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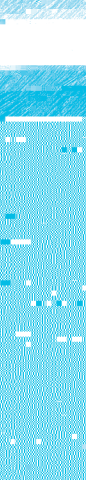


WOMEN OF COLOR  
HEALTH DATA BOOK

ADOLESCENTS TO SENIORS

OFFICE OF RESEARCH ON WOMEN'S HEALTH  
OFFICE OF THE DIRECTOR  
NATIONAL INSTITUTES OF HEALTH







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Black mothers are much more likely to die from pregnancy complications or other maternity-related causes than are mothers of other racial/ethnic groups. The maternal mortality rate for black mothers in 2002 was almost 25 deaths per 100,000 live births, compared to nearly 6 deaths per 100,000 live births among white mothers and more than 7 deaths per 100,000 live births among Hispanic mothers.

The infant mortality rate for infants born to black mothers (nearly 14 deaths per 1,000 live births) is nearly double the infant mortality rate for infants born to mothers of all other racial/ethnic groups (7 deaths per 1,000 live births).

Many women of color do not avail themselves of health screening tests such as Pap smears and mammograms.





## Ethnic and Racial Heritage

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

The 2004 population estimates reflect an increase of 12 million over the 281 million people enumerated in the 2000 Cee

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data are provided for the groups as available (e.g., Asians and Pacific Islanders jointly).<sup>6</sup>

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

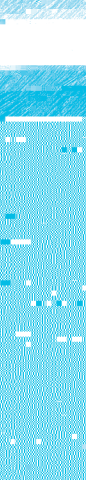
“Native Hawaiian or Other Pacific Islander” includes persons who trace their origins to any of the indigenous peoples of Hawaii, Guam, Samoa, or other Pacific Islands. The term “Native Hawaiian” does not include individuals native to the state of Hawaii by virtue of being born there. Pacific Islanders 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. “






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

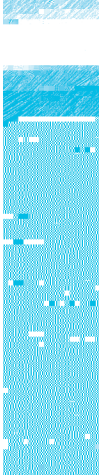
This poverty stems from the high unemployment rates among both American Indian/Alaska Native men and women. In 2000, although unemployment for men of all races was nearly 6 percent, among American Indian men the rate was 13 percent. American Indian women were slightly better off than American Indian men, with an unemployment rate of 11 percent, compared to 13 percent for men, with an unemployment rate of 13 percent for women.






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

The response to the human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) by American Indians/Alaska Natives reflects their long history of mistreatment by the U.S. government and, consequently, the complexities related to providing services to them.<sup>59</sup> Both geographic and cultural barriers make it difficult for American Indians/Alaska Natives to trust health care officials, health care systems, and researchers. Cultural barriers include prevailing feelings of distrust of the government. This distrust is due to a history of unethical medical research and health-related mistreatment by European colonizers in centuries past (whose use of smallpox-infested blankets killed millions of American Indians) and by the Federal Government and its Indian Health Service in more recent times (that conducted experimental surgeries and performed unapproved sterilizations on American Indians as recently as the 20th century).<sup>59</sup> Geographic barriers can prevent American Indian/Alaska Native communities from getting funding and other resources to initiate HIV/

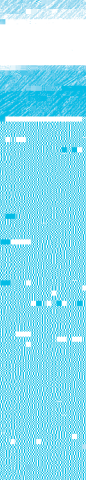


that are farthest from Asia. In 2000, 68 percent of Pacific Islanders—consisting of nearly 141,000 Native Hawaiians, more than 91,000 American Samoans, and nearly 28,000 Tongans—were Polynesians.<sup>65</sup> Ninety-two percent of the residents of American Samoa are Native Hawaiian or Other Pacific Islanders,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



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



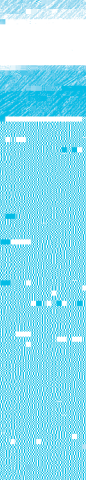




acceptable within Polynesian cultures where large body size is equated with power and respect.<sup>88</sup> In addition, Native Hawaiian culture emphasizes the preservation of harmony, which sometimes results in the tendency for individuals to minimize the importance of events such as illnesses that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

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 understandoo

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

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

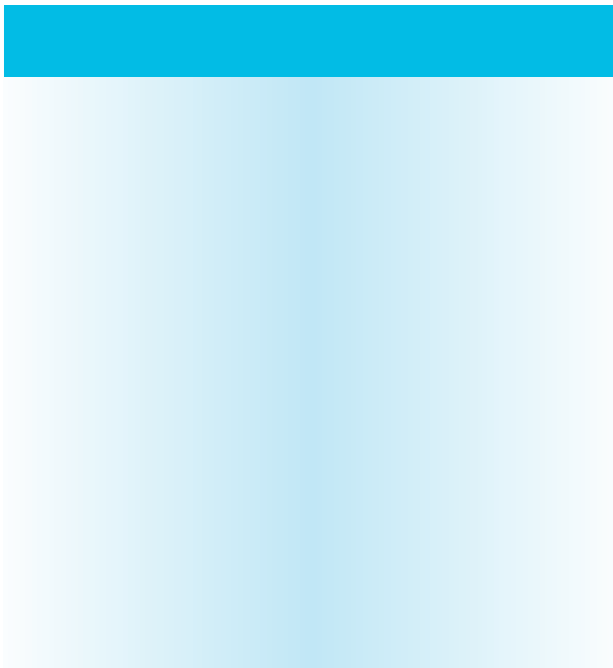
Reasons for Latino immigration have varied by subpopulations. In addition to the history of Spaniards and Mexicans in what is now the southwestern United States, Mexican immigration to the United States results from several factors—proximity of Mexico to the United States, the long shared border between the two countries, and

immigrants are also



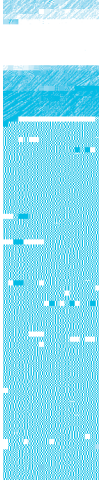


(6.1 percent) and populations from Central and South




of Cubans, the 18 percent of Mexican Americans, the 19 percent of Other Hispanics, and the 28 percent of Puerto Ricans who are covered by Medicaid.<sup>41</sup> For example, Hispanic residents of New York and California are more likely to be enrolled in Medicaid than are equally poor Hispanics in either Florida or Texas, although all four states are among the seven states in which 77 percent of U.S. Latinos reside.<sup>129</sup> 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.<sup>130</sup>

Of the more than 7 million Hispanic women ages 16 years and older who worked in 2004, nearly 24 percent worked only part-time, compared to 27 percent of white, 22 percent of Asian, and 17 percent of Black women.



*white, 22 percent of Asian, and 17 percent of Black women*



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

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

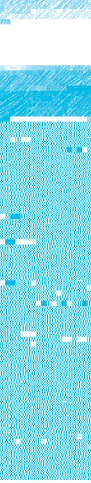
Regardless of degree of acculturation, however, d ts mo e' n



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



admixture with whites, whose overall prevalence of hypertension is lower than that of African Americans. However, those same researchers have not measured actual genetic differences between lighter- and darker-pigmented blacks—instead, skin color differences were used as a proxy for presumed genetic differences. An alternate explanation for the hypertension disparity is that darker-pigmented





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

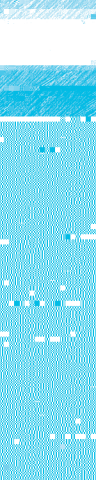
Racial discrimination and racism have remained significant operative factors in the health and health care of blacks over time. From as early as 1867, black spokespersons concluded that racism was a major contributor to the poor health of black Americans in two significant ways. First, “structural racism”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

Stress related to racism has been linked to the high rates of high blood pressure in blacks.<sup>196</sup> “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.<sup>197,198</sup> Working hard and striving determinedly against racism often results in higher rates of hypertension among blacks because the constraint does not yield to the effort applied. Other research suggests that blood pressure becomes elevated among blacks in connection with perceived racial discrimination at work, in reaction to movie scenes depicting angry and racist confrontations, and when discussing topics related to racism.<sup>199</sup> An analysis of the relationship between self-reported experiences of racial discrimination and blood pressure among black men and women indicates that blood pressure is lower among those who reported they challenged unfair treatment and expressed anger than among those who accepted

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

Although black women are more likely than white women to delay receiving prenatal care and are less likely to receive prenatal care at all, differences in the use of prenatal care and other differences during pregnancy do not fully account for disparities between black and white women in the incidence of births of infants with low and very-low weights.<sup>207</sup> Even when beginning p wece o5 o5 5 e 8 n

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

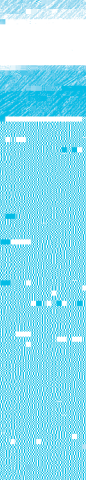


ing majority of the total. The 1990 Census counted 7.2 million Asians and Pacific Islanders, with Asians totaling more than 6.9 million (96 percent). While more than 10 million Americans selected an Asian race as their only designation in the 2000 Census, an additional 1.6 million people indicated that their race was Asian along with another racial background.<sup>2</sup> Asians were more than 3 percent of the total U.S. population and about 15 percent of all people of color (who designated a single race category in 2000).<sup>2</sup> Asian women are 12.6 percent of all women of color and 52 percent of all Asian Americans.<sup>5</sup> In 2001, the Census Bureau estimated that 12.3 million Americans were Asian alone, including 6.4 million women (nearly 52 percent of all Asian Americans).<sup>1</sup>



addition, Chinese wives of laborers were barred from



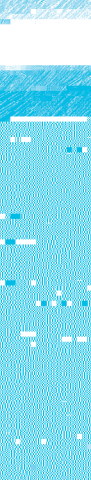




subgroup, however, the proportions uninsured range from a low of 8 percent among third generation and higher Asian and Pacific Islander Americans, to a high of 34 percent among Koreans, and 27 percent among Southeast Asians. Koreans and Southeast Asians were also the least likely to have health insurance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

