Disparities in Health Indicators for Latinas in California

Lourdes Baezconde-Garbanati
University of Southern California
Carmen J. Portillo
University of California, San Francisco
James Allen Garbanati
California School of Professional Psychology

This study analyzes disparities in selected health indicators for Latinas when compared to non-Latina Whites, and other population groups in the United States, and as available in Mexico. A review and secondary analyses of government and other data were conducted as an extension of previous research. Data revealed that the population of Latinas, although youthful on average, are composed of an increasingly large group of poor women who in their middle years (45-64), and in rural communities, display high cardiac risk, high rates of diabetes, and cervical cancer. This picture calls for special attention, in particular to Latinas without health insurance. Further research, policies that protect women's health, and culturally competent prevention services are needed to address these health disparities and the complexities of Latina health in California.

Research on Latina health shows positive outcomes for some indicators, such as life expectancy, low birth weight babies, depression, alcohol abuse and smoking among Latinas when compared to their non-Latino White or African American counterparts (Baezconde-Garbanati, 1994; Hayes-

AUTHORS' NOTE: This article is based in part on a report of the Latina Health Policy Project at the Latino Coalition for a Healthy California titled, "Ensuring Health Access for Latinas," and is part of an ongoing study. The information is printed with permission from the Latino Coalition for a Healthy California. The study is supported through the generous support of the James Irvine Foundation to the Latino Coalition for a Healthy California. We wish to acknowledge the support of Marty Campbell, program director, and Avon Swofford, program associate, at the James Irvine Foundation. At the Latino Coalition for a Healthy California, we wish to acknowledge Martha Jimenez, Patricia Barrera, Julie Davidson Gomez, and former staff Carmela Castellanos, Sandra Camacho, and Brenda Solorzano, who provided guidance, expertise, and technical support. In addition, we want to thank Latina Health Leadership Council members: Adela de la Torre,



Bautista, Baezconde-Garbanati, Schink, & Hayes-Bautista, 1994; Hayes-Bautista, 1997). In some areas, Latinas in the United States have better outcomes than do women in Mexico. For others, immigrant Latinas have more positive health outcomes than more acculturated Latinas (Hayes-Bautista, 1990a; Vega et al., 1998). This overall scenario of wellness tends to mask critical areas of health for which Latinas are clearly disadvantaged (Latino Coalition for a Healthy California [LCHC], 1999).

The U.S. Department of Health and Human Services, Public Health Services (1997) is currently working on Healthy People 2010 objectives. But as we enter the 21st century, many of the Year 2000 objectives for Latinos have not been met. Although some progress has been made, disparities still exist in many factors. According to the U.S. Department of Health and Human Services, at least 10% of Year 2000 Latino objectives show no improvements, and for another 21%, there are no data to assess progress. This complex picture poses both challenges and opportunities for health care policy, programs, and research in the 21st century (Hayes-Bautista, 1997).

The purpose of this research is to investigate disparities among Latinas when compared to other ethnic/racial groups, for which advocacy and policy action may be needed. Recommendations for future policy research are presented, calling for culturally and linguistically appropriate prevention efforts that target improvements in Latina health.

Background

This study was conducted as part of ongoing research of the Latina Health Policy Project at the LCHC. The Latina Health Policy Project is a statewide policy and advocacy program funded by the James Irvine Foundation. The goals of the project are to gather information on Latina health, monitor and analyze health-related legislative policies, meet with policy makers, and maintain a clearinghouse on Latina health information.

Helen Rodriguez-Trias, Kathleen Torres, Martha Torres Montoya, Luz Alvarez Martinez, Liz Torres, Martha Jazo-Bajet, Marielena Lara, Barbara Marquez, and Sylvia Villareal who through multiple council meetings provided leadership and input on various stages of this project. Special thanks are also due to the Policy Committee, staff, volunteers, interns, and consultants who worked on different phases of this project. Correspondence concerning this article should be addressed to Lourdes Baezconde-Garbanati, Norris Comprehensive Cancer Center, Department of Preventive Medicine, University of Southern California, 1441 Eastlake Ave., MS 44, Los Angeles, CA 90089; e-mail: Baezcond@hsc.usc.edu.

Method

With guidance from the Latina Health Policy Project's Leadership Council, existent data were identified, prioritized, and analyzed on demographics and selected health indicators for which Latino advocacy is needed (LCHC, 1999). Secondary data analyses were conducted using data tapes and printed files from the California Department of Finance, Interim County Population Projections (1997), the summary data tape and Current Population Survey (CPS), and the U.S. Bureau of the Census (1996). Education and dropout data were obtained from the California Basic Educational Data System's database (CBEDS) (1995). Labor force and occupational data were obtained through special analytic requests from the California Employment Development Department (EDD) (1995). Health data were compiled from existent and special analyses requested of the California Department of Health Services' (CDHS) (1993, 1994, 1997, 1998) vital statistics section, 1997 California Women's Health Survey, the Tobacco Control Section, and the Planning and Data Analysis Section.

Various government reports were also reviewed. These included the following: the Cardiovascular Disease Outreach, Resources and Epidemiology Program's (CORE; 1998)—Cardiovascular disease risk factors among California Adults 1984-1996—the 1998 Los Angeles County Women's Health Policy Summit Report of the Los Angeles County Commission for Women (1998), several policy briefs from the Center for Health Policy Research (Brown, Pourat, Wyn & Solis, 1997; Wyn, Leslie, Glick, & Solis, 1997), and the Center for the Study of Latino Health at the University of California, Los Angeles (Hayes-Bautista, 1990b, 1997).

Data Analysis

A detailed description of data analyses for this project are presented elsewhere (LCHC, 1999). For these Latino Coalition data, univariate and descriptive analyses were performed. Crude age and race specific rates were calculated. In addition, various printed sources were systematically reviewed for inclusion. A schema for cultural specificity in Latino research (Castro & Baezconde-Garbanati, 1987) provided the context for examining information that met one or more of the following criteria: (a) inclusion of women of Latino heritage in the sample; (b) comparison with non-Latino White, African American, Asian, Native American, or other women in California; (c) data on national origin (i.e., Mexican vs. Central and or South American); (d) acculturation and or immigration status; (e) language of preference; (f) rural

versus urban differences; (g) county specific data in areas with high Latina concentration; (h) data on Latinas by age group (younger than 15, 15-17, 18-20, 21-44, 45-64, 65 and older years); (i) factors that place Latinas at risk for disease; and (j) as available, comparable data on women in Mexico.

Results

Latina Demographics in California

The number of Latinas in California. There are close to 5 million Latinas in California (4,846,257) (California Department of Finance, 1997), representing 29% of the female population in the state. Of these, the majority (approximately 60%) are of Mexican origin. This population in California is increasing at an accelerated pace when compared to other groups. California Department of Finance data (1997), between 1990 to 1996, show a 31% increase among Latinas, compared to 4% for non-Latino White women, 9% for African American, and 13% for the total female population in California. This growth is fueled by a high birth rate and immigration. For example, in 1993, 45% of births in California were to Latinas, compared to 29% of births in 1980 (California Department of Finance, 1993). In some counties, such as Los Angeles County, Latinas already account for the majority of births (61%) (Los Angeles County Department of Health Services, 1997).

Immigration from Mexico and Central America also contributes to the increasing numbers of Latinas in California. These women are very heterogeneous in nature coming from various countries, such as Nicaragua, El Salvador, Honduras, and Mexico. Women from Mexico, for example, are very heterogeneous. According to data from the Secretaría de Gobernación (1996), in Mexico there are 46.5 million women with 28.7% living in rural areas with less than 2,500 inhabitants. Among them, indigenous women constitute approximately half of the 8 million indigenous people of Mexico.

In California, Latinas tend to concentrate in five counties: Los Angeles (2,032,344), Orange county (333,771), San Diego (322,831), San Bernardino (278,117), and Riverside (260,965). In Los Angeles, Latinas surpass the numbers of non-Latina White and African American women (42% vs. 36%, and 10% respectively). Although in lesser numbers, Latinas represent a large percentage of the total female population in Fresno (38%), Riverside (34%), Kern (33%), San Bernardino (31%), Ventura county (29%), Orange county (25%), Santa Clara (22%), and San Diego (23%) (California Department of Finance, 1997).

