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## Socio-ecological Influences on Health-Care Access and Navigation Among Persons of Mexican Descent Living on the U.S./Mexico Border

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### Abstract

The study reported here examines factors influencing decision-making concerning health care access and navigation among persons of Mexican origin living along the U.S./Mexico border. Specifically, the study examined how persons with limited financial resources accessed these two

systems. Seven focus groups were held with 52 low income Mexican American people aged 18–65 years. Transcripts were analyzed to identify themes in Atlasti 5.0 software and the theory used included a socio-ecological framework and complemented by constructed from the Social Cognitive Theory. We found that in addition to a lack of insurance and financial resources to pay for health care; fear, embarrassment and denial associated with a diagnosis of illness; poor medical personnel interactions, and desire for quality but streamlined health care also influenced decision making. This theory-based study raises important issues if health care is to improve the health and welfare of disadvantaged populations and points to the need for greater focus on medical homes and prevention and early intervention approaches.

## Keywords

Mexican Americans; Immigrants; Decision making; Health care; Access; Navigation

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## Background

Delayed or no access to health care leads to less preventive care, adverse health outcomes, higher morbidity and mortality and increased health-care costs, particularly for minority populations living in the U.S. such as persons of Mexican descent [1–5]. This population, including Mexican Americans and documented and undocumented immigrants from Mexico, faces multiple barriers to healthcare access including language, recent arrival, immigration status, low income, poor education, perceptions of discrimination, transportation problems, culturally-based health-care beliefs and values, and a complex U.S. health care system [2, 6–13]. Also, persons of Mexican descent are the ethnic group in the U.S. least likely to have U.S. health insurance coverage [14–18] even after controlling for socio-economic status (SES) [6]. When navigating the U.S. health care system, Mexican immigrants familiar with the Mexican health care system have difficulty because of major differences between the two countries in health-care infrastructure and affordability [19]. As a result of these barriers, many persons of Mexican descent choose to delay care [20, 21] or are unable to overcome the barriers [2, 7, 17, 22] and may opt for health care in Mexico.

The U.S. health care system has been described by Sultz and Young [23] as a dual private/public health care system with impressive capability to deliver sophisticated high-technology health care requiring the support of a complex infrastructure and allowing many patients to fall through the cracks between its narrowly defined services and specialists. In fact, the fragmented nature of the U.S. health care system is a growing concern [23, 24] and led to The Patient Protection and Affordable Care Act (ACA) signed into U.S. law in 2010 (Public Law 111–148) and reviewed and upheld by the U.S. Supreme Court in 2012 [25]. The ACA supports the development of patient-centered medical homes shown to improve access, prevention, ambulatory care, and chronic care [26]. However, with the proposed phased implementation of ACA, gaps in coverage will remain, with approximately 18 % of eligible persons under 65 years (approximately 46 million people) being underinsured or lacking health insurance altogether [6, 23, 27, 28]. Undocumented immigrants and documented Mexican immigrants not meeting the Medicaid waiting period for benefits will

remain uninsured [29] Lack of health insurance and poverty are well documented along the U.S./Mexico border, particularly among persons of Mexican descent [21, 30, 31].

Accessing health care on both sides of the U.S./Mexico border is common among the border population, particularly for Mexican immigrants who seek medical, dental and prescription services [32–34] Wallace et al. [21] showed that approximately 50 % of the 1 million people in California seeking health care in Mexico were Mexican immigrants. Past research has shown a preference for health care in Mexico among Mexican immigrants [21, 35, 36] Most often, however, the care sought is not preventive [17, 37, 38] and often not even for conditions at their early onset [39, 40] as demonstrated by U.S. emergency room visit rates where persons of Mexican descent have higher rates than Caucasians [17, 41] even for childbirth and other conditions that could have been ameliorated [33, 42, 43]. González-Block et al. [33] showed that among Mexican immigrants who returned to Mexico for medical attention, the most common identified ailments across hospitals were traumatismos, diabetes complications, and elective surgery. Bergmark et al. [36] illustrated that former and current immigrants who returned to Mexico for health care did so because of difficulty obtaining care in the U.S., ineffective treatment in the U.S., and a preference for Mexican health care HIV-positive individuals of Mexican descent face additional barriers to care including concerns about medication side effects and stigma [44]. Although lack of insurance is a common reason for traveling to Mexico for health care, some individuals dropped their health insurance in order to make a private Mexican clinic their “medical home” [45]. These individuals sought out the Mexican medical clinics for their cheaper prices, expedited services, personal care, emphasis on clinical discretion, and more powerful medicine [45]. Researching the health care decision-making among persons of Mexican descent living in the U.S. along the border continues to be of import for its economic impact and clinical and public health implications.

## Study Objectives

The purpose of this study was to explore decision-making about health care access and navigation by persons of Mexican origin living on the U.S. side of the U.S./Mexico border using solid qualitative behavioral science techniques guided by theory. Though it is well known that insurance rates are very low along the border [46, 47] little is known about how people make decisions about health care and gain access to and navigate U.S. and/or Mexican health care systems, and many residents, especially those who recently immigrated to the U.S. may have limited familiarity with the complexities of the U.S. health care system. The study reported here therefore looked at how persons of Mexican descent with limited financial resources functioned between the U.S. and Mexican health care systems.

