Cancer in Cuban American Women

INTRODUCTION

Each Hispanic subgroup in the United States has its own distinctive profile, a result of the motivating forces and specific circumstances under which its people came to this country. The immigration history of the Cubans in the United States (the population referred to in this chapter as "Cubans," unless otherwise noted) has conditioned the population's geographical and socioeconomic status, and hence its place in society at large.

Although Miami had a Cuban enclave in the 1950s, the influx of Cubans into the United States occurred primarily in the 1960s and early 1970s, after Fidel Castro routed the Batista government in Cuba. Unlike most other immigrants who have come to the United States in search of better economic opportunities, the Cubans were political exiles, fleeing what they saw as an unacceptable regime (Gonzalez-Pando, 1998). The U.S. government welcomed the initial wave of newcomers, giving them refugee status, which entitled them to financial and other support.

The first groups of Cuban immigrants came in spurts, largely as a result of international political events and the fluctuating ease with which they could leave their country. More than 200,000 Cubans arrived in the United States between 1959 and 1962; air travel between the United States and Cuba was discontinued thereafter. Immigration dropped considerably over the next 3 years and then rose again in 1965, when President Johnson negotiated an airlift between Cuba and Miami. Daily flights brought about 368,000 Cubans to the United States over the next 8 years, consolidating the Cuban presence in Florida (McCoy and González, 1985).

The Cuban exiles were largely White, educated, and middle and upper class, and they adapted well to the new environment, transforming Miami into a bilingual business and cultural center and eventually wielding significant political and economic power. In the words of one observer,"Never before had there been a group of exiles quite like them; . . . No group of newcomers in the United States had ever moved so quickly from penury to prosperity" (Shorris, 1992, p. 68).

A second major wave of Cuban immigrants arrived in 1980, when Fidel Castro allowed anyone who wanted to leave Cuba to sail from the port of Mariel. A fleet of boats organized by exiles in Miami picked up more than 130,000 "Marielitos." Unlike the first wave, this group of refugees was primarily working class, included a large population of Blacks and mulattoes, and was composed predominantly of young males. Moreover, some of the new immigrants had been released from sanitariums and penal institutions; most had no families to welcome them in Florida and required housing and other services (McCoy and

González, 1985). Many were kept in detention camps for long periods, which created tension and hostility between the newcomers and the host community.

Demographic data on the Marielitos reveal that most had been actively employed, had been central to the Cuban economy, and could be regarded as employable in the United States. However, the way in which they entered the country, combined with their composition in terms of race and sex, made this a marginal group that was not as easily accommodated into the U.S. mainstream (Bach et al., 1982). As castaways rather than exiles, the flotilla emigrants were less welcome than their more affluent and better educated predecessors. The stigma of the Marielitos stuck, to be eroded only with time.

With the end of the Mariel boatlift, immigration from Cuba slowed to a trickle. However, since 1990, the number of “rafters” sailing on rafts or small boats has increased. In 1993, nearly 3,200 migrants were rescued by or reported to the U.S. Coast Guard, a level not seen since 1980 (Viglucci and Bellido, 1993).

The different waves of Cuban immigration have produced a population of more than 1 million Cubans, of which 75 percent are concentrated in Florida (U.S. Census, 2001); 54 percent are in Dade County alone (Trapido et al., 1994). Other states with large concentrations of Cubans are New York and New Jersey. Approximately 515,000 Cuban adult women aged 20 and older are residents of the United States.

Although the Cuban-born represent only 0.4 percent of the U.S. population and 3.5 percent of all Hispanics in the United States, their relative affluence and geographical clustering have made them a highly visible part of the Hispanic community (Gonzalez-Pando, 1998). Their political power far outweighs their numbers, and Cubans have succeeded in dominating the Hispanic economic realm as "investors of real and intellectual capital" (Shorris, 1992, p. 22).

BACKGROUND

Sociodemographic Indicators

The selectivity of Cuban immigration has resulted in an unusually high median age for the Cuban population in the United States: 38.9 years. This is higher than that of the U.S. population as a whole and significantly higher than that of U.S. Hispanics in general (26.4 years). Because of the large number of middle-aged and elderly Cubans who emigrated during the first few years of the Cuban revolution, Cubans 65 and older make up 15.8 percent of the total U.S. Cuban population (U.S. Census Bureau, 1993) (see Table 1). And, according to Florida vital statistics reports for 1999, Cubans comprised about 64 percent of all Hispanic deaths during the preceding year, and a disproportionately high percentage of all deaths in the state (5.2 percent) relative to their numbers in the overall population (State of Florida Department of Health, 2000).

The social origins of Cuban immigrants are reflected in socioeconomic indicators for this population. Although Cubans in the United States have yet to reach parity with non-Hispanic Whites in terms of educational attainment, employment, and income, they are significantly better off than other Hispanic subgroups. Census data indicate that the proportion of Cuban-born males in upper white-collar occupations (managerial and professional) is about twice as high as that of Hispanics as a whole—23.2 percent compared with 11.4 percent (U.S. Census Bureau, 1993).

