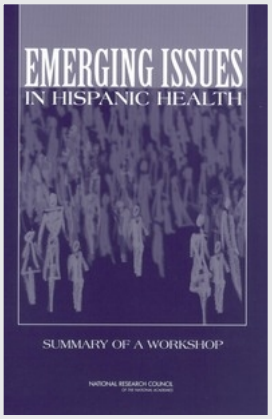

Emerging Issues in Hispanic Health: Summary of a Workshop

DETAILS

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EMERGING ISSUES IN HISPANIC HEALTH

SUMMARY OF A WORKSHOP

Committee on Population
Center for Social and Economic Studies
Division of Behavioral and Social Sciences and Education
NATIONAL RESEARCH COUNCIL
OF THE NATIONAL ACADEMIES

Joah G. Iannotta, *Editor*

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Preface

The National Academy of Sciences has a long-standing tradition and continuing responsibility to promote a national dialogue on race based on the best behavioral and social science research. For example, *America Becoming: Racial Trends and Their Consequences* (National Research Council, 2001) confronted contentious race-related issues by evaluating research in highly controversial areas such as welfare, racial stratification and disparities, and criminal justice, making important recommendations for the future.

As a part of its continuing commitment to produce scholarly work to inform a national dialogue and improved policies on race, the Center for Social and Economic Studies convened a planning meeting on Hispanics in the United States on July 30, 2001. This meeting confirmed that the time is ripe for a scientific review of the recent past experience of Hispanic Americans. The consensus of the attendees at this planning meeting was that an in-depth study of the status of Hispanic Americans was much needed, that it should be comprehensive, and that it should cover a broad array of arenas, including health, education, labor, poverty, immigration, political participation, crime, language, and social and cultural change. Participants also felt that this study should go beyond extrapolating from current trends to drawing potential implications of current knowledge.

In order to develop this broad-scale study on issues facing the Hispanic population in the United States, the National Research Council (NRC)

convened a meeting, Emerging Issues in Hispanic Health, on April 10, 2002, to identify the set of health-related issues that should help frame the larger proposed study. The meeting brought together experts from a wide range of disciplines and provided time for discussion concerning key issues in creating opportunities and reducing barriers to Hispanic health and well-being. This meeting was supported by the Office of Behavioral and Social Sciences Research of the National Institutes of Health, whose interest in the meeting stems from its commitment to eliminating racial and ethnic health disparities.

This workshop summary has been reviewed in draft form by individuals chosen for their diverse perspectives and technical expertise, in accordance with procedures approved by the Report Review Committee of the NRC. The purpose of this independent review is to provide candid and critical comments that will assist the institution in making its published report as sound as possible and to ensure that the report meets institutional standards for objectivity, evidence, and responsiveness to the study charge. The review comments and draft manuscript remain confidential to protect the integrity of the process. We wish to thank the following individuals for their review of this report: Frank D. Bean, Center for Research on Immigration, Population, and Public Policy, University of California at Irvine; L. Beth Dixon, Department of Nutrition and Food Studies, New York University; and Donald J. Hernandez, Department of Sociology, University at Albany, State University of New York.

Although the reviewers listed above provided many constructive comments and suggestions, they were not asked to endorse the final draft of the report before its release. The review of this report was overseen by Charles B. Keely of the Walsh School of Foreign Service at Georgetown University. Appointed by the NRC, he was responsible for making certain that an independent examination of the report was carried out in accordance with institutional procedures and that all review comments were carefully considered. Responsibility for the final content of this report rests entirely with the authors and the institution.

Many individuals deserve recognition for their contributions to the meeting and this report. E. Richard Brown, Donald J. Hernandez, Raynard Kington, Alberto Palloni, Jane Ross, and Marta Tienda gave considerably of their time to plan the meeting. Brown and Ross also provided feedback on the first draft of the meeting summary and offered many insightful comments that significantly improved the manuscript.

Several staff members also made significant contributions to the meeting and the report. Ana-Maria Ignat deserves special recognition for her assistance in ensuring that the meeting ran smoothly and successfully and that the report met its production deadlines. Joah Iannotta served as research associate for the project, assisting with development of the agenda and drafting of the report. Barbara Bodling O'Hare's editing skills provided the polish to complete the report, and Kirsten Sampson Snyder ensured that the report traversed all the right steps toward publication. The project took place under the general direction of Jane L. Ross and Barney Cohen. We thank them for their efforts.

Jane Menken
Chair, Committee on Population

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Emerging Issues in Hispanic Health

INTRODUCTION

According to data from the 2000 census, Hispanics—to the extent that they can be considered a discrete and identifiable segment of American society—are now the largest minority in the United States, composing 12.5 percent of the population (Bureau of the Census, 2000). By 2050, Hispanics are expected to constitute 25 percent of the U.S. population (Day, 1996). Hispanic communities are no longer found in only a limited number of cities in the West, although the largest communities—as measured by census tracts in which Hispanics represent 60 to 80 percent of the population—are in the Southwest and West. Nevertheless, small but vibrant communities can be found in almost all major U.S. cities. That Hispanics make up a significant—and growing—segment of the American population and can be found in cities across the country means that issues affecting Hispanic Americans, their families, and their communities are of local, regional, and national significance.

One particularly important issue for Hispanic Americans is staying healthy. Ethnic minorities in the United States—especially those who have high rates of poverty such as Hispanics—often experience disparities in health and in accessing health care services. This is problematic because good health represents a minimum condition for full participation in most dimensions of life, including the ability to work and be steadily employed, to consistently attend school and to learn, to socialize and engage in one's

community, and to participate fully in activities and relationships that create a sense of wholeness and well-being. In addition, the economic, social, and psychological burdens imposed by poor health on populations that are already disadvantaged can be particularly devastating (Kington and Nickens, 2001).

The Meeting on Emerging Issues in Hispanic Health

As a part of its long-standing tradition and continuing commitment to promote a national dialogue on race and diversity in the United States, the National Academies organized an expert meeting on Emerging Issues in Hispanic Health on April 10, 2002, that brought together experts in demography, public health, medicine, sociology, psychiatry, and other fields to examine key issues related to Hispanic health and well-being. Emerging Issues in Hispanic Health was a part of the National Academies' effort to develop a larger, broad-scale study of Hispanics in the United States to explore the demographic, economic, and social trends affecting the Hispanic population in the areas of health, education, labor, immigration, community development, and others. This meeting provided an opportunity to move closer to the goal of launching this larger proposed study by initiating a more in-depth discussion of one topic—namely, health—that will be central to the scope of the broader study. Specifically, Emerging Issues in Hispanic Health sought to identify a set of health-related issues that would be addressed in the proposed study.

The Emerging Issues meeting was sponsored by the Office of Behavioral and Social Sciences Research of the National Institutes of Health (NIH). In recognition of persistent health disparities and their impact on vulnerable populations, NIH developed a new strategic plan for 2002-2006 to eliminate racial and ethnic health disparities.[1] The Academies' interest in Hispanic health coincides with NIH's new focus, and as a part of that effort, the Office of Behavioral and Social Sciences Research will be able to make use of this summary report in its work.

[1]NIH's Strategic Plan can be found at http://www.nih.gov/about/hd/strategicplan.pdf (viewed online May 28, 2002).

Contents of the Report

This report summarizes the proceedings of the meeting on Emerging Issues in Hispanic Health and therefore is not intended to be a comprehensive review of all issues involved in policy or research on Hispanic health. The report begins with a review of key demographic data characterizing the Hispanic population in the United States, including basic population statistics and more detailed information on the leading causes of mortality and morbidity. Next, research on the socioeconomic, sociocultural, and behavioral determinants of health is presented. Issues discussed include the effects of selective migration, assimilation, and the apparent epidemiological paradox, a term used to describe the relatively positive health outcomes observed in some Hispanic populations despite their relatively poor socioeconomic status or other types of disadvantage such as discrimination. The report then reviews data on the extent to which Hispanics have access to health insurance and barriers they face as a group in obtaining insurance coverage. Finally, the report reviews three emerging issues in Hispanic health: threats to the health status of elderly Hispanics, mental health, and "missed opportunities" that occur in clinical and community settings in which conditions or subtle indicators serve as an early warning of an impending widespread threat to community health.

WHAT'S IN A NAME: DEFINING THE TERM "HISPANICS"

The term "Hispanics," loosely defined as people of Spanish-speaking origin from Latin America, the Caribbean, or Europe, captures a population that encompasses a wide diversity in terms of socioeconomic status, race, country of origin, migration experiences, nativity, and U.S. citizenship status. It includes foreign-born recent immigrants to this country as well as families that have been living in the United States for generations. The Census Bureau's decennial census collects statistics on Hispanics of Cuban, Mexican, Puerto Rican, Central and South American, and "other Hispanic" descent. These groups have different immigration experiences; reside in different areas of the United States (e.g., the majority of Cuban Americans live in the South, Mexican Americans live primarily in the West, and Hispanics of Central and South American origin have communities in the Northeast, South, and West); and have varying levels of success in terms of economic attainment. For example, regarding socioeconomic status, Cuban Americans and non-Hispanic whites appear to be similarly situated,

BOX 1 Data Quality

The term "Hispanics" captures an enormous degree of heterogeneity, which poses challenges for researchers. Although this is not a complete list, several key challenges to obtaining accurate quality data are reviewed below.