## Methods

### Study Site

The U.S./Mexico border stretches approximately 2,000 miles and over 153 million legal crossings are reported each year [48, 49]. The Lower Rio Grande Valley (LRGV) comprising four counties, Cameron, Hidalgo, Starr and Willacy Counties, sits at the southernmost tip of Texas. The 2010 census reported a population over 1.2 million for these

four U.S. counties; 89.5 % are Hispanic, almost all of Mexican origin. In 2007, 44 % of the population in the Brownsville-Harlingen area did not have any form of health care coverage, compared to 25 % in Texas as a whole [50]. Based on the 2007 census for this region, approximately 42 % of the population live below the poverty level and 45 % have not completed high school, compared to 13 and 16 %, respectively, in the U.S. [51]. This community has severe health disparities with excess morbidity and mortality from chronic preventable disease [46, 52].

Though Laredo and El Paso are the oldest Texan settlements on Rio Grande River, Brownsville, established in 1848, is the oldest of the U.S./Mexico border settlements in the lower part of the Valley [53]. This has resulted in an established community with a mixed population of mostly Mexican Americans, many of whom have been settled in the region for generations. However, legal and illegal immigration is constant and population movements across the border are fluid. Many families are separated by the Rio Grande, with some members living on the Mexican side and others on the U.S. side. Many make frequent, even daily, trips back and forth across the border to visit family and friends and to work, shop, and seek health care services.

### Overall Approach

The overall approach was to use focus groups with questions based on the Social Cognitive Theory (SCT) and the ecological model to elicit responses concerning health care access and navigation in this population. Seven focus groups with people living on the U.S. side of the border were led by facilitators trained in qualitative research methods and conducted in Spanish. Participants discussed their perceptions of the U.S. and the Mexico health care systems, including decision-making processes used to access and navigate both health care systems.

**Participants and Recruitment**—Community health workers recruited focus group participants by posting Spanish language flyers and recruiting by word-of-mouth at community outreach sites including churches, schools and community centers in the U.S. in the largest city in the LRGV. The total sample for the seven groups was 52 people (14 male, 38 female) aged 18–65 years who resided in the LRGV. Five groups consisted of females of Mexican descent and two groups consisted of males of Mexican descent. Recruitment for females was completed when theoretical saturation of concepts discussed in the focus groups was achieved. For men, recruitment was more difficult, however, the constructs discussed generally mirrored the female discussions with some unique gender insights. Focus group facilitators obtained informed consent from each participant, and the Committee for the Protection of Human Subjects of the University of Texas Health Science Center at Houston approved all study materials and protocols. The focus groups were conducted in Spanish. All participants received a \$20 gift card for their participation in the two hour discussion. We deliberately did not make inquiries into the legal status of our study participants since this would be counterproductive to participation but did recruit from low income areas and community locations where Mexican immigrants were likely to be.

**Theoretical Framework**—We used the socio-ecological framework and SCT to develop the focus group guide, orient the discussion, and analyze findings. The socio-ecological framework encompasses the interactive effects of intrapersonal, interpersonal, environmental, and policy factors and the ways in which these affect the well-being of a population [54] and emphasizes the multi-faceted nature of person-environment influences in the socio-ecological framework [55]. The focus group guide was based on the following SCT constructs: (1) behavioral capability (knowledge and skill to perform a behavior), (2) outcome expectations (anticipatory outcomes including health beliefs, risks, monetary costs, incentives, etc.), and (3) self-efficacy (a person’s confidence in performing a behavior when barriers are present) and (4) the reciprocal determinism of these constructs in the form of person, behavior and environment interactions [56].

### Conduct of Focus Groups

The design of the guide for the focus groups was to emphasize factors contributing to decision-making about accessing and navigating either health care system. It was illustrated with brief scenarios about a fictitious local family and their health care experiences, used to prompt reactions and provide an opportunity for participants to either react to the hypothetical scenario or speak about themselves if they so chose. For example, in the scenario the mother is ill and the family wants her to see a physician. Questions are asked about the mother’s choices regarding a visit to a physician in Mexico/U.S., what experiences would she have during the visit, and who makes the decisions about health care in the family. Later in the scenario the mother is diagnosed with diabetes. Question are then asked about medication compliance, advice/beliefs family members have regarding diabetes, and behaviors that will be used to control diabetes. Other elements of the scenario cover preventive behaviors and other common chronic illnesses. Bilingual study personnel translated the focus group guide into Spanish and back-translated it to English to check for consistency of meaning. We then pilot-tested the guide with local community health workers.

Trained focus group facilitators conducted the groups which were tape recorded and community health workers took notes. Group facilitators administered Marin’s Short Acculturation Scale which assesses language preference for media, conversation, reading and thought on a Likert scale and a short demographic questionnaire (age, level of schooling, income, etc.) at the beginning of each focus group [57]. Majority of participants was highly affiliated with a Spanish domain; no participants were highly affiliated with an English domain. The demographic characteristics of focus group participants are shown in Table 1. Facilitators conducted all focus group discussions in Spanish. All recordings were transcribed verbatim, and then reviewed for quality.

Since everyone on the research team was bilingual, the transcripts were not translated into English for analysis in order to avoid the possibility of losing cultural meanings. The transcripts provided the basis for identifying categories to classify themes or patterns using a socio-ecological framework. We coded the transcripts using ATLAS.ti 5.0 and assigned codes to emerging themes and patterns. The seven transcripts were double- and triple-coded by members of a four-person research team who met weekly. The researchers also

reconciled all discrepancies about codes to ensure that content was properly represented. The research team then used the coded segments to build network views highlighting the relationships of coded segments to the commonly identified themes found across the focus groups. For the purpose of this report quotes from participants are translated into English.

## Results

Overall participants accessed health care in both systems sparingly even when accessible. Mostly they waited until they were really sick to seek care. Very few reported seeking health care at symptom onset before serious conditions developed. In fact, the only preventive care mentioned was screening for breast and cervical cancer. Our discussions elicited several explanations and illustrative comments.

