CHARACTERISTICS OF LATINOS WITH NO USUAL SOURCE OF CARE

BY

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Abstract

Disparities in healthcare access persist across racial/ethnic groups. These disparities are greatest among the Latino population compared with other racial or ethnic groups. Latinos are less likely to have a usual source of care and utilize the healthcare system. It is important to explore the factors that are related to healthcare access of the Latino population, define those that are even less likely, and find characteristics that would have the most impact on increasing access.

Adult Latino respondents of the 2006 National Health Interview Survey were used (N=4,193). Descriptive analyses, crosstabulations, and logistic regression were used to describe the associations of sociodemographic characteristics, acculturation, and health insurance coverage with not having a usual source of care. Attributable risk equations were used to define the characteristics that would have the greatest impact on increased access to healthcare.

This study found that nearly 35% of Latinos are without a usual source of care. All sociodemographic and acculturation measures were significantly associated with not having a usual source of care. There are subgroups of the Latino population that have even worse access to healthcare, including those without health insurance, with low levels of acculturation, and those under 40 years old. Not having health insurance generated the highest odds and attributable risk for not having healthcare access.

This research has shown that expanding insurance coverage should be a major part of any strategy to increase healthcare access among the Latino population in the U.S. Although increasing health insurance coverage will most likely improve access to healthcare, the expansion of insurance coverage alone will not effectively increase access to healthcare for all Latinos in the U.S. This means that to eliminate disparities in access to health care, interventions must also focus on education and acculturation levels of the Latinos population.

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CHAPTER ONE

Introduction

The overall health of the American population has improved over the past few decades, but all Americans have not shared in these improvements equally. For example, among nonelderly adults, 17% of Hispanic, and 16% of black Americans reported they were in only fair or poor health, compared with 10% of white Americans ("Addressing Racial and Ethnic Disparities in Health Care Fact Sheet," 2000). Ethnic/racial disparities in health have been well established in the literature ("National Healthcare Disparities Report, 2003," 2004; "National Healthcare Disparities Report, 2007," 2008; *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, 2002). Racial, ethnic, and socioeconomic groups suffer disproportionately from preventable or treatable chronic conditions, such as hypertension and diabetes ("National Healthcare Disparities Report, 2003," 2004).

The word “disparity” can be defined as the condition or fact of being unequal, as in age, rank, or degree. Synonyms used for disparity include inequality, unlikeness, disproportion, and difference (NHDR 2003). It is important that healthcare disparities be distinguished from health status disparities. LaVeist (2005) defined the term *healthcare disparities* as differences in the access, use, quality, or outcomes of healthcare services received by racial/ethnic minorities. In contrast, the term *health status disparities* refers to the differences among racial/ethnic groups in health status (that is, morbidity, mortality, functional status, or disability). The National Institute of Health (NIH) defined *health disparities* as “the differences in the incidence, prevalence, mortality and burden of diseases and other adverse health conditions that exist among specific population groups in the U.S.” (p.17) (NIH, 2008). These differences can be among racial/ethnic groups, gender groups, socioeconomic groups, and other groupings. Disparities are most easily identified when there is a clear reference point for what is appropriate and reasonable to expect (NHDR, 2003). The reference point used in most studies is white Americans.

In early 1998, the Clinton Administration launched the Racial and Ethnic Health Disparities Initiative to eliminate racial/ethnic differences in six health related areas by the year 2010. This initiative drew increased attention to the fact that despite marked improvements in the nation’s overall health, minority groups continued to face significantly higher disease incidence and mortality rates than did whites (Waidmann & Rajan, 2000). Healthy People 2010 also contributed to the interest in ethnic/racial disparities in healthcare access. In addition to goals related to ethnic/racial disparities of specific health conditions and mortality rates, one of the Healthy People 2010 goals was the elimination of disparities in access to high-quality healthcare. Eliminating these health disparities was one of the central goals of the Healthy People 2010 campaign (USDHHS, 2000). In 2003, the Institute of Medicine (IOM) issued a groundbreaking report that highlighted the problem of racial and ethnic disparities in health care in the United States (U.S.). This report extensively documented health care disparities in the U.S. by race and ethnicity (*Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, 2002). The IOM’s examination found that disparities in health care were substantial, even after accounting for characteristics typically associated with disparities, such as health insurance coverage and income. This report further highlighted access as a key component of a high-quality health care system (Zuvekas &

Taliaferro, 2003). The reasons behind these health related disparities seem to be multiple and complex. This research area has just recently been brought to the forefront so this literature review will cover material from early 1990s to the present.

Starting in 2003, congress directed the Agency for Healthcare Research and Quality (AHRQ) to produce an annual report to track “prevailing disparities in health care delivery as it relates to racial factors and socioeconomic factors in priority populations (p.15)” (NHDR 2007). The National Health Disparities Report (NHDR) was designed and produced by the AHRQ, with support from the Department of Health and Human Services (HHS) and private sectors, to respond to this legislative mandate. The 2007 NHDR is the fifth report to be released and characterizes whether gaps between priority populations and the reference group are growing larger, getting smaller, or have not changed (NHDR 2007). The 2007 report found that disparities in health care quality have not improved since the agency released its first report in 2003. For blacks, Hispanics, American Indians or Alaska natives, Asians, and the poor, measures of disparities that worsened significantly or remained the same outnumbered those that improved significantly (Voelker, 2008).

Voelker (2008) stated that, “after numerous reports and scientific studies that document disparities and decades of efforts by public and private initiatives, why is it that headway in reducing disparities appears mired in quicksand (p. 1412).” As reported by Voelker, Lillie-Blanton said the reason for disparities mostly involve three categories, including patient factors, provider factors, and health system factors. She added that, often times our interventions tend to focus on just one of these. But multiple factors have to be addressed and that is not easy in a system that is very complex and has many intertwining factors. As reported by Voelker, Gross, an associate professor of medicine indicated that even in insured populations, disparities persisted by stating, “We need to consider not only factors such as health insurance and patient education, which are critical, but also more challenging concepts such as profound inequities in socioeconomic status and distrust of the healthcare system by members of vulnerable populations (p. 1412).”

Despite the marked improvements in the nations overall health, all Americans have not shared in these improvements equally. A possible explanation for this is that disparities in access to healthcare persist across racial and ethnic groups, as well as disparities in health status (Zuvekas & Taliaferro, 2003). These disparities include being less likely to have a usual source of care and being more likely to lack health insurance, to receive fewer preventive services, including important advice from physicians to quit smoking and to eat healthy (Corbie-Smith, Flagg, Doyle, & O'Brien, 2002; Escarce & Kapur, 2006; Ku & Waidmann, 2003; LaVeist, 2005; Lillie-Blanton & Hoffman, 2005; Moy, Bartman, & Weir, 1995; Sambamoorthi & McAlpine, 2003; Waidmann & Rajan, 2000; Williams & Collins, 1995; Zuvekas & Taliaferro, 2003; Zuvekas & Weinick, 1999). It has also been reported that members of the ethnic/racial minority groups continue to have poorer access to high-quality health care services and report different patterns of use than those of whites (Escarce & Kapur, 2006; LaVeist, 2005; Lillie-Blanton & Hoffman, 2005; Waidmann & Rajan, 2000; Zuvekas & Taliaferro, 2003; Zuvekas & Weinick, 1999). These disparities in access could contribute to the ethnic/racial disparities in health status and outcomes, with the argument that health care treatment and outcomes are influenced by a person's ability to access the health care system.

Starfield and Shi (2004) reported on the benefits of having a usual source of care. They found that persons with a usual source of care experience improved health outcomes and reduced disparities (smaller difference between groups). Higher costs and greater disparities (larger difference between groups) are observed among individuals without a usual source of care (*The imortance of having health insurance and a usual source of care*, 2004; Starfield & Leiyu, 2004). Primary care is the foundation of the healthcare system, and research studies have shown that having a usual source of care raises the chance that people receive adequate preventive care and other important health services. Research suggests that having access to a regular doctor would significantly reduce the Latino/white non-Latino gap in healthcare utilization (Guendelman & Wagner, 2000).

The literature certainly points out that there are ethnic/racial disparities in both health status and access to healthcare. The research has also shown that these disparities are more prevalent among the Latino population. Several risk factors have been identified that are related to access to healthcare and will be explored further in the literature review.

Statement of Purpose

The main purpose of this investigation was to assess the role of scoiodemographic characteristics, acculturation, and health insurance coverage in having access to healthcare among the Latino population. A secondary purpose of this analysis was to identify the variables that will have the largest impact on increasing healthcare access among the Latino population.

Scope of the Study

A national population data base was used in this analysis. This national population data base was narrowed down to analyze only adult participants, 18 years and older, who reported being Latino. The sample was further narrowed to analyze Latinos, 18 years and older, who did not have access to healthcare by reporting not having a usual source of care.

Assumptions and Limitations

A limitation of this study was the cross-sectional design of the survey, which limits the ability to derive causal inferences; reliance on participants' self reports; and restriction of the analysis to those Latino individuals without a usual source of care. Responses to the survey questions may have been influenced by patient recall and recall bias. Another limitation of the study was not assessing language in which the survey was delivered. English proficiency is possibly related to the characteristics shown to be related to lack of access among Latinos. There was missing data for some of the sociodemographic variables which did not allow for income levels to be used in the analyses.

Hypotheses

Hypothesis 1: It is hypothesized that being younger, having less education, not being a U.S. citizen, living less than 10 years in the U.S., being foreign born, and having no health insurance would increase the odds of not having a usual source of care.

Hypothesis 2: It is hypothesized that after adjusting for all other variables, not having health insurance would have the highest odds ratio for predicting no usual source of care.

Hypothesis 3: It is hypothesized that not having health insurance would have the highest attributable risk for access to healthcare in the Latino population.

Definitions

The following definitions are provided for the terms needed in this study.

Acculturation: The adoption of the behavior patterns of the surrounding culture. Common measures of acculturation are preferred language, nativity, number of years in the U.S., and citizenship status.

Attributable Risk: The portion of the incidence of a disease in the exposed due to the exposure. It is the incidence of a disease in the exposed that would be eliminated if the exposure was eliminated. In this study, it is the portion of the incidence of not having a usual source of care due to the sociodemographic variables, acculturation measures, and/or health insurance coverage. Attributable risk will show which portion of the disparity in access is due to sociodemographic characteristics, acculturation, or health insurance. This is also frequently referred to as the “risk difference” when dealing with risk data or “rate difference” with rate or person-time data.

Born in United States: Those recorded as being born in the U.S. were those that were born in one of the 50 United States or D.C. and those that were born in a U.S. territory ("National Health Interview Survey," 2007).

Citizenship Status – The NHIS 2006 participants were asked if they were citizens of the U.S. Those recorded as citizens on the U.S. included those that were born in the 50 United States and District of Columbia, as well as persons born in U.S.-held territories, born abroad to U.S. Parent(s), and naturalized citizens ("National Health Interview Survey," 2007).

Health Care Disparities: Refers to the differences in the access, use, quality, or outcomes of healthcare services received by racial/ethnic minorities (LaVeist, 2005).

Health Insurance: The uninsured are 2006 NHIS participants that did not report having health insurance at the time of the interview under private health insurance, Medicare, Medicaid, State Children's Health Insurance Program (SCHIP), a State-sponsored health plan, other government programs, or military health plan ("National Health Interview Survey," 2007).

Health Status Disparities: Refers to the differences among racial/ethnic groups in health status (that is, morbidity, mortality, functional status, or disability) (LaVeist, 2005).

Hispanics or Latinos: According to the 2000 Census Bureau, are those people who classified themselves in one of the specific Spanish, Hispanic, or Latino categories listed on the Census 2000 questionnaire -"Mexican, Mexican Am., Chicano," "Puerto Rican", or "Cuban" -as well as those who indicated that they are "other Spanish/Hispanic/Latino." Persons who indicated that they are "other Spanish/Hispanic/Latino" include those whose origins are from Spain, the Spanish-speaking countries of Central or South America, the Dominican Republic or people identifying themselves generally as Spanish, Spanish-American, Hispanic, Hispano, Latino, and so on ("U.S. Bureaus of the Census," 2000).

Limited English Proficiency: Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English can be limited English proficient, or "LEP."

Population Attributable Risk: The portion of incidence of a disease in the population (exposed or unexposed) that is due to the exposure. It is the percent of the incidence of a disease in the population that would be eliminated if the exposure was eliminated. It is the percent of the incidence of not having a usual source of care in the Latino population that would be eliminated if the exposure (sociodemographic variable or health insurance coverage) were eliminated.

Preferred Language: Refers to the person's language of preference and may differ from first language (as defined as the language spoken at home) and is required for effective communication with the person. It is a standard measure of acculturation.

Provider Visitation: In the National Health Interview Survey (2006), as well as most other studies mentioned in this literature review, it is asked, " During the past 12 months, have you seen or talked to a general doctor who treats a variety or illnesses (a doctor in general practice, family medicine, or internal medicine)?"

Usual source of care: Refers to a facility where one regularly receives care (NHDR, 2007). Having a usual source of care will be defined as a dichotomous variable (having or not having a usual source of care). The usual source of care was determined by asking, "Is there a place that you usually go when you are sick or need advice about your health?" People who stated they had no place or who went to the emergency room was defined as having no usual source of care ("National Health Interview Survey," 2007).

Years lived in the United States: All persons participating in the 2006 NHIS not born in the U.S. were asked how long they had lived in the U.S. The answers were combined to have two categories in this variable, (1) those living in the U.S. less than 10 years and (2) those living in the U.S. 10 years or more ("National Health Interview Survey," 2007). If participants answered that they were born in the U.S., they were placed in the category of living in the U.S. 10 years or more.

Significance of Study

The Latino population of the U.S. are the least likely to have access to the healthcare system. A better understanding and identification of the underlying causes of limited access among Latinos is needed in order for policymakers to develop more targeted programs to achieve the lofty goals of eliminating health disparities. Policymakers need to know which factors will have the greatest impact on reducing disparities in the Latino population and where the health policy reforms may be most efficient in reducing these disparities in access to healthcare.

The majority of the U.S. population growth between now and 2050 is expected to come from racial and ethnic minority Americans and immigrants, and Latinos will soon become the largest minority population in the U.S. ("ASHP Statement on Racial and Ethnic Disparities in Health Care," 2008). The high representation and growth rate of the Latino community means that Latino morbidity and mortality rates have a greater public health impact (e.g., human and societal costs) relative to groups of smaller representation in the population, even when the absolute rates of a behavioral risk factor, disease, or cause of death may be lower than other ethnic groups. This implies that a small improvement in the health of the Latino community might have important social and health benefits reducing health related disparities between Latinos and the broader U.S. population.

