

## CHAPTER 3

*Health Issues in Latino Families and Households*

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The Latino population in the United States continues to increase, diversify, and disperse geographically in dramatic fashion. Latinos are now the largest race/ethnic minority group in the United States, a fact not fully recognized by scholars, public officials, health practitioners, or people in the United States (Grieco & Cassidy, 2001). They are projected to constitute nearly one fourth of the total population by 2050 (24.4%), contrasting with population shares of non-Latino blacks (14.6%) and whites (50.1%) (U.S. Census Bureau, 2003, Table 15). Not only is the Latino population growth reshaping the ethnic composition of the national population but also the ethnic composition of the Latino population is changing. Recent migration streams from Caribbean basin nations have swelled, reducing the proportion of the Latino subpopulation that is of

Mexican origin. The geographic distribution of Latinos has expanded substantially, ranging from the traditional regions and cities, such as the southwestern states, New York City, and Miami to new gateway cities and their suburban rings, such as Washington, D.C., Orlando, and Atlanta, and more rural destinations in the southeastern United States (Singer, 2004). It is clear that an understanding and incorporation of the Latino population into U.S. health and family research is crucial for evaluating health and well-being among U.S. families and households.

During the past decade, the national public health agenda has established the importance of research on race and ethnic disparities in health. The number of demographic studies of Latinos' health has soared recently, with most researchers established in subspecialty fields of mortality, fertility,

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AUTHOR'S NOTE: I use the terms *whites* and *blacks* to refer to non-Latino whites and blacks. I use the term *black* rather than *African American* in recognition that immigrants from African Diaspora countries such as Haiti and from the African continent form an important component of the U.S. population of African descent.

aging, and health demography. This chapter integrates and appraises this proliferating literature. First, I present patterns, trends, and differentials in Latino family and household characteristics and then suggest their implications for health. Next, I review basic facts about Latino health and present common explanations for observed differences. Third, I identify, describe, and critically evaluate the major research themes and findings that characterize this body of research. I present directions in which future research is likely to go in the next decade. Finally, I consider the implications of expanding knowledge of Latino health for health disparities research and research on families and households.

## CURRENT PATTERNS AND EXPLANATIONS

### *Latinos and Their Families and Households*

The Latino population is more youthful relative to whites and blacks. Nearly one third of Latinos (29.7%) and one fourth of blacks (25.9%) are younger than the age of 15, in contrast to the 19.9% of comparably aged whites (U.S. Census Bureau, 2003, Table 13). Latinos are less likely to be in late middle or old age (19.4% compared to 37.5% among whites), when mortality rates and diagnoses of serious chronic disease increase. Cubans have an older age structure, similar to that of whites. Mexicans have the most youthful age structure, with approximately one third of its population younger than age 15 and slightly more than 15% older than age 45.

Latino culture arguably is manifest in nativity and language. As U.S. citizens, Puerto Ricans are not international migrants and do not share migration barriers experienced by Mexican, Caribbean basin, and South American populations. Yet the cultural

heritage and complicated political relationship of the island with the United States render the Puerto Rican incorporation experience more comparable to that of migrants from Latin American countries. Because of their longer historical presence in the United States, Mexicans have a greater variability than Puerto Ricans and Cubans in the sizes and numbers of immigrant generations. A broader conceptualization of culture attends to the beliefs, values, and attitudes of a social group. The conceptual model of immigrant incorporation dominant among scholars and nonscholars presumes that ethnic culture is cut whole cloth from a country of origin and brought to the United States, where it withers with time lived in the United States and further weakens across successive family generations. Due to concern about culturally competent health services, practitioners are asked to understand cultural factors of family orientation (*familism*), respect (*respeto*), personalized relationships between client and provider (*personalismo*), and building trust (*confianza*) (National Alliance for Hispanic Health, 2001).

By any measure of social class, Latinos are concentrated in the lower segments of the national socioeconomic distribution. Latino adults have lower levels of education, occupational status, and income than whites and blacks (U.S. Census Bureau, 2003, Tables 40 and 47). Moreover, these resources are spread across larger family households, indicating lower per capita resource levels. Disproportionate concentration in agricultural, construction, manufacturing, and personal service occupations not only produces lower incomes but also constrains wealth accumulation and health insurance coverage. Latinos of Mexican origin are especially likely to earn lower incomes and have less than a high school education (54.2%).

The socioeconomic success across immigrant generations is less clear but appears to

vary across ethnic groups (Portes & Rumbaut, 1990). The vital Cuban enclave provided opportunities to the immigrant generation and their children, and the youngest Cuban generations are now successfully transitioning into the professional classes (Zsembik, 2000). Social mobility appears highest for children of Mexican immigrants, but the third generation's successes are lower than those of their parents (Zsembik & Llanes, 1996). The Puerto Rican experience better fits the segmented assimilation model, wherein social mobility is generally constrained across all generations (Landale, Oropesa, Llanes, & Gorman, 1999; Massey, 1993; Tienda, 1989; Torres & Rodriguez, 1991), partially due to their concentration in the economically struggling northeastern metropolises. Finally, Latinos are much more likely than whites or blacks to lack any type of health insurance coverage (Hummer, Pacewicz, Wang, & Collins, 2004).

