



INSTITUTE FOR HISPANIC HEALTH

Critical Disparities in Latino Mental Health: Transforming Research into Action

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Acknowledgments

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The following also contributed to the completion of this paper:

Sergio Aguilar-Gaxiola, M.D., Ph.D.

California State University, Fresno

Leopoldo Cabassa, Ph.D., M.S.W.

Washington University in St. Louis

Raul Caetano, M.D., M.P.H., Ph.D.

University of Texas, Houston

Lillian Comas-Diaz, Ph.D.

George Washington University

Yvette Flores, Ph.D.

University of California, Davis

Hector Gonzalez, Ph.D.

University of Michigan

Steven Lopez, Ph.D.

University of California, Los Angeles

Javier Lopez Zetina, Ph.D.

California State University, Long Beach

Liany Elba Arroyo, M.P.H.

Senior Program Manager

NCLR

Lorena Rodriguez Chandler, M.P.H.

Assistant Director, NCLR/CSULB Center for Latino Community Health, Evaluation, and Leadership Training

Rocio Leon

Former Project Coordinator

NCLR

Carlos Ugarte, M.S.P.H.

NCLR Senior Advisor to the President on Health

Former Deputy Vice President, Institute for Hispanic Health, NCLR and Co-Director, NCLR/CSULB Center for Latino Community Health, Evaluation, and Leadership Training

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I. BACKGROUND

In 2004, the National Council of La Raza (NCLR) received a grant from Eli Lilly and Company to better inform the health community of the mental health issues facing Latinos* in the United States through the development of a research-informed white paper. Staff of the NCLR Institute for Hispanic Health (IHH), in collaboration with the newly-formed NCLR/California State University, Long Beach (CSULB) Center for Latino Community Health, Evaluation, and Leadership Training, met to address this challenge. Based on a thorough review of the literature, in combination with various discussions with experts in Latino mental health, the collaborative team agreed to focus on six major issues affecting Latino mental health: Depression, Immigration and Acculturation, Chemical Use and Dependency, Domestic Violence, Suicide, and Depression and Co-Morbidity Issues.

These concepts were developed at the Latino Mental Health Summit held at California State University, Long Beach in February 2005. Leading experts in the aforementioned areas were contacted and asked to present their research and then attend topic-specific workgroups of mental health providers to brainstorm and elaborate on the designated issues and their impact on the Latino community. Participants were also placed in designated workgroups, comprising providers, academics, community-based organization (CBO) staff, and key community member informants, and charged with expanding the information given in the presentations, as well as providing recommendations concerning policy, education, and treatment which would result in improved mental health access and status for Latinos throughout the U.S.

The presentations were videotaped and analyzed for content. Each workgroup discussion was structured with a predetermined outline to guide the dialogue. Workgroups were also audio-recorded, and white board and computer notes were recorded for content analysis.

The research presented and information discussed at the Summit form the basis of this paper, which includes an overview of Latinos in the U.S., followed by sections on each of the key topics identified above.

II. LATINOS IN THE U.S.

Demographic Overview

Latinos are the largest minority group in the U.S., with a population of 41.3 million persons as of July 2004 and now constitute 14% of the U.S. population.** By the year 2030 it is projected that Latinos will total more than 73 million and constitute 20.1% of the U.S. population, making Latinos the fastest-growing racial/ethnic group in the country (U.S. Census Bureau, 2004).

Latinos are a diverse population, in terms of both ethnic and racial composition and history in the U.S. Mexicans constitute the majority of Hispanics (64%), and Puerto Ricans are the next identifiable subgroup in terms of proportion of the overall Hispanic population (approximately 10%). The population also includes about 3% each of those of Cuban, Salvadoran, and Dominican origins, while the remainder are of other Central American, South American, or other

* The terms "Latino" and "Hispanic" are used interchangeably by the U.S. Census Bureau and throughout this document to identify persons of Mexican, Puerto Rican, Cuban, Central and South American, Dominican, and Spanish descent; they may be of any race.

** These data do not include the 3.9 million residents of Puerto Rico, nor do they reflect the 3% undercount for Latinos reported by the U.S. Census Bureau for the last decennial Census (U.S. Census Bureau 2003, 2004).

Hispanic/Latino origin. Latinos vary greatly by a number of social and economic characteristics, including country and region of origin, the political and social history of their countries of origin, educational levels, immigration experience, acculturation levels, generational status, and occupational, demographic, and language profiles. In addition, Latino households are often mixed. For example, national data show that one in ten children in the U.S. lives in a mixed-status family in which at least one parent is a noncitizen and one child is a citizen (The Urban Institute, 2001). Similarly, 90% of California's Latino households contain both noncitizens and citizens (California Immigrant Welfare Collaborative, 2005). Moreover, states with emerging populations experienced a growth rate of 61% in their foreign-born populations, nearly double the increase in the traditional "big six" immigrant-receiving states - California, New York, Texas, Florida, New Jersey, and Illinois (Fix & Passel, 2001).

Health Challenges

Although the Latino community represents the largest racial/ethnic minority in the United States, Latinos continue to face a myriad of challenges that affect their quality of life. One of the most troubling is in the field of health, particularly considering that Latinos often interact with the health care system only when they are ill and in their most vulnerable state.

Latinos face many health challenges including increased burden of chronic and infectious diseases and limited access to culturally- and linguistically-relevant health care (National Council of La Raza, 2004). In addition, the overall poor health status of the Latino community can be linked to many barriers both within and outside of the health care system. For example, lack of health insurance is a key barrier that prevents many Latinos from accessing health care services and receiving quality health care (Bierman, Magari, Jette, Splain & Watson, 1998). Across all age groups, Latinos are substantially more likely than non-Hispanic Whites or African Americans to lack health insurance. Recent data from the U.S. Census Bureau show that the uninsured rate for Latinos was 32.7% in 2004, compared to 11.3% for non-Hispanic Whites and 19.7% for African Americans. Throughout the past decade, one-third or more of all non-elderly Latinos have been uninsured each year, a rate two to three times that of non-Hispanic Whites (U.S. Census Bureau, 2003). Two in five (40%) Latino adults aged 19 to 64 were uninsured in 2000, compared to 14% of Whites and 25% of African Americans. Moreover, Latino citizenship and immigration status are directly related to low rates of health access and availability of quality medical care. In 2004, more than half (57%) of noncitizen Latinos lacked health insurance, more than double the percentage of U.S.-born (22%) or naturalized (25%) Latinos without health insurance (NCLR Data Analysis from U.S. Census Bureau, Current Population Survey, 2005 Annual Social and Economic Supplement, http://pubdb3.census.gov/macro/032005/health/h09a_000.htm).

Another key set of concerns that affects Latino health outcomes is related to language and immigration status. Latinos who have limited English proficiency are vulnerable to the challenges of accessing medical care, and they are more likely to have greater difficulties communicating about health problems with a provider (NCLR, 2004). In addition, language barriers prevent Spanish-speaking Latinos from accurately understanding instructions for prescription medicines and written information from a doctor's office. According to The Commonwealth Fund (2003) nearly half of Spanish-speaking Latinos had problems communicating with their physicians, and close to half also reported difficulty understanding instructions for prescription medicines and written information from a doctor's office, much of which is provided only in English.

As a result of the lack of access to health care in general and low-quality medical care, Latinos continue to disproportionately suffer from major complications due to chronic and infectious diseases. Data from the Centers for Disease Control and Prevention (CDC) and the National Center for Health Statistics (NCHS) indicate that, as of 2002, heart disease is the leading cause of

death for all Latinos (24%), followed by cancer (20%), unintentional injuries (8%), cerebrovascular disease (6%), and diabetes (5%). Furthermore, a recent Supplement to the Report of the Surgeon General on Mental Health (Department of Health and Human Services, 2001) found that Latinos with diagnosable mental disorders underutilize mental health care. In particular, Latinos have recently been identified as a high-risk group for depression, anxiety, and substance abuse (National Alliance for Hispanic Health, 2001).

III. LATINOS AND DEPRESSION

The most common form of depression among all populations, including Latinos, is major depression. This form is particularly debilitating as it frequently starts early in life with an onset usually prior to age 25. According to the World Health Organization (WHO), depression is the leading cause of years of life lived with disability and can result in serious long-term functional impairment. Although heart disease was long recognized as the foremost cause of disability, depression has now taken the lead. According to WHO, mental disorders represent five of the top ten causes of disability in Canada and the U.S. among persons 15 to 44 years of age, with depression leading all other illnesses (Aguilar-Gaxiola, 2005).

Characteristics and Symptoms

Depression often co-occurs with other mental or physical illnesses and can result in increased comorbidity and lost productivity. Depression frequently leads to a vicious downward cycle of poverty and morbidity and, given Latinos' poor access to culturally- and linguistically-appropriate mental health care, it is not surprising that many never receive treatment for their illness. According to the Hispanic Health and Nutrition Examination Survey (HHANES), the Epidemiologic Catchment Area Study (ECA), and the National Co-morbidity Survey (NCS), Latinos are at high risk for depressive episodes within their lifetimes, with the NCS reporting that 17.7% of Latinos will suffer from major depression in their lifetimes (Hough, Landsverk & Karno, 1987). Data from the Mexican American Prevalence and Services Survey (MAPSS), when compared to eight other sites of the International Consortium of Psychiatric Epidemiology (ICPE), demonstrate that Mexican American females and males ranked first and second, respectively, in likelihood to have reported a major depressive episode within the previous 12 months.

Although people from different cultures express symptoms of depression in various ways, Latinos tend to experience depression in the form of bodily aches and pains (e.g., stomachaches, backaches, or headaches) that persist despite medical treatment. Depression is often described by Latinos as feeling nervous or tired (HealthyPlace, 2004). Other symptoms of depression include changes in sleeping or eating patterns, restlessness or irritability, and difficulty concentrating or remembering. According to Lopez (2002), it is important to examine the economic and social costs of mental illness to society, systems of care, families, and individuals. The Surgeon General's Call to Action on Suicide (1999) states that the current system of mental health fails to provide for the vast majority of Latinos in need of care and that this failure is especially pronounced for immigrant Latinos, incarcerated Latinos, and Latino youth (Walker, Senger, Villarruel & Arboleda, 2004).

Barriers to Mental Health Care for Latinos

Latinos are less likely to receive care for depression and are even less likely to receive quality depression care, compared to other racial/ethnic groups (Schoenbaum, Miranda & Sherbourne, 2004). Among Latinos with a mental disorder, less than one in 11 contacts a mental health specialist, while fewer than one in five contacts a general health care provider. In addition, among

Latino immigrants with mental disorders, fewer than one in 20 uses services from a mental health specialist, while less than one in ten uses services from a general health care provider (A Report of the Surgeon General, 2001). In a study using the Los Angeles-Epidemiologic Catchment Area Sample, Mexican Americans with mental disorders reported using both health and mental health services at a lower rate than non-Hispanic Whites (11.1% versus 21.7%, respectively) in the six months prior to the research interview (Hough, Landsverk & Karno, 1987). Similarly, in a study conducted in Fresno, California, only 8.8% of Mexican Americans with mental health disorders during the 12 months prior to being interviewed used mental health specialists (Vega, Kolody & Aguilar-Gaxiola, 1999). Furthermore, there is a great problem with recidivism in mental health care with more than 70% of Latinos who do access mental health services not returning after their first visit (Aguilar-Gaxiola, 2005). The underutilization of mental health services coupled with low rates of antidepressant medication use can be attributed to the prevalence of chronic depression among Latinos more than any other group (Aguilar-Gaxiola, 2005).

