispanic high school females are similar to their black counterparts, with 4.4 percent reporting frequent smoking.[32]
- Although the purchase and use of cigarettes is illegal for high school students until they turn 18 years of age in most states, 23.7 percent of black, 19.2 percent of Hispanic, and 12.0 percent of white females under the age of 18 reported purchasing cigarettes at a store or gas station during the month preceding a 2003 survey.[32]
- Among females who attended high schools funded by the Bureau of Indian Affairs in 2001, a large majority (89.2 percent) had tried smoking a cigarette, and 56.7 percent were current cigarette smokers.[44] In addition, in a national survey of females ages 12 to 17 during 1999 to 2001, 26.3 percent of American Indian/Alaska Native females reported cigarette use in the previous month, followed by 17.2 percent of white females, 10.2 percent of Hispanic females, 7.3 percent of Asian females, and 5.9 percent of black females.[39]
- By the age of 13, nearly a fifth of white girls (18.4 percent), 16.1 percent of Hispanic girls, and 11.5 percent of black girls already smoked an entire cigarette.[32]
- Sizable shares of white girls and Hispanic girls reported smoking cigarettes while on school property (10 and 7 percent, respectively) in 2003. However, these shares have declined since 1999, when 15 and 11 percent, respectively, had smoked on school property. Young black females not only were the least likely to smoke, but also were least likely to smoke at school (4 percent).[32]
- Smokeless tobacco use is infrequent among Hispanic, black, and white high school-age females. In a 2003 survey, 3.3 percent of Hispanic, 2.2 percent of black, and 1.6 percent of white high school females reported using smokeless tobacco products in the previous month.[32]
- Smokeless tobacco use among American Indian and Alaska Native female youth varies by tribal affiliation and region of residence. One study conducted in the Southeast found that more than 15 percent of girls of all races and slightly more than 20 percent of American Indian girls had tried smokeless tobacco.[38] A survey of adolescents attending high schools funded by the Bureau of Indian Affairs found that a comparable percent of

FIGURE 13
Adolescent Females, Grades 9 to 12, by Race/Ethnicity and Cigarette Use, 2003
Percent



Source: Grunbaum JA, Kann L, Kinchen S, Ross J, Hawkins J, Lowry R, Harris WA, McManus T, Chyen D, Collins J. Youth Risk Behavior Surveillance — United States, 2003. In: Surveillance Summaries, May 21, 2004. *MMWR*. 2004:53(No. SS-2), p. 49, 51. Available at: *http://www.cdc.gov/mmwr/PDF/SS/SS5302.pdf*. Date Accessed: 12/1/05.

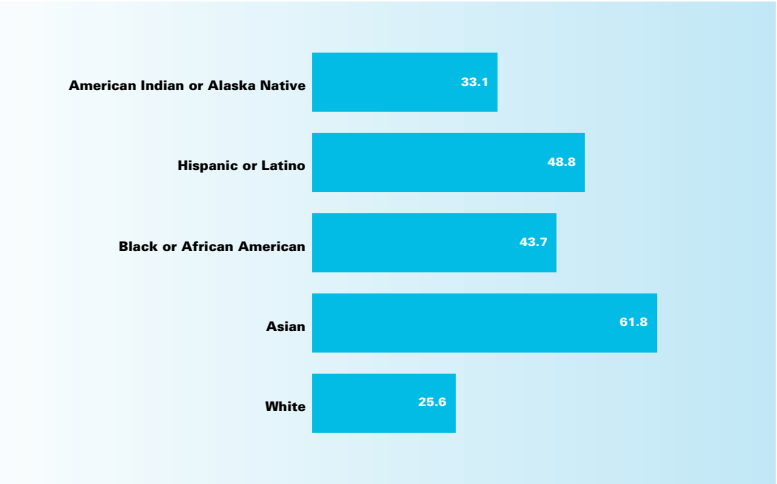
American Indian girls (14.5 percent) used smokeless tobacco.[44]

- Bidi cigarettes are a tobacco product growing in popularity in the United States, especially among adolescents. Made in India, bidis are smaller than regular cigarettes and consist of tobacco and sweet flavorings like chocolate or cherry hand-rolled in leaves and tied with string. Because of the sweet flavoring, appearance, and the fact that they are marketed as more "natural" than regular cigarettes, many adolescents do not realize how harmful they are—bidis are unfiltered and have a higher nicotine and tar content than regular cigarettes. In 2002, more than 7 percent of adolescents ages 12 to 17 years reported having used bidi or clove (another type of specialty cigarette) cigarettes in their lifetimes. More than 30 percent of adults ages 18 to 25 years and more than 9 percent of adults ages 26 years and older reported lifetime use.[45,46]

Alcohol Consumption among Women of Color

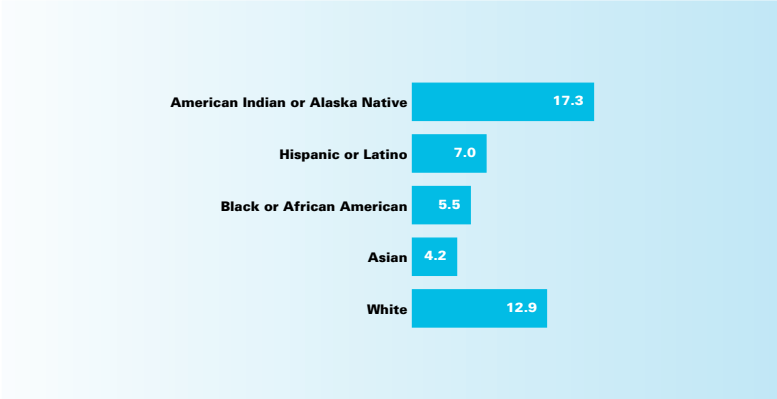
- Alcohol consumption becomes a factor in women's health if it is frequent and heavy enough to impair judgment, or if it places women at risk of accidents and abuse by others. In addition, recent studies have indicated that gender differences in the absorption and metabolism of alcohol place women at higher risk than men for the adverse effects of alcohol consumption, e.g., violent victimization, alcohol-induced liver disease, alcoholic hepatitis, death from cirrhosis, and other damage to the liver, heart, and brain.[47,48]
- White women (74 percent) and American Indian/Alaska Native women (67 percent) are the most likely to have used alcohol in their lifetimes (defined as having consumed 12 or more drinks in a lifetime), followed by black or African American women (56 percent), Hispanic or Latino women (51 percent), and Asian women (31 percent).[20] Consistent with this finding, white non-Hispanic females ages 18 to 44 years (71 percent) and 45 years and older (52 percent) are more likely to be current drinkers than either black non-Hispanic females (50 percent of 18- to 44-year-olds, and 31 percent of women 45 years and older), or Hispanic females (44 percent of 18- to 44-year-olds, and 35 percent of women 45 years and older).[49]
- The shares of women abstaining from alcohol consumption (defined as having consumed less than 12 drinks in a lifetime) are consistent with the shares reporting lifetime alcohol use. Almost 62 percent of Asian women report being lifetime abstainers, compared to 48.8 percent of Hispanic or Latino women, 43.7 percent of black or African American women, 33.1 percent of American Indian/Alaska Native women, and 25.6 percent of white women.[20]

FIGURE 14
Women by Race/Ethnicity Abstaining from Alcohol Consumption, 1999–2001
Percent



Source: Schoenborn CA, Adams PF, Barnes PM, Vickerie JL, Schiller JS. Health Behaviors of Adults: United States, 1999-2001. *Vital Health Statistics.* 2004 Feb; 10(219):1-79. Hyattsville, MD: National Center for Health Statistics, p.13.

FIGURE 15
Adult Women Reporting Heavy Alcohol Consumption by Race/Ethnicity, 1999–2001*
Percent



*Five or more drinks on at least one day among current drinkers

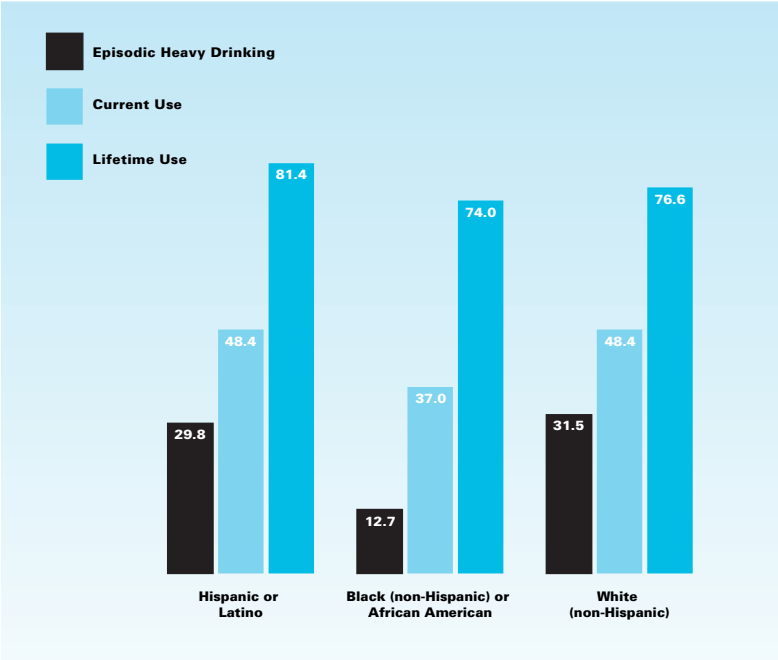
Source: Schoenborn CA, Adams PF, Barnes PM, Vickerie JL, Schiller JS. Health Behaviors of Adults: United States, 1999-2001. *Vital Health Statistics.* 2004 Feb; 10(219):1-79. Hyattsville, MD: National Center for Health Statistics, p.17.

- While the majority of adult women are not problem drinkers, a small proportion drink frequently and/or heavily. In 1999–2001, 17.3 percent of American Indian or Alaska Native women reported having had at least one heavy drinking day (five or more drinks) in the past year. Fewer Asian, black or African American and Hispanic or Latino women reported heavy drinking (4.2, 5.5, and 7.0 percent, respectively). The share of white women who were heavy drinkers (12 percent) is less than among American Indian/Alaska Native women but more than among other women of color. Nine percent of American Indian or Alaska Native also reported having had 12 or more heavy drinking days in the past year, as did roughly 4 percent of white women and roughly 2 percent of Hispanic women and African American women.[20]
- The prevalence of alcohol abuse has increased among all groups of women except for American Indian women. Among black women, the prevalence nearly doubled from 0.73 to 1.41 percent between 1991–1992 and 2001–2002. Among Hispanics it also nearly doubled, from 0.85 to 1.65 percent. Among Asians, the rate increased from 0.47 to 1.13 percent and among whites, from 1.71 to 2.92 percent. American Indian women have the highest prevalence of alcohol abuse, at more than 4 percent.[50]
- Data from the 2001–2003 State of Hawaii Behavioral Risk Factor Surveillance System reveal that while Japanese, Filipino, and Chinese women have similar risk for binge drinking (1.1, 2.1, and 3.3 percent, respectively), Native Hawaiian women are far more likely to be at risk for binge drinking—9.1 percent. (Binge drinking is defined as having five or more drinks on one occasion.) Native Hawaiian women also have higher risk for heavy drinking—4.5 percent compared to less than 2.5 percent for each of the other groups. (Heavy drinking for women is defined as consuming more than one drink per day.)[25]
- Significant differences in frequent alcohol consumption also exist between age groups, with younger women more likely to consume alcohol than older women. Among current drinkers, 31 percent of white non-Hispanic, 23 percent of Latino, and 16 percent of black non-Latino women ages 18 to 44 report having consumed five or more drinks on at least one day in the past year. Only 10 percent of white non-Latino women ages 45 and older report that same amount of consumption, a proportion lower than that of black non-Latino (15 percent) women the same age. (Data for this measure were considered unreliable for Latinos.)[51]

Alcohol Consumption among Adolescent Females of Color

- While alcohol is a legal substance for adults (21 years of age), it is an illegal substance for youth. Nevertheless, the vast majority of non-Hispanic black, Hispanic, and non-Hispanic white female high school students have consumed alcohol.[32]
- Young black females had the lowest lifetime prevalence of alcohol use (74.0 percent versus 81.4 percent of Hispanic and 76.6 percent of white females). Thirty seven percent of black high school females reported consuming an alcoholic beverage in the last month, compared to 48 percent of both white and Hispanic high school girls.[32]
- The rates of episodic heavy drinking—consuming five or more drinks at one time—are highest among white (31.5 percent) and Hispanic (29.8 percent) female students. Less than 13 percent of black female youth have engaged in alcohol consumption of this kind.[32]
- Survey data from 1996–2000 show that 29 percent of 8th grade American Indian girls had consumed alcohol in the past 30 days, compared to 55 percent of their 12th grade counterparts. Sixty-five percent of 8th grade American Indian females reported having ever used alcohol, as had 87 percent of 12th grade American Indian females.[52]

FIGURE 16
Females in Grades 9 to 12 Consuming Alcohol by Race/Ethnicity, 2003
Percent



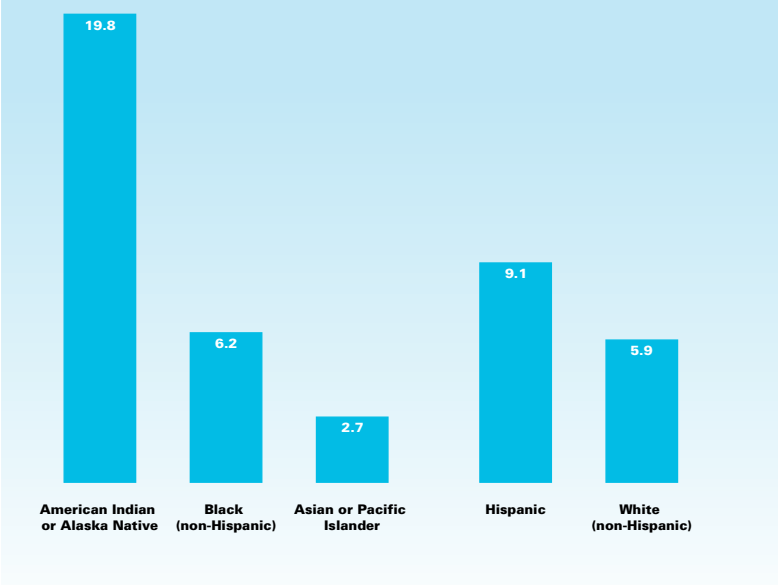
Source: Grunbaum JA, Kann L, Kinchen S, Ross J, Hawkins J, Lowry R, Harris WA, McManus T, Chyen D, Collins J. Youth Risk Behavior Surveillance — United States, 2003. In: Surveillance Summaries, May 21, 2004. *MMWR.* 2004:53(No. SS-2), p.55. Available at: *http://www.cdc.gov/mmwr/PDF/SS/SS5302.pdf.* Date Accessed: 12/1/05.

- Less than one-third of black, Hispanic, and white high school females reported first consuming more than a few sips of alcohol before 13 years of age (26.8, 26.3, and 21.2 percent, respectively).[32]
- Ten percent of white and 9 percent of Hispanic female high school students have driven an automobile under the influence of alcohol, compared to 5 percent of black female students. An even higher percentage—a third or more—of female youth have ridden in a vehicle whose driver had recently consumed alcohol (30 percent of Hispanics, 30 percent of blacks, and 40 percent of whites).[32]

Alcohol-related Deaths

- The alcohol-related death rate among American Indian or Alaska Native men and women is seven times the national rate for persons of all racial/ethnic groups. Between the periods 1985–1987 and 1996–1998, the alcohol-related death rate among American Indians or Alaska Natives increased 28 percent.[53] Although alcoholism death rates are higher among American Indian or Alaska Native males than females, alcohol-related deaths are a significant cause of death among American Indian or Alaska Native women as well. Between 1996 and 1998 the alcohol-related death rates (adjusted for the miscoding of the Indian race) for American Indian or Alaska Native females ranged from 2.1 per 100,000 for 15- to 24-year-olds to 97.6 per 100,000 for 45- to 54-year-olds. Death rates from alcoholism among white females were significantly lower—ranging from 0.1 per 100,000 for 15- to 24-year-olds, to 8.6 per 100,000 for 55- to 64-year-olds.[53]
- From 1999 to 2001, mortality rates related to alcoholism remained high among American Indian or Alaska Native populations. The alcohol-induced death rate for American Indian/Alaska Native males (55 to 64 years of age) was 91 per 100,000, compared to a rate of 26.1 per 100,000 for white men ages 55 to 64. Only 3.1 per 100,000 deaths of white females of all ages were induced by alcohol. However, alcohol-induced death rates among American Indian/Alaska Native women were significantly higher, averaging 15.3 per 100,000, with a high of more than 34 deaths per 100,000 for 45- to 54-year-olds.[17]
- The alcohol-induced death rates for other groups of women in 1999–2001 was smaller than for American Indian/Alaska Native women—4.2 per 100,000 for black women, 2.8 per 100,000 for Hispanic women, and 0.6 per 100,000 for Asian or Pacific Islander women.[17] However, deaths directly and indirectly caused by alcohol occurred at higher rates—16 per 100,000 for white women and 29 per 100,000 for black women.[54]
- Chronic liver disease and cirrhosis are two conditions often related to the consumption of excessive amounts of alcohol. Between 1999 and 2001, 19.8 American Indian/Alaska Native women per 100,000 died from liver disease and cirrhosis, an increase over the 18 per 100,000 between 1995 and 1997. This compares to about 6 deaths per 100,000 for both white and black females, and 9 deaths per 100,000 for Hispanic females. Slightly less than 3 per 100,000 Asian and Pacific Islander women died from chronic liver disease and cirrhosis.[17]

FIGURE 17
Age-adjusted Death Rates from Cirrhosis/Chronic Liver Disease, 1999–2001
Per 100,000 population

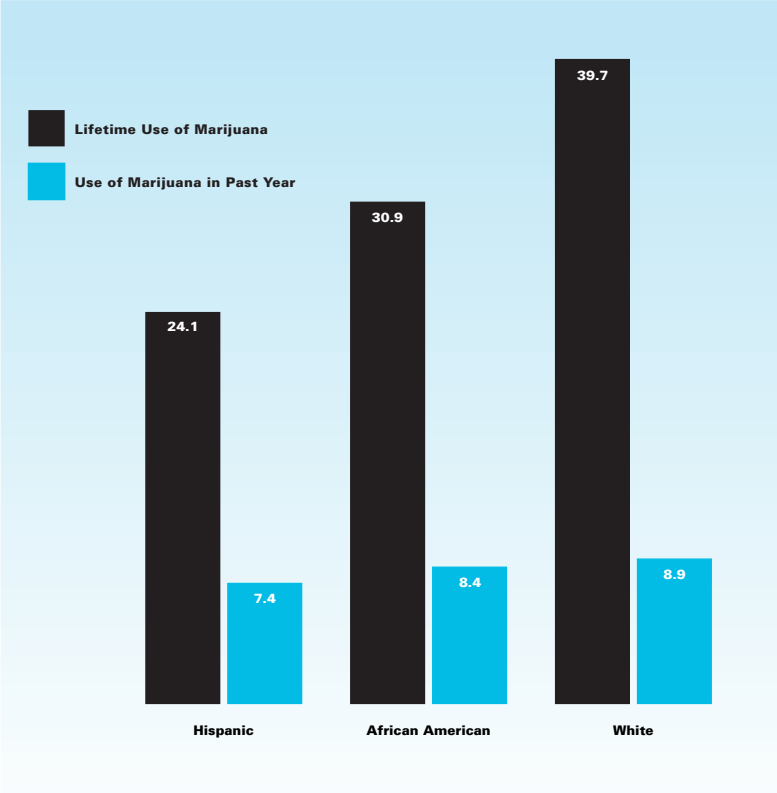


Source: National Center for Health Statistics. *Health Data for All Ages Warehouse, Data Tables: Adults, Mortality. Available at: http://www.cdc.gov/nchs/health_data_for_all_ages.htm.* Date Accessed: 12/1/05.

Use of Marijuana and Other Substances by Women of Color

- Women of all racial/ethnic groups use illicit drugs less often than they use alcohol or tobacco. Women are also less likely to use illicit drugs than men. In 2003, nearly 42 percent of women reported they had used illicit drugs at some point in their lives, compared to nearly 51 percent of men. Only 12.4 percent of women reported using illicit drugs in the past year and only 6.5 percent reported past-month drug use, compared to 17.2 and 10.0 percent of men, respectively.[55]
- Between 1999 and 2001, 5 percent of Hispanic females ages 12 and older reported having used an illicit drug in the past month. Among subgroups, 6.6 percent of Puerto Rican females, 4.8 percent of Mexican females, 2.9 percent of Central or South American females, and 2.2 percent of Cuban females reported illicit drug use. Hispanic females younger than age 25 were more likely than those ages 26 and older to have used illicit drugs.[56]
- Marijuana is the most popular illicit substance used by women. Nearly two-fifths of white females (39.7 percent), more than three-tenths of African American females (30.9 percent), and nearly one-quarter (24.1 percent) of Hispanic females have used marijuana at least once in their lifetimes.[57]
- Less than 10 percent of all white, African American, and Hispanic women reported smoking marijuana in the past year (8.9, 8.4, and 7.4 percent, respectively). Even fewer white (4.8 percent), black (4.2 percent), and Hispanic (3.2 percent) women used marijuana in the 30 days prior to being surveyed.[57]
- Although more white women have tried cocaine than either Hispanic or African American women, nearly 13 percent of white females, 8.6 percent of African American females, and 7.5 percent of Hispanic females have used cocaine at least once in their lifetimes. The prevalence of cocaine use in the year preceding the 2002 survey, however, was about the same for all women: 1.7 percent of white women, 1.6 percent of black women, and 1.4 percent of Hispanic females. African American women, however, were more likely to have used cocaine in the last 30 days (1 percent), whereas smaller shares of white women (0.5 percent) and Hispanic women (0.4 percent) reported past-month use of cocaine.[58]
- Fewer women of all races have ever tried crack (a more addictive form of cocaine) than have tried other drugs. African American women, however, are more likely to be recent and frequent users of crack cocaine. More than 3 percent of African American women, 2.6 percent of white women, and 1.7 percent of Hispanic women have used crack at least once in their lifetimes.[59] In addition, a greater share of African American women (0.6 percent) than white or Hispanic women (both 0.1 percent) reported using crack cocaine in the 30 days prior to being surveyed.[59]
- Hallucinogens and inhalants were more frequently used by white non-Hispanic (13.7 and 7.7 percent, respectively) and Hispanic (7.3 and 5.2 percent,

FIGURE 18
Women by Race/Ethnicity Who Used Marijuana, 2002
Percent

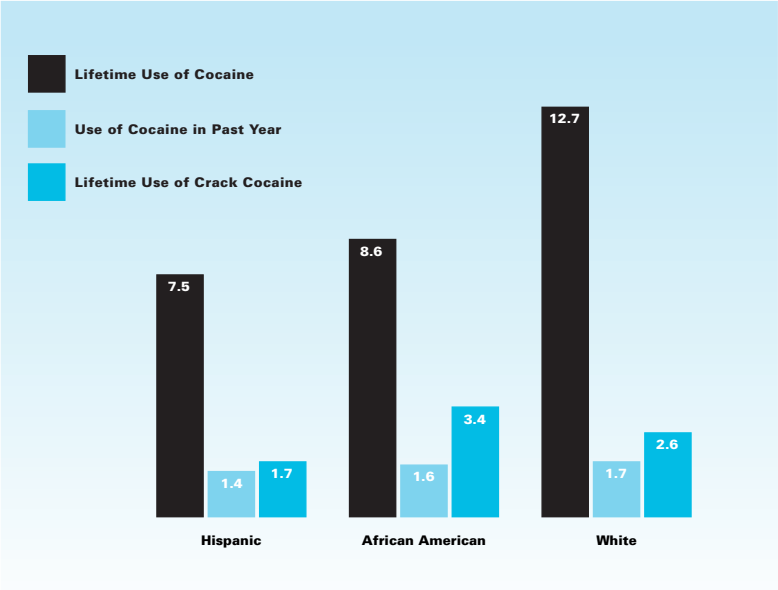


Source: Substance Abuse and Mental Health Data Archive, *Quick Table: Marijuana Use, National Survey on Drug Use and Health, 2002.* 2nd ICPSR version (2004). Table created: 1/9/06. Available at: *http://webapp.icpsr.umich.edu/quicktables/quickconfig.do?03903-0001_du.*

respectively) females than by African American females. Slightly less than 5 percent of African American females reported ever trying hallucinogens, and about 2 percent reported trying inhalants in their lifetimes.[60]

- In 2003, more than 14 percent of all women reported lifetime non-medical use of psychotherapeutic drugs—14.9 percent of white women, 14.4 percent of Hispanic women, and 11.8 percent of black women. Psychotherapeutic drugs include pain relievers, sedatives, tranquilizers, and stimulants.[61] This is a significant increase from 1998, when 8 percent of white non-Hispanic women, 6 percent of black non-Hispanic, and 5 percent of Hispanic women reported the same.[43] This increase can be attributed at least in part to the growing popularity of methamphetamines, which, originally popular in San Diego and other parts of the West, have become a growing problem in rural and Southern communities.[62]
- Fewer than 1 in 20 Hispanic or African American women have used stimulants (slightly more than 5 percent of Hispanics and 3.1 percent of African Americans). White women are more likely (9.2 percent) than these women of color to report stimulant use.[63]

FIGURE 19
Women by Race/Ethnicity Who Used Cocaine and Crack Cocaine, 2002
Percent



Source: Substance Abuse and Mental Health Data Archive, *Quick Table: Cocaine Use, National Survey on Drug Use and Health, 2002.* 2nd ICPSR version (2004). Table created: 1/9/06. Available at: *http://webapp.icpsr.umich.edu/quicktables/quickconfig.do?03903-0001_du.*

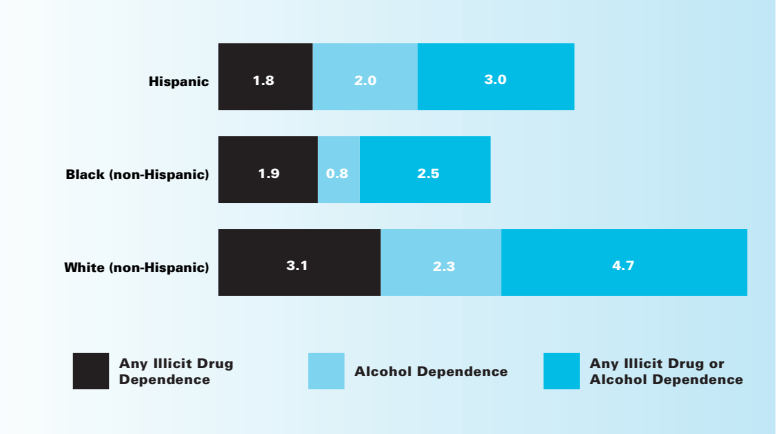
Use of Illicit Substances by Adolescent Females of Color

- Drug use among American youth remained high during the 1990s and into the new century. Although the proportions of Hispanic, black, and white adolescent females reporting past-month use are less than the proportions reporting past-year or lifetime use, lifetime illicit drug use figures in 2003 were about 31 percent for Hispanic and white non-Hispanic females and nearly 29 percent for black non-Hispanic adolescent females.[64]
- Of adolescents ages 12 to 17 in 2003, males were slightly more likely than females to have been dependent on an illicit substance in the past year. The greatest difference occurred between Hispanic females and Hispanic males, with 1.8 and 2.6 percent, respectively, reporting dependency. For white non-Hispanic and black non-Hispanic youth, the difference was smaller—3.1 percent of white non-Hispanic females and 1.9 percent of black non-Hispanic females reported dependency versus 3.2 percent of white non-Hispanic males and 2.2 percent of black non-Hispanic males.[65]
- In 2003, almost 40 percent of white non-Hispanic, Hispanic, and black non-Hispanic female high school students reported having tried marijuana at least once in their lifetimes—38.9, 38.5, and 37.6 percent, respectively. About a fifth of these young females were users of marijuana at the time of the survey.[32]

FIGURE 20
Adolescent Females Who Reported Lifetime, Past Year, and Past Month Use of Any Illicit Drug by Race/Ethnicity, 2003
Percent

Source: Substance Abuse and Mental Health Services Administration (Office of Applied Studies). *National Survey on Drug Use and Health—Table 1.29B: Any illicit drug use in lifetime, past year, and past month among persons aged 12 to 17, by demographic characteristics: Percentages, 2002 and 2003.* Available at: *http://oas.samhsa.gov/nhsda/2k3tabs/PDF/Sect1peTabs28to32.pdf.* Date Accessed: 12/1/05.

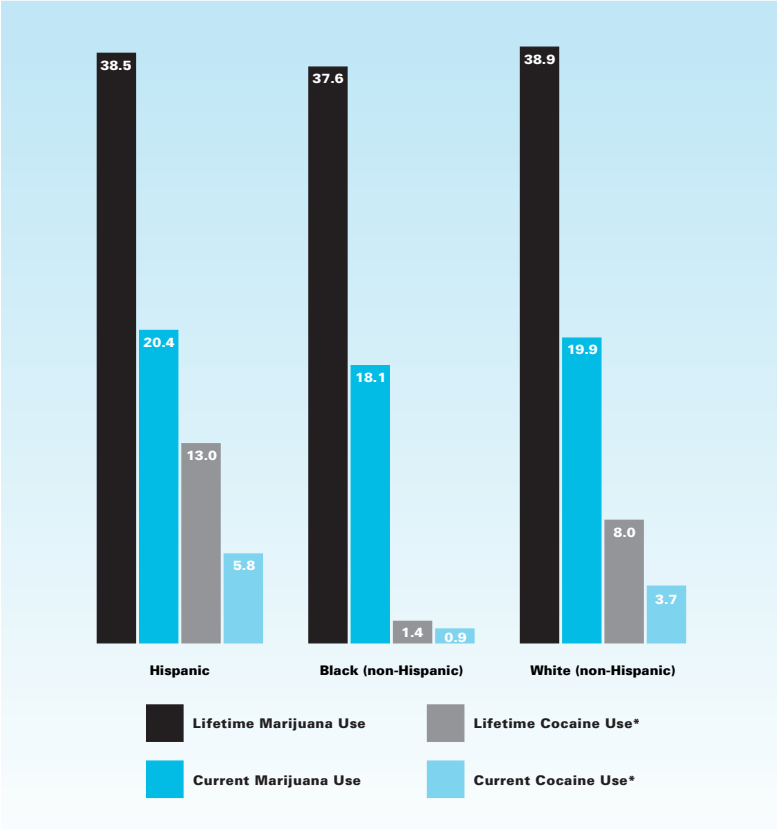
FIGURE 21
Adolescent Females Who Reported Past Year Illicit Drug or Alcohol Dependency by Race/Ethnicity, 2003
Percent



Source: Substance Abuse and Mental Health Services Administration (Office of Applied Studies). *National Survey on Drug Use and Health—Table 5.4B: Substance dependence in the past year among persons aged 12 to 17, by demographic characteristics: Percentages, 2002 and 2003.* Available at: *http://oas.samhsa.gov/nhsda/2k3tabs/PDF/Sect5peTabs1to12.pdf.* Date Accessed: 12/1/05.

- Less than one-tenth of high school females first used marijuana before the age of 13 (8.5 percent of Hispanics, 6.8 percent of white non-Hispanics, and 5.8 percent of black non-Hispanics). However, larger proportions of female teens of all three groups in 2003 reported either smoking or drinking before age 13.[32]
- Substance use also is a significant problem among American Indian/Alaska Native adolescents. In 2001, more than 77 percent of high school females in Bureau of Indian Affairs-funded schools reported ever having used marijuana, and nearly 48 percent were current users.[44]
- The same survey found that marijuana use among American Indian youth is associated with the use of other illicit drugs. More than 21 percent of high school females who had used marijuana also had used cocaine or crack cocaine in their lifetimes. In addition, more than 21 percent had used methamphetamines, and nearly 5 percent were current inhalant users.[44]
- Among female adolescents in 2003, the percentages for lifetime cocaine use and for current cocaine use were highest for Hispanics (13 and 5.8 percent, respectively). (Freebasing and crack cocaine use are included in lifetime cocaine use.) Eight percent of white female adolescents had tried cocaine during their lifetimes, and nearly 4 percent were current users. More than 1 percent of black high school females had ever tried cocaine, and fewer than 1 percent were current users.[32]

FIGURE 22
Adolescent Females by Race/Ethnicity Who Used Marijuana and Cocaine, 2003
Percent

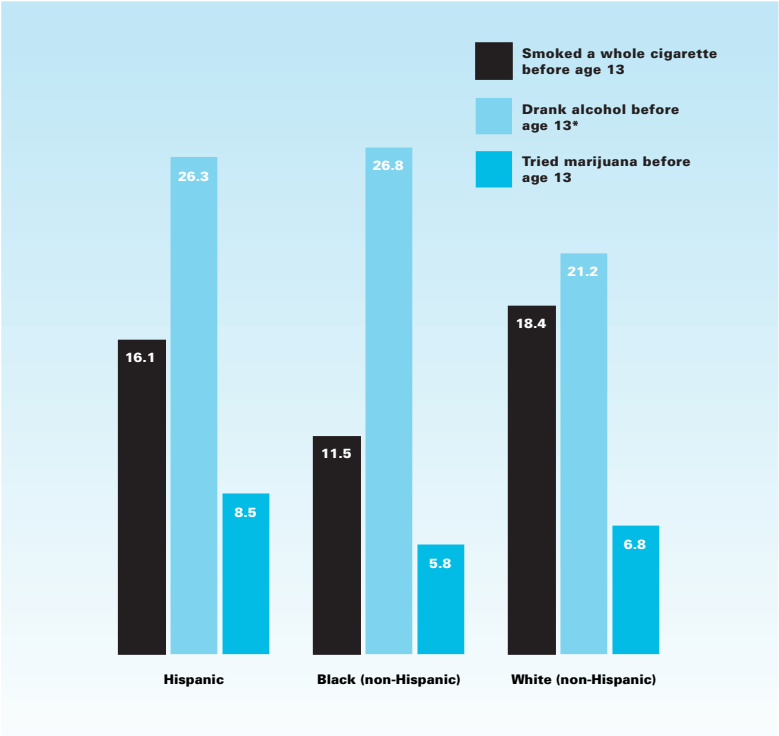


*Used any form of cocaine (e.g., powder, "crack," or "freebase")

Source: Grunbaum JA, Kann L, Kinchen S, Ross J, Hawkins J, Lowry R, Harris WA, McManus T, Chyen D, Collins J. Youth Risk Behavior Surveillance — United States, 2003. In: Surveillance Summaries, May 21, 2004. *MMWR.* 2004:53(No. SS-2), pp.57,59. Available at: *http://www.cdc.gov/mmwr/PDF/SS/SS5302.pdf.* Date Accessed: 12/1/05.