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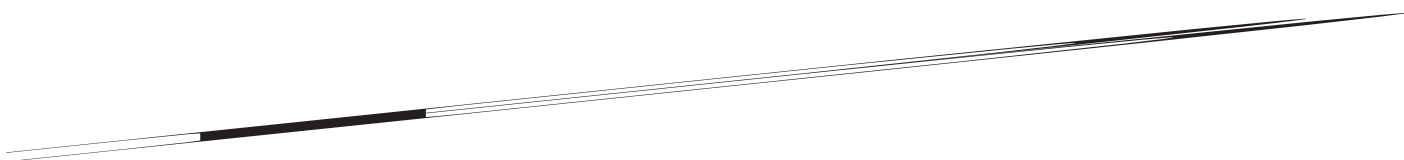
of Vietnamese women in Seattle found that nearly





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

Prenatal care is yet another form of preventive care that many Asian American women do not receive. This is due to a variety of cultural and socioeconomic factors, including lack of knowledge about its importance. (MONG-ONE, for example, they not seek prenatal care because they do not consider pregnancy an illness that necessitates the use of Western medicine and care. However, studies suggest that when they are educated ' ledgç edand e ar ' ledgç y



Even if Asian American patients seek care, language barriers (lack of English proficiency and a shortage of health care providers who possess the necessary cultural and language skills) limit nearly half of the Asian/Pacific Islander population's ability to access the mental health care system.<sup>233</sup> Although Asian American patients prefer trained interpreters, sometimes patients' children or grandchildren are used to translate at medical appointments due to a lack of trained interpreters. However, family members may not be familiar enough with medical terminology to adequately translate, or may be reluctant to fully translate out of embarrassment or discomfort. This can compromise the quality of the patient's care.<sup>234</sup>

In addition, not all English medical/health terminology can be readily translated into the various Southeast Asian languages, nor can many Southeast Asian expressions describing physical and mental conditions be directly translated for U.S. health care providers. For example, there are no words in the Khmer language for medical terms such as "Pap testing," a fact that creates a barrier to increasing cervical cancer screening rates among Cambodian women.<sup>235</sup> Not only do many Hmong (especially those born in Laos) have no knowledge of the human body organs or how they work, but most English medical and anatomical terms also have no equivalents in the Hmong language. Translators may need to use several sentences to translate a term that would require one word in English. In addition, Hmong from Laos are not familiar with chronic illnesses that can be "controlled but not cured." In Laos, "you got sick and you either got better or you died." Thus, it is difficult for many Hmong to understand diagnoses and treatments.<sup>236</sup> Vietnamese women, due to cultural norms and modesty, generally do not distinguish between anatomical parts when discussing their genital area. Whereas "Americans distinguish every part," Vietnamese "talk generally about the bottom area of a woman," often referring to the cervix and uterus interchangeably. This can create difficulties for patient-physician communication, especially for a physician who is unaware of such cultural norms.<sup>237</sup>

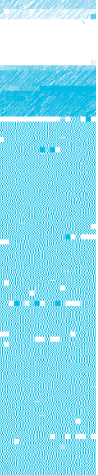
Differences in cultural patterns, even among highly acculturated Asian Americans, suggest different interpretations of etiology, personal control, and responsibility with respect to health. For example, many Chinese follow the Confucian principle of behavior that discourages individuals from sharing upsetting information with other people. Thus, Chinese Americans may delay sharing health concerns with family or friends for fear of causing pain or discomfort. Likewise, they

may be reluctant to consult physicians about health problems, believing that the problem is a personal issue best kept to themselves or among close family members.<sup>238</sup> 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.<sup>234</sup>

If Asian Americans get to health care providers and if translators are available, communication still is not guaranteed, and appropriate care still may not be received.<sup>239</sup> 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.<sup>230</sup> 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.<sup>230</sup>

Some Korean Americans (especially the elderly), many of whom have extreme difficulty with English, report using the traditional Korean medicine *hanbang* and other over-the-counter Korean home remedies rather than going to physicians in the United States. They avoid going to physicians because of communication and cultural difficulties. However, Korean Americans are more likely to use traditional medicine as a supplement to Western medicine than traditional medicine alone.<sup>231</sup>

Other cultural characteristics that influence the health of Asian Americans are collectivism, familism, respect for authority, and a desire to preserve harmony within groups. Asian cultures—like Hispanic cultures—often emphasize family decisionmaking. All family members are typically involved in learning all the details of a patient's condition, and decisions regarding care are made (often by the eldest son in the family) with the good of the overall group in mind.<sup>232</sup> In Korea, doctors are given absolute authority regarding treatment and Koreans generally trust doctors to make treatment choices. Thus, Koreans in the United States are often uncertain when faced with the practice of informed consent (which is required before surgical procedures in the United States) and must adjust to



the idea of having the ultimate choice in the course of medical treatment they undergo.<sup>293</sup>

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.<sup>294</sup> This has been attributed, in part, to the fact that Asians (especially Chinese, Japanese, and Koreans) are sensitive to ethanol, and drinking alcohol can result in facial flushing, or “flushing syndrome.” Although this sensitivity to alcohol is rare among whites, 40 to 50 percent of Japanese possess it.<sup>294</sup> Low drinking rates among all Asian American groups seem to be due to high percentages of abstainers.<sup>37</sup>

One study of Asian populations found that Japanese Americans were the most likely to report having consumed any alcohol in the past year (38 percent), followed by Filipinos (32 percent), Koreans (29 percent),




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

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

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

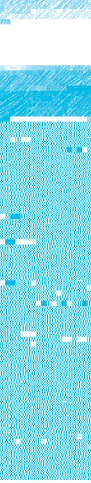
According to the National Longitudinal Study of Adolescent Health, 65 percent of adolescents in the lowest-income group (\$10,000 or less) live in single-parent homes. In addition, pronounced income differentials exist by race/ethnicity—teenagers of color comprised more than half of all adolescents whose families had incomes less than \$20,000.<sup>306</sup> Living in po

l Longitudinal P n haS .



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 ‘

operating a motor vehicle in an unsafe manner all can result either in morbidity or death. Sound nutrition and regular physical activity, two health enhancing behaviors, also are discussed for adolescent females of color. As noted in a report by the National Research Council and the Institutes of Medicine, “the U.S. Centers for Disease Control and Prevention has noted that six categories of behavior are responsible for 70 percent of adolescent mortality and morbidity: unintentional and intentional injuries, drug and alcohol abuse, sexu

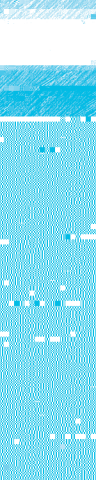












Samoa population.<sup>302</sup> Elderly Native Hawaiian women



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

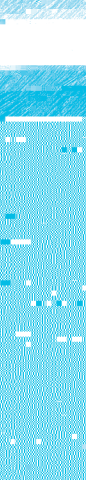
Second, elderly women of color are more likely to be widowed than are elderly men of color. These differences are striking among even the younger-old (65 to 74 years), but become more pronounced for women of color in older age groups. For example, 37 percent of non-Hispanic black women 65 to 74 years of age were widowed, compared to 14 percent of black males. Sixty-nine percent of black women ages 75 years and older were

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

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.<sup>365</sup> Because pressure sores or e ons atione a ne365

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problem among black and Hispanic women 65 years of age and older. Among black women, diabetes can be termed epidemic, with 26 percent of











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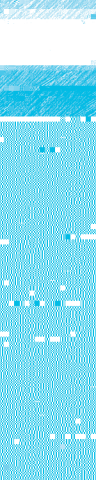
H E A L T H

ASSESSMENT OF

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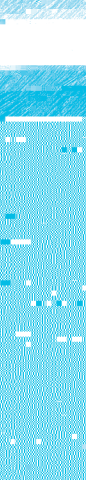


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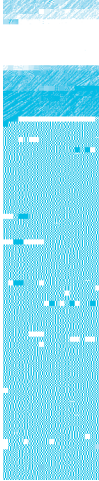




**Body Weight: Women of Color**

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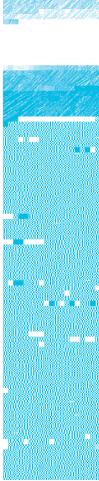




**Body Weight: Adolescent Females of Color**

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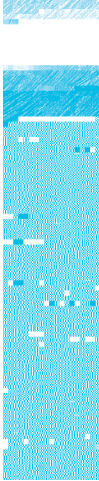
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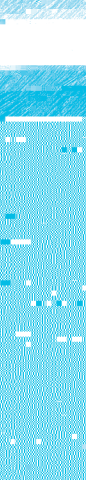
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**Exercise**

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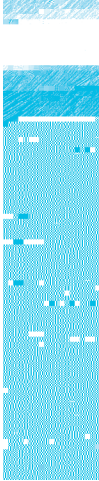
*Tobacco Use among Adolescent Females of Color*

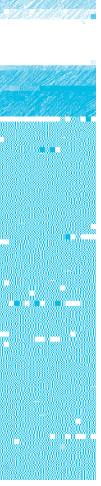
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 W^ RjV dV R\_U` ! aVcTV\_e` W^ RjVd  
 YRU VgVcŁVU TŁZŁRdVŁf dV P\_M PAP @! ORTOAÀPE -Ô