In accordance with the constructs of SCT (person, environment, and behavior) we grouped our discussions around themes to emphasize decision-making factors contributing to accessing and navigating either the U.S. or the Mexico health care system (the SCT construct of *behavior*). The themes fell under three general headings: (1) Personal (illustrating the SCT construct of *person*) and (2) Interpersonal (illustrating the SCT constructs of *outcome expectations and reinforcements*) and (3) Systemic (illustrating the SCT construct of *environment and outcome expectations*). Our findings are elaborated under these three headings with a summary at the beginning of each section.

### Personal Influences

Overall, personal influences were offered as major explanations for why these Mexican Americans did not use medical services in either Mexico or the U.S. Outcome expectations for visits to a physician were clearly negative and included fear, embarrassment, denial, inability to pay for a visit or jeopardizing one's job. Although these factors influenced accessing care on both sides of the border, they were more pronounced in regard to health-care visits in the U.S..

Participants discussed personal influences affecting their decision to access health care. Three main themes were identified within the SCT construct of *person*: (a) emotional (fear, embarrassment), (b) cognitive (denial, ignorance), (c) financial (money, work constraints). As a result, very few reported seeking health care on symptom onset before a serious condition developed. In fact, the only preventive care mentioned was screening for breast and cervical cancer.

**Emotional**—Participants said that fear and embarrassment negatively affected their decision to access care. They explained that fear associated with being diagnosed with a serious illness was a common reason for not seeking health care. One participant said:

The problem is this, we are afraid that they will tell us, you have cancer, you have diabetes....that is our fear and sometimes for that reason we do not want to go.  
(Female)

Other participants stated that embarrassment about personal examinations (e.g., cervical and prostate cancer screening) kept them from seeking medical care. One said,

More because of embarrassment than for being afraid, like when one goes for a pap smear; men also can go for an examination of the prostate and they are more embarrassed I believe than we are. (Female)

**Cognitive**—Denial due to fear and its relationship to accessing health care were discussed. Some participants gave examples of their denial when a doctor found something wrong that they either did not believe they had or were not ready to accept. Other participants reported an active effort to avoid recognizing the serious nature of their illness by ignoring symptoms. Still others reported not being ready to deal with the changes required for treatment and said they preferred “to just put up with the symptoms.” For example, one participant noted:

When you suffer from high cholesterol, or have symptoms of sugar, you do not want to go for a check-up. ...better you just endure it. (Female)

Others noted that the nature of their illness was not well understood; reducing their motivation to follow up with treatments or continue the treatment regimen once they felt better. One said,

I think that because of ignorance many people when they feel better, quit taking the medicine; they start feeling ill and they start taking it again. (Female)

**Financial**—Lack of financial resources to cover health care costs, particularly the costs of preventive health care, was apparent throughout the focus group discussions. Financial factors often determined whether or not and where Mexican Americans sought treatment. Many said that they could not afford to seek medical treatment. One noted,

It is very difficult also because sometimes you do not have money and meanwhile you have (health) problems and have to endure it. (Female)

Male participants expressed concern about taking time off from work to see a doctor because of critical work demands and negative perceptions of their absence. They explained that their employers did not recognize their need to take time off from work to see a doctor when they were ill. One noted:

They accuse you of not wanting to go (to work) because they say you were drunk, but they never say that you were ill;...and you have to go with pain and complete your eight hours. (Male)

### Interpersonal Influences

The theme of “confianza” with health care providers and ancillary staff ran through all of the discussions by participants, and encompassed the concepts of respect and effective communication. It also included issues of cultural competence, including language, and provider responsiveness—listening, understanding, respecting and effectively treating the patient. As with personal influences, “confianza” helped to explain why participants avoided accessing the health care system of the U.S. Feeling disrespected by health care workers and not being able to communicate in English about medical issues also influenced participants self-efficacy to access health care, especially preventive care.



Content in the transcripts that described interactions with providers was classified as “interpersonal influences.” Issues included: a) poor perceived responsiveness of providers, b) communication problems related to language and culture, and c) feelings of being disrespected by providers.

**Poor perceived responsiveness**—Remembering past interactions with health care professionals and anticipating future visits clearly affected participants’ desire to access care. In the aggregate their descriptions represented the theme of “confianza,” or the trust and comfort patients feel with health care providers and ancillary staff. According to participants, “confianza” influenced their decisions about if, when and where to access health care. One man said,

So we are back to the same because of culture, trust, language and because one feels more comfortable in Mexico. (male)

When asked about why they sought health care across the border, in Mexico, participants in all the focus groups responded that positive relationships between health care provider and patient were lacking on the U.S. side of the border. One said,

I think it is likely that we think a doctor in Mexico is better because he will spend more time listening to us, [completing] the symptoms and medical history, and here (U.S.) when one goes to the doctor they just want everything in writing, you fill out a form and nothing else. (Female)

Visits with health care providers in the U.S. were described as a series of rushed appointments with little face-to-face time with the medical provider. The lack of personal interaction, listening and time spent during appointments resulted in perceptions of health care providers as non-responsive. As expected, these perceptions served as reasons to delay treatment and/or seek medical care in Mexico.

**Communications**—We also identified communication problems with health care providers and staff in all groups. These issues, participants explained, influenced their decisions about whether or not to access health care and where to go. Communication was described as including ability to speak the language of the participant and familiarity with the culture of the patient. Two participants described this problem.