The data on Cuban females (see Table 2) reflect the effect of a top-heavy population pyramid. A sizable proportion of older women have fewer years of schooling, lower labor participation rates, and lower incomes than their younger cohorts. Although Cubans have a somewhat lower proportion of female-headed households than all Hispanics (16.3 percent and 24.4 percent, respectively), this proportion is significantly higher than that of the non-Hispanic White population (12.5 percent).

Health Indicators

Cubans in the United States have a low fertility rate. Fertility levels for Cuban women who have been married at some time are not only significantly lower than those for all Hispanic women, but also are lower than for the non-Hispanic White population in every age group (Díaz Briquets, 1991; National Center for Health Statistics [NCHS], 1993). This difference has been attributed to several factors, including an early trend of fertility decline in Cuba, the social-class origins and aspirations of an important segment of the Cuban emigrant population, and the socioeconomic adjustments made by upwardly mobile refugees (Díaz Briquets, 1991).

The data summarized in Table 3 reflect the relatively favorable health status of Cuban mothers compared with the rest of the U.S. population. Cubans have fewer risk factors. They are less likely to be younger than 20, are better educated, less likely to have fourth- or higher-order births, and more likely to have started prenatal care in the first trimester of pregnancy. Pregnancy outcomes reflect the privileged status of Cuban mothers—compared with the population as a whole, Cubans account for a lower proportion of preterm births and low birth weight babies and have lower infant mortality rates (Ventura et al., 1997; Anderson et al., 1997).

Other indicators also mirror the favorable health status of Cubans in the United States (Hajat et al., 2000). An analysis of mortality patterns for three Hispanic subgroups (Cubans, Mexican Americans, and Puerto Ricans), non-Hispanic Whites, and non-Hispanic Blacks based on 1979-81 data found that the Cuban-born had the lowest age-adjusted death rate of any subgroup (Rosenwaike, 1987). Indeed, Cuban death rates for both sexes were 20 percent lower than corresponding rates for non-Hispanic Whites, a pattern that held true for nearly all causes of death. The Cuban-born had the lowest death rates for heart disease, cerebrovascular disease, accidents and adverse effects, chronic obstructive pulmonary disease, pneumonia, and diabetes.

Cubans had the highest rate for only one cause of death: suicide. This phenomenon, which was sex-specific, with the male rate exceeding the female rate six-fold, was explained by "the trauma of political emigration implicit in the forced and, in most cases, permanent separation from a familiar environment and loved ones. In many cases, emigration has involved downward social mobility and loss of status, conditions often associated with despondency and despair" (Díaz Briquets, 1991, p. 125). The fact that Cuban society is highly patriarchal, with men expected to provide for their families, undoubtedly heightens the effects of the painful uprooting and transplantation that accompany migration.

Comparative data on Cuban mortality were computed for 1979 and 1981 to reflect the effects of the Mariel boatlift. The data show that although the death rate for all causes rose by 5.6 percent in the 2 years, the homicide rate more than doubled, rising from 15.3 to 38.4 per 100,000 (Rosenwaike and Shai, 1989). This dramatic increase was attributed to the criminal tendencies associated with many of those in the Mariel migration.

The favorable mortality profile of the Cuban population in the United States has been ascribed to the group's status as a transitional population that "has preserved the advantage of a low-mortality developing nation as exhibited by low death rates from degenerative causes such as cardiovascular disease and malignant neoplasms" (Díaz Briquets, 1991, p. 129). If this hypothesis is true, the population may lose its current advantages as it matures. If, however, more education, higher incomes, and cultural cohesiveness continue to characterize Cubans in the United States, this population may retain its advantageous position relative not only to other Hispanics but also to non-Hispanic Whites as well.

A more recent analysis based on deaths occurring between 1979 and 1987 found that, after adjusting for age, Hispanics have a lower death rate compared with non-Hispanics. This was true for all subgroups and for most causes. Overall, the standardized-rate ratio for Hispanics to non-Hispanics was 0.74 for men and 0.82 for women. For Cubans, this ratio was 1.04 for those 25 to 44 years of age, 0.47 for those 45 to 64, and 0.71 for those 65 and older (Sorlie et al., 1993). These data suggest that the younger cohorts may be losing their comparative advantage, but more data and further analyses are needed for the trend to become clear.

It is increasingly evident that Cubans have not been exempt from the impact of the AIDS epidemic, which is having a differential effect on Hispanics in this country. The case rate of AIDS in the United States is 2.5 times higher among Hispanics than among non-Hispanic Whites (Díaz et al., 1993). Data from the Centers for Disease Control and Prevention show that among Hispanic women, the relative risk for AIDS among those aged 13 and older is 7.5 times higher than that for non-Hispanic White women in the same age group (Díaz et al., 1993).

When the incidence of AIDS is broken down by state, Florida, where 43 percent of Hispanics are Cuban, ranks second to New York as the state with the highest Hispanic AIDS rate (57 per 100,000). This is 2.2 times the corresponding rate for the non-Hispanic White population. Moreover, Miami, with a rate of 104 per 100,000, had the second highest overall rate of AIDS among U.S. metropolitan areas in 1991 (Díaz et al., 1993). The data on mode of transmission indicate that of all Hispanic subgroups, Cuban-born women have the highest proportion of cases (19.5 percent) resulting from having sex with men known to be positive for HIV (Díaz et al., 1993). The vulnerability of Cuban women to heterosexual transmission of AIDS is highlighted by the fact that Cuban men have been found to have the highest prevalence of multiple sex partners of all Hispanic subgroups in the United States (Sabogal et al., 1993). Ironically, but not surprising in view of traditional gender-based expectations and behaviors, the same survey found Cuban women to be the least likely to have multiple sexual partners.