According to the National Alliance for the Mentally Ill (NAMI), there are two sets of issues that affect access to treatment for Latinos with mental illnesses:

- **Inadequate sources of treatment** - Primary care physicians are responsible for prescribing 67% of psychotropic agents and 80% of antidepressants, signifying that primary care providers are often diagnosing their patients' mental health problems (Chapa, 2004; Snowden, 2003). In particular, Latinos are twice as likely to seek treatment for mental disorders in non-mental health settings, such as the offices of general health care practitioners or faith-based organizations. These findings point to the dire need for an improvement in detection and care within the general health care sector. In addition, results from the Mexican American Prevalence and Services Survey (MAPSS) indicate that the most commonly reported barriers to receipt of mental health care services were lack of knowledge of where to seek treatment, lack of proximity to treatment centers, transportation problems, and lack of available Spanish-speaking providers who are culturally and linguistically trained to meet the needs of Latinos (Aguilar-Gaxiola, Zelezny, Garcia, Edmonson & Alejo-Garcia, 2002).
- **Insufficient Latino personnel** - There is a distressing lack of Latinos working as professional mental health providers. A national survey by Williams and Kohout (1999) revealed that out of 596 licensed psychologists with active clinical practices who are members of the American Psychological Association, only 1% of the randomly selected sample identified themselves as Latino. Furthermore, in 1999, the Center for Mental Health Services (CMHS) reported the existence of 20 Latino mental health professionals for every 100,000 Latinos in the United States. Latinos' reluctance to utilize mental health services may best be described by the *dicho* (saying) "*No se lava la ropa en casa ajena*" (One must not wash their dirty clothes in someone else's home). In other words, problems are handled within the family and should not be discussed or revealed outside of the home.

This information suggests that until Latinos are able to receive care by professionals who represent their population, understand their cultures, and speak their languages, mental health issues will continue to disproportionately affect the fastest-growing sector of the U.S. population, and the stigma surrounding mental health care will further deter Latinos from accessing services.

IV. IMMIGRATION AND ACCULTURATION

The majority of Latinos in the U.S. are native-born, but a significant share - about two in five - are immigrants. Although immigrants tend to fare better than their non-immigrant counterparts in terms of mental health issues, the stress experienced by individuals who have left their families and social support systems in their countries of origin has been well documented. A combination

of factors, including the acculturation process,¹ isolation due to lack of health insurance, little or no knowledge of the health care system, lack of Spanish-speaking providers, little or no English skills,² and low literacy, are important in understanding and addressing mental health concerns among Latinos.

Mental Health Differences between Immigrant and U.S.-Born Latinos

As outlined below, mental health issues affect both the native-born and immigrant segments of the U.S. Latino population, but depression and other conditions are manifested differently in each.

Research has shown that higher rates of mental illness are reported among U.S.-born and long-term residents than among recent Latino immigrants. When comparing U.S.-born Mexican Americans and Mexicans in Fresno, California, the National Co-Morbidity Study (NCS) and the Fresno Study found that U.S.-born Mexican Americans experienced almost double (48.1% vs. 24.9%) the lifetime prevalence of CIDI³ disorders than their U.S.-born counterparts (Vega, Kolody, Aguilar-Gaxiola, Alderate, Catalano & Carveo-Anduaga, 1998). Other studies conducted along the U.S.-Mexico border with participants residing on both sides of the border also found that those dwelling on the U.S. side had double the rate of lifetime episode of depression (Hoppe, Garza-Elizondo, Leal-Isla & Leon, 1991). Research has demonstrated that Mexican immigrants who have lived fewer than 13 years in the U.S., or Puerto Ricans who have resided on the island of Puerto Rico, experienced lower levels of depression and other mental disorders when compared to U.S.-born Mexican Americans and Puerto Ricans (USDHHS, Surgeon General's Report, 2001). The exception to the Healthy Migrant Paradox in this case are Central and South Americans, who experience high levels of post-traumatic stress disorder (PTSD) due to their exposure to trauma and war in their homelands (Cervantes, Salgado de Snyder & Padilla, 1989).

Place of birth has a significant correlation with subsequent risk for most psychiatric disorders. U.S.-born Mexican Americans were found to be twice as likely to report a mental disorder when compared to their immigrant counterparts (Vega, Kolody & Aguilar-Gaxiola, 1998). Specifically, higher rates of affective disorders, anxiety disorders, and chemical use and dependency were found among non-immigrants when compared to immigrants. Furthermore, a national study comparing the incidence of mental illness among recent immigrant Mexicans and Whites in comparison to their non-immigrant counterparts demonstrated that the immigrants, regardless of ethnicity, experienced fewer mental health disorders (Grant, Stinson, Hasin, Dawson, Chou & Anderson, 2004).

Mental health concerns appear to increase among Latino immigrants as they acculturate. Among Latinos from various countries, similar mental health outcomes are seen as they become

* Acculturation can be defined as the process of adapting to a new culture as a result of changes in cultural attitudes, values, and behaviors that come from being in contact with two or more distinct cultures (Barlow, Taylor & Lambert, 2000). A great deal of evidence exists to confirm the overall negative effects of the acculturation process on mental health status (Searle & Ward, 1990; Stonefein & Ward, 1990; Ward & Kennedy, 1994; Miranda & Umhoefer, 1998). For Latinos, the process of acculturation alters their relationship to the environment, which causes changes in psychological well-being (Rogler, Cortes & Malgady, 1991).

** Latinos account for 60.8% of the linguistically-isolated households in the U.S., with more than 2.5 million living in homes wherein no household member over 13 years of age speaks English (McGovern & Griffin, 2003).

*** The CIDI (Composite International Diagnostic Interview) is the product of a joint project undertaken by the World Health Organization (WHO) and the former United States Alcohol, Drug Abuse and Mental Health Administration. It is a diagnostic interview for the assessment of mental disorders which provides, by means of computerized algorithms, lifetime and current diagnoses according to the accepted definitions of ICD-10 and DSM-III-R.

more acculturated through the process of adaptation to, and survival within, the U.S. Studies point to few exceptions to the decline in mental health status that occurs among Latinos as they acculturate. The only subpopulation that has not shown dramatic increases in mental health issues when comparing immigrants and U.S.-born has been Cuban Americans in South Florida (Turner & Gil, 2002). This phenomenon could be the result of the strong socioeconomic and political base Cubans have developed in South Florida.

Family functionality may buffer the effects of acculturative stress. For Latinos, initial signs and symptoms of acculturative stress may include negative psychological consequences, such as emotional distress, shock, and anxiety. Berry (1990) noted that immigrants experienced various levels of acculturative stress and that elevated levels of this stress are likely to result in increased levels of depression and suicidal ideation (Hovey & Magaña, 2002). In addition, an imbalance between perceived demands and perceived resources upon immigration to the U.S. may prove to increase mental health instability. Research has demonstrated that a well-functioning and supportive family environment provides a buffer from acculturative stress, particularly in the initial periods of acculturation (Miranda & Matheny, 2000; Cortes, 1995; Miranda, Estrada & Firpo-Jimenez, 2000).

Consequences of Acculturative Stress

Latinos' experience of acculturative stress has frequently been associated with fatalistic thinking (Ross, Mirowsky & Cockerham, 1983). Many experience decreased self-efficacy, depression, and low social interest (Miranda, 1995). In addition, recent immigrants suffer acculturative stress related to changes in lifestyle, environment, and altered social support, which are associated with an increased risk of obesity, diabetes, and cardiovascular disease (Gonzalez, Haan & Hinton, 2001).

Acculturative stress, and stress experienced upon immigration to the U.S., has a pervasive, lifelong influence on Latinos' psychological adjustment, decision-making abilities, occupational functioning, and overall physical and mental health (Smart & Smart, 1995). Moreover, the majority of Latinos expressing acculturative stress, and stress related to immigration, are influenced by many other factors including language barriers, deficits in coping resources, lack of cohesion with family members, and the short tenure of U.S. residency (Miranda & Matheny, 2000). Although not all Latinos develop depression upon immigration to the U.S., it is likely that a certain degree of biological or psychological vulnerability, combined with social vulnerability after immigration, may lead to a sense of depression (Bhugra, 2003). Changes in cultural identity may subsequently lead Latinos to suffer from culture shock.

Furthermore, cultural distance may contribute to a sense of alienation and isolation, thereby leading to depression and acculturative stress (Bhugra, 2003). Cultural distance can become increasingly problematic when immigrant parents sense a loss of connection with their more acculturated children (Suro, 1999). This can be exacerbated further when subsequent generations are not able to communicate effectively with their relatives due to both linguistic and cultural barriers.

An additional concern related to the acculturation process is the extent to which immigrants are expected to gradually and completely relinquish their cultural mores and adopt those of the country of residence. When acculturation is interpreted as a unidimensional and unidirectional process, it more accurately resembles assimilation and can be accompanied by stress. By contrast, an increasing number of studies strongly indicate the positive mental health effects of biculturality as perhaps the ideal acculturative stage due to the fact that bicultural Latinos are less likely to be depressed and more likely to demonstrate high social interest (Miranda & Umhoefer, 1998; Berry, 1990; Lang, Muñoz, Bernal & Sorensen, 1982).

Other Concerns

Latino mental health is also influenced by additional stressors such as refugee or undocumented status, experiencing the threat of or having previous history with deportation, and isolation in the absence of family or social support (Ramos & Carlson, 2004). Given that a significant share of Latinos are immigrants, many Latino families and their children strive to assimilate and adopt to mainstream U.S. culture, and the influence of these processes on their mental and emotional health is marked. Many Latino immigrants perceive the process of immigration to the U.S. as a traumatic experience that negatively affects their self-esteem and overall sense of identity (Harker, 2001). Due to the fact that a large proportion of Latino children are immigrants themselves or have immigrant parents, their adaptation to the U.S. merits attention.

Although most research concerning recent immigrants has focused on adults, very little data are available to accurately describe young immigrant children and their adaptation to U.S. mainstream culture (Harker, 2001). Latino children frequently serve the role of cultural brokers for their families and are often left to translate when accessing the health care system. While health care agencies are required to provide translation for all individuals seeking care under Title VI of the Civil Rights Act of 1964, the reality is that translators are not always available in times of need, particularly within highly impacted organizations and emerging communities experiencing rapid demographic changes. Furthermore, Latino children are especially likely to live in poverty and lack health insurance and access (U.S. Bureau of the Census, 2004). Due to the lack of regular interface with health providers, many Latinos have little knowledge of their health care rights and what to expect in contemporary U.S. health care settings. Additionally, due to a range of well-documented academic barriers, a large share of Latino children and youth experience poor educational outcomes, resulting in decreased opportunities for employment and health care access, while contributing to high-risk behaviors that may contribute to poor mental health (Vega & Alegria, 2001).

V. CHEMICAL USE AND DEPENDENCY

One of the most harmful consequences of poor mental health occurs when individuals are prone to excessive alcohol and illicit drug use. Cultural dissonance and acculturative stress, discrimination, socioeconomic pressures, loss of social support mechanisms upon immigration, and exposure to drugs and alcohol often lead to chemical use and dependency. Indeed, substance abuse is the most common and clinically significant co-morbidity among people with mental health illnesses (Drake, Mueser, Brunette & McHugo, 2004).