2^ VcZR\_ :\_UR\_ XZjd i"%Z& aVd  
 TV\_e' f dVU d^` \VJvdd e` SRTT` Z%  
 ■ 3ZJZTZRcVæVd RçV R e` SRTT` ac` Uf  
 fTeXc` h` Z`X` Z` a` af` JRcZj` Z` eYV  
 F`\_ZVU DeReVdL` VdaVTZj` R^`\_X  
 RU` JvTV\_æZ`>` RUV` Z`:\_URL`SZJZ  
 RçV d^` Rj]Vc`eYR\_` çXf` JRc`TZRçVæVd  
 R\_U`T`\_dZle` Wè` SRTT` R\_U` dh` VVe  
 VRg` ç`Xd` JZV`TY` T` JRèV` ç`TYVçj  
 YR\_Ulc` J]VU`Z` JVRgVd`R\_U` eZVU`h` ZY

decZ`XZ`3VTRf`dV` WèV`dh` VVe`VR  
 g` ç`XL`RaaVRçR`TVL`R\_U` eYV`VR  
 eYRe`eYVj` RçV`^` RçV`eV`U`Rd`^` çV`  
 y`Ref`çR]`eYR\_` çXf` JRc`TZRçVæVdL`  
 ^`R`j`RU` JvTV\_æd`U`\_`e`çV]ZV  
 Y`h` YRç`^`W]`eYVj` RçV`ç`SZJZ`RçV`  
 f`\_V]eV`çV`U`R\_U`YRgV`R`YZ`YVc`\_Z` f`  
 eZ`V`R\_U`eRç`T`\_eV`\_e`eYR\_` çXf` JRc`  
 TZRçVæVdZ`:\_`#!`!`#L`^` çV`eYR\_`(  
 aVçTV\_e``WRU` JvTV\_æd`RXVd``#`

e` "(`j`VRçd`çVa``æVU`YRgZ`X`f`dVU  
 SZJZ`ç`T]`gV`iR\_`eYVç`ç`aV``WdaVl  
 TZ]ç`TZRçVæV`/`TZRçVæVd`Z`eYVZ  
 JZWeZ`VdZ`>`çV`eYR\_`\$!`aVçTV\_e`  
 `WRUf`]æd`RXVd`")`e`#&`j`VRçd`R\_U`  
 ^`çV`eYR\_`\*`aVçTV\_e``WRUf`]æd`  
 RXVd`#`j`VRçd`R\_U``]UVç`çVa``æVU`  
 JZWeZ`V`f`dVZ`%&L%`







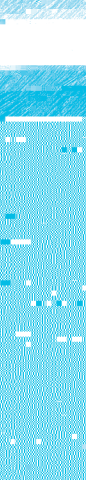




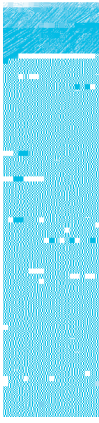
*Alcohol-related Deaths*











■ =Vdd eYR\_`\_VleV\_eY` WYZY  
 dTY` `] W^ R]Vd VZdef dVU ^ RcZfR\_R  
 SVWdV eYV RXV` W \$ i) Z& aVcTV\_e  
 `W9ZlaR\_ZdL' Z) aVcTV\_e` Wh YZV  
 `\_I9ZlaR\_ZdL\_R\_U &Z) aVcTV\_e  
 `WS]RTV` `\_I9ZlaR\_ZdZ'9` h VgVd  
 ]RcXVcac a` aZ\_d` WW^ R]V eVV\_d  
 `WR]] eYdVV Xc f ad Z\_ #! \$ d/a` aVU  
 VZVc d^` \Z\_X` cUcZ\\_X SVWdV  
 RXV " \$Z#

■ Df SdeR\_TV f dV R]d` ZI R dZ\_X  
 TR\_eac SJV^ R^` \_X 2^ VcZTR\_  
 :\_UR\_ZZ]Rd\R? ReZjV RU` ]VdTV\_edZ  
 :\_ #! ! " L^` dV eYR\_ ( ( aVcTV\_e  
 `WYZY dTY` `] W^ R]Vd Z\_ 3f dVRf  
 `W\_UR\_ 2WRZdV\_UVU dTY` `]d  
 d/a` aVU VgVcYRgZ\_X f dVU ^ RcZ  
 [fR\_RL\_R\_U\_VRcj % aVcTV\_e  
 h VdV TfcdV\_e f dVcdZ%

■ EYV dR^ V df cgVj Wf\_U eYRe  
 ^ RcZfR\_R f dV R^` \_X 2^ VcZTR\_  
 :\_UR\_j` f eY ZI Rdd` TZeVU h ZY  
 eYV f dV` W eYVc Z]ZUcf XdZ  
 >` dV eYR\_ # " aVcTV\_e` WYZY  
 dTY` `] W^ R]Vd h Y` YRU f dVU  
 ^ RcZfR\_R R]d` YRU f dVU T` TRZ\_V  
 `cTcRTV T` TRZ\_V Z\_ eYVZ ]WZe^ VdZ  
 :\_ RUUZ` \_L^` dV eYR\_ # " aVcTV\_e  
 YRU f dVU ^ VeYR^ aYVeR^ Z\_VdL  
 R\_U\_VRcj & aVcTV\_eh VdV Tf d  
 dV\_e\_ZYR]R\_e f dVcdZ%

■ 2^` \_X W^ R]V RU` ]VdTV\_ed Z\_  
 #! ! \$L eYV aVcTV\_eRXVd Wc ]Wf  
 eZ` V T` TRZ\_V f dV R\_U Wc TfcdV\_e  
 T` TRZ\_V f dV h VdV YZYVdeWc  
 9ZlaR\_Zd i" \$ R\_U &Z) aVcTV\_dL  
 d/daVTegVj]/Zi7dVSRdZ\_X R\_U  
 TcRTV T` TRZ\_V f dV Rcd Z\_]f UVU  
 Z\_ ]WZe^ V T` TRZ\_V f dVZ 6ZYe  
 aVcTV\_e` Wh YZV W^ R]V RU` ]Vd  
 TV\_ed YRU aZVU T` TRZ\_V Uf cZ\_X  
 eYVZ ]WZe^ VdL R\_U\_VRcj % aVdce  
 TV\_eh VdV TfcdV\_e f dVcdZ >` dV  
 eYR\_ " aVcTV\_e` WS]oe

U U U U U U U U U Uf cZ\_X

- 7` fæVV\_ aVcTV\_e` W9ZlaR\_Zt"#  
aVcTV\_e` Wh YZ/LR\_U' aVcTV\_e  
`WSJRT\ W^ RJVj` feYd Z\_#!! \$



### Drugrelated Morbidity and Mortality

- :\_ #! ! " ŁeYVd/ h VdV #\*\* Ł\$ " \$  
 UcfX RSf dV V^ VcXV\_Tj UVaRcd  
 ^ V\_eVaZđ UVd R^`\_X W^ R]VdZ  
 H YZV h` ^ V\_ h VdV Z\_g` ]gVU Z  
 eV ^ R[ cZj ` WēYVdV VaZđ UVd  
 i" " aVcTV\_eŁW]] h VU Sj SJRT\  
 i") aVcTV\_eR\_U 9ZđaR\_Z i"" aVd  
 TV\_e h` ^ V\_ZiEYV d/^ RZ\_ZX ""  
 aVcTV\_e` WēYVdV VaZđ UVd h VdV  
 RTT` f\_eU WcSj h` ^ V\_` W eVc  
 dRTV\_eV\_ZZj R\_U` Wf\_\` h\_  
 dRTV\_eV\_ZZj /ZEYZđV\_ aVcTV\_e  
 ` WR]] UcfX RSf dV V^ VcXV\_Tj c` ^  
 VaZđ UVd R^`\_X W^ R]Vd Z\_g` ]gVU  
 j` f\_X h` ^ V\_ i" # e " ( j VRcd ` W  
 RXV/Z 9` h VgVdēV ac a` cēZ\_` W  
 j` f\_X h` ^ V\_ YRgZ\_X UcfX RSf dV  
 V^ VcXV\_Tj c` ^ VaZđ UVd gRcVd  
 ^ RcVU]] Sj dRTVZ 7V^ R]Vd RXVd  
 "# e " ( j VRcd RTT` f\_eU Wc` \_]]  
 ` aVcTV\_e` WR]] UcfX RSf dV V^ Vd  
 XV\_Tj c` ^ VaZđ UVd Z\_g` ]gZ\_X  
 SJRT\ h` ^ V\_eT` ^ aRdU e` eV  
 "%aVcTV\_eR\_U #! aVcTV\_e dYRdVd  
 R^`\_X h YZV R\_U 9ZđaR\_Z h` ^ V\_  
 d/a` cēZ\_X eVdV VaZđ UVdZ`
- :\_ #! ! #Łh` ^ V\_ RTT` f\_eU Wc  
 \$! ) Ł\*) UcfX RSf dV V^ VcXV\_Tj  
 UVaRce^ V\_eVaZđ UVdŁR%aVcTV\_e  
 Z\_TcV RdV RS` gV eV #! ! " WŁf dZ`