Youthfulness of the Latina population. Latinas are a young population, with a median age of 25, compared to 30 for African Americans, 32 for Asian women, and 41 for non-Latina Whites (U.S. Bureau of the Census, 1996). This is consistent with the median age for women in Mexico (25 years) (Secretaría de Gobernación, 1996). In California, the majority of Latinas (82%) are younger than 44 years of age, with a large concentration in the 0- to 19-year-old group (42%), versus 40% among the 20- to 44-year-old group, and 18% of those 45 years of age or older.

Labor force participation. Although many Latinas participate in the labor force in large numbers and enter the labor force at an early age (Hayes-Bautista, Baezconde-Garbanati, & Hayes-Bautista, 1994; Hayes-Bautista, Baezconde-Garbanati, Schink, & Hayes-Bautista, 1994), the nature of the jobs they occupy prevents them from having adequate access to health insurance and other benefits that would decrease their risk for disease. Regardless, labor force participation among Latinas does ensure a certain level of contribution to the life and economy of California for which investment in this population is needed (Hayes-Bautista, 1990a, 1990b; Hayes-Bautista, 1997). Labor force participation also provides Latinas with several roles and resources, some outside the traditional family resources and roles expected within the culture (Golding, 1985; Golding & Baezconde-Garbanati, 1990). This, combined with her ability to contribute to the maintenance of the family, may raise self-esteem and provide additional emotional and instrumental resources and support to obtain needed goods, services, and health-related information beneficial to her and her family.

Language spoken by Latinas. Twenty-seven percent of Latino households in California are monolingual Spanish speaking, compared to 55% which speak both Spanish and/or English. The highest percentage of counties with monolingual Latino households are Orange County (34%), Los Angeles (31%) and Ventura county (26%) (LCHC, 1999—UC Data run, Berkeley CA—US Bureau of Census STF 3A, 1996). In addition, there are Latinas who although they may speak English are Spanish preferrent, choosing Spanish as the language of choice or preference when listening to radio, television, or other media sources (Durazo Communications, 1998). Spanish language preference is tied to the maintenance of traditional values and norms, some of which provide cultural protection (Marin & Marin, 1991). For example, traditional norms and values tend to be associated with lower smoking rates (Marin, Marin, Otero-Sabogal, Sabogal, & Perez-Stable, 1989; Marin, Perez-Stable, & VaNoss Marin, 1989).

High rate of family formation. According to Hayes-Bautista, Baezconde-Garbanati, and Hayes-Bautista (1994) Latinas are embedded within households that are more likely to be composed of a nuclear family. The authors reveal that in 1990, 41.3% of Latino households were composed of a couple with children, compared to only 21.7% among non-Latino Whites and even fewer among African Americans (18.4%). Rates, however, were similar to those of Asian households who had a 39.9% of families living within a nuclear family arrangement. Hayes-Bautista, Baezconde-Garbanati, and Hayes-Bautista (1994) also revealed that Latinos consistently are the least likely of any group to have a household composed of a person living alone in a nonfamily situation. This points to the high value placed on family among Latinas and Latinos in general. It is also tied to income and enhancement of opportunities for survival and adaptation in the United States. Individuals with lower incomes have better possibilities of economic survival if they live together with other individuals and/or family members. Latinos who welcome newly arrived immigrant relatives into their homes also facilitate the process of adaptation into the United States, and provide financial means and shared opportunities for the exchange of goods and services within nuclear and extended families.

The Health Status of Latinas

Leading causes of death. Based on Mexico's National Survey of Chronic Disease (Castro, Gomez-Dantés, Negrete-Sánchez, Tapia-Conyer, 1996), the leading causes of death in Mexico in 1993 were heart disease, diabetes, and cerebrovascular disease. They represent 47% of all deaths among persons 65 years of age or older. In 1993, the California Department of Health Services, Death Records (Hayes-Bautista, 1997), showed that for Latinos in California, the leading causes of death were heart disease, malignant neoplasm, and unintentional injuries. Hayes-Bautista (1997) reports that the Latino crude death rate is much lower than the state's overall rate. He attributes this to the fact that the Latino population in California is much younger than the state's overall population. For this reason, it is important to "age adjust" to make appropriate data comparisons.

Life expectancy. When one looks at life expectancy, Latinas in California have similar life expectancy to Asian women (84 years), and better than non-Latino White (79) and African American women (74) (California Department of Health Services—Planning and Data Analyses Section, 1994), and much better than that of women in Mexico (76 years) (Secretaría de

Gobernación, 1996). Hayes-Bautista (1997) states that paradoxically, although Latinos have the least access to care, they exhibit longer life expectancy. However, Hayes-Bautista (1997) recognizes that the question of illnesses presents a different portrait. This suggests that longer life expectancy does not necessarily imply a better quality of life and one free of disease.

An examination of areas in need of improvement for Latina health is critical so as not to mask the illness realities that do exist for this population. These data are not meant to be exhaustive and do not cover all the important factors that contribute to overall disease or wellness among Latinas. What follows is an analysis of selected diseases for which health disparities exist and that call for policy and advocacy action.

Disease Specific Health Profile

Breast cancer. Despite the fact that Latina age adjusted mortality rate for all cancers is lowest among ethnic/racial groups, and despite Latinas having one of the lowest breast cancer incidence rates of all groups, they are overrepresented in terms of breast cancer mortality. This indicates that Latinas are more susceptible to death if they contract this disease. Latinas are the only group that the California Department of Health Services, Office of Women's Health (1997) found to have a higher age adjusted death rate for breast versus lung cancer, making breast cancer the top killer among Latinas of all cancerrelated diseases. The death rate in 1994 for Latinas with breast cancer was 11.8 per 100,000 versus 7.3 for lung cancer. This is due in part to lower use of early detection and follow-up to abnormal findings (Baezconde-Garbanati, Kerner, Richardson, & Cantero, 1995), delayed diagnosis, and coming in to care with late stage disease (American Cancer Society, 1989; LCHC, 1999; McWhorter & Mayer, 1987). Late-stage disease and within-stage mortality have been attributed to poverty, fatalism, failure to receive timely diagnosis and treatment, treatment availability, acceptability of services, and/or quality of treatment and services (American Cancer Society, 1989; McWhorter, & Mayer, 1987).

Cervical cancer. Cervical cancer is one of the cancers for which screening and early detection is most available. Latinas in all age groups have both higher incidence and mortality than their non-Latino White counterparts and, in some cases, double that of other ethnic/racial groups. For example, the LCHC (1999) reports that among women in the 45- to 64-year-old group, Latina incidence rates are 17.6 compared to 11.3 for African American and 7 for non-Latino Whites. Among the 65 and older group, these incidence rates

increase dramatically, with Latinas reaching a high incidence of 21.2 compared to 6.7 among non-Latino White women and 16.8 among African American. Mortality rates for cervical cancer are sometimes more than double those for non-Latino White women. In the 45- to 64-year-old group, Latina mortality rate is 4.4 versus 2.2 for non-Latino White women. In the 65 and older group, mortality is 7.7 for Latinas, versus 3.4 for non-Latina Whites. Younger Latinas in the 21- to 44-year-old group have a lower cervical cancer mortality than do their non-Latino White and African American counterpart.

Heart disease. Heart disease is the leading cause of death among women in the United States. More than 500,000 women in the United States die each year, and another 2.5 million are hospitalized due to complications of heart disease (Winkleby, Kraemer, Ahn, & Varady, 1998). Although mortality is lower for Latinas when compared to other population groups, heart disease is still responsible for the second highest age adjusted death rate (California Department of Health Services, Office of Women's Health, 1997). The problem is especially noticeable in various geographic regions of the state and for women in their middle years, among who mortality may surpass that of other ethnic/racial groups.

In some counties in California, the heart disease mortality rate for women in the 45- to 64-year-old group is higher for Latinas than their non-Latino White counterpart (LCHC, 1999). Heart disease rates are higher for Latinas in counties such as Santa Clara (6.4 for Latinas versus 5.7 for non-Latino Whites) and Ventura (7.0 for Latinas vs. 5.2 for non-Latino Whites).