In my case...many doctors speak only English and I don’t speak English and I don’t understand exactly what it is...and this thing of using an interpreter, anyhow, it is just not the same. (Male)

One feels shame, when you go. Simply I (went) with a men’s illness, right, and one finds oneself with a doctor who doesn’t speak Spanish, and so the interpreter is unfortunately a young lady. ...so one cannot open up with confidence, comfort or trust to tell him man to man like (I could) if the doctor understood Spanish. (Male)

**Respect**—The concept of “respect” toward patients on the part of the health care provider and ancillary staff was also mentioned across groups as influencing motivation to access care. Many participants equated lack of respect with a lack of training or ability to deliver basic customer service. For example, one participant stated,



The (health-care) workers are rude; they never took a course in how to serve people, either elderly or younger people. ...so (these workers) who are already tired at the end of their eight-hour shift, but it isn't the fault of the patient who comes in sick. The worker says just wait a little bit, but a little bit feels like a century when you are sick. I say they should at least offer a course in how to treat people.  
(Female)

In all the groups, participants described feeling “disrespected” by health care providers and staff, and some mentioned that this was particularly difficult at their time of greatest need and vulnerability. One said,

I think that you can have problems with people who don't take care of you...or behave rudely, because there are times when you find that (behavior) where you least expect it, especially when you are sick. (Male)

### Systemic Influences

Although participants were critical about the process of accessing and navigating the U.S. health care system, it was also clear that they desired U.S. health care. Yet they saw that along the U.S./Mexico border, the choice to access care in Mexico provided a cost-effective, responsive though not always hygienic option. Participants felt more confident and capable of accessing care in Mexico than in the U.S., and they expressed outcome expectations of having their health care needs met more quickly in Mexico.

Participants also discussed systemic factors affecting access to care. People living along the U.S./Mexico border have minimal health-care coverage. Experiences with (a) the U.S. Health Care System (b) the Mexico Health Care System, and (c) contrasts between the two systems were aired.

**The U.S. Health Care System**—The U.S. health care system was described as a series of visits to physician offices including general practitioners and specialists, other offices for additional testing (e.g., blood work, MRI, CT scan), and still other locations for medication, with extreme waiting times during each visit and for diagnosis, all while feeling poorly. Medicaid was seen as a luxury among these participants, particularly because without it, all of the visits, tests and medications were out of pocket fees. For example, one participant stated,

That's the problem, people who have Medicaid can get treatment [in U.S.] and like she said, they (doctors) saw her, if she is sick they looked her over, but the poor people (like us) who don't have Medicaid...it's a disaster. (Female)

The problem of not having one doctor or place to go for health concerns also created difficulty in accessing and navigating the U.S. health care system. Participants voiced the need for a primary provider or medical home. For example one participant stated,

Now the reason is also that here it is very important to be under the care of a doctor...because you know, unfortunately, if you don't have your (regular) doctor and you happen to fall very ill, they won't see you until... they have checked

everything, exams, x-rays, and this and that and meanwhile if you are sick you have to put up with it. (Female)

Participants also described how they perceived that doctors delayed treatment in the U.S. Moreover, participants felt that doctors rushed the appointments so that little time was spent with the patient. One man said,

One would like to explain to the doctor but they cut you off short because they only have 15 min with each patient, they can't spend more time. Sometimes you can explain in 2–3 min what you have, but sometimes you need more time. But it's 15 min and no more...I don't think that's right, of course each case is different. Not everyone is going to be the same. They treat us like cattle, animals [in U.S.]. (Male)

Participants also discussed the wait time for care in the U.S. Some were frustrated by the long wait times, though others felt the time to wait was short.

I went with my brother for immunizations from 11:00 a.m. to 4:00 p.m. and I was dying of hunger. The next time I go I will bring breakfast, lunch and supper and a pillow so I can sleep there. (Female)

**The Mexico Health Care System**—Participants also discussed the pros and cons of health care in Mexico. Health care costs are lower in Mexico than in the U.S., that medical personnel can diagnose and prescribe medications for patients in some pharmacies and therefore this health care was desirable to participants. One said,

I think that (Mexico)...it's because of the cost, and also because I don't have any health insurance, so (it's) cheaper and faster. (Female)

Overall, the participants believed that health care in Mexico was responsive and their comfort and familiarity with the system and unfamiliarity with the U.S. health care system influenced their decision to access health care across the border in Mexico. One woman noted,

I think that they are more comfortable because they know it (Mexican health care system), and when you are here (U.S.) and you don't know the system, it is just easier to go where you are already familiar. (Female)

Another said,

My dad had cancer for a long time and they took good care of him in Mexico City, in a very good hospital. Thank God my dad is okay and he doesn't have cancer anymore. (Female)

Moreover, the perception of these participants was by crossing the border and going to a Mexican physician, access to health care was faster. One woman said,

And also I think that sometimes we go over there (Mexico) because it is faster, right, and, you get there and right away they see you in that short time. (Female)

Participants said that another advantage of seeking care in Mexico was the “directness” of treatment in Mexico. They felt that in the U.S. the symptoms or illness they presented with were not directly addressed by the health-care providers. Rather, they were sent to multiple

places to see different providers, or given another appointment to address the issue. This perception was particularly strong in regard to medications and treatment. One said,

And also, I have personally seen that you go to Mexico in Matamoros with a doctor and you tell the doctor ‘I have this’ and (he) prescribes medicine. It is good, directly for the illness you have. ...Here (U.S.) you go to see a doctor and many times they only give a Tylenol or ‘you don’t have anything (wrong)’ and they just check you and make another appointment. (Male)

**Contrasts between the two systems**—Frustration at the U.S. health care system practice of requiring multiple appointments, special tests and referrals to specialists was also expressed by participants. This was in contrast to the “one-stop shop” approach available in Mexico.