The impact of the Latino population on the healthcare system must be considered as the healthcare reform debate continues. Identifying those in the Latino population that are even less likely to access healthcare is an important component in increasing access and is important for policymakers in order to increase the access of healthcare and preventive services received by the ethnic/racial minorities.

Different sociodemographic variables and measures of acculturation may have a varying impact on this specific population. This study provided an additional perspective on the extent to which access to healthcare could be improved by addressing specific characteristics, since very large relative risks may have a small effect on a population when the prevalence of the risk factor is low. Estimates of attributable risk will aid policymakers to increase healthcare access in the U.S. Latino population.

CHAPTER TWO

Literature Review

Introduction

The main purpose of the following literature review is to explore factors related to access to healthcare among Latinos. This literature review is divided into four sections; Access to healthcare, Latino disparities in access to healthcare, Factors associated with healthcare access among Latinos, and Implications of disparities in access to healthcare.

Access to Healthcare

It was stated in the 2007 National Health Disparities Report that access to health care means having the "timely use of personal health services to achieve the best health outcomes" (p.113). This report also stated that health care access is measured in several ways, including; (1) structural measures of the presence or absence of specific resource that facilitate health care, such as having health insurance or a usual source of care; (2) assessments by patients of how easily they are able to gain access to health care; and (3) utilization measures of the ultimate outcome of good access to care, i.e. successful receipt of needed services (NHDR 2007). For the purpose of this review, health care access will be measured by having a usual source of care and utilization of healthcare defined as having a visit to a provider in the past 12 months.

Having a usual source of care reduces nonfinancial barriers to obtaining care, facilitates access to health care services, and increases the frequency of contacts with health care providers (Escarce & Kapur, 2006). In particular, having a usual source of care provides a locus of entry into the complex health care delivery system when care is needed and serves as the link to more specialized types of care. Familiarity with a particular provider may also make people more comfortable in seeking care, make it easier to make appointments at convenient times, and reduce uncertainty about the costs or other inconveniences involved in obtaining care. A usual source of care enhances continuity and provides the connection with more specialized forms of care (Escarce & Kapur, 2006).

The 2003 NHDR reported having a ‘medical home’ or a distinct location where one can obtain integrated health care services, offers patients an opportunity to develop relationships with accessible clinicians who are accountable for addressing most health care needs. Having a usual source of care greatly increases the likelihood that a patient will receive preventive care, such as blood pressure and cholesterol monitoring; receive flu shots; and have prostate exams or Pap smears and mammograms (NHDR 2003). In the 2007 article, *Health Care’s Color Lines*, Dr. Marshall Chin stated that, “a regular primary-care doctor will have a better sense not just of your medical history but your attitudes and beliefs, what’s happening at home, who’s happening in your community. That breeds better care” (p. 30) (Gibson, 2007).

Some studies have reported that having a usual source of care is a very strong predictor of access to and utilization of health care. Sox, Swartz, Burstin, & Brennan (1998) compared the relative effects of having a relationship with a regular physician and insurance status on access to health care. The subjects were 1952 non-retired, non-Medicare patients aged 18 to 64 years who presented 1 of 6 chief complaints to 5 academic hospital emergency departments in Boston and Cambridge, Massachusetts, during a 1-month study period in 1995. After clinical and socioeconomic characteristics were controlled, lacking a regular physician was a stronger, more consistent predictor than insurance status of delay in seeking care (odds ratio [OR] = 1.6, 95% confidence interval [CI] = 1.2, 2.1), no physician visit (OR = 4.5, 95% CI = 3.3, 6.1), and no emergency department visit (OR = 1.8, 95% CI = 1.4, 2.4). The lack of a regular source of care was the only explanatory variable that was a statistically significant predictor of all three measures of poor access (Sox, Swartz, Burstin, & Brennan,1998).

Lambrew, DeFriese, Carey, Ricketts, and Biddle (1996) found similar results using data from the 1987 National Medical Expenditure Survey. They assessed the relationship between having a regular doctor and access to care, as measured by a set of preventive and primary care utilization indicators recommended by the Institute of Medicine. The results of the regression analyses suggested that individuals with any type of regular source of care had easier access than those without a regular source of care. They further explored this problem and found that persons with a regular doctor had easier access to primary care than those with just a regular site but no regular doctor (Lambrew, DeFriese, Carey, Ricketts, & Biddle, 1996). However, the apparent advantage of having a regular doctor over a regular site disappeared when only those individuals reporting a physician's office, clinic, or health maintenance organization as their regular source of care were compared. These results suggested that policies that promote the doctor-patient relationship will increase access, although the gains may be negligible for individuals who use mainstream primary care sites (physician's office, clinic, or health maintenance organization) versus sites such as walk-in clinics or emergency rooms.

Other researchers found that reporting a usual source of care is considered important because it has been shown that persons with a usual source of care are more likely to utilize the healthcare system. Schur and Albers (1996) used the 1987 National

Medical Expenditure Survey to examine the role of spoken language in access to healthcare for Hispanic adults. They presented and discussed demographic and health correlates of spoken language. They found that a usual source of care may signify a regular point of entry into the medical care system and ability to access or manage the system, and it may result in increased satisfaction and indicate a higher degree of community of care. Schur and Albers (1996) found similar results reporting that persons with no usual source of care were the least likely to have seen a physician or to have had their blood pressure checked, whereas those with a regular doctor appeared to have the greatest access. Other researchers have found that the presence of a usual source of care was a stronger, more consistent predictor of access to care than insurance status for patients (Moy et al., 1995; Sox, Swartz, Burstin, & Brennan, 1998).

It has also been reported that those with a usual source of care report less delays in obtaining care. Medical Expenditure Panel Survey (MEPS) respondents with a usual source of care were less likely to report having difficulty obtaining care or going without needed services (NHDR 2003). Weissman, Stern, Fielding, & Epstein (1991) conducted structured personal interviews with patients at or shortly after admission into five hospitals in Massachusetts. Subjects were drawn from a consecutive sample of all adult patients (excluding obstetrics or psychiatry patients) hospitalized during the first 6 months of 1987 as part of a larger study of hospital costs. Their objective was to determine characteristics of patients reporting delays in care before hospitalization and the reason for those delays. Weissman et al (1991) found that those without a regular physician are more likely to delay care than compared to those with a regular physician.

Some researchers have argued that persons without a usual source of care may simply be healthy and have no need access to health care. In the Sox et al. (1998) study, it was reported that patients with no regular physician were more likely to be healthy. Therefore, it may be that the lack of regular physician is not predictive of poor access to care for healthy patients. However, in this same analysis of patients with good or better health status, not having a regular physician remained an independent predictor of delay in seeking care and to report no physician visits and no emergency department visits (Sox et al., 1998). Other studies have found similar results. For example, Zuvekas and Taliaferro (2003) found that better health status is an unlikely explanation for lower use, because (where differences are statistically significant) whites tend to report slightly better health and health status difference played almost no role in explaining disparities. Waidmann and Rajan (2000) reported that Hispanics reported no usual source of care at higher rates than non-Hispanic whites, but they also reported fair or poor health status at higher rates.

The research shows that having a usual source of care is very important in receiving appropriate and adequate medical care. Research suggests that having access to a regular doctor would significantly reduce the Latino/white non-Latino gap in healthcare utilization (Guendelman & Wagner, 2000). A usual source of care may signify a regular point of entry into the medical care system and ability to access or manage the system, and it may result in increased satisfaction and indicate a higher degree of community of care (Schur & Albers, 1996). Having a usual source of care greatly increases the likelihood that a patient will receive preventive care, increases provider visitation, less likely to delay seeking care when needed ("National Healthcare Disparities Report, 2003," 2004; Sox et al., 1998; Weissman, Stern, Fielding, & Epstein, 1991).

Latino Disparities in Healthcare Access

The research showed that Latino Americans are considerably more likely to lack a usual source of care than white Americans (Escarce & Kapur, 2006; Ku & Waidmann, 2003; LaVeist, 2005; Lillie-Blanton & Hoffman, 2005; Schur & Albers, 1996; Waidmann & Rajan, 2000; Zuvekas & Taliaferro, 2003; Zuvekas & Weinick, 1999). Even when controlling for insurance, white non-Latinos (83.3%) were significantly more likely to have a regular doctor compared with Latinos (72.5%) (Guendelman & Wagner, 2000). From 1999 to 2005, the gap in having a usual source of care between Hispanics and non-Hispanic whites increased. In 2005, the proportion of persons with a specific source of ongoing care was significantly lower for Hispanics than for non-Hispanic Whites (76.9% compared with 89.4%) (NHDR 2007).

Data from AHRQ's Medical Expenditure Panel Survey (MEPS) revealed that about 30% of Hispanic and 20% of black Americans lack a usual source of care, compared with less than 16% of whites ("Addressing Racial and Ethnic Disparities in Health Care Fact Sheer," 2000). In a 13-state study, Waidmann and Rajan (2000) found that Latinos were consistently and significantly disadvantaged in access to health care as compared to whites. They used data from the National Survey of America's Families (NSAF), which was collected between the periods of February-October 1997 and 1999. Waidmann and Rajan (2000) examined health insurance at the time of interview, whether the respondent had a usual source of care, whether the (female) respondent had a breast clinical exam in the past 12 months, and health status. The researchers reported that

Latinos were more likely to be uninsured, more likely to not have a usual source of care, more likely to not have a breast exam in the past year (women), and were more likely to report fair or poor health than non-Hispanic whites.

Since disparities in health care access persist across racial and ethnic groups, it is important to note that the gap in these disparities is much wider between non-Hispanic whites and Hispanics as opposed to whites and other ethnic/racial minorities. Kirby, Taliaferro, & Zuvekas (2006), using data from the 2000 and 2001 Medical Expenditure Survey, examined differences among ethnic/racial groups in three measures related to access: having a usual source of care, individuals who report being dissatisfied with the care, and whether individuals did not have ambulatory care visit during the year. They found racial and ethnic differences in each of the access variables measured. Compared with any other racial and ethnic group, non-Hispanic whites were more likely to have a usual source of care, more likely to have ambulatory care during the year, and more likely to be satisfied that their families can get care. Kirby et al (2006) also found that the differences in disparities between Hispanic and non-Hispanic white subjects was considerably larger than disparities between white and black subjects in having a usual source of care, having an ambulatory care visit and reporting being dissatisfied that family members can get care when needed. Not only was there a great difference reported between Hispanic Americans and white Americans but the gap is growing (Zuvekas & Weinick, 1999). The proportion of Hispanic Americans lacking a usual source of care rose substantially between 1977 and 1996, while black and white Americans saw few changes.

LaVeist (2005) also concluded, from studies of racial and ethnic differences in access and use of health services, that racial and ethnic minorities often face the prospect of seeking care in facilities with fewer resources. It was also pointed out that there are important variations among racial/ethnic minority groups. For example, Hispanics are substantially more likely to be uninsured and to not have a usual source of care compared with other minorities. Schur and Albers (1996) found overall, 32.9% of Hispanic adults reported having no usual source of care, which was significantly higher than the percent for both the non-Hispanic white (20%) and black (26%) population.

Not only have studies indicated that Hispanics lack a usual source of care at higher rates than white Americans but some acknowledge that this gap is growing. Weinick, Zuvekas and Cohen (2000) studied three nationwide surveys over a 30 year period. They compared data from the 1977 National Medical Care Expenditure Survey, the 1987 National Medical Expenditure Survey, and the 1996 Medical Expenditure Survey. In each of the years, Hispanic and blacks were considerably more likely to lack a usual source of care than white Americans. Between 1977-1996, this disparity of black Americans declined somewhat (-3.2% points) while the disparity for Hispanics increased by 6.5% points. The findings also revealed that blacks and Hispanics were less likely to use any ambulatory care services in each of the three years. Using the same datasets, Zuvekas and Weinick (1999) also focused on whether each individual had a usual source of health care. The researchers found that the proportion of Hispanic Americans lacking a usual source of care rose over this period, from 19.7% to 29.6%. Black and white Americans saw few changes during this time period. The gap between Hispanic Americans and the group of whites and others increased from approx 5% points in 1977 to 14% points in 1996. This study showed that Hispanic Americans experienced considerable increases in the probability of lacking a usual source of care over time, while black and white Americans saw few changes, resulting in increased disparities for Hispanics (Weinick, Zuvekas, & Cohen, 2000; Zuvekas & Weinick, 1999). Racial and ethnic disparities in access to quality health care not only exist but appeared to be growing, especially among Hispanics, during the past couple of decades. This would suggest that there is a cause for major concern and there is a need to identify those in the Hispanic population that are most likely to suffer from a lack of access to health care.

It has also been reported that racial/ethnic minorities have different patterns of healthcare utilization. Latinos visit their primary physicians less often than whites. Fiscella and Holt (2007), using data that was derived from the Medicare Beneficiary Survey (Access to Care) between1998-2002, assessed the adjusted relationship between minority status, primary care visits, and receipt of preventive services. In general, minority participants had lower income, less education, poorer health and functional status, fewer physician visits, and were less likely to receive preventive services than white Americans. They reported that the frequency of primary care visits was strongly associated with receipt of preventive services, meaning those that had higher frequency of visits were more likely to receive preventive services (Fiscella & Holt, 2007).

Other studies have also shown that Latinos have poorer access to healthcare and show patterns of less or no utilization. Using data from the Commonwealth Fund Survey of Minority Health, collected through telephone surveys from May-July 1984, Guendelman & Wagner (2000) compared the use of any care, emergency services, inpatient hospitalization, nonemergency outpatient care only, and preventive care among

1,001 self-identified Latino and 1,107 white non-Latino adults. Their findings revealed that Latinos were less likely than white non-Latinos to have entered the health system for any type of care, to have been admitted to a hospital, or to have used preventive care (Guendelman & Wagner, 2000). The researchers suggested that having access to a regular doctor would significantly reduce the Latino/white non-Latino gap in healthcare utilization (Guendelman & Wagner, 2000).