- *The term "Hispanics."* Meeting participants noted that the term borders on being void of meaning because it captures a large population with significant differences in terms of racial and ethnic background, country of origin, socioeconomic status, migration experiences, citizenship status, and length of time or number of generations spent in the United States. These differences produce significant within-group variations. For example, the socioeconomic status, sociopolitical history leading to migration, and culture of Cuban Americans are quite different from those of Mexican Americans.
- *Race and ethnicity.* A factor that further complicates the category of Hispanics is that individuals in this ethnic group may have different racial backgrounds (e.g., white, black/African American, indigenous/Native American, Asian). The U.S. census attempts to measure ethnicity/race more accurately by asking whether an individual is Hispanic and then separately asking the person to identify his or her race. That a person can be any of a number of combinations of Hispanic-white, Hispanic-black, and so forth complicates the process of data collection and is significant because individuals of different racial backgrounds have different life experiences, particularly with regard to discrimination. In short, this methodological question goes far beyond record keeping.

suggesting that Cuban Americans are more advantaged than other Hispanics, whereas the population statistics on Puerto Ricans reflect more commonality with African Americans, who are relatively disadvantaged compared to whites. Furthermore, Hispanics may also identify as being Hispanic-white, Hispanic-black, or of multiracial descent. In this way, race further diversifies the broad category of "Hispanic," making broad-based statements about a singular "Hispanic" group problematic.

The heterogeneity of the Hispanic population presents significant methodological challenges in obtaining accurate population data (see Box

Rather it is often indicative of very different experiences in an individual's life course.

• *Problems with self-reporting.* Although it might be assumed that the best way to obtain accurate data on Hispanics would be to have individuals define their racial and ethnic background directly, there are several factors that may cause Hispanics in particular to underreport. In addition, the conceptualization of identity is fluid and changes over time. Some individuals may report (or not report) themselves as being of Hispanic descent during certain times in their lives but may have a different sense of ethnicity later, which would cause them to report their status differently.

• *Changing measurements.* A final threat to data quality—or at least one that makes longitudinal comparisons problematic—has to do with the terminology used to represent Hispanics on major demographic surveys such as the U.S. census. For example, the 2000 Census offered individuals the choice of identifying as Mexican American, Puerto Rican, Cuban American, or "other Hispanic." In previous years the census has treated the category of Hispanics with less differentiation (e.g., Hispanic or non-Hispanic). It is likely that in the future major surveys will further differentiate the term to include a category for individuals of Central and South American descent who currently make up a large portion of the "other Hispanic" category. Although it is clearly beneficial that survey instruments are becoming more specific, the transformations that the category has undergone pose a challenge in data comparisons.

NOTE: This box draws heavily on the meeting presentation by Joe Fred Gonzalez of the National Center for Health Statistics.

1 for a brief discussion of data quality). In this report the broad term "Hispanics" is used and encompasses a wide range of within-group heterogeneity. Although presenting data on such a broad group is problematic in that it erases considerable variation and masks the fact that certain Hispanic subgroups would perform quite differently from the broad group "Hispanics" on any given measure, it does allow some useful comparisons to be made that establish signposts of relative advantage or disadvantage of Hispanics compared to other groups in the United States. Readers are encouraged to bear in mind these limitations when such data are presented

in the report and recognize that significant within-group differences are erased by such presentation.

In many places the report does offer data that illuminate within-group differences largely with respect to differences in national origin (e.g., Cuban American, Puerto Rican, etc.). Data on differences in health outcomes and health behaviors based on nativity (i.e., foreign-born, U.S.-born) are presented in the report in instances in which meeting participants had such data available for discussion. Finally, data showing differences in health behaviors and health outcomes based on length of time in the United States can also be found in this report. While country of origin, nativity, and length of time in the United States all represent important variables that illuminate the heterogeneity of Hispanics living in this country, many other factors—most notably differences in racial background within Hispanics—are not addressed, nor are data on nativity and length of time in this country presented systematically throughout the report. This is in part a reflection of the lack of data considering these variables within the broad category of Hispanics as well as a reflection of the limited time available to presenters at the Emerging Issues meeting.

POPULATION STATISTICS OF HISPANICS IN THE UNITED STATES

Basic Demographic Profile

In the 2000 Census, 32.8 million people in the United States identified themselves as Hispanic. Within this broad category, individuals self-identified in the following ways: 66 percent, Mexican; over 14 percent, Central or South American; 9 percent, Puerto Rican; over 6 percent, "other Hispanic"; and 4 percent, Cuban (Therrien and Ramirez, 2001). As a population, Hispanics are relatively younger than the general U.S. population. As evident in Table 1, as a group, Hispanics have the largest percentage of individuals under age 24 and the lowest median age compared to both non-Hispanic whites and African Americans (Meyer, 2001). Hispanics are also a relatively poor population, faring only slightly better economically than African Americans but having significantly higher rates of poverty than non-Hispanic whites (see Table 2). Like African Americans, Hispanic youth have high rates of poverty compared to non-Hispanic whites (Dalaker, 2001).

Hispanics face a number of structural challenges to improving their

TABLE 1 Age Distribution in U.S. Population of Hispanics, Non-Hispanic Whites, and African Americans, 2000

	% of Total Population by Age			
	Under 18	18-24	Total Under 24	Median Age
Hispanics	35.0	13.4	48.4	25.8
Non-Hispanic whites	22.6	8.6	31.2	38.6
African Americans	31.4	11.0	42.4	30.2

SOURCE: Adapted from Meyer (2001).

TABLE 2 Percentage of U.S. Population Living in Poverty in 2000

	All Ages	Under 18
Hispanics	21.2	28.0
Non-Hispanic whites	7.5	9.4
African Americans	22.1	30.9

SOURCE: Adapted from Dalaker (2001).

economic status. For example, a large proportion of Hispanics are geographically isolated from high-growth job areas that characterize many outer-ring suburbs—nearly half of all Hispanics live in inner cities (National Research Council, 2002; Therrien and Ramirez, 2001). In addition, Hispanics are one of the more educationally disadvantaged groups in the United States. Of Hispanics age 25 and older in 2000, 57 percent had graduated from high school and 27 percent had less than a ninth-grade education (Therrien and Ramirez, 2001). Low levels of education pose a significant barrier to obtaining professional-level employment. Data on the types of jobs Hispanics generally have appear to reflect at least in part these disparities in educational attainment. For example, Hispanics are more likely to work in low-skilled, lower-paying positions and are overrepresented in service occupations, making up almost 20 percent of all workers in the service sector.

Health Status of Hispanics[2]

Mortality[3]

Despite disparities in employment, education, and level of poverty, Hispanics have lower age-adjusted mortality rates than African Americans and, in many cases, lower rates than non-Hispanic whites (see Figure 1). In terms of leading causes of death, Hispanics have a number of factors in common with non-Hispanic whites and non-Hispanic blacks (see Table 3). Heart disease, cancer, and stroke—conditions that most often affect older people—as well as accidents, which affect the young and old alike, are among the top five leading causes of death for all three groups. Alzheimer's disease is the eighth leading cause of death for non-Hispanic whites but is not among the top 10 for Hispanics and blacks. Two important similarities emerge between Hispanics and non-Hispanic blacks. Assault (homicide) is one of the 10 leading causes of death for both groups, and diabetes is the fifth leading cause of death for both. Two leading causes of death unique to Hispanics are liver disease and cirrhosis and certain conditions originating in the perinatal period. Neither is among the top 10 causes of death for non-Hispanic whites or blacks.

Important within-group differences emerge when leading causes of death are compared for Hispanics of different national origins (see Table 4). Cuban Americans have the same leading causes of death as non-Hispanic whites, although there were slight variations in order. Chronic liver disease and cirrhosis were unique to Mexican Americans, Puerto Ricans, and other Hispanics, suggesting perhaps an important vulnerability for these populations and raising questions about prevention. While Hispanics of Cuban descent have the most in common with non-Hispanic whites, Puerto Ricans had the most in common with non-Hispanic blacks, sharing nine of 10 leading causes of death (Puerto Ricans had chronic liver disease and cirrhosis, whereas non-Hispanic blacks had kidney disease). Of note is that HIV/AIDS is the third leading cause of death for Puerto Ricans (seventh for African Americans), suggesting that important opportunities to lower trans-

[2]This section draws heavily on the meeting presentation by Elizabeth Arias of the National Center for Health Statistics (NCHS).

[3]The data presented in the Mortality section of this report are from the NCHS Mortality Data on multiple causes of death for 1999. Dr. Arias prepared an analysis of these data for the purpose of the meeting.

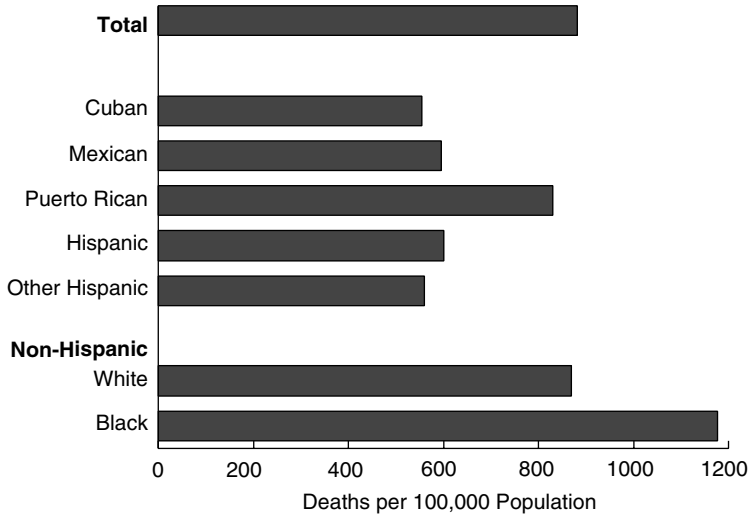

FIGURE 1 Total age-adjusted mortality rates for U.S. population by major ethnic group, 1999.
SOURCE: Workshop presentation by Elizabeth Arias, April 10, 2002.