I think that many people have more faith in doctors from there (Mexico) because here (U.S.) they are not going to do anything for you until they know exactly what you have, and over there (Mexico) it’s the opposite, right away they give you special medicine and right away you get a prescription. (Female)

Participants also discussed problems in navigating the health care system once they had decided to seek care, pointing to specific problems in both the U.S. and Mexico health care systems. Some participants felt that in general U.S. facilities and equipment were better and cleaner than in Mexico and one had to know where to go in Mexico to obtain the best care. Other participants, however, felt that the hygiene of Mexican facilities was good. One participant said,

One goes over there (Mexico) because it is cheaper, but if you aren’t familiar, one clinic is better (than another)...Of course there are differences and exceptions because there are some places cleaner than others. (Female)

## Discussion

Our data revealed multiple obstacles to accessing and navigating health care as perceived by persons of Mexican descent living in the U.S. in a community with high prevalence of common chronic diseases and poverty and low rates of health insurance. Generally, health care services were accessed sparingly even when available. People wait until they are terribly sick to seek care and rarely at symptom onset or for preventive services. Explanations offered were complex but several important themes emerged. Personal influences were major, including fear and embarrassment, denial, inability to pay and jeopardizing one’s job. During interactions with medical personnel, we found the theme of “confianza” which encompassed the concepts of respect and effective communication, cultural competence, including language, and listening, understanding, respecting and effectively treating the patient. This and other interpersonal influences negatively impacted decisions to access care. At the system level, participants felt more capable of accessing the care provided in Mexico that had fewer “hoops” than in the U.S. and they expressed outcome expectations of having their health care needs met more quickly in Mexico. Although participants were highly critical of the U.S. health care system, it was also clear that they desired U.S. health care. Participants provided clear explanations for their

reluctance to access and navigate health care in the U.S. We see the manifestations of this reluctance in high rates of chronic and acute disease in the area, low rates of preventive care, and low rates of follow-up visits [47, 52, 58].

The socio-ecological model used in this study provided a structure for interpreting the findings and results may help guide interventions to address health care among persons of Mexican descent living on the U.S./Mexico border. This study shows that important influences at the personal, interpersonal and systemic levels affect decision-making about health care in low SES persons of Mexican descent. Additionally, our results show that influences across the socio-ecological model interact to inform decisions. These findings complement the findings of Bastida, Brown, and Pagan [32] and Byrd and Law [59] that healthcare decisions are not simply a matter of personal preference or convenience. Lack of financial means is a major deterrent to seeking health care for uninsured or underinsured Mexican Americans living along the U.S./Mexico border. Our study participants believed that health care was an important need for which the Mexican health care system offered more affordable and familiar options. A study of Human Papilloma Virus knowledge, attitudes and cultural beliefs among a similar population revealed similar findings with regard to comfort with the Mexican health care system [60]. Relationships with healthcare providers influence decisions to access care. Among our participants, the Mexican providers who were regarded with confidence and trust, were considered to be culturally and linguistically knowledgeable, and exhibited a good bedside manner (e.g., took time with patients), and provided efficacious medications positively influenced and reinforced the decision to seek care. Factors that discourage access to and navigation of the U.S. health care system by persons of Mexican descent include the systemic influences of lack of insurance, the reliance on specialists for care in the U.S. system, the poor Spanish language skills of most doctors, and misunderstanding of the U.S. health care system. These influences compound the personal influences discussed by the participants including the desire to avoid bad news or a complicated diagnosis since additional doctor visits require time off from work (and therefore reduce income), and the economic burden that additional medical expenses place on already limited discretionary incomes. Others have found fear of a diagnosis such as cancer [61] is a factor delaying access.

Our study illustrates that while lack of health insurance and finances are substantial barriers to health care, additional individual, interpersonal and systemic influences are also present. Others have described a web of factors influencing healthcare access and the need to address them comprehensively and simultaneously [4, 62]. Our results substantiate and expand this web concept against a back-drop of two behavioral science theories: Social Cognitive Theory and the Ecological Model. Simply providing universal access to health care is insufficient unless several non-financial and health care insurance coverage factors are also addressed. Some elements of the ACA may help to address these factors for those who are eligible for coverage including provisions of primary care through expansion of medical homes where primary care physicians oversee comprehensive health care for patients [63]. Additionally, ACA supports the creation of community health teams and the use of lay-health educators to reach minority populations in underserved areas [64]. However, for those without private health insurance, Medicaid or Medicare health care is not likely to improve and some have purported that access will become worse for immigrants [27].

As such, health care in Mexico is likely to continue serving as an alternative source of health care for many individuals living in the U.S. Provision of affordable primary health care service for everyone is the focus of the Mexican health care system particularly through its newly adopted “Seguro Popular” policy [32, 65] while specialty healthcare services and sophisticated high-tech care tend to be more accessible to the employed and higher income populations [59, 66–68]. Private medical attention is also available for those who can afford the expense since these services are paid “out-of-pocket” and is often the option selected for those crossing from the U.S. for care since these fees can be equivalent to a U.S. health insurance copay. An issue of concern is the disconnect between sick individuals who are non-medically trained to receive immediate care without the burden of additional tests and further visits, and the desire of medical personnel to ensure correct diagnoses and sufficient income are made. Though streamlining of the U.S. health care system and more effectively engaging patients in concepts of care are clear necessities, helping the patient to understand the importance of the correct diagnosis should not be overlooked. How to educate both physicians and patients to resolve these issues within the U.S. is an important question for future studies.

