

# Preventive and Curative Care Utilization Among Mexican Immigrant Women in Birmingham, AL

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Published online: 28 February 2012  
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**Abstract** This study aims to describe the utilization of curative and preventive care among Mexican immigrant women in the country of origin versus the US, and to identify factors associated with preventive and curative care utilization. A cross-sectional sample of 185 Mexican immigrant women living in Birmingham, AL between 2004 and 2005 were included in this study. Fisher's Exact tests showed that there was a statistically significant difference between seeking curative care ( $p < 0.0001$ ) and preventive care ( $p < 0.0001$ ) in country of origin versus the US. Differences in the reasons for lack of utilization of both curative and preventive care were also observed in the US and the country of origin. These findings suggest that difference in health-care-seeking behaviors and utilization among Mexican immigrant women between the US and their country of origin may be useful in the development of interventions aimed at increasing the use of preventive and curative care services to this immigrant population in the US.

**Keywords** Mexican Immigrants · Latina · Health care utilization · Health care seeking behaviors

## Introduction

Latinos are the largest and fastest growing group of immigrants in the US. In 2010, it was estimated that 37.6 million

individuals living in the US were of foreign-born status, of which 20.5 million were Latinos [1, 2]. The southern states of the US have experienced a rapid population increase in the past couple of decades. Alabama, in particular, experienced a 686% increase in its foreign-born Latino population between 1990 and 2000 [3]. As of 2010, census estimates have indicated that the foreign-born population in Alabama had increased to approximately 120,000 from an estimated 25,000 in the year 2000 [2]. With a continual increase of a foreign-born population (particularly recent immigrants), there is a great need to understand barriers to healthcare utilization among these individuals.

Much of the current literature is limited by a lack of differentiation among US-born and Latino immigrants, as well a lack of knowledge regarding whether, or how, health care utilization differs in the US as compared to the country of origin. Some differences in the utilization of healthcare of US born and foreign-born Latinos have been previously reported [4]. However, there is a paucity of information with respect to the differences in barriers to health care utilization among foreign-born Latinos when comparing the country of origin and the US. Understanding health-seeking behaviors in the country of origin may shed light on the needs of foreign-born Latinos in the US.

Previous studies have shown that immigrants are healthier upon arrival to the US than US-born Latinos [5, 6], but their health deteriorates as the number of years in the US increases [7, 8]. Several factors may contribute to this deterioration: low income, poor living conditions, unhealthy dietary habits, and lack of access and utilization of healthcare services [9, 10]. Furthermore, alternative medicine practices have also been shown to be common among the Latino immigrant population [11, 12], and perhaps among one of the reasons for low health care utilization. In general, foreign-born Latinos exhibit less use

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of healthcare services and in part due to less health care access and low rates of health insurance coverage than other racial/ethnic groups in the US; this subsequently adversely impacts healthcare utilization including preventive care [13–15]. These and other factors may contribute to a deterioration of health. For example, foreign-born Latinos have been shown to exhibit underutilization of both preventive [16–18] and curative care [18, 19] services, and it has been suggested that this could ultimately lead to poor health outcomes [8, 20, 21]. The work of LeClere and Kao has identified that length in US is associated with increased utilization of health care services in general [4, 22]. Hence, assessment of the association between time in the US and use of preventive and/or curative care is also of importance.

The need to understand healthcare utilization among Latina immigrant women is important given that women play such a central and crucial role in the Latino family and community. Latina women are exposed to the healthcare system much more frequently than men [23], thereby increasing the need to address barriers, which may obstruct their access to care. Though the literature is limited with regard to studies that focus on Latina immigrants specifically, some studies have shown that Latina immigrants in particular are less likely to have health insurance coverage as well as to not have a usual source of care as compared to both white and US-born Latina women [24, 25]. Other studies have shown that Latina immigrants are hesitant to seek health care services due to structural and non-structural barriers such as language, lack of health insurance, procrastination, embarrassment, and lack of proper documentation [26–28].

Although these and other studies have focused on barriers in the US, little is known about barriers to curative and preventive care in the home country. Assessing health-seeking behaviors in the country of origin can clarify whether health-seeking behaviors in the US are structurally related, strictly personal or a combination of the two. Identification linking either structural or personal barriers to utilization of care is important for the development of interventions and policies aimed at increasing use of preventive and curative care services among Latina immigrants in the US.