TABLE 3 Ten Leading Causes of Death in U.S. Population for Non-Hispanic Whites, Non-Hispanic Blacks, and Hispanics, 1999

Overall	Non-Hispanic Whites	Non-Hispanic Blacks	Hispanics
Heart disease	*Heart disease*	*Heart disease*	*Heart disease*
Cancer	*Cancer*	*Cancer*	*Cancer*
Stroke	Stroke	Stroke	Accidents
COPD[a]	COPD	Accidents	Stroke
Accidents	Accidents	Diabetes	Diabetes
Diabetes	Influenza	COPD	Liver disease
Influenza	Diabetes	HIV/AIDS	Homicide
Alzheimer's disease	Alzheimer's disease	Homicide	COPD
Kidney disease	Kidney disease	Kidney disease	Influenza
Septicemia	Suicide	Influenza	Perinatal

NOTE: Italics indicate prevalence of disease across ethnic groups.
[a]COPD, chronic obstructive pulmonary disease.
SOURCE: Workshop presentation by Elizabeth Arias, April 10, 2002.

TABLE 4 Ten Leading Causes of Death for U.S. Hispanic Population by National Origin, 1999

Cuban	Mexican	Puerto Rican	Other Hispanic
Heart disease	*Heart disease*	*Heart disease*	*Heart disease*
Cancer	*Cancer*	*Cancer*	*Cancer*
Stroke	Accidents	HIV/AIDS	Accidents
COPD[a]	Stroke	Accidents	Stroke
Diabetes	Diabetes	Diabetes	Diabetes
Accidents	Homicide	Stroke	COPD
Influenza	Liver disease	COPD	Homicide
Alzheimer's	Perinatal	Liver disease	Liver disease
Kidney disease	COPD	Influenza	Influenza
Suicide	Congenital defects	Homicide	Suicide

NOTE: Italics indicate prevalence of disease across subgroups within Hispanic ethnic group.
[a]COPD, chronic obstructive pulmonary disease.
SOURCE: Workshop presentation by Elizabeth Arias, April 10, 2002.

mission rates have been missed. Finally, Hispanics of Mexican descent featured two unique leading causes of death compared to other Hispanic groups: deaths due to certain conditions originating in the perinatal period and to congenital malformations, deformations, and chromosomal abnormalities. In addition, viral hepatitis is the tenth leading cause of death for Mexican Americans ages 25 to 44. At the meeting, Fernando Guerra suggested that recent increases in the incidence of hepatitis may be an important harbinger of new disease patterns among not only Mexican Americans but also others of this age group.

Morbidity[4]

Not surprisingly, the within-group health disparities that emerged from mortality statistics are also found in morbidity data. In general, Hispanics

[4]The data presented in the Morbidity section of this report were pooled from the 1997-2000 National Health Interview Survey III. As in the previous section, Dr. Arias prepared an analysis of these data for the purpose of the meeting. These data will be available in a soon-to-be released report by Dr. Arias.

of Cuban, Mexican, and "other Hispanic" descent fared similarly or better than non-Hispanic whites, whereas Puerto Ricans had comparable or worse rates of morbidity than non-Hispanic blacks. For example, at 17 percent, Puerto Ricans had the highest rates of functional limitations and were the only group to have higher rates than non-Hispanic blacks. In comparison, Hispanics of Cuban, Mexican, and other Hispanic descent had lower prevalence of functional limitations than non-Hispanic whites. This is noteworthy because Hispanic groups often face a number of disadvantages that would negatively affect their health status. For example, as ethnic minorities Hispanics often face discrimination and prejudice, and groups such as Puerto Ricans and Mexican Americans are often in lower socioeconomic brackets. Given these types of disadvantage, it is noteworthy that a population such as Mexican Americans, who are often poor, generally have lower levels of education than non-Hispanic whites, and who often face discrimination based on their ethnicity, still has lower rates of morbidity than the most privileged demographic group (non-Hispanic whites) in the United States. Favorable health outcome despite relative disadvantage compared to non-Hispanic whites is often referred to as an epidemiological paradox.

A similar pattern emerges for select conditions in children (e.g., developmental delays, attention deficit disorder, learning disabilities, asthma). In general, Hispanic minors have slightly lower prevalence of these conditions than non-Hispanic whites. Again, Puerto Ricans are a noteworthy exception. About 22 percent of Puerto Rican children have asthma compared to 15 percent of non-Hispanic blacks and 11 percent of non-Hispanic white children.

Although most Hispanic groups fare better than non-Hispanic whites with regard to a number of health indicators, diabetes is an important exception to this pattern. In this case, all Hispanic groups except for Cuban Americans have significantly higher prevalence of diabetes than non-Hispanic whites, with Puerto Ricans and Mexicans having twice the rate of diabetes as non-Hispanic whites (approximately 12 and 10 percent, respectively, compared to about 5 percent; 6 percent for Cuban Americans). Furthermore, with rates as high as 25 percent in the oldest age group (65 and older), both Mexicans and Puerto Ricans have higher rates of diabetes than non-Hispanic blacks. Finally, the incidence of diabetes among Mexican Americans age 20 and older may be artificially low, meaning that Mexican Americans may have undiagnosed cases of diabetes. Data from the third National Health and Nutrition Examination Survey show that among adults age 20 and older, 8 percent of Mexicans have been diagnosed with

diabetes while an additional 4 percent have the disease but have yet to be diagnosed.

Fertility and Infant Outcomes

An interesting set of patterns emerge when fertility and infant outcomes are examined for Hispanics compared to non-Hispanic whites and blacks. With the exception of Cuban Americans, Hispanics tend to have larger families than non-Hispanic whites and blacks (see Figure 2). The percentage of all births to mothers under age 20 is quite similar for most Hispanic groups and non-Hispanic blacks (generally speaking, about 20 percent of all births are to young mothers for these groups compared to about 9 percent for non-Hispanic whites and 7 percent for Cuban Americans). The percentage of all births to unmarried Hispanic mothers falls almost exactly between the rates for non-Hispanic whites (20 percent) and non-Hispanic blacks (nearly 70 percent; Martin et al., 2002). Births to

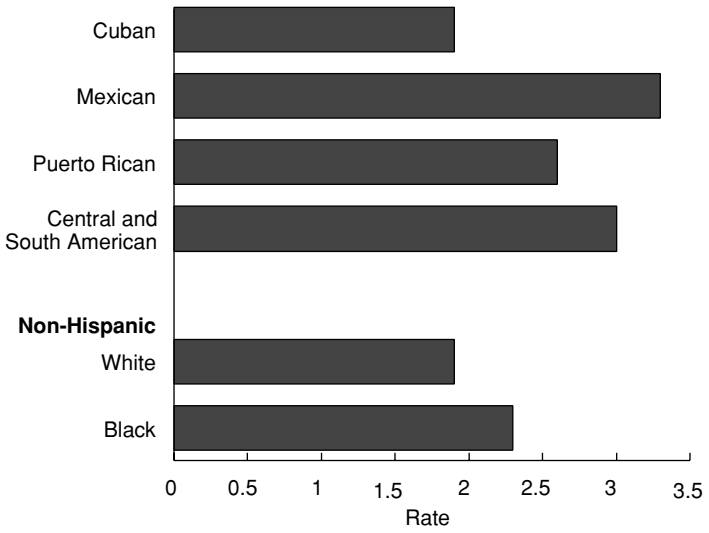

FIGURE 2 Total fertility rate for U.S. population by major ethnic group, 2000.
SOURCE: Workshop presentation by Elizabeth Arias, April 10, 2002.

young and unwed mothers are often used as proxies for relative disadvantage. Overall these patterns suggest that Hispanics are more disadvantaged than non-Hispanic whites but fare slightly better than non-Hispanic blacks.

When more careful examination is given to within-group differences in fertility patterns, clear disparities between Hispanic subgroups emerge. In general, Cuban Americans closely resemble non-Hispanic whites, whereas Puerto Ricans and Mexican Americans tend to mirror non-Hispanic blacks. For example, as evident in Figure 2, the total fertility rates of Cuban Americans are almost identical to non-Hispanic whites (an average of 1.9 children per woman), whereas Hispanics of Mexican, Puerto Rican, and Central and South American descent surpass the rates for non-Hispanic blacks. Cuban Americans also have a slightly lower percentage of births to mothers under age 20 than non-Hispanic whites, whereas the prevalence for Hispanics of Central and South American descent is only slightly higher than that for non-Hispanic whites (the rates of all three groups are between 7 and 10 percent). Puerto Ricans have levels equivalent to non-Hispanic blacks at 20 percent, with Mexican and Hispanics of other origin having only slightly lower rates. Similar patterns emerge for births to unmarried mothers—Cuban Americans have only slightly higher levels than non-Hispanic whites (about 22 percent of all births). Puerto Ricans have the highest prevalence at about 60 percent of all births, surpassed only by non-Hispanic blacks (about 70 percent). Prevalence for all other Hispanic groups fall between 40 and 45 percent (Martin et al., 2002).

This pattern of relative advantage for Cuban Americans and relative disadvantage for other Hispanic groups also plays out for births to mothers with 12 or more years of education (see Figure 3). At 88 percent, Cuban Americans have the highest percentage of all birth to mothers with 12 or more years of education—a rate nearly identical to non-Hispanic whites—while Hispanics of Mexican, Puerto Rican, Central American, South American, and "other Hispanic" descent have lower levels than non-Hispanic blacks. Mexican Americans have the lowest levels of all these groups (about 40 percent; Martin et al., 2002).

