Women of Color Health Data Book

OFFICE OF THE DIRECTOR

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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 six months.

Originally published in 1997, this second 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 is to be adopted by other federal entities as soon as possible but not later than January 1, 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 effect 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 policy makers 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 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/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, selected populations of Asian women (Japanese, Filipino, and Chinese in both Hawaii and California) and Hispanic women (in California and Puerto Rico) report the longest life expectancies among women, equaling or exceeding that of white women. American Indian/Alaska Native and black American 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, for whom they are the second major cause of death.

- In addition to heart disease, other prominent causes of death for women of color are: cancers (especially for blacks), diabetes mellitus (all women of color), cerebrovascular diseases (especially American Indians/Alaska Natives), unintentional injuries, and HIV/AIDS (especially black women).

- Obesity, a problem for many women of color, is related in part to sedentary lifestyles and "diets of poverty" (high in fat and low in fruits and vegetables) and contributes to the development of both diabetes and heart disease. American Indian, Native Hawaiian, American Samoan, and black women are the most likely to be overweight or obese.

- Cigarette smoking among black females of all ages has declined since the late 1980s, although smoking has increased slightly among younger Hispanic and Asian American women over this period. Between 1997 and 1999, American Indian/Alaska Native women (32 percent) reported the highest smoking rate, followed by black women (21 percent) and Latinas (13 percent).

- Most new cases of AIDS (acquired immunodeficiency syndrome) among women are reported among African American and Hispanic women. Eighty percent of the new cases reported among women in 2000 were among these two subpopulations that together constitute only 25 percent of all women.

- The incidence of low- and very-low-birthweight infants varies considerably by the race/ethnicity of the mothers of the infants. For example, in 1999, non-Hispanic black mothers were most likely to give birth to low-birthweight infants (13 percent of live births to these mothers), while Chinese mothers were least likely to do so (5 percent).

- Many women of color do not avail themselves of preventive health tests such as Pap smears and breast exams 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, one study found that two-thirds of Asian immigrants in California had never had a Pap smear, and 70 percent had never had a mammogram.

- People of color were disproportionately represented among the nearly 43 million people without health insurance in 1999. Among the low-income people within each racial/ethnic group, the most likely to be uninsured were Hispanics (44 percent), Asians and Pacific Islanders (42 percent), and blacks (28 percent).

- Although the measured incidence of depression and other mental health problems varies by study and among subpopulations of women of color, a majority of Hispanic, African American, and Asian women in one study reported an unmet need for mental health care in the past year.

- Collecting data about women of color is problematic, with undercounting, failing to collect data for the subpopulations within each group, and misidentifying women of color being some of the major issues.

- A greater number of community-based medical facilities with culturally sensitive health care providers are needed to serve women of color.

FACTORS AFFECTING THE HEALTH OF WOMEN OF COLOR

FACTORS AFFECTING THE HEALTH OF WOMEN OF COLOR

Ethnic and Racial Heritage

Of the more than 281 million people counted by the 2000 Census as United States residents (as of April 15, 2000), more than half (143,368,343 or 50.9 percent) were women.[1] More than 41 million of these were women of color. These 41.4 million women of color were distributed as follows: 43 percent black non-Hispanic, 41 percent Hispanic, nearly 13 percent Asian non-Hispanic, 0.4 percent Native Hawaiian or Other Pacific Islander (non-Hispanic), and 2.5 percent American Indian/Alaska Native (non-Hispanic). Women of color are more than a fourth (nearly 29 percent) of all U.S. women. In raw numbers, there are nearly 18 million black (non-Hispanic) women, slightly more than 17 million Hispanic 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.[2]

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 between the two years. Allowing respondents to select multiple racial/ethnic classifications in 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 only, and the other is the number of persons who indicated either the given race alone or in combination with other races. Having multiple totals for racial/ethnic categories in 2000 means that comparisons of population growth rates between 1990 and 2000 will vary. For example, the American Indian/Alaska Native population increased by nearly 38 percent between 1980 and 1990.[3] 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).[4]

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 percent 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.[4] Despite changes in the definition of some Latino subgroups, 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 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 decennial census. The new race/ethnicity terminology is to be adopted by other federal entities as soon as possible but not later than January 1, 2003.[5] To the extent that data are not available for some of the population subgroups as defined in 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).

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,

TABLE 1
Differences in Population by Race and Ethnicity, 1990 to 2000

	1990 Census		2000 Census			
RACE	*Number*	*Percent of Total Population*	*Race Alone*	*Percent of Total Population*	*Race Alone or in Combination**	*Percent of Total Population**
Total Population	248,709,873	100.0	281,421,906	100.0	281,421,906	100.0
American Indian or Alaska Native	1,959,234	0.8	2,475,956	0.9	4,119,301	1.5
Native Hawaiian or Other Pacific Islander	365,024	0.1	398,835	0.1	874,414	0.3
Black or African American	29,986,060	12.1	34,658,190	12.3	36,419,434	12.9
White	199,686,070	80.3	211,460,626	75.1	216,930,975	77.1
Asian	6,908,638	2.8	10,242,998	3.6	11,898,828	4.2
Some Other Race	9,804,847	3.9	15,359,073	5.5	18,521,486	6.6
HISPANIC OR LATINO AND RACE	*Number*	*Percent of Total Population*	*Race Alone*	*Percent of Total Population*	*Race Alone or in Combination**	*Percent of Total Population**
Total Population	248,709,873	100.0	281,421,906	100.0	281,421,906	100.0
Hispanic or Latino (of any race)	22,354,059	9.0	35,305,818	12.5	35,305,818	12.5
Not Hispanic or Latino	226,355,814	91.0	246,116,088	87.5	246,116,088	87.5
American Indian or Alaska Native	1,793,773	0.7	2,068,883	0.7	3,444,700	1.2
Native Hawaiian or Other Pacific Islander	325,878	0.1	353,509	0.1	748,149	0.3
Black or African American	29,216,293	11.7	33,947,837	12.1	35,383,751	12.6
White	188,128,296	75.6	194,552,774	69.1	198,177,900	70.4
Asian	6,642,481	2.7	10,123,169	3.6	11,579,494	4.1
Some Other Race	249,093	0.1	467,770	0.2	1,770,645	0.6

Source: U.S. Census Bureau. Population by Race and Hispanic or Latino Origin for the United States: 1990 and 2000. Census 2000 PHC-T1. Table 4. April 2001.
*Numbers for the six race groups may add to more than the total population and the six percentages may add to more than 100 percent because individuals may indicate more than one race.

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 Carribean.

"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. 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.[6]

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 (60 percent) of the persons who classified themselves as "some other race" were Hispanics. This data book does not include findings for persons in this sixth category.

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. The standard order of presentation is: American Indian or 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 between different groups. Also in the year 2000, the National Center for Health Statistics changed the standard million population used for age-adjusting from the 1940 United States population age distribution to the 2000 United States population age distribution.[7] 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 shift in the standard million population used. Thus, some of the age-adjusted data in this edition of the *Women of Color Health Data Book* may differ dramatically from data in the previous edition. These differences, if noted with data that are age-adjusted, may be more "on paper" than real.

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 12 to 15 million Indians were here when Columbus arrived in 1492, 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 part American Indian or Alaska Native.[1] The 2.5 million who identified as American Indian or Alaska Native alone were nearly half women (1.24 million).[4]

American Indians/Alaska Natives are constituted as 556 federally recognized tribes.[8] Each tribe belongs to one of seven nations (such as the Navajo or Iroquois); 226 of these tribes are in Alaska, while the others are in 34 states in the continental United States.[9] Nearly 300 reservations in the lower 48 states and approximately 500 government units in Alaska serve as homes to the tribes.[10]

The many American Indian/Alaska Native subpopulations are culturally distinctive, diverse, and complex, and are growing more than three times as rapidly than the white population. American Indians/Alaska Natives speak more than 300 distinct languages, which makes their dialects more diverse than the entire Indo-European language family.[11] 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 1990 Census reported that nearly three-fifths (59 percent) of the 2.2 million American Indians lived in urban areas, in contrast to a somewhat smaller share of Eskimos (50 percent) and a larger share of Aleuts (69 percent).[12,13] Others estimate that a third live in urban areas, another third live on reservations, and a third move back and forth between the two.[11]

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:

- the rapid and forced change from a cooperative, clan-based society to a capitalistic and nuclear family-based system;
- the outlawing of language and spiritual practices;
- the death of generations of elders to infectious diseases or war; and
- the loss of the ability to use the land walked by their ancestors for thousands of years.[10]

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.[11]

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 more than 800 treaties with tribes, obligating them to maintain a reasonable level of education and health among American Indians/Alaska Natives.[11] 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/Alaska Natives who belong to federally recognized tribes and live on or near the reservations in its 12 service areas. These service areas contain 151 service units (analogous to county or city health departments) that operate hospitals, and health centers and stations.[14] Of the 151 units, the 66 administered by the IHS operated 37 hospitals and 107 health centers and stations as of October 1, 1998. The remaining 85 service units operated by American Indian or Alaska Native tribal governments administer 12 hospitals and 394 health centers, stations, and Alaska village clinics.

Most IHS facilities are located on American Indian reservations, which most frequently happen to be in rural areas.[15] However, 36 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.[14,16,17] These Indian-operated facilities also serve members of tribes that are not federally recognized, i.e., recognized only by their states.[15]

Services in urban areas and in nonreservation rural areas often are very limited and uncoordinated.[10,17] In 1987, only 41 percent of all American Indians/Alaska Natives included in the 1987 Survey of American

Indians and Alaska Natives (SAIAN) reported having IHS facilities as a source of health care all year.[18] An additional 25 percent reported having private coverage and 18 percent reported public coverage throughout the year. The remaining 16 percent indicated that they had some other type of health insurance coverage for part of the year. The SAIAN also found that, among residents of metropolitan statistical areas (MSAs), only 24 percent reported the IHS as their form of health insurance throughout the year, with 35 percent of the residents of MSAs stating that they had private coverage.[18]

The IHS reported its user population for 1997 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 a decline in access by American Indians or Alaska Natives to health care through the IHS. Other sources report much less use of IHS services, including one survey that found only 20 percent of American Indians and Alaska Natives reported use of IHS-administered health care services that year.[15,19] Of the American Indian/Alaska Native population not eligible to use IHS health care services (i.e., 80 percent of the total population), 54 percent had job-based health insurance coverage, 17 percent were covered through Medicaid, and 6 percent were covered through some other source of health insurance. The remaining 23 percent did not have health insurance of any kind.[15]

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 either African American or white women.[20] For example, there is only one IHS-operated service unit east of the Mississippi River (in the Nashville area—Cherokee Hospital in North Carolina) to serve all the American Indians from Maine to Florida.[21] Although the population eligible for care in the Nashville service area is relatively small—76,587—it is spread across more than 13 states in the Northeast, on the Atlantic seaboard, and on the Gulf Coast.[14]

In FY 1999, the number of service units within each service area ranged from two in the Tucson area to 26 in the California service area. The following fiscal year (2000) Tucson still had the fewest health centers,[3] while the greatest number were in Oklahoma (a total of 38). These were the areas with the smallest and biggest service populations—28,567 and 313,116, respectively. Furthermore, both California (131,005) and Portland (155,876) had no hospitals, while Aberdeen (100,441) and Phoenix (146,777) each had eight hospitals.[14,19]

Another barrier to health care access for American Indians/Alaska Natives is a 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. 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.[22]

How has the legacy of American Indians/Alaska Natives in this country influenced the health of Indian women? 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.[23] Forced relocation took place both in the 1830–1850 period, when tribes were relocated from lands east of the Mississippi River to Oklahoma, and during the period 1945 to 1968, when, in an attempt to mainstream them, American Indians were given one-way transportation by the Bureau of Indian Affairs to relocate to urban areas.[9,16,24,25] Instead of mainstreaming, urban living brought continued unemployment and poverty to many American Indians/Alaska Natives. When compared to forced migrants from Indian reservations to urban areas, such as Los Angeles, voluntary migrants tend to be more successful.[16]

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.[26] Specifically, 27 percent of American Indians, 26 percent of Eskimos, and 13 percent of Aleutians reported incomes below the federal poverty level in 1990.[27] Poverty rates among female-headed American Indian/Alaska Native households are even greater than poverty rates for individuals; 26 percent of all American Indian/Alaska Native households were female-headed, and 50 percent of these households had incomes below the poverty level.[3] Fifty-one percent of all female-headed American Indian households had incomes below the poverty level, as did 39 percent and 31 percent of comparable Eskimo and Aleutian households.[27] Half of all American

Indian/Alaska Native children under the age of six are estimated to live in poverty.*

This poverty stems from the high unemployment rates among both American Indian/Alaska Native men and women. In 1990, although unemployment for men of all races was 6 percent, among American Indian men the rate was 16 percent. American Indian women were slightly better off than American Indian men, with an unemployment rate of 13 percent; the rate for women of all races was 6 percent.[14]

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.[28] Sixty percent of both male and female urban American Indians/Alaska Natives are reported to be overweight and, therefore, at risk for diabetes and other illnesses. Approximately 20 percent of American Indians have diabetes, a rate twice that of the general U.S. population. Non-insulin dependent diabetes mellitus has reached epidemic proportions among some tribes.[11,16] Although it remains less of a problem for Alaska Natives than for American Indians, the prevalence of diabetes mellitus among Alaska Natives has increased tenfold between 1960 and 1990.[24] End-stage renal (kidney) disease is 2.8 times as common among American Indians than among whites, and the diabetes-attributable prevalence of end-stage renal disease is 5.8 times that of whites.[28] Neuropathy and amputations also are common among American Indian diabetics. Age-adjusted death rates from diabetes mellitus among American Indians are four times that for whites and twice that for African Americans.[14]

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 study examining the prevalence of cardiovascular disease (CVD) risk factors—hypertension, current cigarette smoking, high cholesterol, obesity, and diabetes—among American Indians and Alaska Natives found that nearly one-fourth (24 percent) of American Indian/Alaska Native women had two or more CVD risk factors. Of all the American Indian/Alaska Native women surveyed, 23 percent were hypertensive, 29 percent were current smokers, and 19 percent were obese (body mass index of 30 kg/m^2 or greater).[29]

Poverty has combined with the historical suppression of indigenous religions and medical practices to place American Indians/Alaska Natives at health risks due to environmental degradation. These health risks result from living in poor quality housing (often with lead-based paint that poisons the children) and exposure to local toxins. Half of all American Indians/Alaska Natives live in areas with uncontrolled toxic waste sites.[30] Of the more than 1,000 open dumps located on American Indian or 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.[31]

Lacking a safe water supply or sewage disposal system or both, conditions which characterized 28,700 American Indian/Alaska Native homes in fiscal year 1995, also places American Indians/Alaska Natives at risk of illness and disease.[32] On some reservations one of every five homes lacks indoor plumbing. From 1993 to 1995, American Indians were the racial/ethnic group most likely to report severe physical problems with their housing.[33] Severe physical problems with housing include complete 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.[34]

The loss of access to traditional environments or ecosystems and the suppression of religious and medical practices threaten the body of knowledge developed from plants and herbs. As the environments supporting plant-derived compounds such as digitoxin and ephedrine are vanishing, the knowledge base among American Indians/Alaska Natives about the use of plants and herbs is vanishing even more rapidly.[11] The fact that the IHS, in several of its facilities both on the mainland United States and in Alaska, allows medicine men and other traditional healers to hold clinic hours and treat patients in its facilities is a cooperative activity that may help counteract this. 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.[11]

* The poverty level differs for individuals and families by household composition and by size. For example, in 1999, although the poverty income level, or threshold, for four-person families averaged $17,029, this average includes a threshold of $16,895 for a four-person family with two children and two adults along with a threshold of $17,465 for a four-person family with one child and three adults.[26] Thus, it is difficult to report the income levels that represent poverty for the populations discussed.

The loss of access to the lands their ancestors roamed freely has extinguished the traditional gender roles for American Indian/Alaska Native males (as hunters, horsemen, and protectors). American Indian/Alaska Native men often have channeled their rage about this against American Indian/Alaska Native women, who must still fulfill the caretaker role for their families. Family violence among American Indians/Alaska Natives takes many forms—child abuse and neglect, elder abuse, spouse battering, spouse abandonment, and sexual abuse of young children.[23] Violence is reported in 16 percent of all marital relationships among American Indians/Alaska Natives, with severe violence reported in 7 percent of these relationships.[11] American Indian victims of intimate and family violence are more likely than victims of other races to be injured and need medical attention.[35]

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.

Alcoholism and its multigenerational effects is 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) by escaping into alcohol and drugs; doing so, though, contributes to higher mortality rates.[36] Among American Indian and Alaska Native women, death rates associated with alcoholism are much higher than among women of all races. For the 1994–1996 period, mortality due to alcoholism among American Indian/Alaska Native women ages 25 to 34 years was nearly 21 per 100,000 population, in contrast to the slightly more than 1 per 100,000 rate for women of all races. American Indian/Alaska Native women ages 35 to 44 had a mortality rate due to alcoholism of 67 per 100,000 in 1994–1996, nearly 14 times the rate of U.S. women of all races.[14]

American Indian/Alaska Native women who are alcoholics or substance abusers, however, seldom receive hospitalization, detoxification, or counseling for their addictions. Instead they are often jailed and lose their parental rights.[11] In addition, alcoholism and substance abuse among their daughters often adds to the stresses of elderly American Indian/Alaska Native women who wind up parenting their grandchildren and/or great-grandchildren, as well as managing the chronic diseases typical in older women.[23] The failure of addiction treatment programs, in particular, to incorporate healing elements from Native cultures, such as the medicine wheel, into their service offerings creates another barrier to seeking care. Many Natives view the use of Euro-American treatment models that focus on a single disease rather than the whole person as another form of oppression. This view thus renders the programs ineffective for American Indians/Alaska Natives.[11,37]

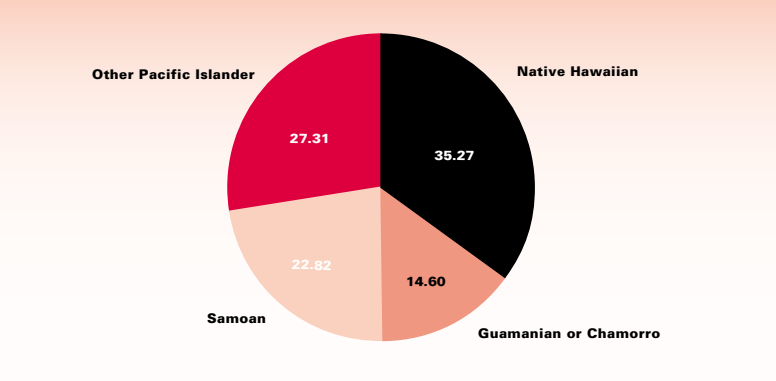
The prevailing life circumstances for many American Indian/Alaska Native women jeopardize their health in yet another way, because poverty, low self-esteem, alcoholism, and substance abuse may interfere with their ability to seek preventive health care. The necessity of patronizing culturally insensitive providers located at great distances limits preventive health practices, thus placing the day when measures such as breast self-examination have been adequately taught and accepted in American Indian/Alaska Native communities far into the future.[23] Preventive health care for cancers may be even longer in becoming a reality because there are no words for cancer in some of the languages of indigenous people. Many feel that talking about the disease will bring it on and hold fatalistic views of it. In other Native traditions, cancer survivors are stigmatized.[11]

The response to the human immunodeficiency virus/acquired immune deficiency 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 treatment to them. The terms HIV infection and AIDS have not been given a meaning in all the indigenous languages.[38] Thus, these conditions cannot be discussed in local tongues, nor can indigenous healing processes be applied to them. The stigma and homophobia associated with HIV infection and AIDS within some American Indian/Alaska Native communities further compounds the difficulty of addressing this health problem.[39] In addition, because the federal government does not pay American Indians/Alaska Natives to be tested for HIV infection—as it has paid them to participate in other federal health programs—many American Indians/Alaska Natives are both skeptical

of the need for testing and unwilling to get it. The lack of confidentiality in IHS clinics also keeps many American Indians/Alaska Natives from getting tested and treated.[11]

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, without a spokesperson who is an American Indian/Alaska Native to bring the message home in the way former basketball star Magic Johnson has for many young people and for black Americans.[38] Recently, a government-sponsored initiative, in partnership with the National Native American AIDS Prevention Center (NNAAPC), began work to destigmatize HIV/AIDS in American Indian/Alaska Native communities. The NNAAPC has been active in indigenous communities since 1988, and thus has earned respect from many American Indian/Alaska Native communities.[39]

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



Source: U.S. Census Bureau, Census 2000. *Profile of General Demographic Characteristics for the United States: 2000.* May 15, 2001.

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 400,000 were women (both Hispanic and non-Hispanic).[4] 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.[1] Of those who identified their race as Native Hawaiians or Other Pacific Islanders only, Native Hawaiians are the largest subpopulation, constituting 35 percent of all Pacific Islanders (140,652), with Samoans the next largest group at nearly 23 percent (91,029). Additionally, Other Pacific Islanders were 27 percent of this population (108,914).[40]

Native Hawaiians or Other Pacific Islander Americans come from more than 22 islands—either Polynesian, Micronesian, or Melanesian—and speak as many as 1,000 different languages.[41,42] The vast majority are from Polynesian islands, the islands in the central and south Pacific that are farthest from Asia. In 1990, 85 percent of Pacific Islanders—to be exact, more than 211,000 Native Hawaiians, nearly 47,000 American Samoans, and nearly 18,000 Tongans—were Polynesians.[41,43] Ninety-three percent of the residents of American Samoa are Polynesian, including both Samoans and Tongans (who are 4 percent of the population), along with the 2 percent who are white, and the 5 percent who are of other racial/ethnic groups.

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.[40,41,43] 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 native Chamorro of Guam, who have intermarried with settlers primarily from Spain, Japan, the Philippines, and the 50 U.S. states.[40] The Chamorro are nearly half of the residents of Guam, with Filipinos a fourth, Chinese and Japanese together close to a fifth, and whites 10 percent.[44] The second largest group of Micronesians are Belauans (formerly Palauans), who numbered just over 1,400 in 1990.[41] Other Micronesian Islands include the Carolines, the Marianas, the Marshalls, and the Gilberts (now the Republic of Kiribati).[45] Melanesians are only 2 percent of Pacific Islander Americans, with the more than 7,000 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.

Close to half (45 percent) of all Pacific Islander Americans lived in Hawaii in 1990; an additional

30 percent lived in California, 4 percent in Washington, and 2 percent each in Texas and Utah.[41] According to the 2000 Census, more than 113,000 persons who designated themselves as Native Hawaiian or Other Pacific Islanders alone resided in Hawaii (more than 9 percent of the state's population); when considering those who answered 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).[46] In addition, half of the Samoans counted in the 1990 Census lived in California; a fourth of all Tongan Americans lived in Utah, many of them Mormon converts brought to the United States by missionaries.[41]

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. The Commonwealth of the Northern Marianas, however, provides a lesser tier of health facilities and care to its residents. The Republic of Belau and the Federated States of Micronesia have old hospitals and provide a generally poorer level of care than the other islands already noted.[47]

Native Hawaiians

Native Hawaiians are individuals whose ancestors were natives of the Hawaiian Islands prior to initial contact with Europeans in 1778.[11,48] 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.[49] 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 small pox, measles, whooping cough, and influenza. Poor housing, inferior sanitation, hunger, malnutrition, alcohol, and tobacco use also contributed to the decline.[49]

The political and economic transformation of Hawaii associated with statehood and with the development of a modern commercial/service economy has resulted in the loss of land and political power for Native Hawaiians.[48] In the early 1900s, demands for labor to work in the expanding plantation economy, which could not be met locally, were satisfied by the immigration of more than 250,000 foreign laborers, most of them Japanese and Filipino. In later waves and smaller numbers, laborers also came to Hawaii from Portugal, Puerto Rico, Spain, and Korea.

As a result, the population of Hawaii today is multiracial/ethnic with only an estimated 8,000 full-blooded Native Hawaiian descendants remaining.[50] However, more than 80,000 residents of Hawaii chose Native Hawaiian as their sole racial identification in the 2000 Census.[46] Native Hawaiians are today defined to include both "pure" Hawaiians and part-Hawaiians. They are the fastest growing racial/ethnic group on Hawaii. In 1996, Native and Part Hawaiians combined were a little more than a fifth of the population on Hawaii (21 percent) and accounted for a third (34 percent) of the newborns on the Hawaiian islands.[50,51]

Native and Part Hawaiians own less than 1 percent of the Hawaiian islands, although they are attempting to regain their sovereignty over more of the state.[11] According to a 1999 public opinion survey, land—including land rights and homelands—is the main issue of concern to Native and Part Hawaiians.[52]

Of the more than a third of Native Hawaiians who reside outside of the state of Hawaii, 70 percent are in the West (i.e., the Mountain or Pacific states).[50] Nearly three-fifths (59 percent or 42,285) of the Native Hawaiian population on the mainland United States live in the states of California, Oregon, and Washington. In addition, 12 states report 1,000 or more Native Hawaiians. Most statistics for Native Hawaiians, however, represent the two-thirds of the population residing in the state of Hawaii.

The health problems of Native Hawaiians today in large measure reflect their socioeconomic status. In 1990, more than 12 percent of Native Hawaiians lived in households with incomes less than $15,000, and these Native Hawaiians constituted 22 percent of all the individuals in the state of Hawaii in households with incomes at this level.[50] In addition, although 6 percent of all families in Hawaii had incomes below the poverty level in 1989, 14 percent of all Native Hawaiian families had poverty level incomes.[50] Median household income of $36,135 for Native Hawaiians, however, was close to the state median of $38,829 in 1989. Households headed by Native Hawaiian females and with no husband present had 1989 median income of $17,493, considerably below the state median.[50] Thirty-five percent of these female household heads had incomes below the poverty level. Of the 83,919 recipients of government aid in Hawaii in 1999,

28 percent were Native or Part Hawaiian, 7 percentage points greater than their share of the state population.[50] Of the Native Hawaiian recipients of state government assistance, 94 percent received welfare assistance, formerly Aid to Families with Dependent Children (AFDC) and, currently, Temporary Assistance to Needy Families (TANF).[50]

Poverty among Native Hawaiian women is associated with their labor market outcomes. Although Native Hawaiian women were 11 percent of the females in the civilian labor force, they were 18 percent of the unemployed females in the civilian labor force in 1998. The 1998 unemployment rates for both Native Hawaiian females and males are around 6 percent.[50] In addition to often being unemployed, Native Hawaiians frequently are employed part time or are marginally self-employed in agriculture or fishing.[48]

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 study comparing whites, Japanese, Native Hawaiians, Filipinos, and Chinese in Hawaii, Native Hawaiians ranked highest in all the behavioral risk factors (not using seat belt, being overweight, smoking cigarettes, using alcohol, and driving while intoxicated) except physical inactivity.[53] Although the 1976 to 1980 National Health and Nutrition Examination Survey (NHANES) II reported that 27 percent of all U.S. adults 20 to 59 years of age were overweight, in 1985, a study of residents of Hawaiian Homestead lands (allocated for long-term lease in individual parcels to persons with at least 50 percent Native Hawaiian ancestry) on the largely rural island of Molokai found that 65 percent of these Native Hawaiians ages 20 to 59 were overweight. Being overweight is defined as having a body mass index [weight/height^2] 20 percent or greater than the average body mass index for whites. By this measure, Native Hawaiian females were 50 percent more likely to be overweight than all U.S. females.[54] Smoking rates among the Molokai Native Hawaiian females—34 percent reported being current smokers—also were slightly higher than the 31 percent of U.S. females who reported that they were current smokers. An additional 15 percent of the Molokai Native Hawaiian females indicated that they were past smokers. Among Native Hawaiians on all the Hawaiian islands, 63 percent were found to be either overweight or obese in 1998.[55]

Obesity is implicated in the high rates of diabetes among Native Hawaiian women, especially those 35 years and older, who account for 36 percent of all cases reported in the state of Hawaii.[50] In addition, 47 per 1,000 Native Hawaiians are known to be diabetic.[55] Among Native Hawaiians in the Molokai Homestead study, evidence was found not only of diabetes but also of inadequate control for it, even among persons who knew that they had the condition.[54] The levels of sugar measured in the blood and detected in the urine of Native Hawaiians known to have diabetes indicate poor control of this chronic disease. Another indication of poor diabetes control is the diabetes-related death rate of nearly 35 per 100,000 among Native Hawaiians residing in Hawaii.[56]

As suggested by the evidence with diabetes, 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.[48] This pattern shows up in the entry into prenatal care by Native Hawaiian women, who are 25 percent of the pregnant women on Hawaii.[50] Although more than 79 percent of Native Hawaiian women began prenatal care in the first trimester in 1999, this is less than the nearly 86 percent of all women in Hawaii who got care early in their pregnancies.[57] Five percent of Native Hawaiian women waited until the third trimester to seek prenatal care. In addition, more than 43 percent of those who received no prenatal care were Native Hawaiian mothers.[50] Late or no prenatal care often is implicated in low birthweights among infants. In 1996, Native Hawaiian newborns with low birthweight (less than 2,500 grams) were 24 percent of all infants born in Hawaii with low birthweight.[50]

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 a problem for Native Hawaiians of all ages. The hypertension rate for the Native Hawaiian population in 1998 was 103 per 1,000.[55] Even among Native Hawaiians between the ages of 6 and 18 years, the rate per 1,000 of 1.2 is double that for other ethnic groups in the state (0.6 per 1,000). Among Native Hawaiians ages 36 to 65, the rate per 1,000 of 197 exceeds the rate of 130 per 1,000 reported by the other racial/ethnic groups on Hawaii.[50] The fact that the incidence of hypertension and heart disease among Native Hawaiians throughout the life span exceeds those among Hawaiians who are not natives suggests that the process underlying these diseases begins early in the lives of Native Hawaiians. To address this health problem, screening and prevention programs for circulatory diseases should be aimed at young Native Hawaiians.[58]

Breast cancer is the most common cancer among Native Hawaiian females, with the peak incidence of all cancers occurring among 65- to 74-year olds.[59] Cases of cancer among Native Hawaiian females younger than 45 years of age, however, comprise nearly a quarter of all cases among women on the islands.[49] Because the perception of cancer in Hawaiian culture is bound up with beliefs about guilt and retribution, Native Hawaiian breast cancer patients often are fatalistic and do not vigorously fight their disease.[60]

AIDS also affects Native Hawaiian females more than other females in Hawaii. As of the first half of 2001, nearly 11 percent of all AIDS cases reported in Hawaii since 1983 were among Native Hawaiians.[61] Between 1996 and 2000, 16 cases of AIDS were reported among Native Hawaiian females, nearly a quarter (24 percent) of all AIDS cases reported among females in the state of Hawaii during that period.[62] A fifth of all AIDS deaths between 1989 and 1996 and a fourth of all AIDS deaths in 1996 alone for the state of Hawaii occurred in Native Hawaiians.[50]

Efforts to modify behavior among Native Hawaiians or Other Pacific Islanders and to improve their health are fraught with obstacles. For example, obesity is acceptable within Polynesian cultures where large body size is equated with power and respect.[48] In addition, efforts from outsiders to bring about behavior changes are viewed by Native Hawaiians as infringements on their traditions, which value integration, balance, and continuity among person, nature, and the spiritual world. Changes may be resisted for this reason alone.[11] For example, 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.[48] Previous experiences with white and other non-Native people also have made Native Hawaiians suspicious of medical researchers and their advice.[54] It may not be realistic to expect Native Hawaiians to give up high-risk behaviors without first solving the socioeconomic problems and cultural conflicts that contribute to these behaviors.[48]

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). 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.[48] 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.[11] The Papa Ola Lokahi clinics and the Native Hawaiian Health Care Systems (NHHCS) are examples of community-based health care centers culturally sensitive to the needs of Native Hawaiians.

Other Pacific Islanders

Samoa, a group of volcanic islands in the southern Pacific Ocean about halfway between Honolulu and Sydney (Australia), is divided into two parts—the United States Territory of American Samoa and Western Samoa, which has been an independent country since 1962.[41] On U.S. soil, most Samoans, the second most populous Pacific Islander group after Native Hawaiians, reside primarily in American Samoa, Hawaii, and California.[63] More Samoans live on the U.S. mainland (nearly 48,000) than on American Samoa, although mainland residents maintain close ties to families in Samoa by visiting on ritual occasions and sending monthly remittances. Many return to the U.S. Territory of American Samoa to live permanently at some point.[44]

Regardless of residence, though, Samoans show high rates of non-insulin dependent diabetes mellitus, with associated morbidity due to hypertension, renal failure, cardiovascular disease, blindness, and amputation.[44] Samoans are among the most obese populations in the world, with Samoans in Hawaii and California even more obese than those in American Samoa.[64] Hypertension also is a problem for adult Samoans, with 13 percent of Samoan women in Hawaii and 18 percent of Samoan women in California reporting this condition.[64] Samoans born in the United States have an increased prevalence of hypertension relative to Samoans born in American Samoa.

Average life expectancy at birth for Samoans is around 72 years, with Samoans sharing the major causes of death with other American subpopulations.[44] 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 American Samoan women living in California and Hawaii.[63] Breast cancer accounted for 22 percent of cancer deaths, while cancers of the lung and bronchus were the causes of 19 percent of cancer deaths

among Samoan women. Cervical cancer accounted for 8 percent of all female cancer deaths.[44]

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. Although this set of islands, located 240 miles southwest of Hawaii (the nearest site for tertiary care for residents of American Samoa), is medically underserved, American Samoa has operated a locally appropriate form of Medicaid since 1983.[44] All inpatient and most outpatient services are provided at the Lyndon Baines Johnson (LBJ) Tropical Medical Center in the village of Faga'alu on the island of Tutuila. For persons living in the urban areas of Tutuila, this aging facility built in 1968 is convenient; however, for persons in rural areas of Tutuila or on other islands within the U.S. Territory of American Samoa, it is difficult to access care. Financial access to services at LBJ is not a problem for the Samoan population because of the Medicaid program. 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.[44]

Samoans living on the United States mainland are more likely to be poor than other Americans and also are less likely to hold higher paying jobs that provide insurance coverage for families.[44] Twenty-five percent of all urban American Samoan families have incomes below the poverty level, compared to 10 percent of all white families. Poverty and low-wage jobs among Samoans are related to their lower levels of education. Samoan women complete high school at lower rates than other U.S. female populations.[44]

Other barriers in access to health care for American Samoans result from their linguistic isolation, their culture and traditions, and their beliefs about the etiology of disease. Among groups on the U.S. mainland, urban American Samoans are one of the most linguistically isolated, as defined by the percentage of households that contain no persons who speak only English or that contain no persons who speak English "very well." Nearly two-thirds of Samoans on the U.S. mainland report that no one in their households age 14 years or older speaks only English, and nearly a third report that no one in their households age 14 or older speaks English "very well."[44,65] Linguistic isolation makes it difficult for Samoans to seek and receive appropriate health care. Samoan traditions as practiced in the U.S. Territory of American Samoa include a simple, close-knit way of life centered around the family (aiga), the chief (matai), the church, and the village. Although Samoans living in California, Hawaii, and Washington tend to live in similarly close-knit, well-defined communities and to establish close ties to their churches, only in Hawaii, where the Samoan community is visible and concentrated in three distinct areas (Laie, Kalihi, and Waianae), have community-centered clinics been developed to provide culturally appropriate health care and education.[44]

Part of the difference in hypertension prevalence between Samoans in American Samoa and on the mainland United States has been attributed to the loss of the protective effect of the strong traditional social structure among older Samoans.[66] The high rates of suicide among Samoans have been explained in a similar way. Some see the high Samoan suicide rates as a continuation of a "culturally sanctioned response to inescapable stressful situations."[67] Others see the suicides as the result of the conflict between traditional Samoan values and newly introduced values.

Finally, Samoan beliefs about the etiology of disease often constitute a barrier for them when seeking care. Samoans attribute disease states to such factors as too much work, too little sleep, the weather, certain foods, interpersonal frictions, or moral/religious issues. They thus often delay seeking care for conditions that are treatable or preventable.

Other Pacific Islanders, especially if living in urbanized/westernized areas, also report glucose intolerance or diabetes. For example, 11 percent of urban Polynesian women (other than Native Hawaiians and Samoans) report diabetes, while in rural areas between 1 percent and 4 percent report the condition.[54] Micronesians from Nauru, an affluent and relatively westernized place, have a 30 percent prevalence rate for diabetes, while Melanesians on Fiji report low rates—1 percent in the rural areas and 4 percent in the urban areas.[54] In 1999, 14 percent of the Chamorro residing in Guam were diabetic. In Guam, diabetes is the fourth leading cause of death, with the diabetes-related mortality rate in 1998 almost 24 per 100,000.

Diabetes is prevalent among native Micronesian populations, regardless of urban/rural residence, although prevalence does vary by age group. Almost twice as many Pohnpeis ages 35 to 44 are diabetic (14 percent), as are Kosraes and Chuuks in the same age group (7 percent and 9 percent, respectively) in Micronesia. About a fifth of adults ages 45 to 54 belonging to any of these three groups are diabetic. Among 65- to 74-year olds, Pohnpeis again are twice as likely as Kosreas and Chuuks to be diabetic (21 versus 9 percent each, respectively). The diabetes

death rate in the Federated States of Micronesia between 1990 and 1997 was almost 32 per 100,000. Diabetes is also one of the leading causes of death in the Marshall Islands and Palau.[56]

Another female Pacific Islander population—women of the Marshall Islands—has high cancer incidence rates, believed to be the result of nuclear bomb testing during the 1950s and of the subsequent dumping of nuclear waste on the islands by the U.S. government. Resulting radiation exposure is believed to be at least partly responsible for breast cancer incidence and mortality rates among women of the Marshall Islands that are 5 times those of white women, and cervical cancer incidence among Marshallese women that is 75 times that of white women.[59]

Hispanics or Latinos

The earliest forebearers of the group known today as Hispanic Americans or Latinos were Spanish colonists in the late 1500s who came from Mexico to live in what is now the Southwestern United States. The descendants of these forebearers and of other Spanish-speaking populations who arrived after them constitute the largest of the ethnic groups in the United States, now numbering 35.3 million, with an additional 3.8 million Hispanics residing in the Commonwealth of Puerto Rico.[6] Latinos are 12.5 percent of the total U.S. population. The more than 17 million Hispanic women were a little less than half of the total Hispanic population in 2000.[68]

Today, those who identify themselves as Hispanics come from a variety of different 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.[69] 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 constitute 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").[6]

According to the Current Population Survey, a nationally representative monthly survey of 50,000 American households, nearly two-fifths (39 percent) of all Hispanic Americans were foreign-born, and 61 percent of the infants born to Hispanic women in 1999 were born to women who themselves had been born outside the 50 states and Washington, D.C.[57,70]

TABLE 2
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
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
Argentinean	100,864	0.3
Bolivian	42,068	0.1
Chilean	68,849	0.2
Colombian	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
Spaniard	100,135	0.3
All Other Hispanic or Latino	6,111,665	17.3
Total	35,305,818	100.0

Source: Guzman, Betsy. *The Hispanic Population: Census 2000 Brief.* U.S. Census Bureau.
*Proportion smaller than .01

More than 90 percent of the nation's Hispanic population is urban, with 46 percent living in the central cities of metropolitan areas.[70] 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.[6] 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 more than twice the national level (more than 24 percent versus almost 13 percent nationally).[6]

Many of the Hispanics in the West live in California, where this population has grown rapidly, increasing fourfold between 1970 and 1998 and reaching 10 million in 1998. In 1990, California was home to almost half of the total U.S. population of Mexican descent and more than a third of the Central and South American population of the United States. Currently, 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.[71]

The Hispanic population in the United States is diverse by many measures. Latinos can be of any race. 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.[72,73] The Hispanic

population includes farm workers—the laborers in this nation with a life expectancy of 49 years, infant mortality rates 25 percent higher than the U.S. average, and higher rates of cancers and reproductive disorders than the general population.[3,74] Additionally, it is estimated that Hispanics comprise about 80 percent of all migrant farm workers—an occupation that is frequently characterized by lack of regular health care and health insurance, and thus an increased incidence of chronic illness and disease.[75] Ten million people on both sides of the U.S.–Mexico border between California and Brownsville, Texas, are Hispanic, with many living in colonias, unincorporated areas often lacking septic tanks, sewers, and running water.[76] Hispanics also include people from Spanish-speaking countries (such as certain parts of El Salvador and various regions of Mexico) whose primary language is not Spanish.[77,78]

Although median age for the Hispanic population is 26 years (compared to a median age of 35.3 years for the entire U.S. population in 2000), significant differences in age distribution exist among Latino subpopulations. While nearly two-fifths (38 percent) of Mexicans and more than a third of Puerto Ricans (34 percent) are under the age of 18, less than a fifth (19 percent) of Cubans are in this age group. However, more than a fifth of Cubans (21 percent) are older than 65.[6,70] In 2000, the median age for Mexicans was 24.2 years, for Puerto Ricans, 27.3 years, and for Cubans, 40.7 years.[6]

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.[79-81] Specifically, Mexican American women are less likely than Cuban, white, or black American women to have hypertension, despite their greater likelihood of being poor than either Cuban or white American women.[82,83] 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 intragroup differences.

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 22.8 percent in 1999.[26] A quarter of Hispanic women had incomes below the poverty line that year as well. This quarter reflects the 29 percent of Puerto Rican females with incomes below the poverty level in 1999, along with the nearly 26 percent of Mexican American females with similarly low incomes.[84] Twenty percent of all Hispanic families had poverty level incomes, as did 14 percent of all Latino married-couple families.[26]

Rates of unemployment and labor force participation account for the poverty levels of Hispanics in part. In 2000, the unemployment rate for the Spanish-origin population (both males and females) of 6.8 percent was double the unemployment rate for the non-Hispanic white population of 3.4 percent. This 6.8 percent unemployment rate was constituted of the 6 percent rate for males and the nearly 8 percent rate for females. The 68 percent share of the Hispanic population in the labor force reflects both the 80 percent share for Hispanic males (which exceeds the 73 percent labor force participation rate for non-Hispanic males) and the 56 percent share for Hispanic females (which falls short of the 61 percent labor force participation rate for non-Hispanic females).[84] As with other measures, for Hispanics, there is variation by subgroup in unemployment and labor force participation rates. Unemployment rates for Mexican Americans (7 percent) are near the Hispanic population average, while rates for Puerto Ricans (8.1 percent) and Other Hispanics (7.8 percent) are greater than this average, and rates for Cubans (5.8 percent) and populations from Central and South America (5.1 percent) are below average.[70]

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 to have incomes below the federal poverty line than other types of households. Nearly 36 percent of Puerto Rican family households are headed by women, as are 27 percent of other Hispanic, 25 percent of Central and South American, 21 percent of Mexican American, and 18 percent of Cuban family households. Although 26 percent of all non-Hispanic female-headed households had incomes below the poverty level in 1999, the corresponding share of Latino female-headed households was 38 percent. This 38 percent share includes the 47 percent of all female-headed Puerto Rican households with poverty level incomes, along with the 38 percent of female-headed Mexican households and 34 percent of female-headed Cuban households with comparably low incomes.[84]

Overall, nearly half (45 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.[26] 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.[85,86]

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 almost 14 percent of Hispanic women reported working but earning poverty-level wages, as did almost 12 percent of all blacks and nearly 16 percent of black females. Only 4 percent of all non-Hispanic whites and 5 percent of non-Hispanic white women reported working for poverty-level wages in 1999.[26]

Hispanics are three times as likely as whites and almost twice as likely as African Americans to be full-time workers but to lack health insurance (37 percent for Hispanics, versus 12 percent for whites, and 20 percent for African Americans).[87] Thirty-three percent of the Hispanic population was not covered by health insurance for the entire year of 1999, with persons in the labor force accounting for many of the uninsured.[88] This reflects the 40 percent of Mexican Americans, the 31 percent of Other Hispanics, the 19 percent of Puerto Ricans, and the 18 percent of Cubans who are uninsured.[89] 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.[69] 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.[69]

Although government-funded health insurance provides coverage for some Latinos, 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 all the poor. Overall, however, 14 percent of Hispanics younger than 65 years of age are enrolled in Medicaid. This figure incorporates the 13 percent of Mexican Americans, the 25 percent of Puerto Ricans, and the 14 percent of Other Hispanics who are covered by Medicaid.[89] Hispanic residents of New York and California, however, are more likely to be enrolled in Medicaid than are equally poor Hispanics in either Florida or Texas.[76] 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.

Although 54 percent of Hispanic women worked in 1995, half of them worked only part time.[90] The major occupation of Hispanic women was clerical and administrative support (24 percent), with the next largest share (18 percent) in professional specialties. This pattern differs, however, by Hispanic subgroup. While the leading occupation for Hispanic women of each subgroup continues to be clerical and administrative support, service occupations are the second leading category for Mexican, Puerto Rican, and Other Hispanic women. Among Cuban women, sales 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 sales occupations. Seventeen percent of Hispanic women made at least $35,000 in 1999, about half of the 33 percent of non-Hispanic women who earned the same.[84]

In addition, large proportions of Hispanic women work in the semiconductor and agriculture industries, both of which have occupational hazards.[72] 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.[72,91]

Along with socioeconomic status, cultural context or acculturation—the process of change that occurs as a result of continuous contact between cultural groups—plays a major role in the access of Hispanic populations to health care.[92] More acculturated Hispanics (as reflected by greater use and skill with the English language, lessened contact with their homeland, and greater involvement with the Anglo American

culture) would be expected to adopt behaviors and have health outcomes similar to the dominant Anglo culture.[93] In cancer studies in Los Angeles, for example, Hispanics born in the United States, regardless of their socioeconomic status, appear to lose the low cancer risk associated with being born abroad and replace it with the higher cancer risk of their non-Hispanic Anglo neighbors.[73]

Less acculturated Hispanic immigrants, however, have a significantly lower likelihood of outpatient visits for health problems (both physical and mental). 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. Less acculturated, first generation Mexican American women have a lower incidence of low-birthweight infants (4 percent of live births) than white non-Hispanic women (6 percent of live births) and than second-generation Mexican American women (6 percent of live births).[94]

Similarly, immigrants from Mexico to the United States have been found to have lower lifetime prevalence of phobias, alcohol abuse or dependence, drug abuse or dependence, and major depression than native-born Mexican Americans.[95] One 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 far surpasses their standard of living in Mexico.[95,96]

Hispanics, in general, are more obese, less physically active, and less likely to participate in lifestyles that promote cardiovascular health. This physical inactivity even affects less-acculturated Mexican Americans and generally mitigates the generally better health outcomes of first generation Latino immigrants.[97] 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.