Weinick, Jacobs, Stone, Ortega, and Burstin (2004) studied data from the 1997 Medical expenditure Survey (MEPS). The MEPS sampled the civilian, non-institutionalized population of the U.S., over sampling Hispanics, and provided data on healthcare use, health insurance and demographics. Weinick et al. (2004), along with other researchers, found that Hispanic Americans were less likely than non-Hispanic whites to have any ambulatory visits, emergency department visits, any prescription medications, and any hospital admissions (Guendelman & Wagner, 2000; Ku & Waidmann, 2003; Weinick, Jacobs, Stone, Ortega, & Burstin, 2004; Weinick et al., 2000).

The research presented here showed that Latinos are considerably more likely to lack a usual source of care than white Americans (Escarce & Kapur, 2006; Ku & Waidmann, 2003; LaVeist, 2005; Lillie-Blanton & Hoffman, 2005; Schur & Albers, 1996; Waidmann & Rajan, 2000; Zuvekas & Taliaferro, 2003; Zuvekas & Weinick, 1999). The gaps are considerably larger than the disparities among Whites and other races or ethnicities (Kirby, Taliaferro, & Zuvekas, 2006). Disparities among Hispanic Americans and white Americans are important to research because it has been shown that these disparities in healthcare access are becoming larger for Hispanic Americans (Zuvekas & Weinick, 1999).

Factors Associated with Healthcare Access among Latinos

Racial and ethnic disparities in various aspects of health care have been extensively documented, but remain poorly understood (Fiscella, Franks, Doescher, & Saver, 2002). Some studies have focused on explaining these healthcare disparities. For example, Moy, Bartman, & Weir (1995) conducted a study that examined the effects of income, health insurance, usual source of care place, and a usual source of care physician on screening, follow-up care, and pharmacological treatment for hypertension. They tested the hypothesis that individuals who are poor, lack health insurance, lack a usual source of care place or lack a particular usual source of care physician are less likely to receive hypertensive care. They used data from the 1987 National Medical Expenditure Survey which consisted of an adult survey population from 15000 households, representative of the civilian, non-institutionalized U.S. population. The findings indicated that no insurance, identification of an emergency department as a usual source of care, and a lack of a usual place or a particular physician remained associated with less screening, follow-up care, and pharmacological treatment of hypertension.

Waidmann and Rajan (2000) reported a 15.4% point difference between Latinos and non-Hispanic whites in reporting a usual source of care. After further analysis, they reported that a majority of the difference was credited to insurance and citizenship, which accounted for 33% and 19% of the difference attributable to race/ethnic differences. Income (8%), education (8%), and demographics (9%) also helped explain the variation among the race/ethnic differences. Nineteen percent of the difference in having a usual source of care was left unexplained (Waidmann & Rajan, 2000).

A long line of research documents substantial racial and ethnic disparities in access to and use of health services, as well as health outcomes (Kirby et al., 2006; Zuvekas & Weinick, 1999). It seems that the attention of research has shifted from simply documenting disparities to understanding the underlying factors that create them. Several studies have looked at explaining the healthcare disparities among minorities have found that a variety of factors contribute to the differences in healthcare access; including insurance coverage, socioeconomic status, language, years lived in the U.S., citizenship status, and other factors (Fiscella et al., 2002; LaVeist, 2005; Waidmann & Rajan, 2000; Zuvekas & Taliaferro, 2003). The Latino population is the most likely to experience access problems, but race and ethnicity are not the only factors contributing to their limited access to insurance or to care. A large number of Latinos are uninsured, have low-income, low education, not fluent in English, are non-citizens, and have lived in the US for less than 10 years; these characteristics also explain some of the access problems encountered by the Latino community.

Insurance. Research has shown that insurance status has an effect on having access to the healthcare system. Health insurance reduces the out-of-pocket costs of healthcare and has been shown to be the single most important predictor of utilization (Escarce & Kapur, 2006). Lacking health insurance makes the costs of health care services prohibitive for many people and is the most important barrier to adequate health care access (Escarce & Kapur, 2006). Lasser et al. (2006) found that across virtually all measures, uninsured U.S. residents had much worse access to care, received fewer medical services and rated the quality of their care lower than did insured U.S. residents. Sox et al. (1998) reported that uninsured patients were predictors of two measures: more likely to delay seeking care and to report no physician visits in the previous year. Compared with other patients, the odds of delaying care because of cost was nearly 10 times higher for uninsured patients, and more than 12 times higher for patients who were both poor and uninsured (Weissman et al., 1991). The type of insurance has also been shown to effect healthcare utilization. Weineick et al (2004) stated that in nearly every model, individuals who are publicly insured were more likely to use services than privately insured individuals. Also, those that are uninsured were less likely to use services than those with private insurance (Weinick et al., 2004).

People of color now make up 34% of the U.S. population, but they account for 52% of the uninsured-23 million of the 45 million uninsured people in 2003 (Lillie-Blanton & Hoffman, 2005). Lillie-Blanton & Hoffman (2005) reviewed evidence from four studies from the late 1990s specifically designed to quantify the contribution of health insurance to racial/ethnic disparities in access. Regression-based methods were used so that multiple factors could be isolated to determine each factor's contribution to racial/ethnic disparities in access to care. Health insurance consistently explained a significant share (23-33%) of the difference in access. This study provided evidence that a sizable share of the differences in whether a person has a regular source of care could be reduced if Latinos were insured at levels comparable to those of whites.

Some studies have explored the relationship of insurance coverage and healthcare disparities among minorities. Zuvekas and Weinick (1999) compared data from three national surveys in 1977, 1987, and1996. For Hispanic Americans there were considerable changes over this time period, with the disparity in access to healthcare increasing even after adjusting for health insurance and income (Weinick et al., 2000). Zuvekas and Weinick (1999) indicated that the proportion of Hispanic Americans who were uninsured was substantially higher in each of the survey years than the proportion of the U.S. nonelderly population as a whole. Decomposition showed that 20.8% of the large decline in having a usual source of care among Hispanic Americans over this period can be explained solely by the decrease in health insurance coverage. There was still 55-77% of the observed disparity remaining after making the health insurance and income of black, whites and Hispanics equal (Weinick et al., 2000). Lillie-Blanton & Hoffman (2005) reported slightly higher results in that they found health insurance consistently explained a significant share (23-33%) of the difference in access. Kirby et al.’s (2006) study indicated that insurance status accounted for a significant and sizable portion of racial/ethnic disparities, less than one-half of the observed differences in access measures and in some cases less than one-fourth.

Disparities in health care are often ascribed to differences in income and access to insurance. Research has shown these to be important, but by no means the only factors. For instance, the proportion of Hispanic Americans with a usual source of care has declined substantially (from 80% in 1986 to 70% in 1996). Insurance coverage has also declined, and the lack of insurance in some groups is dramatic (among Hispanic men, for instance, 37% have no health insurance). Nonetheless, declines in insurance coverage explained only one-fifth of the change in access to a usual source of care ("Addressing Racial and Ethnic Disparities in Health Care Fact Sheer," 2000).

Insurance coverage was also associated with English proficiency and citizenship status. Ku and Waidmann (2003) found among low-income adults who speak English, Latinos were only slightly more likely to be uninsured than whites (33% vs. 28%). The likelihood of lacking coverage was far higher, however, among non-citizen Latino adults and those who primarily speak Spanish. Compared to white English-speaking citizens, non-citizen Latino adults who speak English were two times as likely to lack coverage (55% vs. 28%) and non-citizen Spanish speaking Latino adults were almost three times as likely to be uninsured (72% vs. 28%) (Ku & Waidmann, 2003).

Hispanics of every income and education level were significantly less likely than their non-Hispanic peers to have health insurance (NHDR 2007). Census Bureau data from 2001 similarly indicated that Latinos have the highest rate of uninsured among all racial/ethnic groups; over one-third are uninsured (Ku & Waidmann, 2003). Guendelman and Wagner (2000) also found that Latino respondents were far less likely to have insurance coverage. Socioeconomic status explained some but not all of the differences in the health insurance coverage of racial and ethnic groups in persons under age 65. The 2007 NHDR reported from 2002 to 2004, the gap in uninsured persons between Hispanics and non-Hispanic Whites decreased. However, the proportion of persons uninsured all year was still almost 3 times higher for Hispanics than for non-Hispanic Whites in 2004 (28.9% compared with 10.3%).

Other researchers have also stated that Latino respondents were far less likely to have insurance coverage (Waidmann &Rajan, 2000; Guendelman & Wagner, 2000). Waidmann and Rajan (2000) reported a 23.5 % point difference between Latinos and non-Hispanic whites in current lack of insurance. A majority of the difference can be attributed to income and citizenship, which accounted for 28% and 14% of the difference attributable to race/ethnic differences. Thirty-three percent of the difference was left unexplained so it is necessary to keep exploring the predicting factors of health care access among Latinos.

In some studies, it was indicated that racial/ethnic disparities in access to a regular source of care could be greatly reduced by greater equity in health insurance coverage. Decreasing the rate of uninsurance is the goal of much of the current discourse in health policy, and most findings confirm that reducing disparities in insurance coverage is a key pathway toward equalizing access to the health care system (Waidmann & Rajan, 2000). Research showed that expanding insurance coverage should be a major part of any strategy to reduce racial/ethnic disparities in health care. Although increasing health insurance coverage will likely improve access to care among Latinos and young adults, some studies suggested that the expansion of insurance coverage was not sufficient to eliminate disparities in access to care. It is important to keep in mind that Waidman and Rajan (2000) reported that only one-third of the disparities in having a usual source of care would be eliminated if Latinos had levels of insurance coverage equal to whites. This means that there are other factors that effect Latino's access to healthcare. It is important to identify all of the factors and find the strongest predictors.

Zuvekas and Taliaferro (2003) examined the roles of insurance coverage, the delivery system, and external factors which assist in explaining persistent disparities in access among racial and ethnic groups of all ages. Using data from the 1996-1999 Medical Expenditure Panel Surveys and regression-based decomposition methods, they found that insurance explained a major portion of the disparities between black

Americans and white Americans in having a usual source of care, explaining 42% of the gap. However, they found that only 24% of the Latino-white disparity was explained with lack of insurance. It appears that insurance could play a bigger role in explaining disparities in access among the black population as opposed to the disparities in the Latino population.

The cause of low health insurance coverage among Latinos are multiple and complex. Latinos are much less likely than whites to receive health insurance as a benefit from an employer, which is the most common source of health insurance for working-age adults and their children in the U.S. Latinos are less likely than whites to work for an employer that offers health insurance to some employees, and they are less likely than whites to be eligible to participate if they work for such an employer. Latinos are more likely than whites to be employed in agriculture, construction, domestic and food services, and other retail trade. Moreover, in these industries Latinos are much less likely than whites to be in executive administrative or managerial occupations of in professional specialties (Escarce & Kapur, 2006).

Using the 1996 MEPS, Monheit and Vistnes (2000) found that 42% of non-elderly Hispanics had employer-provided insurance, compared with 71% of nonelderly whites. Among workers, rates of employer-provided insurance coverage were 48% and 77% for Hispanic and white males, respectively, and 61% and 80% for Hispanic and white women (Escarce & Kapur, 2006). These findings confirm that industries and occupations in which Hispanics commonly work are less likely than others to offer health insurance as a benefit of employment

Some of the insurance gaps for Latinos occur because non-citizens are less likely to have both public and private insurance coverage. Coverage patterns of naturalized citizen parents were closer to those of native citizens, although they were slightly more likely to be uninsured and slightly less likely to have Medicaid (Ku & Waidmann, 2003). Latino citizen adults were only slightly more likely to be uninsured (34%) than white citizens (28%). However, non-citizen Latino adults are two and a half times more likely to lack coverage than white citizen adults (70% vs. 28%) (Ku & Waidmann, 2003). Non-citizens are also generally much more likely to be uninsured than citizens of the same racial/ethnic group. Among low-income Latinos, the percent of non-citizen adults who are uninsured (70%) is twice as high for citizens (34%) (Ku & Waidmann, 2003). This information will be very important to consider when discussing solutions to decrease ethnic and racial disparities.

Escarce and Kapur (2006) used the 1997-2001 NHIS to examine recent patterns of health insurance coverage for Hispanics, non-Hispanic whites, and non-Hispanic blacks. Hispanics in all age groups were much more likely to than whites and blacks to be uninsured. As anticipated, nativity, time since arrival in the U.S., and citizenship are associated with health insurance coverage. Nearly one-half of foreign-born, working-age Hispanic adults are uninsured, compared to 27% of working-age Hispanic adults born in the U.S. Furthermore, among the foreign-born the uninsured rate is much higher for those who have been in the U.S. less than five years and for noncitizens than for those who have been in the U.S. longer than 5 years and for naturalized citizens, respectively. Also, Hispanics who prefer Spanish are twice as likely as those who prefer English to be uninsured (57% versus 29%). This is due to much higher rates of employer-sponsored coverage for working-age adults who prefer English, combined with a minimal difference in Medicaid coverage by language preference (Escarce & Kapur, 2006). Other studies have found that uninsured rates are higher for foreign-born compared to U.S.-born Hispanics and for noncitizens compared with citizens (Carrasquillo, Carrasquillo, & Shea, 2000; Ortega et al., 2007).

These acculturation aspects of the Latino population have both direct effects on reducing access to healthcare and indirect effects through their association with lower rates of health insurance coverage. The jobs available to recent and undocumented immigrants who lack proficiency in English are unlikely to provide health insurance as a benefit of employment. Furthermore, under recent legislation, recent immigrants and noncitizens may receive fewer benefits than earlier immigrants and citizens from public health insurance programs (Escarce & Kapur, 2006).

The 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA, the federal welfare reform law) barred legal immigrants who entered the United States after August 1996 from receiving federal Medicaid and SCHIP benefits for the first five years in the country, leaving it to the states to decide whether to cover the costs of these benefits without a federal contribution. Only 15 states use state funds to cover new immigrants during their initial five-year period in the U.S. and only 9 states provide full benefits to undocumented immigrants (Escarce & Kapur, 2006).

Some interpretations of the law led to a widespread belief that immigrants should avoid enrolling in Medicaid, even if they were eligible. Ku and Matani (2001) reported that Medicaid participation among low-income non-citizens fell and rates of uninsurance rose from 1995 to 1998. Uncertainty about Medicaid (and SCHIP) eligibility and the risks of enrolling in Medicaid were added to other long-standing barriers to participation in public health insurance programs, such as lack of information and language (Escarce & Kapur, 2006).