However, if Latinas, especially those in more rural communities and with a high cardiac-risk profile survive the middle years, those older than age 65 have a better cardiac mortality profile compared to other ethnic groups (LCHC, 1999). The mortality rate of 104 for Latinas is significantly lower compared to 170 for non-Latino White women and 203 for African American women. Nevertheless, some Latinas are still disadvantaged in the 65 and older group for selected rural communities, such as San Bernardino, Fresno, and Kern County, where mortality rates for Latinas ranked at 114, 106, and 117 per 10,000, respectively (LCHC, 1999). In part, this can be explained by the lack of access to adequate and timely care for Latinas in these areas, because mortality rates for Latinas in this age group are lower in wealthier and more urban counties.

These data are more ominous when considering cardiac-risk profile, which shows that Latinas are actually at higher risk than non-Latino White women (Winkleby et al., 1998). Winkleby et al. (1998) found that Mexican

American women had significantly higher rates of systolic blood pressure and diabetes than their non-Latino White counter parts in the same age group with similar levels of education.

Other data from the CORE Program using the Behavioral Risk Factor Survey Sample (1994-1996) (CORE Program, 1998) revealed that the rate of hypertension or high blood pressure among California's Latinas (25%) was similar to that of non-Latina Whites (23.7%), although much lower than that of African American women (35%), and higher than for other women (21.5%). The prevalence of high blood pressure for Latino females varied by county in 1996. For example, Latinas in Riverside and in the Central Valley had substantially higher prevalence of high blood pressure (35% and 29.9% respectively) than Latinas in Los Angeles and San Diego (25.1% and 21.6%, respectively) (CORE Program, 1998).

This prevalence among Latinas in California (25%) is substantially lower than the prevalence of hypertension found in 1993 among women in Mexico, who participated in the National Survey of Chronic Disease (Castro et al., 1996). Prevalence of hypertension among women in Mexico at the time was estimated at 38% (Castro et al. 1996). According to the LCHC (1999), women in Riverside, however, had a prevalence (35%) much more similar to those of women in Mexico (38%) than to Latinas in the more urban communities (Los Angeles, San Diego) mentioned previously.

Diabetes. Without question, diabetes morbidity and mortality for Latinas ranks the highest compared to their non-Latino White counterparts or individuals in Mexico. Data from Mexico's 1993 National Survey of Chronic Diseases (Castro et al., 1996), show a diabetes prevalence of 21%. In the United States, the Department of Health and Human Services (1997) reported that the prevalence of diabetes for the total population had increased. Increases were recorded from 28 per 1000 in 1986 to 30 cases per 1,000 in 1994. However, the increase among Mexican Americans nationwide was much higher. Between 1986 and 1994, there was a 17-point increase in prevalence estimates (i.e., from 54 to 66 per 1,000 cases) among individuals of Mexican origin.

Little progress has been made in eliminating diabetes disparities in California among Latinas and other populations. Based on the California Behavioral Risk Factor Survey (CORE, 1998), the prevalence of diabetes among California's adults is significantly higher among Latinos when compared to non-Latino Whites. Diabetes data for Latinas by region in 1996 showed substantially higher prevalence (LCHC, 1999), especially in the Central Valley and Riverside when compared to non-Latino White women (16.5 for Latinas

vs. 4.3 for non-Latino Whites in Riverside, and 17.9 for Latinas vs. 4.9 for non-Latino Whites in the Central Valley). Mortality rates from diabetes for Latinas are more than double those for non-Latino Whites and almost double those of the total female population in California. Rates for Latinas are 14.6 versus 7.3 for non-Latino White women and 8.9 for the total female population in California.

Again, in this disease, there is a trend for more rural communities to show higher rates of diabetes for women in the 45- to 64-year-old group than urban areas. Higher rates of diabetes were found in San Bernardino, Fresno, and Kern counties (4.5, 5.2, and 7.6, respectively), compared to the rates of 2.3 in Los Angeles, 2.3 in Orange, and 1 in San Diego (CORE, 1998). This pattern of higher rates of diabetes in more rural communities was again evident in Latinas 65 years of age or older, for which rates in some counties were higher than both non-Latino Whites and African Americans, and almost double for other Latino women in more urban communities. The female diabetes mortality rates for Latinas 65 and older in San Bernardino county were 22.5, 26.2 in Fresno, and 23.4 in Ventura, compared to 13.1 in Los Angeles, 12.4 in Orange, and 14.5 in San Diego (LCHC, 1999).

AIDS. Although the number of AIDS cases overall among Latinas is lower than for non-Latino White women in California, the number of AIDS cases is comparable to those of African American women. AIDS cases among Latinas, however, are increasing, despite availability of better drug therapy combinations and perhaps because they have less access to care. Some counties, such as Los Angeles, Fresno, and Ventura, have the highest cumulative number of AIDS cases among Latinas, and in Fresno and Ventura, this number of cases is higher than that for Non-Latino Whites (LCHC, 1999).

In Los Angeles, a total of 6,536 cases of AIDS have been diagnosed and reported to the Department of Health Services by September of 1998 (Los Angeles County Department of Health Services, 1999a). Of these, 2,562 were among women. This represents 13% of all cases in Los Angeles County. This is similar to the 13.6% of AIDS cases reported among women in Mexico in 1994 (Secretaría de Gobernación, 1996). However, when one looks at Latinas specifically, in Los Angeles, they have the highest percentage of cases (40%) compared to African American (37%), Whites (21%), and Asian (2%) (Los Angeles County Department of Health Services, 1999a).

The main mode of exposure for Latinas in California is heterosexual contact (46%), followed by intravenous drug use (23%). In contrast, in Mexico, among adult women, the main reported mode of HIV transmission is blood transfusions (56.5%) (Secretaría de Gobernación, 1996). With better

measures in place currently for the checking of blood supply, it is possible that higher reports of exposure via blood transfusions may be tied to social stigma regarding exposure to HIV infection within more traditional populations.

Factors That Place Latinas at Risk

Considering the above illnesses for which advocacy action is needed, this section examines those factors that contribute to Latina risk.

Poverty. Latina poverty has been associated with increased risk for illnesses, but this increased risk is closely tied to lack of health care access. Poor persons generally are less able to afford the cost of insurance, whether premiums are subsidized (Weissman & Epstein, 1994). This link between poverty and lack of insurance occurs despite Medicaid access, a program designed to insure individuals who are poor (Weissman & Epstein, 1994). The poor are also less able to afford food purchases and have less access to health information.

The proportion of Latinas earning \$14,000 or less annually for a family of four in California is slightly higher than for African American females (i.e., 23% vs. 22%, respectively). In addition, it is nearly three times higher than the proportion of non-Latino White females living below poverty (8%) and substantially higher than the 13% total of all females in California living below poverty (California Department of Health Services- CA Department of Finance, 1996). One out of every three Latinas in California living below the poverty line is 25 to 44 years of age. But the problem is worst among Latinas younger than age 17. Nearly half of all Latinas living below poverty are younger than age 17 (42.5%). Twenty-eight percent of young Latina girls younger than age 5 live in poverty, compared to 10% of non-Latino White and 34% of African Americans. Another 27% are below poverty among the 6- to 17-year-old group, compared to 29% among African Americans and 9% of non-Latino White girls. The Department of Finance 1996 data indicate that in California, the younger a Latina or African American female is, the more likely she will be living in poverty (LCHC, 1999).

Elevated high school drop out rates. Nearly one out of every four students in California is Limited English Proficient (LEP), with a large percentage being Spanish speaking (19.2%) (California Department of Education, 1996). The same data show that nearly half of all students (49%) enrolled in California's public high schools Grades 9 through 12 are female, and 45% of all dropouts in Grades 9 through 12 are also female.

Dropout rates for all female groups in California have been slowly declining (LCHC, 1999). Nonetheless, Latinas are also overrepresented in the proportion of females per 1,000 students who drop out of high school, when compared to the proportion of females who actually enroll in public high schools in California. Although Latinas constitute 17% of female enrollment in California's public high school system, they constitute 23% of dropouts (CBEDS, 1995).

Special data runs from the California Department of Education, CBEDS, Educational Demographics Unit (1995) showed that from 1995 to 1996, selected counties with the highest Latina dropout rate per 1,000 students in Grades 9 through 12 were Santa Clara County, Kern, Los Angeles, and Fresno, with 25.5%, 24.5%, 22.4%, and 20.1%, respectively.