Hence, the objective of this study is to examine the differences or similarities in barriers to curative and preventive care among Mexican immigrant women in their country of origin and in the US and variables are associated with utilization of curative and preventive health care services.

## Methods

The data used for this analysis was collected via an in-person interview cross-sectional survey from Latina immigrants

living in Birmingham, AL between August 2004 and July 2005. The survey was developed based on qualitative data collected from eight focus groups with 54 Latina immigrants between May 2002 and February 2003 [29, 30]. Door-to-door canvassing was used to recruit 251 women for this study; of those, 40 refused participation and 5 were deemed ineligible based on eligibility criteria. Eligibility criteria included being female, aged 19–44 years of age, self-identification as Latina immigrants, and having lived in the US for at least 6 months. One participant was US-born and therefore excluded from the analysis. Of the remaining 205 participants, 185 were from Mexico. The other 20 were from other Latin American countries (e.g. El Salvador [6], Guatemala [2], Honduras [4], Nicaragua [1], Dominican Republic [1], Colombia [3], Costa Rica [1], Puerto Rico [1], and Venezuela [1]). Because of the small percentage of participants from these other countries, the study sample was limited to those of Mexican origin ( $N = 185$ ). All of the data collected for this study was self-reported. This study was approved by the University of Alabama at Birmingham Institutional Review Board.

## Variables

### *Dependent Variables*

Seeking preventive and curative care in the country of origin and in the US were the outcomes of interest in this analysis. The responses to the curative care questions were “Always”, “Sometimes”, “Never” and “I’ve never been sick”; “Never”, “Every Year”, “Every 2 years”, “Every 3 or 4 years”, and “Every 5 years or more” were responses for the preventive care questions. Participants who responded “Sometimes” or “Never” (curative care) and “Every 3 or 4 years” or “Every 5 years or more” or “Never” (preventive care) were asked to answer questions regarding reasons why they did not seek either type of care. For each reason, participants responded “Yes”, “No”, “Sometimes” and “Does not apply”.

Preventive and curative care were each defined as dependent dichotomous variables (“Ever”, “Never”). This was achieved by collapsing the response variables “Always” and “Sometimes” into an “Ever” category; the “Never” response was assigned to the “Never” category. For the purposes of this analysis, the “I’ve never been sick” category was not included. For questions regarding preventive care, “Every Year”, “Every 2 years”, “Every 3 or 4 years”, and “Every 5 years or more” were collapsed into an “Ever” category and “Never” was assigned to the “Never” category. Collapsing of the original categories was necessary because of the low response numbers in each of the categories.

*Independent Variables*

Age, time in US, education, monthly household income, and insurance status are included as independent variables. Reasons for not seeking curative or preventive care were counted and added up for each type of care and included in the analysis as the number of reasons for not seeking care.

*Statistical Analysis*

Demographic characteristics of the study sample were described as proportions or means with standard deviations. Frequencies were calculated for each of the reasons cited as not seeking curative and/or preventive care in the country of origin and in the US. Not seeking care included response options “sometimes” and “never”. Additional analyses were not performed to assess statistical significance between reasons because of the limited size of the sample who answered the lack of utilization questions. Finally, bivariate and multivariable logistic regression was performed for the association between time in US, reason count, potential confounders and preventive and curative care utilization. Backward elimination was used for the multivariable logistic regression analysis. SAS 9.1.3 was used for these analyses.

**Results**

Participants in this study had an average age of 28.0 years (SD = 6.0), had been living in the US an average of 4.1 years (SD = 3.4 years), and in Birmingham, AL an average of 3.0 years (SD = 2.6 years) (Table 1). Participants were predominantly homemakers (43.2%), married or living together (86.1%), uninsured (94.1%), and had emigrated from Mexico (100%).

Participants were asked whether they sought both curative and preventive care both in their country of origin, as well as in the US. Approximately 46% of women responded that they did seek curative care in their country of origin, whereas 38% responded that they sought curative care in the US. With regard to preventive care utilization, 47% of women responded that they did seek preventive care in their home country, while 39% responded that they did seek preventive care in the US. Fisher’s exact tests showed that participants were significantly less likely to seek curative ( $p < 0.0001$ ) and preventive ( $p < 0.0001$ ) in the US as compared to their country of origin.