CANCER DATA

Data Limitations

Analyses of the incidence of cancer among Cuban women in the United States have several limitations that must be accounted for in examining the data. First, much of the cancer registry data are specific to Florida, or to Dade County; therefore, the findings may not apply to Cubans living elsewhere in the United States. Second, some of the studies use the panethnic label "Hispanic" and do not allow for the disaggregation of Cuban-specific data (Zambrana and Carter-Pokras, 2001). Only recently did the Surveillance, Epidemiology, and End Results (SEER) database, which reports on 11 registries throughout the country, add subgroup data that identifies Cubans; and these registries do not include Florida (National Cancer Institute [NCI]/SEER, 2000). Finally, the studies use different reference populations for comparison, making it difficult to detect trends over time and to identify longitudinal converging or diverging rates. Therefore, this summary describes the populations or samples on which the different analyses were based to place the data in their proper context. Further, the most recent SEER data report only the number of cases and do not permit calculation of incidence or mortality rates.

Cubans Compared With Other Hispanics

An analysis of the mortality experience from 1979 to 1981 of three first-generation Hispanic subgroups (Cubans, Mexican Americans, and Puerto Ricans) in the United States found that, although Cuban-born women had the lowest age-adjusted mortality rates for all causes, they also had the highest rate for malignant neoplasms among Hispanics (Rosenwaike, 1987). However, when adjusted for age, the rate for this cause was only 0.80 compared with the rate for the U.S. non-Hispanic White population. For Cuban women, the rate was 0.81. Cuban women had a lung cancer rate of 0.57 and a breast cancer rate of 0.79 compared with their non-Hispanic White counterparts. The lower rates for the Cubans were attributed to their having "retained the more favorable aspects of their original environment, thereby holding their mortality to a level lower than that generally prevailing in the United States" (Rosenwaike, 1987, p. 606).

Dade County Experience

A study of cancer incidence among Hispanic women in Dade County, Florida, provides a close approximation of the epidemiology of cancer in the female Cuban population. Because 67 percent of the Hispanic population of Dade County is of Cuban origin or ancestry, the researchers indicate that "it is likely that the cancer rates observed reflect the rates among Cuban Americans in Dade County" but caution against drawing inferences from rates for all Hispanics to rates for individuals from a specific country (Trapido et al., 1990, p. 2438).

This study, based on 1982 data from the Florida Cancer Data System, compared rates for non-Black Hispanic women with those for non-Black non-Hispanic women. The study found that, compared with non-Hispanics, Hispanic women had lower rates of the 15 most prevalent cancers, except for cancers of four sites: kidney, gallbladder, uterus, and stomach (see Table 4). The only cancer site for which Hispanic women appeared to be significantly at greater risk than their non-Hispanic counterparts was the liver, which is not among the most prevalent sites for either subgroup (Trapido et al., 1990).

Breast cancer, by far the most common malignancy, occurred significantly less frequently among Hispanic women, both overall and in each age stratum (Trapido et al., 1990). Cancer of the cervix also occurred less frequently among Hispanic women, although elevated rates were found among those aged 65 and older (Trapido et al., 1990). One possible explanation for this generational difference was that younger cohorts are more likely to have experienced changes in exposure to factors causing cervical cancer. As Trapido and colleagues (1990, p. 2439) observe:

> The fertility rate among Cuban women and their age at first birth are more like the non-Hispanic population than like other Hispanic groups, thus making them more likely to have a lower rate of cervical cancer. Conversely, older women might have already experienced those “events” which would result in a higher rate of cervical cancer, and so even a

> lessening of a crucial exposure might not have decreased their otherwise higher incidence rate.

A higher rate of liver cancer, which Trapido and colleagues (1990) found among both sexes and in all Hispanic age groups, appears to reflect dietary habits and patterns of alcohol consumption. Another explanation may lie in the practice of self-injection of vitamins and other medications.

The favorable epidemiological picture emerging from this analysis suggests that the “transitional theory” posited with respect to overall mortality may apply to cancer incidence as well. Trapido and colleagues (1990, p. 2440) conclude, "It appears that Hispanic women (as well as Hispanic men) in Dade County are losing their traditionally higher rates of cancer (i.e., stomach, cervix, pancreas) and for the most part have not yet experienced the higher rates of breast, colon, rectum, lung, bladder, and ovarian cancer of their non-Hispanic counterparts, as migration studies might suggest."

The same researchers more recently examined cancer incidence among Hispanic women in south Florida for the years 1981 through 1989 (Trapido et al., 1994) (see Table 5). By extending their analysis to encompass a longer time span, they provide a more comprehensive assessment of the cancer experience of Hispanic women. At the same time, their analysis addresses potential differences between racial groups, presenting race-specific cancer rates for both Hispanics and non-Hispanics (Trapido et al., 1994).