As a consequence, Latinos are more likely to have diabetes than the general U.S. population. The prevalence of diabetes among Mexican Americans is two to five times that among other racial/ethnic groups.[98,99] In addition, the San Antonio Heart Study has shown that Mexican American diabetics are about six times as likely to have end-stage renal disease and three times as likely to have retinopathy as are non-Hispanic white diabetics.[99]

Hispanics who are more acculturated tend to have less centralized body fatness than their less acculturated peers, however, and are therefore at lower risk for chronic diseases such as diabetes and heart disease. More acculturated Hispanics are likely to have intermarried with groups other than Indian populations, who have a high prevalence of obesity and associated health problems, and, thereby have altered their genetic material enough to reduce their risk factors for these diseases.[100] The admixture of Indian genes has been found to be more prevalent in Mexican Americans of low socioeconomic status than in Mexican Americans of higher socioeconomic status. Coupled with the fact that Mexican Americans of low socioeconomic status are more likely to be obese and to have a less favorable distribution of body fat than other Hispanics, these findings partially explain the differentially greater prevalence of diabetes among Mexican Americans.[99,101]

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." Racial identification among Latinos is likely to be influenced by changes in the racial hierarchies and construction of race in the United States 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.[102] The process of cultural adaptation and life experiences in the United States also influence the adoption of a racial moniker by Latinos.

Experiences with discrimination and exclusion can frustrate expectations of improved socioeconomic status when the dominant culture's values are adopted.[103] This may explain the fact that among more acculturated, younger Hispanic women, alcohol consumption has been found to be greater than among less acculturated, younger Hispanic women in the face of traditional Hispanic values that discourage drinking by women.[104,105] When measured by language use and a series of sociodemographic variables (such as education, marital status, income, and employment), greater acculturation is found to be associated with the likelihood of being a drinker and with the frequency of consuming alcohol among Puerto Rican, Cuban, and Mexican American women.[105] For example, better educated Mexican American women were more likely to

be drinkers and to drink frequently than those with less education. However, Mexican American women living in poverty were less likely to be drinkers than those not living in poverty. This is true even though Mexican American women drinkers living in poverty consumed more drinks per occasion and were more likely to be heavy drinkers than women with higher incomes.[106]

Highly acculturated Mexican Americans and Puerto Ricans, who are frustrated because they have not enjoyed access to the educational resources of the United States, are the most likely to report marijuana and cocaine use.[107] Intravenous drug use, along with other high-risk health behaviors, is most prevalent among high-acculturated Hispanic women.[108] In one study, 23 percent of high-acculturated Hispanic women reported intravenous drug use, while 4 percent of low-acculturated Hispanic women reported the same. Also varying with acculturation is the frequency with which Hispanic women have multiple sex partners, a high-risk behavior for sexually transmitted diseases and HIV infection/AIDS that affect disproportionately high percentages of Hispanic women. Only 13 percent of low-acculturated, but 31 percent of high-acculturated, Hispanic women reported having had more than one sexual partner within the past 6 months.[108] Further supporting the linkage between acculturation and frustration that may be expressed in high-risk sexual behaviors is the fact that in 1999, 57 percent of Hispanics infected with AIDS were born in the United States.[109]

Other aspects of culture that can influence health are religion, folk healing, and "familism," or family mores. The health beliefs of many Hispanics relate to their views about God as the omnipotent creator of the universe, with personal behavior subject to God's judgment.[93] Beliefs such as these make it difficult to establish the importance of preventive health behaviors and also can make it difficult for Hispanic women to leave abusive relationships. Sometimes religion gives Hispanic women the strength to leave, and, in other cases, it provides the guilt that keeps women in abusive relationships.[85]

The reluctance of users of indigenous healers and folk medicines to disclose their use, and the associated delays in seeking biomedical care while using these treatments, also can jeopardize the health of Hispanics.[110] Family mores that dictate that Hispanics must seek the advice of family members 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.[93,111] 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 socio-economic barriers.[112]

Finally, HIV/AIDS, as it affects the Hispanic community, illustrates the many barriers to effective care that are socioeconomic, cultural, and political. Puerto Ricans, on the mainland United States and on the island of Puerto Rico, have the highest incidence of HIV/AIDS among Hispanics. In 1999, 43 percent of the Hispanics born in the United States who are infected with AIDS were born in Puerto Rico.[109] Puerto Ricans also have several characteristics that distinguish them from other Hispanic subgroups and may contribute to their high rates of infection.[113] 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 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.[113] This has contributed to the heterosexual spread of HIV/AIDS among Puerto Ricans, as has the existence of racially and ethnically homogeneous needle-sharing networks. The frequent and relatively cheap flights between New York and Puerto Rico, and continuous work-related migration between the two, have added to the difficulty in counting and providing continuous care to Puerto Ricans diagnosed with HIV/AIDS.

Cultural factors influence the spread of HIV infection and AIDS among Hispanics because they often are unwilling to discuss intimate and emotional matters such as illness and sex unless they are able to speak to someone in Spanish. Low-acculturated Hispanic women, although less likely to engage in the high-risk behaviors through which they may contract HIV infection, may be at greater risk than their behavior would suggest because they may have little knowledge of their bodies and have little clout when it comes to negotiating condom use with their husbands or sexual partners.[108] Educational programs to prevent HIV/AIDS, which instruct Hispanic women to encourage their sex partners who are intravenous drug users to use condoms, ignore the riskiness of speaking out for Latinas. Suggesting the use of a condom may cause her partner to believe that the Latina either knows too much about sex or is being unfaithful and may place her at risk of either physical or emotional abuse. Successful educational programs for poor Hispanic (and black) women have been difficult to establish,

partly because these women need help in surviving in their daily environments before they can become receptive to skill-building and informational strategies.[108]

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 the last 15 years.[114] 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 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 their several racial affiliations.[1] More than half of all black Americans (slightly more than 18 million) are females.[68] 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).[115] Ten percent reported black and American Indian/Alaska Native, and six percent reported black and 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 of 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).[116]

Heterogeneity within the U.S. black population also results from the immigrants from the Caribbean basin and Africa. Approximately 5 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. 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 ancestry, almost half a million of sub-Saharan African ancestry, and 300,000 of Haitian ancestry.[116] Although these numbers are small relative to the entire U.S. black population, in some places immigrant African Americans and their descendants constitute a substantial proportion of the population. For example, it is estimated that at least 25 percent of the black population in New York is foreign-born West Indian. Thus, though seldom studied, marked differences in acculturation exist among black women and contribute to the diversity of their health outcomes.[108]

Black Americans are a largely urban population (more than 80 percent of all black households in 2000) and can be found in all 50 states.[90,114,117] 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 live in these 13 Southern states—Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.[115] 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 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.[115] In addition, according to Census 2000 numbers, the largest increase of the black population occurred in the South.[118]

However, in spite of their disproportionate representation in the populations of Southern states, while six of the ten states with the largest numbers of African Americans were Southern, several were not—California, Illinois, Michigan, and New York.[115] Using totals for the population that reported black or African American alone or in combination with another population, 3.2 million African Americans reside in New York state, 2.5 million in California, 1.9 million in Illinois, and 1.5 million in Michigan.

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 expectancies than whites. Thus, African Americans are sicker during their lifetimes and younger when they die than any other racial/ethnic group in the United States.[119-123] Morbidity and mortality rates for African Americans from many conditions (cancer, HIV/AIDS, pneumonia, and homicide) exceed those for whites.[121,124] 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.[120,125-127]

Explanations for racial differences in health outcomes have been sought by experts, and many contributing factors have been identified. Although the interactive mechanisms have not been clearly specified, links have been demonstrated between race and blood pressure, mental health, and general physical health status.[123] Three factors—genetics, poverty, and racism—generally are believed to have the greatest influence on the health of black Americans.[119] 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.[128] The small proportion of excess deaths among blacks—that is, deaths that would not have occurred if blacks had the same age- and sex-related death rates as whites—that are due to hereditary conditions suggests that biology explains very little of the differences in health between African Americans and whites. Less than 0.5 percent of black deaths have been attributed to hereditary conditions such as sickle cell anemia.[129,130] On the other hand, researchers studying the prevalence of hypertension among blacks have found that it varies with skin color. 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.[131] One 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.[130] Also, research on the presence of cotinine, a metabolite of nicotine, in the bloodstreams of African Americans, white Americans, and Mexican Americans suggests that (after controlling for the number of cigarettes smoked daily) African Americans retain more cotinine than either of the other groups.[132]

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. Environmental stressors that may increase obesity, for example, have been noted as contributors to the high prevalence of hypertension among black Americans.[119] Those health conditions common among blacks that are considered to be genetic in origin are likely to receive more public attention and resources, however, than conditions that arise from behavior or lifestyle choices. For example, conditions such as sickle cell anemia receive more research attention and public support than health conditions attributable to accidents, substance abuse, and environmentally caused illnesses.[131]

Nearly a fourth (24 percent) of all black Americans lived in poverty in 1999.[26] In addition, a third of blacks under 18 years of age (33 percent) and nearly a fourth of blacks 65 years of age and older (23 percent) reported incomes below the poverty level.[26] Nearly a third (32 percent) of all black women lived in poverty in 1995. In addition, single-parent, female-headed households—44 percent of all black-family households in 1999—were mired in poverty to a greater degree than the entire black population.[3] Almost two-fifths (more than 39 percent) of all people in black female-headed families, but only 7 percent of all people in black married-couple families, had incomes below the poverty level in 1999. In addition, 79 percent of the almost 2 million black families in poverty were maintained by women with no husbands present.[26] Median income for all black households in 1999 was $29,404, with median household income for married-couple black families at $50,758.[3] For black female-headed family households, 1999 median income was $19,133.[133]

More than half of the black work force (52 percent) is female, with many of these workers earning poverty- level wages. Although more than 9 million black women (out of the total of more than 18 million black women) worked in 1999, nearly one-sixth (16 percent) of them earned incomes below the federal poverty level. Nearly a third (a little more than 30 percent) of all young black female workers ages 18 to 24 earned incomes below the poverty level.[26]

The largest shares of employed black women have administrative support (including clerical) or transportation and material moving occupations (both

24 percent).[134] 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.[135] 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.[3]

Inadequate income carries over into other aspects of daily life that impinge upon health. These include inadequate housing (which may quicken the spread of communicable diseases), malnutrition, the stress of constantly struggling to make ends meet, dangerous jobs, and little or no preventive medical care.[130] Malnutrition in young black girls may later result in low-birthweight babies and high infant mortality rates when these girls become mothers. The high black infant mortality rate also has been related to the intergenerational effects of socioeconomic conditions on the growth and development of a mother from her prebirth to childhood, which may in turn influence the intrauterine growth of her child.[136,137] Since many middle-class blacks are the first generation in their families to achieve that status, a black middle-class mother may be giving birth to an infant whose health is markedly determined by maternal childhood poverty.[129] 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.[138]

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.[116,139,140] Symptoms of depression have been found with greater frequency among black women ages 18 to 24 years than among white women.[141] In addition, studies of the effect of employment on women have found that working outside the home can have harmful effects on both mental and physical health if associated with occupational hazards, heavy job demands, or poor social relations at work.[142] Snapp (1992) has found that black professional/managerial workers report significantly lower levels of co-worker support than white professional/managerial workers, a finding that could place this group of women at risk of health problems.[140,143]

Dangerous jobs may expose blacks to certain cancers to a much greater extent than whites.[124,144] Black women are more likely than white women to work in hazardous jobs. Nearly 75 percent of the poultry plants in this nation—similar to the one that caught fire and killed 25 people in Hamlet, N.C., in 1991—are located in the South, in predominantly poor and black neighborhoods. The fire was fatal because locked safety doors prevented people from escaping. Two-thirds of the workforce at this plant (both males and females) was black.[72]

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 that found that three of the four hazardous waste landfills in the Southeast were located in predominantly poor or black areas.[74] A 1992 report by the Environmental Equity Workgroup at the Environmental Protection Agency (EPA) 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. The share of black Americans living in EPA-designated air quality non-attainment areas exceeds that of whites for the following air pollutants—particulate matter, carbon monoxide, ozone, sulfur dioxide, and lead.[145] More than three-fifths of blacks (62 percent) lived in non-attainment areas for ozone, while nearly half (46 percent) lived in non-attainment areas for carbon monoxide. Exposure to environmental lead (via air, water, soil/dust, and food) and the prevalence of high lead levels in the blood (greater than 15 g/dl) also are most common among black Americans (relative to other racial/ethnic groups), but especially so among black children.[145] While poor children of all races are more than twice as likely as children of higher socioeconomic status to have blood lead levels greater than 10 g/dl, this difference is especially pronounced among poor black children. Among children living in households below the poverty line, black non-Hispanic children were almost three times as likely as non-Hispanic white children and more than three times as likely as Hispanic children to have high levels of lead in their blood.[146]

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. In reality, many blacks get little or no preventive care for a variety of reasons, including:

- parental ignorance of disease symptoms and when to seek medical care;

- lack of health insurance to enable access to health care;
- lack of neighborhood facilities in which to seek health care;
- persistent use of emergency rooms to treat chronic conditions, which are better managed in other settings; and
- racial discrimination encountered when seeking care.[129,147]

Older black women are especially likely to report underusing both the Pap smear and mammography, the main screening technologies for cervical cancer and breast cancer, respectively.[148] Lifetime risk for cervical cancer among black women is two per 100, more than double that for white women, and age-adjusted death rates for black women are almost 2.5 times that for whites.[124,149-151] Estimated lifetime risk of developing breast cancer was ten per 100 white women born in 1980 and seven per 100 black women born that same year.[149] However, significantly fewer black than white women survive 5 years after diagnosis with breast cancer (71 versus 86 percent, respectively).[89] A possible explanation for this disparity in mortality is African American women are more likely that white women to be diagnosed with breast cancer at a later stage; the reason for this delayed diagnosis is unknown.[152]

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[153,154] Stress related to racism also may underlie the overeating and resultant obesity common in black women and may be associated with the more than a twofold prevalence of hypertension and the more than fourfold prevalence of diabetes among black women relative to white women 18 to 30 years of age.[155]

High blood pressure in blacks is a response to the incongruity between the social position one's work would typically merit and the position one actually occupies.[156] "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.[157] Other research suggests that blood pressure becomes elevated among blacks in connection with racial discrimination at work, in reaction to movie scenes depicting angry and racist confrontations, and as an internalized response to racial discrimination and unfair treatment.[158] A recent analysis of the relationship between self-reported experiences of racial discrimination and blood pressure among working class black men and women indicates that blood pressure is lower among those who reported they challenged unfair treatment than among those who accepted racial discrimination as an unalterable part of the fabric of U.S. society.[158]

Another response to racism that affects the health of black women is the internalized rage of black men against their mistreatment, which too often is manifest in anger and violent behavior against black women.[159,160] This violence has resulted in the highest reported spousal homicide rates among black women—slightly more than three per 100,000. Deaths among black women due to boyfriend violence are even higher, with a rate of nearly four per 100,000.[161] Racism even influences the response of black women to domestic violence. They often are unwilling to call police for fear that the police will brutalize the men who have battered them.[85]

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.[162] Racial discrimination probably "...exacerbates the mental health-damaging effects of poverty status among blacks."[144] Being black impinges upon health, even at higher income levels. A study of stress found its severity highest in lower-class blacks and lowest in middle-class whites. Even more notable is the fact that middle-class blacks and lower-class whites were found to have similar levels of stress.[144]

Another example of what may be a psychophysiological response to racism is pregnancy outcome. Although there is a significant gap in mortality rates between the infants of all white and black mothers, there is an even greater gap between the infant mortality rates of white and black mothers of higher socioeconomic status.[130] Mortality rates for infants born to college-educated black parents (from 1983 to 1985) were 90 percent higher than the rates among infants born to college-educated white parents. This excess mortality was due primarily to higher rates of death associated with premature delivery and low birthweights of black babies.[137] An additional difference between pregnancy outcomes for black and white women is the fact that black women in their 20s and 30s are more likely than black adolescent

females to give birth to infants with either low birth weight 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.[163]

Although the relationship with the father of a baby has been found to be critical to the early timing of prenatal care, and black women often do not live with the fathers of their unborn children while they are pregnant, differences in the use of prenatal care do not fully account for disparities between black and white women in the incidence of births of infants with low and very-low weights.[86,136] Other factors such as the frequency of intervals of less than nine months between pregnancies (which is greater among black than white women) also have been associated with the greater incidence of low-weight infants born to black women. A complete explanation for this disparity is yet to be provided, however.[164]

Immigrant black couples, when compared to native black couples, have a lower incidence of low-birthweight babies. The incidence of low-birthweight babies among immigrant blacks is similar to that among white couples. Black babies born in more segregated cities have higher rates of infant mortality than their counterparts born in less segregated cities, another suggestive finding that does not fully explain the differential incidence.[154]

Significant disparities between black and white mothers also exist in regards to maternal mortality. Black women face a higher risk of maternal mortality, regardless of the level of prenatal care received during their pregnancy.[165] In 1998, black mothers were four times as likely to die from pregnancy complications as white mothers; the mortality rate due to pregnancy complications for black mothers was also more than three times the rate for Hispanic mothers.[89]

The impact on health of responses to racism can be seen by the high mortality rates for blacks from diseases such as cancer and HIV infection and AIDS. Black breast cancer patients have a worse prognosis overall, have a worse prognosis at each stage, and are diagnosed at a more advanced stage than either Hispanic or white breast cancer patients.[152] 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. Baquet, et al. (1991) found a significant inverse relationship between socioeconomic status and the incidence of both cervical cancer and lung cancer, and attribute part of the elevated incidence of these cancers to the disproportionately low socioeconomic status of blacks.[166] Blacks generally are less educated about the danger signs and more pessimistic about treatment for cancer than are whites. Both of these facts also contribute to making cancer the terminal disease many blacks conceive it to be.[167]

It has been suggested that the experience of fighting HIV/AIDS is different for most whites than for people of color and the poor. For whites with HIV/AIDS, the fact that many have education and employment contributes to their sense of outrage about the disease and motivates them to fight for what is being lost. Blacks and members of other racial/ethnic subpopulations, who may never have had these advantages, do not have this sense of loss or the associated drive and the educational tools with which to fight against the loss. Delays in seeking medical care, differences in preexisting health, and differences in drugs administered as treatment generate a mean survival time of six months for blacks after diagnosis with HIV/AIDS, while whites have a mean survival time of 18 to 24 months.[168] 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.[169]

Women represent a small but growing share of the cases of AIDS reported in the United States, and African American women account for the majority of these. During 2000, one-fourth (25 percent) of all AIDS cases reported were among women, a somewhat larger share than the nearly 17 percent of all AIDS cases reported between 1985 and December 2000 for which women accounted. Black women reported the greatest number of cases of AIDS among women, both cumulatively since 1985 (74,997 cases) and during 2000 (6,545 cases). (Over these same periods, 28,151 cases and 1,895 cases, respectively, were reported among white women.) Sixty-three percent of all cases of AIDS reported among women during 2000 and 58 percent of all cases of AIDS reported among women between 1985 and December 2000 were among black women.[170] Consistent with their high incidence of the disease, African American women are more likely than other women to die from AIDS. In 1999, AIDS was the third leading cause of death for black women ages 25 to 44.[171]

Although heterosexual contact (37 percent of cases) was the major source of infection of HIV that causes AIDS reported by black women during 2000, 39 percent of black women infected with HIV during this period could not or did not identify the source of

their infection. On the other hand, intravenous drug use was indicated as the cause of AIDS for more than two-fifths (41 percent) of all cases ever reported (i.e., 1985 to December 2000) among black women. This dual pattern among causes of transmission is the same for white women, although among both Hispanic and Asian and Pacific Islander women, heterosexual contact is reported as the major cause of AIDS both during 2000 and since 1985. Among American Indian or Alaska Native women, intravenous drug use has been the major reported cause of AIDS since 1985. For HIV infections reported during 2000, however, heterosexual contact was their main source of infection.[170]

In light of these facts, it is surprising that less than half (47 percent) of African American women surveyed in 1998 were concerned about becoming infected with HIV. This lack of concern coexisted with the findings that 55 percent of African American women thought HIV/AIDS was a "very serious problem" in their community, and half personally knew someone who had AIDS, had died of AIDS, or who tested positive for HIV infection. The fact that only 40 percent of African American women reported having been tested for HIV infection also is somewhat unexpected.[172]

Research in both Los Angeles and in south Florida suggests that black women continue to engage in behaviors that place them at high risk of infection.[108,173] Ten percent of the black women in the Los Angeles survey reported intravenous drug use in the past month, while 10 percent of the Florida sample indicated that their sexual partners were intravenous drug users. More than half (53 percent) of the black women in the Florida survey reported that they had unprotected sex with their main partner, and one-fifth (20 percent) indicated they would not use a condom if their sexual partner was HIV positive.[173] Nearly a third of the black women in the Los Angeles survey reported having sex with multiple partners.[108] Haitian women in Florida also reported unprotected sex with their main partner (71 percent) and that they would not use a condom with an HIV-positive partner (44 percent).[173] These high percentages of both black American and Haitian women who report that they would not use a condom with an HIV-positive partner may reflect the cultural realities these women face; they know that they are unable to override economic and gender role norms to engage in "safer" sexual intercourse. Behaviors such as these also may be an example of the "slow-motion suicide" noted among African Americans by some psychiatrists and attributed to the persistence of racism, poverty, discrimination, and lack of quality health care services in their lives.[174]

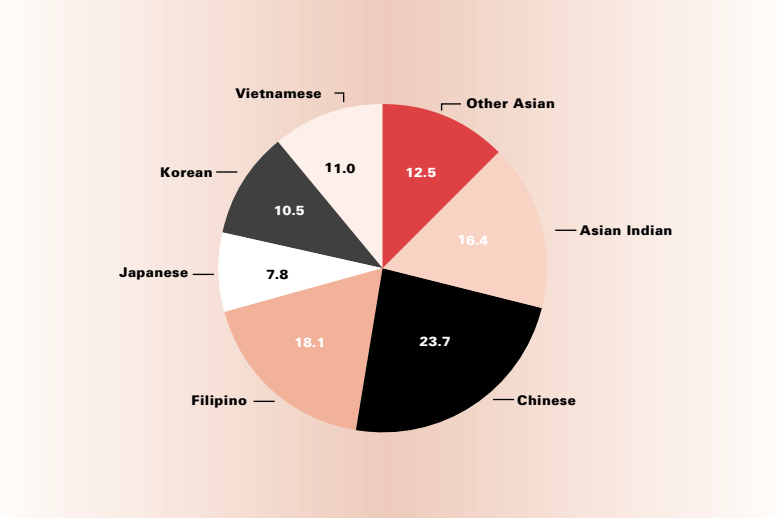
Resentment by others at the unfair advantages presumably accorded blacks under affirmative action programs contributes to the sense of exclusion from and inequality in mainstream America felt by blacks, a sense that bears on them economically, socially, and physically. Even if poverty in America is reduced, as long as economic, social, and political inequalities persist, the health of black Americans is likely to remain impaired.[144]

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. (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 are immigrants to the United States (and their descendants) from more than 20 countries

FIGURE 2
Asian American Population by Subgroup, 2000



Source: U.S. Census Bureau, Census 2000. *Profile of General Demographic Characteristics for the United States: 2000.* May 15, 2001

who speak more than 100 different languages. They come from places such as China, India, Japan, the Philippines, Korea, Laos, Cambodia, Vietnam, and Thailand and represent more than 60 different ethnicities.[42,175] In the 2000 Census, of those who indicated that they belonged to only one racial group and that group was Asian, the largest subpopulations (in descending order) were persons of Chinese, Filipino, Asian Indian, Korean, Vietnamese, and Japanese ancestry.[40]

In 1970, when Asians and Pacific Islanders (both males and females) were totaled together, this population was 1.5 million with Asians the overwhelming majority of this total. In 1990, a total of 7.2 million Asians and Pacific Islanders were counted in the Census, 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.[1] Asians currently are 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).[1] Asian women are 12.6 percent of all women of color and 52 percent of all Asian Americans.[4]

The majority of Asian Americans—more than 90 percent—reside in metropolitan centers. Los Angeles, New York, San Francisco, Honolulu, and Washington, D.C., were the five cities with the largest Asian and Pacific Islander populations in 1998. Sixty-five percent of the population of the metropolitan area of Honolulu is Asian or Pacific Islander.[3] The states with the largest estimated shares of Asians and Pacific Islanders in 1999 were California, New York, and Hawaii. Over half of all Asians and Pacific Islanders live in these three states, with the remainder living in Texas, Illinois, New Jersey, and Washington. Among all the states, Asians and Pacific Islanders are the largest proportion of the population of Hawaii—nearly 64 percent.[176] However, in 1990, California was home to half of the Filipinos and Southeast Asians in the United States, two-fifths of the Chinese and Japanese, almost a third of the Koreans, and one-fifth of the Asian Indians in the United States.[71]

When growth of the Asian and Pacific Islander populations by state is examined between 1980 and 1990, however, the five states with the largest increases—Rhode Island (246 percent), New Hampshire (219 percent), Georgia (210 percent), Wisconsin (195 percent), and Minnesota (194 percent)—were neither West Coast states nor states traditionally considered as homes for large numbers of Asians and Pacific Islanders.[177] Additionally, it was estimated that between 1990 and 1999, Nevada (124 percent), Georgia (109 percent), North Carolina (99 percent), Florida (80 percent), and Arizona (nearly 76 percent) were the states that saw the largest increases in their Asian and Pacific Islander populations.[176] Regardless, the fact remains that slightly over half (53 percent) of the Asian and Pacific Islander populations reside in the western region of the United States.[178]

A large share of the growth in the Asian population can be attributed to immigration.[179] In 1990, two of every three Asians in California were foreign born.[71] Asians comprised 27 percent of the United States' foreign-born population in 1997 and 24 percent in 1999.[3,180] These immigrants came mainly from the Philippines, China, Vietnam, India, and Korea. More than three of every four Asian Indians, Koreans, and Southeast Asians in the United States are foreign born.[71] Among the foreign born, Asians are second only to Europeans in the number of naturalized U.S. citizens.[180] Also, among the foreign born in the United States, Asians report the highest median household incomes.[181]

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, when the Supreme Court struck down immigration quotas based on national origin and when only about 1 million Asians were in the United States. Chinese immigration to this country, however, dates back to the mid-1800s. With the decline of the African slave trade and the discovery of gold, 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. This new servant class became the new "negro" for the white majority and was even referred to as "nagurs" by some.[182] 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.[175] In addition, Chinese wives of laborers were barred from entering the United States in 1884.[183] These bans remained in effect until 1943, and it was 1952 before immigrant Chinese were able to become U.S. citizens.[43,184]

In the 1960–1985 period, the Chinese population of the United States quadrupled, and immigrants from

more diverse ethnic and social strata came to the United States.[43,184] Between 1980 and 1990, the Chinese American population doubled, mostly due to immigration. Sixty-three percent of all Chinese Americans are foreign-born.[43] Only slightly less than 10 percent of Chinese mothers who gave birth in 1999 were born in the 50 U.S. states or the District of Columbia.[57]

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.[185] In 2000, this number had risen to 2.4 million who identified themselves as only Chinese, comprising nearly a quarter (about 24 percent) of the Asian American population.[40] Although Chinese Americans live throughout the United States, the largest concentrations are found in California (more than 700,000) and in New York state (more than 284,000).[186] Because Chinese Americans are diverse in class, occupation, and regional and linguistic background, in many Chinese American communities unity is an elusive goal.[187] Differences between foreign-born and American-born, urban residents and suburbanites, old timers and newcomers, northerners and southerners, Catholics and Protestants, Christians and Buddhists, professionals and laborers, and rich and poor frequently override a common ethnic identity.[188]

The second largest Asian American subpopulation in the United States is Filipino Americans.[40] Some Filipinos define themselves by the "braiding of cultures" they represent—Asian, Spanish, American, African, and Pacific Island.[175] Beginning with U.S. intervention in the Philippine Islands, Filipinos have migrated to both Hawaii and the mainland United States in several waves.[43] Between 1903 and 1910, a first wave of Filipinos came to the United States to attend educational institutions. 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.[175] Yet another wave migrated after World War II to work in agriculture in Hawaii and on the mainland United States. The current wave, consisting of fewer single men, more family groups, and more highly educated people, began after 1965 and continues today.[187] More than 64 percent of Filipino Americans are foreign born.[43] Evidence of this wave is the 81 percent increase in the Filipino population of the United States between 1980 and 1990. In 1990, Filipino Americans numbered 1.4 million and were 19 percent of the Asian American population.[185] According to Census 2000 results, more than 1.8 million people—18 percent of the Asian American population—were of solely Filipino ancestry.[40]

Asian Indians are now the third largest Asian American group. Their population doubled over the last decade, growing 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).[40] Asian Indians live primarily in the Eastern United States, although nearly 160,000 live in California.[41,185,187] New York state is home to the second largest number (nearly 141,000) of Asian Indians. In 1992, the majority of births to Asian women in the states of Illinois (home to more than 64,000 Asian Indians) and New Jersey (home to more than 79,000 Asian Indians) were to Asian Indian women.[65] Most Asian Indians have migrated to the United States since 1965, though some had come to the Western United States in the early 1900s, after initially migrating to British Columbia. They are of differing ethnic groups and backgrounds, but most share a common tradition of non-western medical practice (Ayurvedic), and many are highly educated professionals.[41,187]

Korean Americans, one of the most homogeneous Asian populations in terms of language, ethnicity, and culture, also are one of the fastest growing Asian subpopulations in the United States.[41] Their population 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.[40,185,189] Korean Americans first 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 United States mainland primarily as contract laborers.[190] By 1920, almost 5,000 Koreans lived in Hawaii, and more than 1,200 had settled on the mainland United States. Most of these were men.[183] Others have migrated as a result of United States-Korean interaction during the Korean War (e.g., wives of servicemen; orphans adopted by Americans).[43] 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. Post-1965 Korean immigrants tend to come to the United States as families, and most tend to be well educated.

Immigration from Japan to both Hawaii and the mainland United States began in large numbers around 1885 and peaked between 1900 and 1910. Between 1900 and 1919, Japanese women—most as picture brides—emigrated to the United States.[183] Japanese Americans, however, are the only Asian population with primarily one immigration period (1880–1924) and with little subsequent immigration.[183] The National Origins Act 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.[43,187] 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 nationalism than the immigrants constituting later generations.[43] This sense of national identity among the Issei has been posited as the explanation for the strong identity among this particular group of immigrants. In 1990, the 847,562 Japanese Americans resided primarily in California and Hawaii. More than 70 percent of all Japanese Americans were born in the United States, making them one of the most acculturated Asian subpopulations with a stable middle class composed largely of white collar workers and professionals.[183] In 2000, the Japanese American population numbered 796,700 (nearly 7 percent of all Asian Americans).[40]

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 (66 percent), with Cambodians and Laotians each constituting roughly 20 percent of Southeast Asian immigrants.[43] The earlier waves of refugees during the post-1975 period generally were better educated and wealthier than later arrivals, many of whom—especially Hmong (a Chinese-origin population that migrated to Laos and later to Thailand and the United States) 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.

About 615,000 Vietnamese, 149,000 Laotians, 147,000 Cambodians, and more than 90,000 Hmong resided in the United States in 1990.[43] Although it was estimated that in 2000 Cambodians, Laotians, and Vietnamese combined would number more than 1 million, according to Census 2000, the Vietnamese population alone numbered more than 1.1 million.[40,191] Most Southeast Asians live in Western states, led by the 46 percent of Vietnamese and the 48 percent of Cambodians living in California.[192,193]

Factors Affecting Health

The "model minority" image replaced the negative stereotypes applied to Chinese and other Asian Americans in 1966. 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.[175,177,182] However, Asians often are pitted against other racial/ethnic groups and are made scapegoats by low-income whites and other racial/ethnic subpopulations who indirectly blame Asians for their failure to succeed and claim that Asians take away their educational and job opportunities. The "model minority" epithet 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 refugees.[194]

The health problems of Asian Americans are worsened by a complex set of cultural, linguistic, structural, and financial barriers to care. In 1980, a language other than English was spoken at home by nine out of ten Asian Americans who were 5 years of age or older.[195] In 1992, 42 percent of the Vietnamese American population 5 years of age and older lived in a linguistically isolated household—that is, a household in which no person age 14 years and older speaks only English, and no person age 14 years and older, who speaks a language other than English, also speaks English "very well."[65] Nearly three-fifths of Asian Americans are foreign-born, and, in 1999, 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.[3,57] If residing illegally in the United States, Asian Americans may not seek out medical care for fear that this will expose their illegal status and result in deportation.

Since many Asians are unable to communicate in English, they are not readily employable. When employed, it is often in small businesses or sweatshop-type factories with unsafe and unhealthy working conditions and no fringe benefits such as health insurance.[196] Nearly 60 percent of all Asian and Pacific Islander women were in the labor force in 2000, with 20 percent in professional specialty occupations. Nineteen percent of Asian and Pacific Islander females

had executive, administrative, or managerial occupations, while an additional 16 percent had service occupations.[197]

Only 15 percent of all Asians and Pacific Islanders and only 29 percent of all households headed by Asian and Pacific Islander females reported incomes below the federal poverty level in 1995.[26] In 1999, 11 percent of all Asians and Pacific Islanders and only 23 percent of households headed by Asian and Pacific Islander females (with no husband present) were living below poverty.[26] These averages, however, mask considerable variation among subpopulations.[198] For example, the percentage of the population below the poverty level ranged from a low of 6 percent among Japanese Americans to a high of 66 percent among Laotians in 1990 (compared to about 13 percent for the entire U.S. population).[67] The proportion of Vietnamese families reporting incomes below the poverty level in 1990 (24 percent) was more than three times as great as that for Asian Indian families (7 percent).[65] Hmong and Cambodian Americans reported poverty levels above 45 percent.[43]

Both household and individual incomes for Asian Americans support the finding of disparate poverty rates among the subpopulations. In 1980, 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.[43] In 1990, 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 the 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.[199] In 1998, the median family income for Asians and Pacific Islanders was $52,826, considerably higher than $49,023, the median family income for whites that same year.[3] Three-fifths (61 percent) of Asian and Pacific Islander families had incomes of at least $50,000 in 1999.[197] The resettlement of more than 1 million Indochinese refugees in the 1970s and 1980s made the bimodal distribution of economic outcomes even more pronounced because refugees arriving after 1979 have experienced higher rates of unemployment, underemployment, and poverty than other Asian Americans, and other racial/ethnic subpopulations.[67] For example, in 1980, unemployment among the Hmong (20 percent), Laotians (15 percent), and Cambodians (11 percent) all exceeded the U.S. average.[43]

Health insurance coverage varies among Asian American women, as do employment and income levels. Among the Asian and the Pacific Islander populations combined, almost 21 percent were without health insurance in 1999.[88] 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 are 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. Although all Asian subgroups witnessed a decline in Medicaid coverage between 1994 and 1997, Southeast Asians experienced the most precipitous decline.[15]

Eighty-one percent of all Asian and Pacific Islander women and 91 percent of Asian and Pacific Islander women ages 65 years and older reported having either private or public health insurance coverage in 1995.[198] Fourteen percent of Asian and Pacific Islander women reported Medicaid coverage and nearly 7 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 subpopulations lack health insurance, and this lack of health insurance causes some Asian American women to become frequent users of hospital emergency rooms. One study of Korean American residents in Los Angeles County found that 50 percent of those under 65 years of age and 45 percent of those 65 years of age and older had no health insurance.[200] In California, 37 percent of Asian and Pacific Islander non-citizen women are uninsured, compared to 23 percent of Asian and Pacific Islander women who are naturalized citizens, and 18 percent of American-born Asian and Pacific Islander women. Among Asian ethnic groups, a higher percent of Koreans than Hispanics or Latinos were uninsured (40 versus 36 percent, respectively) (Hispanics are the ethnic group most likely to be uninsured in California).[201]

Although Asian American women overall exhibit healthful lifestyle behaviors, such as a lower smoking prevalence (10 percent) than other American women

(25 percent), there is variation by subpopulation in both healthful behaviors and the prevalence of illness.[177] For example, this 10 percent overall smoking prevalence aggregates higher rates among Japanese American women (19 percent of whom reported smoking in one California study) and Filipino American women (11 percent of whom reported smoking in the same study) with the lower rates of Chinese American women (7 percent of whom reported smoking in the California study).[202] Even though Asian women smoke less than their female counterparts of other races, Asian men of some subgroups, for example Koreans and Filipinos, have a high smoking prevalence, exposing the females in their home to increased levels of second-hand smoke.[59] A 1998 survey of Asian households (the vast majority of whose members were foreign born) found that 31 percent of Vietnamese American women and 27 percent of Korean American women were exposed to second-hand smoke every day in their homes.[203]

The risk of hypertension also varies by subpopulation. In another study of the California population, hypertension was found to be more of a problem for Filipino Americans (25 percent) than for either Chinese (16 percent) or Japanese (13 percent) Americans.[192] Only 9 percent of Vietnamese females in California reported hypertension compared to 16 percent of all females in the state population. The lowest hypertension rate was reported among Korean American females in California, only 3 percent of whom reported the condition.[192]

Other conditions, such as tuberculosis, are more common among Asian populations than among other racial/ethnic groups. The prevalence of tuberculosis among Asian and Pacific Islander Americans, the highest among all groups, was almost 15 times that for white Americans in 1996. Foreign-born Asians in particular report higher rates of tuberculosis than other foreign-born populations. Although their risk of developing tuberculosis ranges from 30 percent to 45 percent in the year following immigration, this risk falls to less than 5 percent after 10 years of residency in the United States.[204] Hepatitis B and certain genetic abnormalities also are more common among Asian subpopulations.

The lack of knowledge of risk factors or preventive behaviors for various diseases also is a problem for Asian Americans. One study among Southeast Asian populations in central Ohio revealed that 94 percent of those surveyed did not know what blood pressure is, and 85 percent did not know what could be done to prevent heart disease.[192] The lack of knowledge about cancer risk factors, for example, results in the failure to conduct breast self-examinations or to get screening such as mammography or Pap smears to lessen the incidence of breast or cervical cancer.[177] A study conducted in Philadelphia found that 71 percent of Cambodian American and Vietnamese American women did not know what cancer was.[205]

The failure of Asian women to get regular screenings relates not only to a lack of knowledge of risk factors but also to the belief that cancer is inevitably fatal. One survey of Vietnamese women in San Francisco found that more than half (52 percent) believed "there is little one can do to prevent cancer."[206] Although virtually all of the women surveyed (97 percent) had heard of cancer, many did not know common signs, symptoms, and risk factors for either breast or cervical cancer. In particular, cervical cancer, which is associated with infection by the human papillomavirus (HPV) disproportionately affects certain Asian women. Vietnamese women have the highest incidence of invasive cervical cancer in the United States (43 per 100,000), and the incidence among Korean American women exceeds 15 per 100,000.[207] 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.[205]

These high incidence rates are generally attributed to the lack of prior screening with a Pap smear, which can detect cervical cancer at an early treatable stage. Vietnamese women who have migrated to the United States since 1981 were more likely (76 percent) to have never had the Papanicolaou test for cervical cancer than women who had migrated before 1981 (33 percent).[206] In a survey of Vietnamese women in western Massachusetts, a little more than 50 percent of respondents reported having had the Pap test, less than the 57 percent of all U.S. women 18 years and older who reported having had this test in 1991.[208,209] Utilization rates of Pap tests among women belonging to other Asian subgroups are even lower. In Los Angeles, 48 percent of Filipino American women reported receiving a Pap test in the 2 years preceding the survey. Similarly, less than half (47 percent) of Cambodian American women in Seattle reported recently receiving a Pap test.[205]

The failure to get mammograms is of particular concern because of the gradual increase in breast cancer rates among Asian women (especially Chinese, Japanese, and Filipino) through the generations after their migration to the United States, when compared to these same groups of women in Asia. Overall, Asian

American women born in the United States have a breast cancer risk 60 percent higher than Asian American women born in Asia.[210] Breast cancer is the most common cancer among Chinese, Filipino, Japanese, and Korean women, and the second most common cancer for Vietnamese women.[59,211]

Prenatal care is another form of preventive care that many Asian American women do not receive. Nearly half of Cambodian and Laotian American women do not begin prenatal care during their first trimester and have higher risk births because of this.[212,213] Samoan and Laotian women are the least likely to receive prenatal care among the Asian and Pacific Islander populations.[214] Of the five major Indochinese groups in Oregon (Khmer, Hmong, Mien, other Lao, and Vietnamese), Hmong American women had the least favorable birth risk profile.[213] Mean birthweight among Hmong infants born in California between 1985 and 1988 was significantly lower than mean birthweight among white infants.[215] The preterm and low-weight infants born to Hmong, Cambodian, and Laotian mothers in 1992 are reflected in the aggregate rates of 12 percent (preterm) and 7 percent (low birthweight) for births to all women in the category "Remaining Asian or Pacific Islander Total." These rates are higher than for Vietnamese mothers (10 percent preterm and 6 percent low birthweight), and also higher than for white non-Hispanic mothers (8 percent preterm and 5 percent low birthweight).[65]

Even with health insurance, culturally accepted medical models such as acupuncture and herbal medicines often are not covered services, a fact that further limits access to health care.[66] Asian American women are more likely to report using traditional health practices and medicines than Asian men—69 percent versus 39 percent. By ethnic group, nearly all Cambodian women (96 percent), nearly a fifth (18 percent) of Laotian women, and nearly two-thirds of Chinese women (64 percent) report using traditional health practices.[216] High non-compliance with western prescription medications among these populations clearly becomes a concern. Non-English-speaking Chinese hypertensives, for example, exhibit such non-compliance, perhaps in deference to traditional treatments.[177]

Fear of difficulties in communicating—compounded by shame, guilt, anger, depression, and other responses to certain stigmatized conditions such as mental retardation, mental illnesses, substance abuse, and HIV/AIDS—also may deter Asian Americans from seeking care promptly.[67] Asian Americans, especially Chinese Americans, have been documented to underuse mental health services.[217,218] Although there generally is a stigma attached to Asian Americans seeking treatment for mental health problems outside their families, how this is expressed varies with the educational level and length of time in the United States. Chinese Americans often interpret mental illness as punishment for a wrongdoing by themselves, other family members, or their ancestors and are ashamed to seek treatment because of this.[218] 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.

The traumas due to war (e.g., torture, starvation, rape, forced labor, and witnessing murder), 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. Even if Asian American patients seek care, language barriers make conditions such as this difficult to diagnose and treat.[193]

Cambodians are thought to be the group most traumatized by the turmoil of their home country and immigration to the United States, and as a result have the highest levels of psychological stress of all Southeast Asian groups.[191] However, Hmong immigrants to the United States 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.[191] 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, many poor Southeast Asian immigrants resettle in violent,

inner-city environments in the United States.[219] 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.[189]

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. Cancer, for example, has a counterpart in Cantonese (the word nham, which loosely translates into English as "growth") but is not mentioned as a disease in texts on Chinese medicine. Thus, it may be difficult for Asian patients to accept their diagnoses as real or to accept western treatment regimens for them.[186]

Differences in cultural patterns, even among highly acculturated Asian Americans, suggest different interpretations of etiology, personal control, and responsibility with respect to health.[183] For example, Chinese Americans view health skeptically and as problematic. Thus, even if one looks healthy and has good health habits and medical care, unexpected maladies, sudden death, or psychological problems remain a concern. 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.

If Asian Americans get to health care providers and translators are available, communication still is not guaranteed and appropriate care still may not be received.[220] 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.[186] 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. In addition, 90 percent of the obstetricians and gynecologists in China are female, a fact that makes it very difficult for foreign-born Chinese American women to be examined by or receive care from the predominantly male practitioners in these medical specialties in the United States.[186]

Some Korean American women, many of whom have extreme difficulty with English, report using han yak, a Korean medicine, and other over-the-counter Korean home remedies rather than going to physicians in the United States.[212] They avoid going to physicians because of "communication difficulties," "impatient" doctors and nurses, being "treated disrespectfully" because of their ethnicity, and other "bad experiences."[212]

Other cultural characteristics that influence the health of Asian Americans are familism, reverence for authority, and a sense of shame/pride. Asian cultures—like Hispanic cultures—often emphasize family decision making. The practice of family decision making may be heightened by necessity, or it may be rendered impotent within the socioeconomic context of U.S. society.[200] The reverence for authority common in Asian societies with hierarchical structures, such as in Korea, for example, may result in a Korean American patient not questioning a physician's diagnosis and treatment and indicating understanding, agreement, and compliance when there is none.[67] This reverence for authority also may combine with gender role differentiation to make Asian women reluctant to report domestic violence to either health providers or law enforcement authorities.[219,221]

The strong desire to "keep up appearances" within the community has resulted in low utilization of addiction treatment services for alcoholism and substance abuse by Asian Americans. 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.[222] Low drinking rates among all Asian American groups seem to be due to high percentages of abstainers among the foreign-born populations.[222]

One study of Asian Americans in Los Angeles found that among women, Japanese Americans were the most likely to report being drinkers (73 percent), followed by Chinese (49 percent), and Koreans (25 percent).[223] A later study of Asian American men and women similarly found 45 percent of Japanese, 38 percent of Filipino, and 36 percent of both Chinese and Vietnamese reported lifetime use of drugs and alcohol.[191] High rates of alcohol consumption also

have been noted among persons with one Asian and one Caucasian parent.[127] Filipino women are least likely to report the use of alcoholic beverages. Alcohol use among Asian American women tends to increase with acculturation. In addition, stressors such as divorce and widowhood are associated with both depression and substance abuse for these women.[127] 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.[222]

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. The painful process of acculturation produces high levels of stress and may produce a high prevalence of mental illness among Asian Americans.[139] Some of this mental illness results from frustration at not reaping benefits in the form of high-paying, high-status jobs, commensurate with their expectations based on the level of education attained and the benefits reaped by white Americans with comparable education.[224] 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 spousal abuse or divorce.[183] Gender stereotyping of Asian women as docile and subservient also constitutes a stressor that may contribute to depression and mental illness.[225] One of the major mental health problem for Asian Americans, though, is racism—which adversely affects their psychoeconomic status, as well as the status of other people of color.[66]

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 40.7 million people belonged to this group in 2000.[226] Adolescents were 14.5 percent of the U.S. population, with their number and population share both expected to decline in the future.[227] Adolescents often live in single-parent families (31 percent), and many live in poverty (nearly 17 percent).[228,229] Forty percent of the adolescents in female-headed families live in poverty. This includes 54 percent of Hispanic, 50 percent of black non-Hispanic, and 27 percent of white non-Hispanic adolescents.[229]

According to the National Longitudinal Study of Adolescent Health (Add 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.[228] Living in poverty plays a critical role in access to health care services and in shaping health outcomes for adolescents, as it also does for adults.