The frequency analysis presented in Table 2 shows that in the country of origin, a large percentage (76.1%) of participants responded that they did not seek curative care because they would “wait to get better with home remedies or medications”; 59.1% of women responded that cost and

**Table 1** Demographic characteristics of a sample of 185 mexican immigrant women living in Birmingham, AL between August 2004 and July 2005

Characteristics <sup>a</sup>	Total population N = 185
Age	28.0 (6.0)
Age at entry to US	23.9 (3.4)
Education (years)	9.5 (3.6)
Elementary	46 (24.9)
Middle	62 (33.5)
High School or more	77 (41.6)
Time in US (years)	4.1 (3.4)
Time in Birmingham (years)	3.0 (2.6)
Employment status	
Full-time	33 (17.8)
Part-time	39 (21.1)
Do not have a job	29 (15.7)
Disabled	1 (0.5)
Homemaker	80 (43.2)
Student	1 (0.5)
Other	2 (1.1)
Marital status	
Single	14 (7.6)
Living together	72 (38.0)
Married	89 (48.1)
Separated/divorced	10 (5.4)
Income (per month)	1545.0 (986.8)
≤1000	60 (32.4)
1001–2000	93 (50.3)
≥2001	32 (17.3)
Insurance	
Yes	11 (5.9)
No	174 (94.1)

Categorical variables are presented as N (%)

<sup>a</sup> Continuous variables are presented as mean (SD)

procrastination (56.8%) were reasons for not seeking curative care in their country of origin.

In the US, the barriers to utilization of curative care varied slightly. Cost and lack of health insurance were the two most cited barriers to utilization of curative care (80.9 and 79.6% respectively). Approximately 53.4% of women indicated “long clinic wait time” and not speaking English (59.6%) as barriers to curative care utilization in the US.

With regard to utilization preventive care services, there were two main reasons participants in this study cited as reasons for lack of utilization in their country of origin: 83.8% believed that if they are not sick there is no need to go to the doctor, and 74.7% cited procrastination.

Barriers to the utilization of preventive care in the US were similar to those cited as barriers to lack of utilization of curative care in the US. The majority of participants

**Table 2** Reasons for lack of preventive or curative care service utilization among mexican immigrant women in Birmingham, AL: Home country and US

Reasons	Curative care ( <i>N</i> = 177)		Preventive care ( <i>N</i> = 139)	
	Home country ( <i>N</i> = 88)	US ( <i>N</i> = 89)	Home country ( <i>N</i> = 75)	US ( <i>N</i> = 64)
Wait to get better with home remedies or medications	67 (76.1)	43 (48.3)	N/A	N/A
Too expensive	52 (59.1)	72 (80.9)	34 (45.3)	55 (85.9)
Procrastination	50 (56.8)	32 (36.4)	56 (74.7)	27 (42.2)
Long clinic wait time	43 (48.9)	47 (53.4)	36 (48.0)	21 (34.4)
Lack of health insurance	38 (43.2)	70 (79.6)	21 (28.0)	55 (85.9)
Embarrassed, uncomfortable	36 (40.9)	13 (14.6)	30 (40.0)	15 (23.4)
Clinic was closed when available to go	30 (34.1)	28 (31.8)	27 (36.0)	21 (33.9)
Afraid of being told there was something wrong	25 (28.4)	18 (20.2)	20 (26.7)	14 (21.9)
Lack of transportation	25 (28.4)	34 (38.2)	15 (20.0)	27 (42.2)
Clinic was too far away	25 (28.4)	29 (33.0)	21 (28.0)	21 (33.9)
Could not get an appointment in time	22 (25.0)	40 (45.5)	N/A	N/A
Don't know where to go	20 (23.0)	41 (46.1)	15 (20.0)	27 (42.9)
Felt physicians did not treat patients well	14 (15.9)	18 (20.2)	9 (12.0)	8 (12.7)
Could not take time off work	9 (13.9)	15 (27.3)	16 (27.6)	12 (34.3)
Lack of childcare	7 (13.0)	30 (38.5)	6 (15.4)	21 (43.8)
Partner/spouse does not like male physicians conducting the medical examination	8 (11.4)	2 (2.4)	5 (9.0)	3 (5.0)
Do not believe in physicians	7 (8.1)	7 (7.9)	3 (4.0)	2 (3.1)
If not sick, there is no need to go to the doctor	N/A	N/A	62 (83.8)	35 (54.7)
Didn't speak English	N/A	53 (59.6)	N/A	51 (79.7)
Did not trust the interpreters	N/A	23 (26.4)	N/A	16 (25.4)