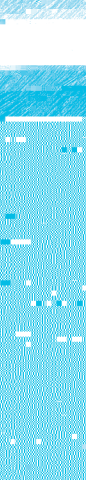
W]]] h VU Sj &%aVcTV\_e` W  
9ZlaR\_ZdŁ&# aVcTV\_e` Wh YZVdŁ  
R\_U \$& aVcTV\_e` W\$]RT\ d h Y`  
d/a` æVU eYV dR^ VZ2dZ\_R\_U  
ARTZM :d]R\_UVcW^ R]Vd h Y`  
d/dZJV Z\_Y` ^ Vd Z\_h YZY 6\_X]Z]Y  
Zl da` \V\_ RcV \_VRcj eh ZV Rd  
]ZV]j e` V\_XRXV Z\_dVi f R] Z\_e/d  
T` f adV Rd eY` dV h Y` ]Z]V Z\_  
Y` f dVY` ]Ud Z\_h YZY R\_` e/Vc  
[

*Physical and Sexual  
Assault/Abuse*

- H YZV aYj dZTR] R\_U dVi fR] RddRf ]e  
R\_U RSf dV Rd/ R]] e` ` acVgR]V\_e  
R^`\_X h` ^ V\_` WR]] dRTZ] R\_U  
VeY\_Z] Xc f adk UZMf ]eZ/d aVcdZle  
Z ^ RZ\_eRZ\_Z\_X RTTf cRe/ VdeZ^ Re/d

**Preventive Health Measures**

- H`^ V\_` W` ] c` W` U` \_` eRgRZ  
 eV^ dV]gVd` W`dVgV\_`eVj VVR]eY  
 eVded df TY Rd ARa d^ VRcd R\_U  
 ScVRdeVi R^ dL.eYV dVT` ^ ^ V\_UVU  
 dTcV\_`Z\_X R\_U U`RX\_` deT` e` `]d Wc  
 TVcgZTR] TR\_TVcR\_U ScVRdeTR\_TVd  
 cVdaVT`eV]j Z7` cR]] h`^ V\_`tYRgZ\_X  
 YVR]eY Z`df cR\_TV`tYRgZ\_X R`f`df R]  
 d` f`cTV` W`VR]eY TRdV`tR\_U YRgZ\_X  
 R`YZY dTY` ` ] VUF TR`Z` \_` R`cV R`dd` T`Z  
 R`eVU h` Z`Y Y`ZYV`c`dTcV\_`Z\_X` c`R`eV`d`Z  
 EYV ]`Z`V]Z` ` U` ` W`X`e`Z`\_`X` eY`V`d`V  
 a`dVgV\_`eVjV` eV`ded`L`Y` h` VgV`d`  
 UVT]Z`\_`Vd h` Z`Y` RXV`Z`\*`
- EYV f`dV` W`dVgV\_`eVjV` dVcgZTVd  
 Sj` h`^ V\_`gR`Z`/`d` d`Z`\_`Z`R`\_`e]j` h` Z`Y  
 YVR]eY Z`df cR\_TV`T` gV`c`RXV`Z`:\_`#`!`!"`L`  
 )!` aV`cTV\_`e` W`c`Z`g`R`eV]j` Z`df`dVU`R\_U  
 (#` aV`cTV\_`e` W` VU`Z`R`Z`U`H`T` gV`dVU  
 h`^ V\_`YRU`R`^`R`^`^`X`c`R`^`Z`:\_`  
 RUU`Z`Z`\_`L`)'` aV`cTV\_`e` W`c`Z`g`R`eV]j  
 Z`df`dVU`R\_U`() ` aV`cTV\_`e` W` VU`Z`R`Z`U`H`  
 T` gV`dVU`h`^ V\_`YRU`R`ARa`d`^`VR`c`  
 Z`\_`eY`V`a`R`de`#`j` VR`cd`Z`7`V`h`V`c`f`\_`Z`\_`  
 dV`dVU`h`^ V\_`L`Y``h` VgV`d`YRU  
 dVTV`Z`gVU` eY`V`dV` a`dVgV\_`eVjV` eV`ded`  
 Z`\_`eY`V`a`R`de`#`j` VR`cd`C` ` \_`]j` %`\$` aV`d`  
 TV\_`e`W`c`eY`V`^`R`^`^`^`X`c`R`^`R\_U  
 `\*` aV`cTV\_`e`W`c`eY`V`ARa`d`^`VR`c`Z`!







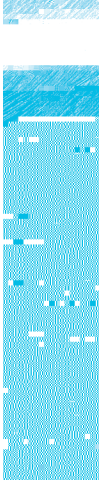




Uf cZ\_X adVX\_R\_Tj Ž7Ver] R]T` Y` ]  
 dj\_Uc` ^ V TR\_ dVf]eZ\_RS\_` c` R]  
 WRTZ] WRf dVdL Uj dVW\_TeZ` \_` WèYV  
 TV\_èdR]\_Vcg` f d dj deV^ tXc` h eY  
 UVWZ\_TZ/dL` ^ V\_èR] UZRSZ\_ZZ/dL`  
 R\_U ac` S]V^ d h ŽY ]VRc\_Z\_Xt` ^ †  
 ^ f\_ZTRèZ` \_t` ^ V` ^` g` tR\_U gZdZ` \_Z`! )  
 ■ :\_ df cgVZ]R\_TV` WZgV SZèYd Z\_  
 2]Rd\Rk` 2cZ` \_Rk` 4` ]` dRU` tR\_U  
 ? Vh` J` à` Z` eYV aVcZ` U` \*\*\*&€` \*\*\*(t  
 eYV adVgR]V\_TV` WWèR] R]T` Y` ]  
 dj\_Uc` ^ V i72D/h Rd YZYVde  
 R^` \_X SRSZ/d S` c\_ è` 2^ VcZR\_  
 :\_UR\_z2]Rd\R? ReZgV h` ^ V\_  
 i\$#` aVc`! †!!/Ž2` ^` \_X 2^ VcZR\_  
 :\_UR\_dZ2]Rd\R? ReZgVdL` 72D h Rd

^` deT` ^` ^` \_` R^` \_X Z\_VR\_èd  
 S` c\_ è` ^` eYVcd Z\_2]Rd\R i&` aVc`  
 " ! †!! /Ž 72D` TTf` c` ^` f TY ]Vdd  
 WwbfV\_ej` R^` \_X Z\_VR\_èd S` c\_ è`  
 ^` eYVcd h Y` RdV` \_` e2^ VcZR\_  
 :\_UR\_z2]Rd\R? ReZgVZ` @\_` j` ""` aVc`  
 " ! †!! Z\_VR\_èd S` c\_ è` S]RT\` ^` eYf  
 Vcd R\_U #` aVc`! †!! Z\_VR\_èd` W  
 S` eY` h YZV` ^` eYVcd R\_U 9ZdaR\_Z  
 ^` eYVcd YRU 72DŽEYV` gVcR]] adVgR]  
 ]V\_TV` W72D Z` eYVdV Wf c` dèRèVd  
 h Rd` %aVc`! †!! ]ZgV SZèYdZ`! \*  
 ■ D^` R]] dYRdVd` WèdVX\_R\_e9ZdaR\_Z  
 i"Ž` aVcTV\_è` t` h YZV` \_` \_f9ZdaR\_Z  
 i\$Ž` aVcTV\_è` tR\_U S]RT\` \_` \_f  
 9ZdaR\_Z i` Ž#` aVcTV\_è` h` ^` V\_

RXVd` "&` è` %d/a` cèVU aRde  
 ^` \_èY` Z]ZèUcf X f dVZ`!  
 ■ > Rczf R\_R\_Zi eYV Z]ZèUcf X  
 ^` deT` ^` ^` \_` j] f dVU Sj  
 adVX\_R\_èh` ^` ^` V\_Z`"" 2]èY` f XY  
 ]Vdd eYR` \$` aVcTV\_e` WR]]  
 adVX\_R\_èh` ^` ^` V\_RXVd` "&` è`  
 %d/a` cèVU f dZ\_X` ^` Rczf R\_R  
 Uf cZ\_X eYV aRde` ^` \_èY` Z\_  
 #!! #tS]RT\` \_` \_f9ZdaR\_Z  
 h` ^` V\_ i` Ž#` aVcTV\_è` h VcV  
 ^` dV ]ZV]] è` d/a` cèf dV  
 eYR` VZVch YZV` \_` \_f9ZdaR\_Z  
 i\$Ž` aVcTV\_è` c` 9ZdaR\_Z  
 i"Ž%aVcTV\_è` h` ^` V\_Z`"#