At the same time that the total adolescent population is projected to decline in the near future, the representation of adolescents of color among this population is expected to increase. Adolescents were 18 percent of the 1990 populations of American Indians/Alaska Natives, Native Hawaiians, Hispanics, and blacks; they were 16 percent of the 1990 Asian American population.[230,231] The adolescent population already is more racially diverse than the U.S. population of all ages. In 2000, black non-Hispanics were 12.3 percent and Hispanics 12.5 percent of the population of all ages; however, black non-Hispanics were 14 percent and Hispanics were 15 percent of people ages 10 to 19 at that time.[4] In 2000, 35 percent of all adolescents belonged to a racial/ethnic group, with this share predicted to reach 40 percent by the year 2020.[4,231]

Female American Indian/Alaska Native adolescents were 18 percent of all female American Indians/Alaska Natives and 49 percent of all American Indians/Alaska Natives ages 10 to 19 in 2000.[4] Half of all American Indian/Alaska Native adolescents live in poor or near-poor families.[231] Native Hawaiian or Other Pacific Islander adolescent females were similarly about 18 percent of the females of these populations. In 2000, an estimated 36 percent of the Hispanic population was younger than 19 years of age, with female Hispanic adolescents 48 percent of all adolescents.[70,230,231]

Currently 35 percent of the black population is 19 years of age or younger, with adolescents constituting 16 percent of all black females.[4] Forty-three percent of black adolescents live in poverty, with an even greater share (two-thirds) living in single-parent homes.[231] In recent years, Asian Americans have constituted nearly half of all immigrants to the United States, with foreign-born adolescents more than half of this immigrant stream. Twenty-seven percent of Asian Americans are 19 years of age or younger.[4] In the early 1990s, 15 percent of all Asian American females were adolescents; by 2000, their share had fallen slightly to 13 percent. Females comprised 49 percent of all Asian American adolescents in both the early 1990s and in 2000.

Access to Services

Adolescents have among the lowest rates of physician contact among all age groups in the United States, and many adolescents of color have even lower rates of contact.[231,232] Although white youths ages 12 to 17 in 1988 reported 3.6 contacts with a physician during the past year, black, Hispanic, and Asian and Pacific Islander youth reported fewer (2.4, 2.4, and 1.0, respectively).[232] American Indian/Alaska Native adolescents reported 7.0 physician contacts during the past year. Seventeen percent of females ages 10 to 19 did not make a health care visit at all during 1996.[229]

Data on the share of youth ages 12 to 17 who reported in 1988 that they had not received routine care in the past 2 years are consistent with the frequencies of physician contact. More than a fifth of white (22 percent) and black (21 percent) youth reported receiving no routine care in the past 2 years, while at least a quarter of Hispanic (25 percent) and American Indian/Alaska Native youth (27 percent) reported the same. Nearly a third of Asian and Pacific Islander youth (31 percent) indicated they had not received routine care in the past 2 years.[232] In a 1989 survey of American Indian/Alaska Native adolescents, 54 percent of the males and females combined reported having a physical and a hearing examination within the last 2 years.[233]

The lack of a regular source for routine medical care and the lack of a particular provider for sick care also are problems for adolescents of color. While 13 percent of white, black, and American Indian/Alaska Native youth each reported having no regular source for routine medical care in 1988, 21 percent of Asian and Pacific Islander youth and 24 percent of Hispanic youth reported this.[232] The shares of adolescents of color with no particular provider for sick care were even greater than the shares lacking a regular source for routine medical care. Eighteen percent of white youth ages 12 to 17, and 38 percent of Hispanic youth reported no particular provider for sick care. Around a third of the other adolescents of color (blacks, Asians and Pacific Islanders, and American Indians/Alaska Natives) reported this same lack of a provider.[232]

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 74 percent of all adolescents are covered by private health insurance. Some sources indicate that more than half of black and Hispanic adolescents and two-thirds of other adolescents of color have private health insurance.[231] 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. Twenty-eight percent of black adolescents, 14 percent of Hispanic adolescents, and 13 percent of other youth of color are estimated to have Medicaid or other public health insurance.[231] More than 14 percent of all adolescents ages 12 to 17 years are uninsured, however, with this incorporating the 12 percent of Asian and Pacific Islander adolescents to 41 percent of American Indian/Alaska Native youth.[88,232] Thirteen percent of white adolescents report no health insurance, as well as 18 percent of black and 28 percent of Hispanic youth.[229] 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.[229]

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.[234] 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.[231,235]

Health

The parents of black, American Indian/Alaska Native, and Hispanic youth ages 12 to 17 in 1988 were less likely than the parents of white and Asian and Pacific Islander youth the same ages to rate the health of their adolescents as excellent.[232] Fifty-four percent of white adolescents and 63 percent of Asian and Pacific Islander adolescents were rated in excellent health with no limiting conditions. Only 25 percent of American Indian/Alaska Native youth but 39 percent of black and 43 percent of Hispanic youth were rated similarly. A minuscule proportion (0.8 percent) of the parents of Asian and Pacific Islander youth ages 12 to 17 rated their offspring in fair to poor health or with limiting conditions.[232] The shares of white (9 percent),

American Indian/Alaska Native (8 percent), and Hispanic (10 percent) youth rated fair to poor were considerably higher, as was the nearly 12 percent of black adolescents whose parents rated their health as fair or poor. A 1989 survey of American Indian/Alaska Native teens found them three times as likely as white teens to rate their health poor.[233]

Most of the data on the health of adolescents is 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.[236]

Although a slightly larger share of Hispanic (26 percent) than of white (23 percent) female high school students reported having thought seriously about attempting suicide during the 12 months preceding the survey, a smaller share of black females (19 percent) reported similar thoughts. Consistent with reported suicide ideation, 19 percent of adolescent Hispanic females attempted suicide at least once during the 12 months preceding the 1999 survey, while 9 percent and almost 8 percent of white and black adolescent females, respectively, reported attempts.[237] Twenty-two percent of American Indian/Alaska Native adolescent females reported in a 1989 survey that they had ever attempted suicide.[233] In 1997, American Indians/Alaska Natives ages 15 to 19 (of both sexes) had the highest suicide mortality among all racial and ethnic groups, at 20.5 deaths per 100,000 population.[227]

Other studies have shown that black adolescent females tend to report depressive symptoms at higher rates than white adolescent females and that lower socioeconomic status accentuates this finding.[231] Rates for completed suicide among black adolescent females remain lower than rates for white adolescent females, although rates among these young black women have increased in recent years. Female Mexican American adolescents have been noted to indicate a greater number of depressive symptoms than either their black or white counterparts.[231] In addition, in one study, Hispanic adolescent females were found to account for 25 percent of all adolescent patients admitted to the hospital for suicidal behavior, a far greater share than expected based on their population share.[231]

Although information is spotty for Asian American and for Pacific Islander adolescents, their age-adjusted rate of commitments to psychiatric hospitals is about half that for white youth.[231] This at first seems surprising in light of the high depression scores reported for adolescent Asian refugees. However, when taken in the context of many Asian cultures, in which seeking mental health care violates norms about family interactions and may be viewed as a source of shame to a family, this finding seems believable. Perhaps partly as a result of this underutilization of mental health services, suicide accounts for a much larger proportion of deaths among Asian American youths than among white adolescents.

The overall prevalence of mental health problems among American Indian/Alaska Native youth appears to be similar to that of white adolescents, although there has been a recent increase in problems in early adolescence among American Indian/Alaska Native youth.[231] Eating and weight-related disorders are increasing among American Indian/Alaska Native youth, and, according to the Indian Adolescent Health Survey, 20 percent of females had attempted suicide, an attempt rate more than double that for white youth. Major risk factors identified for suicide attempts among American Indian/Alaska Native adolescents include: female gender; poor self-perception of health; knowledge of a suicide attempt by a friend or family member; a history of mental and behavioral problems requiring professional help; and extreme alienation from family and community.[11,238] 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.[227]

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 practices

and regular physical activity, two health enhancing behaviors, also are discussed for adolescent females of color. 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 accepts the notion that high-risk behaviors are more prevalent among out-of-school youth than among youth who remain in school.[239] 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, 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. In the 1999 Youth Risk Behavior Survey (YRBS), among female high school students (grades 9 through 12), 45 percent of white, 46 percent of Hispanic, and 67 percent of black adolescent females reported having ever had sexual intercourse.[237] By contrast, in a 1992 study of Asian and Pacific Islander high school students, 70 percent of the females reported they were virgins.[240]

In a 1989 survey of American Indian/Alaska Native teens, 57 percent of the females queried reported having had sexual intercourse by the time they were in the 12th grade, with the average age of first intercourse reported to be 14 years.[233] More than 11 percent of all black adolescent females in YRBS reported that they first had sexual intercourse before age 13; an even larger share (21 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 4 percent of Hispanics and almost 4 percent of whites) and having had four sexual partners (11 percent of Hispanics and 13 percent of whites).[237] 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. Slightly more than 2 percent had more than 5 sexual partners.[240]

Black adolescent females were most likely to report currently being sexually active (50 percent), with slightly more than a third of white (35 percent) and Hispanic (34 percent) adolescent females also reporting current sexual activity. Among currently sexually active adolescent females, a larger percentage of blacks (65 percent) than either of whites (48 percent) or Hispanics (43 percent) reported condom use during last sexual intercourse, however.[237] More than a third (36 percent) of Asian and Pacific Islander adolescents reported using condoms at all times.[240] Birth control pill use before last sexual intercourse was more common among white adolescent females (26 percent) than among either blacks (12 percent) or Hispanics (11 percent).[237]

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. In 1999, the birth rate for Hispanic females ages 15 to 17 years was 61 per 1,000 women, more than three times the rate of 17 per 1,000 women for non-Hispanic white females the same age. Among 18- to 19-year-old Hispanic females, the birth rate of 139 per 1,000 women was more than double the rate of 59 per 1,000 non-Hispanic white females. Teen pregnancy rates among black adolescent females are comparable to rates among Hispanic adolescent females, with the rates for blacks at 54 per 1,000 females ages 15 to 17 and 127 per 1,000 females ages 18 to 19.[57] Birth rates to Asian and Pacific Islander teens are the smallest reported in 1999. Only 12 per 1,000 Asian and Pacific Islander females ages 15 to 17 years and 38 per 1,000 Asian and Pacific Islander females ages 18 to 19 years reported live births in 1999.[241]

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, 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.[242]

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 42 percent of all American Indian/Alaska Native mothers being under age 20 when they had their first child.[243] Birth rates for American Indian/Alaska Native adolescent females were 46 per 100,000 for 15 to 17 year olds, and 122 per 100,000 for 18 to 19 year olds in 1996.[229] In addition, 21 percent of live births among the IHS service population between 1994 and 1996 were to American Indian/Alaska Native mothers under the age of 20.[14] Native Hawaiian women also are likely to give birth when younger than 20 years of age; in 1999, 18 percent of births to Native Hawaiian mothers were to this subpopulation.[57] Among Samoan and Guamanian women, sizable proportions of births in 1992 also were to females younger than age 20; 11 percent of births to Samoan mothers and 16 percent of births to Guamanian mothers were to women less than 20 years of age.[65] 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 range from less than 1 percent among Chinese adolescents to 6 percent among Filipino adolescents.[57]

Sexual intercourse can result in HIV infection/AIDS, as well as in pregnancy or birth. Between 1985 and December 2000, although the total number of women of each racial/ethnic group who were diagnosed with HIV infection and AIDS varied greatly, comparable percentages of female teens of color (ages 13 to 19 years) were diagnosed with these conditions. Between 5 percent (Asians and Pacific Islanders) and 9 percent (black non-Hispanics and American Indians/Alaska Natives) of teen females of color were diagnosed with HIV infection through December 2000. However, these percentages correspond to 7 cases among Asian and Pacific Islander female teens, 21 cases among American Indian/Alaska Native teens, and 2,320 cases among black non-Hispanic teens. Six percent of 172 cases of HIV infection were diagnosed among Hispanic females ages 13 to 19 years.[170] 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, 286 Hispanics, and 1,122 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. Large majorities of both white and Hispanic (71 percent each), and black (69 percent) adolescent females reported in 1999 that they had tried cigarette smoking, even if only one or two puffs were taken.[237] Smaller shares reported current cigarette use (defined as smoking on at least one occasion during the past 30 days) both in 1985–1989 and in 1995, although the proportions varied considerably by racial/ethnic group. American Indian/Alaska Native high school seniors in 1985–1989 were the most likely to report current smoking (44 percent), followed by white females (34 percent), and Puerto Rican and other Latin American females (25 percent).[244] In a different 1989 survey of American Indian/Alaska Native teens, 18 percent of the adolescent females in high school reported daily cigarette smoking. Less than 20 percent of the following groups of female high school seniors also reported current cigarette smoking in 1985–1989: Mexican Americans (19 percent), Asian Americans (14 percent), and black Americans (13 percent). Data on current smoking from the 1995 YRBS, available only for white, black, and Hispanic females, revealed greater smoking among white (40 percent) and Hispanic adolescent females (33 percent) than among black adolescent females (12 percent). In 1999, white (39 percent) and Hispanic (nearly 32 percent) female teens remained equally likely to report smoking as in 1995, while black female adolescents (nearly 18 percent) were somewhat more likely to smoke than in 1995.[237]

Although smokeless tobacco is used more commonly by males than females, smokeless tobacco use among American Indian/Alaska Native and Hispanic females is of concern. Implicated in cancers of the mouth and throat, smokeless tobacco and smoking cigarettes produce comparable levels of nicotine in the body. A variety of regional studies conducted in the 1980s among American Indian/Alaska Native school-age youth found that less than 3 percent of adolescent females use smokeless tobacco, although between 3 percent and 26 percent of adolescent males reported such use.[245] One 1989 survey of American Indian/Alaska Native teens reported daily use of smokeless tobacco by 8 percent of high school females. The 1999 YRBS reported that nearly 2 percent of both white and Hispanic adolescent females used smokeless tobacco, in contrast to only 0.2 percent of black adolescent females.[237]

As with cigarettes, most female adolescents have tried alcohol. In 1999, large majorities of Hispanic (85 percent), white (82 percent), and black (76 percent) adolescent females reported having had at least one drink of alcohol.[237] Also as with cigarette smoking, smaller shares of adolescent females reported current use (defined as having a drink on at least one of the preceding 30 days), with white adolescent females reporting greater current use in both 1985–1989 and 1999 than the other adolescents. In 1985–1989, 67 percent of white females who were high school seniors reported current alcohol use, followed by 60 percent of American Indian/Alaska Native females, 51 percent of Mexican American females, and 43 percent of Puerto Rican and other Latin American females.[244] Asian American (34 percent) and black American (33 percent) adolescent female high school seniors were least likely to report current alcohol use. In 1989, more than 13 percent of American Indian/Alaska Native adolescent females reported weekly or more frequent alcohol use.[233] A decade later, the 1999 YRBS found that alcohol use among white adolescent females (grades 9 to 12) had declined to 50 percent, with rates for Hispanic females at 49 percent and for black females at 41 percent (increases over the 1985–1989 figures).[237]

Marijuana had been tried by more than two-fifths of both white (42 percent) and black (43 percent) adolescent females and by nearly half (46 percent) of Hispanic adolescent females surveyed in the 1999 YRBS.[237] 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.[244] 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. Ten years later (in 1999), current marijuana use was more common among black, white, and Hispanic female high school students (grades 9 to 12). More than a fifth of white (23 percent), black (22 percent), and Hispanic (22 percent) adolescent females reported current marijuana use.[237]

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), by 1999, the largest reported use of both cocaine and crack (or freebase cocaine use) was among 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.[244] However, in the 1999 YRBS, Hispanic adolescent females were most likely to report ever having tried any form of cocaine (powder, crack, or freebase)—12 percent. Hispanic females in grades 9 through 12 are the group most likely (more than 5 percent) to acknowledge current use of cocaine as well. Nine percent of comparable white females and only 1.5 percent of comparable black females reported ever having tried cocaine or crack, or freebase use of cocaine, with smaller shares (3 percent of whites and 1 percent of blacks) admitting current cocaine use.[237]

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 1999 YRBS, 17 percent of black adolescent females reported rarely or never using a seat belt when riding in a car or truck driven by someone else. Eleven percent and nearly 10 percent, respectively, of white and Hispanic adolescent females reported this same failure to use seat belts.[237] In addition, 37 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 8 percent reported that they themselves had driven after drinking alcohol. The shares of black (35 percent) and white (32 percent) adolescent females who reported riding one or more times during the preceding 30 days with a driver who had been drinking alcohol are comparable. A larger share of white females (10 percent) than black females (5 percent), however, indicated having driven after drinking alcohol.[237]

Healthful Behaviors

Dietary practices and physical activity can be health affirming for adolescents, as for adults. Sizable proportions of adolescent females limit their fat intake, while lesser proportions eat multiple servings of fruits and vegetables and drink milk daily. Large majorities of three groups of adolescent females (76 percent of whites, 69 percent of Hispanics, and 56 percent of blacks) indicated that on the day preceding the YRBS, they had eaten no more than two servings of foods high in fat.[246] In addition, nearly a third (30 percent)

of adolescent black females, and more than a fifth of adolescent white and Hispanic females (22 percent and 21 percent, respectively) reported that they had eaten five or more servings of fruits or vegetables on the day preceding the 1999 YRBS. Smaller proportions of adolescent females report drinking more than three glasses of milk a day during the week preceding the survey, however. Nearly 14 percent of white female teens reported this behavior, while less than 11 percent of Hispanic, and less than 8 percent of black adolescent females reported the same. Adolescent females of all three racial/ethnic groups were significantly less likely to drink more than three glasses of milk a day than their male counterparts.[237]

A majority of white non-Hispanic adolescent females (60 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 1999 YRBS. About half of black and Hispanic adolescent females—47 percent of blacks and 50 percent of Hispanics—also reported participating in vigorous physical activity. A smaller share of both Hispanic (17 percent) and white (18 percent) adolescent females than of black (26 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 1999 YRBS.[237]

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 "younger-old," persons ages 75 to 84 years as "old," and persons ages 85 years and older as the "older-old."[98] Despite this convention, persons may be recognized as elderly at widely divergent ages, as young as 40 years of age for many Southeast Asian subgroups and some American Indian/Alaska Native populations.[98] This recognition reflects the fact that as early as ages 45 or 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, three times as many American Indians/Alaska Natives as persons in the general population die before reaching the age of 45.[10] In one survey among American Indians in Los Angeles, the median age for men and women who were considered elders was 58 years.[16]

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).[40] 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.[40] Although whites dominate the elderly population at present, their share is projected to decline over the next 50 years as the numbers of other racial/ethnic elderly increase.[247] In 1980, members of racial/ethnic populations were more than 10 percent of the elderly population, with their share increasing to 13 percent in 1990;[248] in 2000, racial/ethnic subpopulations were estimated to be more than 16 percent of the elderly.[249] By 2050, members of racial/ethnic groups are projected to be a third of the elderly.[247]

Of the nearly 35 million elderly in 2000, an estimated 29 million, or 84 percent, were white non-Hispanic. Non-Hispanic blacks (2.8 million) were 8 percent of the elderly population, with Hispanics (2.1 million), Asians and Pacific Islanders (700,000), and American Indians/Alaska Natives (140,000) accounting for 6 percent, 2 percent, and 0.4 percent shares, respectively.[249] 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 also 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.[250] In the year 2050, whites are projected to be more than 64 percent of the elderly, with Hispanics more than 16 percent, non-Hispanic blacks 12 percent, Asians and Pacific Islanders nearly 7 percent, and American Indians/Alaska Natives 0.6 percent of this population.[247] The Hispanic elderly are expected to grow the most rapidly, from an estimated 2 million in 2000 to more than 13 million by 2050.[249]

There is considerable variation in the number and proportions of elderly in the states and regions of the United States. For example, more than 18 percent of Florida's population was older than the age of 65 in 1998. Although the more populous states of California and New York have a larger number of adults aged 65 years and older, the older adult populations in Pennsylvania and Rhode Island (both nearly 16 percent) are a greater proportion of those states' populations. More than 12 million elderly live in the South, comprising close to 13 percent of the population in that region, while the 7 million elderly residing in

the Northeast make up slightly more than 14 percent of that region's population.[251] 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 80 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 7 million people in 1990 to more than 31 million in 2050.[247] The share of whites among the elderly subpopulation 80 years of age and older also is expected to decrease—from 88 percent in 1990 to almost 69 percent in 2050—while the shares of racial/ethnic populations are expected to increase. The Hispanic population 80 years of age and older, as a share of all persons 80 years of age and older, is expected to quadruple over that period, from 3 percent to nearly 15 percent; the corresponding share among the Asian and Pacific Islander elderly is projected to grow from 1 percent in 1990 to nearly 6 percent in 2050. The black population 80 years and older is projected to comprise more than 10 percent of this elderly subpopulation, up from 7 percent in 1990. The proportion of the elderly population 80 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 1990 to 0.6 percent in 2050.[247,248]

Demographics

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 both 1990 and 2000—only 6 percent, which was less than half the share of the elderly among non-Hispanic whites at that time.[2,230] Among American Indian/Alaska Native women, the elderly were a similar share also in both 1990 and 2000—7 percent.[2,230] Younger-old women (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.[2]

Most elderly American Indians/Alaska Natives live in the South and West, as does the majority of this population under age 65. Three in four American Indian elderly lived in Western and Southern states, with 40 percent in Oklahoma, California, and Arizona combined.[248] 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.[24]

The American Indian/Alaska Native population 80 years of age and older is growing, with the projection that this age cohort will increase from 18 percent of all American Indian/Alaska Native elderly in 1990 to nearly 37 percent in 2050.[247,248] This increase among the older-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 80 and older per 100 persons ages 50 to 64) for American Indians/Alaska Natives will more than triple, from 11 to 38.[248]

Native Hawaiians or Other Pacific Islanders

In 1990, the elderly were 5 percent of the total Native Hawaiian population and 3 percent of the total Samoan population.[230] 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.[230] Among all elderly Native Hawaiians, however, 57 percent were women. Most elderly Native Hawaiians and Samoans live in the South and West.

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.[2] 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. Younger elderly 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.

Hispanics or Latinos

Elderly persons constituted 5 percent of the U.S. Hispanic population in both 1990 and 2000.[2,248] 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. In 1990, nearly half of the Hispanic elderly (49 percent) were of Mexican origin, 15 percent Cuban, 12 percent Puerto Rican, and 25 percent of other Hispanic subgroups. Almost 40 percent of older Hispanics report speaking no English, although more than a quarter report good English skills.[252]

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. The population of elders 80 years and older is projected to grow from 19 percent of all Hispanic elderly in 1990 to 34 percent in the year 2050.[247,248] Because of this growth, the Parent Support Ratio is projected to more than triple for Hispanics over this period, from 11 to 36.

Nearly 6 percent of all Hispanic females were elderly, with about 4 percent considered younger-old (ages 65 to 74) in both 1990 and 2000.[2,230] Women also are the majority of all elderly Hispanics. They constituted 59 percent of the population 65 years and older and 62 percent of the population ages 75 years and older in both years.

Black or African Americans

The elderly were 8 percent of the entire black population in both 1990 and 2000, with more than half of these persons living in Southern states.[2,248] As with other racial/ethnic groups, the older-old population is the fastest growing segment of the black elderly. Two in ten elderly blacks were 80 years and older in 1990, and this proportion could increase to more than three in ten by the year 2050.[247] This population growth could cause the Parent Support Ratio for blacks to increase from 16 (persons 80 years of age and older per every 100 persons 50 to 64 years of age) in 1990 to 27 by the middle of the next century.

Elderly black women (65 years and older) were 10 percent of the black female population in both 1990 and 2000, slightly more than the 8 percent share that all the elderly were of the entire black population.[2,230] In 2000, the majority of black elderly females (54 percent) were younger-old (65 to 74 years), and these younger-old black women were 59 percent of all blacks who were ages 65 to 74 years. Females were 62 percent of all elderly blacks but 66 percent of elderly blacks ages 75 years and older.

Asian Americans

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.[187,248] As with other elderly populations, persons ages 80 and older are the fastest growing segment, projected to increase from 16 percent of all elderly Asians and Pacific Islanders in 1990 to nearly 33 percent in 2050. Consistent with this growth, the ratio of persons ages 80 years and older per 100 persons ages 50 to 64 years (the Parent Support Ratio) is expected to more than triple, from nine to 34.[248]

Looking at Asian Americans alone in 2000, 8 percent of this population was elderly, and nearly 9 percent of all Asian women were elderly.[2,230] Women are 58 percent of all Asians 65 years of age and older and constitute roughly equivalent shares of the elderly subpopulations 65 to 74 years of age (57 percent) and 75 years of age and older (58 percent).

Access to Health Care

Elderly women of color share several characteristics with all elderly women. 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.[40] This ratio declines to 82 for persons ages 65 to 74 years, and to 69 for the 75- to 84-year-old cohort. The sex ratio for the population 85 years old and older is 49 males per 100 females, nearly half that of the general population.[40] Although the sex ratios among the major racial/ethnic elderly subpopulations in 1990 are less than 100, they range from 62 elderly black men per 100 elderly black women to 82 elderly Asian men per 100 elderly Asian women.[248] The sex ratio for African Americans ages 40 to 44 is similar to the sex ratio for white Americans ages 60 to 64.[114] The higher sex ratio for elderly Asians reflects the historical gender imbalance among Asian immigrants to the United States, with Asian men often migrating alone initially.[187]

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 years (65 to 74), but become more pronounced for women of color in older age groups. For example, 48 percent of black women 65 to 74 years of age were widowed, compared to 19 percent of black males. Sixty-four percent of black women 75 to 84 years of age were widowed, versus 38 percent of black males.[248] In 1998, more than 77 percent of women of all races ages 85 or older were widows.[249] Widowed women often are impoverished because of the loss of the financial support of their husbands.[253]

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. As one example, when compared with white elderly women, elderly black women are more likely to be widowed or separated and to have at least three medical problems, usually among this set—hypertension, diabetes, cardiovascular disease, and cerebrovascular events.[114]

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.[254] Wray (1992) has found that socioeconomic status is indeed a notable factor in health differences between blacks and whites older than 55 years of age, in particular.[98]

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.[255] More than a third of unmarried black (36 percent) and Hispanic (34 percent) elderly women were poor and about half of each group (46 percent of black women and 51 percent of Hispanic women) were either poor or near-poor. These figures contrast with nearly a third (31 percent) of unmarried elderly white women being either poor or near-poor.

The lack of social and psychological coping resources is often accompanied by a physical lack of facilities, such as the limited availability of skilled and intermediate- to long-term care facilities on American Indian/Alaska Native reservations.[24] Currently, few such facilities exist among the nearly 300 American Indian/Alaska Native reservations. This shortage means that most American Indian/Alaska Native elderly must be cared for within the communities in which they live, regardless if they have the resources to use such facilities.[11]

Like elderly American Indians/Alaska Natives, elderly Hispanics are more likely to be cared for within Hispanic communities than in nursing homes. The strength and centrality of family values are noted to explain this.[252] However, because more acculturated Hispanic families provide lower levels of informal support to the aged, this may change as the number of Hispanics in the United States and their length of exposure to and influence by American culture grow. Thus,a future need for increased access to nursing home and to home health care may exist for the Hispanic elderly.[252]

Similarly, black American patients and families currently are more likely to prefer formal services in the home to a post-hospital institutional placement.[256] Since black elders have been found to enter post-hospital home care with higher levels of physical and cognitive impairment and to have care givers with more limitations than white elders, the ability of this elderly population to avoid nursing home placement also may be limited in the future. The preference for in-home services is related to the perception among black elders and their families that services located outside of black communities are not culturally compatible with the needs of these elders. Reluctance to use out-of-home facilities often results in black elders not using services they need or are entitled to.[254]

The change of roles for elders vis-á-vis younger persons within Asian families that have migrated to the United States has implications both for the living arrangements of and access to care among elders. Although Asian elders may help with child care or perform household duties for their families, they no longer can offer financial support, land, or other material goods as they would have 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 easily met.[257]

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.[98] Among elderly women enrolled in Medicare, access to health care services varies by race. Ten percent of African American elders with Medicare coverage reported delays in receipt of health care due to cost, along with 7 percent of Hispanics and 5 percent of whites.[249] These findings may relate to the degree of poverty among women of color who are enrolled in Medicare. In 1999, while only 24 percent of the 14.7 million white women who were Medicare beneficiaries had incomes less than $10,000, more than double this share of the 1.8 million African American female beneficiaries (56 percent) and of the 1.2 million Latina beneficiaries (58 percent) reported incomes at this level.[258]

Lack of insurance, while not related to delays in receipt of care by these Medicare populations, is related to reduced access to services among elderly women of color who may be ineligible for federal health insurance. While 96 percent of all women ages 65 years and older reported having Medicare coverage, only 88 percent of Mexican Americans, 77 percent of Puerto Ricans, and 87 percent of Cuban Americans in

this same age group reported this coverage.[259] Similar lacks of coverage would be expected among other racial/ethnic groups with large immigrant populations.

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. Seventy-four percent of the white elderly have a combination of Medicare and private insurance, more than twice the percent of blacks, Hispanics, and Asian Americans with this same combination (32 percent, 30 percent, and 30 percent, respectively). Elderly of color 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.[87]

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.[24] This ascription by itself may constitute a barrier to care. In addition, elderly American Indians/Alaska Natives often lack trust in medical care that is not indigenous. Urban American Indians are unwilling to endure lengthy waits at non-indigenous clinics to get care because of their cultural perceptions that "many mainstream attitudes are intolerably rude."[16] Behaviors such as getting right down to business, addressing strangers in loud, confident tones, and frequently interrupting speakers increase social distance between elderly American Indians/Alaska Natives and non-American Indian/Alaska Native professionals. The "blatant racism" and the "pernicious effects of stereotyping" that elderly American Indians/Alaska Natives have encountered in their years of seeking care also become barriers to seeking care in their later lives.[16] They also may have had the lifelong experience of being turned away from public clinics whose staff incorrectly insist that the Indian Health Service is the sole agency responsible for their care.[16]

In one study, older American Indians reported that they "fear non-Indian health professionals, do not expect to be treated fairly by them, and anticipate adverse contact experiences."[16] Attitudes and experiences such as these underlie the Survey of American Indians and Alaska Natives (SAIAN) findings that only 66 percent of American Indian/Alaska Native women ages 60 years and older had ever had a breast exam, compared to 86 percent among all U.S. women that age.[260] Similarly, only 17 percent of American Indian/Alaska Native women ages 60 and older reported ever having had a mammogram, while 38 percent of all U.S. women in this age group reported ever having had this test.[260]

Similar sociocultural and political barriers interfere with the access of elderly black women in the rural South to health care services. For example, elderly black women in rural North Carolina reported feeling "distanced" from the local health care system and often allowed this feeling to translate into delay or avoidance of breast cancer screening or other preventive services.[261] This avoidance of breast cancer screening by elderly, rural black women contrasts with the national finding that elderly black women are the most likely to get mammograms. In 1994, 61 percent of non-Hispanic black women ages 65 and older reported having had a mammogram within the past two years. This exceeds the almost 55 percent of non-Hispanic white, and 48 percent of Hispanic elderly women who reported being screened during the same period.[249] 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 continue to 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.[262]

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.[254] 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.[254] 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 elderly Asian women when seeking health care, it is not the only impediment. Elderly Asian women who speak limited English may only know how to describe their pains or distress in their native languages. To save face or prevent conflict, these women may answer "yes" when they really do not understand something and, thus, agree to a treatment plan but not comply with it.[257] Many Asian elderly believe that the healer is supposed to be able to make a diagnosis without much discussion and with little or no physical contact. Physicians who ask too many questions, need too many tests, or suggest probabilities (rather than guarantees) of outcomes are likely to lose credibility among these elderly. This loss may result in premature discontinuation of therapies prescribed by western medicine and the failure to acknowledge the use of traditional medicines for fear the provider will be angry, refuse to treat them, or cause their medicinal plants to be taken away from them.[257]

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.[187] 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's disease exists in any Chinese language. This is because Alzheimer's is conceptualized differently by the Chinese.[263]

Another example is the difficulty older Asian American women experience in the conception of illness in the female reproductive organs.[187] 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.[187] This failure to seek preventive care is reflected in the fact that in 1991, a somewhat lower share (two-thirds) of Asian women 65 years of age and older reported having had a checkup within the past year, compared to 68 percent of white and 74 percent of black elderly women.[208] Hispanics were the only group of elderly women who reported a smaller share (60 percent) having had a checkup within the past year. 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.[208]

Health Assessment

Elderly people of color, especially Hispanics and African Americans, are known to have a greater number of functional disabilities (as measured by restricted activity and bed-disability days) than are elderly whites of the same ages.[98] In 1996, Hispanic and black elderly were nearly twice as likely as white and Asian American elderly to rate their health as fair or poor.[87] Activity limitations due to arthritis increase with age for all women, but are especially severe for African American and American Indian/Alaska Native women among the 2.5 million women 65 years of age and older reporting this condition.[264] In addition, although the age-specific incidence of hip fractures in black women is about half that of white women, the rates in black women are considerable and are associated with higher subsequent rates of disability and even mortality.[265] 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.[257] 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.

American Indian/Alaska Native women ages 65 and older included in the SAIAN reported greater incidence than all United States women of gallbladder disease and of diabetes mellitus, two chronic conditions that may contribute to functional disability and impairment.[266] As it was in earlier adult years, diabetes 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 one in four black women older than 55 years of age with the disease, double the rate among white women.[267] Mexican American (15 percent) and Puerto Rican (16 percent) women ages 45 to 74 years have a higher prevalence of diabetes mellitus than both non-Hispanic white (6 percent) and black women (11 percent).[259] Hypertension, especially among Filipino women, and high levels of cholesterol are two major causes of morbidity among Asian women.[187]

Racial/ethnic elders have been found to be somewhat more likely than other elderly persons to experience psychosocial distress.[268] 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. At the same time, the accuracy of reports of psychiatric illnesses among African Americans has been questioned.[114] Diagnostic biases have been found to result in greater likelihood of a diagnosis of schizophrenia among blacks than is warranted upon re-examination of patients. 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.[114]

Effective responses to mental problems vary by racial/ethnic group. For example, in one study family help has been found to buffer psychological distress among elderly blacks, while higher levels of family interaction were associated with greater depression among elderly Mexican Americans.[268]

The major causes of death for racial/ethnic elderly subpopulations include diabetes and hypertension, which are prominent as causes of deaths among African American, Hispanic, and American Indian/Alaska Native elders.[98] The six leading causes of death in 1995 for elderly American Indians/Alaska Natives were heart disease, cancers, diabetes mellitus, cerebrovascular disorders, pneumonia and influenza, and accidents.[24] Cancer survival rates among elderly American Indians/Alaska Natives are the lowest among all United States subpopulations.

In one state survey, elderly Hispanics (both male and female) were found to have lower death rates than elderly non-Hispanic whites (both male and female) for almost all causes, especially diseases of the heart, chronic obstructive pulmonary disease and allied conditions, and cancers.[252] Older Hispanics had higher death rates due to diabetes mellitus, motor vehicle accidents, kidney ailments (such as nephritis, nephrotic syndrome, and nephrosis), and chronic liver disease and cirrhosis than did non-Hispanic whites.

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.[187] Asian and Pacific Islander women 65 years of age and older have a death rate from suicide (more than eight per 100,000) that is four times that of elderly black women (two per 100,000) and 1.3 times that of elderly white women (more than six per 100,000). Suicide rates among elderly Chinese American and Japanese American women, in particular, are known to exceed suicide rates among non-Asian women of the same ages.[187] Social isolation is posited as an explanation for this, although health problems are mentioned most often as the reason for suicide when suicide notes are left.[269]

Death rates among some racial/ethnic elderly populations differ from those among whites due in part to the "mortality crossover effect" observed among African Americans and American Indians/Alaska Natives. The mortality crossover effect is a pattern of selective survival in which the least robust African Americans and American Indians/Alaska Natives die at earlier ages and hardier ones survive to much older ages.[98] This explains why life expectancy for whites exceeds that for African Americans at age 65, but the reverse becomes true around age 75—that is, life expectancy for African Americans exceeds that for whites.[98]

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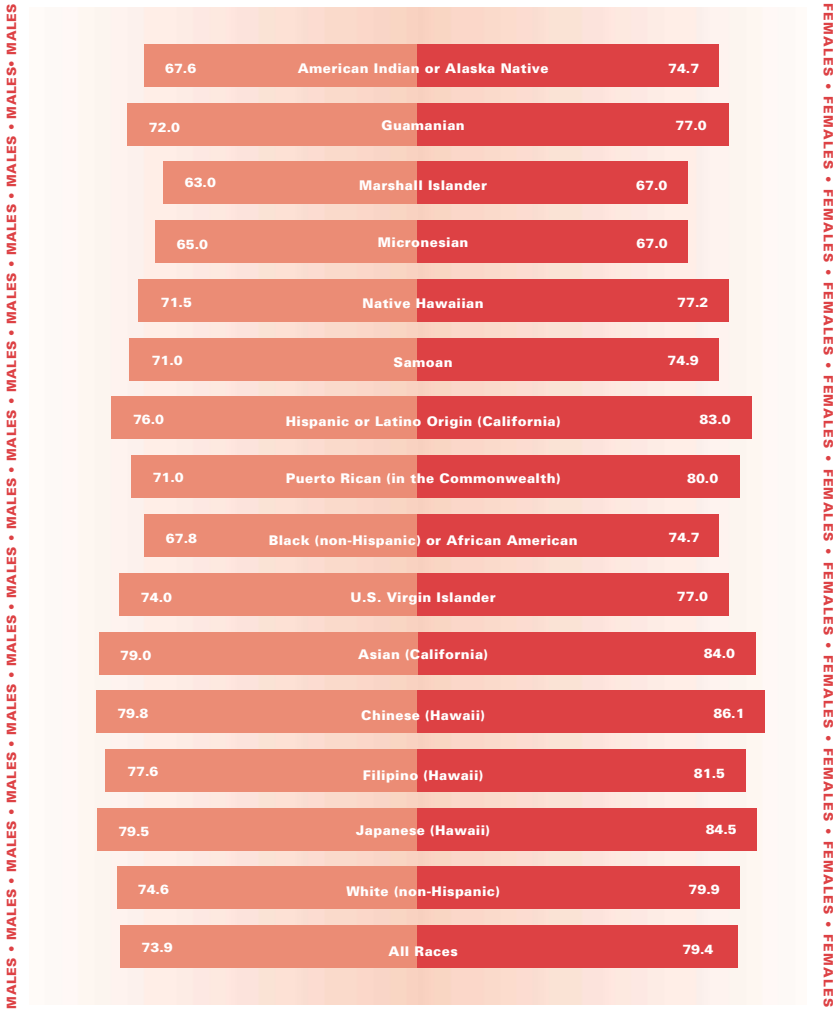
HEALTH ASSESSMENT OF WOMEN OF COLOR

Life Expectancy

- Among both whites and people of color, life expectancy (or expected remaining years of life) from birth is greater for women than for men. The greatest gaps in life expectancy are reported between women and men in the Commonwealth of Puerto Rico (9 years), and between American Indian/Alaska Native women and men, Hispanic women and men (in California), and African American women and men (each 7 years difference).[1–3]
- In the past, life expectancies of white men and women exceeded those of most people of color. Life expectancies for many Asian women living in Hawaii and California, and for Hispanic women living in California and in the Commonwealth of Puerto Rico, equal or exceed that of white women, however. Similarly, Asian men in California (79 years) and Hispanic men in California (76 years), along with men belonging to selected Asian subgroups in Hawaii (between almost 78 years and almost 80 years), are expected to live longer than white non-Hispanic men (74.6 years).[1–4]
- Based on current mortality data, the life expectancy for Hispanics living in California is 83 years for women and 76 years for men. For the population living in Puerto Rico, female life expectancy from birth is 80 years, while for men it is 71 years.[1,2] Hispanic women in the United States have a longer life expectancy than either American Indian/Alaska Native or black American women (both nearly 75 years).

FIGURE 3
Life Expectancy at Birth in Years by Race and Sex, 1990, 1994, 1994–1996, 1998, 1999, 2001



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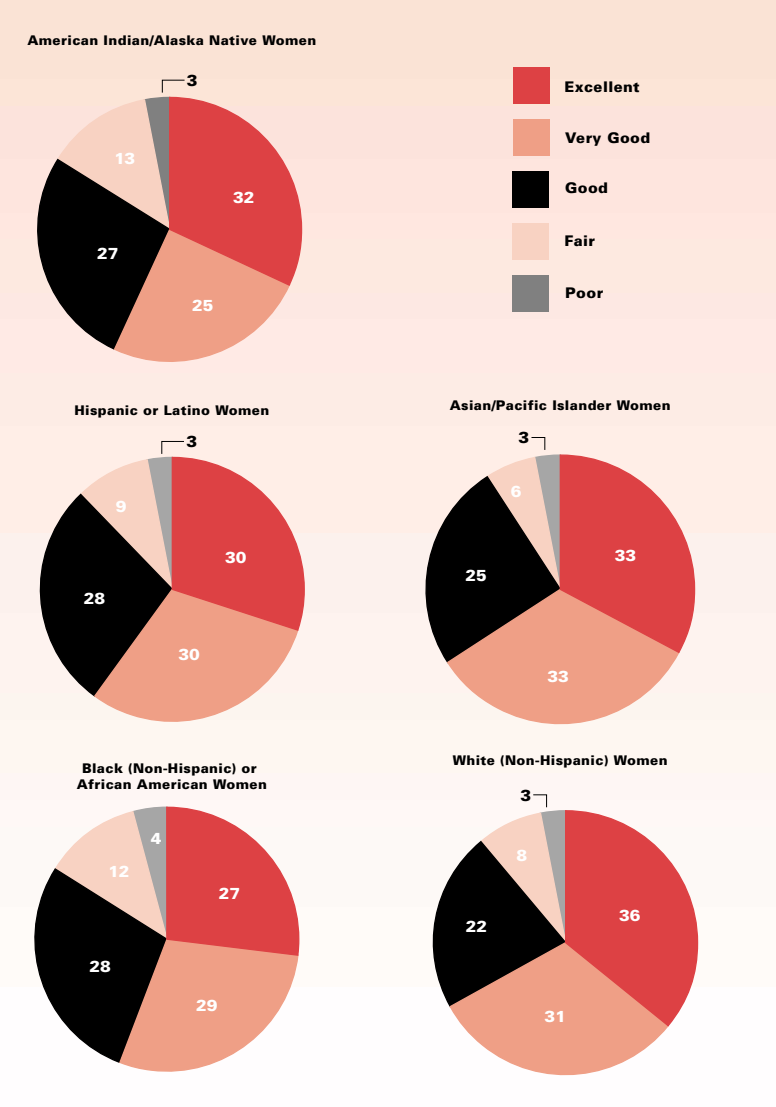
E-mail correspondence with Swanihda O. Robonei, R.N. Maternal and Child Health Coordinator for the Federated States of Micronesia (taken from the 1994 Census conducted on the island): January 2001.

- 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 77 years, compared to almost 75 years for black American females elsewhere in the United States. The gap in life expectancy is even greater between males in the Virgin Islands (74 years) and black American males elsewhere in the United States (less than 68 years).[3,5]
- Between 1979 and 1989, life expectancy at age 45 was 3.1 years longer for African American women in the highest income group as compared to African American women in the lowest income group.[6]
- Life expectancy from birth for Native Hawaiian females living in Hawaii was slightly more than 77 years in 1990. Life expectancy for Samoan women living in the U.S. Territory of American Samoa is close to 75 years; for Guamanian women, life expectancy is 77 years.[1,4]
- American Indian/Alaska Native women in the majority of Indian Health Service (IHS) service areas had a life expectancy of close to 75 years between 1994 and 1996. This average life expectancy for American Indian/Alaska Native women reflects service areas such as Bemidji, where life expectancy is slightly less than 68 years, and California where life expectancy is over 80 years.[7]
- American Indian females in California (1994–1996) had a higher life expectancy at birth (80.2 years) than Indian women in all other IHS service areas (67.8 to 77.5 years), and white women (80 years) at that time.[7]
- Life expectancy at birth for Asian populations is the highest among all racial groups (for instance, 84 years for women and 79 years for men in California).[2] In 1992, Asian Indians (men and women both) had the highest life expectancy among these subpopulations—85 years. Similarly, Chinese, Japanese, and Koreans all had a life expectancy of 82 years.[8]
- Life expectancies based on the female subpopulations in Hawaii in 1990 are as follows: white—nearly 79 years; Chinese—more than 86 years; Filipino—nearly 82 years; and Japanese—nearly 85 years.[1,4]

Self-reported Health Ratings

- Self-reported health ratings by patients have generally proven to be sound indicators of later-life health.[9]
- In 2000, among all women of color, more than half believed they were in excellent or very good health.[10] 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.[11]
- A majority of white women (67 percent) and Asian and Pacific Islander women (66 percent) rate their health as excellent or very good.[10]
- African American and American Indian/Alaska Native women (both 16 percent) were most likely to report they were in fair/poor health. This compares with only 11 percent of white women and 9 percent of Asian and Pacific Islander women reporting the same health rating.[10]
- Of people ages 65 and older in 1996, Hispanics (43 percent) and blacks (41 percent) were most likely to rate their health as fair or poor, followed by whites at 23 percent, and Asian Americans at 22 percent.[12]
- Among women ages 65 and older, a higher percent of non-Hispanic whites (74 percent) than non-Hispanic blacks (59 percent) and Hispanics (65 percent) reported their health as good to excellent between 1994 and 1996.[13]
- One study examining the health of adults ages 65 and older found that Latino and African American women rated their health significantly worse than did Hispanic and black men, as well as did white women and men.[14]
- In 1994 among both men and women of Hispanic origin, Puerto Ricans were the most likely to report their health as fair or poor (27 percent), while Cubans were the least likely (13 percent). Among persons of Asian origin, Vietnamese were most likely to believe they were in fair or poor health (29 percent), while Korean Americans (18 percent) were least likely to report they were in fair or poor health.[12]
- Ninety-two percent of white working women reported that they were in good or excellent health in 1993, compared to 84 percent of black and Hispanic women.[11] One-third of nonworking black and Hispanic women reported that they were in fair or poor health, versus 18 percent of white non-working women. Regardless of employment status, white women feel better about their health than do black and Hispanic women.[7]
- In New York (1992), 33 percent of Colombian, Dominican, and Puerto Rican women reported excellent or very good health, while 37 percent of Ecuadorian women reported the same. Roughly equal percentages of Ecuadorian, Puerto Rican, and Colombian women reported fair or poor health (34, 32, and 30 percent, respectively) as reported excellent or very good health. However, a larger share of Dominican women (40 percent) reported they were in fair or poor health than felt they were in excellent or good health.[15]

FIGURE 4
Self-reported Health Ratings among Women by Race/Ethnicity, 2000
Percent

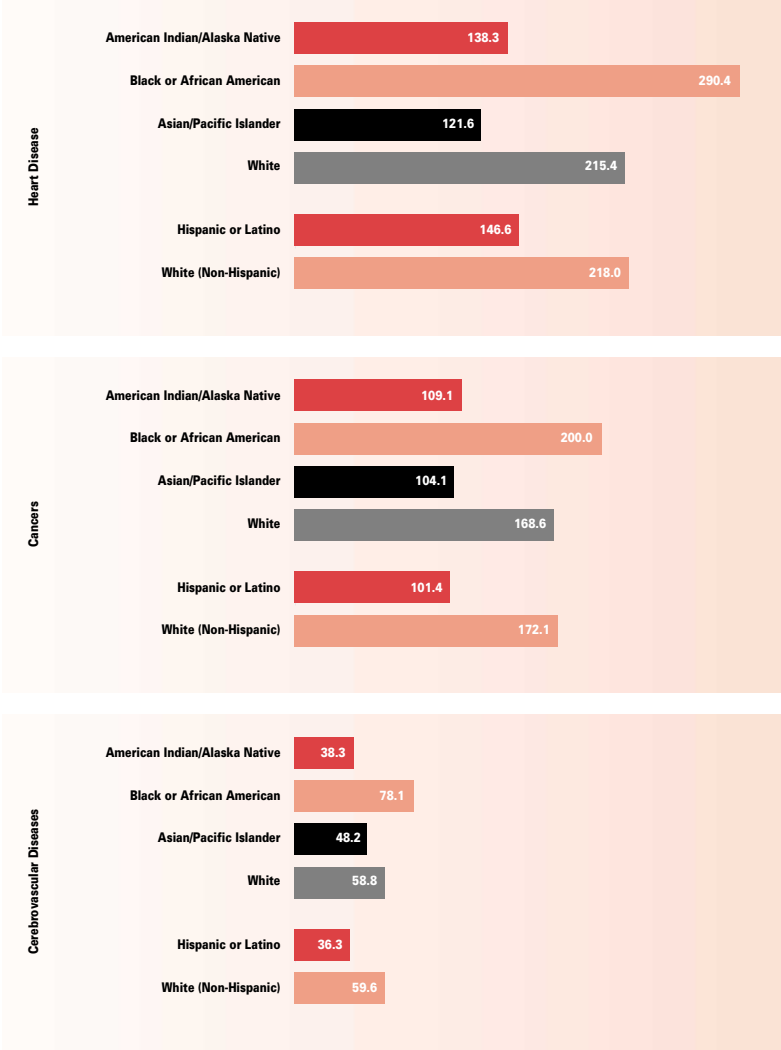


Source: Current Population Survey, March 2000 Supplement, http://ferret.bls.census.gov.