N (%) Percentages reflect those participants that cited these as reasons for not seeking preventive and/or curative care (i.e. “yes” and “sometimes” combined). N/A and missing responses were excluded

N/A = Not Applicable

responded that cost (85.9%) and lack of health insurance (85.9%) were the main reasons for not seeking preventive care in the US. Participants also responded that not speaking English (79.7%) was a barrier to not seeking preventive care. Finally, 54.7% of participants also cited that “if not sick, there is no need to go to the doctor” was a reason for not seeking preventive care in the US.

Bivariate logistic regression analysis (Table 3) showed that time in the US was positively associated with seeking preventive care in the US. Women who responded having lived longer in the US were 26% more likely to report seeking preventive care in the US than those reporting shorter lengths of time in the US. There was no significant association between time in the US and seeking curative care. Reason counts were also statistically significantly associated with seeking both curative ( $p = 0.005$ ) and preventive care ( $p < 0.0001$ ) in the US at the bivariate level (Table 3). That is to say, the more barriers Mexican immigrant women experience, the less likely they are to seek curative and preventive care in the US.

After performing multivariable logistic regression, time in the US was found to no longer be statistically significant. However, “reason count” remained statistically significantly associated with both curative and preventive care. An increase in the number of reason counts was negatively associated with seeking curative care (OR = 0.79,  $p = 0.005$ ) and preventive care (OR = 0.28,  $p < 0.0001$ ) in the US.

## Discussion

This paper aimed to describe differences and similarities in barriers to the utilization of curative and preventive care sought by Mexican immigrant women in their country of origin and in the US; to determine whether differences in curative and preventive care between countries exists; and to assess the role of potential factors to the utilization of each type of care. Our results show that in a sample of 185 Mexican immigrant women living in the Southeast of the US, some similarities and differences may exist. This study

**Table 3** Bivariate logistic regression: US curative and preventive care utilization among mexican immigrant women in birmingham, AL

	Curative Care ( <i>N</i> = 141)**		Preventive care ( <i>N</i> = 163)	
	OR (95% CI)	<i>p</i> value	OR (95% CI)	<i>p</i> value
Time in US	1.09 (0.88, 1.36)	0.42	1.26 (1.09, 1.44)	0.001
Age	1.07 (0.95, 1.20)	0.25	1.00(0.95, 1.06)	0.90
Education				
Elementary	0.39 (0.06, 2.50)	0.74	0.83 (0.37, 1.89)	0.77
Middle school	0.25 (0.05, 1.30)	0.15	0.56 (0.27, 1.15)	0.14
High school	–	–	–	–
Income				
Low	1.86 (0.38, 9.10)	0.85	0.69 (0.27, 1.79)	0.44
Middle	2.65 (0.61, 11.50)	0.31	0.84 (0.35, 2.03)	0.98
High	–	–	–	–
Insurance status				
Yes	–	–	–	–
No	1.27 (0.28, 5.69)	0.76	0.76 (0.18, 3.16)	0.71
Reason count*	0.79 (0.66, 0.92)	0.005	0.28 (0.19, 0.43)	<0.0001

\* Reason count: Reasons for not seeking curative or preventive care were counted and added up for each type of care and included in the analysis as the number of reasons for not seeking care (continuous variables)