This 9-year assessment of cancer incidence among Hispanic women in Dade County found that rates among Hispanic females of either race were lower than those among the corresponding non-Hispanic groups. Significant differences were observed for numerous cancer sites among Whites. White Hispanics (the category likely to include most Cuban women) had lower rates of Kaposi's sarcoma, non-Hodgkin's lymphoma, melanoma, and cancers of the oral cavity, esophagus, colon, pancreas, lung, breast, ovary, bladder, and kidney than non-Hispanic Whites. However, White Hispanic women had significantly higher rates of cancers of the liver, gallbladder, and uterine cervix than their non-Hispanic counterparts (Trapido et al., 1994).

Fewer differences were found among Black females. Compared with Black non-Hispanic females, Black Hispanic females had significantly lower rates of cancers of the oral cavity, stomach, rectum, lung, cervix, and bladder (Trapido et al., 1994).

The breakdown by race revealed that previous findings of substantially lower breast cancer rates in Hispanic women masked racial differences in the stage at which the disease was diagnosed:

> The lack of any in situ breast cancer cases among Blacks, of either ethnic subgroup, [is] consistent with studies suggesting that although different subgroups of Hispanic

> Americans are not at significantly higher risk for breast cancer than non-Hispanics, they are at greater risk for being diagnosed at a later stage. The in situ/invasive analyses probably reflect use of screening within each subgroup (Trapido et al., 1994, p. 1086.)

Table 6 shows that when the standardized rates for White Hispanic females are compared with those of Black Hispanic females, the former have higher overall rates and higher rates for 10 of the 13 most frequent sites. The most notable race-specific difference is found in the incidence of thyroid cancer, which occurs nearly four times as often among White Hispanic women as among Black Hispanic females. Black Hispanic women, however, are at greater risk for gallbladder cancer than their White Hispanic counterparts (Trapido et al., 1994).

These data should be interpreted with caution because they are more than a decade old at present. Because the Florida Cancer Data System is not publicly available at this time, and no more recent analyses have been published as of late 2002, it is not possible to examine trends over time and whether the patterns reported by Trapido and colleagues using data from the 1980s hold true through the 1990s.

National Data

A U.S. Department of Health and Human Services book on vital statistics for 1989 provided data on mortality associated with cancer among Cuban females (NCHS, 1992). Unlike the epidemiological data from Florida, the national vital statistics reflect the experience of all Cuban women in the United States. Thus, the national data are less detailed but more inclusive than the other data.

In 1989, deaths caused by malignant neoplasms accounted for 22.8 percent of all deaths among Cubans of both sexes (NCHS, 1992). Females accounted for 755 cancer deaths, or 44.5 percent of the total attributed to this cause (see Table 7). As indicated, 502 (66.5 percent) of these deaths were among the older groups (age 65 and older). The rate increases sharply with age, from a low of 1.29 to a high of 508.02 per 100,000 inhabitants, from the youngest cohort to the oldest.

More recent data are available from the Surveillance, Epidemiology, and End Results (SEER) database regarding the number of cancer cases by site, age at diagnosis, and stage at diagnosis for Cuban women from 1992 to 1998 (see Table 8). These data are based on a total of 589 cancer cases in women who self-identified as having a Cuban surname or being of Cuban origin, in all 11 SEER registries reporting for that period of time. As shown in the table, the proportion of women younger than 55 with cancer was lower among Cubans than among U.S. White women (17.5 percent versus 24.2 percent, respectively). Table 9 gives the number and proportion of all cancers for Cuban and non-Hispanic White women in the SEER registries from 1992 to 1998.

Cuban National Cancer Registry Data

Although Cubans living in America differ from those living in Cuba in many ways, including demographics, environmental exposures, and lifestyle, it may be of interest to examine cancer data from Cuba. This information has recently become available for the years 1986-90 from the Cuban National Cancer Registry (Martin et al., 1998). More than 50 percent of the cases registered are cancers of the lung, prostate, colon, breast and cervix. Among women, cancer incidence is lower than for men (183.7 versus 218.2 standardized rate per 100,000 persons), as is cancer mortality (95.1 versus 138.4 per 100,000). The major causes of cancer in Cuba are thought to be tobacco use, sun exposure, alcohol consumption, sexual practices, and high animal fat intake (Martin et al., 1998). Survival studies from the Cuban National Registry following cases up to 1994 suggest that the survival rate of colon and lung cancer declined during the 1980s. They also show that lung cancer survival rates are comparable to the United States and Europe, but breast and cervical cancer survival is comparable to that of Blacks in the United States (Boschmonar et al., 1999). These data should be interpreted with caution, given concerns about the quality of the data and suspected underregistration (Martin et al., 1998); nonetheless, these data may be useful in understanding cancer in relation to migration, lifestyle exposures, and constitutional factors.

CONTRIBUTING FACTORS

Cancer morbidity and mortality are influenced by lifestyle, access to care, health beliefs, and environmental exposures. Although the importance of each of these may vary over time, from one population to another and from one site to another, these factors provide a useful framework within which to evaluate the risks faced by Cuban females. The recognition that lifestyles affect patterns of disease, and the fact that a significant proportion of cancers are associated with smoking, eating, and drinking alcohol, heighten the importance of these behaviors. The 1982-84 Hispanic Health and Nutrition Examination Survey (HHANES) is a valuable source of data on health-related practices of specific Hispanic subgroups, including Cuban-born residents of Dade County (Delgado et al., 1990).