- Fourteen percent of Hispanic, 12 percent of white, and 6 percent of black female youths in 2003 attempted to get high by sniffing either glue or the contents of certain aerosol spray cans.[32]
- Black female high school students have a lower lifetime prevalence of the use of other substances than do either Hispanic or white female youth. Young Hispanic females had the highest lifetime use of heroin, methamphetamines, inhalants, ecstasy, and illegal steroids.[32]
- In 2003, black adolescent females were the least likely to have experimented with other illegal substances. For example, less than 2 percent of black high school girls had used methamphetamines in their lifetimes, compared to 8 percent of both Hispanic and white high school girls. More than 11 percent of Hispanic and white high school girls had tried heroin in their lives, compared to fewer than 4 percent of black high school girls.[32]
- As ecstasy use among adolescents becomes more prevalent, similar to findings for other illegal substances, black females remain less likely users than their white or Latina counterparts. In 2003, more than 11 percent of Hispanic and white non-Hispanic high school females reported having used ecstasy in their lifetimes, compared to 3.8 percent of black non-Hispanic high school females.[32]

FIGURE 23
High School Females Who Initiated Drug-related Behaviors Before Age 13 by Race/Ethnicity, 2003
Percent



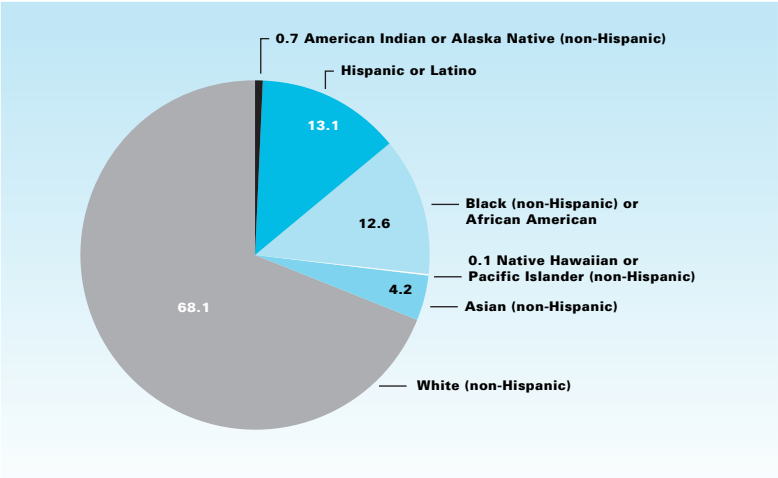
*More than a few sips

Source: Grunbaum JA, Kann L, Kinchen S, Ross J, Hawkins J, Lowry R, Harris WA, McManus T, Chyen D, Collins J. Youth Risk Behavior Surveillance — United States, 2003. In: Surveillance Summaries, May 21, 2004. *MMWR.* 2004:53(No. SS-2), p.65. Available at: *http://www.cdc.gov/mmwr/PDF/SS/SS5302.pdf.* Date Accessed: 12/1/05.

Drug-related Morbidity and Mortality

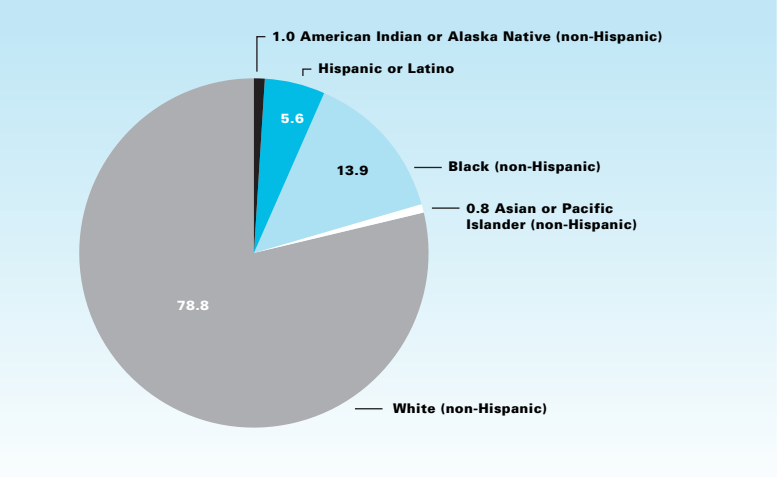
- In 2001, there were 296,313 drug abuse emergency department episodes among females. White women were involved in the majority of these episodes (61 percent), followed by black (18 percent) and Hispanic (11 percent) women. (The remaining 11 percent of these episodes were accounted for by women of other race/ethnicity and of unknown race/ethnicity). Thirteen percent of all drug abuse emergency room episodes among females involved young women (12 to 17 years of age). However, the proportion of young women having drug abuse emergency room episodes varies markedly by race. Females ages 12 to 17 years accounted for only 6 percent of all drug abuse emergency room episodes involving black women, compared to the 14 percent and 20 percent shares among white and Hispanic women reporting these episodes.[66]
- In 2002, women accounted for 308,098 drug abuse emergency department episodes, a 4 percent increase above the 2001 figure. The proportion of episodes attributed to women of each racial/ethnic group remained roughly the same in both years, as did the proportions of young women (12 to 17 years) of the three groups (African American, Latino, and white) who accounted for these episodes.[66]
- Although white non-Hispanic females are 68 percent of the female population, they accounted for 79 percent of the drug-induced deaths during the period 1999–2001. The remaining 21 percent of drug-related deaths occurred among: blacks (14 percent), Hispanics (nearly 6 percent), American Indians/Alaska Natives (1 percent), and Asians or Pacific Islanders (nearly 1 percent).[17]

FIGURE 24
Distribution of Women by Race/Ethnicity, 2004
Percent



Source: U.S. Census Bureau. *Annual Estimates of the Population by Sex, Race, and Hispanic Origin for the United States: April 1, 2000 to July 1, 2004. (NC-EST2004-03).* Available at: *http://www.census.gov/popest/national/asrh/NC-EST2004-srh.htlm.* Date Accessed: 4/25/05.

FIGURE 25
Distribution of Drug-induced Deaths among Women by Race/Ethnicity, 1999–2001
Percent



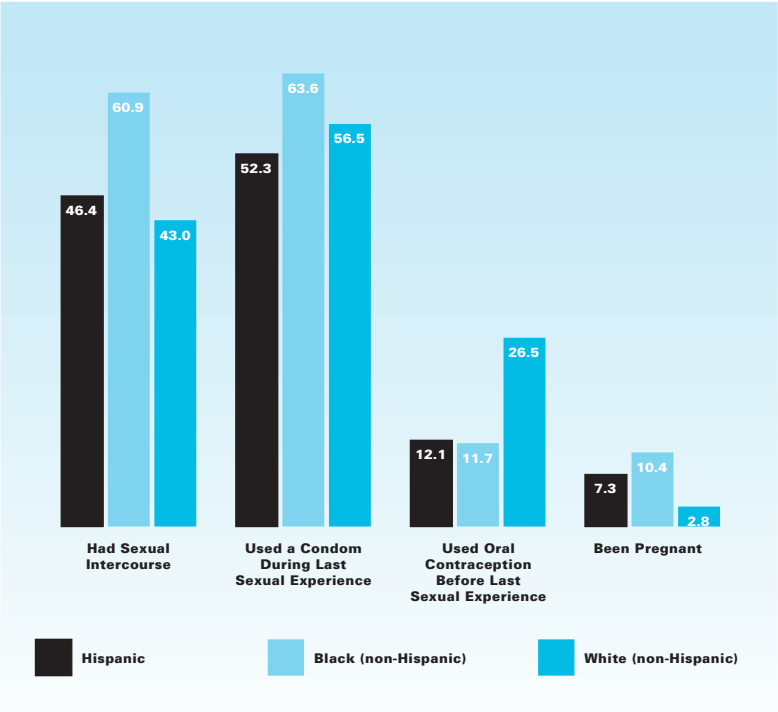
Source: National Center for Health Statistics. *Health Data for All Ages Warehouse, Data Tables: Adults, Mortality.* Available at: *http://www.cdc.gov/nchs/health_data_for_all_ages.htm.* Date Accessed: 12/1/05.

- From 1994 to 1996, drug-related mortality rates among American Indian or Alaska Native women ranged from a low of 4.2 per 100,000 for those between 15 and 24 years of age to a high of 13 per 100,000 for those ages 35 to 44 (rates adjusted to compensate for misreporting of Indian race on death certificates).[67]
- In 1999–2001, the age-adjusted drug-induced death rates for non-Hispanic black and non-Hispanic white females were nearly identical—5.3 per 100,000 black females and 5.1 per 100,000 white females.[17]
- Among women who died from causes related to direct drug use in the period 1999–2001, 59 percent of the Hispanic women, 58 percent of the black non-Hispanic women, and 48 percent of the white non-Hispanic women were between 25 and 44 years of age at the time of their deaths. However, sizable percentages—45 percent of white women, 36 percent of black women, and 30 percent of Hispanic women—of the women who died of drug-related causes were 45 years of age or older.[17]
- More than 10 percent of the Hispanic females whose deaths were drug-induced were younger than 25 years of age, compared to nearly 7 percent of white non-Hispanic females and more than 4 percent of black non-Hispanic females.[17]

Sexual Behavior: Adolescent Females of Color

- As of 2003, 61 percent of black, 46 percent of Hispanic, and 43 percent of white high school females reported having had sex at least once in their lifetimes.[32]
- In 2003, 6.9 percent of black, 5.2 percent of Hispanic, and 3.2 percent of white female high school students reported that they had their first sexual intercourse when they were younger than 13 years of age.[32]
- Forty-four percent of black female high school students, nearly 36 percent of Hispanic high school females, and 33 percent of white high school females were sexually active at the time of the survey.[32]
- When asked whether they had taken a birth control pill or used a condom during their last sexual encounter, nearly 64 percent of black high school females reported using a condom, and nearly 12 percent of black high school females reported taking birth control pills. Nearly 57 and 52 percent, respectively, of young white females and Hispanic females used a condom during their last sexual encounter. Oral contraception was used by nearly 27 percent and by 12 percent of white and Hispanic high school females, respectively, before their last sexual experience.[32]
- A 2000 survey of American Indian students attending Bureau of Indian Affairs-funded schools found that 52 percent of female students had had sex at least once in their lifetimes. Thirty-four percent of American Indian females at Bureau of Indian Affairs-funded schools said they were sexually active. Among those students, 45 percent had used a condom during their last sexual intercourse and 11 percent had used birth control pills before their last sexual intercourse.[68]
- The majority of sexually active young American Indian/Alaska Native women had used some method of contraception. More than one-third (36.4 percent) of American Indian female youth used condoms every time they had sex. An additional 25.4 percent used condoms some or most of the time. More than three-fifths (62.3 percent) of young females used some kind of birth control (including condoms) every time they had sex, with only 18.9 reporting no use of birth control of any kind.[69]
- Since a sizable proportion of high school students are not practicing safe sex on a regular basis, it is not surprising that 10 percent of black, nearly 7 percent of Hispanic, and nearly 3 percent of white female high school students reported having been pregnant.[32] In addition, 9 percent of American Indian female high school students attending Bureau of Indian Affairs-funded high schools also reported having been pregnant.[68]
- The use of drugs and alcohol prior to their last sexual encounter was highest among white female high school students (24 percent). Nineteen percent and 15 percent of Hispanic and black female high school students, respectively, also used illegal substances prior to their most recent sexual experience.[32] A survey of Hawaiian high school students found that 26 percent of Native Hawaiian and 15 percent of other Asian and Pacific Islander female students had used illegal substances prior to their most recent sexual experience.[70]
- On the other hand, many adolescent females of color abstain from sexual activity. Among adolescent females attending high school in Los Angeles County (CA), 70 percent of Asians and Pacific Islanders had abstained from intercourse,

FIGURE 26
Sexual Behavior of Adolescent Females by Race/Ethnicity, 2003
Percent



Source: Grunbaum JA, Kann L, Kinchen S, Ross J, Hawkins J, Lowry R, Harris WA, McManus T, Chyen D, Collins J. Youth Risk Behavior Surveillance — United States, 2003. In: Surveillance Summaries, May 21, 2004. *MMWR.* 2004:53(No. SS-2), p. 73. Available at *http://www.cdc.gov/mmwr/PDF/SS/SS5302.pdf.* Date Accessed: 12/1/05.

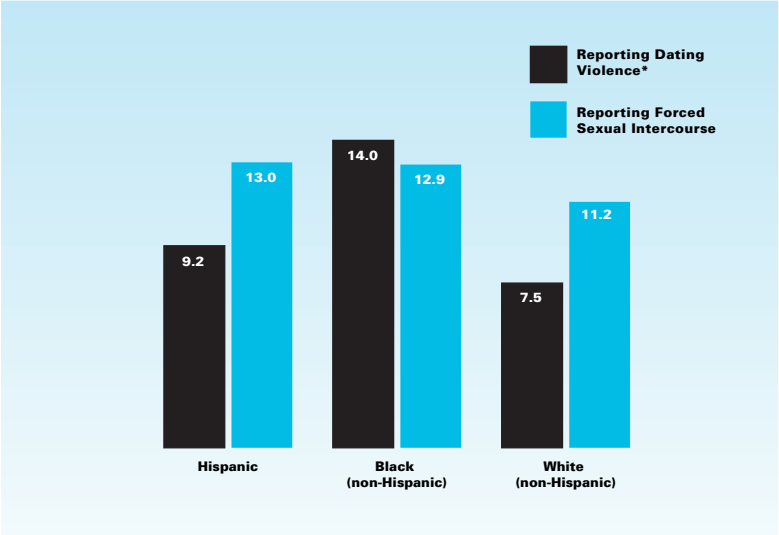
followed by 54 percent of Hispanics, 52 percent of whites, and 35 percent of blacks who reported the same. Asian and Pacific Islander females who reside in homes in which English is spoken are nearly twice as likely to engage in sexual intercourse as those who live in households in which another language is spoken (37 and 20 percent, respectively).[71]

- The "True Love Waits" movement, initiated in 1993 by the Southern Baptist Church, encouraged adolescents to pledge that they would remain virgins until they married. By 1995, an estimated 12 percent of all adolescents had made such a pledge. Research has shown that those who make virginity pledges are more likely to delay first intercourse, have fewer sex partners, and are less likely to have premarital sexual intercourse than are those who do not make pledges. However, rates of sexually transmitted infections are similar among both pledgers and non-pledgers. This is at least partly due to the fact that some self-called virgins have engaged in oral/anal sex.[72]
- A 2003 survey found that 10 percent of adolescent females ages 15 to 17 years who had not had sexual intercourse had engaged in oral sex. Thirty-eight percent of adolescent females ages 15 to 17 years also reported that oral sex "was not as big of a deal as sexual intercourse" and 30 percent consider oral sex to be "safer sex." However, white adolescents ages 15 to 17 years were more likely than their African American or Latino counterparts to share those views. While 51 percent of white adolescents (male and female) did not believe oral sex was "as big of a deal as sexual intercourse," only 32 percent of Latino adolescents and 30 percent of African American adolescents held the same belief. African American and Latino adolescents were also less likely than white adolescents to consider oral sex to be "safer sex"—22, 27, and 46 percent, respectively.[73]

Physical and Sexual Assault/Abuse

- While physical and sexual assault and abuse are all too prevalent among women of all racial and ethnic groups, difficulties persist in maintaining accurate estimates of rates. Many factors contribute to this data shortfall, such as shame and the reluctance by some women to report the abuse for fear of reprisal, blame, or stigmatization.
- In a 1996 survey, at least half of all women reported having been physically assaulted at some point in their lifetimes.[74] American Indian or Alaska Native women (62 percent) were more likely to report (in 1996) a physical assault than were African American women (52 percent), white women (51 percent), or Asian and Pacific Islander women (nearly 50 percent).[74]
- During the period 1993–2002, annual rates of violent victimization (including rape, sexual assault, and aggravated assault) were higher among men than women, and higher among younger adults than older adults. The rate among young (ages 12 to 24 years old) white males was significantly higher than that among young white females (98 per 1,000 persons and 67 per 1,000 persons, respectively). However, the rates among young black men (88 per 1,000) and young black women (85 per 1,000) were similar. Among women ages 25 to 49 years, the rate of victimization was comparable among black females (38 per 1,000) and white females (34 per 1,000). The rate of violent victimization among black elderly women (6 per 1,000) was double that of elderly white females (3 per 1,000).[75]
- In the period 1992–2001, the average annual rate of violent victimization among American Indian females ages 12 and older (86 per 1,000) was more than twice that of all females (35 per 1,000). Black women had the second highest rate (46 per 1,000), followed by white women (34 per 1,000) and Asian women (17 per 1,000).[76]
- In a 2001 survey, 5 percent of American Indian women living in Montana reported experiencing physical violence in the past year; 3 percent reported intimate partner violence. This is similar to the prevalence of physical violence and intimate partner violence among all women in Montana in 1998 (3 and 2 percent, respectively). Women were more likely (53 percent) than men (18 percent) to have experienced violence in their homes.[77]
- Fourteen percent of black non-Hispanic high school females reported being intentionally hit, slapped, or physically hurt by their boyfriends (dating violence) in 2003, almost double the percent of white non-Hispanic females who reported the same occurrences (8 percent). A comparable proportion (9 percent) of Hispanic females and of white non-Hispanic females reported dating violence.[32]
- In 2003, female high school students were more likely than male students to report forced sexual intercourse. Roughly comparable percentages of female high school students by race/ethnicity reported forced sexual intercourse—Hispanic and black non-Hispanic female students (13 percent each) and white non-Hispanic female students (11 percent).[32] In 2001, more than 9 percent of American Indian female students attending Bureau of Indian Affairs-funded high schools reported ever having been forced to have sexual intercourse.[68]
- In a study of Mexican-origin women ages 18 to 19 years who lived in Fresno County (CA) in 1996 and who currently had a male spouse or partner, more than 10 percent reported ever having been physically abused by this person. (Abuse is defined if a spouse or partner ever pushed, hit with a fist, used a knife or gun, or tried to choke or burn the other person.) Physical abuse was reported more frequently by U.S.-born women (16 percent) than by Mexican-born women (7 percent) and more frequently among urban residents (13 percent) than rural residents (6 percent). Mexican-origin women who attended church more frequently were less likely to report physical abuse (7 percent) than women who attended less than once a month (16 percent).[78]

FIGURE 27
High School Females Reporting Dating Violence* and Forced Sexual Intercourse by Race/Ethnicity, 2003
Percent



* Reported being intentionally hit, slapped, or physically hurt by their boyfriends

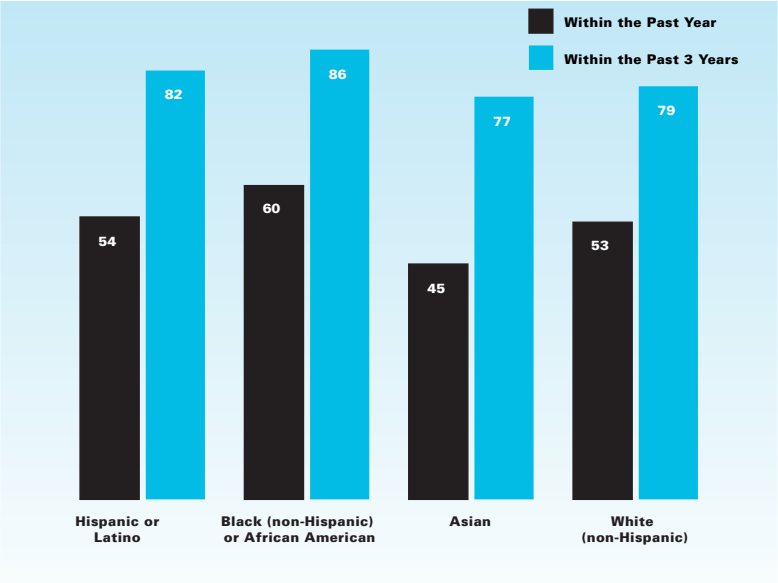
Source: Grunbaum JA, Kann L, Kinchen S, Ross J, Hawkins J, Lowry R, Harris WA, McManus T, Chyen D, Collins J. Youth Risk Behavior Surveillance — United States, 2003. In: Surveillance Summaries, May 21, 2004. *MMWR.* 2004:53(No. SS-2), p. 39. Available at: *http://www.cdc.gov/mmwr/PDF/SS/SS5302.pdf.* Date Accessed: 12/1/05.

Preventive Health Care Services

Preventive Health Measures

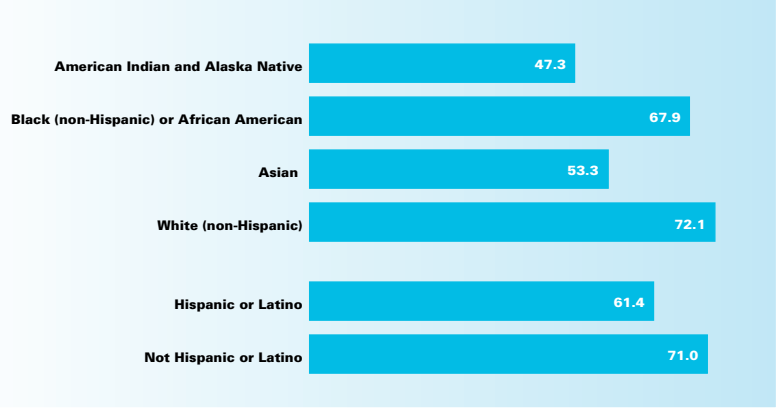
- Women of color often do not avail themselves of preventive health tests such as Pap smears and breast exams, the recommended screening and diagnostic tools for cervical cancer and breast cancer, respectively. For all women, having health insurance, having a usual source of health care, and having a high school education are associated with higher screening rates. The likelihood of getting these preventive tests, however, declines with age.[79]
- The use of preventive services by women varies significantly with health insurance coverage. In 2001, 80 percent of privately insured and 72 percent of Medicaid-covered women had a mammogram. In addition, 86 percent of privately insured and 78 percent of Medicaid-covered women had a Pap smear in the past 2 years. Fewer uninsured women, however, had received these preventive tests in the past 2 years—only 43 percent for the mammogram and 69 percent for the Pap smear.[80]
- Length of residence in the United States also plays a role in preventive screening rates. Among a national sample of women in 2001, immigrants who had lived in the United States for fewer than 10 years were less likely than either U.S.-born women or immigrants who had been in the United States for more than 10 years to have had a mammogram or Pap smear in the previous 2 years. Seventy-three percent of recent immigrants had a Pap smear and 78 percent had a mammogram. Comparably, 83 percent of long-term immigrants and 89 percent of U.S.-born women had Pap smears and 89 percent of both long-term immigrants and U.S.-born women had mammograms.[81]
- Persons of Hispanic or Latino origin reported a general lack of preventive care, such as visiting a doctor, having a breast cancer or blood cholesterol screening, or, for adults ages 65 and older, having a flu shot in the preceding year.[82,83]
- A 2001 national survey found that a weighted average of 76 percent of Latino women had a Pap smear either in the last year (ages 21 to 29) or in the last 3 years (ages 30 to 70), in adherence to the American Cancer Society's screening guidelines. Within subgroups, however, there was variation in Pap smear usage. Whereas only 69 percent of Cuban-origin women and 74 percent of Mexican-origin women had Pap smears, 82 percent of Puerto Rican women and 84 percent of Dominican women had received Pap smears.[84]
- According to a 2002 study in Santa Clara County, California, 25.2 percent of Korean women had never had a Pap smear, and 37 percent had not had one in the last 3 years.[85] A 2002 study in Seattle found that 26 percent of

FIGURE 28
Women Who Had a Pap Test by Race/Ethnicity, 2001
Percent



Source: Collins KS, Hughes DL, Doty MM, Ives BL, Edwards JN, Tenney K. *Diverse Communities, Common Concerns: Assessing Health Care Quality for Minority Americans.* New York, NY: The Commonwealth Fund; 2002. Available at: *http://www.cmwf.org/usr_doc/collins_diversecommun_523.pdf.* Date Accessed: 12/1/05.

FIGURE 29
Age-adjusted Percent of Women 40 Years and Older Who Reported Having a Mammogram in the Past 2 Years, 2000
Percent



Source: National Center for Health Statistics. *Health, United States, 2004 With Chartbook on Trends in the Health of Americans.* Hyattsville, MD: National Center for Health Statistics, 2004. p. 269.

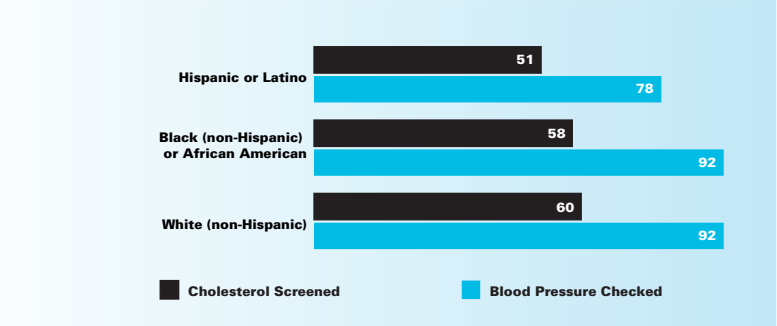
Vietnamese women had never had a Pap smear and 36 percent had not had one in the past 2 years, a fact that is especially troubling given the high incidence of cervical cancer in this group of women.[86]

- In 2001, sizable proportions of women of all racial/ethnic groups reported that they had not had a Pap test within the past year. Fifty-five percent of Asian women, 47 percent of white women, 46 percent of Hispanic women, and 40 percent of African American women reported that they had not had a Pap test in the past year.[14]
- The Racial and Ethnic Approaches to Community Health (REACH) 2010 Risk Factor Survey provides numbers that are not quite as bleak for the use of the Pap test by women of color. According to this survey, in 2001–2002, black women (89 percent) were the most likely to have had a Pap test during the 3 years preceding the survey, followed closely by 86 percent of American Indian women. In addition, more than 79 percent of Hispanic women had a Pap test in the past 3 years, as had 68 percent of Asian and Pacific Islander women.[87]
- More than 79 percent of women living in Hawaii in 2004 reported having a Pap smear in the past 3 years. This includes 85.1 percent of white women, 79.8 percent of Japanese women, 78.5 percent of Native Hawaiian/Part Hawaiian women, and 75.2 percent of Filipino women.[88] Rates have declined since 2001, when nearly 94 percent of women reported having a Pap smear in the past year, including 95.1 percent of Filipino women, 94.3 percent of Japanese women, 93.9 percent of white women, and 88.7 percent of Native Hawaiian/Part Hawaiian women.[89]
- During the 2001–2002 period of testing through the National Breast and Cervical Cancer Early Detection Program, small percentages of women were found to have abnormal Pap smears—2.6 percent of white women, 2.1 percent of black women, and 2 percent of Hispanic women. The frequency of abnormal Pap smears was even less among Asian/Native Hawaiian/Other Pacific Islander women (1.6 percent) and American Indian/Alaska Native women (1.5 percent).[90]
- The percentage of most subgroups of women of color 40 years of age and older failing to get a mammogram within the past 2 years has declined substantially since 1991. In 1991, 44 percent of white women reported not having a mammogram in the past 2 years, along with more than half of Hispanic (51 percent), black (52 percent), and Asian (54 percent) women.[91] By 2000, however, only 39 percent of Hispanic women, 32 percent of black women, and 28 percent of white women reported not having a mammogram in the 2 years preceding the survey. Gains for Asian women were more modest, with 47 percent reporting that they had not had a mammogram in the past 2 years.[15]
- In 2000, the percentages of Hispanic, black non-Hispanic, and white non-Hispanic women between the ages of 50 and 64 years who had a mammogram within the past 2 years exceeded these figures for women ages 40 to 49 years in these racial/ethnic groups—66 percent vs. 54 percent for Hispanics, 78 percent vs. 61 percent for black non-Hispanics, and 81 percent vs. 67 percent for white non-Hispanics. Black non-Hispanic and white non-Hispanic women ages 50 to 64 also were more likely than their counterparts ages 65 years and older to have had mammograms (66 percent and 68 percent, respectively). Hispanic women ages 65 and over were about equally likely as those ages 50 to 64 to have had mammograms within the last 2 years (68 percent).[15]
- Whereas white women once were more likely than black and Hispanic women to get mammograms, the results of a recent survey indicate that nearly three-fourths (74 percent) of both white and African American women older than the age of 50 had received mammograms between 1998 and 1999, a significant increase from the percentages reported for 1996–1997. Hispanic women, however, continue to lag behind other females in getting mammograms.[82]
- Among many Asian subgroups living in California, majorities of the women ages 40 and older reported receiving mammograms in the past 2 years—78 percent of Japanese women, 72 percent of Filipino and of Vietnamese women, 70 percent of South Asian women, 65 percent of Chinese women, and 53 percent of Korean women.[92]
- In 2000, among Latino women ages 40 and older, only 40 percent had mammograms in the last year—37 percent of Mexican Americans, 42 percent of Central or South Americans, 46 percent of Puerto Ricans, 47 percent of Cuban Americans, and 52 percent of Dominicans.[84]
- Relatively low mammography utilization rates among Hispanic women may be due to several factors. A study of low-income older women found that not only did significantly fewer Hispanic women (than African American and white women) know that aging is associated with a higher risk of cancer incidence, but a significantly higher percentage of Hispanic women also did not believe early cancer detection made a difference in health outcomes.[93]
- White women (more than 15 percent), black women (nearly 15 percent), and Hispanic women (nearly 14 percent) screened in the 2001–2002 National Breast and Cervical Cancer Early Detection Program were equally likely to report abnormal first-round mammograms. Asian and Native Hawaiian and Other Pacific Islander women (12.4 percent) and American Indian/Alaska Native women (9.9 percent) were less likely than black or Hispanic women to report abnormal mammograms.[94]
- A survey between 1996 and 1997 found that only 32.9 percent of American Samoan women ages 40 and older had ever had a mammogram. Fewer than one quarter of Samoan women in Hawaii and Los Angeles (24.4 and 22.4 percent, respectively) had an age-specific mammogram in the past year. In addition, only 3.6 percent of women living in American Samoa had received mammography in the past year.[95]

Outpatient Health Care Visits

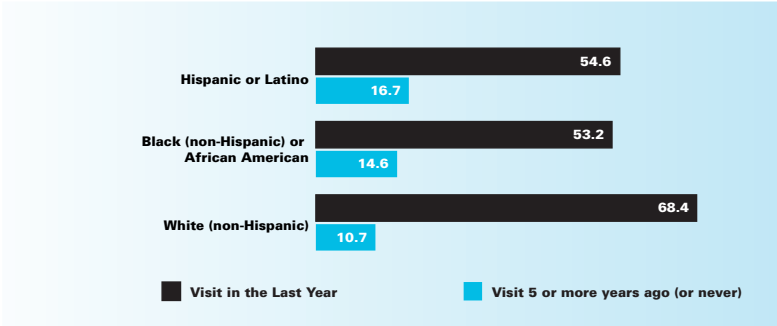
- In 2001, Asian/Pacific Islander women were the most likely to report not having made an office or outpatient visit to a health care provider within the past 12 months (35.6 percent), followed by Hispanic women (31.3 percent), black women (27.9 percent), American Indian or Alaska Native women (25.6 percent), and white women (18 percent).[96]
- A study in California of women ages 40 to 74 found that 79 percent of Filipino women, 78.5 percent of black women, 66.3 percent of white women, 65.3 percent of Chinese women, and 64 percent of Latino women had a check-up in the past year.[97]
- More than three-quarters (78 percent) of Latinas surveyed in 2001 had their blood pressure checked within the past 2 years, compared to 92 percent of both white and African American women.[98]
- In 2001, more than half of white, African American, and Hispanic women reported having a cholesterol screening in the past two years—60, 58, and 51 percent, respectively.[98]
- In 2002, nearly 47 percent of black women, more than 45 percent of Hispanic women, and almost 32 percent of white women reported that they had not visited a dentist in the past year. Almost 12 percent of all women had not been to the dentist in five or more years (or had never visited a dentist). This figure is the average of the 16.7 percent of Hispanic women, 14.6 percent of black women, and 10.7 percent of white women who reported not making a dental visit over the same period.[99]
- In the period 2000–2003, 54 percent of all Hispanic or Latino women reported having visited a dentist in the previous year.