As with any study, there are limitations. As a qualitative study designed to examine depth of concepts rather than testing for broad application, data from this research cannot be generalized to all persons of Mexican descent or even to all persons of Mexican descent living on the U.S./Mexico border. The sample of males for this study was small and unfortunately is a common limitation of studies in this community where men are often on hourly wages and the sole bread-winner [47, 58]. Future research should expand on this study and also exam more fully health care decision making among low income Mexican-descent men. Recruitment for this study was only conducted in Spanish and in low income areas of the community. Comparisons to others who may be more acculturated to U.S. culture or who have more disposable income were thus not able to be made. Additionally, data analysis only examined discussions from participants recruited from the U.S. side of the border. We did not collect information about each participant’s medical history nor their immigration status and are unable to examine their comments in light of past experiences with the health care system or ability to legally cross the border other than specific comments they chose to share during the groups. The discussion groups also did not investigate details about patient provider interactions in Mexico. Future studies could specifically examine the interactions for elements of “confianza” that should be replicated in the U.S. to better serve Mexican immigrants accessing health care. Despite these limitations, the study provides a rich and detailed view of the decision-making processes associated with accessing and navigating the U.S. and Mexican health care systems for low SES persons of Mexican descent living in the U.S. most without insurance.

In summary, using a theoretical framework we provide an understanding as to why Mexican Americans on the U.S./Mexico border delay treatment and why they select health care provided in the U.S. or in Mexico. Our study expands the evidence that health care along the U.S./Mexico border may be enhanced by more individuals having health insurance and greater disposable income to pay for out of pocket health care costs. However, this study also demonstrates that individual, interpersonal and systemic factors need to be addressed with a particular focus on engaging persons of Mexican descent in medical homes so that

respectful and responsive relationships with providers are cemented and that preventive or early intervention care can become more prominent rather than plugging the ever expanding leaks in sick care provision.

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## References

1. Cruz-Flores S, Rabinstein A, Biller J, et al. Racial-ethnic disparities in stroke care: the American experience. *Stroke*. 2011; 42(7):2091–2116. [PubMed: 21617147]
2. Balluz L, Okoro C, Strine T. Access to health-care and preventive services among hispanics and non-hispanics United States. *Morb Mortal Wkl Rep*. 2004; 53(40):937–941.
3. Loue S, Cooper M, Lloyd LS. Welfare and immigration reform and use of prenatal care among women of Mexican ethnicity in San Diego, California. *J Immigr Health*. 2005; 7(1):37–44. [PubMed: 15744476]
4. Breen N, Rao S, Meissner H. Immigration, health care access, and recent cancer tests among Mexican-Americans in California. *J Immigr Minor Health*. 2010; 12(4):433–444. [PubMed: 19052868]
5. Guendelman S, Wagner TH. Health services utilization among Latinos and white non-Latinos: results from a national survey. *J Health Care Poor Underserved*. 2000; 11(2):179. [PubMed: 10793514]
6. Bass E. The enigma of higher income immigrants with lower rates of health insurance coverage in the United States. *J Immigr Migr Health*. 2006; 8(1):1–9.
7. Carter-Pokras O, Brown P, Martinez I, Solano H, Rivera M, Pierpont Y. Latin American-trained nurse perspective on Latino health disparities. *J Transcult Nurs*. 2008; 19(2):161–166. [PubMed: 18263845]
8. Vargas Bustamante A, Chen J, Rodriguez HP, Rizzo JA, Ortega AN. Use of preventive care services among Latino subgroups. *Am J Prev Med*. 2010; 38(6):610–619. [PubMed: 20494237]
9. Su D, Richardson C, Wen M, Pagan JA. Cross-border utilization of health care: evidence from a population-based study in South Texas. *Health Serv Res*. 2011; 46(3):859–876. [PubMed: 21158855]
10. Casey MM, Blewett LA, Call KT. Providing health care to Latino immigrants: community based efforts in the rural Midwest. *Am J Public Health*. 2004; 10(10):1709–1711. [PubMed: 15451737]
11. Derosé KP. Networks of care: how latina immigrants find their way to and through a County Hospital. *J Immigr Migr Health*. 2000; 2(2):78–87.
12. Documet PI, Sharma RK. Latinos' health care access: financial cultural barriers. *J Immigr Health*. 2004; 6(1):5–13. [PubMed: 14762320]
13. Sarmiento OL, Miller WC, Ford CA, et al. Routine physical examination and forgone health care among Latino adolescent immigrants in the United States. *J Immigr Health*. 2005; 7(4):305–316. [PubMed: 19813296]
14. DaNavas-Walt, C.; Proctor, BC.; Mills, RJ. US Census Bureau. Income, poverty and health insurance coverage in the United States: 2003. Washington, D.C.: US Government Printing Office; 2004.
15. Zuckerman, S. Snapshots of Americas' Families III. Urban Institute; 2003. Gains in public health insurance offset reductions in employer coverage among adults.
16. US General Accounting Office. Health insurance: characteristics and trends in the uninsured population. Washington, DC: US General Accounting Office; 2001.