The economic and cultural characteristics of households are intertwined with their compositions and structures. Here, families are broadly defined as inclusive of families of orientation (parents and siblings), families of procreation (partners and children), kith, and other kin, such as those from extended horizontal ties (grandparents and grandchildren) and extended lateral and horizontal ties (cousins, aunts, and uncles). Although families are typically spread across multiple households, a single household is conventionally used to indicate individual families. Despite the obvious limitations of using a household as a family group, households do have some utility as a unit of analysis. First, households most often hold individual families of procreation with shared and routinized everyday activities (including resource acquisition and distribution and health-related activities) located in the household's physical space. Second, households are the conventional operational unit of public services, such as utilities and state-provided

assistance programs. The broader family grouping is recognized as linking households.

Patterns in Latino family and household structures differ appreciably from those observed among whites and blacks. Latinos are more likely to live in family households (81.1% compared to 68.7% and 67.4% for whites and blacks, respectively) and less likely to live alone or with nonfamily members (U.S. Census Bureau, 2003, Table 46). Latino households tend to be larger (U.S. Census Bureau, 2003, Table 67). For example, Mexicans are most likely to live in households with five or more members (28.1%) compared to whites (9.4%) and blacks (11.3%). A larger proportion of Latino households are composed of married couples, dependent children (especially children younger than age 5), and an older adult family member. Trend data for the past several decades indicate patterns shifting toward smaller households, more unmarried adults with dependent children, and more adults living alone. Because the majority of Latinos are of Mexican origin, Latino household profiles better fit their experiences and mask the substantial differences among Latino ethnic groups. Specifically, Puerto Ricans present household structure profiles most similar to those observed among blacks, and Cuban household structures appear most similar to those of whites.

#### *Implications for Health*

Characteristics of the Latino population and their families and households bear implications for health. Larger households and families may increase exposure to communicable conditions, the benefits and detriments of social ties, and more widespread impact of an individual's health or illness. Cultural values and beliefs about families, health, and health care also affect health promotion, health risks, self-care and informal care, and use and opinions of formal medical care.

Economic characteristics of family households determine access to employer-provided and state-provided health insurance, affordability of basic needs, the ability to purchase out-of-pocket medical care, and the ability to economically survive illness and poor health episodes.

### ***Basic Facts of Latino Health and Well-Being***

There is an overwhelming consensus that blacks experience significantly higher levels of mortality and morbidity across the life course than whites, concomitant with substantial barriers to receipt of adequate amounts of sufficient quality medical care. In contrast, there is no general agreement that Latinos face significant and widespread health disparities in the United States. The profile of Latino health is more complex, revealing a mix of health disparities, health equities, and health advantages. The complexity of the profile has its origins in the wide variety of health indicators used in comparisons, the lack of comparable study samples in research, and the heterogeneity of the Latino population. Explaining the complexity poses additional challenges because the positive health outcomes of Latinos are contradictory to their socioeconomic characteristics, a relationship in stark contrast to the negative health outcomes accruing to the socioeconomically vulnerable depicted in most theoretical and empirical studies.

#### ***Mortality***

Death rates, life expectancy, and cause of death collectively suggest that Latinos have a mortality advantage over whites and blacks. The U.S. Census Bureau estimated life expectancy at birth, a standard indicator of population health, and at age 85 using mortality data from the mid-1990s (Day, 1996). Among women, life expectancy at birth is

highest among Latinas (82.2 years), followed by whites (80.1 years) and blacks (74.5 years). A similar pattern is observed among Latino men (74.9 years), white men (73.6 years), and black men (64.8 years). Life expectancy at age 65 reveals a similar survival advantage among older women (Latina, 21.8 years; white, 19.4 years; and black, 17.6 years) and older men (Latino, 18.5 years; white, 15.7 years; and black, 13.6 years).

The National Center for Health Statistics (2003) has calculated cause-specific “years of potential life lost” up to age 75 for each race/ethnic group, which offer clear insight into mortality and survivorship patterns. Latinos lose fewer years of life than whites, ranking only below Asian Americans. Years of potential life lost by cause of death indicate that heart disease, cancer, and unintentional injuries are the major causes of years lost for Latinos and whites (National Center for Health Statistics, 2003). Latinos, however, lose disproportionately more years than whites due to deaths from strokes, liver disease and cirrhosis, diabetes, HIV, and homicide.

Age-adjusted death rates for the past two decades reveal lower levels of mortality among Latinos, both males and females, than all race groups except Asians (U.S. Census Bureau, 2003, Tables 110 and 111). Recent age-specific death rates show lower death rates for Latinos than whites at all ages except for Latino infants of non-Mexican origin (Arias, Anderson, Hsiang-Ching, Murphy, & Kochanek, 2003). Examination of age-sex (should remain as age-sex) mortality rates, however, reveals disparities. For example, Mexican men between the ages of 15 and 24 have higher mortality than comparably aged white men. Puerto Rican mortality rates for women and men between the ages of 15 and 64 exceed those of whites. There is growing consensus that the mortality and survival profile varies among Latino ethnic groups, bookended by

the “disparities” profile of Puerto Ricans and the “advantage” profile of Cubans.

### *Morbidity*

Morbidity data are less generalizable to the Latino population because national census and survey data began to include a “Hispanic” identifier only in the late 1970s, meeting new standards for race and ethnic data collection set by the Office of Management and Budget. The number of Latinos was rarely sufficient to allow for separate analyses, and many surveys, in response, began to oversample Latinos in the mid-1990s. One data source stands as an important exception: the Hispanic Health and Nutrition Examination Survey (HHANES). It was fielded in 1982 through 1984 and sampled Mexicans in five southwestern states, Cubans in Dade County, Florida, and Puerto Ricans in selected metropolitan areas of the northeast. It continues to serve as a primary data source on the health of Latinos, despite its age and sample restriction.