FIGURE 30
Women by Race/Ethnicity Having Their Blood Pressure Checked and Cholesterol Screened in the Past 2 Years, 2001
Percent



Source: Wyn R, Ojeda V, Ranji U, Salganicoff A. *Racial and Ethnic Disparities in Women's Health Coverage and Access to Care.* Menlo Park, CA and Washington, DC: The Henry J. Kaiser Family Foundation; 2004.

FIGURE 31
Women by Race/Ethnicity Who Reported Visiting a Dentist, 2002
Percent



Source: U.S. Department of Health and Human Services, Health Resources and Services Administration. *Women's Health USA 2004.* Rockville, Maryland: U.S. Department of Health and Human Services; 2004.

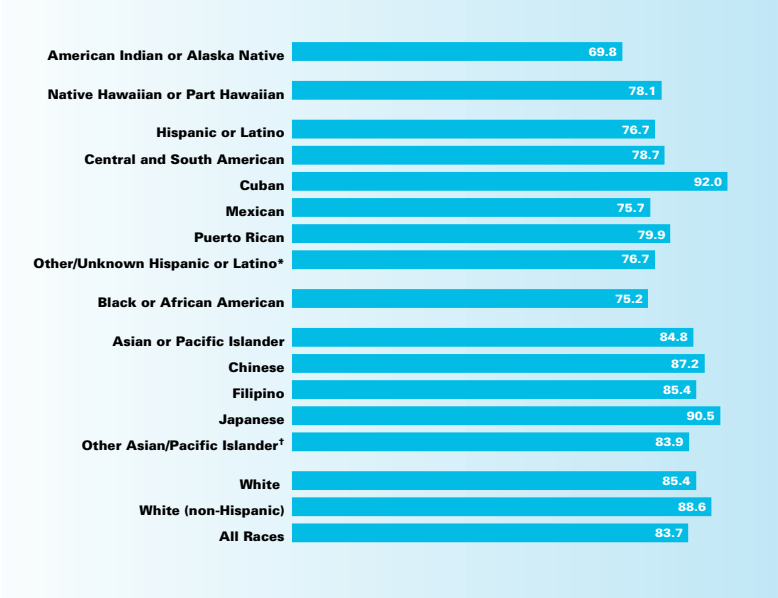
Among subgroups, Mexican women (49.3 percent) were least likely to have visited a dentist, whereas Cuban women (63 percent) and Other Hispanic or Latino women (65.2 percent) were most likely. Central or South American women and Puerto Rican women were equally likely to have seen a dentist (58.8 and 58.9 percent, respectively). During the same period, 70.2 percent of non-Hispanic white women reported having visited a dentist in the preceding year.[100]

- During the period 1997–2000, 64.4 percent of Asian women and 53 percent of Native Hawaiian or Other Pacific Islander women reported having visited a dentist in the past year, compared to 67.2 percent of white women.[101]

Prenatal Care

- Although starting prenatal care as early as possible during a pregnancy is believed to foster the most healthful birth outcomes for both mothers and infants, sizable shares of mothers-to-be of color do not initiate prenatal care during the first trimester. In 2002, about 30 percent of American Indian/Alaska Native mothers did not start prenatal care in the first trimester, the largest share among all women.[15]
- Nearly a fourth of African American and Mexican American mothers-to-be do not begin prenatal care during the first trimester of pregnancy. In addition, 22 percent of Native Hawaiian/Part Hawaiian, 21 percent of Central and South American, and 20 percent of Puerto Rican women do not begin prenatal care during their first trimester.[15]
- Large majorities of other mothers-to-be of color initiate prenatal care during the first trimester, however. In fact, some women of color are more likely to get early prenatal care than white women (of whom 85 percent get such care). Ninety-two percent of Cuban mothers-to-be receive prenatal care beginning in the first trimester; comparable shares of Japanese (nearly 91 percent) and Chinese (more than 87 percent) mothers-to-be do likewise.[15]
- As would be expected, the population groups with the largest shares not initiating prenatal care during the first trimester also report the largest shares who get no prenatal care or who start it during the third trimester. For example, in 2002, 8 percent of American Indian/Alaska Native, and about 6 percent of both black non-Hispanic and Mexican American mothers-to-be reported getting no prenatal care or starting care in their third trimester. Nearly 5 percent each of Native Hawaiian/Part Hawaiian and Central and South American women, as well as 4 percent of Puerto Rican women also reported this failure to use preventive services to their fullest.[15] Women who receive late or no prenatal care are more likely to be poor, adolescent, unmarried, and have fewer years of education—characteristics that, in and of themselves, place their pregnancies at risk.[102,103]
- In 2002, similar proportions of many mothers-to-be of color initiated prenatal care late in their pregnancies, ranging from a low of 1.3 percent of Cuban mothers to a high of 8 percent of American Indian or Alaska Native mothers. This range included 2.8 percent of Filipino, 4.2 percent of Puerto Rican, 4.7 percent of Native Hawaiian/Part Hawaiian, and about 6 percent of black or African American and Mexican American mothers-to-be.[15]

FIGURE 32
Mothers by Race/Ethnicity Who Initiated Prenatal Care during First Trimester, 2002
Percent



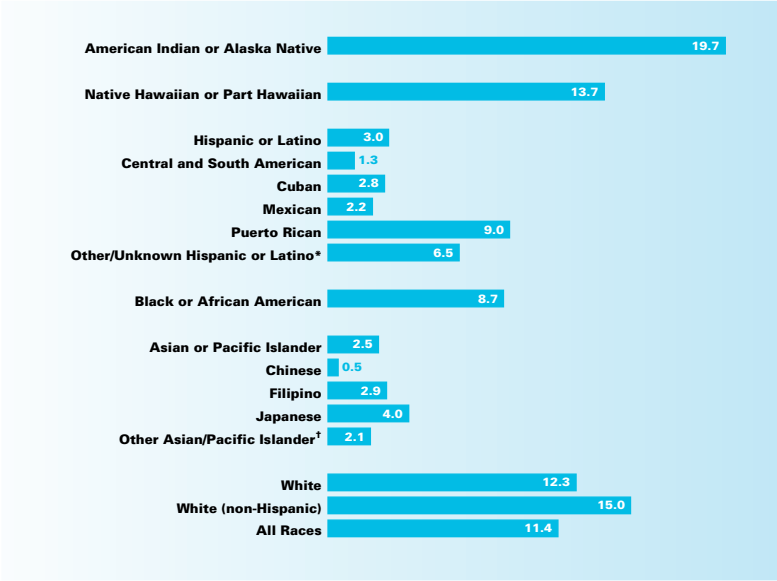
* Includes persons from Spain and other Spanish-speaking localities
† Includes Asian Indian, Guamanian, Korean, Samoan, Vietnamese, and other Asian and Pacific Islander subpopulations

Source: National Center for Health Statistics. *Health, United States, 2004 With Chartbook on Trends in the Health of Americans.* Hyattsville, MD: National Center for Health Statistics, 2004, p. 113.

Substance Use during Pregnancy

- American Indian or Alaska Native women are more likely to exhibit risky behaviors (such as smoking cigarettes) during pregnancy than women of all races throughout the United States. Nearly equal shares of white non-Hispanic (15 percent) and Native Hawaiian/Part Hawaiian (14 percent) mothers-to-be also reported this unhealthful behavior, as did 9 percent of black or African American mothers-to-be.[15]
- Fewer than 5 percent of all Hispanic or Latino and Asian or Pacific Islander mothers-to-be reported smoking when pregnant, with Chinese mothers-to-be reporting the smallest share (less than 1 percent).[15]
- Higher educational attainment is consistently associated with a reduction in smoking during pregnancy for all women of color. Mothers reporting 9 to 11 years of education are more likely to smoke than mothers with 12 years or more of education. However, mothers with 0 to 8 years of education are less likely to smoke during pregnancy than mothers with 9 to 11 years of education.[104] The only exception to this pattern is Puerto Rican mothers whose smoking rates decline consistently from 0 to 8 years of education through 16 years or more of education. (*Note*: Smoking rates among mothers with 0 to 8 years of education are not provided for Asian and Pacific Islander subpopulations.)[105]
- Between 1999 and 2002, rates of smoking during pregnancy declined for all women of color. The decline for Hispanic or Latino mothers was 19 percent, followed by Asian and Pacific Islander mothers (14 percent). Smoking rates during pregnancy declined about 6 percent for black non-Hispanic and white non-Hispanic mothers and 2 percent for American Indian or Alaska Native mothers.[15]

FIGURE 33
Mothers-To-Be by Race/Ethnicity Smoking Cigarettes during Pregnancy, 2002
Percent



* Includes persons from Spain and other Spanish-speaking localities
† Includes Asian Indian, Guamanian, Korean, Samoan, Vietnamese, and other Asian and Pacific Islander subpopulations
Source: National Center for Health Statistics. *Health, United States, 2004 With Chartbook on Trends in the Health of Americans.* Hyattsville, MD: National Center for Health Statistics; 2004, p. 119.

- Alcohol consumption during the past month of pregnancy was reported by 11.5 percent of white non-Hispanic women, 6.3 percent of Hispanic women, and 4.9 percent of black non-Hispanic women in 2002.[106] Based on 2002 birth certificates, however, less than 1 percent of all mothers-to-be (excluding American Indian or Alaska Native and Native Hawaiian/Part Hawaiian mothers-to-be, of whom 2.5 and 1.1 percent, respectively, consumed alcohol during their pregnancies) reported consuming alcohol during their pregnancy.[104] The significant disparity between these two data sources may reflect both the passage of time and changes in behavior, as well as the different questions used to collect data. For example, surveys of mothers usually ask about monthly alcohol consumption, whereas birth certificates collect data about the number of drinks consumed per week.[107]
- According to the Indian Health Service, between 1996 and 1998, 1.1 percent of mothers of all races in the United States drank during pregnancy, while 3.6 percent of American Indian or Alaska Native women in IHS service areas reported the same. Among the IHS service areas, the percent of mothers-to-be of all ages consuming alcohol ranged from 8.7 percent in Alaska to 1.3 percent in Nashville.[3]
- The high prevalence of fetal alcohol syndrome (FAS) among American Indian or Alaska Native newborns is evidence of high rates of alcohol consumption

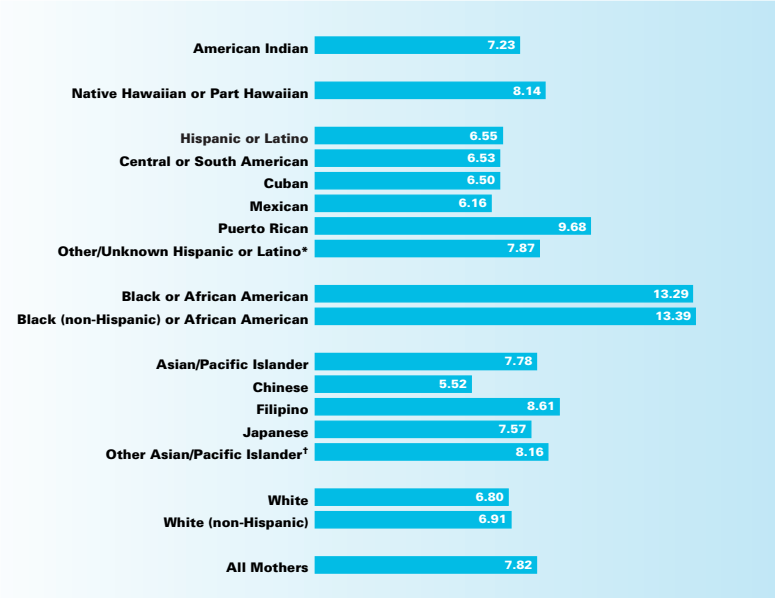
during pregnancy. Fetal alcohol syndrome can result in abnormal facial features, dysfunction of the central nervous system, growth deficiencies, mental disabilities, and problems with learning, communication, memory, and vision.[108]

- In surveillance of live births in Alaska, Arizona, Colorado, and New York in the period 1995–1997, the prevalence of fetal alcohol syndrome (FAS) was highest among babies born to American Indian/Alaska Native women (32 per 10,000). Among American Indians/Alaska Natives, FAS was most common among infants born to mothers in Alaska (56 per 10,000). FAS occurs much less frequently among infants born to mothers who are not American Indian/Alaska Native. Only 11 per 10,000 infants born to black mothers and 2 per 10,000 infants of both white mothers and Hispanic mothers had FAS. The overall prevalence of FAS in these four states was 4 per 10,000 live births.[109]
- Small shares of pregnant Hispanic (1.7 percent), white non-Hispanic (3.6 percent), and black non-Hispanic (6.2 percent) women ages 15 to 44 reported past month illicit drug use.[110]
- Marijuana is the illicit drug most commonly used by pregnant women.[111] Although less than 3 percent of all pregnant women ages 15 to 44 reported using marijuana during the past month in 2002, black non-Hispanic women (6.2 percent) were more likely to report use than either white non-Hispanic (3.1 percent) or Hispanic (1.4 percent) women.[112]

Birth Outcomes: Weight

- Infants with low birthweight (less than 2,500 grams) and very low birthweight (less than 1,500 grams) are at greater risk of morbidity and mortality than bigger infants. The incidence of low- and very-low-birthweight infants varies considerably by the race/ethnicity of the mothers of the infants, with black or African American women having the highest incidences of both low-birthweight (13.3 percent) and very-low-birthweight (3.1 percent) infants. Chinese mothers report the smallest percentage of infants with low birthweight (5.5 percent).[15]
- The proportions of low-weight infants born to Puerto Rican women (nearly 10 percent), to Filipino women (8.6 percent), and to Hawaiian, other Asian/Pacific Islander, and Other/Unknown Hispanic women (about 8 percent) are higher than the share born to white women (6.8 percent), but lower than the share born to black or African American women (13.3 percent).[15]
- Two percent or less of infants born to most women of color have very low weight (less than 1,500 grams). Only black or African American women (3.1 percent) reported a rate greater than 2 percent. Other women of color most likely to have very-low-birthweight infants were Puerto Rican (2 percent) and Native Hawaiian/Part Hawaiian (1.6 percent).[15]
- Despite lower incomes, higher rates of little or no prenatal care, lower levels of education, and other barriers to accessing health care, Mexican American women born in Mexico persistently give birth to low-weight infants at rates comparable to white women. U.S.-born Mexican American women have a 38 percent higher risk of low-birthweight infants than their Mexican-born counterparts. Many attribute this "epidemiological paradox" to traditional Mexican cultural beliefs and behaviors concerning pregnancy, including ensuring proper nutrition, reducing substance use, and reducing maternal stress.[113]
- Similarly, in California, foreign-born Asian mothers (except Korean mothers) were less likely to have low-birthweight babies than their U.S.-born counterparts.[114] Southeast Asian, Asian Indian, and Filipino mothers were the most likely to deliver low-birthweight babies—8 percent of all deliveries. Between 4 percent and 6.5 percent of Korean, Japanese, and Chinese mothers had low-birthweight babies. In addition, Chinese and Filipino mothers have a higher rate of low-birthweight delivery in California than nationally. In California, as nationally, African American mothers were most likely to give birth to low-birthweight infants (12 percent).[114]

FIGURE 34
Low-Weight Infants as Percent of All Live Births by Race/Ethnicity of Mothers, 2002



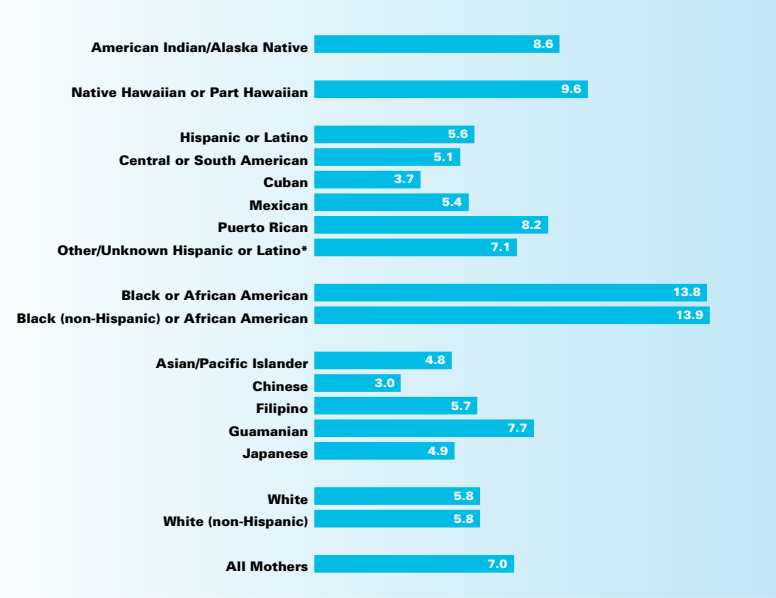
* Includes persons from Spain and other Spanish-speaking localities
† Includes Asian Indian, Guamanian, Korean, Samoan, Vietnamese, and other Asian and Pacific Islander subpopulations

Source: National Center for Health Statistics. *Health, United States, 2004 With Chartbook on Trends in the Health of Americans.* Hyattsville, MD: National Center for Health Statistics, 2004, p. 120.

Birth Outcomes: Infant and Maternal Mortality

- Infant mortality (that is, death before reaching one year of age) reflects not only the standard of living of a population but also tends to mirror the health of the mother. Among women of color in 2002, mortality rates were highest for the infants of black women—nearly 14 deaths per 1,000 live births. (Black women also have the highest percentage of low-birthweight babies.) The mortality rate of infants of black women was more than double the rate of nearly 6 deaths per 1,000 live births to white mothers, and significantly greater than the rate for all mothers (7 deaths per 1,000 live births).[115]
- Native Hawaiian/Part Hawaiian mothers have the second highest infant mortality rate (9.6 deaths per 1,000 live births), followed by American Indians with 8.6 infant deaths per 1,000 live births and Puerto Ricans with 8.2 infant deaths per 1,000 live births. All the Asian and Pacific Islander groups (for which data were reported) had infant mortality rates lower than the infant mortality rate for whites (5.8 per 1,000 live births).[115]
- Although underreported, infant mortality rates generally are high for Pacific Islanders, including the 2002 rate for Native Hawaiians/Part Hawaiians at nearly 10 deaths per 1,000 live births. In addition, in Guam there were nearly 8 deaths per 1,000 live births.[115]
- Infant mortality rates decrease as the education level of mothers increases. However, at each educational level of the mothers, infants born to black mothers have the highest death rates—14.5 per 1,000 live births for mothers with less than 12 years of education, 13.4 per 1,000 live births for mothers with 12 years of education, and 11.5 per 1,000 live births for mothers with 13 or more years of education. Infants born to American Indian or Alaska Native mothers have the second highest mortality rates by educational attainment—11.3 per 1,000 live births (less than 12 years of education), 8.8 per 1,000 live births

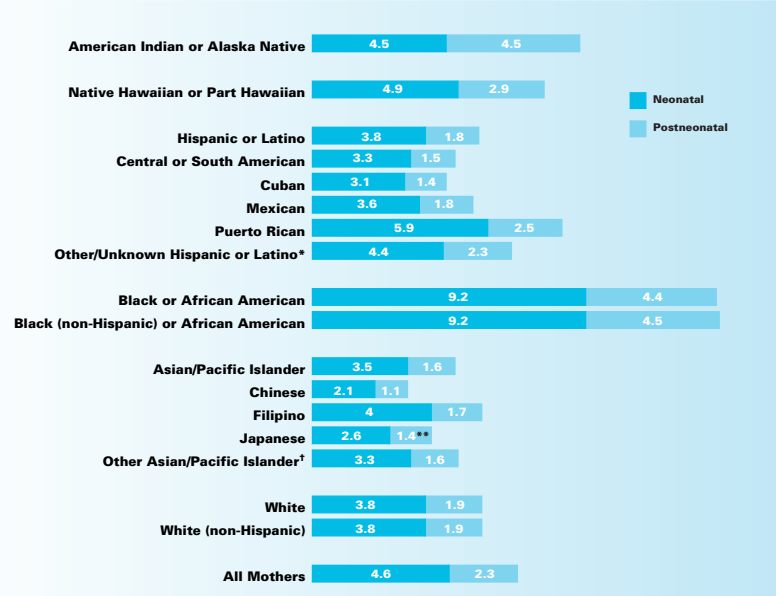
FIGURE 35
Infant Mortality Rates by Race/Ethnicity of Mothers, 2002
Per 1,000 live births



* Includes persons from Spain and other Spanish-speaking localities

Source: Mathews TJ, Menacker F, MacDorman MF. Infant mortality statistics from the 2002 period linked birth/infant death data set. *Natl Vital Stat Rep.* 2004; 53(10):1-29. Hyattsville, MD: National Center for Health Statistics.

FIGURE 36
Neonatal and Postneonatal Deaths by Race/Ethnicity of Mothers, 1999–2001
Per 1,000 live births



* Includes persons from Spain and other Spanish-speaking localities
** Estimate is unreliable, because based on fewer than 50 events.
† Includes Asian Indian, Guamanian, Korean, Samoan, Vietnamese, and other Asian and Pacific Islander subpopulations

Source: National Center for Health Statistics. *Health, United States, 2004 With Chartbook on Trends in the Health of Americans.* Hyattsville, MD: National Center for Health Statistics; 2004, p. 132.

(12 years of education), and 6.9 per 1,000 live births (13 or more years of education). (Rates for Native Hawaiian/Part Hawaiian infants are not provided.) The same pattern is found among Hispanic or Latino mothers whose infants' death rates are: 5.3 per 1,000 live births (mothers with less than 12 years education), 5.1 per 1,000 live births (mothers with 12 years of education), and 4.6 per 1,000 live births (mothers with 13 or more years of education).[15]

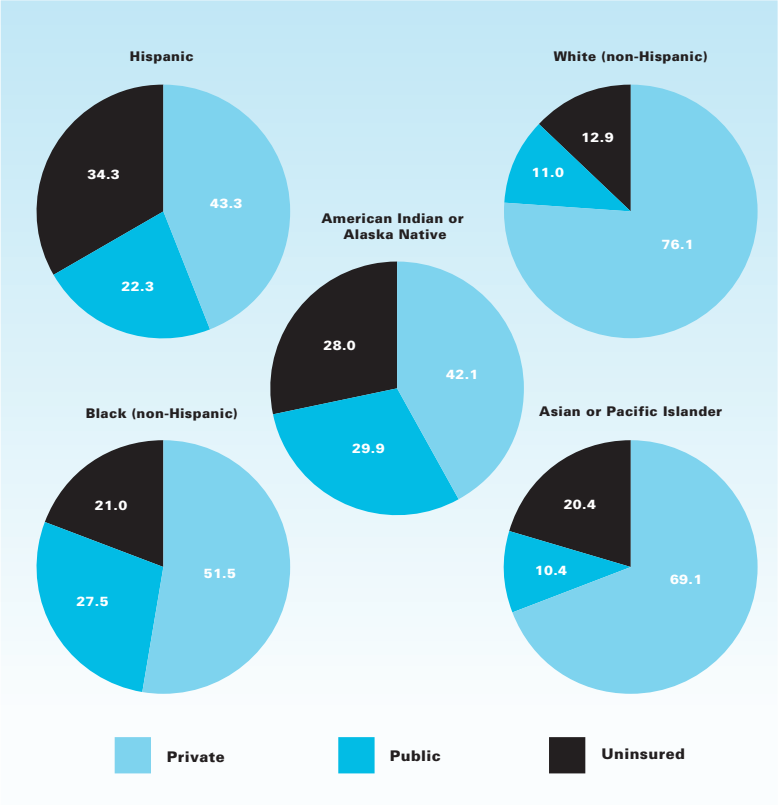
- Among infants born between 1999 and 2001 to mothers of all racial/ethnic groups, more deaths were neonatal (that is, occurring within the first 27 days of life) than were postneonatal (that is, in days 28 through 365 after birth). Postneonatal deaths are often the result of accidents or exposure to environmental hazards.[15]
- The causes of infant fatalities differ significantly by race. Although mortality rates due to congenital anomalies are comparable for infants of all races, death rates due to short gestation and low birthweight vary considerably. Black non-Hispanic infants (316 deaths per 100,000 live births) are more than three times as likely to die from disorders related to short gestation and low birthweight as are infants of Hispanic mothers (87 per 1,000), and more than four times as likely to die from these causes as infants born to mothers who are white non-Hispanic (nearly 77 per 100,000) and Asian and Pacific Islander (76 per 100,000). Black non-Hispanic infants also are nearly three times as likely as American Indian or Alaska Native infants (108 per 100,000 live births) to die as a result of short gestation and low birthweight.[115]
- Both black non-Hispanic and American Indian or Alaska Native infants (nearly 111 per 1,000 and close to 123 per 100,000, respectively) are more than twice as likely as white non-Hispanic babies (more than 55 per 100,000) to die from Sudden Infant Death Syndrome (SIDS). In addition, black non-Hispanic and American Indian or Alaska Native infants are more than four times as likely as Asian/Pacific Islander (24 per 100,000) and Hispanic (almost 27 per 1,000) infants to die from SIDS.[115]
- Black or African American mothers themselves are more likely to die from pregnancy complications than either white mothers or Hispanic/Latino mothers. In 2002, there were 5 deaths per 100,000 live births among white women, while there were 6 deaths per 100,000 live births for Hispanic women (age-adjusted rates). Among black women, however, there were 23 deaths per 100,000 live births.[15]
- In 2002, maternal mortality rates for Hispanic and for Asian and Pacific Islander mothers were slightly higher than the rates for non-Hispanic white mothers, although lower than the rates for non-Hispanic black mothers. The rates were: among Asian/Pacific Islanders, 9 deaths per 100,000 live births; and among Hispanics, more than 7 deaths per 100,000 live births. There were nearly 6 deaths per 100,000 live births among non-Hispanic white mothers, but almost 25 deaths per 100,000 live births to non-Hispanic black mothers. In 2002, there were no maternal mortalities from complications of pregnancy, childbirth, and the puerperium among American Indian or Alaska Native mothers.[116,117]
- When examined by nativity, foreign-born Asian and Pacific Islander and Hispanic mothers have pregnancy-related mortality rates higher than their U.S.-born counterparts. Foreign-born Latino mothers were 50 percent more likely to die of pregnancy complications—nearly 12 per 100,000 versus a death rate of 8 per 100,000 for U.S.-born Hispanic women. Foreign-born Asian and Pacific Islander mothers, however, have maternal mortality rates that are twice as high as the rates for U.S.-born Asian and Pacific Islander mothers.[107]
- Although the pregnancy-related mortality rate for mothers in the United States has remained fairly constant over the past decade, the rate of homicide among pregnant women and women in the post-partum period has increased. Though a leading cause of injury death among all women of childbearing age, homicide occurs more often among pregnant and post-partum women of childbearing age than among nonpregnant women. Between 1991 and 1999, about 2 women per 100,000 live births died from homicide during or within 1 year of their pregnancy. Women younger than 20 years, women who didn't receive prenatal care, and black women were more likely to die from a pregnancy-related homicide than were other women. The pregnancy-related homicide rate among black women was seven times that of white women during the period 1991–1999.[118]

Health Insurance Coverage and Services

Health Insurance Coverage: People of Color

- There are several ways to measure health insurance coverage, and the different measures yield different results. Each year, in its Current Population Survey (CPS), the U.S. Census Bureau reports the number of Americans who were uninsured for the entire previous year. In 2004, nearly 46 million Americans were uninsured.[119] However, this figure does not reflect the millions of Americans who were uninsured for only a portion of the year. Even a short period without insurance can have a major impact on one's health. Thus, an alternate way to more fully gauge the lack of insurance in America is to tally the number of Americans who were without insurance for any portion of time during the past year or 2 years. For example, in 2002–2003, nearly 82 million Americans were without health insurance for all or part of that time.[120]
- People of color were disproportionately represented among the nearly 46 million people (almost 16 percent of the total population) without health insurance in 2004. While people of color constitute nearly a third of the U.S. population (32 percent), they were more than half of the U.S. uninsured population (52 percent).[119] In particular, Hispanic men and women account for less than 14 percent of the total U.S. population but nearly 30 percent of the total uninsured population. Blacks make up 12.2 percent of the total population, but comprised 15.7 percent of the total uninsured population in 2004. Non-Hispanic whites make up 67.9 percent of the total U.S. population, but only 48 percent of the uninsured population.[119,121]
- As expected by their overrepresentation among the uninsured, each of the subpopulations of color is also more likely to be uninsured than are white non-Hispanics. Eleven percent of white non-Hispanic people of all ages and 27 percent of low-income white non-Hispanic people reported a lack of health insurance coverage in 2004. Nearly 20 percent of black non-Hispanic people of all ages and 26 percent of low-income black non-Hispanic people reported the lack of health insurance. Seventeen percent of Asian people of all ages were uninsured, compared to 35 percent of low-income Asian people. Hispanic people of all ages, however, were the most likely to be uninsured. Among all Hispanic people, 33 percent had no health insurance; among low-income Hispanic people, this share was 42 percent.[119,122]
- Insurance coverage rates for Latino subpopulations in 2002 were: 59 percent among Salvadorans, 60 percent among Mexican Americans, 64 percent among South Americans, 71 percent among Dominicans, 80 percent among Cubans, and 82 percent among Puerto Ricans.[123] Coverage rates for Latinos also varied based on nativity—75 percent of native-born Latinos had health coverage while only 58 percent of foreign-born Latinos reported coverage in 2002.[123]
- People of color also were more likely than whites to report lacking health insurance coverage for at least a month between 2001 and 2002. While 27 percent of white non-Hispanics under age 65 reported at least a month without health insurance during this period, 53 percent of Hispanics reported the same. Lesser shares of non-Hispanic people of color lacked health insurance coverage—37 percent of black non-Hispanics and 28 percent of Asians/Pacific Islanders.[124]

FIGURE 37
Health Insurance Coverage for Persons Under 65 Years of Age by Race/Ethnicity, 2003
Percent



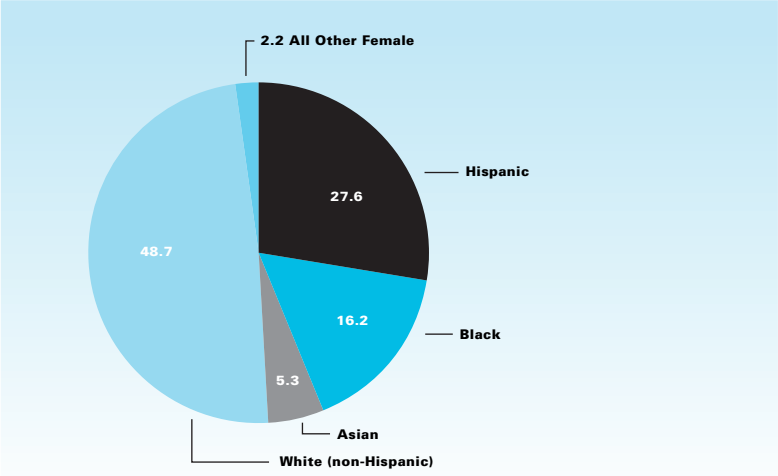
Source: The Kaiser Commission on Medicaid and the Uninsured. *The uninsured: A primer—Key facts about Americans without health insurance.* Washington, DC: The Henry J. Kaiser Family Foundation; 2004. Available at: *http://www.kff.org/uninsured/upload/7216.pdf.* Date Accessed: 12/15/05.

- During the period 2002–2003, nearly 60 percent of Hispanic men and women were uninsured for all or part of that time, compared to nearly 43 percent of black non-Hispanic men and women, and more than 23 percent of white non-Hispanic men and women. More than 38 percent of men and women of other racial/ethnic groups were uninsured at least a portion of that time period.[120]
- In the period 1996–1999, among non-Hispanic whites, the median number of months spent without health insurance was 4.97 months, compared to 5.92 months for blacks and 8.33 months for Hispanics.[125]
- Blacks and Hispanics under 65 years of age (i.e., non-elderly) also were considerably less likely to have private health insurance (and the additional options and greater coverage it often affords) and, thus, more likely to have public insurance than were whites. A 2003 Community Tracking Survey found that 75 percent of whites reported employer-sponsored health insurance coverage, compared to 54 percent of blacks and 40 percent of Latinos.[126] Data from another source are comparable. A 2004 report by the Kaiser Commission on Medicaid and the Uninsured found that nearly 70 percent of white non-Hispanic non-elderly men and women had employer-sponsored coverage, compared to 49 percent of black non-Hispanic and 41 percent of Hispanic men and women.[127]
- Survey data from 1997 and 1999 revealed that while 83 percent of whites had either employer-based or privately purchased health insurance coverage, only 49 percent of American Indians or Alaska Natives were insured by the same source. An additional 17 percent of American Indians or Alaska Natives were covered by public or state insurance, and 16 percent were covered by the Indian Health Service, proportions that greatly exceed the 5 percent of whites covered by public or state insurance.[128] A 2004 report by the Kaiser Commission on Medicaid and the Uninsured found American Indians/Alaska Natives were even less likely (38 percent) to have employer-based health insurance coverage, and that nearly 30 percent were insured by some form of public insurance. This contrasts with the 11 percent of white non-elderly men and women who reported public insurance coverage, according to this source.[127]
- Nonelderly blacks and Latinos were more likely than whites to report public health insurance coverage (including Medicaid and SCHIP). According to the Community Tracking Survey, only 8 percent of non-elderly whites reported public health coverage in 2003, while 23 percent of both blacks and Latinos reported this form of insurance.[126] Comparable data are reported by the Kaiser Commission on Medicaid and the Uninsured—in 2003, more than 27 percent of non-elderly blacks and more than 22 percent of non-elderly Hispanics had some form of public health coverage, compared to 11 percent of non-elderly whites.[127]
- Among Latino subpopulations under the age of 65, the shares reporting Medicaid insurance coverage vary. Fifteen percent of Cubans, 18 percent of Mexicans, and 19 percent of Other Hispanics or Latinos reported this form of insurance, in comparison to 27 percent of Puerto Ricans.[15] This difference in coverage reflects in part the difference in the proportions of Mexicans, Cubans, and other Latinos who are not U.S. citizens, and therefore are not eligible for Medicaid, relative to Puerto Ricans, all of whom are U.S. citizens and, thus, potentially eligible for the insurance.