High dropout rates from school among Latinas imply less access to health-related information; less monitoring by school authorities of Latina engagement in alcohol, drug, or tobacco use; and potentially less access to information regarding measures to protect them from HIV, other sexually transmitted diseases, and pregnancy. Out-of-school girls are also more prone to be the victims of violence and crime.

To properly evaluate the educational situation of Latinas in California, their educational attainment needs to be seen in the context of educational attainment in Mexico (Hayes-Bautista). Although there have been great advances in the Mexican educational system, high levels of illiteracy persist. Illiteracy is especially prevalent among women in Mexico older than age 15 (15.2%) compared to men (9.8%) (Secretaría de Gobernación, 1996). Mexico's educational data reveal that about two out of every three adults who cannot read or write are women. The situation is worse among older women and those in the poorer areas of Mexico, where female illiteracy reaches 30%, compared to 20% among men. Among indigenous populations in Mexico, more than half of indigenous women 15 years of age or older cannot read or write. With immigration, especially among younger segments, education becomes open to more individuals, providing opportunities for social and economic progress and mobility.

Lack of health insurance. The overall proportion of uninsured Americans in California has remained relatively stable (19% in 1989, 20% in 1996) (Carasquillo, Hammelstein, Woolhandler, & Bor, 1999). However, when one examines data for Latinos nationally, the picture is mixed. For example, among Cuban Americans nationwide, those with health insurance coverage increased, from 22% in 1989 to approximately 27.4% in 1994. Among Puerto Ricans younger than age 65, insurance coverage decreased from 22% in 1989 to 17.4 in 1994. Among Mexican Americans across the country, there

was a two-percentage-point decrease from 39% in 1989 to 37.2% in 1994. Compared to the total population, in 1994, the proportion of Latinos younger than age 65 without health insurance (32.9%) was almost double that of the total population (17.8%) (U.S. Department of Health and Human Services, 1997). In California Wyn et al. (1997) reported that 2.1 million of California's women between the ages of 18 to 64 were uninsured. According to Brown et al. (1997), more than 33% of Latinas (1.2 million) are uninsured compared to 14% of non-Latino Whites, 19% of African Americans, and 21% of Asian women.

In another study, De la Torre, Friis, Hunter, & Garcia (1996) reported that health insurance coverage was greater among those who reported a family income above the poverty level. These authors also reported that more recently arrived Mexican immigrants used health care services less than those who had been in the United States for a longer period of time. They associated recency of immigration with insurance status.

The Center for Health Policy Research (Brown et al., 1997) revealed that although only 42% of Latinas have private insurance, a majority of African American and non-Latino White females (54% and 76% respectively) are privately insured. Among Latinas, Central and South American women were more likely to be uninsured. In 1994, nearly half of Central and South American females in California were uninsured, compared to one out of every three Mexican American females.

Other data from the Center for Health Policy Research (Brown, Wallace, Pourat, & Yu, 1998) revealed that of the 11.74 million uninsured children in California, 400,000 were eligible for a new Healthy Families program and another 668,000 are eligible for MediCal. However, many are not accessing the system because they are afraid of compromising the processing of citizenship or other immigration documentation. It is not surprising then to find data from the UCLA Center for Health Policy Research (Brown et al., 1997) that reveal that approximately one out of every three Latinas younger than age 17 is uninsured. Thirty-seven percent of all Latinas ages 45 to 64 are uninsured. The situation worsens if Latinas are unemployed. These data also revealed that in 1994, nearly two thirds of unemployed Latinas in California lacked insurance coverage.

Lack of health insurance is one of the leading risk factors for poor health among Latinas. Lack of health insurance is linked to failure in obtaining life-saving and timely screening services for women. Many women younger than age 65 lack health insurance coverage. Latinas, even though they may work, tend to be either uninsured or underinsured. In part, this is due to the nature of the jobs they occupy and the percentage of time they work in these jobs.

The nature of Latino women's jobs. Weismman & Epstein (1994) showed that the percentage of uninsured varied by occupation, with 41% of those working in agriculture being uninsured, versus 31% of those in construction, 25% of those in retail, 22% of the self-employed, and 17% of individuals involved in service jobs. Although Latinas are inreasingly gaining high level positions, Latinas in California comprise the largest percentage of females in agricultural (51%) and manufacturing (61%) industries. However, only 10% of Latinas are in managerial positions, whereas 74% of female managers are non-Latino Whites. Latinas are also underrepresented in the sales industries in contrast to their non-Latino White counterparts (17% and 65%, respectively). Latinas are disproportionately represented in the service industry when compared to non-Latino White females (87 and 6 per 1,000, respectively). Latinas who work as housekeepers and nannies, taking care of children in people's homes, cleaning houses, and caring for the elderly, often work in jobs without proper health benefits or security.

Unemployment. In 1995, the unemployment rate for Latinas was significantly higher than for non-Latino White women (11.7 vs. 7.3, respectively) and higher than the unemployment rate for all females (i.e., 7.9 per 1,000). The nature of women's jobs and high unemployment rates for Latinas in California are other contributing factors to Latinas being uninsured or underinsured, which place them at higher risk for disease and mortality from these illnesses.

Overweight. Obesity is one of the leading causes of hospitalization and death among women due to its link with heart disease, stroke, cancer, and diabetes (California Department of Health Services, 1997). Data from California's Behavioral Risk Factor Survey revealed that the percentage of overweight adults in California increased from 17.9% in 1984 to 23.1% in 1992. Behavioral Risk Factor Survey (BRFS) data (CORE Program, 1998) show that both male and female Latinos tend to have a higher prevalence of overweight and obesity when compared to other groups. For Latinas in particular, the prevalence of overweight is higher (42.7) than for African Americans (40.2), non-Latino Whites (24.2), and Asian/other women (16.3). This prevalence of overweight among California's Latinas is also higher than the prevalence found in Mexico in 1993. The National Survey of Chronic Diseases found among women living in Mexico a 25% prevalence in overweight (Castro et al., 1996). Although due to more liberal criteria for obesity in Mexico, numerical comparisons are problematic.

Other data (U.S. Department of Health and Human Services, 1997) have also revealed an increase nationally in the prevalence of overweight among

Latinas 20 years of age or older. Healthy People 2000 objectives target was 25% overweight, however in 1993, Latinas overweight prevalence had increased to 33% from 27% in 1985. This indicates that in this risk factor for many diseases, including high blood pressure and diabetes, Latinas are actually increasing rather than decreasing in weight, in contradiction to the goal.

Physical inactivity. The Centers for Disease Control and California's "On the Move Physical Activities Programs" have defined physical inactivity as exercising less than 20 minutes at a time, less than three times a week (Cassidy, Jang, Tanjasiri, & Morrison, 1999). Being physically inactive or having a sedentary lifestyle has been linked to an increased risk of many chronic diseases and is particularly prevalent in minority communities (Cassidy, Jang, Tanjasiri, & Morrison, 1999). More than 250,000 deaths (approximately 12% of the total) each year are attributable to physical inactivity, making it the second leading cause of death after cigarette smoking (McGinnis & Foege, 1993; Powell & Blair, 1994;). California's Latinos have the highest proportion of physical inactivity of any group (CORE, 1996). Latina's physical inactivity inversely varies with income, with those in the higher income brackets engaging in more physical activity than those with lower incomes. Prevalence of physical inactivity among Latinas in California varies by region and is higher than non-Latino Whites. Rates for Los Angeles county are 69.6, 64.8 for Riverside, 63.2 for Orange, 73.7 and San Diego. In contrast, prevalence of physical inactivity among non-Latino White women is consistently lower in those same counties (i.e., Los Angeles, 52.1; Riverside, 50.4; Orange, 44.3; and San Diego, 46.3) (LCHC, 1999).

Latinas experience a series of barriers that influence their physical activity. According to Grassi, Gonzalez, Tello, and He (1999), 202 Latinas in the San Joaquin Valley of Central California reported that (a) not having a nearby location to exercise, (b) living in unsafe neighborhoods, (c) lacking transportation, (d) unaffordability of programs, (e) not knowing where to go, (f) not knowing how to start a physical activity program, (g) family responsibilities, and (h) work schedules, prevented them from engaging in physical activities programs. Although all women may experience difficulties in maintaining a regular exercise regime, these data suggest that for Hispanic women, external factors (such as unsafe neighborhoods, affordability), lack of knowledge (i.e., where to go, how to start), and familial obligations are often strong barriers to participation.