Major Causes of Death

- One study of mortality from all causes between 1979 and 1989 found the mortality risk for black immigrant women to be 45 percent lower than this risk for their U.S.-born counterparts. Risk of death due to all causes also was 37 percent lower for Hispanic immigrant women than for U.S.-born Hispanic women.[16]
- 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 all females, except Asian and Pacific Islander females, for whom they are the second major cause of death.[17]
- Age-adjusted death rates from diseases of the heart ranged from a high of 290 per 100,000 African American women to a low of 122 per 100,000 Asian and Pacific Islander women in 1999. Death rates for Hispanic women and American Indian/Alaska Native women—147 per 100,000 and 138 per 100,000, respectively—are less than the rates reported by both black women (noted above) and white women (around 215 per 100,000). In 1999, diseases of the heart accounted for as much as 31 percent of all deaths to white females and as little as 21 percent of all deaths to American Indian/Alaska Native females. Deaths due to heart disease account for comparable shares of the deaths to black (29 percent), Hispanic (27 percent), and Asian and Pacific Islander (26 percent) women.[17]
- Death rates from diseases of the heart were higher for women of color ages 45 years and older than for all women of color in 1999. Among black women ages 45 to 54 years, 128 per 100,000 died, as did 51 per 100,000 American Indian/Alaska Native women, 31 per 100,000 Hispanic women, and 19 per 100,000 Asian and Pacific Islander women.[17] Among women ages 55 to 64 years, black women remained the most likely to die from diseases of the heart—at the rate of 336 per 100,000. Their death rate is seconded by American Indian/Alaska Native women at 183 per 100,000, then by white women (149 per 100,000) and Hispanic women (118 per 100,000). Among women ages 85 years and older, 6,000 white women per 100,000 died in 1999, compared with more that 5,500 per 100,000 black women, 3,700 per 100,000 Hispanic women, and nearly 3,300 per 100,000 Asian and Pacific Islander women. More than 2,000 per 100,000 American Indian/Alaska Native women 85 years and older died of heart disease as well.
- Cancers (malignant neoplasms) are the second most common cause of death for all females except Asian and Pacific Islander females, for whom it is the main cause of death. Twenty-seven percent of all deaths to Asian and Pacific Islander females in 1999 were due to cancers.[17]
- Black and white women reported the highest death rates from all forms of cancer in 1999. The age-adjusted death rate for black women of 200 per 100,000 exceeded the rate for white women (169 per 100,000), as well as the rates of American Indian/Alaska Native (109 per 100,000), Asian and Pacific Islander (104 per 100,000), and Hispanic (101 per 100,000) women.[17]

FIGURE 5
Age-adjusted Mortality Rates from Major Causes of Death Among Women by Race/Ethnicity, 1999
Deaths per 100,000 population



Source: National Center for Health Statistics, *Health, United States, 2001 with Urban and Rural Health Chartbook*, Hyattsville, MD: 2001 (pgs. 189-98).

- The third-ranked killer of most females is cerebrovascular diseases (primarily strokes). American Indian/Alaska Native women provide the only exception to this because unintentional injuries is their third-ranked killer. Cerebrovascular diseases rank fifth among the causes of death for American Indian/Alaska Native women.[17]
- Death rates from cerebrovascular diseases also were highest among black women (78 per 100,000). The second highest death rate from cerebrovascular diseases in 1999 was reported for white women (59 per 100,000), with rates for Asian and Pacific Islander women (48 per 100,000), American Indian/Alaska Native women (38 per 100,000), and Hispanic women (36 per 100,000) the lowest among the groups.[17]
- Unintentional injuries kill many females, although their ranking among the top ten causes of death varies by racial/ethnic group. As noted earlier, they are the third-ranked killer of American Indian/Alaska Native women. They are the fifth-ranked cause of death for Latino, Asian and Pacific Islander, and black females, and the seventh-ranked killer of white females.[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/Alaska Native, Hispanic, and Asian and Pacific Islander females. Diabetes mellitus is the eighth-ranked killer of white females.[17]
- Chronic lower respiratory diseases, the fourth-ranked cause of death for white females, is a major killer of women of other racial/ethnic groups, but to a lesser extent. It is the sixth-ranked killer of Hispanic and Asian and Pacific Islander females, and the seventh-ranked killer of American Indian/Alaska Native and black females.[17]
- Several conditions are notable because they cause large numbers of deaths only among women of color. American Indian/Alaska Native women have extremely high mortality rates for cirrhosis and liver disease—18 per 100,000 from 1995 to 1997. This is three times the next highest rate for this time period—6 per 100,000 Hispanic women.[18] In 1999, chronic liver disease and cirrhosis were the sixth cause of death among American Indian/Alaska Native women, and the ninth cause of death among Hispanic women.[17]
- Among women of all races and age categories, American Indian females ages 25 to 44, and Asian/Pacific Islander women ages 65 and older, have the highest death rates due to suicide—the former at 8 per 100,000, and the latter at 6.5 per 100,000.[17]
- Although it was the eighth cause of death in 1996, the year 1997 marked the first time human immunodeficiency virus (HIV) infection was not one of the top 15 causes of death since 1987.[19] 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 1999. HIV infection, however, remains one of the ten most frequent causes of death among black women, ranked tenth in 1999, down from seventh in 1993.[17] In 1999, however, HIV infection was the third leading cause of death among black women ages 22 to 44.[3]

TABLE 3
Leading Causes of Death for Women by Race/Ethnicity, 1999
Number of deaths

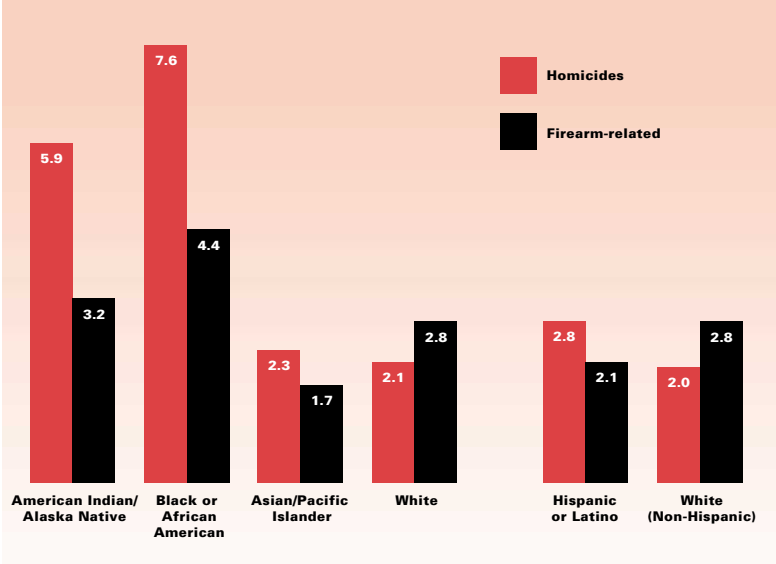
American Indian/Alaska Native	
all causes	5,222
diseases of the heart	1,102
malignant neoplasms	887
unintentional injuries	436
diabetes mellitus	403
cerebrovascular diseases	309
chronic liver disease and cirrhosis	214
chronic lower respiratory diseases	209
influenza and pneumonia	168
nephritis, nephrotic syndrome, and nephrosis	115
septicemia	88
Hispanic or Latino	
all causes	45,763
diseases of the heart	12,315
malignant neoplasms	9,566
cerebrovascular diseases	3,099
diabetes mellitus	2,848
unintentional injuries	2,070
chronic lower respiratory diseases	1,311
influenza and pneumonia	1,153
certain conditions originating in the perinatal period	963
chronic liver disease and cirrhosis	829
nephritis, nephrotic syndrome, and nephrosis	770
Black or African American	
all causes	139,363
diseases of the heart	40,976
malignant neoplasms	29,083
cerebrovascular diseases	10,986
diabetes mellitus	7,167
unintentional injuries	3,933
nephritis, nephrotic syndrome, and nephrosis	3,703
chronic lower respiratory diseases	3,407
septicemia	3,204
influenza and pneumonia	3,038
human immunodeficiency virus (HIV) disease	2,393
Asian/Pacific Islander	
all causes	15,349
malignant neoplasms	4,178
diseases of the heart	3,942
cerebrovascular diseases	1,621
diabetes mellitus	625
unintentional injuries	588
chronic lower respiratory diseases	406
influenza and pneumonia	380
nephritis, nephrotic syndrome, and nephrosis	281
essential (primary) hypertension and hypertensive renal disease	196
septicemia	195
White	
all causes	1,056,144
diseases of the heart	327,463
malignant neoplasms	229,837
cerebrovascular diseases	89,948
chronic lower respiratory diseases	57,735
influenza and pneumonia	32,410
Alzheimer's disease	29,268
unintentional injuries	29,215
diabetes mellitus	29,050
nephritis, nephrotic syndrome, and nephrosis	14,408
septicemia	13,796

Source: National Center for Health Statistics, *Health, United States, 2001 with Urban and Rural Chartbook*, Hyattsville, MD: 2001 (pgs. 175–8).
Note: Excludes data from states lacking a Hispanic-origin item on their death certificates

Other Causes of Death

- In 1999, among women, blacks had the highest mortality rates from both assault (homicides) and firearm-related events (nearly 8 per 100,000 and more than 4 per 100,000, respectively). American Indian/Alaska Native women had the next highest mortality rates from homicide at almost 6 per 100,000 deaths. The homicide rate was nearly 3 per 100,000 Hispanic women and 2 per 100,000 for both Asian and Pacific Islander and white women. Firearm-related mortality rates ranged from nearly 2 per 100,000 to slightly more than 3 per 100,000 among American Indian and Alaska Native, Asian and Pacific Islander, Hispanic, and white women.[17]
- More than twice as many American Indian/Alaska Native women (21.6) per 100,000 died in motor-vehicle-related accidents in 1999 as did black, Hispanic, and Asian and Pacific Islander women. The age-adjusted motor-vehicle death rate for most women of color was between 7.3 per 100,000 (Asians and Pacific Islanders) and 9.2 per 100,000 (blacks). The motor-vehicle-related death rate of American Indian/Alaska Native women also was morethan double that of white women (9.9 per 100,000).[17]
- Other types of accidents or unintentional injuries took the lives of more white and African American women than did firearm-related events, motor-vehicle-related accidents, and homicides. As noted earlier, American Indian/Alaska Native women also had high mortality rates as a result of unintentional injures. The mortality rate for unintentional injuries among American Indian/Alaska Native women was more than 18 per 100,000 for 1994 to 1996, compared to close to 16 per 100,000 white women and almost 13 per 100,000 black women in 1998.[20–21]
- From 1992 to 1994, death rates for American Indian/Alaska Native adolescent and adult females from all types of accidents exceeded 39 deaths per 100,000.[22]

FIGURE 6
Death Rates from Homicides and Firearms among Women by Race/Ethnicity, 1999
Deaths per 100,000



Source: National Center for Health Statistics, *Health, United States, 2001 with Urban and Rural Health Chartbook*, Hyattsville, MD: 2001 (pgs. 214-16, 220-22).

Behavior and Lifestyles

Body Weight: Women of Color

- 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 and is related in part to their sedentary lifestyles and to the "diets of poverty" (high in fat and low in fruits and vegetables) that many consume.[23,24]
- Obesity is determined by the Body Mass Index (BMI), a measure that adjusts body weight for height. Overweight generally is defined as a BMI of 25 or above.[25]
- Native American populations are the most likely to be overweight or obese. Sixty percent of all American Indian women on reservations in 1987 and 63 percent of urban American Indian women were obese. Between 61 and 75 percent of all Yaqui Indian women across all age groups were obese. Similarly high rates of obesity were found among Native Hawaiian and American Samoan females, 63 and 66 percent, respectively. A significantly smaller proportion of Navajo Indian women were obese (between 15 and 32 percent, depending on age).[26–29]
- Based on 1997 data, the percentage of overweight women ranged from 25 percent for Asian women to 43 percent and almost 65 percent for non-Hispanic white and black women, respectively.[30] The shares of overweight women from the major Hispanic subpopulations were arrayed between these figures. Forty-eight percent of Mexican American females were overweight compared to 40 percent of Puerto Rican and 32 percent of Cuban women.[31,32]
- Hispanic immigrants who have resided in the United States for less than 15 years are less likely to be obese (25 percent) than more acculturated immigrants who have lived here for more than 15 years (35 percent).[31]

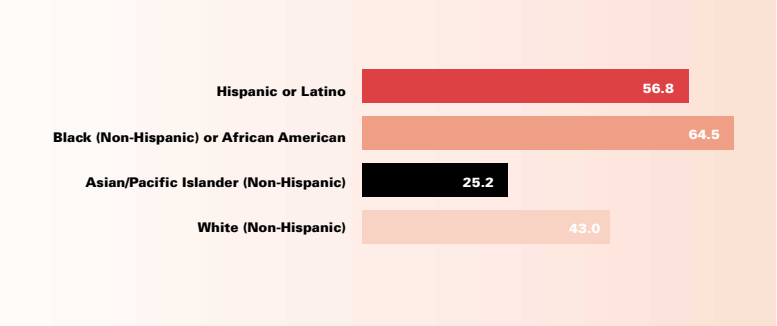
FIGURE 7
Age-adjusted Percent of Women Who Were at Healthy Weight and Overweight, 1988–1994
Percent

Source: National Center for Health Statistics, *Health, United States, 2001 With Urban and Rural Health Chartbook,* Hyattsville, MD: 2001 (pg. 256).

- Asian American women, in general, have the lowest rates of obesity. However, among subpopulations there is a range; 26 percent of Filipino American, 18 percent of Japanese American, and 13 percent of Chinese American women are obese.[29]
- Nearly 40 percent of Hispanic, black, and white women reported attempting to lose weight in 1991, compared to 28 percent of Asian American women.[31]
- More Asian American women reported themselves to be underweight than any other group. In 1991, 30 percent of Asian American women self-reported they were underweight. White women were a distant second with 15 percent defining themselves as underweight, followed by 9 percent of Hispanic women and 7 percent of black women.[31]
- As income rises among both black and white women, the percent of obese women declines, the percent of normal weight women increases, and the percent of underweight women remains nearly constant. Fifty percent of African American women and 31 percent of white women living in poverty in 1991 were obese, compared to 37 percent of black and 21 percent of white women with incomes three times the poverty level. The percent of obese Latino women also decreased—from 43 percent to 23 percent—as Hispanic personal income rose. However, both the percent of normal weight and underweight Hispanic women increased by 11 percentage points and 9 percentage points, respectively, as income rose from below the poverty level.[31]

- Between 1988 and 1994, white non-Hispanic women were much more likely to be at a healthy weight than their Mexican American and black non-Hispanic counterparts. More than two-thirds of both Mexican American and black women were overweight (nearly 70 percent and 69 percent, respectively), compared to less than half of white women (47 percent).[17]
- Also between 1988 and 1994, poor white non-Hispanic women were 1.4 times as likely to be overweight (42 percent) as their counterparts with middle or high incomes, of whom 30 percent were overweight. Among Mexican women, more than half of poor women (56 percent) were overweight, compared with nearly half of women at near-poverty (49 percent), and under half of middle- and high-income women (45 percent). However, more than half of black non-Hispanic women were overweight at all three income levels—55 percent of poor, 51 percent of near poor, and 52 percent of middle- and high-income women.[6]
- Using a slightly higher BMI (27.3) to define overweight, one survey found that between 36 percent and 46 percent of American Indian women were overweight, varying by state of residence (1994–1996 data). The largest share (46 percent) of American Indian women who where overweight resided in North and South Dakota. Forty-three percent of American Indian women in Washington and Oregon, 36 percent of American Indian women in Oklahoma, and 35 percent of women in New Mexico and Arizona also were overweight by the study's standards. Among Alaska Natives, in 1996, 38 percent of women were overweight. The study also found that the American Indian women who were overweight tended to underestimate their actual weight.[33]
- The relationship between weight and mental health is uncertain. One study found obesity (defined as BMI greater than 30) to be associated with a higher risk of depression among women and a lower risk of depression among men, when compared to healthy weight adults (defined as BMI between 20.77 and 29.99). Similarly, obesity in women is also related to increased risks of suicide contemplation and attempts.[34] Among overweight African American women (defined as a BMI of 27.3 or greater), the more overweight they are, the more likely they are to be depressed.[35]

FIGURE 8
Age-adjusted Percent of Women Who Were Overweight by Race/Ethnicity, 1997

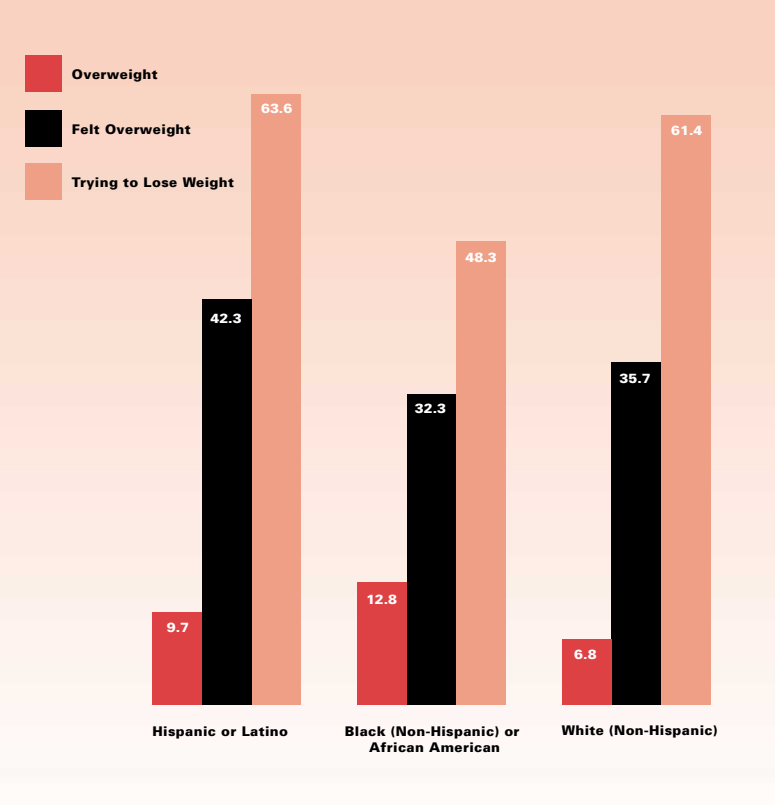


Source: National Center for Health Statistics, National Health Interview Survey. http://www.cdc.gov/nchs/nhis.htm.

Body Weight: Adolescent Females of Color

- A national survey on youth reported that in 1999 about two-fifths of young Hispanic and white females (42 and 36 percent, respectively) felt they were overweight, compared to 32 percent of young African American females. This contrasts with the survey finding that black females report the highest percent overweight (almost 13 percent), compared to nearly 10 percent of Hispanic females and close to 7 percent of white females.[36]
- Data from the third National Health and Nutrition Examination Survey (NHANES III) for 1988–1991 revealed that 23 percent of Mexican American female adolescents ages 12 to 17 were overweight (defined as BMI, or body mass index, at the 85th percentile or greater according to the age- and sex-specific percentiles of NHANES I).[37]
- When defined as body mass index (BMI) at or above the sex- and age-specific 95th percentile BMI cutoff points from the revised Centers for Disease Control and Prevention (CDC) Growth Charts, being overweight was more common among adolescents of color than among white female adolescents. While 9 percent of white female adolescents were overweight by this definition, more than 16 percent of black female teens and nearly 14 percent of Mexican American female teens were.[17]
- A majority of Latino and white female high school students reported attempting to lose weight in 1999—64 percent of Hispanics, 61 percent of whites—but only 48 percent of blacks reported the same.[36] In the 1995 version of this same survey, 65 percent of white, 58 percent of Hispanic, and 45 percent of black adolescent females reported attempting to lose weight.[38]
- Of those trying to lose weight, the vast majority attempted to do so by exercising (70 percent of white, 65 percent of Hispanic, and 59 percent of black adolescent females). The second most popular method employed by these young women to lose weight was dieting. More than half of Hispanics and whites (51 and 60 percent, respectively), and more than two-fifths of blacks (43 percent) restricted their caloric intake to lose weight.[36]
- While not common among adolescent females, the use of laxatives and vomiting to lose weight was nearly equal among Hispanics (6.4 percent), blacks (6.8 percent), and whites (7.0 percent). In addition, 7 percent of African American females, 11 percent of Hispanic females, and 12 percent of white females took diet pills to induce weight loss.[36]
- Among 6th and 7th grade girls in California, Hispanic and Asian girls were more likely than white girls to express being dissatisfied with their weight. This difference was especially pronounced for the leanest 25 percent of the sample. For all girls, as weight increased, so did expressions of dissatisfaction with body size. The relationship between degree of body dissatisfaction and actual fatness, however, was most accurate for white girls.[39]

FIGURE 9
Body Image and Weight Loss Attempts among Female Adolescents by Race/Ethnicity, 1999
Percent

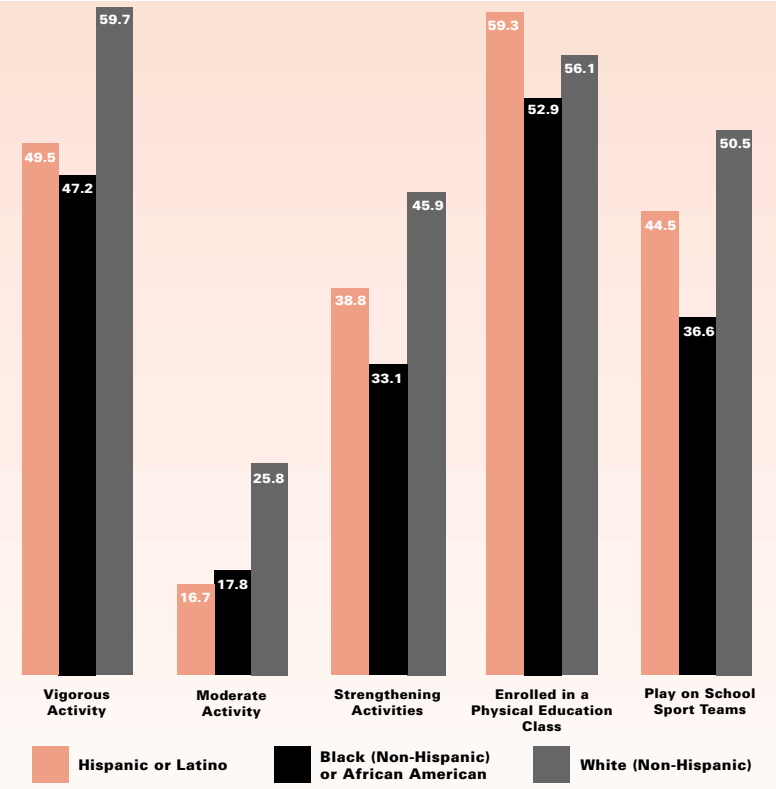


Source: Kann, Laura, Steven A. Kinchen, Barbara I. Williams, James G. Ross, Richard Lowry, JoAnne Grunbaum, Lloyd J. Kolbe and State and Local YRBSS Coordinators, Youth Risk Behavior Surveillance- United States, 1999, In: CDC Surveillance Summaries, June 9, 2000, *MMWR* 2000; 49 (No. SS-5): pg. 81.

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.[40]
- Diseases related directly to a lack of exercise, such as diabetes, are more prevalent among adolescents of racial/ethnic subpopulations.[41] In particular, the lack of exercise is suspected to contribute to the high rates of diabetes in Hispanic women (but not adolescents).[42]
- At least half of women of color in 1997 led sedentary lifestyles—never engaging in any vigorous, moderate, or light physical activities for at least 20 minutes. Nearly three-fifths (57 percent) of both Hispanic and black non-Hispanic women, as well as about a half (49 percent) of Asian and Pacific Islander women were sedentary, compared to slightly less than two-fifths (39 percent) of white non-Hispanic women.[30]
- According to a national youth survey conducted in 1999, 60 percent of white, 50 percent of Latino, and 47 percent of black high school females engaged in vigorous physical activity several times a week; in addition, 26 percent of white, 18 percent of black, and 17 percent of Hispanic females engaged in moderate physical activity several times a week. Moderate activity is defined as walking or bicycling no fewer than five days a week for half an hour each day. Vigorous activities are those that involve hard breathing and sweating at least three times a week for 20 minutes.[36]

FIGURE 10
Female Adolescents by Race/Ethnicity Participating in Various Physical Activities, 1999
Percent



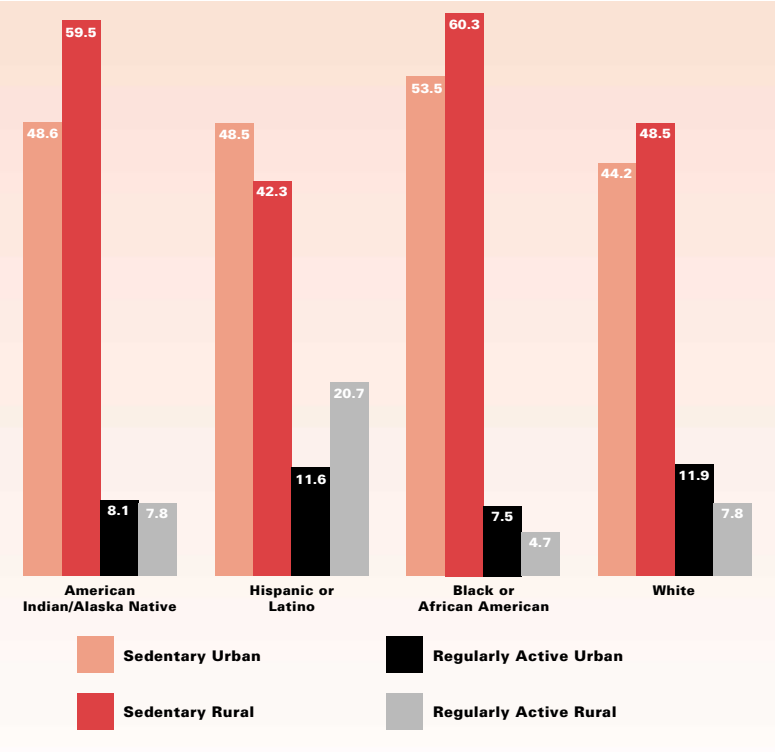
Source: Kann, Laura, Steven A. Kinchen, Barbara I. Williams, James G. Ross, Richard Lowry, JoAnne Grunbaum, Lloyd J. Kolbe and State and Local YRBS Coordinators. Youth Risk Behavior Surveillance – United States, 1999. In: CDC Surveillance Summaries, June 9, 2000. *MMWR 2000*; 49 (No. SS-5): pgs.89, 98.

- Adult women in both urban and rural areas exercised much less than their younger counterparts. In 1997, 60 percent of both rural black and American Indian/Alaska Native women reported not exercising at all during the past two weeks; 49 percent of white and more than 42 percent of Hispanic women in rural areas reported this same lack of exercise. Smaller percentages of urban than of rural women were found to be sedentary. Fifty-four percent of black women, almost 49 percent of both American Indian/Alaska Native and Hispanic women, and slightly more than 44 percent of white women living in urban areas reported sedentary lifestyles.[43]
- Although rural Hispanic women were the most likely to be physically active, only a fifth of these women reported being regularly active (nearly 21 percent). Nearly

12 percent of urban Hispanic and white women and 8 percent of urban and rural American Indian/Alaska Native women, rural white women, and urban black women reported regularly active lifestyles. Rural African American women were the least likely to be active (nearly 5 percent).[43]

- Analysis of NHANES III data collected between 1988 and 1994 revealed that less-acculturated Mexican American women—measured as those whose preferred language at home was Spanish—were more likely (58 percent) to report leisure-time physical inactivity than their more acculturated counterparts whose preferred language was English (28 percent).[44]

FIGURE 11
Physical Activity among Rural- and Urban-dwelling Women Ages 40 and Older by Race/Ethnicity, 1997
Percent

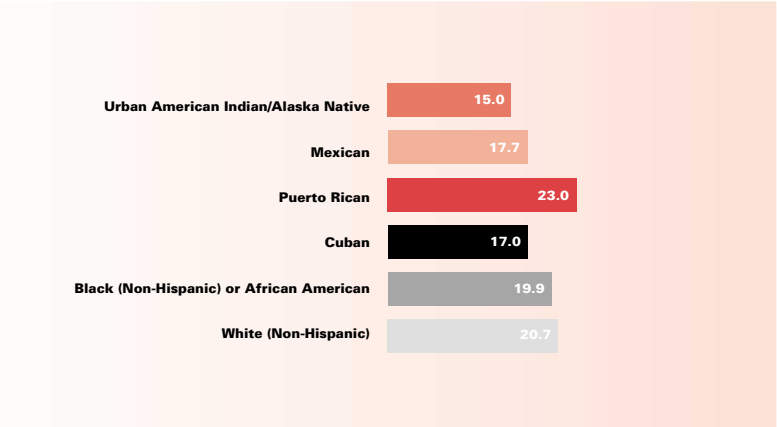


Source: Wilcox, Sara, Cynthia Castro, Abby C. King, Robyn Housemann, Ross C. Brownson, Determinants of leisure time physical activity in rural compared with urban older and ethnically diverse women in the United States. *Journal of Epidemiology and Community Health* 2000; 54: 667-72.

Cholesterol Levels

- Sometimes associated with obesity, high serum cholesterol (a factor in cardiovascular disease) was found in roughly equal proportions of the subpopulations of women of color between the ages of 20 and 74 years in 1988–1994. About a fifth of white non-Hispanic (21 percent) and black non-Hispanic (20 percent) women reported having high serum cholesterol, as did 18 percent of Mexican American females. Fifteen percent of urban American Indian/Alaska Native women also reported the condition.[25,27]
- During the 1980s, 17 percent of Cuban women were reported to have high cholesterol, with 20 percent of Mexican American and 23 percent of Puerto Rican women reporting the same. More acculturated Mexican Americans had a greater incidence of high serum cholesterol, while less educated Mexican Americans and those living below the poverty line had lower levels.[45]

FIGURE 12
Age-adjusted Percent of Females with High Serum Cholesterol Levels, 1982–1984, 1988–1994



Sources: National Center for Health Statistics, *Health, United States, 2001 with Urban and Rural Health Chartbook,* Hyattsville, MD: 2001.
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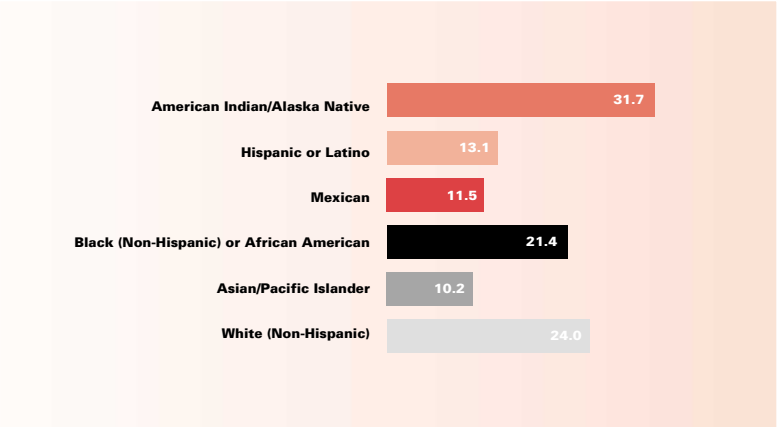
Scott S, Urban national plans to meet the year 2000 objectives, St. Paul, MN: American Indian Health Care Association, 1991.

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.[46]
- Although the data tend to differ from survey to survey, the percentages of women ages 18 and older who reported currently smoking cigarettes between 1997 and 1999 (age-adjusted) ranged from a low of 10 percent (Asian and Pacific Islander women) to a high of 32 percent (American Indian/Alaska Native women). Mexican American, Latino, black, and white adult women were in the middle of this range (11.5, 13, 21, and 24 percent, respectively) in reporting current smoking.[17]
- Among Hispanic women in 1991, foreign-born women had the lowest rates of smoking. Only 15 percent of female immigrants who came to the United States more than 15 years ago and 9 percent of newer immigrants were current smokers, compared to 21 percent of U.S.-born Hispanic women.[31,47] Between 1992 and 1995, 12 percent of Mexican/Mexican American and of Cuban women and 21 percent of Puerto Rican women reported that they smoked. In the same survey, about a quarter of black non-Hispanic and white non-Hispanic women reported that they currently smoked.[48]
- Although half of all American Indian women smoke cigarettes, more than half (54 percent) of those living on reservations have never smoked. In addition, smoking prevalence varies by reservation, from less than 19 percent in the Southwest to more than double that share among Alaska Natives (40 percent) and among American Indians in the northern Plains states (43 percent).[46]
- Based on data from 1978–1985 and 1991, 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 19 percent among Japanese American women. It is estimated that 7 percent of Chinese American women, 11 percent of Filipino American women, and 13 percent of "other Asian" American women smoke.[49] A report published in 1992 found similar results—close to 15 percent of Japanese women, 14 percent of Korean women, and 5 percent of Chinese women were current smokers.[46]
- Asian and Pacific Islander American women are the most likely population to never try smoking; less than 17 percent in 1998 reported ever smoking.[46] From 1992–1995, nearly 74 percent of Hispanic women had never tried smoking compared to 64 percent of black non-Hispanic and 53 percent of white non-Hispanic women.[48]
- On a daily basis, white women tend to smoke more than African American and Hispanic women. More than half of black and Hispanic female smokers smoke fewer than ten cigarettes per day, compared to 24 percent of white women who smoke. Fourteen percent of white female smokers smoke more than a pack (i.e., 25 cigarettes; a pack contains 20 cigarettes) a day. In comparison, less than 5 percent of black and 2 percent of Hispanic women smoke more than 25 cigarettes in the course of one day. Among Hispanic subgroups, Mexican American and Puerto Rican women (4 percent and less than 7 percent, respectively) are less likely to be heavy smokers (at least 25 cigarettes a day) as compared to Cuban women (more than 10 percent), and women belonging to other Hispanic groups (nearly 18 percent).[46]
- One study that analyzed current smoking and heavy smoking among six Latino subpopulations (Mexican American, Central

FIGURE 13
Age-adjusted Percent of Women Ages 18 and Older by Race/Ethnicity Who Currently Smoke, 1997–1999

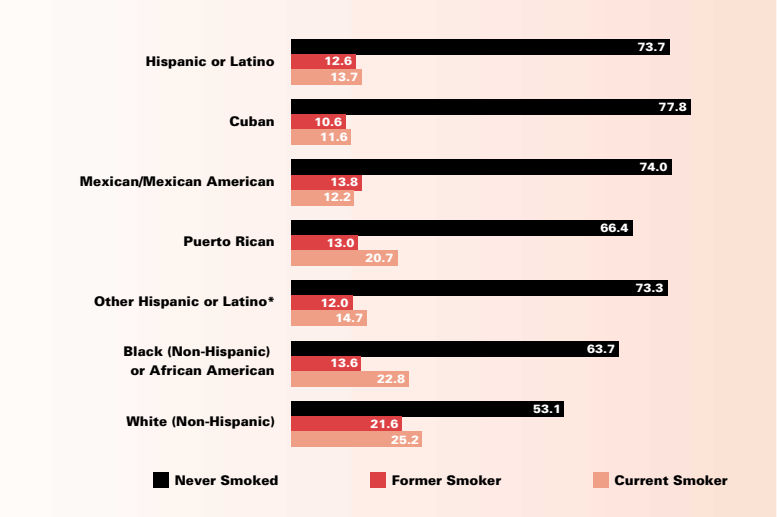


Source: National Center for Health Statistics, *Health, United States, 2001 with Urban and Rural Health Chartbook,* Hyattsville, MD: 2001 (pg. 244-45).

American, Puerto Rican, Cuban American, South American, and Other Latinos) in 1993–1994 found that Puerto Rican and Cuban women were, respectively, nearly three times as likely and 1.5 times as likely as Mexican American women to be current smokers.[50] South American women were nearly twice as likely as Mexican American women to smoke. In addition, Puerto Rican women were more than twice as likely and Cuban women nearly three times as likely as Mexican American women to be heavy smokers (i.e., smoking more than 20 cigarettes per day). This study also found that smoking among Latinas increased with acculturation (measured using a language scale).

- Smoking rates among women also differ by age group. In 1997, while a large percentage of white females between the ages of 18 and 29 smoked in the month preceding the survey (40 percent), the largest percentages of Hispanic and black females who reported smoking (26 and 30 percent, respectively) were between 30 and 64 years of age.[51]
- Smoking rates also differ by level of education among black and white women ages 25 years and older (age-adjusted). Rates of smoking decline as education increases, from 30 percent of black females with no high school/GED to 13 percent of black females with a bachelor's degree or higher. The decline is somewhat greater among white females—from 30 percent smoking among those without high school completion or a GED to 11 percent of white females with a bachelor's degree or higher.[17]
- Poor black and white non-Hispanic women tend to smoke more than their wealthier counterparts. The same trend is evident among Latino women, although the smoking rate differences among income levels are less pronounced.[6]
- Seven percent of black, 6 percent of white non-Hispanic and 3 percent of Hispanic women have used smokeless tobacco at least once in their lifetimes. In 1998, 2 percent of black non-Hispanic women, 0.3 percent of white non-Hispanic women, and 0.2 percent of Hispanic women were current users of smokeless tobacco products.[52]
- Data from 1987 to 1991 showed that slightly more than 1 percent of American Indian/Alaska Native women used smokeless tobacco. Smokeless tobacco use among American Indian women, however, differs greatly by tribe/region. Several tribe-specific studies published between 1995 and 1997 revealed that 23 percent of Lumbee women in North Carolina, and 8 percent of Cherokee women in North Carolina reported smokeless tobacco use, while 10 percent of Navajo women and 2 percent of American Indian women in Montana reported the same. Another study found smokeless tobacco use to be significantly more common among Alaska Native women than among American Indian women residing in the continental United States (11 percent versus 1 percent).[46]
- Very few women report smoking cigars or pipes. Two-tenths of a percent of American Indian/Alaska Native women and 0.1 percent of all other women report smoking cigars or pipes. Another study, however, indicated that 0.5 percent of American Indian/Alaska Natives are cigar smokers.[46]
- Two percent of Hispanic and white non-Hispanic females and almost 3 percent of black non-Hispanic females had smoked cigars in the month preceding a 1997 survey.[52]

FIGURE 14
Age-adjusted Percent Distribution of Females by Smoking Status and Race/Ethnicity, 1992–1995

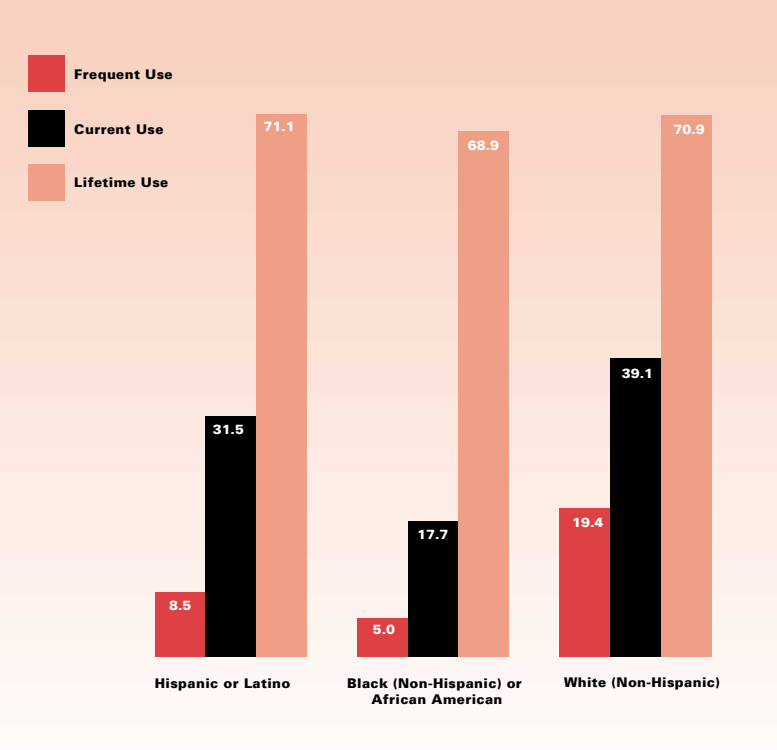


Source: Hajat A, Lucas JB, Kington R. Health Outcomes Among Hispanic Subgroups: United States, 1992-1995, *Advance data from vital and health statistics*; no. 310, Hyattsville, MD: National Center for Health Statistics, February 2000.
* Includes persons from Central and South America plus persons of unknown origin

Tobacco Use among Adolescent Females of Color

- In the past, smoking was perceived as a male activity, but that picture is slowly changing. As of 1999, 71 percent of both young white females and males reported having used cigarettes in their lifetimes. Seventy-one percent and 75 percent of high school female and male Hispanics, respectively, reported having smoked at least once. The life-time prevalence of smoking was lowest among young African American women and men (69 percent for both).[36]
- Although the purchase and use of cigarettes is illegal for all high school students until they turn 18 years of age, 30 percent of black, 18 percent of white, and 16 percent of Hispanic females under the age of 18 had purchased cigarettes at a store or gas station during the month preceding a 1999 survey. Additionally, 39 percent of white, 32 percentof Hispanic, and 18 percent of black female high school students reported that they were current smokers. Furthermore, 19 percent of white females smoke frequently (at least 20 cigarettes per month) and/or daily. On the other hand, very few black females (5 percent) smoke as many cigarettes as their white counterparts. Hispanic females are in the middle, with 9 percent reporting frequent smoking.[36]
- Among females who attended high schools funded by the Bureau of Indian Affairs in 1998, 94 percent had tried smoking a cigarette. In addition, in a national sample of high school seniors, 39 percent of American Indian/Alaska Native high females were found to be current smokers, followed by 33 percent of white females, 19 percent of Latino females, nearly 14 percent of Asian and Pacific Islander females, and 9 percent of black females (from 1990 to 1994).[46]

FIGURE 15
Adolescent Females Grades 9 to 12 by Race/Ethnicity and Cigarette Use, 1999
Percent



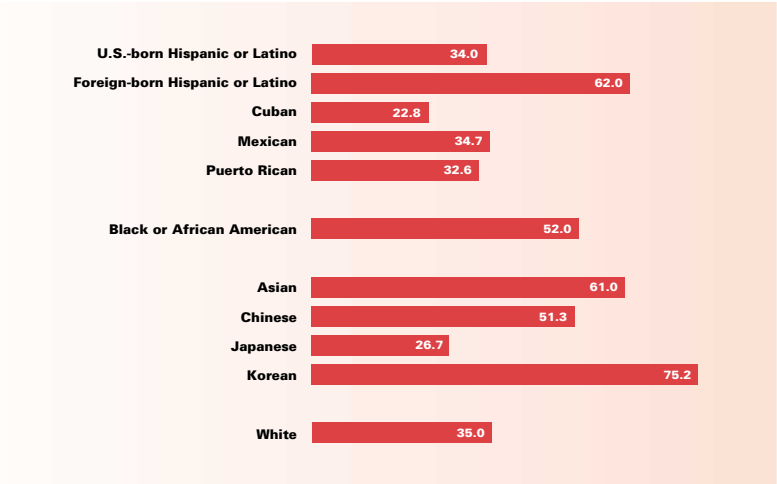
Source: Kann, Laura, Steven A. Kinchen, Barbara I. Williams, James G. Ross, Richard Lowry, JoAnne Grunbaum, Lloyd J. Kolbe and State and Local YRBS Coordinators, Youth Risk Behavior Surveillance – United States, 1999, In: CDC Surveillance Summaries, June 9, 2000, *MMWR 2000*; 49 (No. SS-5): pg.52.