Because uninsured persons often postpone seeking care, have difficulty obtaining care when they ultimately seek it, and must bear the full brunt of health care costs, prolonged periods of uninsurance can have a particularly serious impact on a person's health and stability. Over time, the cumulative consequences of being uninsured compound, resulting in a population at particular risk for suboptimal health care and health status.

Health insurance does explain a sizable portion of the disparities in health care access; however studies show that disparities still exist even after controlling for health insurance. This means that to eliminate disparities in access to health care, having health insurance is important but not sufficient alone. The availability of insurance does not guarantee access to health care, and certainly does not guarantee access to high quality care.

Socioeconomic Status (SES). Socioeconomic differences between racial groups are responsible for some of the observed patterns of racial disparities in health status. Race is strongly correlated with socioeconomic status (SES) and is sometimes used as an indicator for SES. For example, while 11% of the white population is poor, poverty rates for African American and Hispanic population are 33% and 29%, respectively (Williams & Collins, 1995). Williams and Collins (1995) reviewed studies of SES and racial differences in health. They reported that the extent to which the association between SES and health has been widening in recent decades has emerged as a major issue. The literature reviewed indicated that SES inequalities in health are widening, and the health statuses of at least some racial groups have worsened over time. Differences between SES groups in accessibility, utilization, and quality of care, or differences in benefits derived from medical care are contributing factors to the widening inequality (Williams & Collins, 1995). Low-income people are less able to afford the out-of-pocket costs of care, even if they have health insurance coverage. Low education may impair people's ability to navigate the complex health care delivery system, communicate with healthcare providers, and understand providers' instructions (Escarce & Kapur, 2006). Latinos' low incomes and occupational characteristics are also associated with low rates of health insurance coverage (Escarce & Kapur, 2006).

Socioeconomic status and demographic characteristics such as income and education consistently accounted for a proportion of racial and ethnic differences in access to care. However, these factors did not contribute as much to the disparities in access compared to having insurance. Lillie-Blanton and Hoffman (2005) found no study where income differences explained more of the gap in access disparities than health insurances differences. Other socioeconomic factors, such as education, family status, employment, and health status, all explained less than 10% of the Hispanic-white disparity in having access to healthcare defined as having a usual source of care (Lillie-Blanton & Hoffman, 2005). Education appeared to have played a substantial role in the disparities in ambulatory care use, explaining about 20% of Hispanic-white gaps, while income explained little (Zuvekas & Taliaferro, 2003).

Education also seems to be an important factor for receiving preventive services. Waidmann and Rajan's (2000) findings revealed a 16.0% point difference between

Latinas and non-Hispanic white females in receiving a breast cancer screening in the past 12 months. A majority of the difference can be attributed to education, which accounted for 34% of the difference attributable to race/ethnic differences. Insurance (19%) and income (15%) also helped explain the race/ethnic differences.

Differences between SES groups in accessibility and utilization of health care derived from medical care are contributing factors to the widening disparities (Williams & Collins, 1995). It is important to note that Hispanics reported lower household incomes and educational attainment (Guendelman & Wagner, 2000; Waidmann & Rajan, 2000). Income and Education consistently accounted for some of the disparities in healthcare access (Guendelman & Wagner, 2000; Lillie-Blanton & Hoffman, 2005; Waidmann & Rajan, 2000).

English Proficiency. Research has shown that English language proficiency is related to access and utilization of the healthcare system. Some studies show language to be related to access to healthcare while other studies showed language having no significant effect. Perez-Stable (2007) found that a lack of a regular source of care was associated with limited English proficiency (LEP) status. LEP status has been associated with fewer physician visits and receipt of fewer preventive services, even after controlling for other factors. It was also reported that English language proficiency was associated with better quality of primary care among Latinos (Perez-Stable, 2007).

Escarce and Kapur (2006) used the 1997-2001 NHIS to examine the relationship between language and having a usual source of care. They found that Hispanic working-age adults who prefer Spanish are nearly twice as likely to lack a usual source of care as those who prefer English. Kirby et al. (2006) reported that language proficiency may explain some of the observed racial/ethnic disparities in ambulatory use but did not account for disparities in either the proportion of individuals without a usual source of care or the proportion dissatisfied that their family can get care. Weinick et al. (2004) revealed that Hispanics who had English-only language interviews were more likely to have any ambulatory care visits (63.2 vs. 52.4%), emergency department visits (13.0 vs. 8.9%), and prescription medications (53.6 vs. 43.4%). Both patients with limited English proficiency and patients who speak English fluently were equally likely to report having a usual source of care. However, Weinick et al. (2004) found that all Hispanics, regardless of interview language, were less likely to have any ambulatory visits and prescription medications.

Derose & Baker (2000) reanalyzed data used from a study conducted at Harbor-UCLA Medical Center between November 1993 and April 1994 to explore the association between limited English proficiency and physician visits. Their main research question was “Do Latino patients with limited English proficiency use fewer physician services than patients who speak English fluently, controlling for other factors?” They found that all groups (non-Latinos, native English speakers; Latinos, good English speakers; Latinos, fair English proficiency; and Latinos, poor English proficiency) were equally likely to report having a usual source of care. The proportion of patients who reported no physician visits during the past three months was also similar across language groups. Ethnicity and English proficiency was not associated with having seen a physician in the past three months. Out of those that reported at least one visit, the number of visits was further analyzed. After adjusting for demographics, insurance, health status and usual source of care, Latinos with fair or poor English proficiency reported significantly fewer visits, 22% fewer. There was no difference between Latinos with good English and English-speaking non-Latinos. In communities where there are few Spanish-speaking health care providers relative to the size of the Spanish-speaking population or where there is real discrimination against Spanish-speaking patients, limited English may be an important barrier to using health care services (Derose & Baker, 2000).

Other researchers have indicated similar results to Derose and Baker (2000). Fiscella, Franks, Doescher, Saver (2002) used data from the Community Tracking Study (CTS) Household Survey conducted in 1996 and 1997. The CTS was a telephone survey of 60,446 persons representing the U.S.-housed, noninstitutionalized population. After adjusting for predisposing factors (age, sex, marital status, family size, and education), they found that English-speaking Hispanics did not differ significantly from non-Hispanic whites in having a physician visit, mental health visit, influenza vaccination. However, after adjusting for predisposing factors, Spanish-speaking Hispanics were significantly less likely than non-Hispanic whites to have participated in any of the above measures (Fiscella et al., 2002).

Language can also be associated with the likelihood of having insurance. The percent of nonelderly adults who were uninsured was much higher and the proportion of persons with private health insurance is significantly lower for those persons for those who spoke only Spanish (Schur & Albers, 1996). Language is also related to poverty status, with the distribution of Spanish speakers skewed to the poor or near poor. The higher level of poverty and lower rate of insurance coverage among monolingual Spanish speakers is related to the lower educational attainment and lower labor force participation found within this group (Schur & Albers, 1996).

Ku and Waidmann (2003) found a number of studies indicate that those who are not proficient in English have limited access to care and may receive poorer quality care because of communication problems, particularly of healthcare providers do not have bilingual staff or do not provide other interpretation assistance. The researchers reported a recent study found that there were considerable differences in access to health care by uninsured adults based on race and ethnicity and that most of the ethnic differences in care were explained by differences in English fluency and another that reported about one-fifth of Spanish-speaking Latinos reported they did not seek medical care when it was needed either because the doctor did not speak Spanish or because there was no language interpreter available (Ku & Waidmann, 2003).

It appeared, from the literature, that limited English proficiency is not related to the disparities in having a usual source of care (Derose & Baker, 2000; Kirby et al., 2006). However, the literature showed that limited English proficiency is associated with number of visits to a provider. Latinos with fair or poor English proficiency reported significantly fewer visits (Derose & Baker, 2000; Fiscella et al., 2002).

The inability to communicate means doctors and patients cannot discuss their symptoms or alternative treatment regimens, leading to misdiagnoses or inappropriate treatment choices. Moreover, patients may not understand the treatments prescribed and may not be able to comply with the treatment (Ku & Waidmann, 2003). Language barriers can reduce the quality of medical care because the physician may have greater difficulty diagnosing the problems if he or she cannot understand the patient and the patient may be unable to comply with medical treatments if he or she cannot understand the instructions. Moreover, the flaws in communication are more likely to be discouraging to patients, making them less likely to want further medical treatment (Ku & Waidmann, 2003).

Acculturation and Immigration Status. Specifics features of the Latino population that affect their access to health care include degree of acculturation and immigration status. More than two-fifths of the Latino population are foreign born, and many are recent immigrants who retain their cultural beliefs and behaviors regarding health and health care. Most foreign-born Latinos primarily speak Spanish, and fewer than one-fourth report speaking English very well. In 2000, 28% of foreign-born Latinos were naturalized citizens, a rate lower than the rates of naturalization for other immigrant groups (Escarce & Kapur, 2006).

The literature showed that foreign-born U.S. residents were less likely to have a usual source of care and insurance coverage (Lasser, Himmelstein, & Woolhandler, 2006; Waidmann & Rajan, 2000). In their comparisons, Lasser, Himmelstein, and Woolhandler (2006) found that U.S. foreign-born residents had worse access to care than did the U.S. native-born residents. Foreign-born Hispanics were also less likely to have a regular doctor, to have contacted a doctor in the past year, or to have been very satisfied with their care (Lasser et al., 2006).   Waidmann and Rajan (2000) reported those who are foreign born, especially those who are not naturalized citizens, are likely to have reduced access to care and insurance coverage, and Latinos are more likely to fall into both of these categories. Other studies have found that uninsured rates are higher for foreign-born compared to U.S.-born Latinos and for noncitizens compared with citizens

(Carrasquillo et al., 2000; Escarce & Kapur, 2006; Ortega et al., 2007). Waidmann and Rajan (2000) showed the importance of citizenship status on having a usual source of care, reporting that citizenship status accounted for 19% of the racial/ethnic difference in having a usual source of care and 14% of the difference in having insurance.

Escarce and Kapur (2006) used the 1997-2001 NHIS to examine the relationship of acculturation level and having a usual source of care for Latinos. Nativity, time since arrival in the U.S., and citizenship were associated with having a usual source of care. Foreign-born, working-age Latino adults were more likely than Latino adults born in the U.S. to lack a usual source of care. Among foreign-born Latinos those who arrived in the U.S. less than 5 years ago and those who are not citizens were twice as likely to lack a usual source of care as those who have been in the U.S. longer than 5 years and naturalized citizens, respectively.

Recent arrivals to the U.S. were more likely to be isolated from mainstream U.S. society and to be unfamiliar with the U.S. healthcare system, a situation that may interfere with obtaining healthcare (Escarce & Kapur, 2006). Hispanics that have been in the U.S. for a longer time period tend to have greater access and utilization of the healthcare system. Individuals in the U.S. for 15 years or more were more likely to have access to and utilize healthcare than those in U.S. fewer than 15 years (Weinick et al., 2004). Weinick et. al (2004) also indicated that Hispanics who have immigrated to the U.S. within the last 10 years are generally less likely to have an ambulatory care and emergency department visits, whereas all Hispanics who were born outside the U.S. are less likely to prescription medications.

A person's citizenship status (e.g. citizen, legal immigrant, or undocumented alien) affects eligibility for benefits like Medicaid or the State Children's Health Insurance Program (SCHIP) and likelihood of having a job that offers benefits like insurance coverage (Ku & Waidmann, 2003). A recent immigrant will be less acculturated; less established in the community or workplace and have a poorer understanding of the American health system. Recent immigrants are also much more likely to be ineligible for public coverage since the Medicaid and SCHIP eligibility restrictions fall most heavily on those in the U.S. for five years or less (Ku & Waidmann, 2003). This, along with the literature cited, suggests that the Latino/white gaps can be narrowed by focusing efforts on increasing access for immigrant populations, especially those who have not been naturalized. For example, efforts might be focused on reducing distrust among immigrants that enrolling in public programs might jeopardize future naturalization (Waidmann & Rajan, 2000).

Ku and Waidmann (2003) reported on physician visits among the Hispanic population by analyzing data from the 1999 National Survey of America's Families (NSAF), a large nationally representative survey of the non-elderly population. The researchers compared the characteristics of citizenship status and English proficiency. Among low-income English speaking citizens, about 56% of Latino adults saw a physician in the last 12 months compared to 67% of whites. Non-citizen Latinos were even less likely to have seen a physician; about half (49%) of those who spoke English saw a physician and a little more than a third (36%) of Spanish-speakers had a visit in the past year (Ku & Waidmann, 2003).

Using the 2003 California Health Interview Survey, Ortega, Fang, Perez, Rizzo, Carter-Pokras, Wallace and Gelberg (2007) compared access to health care, use of services, and health care experiences for Mexicans and other Latinos by citizenship and immigrant authorization status. They measured the associations of citizenship/immigration authorization status with the outcome measures, which included having a usual source of care, problems in obtaining necessary care, use of physician and emergency department care, among foreign-born Mexicans and other Latinos vs. their U.S.-born counterparts. In multivariate analyses, undocumented Mexicans had 1.6 fewer physician visits ($P < .01$); compared with U.S.-born Mexicans; other undocumented Latinos had 2.1 fewer visits ($P < .01$) compared with their U.S.-born counterparts. In this large sample, undocumented Mexicans and other undocumented Latinos reported less use of health care services and poorer experiences with care compared with their U.S.-born counterparts, after adjustment for confounders in multivariate analyses (Ortega et al., 2007).

Low-income non-citizen adults generally have lower levels of access to physician services than citizens who are of the same race or ethnicity, but the disparity between non-citizens and citizens is the widest for Latinos (37.9% vs. 54.3%) (Ku & Waidmann, 2003). Lillie-Blanton and Hoffman (2005) also reported on the relationship between citizenship status and insurance. Uninsured Hispanics were less likely than whites or blacks to be U.S. citizens. About half (54%) of uninsured Hispanics (compared with less than10% of uninsured blacks and whites) were not U.S. citizens in 2003 (Lillie-Blanton & Hoffman, 2005).