Lack of knowledge regarding preventative measures. As mentioned previously, lack of knowledge regarding where to go and how to start a physical activity program prevented Latinas from participating in these life-

enhancing and disease-preventing measures. Another example of this relates to a lack of knowledge among Latinas regarding the benefits of the presence of folic acid in the diet prior to and during pregnancy. A lack of folate or folic acid has been associated with neural tube defects, such as spina bifida and anencephaly, in more than 500 pregnancies each year in California (California Department of Health Services—Office of Women's Health, 1997). A consumption of 400 mcg per day of folic acid in the diet meets 100% of daily value requirements.

Latinas have the highest incidence of neural tube defects of all ethnic/racial groups in California. In 1997, 4,010 women from various ethnicity were randomly selected to participate in the California Women's Health Survey (California Department of Health Services, 1998). Data reveal that only 29% of Latinas surveyed had ever heard or read anything about folate or folic acid, compared to 69% of non-Latino Whites, 48% of African Americans, and 54% of Asian/other women. Low consumption of folic acid related foods or supplements is pervasive for all age groups of Latinas, especially those in childbearing age. With such a large group of women of childbearing age, areas such as this, for which culturally and linguistically appropriate interventions are of relative low cost, call for particular attention from researchers and women's health advocacy groups. The anticipated gains in savings of health care services are much greater than the potential costs incurred for educational interventions.

Low prevalence of early prenatal care. Concerns with folic acid, for example, can readily be alleviated among Latinas, especially if they come in early for prenatal care and through proper education programs before pregnancy. However, Latinas in California have one of the lowest percentages of women receiving early prenatal care (i.e. within the first trimester of pregnancy) that permits early identification of risks and allows for proper interventions to take place (California Department of Health Services, Office of Women's Health, 1997).

Data from the Office of Women's Health (California Department of Health Services, 1998) show that Latinas had a rate of early prenatal care of 70.5 compared to African American women with a rate of 74.6, non-Latino Whites with a rate of 85.2, and Asian women with a rate of 81.9. When one looks at the rates of prenatal care by Latina subgroup, data reveal that Cuban women have rates equal to or better than those of non-Latino White women (i.e., 88.1). However, Mexican women have one of the lowest rates of early prenatal care of all groups (69.6) compared only to the low rates found among Laotian women (65.3) and Samoan females (51.5), who lead women in California with the lowest rate of early prenatal care. For Mexican-origin women

in California, this percentage (69.6) is much lower than the rate of prenatal care of women in Mexico, which in 1994, was reported as 85.3% (Secretaría de Gobernación, 1996).

The LCHC (1999) report that only 68% of Latino women in California received first trimester care versus their non-Latino White (85%), African American (73%) and Asian (79%) counterpart. Interestingly enough, despite low participation in early prenatal care, Latinas, and especially women of Mexican origin, still have excellent birth outcomes (Hayes-Bautista, 1997) in terms of low birth weight babies, high vaginal deliveries, and a low number of cesarean sections. This is consistent with the low prevalence of early prenatal care found in Mexico (Secretaría de Gobernación, 1996).

Low levels of participation in screening tests. Failure to receive a mammogram for breast cancer screening or a Pap test for cervical cancer screening can cause delayed detection of life-threatening illnesses. Data from the National Health Interview Survey (U. S. Department of Health and Human Services, 1997) indicate that although both statewide and nationally there has been an effort to provide screening services for breast cancer to all population groups, Latinas are still 10% away from the set targets of Healthy People 2000. Nationally in 1994, 50% of Latinas, 50 years of age or older, had received a clinical breast exam and a mammogram; this is 10% less than the expected Year 2000 target of 60%.

In addition, Latinas have the second highest prevalence of women in California between 1989 and 1994 who report never having had a Pap-screening exam (i.e., 14.1% for Latinas vs. approximately 4% for non-Latino Whites and African Americans, and 20.9% for Asian women) (LCHC, 1999). This percentage among Latinas is two to three times higher than among non-Latino Whites or African Americans. This percentage is consistent with data from Mexico, which show that less than 25% of women between the ages of 15 and 49 in 1994 had received a Pap test. In rural areas of Mexico, only 17% of these women had received a screening test for cervical cancer (Secretaría de Gobernación, 1996).

Further research is needed to understand the conditions that prevent Latinas from coming in to early screening, especially in terms of cervical cancer. Cultural and religious factors are often used to explain this screening failure, but each Latina who gets cervical cancer represents a failure of the medical system to have reached these women in a timely fashion (Rodriguez-Trias, 1999).

Acculturation. Some studies on the effects of acculturation on Latina health have shown that for some indicators, such as smoking, alcohol abuse, depression, and infant mortality, immigrant Latinas fair better than their

U.S.-born counterparts and better than African Americans and non-Hispanic Whites (Baezconde-Garbanati, 1994; Hayes-Bautista, 1997; Marin, Perez-Stable, & VaNoss Marin, 1989; Vega et al., 1998). In contrast, when one compares other indicators, the more educated and acculturated Latinas have a better health profile. If one compares with data from Mexico, for some health indicators, such as diabetes and hypertension, Latinas in California fair better than their Mexican counterpart. In others, such as obesity, they fair significantly worse (Castro et al., 1996). In a 1993 national survey of chronic conditions (Encuesta Nacional de Enfermedades Crónicas), using a sample of 1,239 60- to 69-year-olds in Mexico, Castro et al. (1996) found a prevalence of 38% for hypertension, 25% for obesity (measured as BMI = 30-34.9 = obese; BMI = >35 very obese), and 21% for diabetes. When one compares these data to data on Latinas in California presented previously, prevalence of hypertension in the United States is lower (25%) than in Mexico (38%). Diabetes prevalence is also lower among Latinas in the United States (approximately 17% vs. 21% among women in Mexico), but prevalence of obesity among Latinas in California is significantly higher (42.7%) than that of women in Mexico (25%).

With respect to psychiatric disorders, Mexican immigrants in rural and urban settings have one half the total DSM-IIIR psychiatric disorders when compared to their more acculturated, U.S.-born counterpart (Vega et al., 1998). The pattern is again repeated among Mexican immigrant women in Los Angeles who have lower infant mortality and a low rate of low birth weight babies when compared to more acculturated Mexican, Puerto Rican, non-Hispanic White, and African American women (Hayes-Bautista, 1997; Zambrana, 1990; Zambrana, Dunkel-Schetter, & Scrimshaw, 1991). Latinas also tend to smoke and drink less than non-Hispanic Whites, with immigrants fairing better than their more acculturated counterpart (Gilbert & Cervantes, 1986). They also tend to use drugs less than U.S.-born Mexican Americans, Blacks, and non-Hispanic White women (Zambrana et al., 1991).

The effects of acculturation on health and mental health appear to be mixed, in part, because of a possible interaction of acculturation with age. Cantero, Richardson, Baezconde-Garbanati, and Marks (in press) studied the preventative behaviors of Latinas in various age groups in relation to acculturation. Study findings revealed that middle-age Latinas (45-64 years of age) had higher health risks associated with acculturation than Latinas 65 years of age or older. Authors also found that more acculturated middle-age Latinas engaged in less preventative health behaviors than their immigrant or older counterparts. However, acculturation did not affect the health practices of elderly Latinas (aged 75 and older).