Interestingly, the patterns of birth outcomes are quite different than the fertility patterns. In general, the incidence of low-birthweight infants—defined as an infant born weighing less than 2,500 grams—among Hispanics is equivalent to that of non-Hispanic whites (around 7 percent of all births). By comparison, about 13 percent of non-Hispanic blacks have low-birthweight infants (see Figure 4; Martin et al., 2002). The contrast of positive birth outcomes despite relative disadvantage is most striking when

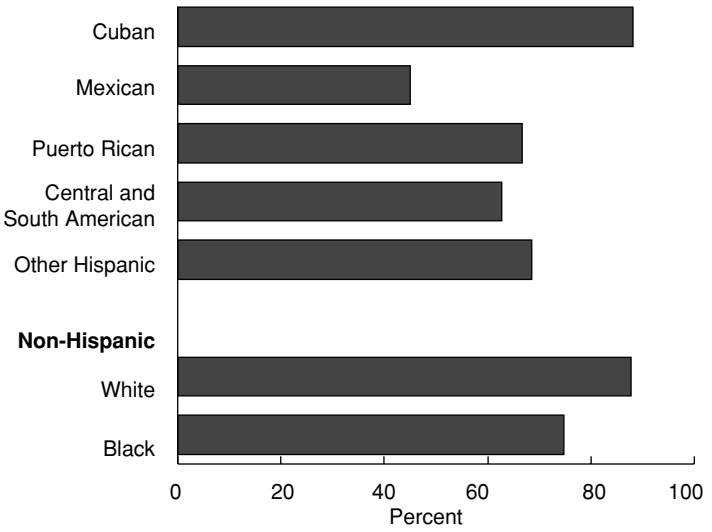

FIGURE 3 U.S. births to mothers with 12 or more years of education by major ethnic group, 2000.
SOURCE: Workshop presentation by Elizabeth Arias, April 10, 2002.

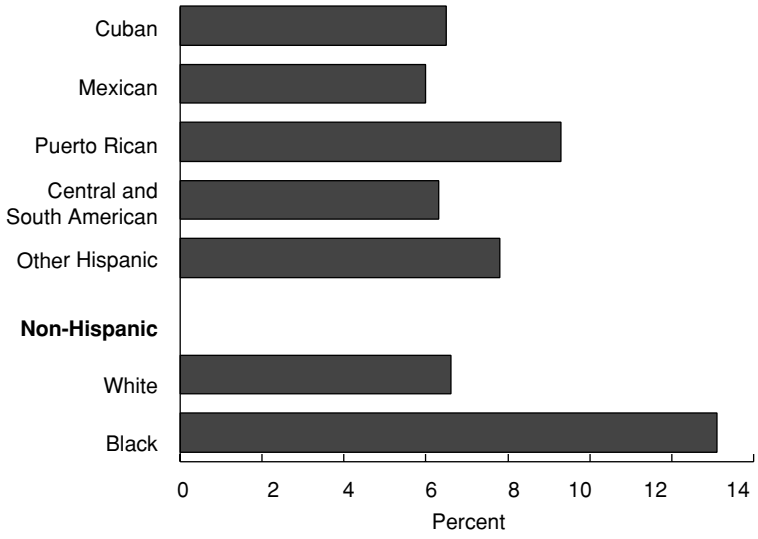

FIGURE 4 Percentage of low-birthweight babies for U.S. population by mothers' major ethnic group, 2000.
SOURCE: Workshop presentation by Elizabeth Arias, April 10, 2002.

the birth outcomes of Mexican Americans are compared to non-Hispanic blacks. Although the fertility profile of Mexican Americans suggests significant disadvantage—larger families, limited resources, higher birth rates among young, unmarried, and poorly educated mothers—they have slightly more favorable birth outcomes than non-Hispanic whites. Mexican Americans have the lowest prevalence of low-birthweight infants than any other Hispanic or non-Hispanic group. In addition, Mexican Americans have infant mortality rates slightly lower than those for non-Hispanic whites. These positive birth outcomes occur despite Mexican Americans having the lowest prevalence of prenatal care and is yet another example of the epidemiological paradox researchers have observed in this group.

The prevalence of low-birthweight babies among Hispanics of Cuban descent also is slightly lower or equal to that for non-Hispanic whites (about 6 percent), whereas Puerto Ricans have higher rates (about 9 percent). Although Puerto Ricans have the highest level of low-birthweight babies of any Hispanic group, the percentage is still lower than that for non-Hispanic blacks (13 percent). Puerto Ricans also have the highest infant mortality rates, about 8 infant deaths per 1,000 live births. This compares to an infant mortality rate of about 6 per 1,000 live births for non-Hispanic whites and 14 for non-Hispanic blacks (Martin et al., 2002).

DETERMINANTS OF HEALTH[5]

Social factors often have a significant and complex effect on the health outcomes of individuals. Such factors as low socioeconomic status, being a woman of color, inadequate access to health care, lack of appropriate health information, lower levels of education, and being exposed to multiple stressors in one's environment consistently appear as determinants of health disparities. Because Hispanics are often poor, lack access to health care, and have lower levels of educational attainment, some would presume them to be vulnerable to health disparities. In fact, several paradoxes emerge with respect to Hispanic Americans' health outcomes—lower rates of age-adjusted mortality and better infant outcomes than non-Hispanic whites

[5]This section draws heavily on the meeting presentation by Sylvia Guendelman of the University of California, Berkeley, and Nancy Landale of Pennsylvania State University.

are both examples. To understand these paradoxes, researchers have examined such factors as migration to the United States and effects of the process of assimilation. These experiences create a complex set of social determinants that affect health and appear to yield both positive and negative health outcomes. This section reviews several key concepts of research on the social determinants of health, including the epidemiological paradox as it relates to positive infant outcomes, selective migration, beneficial health behaviors stemming from adherence to the cultural practices of one's country of origin, and processes of assimilation.

Explaining the Epidemiological Paradox in Infant Outcomes

Children of Hispanic women, particularly those of Mexican descent, tend to have better infant outcomes than non-Hispanic whites. This is true despite higher levels of poverty, lower levels of education, and more limited access to prenatal care. Women born in Mexico who migrate to the United States have better birth outcomes than non-Hispanic whites and U.S.-born Mexican Americans (see Table 5). Mexican immigrants are one of the most disadvantaged groups in this country relative to non-Hispanic whites and are generally more disadvantaged than U.S.-born women of Mexican descent. Foreign-born women are socioeconomically disadvantaged, start pre-

TABLE 5 Birth Outcomes of Mexican-Born, U.S.-Born Mexican American, and White Non-Latina Women in California

	U.S.-Born Mexican American Women	Mexican-Born Women	Non-Latina White Women
Infant mortality per 1,000 live births	7.4	5.3	5.7
Low-birthweight babies (%)	6.3	4.0	5.6
Neonatal mortality per 1,000 live births	4.8	3.6	3.7
Postneonatal mortality per 1,000 live births	2.6	1.7	2.1

SOURCE: Workshop presentation by Sylvia Gundelman, April 10, 2002.

natal care later, and have shorter birth spacings. Despite this, women born in Mexico have lower rates of low-birthweight babies and neonatal mortality than do non-Hispanic white women and U.S.-born women of Mexican descent.

One possible explanation for this paradox is selective migration, or the "healthy immigrant phenomenon." Regardless of their country of origin, immigrants are a self-selecting group who may be healthier, have strong psychological resources to rely on, are highly motivated, perceive themselves as making progress compared to those in their home country, and possess enough economic resources to travel to a new country. As a result, those individuals who do successfully migrate tend to be a healthier, more resilient group despite their socioeconomic status. In short, selective migration may mean that only the hardiest individuals arrive in the United States and that qualities endogenous to this group account for paradoxes in health.

A different possible explanation of why Mexican-born immigrants to the United States have positive birth outcomes focuses on social characteristics and behaviors that may protect the health of immigrants. Using data from focus groups with women living in rural and urban areas in Mexico as well as Mexican immigrants in California, Sylvia Guendelman found that adherence to cultural practices common in Mexico seems to be beneficial to the health of migrant women's children. For example, women born in Mexico have very low rates of smoking and illegal drug use and they tend to adhere to a nutritional diet that includes very little processed and fast foods. In addition, results from survey data also demonstrate low rates of substance use and positive dietary intake of Mexican women of reproductive age (Guendelman and Abrams, 1995).

Adherence to traditional Mexican cultural values concerning gender roles may be another protective factor. Women's orientation toward motherhood appears to be a particularly important aspect of why traditional gender roles might exert a protective effect on infant outcomes. Guendelman's research has shown that Mexican-born women have a very strong orientation toward motherhood, viewing parenting and taking care of the household as their primary responsibilities even if they also work outside the home. Many women try to take early maternity leave to minimize stress and adhere to "cuarentena," the traditional 40-day period after giving birth during which a woman follows certain dietary and activity restrictions in order to recover and bond with her newborn (Kurzon, 2000).

In contrast to Mexican-born women, Mexican American women do

not define motherhood as necessarily life defining and are ready to assume multiple roles (Guendelman et al., 2001). They tend to be more flexible with regard to gender roles than Mexican-born immigrants, less reliant on a male partner's income, and have a greater sense of autonomy. Nonetheless, Mexican American women still express a strong orientation toward motherhood, suggesting that these qualities need not be in conflict with a commitment to parenting. This strong orientation toward motherhood may also exert protective effects on birth outcomes, while not viewing motherhood as life defining may also avoid some of the risks that can come from a high level of female dependence on male partners for economic support.