Alcohol Use

Among Latinos, use of alcohol is of particular concern given that data have shown that:

- **Death rates linked to alcohol-related conditions like cirrhosis and chronic liver disease are exceptionally high among Latinos** (Caetano & Galvan, 2001). While the category of cirrhosis and chronic liver disease is not included in the top leading causes of death for African American, White, and Asian/Pacific Islander males or females, it is the seventh- and tenth-leading cause of death for Latino men and women, respectively (CDC, National Vital Statistics Reports, 2003, Vol. 52, 9).
- **Latino youth are more likely than both African American and White youth to have consumed alcohol prior to driving or have ridden with a driver who has consumed alcohol** (Caetano & Galvan, 2001). Moreover, the number of deaths related to alcohol consumption while driving, riding in a car with a driver who has consumed alcohol, and/or

alcohol-related homicide is higher among Latinos, compared to their African American and White counterparts (Crowley, 2003).

- **Latino youth are more likely than their counterparts to have consumed alcohol in their lifetimes and to report current use of alcohol.** Data from the Youth Risk Behavior Surveillance Report (1999) also show that Latino youth are more likely to report episodic heavy drinking when compared to their Anglo and African American counterparts (Caetano & Galvan, 2001). Moreover, several studies have identified predictors of drinking among Latino youth (Sokol-Katz & Ulbrich, 1992) and stipulate that males and older adolescents consume significantly more alcohol than females and younger adolescents. In addition, a higher level of alcohol consumption tends to be reported more frequently by Mexican adolescents living in single-parent homes than those in two-parent homes.

Subgroup data related to prevalence estimates suggest that alcohol use and dependency are higher among Mexican-origin men when compared to women (Vega, Scribney & Achara-Abrahams, 2003). Men of Mexican origin have been found to be disproportionately affected by alcohol-related diseases and alcohol-related deaths.

Decisions to use alcohol (and tobacco) are influenced by many factors, including education, whether parents drink/smoke, peer pressure, and acculturation. For example, as Hispanic women acculturate to U.S. norms and values, they are more likely to consume alcohol (Wolf & Portis, 1996). Recent research from the National Latino Council on Alcohol and Tobacco Prevention also shows that alcohol and tobacco company advertisements or support of community events seek to - and do - influence Latinos' patterns of consumption of these products.

Substance Use

Data from the Hispanic Health and Nutrition Examination Survey (HHANES), a national probability sample of Hispanics aged 12 to 74, suggest differing patterns of substance use among segments of the Latino population. For example:

- Mexican Americans and Puerto Ricans were more likely to be past or present drug users than were Cuban Americans. More than two in five Mexican Americans (42%) and Puerto Ricans (43%), compared to one in five (20%) Cuban Americans, reported having used marijuana at some time in their lives (USDHHS, SAMHSA, 2003). Moreover, analyses of HHANES demonstrated that acculturation into mainstream U.S. society may contribute to chemical use and dependency.
- Hispanics who preferred to be interviewed in English were two to three times as likely to have ever used drugs when compared to their Latino counterparts who preferred to be interviewed in Spanish.
- Among Hispanics who reported ever having used marijuana, Mexican Americans initiated use at earlier ages than Puerto Ricans.

Although marijuana and illicit drug use have been historically lower for Latinos when compared to African Americans and Whites, small increases in marijuana use among Latinos overall have recently been observed (Gil & Vega, 2001). These overall rates appear to be influenced by the dramatic rise in marijuana and cocaine use among Latino youth. Data from the Monitoring the Future Study indicate that Latino youth are now more likely than their African American and White counterparts to have used marijuana and cocaine in the tenth grade (Johnston, O'Malley & Bachman, 1999).

Current literature and qualitative data have uncovered another serious issue regarding substance use and Latinos: the rise of methamphetamine use among Latinos, especially among Mexican

migrant construction workers, food service workers, and agriculture workers (DHHS, 2000). According to the Drug and Alcohol Services Information System (DASIS, 2004) the proportion of primary methamphetamine admissions involving those who identified themselves as Latinos (especially Mexican) doubled in a recent ten-year period, from 6% in 1992 to 12% in 2002. Findings show that participants believed that methamphetamine use was on the rise among Mexican American workers in all occupations (DHHS, 2000). Study participants habitually reported that their first use occurred in an occupational setting. Often referred to as the “poor man’s cocaine,” most respondents stated that they had easy access to the drug and that price was not a barrier for them. Interviewees also reported that dealers regularly travel to work sites, including agricultural fields.

Overall, methamphetamine use has enabled many to work longer hours faster and, therefore, make more money. Dramatic increases in the use of methamphetamines have been found among Latinos in and around the U.S.-Mexico border. According to Lopez-Zetina (2004), among Latino users in San Diego and Tijuana, the most widely used drug is methamphetamine. In San Diego, most users are likely to have had the habit for seven years or longer and initiated use at or around the age of 17. Approximately two-thirds (65%) of San Diego Latino methamphetamine users report daily consumption. In Tijuana, where 28% of users consume daily, most are likely to have used for 12 years or longer and initiated use at the approximate age of 14. Due to the relative ease with which methamphetamine is produced, restrictions have increasingly been placed on the sale of pseudoephedrine and other components used in its manufacture, which are often found in popular cold and allergy remedies. These restrictions, however, have not yet been implemented in Mexico, resulting in the creation of methamphetamine manufacturers along the U.S.-Mexico border.

In addition to the health risks that stem from substance use and abuse, there are other consequences of concern for Latinos, especially related to education and the criminal justice system. There is a positive association between the initiation of drug use and school drop out, and further studies are needed to better understand this link for specific Latino subgroups (Chavez, Oetting & Swaim, 1994). As a group, Latinos in federal prison were the most likely to be convicted of a drug offense; in 2000, Latinos constituted 43.4% of all federal drug offenders (NCLR, 2002). According to estimates by the U.S. Department of Justice (1997), the lifetime probability of being incarcerated in a state or federal prison is four times higher for Latino males than White males.

VI. DOMESTIC VIOLENCE

Domestic violence is a serious, widespread social problem with mental health consequences for victimized women and families of all cultural and ethnic groups. Medical providers, clinicians, and policy-makers have become aware of the widespread prevalence of domestic violence, as evidenced by the increasing number of screening programs in emergency departments, as well as in primary care, obstetric, and pediatric facilities throughout the U.S., and in the passage of the Violence Against Women Act in 1994 (Dienemann, Boyle, Baker, Resnick, Wiederhorn & Campbell, 2000). Although certainly not the only contributing factor, alcohol and illicit drug use often are associated with domestic violence, and this link is also relevant for the Latino community.

Victims of domestic violence, who are overwhelmingly women, are at high risk for mental health problems (Carlson & McNutt, 1998). According to the American Medical Association (2001), battered and victimized women account for 22% to 35% of all women seeking emergency medical services, 25% of women who attempt suicide, and 23% of pregnant women who seek prenatal care (Torres & Han, 2003). Although much work has been attributed to recognizing the impact that

domestic violence has on women overall, few reliable data are available to describe the reality of Latinas who experience domestic violence. A recent study involving 1,088 low-income Latinas residing in Chicago, Boston, and San Antonio found that one-fourth of the participants had experienced domestic violence. Unmarried women with a history of violence in their families of origin and sexual abuse survivors (adult or child) who were born in the U.S. and speak English are especially likely to experience violence in their relationships (Frias & Angel, 2005).

Available information shows that, similar to their non-Hispanic counterparts, Latina women are more likely than men to be the victims of domestic violence, but Latina women have also been found to abuse their male partners. Data from the National Couples Study indicate that Latinos are more likely to have engaged in male-to-female partner violence than Whites and that more than 25% of Latinos and Whites reported having engaged in drinking prior to the violent episode. Latino males were also more likely than Whites to have experienced female-to-male partner violence, and between 25% and 33% of men reported having drunk alcohol when their partners became violent (Caetano & Galvan, 2001). Latinas were much less likely than their White female counterparts to have consumed alcohol at the time they became violent.

Factors Associated with Domestic Violence

Several factors have been associated with the incidence of domestic violence among Latinas. These include:

- **Poor socioeconomic status**, including limited personal resources and low levels of education.
- **Unfavorable male partner characteristics**, including heavy drinking, generalized violence, a previous history of arrest, and related occupational stress (Caetano, Schafer, Clark, Cunradi & Rasberry, 2000).
- **Social or traditional cultural dynamics**, including religious practices, fatalistic beliefs, and familial norms that may reinforce a traditional patriarchal structure and may tolerate domestic violence to a greater extent than the larger mainstream society (Morash, Bui & Santiago, 2000); cultural scripts that deny a woman's participation in decision-making; oppression and discrimination (Vega, 1995); and existing attitudes and norms that prevent Latinas from acknowledging the violence in their lives, sharing it with friends and family members, and seeking help from the limited resources available (Krishnan, Hilbert & VanLeeuwen, 2001).

These factors may affect whether Latinas disclose their experience of abuse and speak out against their male partners to friends, in the court systems, to counselors, or to other health care providers. Overlapping issues such as the lack of documentation, fear of deportation, and lack of available Spanish-speaking mental health professionals who understand the social and traditional and contextual dynamics of domestic violence among Hispanics exacerbate the fear experienced by Latinas living in abusive relationships and increase their reluctance to seek help.

Latino Immigrants and Domestic Violence

The experience of domestic violence for Latinas is exacerbated for women who are immigrants. Four sets of issues are relevant to this discussion: the relationship among the effects of immigration, depression, and domestic violence; the ways in which domestic violence or abuse may be manifested or characterized; the ways in which immigration affects opportunities by gender and challenges cultural norms; and language barriers.

A binational study of domestic violence experiences in Northern California and Jalisco, Mexico found high levels of verbal abuse and moderate occurrence of physical violence of 624 women in the U.S. and Mexico (Flores, 2005). Women were found to use verbal abuse as a way to be heard

and respected. Research comparing women from rural Mexico whose husbands had traveled to the U.S. for work with those whose had not, found that women with husbands who did not live regularly in Mexico experienced increased levels of depression, aggression toward their male partners, and relationship dissonance when their husbands visited Mexico (Flores, 2005). This study showed that intimate partner violence (IPV) existed on both sides of the border and that it was defined differently among Latinos and Whites. For example, among Latinas accusation of being a “bad mother or wife” was viewed as one of the most severe abuses. Among Latino males, the most severe form of abuse was to be called “useless.” Both of these items were not included on the scales that measured experience of violence, indicating a need to develop culturally-appropriate scales for IPV among Latinos. Both women and men were found to use verbal insults as well as physical abuse, exemplified by breaking valued items, pushing, and hitting. The justification of these behaviors was that they were interpreted as a way to be heard and respected. Violence was regularly experienced as a method by which women could negotiate a space for dialogue and potential resolution of problems.

For recent immigrants, in particular, cultural and gender expectations also contribute to an environment wherein domestic violence often remains hidden and untreated. In this context, the male is viewed as the decision-maker and the provider, and the female’s role is often relegated to duties of the home and children; this translates to few available opportunities for women to become educated and/or trained to enter the workforce. When Latinas do enter the workforce, however, they often fare better than their male partners, thus increasing the sense of displacement and insecurity of a Latino male who interprets his role as being usurped by his female partner. The impact of the economic disenfranchisement, combined with discrimination and lack of support, often leads to domestic violence as the Latino male may feel emasculated and unproductive. An understanding of the ways in which the issues of gender and opportunity impact not only the health outcomes under study, but also equality within the Latino household, is important in domestic violence prevention strategies and programs (Hirsch, 2003, p. 278).

Finally, while a myriad of immigrant-specific factors aggravate the already vulnerable position of Latina women dealing with domestic violence (Menjívar & Salcido, 2002), language is of special concern in identifying and responding to related problems among Latina immigrants. Upon immigration to the U.S., many Latinas with limited host-language skills have inadequate alternatives to living with their abusers, thus limiting their ability to seek help from an abusive partner and access to care. In addition, stigma related to non-English-speaking Latinas further hinders Latinas’ ability to feel support from medical professionals or civic authorities. A previous study on this topic (Ferraro, 1983) found that police officers viewed arrests in domestic violence situations among immigrants as a waste of time because violence was interpreted as being an expected part of the Latino lifestyle. Additional research is needed to determine if these perceptions still exist among officers serving Latino communities and if interpretations of domestic violence case management are affected by the race, ethnicity, and language of victims.