How Latinas can look healthy with respect to other ethnic groups but their actual condition be masked by immigration status, state of residence, and acculturation is more easily seen with respect to smoking rates among Latinos in California, the United States in general, and Latin America. If conclusions about Latina smoking rates were based only on comparisons among ethnic groups in California, the comparisons would be indicate that Latinas are at the lowest risk for smoking. However, California has one of the lowest smoking-prevalence rates of any state, especially among Latinas (Baezconde-Garbanati et al., in press). Within California, Latinas overall have the lowest smoking prevalence (11.1%) when compared to other racial/ethnic groups, such as African American women (26.%) and non-Latino White females (19.2%). This comparison is true for all age groups (Pierce et al., 1998). Although rates for Latinas vary within California, with the highest rates found in the Northern Bay Area (19.1%) and San Diego (16.3%) (CORE Program, 1998), the overall rate of 11.1% for California is consistent with smoking rates among women in Latin America reported in 1987. For example, smoking rates in 1987 in Costa Rica were 11% for women, 12% in El Salvador, and 11% in Honduras. Slightly higher rates are reported for other Latin American countries, with an 18% prevalence reported among women in Guatemala, 20% in Nicaragua, and 18% in Mexico (Departamento de Salud y Servicios Sociales de los Estados Unidos de America [EUA] & Organización Panamericana de la Salud [PAHO], 1992). Although California's Latinas have lower rates than some Latin American countries, conclusions would be premature until national rates of Latino smoking were considered. For example, smoking rates nationwide were 17.4% for women of Mexican origin, 20.4% for women of Cuban origin, and 24% for women of Puerto Rican origin (Hispanic Health and Nutrition Examination Survey in Kaiser Permanente National Diversity Council, 1996; Dept. de Salud y Servicios Sociales de los EUA. & PAHO, 1992). Thus, smoking rates for Latinos in the United States are often higher than many Latin American countries. The low rates of smoking in California would be expected because California has one of the strongest antismoking programs in the world. Furthermore, the lower rates for smoking for Latina immigrants appear to be further eroded when considering the effects of acculturation.

Several authors have studied the role of acculturation on the attitudes, norms, and expectancies of Hispanic smokers (Marin, Marin, et al., 1989), and on the role of acculturation and gender on the prevalence of smoking among Hispanics in San Francisco (Marin, Perez-Stable, & VaNoss Marin, 1989). These authors found that the more acculturated Hispanic men and women were, the more they tended to smoke. Thus, the longer Latinas are here in the United States, the more at risk they are for smoking-related

diseases. In fact, the age-adjusted overall smoking prevalence among Hispanics 15 to 64 years of age in a 1989 sample of Latinos in San Francisco was 25.4%, with more men (32.4%) smoking than women (16.8%). These rates are higher than the overall smoking rates found for Latinas in California (Pierce et al., 1998) and reflect possible cohort differences and/or the rates prior to the California antismoking campaign. These 1989 California smoking rates are higher compared to the 1987 rates in some Latin American countries discussed above.

These results need to be qualified in that although smoking prevalence rates in the Marin, Perez-Stable, and VaNoss Marin (1989) San Francisco study were higher among the more acculturated females (22.6%) versus the less acculturated females (13.6%), the opposite was true for males. Smoking rates were higher among the less acculturated males (37.5%) versus the more acculturated males (26.7%). Nonetheless, the more acculturated, independent of gender, smoked a greater number of cigarettes per day (Marin, Perez-Stable, & VaNoss Marin 1989).

Discussion

Data presented here are limited to specific health indicators and are not meant to be exhaustive. Other data are available through the Latina Health Policy Project at the LCHC (1999). Data reviewed revealed inconsistencies in the literature and among data sets. Explanations for these inconsistencies may be found in differing sampling schemes, in variations in the conceptualization and operationalization of variables, in instrumentation complexities and statistical analyses, and lack of consideration of Latina heterogeneity. These problems make it more difficult to present a more accurate picture of Latino health. For example, often studies fail to account for the Latina's heterogeneous nature in terms of national origin, level of acculturation, generational status, and age of immigration (Castro & Baezconde-Garbanati, 1987). Comparing data sets with different measurements and varying degrees of statistical control limit the generalizability and reliability of the findings. More weight is given to results that were consistent among data sets, except where critique of design oversights is warranted, given the current state of knowledge.

In some areas, such as in diabetes and cervical cancer, the picture is clear, with Latinas having worse health outcomes than their non-Latina White counterpart. In others, such as in cardiac risk, Latinas although they have a worse cardiac risk profile in their middle years (45-64), if they survive, they actually have a lower mortality from heart disease than their African

American and non-Latina White counterpart. Although women in this age group are in the workforce, due to the nature of the jobs they occupy, many lack health insurance. This is especially noticeable among the 45- to 64-year-old group and among rural women. Possibilities of survival tied to high cardiac risk will be strongly influenced by Latina access to health insurance, preventative life-saving screening services, and participation in health enhancing disease prevention programs.

This review showed that women in Mexico actually have a higher prevalence of hypertension and diabetes than Latinas in California. However, their prevalence of obesity, an important risk factor for hypertension, diabetes, and other illnesses, is substantially lower than that of California's Latinas. Although women in Mexico maybe appear to be less obese, these data must be interpreted with caution, due to varying standards in body mass index in the different countries.

Data examined by the Coalition also revealed a high percentage of Latinas living in poverty, with elevated high school dropout rates as well as lack of health insurance and unemployment. Interestingly, the negative health outcomes of exposure to these risk-producing situations are not always present. Evidence of positive outcomes is found in less infant mortality, longer life expectancy, and lower mortality from cardiovascular disease and cancer, especially in particular age groups. Demographic and cultural protective factors may help in part explain these findings. Some factors that are currently protective, such as Latina youthfulness, could signal increased health related problems as Latinas age.

Positive outcomes in some conditions must not mask the realities in terms of risks that can potentially jeopardize Latina health, if appropriate interventions are not taken especially among rural women and those in their middle years (45-64). Areas in need of intervention include, but are not limited to, being overweight; physical inactivity; and the provision of health education, intervention programs, and culturally based research on those factors that affect diabetes, cardiovascular disease, access to health services, and early detection for breast and cervical cancer. In addition, better access to lifesaving and quality-of-life-enhancing new AIDS combination therapies should be made available to Latinas; education programs that focus on HIV infection prevention among adolescents are critical as well as other interventions and research that seek to understand and reduce ethnic disparities in health status.

The situation among rural Latinas requires special attention, as well as those among Latinas in the 45- to 64-year-old group (LCHC, 1999). Lack of health insurance is significantly higher in these two groups who present a

higher risk profile than other Latino women. It seems that Latinas are in greater jeopardy in their middle years on some selected disease categories. This is due to the presence of various risk factors, some of which are closely tied to each other (i.e. obesity and lack of exercise).

Although life expectancy is better for Latinas in California when compared to women in Mexico and to non-Latina Whites and African Americans, Latinas in their middle years may not be living as healthful lives as one would expect, especially those who are more acculturated. Life expectancy data in view of high risk is consistent with the paradoxical scenario for Latinos presented by Hayes-Bautista (1997) and Markides and Coreil's (1986) "epidemiologic paradox" of high risk and overall low mortality found among Latinos in the Southwest. In essence, if Latinas survive the middle years of high risk, the hardy ones may actually live longer than other population groups. Part of this paradox may be due to cohort differences as a function of age or immigration status. Hardier females may immigrate to the United States. Whether age interacts with self-selectivity of hardy females is not clear. However, another cohort difference may be attributable to the interaction of acculturation with age, in that acculturation has a more negative effect on middle age versus older Latinas (Cantero et al., in press).

Negative health outcomes for selected indicators appear to be buffered by the presence of protective factors among Latinas, such that risks may exercise a reduced effect in the presence of some protective factors. For example, although Latinas suffer from unemployment, poverty, and hunger, in contrast they also give birth at younger ages, have better birth outcomes in terms of low birth weight, and have fewer delivery complications. They are also embedded within strong familial networks that help to buffer negative health and mental health outcomes, alleviate the burden of poverty as families live in multigenerational and extended family households, and transmit cultural norms and values, often protective of women within the culture. These intergenerational households and family members are providers of instrumental and financial support for women and also transmit health information. Latina mothers, for example, have been found to be a major source of support among Latinos (Salgado de Snyder & Padilla, 1987). It seems that a combination of factors within the culture and demographic composition of Latinas may help buffer the impact of poverty and poor nutrition on potentially negative health outcomes.

On the other hand, some protective factors may not be enough to buffer the effects of risk. For example, Latinas had a high cardiac-risk profile, especially in middle age and among those living in rural communities (Cantero et al., in press; LCHC, 1999; Winkleby et al., 1998). Their high cardiac-risk profile

along with lack of health insurance may help explain the finding that during middle age (45-64), Latinas are not significantly different from non-Latina Whites (8.2 vs. 8.8) in terms of mortality from heart disease. At older ages (65 and older), however, even though mortality rates are higher for all women, Latinas actually have a significantly lower mortality rate (104) than non-Latina Whites (170). Health insurance coverage in middle age and in rural communities is worse for Latinas than when they are 65 years of age and older. The lack of health insurance is probably such a strong predictor for cardiovascular disease that when combined with other predictors (i.e. heredity, obesity, physical inactivity), the negative effects on health cannot be buffered by culturally based or other protective factors. More research is needed to explore these possible explanations, to understand the role of protective factors in Latina health outcomes and their at-risk status for several diseases, and to understand the role of poverty, education, rural versus urban differences, acculturation, and age on health outcomes for Latinas in California.