Interestingly, this pattern of protective effects from adherence to traditional gender roles on the birth outcomes of Mexican-born women living in the United States has been observed in other immigrant communities as well. North African immigrants in France and Belgium also have positive infant outcomes (Guendelman et al., 1999). Like Mexican-born women in the United States, these immigrants demonstrate a similar adherence to traditional gender roles and are disadvantaged compared to native-born women, yet they have positive infant outcomes compared to more advantaged native-born women, suggesting the possibility of capitalizing on cultural values as a way to promote healthy birth outcomes (Guendelman et al., 2001). Nevertheless, adherence to traditional gender roles does carry certain risks for women and children. For example, social supports from a spouse can reduce stress if workloads are shared, as they often are during pregnancy. However, if work sharing does not occur or if a woman becomes isolated from other forms of social support due to strict adherence to gender roles, stress may be increased rather than decreased, with negative health outcomes later.

In addition to the positive outcomes that appear to be associated with adherence to the values and gender structures associated with Mexican culture, many immigrant families and communities have a network of survival strategies meant to fight poverty and reduce the negative impact of low income levels. These strategies include strong reliance on one's family rather than government aid; assigning family members to different roles, responsibilities, and occupations; pooling incomes in the household; providing mutual support for such activities as caring for children and sick family members and domestic duties such as cooking; and viewing children as assets to the family. These strategies may also alleviate some of the stress associated with low income and may exert protective effects on the health of family members (Guendelman et al., 2001).

Effects of Assimilation

Given that the positive birth outcomes of Mexican-born immigrants may be partly due to the resources possessed by this group (i.e., the healthy immigrant phenomenon) and to adherence to traditional cultural values or other sociocultural attitudes and behaviors, under what circumstances are those protections maintained or lost as immigrants spend more time in the United States? Researchers have pointed to the process of assimilation as a possible explanation for increases in negative health behaviors and poor infant outcomes with increased time spent in this country. In general, assimilation and acculturation have many positive effects for new immigrants. Most groups do better as they acquire English-language skills and social capital (e.g., the ability to gain access to and make effective use of U.S. institutions), develop job and social support networks, and improve education levels and socioeconomic status. However, acculturation often means that immigrants also adopt negative aspects of American culture, and the protective health behaviors associated with their native culture may be lost.

Assimilation and acculturation have been cited to explain the differences in infant outcomes observed between Mexican Americans and Puerto Rican women born in this country and residing on the U.S. mainland. Mexican Americans have tended to acculturate more slowly, and Mexican communities tend to retain a strong ethnic identity even as their time in the United States lengthens. As a result, Mexican Americans often have lower levels of education and income but better health outcomes. In contrast, Puerto Ricans are heavily exposed to American culture while still living in Puerto Rico and assimilate to American mainland culture rapidly without retaining their old protective factors. Although a number of factors influence infant outcomes, these differences in assimilation patterns may explain part of the reason why Mexican Americans have better infant health outcomes compared to Puerto Rican women who have spent a similar length of time on the U.S. mainland.

At the workshop, Nancy Landale explored the role of assimilation in the health behaviors and infant outcomes of Puerto Rican women. Using data from the Puerto Rican Maternal and Infant Health Study,[6] Landale

[6]Information on the Puerto Rican Maternal and Infant Health Study can be found online at <http://www.pop.psu.edu/prmihs/prmihs-begin.htm> (viewed online June 1, 2002).

compared the outcomes of Puerto Rican-born women who migrated from Puerto Rico to the U.S. mainland either late in life (i.e., after age 10) or early in life (i.e., before age 10) as well as mainland-born women of Puerto Rican descent. Landale found that time spent on the U.S. mainland was associated with a significant increase in stressful life events (such as being homeless, being a victim of domestic violence, or becoming unemployed), an increase in negative health behaviors, and higher rates of infant mortality (Landale et al., 2000).

In terms of behaviors that directly affect health, early migrants were more than twice as likely to smoke or drink as late migrants: more than 7 percent of late migrants smoked and more than 2 percent drank alcohol compared to over 16 percent and almost 7 percent of early migrants, and more than 17 percent and over 4 percent, respectively, of mainland-born Puerto Ricans (Landale et al., 2000). In essence, more poor health behaviors were adopted by Puerto Rican women the longer they lived on the U.S. mainland. Guendelman et al. (2001) observed a similar erosion of protective health behaviors among Mexican immigrants: after 5 years of U.S. residence, healthy behaviors began to decline.

The adoption of negative health behaviors as well as increased exposure to stressful life events may offer a possible explanation for the increased likelihood of infant mortality among Puerto Rican women who lived on the U.S. mainland for long periods of time (see Figure 5). Infant mortality

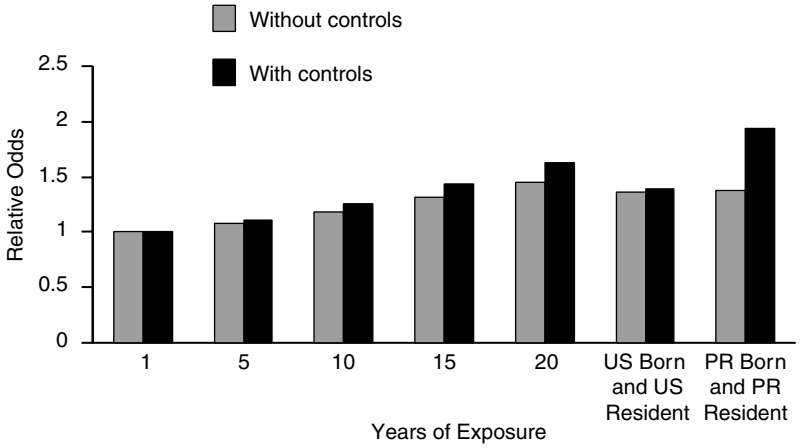

FIGURE 5 Relative odds of infant mortality for Puerto Rican migrants by length of time on U.S. mainland.
SOURCE: Workshop presentation by Nancy Landale, April 10, 2002.

was highest among migrants who have been on the U.S. mainland for 20 years and lowest among migrants who lived on the U.S. mainland for 1 year (Landale et al., 2000).

It would seem from these data that the negative effects of acculturation and assimilation are inevitable for Hispanic immigrants. However, Guendelman noted that this may not be the case. Adaptation to American society may not actually be along a linear path toward increasing Americanization for all groups. Rather, adaptation may be segmented as immigrants initially retain certain characteristics and strong ties to their country of origin, perhaps traveling back and forth between the two countries. Evidence of this segmented process may lie in the outcomes of later generations. An acculturation process in which only positive norms and values are adopted from American culture while protective health behaviors are retained may lead to upward mobility and a growing Hispanic middle class. In contrast, adoption of risky behaviors and the abandonment of protective factors may yield downward mobility. Both types of processes may be occurring among Hispanics currently living in the United States. Research that examines segmented processes of assimilation may help explain how and why some Hispanics achieve middle-class status while others experience declines in health and fail to achieve economic stability. Research may shed light on possible strategies to facilitate the retention of protective factors while acquiring English-language skills, education, and greater ability to navigate U.S. institutions.

HEALTH CARE COVERAGE[7]

A number of barriers prevent Hispanics from obtaining health insurance in this country. Structural factors such as working for small businesses that do not provide group insurance and low incomes that discourage some Hispanics from electing to buy insurance because of the relatively high cost of premiums contribute to higher numbers of uninsured people. Furthermore, such barriers as not being offered employment-based insurance benefits, language barriers to the election process, and negative perceptions about health care services also may reduce coverage among Hispanics. De-

[7]This section draws heavily on meeting presentations by E. Richard Brown of the University of California, Los Angeles; Claudia Schur of the Center for Health Affairs; and Michael Perry of Lake, Snell, Perry & Associates.

spite these barriers, though, studies have found that when Hispanics are offered employment-based insurance, they have similar patterns of take-up rates (i.e., electing to take the insurance coverage) as non-Hispanic whites (Cooper and Schone, 1997; Quinn, 1999; Schur and Feldman, 2001). In conjunction with focus group data showing that Hispanics express significant interest in health insurance, their high take-up rates suggest the value Hispanic families place on coverage despite the cost of premiums. This section reviews data on the extent to which Hispanics have access to health insurance as well as the reasons for disparities in coverage.

Hispanics are the least likely ethnic group to have health insurance: 35 percent of Hispanics ages 0 to 64 are uninsured, compared to 11 percent of non-Hispanic whites and 20 percent of African Americans (see Figure 6). These high rates of being uninsured persist among Hispanics despite having higher rates of Medicaid and State Children's Health Insurance Pro-

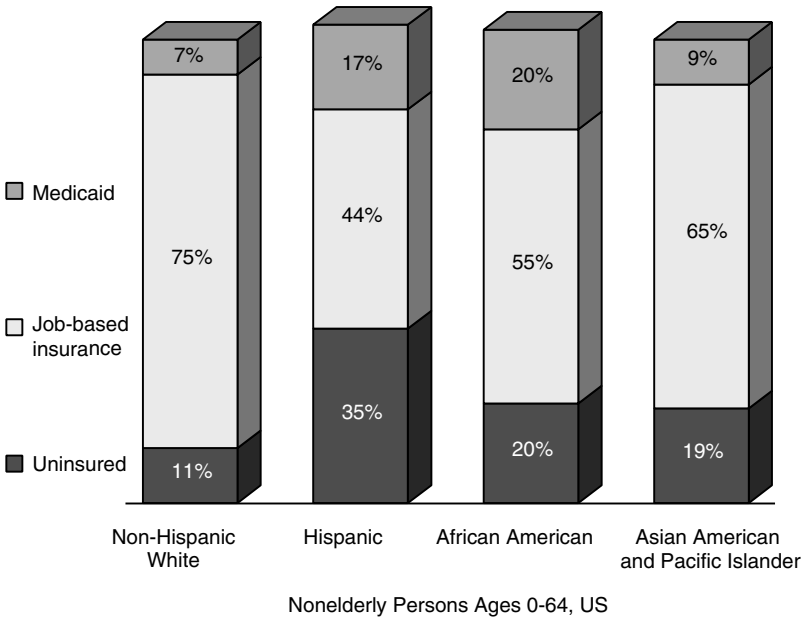

FIGURE 6 Uninsured rates among nonelderly (ages 0 to 64) non-Hispanic whites, Hispanics, African Americans, and Asian Americans and Pacific Islanders.
SOURCE: Workshop presentation by E. Richard Brown, April 10, 2002.