Do Latinos experience health equity or advantages, with their health benefiting from the same processes that extend their lives? Do Latinos experience significant health disparities, a consequence of their location in the U.S. opportunity structure? The answer available from current data is that the Latino health profile is complexly patterned. The impact of continued migration from Latin America may undergird higher prevalence rates of serious infections, such as tuberculosis and childhood measles, associated with increases in local outbreaks. Community and clinical data have consistently indicated higher prevalence rates of adult-onset diabetes among the Mexican origin population, an observation supported by analyses made increasingly possible with oversample designs. Disability data from the 2000 U.S. Census, however, show greater levels of disability among Latinos than

whites and clear differences across Latino ethnic groups (U.S. Bureau of the Census, 2003, Tables 40 and 47). Among those between the ages of 5 and 20, 9.1% of Latinos have a disability compared to 7.4% of whites and 10.0% of blacks. Latinos’ disparities increase in adulthood, rising to 25.1% of working-age Latinos relative to 16.7% of whites, and extend into old age (48.5% relative to 40.4% for whites).

### *Why Are Latinos Different?*

Morbidity data tend to more readily reveal health disparities, which stand in contrast to the profile of health equity or advantage, the so-called epidemiological paradox, more often observed in mortality and survivorship comparisons. The *epidemiological paradox* is a term coined to describe Latinos’ paradoxically lower mortality rates than those of whites—paradoxical because of the lower socioeconomic status of Latinos (Abraido-Lanza, Dohrenwend, Ng-Mak, & Turner, 1999; Cobas, Balcazar, Benin, Keith, & Chong, 1996; Hummer, Rogers, Amir, Forbes, & Frisbie, 2000; Idler & Angel, 1990; Landale, Oropesa, & Gorman, 2000; Sorlie, Backlund, Johnson, & Hogat, 1993). Health disparities are defined by Congress as disproportionately high levels of disease, functional impairments, disability, and mortality compared to levels of the general population. Explanatory frameworks developed around health differentials focus either on Latino disparities in morbidity or on Latino successes in survivorship.

### *Health Equities and Health Advantages*

Assuming Latinos have lower levels of material resources, any absence of a health disparity is paradoxical. One explanation for health equity and health advantage among Latinos posits that they have a healthier

population composition produced by migrant selectivity. Two complementary migration streams are hypothesized to produce a healthier Latino population: migration of healthier individuals to the United States and repatriation of ailing migrants to their hometowns, a migration stream called the “salmon bias” (Abraido-Lanza et al., 1999; Markides & Coreil, 1986; Palloni & Arias, 2004; Sorlie et al., 1993). First, migrants to the United States are typically teens and young adults,—groups relatively free of age-related chronic health conditions. Second, migrants tend to draw from the healthier segments of their countries of origin because the physical and psychological rigors of migration form barriers to the more vulnerable segments. Third, migrants who become ill or disabled in the United States may return to their countries of origin because they may no longer successfully compete in the U.S. labor market, need more labor-intensive personal care from family members, or prefer to rehabilitate or die “at home.”

A second category of explanations for Latino health equities and advantages features the cultural determinants of health (Abraido-Lanza et al., 1999; LeClere, Rogers, & Peters, 1997; Sorlie et al., 1993). For example, research consistently shows lower levels of smoking, drinking, and drug use among immigrants (Scribner, 1996). The empirical generalization that emerged argues that cultural barriers to negative health behaviors indirectly promote better health and survivorship. High levels of ethnic group solidarity and social support are presented as a second cultural mechanism that promotes health (Balcazar, Peterson, & Krull, 1997). Social solidarity and support encourage the mutual exchange of material and nonmaterial resources that sustain health and assist in recovery. Solidarity may reinforce cultural barriers to negative health habits.

The migrant selectivity and cultural factors hypotheses are not competing explanations.

Indeed, they naturally fit together. The cultural factors explanation presents ethnic culture as originating in a Latin American country’s culture and embodied in the quotidian nature of immigrant life. Therefore, a component of healthy migrant selectivity may be a selection for those with culturally based health habits.

### *Health Disparities*

Explanations for Latino health disparities take two general forms. The first explanation attributes health disparities to a constrained access to health resources, including education, income and wealth, and insurance coverage. The second explanation questions whether acculturation in U.S. social life has a cost to health.

Latinos are likely to experience higher levels of morbidity because they are less likely to have health insurance (Andersen, Giachello, & Aday, 1986; Angel & Angel, 1996; Angel, Frisco, Angel, & Chiriboga, 2003; Lieu, Newacheck, & McManus, 1993; Schur, Albers, & Berk, 1995; Trevino, Moyer, Valdez, & Stroup-Benham, 1991). Legal and undocumented immigrants face especially high hurdles in securing insurance access (Granados, Puvvula, Berman, & Dowling, 2001). Any access to health insurance provides an opportunity for Latinos to develop a usual source of care, to seek medical care when symptoms of illness arise, and to engage in preventive medical care such as health screenings. Quality and continuity of insurance coverage also play important roles in shaping health disparities (Angel, Angel, & Markides, 2002). Movement of Latinos off and on state-provided health care (i.e., Medicaid) may disrupt therapeutic and preventive health care (Capps, 2001; Ellwood & Ku, 1998; Espenshade, Baraka, & Huber, 1997; Fix & Passel, 2002; Park, Sarnoff, Bender, & Koronbut, 2000). Moreover, it may delay medical care to a point of greater

severity in the natural history of a disease or condition. Quality of coverage may limit critically needed services (e.g., oral or mental health) or price out-of-pocket expenses or deductibles beyond the income level.