- Before the age of 13, nearly a fourth of white girls (23 percent), a fifth of Hispanic girls (21 percent), and an eighth (13 percent) of black girls already have smoked an entire cigarette.[36]
- A sizable share of white and Hispanic girls reported smoking cigarettes while on school property (15 and 11 percent, respectively) in 1999. Young African American females not only were the least likely to smoke, but also were least likely to smoke at school (6 percent).[36]
- Nearly equal proportions of young Hispanic women (1.8 percent) and white women (1.5 percent) used smokeless tobacco products in the past month. Smokeless tobacco use was less prevalent among black females (0.2 percent).[36]
- As with adult women, 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 used smokeless tobacco. A survey of adolescents attending high schools funded by the Bureau of Indian Affairs found a somewhat smaller percent of American Indian girls (16 percent) using smokeless tobacco.[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.[53]
- Eighty-three percent of white women, 68 percent of black women, and 58 percent of Hispanic women have used alcohol at some point in their lives.[54] 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).[17]
- Different studies report somewhat diverging shares of women abstaining from alcohol consumption. Some studies find that Asian American women (61 percent) are more likely to abstain from alcohol than either black women (52 percent), Hispanic women (49 percent), or white women (35 percent).[31,55] In another study, 51 percent of black women reported abstention from alcohol consumption, while 46 percent of white women reported the same.[56]
- Rates of alcohol consumption differ among Hispanic subpopulations. The percentage of women reporting that they are current alcohol users ranges from 35 percent among Mexican Americans and 33 percent among Puerto Ricans to 23 percent among Cubans. On the other hand, 62 percent of foreign-born Hispanic women abstain from using alcohol.[31] Other studies have found that while 47 percent of Hispanic origin females abstained from alcohol consumption, this proportion also ranged from 33 percent of Puerto Rican, 42 percent of Cuban, and 46 percent of Mexican women, to 69 percent of women from other Hispanic origins.[57]
- Although a small proportion of Hispanic women are frequent heavy drinkers (consuming five or more drinks at one sitting at least once per week), significant differences among Hispanic subgroups also exist for this consumption measure. Women of Hispanic origins other than Mexican, Puerto Rican, and Cuban are most likely to abstain from alcohol consumption (as noted above) and most likely to frequently drink large quantities of alcohol (4 percent). Two percent of both Mexican and Puerto Rican women, and less than 0.5 percent of Cuban women report the same. The very limited alcohol consumption among Cuban American women may be attributable to the high socioeconomic status of the large proportion of Cuban Americans who emigrated to the United States during the 1960s.[57]
- Among Asian Americans and Native Hawaiians or Other Pacific Islanders, considerable variation exists in the likelihood both of alcohol consumption and of reporting symptoms of alcoholism. Native Hawaiian women are more likely to drink alcohol than women of Filipino, Chinese, or Japanese descent who reside in Hawaii.[58]
- One study comparing three Asian American subpopulations found that larger proportions of Japanese American women were heavy and moderate drinkers (12 and 13 percent, respectively) than were Korean American women (0.8 and 2 percent, respectively). In addition, no Chinese American women reported heavy drinking, and only 10 percent reported that they were moderate drinkers. More than one-quarter of Japanese American women,

FIGURE 16
Women by Race/Ethnicity Abstaining from Alcohol Consumption, 1985, 1991, 1993
Percent

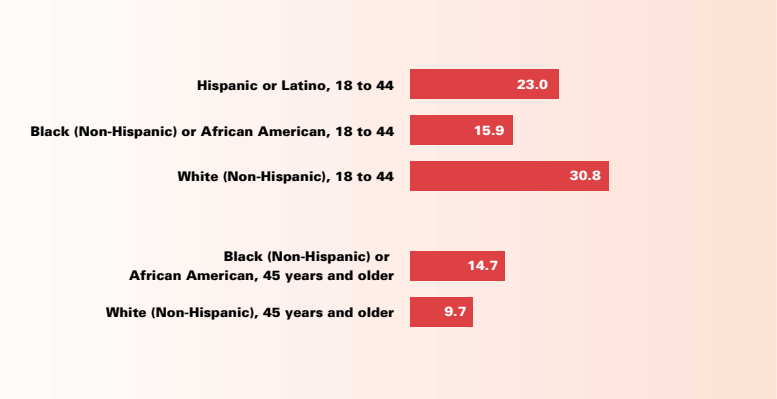


Sources: Brown, ER, Wyn R, Cumberland WG, Yu H, Abel E, Gelberg L, Ng L, *Women's health-related behaviors and use of clinical preventive services: A report of The Commonwealth Fund*, Los Angeles: UCLA Center for Health Policy Research, 1996.
Chi I, Lubben, JE, Kitano H, Differences in drinking behavior among three Asian-American groups, *J Stud Alcohol 1989*; 50 (1): 15-23.
Marks G, Garcia M, Solis JM, Health Risk Behaviors of Hispanics in the United States: Findings from HHANES, 1982-1984, *Am J Public Health 1990*; 80 (suppl.):20-26.

half of Chinese American women, and three-quarters of Korean American women abstained from alcohol consumption.[59]

- While the majority of adult women are not problem drinkers, a small proportion drink either frequently or heavily. More white women (17 percent) were frequent drinkers of alcohol in 1995 than were African American (11 percent) or Hispanic women (5 percent). A national survey conducted in 1993 found that between 2 percent and 3 percent of black, American Indian/Alaska Native, and white women, and less than 1 percent of Hispanic and Asian American women consumed at least 60 drinks within 30 days.[60,61]
- 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.)[25]

FIGURE 17
Adult Women Reporting Frequent Alcohol Consumption by Race/Ethnicity and Age, 1999*
Percent

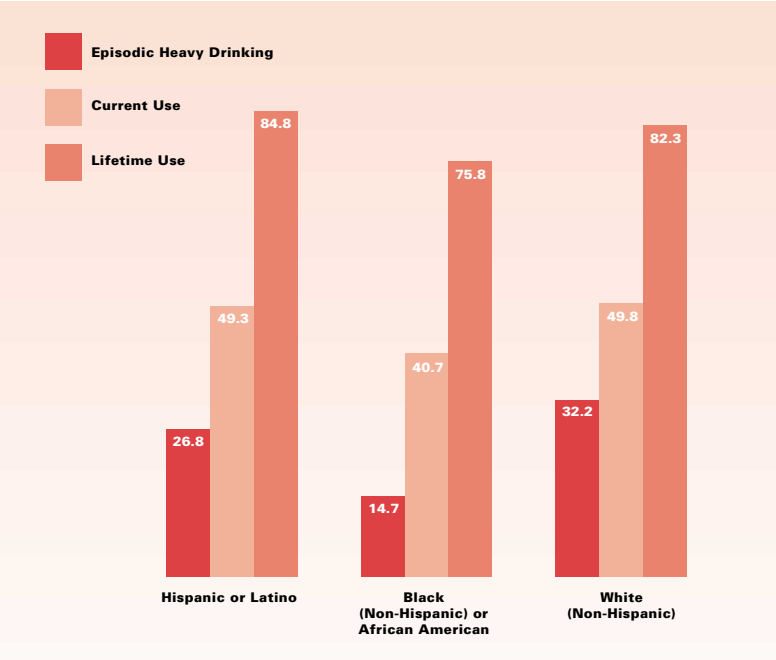


Source: National Center for Health Statistics, *Health, United States, 2001 with Urban and Rural Health Chartbook,* Hyattsville, MD: 2001 (pg. 252-53).
* Five or more drinks on at least one day among current drinkers.
** Estimate for Hispanics and Latinos 45 years and older considered unreliable.

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 black, Hispanic, and white female high school students have consumed alcohol.[36]
- Young African American females had the lowest lifetime prevalence of alcohol use (76 percent versus 85 percent of Hispanic and 82 percent of white females). Forty-one percent of black adolescent females reported recently consuming an alcoholic beverage, compared to about half of white and Hispanic high school girls.[36]
- The rates of episodic heavy drinking—consuming five or more drinks at one time—are highest among white (32 percent) and Hispanic (27 percent) female students. Only fifteen percent of black female youth have engaged in alcohol consumption of this kind.[36]
- Nine percent of American Indian/Alaska Native girls in junior high school drink alcohol frequently, compared to 14 percent of their high school counterparts. However, 60 percent of American Indian/Alaska Native students, female and male combined, report they never drink, and 20 percent consume alcohol infrequently.[62]
- Alcohol consumption differs by tribal affiliation among American Indian adults, but not among American Indian adolescents.[63]

FIGURE 18
Females in Grades 9 to 12 Consuming Alcohol by Race/Ethnicity, 1999
Percent



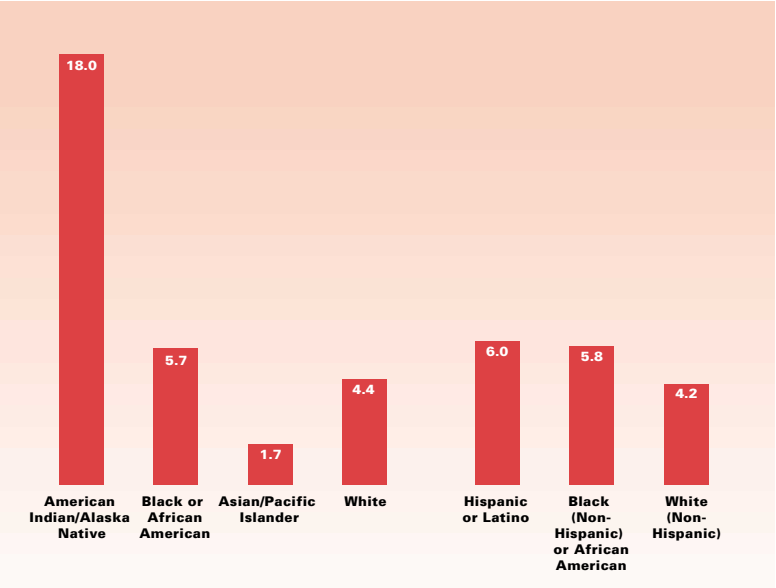
Source: Kann, Laura, Steven A. Kinchen, Barbara I. Williams, James G. Ross, Richard Lowry, JoAnne Grunbaum, Lloyd J. Kolbe and State and Local YRBS Coordinators, Youth Risk Behavior Surveillance – United States, 1999, In: CDC Surveillance Summaries, June 9, 2000, *MMWR* 2000; 49 (No. SS-5): pg. 60.

- Less than one-third of Hispanic, black, and white high school females reported first consuming more than a few sips of alcohol before 13 years of age (31, 27, and 25 percent, respectively).[36]
- Ten percent of Hispanic and 8 percent of white 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 (37 percent of Hispanics, 35 percent of blacks, and 32 percent of whites).[36]

Alcohol-related Deaths

- The alcoholism death rate among American Indian/Alaska Native men and women is 7 times the national rate for persons of all racial/ethnic groups.[7] Although alcoholism death rates are higher among American Indian/Alaska Native males than females, alcoholism is a significant cause of death among American Indian/Alaska Native women as well. Between 1992 and 1994 alcoholism death rates (adjusted for the miscoding of the Indian race) for American Indian/Alaska Natives ranged from 2.1 per 100,000 for 15- to 24-year-olds, to 87.6 per 100,000 for 44- to 54-year-olds. Death rates from alcoholism among white females were significantly lower—from 0.1 per 100,000 for 15- to 24-year-olds, to 9.4 per 100,000 for 55- to 64-year-olds.[22]
- From 1994 to 1996, mortality rates related to alcoholism remained high among American Indian/Alaska Native populations. The alcohol-related death rate for American Indian/Alaska Native males (55 to 64 years of age) was nearly 183 per 100,000, compared to a rate of 33 per 100,000 for white men in 1995. Fewer than 10 deaths per 100,000 white females of all ages were induced by alcohol. However, alcohol-related deaths among American Indian/Alaska Native women were significantly higher, ranging from nearly 21 deaths per 100,000 for 25- to 34-year-olds to almost 98 deaths per 100,000 for 45- to 54-year-olds.[20]

FIGURE 19
Age-adjusted Death Rates from Cirrhosis/Chronic Liver Disease, 1995–1997
Per 100,000 population



Source: Chappell, Phyllis J. State Health Statistics by Sex and Race/Ethnicity, National Center for Health Statistics, http://www.cdc.gov/nchs/statestatsbysexrace.htm.

- The alcohol-induced death rates for African American and white women in 1997 were very small (nearly three per 100,000 white women, and four per 100,000 for both black women and women of all other races).[64] 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.[65]
- Chronic liver disease and cirrhosis are two conditions often related to the consumption of excessive amounts of alcohol. Between 1995 and 1997, 18 American Indian/Alaska Native women per 100,000 died from liver disease and cirrhosis, compared to six deaths per 100,000 for both Hispanics and black non-Hispanic females, and more than four deaths per 100,000 white non-Hispanic females. Slightly less than two per 100,000 Asian and Pacific Islander women died from chronic liver disease and cirrhosis.[18]

Use of Marijuana and Other Substances by Women of Color

- White women (33 percent) and black women (26 percent) are more likely than Latino women (20 percent) to report having used illicit drugs at some point in their lives. However, white, black, and Hispanic women were equally likely (5 percent) to report using an illegal substance during the month before they were surveyed in 1998.[52]
- White women also have tried a greater number of illicit substances in their lifetimes than either African American or Hispanic women. They report more recent use of marijuana, inhalants, hallucinogens, tranquilizers, sedatives, and analgesics than other women.[52]
- Marijuana is the most popular illicit substance used by women. Nearly one-third of white women (31 percent), almost one-fourth of black women (24 percent), and one-sixth (nearly 17 percent) of Hispanic women have used marijuana at least once in their lifetimes.[52]
- Although 48 percent of black women and 38 percent of white women who regularly used illegal substances reported using marijuana, less than 10 percent of all black, white, and Hispanic women reported smoking marijuana in 1998 (7, 7, and 6 percent, respectively). Even fewer white (4 percent), black (4 percent), and Hispanic (3 percent) women used marijuana in the 30 days prior to being surveyed.[52,60,61]
- Hallucinogens and inhalants were more frequently used by white non-Hispanic (9 and 4 percent, respectively) and Hispanic (4 and 2 percent, respectively) females. Less than 3 percent of black non-Hispanic females reported ever trying hallucinogens or inhalants in their lifetimes.[52]
- Fewer than one in 20 women have ever taken stimulants (4 percent of whites, slightly more than 2 percent of Hispanics, and nearly 2 percent of blacks).[52]
- Less than a tenth of all women reported having tried psycho therapeutic drugs—8 percent of white non-Hispanic women, 6 percent of black non-Hispanic, and 5 percent of Hispanic females.[52]

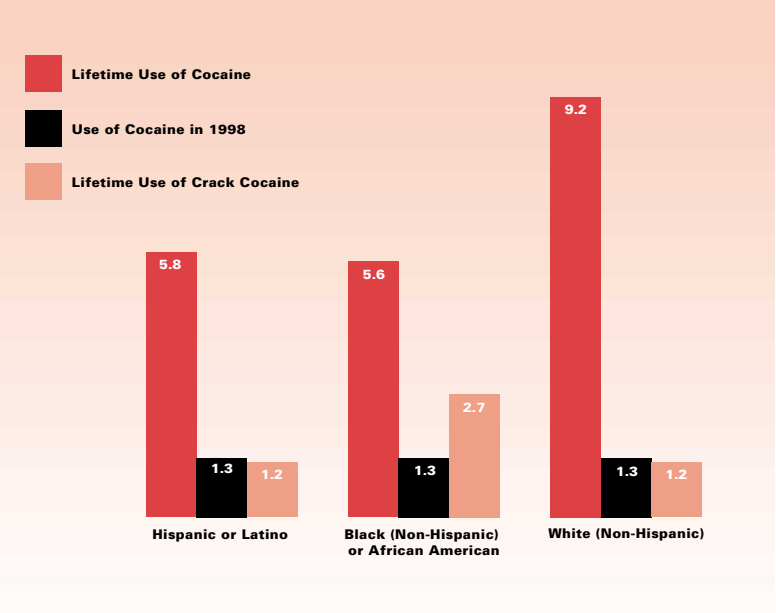
FIGURE 20
Women by Race/Ethnicity Who Use Marijuana and Other Substances, 1998
Percent

Source: SAMHSA, Office of Applied Studies, *National Household Survey of Drug Abuse: Population Estimates 1998,* http://samhsa-ext1.samhsa.gov:80/OAS/NHSDA/Pe1998/toc.htm, August 1999.

Cocaine and Crack Use by Women of Color

- Although more white women have tried cocaine than either Hispanic or black non-Hispanic women, black non-Hispanic women are more likely to be recent and frequent users of crack cocaine.[52]
- Six percent of Latino and black women have ingested cocaine at least once in their lifetimes; 9 percent of white women, however, have used this drug. Although more white women have a history of cocaine use, approximately 1 percent each of white, African American, and Hispanic women reported use of this substance in 1998.[52]
- Fewer women of all races have ever tried crack (a more addictive form of cocaine) than have tried other drugs. Three percent of black women and 1 percent of both Hispanic and white women have used crack at least once in their lifetimes.[52]
- Acculturation among Hispanics is positively related to crack cocaine smoking. (Acculturation was measured by the respondent's language preference for being interviewed, with respondents preferring an interview in English being deemed more acculturated than those who preferred being interviewed in Spanish.) This relationship was found to be strongest among Mexican Americans.[66]
- In 1999, there were 258,079 drug abuse emergency room episodes among females, many of them associated with cocaine use. White women were involved in more than 62 percent of these episodes, followed by black (nearly 20 percent) and Hispanic (8 percent) women. (The remaining 10 percent of these episodes were accounted for by women of other race/ethnicity and unknown race/ethnicity). Between 14 and 18 percent of all drug abuse emergency room episodes among white, Hispanic, and black females involved young women (12 to 17 years of age).[67]
- In 2000, women accounted for 281,994 drug abuse emergency room episodes, a 9 percent increase above the 1999 figure. The 2000 data differed slightly from the 1999 figures in that Hispanic females accounted for a larger share of the episodes (10 percent). Also, the proportion of episodes reported by black females ages 12 to17 years was only 6 percent, compared to 15 and 20 percent, respectively, for white and Latino females in this age cohort.[68]

FIGURE 21
Women by Race/Ethnicity Who Use Cocaine and Crack Cocaine, 1998
Percent

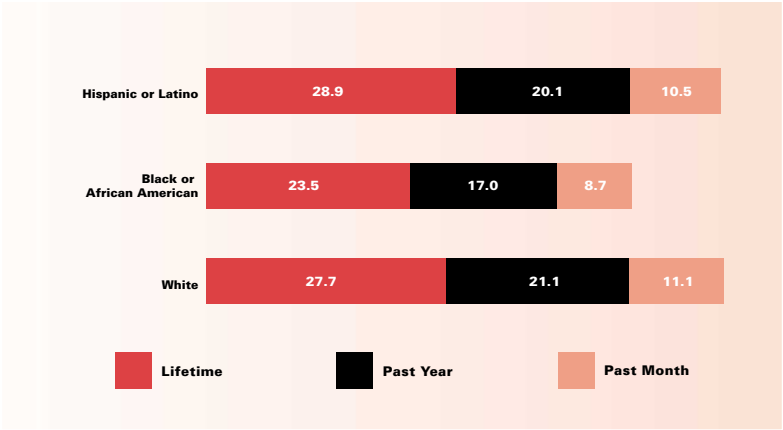


Source: SAMHSA, Office of Applied Studies, *National Household Survey of Drug Abuse: Population Estimates 1998*, http://samhsa-ext1.samhsa.gov:80/OAS/NHSDA/Pe1998/toc.htm. August 1999.

Use of Illicit Substances by Adolescent Females of Color

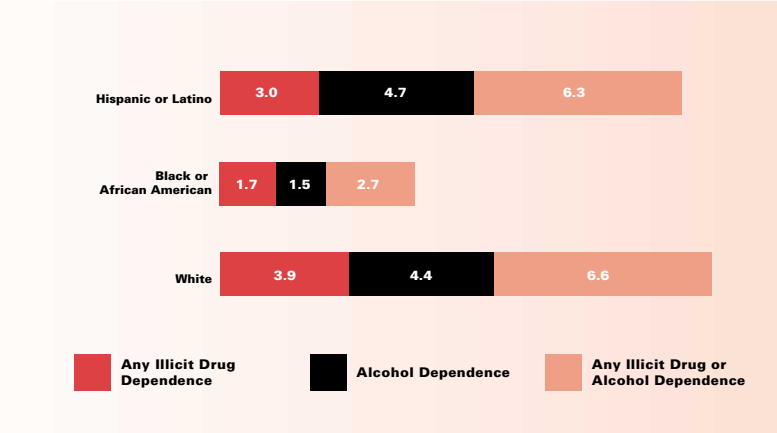
- Drug use among American youth has remained high during the 1990s. Although the proportions of Hispanic, black, and white adolescent females reporting past month use are less than the proportions reporting past year or lifetime use, lifetime use figures in 1999 were nearly 30 percent for Hispanic females, 28 percent for white females, and 24 percent for black females.[69]
- Of adolescents ages 12 to17 in 1999, white females were slightly more likely than white males to be dependent on illicit substances (4 percent versus 3 percent). The opposite was true for black adolescents. A little more than 3 percent of black males were dependent on illicit drugs, while less than 2 percent of black females reported the same outcome. The gender difference in illicit drug dependence for Hispanic adolescents (5 percent for males versus 3 percent for females) was not statistically significant, however, due to small sample size.[69]
- In 1998, nearly half (46 percent) of Hispanic and more than two-fifths of both black and white female high school students reported having used marijuana at least once in their lifetimes. Slightly more than a fifth of young black, Hispanic, and white females were current users of marijuana at the time of the survey.[36]
- Substance abuse also is a significant problem among American Indian/Alaska Native adolescents.[70] A 1993 study of American Indian high school students found that 56 percent of those surveyed (both male and female) had used marijuana at least once in their lifetimes, and 40 percent reported using marijuana at least once during the 30 days preceding the survey.[71]

FIGURE 22
Adolescent Females Who Reported Lifetime, Past Year, and Past Month Use of Any Illicit Drug by Race/Ethnicity, 1999
Percent



Source: SAMHSA, Office of Applied Studies, *Summary of Findings from the 1999 National Household Survey on Drug Abuse*, Rockville, MD: August 2000 (pg. G-14).

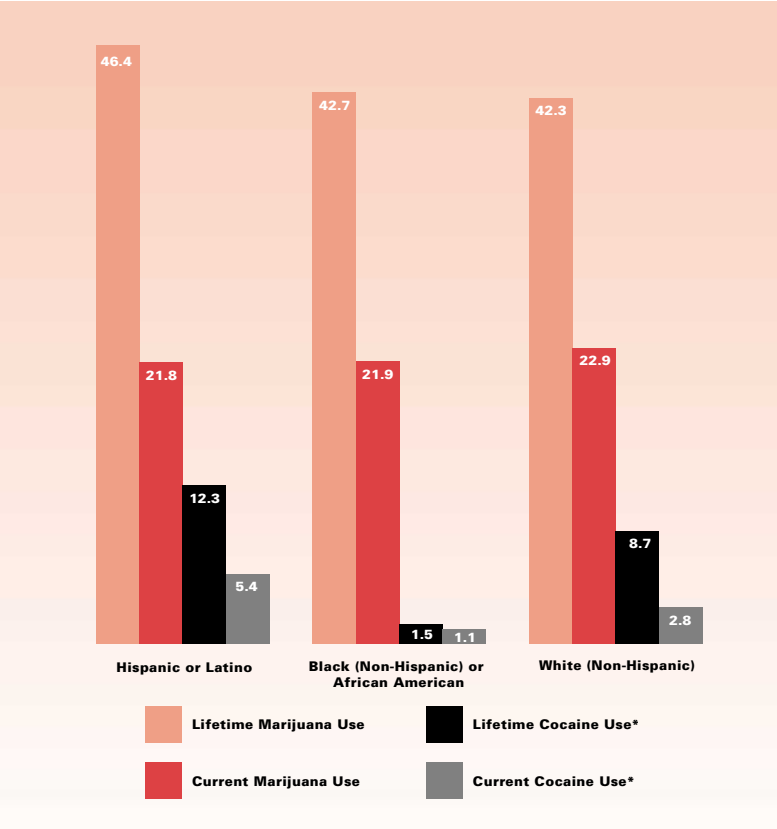
FIGURE 23
Adolescent Females Who Reported Past Year Illicit Drug or Alcohol Dependency by Race/Ethnicity, 1999
Percent



Source: SAMHSA, Office of Applied Studies, *Summary of Findings from the 1999 National Household Survey on Drug Abuse*, Rockville, MD: August 2000 (pg. G-85).

- The same survey found that the frequency of marijuana use among American Indian youth is associated with the use of other illicit drugs. Among adolescent American Indian females, low-frequency use of marijuana (1 to 3 times in the past month) was strongly associated with stimulant use. High-frequency use of marijuana (11 or more times in the past month) was even more strongly related to cocaine use for both male and female American Indian youth.[71]
- Further analysis of this 1993 survey found that between the ages of 14 and 20, marijuana use among American Indian females increased slightly, then began to drop at the onset of adulthood. Although there was little difference in marijuana use between 14-year-old American Indian males and females, by the age of 20 marijuana use among American Indian males was significantly higher. Marijuana use for both sexes was highest among youth in the Northern Plains community, and lowest for those from the Southwest; marijuana use among Pueblo Indians fell in the middle of this range.[72]
- African American female high school students have a lower prevalence of substance use than either Hispanic or white female youth. Young Hispanic females had the highest lifetime use of cocaine, glue (for sniffing), and other illegal substances, such as heroin and LSD.[36]

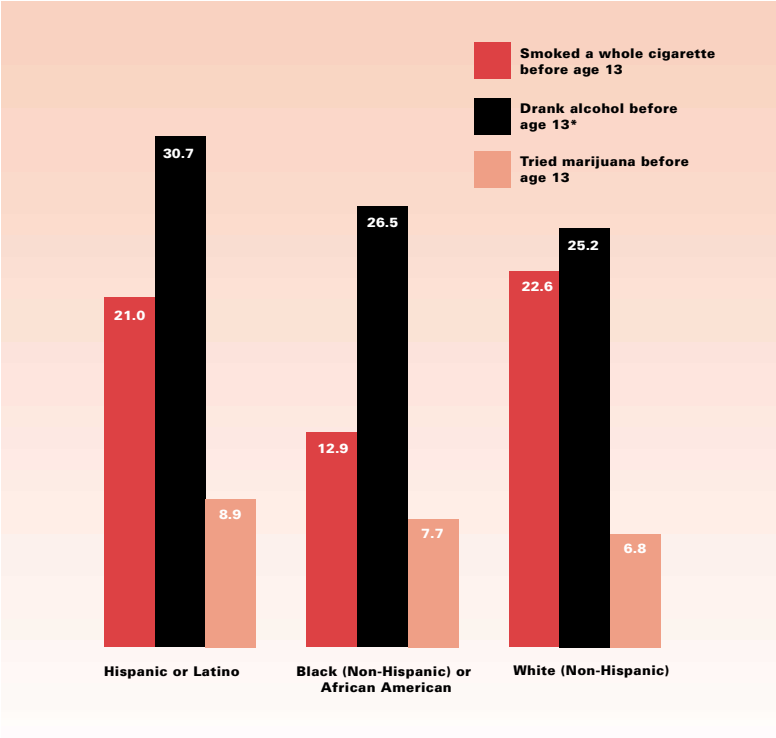
FIGURE 24
Adolescent Females by Race/Ethnicity Who Use Marijuana and Cocaine, 1999
Percent



Source: Kann, Laura, Steven A. Kinchen, Barbara I. Williams, James G. Ross, Richard Lowry, JoAnne Grunbaum, Lloyd J. Kolbe and State and Local YRBS Coordinators, Youth Risk Behavior Surveillance – United States, 1999, In: CDC Surveillance Summaries, June 9, 2000, *MMWR 2000*; 49 (No. SS-5): pgs. 60, 63.
* Includes freebasing or use of crack cocaine along with use of powdered cocaine

- Among female adolescents, the percentages of lifetime and current users of cocaine were highest for Hispanics (12 and 5 percent, respectively) (free-basing and crack cocaine use included in lifetime cocaine use). Nine percent of white female adolescents had tried cocaine during the course of their lifetimes, and almost 3 percent were current users. Less than 2 percent of black high school females had ever tried cocaine, and 1 percent were current users.[36]
- Less than one-tenth of high school females first used marijuana before the age of 13 (9 percent of Hispanics, 8 percent of blacks, and 7 percent of whites). However, larger proportions of female teens of all three groups reported smoking and drinking before age 13.[36]
- Seventeen percent of both Latino and white female youths and 6 percent of black female youths attempted to get high by sniffing either glue or the contents of certain aerosol spray cans.[36]
- In 1999 black adolescent females were the least likely to have experimented with other illegal substances. For example, 1 percent of black high school girls had used methamphetamine in their lifetimes, compared to 12 percent of Hispanic and 10 percent of white high school girls.[36]

FIGURE 25
High School Females Who Intitiated Drug-related Behaviors Before Age 13 by Race/Ethnicity, 1999
Percent

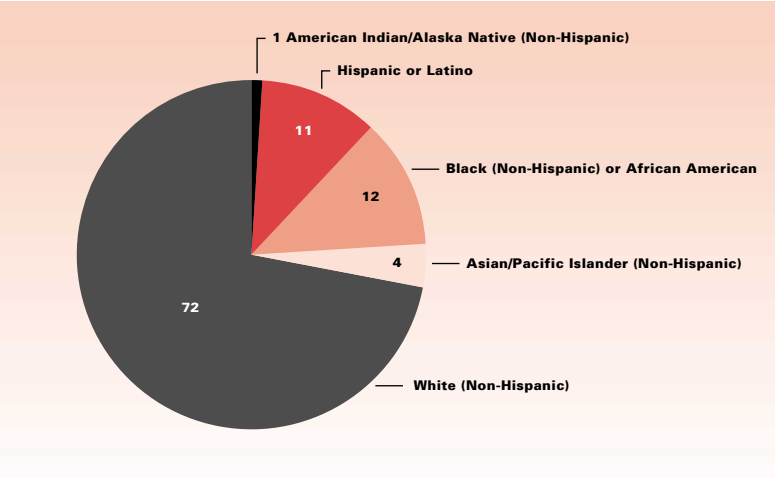


Source: Kann, Laura, Steven A. Kinchen, Barbara I. Williams, James G. Ross, Richard Lowry, JoAnne Grunbaum, Lloyd J. Kolbe and State and Local YRBS Coordinators, Youth Risk Behavior Surveillance – United States, 1999, In: CDC Surveillance Summaries, June 9, 2000, *MMWR* 2000; 49 (No. SS-5): pg. 69.
*More than a few sips

Drug-related Deaths

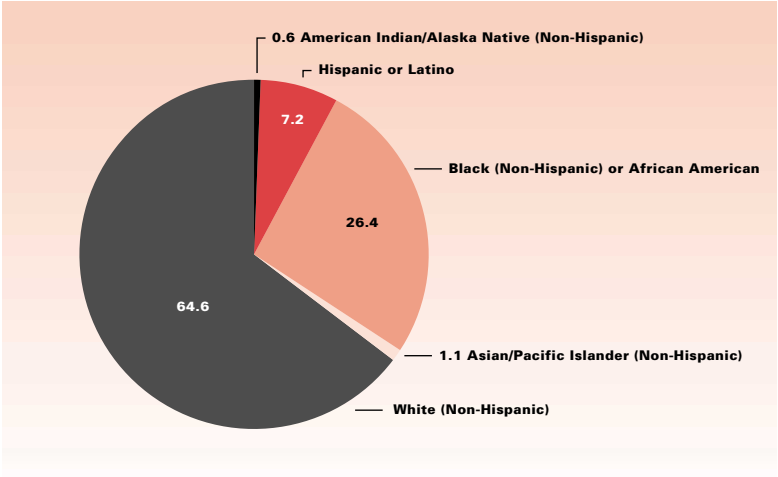
- Although black non-Hispanic females are only 12 percent of the female population, they accounted for 26 percent of the drug-related deaths in 1999. The remaining 74 percent of drug-related deaths were constituted as follows: whites (65 percent), Hispanics (7 percent), Asian Americans (1 percent), and American Indians/Alaska Natives (nearly 1 percent).[73]
- From 1992 to 1994, drug-related mortality rates among American Indian/Alaska Native females ranged from a low of half a percent per 100,000 for those both between 15 and 24 years of age and between 55 and 64 years of age to a high of about 8 per 100,000 for those ages 25 to 34 and ages 45 to 54.[22]
- In 1997, the age-adjusted drug-induced death rate was more than 4 per 100,000 black females and nearly 3 per 100,000 white females.[65]
- Among women who died due to drug use in 1999, 57 percent of the black women, 53 percent of the Hispanic women, and 50 percent of the white women were between 26 and 44 years of age at the time of their deaths. However, sizable percentages—40 percent of white women, 38 percent of black women, and 33 percent of Hispanic women—of the women who died of drug-related causes were 45 years of age or older.[73]
- Eleven percent of the Hispanic females whose deaths were drug-induced were between 18 and 25 years of age, compared to 8 percent of white women and 5 percent of black women.[73]

FIGURE 26
Distribution of Women by Race/Ethnicity, 1999
Percent



Source: U.S. Census Bureau, Population Division, Population Estimates Program, *Resident Population Estimates of the United States by Sex, Race, and Hispanic Origin*, Washington, DC, January 2001, http://www.census.gov/population/estimates/nation/intfile3-1.txt.

FIGURE 27
Drug-related Deaths among Women by Race/Ethnicity, 1999
Percent

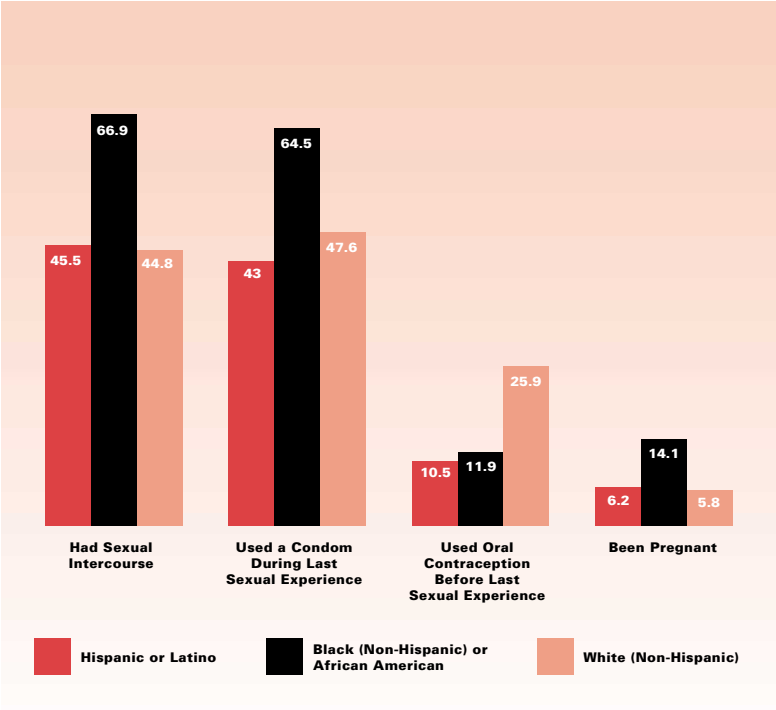


Source: SAMHSA, Office of Applied Studies, *Drug Abuse Warning Network Annual Medical Examiner Data 1999,* Rockville, MD: July 2000 update (pg. 34).

Sexual Behavior: Adolescent Females of Color

- As of 1999, 67 percent of African American, 46 percent of Hispanic, and 45 percent of white high school females reported having had sex at least once in their lifetimes.[36] An earlier study found that 57 percent of American Indian and Alaska Native female adolescents also had initiated sexual activity.[62]
- On average American Indian/Alaska Native girls first had intercourse at age 14.[62] Eleven percent of black, and 4 percent of both Hispanic and white females were less than 13 years of age during their first sexual experience.[36]
- Nearly 35 percent of sexually active Hispanic and white, as well as 50 percent of black female high school students, reported currently having sex. In comparison, between 22 and 25 percent of black, white, and Hispanic female adolescents who had previously engaged in sexual activities were currently abstaining from intercourse.[36] Forty-nine percent of sexually active American Indian/Alaska Native adolescent females reported having sex infrequently or rarely.[62]
- Among adolescent females attending high school in Los Angeles County (CA), 70 percent of Asians and Pacific Islanders had abstained from intercourse, followed by 54 percent of Hispanics, 52 percent of whites, and 35 percent of blacks reporting 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).[74]
- When asked whether they had taken a birth control pill or used a condom during their last sexual encounter, 65 percent of black high school females reported using a condom, and 26 percent of white high school females reported taking birth control pills. Forty-eight and 43 percent, respectively, of young white and Latino females used a condom during their last sexual encounter. Oral contraception was used by 12 percent of black and 11 percent of Hispanic high school females before their last sexual experience.[36]
- The majority of sexually active young American Indian/Alaska Native women have used some method of contraception. Nearly one-quarter of American Indian/Alaska Native female youth (23.6 percent) reported that condoms were their preferred form of contraception, while another 18.3 percent reported that they used birth control pills. However, 39 percent have never used any form of protection during intercourse.[62]
- Since a sizable proportion of high school students are not practicing safe sex on a regular basis, it is not surprising that 14 percent of black and 6 percent of both Hispanic and white female high school students reported having been pregnant.[36]
- The use of drugs and alcohol prior to their last sexual encounter was highest among young white women (22 percent). Fourteen percent and 9 percent of Hispanic and black female high school students, respectively, also used illegal substances prior to their most recent sexual experience.[36]

FIGURE 28
Sexual Behavior of Adolescent Females by Race/Ethnicity, 1999
Percent

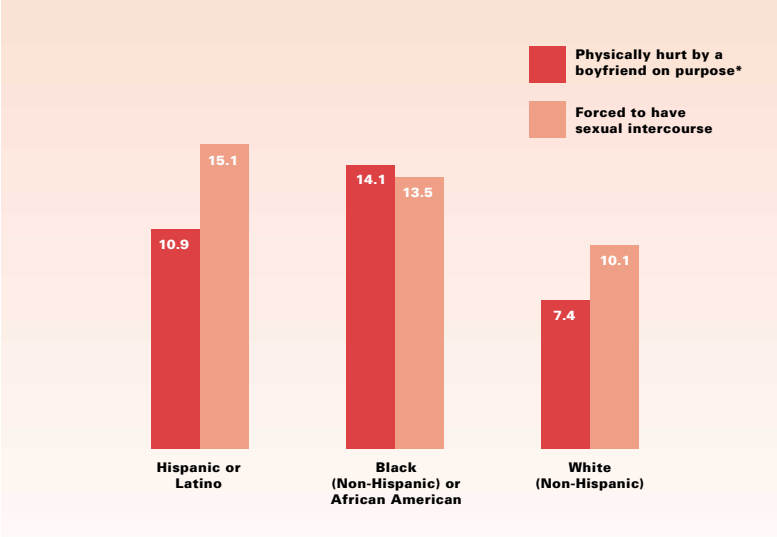


Source: Kann, Laura, Steven A. Kinchen, Barbara I. Williams, James G. Ross, Richard Lowry, JoAnne Grunbaum, Lloyd J. Kolbe and State and Local YRBS Coordinators, Youth Risk Behavior Surveillance – United States, 1999, In: CDC Surveillance Summaries, June 9, 2000, *MMWR 2000*; 49 (No. SS-5): pgs. 75, 78.

Physical/Sexual Abuse

- A larger percentage of white/other groups of women (8 percent) than of either black (5 percent) or Hispanic (5 percent) women reported (in 1993) having been physically abused as a child.[75]
- Sexual abuse as a child was reported (in 1993) more frequently than physical abuse as a child by all women. Eleven percent of white/other women, 12 percent of black women, and 13 percent of Hispanic women reported sexual abuse as a child.[75]
- About a third of American Indian (32 percent) and Mexican American (35 percent), and nearly two-fifths of non-Hispanic white (37 percent) and African American (almost 38 percent) women reported they were victims of childhood sexual assault (CSA). The severity of abuse reported by these young women—all of whom were 18- to 20-year-olds residing in Arizona—differed slightly by racial/ethnic group. For example, 3 percent of both non-Hispanic white women and Mexican American women, and 2 percent of American Indian and African American women reported experiencing CSA as a form of "coercion" (i.e., answering "yes" to the question, "Has a male ever used force to kiss or pet you?"). One fifth (between 19 and 23 percent) of each of these groups also reported rape as a child.[76]
- According to the same study, the relationship between childhood sexual assault and depression among women differs according to racial/ethnic group. CSA was not a predictor of depression for either American Indian or African American women, although it was a predictor for both Mexican American and white non-Hispanic women. However, although CSA was the strongest predictor of depression among Mexican American women, background risk factors (e.g., mother's education, size of family, etc.) were more predictive of depression for white women.[76]
- Of all women ages 15 to 44 who were under the age of 16 at first intercourse, 16 percent reported their first intercourse was not voluntary. The portion of non-Hispanic white and black females who first experienced intercourse when younger than the age of 16 and whose first experience was not voluntary was 15 percent. For Hispanic females, however, the share was 18 percent.[77]
- Black women (16 percent) were more likely to report (in 1993) having experienced any form of spousal abuse than were either white/other (8 percent) or Hispanic (10 percent) women.[75]
- 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]
- Fourteen percent of black non-Hispanic high school females reported being intentionally hit, slapped, or physically hurt by their boyfriends (dating violence) in 1999, double the percent of white non-Hispanic females who reported the same occurrence (7 percent). Hispanic females fell between the two groups, with 11 percent reporting dating violence.[36]
- In 1999, female high school students were more than twice as likely than male students to report forced sexual intercourse (13 and 5 percent). Among specific racial/ethnic groups, a greater percentage of Hispanic and black non-Hispanic female students (15 and 14 percent, respectively) reported having forced sexual intercourse than did white non-Hispanic female students (10 percent).[36]

FIGURE 29
High School Females by Race/Ethnicity Who Reported Physical and Sexual Abuse, 1999
Percent

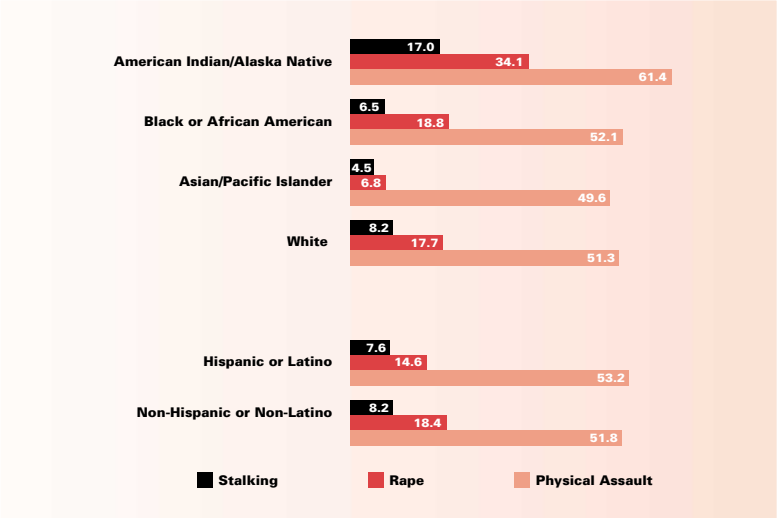


Source: Kann, Laura, Steven A. Kinchen, Barbara I. Williams, James G. Ross, Richard Lowry, JoAnne Grunbaum, Lloyd J. Kolbe and State and Local YRBS Coordinators, Youth Risk Behavior Surveillance – United States, 1999, In: CDC Surveillance Summaries, June 9, 2000, *MMWR* 2000; 49 (No. SS-5): pg. 43.
*During the 12 months preceding the survey

Violence

- In a 1996 survey, at least half of all women reported having been physically assaulted at some point in their lifetimes.[79]
- American Indian/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).[79]
- More than a third (34 percent) of American Indian/Alaska Native reported having been raped in their lifetimes, the highest percentage reported in a 1996 survey. Nearly a fifth of both black (19 percent) and white (18 percent) women, and 7 percent of Asian and Pacific Islander women also reported having being raped.[79]
- Hispanic and non-Hispanic women were equally likely to report victimization. Eight percent of both Latino and non-Latino women reported themselves as a victim of stalking. Similarly, 15 percent of Latinos and 19 percent of non-Latinos reported rape, while physical assault was reported by 53 percent of Latinos and 52 percent of non-Latinos.[79]

FIGURE 30
Women by Race/Ethnicity Victimized in Their Lifetimes, 1996
Percent



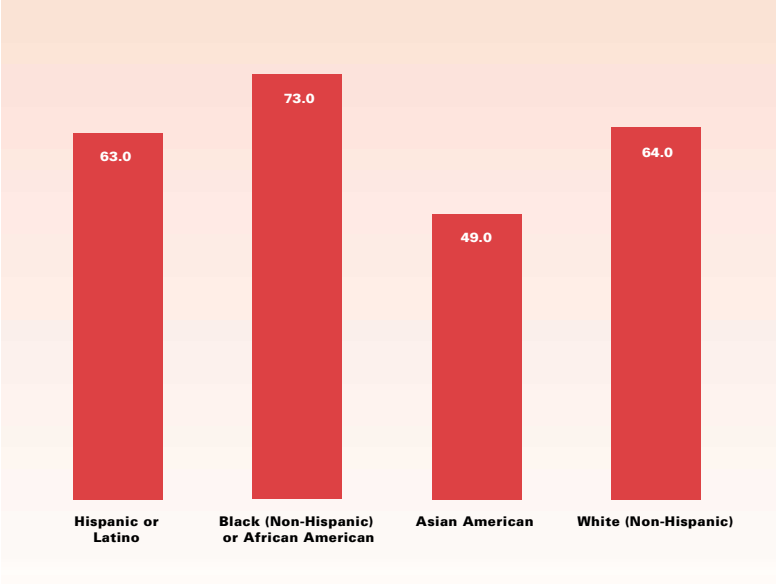
Source: Tjaden, Patricia and Nancy Thoennes, US Department of Justice, Office of Justice Programs, *Full Report of the Prevalence, Incidence, and Consequences of Violence Against Women: Findings from the National Violence Against Women Survey*: November 2000 (pgs. 22, 24). http://www.ncjrs.org/pdffiles1/nij/183781.pdf.