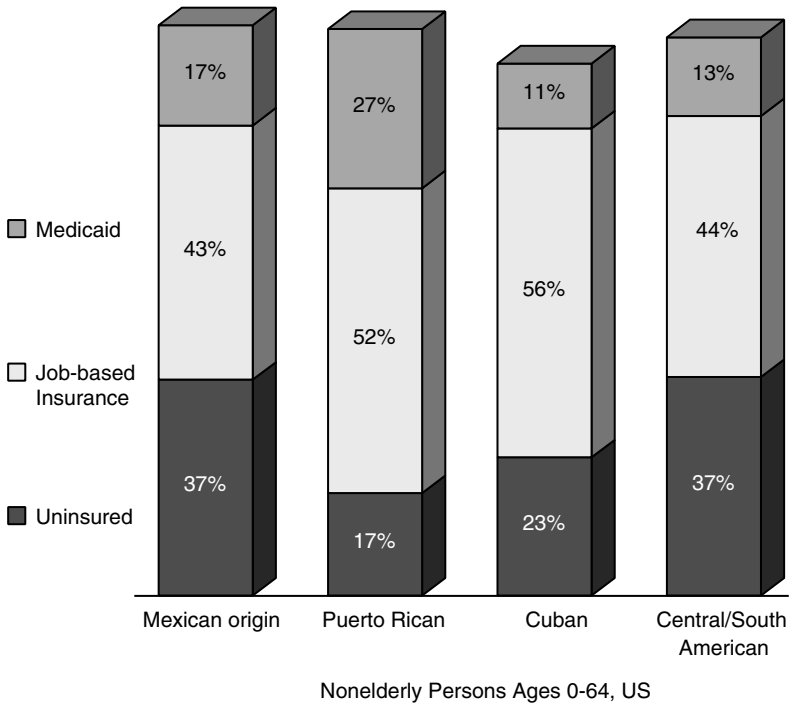

FIGURE 7 Health insurance coverage among nonelderly persons (ages 0 to 64) by major Hispanic ethnic group.
SOURCE: Workshop presentation by E. Richard Brown, April 10, 2002.

gram (SCHIP) coverage: 17 percent of Hispanics receive this type of insurance compared to 7 percent non-Hispanic whites.

Access to health insurance coverage also varies by national origin. Mexican Americans and Hispanics of Central and South American descent have very low rates of employment-based insurance coverage, and both groups have the highest rates of uninsurance (37 percent; see Figure 7). Puerto Ricans have the highest rates of Medicaid coverage (27 percent). The relatively low levels of Medicaid coverage among Hispanics of Mexican, Cuban, and Central and South American descent is likely due to noncitizenship status. In general, noncitizenship status is a barrier to insurance coverage. For example, 58 percent of Hispanic citizens ages 18 to 64 have employment-based insurance compared to only 33 percent of Hispanic noncitizens.

In addition to having the lowest levels of health insurance coverage of any type, Hispanics are the least likely group to receive employment-based health insurance. Only 44 percent have such coverage compared to 55 percent of African Americans and 75 percent of non-Hispanic whites. In a study of families with at least one full-time, year-round, employed adult, Hispanics still had low rates of employment-based insurance and high rates of no insurance. Only 56 percent of full-time, year-round Hispanic workers had employment-based insurance compared to 85 percent of non-Hispanic whites, and 30 percent of these workers were uninsured (Schur, 2001).

Part of the explanation for low rates of employment-based insurance coverage among Hispanics is that many Hispanic adults are likely to work for employers that do not offer health care benefits—29 percent of Hispanic employees compared to only 12 percent of non-Hispanic whites. Hispanics are more likely to hold jobs in agriculture, construction, and retail trade, and recent immigrants are overrepresented as workers in eating and drinking establishments. All of these industries are less likely to offer health care benefits to their workers. In addition, Hispanics are more likely to work for small businesses, which often do not offer insurance to their workers because of the costs (Schur, 2001).

Another explanation for low rates of employment-based health coverage is that Hispanics working for companies of all sizes are still less likely to qualify for or be offered insurance than are non-Hispanic whites. U.S.-born Hispanics are more likely than immigrants to have access to insurance, whereas earlier immigrants are more likely than recent immigrants to have access. This may suggest changes in a person's eligibility status as well as changes in Hispanics' ability to navigate the process of electing health care. Language barriers and newness to the cumbersome process of electing health insurance may prevent many recent immigrants from taking advantage of available health care benefits.

Using focus group data, Michael Perry uncovered several barriers that may contribute to higher uninsured rates among low- to moderate-income Hispanic families. Some families cite lack of affordability of premiums and their need to make difficult choices in order to pay living expenses as a reason to decline coverage. In addition, some study participants who had experience with insurance benefits were not pleased with their previous coverage, believing that it was too expensive and did not cover enough services to warrant the premium. This suggests that, even though Hispanics may value health insurance, low income levels may affect their decision

whether to choose to elect insurance coverage. Similar decisions may be made by low-income non-Hispanic whites, which could explain why take-up rates tend to be similar for these groups (Perry et al., 2000).

Focus group participants also reported that, when looking for employment, most focused primarily on finding a job with a given salary rather than obtaining a position with health insurance. Insurance was viewed as secondary in importance compared to income. During job interviews, few prospective employees asked about or engaged in any negotiations concerning job benefits. However, study participants who had experience paying large out-of-pocket medical bills, who had chronic health care needs, or who had children placed considerably more value on insurance coverage than did others and tended to make it a higher priority in their job searches. In contrast, focus group participants who had negative experiences with previous coverage, such as long waits, rushed visits with doctors, or rude treatment by medical staff, were more likely to decline insurance coverage (Perry et al., 2000).

In addition to concerns about the cost of premiums and perceptions about the value of insurance given negative experiences with the health care system, several other concerns have emerged as barriers to Hispanics taking advantage of available insurance benefits:

- Recent immigrants expressed concern that signing up for health care benefits might threaten their immigration status and feared intrusive questions about themselves and their households.
- Many Hispanic families had a negative view of insurance plans, such as SCHIP, that covered only certain members of the family.
- Many Hispanic families were unaware that they qualified for various state-sponsored insurance programs and in some cases employment-based insurance.
- Language barriers encumbered the process of electing health care coverage and of finding a physician in a convenient location.

Efforts to improve awareness among Hispanic communities of eligibility for various insurance programs, to increase the accessibility of the insurance election process and the availability of health care services, and to reduce some of the concerns Hispanics have about health insurance could increase insurance coverage in this population. In addition, programs that would lower the cost of premiums or create sliding scales would help. Study participants expressed willingness to pay for health care coverage and stated

that efforts to reduce premiums could make a big difference in their ability to take advantage of available benefits.

EMERGING ISSUES

Threats to the health status of elderly Hispanics, mental health, and "missed opportunities" were three final topics explored at the meeting. To date, these issues have been of relatively low priority for researchers, yet in the near future they may become particularly important to Hispanic health. This final section highlights each of these issues and the barriers they may represent in the future to Hispanic health.

Health Issues of Elderly Hispanics[8]

Although the elderly (individuals age 65 and older) represent a relatively small proportion of the Hispanic population in the United States, their numbers will increase substantially in the coming years. In 2000 the elderly Hispanic population represented about 5 percent of the total Hispanic population in this country, but by 2025 it will likely be 10 percent. Proper planning for this expected growth could help to control health care costs and improve the quality of life for elderly Hispanics by targeting risk factors that lead to disability and disease.

Not unlike other subsets of the Hispanic population in the United States, an epidemiological paradox has been observed among elderly Hispanics: even though 20 percent of elderly males and 25 percent of elderly females were living in poverty in 1997, Hispanics tend to have longer life expectancies than non-Hispanic whites. However, several important patterns of disease and risk profiles that may decrease quality of life are prevalent among elderly Hispanics. Diabetes, obesity, and disability are high among Mexican Americans and Puerto Ricans. Hispanics are also more likely to have undiagnosed and therefore untreated hypertension.

Elderly Hispanics have low rates of institutionalization despite higher rates of disability, suggesting either that they have better-than-average social support mechanisms to draw on or that many elderly Hispanics may

[8]This section draws heavily on the meeting presentation by Kyriakos Markides of the University of Texas Medical Branch.

not be receiving the treatment they need. Many elderly Hispanics also have high rates of functional and instrumental disabilities compared to non-Hispanic whites. This means that many elderly Hispanics are unable to accomplish ordinary activities associated with daily living (e.g., bathing, meal preparation, grocery shopping without help).

In terms of health behaviors, elderly Hispanic men have high rates of smoking and binge drinking. Alcohol use among women is low, although it increases with acculturation. Fewer women smoke than men. Finally, elderly Hispanics have low rates of physical activity, which may mean that any degenerative conditions they have will deteriorate more quickly and the incidence of other health problems will develop more rapidly.