Health Insurance Coverage: Women of Color

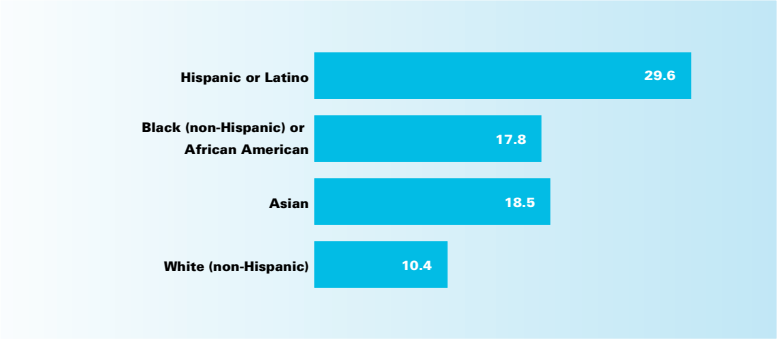
- Although women of color were estimated to be 32 percent of all women in 2003, they were more than 51 percent (11 million) of the estimated 21 million uninsured women of all ages that year.[129] In addition, each of the subpopulations of women of color was overrepresented among the uninsured (relative to their share of the female population).
- Each subpopulation of women of color also was more likely than white women to be uninsured. More than 10 percent of all white non-Hispanic women were uninsured, compared to nearly 18 percent of black non-Hispanic, nearly 19 percent of Asian, and nearly 30 percent of Hispanic women.[129]
- When type of insurance (i.e., Medicaid, job-based, privately purchased, other government, and uninsured) was examined for all women between the ages of 18 and 64 years in 2004, white women (70 percent) were the most likely to report having health insurance coverage through their employers. Only 39 percent of Latino women were covered through their employers, while 59 percent of black women had employer-provided health insurance coverage.[130]
- In 2003, 34 percent of American Indian or Alaska Native, 30 percent of Hispanic, 18 percent of black or African American, 17 percent of Asian, 15 percent of Native Hawaiian or Other Pacific Islander, and 11 percent of white full-time working women ages 18 to 64 were uninsured.[121]

FIGURE 38
Distribution of Women Who Lack Health Insurance Coverage by Race/Ethnicity, 2003
Percent



Source: Bureau of the Census. *Table HI01: Health insurance coverage status and type of coverage by selected characteristics: 2003.* Available at: *http://pubdb3.census.gov/macro/032004/health/h01_000.htm.* Date Accessed: 12/1/05.

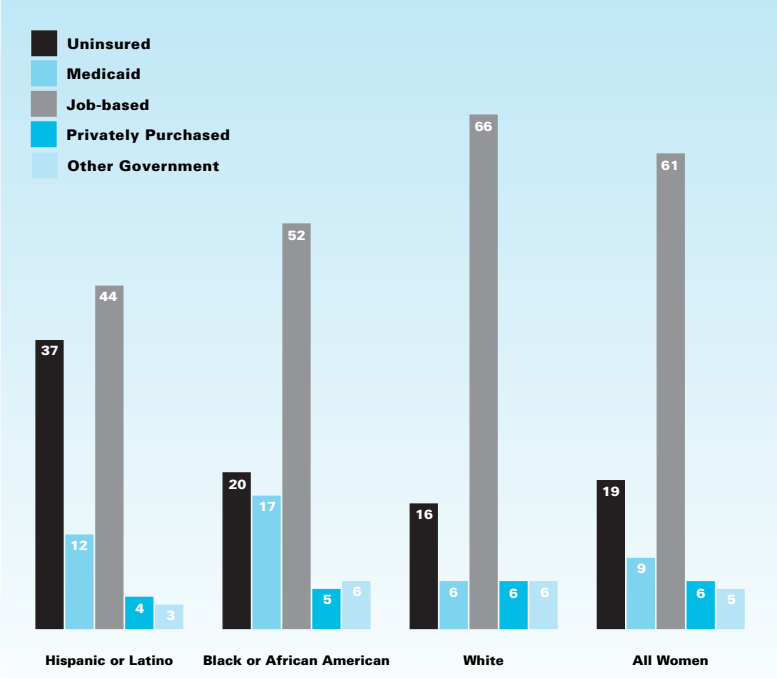
FIGURE 39
Women by Race/Ethnicity Who Lack Health Insurance Coverage, 2003
Percent



Source: Bureau of the Census. *Table HI01: Health insurance coverage status and type of coverage by selected characteristics: 2003.* Available at: *http://pubdb3.census.gov/macro/032004/health/h01_000.htm.* Date Accessed: 12/1/05.

- Although the percentages reported differ slightly by data source, in 2004, public health insurance coverage was more common among many women of color under the age of 65 than among white women. While just 11 percent of white women reported having only public health insurance (Medicaid or another form of government insurance, such as Medicare or CHAMPUS), 19 percent of Latino women and 21 percent of African American women reported the same.[130]
- The mix of public insurance coverage—most commonly Medicaid for the poor and Medicare for the elderly and disabled—varied among subgroups of women in 2003. Medicaid coverage ranged from nearly 18 percent of non-elderly American Indian or Alaska Native and black or African American women to nearly 6 percent for non-elderly Asian women. More than 13 percent of non-elderly Hispanic women, nearly 12 percent of non-elderly Native Hawaiian or Other Pacific Islander women, and more than 6 percent of white non-elderly women also reported Medicaid coverage.[121]
- As would be expected because of the program's eligibility criteria, Medicaid is a more common form of coverage among low-income women of color. In 2003, black non-Hispanic women living in poverty and American Indian or Alaska Native women living in poverty were the most likely to have Medicaid coverage (both at 42 percent), followed by low-income Native Hawaiian or Other Pacific Islander (39 percent), Hispanic (33 percent), white non-Hispanic (29 percent), and Asian (21 percent) women.[131]

FIGURE 40
Women Ages 18 to 64 by Type of Health Insurance Coverage and Race/Ethnicity, 2001
Percent

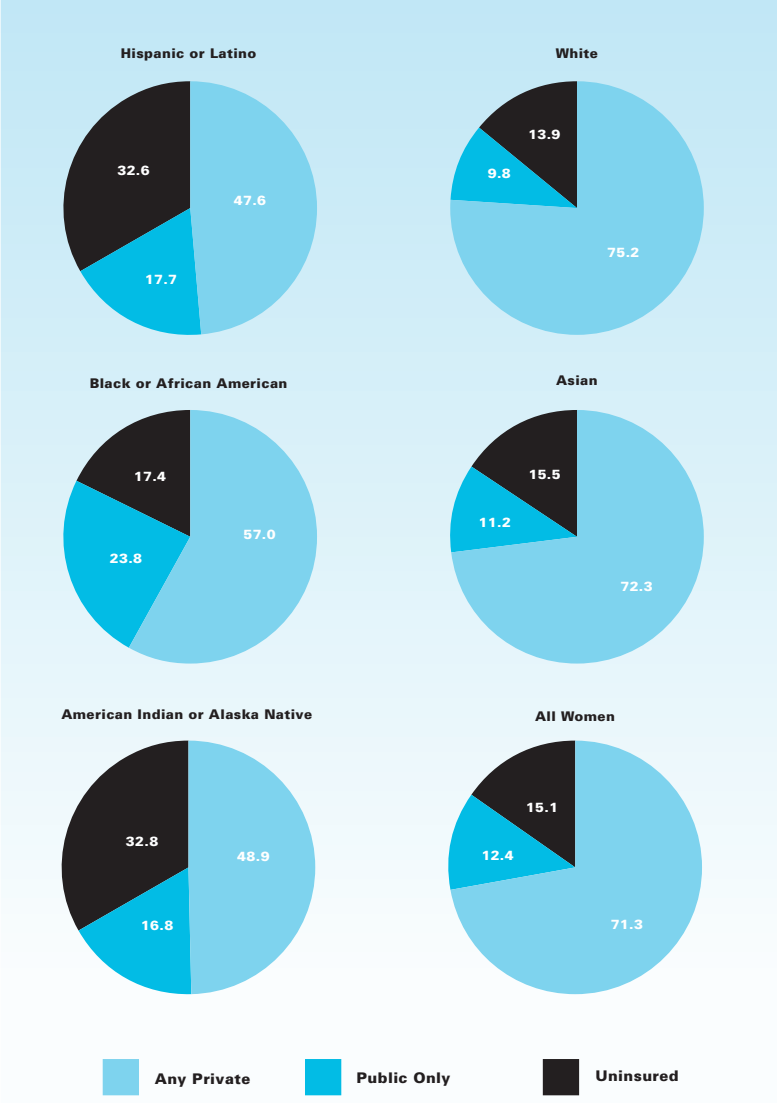


Source: Wyn R, Ojeda V, Ranji U, Salganicoff A. *Racial and Ethnic Disparities in Women's Health Coverage and Access to Care.* Menlo Park, CA and Washington, DC: The Henry J. Kaiser Family Foundation, 2004.

- Large percentages of women living in poverty (in 2003, incomes below the federal poverty threshold of $9,393 for an individual and $18,810 for a family of four) also reported being uninsured in 2003—49 percent of Hispanic women, 43 percent of Asian women, 41 percent of African American women, 40 percent of American Indian or Alaska Native women, 35 percent of Native Hawaiian or Other Pacific Islander women, and 27 percent of white women.[121,132]
- Medicare coverage (among all women ages 18 and older, reflecting both the elderly and disabled) was distributed differently than Medicaid coverage among women of color. White women reported the largest share (22 percent) with Medicare coverage in 2003. Smaller shares of black or African American (17 percent), American Indian or Alaska Native (15 percent), Asian (12 percent) and Hispanic women (10 percent) reported Medicare coverage. Native Hawaiian or Other Pacific Islander women reported the smallest share with Medicare coverage (9 percent).[131]

- Medicare coverage among the elderly (women 65 years and older) varied only slightly by subgroup. Ninety-seven percent of white non-Hispanic and 96 percent of American Indian or Alaska Native women 65 years of age and older reported having Medicare coverage in 2003. Equivalent proportions of black non-Hispanic (95 percent) and of Native Hawaiian or Other Pacific Islander (94 percent) women reported having Medicare health insurance, while 91 percent of Asian women and 88 percent of Hispanic women reported having this same coverage.[131]

FIGURE 41
Health Insurance Coverage for Women Under 65 Years of Age by Race/Ethnicity, 2001
Percent

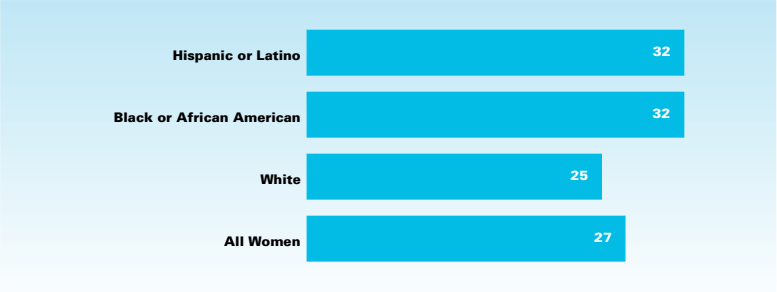


Source: Agency for Healthcare Research and Quality. *2004 National Healthcare Disparities Report, Detailed Data Tables: Health Insurance Coverage, Tables 120a, 120b, 121a, 121b, 122a, 122b.* Available at: *http://www.qualitytools.ahrq.gov/disparitiesreport/browse/browse.aspx?id=3651.* Date Accessed: 1/9/06.

Obtaining Health Care Services

- Access to health care includes both access to health insurance coverage and access to providers and facilities that render services. Adequate access to providers and facilities encompasses the existence of conveniently located services and the availability of child care (to enable mothers to seek medical attention), transportation, and health care providers capable of giving competent and sensitive care.[133]
- A 2001 survey found that low-income women reported difficulty in accessing health care, regardless of insurance status.[134] Compared to high-income women, low-income women were twice as likely to have not seen a physician in the past year or to lack a usual source of care, and three times as likely to have delayed seeking or gone without care in the past year due to costs. Uninsured low-income women were twice as likely as insured low-income women to have accessibility difficulties.[134]
- Women of color also disproportionately report difficulties in accessing health care. In 2004, more than one-fifth (21 percent) of white women and nearly a third of African American and Latino women (30 percent and 32 percent, respectively) reported that they had a health problem in the past year and needed to see a doctor but did not because of the cost.[130] Two-thirds (67 percent) of uninsured women reported that they delayed or went without care in the preceding year because of the cost, compared to 17 percent of women with private insurance coverage and 32 percent of women with Medicaid coverage.[130]
- Another requisite step towards having good health is effective doctor-patient communication. Language or literacy problems are often barriers to effective communication. Eighteen percent of white, 24 percent of black or African American, 28 percent of Asian, and 29 percent of Hispanic women reported that they had experienced poor communication with their doctor during their last visit.[135] In another survey, 14 percent of African American, 17 percent of white, and 20 percent of Latino women reported that at least once in the past 2 years, they had left their doctor's office and did not understand or remember some of the information that they had been given.[80]
- Recent African immigrants to the United States face formidable barriers to receiving health care due to limited English proficiency, lack of resources, lack of health insurance, immigration status, and the lack of awareness of how to navigate the health care system.[136]
- Seven percent of non-elderly Latinas reported that a hospital emergency room was their usual site of care in 2001. Only 3 percent of African American women and 1 percent of white women reported the same. Thirty-eight percent of Latinas also reported that a clinic or health center was their usual site of care, compared to 27 percent of African American women and 17 percent of white women. Only 51 percent of non-elderly Latina and 68 percent of non-elderly African American women reported that a physician's office was their usual site of health care, compared to 80 percent of non-elderly white women.[80]
- Blacks (28 percent) and American Indian or Alaska Natives (26 percent), males and females combined, were more likely to report one or more visits to the emergency department in 2002 than were either whites (20 percent), Hispanics (19 percent), or Asians (14 percent).[15]
- A study found that Korean Americans living in Los Angeles County, California, made far fewer physicians visits (an average of 2.78 visits in the preceding 12 months) than a national sample of non-Hispanic whites (5.92 visits), African Americans (3.70 visits), and Hispanics (3.75 visits). The study also found that the Korean Americans in the sample made far fewer visits than their counterparts in the Republic of Korea (10.7 visits), which has mandatory national health insurance coverage for all citizens. Health insurance plays a large role in health care service use. Low-income Korean Americans without health insurance living in Los Angeles County were 47 percent less likely than their low-income counterparts with insurance to visit a physician.[137]
- Lack of insurance coverage (other than via the IHS) sometimes becomes problematic for American Indians/Alaska Natives because government health care services for American Indians/Alaska Natives in urban and nonreservation rural areas often are very limited and uncoordinated. For example, American Indians/Alaska Natives living in urban areas can get

FIGURE 42
Women Ages 18 to 64 with General Health Care Access Problems in the Past Year* by Race/Ethnicity, 2001
Percent



* General access problem: Had a health problem and needed to see a doctor but did not

Source: Salganicoff A, Beckerman JZ, Wyn R, Ojeda VD. *Women's Health in the United States: Health Coverage and Access to Care*. Menlo Park, CA and Washington, DC: The Henry J. Kaiser Family Foundation; 2002, p. 41.

treatment at IHS direct care facilities, but are not eligible for the more specialized services that may be provided elsewhere (i.e., "contract care" services). By contrast, American Indians/Alaska Natives on or near reservations—who are therefore eligible for the full range of IHS services—have access to both routine care and to the more specialized contract care services.[128,138]

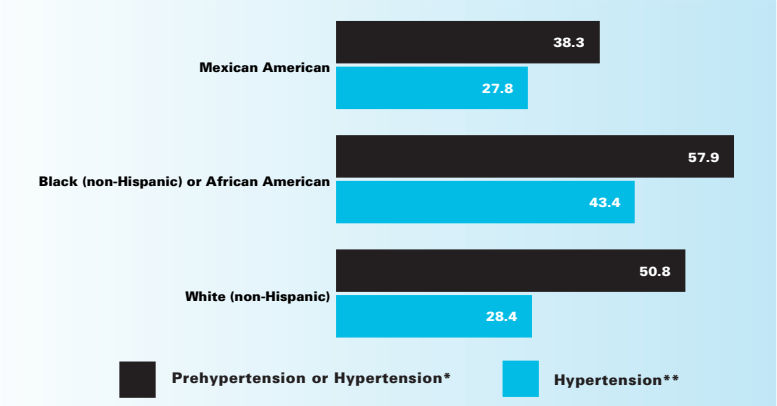
- American Indians/Alaska Natives who have job-based private insurance (35.8 percent of the non-elderly population in 2002) have a choice that most other Americans do not have—to get free health care through a system in which the choice of providers and services is limited, or to obtain private care elsewhere.[15,138] The options for both private care and treatment at IHS facilities are limited by the distances that must be traveled for either. However, because the waiting times reported for treatment at IHS facilities exceed waiting times reported for services with other providers, American Indians/Alaska Natives with private insurance often prefer to seek private care.[128]

Morbidity and Mortality

Hypertension

- People are classified as hypertensive if their average systolic blood pressure is greater than 140 mm mercury, their average diastolic blood pressure is greater than 90 mm mercury, or they report taking medicine for high blood pressure. Hypertension, a major risk factor for both coronary heart disease and cerebrovascular disease, infringes upon the health of black women much more than it does upon the health of other women of color. African American women also are at greater risk of severe complications and death (than white women) from pre-eclampsia or eclampsia, conditions causing hypertension during pregnancy.[139,140]
- In 2003, the National High Blood Pressure Education Program Coordinating Committee denoted a new classification—prehypertension. People are classified as prehypertensive if their average systolic blood pressure is between 120–139 millimeters mercury or if their average diastolic blood pressure is between 80–89 mm Hg diastolic. This new category was created to focus more attention on this health condition in order to help motivate people to make healthy lifestyle changes before hypertension (and its accompanying effects) sets in.[141]
- Between 1999 and 2002, 43 percent of non-Hispanic black or African American women ages 20 and older were found to be hypertensive, compared to about 28 percent of both non-Hispanic white and Mexican American women.[15]
- The 1999–2000 NHANES found that 57.9 percent of black non-Hispanic women ages 18 and older had prehypertension or hypertension. Nearly 51 percent of white non-Hispanic women and 38.3 percent of Mexican American women had prehypertension or hypertension.[142]

FIGURE 43
Age-adjusted Prehypertension and Hypertension among Women by Race/Ethnicity, 1999–2000, 1999–2002
Percent



* 18 years of age and older
** 20 years of age and older

Sources: Wang Y, Wang QJ. The prevalence of prehypertension and hypertension among US adults according to the new joint national committee guidelines: new challenges of the old problem. *Archives of Internal Medicine* 2004 Oct 25;164(19):2126-34.

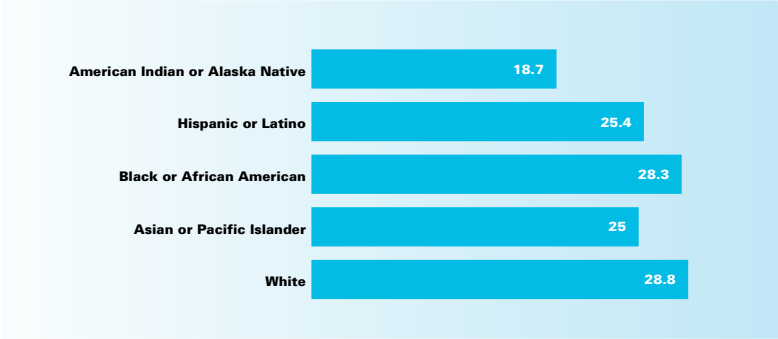
National Center for Health Statistics. *Health, United States, 2004 With Chartbook on Trends in the Health of Americans.* Hyattsville, MD: National Center for Health Statistics, 2004, p.238.

- Hypertension rates vary with education level. The prevalence of hypertension among black women with a high school education or higher is 37 percent, compared to 51.2 percent of black women with less than a high school education. Among Mexican Americans, 15.5 percent of women with higher levels of educations have hypertension, compared to 24.2 percent of their less educated counterparts. More than 31 percent of white women with higher levels of education have hypertension, compared to 47.4 percent of their less educated counterparts.[143]
- In 2001–2003 in California, Hispanic women ages 18 years and older had rates of hypertension (27.9 percent) similar to white non-Hispanic women (25.2 percent). This is much lower than the rate for black non-Hispanic women in the state (47 percent), although higher than the rates for Asian women (21.6 percent) and American Indian or Alaska Native women (20.2 percent).[17]
- Hypertension is also a concern for American Indian or Alaska Native women. For example, the prevalence of high blood pressure among American Indian women in Montana increased from 23 to 31 percent between 1999 and 2003.[144]
- Among women in Hawaii, Japanese women were found to have the greatest prevalence of hypertension risk. In 2001–2003, 34.3 percent of Japanese women ages 18 and older were at risk for hypertension. Native Hawaiian women had the next highest risk prevalence (27.9 percent), followed by Filipino women (24.6 percent), Chinese women (24.1 percent), and white women (18.4 percent).[25]
- A survey of Asian Indians in the state of Georgia found that 21 percent of these women had hypertension.[145] This compares to the 29.3 percent of all women with hypertension who live in Georgia, an average that incorporates 35.8 percent of American Indian or Alaska Native women, 39.3 percent of black non-Hispanic women, and 25.6 percent of white non-Hispanic women (2001–2003).[17]

Cardiovascular Disease

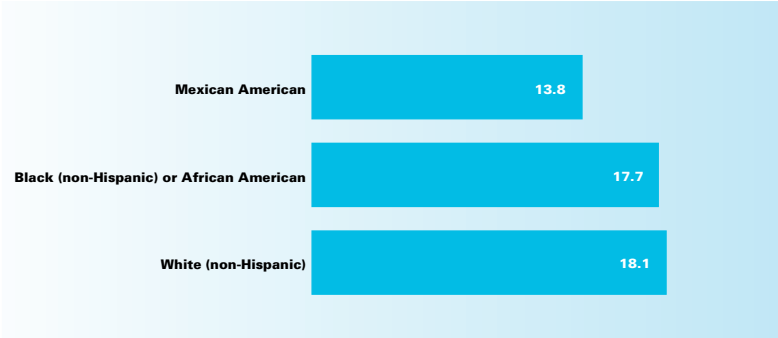
- Diabetes, hypertension, high cholesterol, obesity, lack of exercise, and smoking all are risk factors for cardiovascular (or heart) disease. Although various risk factors affect the different subpopulations of women of color, cardiovascular disease was the leading cause of death for black or African American, Hispanic or Latino, and white women in 2002. Heart disease ranked as the second leading cause of death among American Indian or Alaska Native and Asian/Pacific Islander women that year.[15]
- High serum cholesterol (a factor in cardiovascular disease and sometimes associated with obesity) is defined as greater than or equal to 240 mg/dl. It was found in roughly equal proportions among the subpopulations of women ages 20 and older in 1999–2002. Nearly a fifth of non-Hispanic white (18.1 percent) and non-Hispanic black (17.7 percent) women had high serum cholesterol, as did 13.8 percent of Mexican American females. The percentage of women with high serum cholesterol has decreased for all three groups of women since 1988–1994.[15] Thirteen percent of American Indian women ages 45 to 74 years living in Arizona, Oklahoma, North Dakota, and South Dakota also reported the condition in 1993–1995, comparable to the 12 percent of this population who reported the condition in 1989–1991.[146]
- The 369,103 deaths due to diseases of the heart among women in 2002 were distributed as follows: whites (84 percent), blacks (11 percent), Asian/Pacific Islander Americans (more than 1 percent) and American Indians/Alaska Natives (less than 1 percent). Hispanic or Latino women comprise slightly more than 3 percent of all deaths due to diseases of the heart among women.[15]
- Heart disease accounted for sizable shares of all deaths among women of each racial/ethnic subpopulation in 2002—white women (29 percent), black women (28 percent), Hispanic women (25 percent), Asian or Pacific Islander women (25 percent), and American Indian or Alaska Native women (19 percent). Proportionately fewer white, African American, and American Indian or Alaska Native women died from heart disease in 2002 than in 1980 (11 percentage points, 6 percentage points, and more than 2 percentage points fewer, respectively). However, virtually equal proportions of Asian/Pacific Islander women were killed by cardiovascular disease in 2002 as in 1980. (Data were not available for Hispanic deaths in 1980).[15]
- Black women had the highest age-adjusted death rate from heart disease in 2002 (more than 263 per 100,000), nearly 1.4 times that of non-Hispanic white women (194 per 100,000). The death rate was nearly 150 per 100,000 Hispanic women, followed by rates of 124 per 100,000 American Indian or Alaska Native females, and more than 108 per 100,000 Asian and Pacific Islander women.[15]

FIGURE 44
Deaths Due to Heart Disease among Women by Race/Ethnicity, 2002
Percent



Source: National Center for Health Statistics. *Health, United States, 2004 With Chartbook on Trends in the Health of Americans.* Hyattsville, MD: National Center for Health Statistics; 2004, ps. 156-157.

FIGURE 45
Age-adjusted Percent of Females Ages 20 and Older with High Serum Cholesterol Levels, 1999–2002

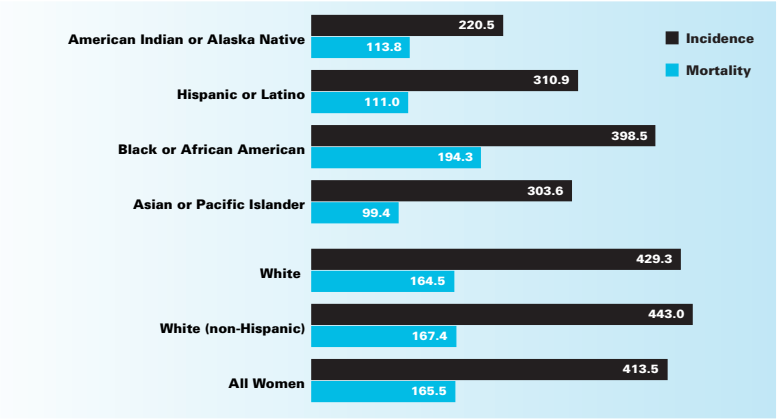


Source: National Center for Health Statistics. *Health, United States, 2004 With Chartbook on Trends in the Health of Americans.* Hyattsville, MD: National Center for Health Statistics; 2004, p. 239.

Cancers

- Since 1999, cancer has surpassed cardiovascular disease as the top killer of Americans younger than age 85.[147]
- Cancers are the second leading cause of death for women of color of all ages, except for American Indian or Alaska Native and Asian and Pacific Islander women for whom they are the number one killer.[15]
- From 1998 to 2002, the age-adjusted incidences of all cancers per 100,000 women ranged from highs of 443 among white non-Hispanic women and 399 among black women to a low of 221 among American Indian or Alaska Native women. Other groups of women reporting high overall cancer incidences were Hispanic women at 311 cases per 100,000 and Asian/Pacific Islander women at 304 cases per 100,000.*[148]
- From 1998 to 2002, death rates among women of color from all cancers varied. The highest death rate was reported by black women (194 per 100,000), with the lowest death rates reported among Asian/Pacific Islander women (99 per 100,000) and Hispanic women (111 per 100,000). As with incidence, high rates of death from all cancers were also reported by white non-Hispanic women (167 deaths per 100,000 women).*[148]
- Using the 2000 standard million population, age-adjusted death rates for all cancers in 2002 were highest for black or African American (190 per 100,000) and white (162 per 100,000) women. The death rate for Asian and Pacific Islander (96 per 100,000) women was about half the rate reported for black females, with death rates for American Indian or Alaska Native (113 per 100,000) and Hispanic or Latino (106 per 100,000) women somewhat higher.[15]

FIGURE 46
Age-adjusted Incidence of and Mortality from All Forms of Cancer among Women by Race/Ethnicity, 1998–2002
Per 100,000 population



Source: Ries LAG, Eisner MP, Kosary CL, Hankey BF, Miller BA, Clegg L, Mariotto A, Feuer EJ, Edwards BK (eds). *SEER Cancer Statistics Review 1975–2002.* Bethesda, MD: National Cancer Institute, 2005. Available at: *http://seer.cancer.gov/csr/1975_2002/.* Date Accessed: 2/13/06.

- The rate of cancer mortality among American Indian or Alaska Native women is lower than for the general female population. However, American Indian or Alaska Native women in selected areas—Alaska and the northern Plains (Indiana, Iowa, Michigan, Minnesota, Montana, Nebraska, North Dakota, South Dakota, Wisconsin, and Wyoming)—have higher rates of cancer mortality than the general female population.[149]
- Five-year survival rates with all cancers were highest for Asian/Pacific Islander and white non-Hispanic women than for other women in 1992–2000. Nearly 69 percent of Asian/Pacific Islander women survive 5 years after diagnosis with cancer, as do 67 percent of non-Hispanic white women. More than 60 percent of American Indian or Alaska Native women and 57 percent of black women survive this same length of time.[150]
- The top two cancer killers of women are cancers of the lung and bronchus and of the breast.[150]
- Death rates from these two forms of cancer vary among women of color subgroups, with the rates nearly equal for some groups and quite different for other groups (1998–2002). For example, the mortality rates were nearly equal for black women (35 per 100,000 for breast cancer and 40 per 100,000 for cancers of the lung and bronchus). However, death rates for these cancers differ notably for white non-Hispanic women (26 per 100,000 for breast cancer and 44 per 100,000 for cancers of the lung and bronchus) and for American Indian or Alaska Native women (14 per 100,000 for breast cancer and 27 per 100,000 for cancers of the lung and bronchus).*[148]
- In 2002, age-adjusted death rates (standardized to the 2000 population) from cancers of the trachea, bronchus, and lung and from breast cancer differed substantially for

* The cancer incidence and death measures for 1998–2002 are considerably higher than those reported for previous years. This is true in part because the 1998–2002 figures are based on the 2000 standard million population, whereas the 1990–1997 data in the 2002 edition of the *Women of Color Health Data Book* were based on the 1940 standard million population.