Smoking

The 1982-84 HHANES found that 23.9 percent of Cuban females were smokers at the time of the survey. This percentage was similar to that of Mexican American females, but was markedly lower than the proportion of Puerto Rican female smokers. Of Cuban-born females who smoke, almost 1 in 8 smoked 20 or more cigarettes per day (Marks et al., 1990). When cigarette smoking was examined as a predictor of recentness of screening behavior, the researchers found that among Cuban males and females, smokers were less-recent users of health care than nonsmokers (Marks et al., 1990).

The brand of cigarette influences health risk, and HHANES inquired about the various cigarette brands consumed by the respondents. Among Cuban females, the most common was Benson and Hedges brand (smoked by 18.7 percent of smokers), followed by Salem (15.6 percent) and Marlboro (15.4 percent) (Marks et al., 1990). Both Benson and Hedges and Marlboro are high in tar and nicotine; Salem,

a menthol cigarette, requires smokers to puff harder and inhale more deeply to get the same amount of nicotine, thereby causing additional damage to the lungs (Davis, 1987).

Researchers have used HHANES data together with data from the National Health Interview Survey to evaluate trends in smoking initiation among Cubans in the United States. The data indicate that, although more Cuban than non-Hispanic White females began smoking during the 1970s, the rate of smoking initiation declined toward the end of the decade. By the early 1980s, Cuban females were beginning to smoke at levels comparable to or perhaps lower than those for non-Hispanic White females (Escobedo et al., 1989).

More recent analysis from the NHIS 1994 supplement on the Year 2000 Health Objectives showed that the rate of smoking among Cuban women remained fairly stable over the preceding decade, at 24.4 percent, and that the proportion relative to Puerto Ricans and Mexicans also remained similar (King et al., 1997). Those analyses also indicated that Hispanic women tend to start smoking later and to be lighter smokers than non-Hispanics.

Maternal health data from the National Center for Health Statistics indicated that in 1991, 6.2 percent of Cuban mothers reported being smokers. This proportion was similar to that for Hispanic mothers in general (6.3 percent) but was significantly lower than the 17.75 percent for all mothers (NCHS, 1994).

Nutrition

HHANES is also a major source of data concerning patterns of nutrition among the different Hispanic subgroups in the United States. Researchers found that 34.9 percent of Cuban females reported consuming a variety of foods from four to five health-food groups daily, a higher proportion than that reported by any other Hispanic female subgroup. Yet Cuban females also reported a high intake of "junk food," with more than three quarters of all respondents (75.5 percent) reporting eating at least one junk food item daily (Marks et al., 1990).

Other researchers examined the prevalence of obesity using the data on body mass index revealed in HHANES (Fanelli-Kuczmarkski and Woteki, 1990). As in other Hispanic subgroups, the age-adjusted prevalence of overweight was higher among Cuban females than among Cuban males. The percentage of overweight Cuban females was 31.6 percent, lower than that for other Hispanic females but higher than the corresponding proportion for non-Hispanic White females (23.9 percent).

Extent of Physical activity

Current national data sets do not report physical activity prevalence estimates separately for Cubans. A number of sources published prevalence estimates for Hispanics (Jones et al, 1998; Macera and Pratt, 2000; U.S. Department of Health and Human Services [USDHHS], 1996). However, no prevalence

estimate for physical activity is available for this specific subgroup. In general, Hispanic women are less active and less likely to meet the current physical activity recommendation than White women (Jones et al, 1998; Macera and Pratt, 2000; USDHHS, 1996).

Alcohol Consumption

The 1982-84 HHANES data show that of all the Hispanic female subgroups, Cuban females were the least likely to report being current alcohol users. Only 22.8 percent of Cuban females (compared with 32.6 percent of Puerto Rican and 34.7 percent of Mexican American females) reported being drinkers at the time of the survey. This may be explained partly by the higher median age of the Cuban population because the survey found that alcohol consumption decreased as age increased (Marks et al., 1990).

The researchers also found significant positive correlations between acculturation and alcohol consumption. Although this was true for both sexes and all Hispanic subgroups, the correlation was strongest among Cuban females (Marks et al., 1990) and can be explained by the relaxation of sex-specific norms guiding alcohol consumption. Thus, as Cuban females acculturate, "their drinking increases because their behavior becomes more strongly influenced by the norms and practices of the dominant group" (Marks et al., 1990, p. 25).

Other researchers who analyzed the HHANES data on alcohol consumption found a positive association between acculturation and both the frequency and volume of drinks consumed by Cuban females. Education also was associated with a greater probability of a Cuban female being a current drinker (Black and Markides, 1993). These findings suggest that the drinking levels of Cuban females are likely to increase as they become more integrated into the larger society, a trend that could be stemmed by appeals to both traditional values and to the need for women to exert control over their own bodies by adopting more healthful behaviors.