### Birth Outcomes Weight

- :\_VR\_ed h ZY J h SZeh VZYe  
 iJvdd eYR\_#t&! XcR^ d/ R\_U  
 gvGj J h SZeh VZYeiJvdd eYR\_  
 "t&! XcR^ d/ R\_U ReXc/Re/cZ\`  
 `W^`cSZJZj R\_U ^`aeR]Zj eYR\_  
 SZXVcZ\_VR\_edZEYV\_ZTZV\_TV`W  
 ] h f R\_U gvGj iJ h ISZeh VZYe  
 Z\_VR\_ed gRcZ/d T`\_dZVdRSj Sj eYV  
 dRTVZ/eY\_ZZj `WeyV ^`eYVd`W  
 eYV Z\_VR\_edt h ZY SJRT\`c2WZTR\_  
 2^ VcZTR\_h`^ V\_YRgZ\_X eYV  
 YZYVdeZTZV\_TVd`WS`eY  
 J h ISZeh VZYei" \$Z\$ aVcTV\_e/  
 R\_U gvGj iJ h ISZeh VZYei\$Z` aVd  
 TV\_e/ Z\_VR\_edZ4YZ\_VdV ^`eYVd  
 dVa`aeYV d^ R]J]Vde aVcTV\_eRXV  
 `WZ\_VR\_ed h ZY J h SZeh VZYe  
 i&Z& aVcTV\_eZ`&
- EYV ac`a`aeZ`d`Wj h th VZYe  
 Z\_VR\_ed S`c\_e AfVae CZR\_  
 h`^ V\_i\_VRcj " ! aVcTV\_e t e  
 7ZzZ` h`^ V\_i) Z` aVcTV\_e t R\_U  
 e`9Rh RZR\_t`eYVc2dR\_ZARTZ  
 :d]R\_UVdR\_U @eYVcf`\_\`h`\_`  
 9ZhaR\_Z h`^ V\_iRS`fe) aVcTV\_e/  
 RdV YZYVceYR\_eYV dYRdV S`c\_e  
 h YZV h`^ V\_i`Z` aVcTV\_e t Sf e  
 J h Vc eYR\_eYV dYRdV S`c\_e  
 SJRT\`c2WZTR\_2^ VcZTR\_  
 h`^ V\_i" \$Z\$ aVcTV\_eZ`&
- Eh` aVcTV\_e`c]Vdd`WZ\_VR\_ed  
 S`c\_e ^`deh`^ V\_i`W] J c  
 YRgV gvGj J h h VZYeiJvdd eYR\_  
 "t&! XcR^ dZ@\_j SJRT\`c  
 2WZTR\_2^ VcZTR\_h`^ V\_i\$Z`  
 aVcTV\_e/ dVa`aeYV R cReV Xc/Re/c  
 eYR\_# aVcTV\_eZ`@eYVch`^ V\_i  
 `W] J c ^`de ]ZV]j e`YRgV gvGj f  
 J h ISZeh VZYeZ\_VR\_ed h VdV  
 AfVae CZR\_i# aVcTV\_e R\_U  
 ? ReZV 9Rh RZR\_ZARce 9Rh RZR\_  
 i"Z` aVcTV\_eZ`&
- 5VdaZV J h VcZ\_T`^ VdL YZYVc dRe/d  
 `WZeh V`c\_`adV\_ReR] TRdL] h Vc  
 ]vgV]d`WWUF TRZ\_e t R\_U  
 `eYVcSRaZ/ad e`RTTVddZ\_X YVR]eY  
 TRdL> Vi ZR\_2^ VcZTR\_h`^ V\_i  
 S`c\_Z`> Vi Z` aVcZhdV\_ej XZgV



SZeh e` J h th VZYeZ\_VR\_ed Re cRe/d  
 T`^ aRdRS]V e` h YZV h`^ V\_i\_ZF ZDZ  
 S`c\_> Vi ZR\_2^ VcZTR\_h`^ V\_i  
 YRgV R \$) aVcTV\_eYZYVcZ\`W  
 J h ISZeh VZYeZ\_VR\_ed eYR\_eYVZ  
 > Vi ZR\_iS`c\_ T`f\_e/cRaeZ`> R\_j  
 RccZSf eY eY]YVaZ]V^ Z J XZTR]  
 aRcRU`i`e`eR]UZ`\_R] > Vi ZR\_  
 Tf ]eY cR] SV]Z]W R\_U SVYRgZ cd  
 T`\_TVc\_Z\_X adV\_X\_R\_Tj t Z\_T]f UZ\_X  
 V\_df c\_Z ac` aVc\_f eZ`\_t dUf T]  
 Z\_X df SdeR\_TV f dVt R\_U dUf T]Z\_X  
 ^ ReVc\_R] deVddZ`\$

DZ` ZRcj tZ\_4R]ZVc\_ZRtWcVZ\_t  
 S`c\_2dZR\_`^`eYVd iVi TVae  
 <`dVR\_`^`eYVd/h VdV ]vdd  
 ]ZV]j e`YRgV J h ISZeh VZYe  
 SRSZ/d eYR\_eYVZ`F ZDZ`S`c\_

T`f\_e/cRaeZ`%D`f eYVRde  
 2dZR\_t2dZR`:\_UR\_t R\_U  
 7ZzZ` ^`eYVd h VdV eYV  
 ^`de ]ZV]j e`UV]ZgVc] h f  
 SZeh VZYeSRSZ/dC` ) aVd  
 TV\_e`WR]] UV]ZgVc/dZ`3Veh VV\_  
 %aVcTV\_eR\_U`Z& aVcTV\_e`W  
 <`dVR\_t; RaR\_VdVt R\_U 4YZ\_VdV  
 ^`eYVd YRU J h ISZeh VZYe  
 SRSZ/dZ`:\_RUUZ`\_t4YZ\_VdV  
 R\_U 7ZzZ` ^`eYVd YRgV R  
 YZYVc dReV`Wj h ISZeh VZYe  
 UV]ZgVj Z\_4R]ZVc\_ZR eYR\_  
 \_ReZ`\_R]] Z`\_4R]ZVc\_ZRt Rd  
 \_ReZ`\_R]] t2WZTR\_2^ VcZTR\_  
 ^`eYVd h VdV ^`de ]ZV]j e`  
 XZgV SZeh e` J h ISZeh VZYe  
 Z\_VR\_ed i`# aVcTV\_eZ`%

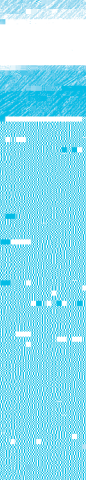


I" # j VRcd ` WWUF TReZ \_/tR\_U' Ž\* aVc  
" ħ !!! JZV SZeYd i" \$` c ^` dV j VRcd  
` WWUF TReZ \_/ZiCReVd Wc? ReZV  
9Rh RZR\_žARce 9Rh RZR\_ Z VR ed ReYR  
\_` eac` gZVUŽEYV dR^ V aReVc\_  
Zl Wf\_U R^` \_X 9 žlaR\_Z` c=ReZ`  
^` eYVcd h Y` dV Z VR ed` UVReY  
dReVd Rcd+&Z\$ aVc" ħ !!! JZV SZeYd  
i^` eYVcd h ŽY JVdd eYR\_ " # j VRcd  
VUf TReZ \_/t &Z` aVc" ħ !!! JZV SZeYd  
i^` eYVcd h ŽY " # j VRcd ` WWUF TR









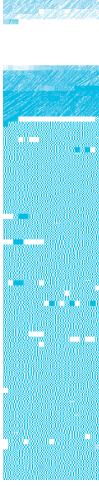




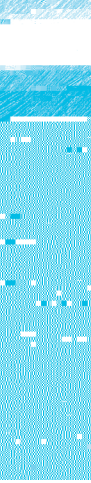


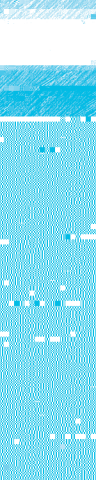
edVRe^ V\_eRe:9D UZVTeTRd/  
WTZzV/dL Sf eRdV \_` eVjXZSjV Wc  
eYV ^ ` d/ daVTZjZVU dVcgZVd  
eYRe ^ Rj SV ac gZVU VjdVh YVdV  
iZVZyT` \_edRTe TRdV% dVcgZVdZ3j  
T` \_edRde 2^ VcZTR` :\_UR\_dz2jRd\R  
? ReZjVd ` \_ ` c\_VRc dVcgReZ` \_dC  
h Y` RdV eR/Vd/WdV VjXZSjV Wc eYV  
Wj] dR\_XV ` W9D dVcgZVdC YRgV  
RTTVdd e` S` eY c f eZ\_V TRdV R\_U  
e` eYV ^ ` d/ daVTZjZVU T` \_edRTe  
TRdV dVcgZVdZ #) L` \$)

- 2^ VcZTR` :\_UR\_dz2jRd\R ? ReZjVd  
h Y` YRgV [ SISRdVU acZjReV  
Z\_df dR\_TV i\$&Z) aVcTV\_e` WèYV  
` \_iVjUVcj a` afjReZ` \_Z` #!! #/  
YRgV R TY` ZV eYRe ^ ` de` eYVc  
2^ VcZTR\_dU` \_` eYRgVc e` XVe





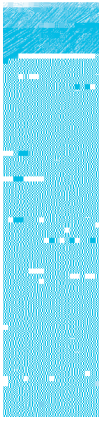






R]] dfSXc` fad` Wh` ^ V\_ Vi TVae  
9ZlaR\_Z` `c=ReZ` h` ^ V\_ZH YZV  
h` ^ V\_ i%\$ aVc"!!! #!!! /R\_U S]RT\  
`c2WZTR\_ 2^ VcZTR\_ h` ^ V\_ i%  
aVc"!!! #!!! /YRU eV YZYVdeUVReY  
dReVd W ^ TR\_TVcd` W eV eRTYVRt  
Sc` \_TYfdL\_R\_U ]f\_ XLW]] iHUVU Sj  
2^ VcZTR\_ :\_UR\_ `c2]Rd\? ReZV  
h` ^ V\_ i#( aVc"!!! #!!! /2dR\_  
R\_U ARTZ]] :d]R\_UVch` ^ V\_ i") aVc  
"!!! #!!! /LR\_U 9ZlaR\_Z` `c=ReZ`  
W^ R]Vd i" & aVc"!!! #!!! /ZEYV  
YZYVdeUVReY dReV W ^ ScVRde  
TR\_TVci\$%aVc"!!! #!!! /` TTf cVU  
R^` \_X S]RT\ W^ R]VdLW]] h VU  
Sj h YZV W^ R]Vd i#& aVc"!!! #!!! /