The impact that domestic violence has on the mental health of Latinas has not been systematically examined, though the side effects of being a victim of domestic violence have been associated with negative mental health outcomes, including depression and suicide attempts, post-traumatic stress disorder, varying forms of anxiety, substance abuse, insomnia, and social dysfunction - with physical violence having stronger effects than psychological abuse (Carlson, McNutt & Choi, 2003; Campbell, 2002). According to Flores-Ortiz (1998), many Latinas reported encountering providers who focused only on physiological complaints and ignored their social and psychological problems, thus resulting in a neglect to treat their abuse. McGrath and colleagues (1990) stipulate that the compromised state of mental health among victimized Latinas may be mediated by ethnocultural factors. For example, depression among Latinas is

likely to be compounded by lower income and educational status as well as unemployment. Furthermore, Latinas whose husbands are working in the U.S. are particularly prone to report higher levels of depression.

For these reasons it is essential that a thorough investigation be conducted regarding the ways in which violence becomes part of the daily lives and interactions within Latino families among both immigrants and non-immigrants. In addition, the identification of effective strategies, such as conflict resolution in marriage, is fundamental to effectively prevent IPV (Flores, 2005).

VII. SUICIDE

Each year in the U.S. approximately 30,000 people die by suicide and approximately 650,000 people receive emergency treatment after attempting suicide (CDC, 2004). More than 80 million people in the United States are at risk for suicide due to mental illness and substance-use disorders. Suicide is now the eleventh-leading cause of death for all ages and the third-leading cause of death for adolescents (Cabassa, 2005; CDC, National Vital Statistics Reports, 2003, Vol. 52, 9).

A combination of research and data offers some insight into the scope of the problem among Latinos. When compared to other groups, Kann et al. (1998) found that Latinos were more likely to have attempted suicide (10.7%) when compared to their African American (7.3%) and non-Hispanic White (6.3%) counterparts. Latinos were also found to be more likely to consider suicide (23.1%, vs. 15.4% and 19.5%) and make a specific plan (19.6%, vs. 12.5% and 14.3%) when compared to African Americans and non-Latino Whites, respectively. Data from the Centers for Disease Control show that suicide was found to be the seventh-leading cause of potential life years lost before age 75 years and the third-leading cause of death among young Latinos 10-24 years old (CDC, MMWR, 2004). Moreover, approximately 50% of all suicides occurred among Latinos 10-34 years old.

Latino youth appear to be at a significantly increased risk of suicide and suicide ideation when compared to Latinos overall. According to the CDC, Latino youth experience disproportionately high rates of anxiety-related and delinquent behaviors, depression, and drug use when compared to non-Latino White youth (CDC, 2004). Additional data on Latinos by gender and subgroup demonstrate:

- **Females:** When comparing Latinos, African Americans, and Whites, Hispanic adolescent females had much higher rates of suicide ideation and attempted suicide, and were more likely to require medical attention due to the attempt. Approximately one-third of Latina girls seriously contemplate suicide (SAMHSA, 2001). The National Household Survey on Drug Abuse indicates that Latinas aged 12 to 17 were at higher risk for suicide than other youth, with Latinas born in the U.S. at the highest risk (2000).
- **Males:** Among a total of 8,744 Latinos who died from suicide from 1997 to 2001, 7,439 were males (MMWR, 2004). An additional study of a more limited timeframe found that from 1999 to 2001, a total of 5,332 Latinos died from suicide, 85% of whom were males.
- **Subgroups:** Persons of Mexican origin accounted for the majority of suicides (56%), followed by those of other/unknown Hispanic origin (14%), Central and South Americans (11%), Puerto Ricans (11%), and Cubans (8%).
- **Methods:** The suicide method most frequently used by males was firearms (45%), followed by suffocation (34%) and poisoning (7%). In contrast, Latina females were likely to use firearms (29%), suffocation (29%), and poisoning (27%) almost equally. Among Latino male youth aged

10-24 years, firearms accounted for 52% of all suicides, followed by suffocation (38%) and poisoning (3%); whereas among females in the same age group, suffocation accounted for 44% of all suicides, followed by firearms (33%) and poisoning (11%) (CDC, 2004).

Suicide also affects other segments of the Latino population. For example, among Latinas, suicide rates were highest among those aged 50-54 years, followed by those 45-49 years old. In addition, Latino elderly have been found to be at increased risk, often the result of perceived inutility, lack of social support, or reaction to exacerbation of a chronic illness, such as recovery from an amputation resulting from diabetes.

Factors Associated with Suicide

Risk factors for suicidal behaviors among Latino youth (male and female) are complex and multifaceted. Some of the major factors are highlighted below:

- **Depression.** Major depression has consistently been the most prevalent condition leading to suicide ideation and contemplation among Latino youth.
- **Gender.** Youth suicide is marked by a distinct gender difference; although females are more likely than males to attempt suicide, males are more likely to commit suicide (Otsuki, 2002). Latinas are more likely to be hospitalized for self-inflicted injuries. According to Zayas et al. (2000), to deepen our understanding of the phenomena of adolescent Hispanic female suicide attempts and to better inform clinical practice, new culturally-based models need to be developed and tested.
- **Drugs.** Substance abuse is also a significant risk factor, especially for older adolescent males (Gould & Kramer, 2001).
- **Mental distress.** A noteworthy factor appears to be the high level of mental distress reported by Latino youth. Among respondents to the 2003 Youth Risk Behavior Survey, 35.4% of Latino youth and 28.6% of all respondents reported feeling so sad or hopeless almost every day for two weeks or more during the preceding year that they stopped doing some usual activities (CDC, MMWR, 2004).

Several other issues are important to consider. First, although the rates of mental illnesses in the Latino community appear to be fairly similar to Whites, given the barriers that affect health care access for Latinos - including lack of health insurance and access to culturally- and linguistically-appropriate mental health services - data on depression and suicide may not fully reflect the scope of these problems for Latinos.

Second, with respect to Latino adolescent suicide, models emphasizing a comprehensive family approach and an understanding of overall family function appear to be the most effective and accurate from a treatment perspective. Specifically, an increased understanding of the ways in which culture and cultural traditions, adolescent development, and family functioning impact emotional vulnerability and thus suicide behaviors is important.

Another issue that merits further exploration relates to gender expectations of Latino versus Latina adolescents, particularly among families with strong traditional gender expectations. This, combined with other family dynamics, including changes in household structure, pressures and effects of immigration, and other related concerns, may have an effect on adolescent depression and suicide.

As the awareness of suicide incidence in the Latino community increases, it is critical that culturally- and linguistically-appropriate prevention strategies are developed, tested, and implemented to serve the needs of this growing population.

VIII. CO-MORBIDITY AND MENTAL HEALTH

When mental illness is coupled with other leading causes of death among Latino men and women, issues related to co-morbidity become marked and Latinos lacking health care find themselves in even more precarious positions. In addition, many Latinos present with co-morbid symptoms, which make diagnosis very difficult. General concerns center on accessibility to quality services, the affordability of those services, the cultural and linguistic adequacy of the services made available, and the ability of providers to understand the Latino-specific issues confronting members of that community (Soto, 2000).

Disease Links to Depression

Certain health problems in particular disproportionately affect the Latino community and exacerbate depression. First, diabetes is a serious disorder that affects an estimated two million or 8.2% of all Latinos aged 20 years or older (American Diabetes Association, 2004). One-third of older Latinos have diabetes, and the risk of depression among those with diabetes is 30% higher when compared to those without diabetes (Gonzalez, 2005). Several studies suggest that for those with diabetes, the risk of depression doubles compared to those without the disorder (Anderson, Lustman, Clouse, de Groot & Freedland, 2000). The combination of diabetes and depression is most common among older Mexican Americans. Furthermore, although the causes underlying the association between depression and diabetes are unclear, the chances of becoming depressed increase as diabetes-related complications worsen.

Depression may develop because of stress, but also from the metabolic effects of diabetes on the brain or from issues of immobility or other “vegetative symptoms.” Studies suggest that people with diabetes who have a history of depression are more likely to develop diabetic complications than those without depression. Latinos experiencing the co-morbid state of depression and diabetes are more likely to experience higher resting glucose levels, are less likely to see a physician and practice routine self-glucose monitoring, and are more likely to report severe depressive symptomology and problems with Activities of Daily Living (ADLs). In addition, Latinos with diabetes and co-morbid depressive symptomology are also more likely to experience stroke, kidney disease, heart attacks, and amputations. As further impairment occurs due to co-morbid exacerbation without adequate treatment, Latinos become at greater risk for memory loss and an inability to function independently, thus increasing risk of institutionalization (Gonzalez, 2005). Moreover, Alexopoulos et al. (2001) found that less than 15% of persons with diabetes and depression are treated medicinally with antidepressants and only 8.3% are treated and monitored adequately. Given the high rate of uninsurance among Latinos, these percentages are undoubtedly much higher. Furthermore, the high rate of gestational diabetes among pregnant Latinas warrants that screening for postpartum depression become a routine part of perinatal care.

Moreover, cardiovascular disease (CVD), the leading cause of death among Latinos, also affects mental health status (CDC, 2003). Depression is an independent predictor of CVD and results in greater morbidity and earlier mortality in persons with CVD (Ferketich, Schwartzbaum, Frid & Moeschberger, 2000; Bush, Ziegelstein, Tayback, Richter, Stevens & Zahalsky, 2001).

High rates of depression have also been observed among HIV-positive Latinos. In a study of HIV-positive Latinos in El Paso, those who were screened and diagnosed for mental health problems were found to have higher viral loads and lower CD4 counts, indicating a faster and more adverse progression of their disease. In addition, those diagnosed were more likely to have difficulty adhering to medication regimens and engage in risky behaviors. Furthermore, among those who were dually diagnosed with mental illness and HIV, insufficient social support was the most frequently cited psychosocial stressor (Salas Jones, Garcia & Ellis, 2005).

THE COST OF NEGLECT

Beyond the sheer human cost of enduring mental health disparities, the economic cost of neglect must be examined. Major depression frequently starts early in life, tends to run a chronic course, and produces substantial disability throughout the lifespan (Aguilar-Gaxiola, 2005). According to the World Health Organization (WHO), depression is the leading cause of lives lived with disability. In the U.S., unipolar depression is the major cause of disability for persons aged 25-44 (WHO Report, 2001 in Aguilar-Gaxiola, 2005). According to the WHO World Mental Health Survey Consortium, consisting of extensive epidemiologic surveys conducted in six less-developed and eight developed nations, the U.S. experienced the highest incidence of mental illness with 26.4% of the population reporting anxiety, mood, impulse control, or a substance-related mental health disorder within the past 12 months (2004).

The cost of depression in the U.S. is estimated to be \$43 billion, \$17 billion of which represents lost work days (American College of Occupational and Environmental Medicine, 2002). Domestic violence is estimated to cost employers \$4.1 billion in direct costs as well as \$1.8 billion due to lost productivity (American Institute on Domestic Violence, 2001). According to the National Strategy for Suicide Prevention (NSSP), a collaborative effort of the U.S. Department of Health and Human Services agencies, suicide costs in 1998 were estimated to total \$15.6 billion (2000).