Perceived Discrimination. Some studies show that racial and ethnic minorities reported higher rates of discrimination than whites. Blendon et al. (2007) conducted a telephone survey of 4,157 randomly selected U.S. adults age eighteen and older living in the U.S. This survey was conducted in 2006. They compared perceptions of health care disparities among 14 racial and ethnic groups to those of whites. They compared these groups on ratings of the medical care system; ratings of health services; perceived discrimination because of race; reasons for receiving poor-quality medical care; access to the best medical care; use of health services; and paying for care. They ran multivariate models to determine whether group differences remained statistically significant after four demographics characteristics – income, education, age, and sex – were controlled for. After the logistic regression, there were four racial/ethnic groups that were less likely to report that they had received medical care from a doctor or some other health care professional in the past twelve months – African Americans born in Africa, Mexican Americans, Chinese Americans, and Korean Americans. After the logistic regression, all but 3 of the 14 ethnic subgroups were more likely than whites to report discrimination because of their English-language ability. Respondents were then asked to report whether in the past five years they had felt discriminated against because of their race or ethnicity when trying to get health care. Nine of the 14 groups were more likely that whites to reports this type of discrimination. All of the racial and ethnic groups that reported higher rates of discrimination than whites were still significantly different after demographic characteristics were controlled for in a logistic regression. Thus, for most groups, perceived discrimination was a factor in their attempts to seek health care (Blendon et al., 2007).

Trivedi and Ayanian (2006) found similar results to Blendon et al. (2007). They used data from a cross-sectional study of respondents to the 2001 California Health Interview Survey. Multivariate logistics regression was used with propensity-score methods to examine the adjusted relationship between perceived discrimination and receipt of preventive care. The main independent variable was the following self-report on discrimination: “Thinking of your experiences with receiving health care in the past 12 months, have you felt you were discriminated against for any reason?” The survey also asked a follow-up question, “What do you think was the reason you were discriminate against?” The dependent variable included self-reported use of 6 preventive health services in the past 12 months. Self-reported discrimination was more prevalent among most racial and ethnic minority groups, women, persons with Medicaid or no insurance, and persons of lower SES. The most frequently cited reasons for discrimination were insurance type (27.6%), race (13.7%) and income (6.7%). In unadjusted analyses, persons who reported discrimination were less likely to receive all six preventive services. They also found that relative to whites, Latinos were less likely to receive all six services. Other ethnic and racial minority groups were also less likely to receive three to four of the six preventive services and uninsured adults had lower rates of all six preventive services. Adjusting for perceived discrimination, however, had minimal effect on the odds ratio for these subgroups. Controlling for perceived discrimination had a minimal impact on the relative likelihood of receiving preventive health services by race, gender, and insurance status (Trivedi & Ayanian, 2006).

LaVeist, Rolley and Diala (2003) used a subsample of the 1994 Commonwealth Fund Minority Health Survey, consisting of African American, Hispanic, and white respondents in a nationally representative sample. Bivariate analysis examined the racial and ethnic differences in perceived discrimination and the effects of other social status indicators on discrimination. They found that only 7.6 % of the respondents reported feeling that they would have received better medical care if they belonged to a different racial/ethnic group. Hispanic respondents reported income and race discrimination as the two most common sources of discrimination. Compared with non-Hispanics, Hispanics had more than twice the odds of feeling they would have received better care if they belonged to another race and greater than three times the odds of feeling they had been discriminated against because of race (OR=3.55). Hispanic respondents had almost twice the odds of perceiving income discrimination (OR=1.93) (LaVeist, Rolley, & Diala, 2003).

Blanchard and Lurie (2004) interviewed respondents from a nationally representative telephone survey in 2001. The objective of this study was to examine factors in the health care encounter and to model how negative perceptions of the encounter influence on health care utilization. They found that the minorities in the sample were more likely then whites to report that they were treated unfairly because of their race or their language, and they would have received better care had they belonged to a different race. Language was also related to discrimination. They reported that persons for whom English was not their primary language were more likely to report they would have received better care had they been of a different race (Blanchard & Lurie, 2004).

It also seems that foreign-birth affects reports of discrimination. Lauderdale, Wen, Jacobs, & Kandula (2006) conducted a cross-sectional analysis of the 2003

California Health Interview Survey consisting of 42,044 adult respondents. They examined whether foreign-born persons are more likely to report discrimination in healthcare than U.S.-born persons in the same race/ethnic group, whether the immigration effect varies by race/ethnicity, and whether the immigration effect is "explained" by sociodemographic factors. The outcome measure of this study was respondent reports that there was a time when they would have gotten better medical care if they had belonged to a different race or ethnic group. Seven percent of blacks and Latinos and 4% of Asians reported healthcare discrimination within the past 5 years. Immigrants were more likely to report discrimination than U.S.-born persons adjusting for race/ethnicity. For Latinos, increased perceptions of discrimination were attributable to sociodemographic factors for the U.S.-born but not for the foreign-born. For both foreign-born and U.S.-born, speaking a language other than English at home significantly increases the odds of reporting discrimination. For Latinos, the foreign-birth effect is significantly different that it is for whites. Foreign-birth greatly increases the odds of experiencing discrimination. Income is strongly protective for U.S.-born and also protective for the foreign-born in reporting discrimination (Lauderdale, Wen, Jacobs, & Kandula, 2006).

Goodkind, Gonzales, Malcoe, and Espinosa (2008) also found similar results. They recruited English and Spanish speaking Hispanic women, both U.S.-born and Mexican-born to participate in focus groups were conducted to learn more about the types of stress experienced by Hispanic mothers, how they deal with stress and why they may smoke cigarettes. This was done in Albuquerque, New Mexico. They found that Mexican-born Hispanic women reported higher rates of having doctors or hospital staff look down on them or treat them poorly because they were Hispanic than U.S.-born Hispanic women. Mexican-born Hispanic women also reported higher rates of being treated as if they don’t deserve medical or social services by staff because you are Hispanic than U.S.-born Hispanic women (Goodkind, Gonzales, Malcoe, & Espinosa, 2008).

Discrimination has been shown to effect the utilization of health care. Blanchard and Lurie found that persons who believed they had been treated unfairly due to their race and who thought they would have received better care had they been of a different race were more likely to ignore the doctor's advice and put off care when medically needed. They also reported that those who believed they would have received better care had they been of a different race were also less likely to receive optimal chronic disease care.

Implications of Disparities in Healthcare Access

Access to health care is a prerequisite to obtaining quality care and preventive services (NHDR 2003). Poor access to healthcare has consistently been shown to result in poorer health outcomes (both increased morbidity and mortality) for a number of conditions (Corbie-Smith et al., 2002; Dark & Ezenkwele, 2007; *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, 2002). Health care disparities and poorly managed care can result in expensive and avoidable complications (NHDR 2003). Inadequate use of medical care, especially preventive medical care, by the poor and members of racial/ethnic minority populations is generally viewed as an important determinant of their health status (Williams & Collins, 1995). Ethnic minority and lower SES populations suffer a disproportionate share of the consequences of uncontrolled hypertension (Moy et al., 1995). Moy et al. (1995) reported that hypertensive care was associated with having a usual source of care characteristics than insurance status. From this report, it was suggested that educating individuals to develop relationships with a usual source of care facilities and physicians is also important.

Starfield and Shi (2004) reported on the benefits of having a usual source of care. They found that persons with a usual source of care experience improved health outcomes and reduced disparities (smaller difference between groups). Higher costs and greater disparities (larger difference between groups) are observed among individuals without a usual source of care (*The imortance of having health insurance and a usual source of care.* , 2004; Starfield & Leiyu, 2004). Primary care is the foundation of the healthcare system, and research studies have shown that having a usual source of care raises the chance that people receive adequate preventive care and other important health services. Research suggests that having access to a regular doctor would significantly reduce the Latino/white non-Latino gap in healthcare utilization (Guendelman & Wagner, 2000).

Another result of limited access to primary and preventive health care is an increase in the extent to which patients are hospitalized for conditions, like asthma, that could be avoided with appropriate primary care (Ku & Waidmann, 2003). Lack of a usual source of care can also lead to delay of obtaining care. Patients generally thought to be disadvantaged are at especially high risk for delaying care for conditions that eventually lead to hospitalization. Patients who delayed obtaining their care stayed in the hospital on average 9% longer, or a little over one half day more (Weissman et al., 1991). Because these delays are associated with longer hospital stays and potentially poorer health outcomes, interventions that reduce delays seem especially important (Weissman et al., 1991).

Some studies have indicated a relationship between lack of access to care and lack of receiving or using preventive services. Sambamoorthi and McAlpine (2003) assessed whether differences in access to care and socioeconomic status may explain racial and ethnic differences in the use of preventive services. Data from the 1996 Medical Expenditure Panel Survey were used to estimate the effect of socioeconomic characteristics on the receipt of each preventive service; cholesterol test, blood pressure reading, and two cancer screening tests (Papanicolaou smear, mammogram). They found that college education, high income, usual source of care, and health insurance consistently predicted use of preventive services. According to this study, these factors also explained ethnic disparities in the receipt of preventive services between Latinas and white women. Low socioeconomic status, lack of insurance, and lack of a usual source of care represent significant barriers to preventive care for adult women. Using the National Health Interview Survey, Martin, Calle, Wingo, and Heath (1996) reported that these factors also explained ethnic disparities in the receipt of preventive services between Latinas and white women. When people have insurance and access to a usual source of care it increased the odds of receiving preventive care services (Martin, Calle, Wingo, & Heath, 1996; Sambamoorthi & McAlpine, 2003). Other researchers also reported that low socioeconomic status, lack of insurance, and lack of a usual source of care represent significant barriers to preventive care for adult women (Martin et al., 1996; Sambamoorthi & McAlpine, 2003). Research has indicated that racial minorities, such as Latinos, were less likely than white non-Latinos to receive preventive care services including blood pressure checks, Pap smears and cholesterol screenings (Guendelman & Wagner, 2000; Martin et al., 1996). Guendelman and Wagner (2000) found that even among persons who entered the health care system, Latinos were 67% less likely to obtain preventive care. They suggested that having access to a regular doctor significantly reduces the Latino-white non-Latino gap in preventive care utilization. It has also been reported that even among Hispanics who reported being diagnosed with diabetes, those with no usual source of care, were much less likely to have a blood sugar test in the past two years (Ku & Waidmann, 2003; *Latino Health Issues in National Health Reform Debates*, 2008).

Corbie-Smith, Flagg, Doyle, O'Brien (2002) found similar results in their study. They used the 1996 Medical Expenditure Panel Survey to examine the relation between race/ethnicity and receipt of preventive services and the effect of having a usual source of care on receipt of preventive services in different racial and ethnic groups. They found that for each race/ethnicity group, having a usual source of care was significantly associated with receiving preventive services. Persons with higher educational attainment and those with private insurance were more likely to receive each of the preventive services. After controlling for usual source of care and other confounders the differences by race/ethnicity were reduced but not eliminated. They concluded while having a usual source of care will be important in narrowing the differences by race in receipt of preventive services, attending to other factors that contribute to disparities in health will also be essential (Corbie-Smith et al., 2002).

Fiscella and Holt (2007) also looked at preventive services and found socioeconomic disadvantages and the number of primary care visits was associated with the receipt of preventive services. They also indicated that minorities had lower income, less education, poorer health and functional status, fewer visits, and were less likely to receive preventive services than non-Hispanic whites.

Preventive medical care, appropriate early intervention in the course of an illness, and medical management of chronic disease can play important roles in enhancing the quantity and quality of life (Williams & Collins, 1995). Increasing access should be important for policymakers in order to increase the access of preventive services received by the ethnic/racial minorities.

Bindman (2007) used data from the 2006 Commonwealth Fund health care quality survey of adults across the U.S. The researcher concluded that providing minority patients in the U.S. with health insurance and a medical home could help eliminate racial and ethnic health care disparities. Hispanic and black adults with a medical home experienced no disparities in receiving preventive care reminders. She reported that such reminders significantly improve routine screening for conditions such as heart disease and cancer. The report also showed that adults with a medical home were also better prepared to manage chronic conditions, such as diabetes and hypertension. While 65% of patients without a regular medical home reported that their doctor or doctor's office did not give them a plan to manage their care at home, the rate dropped to 23% of adults who did have a regular source of care (Bindman, 2007).

It has also been demonstrated that health care throughout can affect health care later in life. Policy makers often attribute the under-representation to Hispanics' cultural values and preferences, however, another reason may be healthcare system barriers encountered explored Hispanics' versus Whites' experiences in the healthcare system prior to hospice admission to help account for Hispanics under-representation in hospice by Hispanics (Adams, Horn, & Bader, 2007). Adams, Horn, & Bader (2007) used a Patient Demographic Form and a Patient Interview Form, which is a structure interview, to collect information from four Medicare-certified hospice agencies that provide hospice services in the area of El Paso and Texas City, TX in 2000. The results showed that prior to hospice admission Hispanics had less access to health services known to be associated with hospice access. Some Hispanics said it would have been easier for them if they had received hospice services earlier. They note that the 2004 AHRQ noted that access to healthcare means having "the timely use of personal health services." Over 41% of Hispanics did not feel they had timely access to hospice. With more Hispanics going to clinics or emergency departments, there may not be an opportunity for good communications or a trusting relationship to develop b/w patient and provider (Adams et al., 2007).

Research has shown that patients with insurance and a usual source of care were more likely to have seen a physician and received preventive services (Corbie-Smith et al., 2002; Sambamoorthi & McAlpine, 2003; Schur & Albers, 1996; Williams & Collins, 1995). Having a usual source of care may also lead to better health care later in life by providing more information and opportunities for Hospice care (Adams et al., 2007). Having a usual source of care also seemed to be important in reducing healthcare costs by shorter hospitalizations and less delays in seeking care when needed (Ku & Waidmann, 2003; "National Healthcare Disparities Report, 2003," 2004; Weissman et al., 1991; Williams & Collins, 1995)

Conclusion

There are several important factors in explaining disparities in access to healthcare among the Latino population. This presents a barrier to developing policies to eliminate these disparities. While the magnitude of disparities varies, research has found that Latinos are consistently and significantly disadvantaged relative to whites. Many studies have looked at explaining the healthcare disparities among minorities; however, we do not fully understand all the elements that link ethnic/racial minorities, especially Latinos, with less access to healthcare. Factors that allow us to understand some of the disparities in having a usual source of care are insurance coverage, socioeconomic status, limited English language proficiency; years lived in the U.S., citizenship status, feelings of discrimination among the healthcare system. It is important to understand which variables may have the biggest impact on reducing healthcare disparities for the Latino population.