17. Durden TE, Hummer RA. Access to healthcare among working-aged Hispanic adults in the United States\*. *Soc Sci Q.* 2006; 87(5):1319–1343.
18. Ortega AN, Fang H, Perez VH, et al. Health care access, use of services, and experiences among undocumented Mexicans and other Latinos. *Arch Intern Med.* 2007; 167(21):2354–2360. [PubMed: 18039995]
19. Homedes N, Ugalde A. Globalization and health at the United States-Mexico border. *Am J Public Health.* 2003; 93(12):16–22. [PubMed: 12511377]
20. Gonzalez JT, Atwood J, Garcia JA, Meyskens FL. Hispanics and cancer preventive behavior: the development of a behavioral model and its policy implications. *J Health Soc Policy.* 1989; 1(2): 55–73. [PubMed: 10304503]
21. Wallace SP, Mendez-Luck C, Castaneda X. Heading south: why Mexican immigrants in California seek health services in Mexico. *Med Care.* 2009; 47(6):662–669. [PubMed: 19434002]
22. Vistnes JP, Schone BS. Pathways to coverage: the changing roles of public and private sources. *Health Aff.* 2008; 27(1):44–57.
23. Sultz, HA.; Young, KM. *Health care USA: understanding its organization and delivery.* 6 ed.. Buffalo: Jones and Barlett; 2009.
24. Gunnar WP. Understanding the complexity of the US health care system can free-market ideology respond to a current challenge? *Perspect Biol Med.* 2008; 51(1):149–154. [PubMed: 18320696]
25. Supreme Court. [Accessed July 2, 2012] National federation of independent business v. sebelius, secretary of health and human services. <http://www.supremecourt.gov/opinions/11pdf/11-393c3a2.pdf>
26. Jaen CR, Ferrer RL, Miller WL, et al. Patient outcomes at 26 months in the patient-centered medical home national demonstration project. *Ann Fam Med.* 2010; 8(Suppl 1):S57–S67. [PubMed: 20530395]
27. Warner DC. Access to health services for immigrants in the USA: from the great society to the 2010 health reform act and after. *Ethn Racial Stud.* 2011; 35(1):40–55.
28. Kaiser. Commission on medicaid and the uninsured. Key facts: the uninsured and their access to health care. Commission on Medicaid and the Uninsured. 2006
29. Vargas Bustamante A, Laugesen M, Caban M, Rosenau P. United States-Mexico cross-border health insurance initiatives: Salud Migrante and Medicare in Mexico. *Rev Panam Salud Publica.* 2012; 31:74–80. [PubMed: 22427168]
30. Vargas Bustamante A, Fang H, Garza J, et al. Variations in healthcare access and utilization among Mexican immigrants: the role of documentation status. *J Immigr Minor Health.* 2012; 14(1):146–155. [PubMed: 20972853]
31. Macias EP, Morales LS. Crossing the border for health care. *J Health Care Poor Underserved.* 2001; 12(1):77–87. [PubMed: 11217230]
32. Bastida E, Brown S, Pagan JA. Persistent disparities in the use of health care along the US-Mexico border: an ecological perspective. *Am J Public Health.* 2008:1987–1995. [PubMed: 18799782]
33. Gonzalez-Block M, la Vega L. Hospital utilization by Mexican migrants returning to Mexico due to health needs. *BMC Public Health.* 2011; 11(1):241. [PubMed: 21501516]
34. Lapeyrouse L, Morera O, Heyman J, Amaya M, Pingitore N, Balcazar H. A profile of US-Mexico border mobility among a stratified random sample of hispanics living in the El Paso-Juarez area. *J Immigr Minor Health.* 2012; 14(2):264–271. [PubMed: 21336846]
35. Landeck M, Garza C. Utilization of physician health care services in Mexico by U.S. Hispanic border residents. *Health Mark Q.* 2003; 20(1):3–16. [PubMed: 12749595]
36. Bergmark R, Barr D, Garcia R. Mexican immigrants in the US living far from the border may return to Mexico for health services. *J Immigr Minor Health.* 2010; 12(4):610–614. [PubMed: 19058007]
37. Solis JM, Marks G, Garcia M, Shelton D. Acculturation, access to care, and use of preventive services by Hispanics: findings from HHANES 1982–84. *Am J Public Health.* 1990; 80(Suppl): 11–19. [PubMed: 9187576]
38. Seid M, Castaneda D, Mize R, Zivkovic M, Varni JW. Crossing the border for health care: access and primary care characteristics for young children of Latino farm workers along the US-Mexico border. *Ambul Pediatr.* 2003; 3(3):121–130. [PubMed: 12708888]