Repeated research efforts demonstrate that providing quality mental health services to Latinos would result in considerable savings of county, state, and federal funds (Aguilar-Gaxiola, Zelezny, Garcia, Edmondson, Alejo-Garcia & Vega, 2002). In addition, it has been proven that Latinos with depression respond better to psychotherapy-based programs than medication-only treatment. Data demonstrated that the estimated cost per quality-adjusted life year (QALY) for Latinos was \$6,100 or less under psychotherapy, compared to \$90,000 or more for medication-only management (Schoenbaum, Miranda, Sherbourne, Duan & Wells, 2004).

This research demonstrates the costs associated with a one-size-fits-all mental health treatment approach. Despite the need, mental health and social services account for less than 5% of the nation's overall health and human service costs (Chapa, 2004). Culturally- and linguistically-relevant program methodologies will not only save in the human costs and impairment associated with mental illness, but will also save tax and program dollars through effective treatment. According to Lopez (2002), a mental health system that focuses on improving the accessibility and quality of care will help address the considerable need for mental health services in Latino populations. La Roche (2002) suggests that in order for Latinos to receive competent mental health care, providers must apply a three-pronged approach to ameliorating depression rates:

1. A culturally-sensitive psychotherapeutic model that addresses depression among Latinos should address chief complaints and reduce the symptoms of depression.
2. Providers should understand that Latino narratives include different dimensions of past experiences such as trauma, injury, and social isolation, and should foster empowerment in an effort to awaken a social consciousness within Latino mental health patients.
3. Programs and models that include a life course approach will enable practitioners and organizations to understand the cumulative effects of resource disparities, racism, and other hardships that impact the mental health of Latinos (Gonzalez, 2005).

In addition, conceptual models for understanding ethnic and racial minority groups frequently neglect the ecological circumstances underlying social and mental health problems and instead point to individual and family sources of problems (Zayas, Kaplan, Turner, Romano & Gonzalez-Ramos, 2000). Taken together, this information suggests that a comprehensive approach to Latino mental health and a focus on prevention and treatment are needed.

AIDS is now the second-leading cause of death among Latinos between the ages of 25 and 44 (CDC, 2004). Although the decline in U.S. AIDS cases from 1993 to 2001 has been marked, it has been slower among Latinos (56%) when compared to Anglos (73%). Recent data indicate that HIV is increasing faster among Latinos than any other group. From 1999 to 2002, rates of new infection among Latinos increased by 26.2% (CDC, MMWR, 2003).

HIV infection among Latinos is significantly underreported. Many HIV-positive Latinos do not perceive themselves to be at risk because they do not inject drugs or self-identify as gay/bisexual. Hence, they are unlikely to be tested until they become aware of the HIV status of a partner or begin to experience symptoms themselves (Rios-Ellis, Leon, Trujillo, Enguidanos, Dwyer, Ugarte & Roman, 2003). Nationally, 65% of HIV-positive Latinos were diagnosed with AIDS within 12 months of learning of their HIV seropositivity, and Latinos are more likely to die within 18 months of their HIV diagnosis when compared to all other racial/ethnic groups (NASTAD, 2003). Furthermore, women represent a growing share of AIDS cases among Hispanics. In 2001, 23% of AIDS cases among Latinos were women compared to 15% in 1991 (Kaiser Family Foundation, 2003). Research that evaluates the impact of mental health status on HIV progression among Latinos is sorely lacking.

As this discussion demonstrates, to accurately address mental health problems in the Latino community, health care providers must understand the impact of co-morbidity on mental health, particularly due to the historical underutilization of mental health services by Latinos and lack of access to culturally- and linguistically-appropriate health care.

IX. RECOMMENDATIONS

Taken together, the previous discussion illustrates that efforts to improve mental health services for Latinos will need to occur on several fronts. To that end, the recommendations outlined below are targeted to a number of audiences - from policy-makers to health care providers to the media - in order to improve mental health treatment, services, and outcomes for Latinos in the U.S.

Public Policy

Changes in health public policy are integral to improving the mental health status of Latinos. This research suggests a number of key areas that are necessary to improve mental health status and access among the nation's largest minority population:

Designating mental health as a formal health disparity category. Mental health must be designated as a health disparity category to validate the understanding that mental health is a part of overall health and, therefore, warrants increased national attention (Chapa, 2004).

Increasing access to mental health services for all Latinos. Latinos, particularly those most vulnerable, such as children, youth, and the elderly, must be provided with comprehensive mental health care. This will require multiple strategies as outlined below:

- **National and state-level advocacy efforts** to promote open access to mental health treatment and services for Latinos are critical to reducing barriers in the health delivery system.
- **Culturally- and linguistically-relevant mental health care** is essential to facilitate early diagnosis and keep costs to a minimum.

- **Funding for services for Latinos who lack health insurance or are unable to pay for diagnosis and treatment** is particularly important for undocumented Latinos, given that a large share of Latino families consist of members who are both documented and undocumented.

Enhancing domestic violence services for Latinos. This includes efforts to ensure that national and state hotlines or other services are linguistically and culturally competent. Consistent with this, Spanish-speaking staff at clinics, shelters, and other service areas should be available. In addition, shelters should allow the incorporation of children and use a family-centered approach to be responsive to Latinas.

Expanding substance abuse treatment services. Latino-centered alcohol and drug treatment centers where parents are allowed to bring their children are needed. Chemical use and dependency treatment facilities and programs should combine successful community-based organization interventions in the U.S. with proven components from Latin America to ensure culturally-relevant solutions without having to recreate entire service programs. Family-based treatment models that can be transcreated to meet the needs of Latino populations should be encouraged through developmental grant efforts. Additional policies can be written which, in turn, provide funding for replication of successful treatment models throughout the U.S.

Mandating policy to ensure adequate representation of Latinos and other racial/ethnic minorities in national studies and drug trials. Policies should stipulate that a representative number of minorities be included in mental health-related pharmacologic testing. Latinos, African Americans, Asian/Pacific Islanders, and Native Americans are woefully absent in clinical trial registries. When race and ethnicity are considered, African Americans have been found to be included at times, but never in sufficient quantities to yield meaningful statistical analyses (Vedantam, 2005). The combination of lack of representation of Latinos in clinical trials and the genetic diversity of Latinos overall has led to inappropriate psychopharmacology, due to variations in drug metabolism (Comas-Diaz, 1996; Mendoza & Smith, 2000).

Identifying Latinos and collecting data for Latinos and specific subgroups in pharmacologic trials. The tendency to include Latinos within larger categories, such as “minorities,” “non-whites,” or “women” in pharmacologic clinical trials, rather than disaggregating data collection by specific racial and ethnic groups, exacerbates the potential for both harm and/or mistreatment (Comas-Diaz, in press). Given the increasing diversity of the nation’s population, inclusion and significant representation of individuals from all major racial/ethnic categories should be an intrinsic characteristic of all clinical trials receiving government subsidies, and data should be collected by major categories and subgroups (e.g., Hispanic/Latino, African American/Black; Mexican, Salvadoran) in order to fully understand the impact and outcomes of treatment. This will not only enable analyses across major racial/ethnic categories, but also facilitate Latino subpopulation-specific treatment and allow for accurate tailoring of programs to all Latino groups.

Health Care Providers

The following recommendations are focused toward providers - those who have direct contact with Latino patients:

Participate in training to detect mental health problems among Latinos. Since Latinos are more likely to see primary care providers rather than mental health specialists, it is necessary that physicians, physician assistants, nurses, nurses’ assistants, and other “first responders” be trained in the presentation of mental health symptoms within the Latino community. Observance of unresolved somatic symptoms, such as backaches, headaches, and other ill-defined or indeterminate pain-related complaints, should be interpreted as warranting evaluation for mental health issues.

Routinely screen diabetic, cardiovascular disease, and infectious disease patients for mental health problems. recognizing that a patient with compromised mental health status is less likely to adhere to a medical treatment regimen. Furthermore, poor mental health has been found to have deleterious effects on overall immune function and exacerbate disease progression.

Have the opportunity to engage in Latino-specific mental health training to remain abreast of research and programmatic strategies. This training must include linguistic components to educate providers regarding commonly-used Spanish mental health-related terms and their contextual meaning, such as “*susto*,” “*ansiedad*,” and “*ataques de nervios*,” to ensure accurate diagnosis and treatment. Such preparation or instruction is also important to respond to nuances among Latinos subgroups, since language differs throughout Latin America and the Caribbean. Diagnostic instruments currently utilized, such as the Center for Epidemiologic Studies Depression Scale (CESD), need to be analyzed and assessed for cultural relevance and subpopulation specificity as many of the measurement items do not translate appropriately into Spanish. Items that have particular relevance to Latinos, such as those discussed previously in the section on domestic violence, need to be added to existing instruments.

Become educated regarding the cultural appropriateness of family-centered treatment and care models for the majority of Latinos. Often the involvement of a family member is discouraged or interpreted as codependence under traditional Western models of mental health services that focus on the individual and deter family involvement in the treatment regimen. This is of particular importance given the phenomenon of increased mental illness in relation to acculturation. The lack of social support, racism, and isolation experienced within mainstream U.S. culture are often contributing factors to mental health problems among Latinos. It is widely agreed that treating the individual does little to alter the environment wherein the mental health problem originated and, given the potential for strong family support, participation should be encouraged. Furthermore, programs and models that include a life course approach will enable practitioners and organizations to understand the cumulative effects of resource disparities, racism, and other hardships that impact the mental health of Latinos (Gonzalez, 2005).

Become cognizant of and address the stigma associated with mental health illness in the Latino community. To facilitate patient adherence to mental health treatment, health care systems must allow time for providers to explain the importance of treatment and develop *confianza* (trust) between the patient and the provider. The patient should be provided with an overview of mental health disease prevalence so as not to feel further isolated and fearful of unhealthy mental status. Furthermore, linguistically-appropriate support groups can be established to reduce feelings of stigma and isolation, increase adherence to treatment, and facilitate successful low-cost mechanisms to manage mental illness.

Learn about the particular mental health needs of Latino youth. Due to the chronic and long-term nature of depression, in addition to its extensive prevalence among Latino youth, strategies should be developed and applied within the educational and social institutions that serve our young. School psychologists, counselors, and religious leaders must be educated regarding the high prevalence of depression and learn to recognize symptoms. The development of referral systems within community-based organizations serving the needs of Latinos can be formed to facilitate easy access to diagnosis and treatment.

Two other sets of recommendations are relevant for providers:

First, **there is a critical need for an increased number of culturally- and linguistically-relevant Spanish-speaking mental health providers at all levels of mental health care.** Latinos and Latino-sensitive professionals are needed in social work, psychiatry, psychology, mental health nursing, and counseling, including that of an educational nature.

Second, **considering that so few Latinos currently occupy provider positions, it is critical that a community link is developed to ensure that individuals with mental health needs are educated and subsequently transitioned into care and treatment.** One of the most effective strategies to diminish the stigma related to mental health problems and facilitate access to care is to train community lay educators in mental health. These peer educators, or *promotores*, can then be responsible for conducting individual or group health education sessions within their communities.

In addition to *promotores*, peer advocates, or Latinos with a current or previous mental health illness who have undergone treatment, can be trained in a similar capacity. Peer advocates can also be used to facilitate access to treatment by serving as the first point of access for Latinos suffering from depression, thus reducing the stigma associated with mental illness. Through interacting with a high-functioning peer who is effectively managing mental illness, a newly diagnosed Latino can interact with a personal role model while simultaneously accessing appropriate mental health education.