Related to disparities in insurance access, lower levels of socioeconomic status also create barriers to securing basic daily health needs, such as nutrition, rest, and adequate housing. Lower levels of material resources indirectly produce health disparities through a greater vulnerability to disease risk exposures. This is a perspective found in theorizing about more structural determinants of health (House & Williams, 2001; Link & Phelan, 1995).

A second disparities explanation focuses on the processes of acculturation and appears as the other side of the health advantages-cultural coin. With acculturation, cultural barriers to negative health behaviors are removed (Cobas et al., 1996; Harris, 1999; Scribner & Dwyer, 1989). Levels of drinking, smoking, and drug use will increase to those of the general population, perhaps even exceed them. Also, evidence is emerging to suggest that acculturation may play a role in Latino development of unhealthy weight levels (Gordon-Larsen, Harris, Ward, & Popkin, 2003). Among immigrants and their children, living life in two cultures produces tensions and conflicts within individuals and between generations (Shrout et al., 1992). Psychosocial stress and disorientation yields vulnerability to low self-esteem, addiction disorders, and depression (Gamst et al., 2002; Ge, Elder, Regnerus, & Cox, 2001; Harker, 2001; Kaplan & Marks, 1990; Rumbaut, 1996; Thoman & Suris, 2004). Acculturation is shaped by the socio-cultural segment of society in which immigrants acculturate (Portes & Zhou, 1993). Consequently, acculturation into social groups with members of high behavioral health risk will accelerate the adoption of negative health behaviors.

## MAJOR RESEARCH THEMES

The health research agenda for Latinos continues to promote basic documentation of Latino health patterns and differentials relative to whites. The major research themes observed in the demographic literature unsurprisingly are rooted in data availability and demographic subspecialty traditions. Fertility specialists took advantage of the new self-report of racial and ethnic identifiers in the 1970 census and Current Population Surveys (CPS) in the 1970s to conduct research on the reproductive health of Latinas. In the 1980s, demographic research included a significant body of research focused on race and ethnic differentials in infant mortality. Finally, demographers turned their attention to race and ethnic patterns in the demography of aging in the 1990s.

### *Reproductive and Sexual Health*

Rapid population growth arose as a key concern of the industrialized world after World War II. The research focus quickly centered on fertility levels and differences in fertility among subpopulations as the critical engine to rapid population growth. Primarily due to census and CPS data, the field of reproductive health comprises a large literature on the demography of Latino health. Initial demographic research on Latina fertility relied on the new Hispanic identifier in the 1970 census and CPS data from the 1970s. The national-level data revealed higher numbers of children ever born among Latinos than whites or blacks, although differentials have narrowed over time and there is considerable variability in fertility among Latino ethnic groups (Bean & Tienda, 1987). For example, Cubans tend to have fertility patterns similar to those of whites: later age at first birth, longer intervals between children, and fewer children ever born. Even with similar patterns, Cuban women bear

fewer children than whites over their entire reproductive period. Mexican-origin women are most likely to become mothers at earlier ages, have shorter intervals between children, and bear more children during their reproductive years. Fertility levels and patterns among Latinos of other ethnic origins are generally intermediate to these two extremes.

National fertility surveys conducted throughout the hemisphere in the 1970s, and expansion of U.S. fertility surveys (five cycles of the National Survey of Family Growth [NSFG]) provided national and international data on pregnancy and childbirth, contraceptive use, and infant health. The NSFG, however, did not sample sufficient numbers of Latinas to conduct analyses of their reproductive health until 1988. The NSFG also expanded its data collection to include younger women and unmarried women and to obtain data on sexual behaviors and reproductive and sexual attitudes. Latinas have higher levels of teenage motherhood, both intended and unintended pregnancies, and lower levels of contraceptive use. Moreover, low levels of prenatal care observed among pregnant Latinas raised practitioners' concerns about their higher risks for maternal and infant mortality and morbidity. Much research focused on understanding the mechanisms that sustained high levels of pregnancy and inadequate levels of contraceptive use and prenatal care and also on developing family planning programs to reverse them. Current census and fertility survey data continue to show higher fertility levels among Mexican-origin women, partially arising from a continued immigration of reproductive-age women from Mexico, purportedly a more pronatal culture than that of the United States. For example, preference for sons among immigrants may raise the number of children ever born as women strive to have some desired number of sons (Unger & Molina, 1997). Two extensions of this original research agenda on fertility differentials

have arisen in more contemporary research: sexual behaviors leading to sexually transmitted diseases (STDs) and prenatal care.

Pregnancy prevention programs are currently focused on teenage women to encourage young Latinas to delay parenthood until schooling is complete, reduce unintended pregnancies, and reduce abortion rates (Erickson, 1994; Jones, Darroch, & Henshaw, 2002). As pregnancy prevention became redirected toward adolescence, research on sexual behavior expanded to better understand proximate risk factors of age at first intercourse and contraceptive use. Even as the increasing use of oral contraceptives reduced the number of unintended pregnancies, rates of STDs increased alarmingly. The past decade has also been a time of rapidly rising rates of HIV/AIDS among Latino teens and, indeed, Latinos of all ages. Reproductive and sexual health research is focused on attitudes, knowledge, and practices of condom use and sexual behaviors that shape Latinos' understanding of STDs and HIV/AIDS and how to prevent them (East & Kiernan, 2001; Forrest, Austin, Valdes, Fuentes, & Wilson, 1993; Hollander, 2002; Marin, Gomez, & Hearst, 1993; Singer et al., 1990).