More recent data indicate that Cuban mothers are less likely to drink than other mothers. In 1991, 0.9 percent of Cuban-born mothers, compared with 2.9 percent of all mothers, reported being current drinkers (NCHS, 1994).

Reproductive Risk Factors

Cuban American women have proportionately more breast cancer than non-Hispanic White women. However, the distribution of major risk factors for breast cancer among Cuban American women is largely unknown (Brewster). The one exception is alcohol consumption, which is less common among Cuban Americans than other Hispanic groups (Marks, 1990).

Cuban females aged 15 to 45 who were interviewed for the 1982-84 HHANES reported an average of 1.7 pregnancies and 1.1 live births, rates lower than those for the other Hispanic subgroups (Stroup-Benham

and Treviño, 1991). Of the three subgroups surveyed, Cuban females were the least likely (8.2 percent) to report current use of oral contraceptives. However, this finding does not mean that they were at particular risk for pregnancy; as noted earlier, Cuban women have unusually low fertility rates.

The prevalence of sterilization has become increasingly meaningful with the recent evidence that women who have had a tubal ligation or a hysterectomy have a 70 percent lower risk of developing cancer than those who have not (Hankinson et al., 1993). The HHANES data show that almost one in six Cuban females (15.4 percent) reported having had a tubal ligation at the time of the survey, and 3.5 percent had had a hysterectomy (Stroup-Benham and Treviño, 1991).

Breast-feeding

The rate of breast-feeding among Cuban women was found to be 12 percent in a study by Wright and colleagues (1988). The 1982-84 HHANES data indicated that 1.9 percent of Cuban females between the ages of 15 and 45 were breast-feeding at the time of the survey (Stroup-Benham and Treviño, 1991). This rate was much lower than that for Mexican Americans but similar to the rate for Puerto Ricans. However, it should be interpreted with caution since this figure reports on women with and without young children.

Environmental Exposures

Data on environmental risks to which Cuban women are exposed are virtually nonexistent. Because most Cuban women who work are in white-collar occupations, they are not exposed to carcinogens associated with farming or manufacturing. They may, however, be subject to other unknown hazards (Martin et al., 1998).

More recent immigrants from Cuba may have been exposed to contaminants emanating from the heavily polluting, energy-inefficient Hungarian buses that were the principal means of public transportation in Cuba through 1990 (Feinsilver, 1993). As trade with former Eastern Bloc countries has decreased and petroleum supplies have dwindled, the buses have been largely replaced with bicycles, a shift that has been fostered and hailed by the Cuban government as both environmentally sound and health promoting.

Because Cuba produces only 5 percent of the oil required for its domestic needs, it has instituted strict measures to restrict the consumption of fuel (Griffin, 1992). The long-term health effects of alternative sources of energy remain to be seen.

ACCESS TO CARE

Health Insurance, Source of Care, and Screening

Slightly more than three fourths of Cuban women (75.3 percent) in the 1982-84 HHANES reported having health insurance. A similar proportion (77.9 percent) reported having access to a routine source of health

care. Of the Hispanic subgroups surveyed, those of Cuban origin were the most likely to report using doctors' offices, private clinics, or health maintenance organizations/prepaid groups (all three were grouped together as one category in the survey) as their regular source of care; 76.9 percent of Cuban females reported relying on these sources of care, whereas 7.5 percent used hospital-based outpatient departments and 1.1 percent relied on hospital emergency rooms. Nearly three quarters of all Cuban females interviewed (74.6 percent) said that they were less than 10 minutes away from a health care facility (Solis et al., 1990). More recent surveys of Hispanic subgroups confirm that at present, Cuban women are significantly more likely than women in other Hispanic groups to have health insurance and a regular source of health care (Zambrana et al., 1999; Ramirez et al., 2000a).

The 1982-84 HHANES findings on use of health services were analyzed in terms of access to care and level of acculturation. The study found that access was strongly related to utilization; having a regular source of care and having insurance coverage produced the strongest effects (Solis et al., 1990). With respect to acculturation, the researchers found that language was related to utilization for Cuban women but not for Cuban men. One reason may be that because women use health care more than men, women are more selective in seeking care. Thus, they may be more likely to choose Spanish-speaking physicians and other providers, which would eliminate language as a barrier to access. Such a pattern may be true especially in Florida, which has a sizable population of Hispanic providers.

Data on the use of preventive services are particularly relevant to cancer control because screening and early detection can lead to effective treatment. HHANES found that recent use of preventive health services was more prevalent among Cuban females than among males. Of the women surveyed, 59.5 percent reported having had a routine physical examination within the previous 2 years, and 81.3 percent had had their blood pressure taken within the prior year. In addition, 63.6 percent and 72.1 percent of all Cuban female respondents had had an eye exam and a dental checkup, respectively, in the previous year. These proportions were lower than those reported for Puerto Rican women but higher than those for Mexican American women (Solis et al., 1990).