In one study of Mexican Americans, a high prevalence of depressive symptomology was found in both men and women. This high prevalence is of great concern because depression was found to have a negative effect on other medical conditions. In particular, this study found an interactive effect between diabetes and depressive symptoms such that elderly diabetics who were depressed were three times more likely to die than those with only diabetes (Black and Markides, 1999).

Although elderly Hispanics currently make up a small percentage of the overall Hispanic population, these emerging patterns of morbidity offer important insights regarding the health challenges likely to affect a growing number of aging Hispanics. High rates of diabetes and hypertension are likely to continue to be prevalent. Many of these and other health problems affecting older Hispanics are conditions that can be positively affected by changes in lifestyle. It is also possible that in the future cost-effective interventions that make use of relatively simple screening techniques could reduce the extent to which certain conditions contribute to higher rates of disability among Hispanics. For example, hypertension is easy to screen for and to treat. Markides found in one intervention-based study, that a series of easily administered functional tests such as an 8-foot walk, repeated chair stands, and standing balance among nondisabled elderly were powerful predictors of disability rates two years later. Early intervention to improve strength and balance in the elderly could improve their quality of life and prevent acute problems such as fractures due to falls. That the techniques involved in this type of early screening are relatively easy to administer and have good predictive results is encouraging in terms of developing future interventions. The challenge lies in developing effective strategies to reach the elderly and in identifying funding for such interventions.

Mental Health[9]

As with physical health, Hispanics demonstrate a paradox with regard to mental health in that their rates of mental health problems are lower than for non-Hispanic whites and lower than would be expected given their low socioeconomic status. Despite this positive outlook, there are a number of destabilizing factors that may put Hispanics at risk for mental health problems. For example, the Hispanic population in this country is increasing rapidly, many Hispanic children live below the poverty line, Hispanic communities are often geographically isolated in blighted inner-city neighborhoods, and many Hispanics have low levels of educational attainment.

Researchers have observed that the positive mental health status of Hispanics tends to erode with time spent in the United States (see Table 6). In one study Mexican immigrants residing in this country for less than 13 years were found to have lower rates of mood disorders, anxiety disorders, and drug abuse or dependence than did Mexican immigrants living here longer than 13 years. All immigrants had lower rates of disorders than U.S.-born Mexicans, and the rates of major depression among second-generation Hispanics exceeded normal population rates for the United States (Vega and Alegria, 2001).

Acculturation is one possible explanation for the negative changes observed in mental health status. Social support and traditional values tend to erode with greater exposure to American society, and risk factors such as increases in marital instability, low educational attainment, increased experimentation with drugs and alcohol, and changes in emotional support structures and gender roles all become more prevalent among Hispanics as they spend more time in the United States and begin to assimilate to American culture.

The effects of acculturation on mental health status have important implications for Hispanic youth. Children tend to acculturate more rapidly than adults, and differences in family members' levels of assimilation can become a significant source of intergenerational stress that undermines family relationships. Minority status can also have a negative impact on mental health in that social experiences that foster youth's perceptions that American society is hostile toward them and disinterested in their well-

[9]This section draws heavily on the meeting presentation by William Vega of the Robert Wood Johnson Medical Center.

TABLE 6 Lifetime Prevalence of Psychiatric Disorders Among Migrant Workers and Residents in the Mexican American Prevalence and Services Survey, Among Residents of Mexico City, and Among Respondents to the National Comorbidity Survey[a]

	Mexican American Prevalence and Services Survey Respondents, % (SE)					Comorbidity Survey Respondents, % (SE)	
	Migrant Workers	Immigrants <13 Years in U.S.	Immigrants >13 Years in U.S.	U.S.-Born	Mexico City Respondents, % (SE)	Hispanic Sample	Total
Any mood disorder	5.9(0.8)	5.9(1.4)	10.8(2.0)	18.5(1.7)	9(0.1)	20.4(2.8)	19.5(0.6)
Any anxiety disorder	12.1(1.1)	7.6(1.2)	17.1(2.1)	24.1(2.0)	8.3(0.8)	28.0(2.5)	25.0(0.8)
Any drug use or dependence	10.0(1.1)	9.7(2.6)	14.3(1.9)	29.3(2.0)	11.8(0.8)	24.7(2.7)	28.2(1.0)
Any disorder	21.1(1.5)	18.4(2.7)	32.3(2.6)	48.7(2.3)	24.7(51.4)	51.4(2.7)	48.6(1.0)

SE, standard error.

[a]All prevalence rates are adjusted to the National Comorbidity Survey's total age-sex distribution and are for people ages 18 to 54.

SOURCE: Alderete et al. (2000). Reprinted with permission.

being can facilitate experimentation with behaviors that foreclose opportunities for optimal development.

U.S.-born Hispanic youth also seem to have lower expectations about academic performance than do immigrant children. Lower expectations are often associated with behaviors that do not facilitate educational attainment (e.g., doing less homework, watching more TV). Unfortunately, the negative effects of acculturation may already be at work on Hispanic youth. Studies suggest that Hispanic adolescents have higher rates of suicidal behavior than other ethnic groups—over 10 percent of Hispanic youth had attempted suicide compared to about 7 percent of African American youth and about 6 percent of non-Hispanic white youth. U.S.-born Hispanic youth also exhibited more serious conduct problems, such as misbehavior in school, delinquency, teen pregnancy, and drug use. These negative behavioral consequences suggest a widespread sense of demoralization among Hispanic adolescents (Vega and Alegria, 2001).

Unfortunately, mental health services are currently underutilized by Hispanics of all ages. For example, in one study Mexican Americans experiencing mental health problems were less likely to consult a mental health specialist than non-Hispanic whites (Vega et al., 1999). Some researchers have speculated that there may be cultural barriers to the use of mental health services by Hispanics. For instance, stigma associated with mental illness or lack of information about available services could reduce utilization. High rates of uninsurance and lack of access to services may also create difficult structural barriers to receiving care. Differential treatment in U.S. institutions is another explanation of lower utilization rates among Hispanics. For example, although Hispanic youth are overrepresented in the juvenile justice system, they are less likely to receive therapeutic services than are non-Hispanic whites.

Like the challenges to the physical health of elderly Hispanics, rates of mental health problems are currently favorable for the Hispanic population. However, the changing demographics of this population and the vulnerability of second-generation Hispanic youth suggest that mental health problems may be an important emerging issue for Hispanics. Population projections suggest that Hispanic youth will compose an increasing percentage of the total youth population—perhaps as much as 25 to 30 percent of the youth population—in the next 30 years (National Projections Program, 2000). Because this group will make up a significant part of the total youth population, it will be of increasing importance to meet the mental health care needs of Hispanic youth.

Addressing underlying social and behavioral determinants of mental health problems (e.g., racism, intergenerational alienation due to differences in assimilation) that affect Hispanic youth and reducing structural barriers that currently prevent Hispanic youth from receiving mental health care will be important goals in helping Hispanic youth become successful adults. Interventions that seek to capitalize on cultural strengths are largely unexplored in this area, and only limited data sets are currently available to researchers. Many opportunities to improve knowledge of this topic and the mental health outlook for future generations are thus available to researchers and practitioners.

"Missed Opportunities": Identifying Emerging Health Issues[10]

Threats to health emerge with more frequency, spread more rapidly, and often have more dire effects on populations living in disadvantaged areas than those in more advantaged communities. As a result, early detection of health problems—broadly defined as including new disease patterns, poor health behaviors and practices, and social problems such as domestic violence—is essential in preventing the effects of disease epidemics in poor and disadvantaged communities. Fernando Guerra described several new concepts and strategies that he has applied to public health efforts in San Antonio to accomplish this.

San Antonio is a metropolitan area that offers many important opportunities for identifying emerging health issues facing low-income Hispanics because of the high level of disparity prevalent in this area. For example, in 2000 Hispanics represented almost 59 percent of the population of San Antonio and about 67 percent of births. San Antonio has a small population of elderly Hispanics and a high population of younger adults and children. In some of the economically disadvantaged school districts, 80 to 90 percent of the enrolled students are Hispanic and have low performance scores on the Scholastic Aptitude Test. Hispanics in this area are also more likely to die from heart disease, cancer, and diabetes at a younger age than are non-Hispanic whites.

Guerra's first strategy to facilitate the identification of newly emerging health problems in communities like San Antonio was to familiarize health

[10]This section draws heavily on the meeting presentation by Fernando Guerra of the San Antonio Metropolitan Health District.

care practitioners with the concept of "missed opportunities." This concept refers to the subtle conditions, signs, symptoms, or other indicators of newly emerging health problems that occur in clinical or community settings. If these indicators go unobserved in terms of practitioners failing to notice new patterns, negative health consequences can result. In essence, practitioners need to be constantly on the alert for clues that may point to an emerging public health concern—be it low-birthweight infants, a cluster of cancer cases, or increases in such diseases as hepatitis—that could rapidly affect a large portion of the population. The concept of missed opportunities and the measures put in place to readily detect such opportunities offer an important direction for public health officials in protecting vulnerable communities.

Although the need for early detection is certainly not a new idea, at the workshop Guerra offered a new strategy to help identify a wide range of emerging issues—namely, the use of geographic information systems (GIS) to disaggregate population data in order to identify new trends and the communities affected by them. Trends pertaining to a wide range of health issues, including infant deaths, domestic violence, asthma cases that required hospitalization, rates of hepatitis, and pregnancies to young and unwed mothers, can all be mapped in order to identify clusters of activity (see Figures 8 and 9). Not only can this method help to readily identify emerging trends in a local area, the demographic profile of census tracts can be analyzed and warnings issued for census tracts with similar demographics. For example, in the San Antonio area hepatitis A has recently increased two to four times the national rate. Mapping these data and analyzing the demographic profiles of affected communities could help prevent an increase in hepatitis A cases in similar census tracts in other cities. In this way, communities like San Antonio may act as a sentinel for health issues for Hispanics in similar urban centers.