Promotores programs offer a level of access to the community that is unparalleled, and because *promotores* reside within the communities they serve members of the community are more likely to discuss the issues surrounding their mental health status and follow up on referral information. Moreover, because *promotores* and peer advocates are most often employees of the agencies that provide treatment, a strategic follow-up plan can be formed to link the provider, case manager, and peer educator and better facilitate successful outcomes. Communities must leverage their existing community-based resources and integrate traditional medicine and lay health educators. In addition, these strategies are beneficial for Latino subpopulations speaking indigenous languages who may be further isolated in their respective communities.

The use of *promotores* or peer advocate programs to educate the patient prior to, or in between, doctor visits is especially beneficial for providers and enables them to use their time with patients in the most valuable way possible. Peer educators can be trained to work in collaboration with providers to provide the social support network often lost upon immigration. An additional advantage to peer education programs is that the transportation barriers often experienced can be alleviated as patients can work with *promotores* in multiple settings, such as the client's home.

Health Care Organizations

This research suggests that health care organizations can respond to the linguistic needs of their patient population communities through:

Immediate training and placement of Spanish-speaking and culturally-appropriate staff on all national 1-800 health and human service telephone lines. To date, many of the national hotline numbers, including the National Suicide Hotline, do not provide counseling and education in Spanish. The relatively low participation of Latinos, particularly those who are Spanish-speaking, points to the fact that historical neglect and underservice has led to the accurate perception that services such as these are not designed for Latinos. Even following the passage of Title VI of the Civil Rights Act of 1964, which guarantees translation to those seeking health services, many national hotlines are not equipped with Spanish-speaking staff.

Inclusion of Spanish-language materials and services, and culturally- and linguistically-appropriate care. Although Latinos are the largest minority population in the U.S., many hospitals, even in Latino-dominated areas, do not yet display signage in Spanish. In addition, hospital staff who serve as the “face” of the organization would benefit from training in Latino-specific cultural norms, as well as gain greater understanding of the range of linguistic and literacy levels of Latino patients. Furthermore, given the incredible stigma of mental illness,

adequate translation services become even more imperative. It is essential that patients are not made to rely on family members or their children for translation. Culturally- and linguistically-appropriate care must be ensured in all health care settings, particularly mental health, wherein the patient's description of his/her condition is often the only diagnostic criterion the provider has for making decisions regarding treatment regimens.

Incorporation of family in treatment. A great deal of current research is also pointing to the effectiveness of treatment modalities that incorporate the family and community. These are proving to be less costly when measured in both human and economic terms, with patients integrated in daily life and cared for within their homes as opposed to institutions. The WHO World Mental Health Survey Consortium has proven over three decades of research that schizophrenics treated in poorer countries with greater levels of social integration fair far better than they do when treated in industrialized nations, where they are more likely to be institutionalized, homeless, or incarcerated. Relatives tend to be more effective than hospital staff in calming troubled patients and play an active role in patient adherence to treatment regimens (Vedantam, 2005). Mental health institutions' accessibility to immediate and extended family members may improve treatment outcomes for long-term residents. *Familismo*, a term that describes the tendency to extend relationships beyond the nuclear family, should be incorporated into Latino-centered mental health treatment as it helps facilitate emotional proximity, affective resonance, interpersonal involvement, and cohesiveness (Falicov, 1992; Comas-Diaz, in press). The development of these factors can greatly improve both personal adherence to treatment as well as social support networks that lead to positive mental health outcomes. According to Jacobsen and Comas-Diaz (1999) cognitive behavioral therapy, family therapy, and group therapy techniques represent culturally-congruent approaches due to extended family ties and the strong importance placed on connectedness with Latino cultures.

Inclusion of other forms of treatment. Two additional treatment modalities, Eye Movement Desensitization and Reprocessing (EMDR) and Interpersonal Psychotherapy (IPT), have been proven to be effective when working with Latino populations (Comas-Diaz, 2005). Furthermore, *Dichos* Therapy, that which employs Spanish proverbs as a therapeutic learning tool to capture popular wisdom, has been found to be very effective, particularly within immigrant Latino populations (Comas-Diaz, 2005).

Integration of mental health into overall health care treatment. Given the barriers to care and presentation of mental illness within clinics and traditional medical settings, the integration of mental health into the overall health care system becomes even more imperative. Care for most illnesses is generally covered through private and public insurance. However, most insurance plans provide only limited coverage for treating mental illness. The divisions that exist with respect to financing mental health care when compared to traditional health services must be eliminated. The separation between "traditional" health care and mental health care can result in various negative effects such as compromising the continuity of care. Given the chronic nature of mental illness and the many ways in which it affects physical well-being, it is imperative that the system move toward equal benefit coverage for mental health and substance abuse in health insurance (Hogan, 1998).

Collaboration with community-based services. The creation of community-based medicine strategies that link *promotores* and peer advocates with health care providers and organizations will greatly benefit the underserved, while simultaneously educating both providers and educators about the needs of Latinos. As an example, the use of such a community health intervention model could also provide and expand access to mental health care services to undocumented individuals.

Applied Research and Education

Educational institutions and applied researchers must become cognizant of the cultural and geographic influences that affect Latino mental health. In an effort to develop models and programs that will be effective within the Latino community, the following tenets must be considered:

Incorporation of the heterogeneity of the Latino population. It is essential to promote an understanding of subgroup or subpopulation differences in mental health status and to recognize access issues that Latinos face throughout the U.S. The heterogeneity of the Latino community and the need for subpopulation-specific mental health research cannot be understated. Demographers must work with Latino health professionals to research the effects that shifts in Latino immigration patterns during the 1990s have had on the greater dispersal of Latinos in the U.S.

Integration and appropriate responses to the impact of acculturation on mental health. Aforementioned research demonstrates that increased acculturation can have a harmful impact on many health indices. A greater understanding of these effects should inform the development of mental health treatment approaches for Latinos. In addition, this suggests that more knowledge and study are needed on the positive attributes of Latino cultures. In particular, such knowledge should be incorporated into programmatic efforts to educate Latino families and to encourage the retention of the cultural characteristics and behaviors that have been shown to have protective qualities that guard against morbidity. To maximize mental health outcomes, research suggests that equal attention should be paid to maintaining positive cultural traits while encouraging Latino immigrants to acquire the bicultural skills needed to successfully adapt to the U.S.

Incorporation of co-morbid conditions with mental health research and programming. More research is needed to examine the mental health effects of illnesses that disproportionately impact Latinos, such as HIV/AIDS and diabetes, as well as on the ways that mental health issues further complicate disease-specific states.

Media

This research suggests that media and communications efforts can also play a role in improving mental health outcomes for Latinos. Specifically:

Health social marketing strategies should be encouraged at both the local and national levels in English and Spanish-language media. According to the Office of Minority Health, the knowledge base of behavioral health treatments for racial and ethnic minority consumers warrants urgent attention and improvement (Chapa, 2004). The incorporation of local and national celebrities to educate Latino communities about mental health issues will do a great deal to break down the stigma that so frequently inhibits Latinos from seeking care. Univision's Peabody Award-winning ¡Enterate! Campaign is one example.

Educational campaigns designed around the critical mental health issues presented in this paper should be developed in order to raise awareness and educate the community on these and other mental health conditions and to promote early access to appropriate treatment and intervention.

Strategies that incorporate cultural pride, family involvement, and the retention of protective factors often lost following immigration can be incorporated into advertising, event planning, and the marketing and implementation of mental health services, so as to foster both cultural pride and motivation to succeed while improving access to mental health diagnosis and treatment.

X. CONCLUSION

As the Latino population continues to grow, mental health status is not only an integral part of the development of healthy Latino communities, but also fundamental to the overall health of our nation. Latinos are a young, vital, and growing part of our nation's population, and their impact as productive members of U.S. society will be thwarted if their mental health issues are not adequately addressed. It is estimated that by the year 2050 more than 25% of the U.S. population will be Latino, and given the fact that Latinos are among the most youthful minority populations, a significant share will be active members of the U.S. workforce. The development of mental health strategies that meet the needs of this youthful population are not only essential for Latinos, but also imperative to the overall health and productivity of the United States.

REFERENCES

- Aguilar-Gaxiola, S. (February 16, 2005). Depression in Latinos. Presentation conducted at The Latino Mental Health Summit, Long Beach, California.
- Aguilar-Gaxiola, S., Zelezny, L., Garcia, B., Edmonson, C., Alejo-Garcia, C. & Vega, W.A. (2002). Translating research into action: reducing disparities in mental health care for Mexican Americans. *Psychiatric Services*, 53(12), pp: 1563-1568.
- Alexopoulos, G.S., Meyers, B.S., Young, R.C., Campbell, S., Silbersweig, D. & Charlson, M. (1997). "Vascular depression" hypothesis. *Arch Gen Psychiatry*, 54(10), pp: 915-922.
- American Diabetes Association (2004). Depression Fact Sheet. Retrieved on November 8, 2004, <<http://www.diabetes.org>>.
- American Medical Association (2001). Facts about domestic violence. Retrieved on November 8, 2004, <<http://www.ama-assn.org/ama/pub/category/4867.html>>.
- Anderson, R.J., Lustman, P.J., Clouse, R.E., de Groot, M. & Freedland, K.E. (2000). Prevalence of depression in adults with diabetes: A systematic review. *Diabetes*, 49(Suppl. 1): A64.
- Anderson, R.N. (2002). Deaths: Leading causes for 2000. *National Vital Statistics Reports*, 50(16). Hyattsville, Maryland: National Center for Health Statistics.
- Barlow, K.M., Taylor, D.M. & Lambert, W.E. (2000). Ethnicity in America and feeling "American." *Journal of Psychology: Interdisciplinary and Applied*, 134(6), pp: 581-600.
- Berry, J.W. (1990). Comparative studies of acculturative stress. *International Migration Review*, 21, pp: 491-511.
- Bhugra, D. (2003). Migration and depression. *Acta Psychiatrica Scandinavica*, 108(418), pp: 67-72.
- Bierman, A.S., Magari, E.S., Jette, A.M, Splaine, M. & Wasson, J.H. (1998). Assessing access as a first step toward improving the quality of care for very old adults. *Journal of Ambulatory Care Management*, 21(3):17-26.
- Blow, F.C., Zeber, J.E., McCarthy, J.F., Valenstein, M., Gillon, L. & Bingham, C.R. (2004). Ethnicity and diagnostic patterns in veterans with psychoses. *Social Psychiatry and Psychiatric Epidemiology*, 39(10): 841-851.
- Bush, D.E., Ziegelstein, R.C., Tayback, M., Richter, D., Stevens, S. & Zahalsky, H. (2001). Even minimal symptoms of depression increase risk after acute myocardial infarction. *American Journal of Cardiology*, 88: 337-341.
- Cabassa, L. (February 16, 2005). Latinas' suicide attempts: A sociocultural perspective. Presentation conducted at The Latino Mental Health Summit, Long Beach, California.
- Caetano, R. (February 16, 2005). Drinking, alcohol problems, abuse and dependence among U.S. Hispanics. Presentation conducted at The Latino Mental Health Summit, Long Beach, California.
- Caetano, R. & Clark, C.L. (1999). Trends in situational norms and attitudes toward drinking among Whites, Blacks, and Hispanics: 1984-1995. *Drug and Alcohol Dependence* 54:45-56.
- Caetano, R., Schafer, J., Clark, C.L., Cunradi, C.B. & Rasberry, K. (2000). Intimate partner violence, acculturation, and alcohol consumption among Hispanic couples in the United States. *Journal of Interpersonal Violence*, 15(1), pp: 30-45.