Of the three Hispanic subgroups, Cuban women were the least likely to have had a Pap test or a clinical breast examination in the previous 2 years. They also were the most likely to say that they had never had these tests or had not had them in the previous 5 years (Solis et al., 1990). Outreach efforts since then may have had a favorable impact on these data. Results from the 1990 and 1992 NHIS surveys showed high utilization of Pap tests and clinical breast exams across Hispanic groups, though mammography was lower for all Hispanic groups than for the general population of women (Zambrana et al., 1999). Other surveys conducted in the late 1990s as part of the *En Acción* project showed a reversal of this pattern—Cubans were more likely to have had Pap tests (OR=1.32, trend) and mammograms (OR=1.5, $p<.05$), and they had the highest proportion of lifetime clinical breast exams of all the Hispanic subgroups (Ramirez et al., 2000a).

Health Beliefs

Any discussion of health beliefs based on culture must be careful to avoid the use of stereotypes. Nonetheless, some traits associated with Cubans may affect attitudes about health and disease. One such characteristic is a sense of "specialness" that Cubans have about themselves and their culture (Bernal, 1982). Taken to an extreme, this trait may lead to chauvinism and elitism; however, it also can induce a take-charge attitude in which an individual acts to assume mastery over external forces. Loyalty to the family is another value important to Cubans. Therefore, health promotion messages that stress self-care are likely to be more effective when couched in terms of benefits to the family.

To design more effective outreach strategies, the American Cancer Society commissioned a study in 1985 of Hispanics' attitudes concerning cancer and cancer prevention (Clark, Martire, and Bartolomeo, Inc., 1985). The authors found a high degree of ethnic identity among the different subgroups as well as much consensus regarding attitudes toward cancer, cancer prevention, early detection, and education, and concluded that Hispanics could be addressed collectively in health education and preventive programs. Among the common factors of health beliefs were a high degree of fear and fatalism concerning cancer, an awareness of the value of early detection, and a failure to take preventive action. The survey also uncovered significant gaps in information about cancer.

Although the American Cancer Society study looked at Hispanics as a whole, it also reported data specific to subgroups. Compared with other Hispanics, Cubans were found to be older, more likely to prefer speaking Spanish with health care providers and to use Hispanic doctors, and less likely to complain about discrimination when seeking health care (Clark, Martire, and Bartolomeo, Inc., 1985). They also were the most committed to the importance of early detection. At the same time, they lagged behind other Hispanics in their knowledge of the early warning signs of cancer. Of the seven cancer signs, Cubans were able to mention an average of 2.2, compared with 3.1 for all Hispanics and 4.6 for non-Hispanics (Clark, Martire, and Bartolomeo, Inc., 1985). (The seven cancer warning signs once, but no longer, used by the American Cancer Society to educate the public are: changes in bowel or bladder habits, a sore that does not heal, unusual bleeding or discharge, thickening or lump in the breast or elsewhere, indigestion or difficulty in swallowing, obvious change in a wart or a mole, and nagging cough or hoarseness.) This finding suggests that members of the Cuban population are primed for health education—they are committed to taking action, but are hampered by lack of knowledge. As with the HHANES data, because this survey was carried out more than a decade ago, the findings should be viewed with caution.

From the survey conducted by the *En Acción* project in the late 1990s, it is possible to compare the knowledge and attitudes of Cuban women with those of other Hispanic ethnic subgroups. Cuban women were found to have the highest level of knowledge of mammography and Pap tests among groups, and reported slightly more favorable attitudes toward these early detection procedures (Ramirez et al., 2000a).

These findings reflect not only the ethnic background of the women, but also a combination of other characteristics: the Cubans in the surveys were typically older and better educated; they were more likely to be U.S.-born; and they were more likely to have health insurance and a regular source of health care. (Zambrana et al., 1999; Ramirez et al., 2000a; Suarez et al., 2000).

INTERVENTIONS

Epidemiological data indicating that non-Hispanic Blacks and Hispanics in Dade County were less likely than the rest of the population to have certain types of cancer diagnosed in situ have led to a variety of efforts aimed at risk reduction and early detection, particularly for breast cancer.

In 1987, the Sylvester Comprehensive Cancer Center of the University of Miami School of Medicine began its early detection program to diagnose and treat breast cancer among medically underserved women in Dade County. The program operated through 10 primary health care centers and the Dade County Health Department. Because the centers were not equipped to perform mammograms on-site, a mobile van circulated among the centers on a fixed schedule. The van, staffed by two licensed radiology technologists, provided mammograms on a sliding fee schedule, ranging from no cost to $25 (Centers for Disease Control, 1991; McCoy et al., 1991b).

The staff at each health center provided clinical breast examinations and taught patients to perform breast self-examinations. Radiologists at the University of Miami School of Medicine read the mammograms and returned the results to the centers, which then notified patients, made referrals, provided follow-up care, and maintained patient records.

The program screened an average of 25 women per day, of whom slightly more than half were Hispanic. Most were 50 to 69 years of age, and almost three fourths had never had a mammogram (Centers for Disease Control, 1991), which suggests that the program was meeting its objective of reaching previously underserved women. The program was found to be cost effective. Between 1987 and 1992, the program diagnosed 100 cancers and saved 26 lives. Because early detection is estimated to save more than $9,700 in treatment costs per cancer found, the program saved more than $1 million in such costs during its first 5 years of operation (Zavertnik, 1993).