R\_U eRZ]VU Sj 9ZlaR\_Z W^ R]Vd  
i" aVc"!!! #!!! /2^ VcZTR\_ :\_UR\_  
`c2]Rd\? ReZV W^ R]Vd i" %aVc  
"!!! #!!! /LR\_U 2dR\_ R\_U ARTZ]]  
:d]R\_UVch` ^ V\_ i" \$ aVc"!!! #!!! /Z&  
■ 4R]VdLW]] eVcdZVd` W eV S` Uj  
i BSd, c s

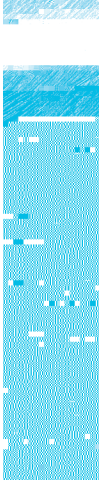




BREAST CANCER

- H YZV \_`\_f9ZdaR\_Z h`^ V\_ i" %\* aVc"!!! #!!!/R\_U S]RT\ h`^ V\_ i"\*\*\* aVc"!!! #!!!/ dVa` æVU eYV Xd/ReVde\_Z\_TZUV\_TVd ` WScV/RdeTR\_TVd:h YZV 2^ VcZTR` :\_UR` `c2]Rd\R? ReZV h`^ V\_ i&& aVc"!!! #!!!/dVa` æVU eYV ] h Vde\_Z\_TZUV\_TV i"\*\*\* )€#! ! #/Zi" %
- :\_ " \*\*\* )€#! ! #L\*( TRdVd ` WScV/Rde TR\_TVch VdV dVa` æVU WcVgVj "!!! #!!! 2dZ\_ZARTZM :d]R\_UVc h`^ V\_ Z2dZ\_ZARTZM :d]R\_UVc R\_U 9ZdaR\_Z h`^ V\_ i\*! aVc "!!! #!!! /L eYf dL YRU ScV/Rde TR\_TVc\_Z\_TZUV\_TVd ^ Zjh Rj SVeh WV\_ eYV YZYVdeR\_U eYV ] h Vde\_Z\_TZUV\_TVd R^` \_X h`^ V\_ `W` ] Z` %
- 3d/RdeTR\_TVc RTT` f\_eVU Wc #% aVcTV\_e` WR]] TR\_TVcd R^` \_X DR^` R\_ h`^ V\_ Z\_ 9Rh RZZ` " \*\*&€#! !! ZEYZi Zi Vdd eYR\_ R^` \_X ; RaR\_VdV R\_U ? ReZjV 9Rh RZR\_ h`^ V\_ iS` eY \$` aVd TV\_eLh YZV h`^ V\_ i\$%aVcTV\_eL R\_U 7ZaZ` h`^ V\_ i\$! aVcTV\_eL Z\_ 9Rh RZZ` &%
- @\_V def Uj Wf\_U eYReRe eYV eZ` V` WUZX` dZL` e` \_]] h VdV 9ZdaR\_Z h`^ V\_ ^` dV ]ZV]] eYR\_ h YZV \_`\_f9ZdaR\_Z h`^ V\_ e` YRgV R^` d/ RUgR\_TVU deRXV ` WScV/Rde TR\_TVdSfe eYVj R]d` h VdV ^` dV ]ZV]] e` YRgV e` ^` cd ]RcXVc eYR\_ " TV\_eZ` VeVciT^ /Z4V\_æR]ZD` f eY 2^ VcZTR\_ > Vi ZR\_ 2^ VcZTR\_ L R\_U AfVæ` CZR\_ h`^ V\_ h VdV ^` dV ]ZV]] e` YRgV e` ^` cd ]RcXVc eYR\_ " T^ eYR\_ h VdV h YZV \_`\_f 9ZdaR\_Z h`^ V\_ ZEYV Rf eY` cd ` WYZi def Uj eYV` cZV eYRe eYVdV dVdf ]ed dWVTe eYV ]Z` ZVU f dV ` W` R^` ^` XcRaYj dTcdV\_ZX R^` \_X 9ZdaR\_Z h`^ V\_ Z` &&
- EYV dR^` V def Uj Wf\_U eYRe 9ZdaR\_Z h`^ V\_ S` c\_ Z\_ =ReZ\_ 2^ VcZTR h VdV ^` dV ]ZV]] e` YRgV R ]RcXVc e` ^` cRe eYV eZ` V ` WScV/RdeTR\_TVc UVeVTeZ` \_ eYR\_ eYVZ` F ZDZS` c\_ T` f\_eV/caRcedZEYV WTe eYRe Z` \_ eYVc def UZ/d 9ZdaR\_Z h`^ V\_ S` c\_ Z\_ eYV F\_ ZVU DeRe/d YRgV UV^` \_`decReVU R Xd/ReVc VR^` Zj ZcZj h ZY ScV/RdeTR\_TVc dTcdV\_ZX

eYR\_ h`^ V\_ S` c\_ Z\_ =ReZ\_ 2^ VcZTR ^ Rj Vi a]RZ\_ eYZi UZdaRcZj Z` &&  
 ■ 2` \_ eYVc def Uj Wf\_U eYRe S]RT\ 2^ VcZTR` :\_UR` L R\_U h YZV 9ZdaR\_Z h`^ V\_ h VdV ^` dV ]ZV]] eYR\_ h YZV \_`\_f9ZdaR\_Z h`^ V\_ e` SV UZX` dVU h ZY ^` dV RUgR\_TVU ScV/RdeTR\_TVc` cR\_Z



- 3d/RdeTR\_TVcUVReY dReVd Z\_#!!#  
 dVWTeR dZ^ ZRcaReeVc\_ e eYRe  
 Z\_VRc]Z/cj VRcdLh ZY eYV YZYVde  
 dReVd R^`\_X SJRT\ W^ R]Vd i\$%  
 aVc"!!!H!!!/LW]] h VU Sj h YZY  
 W^ R]Vd i#& UVReYd aVc"!!!H!!!/Z  
 EYV UVReY dReV R^`\_X 9ZdaR\_Z`c  
 =ReZ` h`^ V\_ Zl" &Z& aVc"!!!H!!!  
 R\_U eYV dReV R^`\_X 2^ VcZR\_  
 :\_UR\_`c2]Rd\R? ReZV h`^ V\_  
 Zl"\$Z) aVc"!!!H!!!Lh ZY 2dZR\_  
 `cARTZ] :d]R\_UVch`^ V\_ d/a` c  
 ZX eYV ] h VdeUVReY dReV i"#Z)  
 aVc"!!!H!!!/Z&
- 2]eY` fXY Z\_TZJV\_TV Zl]` h Wc  
 2^ VcZR\_ :\_UR\_`c2]Rd\R? ReZV  
 h`^ V\_LeYVZ^` c[R]Zj dReVd UfV  
 e Sc/RdeTR\_TVcRd/ dVT`\_U`\_j  
 e eYVZUVReY dReVd W^ TR\_TVcd  
 `WYV eRTYVRLeSc`\_TYf d R\_U  
 ]f\_XZ\$ EYV Sc/RdeTR\_TVcUVReY  
 dReV Wc2^ VcZR\_ :\_UR\_ h`^ V\_

Z" a " a 1 h



**Cerebrovascular Diseases**

- 4Vc/Sc gRdTf JRc UZiVRdVd h VcV  
eV eRZU JVRUZ\_X TRf dV ` WUVReY  
Wch ` ^ V\_ ` W^ ` de dRTZ]Z/eY\_ZT  
Xc f adEVi TVae2^ VcZTR\_ :\_UZR\_dZ  
2]Rd\R ? ReZjVd iWch Y ` ^ Zeh Rd eV  
WUVReY JVRUZ\_X TRf dV ` WUVReY/Z  
:\_ #! ! #LR e eR] ` W!! t &! h ` ^ V\_  
` WR]] dRTZ]Z/eY\_ZT Xc f ad UZ/U ` W  
TVc/Sc gRdTf JRc UZiVRdVdZi ? ` eV+  
EYZi e eR] Z] Jdd eR\_ eV " ! \$%&\*)  
df ^ ` \_V h ` f ]U XVeW ^ RUUZ\_X  
eV \_f ^ SVcd Wc eV dRTZ]Z/eY\_ZT  
Xc f adZ\_ERS]V %h ZY JVRUZ\_X 5> ` 1  
TRf dVd ` WUVReY Z\_ eV df SdVTeZ \_  
> R[ c 4Rf dVd ` W5VReYZEYZi Z]  
SVTRf dV eV 9ZaR\_Z  
h ` ^ V\_ YRgV SVV\_ RddZ\_VU e  
dRTZ] Xc f ad e Rg] ZU U` fS]V  
T` f\_eZ\_X eV ^ /Z&E'''  
EYV S ` cR]Z









"!! 2^ VcTR\_ :\_UR\_z2]Rd\N  
? RgV h ^ V\_tR\_U \$Z aVc











][ZV]j eYR\_ h YZVd e UV]Rj dVV\Z\_X  
TRdV Wc Re ]VRde \$ ^ ` \_eYdZ#!