Adequate prenatal care is associated with better infant and maternal outcomes (Institute of Medicine, 1985). Yet fertility surveys reveal Latinas' lower levels of prenatal care, raising concern about their risk for poor maternal and infant health (U.S. Bureau of the Census, 2003, Tables 84 and 91). Only 75% of Mexican, Puerto Rican, and black women received prenatal care in the first trimester compared to 85% of white women. In contrast, 92% of Cuban women received first-trimester prenatal care. Approximately 6% of Mexican, Puerto Ricans, and black women received late or no prenatal care, in contrast to white (3.2%) and Cuban (1.3%) women. The proportion of women in all race and ethnic groups receiving prenatal



care in the first trimester has increased since 1990, perhaps serving as evidence that family planning interventions have had some success.

An interesting observation arose from research on Latinas' relatively greater absence from adequate formal prenatal care regimens. Lack of prenatal care among economically vulnerable black women has been associated with poor birth outcomes. Similarly vulnerable Latinas who also receive less prenatal care, however, do not yield equally poor birth outcomes, an epidemiological paradox that forms the second major research theme.

### *Infant and Child Health*

The U.S. infant mortality rate has declined considerably during the past half century. Research initially focused on black-white differences in an effort to document and explain significantly higher levels of infant mortality among blacks (Boone, 1989; Eberstein & Parker, 1984). Subsequently, research on ethnic differences in infant mortality began to increase substantially in the 1980s as individual states began to add a Hispanic origin item to death certificates, often specifying the ethnic national heritage (Becerra, Hogue, Atrash, & Perez, 1991; Powell-Griner, 1988; Rogers, 1984, 1989). Because Latinas receive low levels of prenatal care and are economically vulnerable, initial hypotheses predicted higher infant mortality among Latinos than whites. Evidence, however, consistently revealed rates of Latino infant mortality that were equivalent to or lower than those of whites, a phenomenon researchers called the epidemiological paradox.

The research agenda has progressed from providing basic documentation of differentials among Latino ethnic groups to developing explanations of the differences. First, significant variability among Latino ethnic groups exists. Most studies of multiple ethnic

groups report that Mexicans and Cubans have lower infant mortality than whites; the Puerto Rican infant mortality rate exceeds that of whites, however (Albrecht, Clarke, Miller, & Farmer, 1996; Becerra et al., 1991; Hummer, Eberstein, & Nam, 1992; Singh & Yu, 1995). Second, a sizeable body of literature has emerged that strives to explain differences. One critical explanatory factor is nativity, with evidence consistently showing lower infant mortality among immigrants relative to native-born whites or native-born coethnics (Collins & Shay, 1994; Hummer et al., 1999). Other types of explanatory factors are socioeconomic characteristics, pregnancy, labor and delivery characteristics, birth outcomes, and cause of death. Foreign-born Latinos have higher-birth-weight infants than native-born Latinos, likely due to lower rates of smoking, drinking, and drug use among pregnant immigrant women, and thus lower infant mortality than native-born whites. Research has emerged to study whether acculturation to U.S. society adversely affects infant outcomes, narrowing Latino advantages and widening Latino disparities (Landale et al., 1999).

Birth outcomes are an important variable of interest because low birth weight and preterm births are the predominant risk factors for infant mortality (Institute of Medicine, 1985), and they vary significantly across race and ethnic groups. Cubans and Mexicans have higher or equivalent levels of healthy birth outcomes relative to whites, whereas Puerto Rican women have lower-birth-weight infants (Becerra et al., 1991; Hummer et al., 1992; Samuels, 1986). Contemporary research notes that although infant mortality rates have declined, the adverse birth outcomes of low birth weight and preterm births have increased (Guyer, Freedman, Strobino, & Sondik, 2000). Demographic studies report that the risks of low birth weight and preterm births are significantly higher for Mexicans and Puerto

Ricans, although the risk of infant mortality continues to remain paradoxically low for Mexican immigrants (Frisbie & Song, 2003).

### *Aging and Health*

Analysis of a population's age structure, including its determinants and consequences for society, is a mainstay of demographic research. Demographic research on the causes and consequences of the aging of industrialized society increased rapidly in the mid-1980s. A significant portion of the demography of aging research agenda questioned whether increasing longevity would yield greater morbidity among older adults or spark a concomitant delay in morbidity to later ages. Another key question concerned economic issues associated with aging, retirement patterns, health care costs, and individual savings patterns (Zsembik, Drevenstedt, & McLane, 1997; Zsembik & Singer, 1990).

Census and CPS data, in addition to regional survey epidemiologic data, were used in initial studies of older Latinos that focused on living arrangements. A survey of older Latinos (Survey of Elderly Hispanics [SHE]) was fielded in 1988. Older Latinos are disproportionately absent from nursing homes and more likely than whites to live as dependents in multigenerational households (Burr & Mutchler, 1992; Worobey & Angel, 1990). Multigenerational coresidence is highest among older immigrants and among Mexican-origin and Cuban families (Zsembik, 1993, 1996). These observations sparked debate about the absence of Latinos in nursing homes and the presence in multigenerational family households. Multigenerational coresidence was found to be higher even among older Latinos in relative health, suggesting family pooling of incomes to provide better household material resources. Multigenerational coresidence was also found among the more frail older Latinos, suggesting a cultural basis for family care of older

and ill family members (Angel et al., 2003; Burr & Mutchler, 1999; Zsembik, 1993, 1996). An appreciable number of physically vulnerable older Latinos remained in their own residences, declaring a strong reluctance to enter a nursing home (Zsembik & Bonilla, 2000). Some studies raised the issues of a lack of cultural relevance and lack of eligibility for health care financing as factors deterring long-term residential care.