- Caetano, R. & Galvan, F.H. (2001). Alcohol use and alcohol-related problems among Latinos in the United States. In: M. Aguirre-Molina, C.W. Molina & R.E. Zambrana, (Eds.), *Health Issues in the Latino Community*. San Francisco: Jossey-Bass, pp: 383-412.
- Campbell, J.C. (2002). Health consequences of intimate partner violence. *The Lancet*, 359, pp: 1331-1336.
- Canto, M.T. & Chu, K.C. (2000). Annual Cancer Incidence Rates for Hispanics in the United States: Surveillance, Epidemiology and End Results, 1992-1996. *Cancer*, 88: 2642-2652.
- Carlson, B.E. & McNutt, L-A. (1998). Intimate partner violence: Intervention in primary health settings. *Battered women and their families: Intervention strategies and treatment programs* (2nd ed., pp: 230-270). New York: Springer.
- Carlson, B.E., McNutt, L-A. & Choi, D.Y. (2003). Childhood and adult abuse among women in primary health care: Effects on mental health. *Journal of Interpersonal Violence*, 18(8), pp: 924-941.
- Centers for Disease Control and Prevention/National Center for Health Statistics. (2002). Deaths, percent of deaths, and death rates for the 15 leading causes of death in 5-year age groups, by Hispanic origin, race for non-Hispanic population and sex: United States 2000. pp: 1-100 Retrieved November 8, 2004, <http://www.cdc.gov/nchs/data/dvs/LCWK4_2000.pdf>.
- Centers for Disease Control and Prevention/National Center for Chronic Disease Prevention and Health Promotion. (2004). National Youth Risk Behavior Survey (YRBS). Health, United States. *Morbidity and Mortality Weekly Report*, 53, SS/2.
- Centers for Disease Control and Prevention. (2004). Health disparities experienced by Hispanics - United States. *Morbidity and Mortality Weekly Report*, 53(40): 935-937.
- Centers for Disease Control and Prevention. (2004). Suicide among Hispanics - United States, 1997-2001. *Morbidity and Mortality Weekly Report*, 53(22): 478-481.
- Centers for Disease Control and Prevention. (2003). Deaths: Leading causes for 2001. *National Vital Statistics Reports*, 52(9), pp. 1-86.
- Centers for Disease Control and Prevention. (2003). HIV/AIDS *Surveillance Report*, 15, Atlanta: U.S. Department of Health and Human Services, pp: 1-46. Retrieved November 8, 2004, <<http://www.cdc.gov/hiv/stats/hasrlink.htm>>.
- Centers for Disease Control and Prevention. (June 11, 2004). Suicide Among Hispanics - United States, 1997-2001. *Morbidity and Mortality Weekly Report*. 53(22); pp: 478-481. Retrieved November 8, 2004, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm_5322a5.htm>.
- Centers for Disease Control and Prevention. (June 11, 2004). Methods of Suicide Among Persons Aged 10-19 Years - United States, 1992-2001. *Morbidity and Mortality Weekly Report*. 53(22); pp: 471-474, Retrieved November 8, 2004, <<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5322a2.htm>>.
- Chapa, T. (2004). Mental Health Services in Primary Care Settings for Racial and Ethnic Minority Populations. Draft Issue Brief, September. Office of Minority Health.
- Chavez, E.L., Oetting, E.R. & Swaim, R.C. (1994). Dropouts and Delinquency: Mexican American and Caucasian Non-Hispanic Youth. *Journal of Child Psychology*, 23(1), pp: 47-55.
- Comas-Diaz, L. (in press). Ethnopolitical psychology. In E. Aldarondo (Ed.), *Promoting social justice in mental health practice*. New Jersey; Lawrence Earlbaum Associates.

- Comas-Diaz, L. (2005). The mental health needs of Latinas. Presentation made at the National Council of La Raza Annual Conference. Philadelphia, July.
- Comas-Díaz, L. (1996). Cultural considerations in diagnosis. In F. Kaslow (Ed.). *Handbook of relational diagnosis and dysfunctional family patterns*. New York: Wiley.
- Copeland, L.A., Zeber, J.E., Valenstein, M. & Blow, F.C. (2004). Racial disparities in the use of atypical antipsychotic medications among veterans. *The American Journal of Psychiatry*, 160: 1817-1822.
- Crowley, M.O. (2003). Latino access to mental health, development disabilities, and substance abuse services in North Carolina. *North Carolina Medical Journal*, 64(3): 127-128.
- Department of Health and Human Services (2000). *Communication Strategy Guide: A Look at Methamphetamine Use among Three Populations*. Substance Abuse and Mental Health Services Administration Center Substance Abuse Prevention. DHHS (SMA) 00-3423.
- Dienemann, J., Boyle, E., Baker, D., Resnick, W., Wiederhorn, N. & Campbell, J. (2000). Intimate partner abuse among women diagnosed with depression. *Issues in Mental Health Nursing*, 21, pp: 499-513.
- Drake, R.E., Mueser, K., Brunette, M.F. & McHugo, G.J. (2004). A review of treatments for people with severe mental illnesses and co-occurring substance use disorders. *Psychiatric Rehabilitation Journal*, 27(4), pp: 360-374.
- Drug and Alcohol Services Information System: The DASIS Report (2004). Primary Methamphetamine/Amphetamine Treatment Admissions: 1992-2002. Substance Abuse and Mental Health Services Administration. Retrieved November 8, 2004, <www.samhsa.gov/2k4/meth>.
- Falicov, C. J. (1998). *Latino families in therapy: A guide to multicultural practice*. New York, Guilford Press.
- Ferketich, M.A., Schwartzbaum, J.A., Frid, D.J. & Moeschberger, M.L. (2000). Depression as an antecedent to heart disease among women and men in the NHANES I study. *Archives of Internal Medicine*, 160, 1261-1268.
- Ferraro, K. & Johnson, J.M. (1983). How women experience battering: The process of victimization. *Social Problems*, 30(3), pp: 325-329.
- Fix, M.E. & Passel, J.S. (2001). *Immigration at the beginning of the 21st century*. Washington, DC: The Urban Institute. Retrieved November 8, 2004, <<http://www.urban.org/url.cfm?ID=900417>>.
- Flores, Y. (February 16, 2005). Violence and depression among Latinas: Implications for mental health. Presentation conducted at The Latino Mental Health Summit, Long Beach, California.
- Frias, S.M. & Angel, R.J. (2005). The risk of partner violence among low-income Hispanic subgroups. *Journal of Marriage and Family*, 67: 552-564.
- Gil, A.G. & Vega, W.A. (2001). Latino drug use: scope, risk factors and reduction strategies. In M. Aguirre-Molina, C.W. Molina & R.E. Zambrana, (Eds.), *Health issues in the Latino community*. San Francisco, CA: Jossey-Bass, pp. 435-458.
- Gonzalez, H.M. (2005). Mental health and medical co-morbidities: The case of older Mexican Americans. Presentation conducted at The Latino Mental Health Summit, Long Beach, California.

- Gonzalez, H.M., Haan, M.N. & Hinton, L. (2001). Acculturation and the prevalence of depression in older Mexican Americans: Baseline results on the Sacramento area Latino Study on Aging. *Journal of the American Geriatrics Society*, 49(7), pp: 948-953.
- Gould, M.S. & Kramer, R.A. (2001). Youth suicide prevention. *Suicide Life Threat Behaviors*, 31(1), pp: S6-S31.
- Grant, B.F., Stinson, F.S., Hasin, D.S., Dawson, D.A., Chou, S.P. & Anderson, K. (2004). Immigration and lifetime prevalence of DSM-IV psychiatric disorders among Mexican Americans and Non-Hispanic Whites in the United States. *Archives of General Psychiatry*, 61:1226-1233.
- Harker, K. (2001). Immigrant generation, assimilation, and adolescent psychological well-being. *Social Forces*, 79, pp: 969-1004.
- Healthy Place (2004). Depression Community Fact Sheet. Retrieved on November 8, 2004, <<http://www.healthyplace.com/communities/Depression/index.asp>>.
- Hirsch, J.S. (2003). A courtship after marriage: Sexuality and love in Mexican transnational families. Berkeley: University of California Press.
- Hogan, M.F. (1998). The public sector and mental health parity: time for inclusion. *Journal of Mental Health Policy and Economics*, 1(4), pp: 189-198.
- Hoppe, S.K., Garza-Elizondo, T., Leal-Isla, C. & Leon, R.I. (1991). Mental disorders among family practice patients in the United States-Mexico border region. *Social Psychiatry and Psychiatric Epidemiology*, 26(4), 178-182.
- Hough, R.L., Landsverk, J.A. & Karno, M. (1987). Utilization of health and mental health services by Los Angeles Mexican-American and non-Latino whites. *Archives of General Psychiatry*, 44, pp: 702-709.
- Hovey, J.D. & Magaña, C.G. (2002). Exploring the mental health of Mexican migrant farm workers in the Midwest: psychosocial predictors of psychosocial distress and suggestions for prevention and treatment. *The Journal of Psychology*, 136(5), pp: 493-513.
- Jacobsen, F.M. & Comas-Diaz, L. (1999). Psychopharmacological treatment of Latinas: Essential psychopharmacology, 3(1), 29-42.
- Johnson-Powell, G., Yamamoto, J., Wyatt, G.E. & Arroyo, W. (1997). Transcultural child development: *Psychological assessment and treatment*. New York: John Wiley and Sons.
- Johnston, L.D., O'Malley, P.M. & Bachman, J.G. (1999). The monitoring the future national survey results on adolescent drug use. Overview of key findings, 1999. Bethesda, MD: National Institute on Drug Abuse.
- Kaiser Family Foundation. (2003). *Key Facts: Latinos and HIV/AIDS*. (Report number 6088), Retrieved on November 8, 2004, <www.kff.org>.
- Krishnan, S.P., Hilbert, J.C. & VanLeeuwen, D. (2001). Domestic violence and help-seeking behaviors among rural women: Results from a shelter-based study. *Family and Community Health*, 24(1), pp: 28-38.
- Lang, J.G., Munoz, R.F., Bernal, G. & Sorensen, J.L. (1982). Quality of life and psychological well-being in a bicultural Latino community. *Hispanic Journal of Behavior Sciences*, 4, 433-450.
- La Roche, M.J. (2002). Psychotherapeutic considerations in treating Latinos. *Cross-cultural psychiatry*. *Harvard Review Psychiatry*, 10, pp: 115-122.