The program was accompanied by a community-wide education campaign stressing cancer prevention and early detection. It focused on the warning signs of cancer; the value of early detection, prevention and risk reduction; and the availability of medical care (McCoy et al., 1991b). Media targeted to Hispanics have been enlisted in the educational campaign. Two Cuban radio stations carried cancer awareness programs in which listeners called in with questions about cancer (Zavertnik, 1993).

Over time, the program has expanded to include cervical screening for women aged 40 and older and screening for prostate cancer for men aged 65 and older. The program also cast a wider net in its efforts to enroll more low-income residents. Closer relations with community-based organizations, such as tenant organizations, the Community Action Agency, Meals-on-Wheels, and day care centers, enabled the program to expand its recruitment and health promotion activities (McCoy et al., 1991a). As of 2001, there are no more up-to-date published reports about this program and its activities.

Other risk reduction and early detection programs also have targeted Cuban and other Hispanic women in Florida. In 1994, the YWCA (Young Women's Christian Association) began its ENCORE^{PLUS} program in Miami. Aimed at the early detection of breast cancer, the program reaches out to poor, minority, and older women who have been traditionally underserved. Avon Products, Inc., joined this effort through its Campaign Against Breast Cancer. Avon salespersons distribute brochures, in both English and Spanish, containing answers to the 10 most frequently asked questions about cancer. The company also sponsors a cancer hot line in different languages, a 30-minute videotape in Spanish titled "Woman to Woman: Let's Talk About Breast Cancer," and a 1-hour program on breast self-examination, which is aired on public television (Avon Products, Inc., © 1993).

As to treatment, the League Against Cancer provides free medical care to needy cancer patients who are residents of Florida. This nonprofit organization, modeled on a similar entity established in Havana in 1925, includes a network of more than 160 physicians who volunteer their services to the league. In Miami, the league operates a medical center that serves as a diagnostic and treatment facility for persons diagnosed with cancer (Liga Contra el Cancer, Inc. 1993). Although the league is concerned primarily with cancer treatment, it also performs Pap tests and mammograms. Its clients are 80 percent Hispanic, and all the board members and most of the providers also are Hispanic.

All these complementary efforts have shared certain goals and strategies. They reach out to groups whose needs have been overlooked, as well as to groups that use community-based organizations and that are culturally and linguistically attuned to the target populations. Although most of the programs are devoted largely or exclusively to reducing avoidable mortality due to breast cancer, they also provide information about other types of cancer.

FUTURE DIRECTIONS

Cuban women appear to be a privileged population with respect to health in general and cancer in particular (Zambrana and Carter-Pokras, 2001). Cubans have lower rates than non-Hispanic White women for those cancers with the highest prevalence in the United States. At the same time, the data reveal significant gaps and interesting anomalies that merit further research.

Until very recently, most of the data for Cuban women were specific to one area, Dade County, and were embedded within the panethnic category “Hispanic.” There is now information on Cubans outside of Florida from the 11 SEER registries, but these sources do not currently include Florida data. Overall, it is difficult to separate the Cuban experience from that of other Hispanic subgroups with significantly different migration histories and socioeconomic backgrounds (Zambrana and Carter-Pokras, 2001; Modiano et al., 1995).

First, the data should be disaggregated by ethnicity and national origin, and merged to include Florida as well as the rest of the United States, to produce a more accurate and precise picture of cancer epidemiology among Cuban women. Equally important, efforts are needed to combine SEER data with the recent Florida Cancer Data System findings about cancer in Cuban women.

Second, data from the 1980s raised concern about the late stage of diagnosis for cancers of the breast and cervix in Cuban women. Recent SEER data suggest that this is not a persistent problem, but again, these data do not include Cuban women in Florida (NCI/SEER, 2000). The higher proportion of cancers among women over age 55 warrants attention; it is not clear whether this is a cohort effect, cultural effect, or simply a reflection of the age distribution of Cubans. In retrospect, the HHANES finding that, of all Hispanic women, Cubans were the least likely to have had a recent Pap test or clinical breast examination and were the most likely to report never having had these procedures suggested that targeted interventions to reach this population were necessary. More recent data suggest that this disparity no longer exists and that, in fact, Cuban women are more likely to obtain these cancer screening tests than their counterparts in other Hispanic subgroups (Ramirez et al., 2000a).

Third, it is important to recognize that Hispanic ethnic groups are not homogeneous, and in fact that Cubans may be more different from than similar to Puerto Ricans and Mexican Americans. They do not have the same disadvantages in economic status, education, and access to health care, and likely should be examined as a separate group to get a better understanding of their health and social circumstances.

Finally, the hypothesis that the favorable experience of Cubans is a result of their going through a transition deserves additional examination. The possibility that Cuban women have retained the positive aspects of their original environment and culture while avoiding the risk factors of living in the United States has important implications for their health status. It also suggests that Cubans have avoided the trend among other Hispanics—as they become more acculturated, their health status worsens (American Medical Association, 1991).

CONCLUSION

To the extent that Cuban women have been able to modify or overcome certain risk factors while avoiding new ones, their experience may shed light on the complex dynamics of immigrant health. The Cuban experience in the United States shows that trends are not destiny and that risks can be reduced while preventing the erosion of health-enhancing behaviors.