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, screening and diagnostic tools for cervical cancer and breast cancer, respectively. For all women, being married and having a high school education are associated with higher screening rates. The likelihood of getting these preventive tests, however, declines with age.[75,80]
- The percentages of black non-Hispanic (71 percent), Hispanic (67 percent), and white non-Hispanic (75 percent) women between the ages of 50 and 64 years of age who had a mammogram within the past two years exceeded these figures for women ages 40 to 49 years in these racial/ethnic groups. However, the percentages reporting a mammogram within the past two years dropped for women ages 65 years and older to 59 percent (Hispanic), 61 percent (black non-Hispanic), and 64 percent (white non-Hispanic).[17]
- For Mexican-born women seeking health care at migrant health clinics, being married and having greater education both significantly increased the likelihood of receiving a Pap test. Among women 40 years of age and older who knew about the Pap test, the length of residency in the United States was another predictor of receipt of this test. Those who had lived in the United States longer were more likely to have received a Pap test.[81]
- The use of preventive services by all women also differs significantly with health insurance coverage. In 1997, while 59 percent of insured women had had a mammogram and 62 percent of insured women had had a Pap smear in the past year, less than half of uninsured women had received these preventive tests in the past year—only 41 percent for the mammogram and 48 percent for the Pap smear.[82]
- Persons of Hispanic or Latino origin report a general lack of preventive care, such as visiting a doctor, or, for adults ages 65 and older, having gotten a flu shot in the preceding year.[83]
- According to one study, two-thirds of Asian female immigrants in California had never had a Pap smear, and 70 percent had never had a mammogram.[84] In particular, one study in California found that 54 percent of Vietnamese American women over the age of 18 years had never received a Pap smear, a fact that is especially troubling given the high incidence of cervical cancer in this group of women.[85]
- Although the proportion of women 18 years of age and older who get a Pap test annually has increased since 1991, sizable proportions of all women reported (in 1998) that they had not had a Pap test within the past year.[12,31] Twenty-seven percent of black non-Hispanic women, 36 percent of white non-Hispanic women, 37 percent of Hispanic women, and 51 percent of Asian women reported that they had not had a Pap test in the past year.[12]
- The Behavioral Risk Factor Surveillance System (BRFSS) provides numbers that are not quite as bleak for the use of the Pap test by women of color. According to this survey, in 1997 nearly 73 percent of Hispanic women had received a Pap test in the past two years, compared to almost 81 percent of non-Hispanic women. Black women (84 percent) were the most likely to have had a Pap test during the two years preceding the survey, followed by 80 percent of white women, 73 percent of Asian and Pacific Islander women, and 69 percent of American Indian/Alaska Native women.[86]
- Significant proportions of women of color residing in Hawaii reported in 1999 that they had not had a Pap test during the past year, however. Nearly half of Filipino (49 percent) and Native Hawaiian (47 percent) women did not receive this preventive test, along with 32 percent of white women, 31 percent of women of other races, and 27 percent of Japanese women.[87]

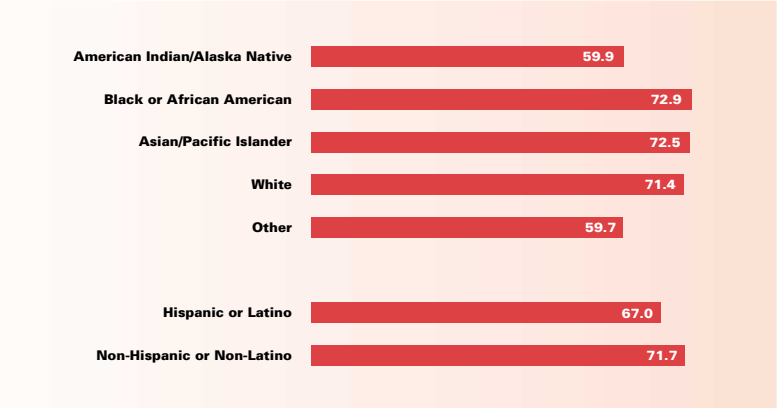
FIGURE 31
Women Who Had a Pap Test in the Past Year by Race/Ethnicity, 1998
Percent



Source: Collins, Karen Scott, Cathy Schoen, Susan Joseph, Lisa Duchon, Elisabeth Simantov, and Michele Yellowitz, *Health Concerns Across A Woman's Lifespan: The Commonwealth Fund 1998 Survey of Women's Health*, New York, NY: May 1999 (pg. 21).

- Four percent of American Indian/Alaska Native women, as well as 3 percent each of white non-Hispanic, black non-Hispanic, and Hispanic women reported (during the 1991–1998 period of testing through the National Breast and Cervical Cancer Early Detection Program) having abnormal Pap smears. Two percent of Asians and Pacific Islanders also reported an abnormal Pap smear.[88]
- The percent of women of color 40 years of age and older reporting having had a mammogram in the past two years has increased substantially since 1991. In 1991, 44 percent of white women reported not having had a mammogram in the past two years, along with more than half of Hispanic (51 percent), black American (52 percent), and Asian American (54 percent) women.[31] In 1997, however, only 33 percent of Latino women, 29 percent of white women, and 27 percent of both Asian American and Pacific Islander women and black women reported not having had a mammogram in the 2 years preceding the survey.[86]
- Whereas white women once led black and Hispanic women in getting 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 in these percentages over their 1996–1997 levels. Hispanic women, however, continue to lag behind other females in getting mammograms.[83]
- A 1996 study found that slightly more black women had positive attitudes toward breast cancer screenings (more than 63 percent) than white women (61 percent), Asian American and Pacific Islander women (both 58 percent), and Hispanic women (slightly more than 57 percent).[89]
- 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.[90]
- Among a sample of Hispanic women in New York during 1992, the least acculturated participants were also the least likely to have had a mammogram either recently or in their lifetimes. (Acculturation was measured by the respondent's language preference for being interviewed, with respondents preferring an interview in English deemed more acculturated than those who preferred being interviewed in Spanish). Additionally, insurance coverage was a predictor of whether a woman had a mammogram. Among the following Hispanic subgroups, majorities of the women reported recent mammograms—70 percent of Puerto Rican women, 63 percent of both Colombian and Ecuadorian women, and 53 percent of Dominican women.[15]
- At more than 9 percent, Asian women reported the largest proportions with abnormal mammograms of the 1991–1998 National Breast and Cervical Cancer Early Detection Program. Similarly, nearly 9 percent of Latino women reported abnormal mammograms. Equal shares of American Indian/Alaska Native women and white women (both at nearly 8 percent) also reported abnormal mammograms, as did more than 7 percent of African American women.[91]

FIGURE 32
Age-adjusted Percent of Women 40 Years and Older Who Reported Having a Mammogram in the Past Two Years, 1997

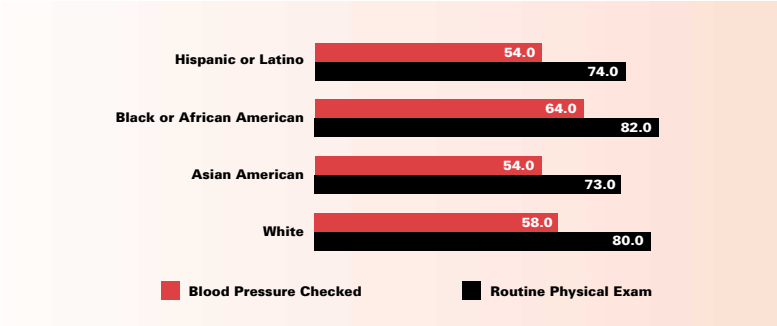


Source: Blackman, Donald K., Eddas M. Bennett, and Daniel S. Miller, Trends in Self-Reported Use of Mammograms (1989-1997) and Papanicolaou Tests (1991-1997) – Behavioral Risk Factor Surveillance System, In: CDC Surveillance Summaries, October 8, 1999, *MMWR* 1999; 48(No. SS-6): pg. 11.

Physical Exams

- In 1991, black women were the most likely to report having had a routine physical exam within the past 12 months (64 percent), followed by white women (58 percent), and Asian American and Hispanic women (both 54 percent).[31]
- Eighteen percent of Asian American women indicated that they either had not had a physical exam in the past three years or had never had such an examination. Sixteen percent of white women, 15 percent of Hispanic women, and 10 percent of black women reported this same lack of an exam.[31]
- Less than 50 percent of Mexican American women surveyed in the Hispanic Health and Nutrition Examination Survey (HHANES) (1982–1984) reported having had a routine physical within the last two years. Approximately 20 percent reported never having had a regular physical exam.[92]
- Just under three-quarters of Hispanic and Asian American women surveyed in 1991 had their blood pressure measured in the preceding 12 months (74 and 73 percent, respectively), compared to 80 percent of white women and 82 percent of black women.[31]
- Only 27 percent of American Indian/Alaska Native women had a blood pressure screening during 1999, making that group the least likely of all women to have their blood pressure screened.[42]

FIGURE 33
Women by Race/Ethnicity Having Their Blood Pressure Checked and a Physical Exam in the Past Year, 1991
Percent

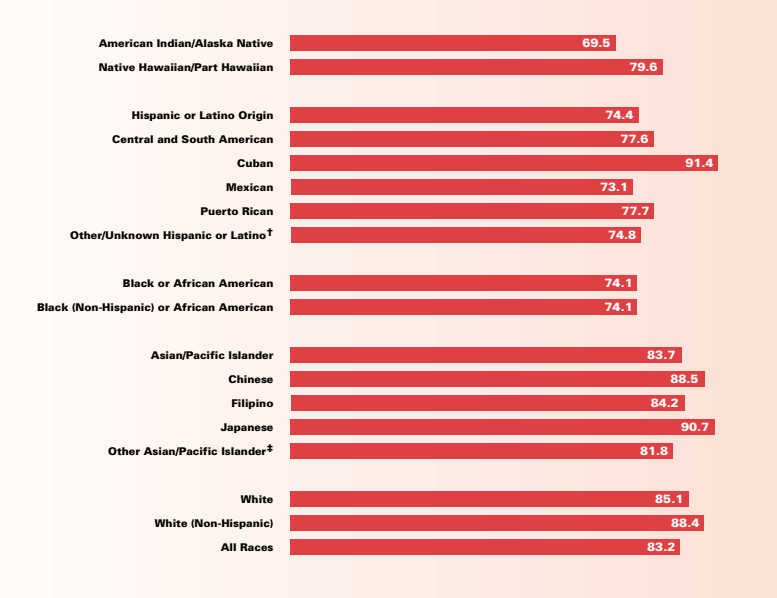


Source: Brown, ER, Wyn R, Cumberland WG, Yu H, Abel E, Gelberg L, Ng L, *Women's Health Related Behaviors and Use of Clinical Preventive Services: A Report of the Commonwealth Fund*, Los Angeles: UCLA Center for Health Policy Research, 1996.

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 1993–1995, about 44 percent of Samoan mothers did not start prenatal care in the first trimester, the largest share among all women.[93]
- Nearly a third of mothers-to-be who are American Indian/Alaska Native do not begin prenatal care during the first trimester of pregnancy.[94] Twenty-six percent of Native Hawaiian, 18 percent of Asian Indian, 19 percent of Vietnamese, and 20 percent of Korean women also did not begin prenatal care during their first trimester.[93]
- Large majorities of other mothers-to-be of color initiate prenatal care during the first trimester. In fact, many women of color are more likely to get early prenatal care than white women, of whom 85 percent get such care. More than 91 percent of Cuban mothers-to-be receive prenatal care beginning in the first trimester. Large proportions of mothers-to-be of several Asian American populations also begin prenatal care in the first trimester—Japanese (nearly 91 percent) and Chinese (89 percent).[94]
- 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 the 1993–1995 period, the proportion of mothers who received late or no care ranged from 1.1 percent of Cuban mothers to nearly 9 percent of Samoan mothers. This range included 4 percent of Puerto Rican and about 6 percent of African American, Mexican American, and American Indian or Alaska Native mothers-to-be.[93] Women who receive late or no prenatal care are more likely to be poor, adolescent, unmarried, rural dwellers, or more than 40 years of age—characteristics that, in and of themselves, place their pregnancies at risk.
- In 1999, similar proportions of many mothers-to-be of color initiated prenatal care late in their pregnancies. Eight percent of American Indian/Alaska Native, and 7 percent of both black non-Hispanic and Mexican American mothers-to-be reported getting no prenatal care or starting care in their third trimester. Six percent of other and unknown Hispanic women, and 5 percent each of Puerto Rican and Central and South American women, as well as 4 percent of Native Hawaiian/Part Hawaiian women also reported this failure to use preventive services to their fullest.[94]
- Variations in the receipt of prenatal care existed among mothers-to-be (in 1996) according to socioeconomic status (as measured by educational attainment). For all mothers 20 years old and older, those with the lowest level of education (less than 12 years) were the least likely to seek early prenatal care. This difference was most pronounced among American Indian/Alaska Native and black women—the most educated mothers of these races (87 to 89 percent) were 1.5 times as likely to use prenatal care in the first trimester as the least educated mothers (60 to 61 percent).[6]

FIGURE 34
Mothers by Race/Ethnicity Who Initiate Prenatal Care During First Trimester, 1999*
Percent

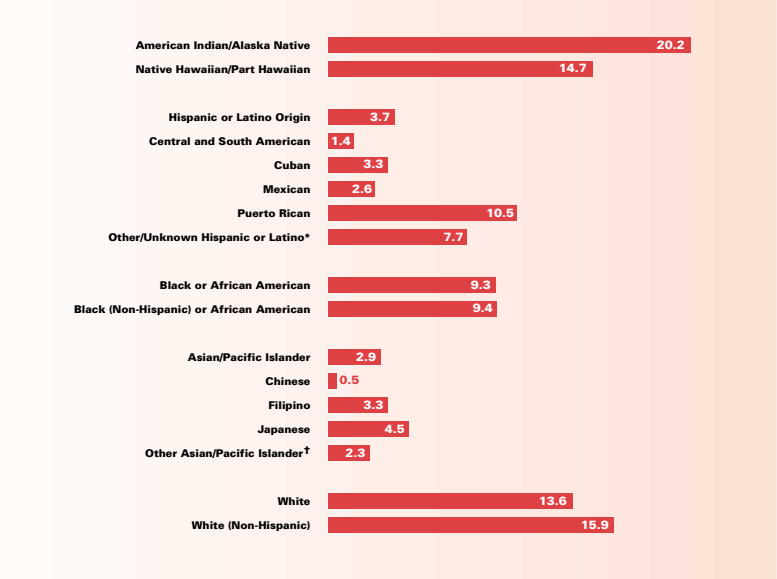


Source: Ventura SJ, Martin JA, Curtin SC, Menacker F, Hamilton BE. Births: Final data for 1999. *National vital statistics reports;* vol 49 no. 1. Hyattsville, MD: National Center for Health Statistics. 2001.
* Includes mothers who had live births only
† Includes persons from Spain and other Spanish-speaking localities
‡ Includes Asian Indian, Guamanian, Korean, Samoan, Vietnamese, and other Asian and Pacific Islander subpopulations

Substance Use during Pregnancy

- American Indian/Alaska Native women in IHS service areas are more likely to exhibit risky behaviors during pregnancy than women of all races throughout the United States.[22] Nearly equal shares of white non-Hispanic (16 percent) and Native Hawaiian/Part Hawaiian (15 percent) mothers-to-be also reported this unhealthful behavior.[94]
- Fewer than 5 percent of other mothers-to-be of color reported smoking when pregnant, with Chinese mothers-to-be reporting the smallest share (less than 1 percent).[94]
- 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.[95] However, most mothers with 0 to 8 years of education are less likely to smoke during pregnancy than mothers with 9 to 11 years of education. The only exception to this trend is Puerto Rican mothers whose smoking rates decline consistently from 0 to 8 years education through 16 years or more of education. (*Note*: Smoking rates among mothers with 0 to 8 years education are not provided for Asian and Pacific Islander subpopulations.)
- Between 1990 and 1999, rates of smoking during pregnancy declined for all and declined markedly for some women of color. The decline for Asian and Pacific Islander mothers was 47 percent, followed closely by Hispanic mothers (45 percent) and black non-Hispanic mothers (43 percent).[95] Smoking rates during pregnancy declined 25 percent for white non-Hispanic mothers and 11 percent for American Indian/Alaska Native mothers.
- Alcohol consumption during pregnancy was reported by 23 percent of white women, 16 percent of black women, and 9 percent of Hispanic women in 1992.[96] Based on 1999 birth certificates, however, less than 2 percent of mothers-to-be (excluding American Indian/Alaska Native mothers-to-be, more than 3 percent of whom consumed alcohol during their pregnancies) reported consuming alcohol during their pregnancy. The significant disparity between these two reports may reflect both the passage of time and changes in behavior, as well as 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.[94]
- According to the Indian Health Service, between 1992 and 1994, 2.1 percent of women of all races drank during pregnancy, while 5.9 percent of American Indian/Alaska Native women in IHS service areas reported the same. Among these areas, the percent of mothers-to-be of all ages consuming alcohol ranged from 18 percent in Alaska to 2.3 percent in Oklahoma.[23]
- The high prevalence of fetal alcohol syndrome (FAS) among American Indian/Alaska Native newborns (30 per 10,000 live births) is evidence of high rates of alcohol consumption during pregnancy.[97] The leading cause of disability among American Indian/Alaska Native newborns, FAS can result in malformation, mental retardation, dysfunction of the nervous system, growth deficiencies, and joint abnormalities.[98]
- FAS occurs much less frequently among infants born to women who are not American Indian/Alaska Native. Only 6 per 10,000 of infants born to black women have FAS, while fewer than 1 per 10,000 of the births to white, Hispanic, and Asian women have this condition.[97]
- Small shares of white (4 percent), Hispanic (5 percent), and black (11 percent) women of all ages reported any drug use during pregnancy. However, drug use was more common among pregnant black and Hispanic women ages 25 to 29 years. Sixteen percent of Latino and 15 percent of African American women in this age group reported using drugs during pregnancy. Only 3 percent of white women 25 to 29 years of age reported using drugs when pregnant.[96]
- Although 5 percent or less of white, black, and Hispanic women reported using marijuana when pregnant, black women (5 percent) were more likely to report use than either white (3 percent) or Hispanic (2 percent) women.[96]
- As with marijuana, cocaine use during pregnancy was reported more often by black women (5 percent) than by either Hispanic (0.7 percent) or white (0.4 percent) women. Crack cocaine use when pregnant also was reported more frequently by black women (4 percent) than by either white (0.3 percent) or Hispanic (0.1 percent) women.[96]

FIGURE 35
Mothers-to-be by Race/Ethnicity Smoking during Pregnancy, 1999
Percent

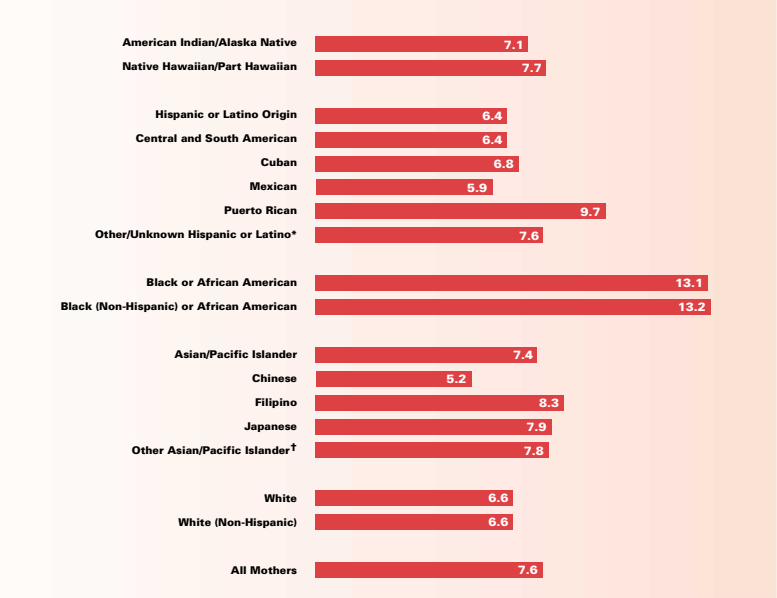


Source: Ventura SJ, Martin JA, Curtin SC, Menacker F, Hamilton BE. Births: Final data for 1999. *National vital statistics reports*; vol 49 no. 1. Hyattsville, MD: National Center for Health Statistics. 2001.
* Includes persons from Spain and other Spanish-speaking localities
† Includes Asian Indian, Guamanian, Korean, Samoan, Vietnamese, and other Asian and Pacific Islander subpopulations

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 non-Hispanic black American women having the highest incidences of both low-birthweight (13 percent) and very-low-birthweight (3 percent) infants. Chinese mothers report the smallest percentage of infants with low birthweight (5 percent).[94]
- The proportions of low-weight infants born to Puerto Rican women (nearly 10 percent) and to Native Hawaiian/Part Hawaiian, Filipino, Japanese, other Asian and Pacific Islander, and other/unknown Hispanic women (8 percent) are higher than the share born to non-Hispanic white women (7 percent), but lower than the share born to non-Hispanic black women (13 percent).[94]
- Two percent or less of infants born to most women of color have very-low weight (less than 1,500 grams). Other than the 3 percent reported by black women, the only other groups reporting a share greater than 1 percent were Cuban women and Puerto Rican women, nearly 2 percent of whose infants born live have very-low weight.[94]
- A study examining race, poverty, and birth weight from 1979 to 1988 found that poor white and black women were equally likely to have a low-birthweight infant. Among the nonpoor, however, black infants are more likely to be low-weight than white infants. In other words, after controlling for income among the nonpoor, black infants were consistently more likely to be low-weight.[99]
- Foreign-born Latino mothers in California in 1997 were less likely to have low-birthweight babies than U.S.-born Latino mothers. Research has suggested that this occurs because foreign-born Hispanic mothers maintain "healthy behaviors" after immigrating to the United States. Similarly, foreign-born Asian mothers (except Korean mothers) were less likely to have low-birthweight babies than their U.S.-born counterparts.[2]
- Among Asian mothers in California in 1997, Southeast Asian, Asian Indian, and Filipino mothers were the most likely to deliver low-birthweight babies—8 percent of all deliveries. Between 4 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).[2]

FIGURE 36
Low-Weight Infants as Percent of All Live Births by Race/Ethnicity of Mothers, 1999



Source: Ventura SJ, Martin JA, Curtin SC, Menacker F, Hamilton BE. Births: Final data for 1999. *National vital statistics reports*; vol 49 no. 1. Hyattsville, MD: National Center for Health Statistics. 2001.
* Includes persons from Spain and other Spanish-speaking localities
† Includes Asian Indian, Guamanian, Korean, Samoan, Vietnamese, and other Asian and Pacific Islander subpopulations

Birth Outcomes: Infant and Maternal Mortality

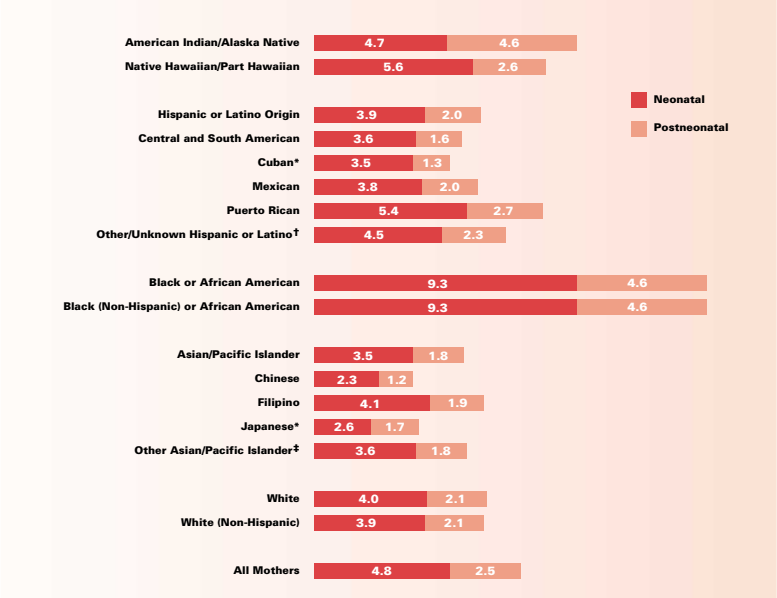
- Infant mortality (that is, death before reaching one year of age) reflects not only the standard of living of a population but also tends to mirror the health of the mother. Among women of color in 1998, mortality rates were highest for the infants of black women—14 deaths per 1,000 live births. The mortality rate for African American infants was more than double the rate of six deaths per 1,000 live births to white mothers, and significantly greater than the rate for all mothers (seven deaths per 1,000 live births).[100]
- Native Hawaiians/Part Hawaiians have the second highest infant mortality rate (ten deaths per 1,000 live births), followed by American Indians/Alaska Natives with nine infant deaths per 1,000 live births. Eight infant deaths per 1,000 live births to Puerto Ricans were reported for 1998. All the Asian American groups (for which data were reported) had infant mortality rates close to or lower than the infant mortality rate for whites (six per 1,000 live births).[100]
- Although underreported, infant mortality rates generally are high for Pacific Islanders, with the 1998 rate for Native Hawaiians/Part Hawaiians at ten deaths per 1,000 live births, while in Guam there were 14 deaths per 1,000 live births.[100]
- The mortality rates of infants born to black mothers exceed mortality rates of infants born to other mothers, whether or not these women report drinking during pregnancy. In 1993, there were 16 infant deaths per 1,000 live births to black nondrinking mothers, while there were seven infant deaths per 1,000 live births to both white and Hispanic abstinent mothers. Twenty-eight infants died (in 1991) per 1,000 born live to black women who reported drinking during pregnancy. This compares to 13 infant deaths (per 1,000 live births) to comparable Hispanic women and nine infant deaths (per 1,000 live births) to comparable white women.[60]
- Infant mortality rates decrease as the education level of mothers increases. Infants born to black mothers have the highest death rates per 1,000 live births at each educational level for which data are reported, however—15.3 for mothers with less than 12 years of education, 13.9 for mothers with 12 years of education, and 11.3 for mothers with 13 or more years of education. Infants born to American Indian/Alaska Native mothers have the second highest mortality rates—10.3 per 1,000 live births (less than 12 years of education), 8.9 per 1,000 live births (12 years of education), and 6.9 per 1,000 live births (13 or more years of education). (Rates for Native Hawaiian and Part Hawaiian infants are not provided.) The only exception to this pattern (of a steady decrease in infant mortality rates as the mother's level of education increases) is found among Latino mothers whose infants' death rates are: 5.6 per 1,000 live births (mothers with less than 12 years education), 5.7 per 1,000 live births (mothers with 12 years of education), and 4.9 per 1,000 live births (mothers with 13 or more years of education).[17]
- Between 1996 and 1998, among infants born to mothers of all racial/ethnic groups, more deaths were neonatal (that is, occurring within the first 28 days of life) than were postneonatal (that is, in days 28 through 365 after birth), often as the result of accidents or environmental hazards.[17]

FIGURE 37
Infant Mortality Rates by Race/Ethnicity of Mothers, 1998
Per 1,000 live births

Source: Mathews, TJ, Curtin SC, MacDorman MF, Infant mortality statistics from the 1998 period linked birth/infant death data set, *National vital statistics reports*; vol 48 no. 12, Hyattsville, MD: National Center for Health Statistics, 2000.
* Includes persons from Spain and other Spanish-speaking localities
† Includes Guamanian, Samoan, and other Asian and Pacific Islander populations

- The cause of death among infant fatalities differs significantly by race. Mortality rates due to congenital anomalies are comparable for infants of all races. However, non-Hispanic black infants (285 deaths per 1,000 live births) are more than 4 times as likely to die from disorders related to short gestation and low birth weight as are Hispanic (71 per 1,000), American Indian (67 per 1,000), non-Hispanic white (nearly 66 per 1,000), and Asian and Pacific Islander (almost 52 per 1,000) infants. Both non-Hispanic black and American Indian infants (nearly 146 per 1,000 and close to 156 per 1,000, respectively) are more than twice as likely as non-Hispanic white babies to die from Sudden Infant Death Syndrome (SIDS), and almost three times as likely as Asian and Pacific Islander (51 per 1,000) and Latino (almost 47 per 1,000) infants to die from SIDS.[101]
- Black mothers themselves are more likely to die from pregnancy complications than either white or Hispanic mothers. In 1998, there were four deaths per 100,000 live births among white women, while there were five deaths per 100,000 live births for Hispanic women (age-adjusted rates). Among black women, however, there were 16 deaths per 100,000 live births.[17]
- Between 1993 and 1997, maternal mortality rates for American Indian/Alaska Native, Hispanic, and Asian and Pacific Islander mothers were higher than the rates for non-Hispanic white mothers, although lower than the rates for non-Hispanic black mothers. The rates were: among American Indians/Alaska Natives, 12 maternal deaths per 100,000 live births; among Asian/Pacific Islanders, 11 deaths per 100,000 births; and among Hispanics, ten deaths per 100,000 births. There were slightly more than seven deaths per 100,000 live births among white mothers, but almost 30 deaths per 100,000 live births to black mothers.[93,94]
- 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 eight 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.[94]

FIGURE 38
Neonatal and Postneonatal Deaths by Race/Ethnicity of Mothers, 1996–1998
Per 1,000 live births



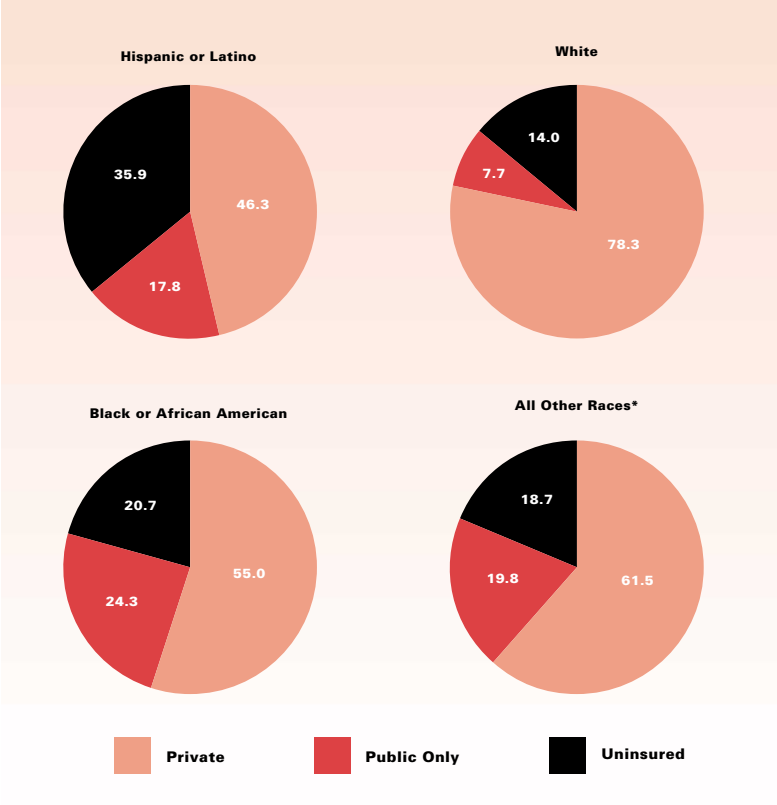
Source: National Center for Health Statistics, *Health, United States, 2001 with Urban and Rural Health Chartbook,* Hyattsville, MD: 2001, pg. 153.
* Based on fewer than 50 events
† Includes persons from Spain and other Spanish-speaking localities
‡ Includes Asian Indian, Guamanian, Korean, Samoan, Vietnamese, and other Asian and Pacific Islander subpopulations

Access to Health Insurance and Services

Access to Health Insurance: People of Color

- People of color were disproportionately represented among the nearly 43 million people (almost 16 percent of the total population) without health insurance in 1999.[102] Fourteen percent of all whites and 33 percent of all poor whites in 1999 reported a lack of health insurance coverage. Twenty-one percent of all blacks and 28 percent of poor black non-Hispanic adults reported a similar lack of health insurance. Twenty percent of all Asians and Pacific Islanders were uninsured, compared to 42 percent of low-income Asians and Pacific Islanders who were uninsured. Hispanics, however, were the most likely to be uninsured. Among all Hispanics, 33 percent had no health insurance, while among poor Hispanic adults, this share was 44 percent.[103]
- People of color also were more likely than whites to report lacking health insurance coverage for at least a month between 1993 and 1996. While 25 percent of all white non-Hispanics reported at least a month without health insurance during this period, half of all Hispanics and 37 percent of all black Americans reported the same. Not only are people of color more likely to report a break in health insurance coverage, but their periods without coverage also are longer. While the average among whites for time spent uninsured during 1993 to 1996 was 4.5 months, among African Americans it was 5.2 months, and among those of Hispanic origin, 7.4 months.[104]
- Blacks and Hispanics under 65 years of age 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. In 1999, 78 percent of whites reported private health insurance coverage, compared to 46 percent of Hispanics and 55 percent of blacks. Among people of all other races, almost 62 percent were covered by private health insurance.[102]
- Privately purchased and job-based insurance coverage rates by Hispanic subpopulations for those under the age of 65 ranged from 44 percent among Mexican Americans, 45 percent among Puerto Ricans, and 46 percent among Central and South Americans to 65 percent among Cubans.[105]
- Black non-Hispanic and Hispanic nonelderly adults were more likely to report public health care coverage than whites. Although only 4.5 percent of white non-Hispanics reported Medicaid coverage in 1998, 26 percent of blacks and 9 percent of Hispanics reported this form of insurance.[106]
- Among Latino subpopulations under the age of 65, the share reporting Medicaid and other government insurance coverage varies. Twelve percent of Central and South Americans, 14 percent of Cubans, and 18 percent of Mexican Americans reported this form of insurance, in comparison to 34 percent of Puerto Ricans.[105] This difference in coverage reflects in part the difference in the proportions of Central and South Americans, Mexican Americans, and Cubans eligible for Medicaid and other government coverage, relative to Puerto Ricans, all of whom are U.S. citizens and, thus, potentially eligible for the insurance.

FIGURE 39
Health Insurance Coverage for Persons under 65 Years of Age by Race/Ethnicity, 1999
Percent

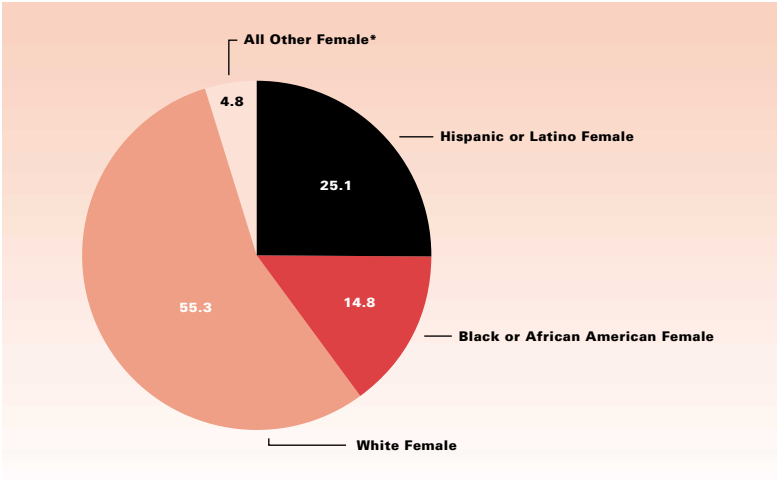


Source: Rhoades J, Chu M, *Health insurance status of the civilian noninstitutionalized population: 1999,* Rockville, MD: Agency for Healthcare Research and Quality; 2000, MEPS Research Findings No. 14, AHRQ Pub. No. 01-0011: pg. 8.
* Includes American Indians, Alaska Natives, Asians, and Pacific Islanders

Access to Health Insurance: Women of Color

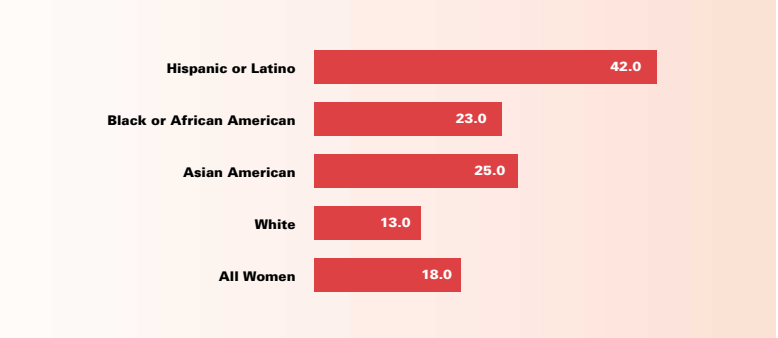
- Although women of color were estimated to be 28 percent of all women in 1999, they were 45 percent (9 million) of the estimated 20 million uninsured women of all ages that year.[102,107]
- Most of the uninsured women (55 percent) in 1998 were white. However, each of the subpopulations of women of color was overrepresented among the uninsured (relative to their share of the female population). Thus, each subpopulation of women of color was more likely than white women to be uninsured. Thirteen percent of white women were uninsured, compared to 23 percent of black, 25 percent of Asian, and 42 percent of Hispanic women.[108]
- When type of insurance (i.e., Medicare, Medicaid, employer-based, other, and uninsured) was examined for all women between the ages of 18 and 64 years in 1998, those most likely to report having health insurance coverage through their employers in 1998 were white (73 percent). Only 41 percent of Hispanic women were covered through their employers, while 54 percent of Asian and 56 percent of black women obtained health insurance through their employers.[108]
- In 1996, 30 percent of Hispanic, 22 percent of black and 13 percent of white working women ages 16 to 64 were uninsured.[109]
- Working Hispanic women are likely to be uninsured as a result of the types of jobs they hold. Among uninsured working Hispanic women in California, 41 percent were in agriculture, 31 percent in construction, 25 percent in retail, 22 percent were self-employed, and 17 percent worked in the service sector.[110]

FIGURE 40
Women by Race/Ethnicity Who Lack Health Insurance Coverage, 1999
Percent



Source: Rhoades J, Chu M, *Health insurance status of the civilian noninstitutionalized population: 1999,* Rockville, MD: Agency for Healthcare Research and Quality; 2000, MEPS Research Findings No. 14, AHRQ Pub. No. 01-0011: pg. 8.
*Includes American Indians, Alaska Natives, Asians, and Pacific Islanders

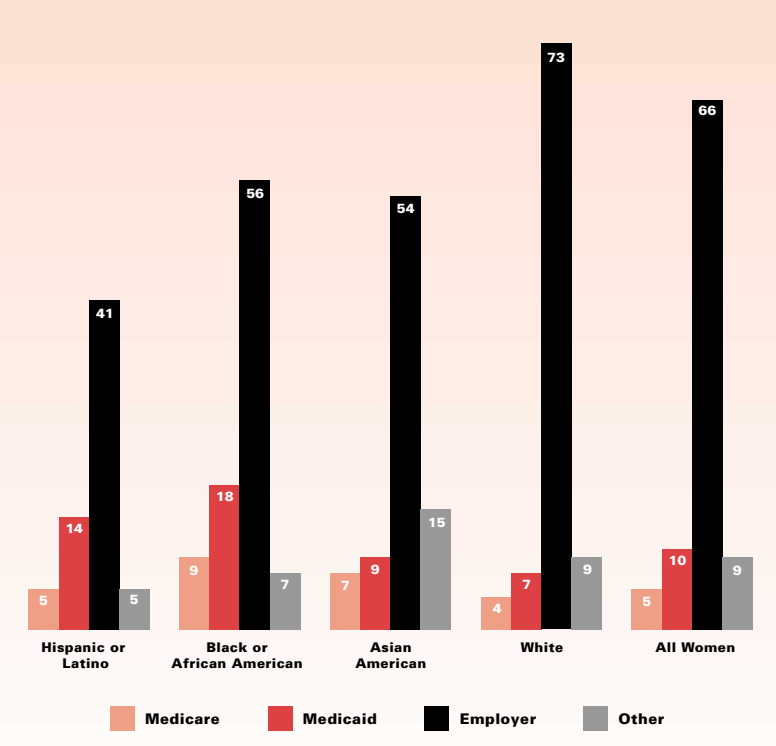
FIGURE 41
Women by Race/Ethnicity Who Lack Health Insurance Coverage, 1998
Percent



Source: Lewis-Idema, Deborah, Joan M. Leiman, Jane E. Meyer, and Karen Scott Collins, *Health Care Access and Coverage for Women: Changing Times, Changing Issues?* Policy Report of The Commonwealth Fund Commission on Women's Health, New York, NY: November 1999 (pg. 22).

- Public health insurance coverage was more common among many women of color under the age of 65 in 1999 than among white women. While just 9 percent of white women reported having only public health insurance, 28 percent of black women, and 20 percent of both Hispanic women and women of all other races reported the same.[102]
- 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 1998. Medicaid coverage ranged from 18 percent for black women to 7 percent for white women. Fourteen percent of Hispanic women, and 9 percent of Asian women also reported Medicaid coverage.[108]
- 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 1998, low-income African American women were the most likely to have Medicaid coverage (33 percent), followed by low-income Hispanic (21 percent), white (19 percent), and Asian and Pacific Islander (18 percent) women.[111] Large percentages of low-income women also reported being uninsured—51 percent of Latinos, 42 percent of Asian and Pacific Islander women, 32 percent of African American women, and 31 percent of white women.
- Medicare coverage (among all age groups, reflecting both the elderly and disabled) was distributed differently than Medicaid coverage among women of color, with white and Hispanic women both reporting a small share (4 and 5 percent, respectively) with this form of health insurance in 1998. Somewhat larger shares of Asian (7 percent) and black (9 percent) women reported having Medicare coverage.[108]

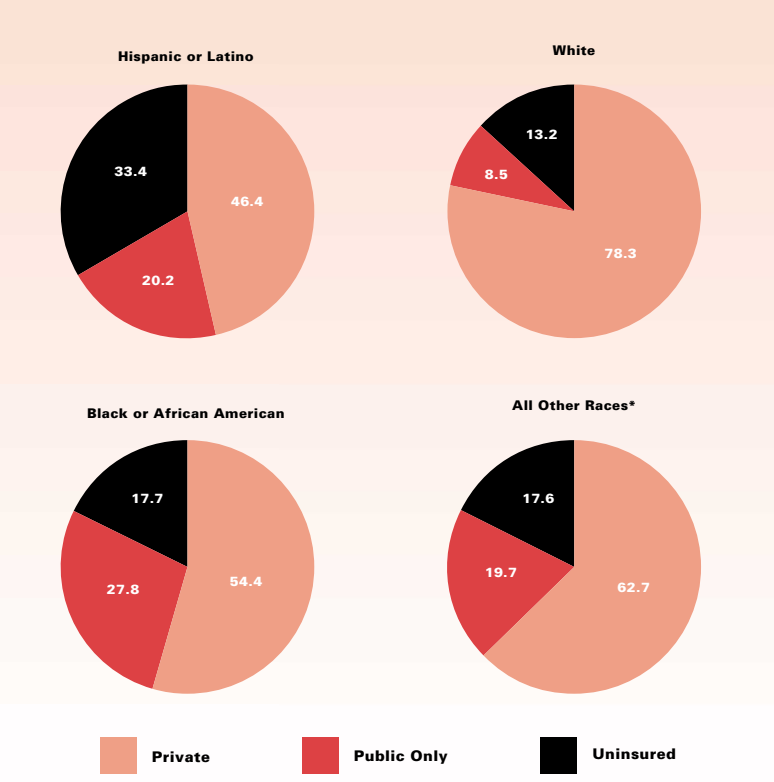
FIGURE 42
Women Ages 18 to 64 by Type of Health Insurance Coverage and Race/Ethnicity, 1998
Percent



Source: Lewis-Idema, Deborah, Joan M. Leiman, Jane E. Meyer, and Karen Scott Collins, *Health Care Access and Coverage for Women: Changing Times, Changing Issues?* Policy Report of The Commonwealth Fund Commission on Women's Health, New York, NY: November 1999 (pg. 22).