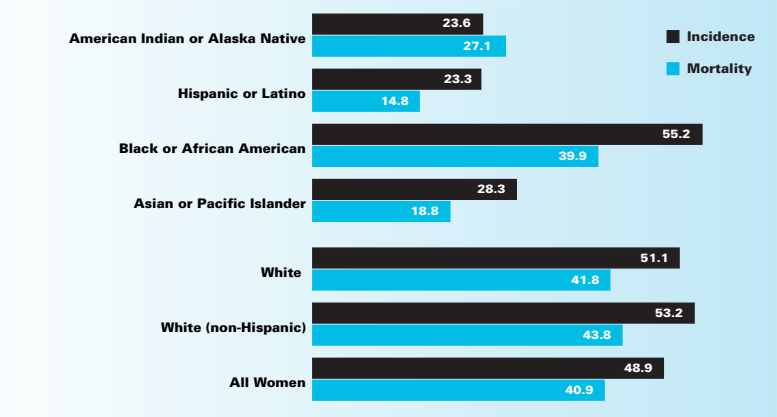
all subgroups of women except Hispanic or Latino women. White women (43 per 100,000) and black or African American women (40 per 100,000) had the highest death rates from cancers of the trachea, bronchus, and lung, followed by American Indian or Alaska Native women (27 per 100,000), Asian and Pacific Islander women (18 per 100,000), and Hispanic or Latino females (15 per 100,000). The highest death rate from breast cancer (34 per 100,000) occurred among black females, followed by white females (25 per 100,000), and trailed by Hispanic females (16 per 100,000), American Indian or Alaska Native females (14 per 100,000), and Asian and Pacific Islander women (13 per 100,000).[15]

- Cancers at other sites of the body are found with varying frequencies among women of color. For example, colorectal cancer and kidney and renal cancers are more common and more deadly for Alaska Native women.[151] Incidence and mortality rates for cancers of the liver and stomach, however, are higher among Asian/Pacific Islander women than among women of other racial/ethnic groups.[150] Stomach cancer strikes Vietnamese women and kills Native Hawaiian women more often than other women of color. In addition, Korean American women get cancers of the liver and bile duct more frequently than other women of color. Cancer of the thyroid is more often found in Filipino American women. Finally, cancer of the pancreas has higher incidence and mortality rates among black American women than among other women of color.[151]

Cancers of the Lung and Bronchus

- In recent years, lung cancer has become the top cancer killer among women, surpassing breast cancer. Women now account for 39 percent of all smoking-related deaths, which include deaths from both lung cancer and heart disease.[152]
- From 1998 to 2002, the incidence of cancers of the lung and bronchus ranged from a low of 23.3 per 100,000 Hispanic women to a high of 55.2 per 100,000 black women. Incidence also was high among women who are white (non-Hispanic) (53.2 per 100,000).*[148]
- American Indian/Alaska Native women (23.6 cases per 100,000) and Asian and Pacific Islander women (28.3 cases per 100,000) reported low rates of cancers of the lung and bronchus.[148]
- The highest death rates from cancers of the lung and bronchus between 1998 and 2002 were reported by white (non-Hispanic) (43.8 per 100,000) and black (39.9 per 100,000) women.*[148]
- In 1998-2002, the lowest death rates due to lung and bronchial cancers among women were 14.8 per 100,000 Hispanic women and 18.8 per 100,000 Asian/Pacific Islander women.[148]
- In recent years, mortality from lung cancer has increased markedly for all racial/ethnic groups except for American Indians/Alaska Natives. Between the periods 1990–1995 and 1995–2001, the rate (for American Indian or Alaska Native men and women combined) increased only modestly from 38.8 per 100,000 to 41.1 per 100,000.[153]
- Deaths due to cancers of the trachea, bronchus, and lung (as data were reported in 2002) showed the same pattern as in earlier years for cancers of the lung and bronchus. The highest age-adjusted death rates were among white women (43 per 100,000) and black or African American women (40 per 100,000). A total of 27 deaths per 100,000 American Indian or Alaska Native women, 18 deaths per 100,000 Asian/Pacific Islander women, and 15 deaths per 100,000 Hispanic or Latino women also were reported.[15]

FIGURE 47
Age-adjusted Incidence of and Mortality from Cancers of the Lung and Bronchus among Women by Race/Ethnicity, 1998–2002
Per 100,000 population



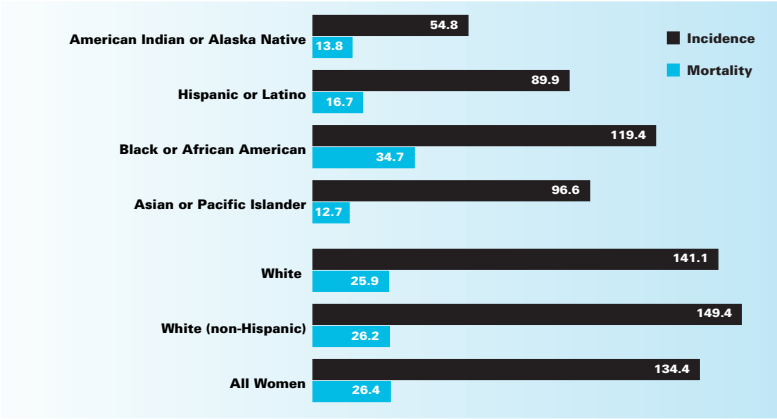
Source: Ries LAG, Eisner MP, Kosary CL, Hankey BF, Miller BA, Clegg L, Mariotto A, Feuer EJ, Edwards BK (eds). *SEER Cancer Statistics Review 1975–2002.* Bethesda, MD: National Cancer Institute; 2005. Available at: *http://seer.cancer.gov/csr/1975_2002/.* Date Accessed: 2/13/06.

* The cancer incidence and death measures for 1998-2002 are considerably higher than those reported for previous years. This is true in part because the 1998-2002 figures are based on the 2000 standard million population, whereas the 1990-1997 data in the 2002 edition of the *Women of Color Health Data Book* were based on the 1940 standard million population.

Breast Cancer

- White non-Hispanic women (149 per 100,000) and black women (119 per 100,000) reported the greatest incidences of breast cancer, while American Indian or Alaska Native women (55 per 100,000) reported the lowest incidence (1998–2002).*[148]
- In 1998–2002, 97 cases of breast cancer were reported for every 100,000 Asian/Pacific Islander women. Asian/Pacific Islander and Hispanic women (90 per 100,000), thus, had breast cancer incidences midway between the highest and the lowest incidences among women of color.[148]
- Breast cancer accounted for 24 percent of all cancers among Samoan women in Hawaii in 1995–2000. This is less than among Japanese and Native Hawaiian women (both 36 percent), white women (34 percent), and Filipino women (30 percent) in Hawaii.[154]
- One study found that at the time of diagnosis, not only were Hispanic women more likely than white non-Hispanic women to have a more advanced stage of breast cancer, but they also were more likely to have tumors larger than 1 centimeter (cm). Central/South American, Mexican American, and Puerto Rican women were more likely to have tumors larger than 1 cm than were white non-Hispanic women. The authors of this study theorize that these results reflect the limited use of mammography screening among Hispanic women.[155]
- The same study found that Hispanic women born in Latin America were more likely to have a larger tumor at the time of breast cancer detection than their U.S.-born counterparts. The fact that in other studies Hispanic women born in the United States have demonstrated a greater familiarity with breast cancer screening than women born in Latin America may explain this disparity.[155]
- Another study found that black, American Indian, and white Hispanic women were more likely than white non-Hispanic women to be diagnosed with more advanced breast cancer or larger tumor. More than 32 percent of white non-Hispanic women were diagnosed at stage III or IV, compared to larger proportions of women of color—43.2 percent of black women, 40.7 percent of white Hispanic women, and 37.6 percent of American Indian women. Just 8 percent of the tumors of white non-Hispanic women were greater than or equal to 5 cm in size, compared to 15 percent among black women and nearly 14 percent among white Hispanic women.[156]
- Native Hawaiian females have the highest breast cancer incidence and death rate of any racial/ethnic group in Hawaii. Their incidence in 1995–2000 was 162 per 100,000, compared to 150 per 100,000 white women, 133 per 100,000 Japanese women, 110 per 100,000 Chinese women, and 93 per 100,000 Filipino women. The mortality rate for Native Hawaiian females was 31 per 100,000, compared to 25 per 100,000 white, 15 per 100,000 Chinese, 14 per 100,000 Filipino, and 12 per 100,000 Japanese women. Breast cancer accounts for about one-third of all cancers among all racial/ethnic groups of women in Hawaii and for 11 to 19 percent of all mortalities due to cancer.[154]
- The highest death rate from breast cancer was reported by black women (nearly 35 per 100,000), even though their incidence was lower than that of white non-Hispanic women. Between 1992 and 2002, while there was a 2.4 percent decrease in mortality due to breast cancer among white non-Hispanic women, among African American women there was only a 1.2 percent decrease.[148]
- White non-Hispanic women (26 per 100,000) reported the second highest breast cancer death rate after black women. The rate among Hispanic women (17 per 100,000) was the third highest.[148]

FIGURE 48
Age-adjusted Incidence of and Mortality from Breast Cancer among Women by Race/Ethnicity, 1998–2002
Per 100,000 population



Source: Ries LAG, Eisner MP, Kosary CL, Hankey BF, Miller BA, Clegg L, Mariotto A, Feuer EJ, Edwards BK (eds). *SEER Cancer Statistics Review 1975–2002.* Bethesda, MD: National Cancer Institute, 2005. Available at: *http://seer.cancer.gov/csr/1975_2002/.* Date Accessed: 2/13/06.

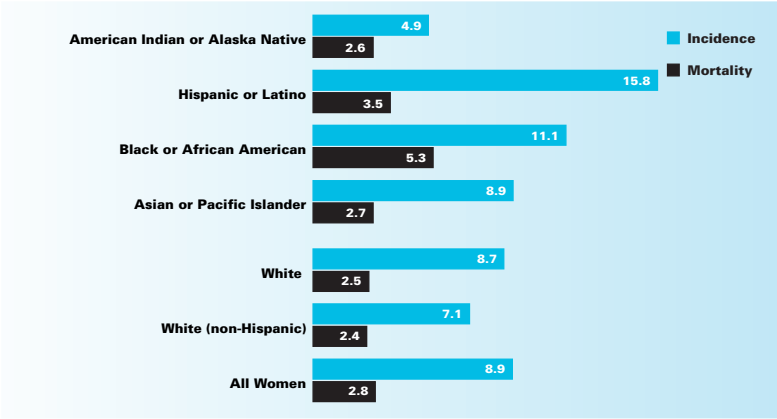
* The cancer incidence and death measures for 1998–2002 are considerably higher than those reported for previous years. This is true in part because the 1998–2002 figures are based on the 2000 standard million population, whereas the 1990–1997 data in the 2002 edition of the *Women of Color Health Data Book* were based on the 1940 standard million population.

- Breast cancer death rates in 2002 reflect a similar pattern to that in earlier years, with the highest rates among black females (34 per 100,000), followed by white females (25 deaths per 100,000). The death rate among Hispanic or Latino women is 15.5 per 100,000 and the rate among American Indian or Alaska Native women is 13.8 per 100,000, with Asian or Pacific Islander women reporting the lowest death rate (12.8 per 100,000).[15]
- Although incidence is low for American Indian or Alaska Native women, their mortality rates due to breast cancer are second only to their death rates from cancers of the trachea, bronchus and lung.[53] The breast cancer death rate for American Indian women in IHS service areas was 15.6 per 100,000 in 1996–1998, lower than the rate for women of all races during that period (19.4 per 100,000). However, the rates varied greatly among IHS service areas. The rates in the Phoenix and Albuquerque service areas were identical (8.2 per 100,000), whereas the rate in the Billings service area (Montana and Wyoming) was 22.3 per 100,000 and the rate in the Portland service area (Washington, Oregon, and Idaho) was 24.7 per 100,000.[3]
- Five-year survival rates with breast cancer reflect the mortality noted above. More than 89 percent of Asian and Pacific Islander women and more than 87 percent of white non-Hispanic women survive 5 years after their diagnosis of breast cancer. However, only 75 percent of black women survive the same length of time.[150]
- The 5-year breast cancer survival rates among Hispanic women and American Indian or Alaska Native women are lower than the rates for white non-Hispanic women, but higher than that for black non-Hispanic women—83 percent for Hispanic women and 80 percent for American Indian or Alaska Native women.[150]
- Native Hawaiian/Part Hawaiian women living in Hawaii have the lowest 5-year breast cancer survival rate (79.8 percent), while Japanese women have the highest survival rate (90.4 percent). The rates for Filipino women (81.6 percent), Chinese women (84.6 percent), and Caucasian women (85.1 percent) were arrayed between the two figures.[157]

Cervical Cancer

- Cervical cancer incidence varies among women of color. In California in 1999–2001, the incidence ranged from a low of about 6 per 100,000 for Korean, Chinese, and American Indian women, to about 17 per 100,000 among Vietnamese and Latino women. The cervical cancer incidence among Vietnamese women, though still among the highest of populations of women in California, has decreased dramatically since 1988–1999, when the rate was more than 45 per 100,000.[158]
- Black women (more than 11 cases per 100,000) and white non-Hispanic women (more than 7 cases per 100,000) were more likely to have cervical cancer than American Indian or Alaska Native women (5 cases per 100,000), but less likely to have it than Hispanic women (nearly 16 cases per 100,000).[148]
- Among all populations of women in Hawaii in 1995–2001, Native Hawaiian/Part Hawaiian women had the highest rate of cervical cancer (13.5 per 100,000), followed closely by Filipino women (11.5 per 100,000). Japanese women (6.5 per 100,000) and Chinese women (7.6 per 100,000) had the lowest rates of cervical cancer. Incidence among Caucasian women was 9.5 per 100,000.[154]
- The age-adjusted cervical cancer death rate for American Indian or Alaska Native women in 1996–2001 was 4 per 100,000, a 36 percent decrease from the rate in the 1990–1995 period (6.2 deaths per 100,000). This decrease is attributed at least in part to improved efforts by the Indian Health Service and the Centers for Disease Control and Prevention to increase cervical cancer screenings and follow-up services among American Indian or Alaska Native women, who in the past were hampered by an unavailability of nearby screening services, later diagnoses, and, thus, poorer survival rates than other women.[153]
- Black women also report a high death rate from cervical cancer (5.3 per 100,000 in 1998-2002). Death rates for all other groups of women are less than 4 per 100,000, ranging from 2.4 per 100,000 white non-Hispanic women to 3.5 per 100,000 Hispanic women. The rate for American Indian or Alaska Native women was 2.6 per 100,000 and the rate for Asian and Pacific Islander women was 2.7 per 100,000.[148] The death rate for all women living in Puerto Rico (2.4 per 100,000 in 1999-2001) is comparable to the rates for white and Asian and Pacific Islander women overall and less than that of all Hispanic women.[17]
- In 1992–2000, 5-year survival rates after a diagnosis of cervical cancer ranged from more than 81 percent among Hispanic white women to nearly 70 percent (i.e., 69.5 percent) of black women. Asian/Pacific Islander women (78 percent) and white women (77 percent) reported comparable survival rates.[150]

FIGURE 49
Age-adjusted Incidence of and Mortality from Cervical Cancer among Women by Race/Ethnicity, 1998–2002
Per 100,000 population

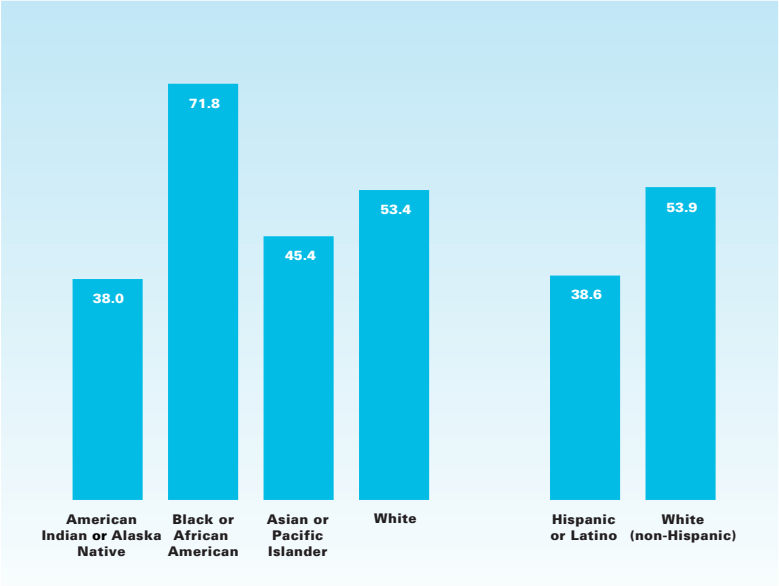


Source: Ries LAG, Eisner MP, Kosary CL, Hankey BF, Miller BA, Clegg L, Mariotto A, Feuer EJ, Edwards BK (eds). *SEER Cancer Statistics Review 1975–2002.* Bethesda, MD: National Cancer Institute, 2005. Available at: *http://seer.cancer.gov/csr/1975_2002/.* Date Accessed: 2/13/06.

Cerebrovascular Diseases

- Cerebrovascular diseases were the third leading cause of death for women of most racial/ethnic groups, except American Indians/ Alaska Natives (for whom it was the fifth leading cause of death). In 2002, a total of 100,050 women of all racial/ethnic groups died of cerebrovascular diseases. (*Note*: This total is less than the 103,498 sum one would get from adding the numbers for the racial/ethnic groups in Table 4 with leading causes of death in the subsection Major Causes of Death. This is because the 3,448 Hispanic women have been assigned to racial groups to avoid double counting them).[15,116]
- The mortality rate for cerebrovascular diseases (primarily strokes) in 2002 among black women was greater than for all other women (72 per 100,000 women, age-adjusted). Age-adjusted death rates among other women of color from cerebrovascular diseases were: 54 per 100,000 non-Hispanic white women, 45 per 100,000 for Asian and Pacific Islander women, 39 per 100,000 Hispanic women, and 38 per 100,000 for American Indian or Alaska Native women.[15]
- Between 1980 and 2002, the proportion of all deaths among women that were due to cerebrovascular diseases decreased for blacks (from 10.6 to 7.7 percent) and for whites (from 11.0 to 8.1 percent). This proportion remained nearly constant for Asian and Pacific Islander women (dropping only from 11.9 to 10.8 percent) and for American Indian or Alaska Native women (remaining at 5.8 percent). In 2002, deaths due to cerebrovascular diseases made up 6.7 percent of all deaths to Hispanic women. (Deaths due to cerebrovascular deaths among Hispanic women in 1980 are not reported).[15]

FIGURE 50
Age-adjusted Mortality Rates for Cerebrovascular Disease among Women by Race/Ethnicity, 2002
Deaths per 100,000 population



Source: National Center for Health Statistics. *Health, United States, 2004 With Chartbook on Trends in the Health of Americans.* Hyattsville, Maryland: 2004, p. 173-174.

Diabetes Mellitus

- Diabetes mellitus, a chronic condition characterized by abnormal glucose metabolism, is a major health problem and cause of increased mortality among women of color. Diabetes has a major effect on the circulatory system and frequently is associated with conditions such as arteriosclerosis (hardening of the arteries) and kidney failure.[159]
- The two main types of diabetes mellitus are Type 1 and Type 2. Type 1, which affects 5 to 10 percent of all people with diabetes, is caused when the pancreas stops making insulin, which results in a buildup of glucose in the blood. Individuals with Type 1 diabetes must take insulin shots to reduce glucose levels. For many individuals, the onset of Type 1 diabetes occurs in childhood or adolescence. Type 2 diabetes, which affects 90 to 95 percent of people with diabetes, is often linked with being overweight or obese because excess abdominal fat can contribute to insulin resistance. People with Type 2 diabetes are able to produce insulin, but their bodies are unable to use it to manage glucose levels. Type 2 diabetes has no cure, but its effects can be managed by weight loss, exercise, and diet changes. Although Type 2 diabetes was once most prevalent among older adults, its prevalence among children and adolescents is increasing.[160,161]
- Years of potential life lost due to diabetes before age 75 (age-adjusted per 100,000 population under 75 years of age) clearly reflects the toll taken by diabetes among African American and American Indian or Alaska Native women. In 2002, black or African American men and women lost 396.7 years and American Indian or Alaska Native men and women lost 344.7 years of potential life to diabetes mellitus. Hispanic or Latino men and women lost 207.1 years of potential life; white men and women lost 160.3 years; and Asian and Pacific Islander men and women lost 76.4 years.[15]
- In 2004, the age-adjusted prevalence of diagnosed diabetes was 7.8 percent among black women. Older women are much more likely than younger women to be diabetic, as these prevalence rates among black women by age group indicate—1.5 percent for ages from birth to 44, 15.4 percent for ages 45 to 64, 26.7 percent for ages 65 to 74, and 26.7 percent for ages 75 and older.[162]
- Differences in diabetes prevalence by age group are much less dramatic among white women. In 2004, the age-adjusted prevalence rate was 4.3 percent for all white women. By age group, the rate ranged from 1.3 percent from birth to 44, 7.8 percent for ages 45 to 64, 13.9 percent for ages 65 to 74, and 13.8 percent for ages 75 and older.[163]
- The age-adjusted prevalence of diagnosed diabetes among American Indian or Alaska Native women increased 28 percent between 1994 and 2002, compared to a 58 percent increase among all women in the United States.[164] This differential likely reflects the greater initial incidence of diabetes among American Indians or Alaska Natives in contrast to a lesser initial incidence among the general population, which has been compounded by greater increases in obesity.
- In 2002, diabetes prevalence among American Indian or Alaska Native women of all ages was 15.9 percent. Diabetes was reported by 29.8 percent of women ages 65 and older and 30.9 percent of women ages 55 to 64. Only 3.4 percent of American Indian or Alaska Native women ages 20 to 34 reported having been diagnosed with diabetes.[164]
- Diabetes was more common among Zuni women than among other American Indian women and Zuni men. Twenty-four percent of Zuni females ages 20 and older had previously been told by a health professional that they were diabetic. This includes 7 percent of women ages 20 to 39, nearly 40 percent of women ages 40 to 59, and more than 69 percent of women ages 60 and older. The rate of diabetes among Zuni men

FIGURE 51
Age-adjusted Mortality Rates for Diabetes among Women by Race/Ethnicity, 2000–2002
Per 100,000 population

Source: National Center for Health Statistics. *Health Data for All Ages Warehouse, Data Tables: Adults, Mortality.* Available at: *http://www.cdc.gov/nchs/health_data_for_all_ages.htm.* Date Accessed: 2/13/06.

was much lower—14.8 percent of men ages 20 and older and 39.8 percent of men ages 60 and older.[165]

- In 2001–2003, the reported diabetes prevalence among Native Hawaiian women (of all ages) in Hawaii was 10.1 percent. This was higher than the rate for Japanese (9.6 percent), Filipino (6.5 percent), Chinese (6.4 percent), and white (3.8 percent) women in Hawaii during the same period.[25]
- A survey of Asian Indian women ages 20 and older in Georgia found that 13.6 percent had diabetes.[166] This compares to 12.2 percent of black non-Hispanic women and 6.3 percent of white non-Hispanic women in Georgia (ages 18 and older).[17]
- In a 2000 survey of Puerto Rican adults in New York City, 11.8 percent of women reported having been diagnosed with diabetes, compared to 10.6 percent of men.[167] A 1996–2000 survey of adults living in Puerto Rico found comparable rates—8.3 percent of females ages 18 to 44 years old, 8.8 percent of females ages 45 to 64 years old, and 11.9 percent of females ages 65 years and older had diabetes.[168]
- A study of elderly Mexican American adults in southwestern states found that 22.6 percent of the women had diabetes.[169] Comparable shares of Mexican American elderly women living throughout the United States reported having diabetes—19.8 percent of women ages 65 to 74 years and 21.4 percent of women ages 75 years and older.[170]
- The prevalence of gestational diabetes mellitus increased steadily among women between 1994 and 2002. A 2002 survey of women in Colorado found the lowest prevalence among white non-Hispanic women (3.1 percent) and the highest among Asian women (6.8 percent). Among Hispanic women and African American women with singleton pregnancies, 5.4 and 5.5 percent, respectively, reported gestational diabetes.[171] A 2000 survey of women in northern California found similar results—that 5.7 percent of white, 6.4 percent of African American, 8.3 percent of Hispanic, and 9.7 percent of Asian women had gestational diabetes.[172]
- Over a comparable period (1990–2001), prevalence of gestational diabetes increased 46 percent among pregnant women in New York City—from 2.6 to 3.8 percent of women who delivered in these 2 years. The racial/ethnic group with the highest prevalence was South and Central Asian mothers; nearly 6 percent in 1990 but more than 11 percent in 2001 had gestational diabetes.[173]
- More Native Hawaiian mothers reported having had gestational diabetes (3.5 percent) than any other racial/ethnic group in Hawaii in 2001–2003. This compares to 2.8 percent of Filipino, 1.9 percent of both Japanese and Chinese, and 1.8 percent of white women who were pregnant during that period.[25]
- Type 2 diabetes and socioeconomic status exhibit an inverse relationship for Hispanic, black non-Hispanic, and white non-Hispanic women, although the same is less true for men. For women of all three groups, as the number of years of education and the Poverty Income Ratio (PIR) rise, the likelihood of developing Type 2 diabetes decreases. (The PIR is computed by dividing family income by the federal poverty level.)[174]
- Another study about Type 2 diabetes, however, found that among white (but not black) women, increased educational attainment is associated with lesser risk of developing diabetes.[175]
- The health outcomes of blacks (both women and men) with diabetes are far worse than those of whites. Blacks are more likely to be blinded, become amputees, develop end-stage renal impairment, and die from diabetes.[176] A national study reported that 5.2 percent of blacks who had doctor-diagnosed diabetes or had glucose present in their urine had had one or more amputations, compared to 3.3 percent of whites.[177]
- In a study of insured people with diabetes in northern California, black women were found to have higher incidence of stroke, congestive heart failure, and end-stage renal disease than white, Asian, and Latino women with diabetes. However, white women had the highest incidence of myocardial infarction and lower extremity amputation among the women studied (1995–1998).[178]
- Diabetic retinopathy is one of the leading causes of blindness in the United States. Vision loss occurs when the retina is damaged due to aneurysms, hemorrhages, or abnormalities in retinal veins, often brought on by complications of diabetes. White women with diabetes have a higher prevalence of retinopathy than black and Hispanic women. However, black women with diabetes have the highest prevalence of vision-threatening retinopathy (10 percent, compared to 8.1 percent of white and 7.7 percent of Hispanic women ages 40 and older).[179]
- From 2000 to 2002, the mortality rates from diabetes among American Indian or Alaska Native and non-Hispanic black women were more than double the rate for non-Hispanic white women—49.3 per 100,000 African American women and 42.4 per 100,000 American Indian or Alaska Native women versus 19.4 per 100,000 non-Hispanic white women.[17]

Sexually Transmitted Infections among Women of Color

- The major sexually transmitted infections (STIs) include chlamydia, gonorrhea, syphilis, human papillomavirus (HPV) infection, and genital herpes. Information on incidence and prevalence of gonorrhea, syphilis, and chlamydia are reported by health clinics/providers to and are monitored by the Centers for Disease Control and Prevention (CDC). Chlamydia is the most frequently reported of the three monitored STIs. For other STIs, including genital herpes and HPV infection, current, accurate data are less often available, due in part to the lack of a national monitoring system. In addition, many STIs have no recognizable symptoms, a fact that prevents many individuals from being tested and diagnosed.[180]
- Chlamydia is the most prevalent sexually transmitted infection in the United States. In women, chlamydia infections can result in pelvic inflammatory disease (PID), a sexually transmitted infection that attacks women's upper reproductive tract and can result in ectopic pregnancies, tubal scarring, and infertility.[181] More than 100,000 women become infertile each year due to pelvic inflammatory disease.[182]
- Between 2000 and 2004, the reported chlamydia rate increased for women of all racial/ethnic groups, due in large part to improved diagnostic tools and increased screening and reporting. In 2004, black non-Hispanic women had the highest rate (1,722 per 100,000), with rates of 8,898 per 100,000 15- to 19-year-olds and 7,848 per 100,000 20- to 24-year-olds. American Indian or Alaska Native women had the next highest overall rate (1,128 per 100,000), followed by Hispanic women (706 per 100,000), white non-Hispanic women (227 per 100,000) and Asian and Pacific Islander women (202 per 100,000).[183]

FIGURE 52
Chlamydia Rates among Women by Race/Ethnicity, 2004
Per 100,000 population

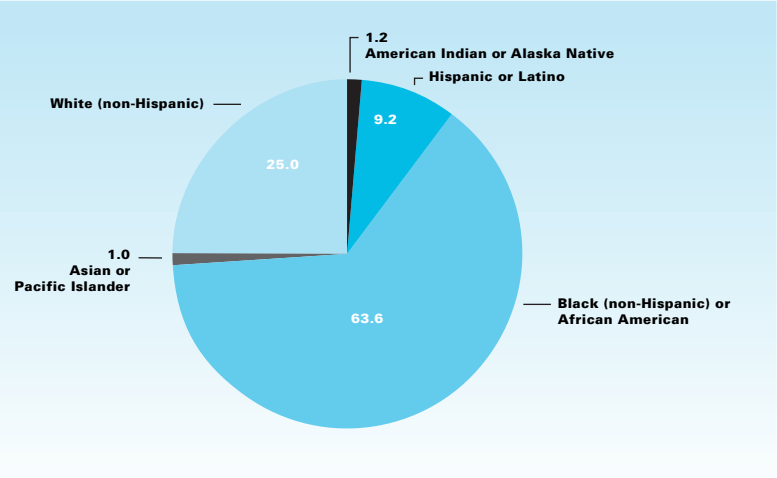
Source: Centers for Disease Control and Prevention. *2004 STD Surveillance Report.* Available at: *http://www.cdc.gov/std/stats/04pdf/Tables.pdf.* Date Accessed: 1/10/06.

- Among all age groups, about 66 percent of gonorrhea cases were reported by black non-Hispanic women in 2004, down from 72 percent in 2000. Among women 20 to 44 years old, 64 percent of women infected by gonorrhea were black non-Hispanic, 25 percent were white non-Hispanic, and 9 percent were Hispanic. American Indian or Alaska Native women and Asian and Pacific Islander women each reported 1 percent of gonorrhea cases.[183]
- A total of 593 cases of gonorrhea per 100,000 black non-Hispanic women were reported in 2004, a decrease from the 702 cases per 100,000 in 2000. The 2004 rate for black non-Hispanic women was far greater than the corresponding 155 cases per 100,000 American Indian or Alaska Native women and 78 cases per 100,000 Hispanic women. The reported gonorrhea rate for non-Hispanic white women was considerably lower (40 per 100,000).[183]
- In 2004, the rate of gonorrhea among black non-Hispanic and Hispanic women peaked among 15- to 19-year-olds, and decreased with each 4-year cohort between the ages of 20 and 44. Among 15- to 19-year-olds, the rate for blacks was several times higher than the rate for other racial/ethnic groups—nearly 2,791 per 100,000, compared to 561 per 100,000 American Indians or Alaska Natives, 202 per 100,000 white non-Hispanics, and 86 per 100,000 Asian and Pacific Islanders.[183]
- Among Asian and Pacific Islander and American Indian or Alaska Native women, the gonorrhea rate peaked among 20- to 24-year-olds and declined among subsequent age cohorts.[183]
- Among women more than 65 years of age, fewer than 1 per 100,000 white non-Hispanic women reported gonorrhea in 2004. In comparison, 2 per

100,000 American Indian/Alaska Native women, and 3.7 per 100,000 black non-Hispanic women in this age group reported the disease.[183]

- Between 2000 and 2004, the rate of syphilis among black non-Hispanic women decreased significantly, by more than half, from 10.1 cases per 100,000 to 4.3 cases per 100,000. Rates decreased less significantly among Hispanic and white non-Hispanic women. Rates increased among Asian/Pacific Islander and American Indian/Alaska Native women, from 0.1 cases per 100,000 to 0.2 cases per 100,000 and from 2.2 cases per 100,000 to 2.9 cases per 100,000, respectively.[183]
- The overall rate of syphilis among women of color in 2004 was highest among black non-Hispanic women (more than 4 per 100,000) and lowest among Asian/Pacific Islander women (less than 1 per 100,000). Almost 1 per 100,000 Hispanic women and nearly 3 per 100,000 American Indian/Alaska Native women also reported syphilis that year.[183]
- Herpes simplex virus type 2 is the main cause of genital herpes. In 1988–1994 (the most recent period for which national data were collected on herpes prevalence), 28 percent of American females were infected with herpes simplex virus type 2, an incurable virus. This incorporates 22 percent of non-Hispanic white females, 33 percent of Mexican American females, and 60 percent of non-Hispanic black females.[184]
- Herpes, like many STIs, is less prevalent among men than women—20 percent of men were reported to have herpes during the period 1988–1994.[184] Among visitors to STD clinics in five cities nationwide, black women were 50 percent more likely than white women and twice as likely as black men to be infected with the herpes simplex virus type 2.[185]
- Genital HPV (human papillomavirus) is one of the most common sexually transmitted infections. Eighty percent of American women will have acquired HPV by the age of 50, though many may not ever realize it. Although 92 percent of HPV infections will clear spontaneously in 2 to 5 years, in some instances HPV can cause cervical cancer in women if left untreated.[186,187]
- The much higher incidences of STIs among African American women than white women may be attributable in part to the locations where women seek primary care. Black women are more likely than white women to receive services at public clinics, which have more comprehensive public health STI reporting than private physicians.[188]

FIGURE 53
Distribution of Gonorrhea Cases among Women Ages 20 to 44 by Race/Ethnicity, 2004
Percent

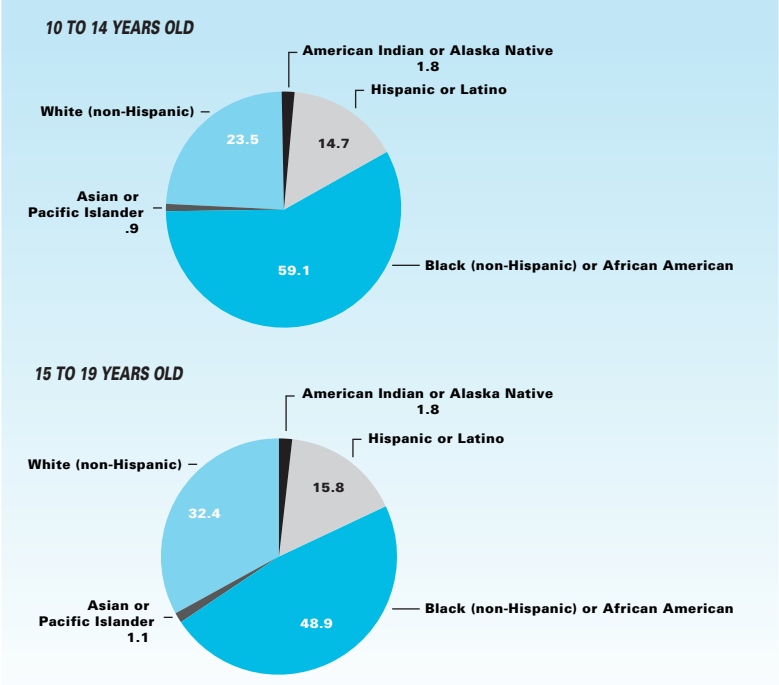


Source: Centers for Disease Control and Prevention. 2004 *STD Surveillance Report.* Available at: *http://www.cdc.gov/std/stats/04pdf/Tables.pdf.* Date Accessed: 1/10/06.