The next wave of research on aging and health among Latinos began the basic documentation of health, functioning, and disability among adults. Analyses of active life expectancy, the estimated time spent alive and in good health, reveal that Latinos tend to experience a longer active life expectancy than blacks but not whites (Hayward & Heron, 1999). Data on adults older than the age of 50 are more complete due to the Health and Retirement Study (HRS), the Asset and Health Dynamics Among the Oldest Old (AHEAD), and the Hispanic Established Populations for Epidemiologic Study of the Elderly (HEPESE). Latinos report higher levels of most serious medical conditions (e.g., heart disease and diabetes) and of impaired physical functioning than whites (Smith & Kington, 1997). A large number of studies report on data from the longitudinal HEPESE documenting health statuses and processes among older Mexican Americans (Peek, Ottenbacher, Markides, & Ostir, 2003). For example, physical functioning is predictive of mortality 2 years later (Markides et al., 2001). Research has begun to focus on chronic disease epidemiology and data on Latinos at midlife. Data pooled from several years (1991-1995) of the National Health Interview Survey (NHIS) reveal that near elderly Puerto Ricans report poorer health than whites, whereas Cubans report better or equivalent health than whites (Hajat, Lucas, & Kington, 2000). Also, Mexicans report fewer activity limitations than whites, but they rate their health more

negatively and receive less medical care than whites. NHIS data collected after 1996 provide national-level data on several ethnic Latino groups across the life course. Puerto Ricans experience higher levels of medical conditions, functional limitations, and disability than other Latino groups at midlife, whereas Cubans retain levels of health comparable to those of whites (Zsembik, 2003a).

Demographic research has also focused on Latino disparities in health care financing as they approach and live through the older years (Angel & Angel, 1996; Angel et al., 2002, 2003; Granados et al., 2001; Lieu et al., 1993; Schur et al., 1995; Trevino et al., 1991). As a group, Latinos are less likely to have any form of health insurance than whites, and they are especially less likely to have private health insurance based in employment. Lack of health insurance is associated with less use of preventive health care, loss of a usual source of care, and little access to specialty care such as mental and oral health. Public sources of health care financing (e.g., Medicare and Medicaid) constitute a larger portion of medical expenditures among Latinos than whites, indicating their critical role in reducing Latino health care disparities (Escarce & Kapur, 2003). Economically vulnerable Latinos face serious risk of lack of health care even with public sources due to their insufficient income to pay for out-of-pocket expenses, medications, and deductibles.

### ASSESSING THE RESEARCH AGENDA

Appreciation of the importance of research on Latino health has increased in a short time. Much has been accomplished in building the knowledge base through changes in sampling, data collection, and conceptual development. Researchers must continue to expand the knowledge base. Future research

is likely to extend in new directions as well as continue to elaborate on current themes.

### *Representative Samples*

An initial observation concerns the rapid growth in generalizable knowledge during the past 20 years. There was a scarcity of generalizable knowledge about Latinos' health until the 1980s. What was known drew from community and local samples of Spanish-surnamed people residing in the southwestern United States. Censuses began to obtain self-reported ethnic identity in 1970. Vital statistics data began to assign ethnic identification in the late 1970s, although the quality of Latino ethnic identity was compromised through the 1990s by misclassification errors and the uneven adoption by states of a "Hispanic" item on certificates (Rosenberg et al., 1999). Representative surveys used in health research began to oversample Latinos and obtain self-reported "Hispanic" identity and conduct interviews in Spanish. These included the NSFG in 1988, NHIS in 1997, and the HRS and AHEAD in the early 1990s. Several representative surveys of Latinos were also fielded: HHANES in 1982 through 1984 ( ) and SHE in 1988. Subsequent waves of the NSFG and the NHIS expanded their categories of national origin to provide greater detail on Latino ethnic groups. The National Health Examination and Nutrition Study (2001) oversamples Latinos, but only Mexican-origin people can be identified.

Despite the inclusion of Latinos in data used for health research, there are two critical, perhaps competing, tasks that demographic health researchers must perform. First, as the ethnic composition of the Latino population changes with ethnic group-specific fertility rates and growing migration from countries of the Caribbean basin, data must be collected for each of these subgroups. As the Latino population

becomes more ethnically diverse, however, the second critical task is how to respond to the challenge of classifying and analytically organizing the growing diversity. Latinos have appreciable rates of intermarriage with whites, blacks, and Latinos of different ethnic origins, creating multiple categories of "mixed" ethnic heritage. These individuals may not find the current ethnic categories as befitting their multiple heritages and thus opt for subgroup categories such as "other" or refuse to answer the ethnic identity item. Conventional practice is to exclude individuals in these ethnic categories from analysis because they are too heterogeneous to offer confident interpretations of patterns and trends. Thus, analytical focus is biased toward single ethnic identity individuals. The numbers of "mixed heritage" Latinos are likely to grow. Even if they constitute small numbers, they may be especially concentrated among more acculturated Latinos, a critical explanatory concept in health research.