1 3fd/Rf `WèYV 4V\_df d i: \_e/c\_ReZ \_R] Ac` XcR^ d 4V\_e/aZ  
8]` SR] a` af]ReZ \_ ac` V#V+#! ! #L eRS]V 2l" #+=ZV Vi aVTI  
eR\_Tj ReSZèY Sj d/XZ \_t T` f\_èj tR\_U dVi +#! ! #L#! #&t  
R\_U #! &! Ž: \_e/c\_Ved]VRdV URèV+> RcTY ##L#! ! %Ž  
2gR]RS]V Re+Yèè-èh h h ŽV\_df dŽ` gZèTzac` Uèh a! #ž  
eRS2l" #žU#5ReV 2TTVddVU+" ž! ž' Ž

2 ;` Y\_d` \_ 9A R\_U 9Rj Vd ; > ŽEYV 5V^ ` XcRaYZd` W

Yèè` 9

g`





69 4YVh \_Z\_X 3E5` fX]Rd; E<` \` eRZ] A<E=R4` f` ae; E  
DeZ4]RZ: 5EH Z]d` \_ 5ZAc eVTeZ]V WRTe` cd Rdd` TReVU  
h ZY 2^ VcZR\_ :\_UR\_ RU` ]VdTV\_ed` dRWc dVi fR]  
aReVc\_dZ > ReVc\_ 4Y]U 9VR]eY` Z##!" , & i%#(\$!) Z

70 CR^ Z]Veaj I> Z]VcDk 4RveR\_` Ck8` VSVae5k? Z]YZ` f dR DZ  
6eY\_Z] gRcReZ \_Z\_ UcZ\Z\_XkUdfX f dVLR\_U dVi fR] SVYRg]  
Z cR^` \_X RU` ]VdTV\_ed\_Z\_ 9Rh RZZ; DTY 9VR]eY` Z##!" %  
(%"/+' I# #Z

71 DTYfdeVc > 2k3V]] C> E? RVR]Z` R 82k<R\_` f dV 56ZEYV  
dVi fR] adRTeZVd` W2dR\_ R\_U ARTZ] :d]R\_UVcYkY dTY` ]  
df UV\_edZ; 2U` ]VdTV 9VR]eY` Z#\*\* , # \$ # # " I \$ " Z

72 3dfTV\_Vc 9k3VRc^ R\_ AZ2WVc eV ac ^ Z]V+EYV  
DE5 T` \_dVbfV\_TVd` WRU` ]VdTV\_egZkZ\_Zj a]VUXVdZ  
; 2U` ]VdTV 9VR]eY` Z#! & \$ i%#(" I) Z

73 9` WVE 8cV\_V =k5RgZ; Z? ReZ\_R] Df cgVj` W2U` ]VdTV\_ed  
R\_U]` f` \_X 2UF]ed+DVI fR] YVR]eY` \` h ]MUXVLE ReZf Uvd  
R\_U Vi aVcZ\_VTdZ > V\_] ARc k 42kR\_UH RdYZ\_Xe` \_k54+  
EYV 9V\_gj ; Z<RZ]Vc 7R^ Zj 7` f\_UReZ\_ , #! ! \$ Z 2gR]RS]V Re+  
Yae z]h h h Z]W cXj` f eY]ZdeUdf a] RUZ? ReZ\_R] Df cgVj I  
` W2U` ]VdTV\_ed]R\_U]` f` \_X i 2UF]edZa U]Z5 ReV 2TTVddVU+  
" #Z` Z & Z

74 E[RUV\_ AkEY` V\_\_Vd? Z 7F]] dVa` ae` WkYV ac]gR]V\_TVk  
Z\_TZ]V\_TVkR\_U T` \_dVbfV\_TVd` VgZ ]V\_TV RXRZ` deh` ^ V\_+  
7Z\_UZ\_Xd W` ^ eV? ReZ\_R] GZ ]V\_TV 2XRZ` deH` ^ V\_  
Df cgVj ZH RdYZ\_Xe` \_k54+FD 5 VaRae` V\_e` W f deZV  
@W]V` W f deZV Ac XcR^ d, #! ! ! Z 2gR]RS]V Re+Yae z]  
h h h Z]T[caZ cXza U]W]Vd` z` Z` ) \$( ) " Z a U]Z5 ReV 2TTVddVU+  
" #Z` Z & Z

75 <]Rf dE AZ 4cZ` Vd RXRZ` de aVcd` \_d RXV` & ` c` ]UVk` " \*\* \$ I  
#! ! #Z? 4; #! ' " & % Z H RdYZ\_Xe` \_k54+3f dVf` W f deZV  
DeReZleZd, #! ! & Z 2gR]RS]V Re+Yae z]h h h Z] [aZ` dU` [Z` gZ  
S]dZaf Sza U]W]aR` & I #Za U]Z5 ReV 2TTVddVU+ " #Z` Z & Z

76 AVcgj DH Z 2^ VcZR\_ :\_UR\_d R\_U TcZ` V+2 3; D deReZleZ]R]  
ac` W]VLE` " \*\* #! #! ! #? 4; #! \$! \*(ZH RdYZ\_Xe` \_k54+3f dVf  
` W f deZV DeReZleZd, #! ! %Z 2gR]RS]V Re+Yae z]h h h Z] [aZ`  
f dU` [Z` gZ S]dZaf Sza U]W]Z]a U]Z5 ReV 2TTVddVU+ " #Z` Z & Z

77 9Rch V]]EDk > ` ` dV <CkDaV\_TV > CZAYj dZ]R] gZ ]V\_TVk  
Z\_eZ` ReV aRae\_Vc gZ ]V\_TVk R\_U V^` eZ\_R] RSf dV R^` \_X  
RUF]je 2^ VcZR\_ :\_UR\_ ^ V\_ R\_U h` ^ V\_ Z\_ > ` \_eR\_RZ`  
Ac]g > VU]Z#! ! \$, \$( i%#\* (I\$! Z

78 =` h \_ 62kGVXRH 2ZAc]gR]V\_TV R\_U adVUZe` cd` W  
aYj dZ]R] RSf dV R^` \_X > Vi Z]R\_ 2^ VcZR\_ h` ^ V\_ Z`  
2^ ; AfS]Z 9VR]eY` Z##!" , \*\* i \$ / % % i % & Z

79 DR^ SR^ ` ` aeYF E > T2]aZ\_V 55Z CRTZ]k VeY\_Z]Ed` TZ I  
VT` \_` ^ Z]kR\_U RTTVdd UZ]aRcZ]Vd\_Z\_ eV f dV` W ac]gV\_ eZ]V  
dVcgZVd R^` \_X h` ^ V\_ Z` Ac]g > VU]Z#! ! \$, \$( i & / # ( & ) % Z

80 DR]XR\_Z] W2k 3VT\_Vc^ R\_ ; KkH j \_ Ck @]VUR G5Z` H` ^ V\_ d  
YVR]eY` Z` eV F \_Z]VU DeReVd+9VR]eY` T` gVcRXV R\_U RTTVdd  
e` TRcVZ > V\_] ARc k 42kR\_UH RdYZ\_Xe` \_k  
54+EYV 9V\_gj ; Z<RZ]Vc 7R^ Zj 7` f\_UReZ\_ , #! ! #Z  
2gR]RS]V Re+Yae z]h h h Z]W cXj` ^ V\_ dYVR]eY` Z  
] RUVcZ]TW Of d] Z` :` ^ ^ ` \_da` eadVTF cZj Z]VdV]VZ  
TW` ARXV:5. " \$\*\* \*Z 5 ReV 2TTVddVU+ " #Z` Z & Z

81 4RcdRbf Z]R @kAReZDZEYV c ]V` W]VVR]eY` Z` df dR\_TV` \_  
aRa d^ VRcR\_U ^ R^ ^ ` XcRaYj f eZ]kReZ` \_Sj Z` ^ Zkd\_ed  
]Z]Z\_X Z\_ eV F \_Z]VU DeReVdZAc]g > VU]Z#! ! % \$ \* # % \$ I & ! Z

82 9RcXcRgVd ; =Z CRTVLE VeY\_Z]Zj kR\_U ac]gV\_ eZ]V dVcgZVd+?`  
XRZ\_d Wc 9Z]aR\_Z]dZ: ddfV 3cZ]W]7Z\_UZ\_Xd W` ^ eV 4V\_eVc  
Wc Df Uj Z\_X 9VR]eY` Dj deV^ 4YR\_XVZ?` Z \$ % k; R\_ Z` #! ! " Z  
2gR]RS]V Re+Yae z]h h h Z]YdTYR\_XVZ` cXZ @? E6? EZ#) ( Z  
Oh` d]d. CRTVf]VVeY\_Z]Zj kR\_U f]ac]gV\_ eZ]Vf]dVcgZVdZ  
5 ReV 2TTVddVU+ " #Z` Z & Z

83 4V\_eVc]d Wc 5Z]VRdV 4` \_ec ]R\_U Ac]gV\_ eZ` Z 2TTVdd e  
YVR]eY]ITRcV R\_U ac]gV\_ eZ]V dVcgZVd R^` \_X 9Z]aR\_Z]d  
R\_U \_` \_] 9Z]aR\_Z]d c F \_Z]VU DeReVd k! ! " # \$ % > > H C  
> ` cS > ` aeR]H \j] CVaZ#! ! % @Te" & , & \$ i % / # \$ ( i % Z

84 8` cZ` DDk 9VT\_ ; 6Z 4R\_TVc dTcV\_V\_Z\_X R^` \_X =ReZ` df S]  
Xc f ad\_Z\_ eV F \_Z]VU DeReVdZAc]g > VU]Z#! ! & , % # & # \$ Z