SUMMARY THOUGHTS

The meeting on Emerging Issues in Hispanic Health brought together a group of researchers with a diverse set of expertise. Although a number of issues pertaining to Hispanic health were raised at the meeting, the comments of participants converged around several topics. First, participants emphasized that the time is right for a major study of Hispanics, specifically one that would examine a broad range of subjects such as education, economic status, employment patterns, housing, and discrimination, which

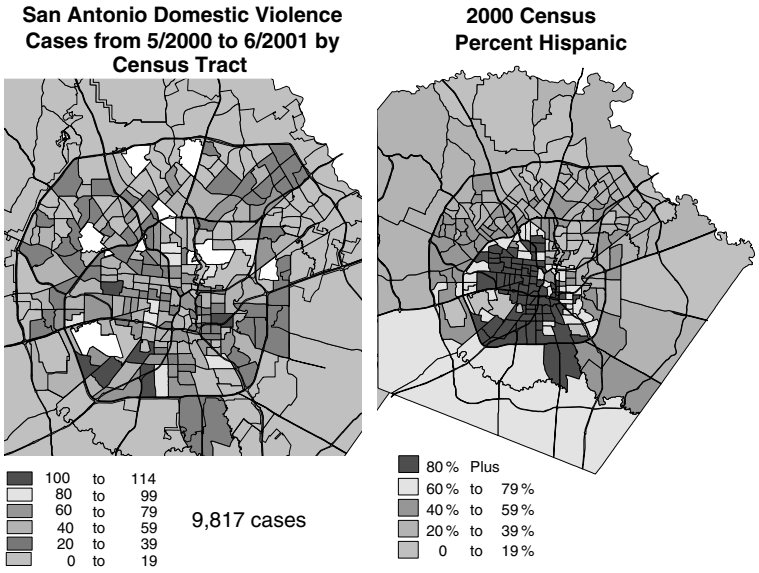

FIGURE 8 Examples of GIS population and epidemiological mapping: San Antonio domestic violence cases and Hispanic population by census tract.
SOURCE: Workshop presentation by Fernando A. Guerra, April 10, 2002.

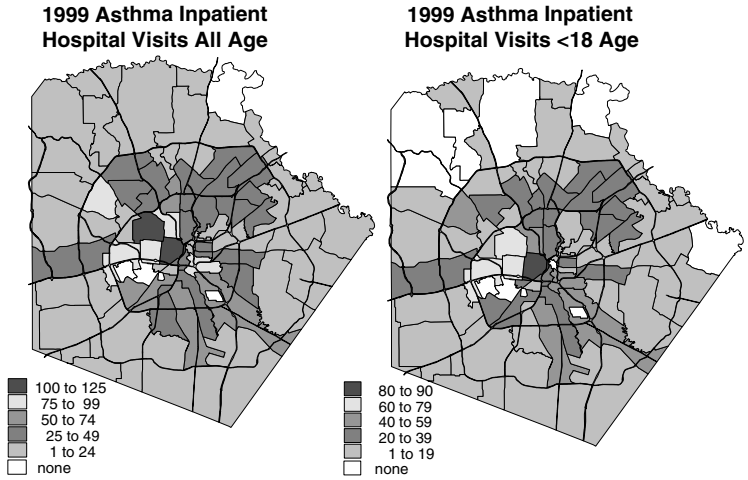

FIGURE 9 Examples of GIS population and epidemiological mapping: Hospital visits for asthma for all ages and minors in the San Antonio area by census tract.
SOURCE: Workshop presentation by Fernando A. Guerra, April 10, 2002.

are not only important in and of themselves but which also affect health in significant ways. Participants concurred that health should be one of the major priorities of such a study and that a discussion of health would ideally include an examination of such topics as social determinants of health; potential protective factors that may stem from Hispanic culture and community or, alternatively, from the effects of selective migration; risk factors associated with acculturation and assimilation; and opportunities to foster a "selective" acculturation process that would essentially retain the positive aspects of Hispanic culture while incorporating beneficial skills such as English-language acquisition and the ability to navigate American institutions.

Many participants also stressed the need for better methodologies to deal with the heterogeneity of the Hispanic community and the effects of selective immigration. Data collection methods must be able to accommodate the many identities, racial and ethnic backgrounds, migration experiences, and citizenship status that fall under the rubric "Hispanic." Better strategies to address the effects of a self-selecting group of Hispanics who immigrate to the United States also must be employed. For instance, studies that include control groups in the country of origin represent a step toward addressing the influence of selectivity. In addition, more sophisticated methodologies such as the use of GIS to track emerging health issues offer important opportunities to track the rapidly changing needs of Hispanic communities.

Participants noted that a future National Academies' study should pay careful attention to the needs of specific subgroups within the Hispanic population. Hispanic youth are one such group. Not only does this group compose a significant proportion of the total Hispanic population, their ability to achieve long-term social and economic success and stability will be of significance as they age and become either a more vulnerable or successful group. Finally, planning for the emerging health care needs of elderly Hispanic will be of great significance in ensuring that this group remains healthy and vital.

Critical unanswered questions regarding health remain. A larger study on Hispanics that took under consideration a broader range of factors beyond health (e.g., education, labor, housing, and other areas) could not only shed light on the status of Hispanics in the United States but also help answer some of these critical questions pertaining to health by providing an opportunity to better understand the interplay of health with social and behavioral determinants.

The multiethnic and multiracial character of American society today

continues to change rapidly. Hispanics now make up over 12 percent of the country's population and by 2050 are likely to constitute 25 percent (Day, 1996). Given that Hispanics are a relatively young and growing segment of the U.S. population, research and well-formulated public policy could help ensure that they have the resources to contribute maximally to American society.

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Appendix

Workshop Materials

AGENDA

April 10, 2002

8:45-9:30 a.m.
Introductions and Purpose of the Workshop

Jane L. Ross, Director, Center for Social and Economic Studies
- Welcome and Background for the Meeting

Raynard Kington, Director, Office of Behavioral and Social Sciences Research, National Institutes of Health
- NIH's Interest

E. Richard Brown, Workshop Chair, UCLA Center for Health Policy Research
- Goals and Format of the Meeting

9:30-10:45 a.m.
Session I: The Health Status of Hispanics

Jennifer Madans, Associate Director for Science, National Center for Health Statistics

Joe Fred Gonzalez, Office of Research and Methodology, National Center for Health Statistics

Elizabeth Arias, Division of Vital Statistics, National Center for Health Statistics

- What are the most common sources of morbidity, mortality, and acute and chronic illnesses in the Hispanic community, and how do they differ by national origin?
- What is the status of infant mortality and teen fertility?
- What are the health outcomes of Hispanics as they differ by national origin?
- What health patterns emerge for various age groups in the Hispanic population (e.g., children, adolescents, adults, elderly)?
- Who are the most vulnerable groups within the Hispanic population?
- What public health and mental health issues are most important (e.g., domestic violence, victims of violent crime, alcoholism)?
- Are there important workforce issues (e.g., occupational hazards, particular health risks to low-income workers or migrant laborers) that affect Hispanic health?

10:45-11:00 a.m.
Break

11:00 a.m.-12:45 p.m.
Session II: Determinants of Health: Exploring the Effects of Socioeconomic Status and Sociocultural and Behavioral Influences

Nancy Landale, Department of Sociology and Demography and Population Research Institute, Pennsylvania State University

Sylvia Guendelman, School of Public Health, University of California, Berkeley

Kyriakos Markides, Department of Preventive Medicine and Community Health, University of Texas Medical Branch

- What factors make Hispanics vulnerable to leading causes of morbidity, mortality, and chronic illness?
- What are the basic determinants of critical issues in Hispanic health?
- What sociocultural factors are important influences on Hispanic health, and what roles do immigration, acculturation, and close ties to one's country of origin play in shaping health outcomes?
- What can the healthy immigrant phenomenon and Hispanic paradox tell us about the possibility of capitalizing on protective factors for Hispanic health?
- How do language and social capital influence the health outcomes of Hispanics?

12:45-1:30 p.m.
Lunch

1:30-3:00 p.m.
Session III: Health Insurance and Access to Care

E. Richard Brown, Workshop Chair, UCLA Center for Health Policy Research

Claudia Schur, Project HOPE, Center for Health Affairs

Michael Perry, Lake, Snell, Perry & Associates

- To what extent do Hispanics have health insurance, and what are the barriers to obtaining insurance?
- How do immigration, citizenship, and length of time in the United States affect access to health care coverage?
- To what extent are Hispanics able to access health care?
- What are the barriers preventing Hispanics from seeking care compared to similarly insured groups?

3:00-3:15 p.m.
Break

3:15-4:30 p.m.
Session IV: Emerging Challenges and Formulating an Approach for the Larger Study

William Vega, Department of Psychiatry, Robert Wood Johnson Medical Center

Fernando A. Guerra, San Antonio Metropolitan Health District

- What other health issues loom on the horizon for Hispanics (e.g., by age, national origin), and what data and resources are available to explore these topics?
- What are the special health concerns, risk factors, and vulnerabilities of Hispanic infants, children, adolescents, and the elderly?
- What institutions are best positioned to provide care to Hispanic children?
- What are the key mental health issues for Hispanic communities, and what segments of the population are most vulnerable?
- What are the methodological challenges in collecting data on Hispanics (e.g., small samples, heterogeneity, need for qualitative research)?

4:30-5:00 p.m.
Next Steps and Discussion

5:00-5:30 p.m.
Wrap-up Comments

5:30 p.m.
Adjourn

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