### *Health Outcomes*

Health research initially focused on Mexican-origin women's reproductive health and subsequently expanded to include a focus on infant health. Research on early and middle childhood and on adolescent males was and remains relatively neglected (Flores et al., 2002). Mortality studies included adult men and women, but we still know relatively little about adult health patterns and trends. Health research priorities for the Latino community tend to be skewed toward the negative health effects of behaviors often labeled as deviant: teenage childbearing, STDs and HIV/AIDS, violence, and substance abuse (Murdaugh, Hunt, Sowell, & Santana, 2004). There is a risk of "pathologizing" the Latino population with disproportionate attention to a small range of health behavior risks because the Latino

prevalence level exceeds that of whites. For example, heart disease remains the top cause of mortality among Latinos.

Basic documentation of levels, trends, and differentials of the full range of health and well-being indicators is needed, but generalizable knowledge about chronic disease epidemiology among adult women and men is sparse. Recent analyses of data pooled from the 1997 to 2000 National Health Interview surveys reveal a complex profile of disparities and advantages and differentials across ethnic groups (Zsembik, 2003; Zsembik & Fennell, in press). For example, adult Mexicans exhibit health advantages, whereas Puerto Ricans experience health disparities. Cubans and Dominicans reveal a mix of health disparities and advantages, depending on the health outcome. The effects of social determinants of health are also contingent on ethnicity. For example, worse health is associated with higher levels of socioeconomic status and acculturation among Mexicans but with lower levels of socioeconomic status and acculturation among Latinos whose origins are from Caribbean islands. The profile is contingent on location in the life course, however. Mexicans hold a health advantage in young adulthood but experience health disparities in middle and old age. The data suggest health disparities among Puerto Ricans in young adulthood, whereas older Puerto Ricans appear to be healthier than older whites. Cubans hold a health advantage in young adulthood and the absence of midlife or late-life health disparities, evidence that only Cubans are participating in the delays of morbidity until old age. Reducing disparities and promoting health are more effectively addressed by targeting specific Latino ethnic groups, focusing on health states earlier in the disablement process, and redirecting attention to ethnoracial differentials earlier in the adult life course.

Furthermore, relatively little is known about cognition across the life course among

Latinos. The phase in the life course known as early childhood has drawn attention because of new information on the social context of neural and cognitive development before age 5 (Shonkoff & Phillips, 2000). If Latino infants have a health and survival advantage at birth, does it indicate a child development advantage (Padilla, Boardman, Hummer, & Espitia, 2002)? Research also focuses on the sociocognitive health and development of middle childhood in relation to educational achievement but rarely includes adequate samples of Latino children (Flores et al., 2002). Mexican-origin children have lower prevalence levels of cognitive conditions than white children, whereas Latino children of Caribbean origin (Puerto Rican, Cuban, and Dominican) have prevalence levels equivalent to those of whites (Zsembik & Johnson, 2003). Children of all ethnic origins who are more acculturated to North America are also more likely to be diagnosed with either attention deficit disorder or a learning disability and to have activity limitation. Research on Alzheimer's disease and other causes of cognitive impairment are also the focus of the national research agenda (Stern & Carstensen, 2000). Although national-level data indicate that older Latinos have higher levels of cognitive impairment than older whites, much research is needed to understand cognitive health and changes among Latinos.

### *Explaining Differences, Patterns, and Trends*

A final observation concerns the conceptual development of explanations of Latino health patterns. First, research consistently reveals the importance of migration status in health outcomes, often inferred as indirect evidence of ethnocultural effects on health. The best representative data on Latino health typically ascertain limited information on ethnicity and culture, generally obtaining ethnic

origin for Mexican, Cuban, and Puerto Rican subpopulations, nativity, and language of interview. Conceptual and measurement work on specifying the meaning and role of culture is a needed research task. To understand the role of migration, bicultural data (e.g., Puerto Rican Infant and Maternal Health Study and the Mexican Migration Project) are needed to sort out health-selective migration. Innovative use of data from immigrant sending and receiving countries may be useful to approximate bicultural data (Frank & Hummer, 2002; Palloni & Arias, 2004). Health researchers recognize the need to validate basic health measures for Spanish-language, immigrant, and ethnic populations (Knight, Virdin, & Roosa, 1994; Pasick, Stewart, Bird, & D'Onofrio, 2001; Zsembik, 1994). Significantly more work is warranted, especially for more subjective measures and in the fields of cognitive health and mental health. Finally, continued conceptual progress will include the synthesis of multiple sets of explanatory factors, drawn from multiple subfields in demography, to provide a more sophisticated framework. Currently, demographers commonly examine the relative contributions of cultural and economic influences on health outcomes. Fusing analytic innovations from key demographic (e.g., biodemography, immigration, life course analysis, and multilevel analysis) will enhance our understanding of the causal mechanisms of race and ethnic health disparities.

### IMPLICATIONS OF LATINO HEALTH RESEARCH

Accomplishing the current research agenda on Latino health will likely impact subsequent agendas for demographic research on health and households. Demographic health research may foster development of causal models of health disparities through its general conceptual flexibility and analytical

strength. Demographic research on Latino health may contribute to the development and refinement of multilevel or ecological models and health.

### ***Health Disparities***

Health disparities research is not new to demographers, who during the past 30 years have built a large literature on race and ethnic differences in health and mortality among infants, women of reproductive age, and older adults. Social scientists, epidemiologists, health service analysts, and a diversity of researchers in other intellectual traditions conceptualize and conduct health disparities research. There is substantial imprecision in defining the critical concepts and elaborating on the causal mechanisms that link them. Latino health demography provides an opportunity to link to other intellectual traditions, thus acting as a cross-disciplinary bridge for multidisciplinary research efforts.