Some studies previously mentioned showed the difference in insurance coverage explained up to 1/3 of Latino-white disparities. Weinick et al. (2000) found that equalizing either income or health insurance coverage would make a substantial contribution (approximately 20%) to reducing disparities between Hispanics and white Americans. Guendelman and Wagner (2000) suggested that managed care has the potential to reduce inequities in preventive care utilization. They found that Latinos in managed care plans, compared with fee-for-service systems, were twice as likely to receive preventive care. Other researches have also suggested this. In nearly every model, Weinick et al. (2004) found that individuals who were publicly insured were more likely to use services that privately insured individuals (Weinick et al., 2004). Increasing health insurance coverage would no doubt increase access for all Americans and reduce racial and ethnic disparities but other factors still remain that place barriers between racial/ethnic minorities and access to health care.

A better understanding of the underlying causes of disparities is needed if policymakers are to develop more targeted programs to achieve the goals of Healthy People 2010 to eliminate health disparities (Kirby et al., 2006). Policymakers need to know which factors are most important in explaining disparities and where the health policy reforms may be most efficient in reducing them. With the majority of the U.S. population growth between now and 2050 expected to come from racial and ethnic minority Americans and immigrants, our health care system must soon learn how to address the effects that race and ethnicity can have on health care ("ASHP Statement on Racial and Ethnic Disparities in Health Care," 2008). The U.S. Bureau of Census reported that white Americans currently constitute 71% of the populations, but nearly 1 in 2 Americans will be a member of a racial or ethnic minorities – i.e., black, Latino, Asian, or American Indian – by the year 2050 ("U.S. Bureaus of the Census," 2000). Clearly, these trends pose a daunting challenge for policymakers and the health care system (NHDR 2003). The impact of the Latino population on the healthcare system must be considered as the healthcare reform debate continues and becomes more intense over the next couple of months. Identifying those in the Latino population that are even less likely to access healthcare is an important component in increasing access and is important for policymakers in order to increase the access of preventive services received by the ethnic/racial minorities.

Having access to a regular doctor would significantly reduce the Latino/white non-Latino gap in healthcare utilization (Guendelman & Wagner, 2000). Guendelman and Wagner (2000) reported that it is of interest that after controlling for all the variables in the model (health needs, enabling characteristics, and structural factors), the rate on non-emergency outpatient utilization for Latinos surpassed that for non-Latino whites. While the difference was not significant, it suggested that if all barriers to care for Latinos were eliminated, Latinos would be more likely to use non-emergency curative care than their white non-Latino counterparts.

To devise effective strategies for the reduction of racial/ethnic disparities, a better understanding of the development of these differences is required. For example, if the differences in health care access between Latinos and whites are driven by differences in the immigration and citizenship status of the two populations, then resources could be extended to reach immigrants rather than the Latino population as a whole. On the other hand, if the influential factor is insurance coverage, then adjustments in the eligibility levels for public insurance might be a more effective policy lever.

By exploring the sociodemographic characteristics and acculturation levels that affect the Latinos' population ability to access healthcare, this research can add to the literature used to effectively reduce the disparities between Latino and white Americans. There is a need to define which characteristics to focus on in order to have the greatest impact on reducing the disparities in access to healthcare in the Latino population. The main purpose of this investigation was to assess the role of scoiodemographic characteristics, acculturation, and health insurance coverage in having access to healthcare among the Latino population. A secondary purpose of this analysis was to identify the variables that will have the largest impact on increasing healthcare access among the Latino population.

CHAPTER THREE

Methods

Research Design

The main purpose of this investigation was to assess the role of scoiodemographic characteristics, acculturation, and health insurance coverage in having access to healthcare among the Latino population. More specifically, this study was designed to identify the variables that may have the largest impact on increasing healthcare access among the Latino population.

After a review of the literature, it was found that regression analyses explaining the disparities in healthcare access among the Latino population was the greatest extent taken to this date in explaining this population. The goal of this study is to take the analysis one step further by estimating attributable risk. Attributable risk will provide an additional perspective on access to healthcare since it incorporates the prevalence of different predictors. For example, large relative risks from a logistic regression may have a small effect on a population when the prevalence of the risk factor is low.

This study used the national population-based data from the 2006 National Health Interview Survey (NHIS) to describe healthcare access among the Latino population. The NHIS is a multi-purpose health survey conducted by the National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC), and is the principal source of information on the health of the civilian, non-institutionalized, household population of the United States. The NHIS is an annual cross-sectional, face-to-face, computer-assisted household survey of the civilian, non-institutionalized adult population (aged 18 and older) in the U.S., conducted by the National Center for Health

Statistics ("National Health Interview Survey," 2007). The 2006 NHIS used household interviews to obtain participants' health-related information from a representative probability sample of the U.S. civilian population. While African-American and Latino households were over sampled to obtain more precise estimates, Asian Pacific Islanders and other minority groups were not.

NHIS data are used widely throughout the Department of Health and Human Services (DHHS) to monitor trends in illness and disability and to track progress toward achieving national health objectives. The data are also used by the public health research community for epidemiologic and policy analysis of such timely issues as characterizing those with various health problems, determining barriers to accessing and using appropriate health care, and evaluating Federal health programs.

The Household component collects limited demographic information on all of the individuals living in a particular house. The Family component verifies and collects additional demographic information on each member from each family in the house and collects data on topics including health status and limitations, injuries, healthcare access and utilization, health insurance, and income and assets. From each family in the NHIS, one sample adult is randomly selected and information is collected with the Sample Adult Core. The Sample Adult Core collects basic information on health status, health care services, and health behaviors.

Data are collected through a personal household interview conducted by interviewers employed and trained by the U.S. Bureau of the Census according to procedures specified by the NCHS. For the Family Core component, all adult members of the household 18 years of age and over who are at home at the time of the interview are invited to participate and to respond for themselves. For the Sample Adult questionnaire, one civilian adult per family is randomly selected; generally this individual must self-report responses to questions in this section. Additional methodologic survey details of 2006 NHIS can be found elsewhere ("National Health Interview Survey," 2007). This survey data was chosen because it represents the national population and Latinos were over sampled to obtain more precise estimates. This survey data also contains information on the sociodemographic variables, acculturation, health insurance coverage status and data on healthcare access. Permission to conduct this analysis was obtained from the University of Kansas Medical Center Human Subjects Committee (HSC #11366).

Analytic Sample

The 2006 NHIS interviewed 24,275 adults, 18 years and older. The core sample consisted of 4,193 (17.3%) who self-reported being Latino. This analytic sample consisted of Latinos without a usual source of care (N=1,428, 34.1%).

Outcome Measures

Access to healthcare was defined as a dichotomous variable (having or not having a usual source of care). The usual source of care was determined by asking, “Is there a place that you usually go when you are sick or need advice about your health?” People who stated they had no place or who went to the emergency room will be defined as having no usual source of care.

Predictor Measures

Sociodemographic factors included age, gender, marital status, and education. Citizenship status, U.S. born, and years in the U.S. were included as measures of acculturation. Health insurance coverage was also used as a predictor variable. Citizenship status was defined by asking the participants “Are you a citizen of the United States?” Response options were “Yes, citizen of the United States” or “No, not a citizen of the United States.” Participants were asked if they were born in the U.S. Those that answered yes were defined as being born in the U.S. and as having lived in the U.S. for 10 years or more. The participants that answered no were then asked how long they have lived in the U.S. Health insurance coverage was categorized as those with health insurance (either through publicly sponsored programs or private sources); while the uninsured were those stating that they lacked either a public or private source of health insurance.

There is missing data in some of the variables in the NHIS, particularly income. For this reason, the income variable was not used in this analysis. Education is a proxy to income and this variable was used in the analysis.

Data Analyses

Descriptive characteristics were used to compare the distribution of study variables among those with and without access to healthcare. Bivariate associations between access to healthcare and sociodemographic characteristics, measures of acculturation and insurance status were explored. Each predictor variable was crosstabulated with the dichotomized variable of access to healthcare, defined as having or not having a usual source of care. The Chi-square statistic, with the significance level set at 0.05, was used to evaluate significant differences. Analysis of collinearity was explored before variables were used in the multivariate model. Variables highly correlated were omitted from the logistic regression model. A high correlation was defined as $r = .70$ and above. Variables statistically significant ($p < 0.05$) in the bivariate analysis and without high correlation were tested for inclusion in a backward stepwise logistic regression model predicting the outcome for Latinos without a usual source of care. Backward stepwise logistic regression (with use of likelihood ratio) was used to identify the independent contribution of sociodemographic characteristics, measures of acculturation and health insurance coverage to lack of access to healthcare in the Latino population. Access to healthcare was the dependent variable whereas age, gender, marital status, U.S. born, years lived in the U.S., citizenship status, education level and health insurance coverage were included as independent variables. Hosmer and Lemeshow recommend a criterion for inclusion of a variable that is less stringent than an alpha level of.05; they suggest something in the range of .15 or .20 is more appropriate to ensure entry of variables with coefficients different than zero (Tabachnick & Fidell, 2007). For this reason, a significance of 0.15 was used for entry into the logistic regression model and statistical significance level was set at $p < 0.05$.

This logistic regression analysis was an important step in order to identify which variables have a significant contribution to the lack of access to healthcare. Based on these results, the variables were selected to include in the next step of the analysis which is analyzing the population attributable risk. The estimates of relative risks, from the crosstabulations, were used to calculate population attributable risks associated with variables identified in the final stepwise logistic regression model (Shah, Barnwell, & Bieler, 1997). This measure provided an additional perspective on the extent to which access to healthcare could be improved by addressing a specific characteristic, since very large relative risks may have a small effect on a population when the prevalence of the risk factor is low.

Levin introduced the measure now designated as population attributable risk (PAR) in 1953. Levin (1953) used PAR to quantify the amount of lung cancer attributable to smoking in men. The rate ratios for smoking and lung cancer among the four studies he reviewed were all high. In addition, smoking was frequent in the populations considered (ranged from 49.9% to 96%). The PAR% values were correspondingly high, ranging from 56% to 92%, meaning that the elimination of smoking could possibly reduce lung cancer by at least half and potentially more than 90% (Levin, 1953). Levin’s measure, the PAR%, helped substantiate that the public health significance of smoking on lung cancer rates was considerable and remains so (Northridge, 1995).

Attributable risk measures are not replacements for relative measures of effect; rather, they provide a public health dimension to the appraisal risks. Identification of a certain exposure with a high rate ratio may yield important clues to disease etiology. Yet, if this same exposure is rare in the population so that the PAR% is small, policy makers and administrators with limited health dollars will probably not rate it as a priority. The PAR% thus provides an important link between the causality and public health action (Northridge, 1995). Northridge (1995) stated, “if the goal is to estimate the amount or proportion of cases of a disease attributable to a given risk factor, or to predict impact of medical and public health interventions on the health status of a population, then attributable risk measures are particularly relevant. Although rate ratios help epidemiologists decide if a given factor is a cause of a particular disease, attributable risks guide policy makers when it is time to take action” (p.1203).

A mathematically equivalent expression for the PAR%, expressed in terms of relative risk (RR) and exposure prevalence ($P_{exposed}$), is

$$\text{PAR\%} = \frac{\text{Pexposed}(\text{RR} - 1)}{[1 + \text{Pexposed}(\text{RR} - 1)]}$$ (Northridge, 1995).

Thus, the PAR% can be calculated if the rate ratio and proportion exposed are known (Northridge, 1995). The statistical package SPSS was used for all analyses.

CHAPTER 4

Results

The main purpose of this study was to assess the role of sociodemographic characteristics, acculturation, and health insurance coverage in having access to healthcare among Latinos. More specifically, this study was designed to identify the attributable risk of variables that may have the largest impact on increasing healthcare access among Latinos.

The remainder of the chapter will describe the sample and findings from the study. Statistical results will be reported in tables. This chapter is organized according to the following: (1) statement of hypotheses, (2) design of the study, (3) sociodemographic characteristics, insurance status, and acculturation, and (4) report of findings

Hypotheses

Hypothesis 1: It is hypothesized that being younger, having less education, not being a citizen, living less than 10 years in the U.S., being foreign born, and having no health insurance will increase the odds of not having a usual source of care.

Hypothesis 2: It is hypothesized that after adjusting for all other variables, not having health insurance will have the highest odds ratio for predicting no usual source of care.

Hypothesis 3: It is hypothesized that not having health insurance will have the highest attributable risk for access to healthcare in the Latino population.

Design

The National Health Interview Survey (NHIS) is a cross-sectional household interview survey ("National Health Interview Survey," 2007). Secondary analysis was conducted using data from the 2006 NHIS. Latinos with and without healthcare access were described and compared using crosstabulations. Sociodemographic characteristics, insurance status and acculturation were compared between Latinos with and without a usual source of care. The dependent variable in this analysis was access to healthcare, defined by reporting whether or not the participant had a usual source of care. There were eight independent variables used in the study, which included gender, age, marital status, education, insurance coverage, U.S born, years lived in the U.S., and citizenship status.

Analysis of collinearity was explored before variables were used in the multivariate model. Variables highly correlated were omitted from the logistic regression model. A high correlation was defined as $r = .70$ and above. Variables statistically significant ($p < 0.05$) in the bivariate analysis and without high correlation were tested for inclusion in a multiple logistic regression model predicting the outcome for Latinos without a usual source of care. Logistic regression analysis was used to identify the independent contribution of sociodemographic characteristics and health insurance coverage to lack of access to healthcare, defined as not having a usual source of care, in the Latino population. The estimates of relative risks for significant ($p < 0.05$) variables in the final logistic regression model were used to calculate population attributable risks associated with specific variables.

Sample

This analysis used a national population data base. This national population data base was narrowed down to analyze only adult participants, 18 years and older, who reported being Latino. The sample was further narrowed to analyze Latinos, 18 years and older, who did not have access to healthcare by reporting not having a usual source of care (N=1,428, 34.1%).

Results

The 2006 NHIS core sample included 24,275 adults 18 years and above. Of the 24,275 interviewed adults in the core sample, 4,193 (17.3%) were self-defined Latinos. Table 1 consists of demographic data of the Latino population sampled in the 2006 NHIS. Over half (57.9%) of the sample was under the age of 40. Slightly over half of the population was female (54.5%) and married (55.4%). More than one-third (43%) had less than a 12th grade education. Nearly 40% reported having no insurance coverage. Over half of the Latino population were born outside the U.S. (62.1%) and reported being a citizen of the U.S (60%). Of those that were not born in the US, 80% have lived in the U.S. for10 years or more. In summary, Latinos tend to be younger in age, have a lower education level, and to be born outside of the U.S.