- Medicare coverage among the elderly (women 65 years and older) varied only slightly by subgroup. Ninety-eight percent of white women 65 years of age and older reported having Medicare coverage in 1995. Equal percentages of African American and Hispanic women (94 percent) reported having Medicare health insurance, while 86 percent of Asian women reported having this form of insurance.[112]
- During the 1990s, public health insurance coverage among women declined notably, with some of this decline attributable to welfare reform. Decreased welfare enrollment between 1995 and 1996 and the failure of states to enroll former welfare recipients who remained eligible for Medicaid in this program resulted in reduced coverage.[108,113]

FIGURE 43
Health Insurance Coverage for Women under 65 Years of Age by Race/Ethnicity, 1999
Percent

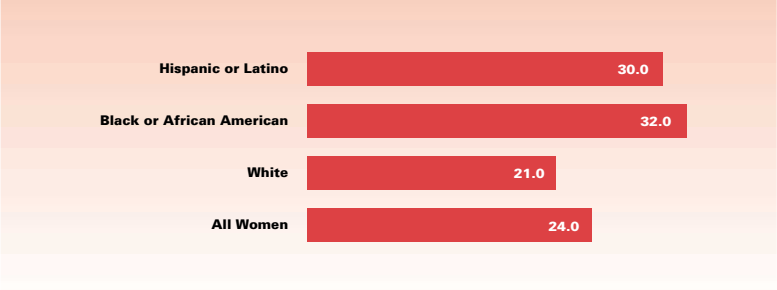


Source: Rhoades J, Chu M, Health insurance status of the civilian noninstitutionalized population: 1999, Rockville, MD: Agency for Healthcare Research and Quality; 2000, MEPS Research Findings No. 14, AHRQ Pub. No. 01-0011: pg. 8.
*Includes American Indians, Alaska Natives, Asians, and Pacific Islanders

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.[114]
- A 1997 survey found that low-income women reported difficulty in accessing health care, regardless of whether they were insured or uninsured.[108]
- Women of color disproportionately report difficulties in accessing health care. A fifth (21 percent) of white women, but nearly a third of black (32 percent) and Hispanic (30 percent) women encountered a problem when seeking health care services in 1998.[54]
- Making contact with physicians or other providers is the first step beyond having health insurance coverage toward having good health. The finding that the majority of uninsured women had more advanced breast cancer (stages IIB, III, and IV) at the time of diagnosis than women with private health insurance illustrates the criticality of health insurance to seeking health care.[82]

FIGURE 44
Women Ages 18 to 64 with Health Care Access Problems in the Past Year* by Race/Ethnicity, 1998
Percent

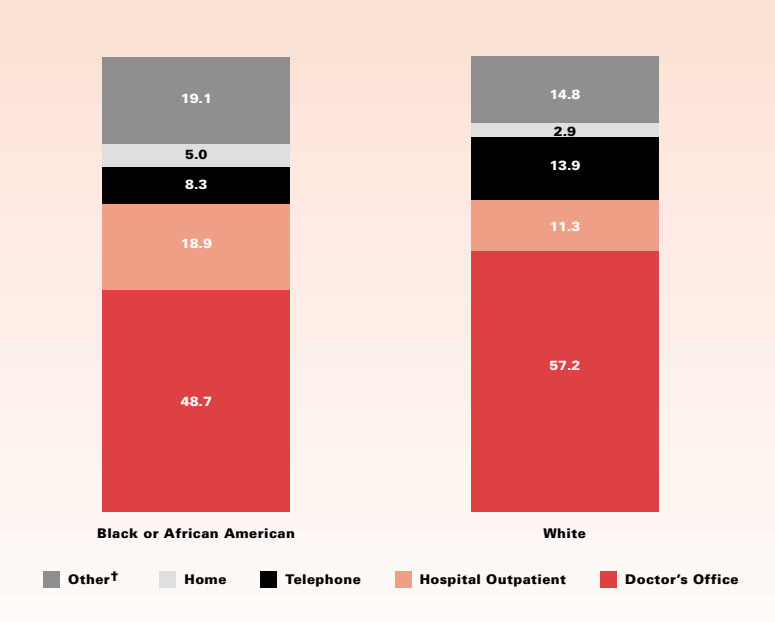


Source: Collins, Karen Scott, Cathy Schoen, Susan Joseph, Lisa Duchon, Elisabeth Simantov, and Michele Yellowitz, *Health Concerns Across A Woman's Lifespan:* The Commonwealth Fund 1998 Survey of Women's Health, New York, NY: May 1999 (pg. 33).
*Reported a time they did not get needed care or specialty care or did not fill a prescription because of costs

- More blacks than whites (19 versus 11 percent) reported that the hospital outpatient department (including outpatient clinics, emergency room, and other hospital contacts) was their usual place of physician contact in 1996. Forty-nine percent of blacks and 57 percent of whites reported that the physician's office was their usual place of contact with a health provider.[115] Among Hispanics, substantially higher percentages of Puerto Ricans (than Mexican Americans and Cuban Americans) reported hospital outpatient clinics and emergency rooms to be their usual source of care.[92]
- American Indian/Alaska Natives (27 percent) and non-Hispanic blacks (22 percent), males and females combined, were more likely to report one or more visit to the emergency department in 1999 than were either non-Hispanic whites (17 percent), Hispanics (15 percent), or Asians and Pacific Islanders (10 percent).[17]
- Among Asian Americans, 22 percent of Korean households in Southern California reported that, at one time or another, a family member has failed to get appropriate care since coming to the United States. Although the most common barrier is financial, an additional 18 percent of Koreans reported not knowing where to go for care at some time since immigrating to the United States.[116]

- 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 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.[105]
- American Indians/Alaska Natives who have job-based private insurance (slightly more than two-thirds of this population in 1997) 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.[105] The options for both private care and treatment at IHS facilities are limited by the distances that must be traveled to get to 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.[117]

FIGURE 45
Physician Contacts by Place of Contact and Race of Patient,* 1996
Percent



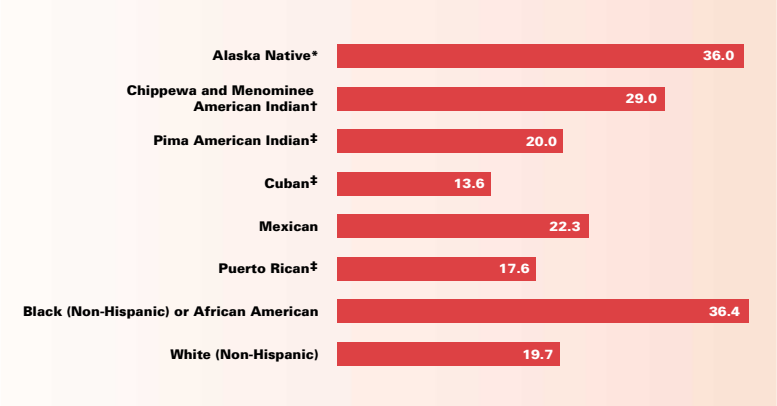
Source: National Center for Health Statistics, *Health, United States, 1999 With Health and Aging Chartbook*, Hyattsville, MD: 1999.
* Age-adjusted
† Includes clinics or other places outside a hospital

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 death (than white women) from pre-eclampsia or eclampsia, conditions causing hypertension during pregnancy.[80,118]
- Between 1988 and 1994, 36 percent of one Alaska Native population and 34 percent of black non-Hispanic women were found to be hypertensive, compared to the rate for Mexican American women (22 percent).[17,119]
- In 1998 in California, Hispanic women had rates of hypertension similar to non-Hispanic white women (25 and nearly 24 percent, respectively). This is much lower than the rate for black women in the state (35 percent), although slightly higher than the rate for women of all other races (close to 22 percent).[110]
- It has been suggested that Hispanics, specifically Mexican Americans, exhibit lower rates of hypertension than other U.S. populations due to a variety of factors, including genetics, lifestyle and culture. Furthermore, some research has demonstrated that more educated Mexican American women have lower rates of hypertension than less educated ones.[120,121]
- Hypertension prevalence varies among Latino subpopulations. Based on data from 1982 to 1984 and from 1990, it is estimated that 22 percent of Mexican American women, close to 18 percent of Puerto Rican women, and 14 percent of Cuban women had hypertension. As women from these subpopulations age, at least 50 percent are predicted to develop hypertension.[122]
- Among American Indian women living on or near reservations and eligible for services provided or supported by the IHS, 22 percent reported hypertension in 1987. While only 11 percent of American Indian/Alaska Native women between the ages of 19 and 44 had hypertension, more than three times as many women 45 years of age and older also reported this condition. In 1987, 38 percent of American Indian/Alaska Native women 65 years of age and older were hypertensive.[123] A 1997 national telephone survey found 23 percent of American Indian/Alaska Native women 18 years of age or older had been told they were hypertensive.[124]
- Among the Chippewa and Menominee tribes, whose reservations are located in the Bemidji IHS service area, 29 percent of women were hypertensive from 1992 to 1994. Nearly half (49 percent) of these hypertensive women were also diabetic.[125]
- Hypertension is a common complication among non-insulin-dependent diabetics who belong to the Pima Indian tribe. Analyzing data from 1972 to 1994, one study found that 20 percent of Pima Indian women were hypertensive. Pima Indians have one of the highest diabetes prevalence in the world. Among diabetics of

FIGURE 46
Age-adjusted Hypertension among Women 20 Years of Age and Older by Race/Ethnicity, 1972–1994, 1982–1984, 1988–1994, 1992, 1992–1994
Percent



Sources: National Center for Health Statistics, *Health, United States, 2001 with Urban and Rural Health Chartbook,* Hyattsville, MD: 2001.
Crespo CJ, Loria CM, Burt VL. Hypertension and Other Cardiovascular Disease Risk Factors among Mexican Americans, Cuban Americans, and Puerto Ricans from the Hispanic Health and Nutrition Examination Survey. *Public Health Reports,* 1996; 111 (supp 2):7-10.
Schraer, Cynthia D., Sven O.E. Ebbesson, Edward Boyko, Elizabeth Nobman, Amanda Adler, and Jonathan Cohen. Hypertension and Diabetes among Siberian Yupik Eskimos of St. Lawrence Island, Alaska. 1996. *Public Health Reports,* 11(2): 51-52.
Casper, Michele, Steve Rith-Najarian, Janet Croft, Wayne Giles, and Ralph Donehoo. Blood Pressure, Diabetes, and Body Mass Index among Chippewa and Menominee Indians: The Inter-Tribal Heart Project Preliminary Data. 1996. *Public Health Reports,* 111 (2): 37-39.
de Courten, Maximilian P., David J. Pettitt, and William C. Knowler, Hypertension in Pima Indians: Prevalence and Predictors. *Public Health Reports,* 111 (2): 40-43.
* Ages 39 and older, Siberian Yupik Eskimo
† Ages 25 and older
‡ Ages 18 and older

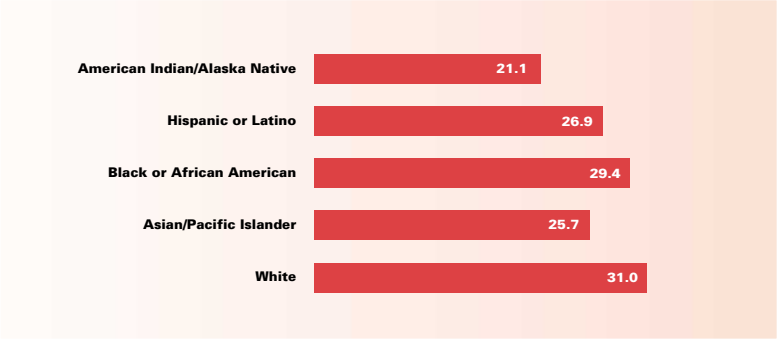
both sexes, the hypertensive prevalence is 40 percent.[126]

- Thirty-six percent of Siberian Yupik Eskimo (Alaska Native) women ages 39 and older tested positive for hypertension in 1992. When taking age group into consideration, Yupik women ages 65 to 74 had the highest percent of hypertensives—78 percent.[119]
- In Hawaii, Native Hawaiians reported high rates of hypertension, and Native Hawaiian women had greater prevalence than any other ethnic group in the state. In 1985, 24 percent of Native Hawaiian women 20 to 59 years of age had hypertension. Sizable percentages of adult Samoan women in Hawaii and California have hypertension as well; using the systolic criterion, 13 percent are hypertensive, while 18 percent are hypertensive by the diastolic criterion.[14,127–129]
- Selected Asian and Pacific Islander American populations experience high rates of hypertension and are less likely to be aware that they have the disease or to be under medical supervision than are members of other racial/ethnic groups. Studies from 1978–1985 and from 1991 estimated the prevalence of hypertension in Asian American communities in California. Vietnamese and Filipino women (14 and 10 percent, respectively) had the highest rates of hypertension, followed by Japanese American (9 percent) and Chinese American (8 percent) women.[49]
- Filipino women over 50 years of age who live in California have slightly higher prevalence of hypertension (65 percent) than black women in the same age cohort (63 percent).[130]
- Pregnancy induces hypertension in some women of color. In one study of nearly 600 Southwestern Navajo women, 11 percent experienced pregnancy-related hypertension.[131]
- Although well over 95 percent of hypertensive Mexican American, Cuban, and Puerto Rican women were aware of their condition, only 86 percent of Puerto Rican and Mexican American, and 79 percent of Cuban women reported receiving necessary treatment (1982–1984). Furthermore, only 44 percent of Mexican American, 42 percent of Puerto Rican, and 30 percent of Cuban women had their hypertension under control.[132]

Cardiovascular Disease

- Diabetes, hypertension, high cholesterol, obesity, lack of exercise, and smoking all are risk factors for heart disease. Although various risk factors affect the different subpopulations of women of color, cardiovascular disease was the leading cause of death for black, Latino, American Indian/Alaska Native, and white women in 1999. Heart disease ranked as the second leading cause of death among Asian American women that year.[17]
- The 373,483 deaths due to diseases of the heart among women in 1999 were distributed as follows: whites (88 percent), blacks (nearly 11 percent), Asian and Pacific Islander Americans (1 percent) and American Indians/Alaska Natives (less than 1 percent). Spanish-origin women (who may be of any race) comprise slightly more than 3 percent of all deaths due to diseases of the heart among women.[17]
- Heart disease accounted for sizable shares of all deaths among women of each racial/ethnic subpopulation in 1999—white women (31 percent), black women (29 percent), Hispanic women (27 percent), Asian and Pacific Islander women (26 percent), and American Indian/Alaska Native women (21 percent). Proportionately fewer African American and white women died from heart disease in 1999 than in 1980 (5 percentage points and nearly 9 percentage points fewer, respectively). However, equal proportions of American Indian/Alaska Native and Asian and Pacific Islander women were killed by cardiovascular disease in 1999 than in 1980. (Data were not available for Hispanic deaths in 1980).[17]
- Black women had the highest age-adjusted death rate from heart disease in 1999 (more than 290 per 100,000), nearly 1.7 times that of non-Hispanic white women (218 per 100,000). The death rate was nearly 147 per 100,000 Hispanic women, followed by rates of 138 per 100,000 American Indian/Alaska Native females, and nearly 122 per 100,000 Asian and Pacific Islander women.[17]

FIGURE 47
Deaths Due to Heart Disease among Women by Race/Ethnicity, 1999
Percent

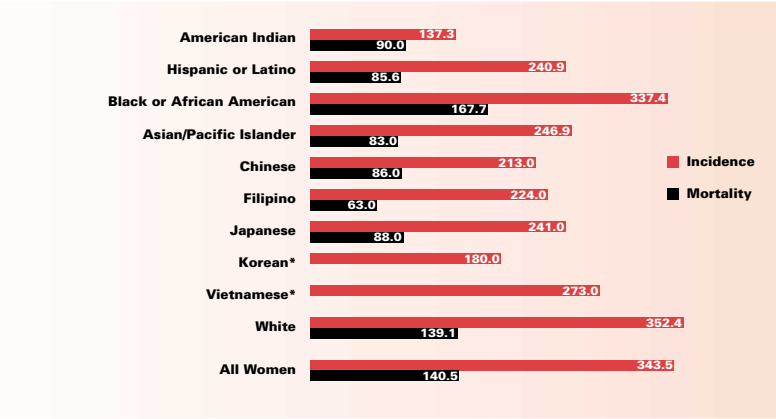


Source: National Center for Health Statistics, *Health, United States, 2001 with Urban and Rural Health Chartbook,* Hyattsville, MD: 2001 (pgs. 175-78).

Cancers

- Cancers are the second leading cause of death for women of color, except for Asian and Pacific Islander women for whom they are the number one killer.[17]
- Over the 1990–1997 period, the age-adjusted incidences of all cancers per 100,000 women ranged from highs of 352 among white women and 337 among black women to the low of 137 among American Indian women. Other groups of women reporting high overall cancer incidences were Asian and Pacific Islander women at 247 cases per 100,000 and Hispanic women at 241 cases per 100,000. (*Note*: These data are age-adjusted using the 1940 standard million population and are therefore not comparable to similar figures from the *Health, United States, 2001 with Urban and Rural Health Chartbook*, produced by the National Center for Health Statistics).[133]
- In 1990–1997, death rates among women of color from all cancers varied. The highest death rate was reported by black women (168 per 100,000), with the lowest death rates reported among Asian and Pacific Islander women (83 per 100,000) and Hispanic women (86 per 100,000). As with incidence, high rates of death from all cancers were reported by white women (139 deaths per 100,000 women). (*Note*: These data are age-adjusted using the 1940 standard million population, and are therefore not comparable to similar figures from the *Health, United States, 2001 with Urban and Rural Health Chartbook*, produced by the National Center for Health Statistics).[133]

FIGURE 48
Age-adjusted Incidence of and Mortality from All Forms of Cancer among Women by Race/Ethnicity, 1988–1992, 1990–1997
Per 100,000 population



Source: National Cancer Institute, *SEER Cancer Statistics Review 1973-1997,* Age-Adjusted Seer Incidence and U.S. Mortality Rates – all sites. http://cancernet.nci.nih.gov/statistics.html.
* Mortality rate not available

- Age-adjusted (using the 2000 standard million population) death rates for all cancers in 1999 were highest for black (200 per 100,000) and white (169 per 100,000). Death rates for American Indian/Alaska Native (109 per 100,000), Asian and Pacific Islander (104 per 100,000), and Latino women (101 per 100,000) were close to half the rate reported for black females.[17]
- The rate of cancer mortality among American Indian women is lower than for the general population. However, American Indian/Alaska Native women in selected IHS service areas—Alaska; Aberdeen (including South Dakota, North Dakota, Nebraska, and Iowa); Bemidji (including Minnesota, Wisconsin, Michigan, and Indiana); and Billings (including Montana and Wyoming)—have higher cancer mortality rates than among the total U.S. female population.[134]
- Five-year survival rates with all cancers were higher for white women than for black women in 1989–1996. More than three-fifths (63 percent) of white women survive five years after diagnosis with cancer, while nearly half of black women (49 percent) survive this length of time.[17]
- The top two cancer killers of women are cancers of the lung and bronchus and of the breast.[135]
- Death rates from these two forms of cancer vary among women of color, with the rates nearly equal within some groups and quite different within other groups (1990–1997). For example, the mortality rates for these cancers were nearly equal for black American women (31 per 100,000 for breast cancer and 33 per 100,000 for cancers of

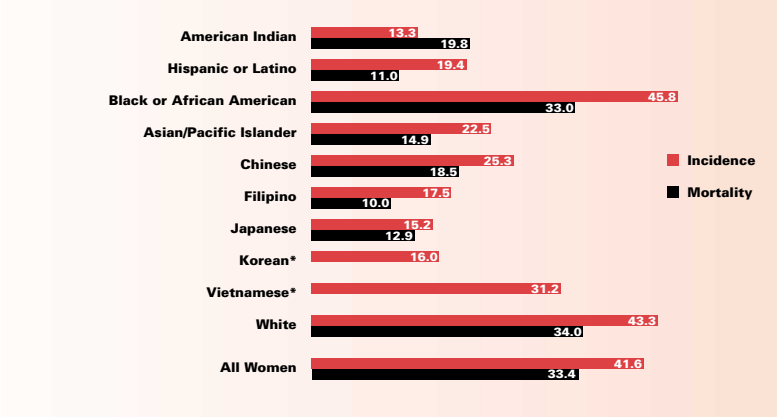
the lung and bronchus). However, death rates for these types of cancers differ for white women (25 per 100,000 for breast cancer and 34 per 100,000 for cancers of the lung and bronchus) and for American Indian women (12 per 100,000 for breast cancer and 20 per 100,000 for cancers of the lung and bronchus). (*Note*: These data are age-adjusted using the 1940 standard million population, and are therefore not comparable to similar figures from the *Health, United States, 2001 with Urban and Rural Health Chartbook*, produced by the National Center for Health Statistics).[133]

- In 1999, age-adjusted death rates (standardized to the 2000 population) from cancers of the trachea, bronchus, and lung and from breast cancer differed substantially for all subgroups of women. Black women (41 per 100,000) and white women (42 per 100,000) had nearly equal death rates from cancers of the trachea, bronchus, and lung, followed by American Indian/Alaska Native women (27 per 100,000), Asian and Pacific Islander women (20 per 100,000), and Hispanic females (13 per 100,000). The highest death rate from breast cancer (36 per 100,000) occurred among black females, followed by white females (26 per 100,000), and trailed by American Indian/Alaska Native and Hispanic women (both at 15 per 100,000) and Asian and Pacific Islander women (13 per 100,000).[17]
- Between 1992 and 1994, 58 percent of cancer deaths among American Indian women were due to cancer of the trachea, bronchus and lung.[22]
- Cancers at other sites of the body are found with varying frequencies among women of color. Colorectal cancer and kidney and renal cancers are more common and more deadly for Alaska Native women. Stomach cancer strikes Vietnamese women and kills Native Hawaiian women more often than other women of color. Cancer of the thyroid is more often found in Filipino American women, while Korean American women get cancers of the liver and bile duct more frequently than other women of color. Cancer of the pancreas has higher incidence and mortality rates among black American women than among other women of color.[136]

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 both lung cancer and heart disease.[135]
- During the 1990 to 1997 period, the incidence of cancers of the lung and bronchus ranged from a low of 13 per 100,000 American Indian women to a high of 46 per 100,000 black women. Incidence also was high among women who are white (43 per 100,000).[133]
- Hispanic women (19 cases per 100,000) and Asian and Pacific Islander women (23 cases per 100,000) also reported low rates of cancers of the lung and bronchus.[133]
- The highest death rates from cancers of the lung and bronchus between 1990 and 1997 were reported by white (34 per 100,000) and black (33 per 100,000) women.[133]
- The lowest death rates due to lung and bronchial cancers among women are 11 per 100,000 Hispanic women and 15 per 100,000 Asian and Pacific Islander women.[133]
- In recent years, mortality from lung cancer has increased markedly for American Indian/Alaska Native women living in the following IHS service areas—Alaska, Aberdeen (North Dakota, South Dakota, Nebraska, and Iowa), Billings (Montana and Wyoming), and Bemidji (Minnesota, Wisconsin, Michigan and Indiana). Death rates from lung cancer have risen from lower than the national average to 1.5 to 2.5 times the U.S. rate in these places. Rates for American Indian women in Arizona and New Mexico have remained relatively constant, at less than one-third the national rate.[137]
- Deaths due to cancers of the trachea, bronchus, and lung (as data were reported in 1999) 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 (42 per 100,000) and black women (41 per 100,000). A total of 27 deaths per 100,000 American Indian/Alaska Native women, 20 deaths per 100,000 Asian and Pacific Islander women, and 13 deaths per 100,000 Hispanic women also were reported.[17]

FIGURE 49
Age-adjusted Incidence of and Mortality from Cancers of the Lung and Bronchus among Women by Race/Ethnicity, 1988–1992, 1990–1997
Per 100,000 population

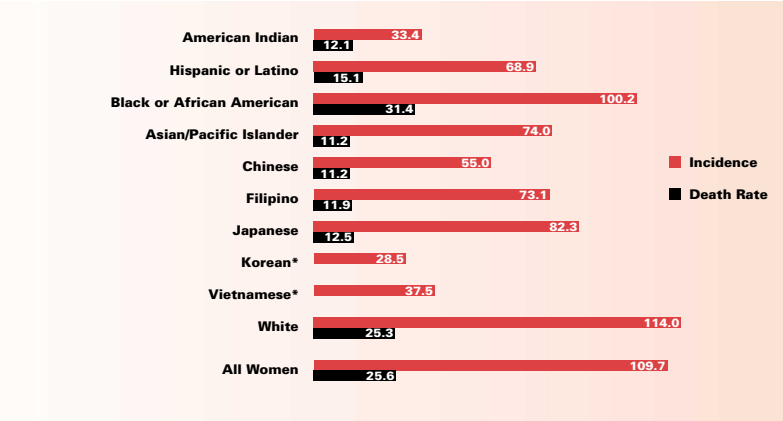


Source: National Cancer Institute, *SEER Cancer Statistics Review 1973-1997,* Age-Adjusted Seer Incidence and U.S. Mortality Rates – lung and bronchus (invasive).http://cancernet.nci.nih.gov/statistics.html.
* Mortality rate not available

Breast Cancer

- White women (114 per 100,000) and black women (100 per 100,000) reported the greatest incidences of breast cancer, while American Indian women (33 per 100,000) reported the lowest incidence (1990–1997).[133] Although their incidence is low, mortality rates due to breast cancer among American Indian/Alaska Native women are second only to those for cancers of the trachea, bronchus and lung.[20]
- Seventy-four cases of breast cancer were reported for every 100,000 Asian and Pacific Islander women (1990–1997). Asian and Pacific Islander and Hispanic women (69 per 100,000), thus, had breast cancer incidences midway between the highest and the lowest incidences among women of color.[133]
- Breast cancer is the most frequently diagnosed cancer among American-Samoan women in Los Angeles County. The same is true for American-Samoan women in Hawaii, although they are less likely to have this type of cancer than their Californian counterparts. In addition, American-Samoan women in California are about equally as likely as white women to have breast cancer, while American-Samoan women in Hawaii are less likely to be diagnosed with this type of cancer. American-Samoan women in Hawaii are also less likely to have breast cancer than Native Hawaiian women.[138]
- The highest death rate from breast cancer was reported by black American women (31 per 100,000), even though their incidence was lower than that of whites. Between 1990 and 1997, while there was more than a 2 percent decrease in mortality due to breast cancer among white women, among African American women there was only a 0.2 percent decrease.[133]
- White women (25 per 100,000) reported the second highest breast cancer death rates after black women. The rate among Hispanic women (15 per 100,000) was the third highest.[133]
- Breast cancer death rates in 1999 reflect a similar pattern to that in earlier years, with the highest rates among black females (35.6 per 100,000), followed by white females (26.4 deaths per 100,000). The death rate among Hispanic and American Indian/Alaska Native women is 15.4 per 100,000, with Asian and Pacific Islander women reporting the lowest death rate (13.1 per 100,000).[17]
- In one study in New York, across the socioeconomic spectrum, Hispanic women tend to be diagnosed with breast cancer at more advanced stages than white women. As a result, although incidence rates are lower, Hispanic women are more likely than white women to die from breast cancer.[15]
- Another 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 also were more likely to have tumors larger than 1 centimeter (cm). Larger proportions of Central/South American, Mexican American, and Puerto Rican women had tumors larger than 1 cm than white non-Hispanic women. The authors of this study theorize that these results reflect the limited use of mammography screening among Hispanic women.[139]
- 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 then 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.[139]
- Although American Indian women in New Mexico and Arizona between 1983 and 1994 report both lower incidence and lower death rates than non-Hispanic whites and Hispanics, higher breast cancer death rates are reported among American Indians in other IHS service

FIGURE 50
Age-adjusted Incidence of and Mortality from Breast Cancer among Women by Race/Ethnicity, 1988–1992, 1990–1997
Per 100,000 population



Source: National Cancer Institute, *SEER Cancer Statistics Review 1973-1997,* Age-Adjusted Seer Incidence and U.S. Mortality Rates – breast http://cancernet.nci.nih.gov/statistics.html.
* Mortality rate not available

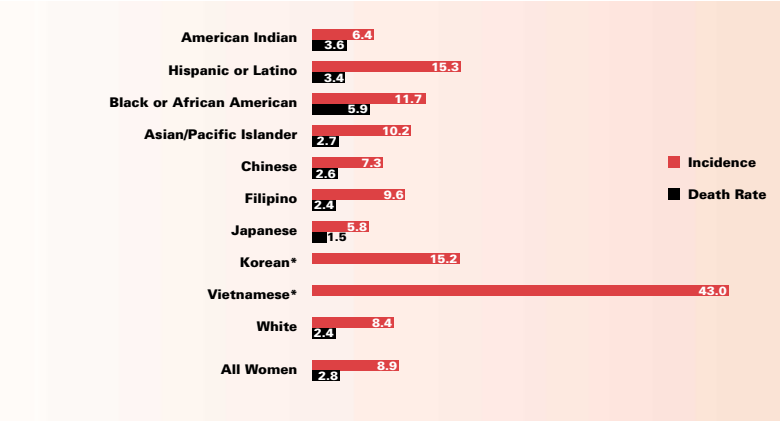
areas.[140] Specifically, an age-adjusted death rate of 23 per 100,000 was reported for American Indian women in the Bemidji and Portland areas in 1994–1996; a rate of 21 per 100,000 was reported in the Billings service area (Montana and Wyoming) during that same period. Breast cancer mortality among American Indian women in the Phoenix and Tucson service areas—8 per 100,000—was lower than that reported in the National Cancer Registry for New Mexico alone.[7]

- Five-year survival rates with breast cancer reflect the mortality noted above. Eighty-six percent of white women survive 5 years after their diagnosis of breast cancer, although only 71 percent of black women survive the same length of time.[17]
- Although 5-year relative survival rates for breast cancer have increased for white non-Hispanic, Hispanic, and American Indian women in New Mexico and Arizona (the New Mexico Tumor Registry area) between the 1969–1982 and 1983–1994 periods, rates remained lower for Hispanics and American Indians than for whites. In 1969–1982, survival rates were 73 percent for white non-Hispanic, 70 percent for Hispanic, and 46 percent for American Indian women. In the 1983–1994 period, these 5-year survival rates were 85 percent for white non-Hispanic, 76 for Hispanic, and 75 percent for American Indian women.[140]

Cervical Cancer

- Cervical cancer incidence varies among women of color from a low of six per 100,000 American Indian women to rates of 15 per 100,000 or higher among Alaska Native, Korean, Vietnamese, and Hispanic women (1990–1997). Vietnamese women have the highest incidence among all women—43 per 100,000.[133,141]
- Black women (12 cases per 100,000) and white women (eight cases per 100,000) were more likely to have cervical cancer than American Indian women, but less likely to have it than Hispanic women (15 cases per 100,000).[133]
- Cervical cancer incidence for Hispanic women in Los Angeles County, Denver, New York, New Jersey, and Dade County (FL) ranged from a low of 10 per 100,000 (Dade County, FL) to a high of 39 per 100,000 (New Jersey). The incidence in Dade County primarily reflects Cuban women, while the New Jersey rate mainly reflects Puerto Rican women. Rates in the other three places were around 20 per 100,000 women.[142]
- Although cervical cancer was one of the most commonly diagnosed types of cancer among American-Samoan women in Hawaii, these women had a significantly lower risk of being diagnosed with this type of cancer than either Native Hawaiian or white women.[138]
- American Indian women in New Mexico had a low incidence of cervical cancer, but the highest death rate—8 per 100,000—reported by the National Cancer Registry during the 1988–1992 period. The death rate (0.8 per 100,000) reported among American Indian women living in the Albuquerque IHS service area (parts of New Mexico, Colorado, and Texas) at that time, however, was lower than the rate reported from the National Cancer Registry for American Indian women in New Mexico overall.[143,144] When age-adjusted mortality for American Indian/Alaska Native women in the IHS service areas was examined for 1994–1996, the highest death rate (more than 11 deaths per 100,000 American Indian women) was reported elsewhere—in the Bemidji service area. In the Phoenix service area, slightly more than 6 deaths per 100,000 women were reported.[7]
- The death rate for American Indian/Alaska Native women from cervical cancer is high because they often are diagnosed later and thus have a poorer survival rate than other women.[145]
- Black women also report a high death rate from cervical cancer (7 per 100,000). Death rates for all other groups of women (besides black and American Indian) are close to 3 per 100,000 women or less.[133,141] The death rate for women living in Puerto Rico (2.2 per 100,000 from 1995–1997) is comparable to the rates for white and Asian and Pacific Islander women overall and somewhat less than that of all Latino women (3 per 100,000).[18]
- The 5-year survival rate for whites exceeds that for blacks for cervical cancer. During the 1989–1996 period, nearly 72 percent of white women, but only about 59 percent of black women, survived 5 years after a diagnosis of cervical cancer.[17]

FIGURE 51
Age-adjusted Incidence and Mortality Rates from Cervical Cancer among Women by Race/Ethnicity, 1988–1992, 1990–1997
Per 100,000 population

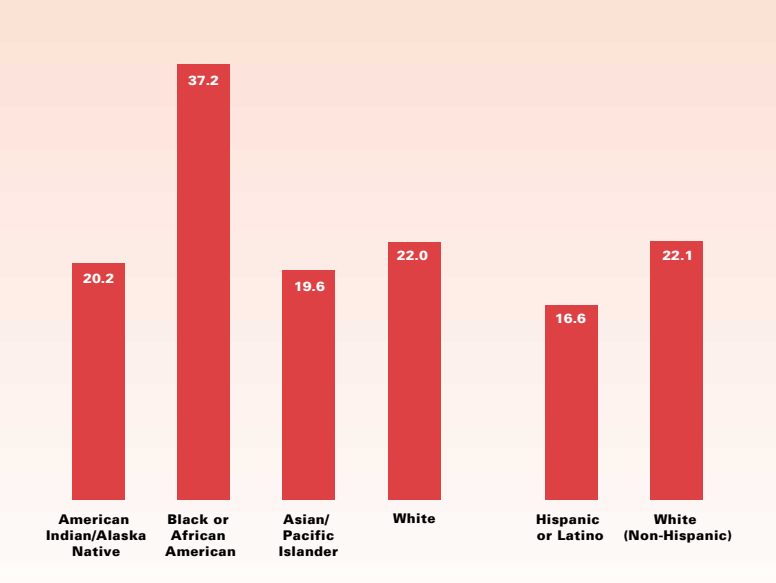


Source: National Cancer Institute, *SEER Cancer Statistics Review 1973-1997,* Age-Adjusted Seer Incidence and U.S. Mortality Rates – cervix uteri http://cancernet.nci.nih.gov/statistics.html.
* Mortality rate not available

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 1999, a total of 102,864 women of all racial/ethnic groups died of cerebrovascular diseases. (*Note*: This total is less than the 105,963 sum if one adds the numbers for the groups on the table with leading causes of death because the 3,099 Hispanic women have been assigned to racial groups to avoid double counting them).[17]
- The mortality rate for cerebrovascular diseases (primarily strokes) in 1999 among black women was greater than for all other women (78 per 100,000 women, age-adjusted). Age-adjusted death rates among other women of color from cerebrovascular diseases were the following: 60 per 100,000 non-Hispanic white women, 48 per 100,000 for Asian and Pacific Islander women, 38 per 100,000 for American Indian/Alaska Native women, and 36 per 100,000 Hispanic women.[17]
- Between 1980 and 1999, the proportion of all deaths among women that were due to cerebrovascular diseases decreased for blacks (from 11 to 8 percent) and for whites (from 11 to nearly 9 percent). This proportion remained nearly constant for Asian and Pacific Islander women (dropping only from 12 to 11 percent) and for American Indian/Alaska Native women (remaining around 6 percent). In 1999, deaths due to cerebrovascular diseases made up nearly 7 percent of all deaths to Hispanic women. (Deaths due to cerebrovascular deaths among Hispanic women in 1980 are not reported).[17]

FIGURE 52
Age-adjusted Morality Rates for Cerebrovascular Disease among Women by Race/Ethnicity, 1999
Deaths per 100,000 population

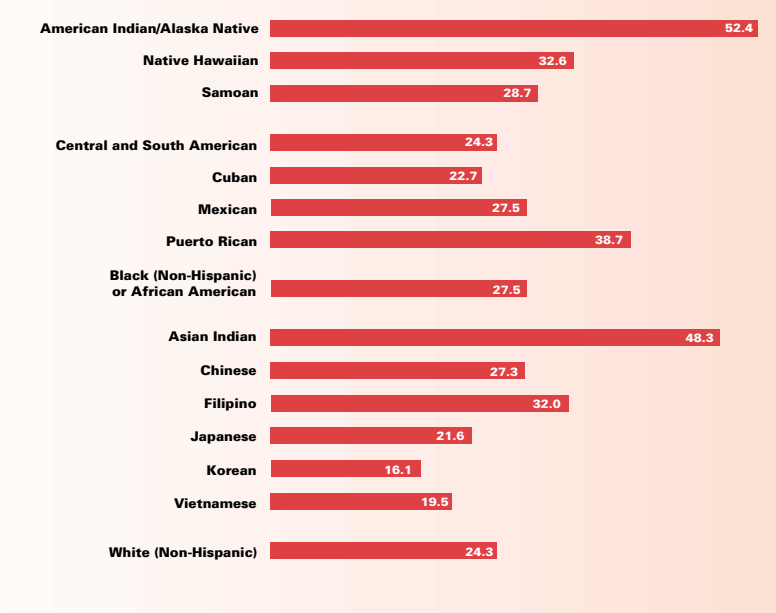


Source: National Center for *Health Statistics, Health, United States, 2001 with Urban and Rural Health Chartbook,* Hyattsville, MD: 2001 (pgs 192-94)

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 primarily affects the circulatory system and frequently is associated with conditions such as arteriosclerosis (hardening of the arteries) and kidney failure.[146]
- The manifestations of diabetes mellitus vary only slightly among women of color. Although gestational diabetes (diabetes occurring in a pregnant woman) is present in 1–3 percent of all pregnancies in the white and black populations, perinatal mortality (infant mortality at birth) for pregnant African American women with diabetes is three times that for pregnant white women with diabetes. In one study of Navajos, gestational diabetes was identified in 6 percent of all pregnancies. Among American Indian/Alaska Native mothers with gestational diabetes, nearly 60 percent will develop freestanding diabetes within 16 years of delivery.[145,147]
- Rates of gestational diabetes vary markedly among women of color, from lows of 16 per 1,000 singleton, live-born infants of Korean mothers and 20 per 1,000 singleton live-born infants of Vietnamese mothers to around 50 per 1,000 such births to Asian Indian and American Indian or Alaska Native mothers.[93]
- In 1998, diabetes prevalence among Native Hawaiians (both sexes) in Hawaii was 47 per 1,000. Only Japanese Americans in Hawaii (both sexes) reported a higher rate (63 per 1,000).[148]
- Older women are more likely to have diabetes than middle-aged women. The difference between the shares of middle-aged and elderly Yaqui and Navajo women with diabetes is around 40 percentage points. This is nearly four times larger than the differences between shares of middle-aged and elderly American Indian/Alaska Native women of other tribes and for black women with diabetes.

FIGURE 53
Age-adjusted Diabetes Rate among Women during Pregnancy by Race/Ethnicity, 1993–1995
Per 1,000 live births



Source: Centers for Disease Control and Prevention. Diabetes During Pregnancy- United States, 1993-1995. *MMWR* 47 (20): 408-14

There is only a 6-percentage-point difference between the shares of middle-aged and elderly white women with this disease.[28,29,123]

- In 1996, the age-adjusted prevalence of diabetes was nearly 58 per 1,000 black women. As noted above, however, older women are much more likely to be diabetic. The diabetes prevalence among black women by age group was as follows—9 per 1,000 for ages from birth to 44, 139 per 1,000 for ages 45 to 64, almost 208 per 1,000 for ages 65 to 74, and 229 per 1,000 for those aged 75 and older.[149]
- Among second-generation Japanese Americans 45 to 74 years of age residing in King County, WA, 20 percent of the men and 16 percent of the women had diabetes mellitus.[150]
- Differences in diabetes prevalence among white women by age group is much less dramatic. In 1996, the age-adjusted prevalence rate was almost 27 per 1,000 for all white women. By age group, the rate ranged from 9 per 1,000 for ages from birth to 44, 51 per 1,000 for ages 45 to 64, 90 per 1,000 for ages 65 to 74, and 94 per 1,000 white women ages 75 and older.[149]
- Older American Indian/Alaska Native and Mexican American women are among the most likely to have diabetes (32 and 30 percent, respectively), followed by black (25 percent) and white (15 percent) women.[28,29,45]
- The highest prevalence of diabetes was found among Yaqui Indian women. Fifty percent of Yaqui women between 35 and 54 years of age and 92 percent of Yaqui women between 55 and 64 years of age were diabetic (1990). The prevalence of diabetes among female Pima Indians ranged from a low of 15 percent (among women 24 to 34 years of age) to a high of 68 percent (among women 55 to 64 years of age) (1965–1975). On the other hand, Alaska Native women tend to have much lower prevalence of diabetes. Among Alaska

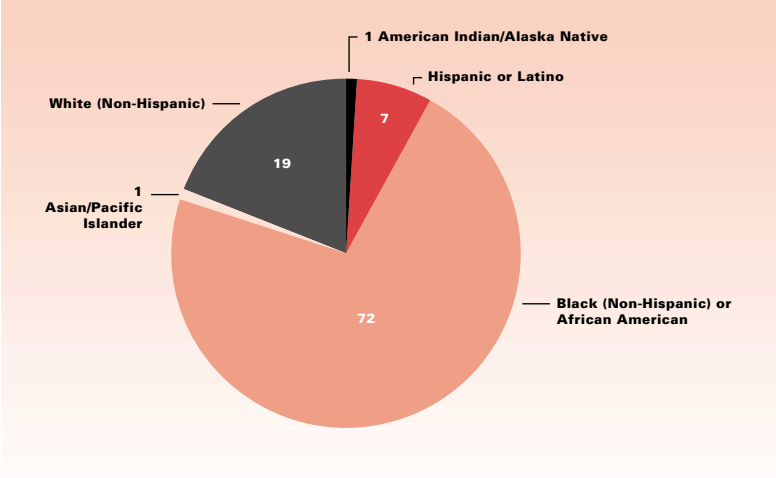
Natives, Aleutian women 65 years of age and older had the largest proportion of diabetic women (only 12 percent) in 1985.[28]

- Sixteen percent of Puerto Rican women and 15 percent of Mexican American women (45 to 74 years of age) reported having diabetes (1982–1984). For Mexican American women, however, with greater acculturation comes reduced obesity and a lower prevalence of diabetes.[32,45]
- In a study of Puerto Rican and Dominican women ages 55 years and older in Massachusetts (1991–1997), about two-fifths of each group (40 percent of Puerto Rican women and 39 percent of Dominican women) reported type 2 diabetes. (Type 2 diabetes, the most common form, was previously known as non-insulin dependent diabetes mellitus or maturity-onset diabetes.) Only a fourth (25 percent) of non-Hispanic white females ages 55 years and older also reported type 2 diabetes.[151,152]
- Type 2 diabetes and socioeconomic status have an inverse relationship for black and white women, although the same is not true for black and white men. For women of both groups, as the Poverty Income Ratio (PIR) rises, the likelihood of developing type 2 diabetes decreases. (The Poverty Income Ratio [PIR] is computed by dividing family income by the federal poverty line).[153]
- Among white (but not black) women, increased educational attainment is associated with lesser risk of developing diabetes.[153]
- 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.[146] Among black Americans, the amputation rate due to diabetes is 9 per 1,000, while this rate is only 6 per 1,000 among white Americans.[154]
- 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/Alaska Native women. In 1988, black women lost 369.5 years and American Indian/Alaska Native women lost 327.8 years of potential life to diabetes mellitus. Hispanic women lost 188.7 years of potential life; white women lost 127.4 years; and Asian and Pacific Islander women lost 68.2 years.[17]
- The rate of amputations among the Pima Indian tribe due to diabetes is nearly four times that for whites.[154]
- From 1990 to 1992 and in 1993, the mortality rates from diabetes among American Indian/Alaska Native and non-Hispanic black women were close to three times those for non-Hispanic white women—28 per 100,000 American Indian/Alaska Native women and 27 per 100,000 African American women versus 10 per 100,000 white women.[80,155]

Sexually Transmitted Diseases among Women of Color

- Among all age groups, about 75 percent of gonorrhea cases were reported by black women. Among women 20 to 44 years old, 72 percent of women infected by gonorrhea were black non-Hispanic, 19 percent were white non-Hispanic, and 7 percent were Hispanic. American Indian/Alaska Native women and Asian and Pacific Islander women each reported 1 percent of gonorrhea cases.[156]
- A total of 764 cases of gonorrhea per 100,000 black non-Hispanic women was reported in 1999, compared to 77 cases per 100,000 Hispanic women. The reported gonorrhea rate for non-Hispanic white women was considerably lower (nearly 34 per 100,000).[157]
- In 1999, the number of cases of gonorrhea among women of color peaked among 15- to 19-year-olds, and steadily decreased with each 4-year cohort between the ages of 20 and 44.[156]
- Despite the decline in the rate among women between the ages of 20 and 44 years, rates of gonorrhea among black women ages 35 to 39 years were considerably greater than among other groups of women. The rate of nearly 332 cases per 100,000 black non-Hispanic women in 1999 was 15 times the rate among white non-Hispanic women (22 per 100,000) and nearly nine times the rate among Latino women (38 per 100,000).[157]
- Among women over 65 years of age, fewer than 1 per 100,000 white non-Hispanic women acquired gonorrhea in 1999. In comparison, almost 2 per 100,000 Hispanic women, and almost 7 per 100,000 black non-Hispanic women in this age group contracted gonorrhea.[157]
- Between 1991 and 1994, the rate of syphilis among all women of color decreased. One-third as many Hispanic women and approximately half as many black non-Hispanic, American Indian or Alaska Native, Asian American, and white non-Hispanic women contracted syphilis in 1994 as had in 1991.[158]
- The overall rate of syphilis among women of color in 1999 was highest among black non-Hispanic women (more than 12 per 100,000) and lowest among white non-Hispanic women (less than one per 100,000). Almost 1 per 100,000 Hispanic women also contracted syphilis that year.[157]
- Between 1988 and 1994, black women were three times as likely as white women to be infected with the herpes simplex virus type 2.[157]
- Pelvic inflammatory disease (PID), a sexually transmitted infection, attacks women's upper reproductive tract and can lead to both ectopic pregnancies and tubal scarring. Women of color reported one-third of all PID cases, and the incidence of ectopic pregnancies in black women was 1.5 times that of all other women of color.[159]
- The much higher incidences of sexually transmitted diseases (STDs) 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 STD reporting than private physicians.[157]

FIGURE 54
Gonorrhea Cases among Women Ages 20 to 44 by Race/Ethnicity, 1999
Percent

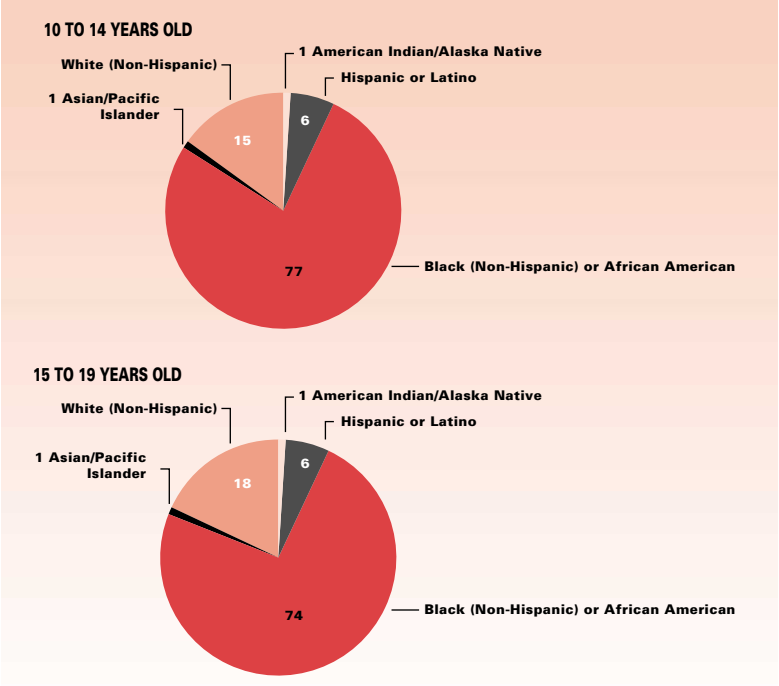


Source: Division of STD Prevention, *Sexually Transmitted Disease Surveillance, 1999*, U.S. Department of Health and Human Services, Atlanta: Centers for Disease Control and Prevention (CDC), September 2000: pg. 88.