Demographers' conceptual flexibility places them in a favorable position to develop interdisciplinary conceptual models of health disparities, drawing research themes from social inequalities, migration and transnational communities, and cultural demography. Empirical evidence of the structure of health disparities draws heavily on the experience of black Americans. Health disparities explanations best fit the most economically vulnerable but may be less useful for the African American middle class, small though it may be. Explanations of black-white health disparities tend to discount the role of culture on health beliefs, practices, and statuses, whether culture is defined as ethnic or family culture, which remain significant features in personal life (Christensen, 2003; Earls & Carlson, 2001; Foner, 1997; Mendoza & Fuentes-Afflick, 1999).

Extending explanations of black-white disparities to Latino-white comparisons entails revision to include the effects of

migration and language. Empirical data frequently suggest that the Latino-white differences are dissimilar to black-white health differences. Moreover, empirical data suggest variability in health disparities across Latino ethnic groups. Latino health research is well positioned to promote a conceptual framework of health disparities that logically organizes and integrates multiple causes inclusive of biology, culture, and social inequalities. A common conceptual frame provides comparisons among a wide array of race and ethnic groups and evaluation of direct, mediating, and moderating causal pathways. The answers to the following questions would be provided: Are there common critical causal mechanisms that create and sustain health disparities? How does health quality vary within groups?

Demographers' analytical capacity to manage and evaluate a diversity of data sources provides a second disciplinary bridging opportunity. Dynamic and multilevel demographic analyses of Latino health data will further opportunity to examine the character of the causal ties among bioindicators, individual characteristics, and community features and how the causal ties change or are sustained over time. Demographers' facility in integrating and managing multiple sources of data can be extended more widely in Latino health research. Traditional national survey, program administration records, clinical studies, and ethnographic observation can be combined to more richly describe the structure and experience of health disparities in the United States.

### ***Research on Families and Households***

Demographic research on families and households will continue to devote an increasing amount of attention to the effect on individual health of collective characteristics, such as social capital, transnational

community, and neighborhood context. A better understanding of the health of Latino children will raise awareness of Latino family households as producers and consumers of health and medical resources. Each research avenue directs deeper conceptualization of more sociocultural factors associated with health.

Latino communities historically have been characterized as having high degrees of ethnic solidarity, familism, and large social networks of family and fictive kin (Fitzpatrick, 1971; Moore, 1976; Stycos, 1955). These collectivist characteristics were thought to discourage assimilation into society and thus retard immigrant social mobility (Moore, 1976). "Cultural deficiency" models gave way to structural models, which included cultural elements manifesting partly as survival strategies but emphasized barriers to high-quality education, employment, and wealth accumulation opportunities (Vega, 1990). Recent social demographic research is revisiting the character and role of cultural forces. The emergence of social capital as a positive force on health and other outcomes calls for a return to collectivist values, norms, and practices that may arise from Latino culture. For example, values of familism may promote family prevention practices, provision of health and personal care, and a more positive psychosocial orientation (Franco & Levitt, 1998). The National Institutes of Health called for an expansion of basic social science research on the meaning and measurement of sociocultural phenomena and processes and applied research on their implications for health. Research on migration and the establishment and maintenance of transnational communities has begun to study the relationship between health and social networks (Zsembik, 2003b).

A deeper appreciation for the role of Latino culture in shaping families, social capital, and health reorients health research toward the family household as a relevant

unit of analysis. Health, functioning, and disability, and health and medical care use, are typically conceptualized and operationalized simply as individual-level properties. Adult-onset chronic disease and health impairments, however, largely reflect the long-term effects of lifestyles, bundles of habits shared by family households regarding diet and nutrition, exercise, substance use, and preventive care. To the extent that lifestyles have elements of family culture, they also reflect the ethnic culture in which the family is embedded. It is conventional to assume that the Latino parent or the spouse, usually women, is the first line of defense in promoting health or providing health care. In turn, caring for an ill family member carries health costs to the care provider. Accordingly, Latino households may be characterized as sharing a collective health capital. Households also function as a consumer unit, purchasing health services and products to be shared among family members. Most common are over-the-counter medications and other therapeutic products purchased in grocery stores. Private and public insurance often encompasses an entire household, either through an employee's purchase of employer-sponsored family health plans or through eligibility characteristics for state insurance programs. Knowledge of the collective health of the Latino household is relevant to public policymakers and health care planners concerned with equity issues of long-term care, demand for formal services, and family support burdens.

## CONCLUSION

The amount of research on Latino health has increased markedly, especially in the past decade. Antonia Coello Novello, surgeon general between 1990 and 1993, spearheaded the National Hispanic-Latino Health Initiative. The participants listed areas of

priority for the expansion of the research agenda on Latino health research, including data collection strategies and a comprehensive agenda to shape funding and research priorities (Delgado & Estrada, 1993; Gerardo, Amaro, Eisenberg, & Opava-Stitzer, 1993). We have made some progress toward accomplishing these tasks, and there is every indication that this progress will

continue and even accelerate. Latino migration and fertility, and ethnic diversity among Latinos, have transformed U.S. society and will continue to influence contemporary U.S. society. Demographers' analytical focus on health disparities and success among Latinos highlights the degree to which Latinos participate in national improvements in longevity, health, and well-being.

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