If Latinas, through appropriate interventions (reducing overweight and obesity, increasing physical activity, increasing involvement in healthy practices, greater screening for breast and cervical cancer, among others), lower their risk status, they may actually live longer than non-Latina Whites. Life expectancy for Latinas is 84 years versus 79 years for non-Latina Whites. But risk factor reduction for Latinas on cardiovascular disease, diabetes, and other illnesses is no easy task.

Programs need to be targeted not just in culturally appropriate ways (Zambrana et al., 1991) but need to be developed in a scientifically sound manner and in response to culturally based research on disease risk at different stages of the life cycle. Levels of acculturation, language preference, low literacy, and regional differences within the state need to be taken into account. Special attention needs to be placed on addressing the particular needs of rural women versus women in more urban settings. Research on the exposure to environmental factors that may present barriers to risk reduction and health enhancement programs are also needed. Understanding and changing negative attitudes about exercise, facilitating physical activity interventions in the work place, reducing barriers in culturally specific ways (conducting "salsa" aerobics vs. regular aerobics classes [Whitehorse, Manzano, Baezconde-Garbanati, & Hahn, 1999]), and creating safe spaces for these to occur, are among the challenges we face.

This is a critical time for Latinas, as the population of women grows to potentially become the largest female population in California's future. Advocacy on the improvement of access to care, on the training of ethnic professionals—bilingual, bicultural, and biliterate—that can serve these

communities, and on community-driven, scientifically sound, more in-depth, and culturally appropriate research is imperative. Improving Latina health requires greater involvement from not just the research community but the formation of partnerships with community-based organizations, educational, consumers, and advocacy groups, among others, working in unison for better health outcomes on all indicators for all Latinas in California.

Limitations of the Study

An important limitation of this study is that data on California's Latinas are compared to a baseline of non-Hispanic White and other ethnic women, without providing for all health indicators a baseline for women in Latin America, and Mexico in particular. As available, for comparison purposes, data from the Secretaría de Gobernación (1996), the Pan American Health Organization, and Mexico's 1993 National Survey of Chronic Diseases were presented. Some of these data revealed that Latinas in California were in better health than their counterparts in Mexico. The information on obesity is more ambiguous in that more rigorous standards are applied in U.S. studies. Nonetheless, using the same U.S. standards, there is a greater prevalence of obesity in Latinas compared to other ethnic groups. Should additional funding become available, this study should be expanded to include critical baseline information from Mexico for all health indicators presented. Findings may reveal greater gains in health for Latinas with immigration to the United States. Nevertheless, gains in health with immigration may in part be also due to the hardiness of women who immigrate to the United States through a possible self-selection process. The ideal would be the conduct of binational research that focuses on young Latinas in Mexico, follows them prospectively as they immigrate, and follows them longitudinally as they acculturate and age in the United States. This type of study would be critical for establishing trends and understanding how and what changes among Latinas in terms of basic health indicators with immigration, through the acculturation and aging process.

References

American Cancer Society. (1989). Cancer and the poor: A report to the nation. Atlanta, GA: Author.

Baezconde-Garbanati, L. A. (1994). Do Latino social nets work? The direct and mediating effects of social resources on stressful life events and depression among Mexican, Mexican Americans, and Non-Latino Whites. Doctoral dissertation, University of California, Los Angeles.

- Baezconde-Garbanati, L. A., Garbanati, J. A., Portugal, C., Lopez, R., Flores, A., & Sisneros, H. (in press). Entering a new era: Strategies of the H/LaTEN for organizing and mobilizing Hispanic communities. In M. L. Frost (Ed.), Successful tobacco education and prevention programs. San Francisco: Charles C Thomas.
- Baezconde-Garbanati, L., Kerner, J., Richardson, J., & Cantero, P. (1995). *Breast cancer among Latinas*. Los Angeles: COSSMHO and Norris Comprehensive Cancer Center.
- Brown, E. R., Pourta, N., Wyn, R., & Solis, B. (1997). 38% de los Latinos de edades 0-64 en California no tienen aseguranza (Policy Brief, August). Los Angeles: University of California, Los Angeles, Center for Health Policy Research.
- Brown, E., Wallace, S., Pourta, N., & Yu, H. (1998, October). *New estimates find 400,000 children eligible for healthy families program* (policy brief). Los Angeles: University of California, Los Angeles, Center for Health Policy Research.
- California Department of Education, Educational Demographic Unit: California Basis Educational Data System (CBEDS) (1995). Percent enrollment and drop out rates in California public high schools, Grades 9-12, 1994-1995 (electronic data tape). Sacramento, CA: Author (Producer and Distributor).
- California Department of Finance. (1997, April). *Interim county population projections*. (electronic data tape). Sacramento, CA: Author (Producer and Distributor).
- California Department of Finance, Demographics Research Unit. (1993). 1989-1996 projected population (electronic data tape). Sacramento, CA: Author (Producer and Distributor).
- California Department of Health Services, Office of Women's Health. (1997). A profile of women's health status in California, 1984-1994 (technical report). Sacramento, CA: Author.
- California Department of Health Services, Planning and Data Analysis Section. (1994). *Death files* (electronic data tape). Sacramento, CA: CA Author.
- California Department of Health Services, Tobacco Control Section. (1998). California youth smoking prevalence by gender, 1990-1997, California Tobacco Survey and California Youth Tobacco Survey, 1994-1997 (fact sheet report of the University of California, San Diego). Sacramento, CA: Author.
- California Employment Development Department (CEDD). (1995). Table 12: States, employment status of the civilian non institutional population by sex, age, race, latino origin and marital status, 1995 annual averages. Labor and occupation by industry (electronic data tape). Sacramento, CA: Employment Development Department.
- Cantero, P., Richardson, J., Baezconde-Garbanati, L. A., & Marks, M. (in press). The association between acculturation and health practices among middle-aged and elderly Latinas. *Journal* of Ethnicity and Disease, 9(2).
- Carasquillo, O., Hammelstein, D., Woolhandler, S., & Bor, D. (1999). Going bare: Trends in health insurance coverage. 1989 through 1996. American Journal of Public Health, 89(1), 36-42.
- Cardiovascular Disease Outreach, Resources and Epidemiology (CORE) Program, University of California San Francisco, & California Department of Health Services (1998). In Gazzaniga, J., Kao, C., Cowling, D., Fox, P. (Eds.), Cardiovascular disease risk factors among CA adults, 1984-1996 (Report. No. 5), Sacramento, CA: California Department of Health Services.
- Cassidy, D., Jang, V., Park Tanjasiri, S., & Morrison, C. (1999). California gets "On the Move!" Journal of Health Education, 30(2, Supp.), 6-12.
- Castro, F. G., & Baezconde-Garbanati, L. (1987). A schema for greater specificity in sampling from Latino populations. Paper presented at the convention of the American Public Health Association, New Orleans, LA.