Sexually Transmitted Infections among Adolescent Females of Color

- Twenty-five percent of the 15 million new cases of sexually transmitted infections (STIs) that occur each year are among 15- to 19-year-olds. Adolescents are at higher risk than adults for acquiring STIs because they are more likely to engage in risky behaviors, such as using alcohol and illicit drugs, not using condoms, and having multiple sexual partners.[189] The major sexually transmitted infections prevalent among adolescents mirror those prevalent among adults—chlamydia, gonorrhea, syphilis, HPV (human papillomavirus), and genital herpes. As for adults, among adolescents chlamydia is the most common STI of the three for which data are available from the Centers for Disease Control and Prevention (chlamydia, gonorrhea, and syphilis).[180]
- In 2004, the number of cases of gonorrhea per 100,000 black non-Hispanic girls (10 to 14 years of age) was 169, nearly ten times the number reported by Hispanic adolescent females (18 per 100,000). American Indian/Alaska Native girls had the second highest rate, at 27 per 100,000. Asian/Pacific Islander girls had the lowest rate of gonorrhea (6 per 100,000) followed by white non-Hispanic girls (10 per 100,000).[183]
- Black non-Hispanic girls reported nearly three-quarters (73.6 percent) of the gonorrhea cases among girls ages 10 to 14. The remaining 26 percent was divided as follows: white non-Hispanic, 16.6 percent; Hispanic, 8.3 percent; and American Indian/Alaska Native and Asians and Pacific Islanders, 0.8 and 0.6 percent, respectively.[183]
- The incidence of gonorrhea among older adolescent females (15 to 19 years of age) was more than ten times that among females 10 to 14 years of age. The reported rate of gonorrhea among females 15 to 19 years of age ranged from a low of 86 per 100,000 (among Asian/Pacific Islanders) to a high of nearly 2,791 per 100,000 (among non-Hispanic blacks).[183]
- More than two-thirds (69 percent) of the gonorrhea cases in females ages 15 to 19 were among black non-Hispanic women.[183] Among 15- to 19-year-olds, the rate for blacks was several times the rate for other racial/ethnic groups—nearly 2,791 per 100,000, compared to 561 per 100,000 American Indians/Alaska Natives, 202 per 100,000 white non-Hispanics, and 86 per 100,000 Asian/Pacific Islanders.[183]
- Rates of chlamydia were even higher than rates of gonorrhea among girls 10 to 14 years of age. The rate among black non-Hispanics was nearly 486 cases per 100,000 girls, compared to nearly 210 per 100,000 American Indian/Alaska Native girls. The rates among Hispanic, white non-Hispanic, and Asian/Pacific Islander girls were even lower—nearly 114 per 100,000, nearly 51 per 100,000, and nearly 31 per 100,000, respectively.[183]
- In 2004, black non-Hispanic females ages 15 to 19 years old had the highest rate of chlamydia of any age category and racial/ethnic group—nearly 8,898 cases per 100,000. This rate was twice the chlamydia rate of American Indian/Alaska Native females in the same age cohort (4,358 cases per 100,000) and more than six times the rate of white non-Hispanic females in the same age cohort (nearly 1,409 cases per 100,000).[183]

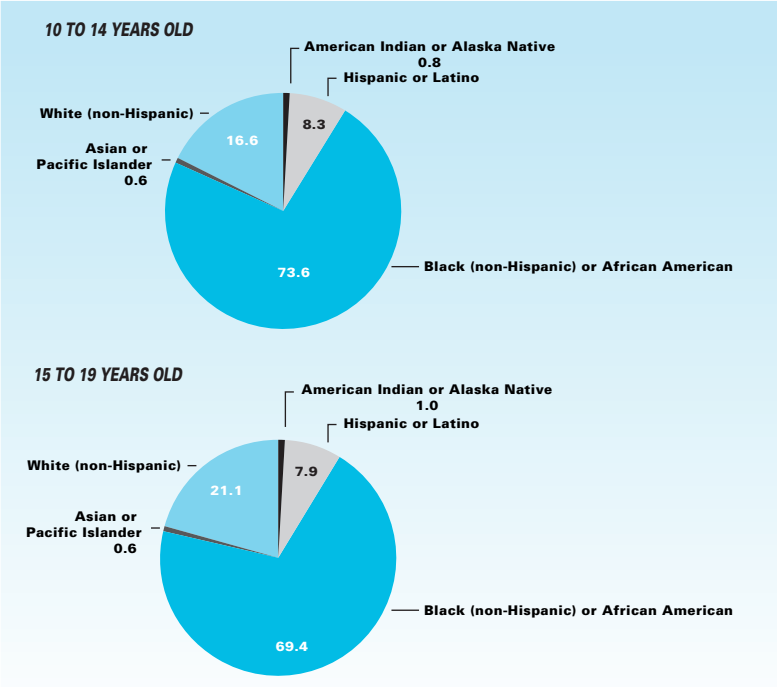
FIGURE 54
Distribution of Chlamydia Cases among Adolescent Females by Race/Ethnicity, 2004
Percent



Source: Centers for Disease Control and Prevention. *STD Surveillance 2003—Tables.* Available at: *http://www.cdc.gov/std/stats/04pdf/Tables.pdf.* Date Accessed: 1/10/06.

- Hispanic girls 10 to 14 years of age reported a very low incidence of syphilis in 2004 (less than 1 per 100,000). The syphilis rates for Hispanic adolescent females 15 to 19 years of age of these same racial/ethnic groups also were small—1.4 per 100,000 females. The syphilis incidence for black non-Hispanic girls 10 to 14 years of age also was less than 1 per 100,000, not different from their Hispanic counterparts. However, black non-Hispanic females 15 to 19 years of age contracted syphilis at a significantly higher rate (6.5 per 100,000) than either younger black adolescents or Hispanic and white female adolescents ages 15 to 19.[183]

FIGURE 55
Distribution of Gonorrhea Cases among Adolescent Females by Race/Ethnicity, 2004
Percent

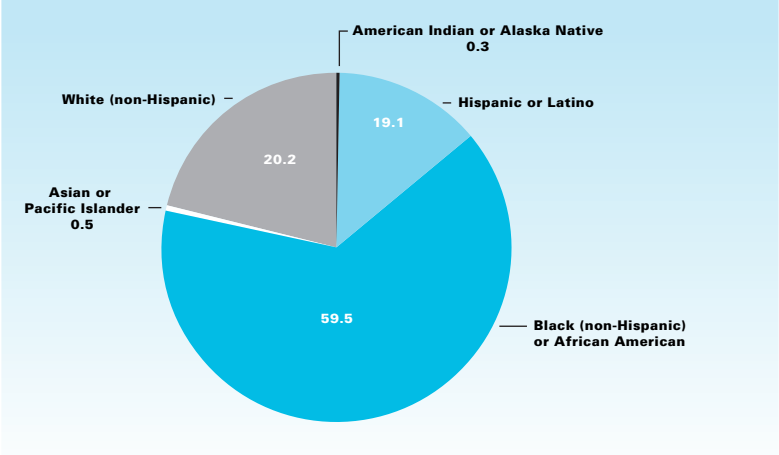


Source: Centers for Disease Control and Prevention. *2004 STD Surveillance report.* Available at: *http://www.cdc.gov/std/stats/04pdf/Tables.pdf.* Date Accessed: 1/10/06.

HIV Infection and AIDS

- The human immunodeficiency virus (HIV) that causes acquired immune deficiency syndrome (AIDS) has infected a growing number of women since 1985, the year in which these conditions first were tracked among women. (*Note*: Tracking began in 1981 for men.) Between 1985 and 2004, the proportion of all reported AIDS cases occurring among women increased from 8 to 31 percent, with the disease disproportionately affecting women of color.[190,191]
- From the beginning of the epidemic through 2004, the Centers for Disease Control and Prevention (CDC) received reports of 67,543 cases of HIV infection and 171,603 cases of AIDS among women and adolescents ages 13 years and older. During 2004, 9,874 new cases of HIV infection were reported among this population.[191]
- Since the beginning of the epidemic, most cases of HIV infection and AIDS in women have been reported among Hispanic and black non-Hispanic women. Although black women comprised nearly 13 percent of all women in 2004, they accounted for 64 percent of all cases of HIV infection and 60 percent of all cases of AIDS reported among women through 2004. Latinas (comprising more than 13 percent of all women) were represented more proportionately among cases of AIDS (19 percent) and of HIV infection (14 percent) reported among women during this period.[191,192,193]
- In addition, most new HIV infections and new cases of AIDS among women continue to develop among African American and Latino women. In fact, in 2004, Hispanic women and black non-Hispanic women together accounted for an estimated 82 percent of the new cases of AIDS and 82 percent of new HIV infections reported among all women. Black women alone accounted for 64 percent of new cases of AIDS and 62 percent of new HIV infections.[191]

FIGURE 56
Distribution of Cases of AIDS among Women by Race/Ethnicity, Reported through 2004
Percent



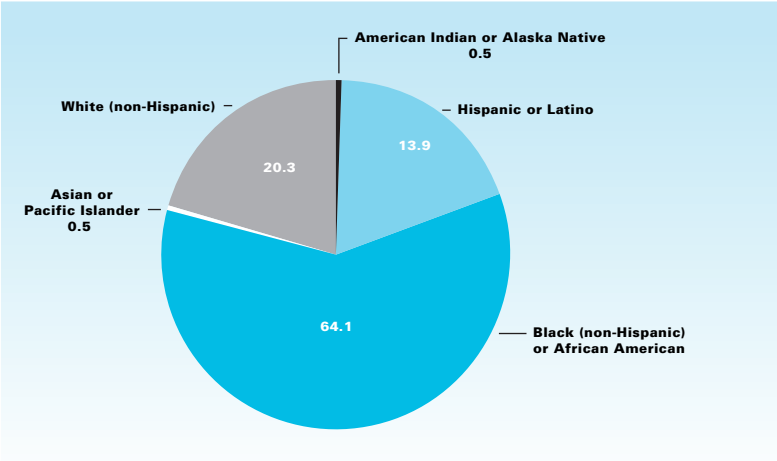
Source: Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report, 2004.* (Vol. 16). Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2005. Available at: *http://www.cdc.gov/hiv/stats/2004SurveillanceReport.pdf.* Date Accessed: 1/13/06.

- The disproportionate representation of black women reporting new HIV infections is striking. In 2004, black non-Hispanic women reported 18.2 percent of all new infections (among men and women) and 61.7 percent of all new infections among women, despite making up less than 6 percent of the entire U.S. population and nearly 13 percent of the female population.[191,193]
- In particular, African American women with AIDS—a growing proportion of whom live in economically disadvantaged areas in the southeastern United States—have been noted to "not live as long… as their white or male counterparts."[21] Many black women diagnosed with AIDS consider their diagnosis among the least of their problems, with child care, alcohol or substance abuse, and lack of health insurance often higher on their lists of concerns.[194]
- Although only 597 cases of AIDS were ever reported among American Indian/Alaska Native women since the beginning of the epidemic (between 1985 and 2004), this figure (and all reported data about HIV/AIDS among American Indians or Alaska Natives) may be an underestimate.[191] It can be difficult to accurately measure and track health conditions among American Indians/Alaska Natives due to their misclassification into other racial/ethnic groups and to underreporting and delayed reporting by tribal health departments. The fact that some American Indians/Alaska Natives frequently move between their reservations and urban or suburban areas further complicates tracking.[195] Reported mortality rates due to HIV infection vary among IHS service areas, with the Phoenix and Portland areas reporting the highest death rates in 1996–1998.[3]
- Among women, the two main methods of transmission for HIV infection are injection drug use and heterosexual contact. From the beginning of the epidemic through 2004, heterosexual contact was the major category of exposure to AIDS for black, Hispanic, and Asian/Pacific Islander women. Forty-two percent of black women were exposed to AIDS through heterosexual contact,

compared to 36 percent exposed through injection drug use. Among Hispanic women, 49 percent were exposed through heterosexual contact, and 37 percent were exposed through intravenous drug use. A majority of Asian and Pacific Islander women also reported heterosexual contact as the major source of infection (52 percent), while only 12 percent reported intravenous drug use. Ten percent identified blood transfusion as their transmission category (the highest share for this category among the groups of women for whom data are reported).[191]

- Since the beginning of the epidemic (between 1985-2004), nearly equal shares of white non-Hispanic women (41 percent and 40 percent, respectively) reported heterosexual contact and injection drug use as their major exposure category for AIDS, as did roughly equal shares of American Indian/Alaska Native women—injection drug use (43 percent) and heterosexual contact (41 percent).[191]
- During 2004, patterns for transmission of HIV infection and AIDS among women were generally consistent with those reported in prior years. One-half (49 percent) of Hispanic women reported heterosexual contact as the cause of AIDS, with one-fifth (21 percent) citing injection drug use. Nearly one-half (47 percent) of Asian and Pacific Islander women also reported heterosexual contact as the cause of AIDS, with 7 percent attributing infection to intravenous drug use.[191]
- Among Hispanic women, acculturation seems to play a role in the transmission of HIV/AIDS. Less acculturated Hispanic women have been found to engage in more high-risk sexual behaviors (such as not using a condom during intercourse and having multiple sexual partners). In addition, Hispanic women are at higher risk for HIV transmission than women of some other racial/ethnic groups due to high-risk behavior by their partners and lower levels of HIV knowledge than women of other racial/ethnic groups. Additionally, cultural factors such as machismo attitudes and an emphasis on traditional gender roles and norms can make it difficult for Hispanic women to negotiate condom use and other less risky behaviors.[196]
- Black and Hispanic women may be more vulnerable than white women to heterosexual transmission of HIV/AIDS through sex with men who have sex with both men and women. Compared to white non-Hispanic men, larger proportions of Hispanic and black non-Hispanic men who have sex with men (MSM) report having sex with both men and women—34 percent for black MSMs, 26 percent for Hispanic MSMs, and 13 percent for white MSMs.[197]
- Social sexual networks, as they have been termed, play a likely role in the spread of HIV/AIDS among heterosexual women. A social sexual network is a "set of people who are linked directly or indirectly through sexual contact." Sex ratios are an important determinant of the structure and makeup of these networks. The black sex ratio (that is, the ratio of black men to black women) is lower than the white sex ratio, due largely to higher mortality rates among black men. The low black sex ratio affects the ability of African American women to negotiate safe sexual behaviors with their partners, who are most likely to be African American men. Recognizing that the "shortage" of men makes them a desired commodity may result in African American men engaging in risky behaviors, such as sustaining multiple concurrent sexual relationships (relationships that overlap in time). They might do this with the belief that their female partners will not risk losing the relationship by challenging their risky behaviors. The presence of concurrent sexual relationships is a key factor in the transmission of HIV/AIDS and other STIs. Because black social sexual networks may contain higher percentages of concurrent sexual relationships than white networks, more rapid transmission of STIs and HIV/AIDS among networks members can result. Higher rates

FIGURE 57
Distribution of Cases of HIV among Women by Race/Ethnicity, Reported through 2004
Percent



Source: Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report, 2004.* (Vol. 16). Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2005. Available at: *http://www.cdc.gov/hiv/stats/2004SurveillanceReport.pdf.* Date Accessed: 1/13/06.

of incarceration among black men also disrupt black social sexual networks and infiltrate them with members likely to have engaged in high-risk sexual behaviors. The high incarceration rate also results in high unemployment and poverty rates among blacks, which also is associated with less stable partnerships and more high-risk behaviors.[198]

- The age-adjusted death rate from HIV infection among black or African American women of all ages was 13 per 100,000, followed by the rate of 3 deaths per 100,000 Hispanic or Latino females. The death rate per 100,000 was 1 for white women, while there were so few deaths of American Indian/Alaska Native women and Asian and Pacific Islander women that rates were not reported.[15]
- HIV infection as a cause of death among women of color, however, varies considerably by age group. For example, in 2002, HIV infection was the leading cause of death for black females ages 25 to 34 years and the third ranked cause of death for black females ages 35 to 44 years. Among black females ages 20 to 24 years and ages 45 to 54 years, HIV infection was, respectively, the fifth and the fourth leading cause of death. For black women ages 55 and older, however, HIV infection did not rank in the ten leading causes of death.[19]
- Despite not being a top ten killer in 1998 for Latinas in these age groups, in 2002, HIV infection was the eighth-ranked killer and the tenth-ranked killer for 15- to 19-year-old and 20- to 24-year-old females, respectively. HIV infection was a top-ranked killer among older Latinas in both years. In 2002, it was the fifth-ranked killer of Latinas ages 25 to 34 years and the seventh-ranked killer of Latinas ages 45 to 54 years.[19]
- Among all women in 2002, HIV infection was the seventh-ranked killer of 20- to 24-year-olds, the sixth-ranked killer of 25- to 34-year-olds, and the fifth-ranked killer of 35- to 44-year-olds. It was the ninth-ranked killer of women ages 45 to 54 years.[19]
- Although death rates from HIV infection are lower for women 45 to 64 years of age than among younger women, black or African American women reported the highest rate (21 per 100,000) among this age cohort as well in 2002. Nearly 6 per 100,000 Hispanic women in this age group died of the disease, while mortality among white women was 1.4 per 100,000 women.[15]
- Despite increased availability since the mid-1990s of a widely used treatment that has proven effective in slowing the advance of HIV/AIDS and which is known as HAART (highly active antiretroviral therapy), disparities persist in access to this treatment. Women, African Americans, injection drug users, people under the age of 40, and people who are uninsured are less likely to receive treatment than men, whites, Hispanics, and older patients. Even when controlling for outpatient utilization and use of HIV/AIDS health care, African Americans still receive HAART less often than whites.[199] In addition, persons with HIV exposure from IV drug use are more likely (than persons with another type of exposure) to report more than 3 months delay in receiving care after diagnosis with the disease.[200]
- One study showed that after controlling for socioeconomic status, health status, and treatment regimen, women are more likely to survive with AIDS than men, although men are more likely to receive antiretroviral drugs than women. Thus, the survival rate for women infected with HIV and AIDS could potentially be greater if the gender discrepancy in drug treatment were addressed.[201]
- Even those women who receive antiretrovirals may have difficulties adhering to treatment regimens, which can contribute to reduced survival rates. Women who have HIV infection or AIDS often must bear the responsibilities and stresses of taking care of children, caring for partners or other family members, and housekeeping—in addition to caring for themselves and properly managing their illnesses. A study of HIV-positive mothers of young children found that, despite expressing a desire to live long enough to see their children to adulthood, the mothers had only a 50 percent adherence to their antiretroviral medication schedules.[202]
- Insurance coverage varies greatly by race among adults living with HIV/AIDS. African Americans (men and women) with HIV/AIDS are more likely to rely on Medicaid for insurance than whites (men and women)—59 percent versus 32 percent.[192] This fact reflects either the greater poverty of blacks, in general, which is associated with proportionately greater Medicaid coverage, or the greater relative impoverishment (due to loss of employment and lack of social supports) of blacks versus whites once HIV infection or AIDS is diagnosed.[203] African Americans with HIV/AIDS are also more likely than their white counterparts to be uninsured—22 percent of African Americans, compared to 17 percent of whites. However, Latinos (men and women) with HIV/AIDS are the most likely to be uninsured (24 percent).[192,204]
- Although delay of medical attention after diagnosis of HIV infection decreases the effectiveness of drug therapies and increases the chances of developing severe complications from the virus, dif-ferences in seeking medical care exist among the affected populations. Those with a usual source of care were less likely to delay seeking medical attention than those without this medical home. Additionally, coverage by Medicaid proved to be associated with a lesser delay in seeking medical attention than did coverage with private health insurance. In spite of this finding and the fact that Hispanics and blacks are more likely to have Medicaid coverage, Hispanics and blacks were more

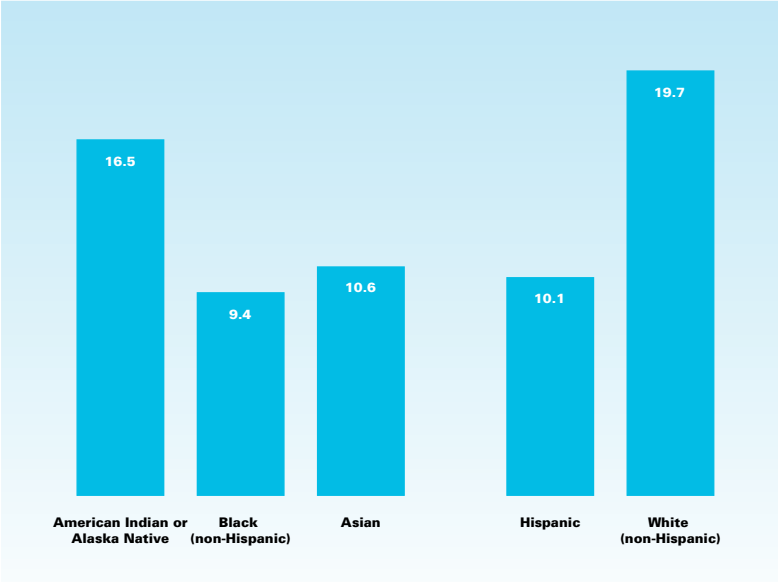
likely than whites to delay seeking care for at least 3 months.[200]

- Even when getting health care for other reasons, a 1999 survey found that few women ever talked to a health care provider about any of the following: HIV infection or AIDS, the risks of being infected, or getting tested for HIV infection. Among white, African American, and Hispanic women, African American women were the most likely to report talking about either of these topics: 41 percent talked about HIV/AIDS; 25 percent talked about the risks of being infected; and 35 percent talked about getting tested for HIV infection.[203]
- Among non-elderly Latino, African American, and white women ages 18 to 64 years, African American women (69 percent) also were most likely to report having ever been tested for HIV. Sixty percent of Latinas reported the same, as did 53 percent of white women. However, it is unclear whether these women actually were tested or whether they were under the impression that an HIV test was a routine part of their examination. Nearly one-quarter (24 percent) of women assumed an HIV test was a routine part of a physical exam.[190]

Mental Health among Women of Color

- Mental illnesses are common in the United States; an estimated 22 percent of all Americans suffer from some form of a diagnosable mental illness each year. However, diagnosis of mental disorders can be difficult and accurate tracking of prevalence even more so, making it difficult to accurately gauge how many people are affected by mental illness. Mental illnesses and disorders include depressive disorders (such as major depressive disorder and bipolar disorder), anxiety disorders (such as panic disorder, obsessive-compulsive disorder, and various phobias), schizophrenia, eating disorders, and Alzheimer disease. Mental disorders are more prevalent among women than men, and affect the sexes differently.[205,206]
- A survey of middle-aged women found that Hispanic women had the highest prevalence of depressive symptoms (43 percent), followed by African American women (27 percent), white women (22 percent), and Japanese and Chinese women (both 14 percent). One quarter (24 percent) of middle-aged women overall displayed depressive symptoms. The difference in prevalence among racial/ethnic groups is largely related to socioeconomic status, with a higher prevalence of depressive symptoms displayed among women of lower socioeconomic status (measured by years of education and degree of difficulty in paying for basic necessities).[207]
- Among low-income women, one study found that while rates of depression or anxiety disorders did not differ by race/ethnicity, receipt of mental health care did. In this sample, 58 percent of white women reported a mental health care visit, compared to only 36 percent of black women, and 11 percent of Hispanic women. Similarly, a higher percentage of low-income white women (63 percent) reported mental health care use by family or friends, while 39 percent of black women and 17 percent of Hispanic women reported the same.[208]

FIGURE 58
Women by Race/Ethnicity Who Received Mental Health Treatment or Counseling in the Preceding Year, 2002
Percent



Source: Agency for Healthcare Research and Quality. *2004 National Healthcare Disparities Report, Detailed Tables: Tables 192a and 192b.* Available at: *http://www.qualitytools.ahrq.gov/disparitiesreport/browse/browse.aspx?id=4043.* Date Accessed: 12/1/05.

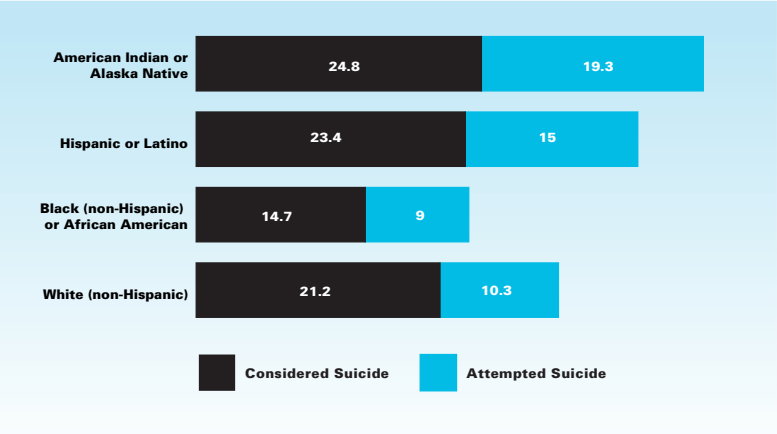
- A study of Mexican Americans in California revealed a higher prevalence of psychiatric disorders among those born in the United States than among those who had recently immigrated from Mexico. Six percent of immigrant Mexican American women had a major depressive disorder, compared to 12.5 percent of those born in the United States. More than 9 percent of immigrant women had any type of anxiety disorder, compared to more than 17 percent of those born in the United States. Although many factors may account for this disparity, acculturation is often examined as a possible explanation.[209]
- The prevalence of reported "frequent mental distress" (having 14 or more days in the past month where one's mental health was not good) is highest among American Indian/Alaska Native women (15.6 percent). The prevalence is lowest among Asian/Pacific Islander women (6.5 percent). Black non-Hispanic (11.8 percent), Hispanic (11.7), and non-Hispanic white women (10.5 percent) report frequent mental distress at comparable rates.[210]
- One survey conducted in 1998 found that Hispanic women (27 percent) and black women (26 percent) were most likely to report they were currently psychologically distressed. White women were least likely to report current distress (17 percent), along with 20 percent of Asian women and 24 percent of women of all other races.[211]
- Experiencing psychological distress is one of the strongest predictors of suicide attempts for low-income African American women.[212]
- Almost two-thirds each of Hispanic, African American, and Asian women reported they had needed mental health care in the past year and this need had gone unmet. Only one-third of white women and women of all other races reported the same.[211] Appropriateness of services and the outcomes achieved are often problematic for women of color in need of mental health care.[213]

- In 2002, black non-Hispanic women were least likely to have received mental health treatment or counseling in the past year (9.4 percent). White non-Hispanic women were most likely to have received treatment or counseling (19.7 percent), with American Indian/Alaska Native women almost equally likely (16.5 percent). Asian women (10.6 percent) and Hispanic women (10.1 percent) reported receiving this care about as frequently as African American women.[214]
- Chronic depression, one form of mental illness, and stress have been suggestively associated with disease progression and death from HIV infection among women.[215,216] However, the exact biological pathway that causes this, as well the true causality—whether depression makes HIV infection worse, or HIV infection causes depression—remain unclear in this psychosomatic situation.
- Postpartum depression afflicts many new mothers and affects their lives and the lives of their babies and the people around them. The prevalence of postpartum depression is highest among women from low socioeconomic groups. A survey conducted between 1996 and 1999 found that nearly 12 percent of African American and 5 percent of white mothers reported being very depressed in the months following delivery.[217]

Mental Health among Adolescent Females of Color

- Overall, female adolescents are much more likely than male adolescents to report having felt sad or hopeless almost every day for two or more weeks (36 to 22 percent).[32]
- In a 2001 survey of students at Bureau of Indian Affairs-funded schools, 40 percent of American Indian/Alaska Native female youth reported having felt sad and hopeless almost every day for two or more weeks in a row. In the 12 months preceding the survey, more than 19 percent of American Indian/Alaska Native female youth attempted suicide, and 6.5 percent made a suicide attempt that required medical attention.[68]
- Suicide attempts are one manifestation of impaired mental health. During the year preceding the 2003 Youth Risk Behavior Survey (YRBS), Hispanic female youth (15 percent) were more likely to attempt suicide than black non-Hispanic (9 percent) and white non-Hispanic (10 percent) girls. Similarly, nearly 6 percent of Hispanic—but only slightly more than 2 percent of either black or white—high school girls needed medical attention as the result of a suicide attempt.[32]
- More than one-fifth of Hispanic and white non-Hispanic high school-age females seriously considered attempting suicide (23 and 21 percent, respectively), compared to the 15 percent of black non-Hispanic female youths who also thought about ending their lives during the 12 months prior to the YRBS. Slightly smaller percentages of females of all three groups actually made a suicide plan (nearly 21 percent of Hispanics, nearly 19 percent of whites, and more than 12 percent of blacks).[32]
- In 2002, the mortality rate for suicide among females 15 to 24 years of age was highest for American Indian/Alaska Native females (more than 7 per 100,000), followed by non-Hispanic white women (more than 3 per 100,000). The death rates from suicide among Hispanic and African American females 15 to 24 years of age were 2.1 and 1.7 per 100,000, respectively.[15]

FIGURE 59
Adolescent Females by Race/Ethnicity Who Seriously Considered or Attempted Suicide in the Preceding Year, 2001, 2003
Percent



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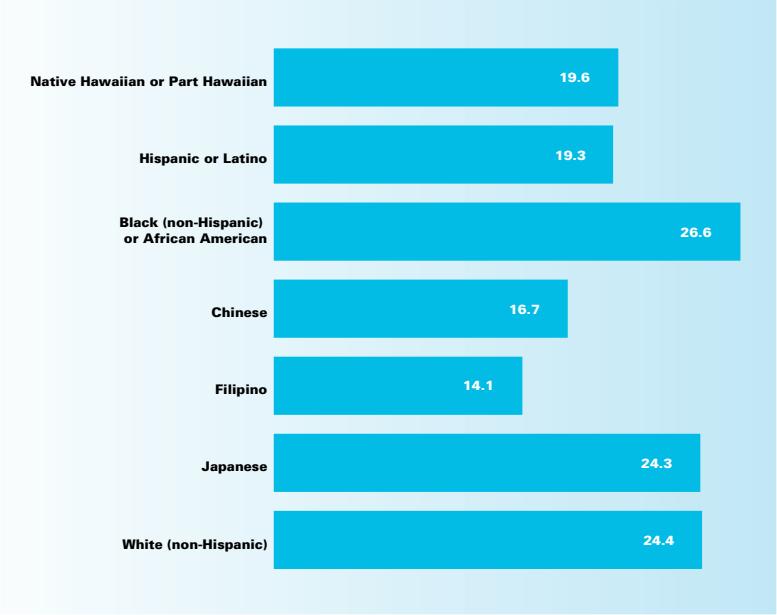
Osteoporosis and Arthritis

- Osteoporosis is a condition associated with an excessive loss of bone mass and an increased risk of bone fractures. As women age they lose more bone mass than they produce, especially if more than 50 years of age. Women are more susceptible to osteoporosis than men because they begin with less bone mass and lose it more rapidly than men. Women with osteoporosis have a bone mineral density more than 2.5 standard deviations below the norm (mean). Osteopenia, low bone mass, is a less severe form of osteoporosis—mineral bone density between 1 and 2.5 standard deviations below the normal average peak bone mass for young adults.[218]
- Although only 11 percent of women ages 65 and older self-reported in 1988–1994 that they had osteoporosis, testing revealed that 26 percent actually had the condition.[218]
- The prevalence of osteoporosis is highest among Asian women, followed by Hispanic women, white women, Native American women, and black women.[219] More than one-fifth of white and Asian American women (both 21 percent) are believed to have osteoporosis, and an additional 39 percent to have osteopenia.[220,221] American Indian/Alaska Native and Mexican American women are in the middle; of both groups, 16 percent are estimated to have osteoporosis and 36 percent to have osteopenia.[220,221] In comparison, 4 percent of African American women have osteoporosis, and 32 percent have osteopenia.[219]
- Asian American and white women are believed to be at increased risk for osteoporosis and osteopenia due to low consumption of calcium and the propensity to be slender. Lactose intolerance, or a learned aversion to milk products, also contributes to this problem among Asian and Hispanic women. Low levels of estrogen, smoking, excessive alcohol intake, inadequate physical activity, and a family history of osteoporosis also are risk factors for these diseases.[218,222]
- Despite the known prevalence of osteoporosis among selected groups of elderly women of color, these women are less likely to be screened than white females. Only 24.2 percent of Asian/Pacific Islander female Medicare beneficiaries over the age of 65 were screened for osteoporosis in 2000, compared to 34.7 percent of their white counterparts. Fewer than 16 percent of black and 21 percent of Hispanic women reported this screening.[223]
- Arthritis and other rheumatoid conditions—chronic inflammation and/or stiffness of the joints, muscles, and tendons—are more common among women than men. In 2002, nearly a fourth (23.7 percent) of women and nearly a fifth (17.8 percent) of men ages 18 and older reported doctor-diagnosed arthritis (any form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia).[224]
- In 2002, nearly 27 percent of black or African American women reported that they had been diagnosed with arthritis, compared to more than 24 percent of white non-Hispanic women and more than 19 percent of Hispanic or Latino women.[225]
- In 2002–2003, 24.3 percent of Japanese women in Hawaii reported that a doctor had told them they had arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia. More than 14 percent of Filipino women, nearly 17 percent of Chinese women, about 20 percent of Native Hawaiian women, and nearly 23 percent of white women in Hawaii reported the same.[25]
- In 1996–1999, 29 percent of American Indians/Alaska Natives (men and women combined) self-reported arthritis, comparable to the 31 percent of whites and 28 percent of blacks, but more than the 14 percent of Asian/Pacific Islanders who self-reported this condition.[226]
- Severe arthritic pain can lead to activity limitation. In 2002, 36 percent of all adults with doctor-diagnosed arthritis reported activity limitations attributable to arthritis, including 44 percent of non-Hispanic blacks, 40 percent of Hispanics, and 34 percent of non-Hispanic whites.[224]

FIGURE 60
Doctor-diagnosed Arthritis* among Women Ages 18 and Older by Race/Ethnicity, 2002, 2002–2003



* Any form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia

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ISSUES RELATED TO IMPROVING THE HEALTH OF WOMEN OF COLOR

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Racial/Ethnic Health Disparities

In a radio address on February 21, 1998, as part of the President's Initiative on Race, then-President Clinton committed the United States to the goal of eliminating by the year 2010 racial/ethnic disparities in six areas of health status (infant mortality, cancer screening and management, cardiovascular disease, diabetes, HIV infection/AIDS, and immunizations).[1] Other federal initiatives followed, including the legislatively mandated study by the Institute of Medicine about health care disparities and the creation of the National Center on Minority Health and Health Disparities at the National Institutes of Health in 2000.[2,3] An annual National Health Disparities Report was mandated by Congress, beginning in 2003, to facilitate the tracking of progress in eliminating disparities.[4,3] In addition, a federal demonstration program (REACH 2010) adopted Clinton's six racial/ethnic health disparities areas and, of particular interest to women, targeted the deficits in breast and cervical cancer screening and management.[5]

The *Women of Color Health Data Book* has revealed in detail the extent of the racial/ethnic disparities in most of these six areas and in other areas of health for women of color. Although women of color fare better on some health outcomes for which disparities are noted (e.g., compared to elderly white women, elderly black women are at lower risk of bone fractures), in the overwhelming majority of instances when disparities exist, the health of women of color is worse than that of white women. In addition, disparities have been identified not only in health outcomes but also in health care or treatment.[2] Treatment disparities can result for many reasons—overuse of beneficial treatments by whites, underuse of beneficial treatments by blacks, or average use of beneficial treatments by blacks who reside disproportionately in areas in which overall treatment rates are low.[6] Another example of a treatment disparity is the overuse of potentially unnecessary procedures (such as cesarean sections for childbirth) among black women.[7]

Researchers have considered many factors in their search for the causes of racial/ethnic disparities in health outcomes and in health care or treatment. Two factors commonly identified as potential causes of racial/ethnic health disparities are discrimination or differential and lower quality treatment (on the basis of race/ethnicity, gender, age, type of insurance, and income), and poverty or socioeconomic status. Yet another explanation put forth for racial/ethnic disparities in health is the role of "sociologic ghosts."[8] Sociologic ghosts are social entities present long after the conditions that produced them are gone but which, like a living thing, produce lingering effects and cause harm—both psychological and physiological.[9] Examples of sociologic ghosts include slavery, class structure, colonial structures, and war-related traumas.