39. Zuvekas SH, Weinick RM. Changes in access to care, 1977–1996: the role of health insurance. *Health Serv Res.* 1999; 34(1 Pt 2):271–279. [PubMed: 10199674]
40. Weinick RM, Zuvekas SH, Cohen JW. Racial and ethnic differences in access to and use of health care services, 1977 to 1996. *Med Care Res Rev.* 2000; 57(suppl 1):36–54. [PubMed: 11092157]
41. Nandi A, Galea S, Lopez G, Nandi V, Strongarone S, Ompad DC. Access to and use of health services among undocumented Mexican immigrants in a US urban area. *Am J Public Health.* 2008; 98(11):2011–2020. [PubMed: 18172155]
42. DuBard CA, Massing MW. Trends in emergency medicaid expenditures for recent and undocumented immigrants. *JAMA.* 2007; 297(10):1085–1092. [PubMed: 17356029]
43. Wallace S, Gutierrez V, Castaneda X. Access to preventive services for adults of Mexican origin. *J Immigr Minor Health.* 2008; 10(4):363–371. [PubMed: 17939052]
44. Zuñiga M, Brennan J, Scolari R, Strathdee S. Barriers to HIV care in the context of cross-border health care utilization among HIV-positive persons living in the California/Baja California US-Mexico border region. *J Immigr Minor Health.* 2008; 10(3):219–227. [PubMed: 17653865]
45. Horton S, Cole S. Medical returns: seeking health care in Mexico. *Soc Sci Med.* 2011; 72(11):1846–1852. [PubMed: 21531062]
46. Diaz-Apodaca BA, Ebrahim S, McCormack V, de Cosio FG, Ruiz-Holguin R. Prevalence of type 2 diabetes and impaired fasting glucose: cross-sectional study of multiethnic adult population at the United States-Mexico border. *Rev Panam Salud Publica.* 2010; 28:174–181. [PubMed: 20963264]
47. Fisher-Hoch SP, Rentfro A, Salinas J, et al. Socioeconomic status and prevalence of obesity and diabetes in a Mexican American community, Cameron County, Texas, 2004–2007. *Prev Chronic Dis.* 2010; 7(3):A53. [PubMed: 20394692]
48. Bureau of Transportation Statistics. Research and innovative technology administration (RITA); Border Crossing/Entry Data. 2011.
49. Embassy of the United States Mexico. Mexico: Embassy of the United States; 2006.
50. CDC. Prevalence and trends data, Texas health care Access/Coverage. 2009.
51. US Census Bureau. State and county quickfacts: Texas. 2008.
52. Fisher-Hoch SP, Vatcheva KP, Dang M, et al. Missed opportunities for prevention in severe health disparity: the Cameron County Hispanic Cohort. *Preventing Chronic Disease.* 2011
53. Texas State Historical Association. Brownsville, Texas: TSHA Press; 2012. Available at: URL: <http://www.tshaonline.org/handbook/online/articles/hdb04> [Accessed March 16, 2012]
54. Stokols D. Translating social ecological theory into guidelines for community health promotion. *Am J Health Promot.* 1996; 10(4):282–298. [PubMed: 10159709]
55. McLeroy KR, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. *Health Educ Behav.* 1988; 15(4):351–377.
56. Bandura, A. Social foundations of thought and action: a social cognitive theory. Upper Saddle River: Prentice Hall; 1986.
57. Marin G, Sabogal F, Vanoss Marin B, Otero-Sabogal R, Perez-Stable EJ. Development of a short acculturation scale for hispanics. *Hispanic J Behav Sci.* 1987; 9:183–205.
58. Salinas J, McCormick JB, Rentfro A, Hanis C, Hossain MM, Fisher-Hoch SP. The missing men: high risk of disease in men of Mexican origin. *Am J Men's Health.* 2011; 5(4):332. [PubMed: 20930218]
59. Byrd TL, Law JG. Cross-border utilization of health care services by United States residents living near the Mexican border. *Rev Panam Salud Publica.* 2009; 26:95–100. [PubMed: 19814888]
60. Fernandez ME, McCurdy SA, Arvey SR, et al. HPV knowledge, attitudes, and cultural beliefs among Hispanic men and women living on the Texas/Mexico border. *Ethn health.* 2009; 14(6):607–624. [PubMed: 19953392]
61. Tejeda S, Thompson B, Coronado GD, Martin DP. Barriers and facilitators related to mammography use among lower educated Mexican women in the USA. *Soc Sci Med.* 2009; 68(5):832–839. [PubMed: 19152992]
62. Heyman JM, Nunez GGP, Talavera VM. Healthcare access and barriers for unauthorized immigrants in El Paso County, Texas [Article]. *Family Community Health Bord Communities.* 2009; 32(1):4–21.

63. Bristol N. US passes landmark health-care bill. *Lancet*. 2010; 375(9721):1149–1150. [PubMed: 20369396]
64. Health Reform for Latinos: The Affordable Care Act Gives Latinos Greater Control Over Their Own Health Care. The White House; 2010.
65. Santos-Burgoa C, Rodriguez-Cabrera L, Rivero L, et al. Implementation of Mexico's health promotion operational model. *Prev Chronic Dis*. 2009; 6(1):A32. [PubMed: 19080038]
66. Frenk J, Gomez-Dantes O, Knaul FM. The democratization of health in Mexico: financial innovations for universal coverage. *Bull World Health Organ*. 2009; 87:542–548. [PubMed: 19649369]
67. Rivera JO, Ortiz M, Cardenas V. Cross-border purchase of medications and health care in a sample of residents of El Paso, Texas, and Ciudad Juarez, Mexico. *J Natl Med Assoc*. 2009; 101(2):167–173. [PubMed: 19378635]
68. Arredondo A, Nájera P. Equity and accessibility in health? Out-of-pocket expenditures on health care in middle income countries: evidence from Mexico. *Cadernos de Saude Publica*. 2008; 24:2819–2826. [PubMed: 19082272]

**Table 1**

## Demographic characteristics of Mexican descent study participants

	n	%
Age (n = 52)		
18–40 years	25	48.1
41–65 years	27	51.9
Place of Birth (n = 52)		
Mexico	42	80.8
U.S.	9	17.3
Other	1	1.9
Acculturation (n = 52)		
High affiliation with Spanish domain	40	76.9
Biacculturation with English and Spanish	12	23.1
High affiliation with English domain	0	0
Time in U.S. (n = 52)		
10 years or less	24	46.2
More than 10 years	28	53.8
Education (n = 50) <sup>a</sup>		
10 years or less	31	62.0
More than 10 years	19	38.0
Income (n = 50) <sup>a</sup>		
No income	5	10.0
<\$5000	12	24.0
\$5000–\$9999	12	24.0
\$10,000–\$19,999	12	24.0
\$20,000–\$29,000	8	16.0
>\$30,000	1	2.0
Health Insurance Status (n = 50) <sup>a</sup>		
No health insurance	32	64.0
With insurance	18	36.0

<sup>a</sup>Total n may vary due to missing values in survey