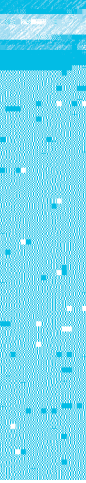
87 x

> ` aeR]H \j] CVa`









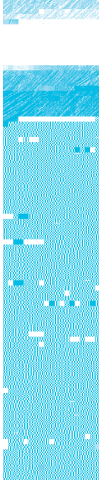
62fi

MR - RJ

RCf UV

162 ? ReZ \_Rj 4V\_e/cWc 4Yc \_Z 5 ZVRdV AcVgV\_eZ \_ R\_U 9VR}eY  
Q3` eZ \_Z 5 ZRSVe/d Df agVZ]R\_TV Dj deV^ +4 cf UV R\_U RXVI

- 184 <f dk`\_l> `c\_ 5k> TB f Z]R\_ 8> ŽDvc` adVgR]V\_TV `WdZ  
 Z\_WTež f d UZiVRdVd R^`\_X RUF ]ed Z\_ eV F \_ZVU DeReVd Sj  
 dRTVZVeR\_ZZj +5ReR W ^ eV eVZU ? ReZ \_R] 9VR]eR R\_U  
 ? f ečZ \_ 6i R^ Z\_ReZ \_ Df cgVj k"\*) ) €\*%Ž 2Ug 5 ReRŽ#! ! &  
 > Rc \* , i\$&#/#! \* Ž 9j ReedgZ]Vl> 5+? ReZ \_R] 4V\_eVc Wc  
 9VR]eR DeReZleTž
- 185 8` e]ZS D=ł5` fX]Rd ; > ; d:DTY^ ŽU 5Dł3` ]R\_ 8ł:ReVdeR  
 > ł> R]` eV 4<łKV\_Z^ R\_ ; ł7` deVc> ł3Rc \_ 26łDeVZ\_Vc  
 ; 7:AVeVc^ R\_E2ł<R^ S > =łAc [VTeC6DA64E DfUj 8č faŽ  
 DVc` adVgR]V\_TV R\_U T` cV]ReVd` WVcaVd dZ` a]Vi gžf d  
 e] aV # Z\_WTež \_ Z\_VgV dVi fR]] eR\_d^ ZVUIUZiVRdV T]Z\_Zdž  
 ; :\_WTe5Zž#! ! #, ")' i"!/#\$) "I\* i6afS #! ! # @Te#\$Z
- 186 4V\_eVd Wc5ZiVRdV 4`\_ec` ]R\_U AdVgV\_eZ \_Ž 8V\_ZR] 9AG  
 Z\_WTež\_c 454 WTe dYVVež 2gR]RS]V Re+Yaa-zh h h ŽTUTŽ  
 X` gždUŽ9AGžDE5 7RTd9AGžYe^ Ž5ReV 2TTVddVU+" #ž ž &ž
- 187 =ZVd H > ł:eR\_` ; Ž9f^ R\_ aRaZ] ^ Rgžf d R\_U TVcgZ]R]  
 TR\_TVc+?` e [f deR dVi fR]] eR\_d^ ZVUIUZiVRdVž



207 3c ^ SVcXVc; E:9Rcj h Dk2gZl ? L< dRgZk 9> t4` dJR] 2Z  
CRTZ]veY\_Z UZWd\_TVd Z\_eYV adVgR]V\_TV` WUVadVddZV  
dj ^ ae ^ d R^`\_X ^ ZUJ]VIRXVU h` ^ V\_+EYV Def Uj ` W  
H` ^ V\_d 9VR]eY 2Tc dd eYV ? ReZ \_ iDH 2? /Z2^ ; AfS]Z  
9VR]eYZ#! ! % \*%) /# \$( ) ! & Z

208 2]gZUcVk; Z6eY\_Z gRcReZ\_d Z ^ V\_eR] YVR]eY ReZ Uvd R\_U  
dVcgZV fdV R^`\_X ] h iZ\_T ^ V 2WZR\_2^ VcZR\_t=ReZ\_RL  
R\_U 6fc aVR\_j`f\_X h` ^ V\_Z4` ^ ^ f\_Zj > V\_e9VR]eY; Z  
5VTV^ SVC"\*\*\*, \$&' /&" &\$! Z

A V qUCXRH dUC Vj HT> t2XfZrRZJR Dk< ] Uj 3Z" #  
^% SA\_eY adVgR]V\_TV` W5D> Ie: ] G ad]iTY ReZ UZ] dVad R^`\_X  
> Vi ZR\_2^ VcZR\_d+? ReZj t d' T[R] RddZ^ ZReZ \_tR\_U RXV

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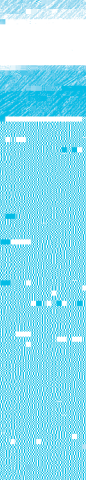
ISSUES RELATED  
TO IMPROVING  
THE HEALTH OF  
WOMEN OF COLOR














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

### Data Collection

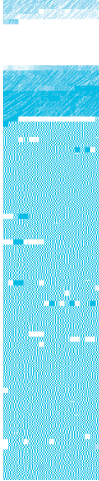
Issues related to collecting data about women of color permeate this book. They range from the changes wrought by OMB Directive 15 in the definition of the socially constructed categories of race used herein to issues related to the impact of sampling decisions on the data collected, and include numerous other issues as well.<sup>43</sup> For example, data collected or reported only for groups such as Asian Americans and Native Americans are socially constructed on

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

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.<sup>22,49</sup> To do so requires the use of many racial and ethnic identifiers and is likely to increase both the size of the sample and the cost of the survey.

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

This technique also was employed in the 1982 to 1984 Hispanic Health and Nutrition Examination Survey (H-HANES), one of the family of National Health and Nutrition Examination Surveys (N-HANES). (The N-HANES was conducted first as three multi-year surveys [N-HANES I in 1971-74, N-HANES II in 1976-80 and N-HANES III in 1988-94]) and has been conducted annually since 1999.)<sup>58</sup> The H-HANES interviewed a sample of nearly 16,000 Latino adults and youth to collect information about the health and nutrition of the 1980 Spanish-origin population in the United States.<sup>48</sup> Information for three major Latino subgroups was collected in selected areas. Mexican Americans (9,894 people) were surveyed in Arizona, California, Colorado, New Mexico, and Texas; Puerto Ricans (3,786 people) were surveyed in the New York, New Jersey, Texas, and Florida.



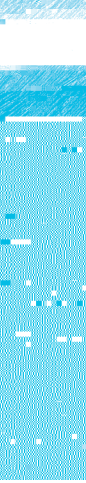


Even for black Americans, a group considered by many to be homogeneous, reporting the percent of infants with low birthweights and the mortality rates of infants in a locality as an aggregate can obscure meaningful differences. Using two definitions for black, one including Cape Verdeans and Dominicans and the other excluding Cape Verdeans and Dominicans, data from 1997 for Massachusetts and two of its cities (Boston and New Bedford) illustrate this point. Although Dominicans are from the Dominican Republic (a Spanish-speaking Caribbean island) and Cape Verdeans are from Cape Verde (a Portuguese-speaking group of islands off the west coast of Africa), guidelines from the National Center for Health Statistics promulgated as the result of

OMB Directive 15 mandated reclassifying both of these groups from "Other" (the racial category they most often chose) to "not

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analyses of health status and health care.<sup>22</sup> For exam-



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

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

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

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







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

One researcher working in Los Angeles found it more difficult to recruit African American mothers than Latina mothers (all of whom had children enrolled in Head Start and a significant portion of whom had drug abuse problems) for clinical studies about drug abuse.<sup>104</sup> She hypothesized that this recruitment disparity was due to differing expectations of life in the United States for the part of these two groups of women. Most of the Latina Head Start mothers were first-generation



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.<sup>117</sup>

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

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

### Facilities That Serve People of Color

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

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

The concept of hospitals to serve predominantly black communities dates from an era when “separate but equal” was the racial policy of the nation and, thus, African Americans, the main population of color at that time, were rigidly segregated from white Americans.

Since that time many of these hospitals have closed, although the racial/ethnic composition of and the need for health care in their service areas have remained the same. Thus, in some localities, African Americans remain segregated but now must leave their communities to receive hospital or other medical care. In addition, as recent waves of immigrants of color have come to America and settled in a variety of communities—for example, some in older inner cities inhabited historically by African Americans, and others in largely white suburbs—it has become harder to define territorial

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

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

### Need for Physicians and Providers of Color

The Federal Government has designated several racial/ethnic groups as underrepresented among physicians (and other health care providers) and has offered incentives to lessen this underrepresentation based on the dual beliefs that doctors belonging to these racial/ethnic groups tend to locate in underserved areas and that they tend to care for more patients belonging to these groups. Although black Americans were underrepresented as physicians in 1990 (not quite 4 percent of all physicians, yet 12 percent of the general population at that time), their share of the physician population had increased very little since 1950 and is evidence of a long-standing imbalance. Similarly, Hispanics were only 5 percent of physicians in 1990, although they were 9 percent of the U.S. population at that time.

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

The belief that increasing the numbers of doctors belonging to racial/ethnic subpopulations will increase access to health care for these same populations is supported by data on physician patient load. When compared to the patient loads of white physicians, patient loads in the practices of African American, Asian American, and Latino physicians are more likely to consist of more than half patients of color.<sup>17</sup> In addition, patients of color are five times as likely as white patients to have a physician of color.<sup>17</sup> On



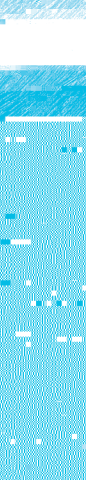




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