Much of the research conducted to disentangle the roles played by these and other interacting factors in determining health outcomes has been inconclusive. Although racism and sexism, as well as discrimination, have been defined and analyzed with respect to health outcomes, determining that specific outcomes result from these has been harder to do.[10,11] In other words, although analyses have identified "a disturbing body of scientific evidence of inferior medical care for black Americans, compared with whites, even after socioeconomic factors were controlled for," detailing how racial/ethnic bias influences disparate health outcomes by race/ethnicity remains challenging.[2,12]

The health care encounter is generally conceptualized as having three levels that could be the source for racial/ethnic health disparities—patient, provider, and health care system.[2] Factors at the patient level often cited as potential explanations for disparities in health care include: patient's choice or preference (usually implying a patient's refusal to accept a physician's recommendation); cultural beliefs about health and medical care held by racial/ethnic subpopulations; and mistrust of the health care system (based in part on high reported rates of perceived instances of past discrimination, and language barriers).[13] Provider factors frequently cited include: the lack of cultural competency, physicians' practice styles, clinical uncertainty about findings in the medical history or symptom presentation of patients belonging to racial/ethnic subpopulations, and both conscious and unconscious racial/ethnic bias and negative stereotyping that influence clinical decisions.[13]

Many of the factors at the level of the health care system that contribute to racial/ethnic disparities in health may reflect the incomplete dismantling of the "separate but equal" systems that existed before the

passage of the Civil Rights Act of 1964. Although Title VI of the Act prohibits the provision of federal funds to organizations that segregate by race or engage in racial discrimination, its mandate has been most effective within the hospital sector and much less so with nursing homes and physicians and with the regulatory and financial aspects of the system overall.[14] Even within the hospital sector, there is some evidence that differences persist between hospitals that treat mostly black patients and other hospitals. One recent study found that hospitals that serve more black patients are less likely than other hospitals to perform procedures that involve new technology (such as dual-chambered pacemaker implantation and lumbar spinal fusion).[15]

Of the three levels from which disparities are likely to emanate, the role of the provider—and facts associated with the nature of their practices—has been identified as the most likely source of direct racial/ethnic bias.[2] One study found that regardless of the age of the patients served, African American physicians were more likely than white physicians to report encountering difficulties obtaining hospital admissions.[16] Hispanic physicians were more likely than their white counterparts to report problems obtaining referrals for their patients to see specialists. Another analysis found that, relative to Caucasian physicians, three groups of physicians of color (African American, Asian, and Hispanic) were more likely to be denied contracts with managed care organizations.[17] These findings could worsen the solvency of the practices of these physicians of color (many of whose patients are primarily people of color). Further, if these physicians close their practices as a result of the contract denials, one outcome could be to worsen the health of their patients, who might encounter delays in receiving care for their health problems as a result.

Some research has found that inequalities in the provision of quality primary care explain the worse health outcomes of African Americans relative to other racial/ethnic groups. California data from the 1990s on hospitalizations as the result of potentially preventable chronic conditions (such as angina, congestive heart failure, diabetes, and hypertension) reveal a marked difference for African Americans (males and females both separately and combined) in comparison to Asians, whites, and Hispanics in the state.[18] African Americans had significantly higher hospitalization rates associated with these chronic conditions than did other racial/ethnic groups in both 1991 and 1998. Delays in the physician examination and referral process may underlie the differences noted. Analysis of data for New York state residents supports this proposition, with the finding that higher primary care density is associated with a reduced likelihood of preventable hospital admissions for conditions such as uncontrolled asthma, diabetes, and hypertension.[19]

Yet another study of elderly black and white heart attack patients found that, regardless of the race of the physician, black patients were significantly less likely to be offered cardiac catheterization, a common and potentially life-saving procedure.[20,21] This finding suggests that something in the medical culture into which all physicians, regardless of race, are indoctrinated imparts this bias to clinical decisionmaking. (*Note*: Because this piece of research was based on Medicare claims and enrollment data, its findings may not be generalizable due to the known limitations of these data with regard to accuracy, completeness, and detail.)[22]

Other research ascribed many of the existing and persistent health care disparities to racial bias in the availability of pharmaceuticals.[23] One example of how racial bias can influence both health and the quality of life is the refusal of pharmacies in some predominantly non-white neighborhoods to stock painkillers for fear of theft or other abuse by drug addicts.[24] Bias also may influence health if physicians and other providers fail to prescribe the pharmaceuticals most appropriate for and most effectively metabolized by people of color with given health conditions.[25] This last form of bias sometimes results from prescriber ignorance of the genetic factors that underlie the varying responses to medicines that have been observed among different racial/ethnic groups. In other cases, it may result from health insurance rules that limit access to a full range of pharmaceuticals, as does the Medicaid program (a source of health insurance coverage for many women of color) with its formulary list of drugs approved for coverage.[26] Yet another type of physician bias has been noted related to the dosing of pain medications. Compared to male physicians, female physicians prescribe higher doses of painkillers to females than to males and to black patients than to white patients, biases that suggest that male and female physicians may react differently to gender and racial cues from their patients.[27]

Every racial/ethnic and gender disparity in health care may not reflect racism or discrimination, but questions need to be asked to tease out the role such bias might play. A recent analysis offers a framework that can be used to assess whether disparities in the receipt of various types of medical care/treatment by

people of color are due to medical care providers either intentionally or unintentionally communicating to patients societal messages about their fundamental value or deservingness of certain types of care.[28] This framework might enable us to explain why women are less likely than other patients with end-stage renal disease to be recommended for kidney transplants.[29] Is this due to patient preference or to discrimination or to institutionalized racism or sexism?

A willingness-to-pay study conducted for total knee arthroplasty revealed that blacks valued this procedure less than whites and, therefore, may be less willing to undergo it. This difference in the willingness to pay could contribute to the racial/ethnic disparity in the use of this procedure to relieve the pain and dysfunction of knee osteoarthritis.[30] However, not all research related to all procedures confirms this finding for knee arthroplasty. For example, other studies suggest that the conventional wisdom that, when compared to whites, African Americans are less likely to prefer various health care treatments, or to have lower expectations for these treatments, may not be valid.[31,32]

Yet other types of disparities suggest different causal links. For example, one study among Florida Medicaid patients with HIV infection or AIDS found that women were less likely than men to receive antiretroviral drug therapies.[33] From what does this disparity emanate? Also with respect to HIV/AIDS, other research has found evidence of discrimination in the more aggressive treatment of men than women in the terminal stages of disease.[34] It is not always easy or clear how to determine the causal chain underlying observed health outcomes. In addition, even if these outcomes can be attributed to racism, sexism, or discrimination, how to address their causes or to change these outcomes is not straightforward.

The relationship between racism, sexism, and discrimination, on the one hand, and inferior health outcomes, on the other hand, also may be tempered by socioeconomic status or poverty. In other words, women of color are disproportionately poor, and this poverty may be the result of racism/sexism and discriminatory practices. This poverty may, in turn, be directly associated with worse health outcomes, in keeping with the general finding that higher socioeconomic status is associated with more healthful behaviors and better health outcomes.[22] The effects of socioeconomic status on morbidity and mortality have been demonstrated at both the individual and ecological levels for blood pressure, cancer, cardiovascular diseases, cerebrovascular diseases, diabetes, and obesity.[35] The influence on later life outcomes of socioeconomic status at conception, birth, or early in the life course has not been clearly demonstrated, however.[36] Nevertheless, the consistent finding that blacks of lower socioeconomic status have worse health outcomes than whites of lower socioeconomic status may demonstrate the interaction of discriminatory practices with socioeconomic status as suggested above.[35] The additional fact that African Americans and other people of color are more likely to be of lower socioeconomic status than whites explains in part why people of color have inferior health outcomes. That one study concluded that public efforts to change smoking behavior among black adults should emphasize reducing socioeconomic inequalities in education and access to care provides recognition of this critical linkage.[37]

Another manifestation of the relationship among discrimination or racism, socioeconomic status, and health outcomes is the extent of racial/ethnic residential segregation in the United States. Residential segregation by race/ethnicity is a primary cause of differences in socioeconomic status because it determines access to education and employment opportunities,[38] and, in addition, socioeconomic status is a powerful determinant of health outcomes. Access to education is also a determinant of health literacy. Since low health literacy is a byproduct of limited education and limited education is more common among populations with inferior health outcomes (such as people of color and the elderly), some suggest that health literacy is a potential cause of health disparities.[39-41] In addition, segregation creates in the social and physical environment conditions that are inimical to health.

One recent study found that, after adjusting for family income, age-adjusted mortality risk increased in association with the extent of measured racial segregation among blacks 25 to 44 years of age and among persons of all other races 45 to 64 years of age.[42] In addition, this study found that in most age/race/gender groups the highest and lowest mortality risks occurred in the highest and lowest categories of residential segregation, respectively. These findings suggest that lessening the amount of residential segregation by race within the United States might improve the health of the population. However, adjusting living patterns by race throughout the nation would be a Herculean task.

Racial/ethnic disparities in health persist and are associated to varying degrees with both discriminatory practices and with socioeconomic status. Thus,

achieving the ambitious goal of eliminating racial/ethnic disparities for women of color (or for men of color or for both), in both health outcomes and health care, while maintaining the progress made in improving the overall health of the American people, will require a multi-pronged approach that can address issues at the many levels at which they arise. The several steps required include: determining the causes of racial/ethnic health disparities, collecting data to facilitate tracking these disparities, and taking action to address the cause(s) and thereby eliminate the disparities.[22]

Data Collection

Issues related to collecting data about women of color permeate this book. They range from the changes wrought by OMB Directive 15 in the definition of the socially constructed categories of race used herein to issues related to the impact of sampling decisions on the data collected, and include numerous other issues as well.[43] For example, data collected or reported only for groups such as Asian Americans but not for various subpopulations (such as Vietnamese) obscure health status differences among subpopulations. Also, the failure to routinely collect and analyze socioeconomic status (as reflected in measures such as current income, life history of income, wealth, occupation, and education) limits our ability to fully understand not only racial/ethnic health disparities but also health or health care disparities for disadvantaged groups whose deprivations do not necessarily stem from race/ethnicity (e.g., rural populations).

Another major data collection issue is the misclassification of racial subpopulations by others who designate their race—such as medical records clerks, providers and other health care workers, or funeral home directors.[44-46] Related issues include the use by private sector entities (such as insurance plans, medical providers, or health facilities) of racial/ethnic classifications that do not conform to OMB Directive 15 (the guidepost for federal racial/ethnic data collection), and the fact that public health data collected by states for the Federal Government do not always use the minimum racial/ethnic categories established by OMB Directive 15.[22] The redefinition of selected racial/ethnic groups due to OMB Directive 15 and the option for individuals to select more than one racial/ethnic category in the 2000 Census have resulted in changes in the magnitude and the meaning of both the numerators and the denominators of the fractions that underlie the rates of birth, disease, disability, and death for people of color in the United States.[47] In addition, large population increases believed to be attributable primarily to shifts in self-identification (such as the increases in the American Indian and Alaska Native populations) may initially create "apparent" improvements in sociodemographic characteristics of groups.[48]

As noted in the previous section ("Racial/Ethnic Health Disparities"), data about the many subpopulations of color in the United States are essential for tracking and ultimately addressing racial/ethnic disparities in health.[49] Many subpopulations of women of color, however, are known only by the absence of data about them, or by the vintage of "the most recent data" about them. This occurs for many reasons. One reason relates to the federal statutes for collecting and reporting data. Although collecting and reporting data about race, ethnicity, and primary language are legal and authorized under Title VI of the Civil Rights Act of 1964 and no federal statutes prohibit collecting and reporting such data, very few statutes require it.[50] Twenty-two states have mandates to collect race/ethnicity data.[51] Although states do not collect data on race and ethnicity in standardized ways, only four states (California, Maryland, New Hampshire, and New Jersey) have statutes that restrict the collection and use of racial information.[22,52]

One exception to the absence of federal statutes requiring the collection and use of racial/ethnic data to ameliorate health was provided by the 2003 legislative mandate that Medicare Advantage plans participate in one of two Quality Improvement System for Managed Care projects—either racial and ethnic disparities in care (known as clinical health care disparities, or CHCD), or cultural and linguistically appropriate services (CLAS).[52] The CHCD project requires Medicare Advantage plans to target diabetes, pneumonia, congestive heart failure, or mammography for any one or more of the following populations: American Indians/Alaska Natives, Asians, blacks/African Americans, Hispanics/Latinos, and Native Hawaiians/Pacific Islanders.[22] The CLAS project focuses on language access and organizational support in providing oral language translation services, assessing the diversity of health plan members and the community, assessing the cultural and linguistic competence of the health plan, and developing a diverse workforce.[22] Assessing progress under either of these projects will require Medicare Advantage plans to collect and analyze data by race/ethnicity.

Some of the other reasons for the lack of data about the health of women of color vary by racial/ethnic group. For example, when one wants to

collect data or conduct research on small populations without great geographic dispersion but with great cultural diversity (such as American Indians and Alaska Natives, Hispanics or Latinos, and Asian Americans), it is difficult to use sample surveys to collect readily generalizable data that can be applied to the development of universally applicable treatment responses.[22,53,54] This results because large national surveys seldom draw sufficiently large samples of such groups to collect reliable data.[22,53]

Two solutions are commonly employed to collect high quality data for small population subgroups not broadly distributed geographically. First, one can use national sample survey techniques and oversample in areas with sizable numbers of the populations of interest.[22,49] To do so requires the use of many racial and ethnic identifiers and is likely to increase both the size of the sample and the cost of the survey.

Another approach is to survey the major racial/ethnic population subgroups in the areas they dominate.[22,49] For example, because the largest numbers of both Asian Americans and Native Hawaiians or Other Pacific Islander Americans are clustered in California, Hawaii, Illinois, New Jersey, New York, Texas, and Washington, these groups could be adequately captured in a nationally representative analysis done in these states.[55,56] In fact, data used to calculate infant mortality rates for Asian Americans and Native Hawaiians or Other Pacific Islander Americans are collected in this manner.[57]

This technique also was employed in the 1982 to 1984 Hispanic Health and Nutrition Examination Survey (H-HANES), one of the family of National Health and Nutrition Examination Surveys (N-HANES). (The N-HANES was conducted first as three multi-year surveys [N-HANES I in 1971–74, N-HANES II in 1976–80, and N-HANES III in 1988–94]) and has been conducted annually since 1999.)[58] The H-HANES interviewed a sample of nearly 16,000 Latino adults and youth to collect information about the health and nutrition of the 1980 Spanish-origin population in the United States.[48] Information for three major Latino subgroups was collected in selected areas. Mexican Americans (9,894 people) were surveyed in Arizona, California, Colorado, New Mexico, and Texas; Puerto Ricans (3,786 people) were surveyed in the New York metropolitan area (New York, New Jersey, and Connecticut); and Cuban Americans (2,244 people) were surveyed in Dade County, Florida.[22] Although the H-HANES, the targeted Latino survey, was conducted during the early 1980s, in the N-HANES III and in the annual surveys since 1999, data were collected for blacks, whites, and Mexican Americans only, excluding other Hispanic populations whose health outcomes can not necessarily be assumed to be the same as those of Mexicans.[48,59]

Another issue that arises when reporting health statistics for women of color is aggregation across subpopulations. Aggregating data for racial/ethnic groups often obscures meaningful differences.[22] For example, the mortality rate for Puerto Rican infants is higher than for Mexican American infants; also, Chinese Americans have infant mortality rates lower than other Asian American groups.[60] In another example, in its cancer registry, California—the state estimated to have the largest number of Asian Americans and Native Hawaiians or Other Pacific Islanders combined—collects data for more than 20 different subpopulations within these racial groupings, but does not always report the disaggregated data.[22] The Asian subpopulations counted separately include: Chinese, Japanese, Filipino, Korean, Vietnamese, Laotian, Hmong, Kampuchean (Cambodian), Thai, and Other Asian. The subpopulations of Native Hawaiians or Other Pacific Islanders enumerated separately include: Chamorro, Guamanians, Native Hawaiians, Samoans, Tongans, Micronesians, Melanesians, Fiji Islanders, Papua, New Guineans, Tahitians, Polynesians, and other Pacific Islanders. In addition, interviewees who identify as any of the following populations are counted as a single group: Asian Indians, Pakistani, Sri Lankan (Ceylonese), Nepalese, Sikkimese, Bhutanese, and Bangladeshi.[22] In published reports, however, all of these subgroups often are collapsed into the category "Asian and Other," a category that also includes American Indians and Alaska Natives and, thus, obscures important differences among groups.[61]

Examining mortality rates for Asian and Pacific Islander subpopulations (such as Chinese, Filipino, Japanese, and Native Hawaiian) in Hawaii also reveals differences that would not be apparent if a single Asian/Pacific Islander rate were reported.[62] In addition, an analysis of data for the many racial/ethnic populations living in Hawaii, as reported in the state's public health-related databases, revealed fragmentation of the data systems with numerous inconsistent racial/ethnic categories across the datasets maintained by different agencies.[63] Data system findings such as these are another argument against reporting racial/ethnic data only as aggregated for groups such as Asians and Pacific Islanders. To do so negates the possible benefits from the use of multiple ethnic identifiers during data collection.

Even for black Americans, a group considered by many to be homogeneous, reporting the percent of infants with low birthweights and the mortality rates of infants in a locality as an aggregate can obscure meaningful differences. Using two definitions for black, one including Cape Verdeans and Dominicans and the other excluding Cape Verdeans and Dominicans, data from 1997 for Massachusetts and two of its cities (Boston and New Bedford) illustrate this point. Although Dominicans are from the Dominican Republic (a Spanish-speaking Caribbean island) and Cape Verdeans are from Cape Verde (a Portuguese-speaking group of islands off the west coast of Africa), guidelines from the National Center for Health Statistics promulgated as the result of OMB Directive 15 mandate reclassifying both of these groups from "Other" (the racial category they most often chose) to "black or African American."[64] If black mothers are defined to include Cape Verdeans and Dominicans, smaller percentages of black infants with low birthweight (12 percent, Boston; 9.9 percent, New Bedford; and 10.6 percent, Massachusetts) are consistently reported than when black mothers are defined to exclude Cape Verdean and Dominican mothers (12.3 percent, Boston; 12.3 percent, New Bedford; and 11.4 percent, Massachusetts). In addition, although data are not available for infant mortality rates in New Bedford, in Boston a notable difference existed between the death rate of 10.7 per 1,000 live births for infants born to black mothers including Cape Verdean and Dominican mothers and the death rate of 12.9 per 1,000 live births for infants born to black mothers excluding Cape Verdean and Dominican mothers. A similar difference is reported for the state, with the mortality rate for infants born to black mothers including Cape Verdean and Dominican mothers at 10.4 per 1,000 live births and the death rate for infants born to black mothers excluding Cape Verdean and Dominican mothers at 11.1 per 1,000 live births. Thus, including Cape Verdean and Dominican mothers in the category "black or African American" reduces the measure of problematic birth outcomes for mothers in this category and obscures the greater need for services to help improve these outcomes among non-Cape-Verdean and non-Dominican black mothers in Massachusetts.[64]

Problems associated with aggregating data about black populations in the United States become apparent with other Caribbean immigrants such as Jamaicans, for example. Because Jamaicans have ancestors who were not only West African but also Chinese, Asian Indian, and Lebanese, does classifying them as black or African American in the United States best represent their health profiles and needs?[65] To determine whether Jamaican immigrant women have higher or lower infant mortality rates than U.S.-born black women, we need to bring more information to bear than racial designations.[65] Research is needed to disentangle the factors associated with the health outcomes and needs of multi-racial/ethnic populations of all stripes in the United States.

To fully understand health status and disparities in health or health care, data about socioeconomic status (SES), the degree of acculturation, and immigration/migration history also need to be collected.[22,48] The relationship expected between SES and health is that higher SES and better health come as a package. However, because there are numerous exceptions to this expected relationship—i.e., low SES is not always associated with inferior health outcomes, and high SES is not always associated with better health outcomes—the failure to collect relevant information about SES complicates the challenge of understanding the mechanics at work.[66-69] Both state and federal data collection systems have been criticized for failing to gather relevant information about SES or for failing to sample in a manner that reflects awareness of geographic/ethnic variations in health outcomes.[22] In particular, the U.S. cancer registries do not collect socioeconomic data, thereby making it impossible to discern the extent to which socioeconomic conditions contribute to the racial/ethnic cancer disparities observed.[70] The Surveillance, Epidemiology, and End Results (SEER) program of the National Cancer Institute (NCI) does not collect data for African Americans from the geographic area that includes large, often low-income black populations and parts of which are known as "cancer alley" (e.g., Alabama, Louisiana, Mississippi, and east Texas).[71] By sampling African Americans more evenly across the United States as a whole (i.e., 28 percent in Los Angeles, 25 percent in Detroit, 19 percent in Atlanta, and 12 percent in San Francisco), this system provides racial data with little regard to the relevant ethnic or geographic factors that may influence health. Even though the SEER system generally oversamples for racial/ethnic subpopulations, it also has been criticized for overlooking American Indians and the rural poor (Appalachia and the rural South) and for overgeneralizing data for Asian populations.[71]

Knowledge of acculturation and immigration history also needs to be incorporated routinely into

analyses of health status and health care.[22] For example, if survey respondents are overwhelmingly the more acculturated or American-born Asians, then their health profiles are unlikely to reflect the morbidity and behavioral risk-factor patterns of newly arrived immigrants and more likely to reflect a greater prevalence of diseases such as diabetes and breast cancer, which are more common among more assimilated populations. For American Indians/Alaska Natives, the cycles of urban-rural-reservation migration by individuals in various tribes make it difficult to gather accurate demographic data.[22] For Hispanic immigrants to the United States, several factors may result in underestimation of mortality rates: selectivity of immigration (with the healthier persons choosing to emigrate to the United States), the return of terminally ill persons to their countries of origin, and age misreporting among the elderly.[48]

Language familiarity, another aspect of acculturation, also is a factor in collecting reliable data. If concepts are indiscriminately transferred from one language or culture to another, misinformation may be collected from the survey population. For example, seeking self-reported assessments of health status from foreign-born residents of the United States can be problematic. Individuals from different countries tend to apply differing response thresholds when placing themselves within scales to rank general well-being, including self-reported health.[72] In this same vein, trying to elicit information about patient satisfaction from some racial/ethnic populations also can be difficult because of varying cultural norms. In Cambodian language, the word for physician means guru or teacher. Thus, Cambodians generally do not take strong negative positions with respect to their health providers. Also, cultural mores, which dictate that the locus of health decisionmaking should be the family rather than the individual, may limit one's ability to elicit an individual's (rather than a family's) assessment of health care services.[73] In another example, seeking answers in Spanish to questions framed in English may not be the best way to assess the health of Latino populations. It is generally preferable to independently determine the best questions to ask Latinas about health issues and to accept the fact that these questions and their answers may differ from the questions and answers one would use or expect in English.[22]

If a question is asked that violates a cultural value, information gathered from asking this question may be invalid. For example, researchers from the Center for Epidemiological Study–Depression (CES–D) interviewed a group of adult American Indians in Northern California to determine their depressive symptomatology. The researchers found that many interviewees refused to enter a response for the scale item "I feel I am just as good as anyone else."[74] Because Indian values do not encourage one to place one's self above others, many respondents were unwilling to answer this question; others answered it in ways that did not relate to its intent. This additional information calls into question the finding from this study that adult American Indians reported symptoms of depression twice as frequently as the general population.

In general, the American Indian concept of mental illness may cause them to interpret questions about this condition differently than others.[75] The American Indian worldview is more inclined to accept someone's social deviance than to label that person as mentally ill. In fact, some American Indian cultures view such people as gifted and may treat them as holy.[75] Thus, findings from surveys conducted with American Indians about mental health conditions should be interpreted cautiously.

As a result of these and other shortcomings in data collection methods and systems, several types of errors are found in data collected about people of color. The most common error affecting data about American Indians is misidentification by service providers. This error results in underestimation of mortality rates and overestimation of life expectancy, because the numerator in the fraction used to compute mortality rates is too small.[22,53] For example, a recent analysis that adjusted for racial misclassification the cardiovascular death rates reported by the Indian Health Service prior to the early 1990s for American Indians/Alaska Natives found that American Indians/Alaska Natives have higher cardiovascular mortality rates than the rest of the U.S. population, and that these rates may have been higher than for other groups for more than a decade. This finding conflicts with trends in cardiovascular mortality by race/ethnicity reported prior to 1990.[76] Misclassification of American Indians and Alaska Natives by race in the cancer registries in the Pacific Northwest between 1996 and 1997 resulted in underestimation of cancer incidence for these populations and, therefore, reduced likelihood that appropriate cancer control measures were implemented.[77] In addition, the general underreporting of diabetes and maternal mortality as a cause of death on death certificates

affects the rates of these conditions especially for populations known to have high prevalence of them—for example, African Americans and American Indians/Alaska Natives.[78,79]

In one examination of birth and death certificates in Washington state, the identification of American Indians and Alaska Natives was found to differ notably between the two. In other words, 12.8 percent of individuals who appeared in the Indian Health Service (IHS) patient registry (that is patients treated at IHS facilities, who must be a member or descendant of a member of a federally recognized tribe) for Washington state were not classified as American Indian or Alaska Native on their death certificates. Thus, the authors conclude that death rates for these groups were underestimated.[80]

Although inconsistent racial classifications for infants at birth and death were reported for only 1 percent of the infants classified at birth as white and 4 percent of infants classified at birth as black, more than 43 percent of infants classified at birth as members of all other racial groups were classified as of a different race at death.[81] Nearly equal proportions of infants classified as Filipino and Japanese at birth were classified as white at death (45 and 40 percent, respectively); only slightly larger proportions, however, were correctly classified as Filipino and Japanese at both birth and death (48 and 46 percent, respectively). In addition, only 70 percent of Latino infants were assigned the same Hispanic origin (Cuban, Mexican, or Puerto Rican) both at birth and death.[22,81]

Racial misclassification also is more likely for black Hispanics than for white Hispanics and has a resulting impact on life expectancy for these subgroups. A recent analysis based on National Mortality Follow-Back Surveys revealed that 86 percent of white Hispanics but only 54 percent of black Hispanics were classified correctly on their death certificates.[82] Upon adjusting life expectancy at birth for these misclassifications, the life expectancy for black Hispanic males dropped from 77.28 to 65.01 years, and for black Hispanic females from 89.15 to 74.47 years. The unadjusted life expectancy at birth for white Hispanic males is 65.65 years, while the adjusted life expectancy is 63.15 years, a much smaller change than for their black counterparts. The reason for these declines in life expectancy is that the current method of identifying race and ethnicity on death certificates undercounts black Hispanic deaths, thereby resulting in an over-estimation of their life expectancy.[82]

The degree of misclassification probably also varies by geographic location. In New York, routine misclassification as Hispanic of Filipinos and other Asians from Latin American countries and the classification of South Asians as either white, black, or other results in undercounting both in AIDS surveillance and general census statistics for Asians.[83] Similarly, the classification of Chinese from Vietnam as Vietnamese rather than Chinese may overlook their unique history as a group and their needs for services related to their dual immigration (i.e., from China to Vietnam and then to the United States) and refugee experiences.[84] Steps need to be taken to refine and improve the quality of the data collected on all people of color.

Finally, as the move to multiple racial classifications in the census spills over into health data reporting, attention must be paid to more fully understand the phenomena at work.[47] For example, the response to the option of recording multiple racial identifications is likely to differ for younger and older populations. In particular, many older African Americans of mixed racial descent do not identify themselves (and are unlikely to identify themselves in the future) as such because they never had the opportunity to do so in the past.[48] What information about health status may be lost as a result of this decision remains an open question.

Studies of the relationship between biracial status and health outcomes reveal some intriguing findings. Examining the association between biracial status and low birthweight of infants reveals that, compared to infants both of whose parents were white, infants born to black mothers and white fathers were more likely to have low weight at birth than infants born to white mothers and black fathers.[85] In other words, low birthweight, mean birthweight, and rates of preterm birth were more strongly related to mother's race than to father's race. In yet another example, past-30-day smoking prevalence among eighth grade adolescents in California in 1996 was markedly different for youth who chose a single racial/ethnic category (African American or Hispanic/Latino or Asian and Pacific Islander) than for youth who selected one of these racial/ethnic categories along with one or more additional category(ies) (i.e., multi-ethnic). Specifically, 8 percent of the single-ethnic, but 19 percent of the multi-ethnic, African American 8th graders reported smoking within the past 30 days.[86] Likewise, 19 percent of the single-ethnic, but 30 percent of the multi-ethnic,

Hispanic/Latino adolescents smoked cigarettes within the past 30 days, as did 13 percent of the single-ethnic and 24 percent of the multi-ethnic Asian and Pacific Islander 8th graders. Findings such as these clearly highlight the need to collect data that allow us to comprehensively reflect the health of people of color in the United States.

Research and Treatment Needs

To determine the underlying causes and factors associated with the racial/ethnic health disparities identified and discussed in this volume, clinically based research is necessary. Conducting clinical trials and including a racially and ethnically diverse group of women in these trials is an essential part of the process of learning how to treat and cure medical conditions. (A clinical trial is medical research in which scientists observe the course of a disease in human beings or evaluate the effectiveness of a therapy or treatment.[87] Usually participants will receive some free medical care and may also receive the latest medical treatment.[88]) A primary reason for which such clinical research is needed is the fact that population groups in the United States differ significantly in the metabolism, clinical effectiveness, and side effects of many prescription medications.[25] The lack of information to support appropriate pharmaceutical interventions may indeed contribute to racial/ethnic disparities in health since treatment with medications is often the first line of defense when treating people of color, due to their traditionally later diagnoses and chronic complications from various diseases.[89]

Medical officialdom has acknowledged its past lack of attention to the health needs of women in the formulation of clinical research designs and treatment protocols, and the National Institutes of Health (NIH) Revitalization Act of 1993 was enacted to rectify this. The intent of the NIH Revitalization Act of 1993 is to ensure that women and racial/ethnic subpopulations are represented in all research about human subjects and that they are included in Phase III clinical trials in sufficient numbers to permit subgroup analyses.[90,91] (Phase III clinical trials involve giving an experimental study drug or treatment to large numbers of people—ranging from 1,000 to 3,000—to confirm its effectiveness, monitor its side effects, compare it to commonly used treatments, and collect information that will allow the experimental drug or treatment to be used safely.)[92] The act also makes clear that cost is not an acceptable reason for not including women and racial/ethnic populations, and mandates that NIH initiate programs and provide support for outreach efforts to recruit and retain women and racial/ethnic populations in health research and clinical studies.