Of the 4,193 of Latinos, 1,428 (34.1%) reported not having a usual source of care. Table 1 also summarizes demographic characteristics and access to healthcare of the NHIS Latino sample. All sociodemographic variables were significantly associated with access to healthcare. Latinos under 40 were almost three times as likely to not have a usual source of care (OR = 2.74; $p < 0.0001$). Males (OR = 2.17; $p < 0.0001$) and those reporting less than a high school degree (OR = 2.02; $p < 0.0001$) were twice as likely to not have a usual source of care. Latinos living in the U.S. for less than 10 years (OR = 4.72; $p < 0.0001$) and that are not citizens (OR = 3.77; $p < 0.0001$) were considerably more likely to not have a usual source of care. Latinos not born in the U.S. were slightly over twice as likely to not have a usual source of care (OR = 2.21; $p < 0.0001$). Latinos without health insurance had the greatest odds of not having a usual source of care (OR = 14.90; $p < 0.0001$). There were smaller but significant differences in marital status, those not married being slightly more likely to not have a usual source of care (OR = 1.26; $p < 0.001$). As seen in Table 1, Latinos reporting a usual source of care differed from those without usual source of care on several sociodemographic variables.

Table 2 shows the correlations between predictor variables. Citizenship status was positively correlated with all predictor variables except marital status. Citizenship status was significantly associated with being born in the U.S. ($r = .64$, $p = 0.01$) and number of years lived in the U.S ($r = .52$, $p = 0.01$). Those that were U.S. citizens were more likely to be born in the U.S. and to have lived in the U.S. longer than 10 years. Marital status was significantly correlated with all variables except age and health insurance. Being born in the U.S. was significantly correlated with all variables, showing stronger correlations with citizenship status ($r = .64$; $p = 0.01$) and years living in the U.S. ($r = .40$; $p = 0.01$). Age was significantly correlated with all variables except gender and these correlations were considered to be weak. Number of years in the U.S. was significantly correlated with all variables except marital status. Number of years in the U.S. had stronger correlations with citizenship status ($r = .52$; $p=0.01$) and health insurance ($r = .38$; $p = 0.01$). Health insurance coverage was significantly correlated with all variables except marital status. Since no variables were highly correlated ($r = .70$), all independent variables were tested for inclusion in the logistic regression model.

Table 1

Demographic Factors, Acculturation Measures, and Insurance Status Related to Health Care Utilization

	Total Sample N= 4193		No Usual Source of Care		Have Usual Source of Care		OR	(95% CI)
	N	(%)	n= 1428	(34.1)	n= 2765	(65.9)		
< 40 years	2429	(57.9)	1046	(73.2)	1383	(50.0)	2.74**	(2.38-3.14)
Male	1908	(45.5)	830	(58.1)	1078	(39.0)	2.17**	(1.91-2.47)
Not Married	1861	(44.6)	686	(48.2)	1175	(42.7)	1.25*	(1.10-1.42)
Not Born in the U.S.	2597	(62.0)	1052	(73.8)	1545	(56.0)	2.21**	(1.92-2.54)
< 10 years in the U.S	798	(19.4)	506	(36.3)	292	(10.8)	4.72**	(4.01-5.55)
Not a U.S. citizen	1646	(39.6)	854	(60.5)	792	(28.9)	3.77**	(3.29-4.62)
< 12th Grade	1801	(43.7)	772	(55.2)	1029	(37.9)	2.02**	(1.77-2.30)
Not Health Insurance	1650	(39.5)	1113	(78.3)	537	(19.5)	14.9**	(12.73-17.44)

*p=0.001; ** p<0.0001

Table 2

Correlations of Predictor Variables

	Citizenship	Marital Status	Born in the U.S.	Age	Years in the U.S.	Health Insurance	Gender	Education
Citizenship	--							
Marital Status	-.11**	--						
Born in U.S.	.64**	-.12**	--					
Age	.18**	.03*	-.05**	--				
Years in U.S.	.52**	-.03	.40**	.24**	--			
Health Insurance	.41**	.01	.26**	.22**	.38**	--		
Gender	.10**	-.07**	.06**	.02	.06**	.11**	--	
Education	.35**	-.02	.33**	-.07**	.15**	.22**	.04*	--

** p=0.01; * p=0.05

Table 3 displays a stepwise logistic regression analysis (with likelihood ratio) examining the relationship between sociodemographic variables and not having a usual source of care adjusting for other variables. One logistic regression model was used which included age, gender, marital status, education, citizenship status, years lived in the U.S., born in the U.S. and health insurance coverage. Variables for inclusion were tested using backward likelihood ratio regression analysis. The final regression model included age, gender, marital status, education, citizenship status, years lived in the U.S., and health insurance coverage. The predictive variable of U.S. born was removed from the final regression model because it was no longer a significant predictor after controlling for all other variables in the backward stepwise logistic regression analysis.

Male sex, younger age, not married, living in the U.S. less than 10 years, no health insurance coverage, lower education level, and not being a U.S. citizen significantly increased the odds of not having a usual source of care even after adjusting for all other predicting variables. The adjusted odds of not having a usual source of care for Latinos without health insurance were 10:1 compared to those with health insurance ($p<0.0001$). Those without health insurance were greater than five times more likely to not have a usual source of care than any other predictive characteristic in the model.

Table 3

Predictor Variables Associated with No Usual Source of Care

	Adjusted Odds Ratio	95% CI	p value
Age	1.83	1.53-2.18	< 0.0001
Sex	2.07	1.76-2.45	< 0.0001
Marital Status	1.55	1.31-1.83	< 0.0001
Education	1.29	1.08-1.53	0.005
Citizenship Status	1.28	1.04-1.57	0.018
Yrs. In U.S.	1.57	1.25-2.00	< 0.0001
Health Insurance	10.65	8.94-12.69	< 0.0001

Backward Stepwise Regression with Likelihood Ratio

The population attributable risks for the risk factors that were found to be significant in the final regression model are described in Table 4. Not having health insurance was associated with the largest attributable risk for not having a usual source of care (0.64). Being under 40 years old (0.36) and not being a U.S. citizen (0.35) were also associated with a substantial attributable risk. Being male (0.23), living less than 10 years in the U.S. (0.21) and having less than a 12th grade education (0.20) was associated with a smaller attributable risk. Marital status (0.07) was associated with little attributable risk of not having usual source of care.

Table 4

Attributable Risk for Identified Risk Factors of No Usual Source of Care

	Relative Risk	Prevalence	Attributable Risk
< 40 years	1.99	0.58	0.36
Male	1.66	0.46	0.23
Not Married	1.16	0.45	0.07
< 12th grade education	1.58	0.44	0.20
Citizenship Status	2.33	0.40	0.35
< 10 Yrs. In U.S.	2.36	0.19	0.21
No Health Insurance	5.52	0.39	0.64

It is imperative to discuss the implications of the attributable risk analysis. It is not possible to eliminate these characteristics from the Latino population. However, this analysis can point policy makers to the sub-populations that would possibly have the largest impact on increasing healthcare access among the Latino population. According to Table 4, it is important to discuss policies that would have a large impact on those without health insurance, less than 40 years of age, and not citizens of the U.S.

CHAPTER 5

Discussion, Conclusions, and Recommendations

The main purpose of this investigation was to assess the role of sociodemographic characteristics and health insurance coverage in having access to healthcare among the Latino population. More specifically, this study was designed to identify the variables that may have the largest impact on increasing healthcare access among the Latino population. The discussion of findings will address the significance of the contribution of the sociodemographic variables, acculturation and insurance coverage. This chapter will also include a discussion on the implications of the findings of the current study to disparities in healthcare access. Finally, this chapter will conclude with recommendations for further studies.

Having a usual source of care reduces nonfinancial barriers to obtaining care, facilitates access to health care services, preventive care, and increases the frequency of contacts with health care providers. In particular, having a usual source of care provides a locus of entry into the complex health care delivery system when care is needed and serves as the link to more specialized types of care (Escarce & Kapur, 2006; Lambrew, DeFriese, Carey, Ricketts, & Biddle, 1996; Moy, Bartman, & Weir, 1995; "National Healthcare Disparities Report, 2003," 2004; Schur & Albers, 1996; Sox, Swartz, Burstin, & Brennan, 1998; Weissman, Stern, Fielding, & Epstein, 1991).

There has been much research on the factors associated with not having a usual source of care yet there has been no analysis on the population attributable risk of such risk factors in the U.S. Latino population. Although many of the findings reported in this study have been previously reported, population attributable risk provides a public health dimension to the risks appraisals. The population attributable risk provides an important link between the causality and public health action (Northridge, 1995). Attributable risks can guide policy makers when it comes time to take action, especially when there are limited funds.

Hypothesis Testing

<u>Hypothesis 1: It is hypothesized that being younger, having less education, not being a citizen, living less than 10 years in the U.S., being foreign born, and having no health insurance would increase the odds of not having a usual source of care.</u>

The results of the crosstabulations indicated that all variables listed in the first hypothesis would significantly increase the odds of not having a usual source of care ($p<0.0001$). The research hypothesis was accepted.

<u>Hypothesis 2: It is hypothesized that after adjusting for all other variables, not having health insurance would have the highest odds ratio for predicting no usual source of care.</u>

After adjusting for all other variables in the logistic regression model, not having health insurance had the highest odds ration for predicting no usual source of care (10:1; $p<0.0001$). The research hypothesis was accepted.

<u>Hypothesis 3: It is hypothesized that not having health insurance would have the highest attributable risk for access to healthcare in the Latino population.</u>

The results of the attributable risk analysis found that not having health insurance had the highest attributable risk for not having a usual source of care (0.64). The research hypothesis was accepted.

Discussion

It is widely reported that Latinos are the least likely to have a usual source of care. Over one-third of the Latino sample in this study reported not having a usual source of care. In this study, rates of not having a usual source of care were similar to what others have reported (Blanchard & Lurie, 2004; Corbie-Smith, Flagg, Doyle, & O'Brien, 2002; Escarce & Kapur, 2006; Guendelman & Wagner, 2000; Kirby, Taliaferro, & Zuvekas, 2006; Schur & Albers, 1996; Sox et al., 1998; Zuvekas & Taliaferro, 2003; Zuvekas & Weinick, 1999). Almost 40% of Latinos lacked health insurance coverage. Other studies reported similar findings (Corbie-Smith et al., 2002; Fiscella, Franks, Doescher, & Saver, 2002; Guendelman & Wagner, 2000; Schur & Albers, 1996; Waidmann & Rajan, 2000); although some reported smaller percentages, reporting 32-35%, of Latinos lacked health insurance (Blanchard & Lurie, 2004; Kirby et al., 2006; Ku & Waidmann, 2003; Lauderdale, Wen, Jacobs, & Kandula, 2006; Monheit & Vistnes, 2000).

Although it is important to focus on the Latino population as a whole, there are specific subgroups that are even less likely to have access to healthcare. This study expands on earlier work that showed inequalities in healthcare access of Latinos by describing subgroups of Latinos that are even less likely to have a usual source of care. The group with the least amount of access is Latinos without insurance.

Almost 80% of Latinos without a usual source of care were without health insurance. Latinos that were born outside of the U.S. and not U.S. citizens are a subgroup deserving of attention as well, comprising 74% and 60% of those without a usual source of care. Younger U.S. Latinos and males were disproportionately found in the group of not having a usual source of care. Almost 75% of Latinos without a usual source of care were under the age of 40 years old and close to 60% were males.

In this study, Latinos reporting a usual source of care significantly differed from those without a usual source of care on several sociodemographic variables, measures of acculturation and health insurance coverage. This study confirmed previously reported data showing a strong relationship between access to healthcare and insurance status, acculturation level and sociodemographic variables such as, education, gender and age (Blanchard & Lurie, 2004; Corbie-Smith et al., 2002; Fiscella et al., 2002; Guendelman & Wagner, 2000; Kirby et al., 2006; Ku & Waidmann, 2003; Lasser, Himmelstein, & Woolhandler, 2006; Lauderdale et al., 2006; Lillie-Blanton & Hoffman, 2005; Monheit & Vistnes, 2000; "National Healthcare Disparities Report, 2007," 2008; Ortega et al., 2007; Schur & Albers, 1996; Sox et al., 1998; Waidmann & Rajan, 2000; Weinick, Jacobs, Stone, Ortega, & Burstin, 2004; Weinick, Zuvekas, & Cohen, 2000; Zuvekas & Weinick, 1999). This is in agreement with the first Hypothesis.

There was a large degree of variation in the odds ratios in the crosstabulation analyses, with odds ratios ranging from 1.25 to 14.9. There were variables that had very high odds ratios compared to other variables used in the analysis. Not being born in the U.S, not being a U.S. citizen, and living in the U.S. less than 10 years greatly increased the odds of not having a usual source of care. Latinos that have been in the U.S. less than 10 years were nearly five times as likely to not have a usual source of care, while non-citizen Latinos were nearly four times as likely. This finding is consistent throughout the literature (Lasser et al., 2006; Ortega et al., 2007; Waidmann & Rajan, 2000; Weinick et al., 2004).

Latinos under 40 years of age were nearly three times more likely to not have a usual source of care. This is of particular interest because the U.S. population of Latinos is a fairly young population. This analysis reported that almost 60% of the Latinos were younger than 40 years of age. Others have also reported a majority of younger Latinos did not have a usual source of care (Zuvekas & Weinick, 1999; Escarce & Kapur, 2006).

There are specific sociodemographic characteristics of the U.S. Latino population that act as barriers to healthcare access. Being male, under 40 years old, having a lower education level, living in the U.S. less than 10 years, and not having health insurance coverage significantly increased the risk of not having a usual source of care.

Health Insurance and Access to Healthcare

Lacking health insurance coverage was the strongest finding associated with not having a usual source of care and greatly increased the odds of not having a usual source of care. Latinos without health insurance were 15 times more likely to not have a usual source of care than those with health insurance. This is consistent with other findings that reported the uninsured have much worse access to healthcare (Lasser et al., 2006; Lillie-Blanton & Hoffman, 2005; "National Healthcare Disparities Report, 2007," 2008; Sox et al., 1998; Waidmann & Rajan, 2000; Weinick et al., 2000; Zuvekas & Weinick, 1999).