- Castro, V., Gómez-Dantés, H., Negrete-Sánchez, J., Tapia-Conyer, R. (1996). Las enfermedades crónicas en las personas de 60-69 anos. Salud Pública de México, 38, 438-447.
- De la Torre, A., Friis, R., Hunter, H. R., & Garcia, L. (1996). The health insurance status of US Latina women: A profile from the 1982-1984 Hispanic Health and Nutrition Examination Survey (HHANES). *American Journal of Public Health*, 86(4), 533-537.
- Durazo Communications (1998). Community assessment work book for the Hispanic Latino Tobacco Education Network. Los Angeles: Author.
- Golding, J., & Baezconde-Garbanati, L. (1990). Ethnicity, culture and social resources. *Journal of Community Psychology*, 18(3), 465-486.
- Grassi, K., Gonzalez, M. G., Tello, P., & He, G. (1999). La Vida Caminando: A community based physical activity program designed by and for rural Latino families. *Journal of Health Education*, 30(2, Supp.), 13-17.
- Hayes-Bautista, D. E. (1990a). *Latino family policy: An explanatory framework from California* Unpublished manuscript.
- Hayes-Bautista, D. E. (1990b). Latino health indicators and the underclass model: From paradox to new policy models. Unpublished manuscript.
- Hayes-Bautista, D. E. (1997). The health status of Latinos in California. Los Angeles: The California Endowment and California Health Care Foundation, Center for the Study of Latino Health report.
- Hayes-Bautista, D., Baezconde-Garbanati, L., & Hayes-Bautista, M. (1994). Latino health in Los Angeles. Family Practice-An International Journal, 11, 318-324.
- Hayes-Bautista, D. E., Baezconde-Garbanati, L. A., Schink, W., & Hayes-Bautista, M. (1994). Latino Health in California, 1985-1990. Implications for Family Practice. *Journal of Family Medicine*, 26, 556-562.
- Kaiser Permanente Diversity Council (1996). A provider's handbook on culturally competent care: Latino population. Los Angeles: Author
- Latino Coalition for a Healthy California (LCHC). (1999). Ensuring health access for Latinas (report of the Latina Health Policy Project). San Francisco: Author.
- Los Angeles County Commission for Women. (1998). Los Angeles County Women's Health Policy Summit (report of the Los Angeles Connate Commission for Women). Los Angeles: Author.
- Los Angeles County Department of Health Services. (1997). Distribution of births by race/ethnicity, 1995 (advanced report of Los Angeles County, CA vital statistics, 1995), Los Angeles: Department of Health Services.
- Los Angeles County Department of Health Services. (1999a). An epidemiologic profile of HIV and AIDS in Los Angeles County. Los Angeles: Author.
- Los Angeles County Department of Health Services (1999b). HIV testing and sexual risk behaviors among adults in Los Angeles county. L.A. Health, 2(1), 1-7.
- Los Angeles County Department of Health Services, HIV Epidemiology Program. (1999c). *An epidemiologic profile of HIV and AIDS in Los Angeles County.* Los Angeles: Author.
- Marin, G., Marin, B. V., Otero-Sabogal, R., Sabogal, F., & Perez-Stable, E. (1989). The role of acculturation on the attitudes, norms and expectancies of Hispanic smokers. *Journal of Cross Cultural Psychology*, 20, 478-493.
- Marin, G., Perez-Stable, E., & VaNoss Marin, B. (1989). Cigarette Smoking among San Francisco Hispanics: The role of acculturation and gender. *American Journal of Public Health*, 79(2), 196-198.
- Marin, G., & VanOss Marin, M. B. (1991). Research with Hispanic populations. Applied Social Research Methods Services, 23. Newbury, CA: Sage.

- McWhorter, W., & Mayer, W. (1987). Black/White differences in type of initial breast cancer treatment and implications for survival. American Journal of Public Health, 77(12), 1515-1517.
- Morrison, C., Cassady, D., Deeds, S., Baezconde-Garbanati, L. A., Tanjasiri, S. P., & Davis, T. M. (Eds.). (1999). California is "on the move" (Special issue). *Journal of Health Education*, 30(Suppl. 2).
- Pierce, J. P., Gilpin, E. A., Emery, S. L., Farkas, A. J., Zhu, S. H., Choi, W. S., Berry C., et al. (1998). Tobacco control in California: Who's winning the war? An evaluation of the Tobacco Control Program, 1989-1996 (Independent Evaluation report). La Jolla: University of California, San Diego.
- Powell, K., & Blair, S. N. (1994). The public health burdens of sedentary living habits. Theoretical but realistic estimates. *Medicine and Science in Sports and Exercise*, 26, 851-856.
- Rodriguez-Trias, H., (1999, January). Latina Health Access (Testimony before the California Senate Health Committee for the Latino Coalition for a Healthy California, Sacramento, CA. Available from the Latino Coalition for a Healthy California, 1535 Mission Street, San Francisco, CA 94103).
- Salgado de Snyder, N. V., & Padilla, A. M. (1987). Social support networks: Their availability and effectiveness. In M. Gaviria & J. D. Arana (Eds.), *Health and behavior: Research* agenda for Hispanics. Chicago: University of Illinois at Chicago.
- Secretaría de Gobernación. (1996). Programa Nacional de la Mujer, 1995-2000. Estados Unidos Mexicanos: Alianza Para la Igualdad, Poder Ejecutivo Federal [Online]. Available: http://www.sdnp.undp.org/ww/followup/national/mexico.htm
- U.S. Bureau of the Census. (1996). *Population Projections for states by age, sex, race and Latino origin 1995-2025* (Report PPL-47). Hyattsville, MD: Author.
- U.S. Department of Health and Human Services, Public Health Service. (1997, April). *Progress review: Hispanic Americans. Healthy people 2000*. Hyattsville, MD: Author.
- Vega, W. A., Kolody, B., Aguilar-Gaxiola, S., Alderete, E., Catalano, R., & Caraveo-Anduaga, J. (1998). Lifetime prevalence of DSM-III-R psychiatric disorders among urban and rural Mexican Americans in California. Archives of General Psychiatry, 55(9), 771-778.
- Weissman, J. S., & Epstein, Al. (1994). Falling through the safety net. Insurance status and access to health care. Baltimore: Johns Hopkins University Press.
- Whitehorse, L. E., Manzano, R., Baezconde-Garbanati, L. A., & Hahn, G. (1999). Culturally tailoring a physical activity program for Hispanic women: Recruitment successes of La Vida Buena's Salsa Aerobics. *Journal of Health Education*, 30 (Suppl. 2), S18-S24.
- Winkleby, M. A., Kraemer, H. C., Ahn, D. K., & Varady, A. N., (1998). Ethnic and socioeconomic differences in cardiovascular disease risk factors. Findings for Women from the Third National Health and Nutrition Examination Survey, 1988-1994. *Journal of the American Medical Association*, 280(4), 356-362.
- Wyn, R., Leslie, J., Glick, D., & Solis, B. (1997, August). Low income women and managed care in California (Policy Brief). Los Angeles: University of California, Los Angeles: Center for Health Policy Research.
- Zambrana, R. (1990, September). Changing characteristics of patient populations in Los Angeles: The growth of Latino families. Paper presented at the Valley Presbyterian Hospital Conference, Van Nuys, CA.
- Zambrana, R., Dunkel-Schetter, C., & Scrimshaw, S. (1991). Factors which influence the use of prenatal care in low income minority women in Los Angeles. *Journal of Community Health*, 16(5), 283-295.

Lourdes Baezconde-Garbanati is a research assistant professor in preventive medicine at the University of Southern California (USC). She has a Ph.D. and an M.P.H. in public health from the University of California, Los Angeles, and an M.A. in clinical psychology from the Université Catholique de Louvain in Belgium. She teaches on gender and ethnic minority health in the Health Promotion Program at the USC Institute for Prevention Research. She is also the director of COSSMHO's Western Regional Coordinating Center of the National Hispanic Leadership Initiative on Cancer: Unidos Por la Salud, and of the Hispanic/Latino Tobacco Education Network. She is a member of the Latina Health Leadership Council of the Latino Coalition for a Health California and was appointed in 1998 by the Speaker of the House (CA) to the Tobacco Education and Research Oversight Committee. She had been distinguished nationally and internationally for her outstanding work on cultural competency in cancer and tobacco control among Latinos.

Carmen J. Portillo, R.N., Ph.D., is a nurse researcher and assistant professor in the Department of Community Health Systems, School of Nursing at the University of California, San Francisco. She has worked in the areas of AIDS, Latina women's health issues and home care education for nurses. She is currently the president of the National Association of Hispanics Nurses, the only organization representing Latina nurses in the country. She serves as a consultant and board member on various regional and national boards dealing with Hispanic health issues.

James Allen Garbanati is an associate clinical professor at the California School of Professional Psychology in Alhambra, CA. He has a Ph.D. in developmental psychobiology from the Department of Biobehavioral Sciences, University of Connecticut. He teaches courses in research methods and applications in multicultural settings and ethics in psychology. He advocates ethical concerns for vulnerable populations and advises on the use of advanced technology in educational settings. He is a technical advisor for the Hispanic/Latino Tobacco Education Network. He has directed projects on cognitive and cultural factors in treatment adherence among Latinos, communication issues in families of breast cancer patients, and predictors of gene testing in Ashkenazi Jewish women and other cultural groups.