Pursuant to the mandates of the NIH Revitalization Act of 1993, NIH has made strides in increasing the representation of women in both its intramural and extramural research programs. During Fiscal Year 1999, of all the subjects in extramural clinical research funded by NIH, women constituted about three-fifths. Among the women included in NIH extramural research, 14 percent of female participants were black non-Hispanic, 18 percent were Asian and Pacific Islander, 7 percent were Hispanic, and 0.7 percent were American Indian or Alaska Native. White non-Hispanic women represented 54 percent of all females enrolled in extramural research protocols funded by NIH that year.[93] In Fiscal Year 2004, although women comprised about the same share of all the subjects in NIH extramural research, their representation by race/ethnicity differed not only in the labels used for racial/ethnic groups but also slightly in the proportions constituted by the consistently labeled groups of women.[94] White non-Hispanic women remained the majority of women in clinical trials (56 percent), followed by Asian women (21.3 percent) and African American women (9.34 percent). American Indian/Alaska Native women and Native Hawaiian and Other Pacific Islander women each constituted less than 1 percent of the subjects of NIH extramural research that year (0.73 and 0.32 percent, respectively). The race/ethnicity of 11 percent of the women in clinical trials that year was unknown, and slightly more than 1 percent of women reported more than a single race. When participation in clinical trials is examined by ethnicity of women, slightly more than 5 percent of the subjects were Latina (5.25 percent), with 82.16 percent not Latina and 12.59 percent whose ethnicity was not defined.[94] These data show improvement in the representation of women, but unevenness in the inclusion of various subpopulations of women of color in clinical trials.

Limited inclusion of women of color in clinical trials has implications for the medical screening, diagnosis, and treatment and, thus, for the health of these women. Including only white women in an experimental group may yield knowledge and results relevant to treating white women, but not for treating women of color. Additional questions such as the following need to be asked and answered when providing health care to women of color. How

frequently should women be screened for breast cancer? Screening women 40 years of age and older ignores the higher than average risk for breast cancer among black women younger than age 40. Should different guidelines be established for black women? What guidelines should be set to screen American Indian/Alaska Native women among whom diabetes, tuberculosis, and liver disease are more common than among the general population? Questions such as these cannot be addressed without integrating knowledge about the health needs of women of racial/ethnic subpopulations when implementing research and treatment evaluations.

When women and men of color do not participate in clinical trials, however, it is for several reasons.[87] Comorbidities, or poor health, may limit their eligibility for clinical trials, since some trials require that participants lack health problems entirely or lack health problems other than the one for which the clinical research is being conducted.[88] As data in this volume illustrate, people of color are more likely than whites to have multiple chronic health conditions that could make it difficult, if not impossible, to study the course of one disease or the effects of one treatment. Low income (which people of color are disproportionately likely to have) may limit participation in clinical trials because would-be participants may lack transportation to research sites.[95] If both infirm and lacking transportation, elderly subjects are even less likely to participate. A lack of health insurance that will cover participation in clinical treatment trials also may limit enrollment by people of color.[88] Clinical trials that provide experimental treatments may not cover the cost of medications, of nonconventional therapies, and of followup care. If these additional costs are not covered by the health insurance plan in which the individuals are enrolled (or if the individuals lack health insurance) they may not be able to take advantage of the potentially life-enhancing treatment made available in this type of trial.[88]

Language also can pose a significant barrier when seeking to recruit either elderly people of color for clinical trials or their care givers for intervention research.[96] For example, to be effective, public awareness campaigns need to routinely provide materials in Spanish, not just for the monolingual Spanish-speaking population but also for the more acculturated, well-educated, middle-class Latinos who prefer to speak Spanish when discussing personal matters such as health.[87,97]

A major barrier to recruiting people of color for clinical trails is lack of trust due to historical circumstances and situations that have created distrust both of researchers and of research processes within communities of color.[98] For example, knowledge of the government-sponsored (U.S. Public Health Service) study of the course of untreated syphilis that was conducted with black men, known as the Tuskegee Syphilis Study, has ingrained distrust of medical research in generations of African Americans (although it is not the sole basis for mistrust of medical research by African Americans).[87] This study began in 1932 and continued for 40 years, well past the point when penicillin was known to effectively treat the disease. The subjects of the investigation were 399 poor black sharecroppers from Macon County, Alabama, with latent syphilis and 201 men without the disease who served as controls.[99,91] The men were told they were being treated for "bad blood" (a phrase used at that time to describe several ailments including syphilis, anemia, and fatigue), were offered financial incentives, and freely agreed to participate. However, the men were misled about the purpose of the study and were denied treatment through the study or through other means.

Evidence of the impact of the Tuskegee Syphilis Study on research participation of African Americans, though, seems to vary by survey. In a survey conducted with adults in Detroit in 1998 and 1999 about knowledge of the Tuskegee Study and the impact of this knowledge on willingness to participate in medical research, a large majority of blacks (81 percent) and more than a fourth of whites (28 percent) indicated prior knowledge. Among blacks with prior knowledge, 51 percent indicated that knowledge of the Tuskegee Study played a role in their reluctance to participate in clinical trials.[100] Another study conducted among older African Americans and older whites about their willingness to participate in a clinical treatment trial (a clinical trial that tests experimental treatments, new combinations of drugs, or new approaches to surgery or radiation therapy) revealed, however, that even though older African Americans were more knowledgeable about the Tuskegee experiment than their white counterparts, this knowledge was not associated with a lack of willingness to participate in clinical treatment research.[88]

Since the revelation of the Tuskegee Study, beliefs about the origin of HIV infection, Agent Orange exposure, and the role of the CIA in distributing crack cocaine primarily in black communities

have further fueled the lack of trust in researchers and in research projects supported or sponsored by the Federal Government.[101,102] A study of African American and white women ages 50 to 79 years who refused to participate in the Women's Health Initiative revealed greater distrust of scientists among African American women.[88] (The Women's Health Initiative is a major research program launched by NIH in 1991, which included clinical trials designed to test the effects of postmenopausal hormone therapy, diet modification, and calcium and vitamin D supplements on heart disease, fractures, and breast and colorectal cancer, the three most common causes of death, disability, and poor quality of life in postmenopausal women).[103] Although a large majority of the African American (89 percent) and white (86 percent) women surveyed agreed that health-related research benefits society, nearly a third (32.1 percent) of African American women but only 4.1 percent of white women felt that scientists cannot be trusted.[88]

One researcher working in Los Angeles found it more difficult to recruit African American mothers than Latina mothers (all of whom had children enrolled in Head Start and a significant portion of whom had drug abuse problems) for clinical studies about drug abuse.[104] She hypothesized that this recruitment disparity was due to differing expectations of life in the United States on the part of these two groups of women. Most of the Latina Head Start mothers were first-generation immigrants who likely came to the United States with a sense of hope and empowerment for the future. The African American mothers, on the other hand, seldom left their homes and seemed to have lost hope and a sense of a better future because of their inability after many generations to fully integrate into American society.[104] Thus, both future orientation and hopes may influence willingness to participate in clinical trials.

Over the years, other communities of color also have had experiences that cause them to view negatively both government-funded research and the research process in general. Mexican immigrant women and American Indian/Alaska Native women in the Southwest (and throughout the nation) share with African American (and poor white) women in the South a mistrust of government health programs due to eugenic sterilization abuses during the 20th century.[105] The Abenaki Indians suffered similar abuses as the result of a state-supported sterilization program in Vermont during the 1920s and 1930s.[106] The testing of early experimental birth control medications in the 1960s on poor Puerto Rican women without their consent is another example of research abuse that may shape the views of women of color toward medical research.[107]

Residents of the Republic of the Marshall Islands in the Pacific Ocean are distrustful of the U.S. government and its research proposals as the result of post-World War II nuclear testing conducted without their informed consent.[108] The fact that a group of Native Hawaiians sustained injuries when they were human subjects in a government-sanctioned genetic research project has made Native Hawaiians/Part Hawaiians suspicious and mistrustful of federally sponsored research and the safeguards embedded in the Institutional Review Board process.[109] In addition, American Indians and Alaska Natives have endured encounters with "helicopter researchers," who "fly in," collect data, and "fly out" with little, if any community engagement.[74] Some researchers have entered Indian communities and collected data without the full knowledge and consent of participants or of the tribe and, thus, inadvertently disrespected local culture and traditions. Recruitment for clinical research or treatment trials is often similarly flawed because of differences in communication styles between American Indians and Alaska Natives and the larger society.

To successfully recruit American Indians or Alaska Natives and other people of color into clinical trials, the potential candidates for the research must feel comfortable with their health care providers and with the proposed research or treatment process. The necessary comfort level for this participation can be enhanced by expanding the pool of clinical researchers who are people of color and women.[89,98] Increasing the pool of clinical researchers with these demographic characteristics may help enhance communication between researchers and study populations of color and make it easier for researchers to explain the purpose and relevance of the proposed research.[110] Better communication between the research community and research populations can help to overcome barriers to the recruitment of people of color for clinical trials, such as fatalism (found in some Latino and African diaspora cultures) and the belief that illness is a burden a family is expected to bear privately.[110]

In general, recruitment and retention success occur when there is a match between the goals of the communities of color and the research community.[95,111] One example of successful recruitment

of African Americans and other racial/ethnic subpopulations into clinical trials comes from the Alabama Vaccine Research Clinic at the University of Alabama at Birmingham.[112] Their Phase I trial testing an HIV vaccine on HIV-negative individuals has enrolled about 200 people, half of whom are African American. In Phase I clinical trials, researchers test an experimental drug or treatment in a small group of people for the first time to evaluate its safety, determine a safe dosage range, and identify side effects.[93] The recruiters for this trial used a grassroots approach, including speaking on talk shows on black-oriented radio and setting up booths at health fairs and black community celebrations. The recruiters and volunteers working with this trial not only connect with the black community but also provide prevention and testing information to potential trial candidates before telling them of the need for enrollees in the trial.[112] Although the clinic pays vaccine trial enrollees $50 per visit (for up to 15 visits over 18 months), an effort is made to screen out participants attracted because they need the money, in favor of those concerned about helping to fight HIV/AIDS.

Recruiting and retaining elderly people of color in clinical research can pose additional challenges beyond those encountered when recruiting non-elderly people of color as research subjects. Trust may be an issue when recruiting study participants among people of color of all ages—for example, for African Americans who may mistrust researchers because of the legacy of the Tuskegee experiment, for Chinese Americans who may fear that individuals outside the family might learn too much about their private matters, or Latino Americans who may fear that interview information could result in their deportation. Concerns for the elderly, however, may go beyond those expressed by their younger counterparts.[95] Elderly African Americans have greater fear of crime victimization than the white elderly and are, therefore, less likely to open their doors to respond to a door-to-door solicitation for clinical trial participants, which may be conducted in their apartment complex. The necessity of building rapport with an entire Latino family before an elderly matriarch will seek approval from her spouse for her to participate in a clinical trial may be viewed as an encumbrance in the recruitment process rather than as a valuable trust-building exercise for clinical researchers seeking Hispanic subjects.[95] Lack of understanding of the research design or of scales/measures collected for a study also may engender distrust in the elderly and cause them to not enroll in or to disenroll before completion from a clinical trial.[95]

One way to enhance the engagement of communities of color with the research process is to establish community research advisory boards or community Institutional Review Boards (IRBs). The Durham Elders Project established a community research advisory board to facilitate recruitment through churches for respondents to a general health survey of older African Americans in the Durham, N.C., area.[113] A drug abuse research project conducted with African American and Latina mothers of Head Start enrollees in Los Angeles used a similar advisory board.[104] An IRB is a committee of physicians, statisticians, researchers, community advocates and others that ensures that a clinical trial is ethical and that the rights of study participants are protected. All clinical trials in the United States must be approved by an IRB before they begin.[114] Often, IRBs are based at universities, and their deliberations and actions are dominated by scientists. Establishing community IRBs shifts some of the power and decision-making authority from universities to the community.[115] Another example is the IRB established for the Native Hawaiian Health Care System on which community members outnumber scientific representatives.[116] Community IRBs can enable the community to have say-so in whether research of a given type moves forward.

Collecting clinical data alone from medical research or collecting clinical and behavioral health data can tell us much about the health of women of color. Not providing an environmental and a psychosocial context for this information, however, is a criticism leveled against research about the health of women of color. The failure to take into account cultural, social, and psychological influences limits one's understanding of health outcomes, an analytical shortcoming that has been studied for African American women, in particular.[117] A content analysis of articles published between 1989 and 1998 in three major medical journals (*Journal of the American Medical Association, American Journal of Public Health*, and *New England Journal of Medicine*) revealed that explanations for illness and mortality are limited to the behaviors of individual black women, with little attention paid to the context in which these behaviors occur.[117] Further support of this point comes from other research examining the relationship between psychosocial factors and health status, which found such things as black women with

histories of physical, psychological, and early sexual abuse were more likely to be treated for depression, allergies, yeast infections, and hypertension than their counterparts without these histories. Additionally black women of lower economic status are more likely to be treated for allergies and pelvic inflammatory disease than their middle- and upper-income counterparts.[117]

The issues of context and respect within medical research also are salient for Native Hawaiians/Part Hawaiians. The academic pursuit of knowledge about healing based on the use of traditional Hawaiian flora raises concerns that "colonialist intellectualism" might further contribute to the legacy of spiritual and cultural violation felt by the Hawaiian people.[118] Such academic research could only add to the basis for the "psycho-spiritual malaise" that contributes to many of the health problems of Native Hawaiian/Part Hawaiian women.[118]

Thus, creating a full picture of the what, the how, and the why associated with the health of women of color requires two things. It requires not only racially/ethnically inclusive clinical research but also similarly targeted behavioral and social science research that is respectful of the cultural and social-psychological experiences of women of color.

Facilities That Serve People of Color

In what settings do women of color receive treatment to meet their health care needs? Does the nature of the health care received by women of color differ with the site in which it is received? Has this changed over time, and, if so, what are the implications of these changes for the appropriateness and quality of health care received by women of color?

Historically, some populations of color—notably African Americans, American Indians/Alaska Natives, and Native Hawaiians and Other Pacific Islanders—have received health care in facilities established to serve them alone. However, the policy of targeting resources and facilities to people of color has a problematic history. The provision of hospitals for black Americans, the designation of service areas for the provision of health care to American Indians/Alaska Natives, and the targeting of health care services to Native Hawaiians illustrate these problems.

The concept of hospitals to serve predominantly black communities dates from an era when "separate but equal" was the racial policy of the nation and, thus, African Americans, the main population of color at that time, were rigidly segregated from white Americans. Since that time many of these hospitals have closed, although the racial/ethnic composition of and the need for health care in their service areas have remained the same. Thus, in some localities, African Americans remain segregated but now must leave their communities to receive hospital or other medical care. In addition, as recent waves of immigrants of color have come to America and settled in a variety of communities—for example, some in older inner cities inhabited historically by African Americans, and others in largely white suburbs—it has become harder to define territorial "communities" for specific racial/ethnic groups and to meet their needs by placing facilities in these areas.

For example, a recent study that examined the geographic access to prenatal care clinics for the many immigrant populations residing in Brooklyn identified access differences among populations.[119] In this analysis, geographic access was defined to reflect distance, transportation, and mobility factors that influence people's ability to use services when and where they are needed. Although groups with higher rates of low-birthweight infants tended to have a greater density of clinics nearby, some groups did not. Pakistani and Bangladeshi mothers-to-be in Brooklyn had a great need for prenatal care services, but had poor geographic access.[119]

Access to health care for American Indians/Alaska Natives who belong to federally recognized tribes provides another example of the difficulty of serving people of color by establishing facilities in specific locales, in this case, on reservations. The Indian Health Service (IHS) regional designations and placement of facilities reflect the population distribution of American Indians/Alaska Natives in 1955, when the responsibility for Indian health was transferred from the Bureau of Indian Affairs to the Public Health Service, and the IHS was created.[120] American Indians/Alaska Natives enrolled in federally recognized tribes are eligible to receive free primary health care services at these IHS facilities, along with limited free specialty services through contracts with private providers.[121] The Urban Indian Health Program was authorized in 1976 to make outpatient services available to urban Indians, either directly or by referral, through nonprofit organizations controlled by urban Indians and that receive funds under contract to the IHS.[122]

According to Census 2000, however, majority shares of American Indians (57 percent) and of one group of Alaska Natives (53 percent of Aleuts, but 39 percent of Eskimos) now live in urban areas.[123] Although these urban areas often are too far from reservations to make

eligibility for free care actionable, they contain a disproportionately small number (34 in Fiscal Year 2002) of Urban Indian Health Programs.[122,124] In addition, in spite of the large shares of the American Indian/Alaska Native population in urban areas, the Urban Indian Program received only 1 percent of the Fiscal Year 2001 IHS budget.[122]

Alaska Natives not living in urban areas also face challenges in accessing health care. Alaska Natives who derive their livelihoods from seasonal employment such as fishing, which takes place in more isolated areas, encounter transportation difficulties if they need to access care during fishing season and the IHS facility is several hundred miles from home. In Fiscal Year 2002, under Self-Determination contracts with the IHS, Alaska Native villages operated 170 clinics. However, there was no urban Indian facility in the entire state of Alaska, even though Anchorage had the fourth largest American Indian/Alaska Native (only) population in the nation in 2000.[122]

Native Hawaiians encounter similar barriers to those faced by American Indians/Alaska Natives. Although Native Hawaiians are recognized as a population with high health risk[125] and, therefore, in need of health care services, it is difficult to place facilities to serve them in large numbers because the living patterns on the Hawaiian islands are racially/ethnically mixed. In addition, in rural areas of Oahu (the island on which Honolulu is located) and on many of the Hawaiian islands other than Oahu, Native Hawaiians reside in remote areas. Of the 13 MUAPs (medically underserved areas or populations) designated in Hawaii in 2001 by the Bureau of Primary Health Care, most are in rural areas, and many have high proportions of Native Hawaiians with the worst health statistics in the state.[125] Medically underserved areas (MUAs) are designated by an Index of Medical Underservice, with scores ranging from 0 (completely underserved) to 100 (least underserved) and a score of 62 or lower qualifying an area to be a MUA. To designate medically underserved populations (MUPs), the same Index of Medical Underservice is applied to underserved populations or groups within a specific geographic area that experience economic, cultural, and/or linguistic barriers.[125]

To receive health care and certain specialized services, residents of islands other than Oahu often must travel to Honolulu, incurring costs for interisland travel, ground transportation, and lodging.[125] Even if residing on Oahu, rural residents often travel twice the distance traveled by their urban counterparts to reach medical facilities. In studies just of women residing on Oahu, Native Hawaiian women were less likely (than other Oahuan women) to have seen a provider in the last year, less likely to have health insurance, and more likely to visit hospital emergency departments for care.[126] These health utilization facts for Native Hawaiian women coexist, however, with the highest rates of both depression and of sexual/physical/emotional abuse among women on Oahu. The pattern suggests that Native Hawaiians may postpone seeking care until they perceive a crisis, perhaps to avoid travel complications and expenses.

In more recent years, while not necessarily receiving care in facilities designed to serve them alone, people of color (in particular, African Americans and Latinos) are more likely to report a hospital-based provider as their usual source of care.[127] Residents of neighborhoods populated predominantly by racial/ethnic subpopulations also are more likely than the general population to use public hospitals and major teaching hospitals.[127] This finding may reflect historical patterns of utilization or choices made by patients because some sources of care are perceived as more welcoming or culturally competent. It also may reflect patient preferences for the flexible hours or other conveniences of hospital-based sources of care, such as ease of access via public transportation.[127]

What do choices of treatment site tell us about quality of care received? Contemporary research about American Indians/Alaska Natives served at IHS facilities is suggestive.[121] Analysis of data for low-income American Indians/Alaska Natives whose only health care was received via access to IHS facilities revealed that these low-income individuals fared not only better than uninsured American Indians/Alaska Natives (as might be expected) but also as well as insured whites on measures such as having a usual source of care and making a professional health care visit during the preceding year. However, low-income American Indians/Alaska Natives whose only care was received at IHS facilities were less likely to receive preventive services (such as the Pap test and a breast exam) than privately insured whites or privately insured American Indians/Alaska Natives.[121]

The "one-stop shopping" model to provide health services for women has yet to become the norm. Such centers would provide child care along with comprehensive services for the needs of women, including reproductive, internal medicine, mental health, substance abuse, and HIV/AIDS care. In addition, combining at a single site services that in many cultures are

shame-inducing—such as for mental health, sexually transmitted infections, genetic diseases, and substance abuse—would significantly increase the use of these services by women of color.[56] For immigrant populations, providing other services (such as English-as-a-second-language training, job training, or housing services) along with mental health care, for example, would provide a powerful inducement to benefit from all the offerings at a single site.[61]

Need for Physicians and Providers of Color

The Federal Government has designated several racial/ethnic groups as underrepresented among physicians (and other health care providers) and has offered incentives to lessen this underrepresentation based on the dual beliefs that doctors belonging to these racial/ethnic groups tend to locate in underserved areas and that they tend to care for more patients belonging to these groups. Although black Americans were underrepresented as physicians in 1990 (not quite 4 percent of all physicians, yet 12 percent of the general population at that time), their share of the physician population had increased very little since 1950 and is evidence of a long-standing imbalance. Similarly, Hispanics were only 5 percent of physicians in 1990, although they were 9 percent of the U.S. population at that time.[128] In 1989, Hispanic dentists, registered nurses, pharmacists, and therapists only accounted for between 2.2 and 3 percent of these professionals, as well.[129] American Indians/Alaska Natives were only 0.1 percent of all physicians, while they comprised 0.7 percent of the 1990 U.S. population. Asian and Pacific Islander Americans, however, were nearly 11 percent of all physicians, considerably more than the nearly 3 percent they constituted of the U.S. population in 1990.[128]

Not much had changed a decade later. Of those who graduated medical school in 2000–2001, Asian Americans were more than half of the graduates belonging to racial/ethnic subpopulations (who in total made up a third of all U.S. medical school graduates that year).[130] While Asian Americans were overrepresented among medical school graduates, other racial and ethnic groups were underrepresented. Almost 7 percent of graduates were African American, and 6 percent were Hispanic, both of which percentages are less than the respective population shares in 2000 for these groups—12.1 percent (African Americans) and 12.5 percent (Latinos). American Indians/Alaska Natives continued to be underrepresented among medical professionals as well, representing 0.7 of the U.S. medical school graduates at the same time that they constituted 0.9 of the total U.S. population.[130]

The distribution of medical school graduates by race/ethnicity in 2003–2004 suggests a continuation of the trend of underrepresentation among subpopulations other than Asians and Pacific Islanders. At that time, nearly two-thirds (64 percent) of medical school graduates were white. The remaining third was dominated by Asian and Pacific Islander students (20 percent).[130] African American medical school graduates were 6.5 percent of the total. Latino graduates comprised 6.4 percent and were constituted as follows: 2.5 percent Mexican American, 2 percent Other Hispanic, 1.9 percent Puerto Rican (both mainland and in the Commonwealth). American Indian and Alaska Native medical school graduates were only 0.6 percent of the total.[130] The composition of the 2007 medical school graduating class suggests that the mismatch between the distribution of medical providers and the general population is likely to persist. The 2007 class includes only 2,197 black, Hispanic, and American Indian/Alaska Native students, out of more than 16,000 students overall.[131]

The Federal Government considers Asian Americans to be overrepresented among currently practicing physicians and surgeons. Asian Americans were 15 percent of all physicians and surgeons in the United States in 2000, while they were only 3.6 percent of the total population.[130] This assessment rests on the belief, however, that all Asian American populations can be served by "generic" Asian health professionals. However, the overrepresentation of Asians as physicians/surgeons is driven by selected populations—Asian Indians, Chinese, and Filipino, primarily—who together accounted for more than three-fourths of all Asian physicians and surgeons in the United States in 2000.[132] Asian Indian physicians/surgeons accounted for more than two of every five (42.6 percent) Asian physicians/surgeons and more than 6 percent of physicians/surgeons of all races/ethnicities in the United States; in contrast, Asian Indians were only 0.6 percent of the U.S. population in 2000.[132] Thus, this mix of providers differs markedly from the representation of Asian Americans in the United States.

The overrepresentation of Asian Americans is evident not only among physicians and surgeons but also among other medical professions. For example, Asians (non-Hispanic) were 28 percent of all

medical scientists, 11 percent of all biological technicians, and 11 percent of all pharmacists in the United States in 2000 (while only 3.6 percent of the total U.S. population).[130] However, Asian Americans are underrepresented in primary care professions and are poorly represented among those who are likely to conduct behavioral or social sciences health research.[61] Thus, the overrepresentation of Asians as medical scientists, physicians/surgeons, and pharmacists must be examined more closely to determine whether women of color belonging to various Asian subpopulations are likely to receive care that is competent for their cultures, or are likely to be included in research that will be structured in a manner to elicit the most meaningful results. Toward this end, in 1997, the U.S. Department of Health and Human Services (DHHS) established the Asian American and Pacific Islander (AAPI) Initiative to eliminate disparities in health status and access to health and human services for these populations.[133] Among other goals, the AAPI Initiative seeks to improve data collection efforts and research about AAPI populations and the training of AAPI health professionals and researchers.

The belief that increasing the numbers of doctors belonging to racial/ethnic subpopulations will increase access to health care for these same populations is supported by data on physician patient load. When compared to the patient loads of white physicians, patient loads in the practices of African American, Asian American, and Latino physicians are more likely to consist of more than half patients of color.[17] In addition, patients of color are five times as likely as white patients to have a physician of color.[17] One recent survey of primary care physicians in California found that, on average, a black physician cared for nearly six times as many black patients and a Hispanic physician cared for nearly three times as many Hispanic patients as did physicians of other racial/ethnic groups.[134] The regional distribution of black and American Indian/Alaska Native physicians, in particular, seems to be influenced by the location of substantial numbers of people belonging to these populations. Students from underrepresented racial/ethnic groups who are trained as physicians have a greater propensity than physicians belonging to other racial/ethnic groups to practice in or close to designated shortage areas with large racial/ethnic populations.[135]

Research on the effectiveness of matching providers and patients on the basis of race or ethnicity is inconclusive, however. Even though there is consensus that the effectiveness of treatment (especially for substance abuse and mental health problems) is enhanced when the provider is culturally knowledgeable, in one study of elderly patients, racial matching of patients and physicians was not found to result in better quality of care.[136] On the other hand, other research shows that racial/ethnic matching of black and Hispanic patients and providers is associated with greater patient satisfaction and the greater likelihood of receiving both preventive care and all needed care within the previous year.[137] Yet other work has shown that black and Latino patients seek care from physicians of their own race/ethnicity because of both personal preference and language, and not just because of geographic accessibility.[137] Thus, there is some evidence that remedying the racial/ethnic mismatch between the distribution of health care providers and the distribution of people of color in the United States could improve both access to care and health outcomes for these populations.

For immigrant populations from Africa and Asia (e.g., Eritreans, Hmong) who may have very distinct cultural mores and who speak languages not readily understood in the United States, having a match between provider and patient or having medical translation services may be critical to the receipt of appropriate medical care. Seeking assistance from family members when communicating with and treating patients may be a dysfunctional approach to providing care if, for example, an African immigrant daughter-in-law rebuffs such a request because it would violate cultural mores if she were to assist the physician when examining her mother-in-law (also an African immigrant).[138]

Non-immigrant populations may confront barriers when seeking care, as well. For Native Hawaiians, one such population, the barriers may result not only from the effects of acculturation and westernization in Hawaii but also from differences in gender, education, norms, and expectations from a medical encounter. (*Note*: Native Hawaiians are defined as individuals whose ancestors populated the Hawaiian islands prior to the first recorded European contact in 1778.[139]) Barriers may exist even in a patient–provider match with Native Hawaiians. For example, a Native Hawaiian physician who is female, highly educated, wealthy, Presbyterian, and raised in Arkansas would

have a different composite culture and might have difficulty relating to a Native Hawaiian patient who is male, has an 8th grade education, is Catholic, makes a marginal income, and lives on Kauai (rather than on Oahu, where Honolulu is located).[139] Both the Native Hawaiian physician described above and a non-Native Hawaiian physician might need to learn to engage in the kūkākūkā or "talk story" process in which the Native Hawaiian patient tells the physician his/her story in his/her words.[140]

One approach to meet the need for the exchange of usable medical information between provider and patient might involve developing an interpreter cultural mediator (ICM) program.[141] Such a program would integrate ethnographic and medical anthropological principles with medical care practices and medical education goals by using interpreter cultural mediators and community advisors as part of the health care team. The ICMs would do more than interpret; they would also provide culturally sensitive case management and followup, and educate providers, residents, and medical students about the cultural issues surrounding a patient's care.[141]

Anticipated growth of the Latino and Asian populations in the United States during the 21st century highlights the need to address the unmet demand for multicultural and multilingual health professionals and for medical translation services.[142] Although the failure of facilities supported by federal funds to have medically trained translators to meet the needs of patients whose primary language is not English violates a civil rights statute (Title VI of the Civil Rights Act of 1964), not all health care facilities currently provide the necessary services. Federal funds are available to reimburse states for their expenditures associated with administrative activities and services necessary to provide oral and written translation services in both the State Children's Health Insurance Program (S-CHIP) and Medicaid.[143]

Another approach to meeting this need would be to make greater use of foreign-trained, non-U.S.-citizen health professionals. Often, however, foreign-trained health professionals who immigrate to the United States spend years working outside of their fields because of licensing and certification requirements in this country.[144,145] To address this issue and expand the pool of medical care providers able to provide culturally competent care to immigrants, a recent report about the health needs of African immigrants recommended the establishment of a health professionals education program for African immigrants and refugees who received medical training before their immigration to the United States.[138] Yet other promising practices for providing effective medical translation in settings with limited resources (such as small provider practices) include: recruiting bilingual staff for dual roles (such as front desk and interpreter positions), and providing ongoing cultural and language competency training for interpreter staff.[146,147]

In December 2000, the U.S. DHHS Office of Minority Health published its final recommendations on national standards for culturally and linguistically appropriate services (CLAS) in health care.[148,149] The 14 standards fall under three broad headings: culturally competent care, language access services, and organizational supports for cultural competence. One key standard states that, "Health care organizations should ensure that staff at all levels and across all disciplines receive ongoing education and training in culturally and linguistically appropriate service delivery."[148] A recent review of cultural competence educational interventions for health care providers found strong evidence that cultural competence training improves the knowledge of health professionals.[150] This review also found good evidence that cultural competence training improves not only the attitudes and skills of health professionals but also patient satisfaction.[151]

Recent research into patient–physician communication during medical visits has revealed subtleties that can influence patient satisfaction as well as patient participation in their health care and, thus, their health outcomes. One analysis found that Hispanics and Asians were more likely (than either blacks or whites) to report less satisfaction with health services, in large measure due to the quality of their physician interactions.[152] Another study found that regardless of race of physician, patient-physician communication during medical visits differed for African American and white patients. Physicians were 23 percent more verbally dominant and engaged in 33 percent less patient-centered communication with African American patients than with white patients.[153] Patient-centered communication, especially patient input in the dialogue, is associated with better patient recall of information, treatment adherence, satisfaction with care, and health outcomes. Failure to apply cultural competence standards and to support the development of multicultural and multilingual health professionals would discount the degree to which language and culture influence access to and utilization of

services and could, thereby, contribute to continued unnecessary disease and death for women and men of color in the United States.

Conclusion

Women of color are members of extremely heterogeneous groups. For example, Hispanic women include both Puerto Rican women born with U.S. citizenship but who have higher than average infant mortality rates, and Mexican American women, many of whom are foreign-born and have lower than average infant mortality rates.[154] Asian American women, as another example, include two subgroups (Asian Indians and Japanese) both of whom are highly likely to get early prenatal care—80 percent of Asian Indian women and 90 percent of Japanese women.[155] However, Asian Indian women are much more likely to give birth to infants with low birthweights than are Japanese American women.[155,156] In addition, American Indian women in the Southwest have low breast cancer mortality rates, while their counterparts in the Plains and Northwest states have significantly higher rates.[157] Finally, babies born to black immigrant mothers are low weight less often than babies born to black native-born mothers, as illustrated by recent birth outcome data for Cape Verdean, Dominican, and other black women in the state of Massachusetts.[158]

Using generalizations to create health profiles for women of color can be dangerous and misleading because exceptions abound. In addition, structural problems—such as limited employment opportunities, the lack of resources beyond those to meet basic needs, and the lack of public transportation—all contribute adversely to an individual's ability to change health-risk behaviors and less desirable outcomes. The challenge becomes to refine the knowledge and understanding about these groups to the point that individualized care can be provided to each and every woman of color, regardless of race or ethnicity and health status. Thus, programs designed to respect cultural norms and values and that are cognizant of structural limits will be the most effective means to enhance the health of women of color.

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