In agreement with the second hypothesis, not having health insurance was the greatest predictor of not having a usual source of care in the regression model. Even after controlling for all other predictive variables, not having health insurance was a substantial barrier in having a usual source of care. Latinos without health insurance had 10:1 adjusted odds of not having a usual source of care compared to those with insurance. In agreement with this finding, this study also reported that the largest relative risk was associated with not having health insurance.

Since there was a high relative risk and high prevalence of not having health insurance in the sample, a large attributable risk was associated with not having health insurance concurring with the third hypothesis. The finding of high prevalence and risk of not having health insurance is well-documented in the literature (Corbie-Smith et al., 2002; Fiscella et al., 2002; Guendelman & Wagner, 2000; Kirby et al., 2006; Lillie-Blanton & Hoffman, 2005; Schur & Albers, 1996; Waidmann & Rajan, 2000; Weinick et al., 2000). This analysis reported that 40% were uninsured and many other studies reported similar findings (Corbie-Smith et al., 2002; Fiscella et al., 2002; Guendelman & Wagner, 2000; Schur & Albers, 1996; Waidmann & Rajan, 2000). With many Latinos without insurance and insurance being the biggest barrier to access, it is reasonable to believe that the findings of a large attributable risk for not having health insurance should be addressed to increase access to healthcare in the Latino population. Thus, consistent with previous studies, entry into care could be significantly improved if the health insurance were more readily available to the Latino population.

Some studies provided evidence that a sizable share (20-40%) of the differences in whether a person has a regular source of care could be reduced if Latinos were insured at levels comparable to those of whites (Guendelman & Wagner, 2000; Kirby et al., 2006; Lillie-Blanton & Hoffman, 2005; Weinick et al., 2000). This study found a higher percentage of the disparity that could be eliminated if the health insurance was more readily accessible among the Latino population. However, health insurance alone does not explain all of the risk for not having a usual source of care. Even if insurance is greatly increased in the Latino population, there will still be a substantial number of Latinos without a usual source of care.

Achieving the goal of increased health insurance coverage remains a challenge for health policy. The types of jobs that both single and married Latinos hold are much less likely to offer insurance. Among workers, Latino males experienced the largest decline in employment-related coverage between 1987 and 1996, and Latino males were the only group for who offers of job-based insurance actually declined (Monheit & Vistnes, 2000). Again, health policy cannot change the types of jobs that Latinos hold, but it might increase the offers of coverage through existing jobs.

Given current federal and state fiscal realities, policy options that aim to increase coverage through private-sector approaches are politically attractive but would but would likely have minimal impact. Of the 23 million uninsured in communities of color, approximately three-fourths are in families with incomes below 200 percent of the federal poverty level. Unless private-sector insurance options include a sizable public subsidy to make coverage affordable, they are unlikely to have much of an impact on coverage rates in the Latino population (Lillie-Blanton & Hoffman, 2005).

Evidence from a number of studies indicated that public programs are the most effective approach to expanding health insurance coverage (Lillie-Blanton & Hoffman, 2005). Medicaid and the SCHIP have the administrative means already in place to enroll beneficiaries and pay provides, and they have demonstrated how responsive they can be when unemployment increases and family income decreases. Even as Medicaid enrollment has risen with the recent economic downturn, the growth in Medicaid spending has not been as great as that of employer-sponsored insurance premiums. Making public health insurance programs available to low-income populations, as opposed to categorical coverage that excludes most adults without dependent children would be a more equitable system (Lillie-Blanton & Hoffman, 2005).

Several changes in public policy could have a sizable impact on the health coverage of Latinos. An estimated 75% of the 23 million uninsured minority Americans could be covered by using Medicaid and SCHIP to (1) expand outreach and enrollment efforts to assure that all children who are eligible –children in families with incomes less then 200% of poverty-are enrolled in these programs (approximately 4.6 million low-income minority children); (2) expand coverage to parents of children who are enrolled in these programs (approximately 5.0 million low-income minority parents); and (3) expand coverage to low-income adults without dependent children (approximately 7.5 million) (Lillie-Blanton & Hoffman, 2005).

While health insurance clearly matters, this study found that it would eliminate only a portion of access disparities, as other studies have found. Increasing insurance would increase access to healthcare, but there would still be a substantial portion of the Latino population without access to healthcare.

Education and Access to Healthcare

Insurance was shown to be the main factor in having a usual source of care but to fully address disparities in healthcare access, it is important to include education level. Having less than a 12th grade education was associated with a significant attributable risk (0.20) and education has consistently accounted for some of the disparities in healthcare access (Guendelman & Wagner, 2000; Lillie-Blanton & Hoffman, 2005; Waidmann & Rajan, 2000; Zuvekas & Taliaferro, 2003). Low education may impair people’s ability to navigate the complex health care delivery system, communicate with healthcare providers, and understand providers’ instructions (Escarce & Kapur, 2006). Education may also act as a proxy for a wide range of attributes that were not measured, including differences in attitudes and care-seeking behavior (for example, mistrust of the system) as well as affordability of care and insurance generosity (Zuvekas & Taliaferro, 2003).

The persistent low education levels of Latinos in the U.S are an important aspect in the healthcare access disparities. Lower education is associated with differential resources and shapes individuals' access to healthcare and ability to make use of new technologies that promote health and prolong life. While health policy cannot directly affect education, it can help mitigate problems of affordability or better understanding when care is needed. Providing equal access to health insurance, therefore, may not eliminate disparities, if the fundamental cause has not been addressed (Sambamoorthi & McAlpine, 2003).

Acculturation and Access to Healthcare

Acculturation level must also be addressed to increase healthcare access of Latinos in the U.S. After controlling for other predictive variables, Latinos living in the U.S. less than 10 years had almost 2:1 odds of not having a usual source of care compared to those living in the U.S. for 10 years or more. Other studies have found similar results (Carrasquillo, Carrasquillo, & Shea, 2000; Escarce & Kapur, 2006; Ortega et al., 2007). Citizenship status and living in the U.S. less than 10 years also accounted for substantial attributable risk. These findings highlight the importance of understanding acculturation, immigrant status, and employment patterns in analyzing characteristics of immigrants from different countries.

Specific features of the Latino population that affect their access to health care include degree of acculturation and immigration status. More than two-fifths of the

Latino population are foreign born, and many are recent immigrants who retain their cultural beliefs and behaviors regarding health and health care (Escarce & Kapur, 2006). Latinos have a rate lower than the rates of naturalization for other immigrant groups (Escarce & Kapur, 2006). These features of the Latino population have both direct effects on reducing access to healthcare and indirect effects through their association with lower rates of health insurance coverage. As mentioned above, the jobs available to recent and undocumented immigrants are unlikely to provide health insurance as a benefit of employment. Furthermore, under recent legislation, recent immigrants and noncitizens may receive fewer benefits than earlier immigrants and citizens from public health insurance programs (Escarce & Kapur, 2006).

The 1996 welfare reform law barred legal immigrants who entered the United States after August 1996 from receiving federal Medicaid and SCHIP benefits for the first five years in the country. Some interpretations of the law led to a widespread belief that immigrants should avoid enrolling in Medicaid, even if they were eligible. Uncertainty about Medicaid (and SCHIP) eligibility and the risks of enrolling in Medicaid were added as barriers to participation in public health insurance programs, such as lack of information and language (Escarce & Kapur, 2006).

Among immigrants who are not citizens, government health insurance is not serving as an effective safety net. Immigrant groups with the lowest rates of private insurance were also the least likely to be receive government coverage. Overall, non-citizens immigrants made up less than 5% of the population receiving Medicaid. Half of non-citizens working full-time did not have coverage (Carrasquillo et al., 2000).

For a variety of reasons, including language, low educational attainment, and lack of skills, many of these immigrants obtain employment in low-wage occupations (Carrasquillo et al., 2000).

Acculturation and better understanding of a complex healthcare system among U.S.-born persons may contribute to better access of health care. The efforts to increase access to recent immigrants might include changes in Medicaid eligibility thresholds to include more low-income adults or incentives to employers to offer coverage to low-wage workers. Health policy reforms need to be focusing efforts on increasing access for immigrant populations, especially those who have not been naturalized. For example, efforts might be focused on reducing distrust among immigrants enrolling in public programs might jeopardize future naturalization (Waidmann & Rajan, 2000).

Worse healthcare access for undocumented Latinos implies that efforts to improve processes of care need to address this specific vulnerable group. Strategies to improve the delivery of health care services to legally authorized immigrants and U.S. citizens, to the exclusion of undocumented individuals, will likely miss and opportunity to influence health care for the individuals most affected by inequities in healthcare access.

Conclusion

The majority of the U.S. population growth between now and 2050 is expected to come from racial and ethnic minority Americans and immigrants, and Latinos will soon become the largest minority population in the U.S. ("ASHP

Statement on Racial and Ethnic Disparities in Health Care," 2008). The rapid growth in the Latino population, and especially in the number of Latino youth, represents one of the most dramatic and important demographic trends affecting the U.S. Contemporary working-age Latino adults will age to become the first sizable wave of Latino seniors. More consequential, the large number of contemporary Latino children and adolescents will age to swell the ranks of Latino young and middle-aged adults within a decade or two (Escarce & Kapur, 2006). The high representation and growth rate of the Latino community means that Latino morbidity and mortality rates have a greater public health impact (e.g., human and societal costs) relative to groups of smaller representation in the population, even when the absolute rates of a behavioral risk factor, disease, or cause of death may be lower than other ethnic groups. This implies that a small improvement in the health of the Latino community might have important social and health benefits reducing health related disparities between Latinos and the broader U.S. population. The impact of the Latino population on the healthcare system must be considered as the healthcare reform debate continues. Identifying those in the Latino population that are even less likely to access healthcare is an important component in increasing access and is important for policymakers in order to increase the access of preventive services received by Latinos. It is also necessary to identify the characteristics that could increase access to this population.

A better understanding and identification of the underlying causes of limited access among Latinos is needed if policymakers are to develop more targeted programs to achieve the goals of Healthy People 2010 to eliminate health disparities. Policymakers need to understand which factors are most important in explaining limited access among the Latino population and where the health policy reforms may be most efficient in increasing access and utilization. Not surprisingly, this study showed that increasing insurance coverage among the Latino population in the U.S. would greatly increase access to healthcare.

These findings suggest that by increasing access to healthcare, we must target our interventions at those factors that will have the biggest impact on the U.S. Latino population. Policy solutions that address the uninsured, whether through an expansion of employer coverage, an expansion of the Children's Health Insurance Program to include adult family members, or individual tax credits, will allow Latinos, many of whom are working poor, to obtain needed services and develop a regular source of care.

In this climate of cutback or economizing, we must continue to address non-financial barriers to care through language and culturally appropriate programs for monolingual Latinos. Yet policymakers concerned with increasing access to health care for underserved populations should focus on reducing financial barriers to care through improving insurance coverage among vulnerable populations and improving linkages of these populations to regular sources of care.

Increasing the rate of insurance is the goal of much of the current discourse in health policy, and most findings confirm that reducing disparities in insurance coverage is a key pathway toward equalizing access to the health care system

(Waidmann & Rajan, 2000). This research has shown that expanding insurance coverage should be a major part of any strategy to increase healthcare access among the Latino population in the U.S. Although increasing health insurance coverage will most likely improve access to healthcare, the expansion of insurance coverage alone will not effectively increase access to healthcare for all Latinos in the U.S. This means that to eliminate disparities in access to health care, interventions must also focus on education and acculturation levels of the Latino population. The availability of insurance does not guarantee access to health care, and certainly does not guarantee access to high quality care

Despite the large, nationally representative sample examined, this study has limitations. A limitation of this study was the cross-sectional design of the survey, which limits the ability to derive causal inferences and draw conclusions about causal directions of the relationships studied. Reliance on participants' self reports to the survey questions was another limitation. Responses may have been influenced by patient recall and recall bias. Another limitation of the study was not assessing language in which the assessment was delivered. English proficiency is possibly related to the characteristics shown to be related to lack of access among Latinos. There was missing data for some of the sociodemographic variables which did allow for income levels to be tested in the analyses.

Conclusions

Based on the results obtained in this study, the following conclusions were made:

1. A substantial number of Latinos are without a usual source of care and because of this do not have a point of entry into the healthcare system.
2. The reasons for a large number of Latinos not having access to healthcare are multiple and complex. All of the sociodemographic characteristics, measures of acculturation and insurance coverage used in this study were associated with not having a usual source of care.
3. Some variables had high odds for not having a usual source of care, including living in the U.S. less than 10 years, not being a U.S. citizen, and being under 40 years of age. Interventions for increasing healthcare must address acculturation levels of the Latino population in the U.S.
4. Increasing health insurance coverage must continue to be the goal for much of the health policy reform. Not having health insurance was the biggest predictor for not having a usual source of care and had the largest estimated attributable risk.
5. The reasons for lower rates of access in the Latino population are multiple. Other variables do contribute to the lack healthcare access besides health insurance coverage. Being under 40 years of age, male, not being a U.S. citizen, living in the U.S. less than 10 years, and having less than a 12th grade education all have substantial attributable risks for not having a usual source

of care. Increasing access among those with low acculturation and education must be considered when polices are created.

Recommendations

More research is needed to further investigate the nature of disparities in access to healthcare for the U.S. Latino population. Listed below are recommendations for future research.

1. Future research could benefit from including personal and cultural beliefs, such as perceived discrimination, as predictor variables.
2. Researchers need to not examine the Latino population as monolithic. Relying on data for Latinos as a single group could miss important opportunities for more targeted initiatives that meet the needs of at-risk Latino subpopulations. If improvement efforts are designed to be "one size fits all" for the Latino population, significant opportunities to effect meaningful change could be lost (Weinick et al., 2004).
3. More resources showed be geared toward preventive services and health promotion in the U.S. Latino population. Many Latinos are healthy when the immigrate to the U.S. As years pass and they become more acculturate is when the unhealthy behaviors begin to be expressed. By educating Latinos on healthy behaviors early on, it is possible to delay or avoid disease later in life.

4. More research should be focused on the best and most practical venues to offer insurance to the Latino population. The cause of low health insurance coverage among Latinos are multiple and complex.
5. Researchers should explore types of insurance coverage, such as private vs. public, or managed care plans, on having a usual source of care to determine best avenues for health policy reforms.
6. Future studies will need to examine the impact of policies and practices by the public and private sectors that deny health insurance to such a large portion of the Latino population and whether the long-term costs to our society outweigh- short-term savings.

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