Sexually Transmitted Diseases among Adolescent Females of Color

- In 1999, the number of cases of gonorrhea per 100,000 black non-Hispanic girls (10 to 14 years of age) was 282, more than ten times the number reported by Hispanic adolescent females (25 per 100,000). White non-Hispanic girls had the lowest rate of gonorrhea (13 per 100,000) followed by Hispanic girls (25 per 100,000).[157]
- Black non-Hispanic girls reported more than three-quarters (77 percent) of the total number of gonorrhea cases among girls ages 10 to 14. The remaining 23 percent was divided as follows: white non-Hispanic, 15 percent; Hispanic, 6 percent; and American Indian/Alaska Native and Asians and Pacific Islanders, 1 percent each.[156]
- The incidence of gonorrhea among older adolescent females (15 to 19 years of age) was more than 10 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 more than 198 per 100,000 (among non-Hispanic whites) to a high of nearly 3,691 per 100,000 (among non-Hispanic blacks).[157]
- Nearly three-fourths (74 percent) of the gonorrhea cases in females ages 15 to 19 were among black non-Hispanic women.[156]
- Hispanic and white non-Hispanic girls 10 to 14 years of age reported a very low incidence of syphilis in 1999 (fewer than one per 100,000). The syphilis rates for adolescent females 15 to 19 years of age of these same racial/ethnic groups also were small—less than 2 per 100,000. The syphilis incidence for black non-Hispanic girls 10 to 14 years of age was slightly more than 1 per 100,000, not very different from their Hispanic and white counterparts. However, black non-Hispanic females 15 to 19 years of age contracted syphilis at a significantly higher rate (nearly 20 per 100,000) than either younger black adolescents or Hispanic and white female adolescents ages 15 to 19.[157]

FIGURE 55
Gonorrhea Cases among Adolescent Females by Race/Ethnicity, 1999
Percent

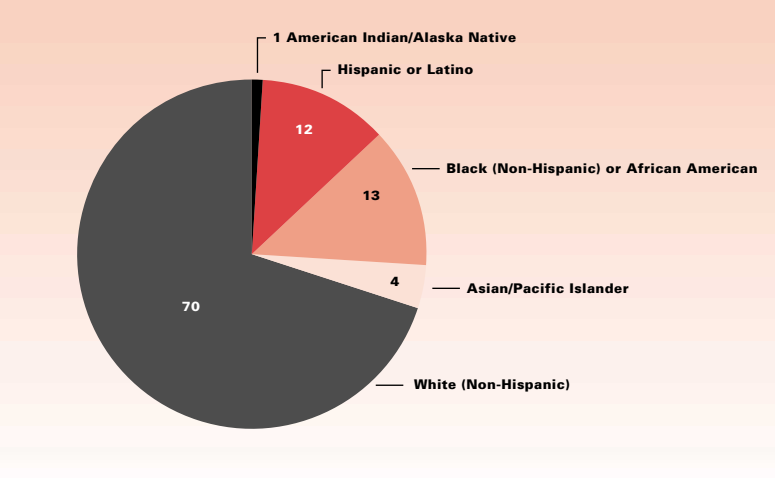


Source: Division of STD Prevention, *Sexually Transmitted Disease Surveillance, 1999,* U.S. Department of Health and Human Services, Atlanta: Centers for Disease Control and Prevention (CDC), September 2000: pg. 88.

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 the condition first was tracked as an infectious disease among women. (*Note*: Tracking began in 1981 for men.) Between 1985 and December 2000, the proportion of all reported AIDS cases occurring among women increased from 7 to 17 percent, with the disease disproportionately affecting women of color.[160]
- Between 1985 and December 2000, the Centers for Disease Control and Prevention (CDC) had received reports of 38,154 cases of HIV infection and 130,104 cases of AIDS among women and adolescents ages 13 years and older. During 2000 alone, 6,769 new cases of HIV infection were reported among this population.[160]
- Most of these cases of HIV infection and AIDS were among black and Hispanic women. Although black women comprised nearly 13 percent of all women in 2000, black women accounted for 68 percent of all cases of HIV infection and 58 percent of all cases of AIDS reported among women between 1985 and December 2000. Similarly, although only 12 percent of all women are Latino. Latinas accounted for 20 percent of all cases of AIDS reported among women. Hispanic women were underrepresented in cases of HIV infection, however, accounting for only 7 percent of all cases.[160,161]
- Most new cases of AIDS develop among African American and Latino women. In fact, during 2000, African American women and Latinas accounted for 80 percent of the cases of AIDS reported among women.[160]
- 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 or die as well as their white or male counterparts."[24] The 26,522 black women residing in 11 southeastern states who were diagnosed with AIDS between 1985 and 1999 often consider their diagnosis among the least of their problems, with child care, alcohol or substance abuse, and lack of health insurance too often higher on their lists of concerns.[162]
- Among women, the two main methods of transmission for HIV infection are injecting drug use and heterosexual contact. Since 1985, larger shares of both white non-Hispanic women (42 percent) and black non-Hispanic women (41 percent), and American Indian/Alaska Native women (45 percent) have reported injecting drug use as the major exposure category for cases of AIDS. Heterosexual contact was reported as the major exposure category for AIDS among Hispanic women (47 percent), followed by intravenous drug use (40 percent). Asian and Pacific Islander women also reported heterosexual contact as the major source of infection (49 percent), while only 16 percent reported intravenous drug use.[160]
- During 2000, patterns for transmission of HIV infection and AIDS among women were generally consistent with those reported in prior years. More than two-fifths (43 percent) of Hispanic women reported heterosexual contact as the cause of AIDS, with more than a quarter (27 percent) citing intravenous drug use. More than two-fifths (43 percent) of Asian and Pacific Islander women also reported heterosexual contact as the cause of AIDS, with 5 percent identifying blood transfusion as their transmission category (the highest among any of the groups of women for whom data are reported) and 3 percent attributing it to intravenous drug use.[160]
- Among Hispanic women, most cases of HIV infection and AIDS are reported by Puerto Rican women, who, as U.S. citizens, are the group most acculturated to U.S. society. Acculturation among Hispanics seems to play a role in the transmission of HIV/AIDS, with intravenous drug use most prevalent among more acculturated Latinas. Less acculturated Latinas report low perceived risk of AIDS because they are less likely to report using illegal drugs or engaging in sexual activity with multiple partners.[163]
- Because it is difficult to conduct controlled experiments with intravenous drug users, this group of HIV/AIDS patients is less likely to be included in experimental

FIGURE 56
Distribution of Women by Race/Ethnicity, 2000
Percent

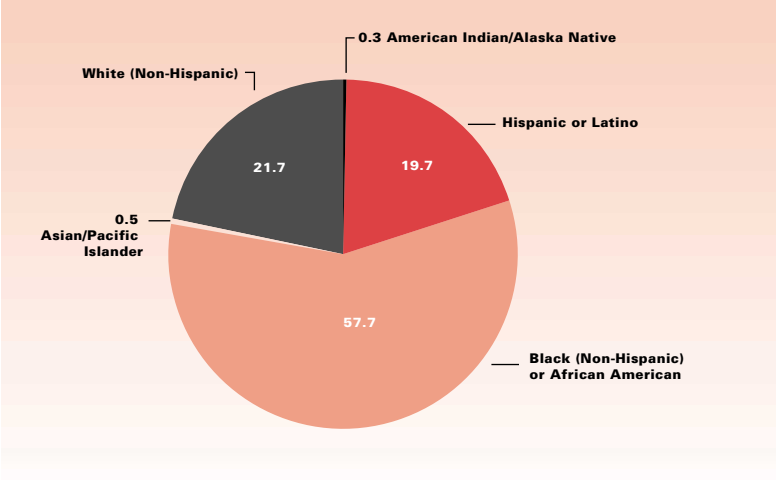


Source: U.S. Census Bureau, Population Division, Population Estimates Program, *Resident Population Estimates of the United States by Sex, Race, and Hispanic Origin*, Washington, DC, January 2001, http://www.census.gov/population/estimates/nation/intfile3-1.txt.

protocols. This means that black and American Indian/Alaska Native women may be less likely to receive antiviral medications than other groups of HIV/AIDS patients, whose ranks are less dominated by intravenous drug users.[164] 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.[165]

- Black and Hispanic women may be more vulnerable than white women to heterosexual transmission of HIV/AIDS through sex with bisexual men. Compared to white gay men, larger proportions of black and Hispanic gay men report having sex with both men and women—30 percent for black gay men, 20 percent for Hispanic gay men, and 13 percent for white gay men.[164,166]
- Although only 426 cases of AIDS were reported among American Indian or Alaska Native women between 1985 and December 2000, this figure (and all reported data about HIV/AIDS among American Indians or Alaska Natives) may be an underestimate.[160] It is difficult to count and track health conditions among American Indians/Alaska Natives, some of whom are very mobile between their reservations and urban or suburban areas.[167,168] Reported mortality rates due to HIV infection vary among IHS service areas, with the Alaska and Portland areas reporting the highest death rates during the 1991–1993 period.[143]
- HIV infection as a cause of death among women of color, however, varies considerably by age group. For example, in 1998 HIV infection was the third ranked cause of death for black females ages 25 to 44 years. Among black females ages 15 to 24 years and ages 45 to 64 years, HIV infection was, respectively, the fifth and the seventh leading causes of death.[169] Among Latinas, HIV infection was not a top-ten killer for females ages 15 to 24 years; however, it was the fourth-ranked killer of Latinas ages 25 to 44 years and the ninth-ranked killer of Latinas ages 45 to 64 years in 1998. Among all women in 1998, HIV infection was the eighth-ranked killer of 15- to 24-year-olds, and the fifth-ranked killer of 25- to 44-year-olds. It was not among the top-ten killers of women ages 45 to 64 years.[169]
- The age-adjusted death rate from HIV infection among black women of all ages was 13 per 100,000, followed by the rate of 3 deaths per 100,000 Hispanic 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.[17]
- Although death rates from HIV infection are lower for women 45 to 64 years of age than among younger women, black women reported the highest rate (19 per 100,000) among this age cohort as well in 1999. Nearly 5 per 100,000 Hispanic women in this age group died of the disease, while mortality among white women was 1.2 per 100,000 women.[17]
- For 1998, the age-adjusted years of potential life lost to HIV infection before age 75 per 100,000 black women totaled 451. This compares to the 30 years of potential life lost to HIV infection before age 75 per 100,000 white women. However, these numbers are considerably lower than those for 1996. In that year, a total of 758 years of potential life were lost by African American women before the age of 75 due to HIV infection, while white women lost slightly more than 73 years potential life.[17]
- One study showed that after controlling for socioeconomic status, health status, and treatment regimen, women are more likely to survive with

FIGURE 57
Cases of AIDS among Women by Race/Ethnicity Reported through December, 2000
Percent

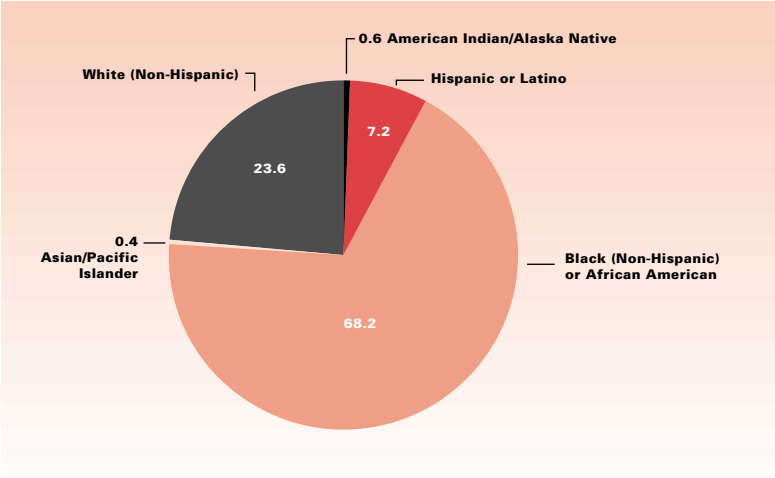


Source: Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report, 2000;* 12 (2): p. 20.

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 prescriptions is addressed.[170]

- When women have HIV infection or AIDS, others in their households—lovers, spouses, and/or children—also are likely to have the disease. Women with AIDS who must fulfill the traditional female role of caregiver are likely to live for shorter periods of time after diagnosis with the condition than women who do not have the added stress of providing care to others. In addition, many women with AIDS leave behind orphans with HIV infection or AIDS, many of whom subsequently are raised by their grandmothers, a fact that increases the stresses in the lives of these older women.[164]
- Insurance coverage varies greatly by race among adults living with HIV infection. White HIV-infected adults made up 49 percent and black HIV-infected adults made up 33 percent of the adult HIV population receiving health care. However, 70 percent of HIV- infected adults covered by private health insurance were white, while only 15 percent were black. The additional facts that black HIV-infected adults constituted 48 percent of all adults living with HIV who are covered by Medicaid, while whites comprised only 30 percent reflect one of two things. These facts reflect 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 or social supports) of blacks versus whites once HIV infection or AIDS is diagnosed.[171]
- 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, differences 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. Additionally, coverage by Medicaid proved to be associated with a lesser delay in seeking medical attention than did coverage with private health insurance. Though more likely to have Medicaid coverage, Hispanics and blacks were more likely than whites to delay seeking care for at least 3 months.[165]
- 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.[171]
- Among sexually active Latino, African American, and white women ages 18 to 44 years, African American women (37 percent) also were most likely to report having had an HIV test at their last routine gynecological exam.[171] Nearly a third (32 percent) of Latinas reported the same. 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 half (47 percent) of these African American women expressed this view, as did 42 percent of white and 33 percent of Hispanic women.

FIGURE 58
Cases of HIV Infection among Women by Race/Ethnicity Reported through December, 2000*
Percent

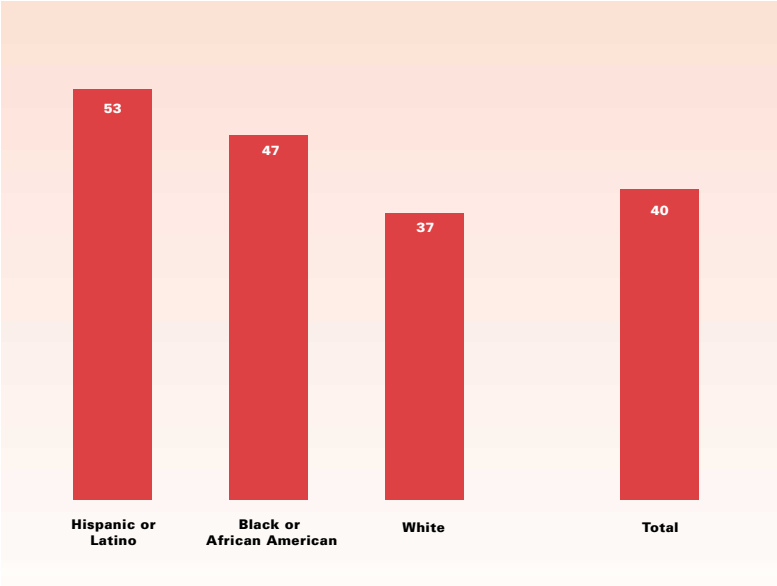


Source: Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report, 2000*; 12 (2): p. 21.
*From the 34 areas with confidential HIV infection reporting

Mental Health among Women of Color

- Like physical illnesses, mental illnesses are common among women of color, particularly the elderly. For example, older Asian American women suffer from high rates of depression and suicide.[172]
- Chronic depression, one form of mental illness, has been suggestively associated with disease progression and death from HIV infection among women.[173] However, the true causality—whether depression makes HIV infection worse, or HIV infection causes depression—remains unclear in this psychosomatic situation.
- 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. Fifty-eight percent of low-income 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.[174]
- Although Hispanic women were more likely than either black or white women to agree with the statement "Problems should not be discussed outside of the family," they were least likely to agree that there is a stigma attached to mental illness.[174]
- Hispanic and white women have a higher lifetime prevalence of depression (24 and 22 percent, respectively) than black women (16 percent). Furthermore, when surveyed in 1991, nearly twice as large a share of Hispanic women (11 percent) reported being depressed as did black and white women (nearly 6 and 5 percent, respectively).[175]

FIGURE 59
Women Ages 18 and Older Experiencing Moderate to Severe Depressive Symptoms* in the Past Week by Race/Ethnicity, 1993
Percent



Source: Collins, Karen Scott, Allison Hall and Charlotte *Neuhaus. U.S. Minority Health: A Chartbook.* The Commonwealth Fund: New York, NY: May 1999.
*Derived from ranking responses to six statements regarding symptoms of depression (feeling disliked, crying spells, feeling sad, lack of enjoyment of life, feeling depressed, and restless sleep).
A score of 6 to 11 = moderate symptoms; 12 to 18 = severe symptoms

- A 1993 survey found Hispanic women (53 percent) more likely to suffer from moderate to severe depression than either non-Hispanic black (47 percent) or white (37 percent) women.[12] Severity of depression was assessed by combining into a psychometric scale answers to questions regarding symptoms of depression (e.g., feeling depressed, felling sad, crying spells).
- One survey conducted in 1998 found that Hispanic women were most likely to report they were currently psychologically distressed (27 percent) and white women were least likely to report this (17 percent). Twenty-six percent of black women identified themselves as currently distressed, along with 20 percent of Asian women and 24 percent of women of all other races.[176] Experience of psychological distress is one of the strongest predictors of suicide attempts for low-income African American women.[177]
- 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.[176] Appropriateness of services and the outcomes achieved are often problematic for women of color in need of mental health care.[178]

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 2 or more weeks (36 to 21 percent).[36]
- In one 1986 study, 14 percent of American Indian/Alaska Native female youth were characterized as extremely sad and hopeless; 6 percent displayed signs of serious emotional stress.[62] More than one-fifth of American Indian/Alaska Native female youth (22 percent) also had ever attempted suicide.[62]
- Suicide attempts are one manifestation of impaired mental health. During the year preceding the 1999 Youth Risk Behavior Survey (YRBS), Hispanic female youth (19 percent) were more than twice as likely to attempt suicide as black (8 percent) and white (9 percent) girls. Similarly, 5 percent of Hispanic—but only 2 percent of either black or white—female high school girls have attempted suicide and needed medical attention.[36]
- Approximately one-fourth of Hispanic and white high-school-age females considered attempting suicide (26 percent and 23 percent, respectively), compared to the 19 percent of black female youths who also thought about ending their lives during the 12 months prior to the YRBS. However, smaller percentages of females of all three groups actually made a suicide plan (23 percent of Hispanics, nearly 16 percent of whites, and nearly 14 percent of blacks).[36]
- In 1999, the mortality rate for suicide among females 15 to 24 years of age was highest for American Indians/Alaska Natives and for non-Hispanic whites (nearly 5 per 100,000 for both groups), followed by almost 4 per 100,000 for young Asian and Pacific Islander women. The death rate from suicide among Hispanic and black females 15 to 24 years of age was nearly 2 per 100,000.[17]

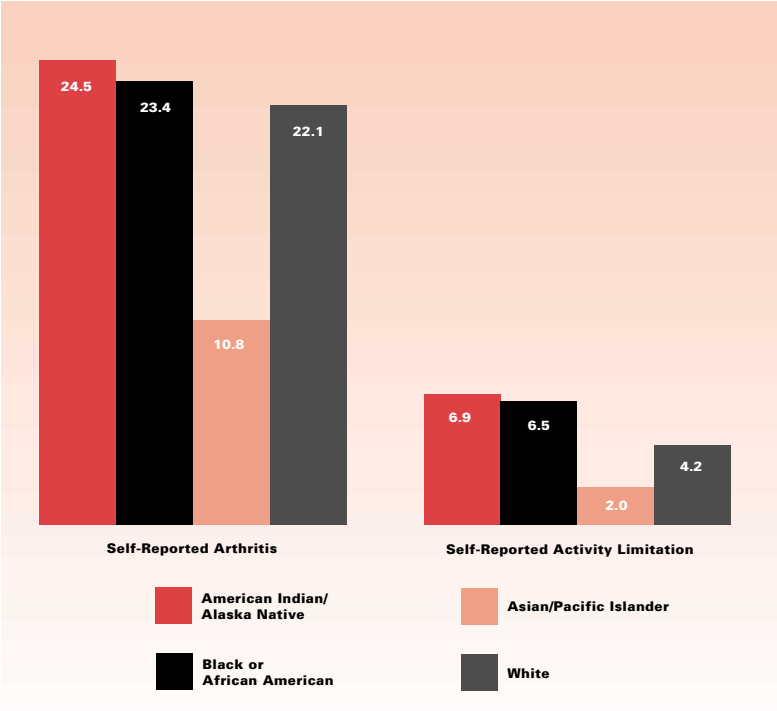
FIGURE 60
Adolescent Females by Race/Ethnicity Who Seriously Considered or Attemped Suicide in the Preceding Year, 1999
Percent

Source: Kann, Laura, Stevan A. Kinchen, Barbara I. Williams, James G. Ross, Richard Lowry, JoAnne Grunbaum, Lloyd J. Kolbe and State and Local YRBS Coordinators, Youth Risk Behavior Surveillance – United States, 1999 In: CDC Surveillance Summaries, June 9, 2000, *MMWR* 2000; 49 (No SS-5): pg. 19.

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 gain. Women over 50 years of age 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 norm.[179,180]
- Asian American and white women are believed to be at increased risk for osteoporosis and osteopenia due to low consumption of calcium and large percentages of slender women. Lactose intolerance or a learned aversion to milk products also contribute to this problem among Asian women. Low levels of estrogen, smoking, drinking, and a family history of osteoporosis are risk factors for these diseases.[180,181]
- The National Osteoporosis Risk Assessment found that 65 percent of Asian American women have low bone mineral density, the highest among all racial/ethnic groups.[181]
- 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. In comparison, 10 percent of black women have osteoporosis, and 29 percent have osteopenia. 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.[179,180]

FIGURE 61
Self-reported Activity Limitation Due to Arthritis among Women 15 Years of Age and Older by Race/Ethnicity, 1989–1991
Age-adjusted percent



Source: Centers for Disease Control and Prevention, Prevalence and impact of arthritis among women—United States, 1989–1991, *MMWR* 44:329–34.

- Arthritis and other rheumatoid conditions—chronic inflammation and/or stiffness of the joints, muscles, and tendons—are more common among women than men. Arthritis and other rheumatoid conditions were the leading causes of activity limitation and disability among women in 1995.[182]
- Between 1989 and 1991, one quarter of American Indian/Alaska Native women reported having arthritis, more than twice the prevalence among Asian and Pacific Islander American women (11 percent). Twenty-three percent of black women and 22 percent of white women self-reported living with arthritis as well.[182]
- Severe arthritic pain can lead to activity limitation. Between 1989 and 1991, 7 percent of black and American Indian/Alaska Native women experienced activity limitation, nearly twice the share among white women (4 percent), and nearly four times the share among Asian American women (2 percent).[182]

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ISSUES RELATED TO IMPROVING THE HEALTH OF WOMEN OF COLOR

ISSUES RELATED TO IMPROVING THE HEALTH OF WOMEN OF COLOR

Racial/Ethnic Health Disparities

In a radio address on February 21, 1998, then-President Clinton committed the United States to the goal of eliminating racial/ethnic disparities in six areas of health status (infant mortality, cancer screening and management, cardiovascular disease, diabetes, HIV infection/AIDS, and immunizations) by the year 2010.[1] Achieving this ambitious goal, while maintaining the progress made in improving the overall health of the American people, will require, first, determining the causes of these disparities and, second, taking action to address the cause(s).

This data book has revealed in detail the extent of the racial/ethnic health disparities in several of these six and in other areas of health for women of color. Previous sections of the book also have mentioned several of the factors associated with and putatively the causes of these disparities. Two major factors identified for many of the health conditions affecting women of color are discrimination (on the basis of race/ethnicity, gender, age, type of insurance, and income) and poverty or socioeconomic status.

Much of the research conducted to disentangle the roles played by discrimination and economic status 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. "Racism is any policy, practice, belief, or attitude that attributes characteristics or status to individuals based on their race, while sexism operates in a similar way based on gender."[2] "Personally mediated racism is defined as prejudice and discrimination. Prejudice means differential assumptions, motives, and intentions of others according to their race, while discrimination means differential action toward others according to their race.[3] "Institutionalized racism is defined as differential access to the goods, services, and opportunities of society by race."[3] Finally, internalized racism is acceptance by members of the stigmatized races of negative messages about their abilities and intrinsic worth; it can manifest itself in engaging in risky health practices, as well as in other behaviors.[3]

Some researchers 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."[4] These findings have been ascribed to "a subtle form of racial bias on the part of medical care providers."[4] 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.

For example, how does one explain the finding that women are less likely than other patients with end-stage renal disease to be recommended for kidney transplants?[5] Is this due to patient preference or to discrimination or to institutionalized racism or sexism? Or how can one explain the finding that among Florida Medicaid patients with HIV infection or AIDS, women are less likely than men to receive antiretroviral drug therapies?[6] 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.[7] It is not always easy or clear how to determine the causal chain underlying observed health outcomes. Even if these outcomes can be attributed to racism, sexism, or discrimination, how to change them is not straightforward.

One example of the difficulty in remedying discrimination-related health disparities is provided by recent research examining the relationship between residential segregation (by race) and mortality from all causes. After adjusting for family income, one study found that 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.[8] 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.

Although Title VI of the Civil Rights Act of 1964 (prohibiting discrimination on the basis of national origin) can be and has been used by individuals to challenge de facto discriminatory policies of health

facilities that receive federal financial assistance, litigation under this statute is complex because factors such as health insurance status and poverty confound the findings in these cases.[9] For instance, the policy of the Medical University of South Carolina to administer drug tests to pregnant women without a search warrant and then forward selected positive results to the police resulted primarily in the arrest of indigent black women (for distributing illegal drugs to a minor, committing child abuse, or other offenses). This policy was found unconstitutional by the U.S. Supreme Court as a nonconsensual search. The racially discriminatory implementation of the policy was not adjudicated by the High Court.[10]

The relationship between racism, sexism, and discrimination and inferior health outcomes 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. The effects of socioeconomic status on morbidity and mortality have been demonstrated at both the individual and ecological levels for blood pressure, general mortality, cancer, cardiovascular diseases, cerebrovascular disease, diabetes, and obesity.[11] The influence on later life outcomes of socioeconomic status at conception, birth, or early in the life course has not been clearly demonstrated, however. Nor has the influence on health outcomes of high degrees of state-level income inequality been ascertained for persons either with low incomes, belonging to racial/ethnic groups, or residing in low-income areas.[12] However, 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.[11]

Generally, higher socioeconomic status is associated with more healthful behaviors and better health outcomes. Thus, one study concluded that the public efforts to change smoking behavior among black adults should emphasize reducing socioeconomic inequalities in education and access to care.[13] Another study based on county data on age, race, and socioeconomic status for 1969 through 1989 found a relative worsening of breast cancer mortality among women of lower socioeconomic status living in counties with lower average socioeconomic status.[14] However, another study found that breast cancer mortality rates for women of color generally increased with level of educational attainment, a commonly used proxy for socioeconomic status. Mortality rates were highest among black non-Hispanic, Hispanic, and Asian women with educational attainment of 12 years or of 16 years or more.[15]

Thus, racial/ethnic disparities in health persist and are associated to varying degrees with both discriminatory practices and with socioeconomic status. Initiatives to address and eliminate these disparities must focus on both of these underlying factors and on other factors found to be significantly associated with the worse health outcomes of women of color.

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 sampling to capture the desired information. This range of issues also includes data collected but never reported for various subpopulations and the misclassification of racial subpopulations by others who designate their race.

Many subpopulations of women of color are known only by the absence of data on them, or by the vintage of "the most recent data" about them. This occurs for many reasons. One basic reason relates to the federal statutes for collecting and reporting data by race, ethnicity, and primary language. 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.[16]

Other reasons for the lack of data about women of color vary by racial/ethnic group. For example, because American Indians and Alaska Natives, Hispanics, and Asian Americans are not broadly distributed across the United States, large national surveys often do not sample these groups sufficiently to collect reliable data.[17] In addition, even though Hispanic ethnicity was added to the Standard Birth and Death Certificate recommended for use in each state in 1989 and the majority of states have reported this information since 1991, reliable and comprehensive national mortality data for Hispanics currently are not available. Incomplete reporting in some states and differences in the wording of the item among states hinder the development of these data.[18,19]

Aggregating data for racial/ethnic groups often obscures the more meaningful differences among their subpopulations. For example, the mortality rate

for Puerto Rican infants is higher than for Mexican American infants; also, Chinese, Japanese, and Korean Americans have infant mortality rates lower than other Asian American groups.[20] Even for black Americans, a group generally considered to be homogeneous, reporting the percent of infants with low birth weights and the mortality rates of infants for all the black populations in a locality as an aggregate can obscure meaningful differences. Data for Massachusetts and two of its cities (Boston and New Bedford) in 1997 illustrate this point, using two definitions for black, one including Cape Verdeans and Dominicans and the other excluding Cape Verdeans and Dominicans. Although Dominicans are from the Dominican Republic (a Spanish-speaking Caribbean island) and Cape Verdeans are from Cape Verde (a Portugese-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 would mandate reclassifying both of these groups from "Other" (the racial category they most often chose) to "black or African American."[21] Black mothers defined including Cape Verdeans and Dominicans consistently reported a smaller percentage of infants with low birth weight (12 percent, Boston; 9.9 percent, New Bedford; and 10.6 percent, Massachusetts) than did black mothers defined excluding 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 measures of problematic birth outcomes for mothers in this category and obscures the fact that non-Cape-Verdean and non-Dominican black mothers in Massachusetts are more in need of services to help improve these outcomes.[21]

Another related example comes from Florida, a state with a sizable Haitian population whose members generally are counted as African Americans.[22] Analysis of data from the Florida Birth Defects Registry revealed that infants of Haitian mothers had the highest rates of birth defects in 13 of the 27 conditions examined in the study. The birth defects reported among Haitian infants also differed from those reported among African American, white, and Puerto Rican infants in the state. Including Haitian infants within the category African American would obscure these differences and the related need for Haitian mothers to have greater access to information about prenatal care and treatment to reduce the incidence of birth defects in their infants.

Yet another type of challenge arises when one wants to collect data or conduct research on small populations without great geographic dispersion but with great cultural diversity. For these populations it is difficult to collect readily generalizable data that can be applied to the development of universally applied treatment responses.[17,23] 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. 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 where they dominate. This technique was employed in the 1982 to 1984 Hispanic Health and Nutrition Examination Survey (H-HANES), which captured approximately 76 percent of the 1980 Spanish-origin population in the United States, by surveying the three major subgroups in selected areas. Mexican Americans were surveyed in Arizona, California, Colorado, New Mexico, and Texas; Puerto Ricans were surveyed in the New York metropolitan area (New York, New Jersey, and Connecticut); and Cuban Americans were surveyed in Dade County, Florida.[24] However, the failure to conduct a similarly targeted study since the mid-1980s has limited the base of knowledge about this growing subpopulation.[25] In the National Health and Nutrition Examination Survey (N-HANES) III, conducted in 1988 to 1991, 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.

Because the largest numbers of both Asian Americans and Native Hawaiians or Other Pacific Islander Americans are variously clustered in California, Hawaii,

Illinois, Minnesota, New Jersey, New York, Texas, Virginia, and Washington, these groups could be adequately captured in a nationally representative analysis done in these states.[26,27] In fact, infant mortality rates for these populations are calculated in this manner.[28]

California, the state estimated to have the largest number of Asian and Pacific Islander Americans combined (more than 4 million), currently collects data for 14 different subpopulations. The Asian subpopulations include: Asian Indians, Chinese, Filipino, Japanese, Khmer [Cambodian], Korean, Laotian, Thai, and Vietnamese; the subpopulations of Native Hawaiians or Other Pacific Islanders include: Guamanians, Native Hawaiians, Samoans, Tongans, and other Pacific Islanders.[29] In published reports, however, these groups too often are collapsed into the category "Asian and Other," a category that also includes American Indians and Alaska Natives.[27] Reporting data in this manner obscures important differences among groups and negates the possible benefits from the use of multiple ethnic identifiers during data collection.[30]

When the relevant populations are surveyed, data on the degree of acculturation and immigration history need to be collected. For example, if survey respondents are overwhelmingly the more assimilated and American-born Asians, then their health profiles may obscure the morbidity and behavioral risk-factor patterns of newly arrived immigrants from the same places and instead reflect a greater prevalence of diseases such as diabetes and breast cancer, which are greater among more assimilated populations.[30] For American Indians/Alaska Natives, a problem arises in gathering accurate demographic data because of the cycles of urban-rural-reservation migration by individuals in various tribes. This migration can cause problems related to overcounting and undercounting, and in treating infectious conditions such as HIV/AIDS.[31]

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, trying to elicit information about patient satisfaction from some racial/ethnic populations can be difficult because of varying cultural norms. In Cambodian, 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.[32] In another example, seeking answers in Spanish to English questions 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 answers may differ from the questions and answers one would use or expect in English.[32]

If questions are posed as double negatives, as were some of the questions on the 1987 National Medical Expenditure Survey, they will be especially hard to understand by those for whom English is a second language.[33] In addition, 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."[34] Because Indian values do not encourage one to place 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.

Even for persons for whom English is the primary language and whose culture and values are more congruent with the line of questioning, a change in wording can result in a significant difference in responses. For example, the change between 1990 to 1991 and 1992 in the wording of the mammography question used as part of the 1992 Behavioral Risk Factor Surveillance System (BRFSS) resulted in lower self-reported mammography use for all women (by 3.5 percentage points).[35] For black women with less than a high school education, self-reported use of mammography declined by 13.6 percentage points between these two surveys, largely associated with the change in wording.

Other specific data collection systems have been criticized for failing to gather the relevant associated information or for failing to sample in a manner that reflects awareness of geographic/ethnic variations in health outcomes. 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.[36] 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).[37] 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.[37]

Another data collection system that may have skewed findings is the classification for modes of HIV exposure in AIDS case reports. Because heterosexual sex is listed as an exposure category after other major risk behaviors such as intravenous drug use, it is likely to be underreported as a cause of HIV infection or AIDS.[7] Female partners of drug users too often are assumed to be exposed to HIV infection via drug use, without considering the possibility of heterosexual transmission. This classification pattern has delayed recognition of and action to address the growing epidemic of heterosexually transmitted HIV/AIDS, mainly among black and Hispanic women.

As a result of these and other shortcomings in data collection methods and systems, several types of errors have been found in data collected about people of color. Errors of omission, for example, include those noted above as well as those associated with undercounting. American Indians and other racial/ethnic populations in urban areas are routinely undercounted. This leads to overestimation of mortality rates for these groups because the population base (or denominator) used to calculate the rates is reported to be smaller than it really is.[33] Undercounting of racial/ethnic populations also can result in overstating the cumulative incidence of AIDS, for example, since the base against which this condition is reported has been underenumerated.[38,39]

On the other hand, the most common error affecting data about American Indians is misidentification by service providers, resulting in underestimation of mortality rates because the numerator in the fraction used to compute these rates is too small.[17,40,41] In Oklahoma, infants born to American Indians have a 28 percent chance of being misclassified as another race on death certificates. After adjusting for this underreporting, the infant mortality among American Indians in Oklahoma almost doubled from nearly six deaths per 1,000 live births reported for 1987 to 1988 to an estimated rate of more than ten per 1,000 live births for the same period.[33] In addition, the National Mortality Followback Study found evidence that American Indian/Alaska Native heritage may be underreported by 65 percent on death certificates, yielding low estimates of the deaths due to diabetes and other causes among this population.[42]

Although inconsistent racial classifications for infants at birth and death were reported for only 1 percent of infants classified as white and 4 percent of infants classified as black at birth, 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.[40] Nearly equal proportions of infants classified as Filipino and Japanese at birth were classified as white at death (45 and 40 percent, respectively); slightly larger proportions were consistently classified as Filipino and Japanese at both birth and death (48 and 46 percent, respectively). In addition, only 70 percent of infants were assigned the same Hispanic origin (Cuban, Mexican, or Puerto Rican) both at birth and death.[40] The degree of misclassification probably varies by geographic location. In New York, routine misclassification of Filipinos and other Asians from Latin American countries as Hispanic 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.[43] 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 to the United States).[44] Steps need to be taken to refine and improve the quality of the data collected on 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. For example, studies of the relationship between biracial status and low birth weight of infants have found that, compared with infants 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.[45] 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) versus 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.[46] 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 women (and men) 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 in this volume and discussed earlier in this section, clinically based research is necessary. Conducting clinical trials and including a racially and ethnically diverse group of women in these trials is essential to learn about how to treat and cure medical conditions.[47] Although medical officialdom has acknowledged its past lack of attention to the health needs of women in the formulation of research designs and treatment protocols, for women of color the issue has been even more dramatic.[48] 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.[49] For example, how frequently should women be screened for breast cancer? Guidelines that recommend screening for women 40 years of age and older ignore 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?[50] Why is hypertension a problem among Native Hawaiian women beginning very early in life, and what is the best way to control it? Questions such as these cannot be addressed without integrating knowledge of the needs of women of racial/ethnic subpopulations into research and treatment evaluations. To help answer questions such as these, the National Institutes of Health Revitalization Act of 1993 mandated the inclusion of women and minorities (and, thus, women of color) in clinical trials under specified conditions.[51]

Including women of color in clinical trials is a straightforward—but often not easy—way to gain the knowledge necessary to answer health-related questions such as those posed above. Women—and men—of color often are reluctant to participate in clinical trials because of the historical circumstances and situations that have created distrust both of researchers and of the research processes within communities of color. For example, knowledge of the U.S. government-sponsored study conducted with black men on the course of untreated syphilis, known as the Tuskegee Public Health Service (PHS) Study, has ingrained distrust of medical research into generations of African Americans. 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.[52] 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.

In a survey conducted with adults in Detroit, Michigan, 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.[53] In the years since the end 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.[54]

Over the years, other communities of color have had similar experiences that cause them also to view the research process negatively. For example, 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.[55] 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 interaction.[34] Some researchers have entered Indian communities and collected data without the full knowledge and consent of participants or 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 into clinical trials, they must feel comfortable with their health care providers and with the proposed research or treatment process.

Collecting clinical data alone in medical research and not providing a psychosocial context for the findings that emerge also has been criticized when studying the health of women of color.[56] Failure to integrate cultural, social, and psychological influences when seeking to understand health outcomes has been highlighted, especially for African American women.[57] 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.[57] 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.[57]

Despite the barriers and problems noted with incorporating women of color into research studies and analyzing/interpreting health information properly, progress has been and continues to be made. In November 2000, the National Institutes of Health (NIH) established a new center—the National Center on Minority Health and Health Disparities—to support research about health problems that disproportionately affect members of racial/ethnic populations. In addition, NIH has made strides in increasing the representation of women in both its intramural and extramural research programs. During fiscal year 1999, women participated in approximately half of all clinical studies funded by NIH. For all 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 and Alaska Native. White non-Hispanic women represented 54 percent of all females enrolled in extramural research protocols funded by NIH that year.[58]

Facilities to Serve People of Color

In what settings is research being conducted and treatment being applied to meet the needs of women of color? The policy of targeting resources and facilities to people of color has a flawed history. The provision of hospitals for blacks, the designation of service areas for American Indians/Alaska Natives, and the targeting of health care services for Native Hawaiians all illustrate these problems.

The closing of hospitals serving predominantly black communities is controversial and often found to be driven more by the racial composition of the hospitals' neighborhoods than by economic conditions.[59] The concept of these hospitals dates from an era when racial/ethnic populations were more highly segregated in America's cities than many are today. As newer waves of immigrants have come to America who are able to choose increasingly not to live in racial/ethnic ghettos, 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, the IHS regional designations reflect the population distribution of American Indians/Alaska Natives in 1955; today only 22 percent live on reservations and 67 percent live elsewhere, with a growing share in cities.[60] Today, more than half of the American Indian and Alaska Native populations have migrated to urban areas.[34] However, for Alaska Natives who derive their livelihoods from seasonal employment such as fishing, which takes place in more isolated areas, it is difficult to get health care during fishing season if the IHS facility is several hundred miles from home. In most of Alaska, transportation poses a nearly insurmountable barrier to the receipt of care since there are only three urban IHS clinics to serve all the eligible people in the state. Many Alaska Natives need temporary housing when they seek care at IHS

medical facilities since they are unable to return home the same day.[31]

Native Hawaiians must solve problems similar to those faced by American Indians/Alaska Natives. Although Native Hawaiians have been recognized as a high-risk population and in need of targeted 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. On islands other than Oahu (the island on which Honolulu is located), Native Hawaiians are more likely to postpone seeking care until they perceive a crisis in order to avoid travel problems.

Community-based, consumer-friendly facilities are often at a disadvantage when competing against larger organizations for resources to serve their clients. For instance, when seeking funds under the Ryan White Comprehensive Resources Emergency (CARE) Act of 1990, many smaller community groups oriented to serving women with HIV/AIDS have complained of losing out to hospitals and larger organizations. In addition, the "AIDS establishment" of service organizations sometimes fails to recognize local groups serving women of color with AIDS, making case referrals difficult.[61,62] Programs developed by organizations such as the National Asian Women's Health Organization (NAWHO), the National Black Women's Health Project, the National Latina Health Network, and the Native American Women's Health Education Resource Center seek to bridge this gap in health care funding and services for their constituents.

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.[31] The Minority Women's Health Initiative and related activities to serve women of the major racial/ethnic subpopulations at academic health centers, as part of the Centers of Excellence funded by the DHHS Office of Women's Health (OWH), has taken steps to meet these needs.[63] Comprehensive services are provided at these Centers and models for providing care to meet the unique needs of women of color are being developed through this initiative.[64]

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 change this based on the dual beliefs that doctors belonging to 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. In 1989, Hispanic dentists, registered nurses, pharmacists, and therapists only accounted for between 2.2 percent and 3 percent of these professionals, as well.[65] 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.[66]

Not much had changed nearly a decade later. Of those who graduated medical school in 1998, 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). While Asian Americans were overrepresented among medical school graduates, other racial and ethnic groups continued to be underrepresented, although their representation has improved slightly. Almost 8 percent of graduates were African American, and more than 6 percent Hispanic, both less than the estimated 12 percent each group comprised of the U.S. population in 1998. 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.[67]

The racial/ethnic backgrounds of medical school graduates in 1999 and 2000 suggests a continuation of the trend of underrepresentation among subpopulations other than Asians and Pacific Islanders. At that time, more than two-thirds (67 percent) of medical school graduates were either white (non-Hispanic) or non-U.S.-citizen foreign students of various races/ethnicities. The remaining third was dominated by Asian and Pacific Islander students (18 percent). African American medical school graduates were slightly more than 7 percent of the total. Latino graduates totaled 6.6 percent and were constituted as follows: nearly 3 percent Mexican American,

nearly 2 percent other Hispanic, slightly more than 1 percent Puerto-Rican (non-mainland), and 0.7 percent Puerto Rican (mainland). American Indian and Alaska Native medical school graduates were only 0.8 percent of the total.[68]

The belief that increasing the representation of racial/ethnic populations as doctors will provide increased access to health care for these same populations is supported by data on black physicians. Although more than 80 percent of blacks report having a white physician as their primary provider, 80 percent of the patients of black physicians are black.[69] 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.[70] 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. Estimates range between 60 and 80 percent for the proportions of students from underrepresented racial/ethnic groups who are trained in the health professions and who voluntarily practice in or close to designated shortage areas with large racial/ethnic populations.[33]

Research on 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) is enhanced when the provider is culturally knowledgeable, in one study of elderly patients, racial matching of patients and physicians was not found to necessarily result in better quality of care.[71] Several studies suggest, on the other hand, that racial/ethnic match between patient and provider reduces premature termination and increases the length of time treatment is received in community mental health clinics.[72] Other research has shown that the likelihood (relative to whites) that people of color would seek and complete treatment for alcohol or substance abuse could be increased with greater cultural sensitivity and awareness within treatment programs and facilities, including more frequent patient-provider matching.[73,74] The lack of a world view shared by both American Indian/Alaska Native patients and their providers has been associated with high treatment dropout rates for this group. In addition, higher completion rates have been observed for black Americans treated in informal settings located within the black community, a locale that helps to frame the rehabilitation experience outside of the dominant culture and make it more acceptable to clients.[74]

Although the federal government considers Asian Americans to be overrepresented among physicians, this assessment rests in part on the belief that all Asian American groups can be served by "generic" Asian health professionals. Increases in the number of health care workers among Asian Americans have occurred primarily among the second and third generations, and specifically among Japanese and Chinese Americans.[75] Among psychiatrists, for example, Asians were nearly 9 percent of the total in the United States in 1984. Half of these (51 percent) were Asian Indians, however, and only 23 percent were of either Chinese or Japanese ancestry. This mix of providers differs markedly from the representation of Asian Americans in the United States.

The unmet demand for multicultural and multilingual health professionals needs to be addressed. 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. Anticipated growth of Latino and Asian populations in the United States in the early 21st century highlight the need for translation services.[76] 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.[77]

In 1997, the 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.[78] Among other goals, the AAPI seeks to improve data collection efforts and research about AAPI populations and the training of AAPI health professionals and researchers.

In addition, in December 2000 the DHHS Office of Minority Health published its final recommendations on national standards for culturally and linguistically appropriate services (CLAS) in health care.[79] The 14 standards fall under three broad headings: culturally competent care, language access services, and organizational supports for cultural competence. A key standard is the third one: 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. Failure to use these 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.

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 a high incidence of AIDS and higher than average infant mortality rates, and Mexican American women, many of whom are foreign born and have lower than average infant mortality rates.[20] Asian American women, as another example, include Asian Indian women, more than 80 percent of whom get early prenatal care but whose infants are twice as likely to have low birth weights as infants born to Japanese American women, about 90 percent of whom get prenatal care in the first trimester of pregnancy and whose low infant mortality rates may reflect this.[80] In addition, American Indian women in the Southwest have low breast cancer mortality rates while their counterparts in the Plains and Northwest states have rates twice as high.[81] Finally, babies born to black immigrant couples are low-weight less often than babies born to black native-born couples. Recent data from Massachusetts vividly reflects this using 1997 birth outcome data for Cape Verdean and Dominican women, as compared to other black women in the state.[21]

Generalizations that create health profiles for women of color are dangerous because exceptions abound. The challenge instead is 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.

During the 1960s and much of the 1970s, increasing access was a major health policy objective. Since the 1980s, the emphasis has shifted to cost containment and the use of managed care to achieve this end. This focus may ultimately reduce access to care for women of color. If, under the guise of cost containment, renewed emphasis is placed on changing individuals' behavior, it would be all too easy to cross the line to "victim blaming" and to cease making efforts to improve access to services and the nature of services available for women of color.

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 high-risk health behaviors. 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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