- Lopez, S.R. (2002). A Research Agenda to Improve the Accessibility and Quality of Mental Health Care for Latinos. *Psychiatric Services*, 53(12), pp: 1569-1573.
- Lopez, S.R. (February 16, 2005). Acculturation and Mental Health. Presentation conducted at The Latino Mental Health Summit, Long Beach, California.
- Lopez-Zetina, J. (2004). Uso de metanfetaminas en la frontera Mexico/Estados Unidos. Presentación el 10 de diciembre, 2004, Universidad de Baja California, México.
- Matano, R.A., Wanat, S.F., Westrup, D., Koopman, C. & Whitsell, A.D. (2002). Prevalence of alcohol and drug use in a highly educated workforce. *The Journal of Behavioral Health Services and Research*, 29, pp: 30-44.
- McGovern, P.G. & Griffin, D.H. (2004). Joint Statistical Meeting presentation, August 3, 2004.
- McGrath, E., Gwendolyn, P., Strickland, B. & Russo, N. (1990). Women and depression: Risk factors and treatment issues. In: *Final Report of the American Psychological Association's National Task Force on Women and Depression*. Washington, DC: American Psychological Association. Retrieved on November 8, 2004, <<http://www.apa.org/books>>.
- Mendoza, R. & Smith, M.W. (2000). The Hispanic response to psychotropic medications. In P. Ruiz (Ed). *Ethnicity and psychopharmacology*.
- Menjivar, C. & Salcido, O. (2002). Immigrant women and domestic violence: Common experiences in different countries. *Gender and Society*, 16(6), pp: 898-920.
- Miranda, A.O. (1995). Adlerian life styles and acculturation as predictors of the mental health of Hispanic adults. Unpublished doctoral dissertation. Georgia State University, Atlanta.
- Miranda, A.O. & Matheny, K.B. (2000). Socio-psychological predictors of acculturative stress among Latino adults. *Journal of Mental Health Counseling*, 22(4), pp: 306-317.
- Miranda, A. & Umhoefer, D. (1998). Acculturation, language use, and demographic variables as predictors of the career self-efficacy. *Journal of Multicultural Counseling and Development*, 26(1), 39-52.
- Morash, M., Bui, H. & Santiago, A. (2000). Cultural-specific gender ideology and wife abuse in Mexican-descent families. *International Review of Victimology*, 7, pp: 67-91.
- National Alliance of State and Territorial AIDS Directors (NASTAD). (2003). *Addressing HIV/AIDS, Latino perspectives and policy recommendations*. Retrieved September 15, 2005 http://www.nastad.org/%5Cdocuments%5Cpublic%5Cpub_prevention%5C2003723AddressingHIVADS%E2%80%A6LatinoPerspectivesandPolicyRecomme.pdf.
- National Alliance for Hispanic Health. (2004). Depression Health Fact Sheet. Retrieved on November 8, 2004, <<http://www.hispanichealth.org/depression>>.
- National Council of La Raza. (2004). Health and Family Support. Retrieved November 8, 2004, <<http://www.nclr.org/content/topic/detail/481/>>.
- National Council of La Raza. (2002). Testimony on Drug Sentencing and its Effects on the Latino Community. Presented by Charles Kamasaki, Senior Vice President.
- National Council of La Raza, Walker, N., Senger, J., Villarruel, F. & Arboleda, A. (2004). *Lost Opportunities: The Reality of Latinos in the U.S. Criminal Justice System*. National Council of La Raza: Washington, DC.

- National Institute on Drug Abuse. (2002). Info Facts. National Institutes of Health, U.S. Department of Health and Human Services. Retrieved on November 8, 2004, <<http://www.nida.NIH.gov/>>.
- Otsuki, M. (2002). Southern California Center of Excellence on Youth Violence Prevention, University of California, Riverside. Fact Sheet: Youth Suicide. pp.1-10. Retrieved on November 8, 2004, <<http://www.stopyouthviolence.ucedu/publications/factsheets/youthsuicide.pdf>>.
- Ramos, B.M. & Carlson, B.E. (2004). Lifetime abuse and mental health distress among English-speaking Latinas. *Affilia*, 19(3), pp: 239-256.
- Rios-Ellis, B., Leon, R.A., Trujillo, E.F., Enguidanos, S., Dwyer, M., Ugarte, C. & Roman, R. (2003). From Words to Action: The evolution of a national Latina HIV/AIDS needs assessment. *Ciencias de la Conducta*, 18(1), pp: 78-104.
- Rodriguez, M.A., Bauer, H.M., Flores-Ortiz, Y. & Szkupinski-Quiroga, S. (1998). Factors affecting patient-physician communication for abused Latina and Asian immigrant women. *Journal of Family Practice*, 47(4). Gale Group Inc. Retrieved February 10, 2005, <http://0-global.factiva.com.coast.library.csulb.edu/en/arch/print_results.asp>.
- Rogler, L.H., Cortes, D.E. & Malgady, R.G. (1991). Acculturation and mental health status among Hispanics: Convergence and new directions for research. *American Psychologist*, 46, pp: 585-597.
- Ross, C.E., Mirowsky, J. & Cockerham, W.C. (1983). Social class, Mexican culture, and fatalism: Their effects on psychological distress. *American Journal of Community Psychology*, 11, pp: 383-399.
- Salas Jones, A., Garcia, G.J. & Ellis, V. (July 19, 2005). Mental health needs of Latinos living with HIV/AIDS. Presentation conducted at the National Council of La Raza Annual Conference, Philadelphia, Pennsylvania.
- SAMSHA-Substance Abuse and Mental Health Services Administration. (2001). Suicide facts and statistics. Retrieved November 8, 2004, <<http://www.nimh.nih.gov/suicideprevention/suifact.cfm>>.
- Schichor, A. & Bernstein, B. (1994). Self-reported depressive symptoms in inner-city adolescents seeking routine health care. *Adolescence*, 29(114), pp: 379-388.
- Schoenbaum, M., Miranda, J., Sherbourne, C., Duan, N. & Wells, K. (2004). Cost effectiveness of interventions for depressed Latinos. *Journal of Mental Health Policy Economics*, 7, pp: 69-76.
- Schur, C.L. & Feldman, J. (2001). Running in Place: How Job Characteristics, Immigrant Status, and Family Structure keep Hispanics Uninsured. New York: Commonwealth Fund.
- Searle, W. & Ward, C. (1990). The prediction of psychological and sociocultural adjustment during cross-cultural transitions. *International Journal of Intercultural Relations*, 14, pp: 449-464.
- Smart, J.F. & Smart, D.W. (1995). Acculturative stress of Hispanics: Loss and challenge. *Journal of Counseling and Development*, 73, pp: 390-396.
- Snowden, L. (2003). Bias in Mental Health Assessment and Intervention: Theory and Evidence. *American Journal of Public Health*, 93: 239-243.
- Sokol-Katz, J.S. & Ulbrich, P.M. (1992). Family structure and adolescent risk-taking behavior: A comparison of Mexican, Cuban, and Puerto Rican Americans. *International Journal of the Addictions*, 27, 1197-1209.

- Soto, J.J. (2000). Mental Health Services Issues for Hispanics/Latinos in Rural America. In *Motion Magazine*: May 30.
- Stonefeinstein, B.E.S. & Ward, C. (1990). Loneliness and psychological adjustment of sojourners: New perspectives on culture shock. In D.M. Keats, D. Munro & L. Mann, (Eds.), *Heterogeneity in cross-cultural psychology*: pp: 537-547. Lisse, Netherlands: Swets & Zeitlinger.
- Suro, Roberto (1999). *Strangers Among Us: Latino Lives in a Changing America*. New York: Vintage Books.
- Swanson, J.W., Linskey, A.O., Quintero-Salinas, R., Pumariega, A.J. & Holzer, III, C.E. (1992). A binational school survey of depressive symptoms, drug use, and suicidal ideation. *Journal of the American Academy of Child and Adolescent Psychiatry*, 669-678. 31.
- The Commonwealth Fund. (2003). Insurance, access, and quality of care among Hispanic populations: 2003 Chartpack.
- The National Institute on Drug Abuse (NIDA). (2002). Retrieved on November 8, 2004, <<http://www.drugabuse.gov>>.
- Torres, S. & Han, H.-R. (2003). Women's perceptions of their male batterer's characteristics and level of violence. *Issues in Mental Health Nursing*, 24, pp: 667-679.
- Turner, R.J. & Gil, A.G. (2002). Psychiatric and substance use disorders in South Florida: Racial/ethnic and gender contrasts in a young adult cohort. *Archives of General Psychiatry*, 59, 43-50.
- U.S. Bureau of the Census. (August 2004). Income, poverty, and health insurance coverage in the United States: 2003. Publication No. P60-226.
- U.S. Bureau of the Census. (March 2004). U.S. interim projections by age, sex, race, and Hispanic origin. Retrieved June 10, 2005 <<http://www.census.gov/ipc/www/usinterimproj/>>.
- U.S. Bureau of the Census. (March 2003). The Hispanic Population: Census 2003 Brief.
- U.S. Department of Health and Human Services. Office of the Surgeon General. Substance Abuse and Mental Health Services Administration (2001). Mental Health: Culture, Race, and Ethnicity. A Supplement to Mental Health: A Report of the Surgeon General. (SMA)-013613. Retrieved November 8, 2004, <<http://SAMSHA.gov>>.
- U.S. Department of Health and Human Services. Office of the Surgeon General (2001). Mental Health Care for Hispanic Americans. In *Mental health: culture, race, and ethnicity. A supplement to mental health: A report of the Surgeon General*. SAMHSA
- U.S. Department of Health and Human Services. Substance Abuse and Mental Health Services Administration (2003). Prevalence of substance use among racial and ethnic subgroups in the U.S. Retrieved June 22, 2005, <<http://drugabusestatistics.samhsa.gov/NHSDA/Ethnic/ethn1007.htm>>.
- U.S. Department of Justice (1997). Lifetime Likelihood of Going to State or Federal Prison. NCJ-160092, pp: 1-13. Retrieved on November 8, 2004, <<http://www.OJP.usdoj.gov/bjs/>>.
- Vedantam, S. (2005). Patient diversity is often discounted: Alternatives to mainstream medical treatment call for recognizing ethnic, social alternatives. *Washington Post*, Sunday, June 26; A01.

- Vedantam, S. (2005). Social network's healing power is borne out in poorer nations. *Washington Post*, Monday, June 27; A01.
- Vedantam, S. (2005). Racial disparities found in pinpointing mental illness. *Washington Post*, Tuesday, June 28; A01.
- Vega, W. (1995). The study of Latino families: A point of departure. In R. Zambrana, (Ed.), *Understanding Latino Families* (pp: 3-17). Thousand Oaks, CA: Sage.
- Vega, W.A. & Alegria, M. (2001). Latino mental health and treatment in the United States. In Aguirre-Molina, M., Molina, C.W. & Zambrana, R.E., eds. *Health issues in the Latino community* (pp: 179-208). San Francisco: Jossey Bass.
- Vega, W.A., Kolody, B., Aguilar-Gaxiola, S., et al. (1998). Lifetime prevalence of DSM-III-R psychiatric disorders among urban and rural Mexican Americans in California. *Archives of General Psychiatry*, 55, pp: 771-778.
- Vega, W.A., Kolody, B., Aguilar-Gaxiola, S., Alderate, E., Catalana, R. & Carveo-Anduaga, J. (1998). Lifetime prevalence of DSM-III-R psychiatric disorders among urban and rural Mexican Americans in California. *Archives of General Psychiatry*, 156, 928-934.
- Vega, W.A., Kolody, B. & Aguilar-Gaxiola, S. (1999). Gaps in service utilization by Mexican Americans with mental health problems. *American Journal of Psychiatry*, 156, pp: 928-934.
- Vega, W.A., Scribney, W.M. & Achara-Abrahams. (2003). Co-occurring alcohol, drug, and other psychiatric disorders among Mexican-origin people in the United States. *American Journal of Public Health* 93(7), pp: 1057-1064.
- Walker, N.E., Senger, J. M., Villarruel, F.A. & Arboleda, A. (2004). *Lost Opportunities: The Reality of Latinos in the U.S. Criminal Justice System*. Washington, DC: National Council of La Raza.
- Ward, C. & Kennedy, A. (1994). Acculturation strategies, psychological adjustment, and sociocultural competence during cross-cultural transitions. *International Journal of Intercultural Relations*, 18, 329-343.
- Williams, S. & Kohout, J.L. (1999). A survey of licensed practitioners of psychology: Activities, roles, and services. Washington, DC: American Psychological Association.
- Wolf, C.B. & Portis, M. (1996). Smoking, acculturation, and pregnancy outcomes among Mexican Americans. *Health Care for Women International*, 17(6), pp: 563-573.
- Zayas L., Kaplan, C., Turner, S., Romano, K. & Gonzales- Ramos, G. (2000). Understanding Suicide Attempts by Adolescent Hispanic Females. *Social Work*, 45(1), pp: 53-63.