\*\* Any participants were responded that they had “never been sick” were excluded from the analysis

addresses a very important gap in the literature given that no studies have investigated and compared utilization of care in both the US and the country of origin. Previous studies have found that a variety of barriers to the utilization of care in the United States exist [25–28]; a few have focused on barriers to preventive care utilization specifically [31, 32]. Latina immigrants in this study cited that a lack of health insurance, cost and language barriers were the main reasons for not seeking curative and preventive care in the US. This is consistent with other studies which have shown that lack of health insurance [19, 31], cost [33], and language [34, 35] are also barriers to seeking care. Similar to the findings in our study, Alegria et al. also showed that Latino immigrants in the South are more likely to be uninsured than those in other regions of the US [36]. This is likely due to a tendency for Latino immigrants to work in industries which typically do not offer health insurance coverage [37, 38]. This in turn leads to additional barriers to care, often meaning that uninsured immigrants be faced with paying more out-of-pocket costs when finally receiving care. Not surprisingly, cost has been shown to be a barrier to care as well, primarily due to an inability to pay for care [26, 39]. In the country of origin, approximately 59% of women identified cost as a reason for not seeking curative care—a barrier that persisted even after immigration to the US. Furthermore, approximately 81% felt that it was also a barrier to curative care utilization in the US. The issue of cost may also be enhanced by the lack of health insurance among this population. With regard to language barriers, several studies have also found that lack

of English proficiency can be a barrier to seeking care for reasons such as inability to understand and know how to navigate the health care system as well as the inability to communicate with healthcare providers [40, 41].

Mexican immigrant women in this study cited that if they are not sick, there was no need to go to the doctor in both the US and their country of origin, when asked about preventive care utilization. This may indicate that some barriers are primarily intrapersonal, and that they persist even after immigration to the USA lack of emphasis on preventive care in the socialized care systems of their home countries may play a role in the persistence of intrapersonal barriers post-immigration. Latina immigrants may bring with them beliefs and traditions, which may transcend into preventive care utilization practices in the US. Some argue that recent Latino immigrants are more susceptible to barriers to access to care than more acculturated Latinos because they lack networks of social support and are generally unaware of available services [42, 43]. However, the belief that “if not sick, there is no need to go to the doctor” may change over time due to exposure to US public health and preventive care campaigns. Our bivariate analysis shows that with an increase in time in the US, Latina immigrants are more likely to seek preventive care. Nandi et al. [25] have suggested that such findings may be attributed to an increased integration and improved familiarity with the US healthcare system.

Two additional findings were of interest. First, participants indicated that embarrassment and procrastination for both curative and preventive care were barriers to care more so in their home countries than in the US Mexican immigrant



women experienced fewer structural barriers (e.g. unlike cost and health insurance barriers in the US), thereby possibly explaining why intrapersonal barriers might become more important when describing lack of health care utilization in the country of origin. Second, participants also indicated that lack of childcare was an issue in the US and less so in their home countries. This indicates that perhaps childcare may be a factor that public health programs should consider when addressing access and utilization of care in this population in order to remove a barrier that may lead to significant underutilization of health care services.

Finally, as with most immigrant populations, the legal issues are often at the root of many structural problems related to accessing health care services in the US. Although the response answers did not ask specifically about legal issues, it is estimated that approximately 74% of Latinos in Alabama are undocumented [44]. Undocumented immigrants can be faced with restrictions or disqualification for some public medical assistance programs. A requirement for proof of legal status by health care service providers can prove to be a main deterrent among undocumented immigrants for fear of deportation [45]. Fear of being faced with providing proof of legal status, further exacerbated by some of the aforementioned barriers (namely language and financial) only increases the lack of health care access and utilization among an already vulnerable immigrant population. These barriers can be particularly overwhelming in this study population, where the average time in the US was less than 5 years.

The present study has some limitations that should be mentioned. First, the relatively small sample size and lack of comparison groups were both limitations; therefore, results in this study should be interpreted with caution. Second, as all of the information collected was self-report, some of the information may be subject to recall bias. This may be lessened by the fact that many of the women interviewed had been in the US no more than 5 years. Third, this study included participants that were from Mexico. In 2010, the US Census reported that foreign-born Latinos from Mexico accounted for 58% of the total US foreign-born population, making Mexico the leading country of foreign-born birth [2]. Therefore generalization of results to immigrant populations from countries other than Mexico may not be applicable. Finally, the sample for this study was based on a convenience sample from one geographical area; therefore, generalizations beyond this may be limited.

## Conclusions

Despite the limitations previously addressed, we believe this study makes two very important contributions to our understanding of health care utilization among Mexican

immigrant women. First, it describes a pattern of utilization not previously identified. A combination of intrapersonal and structural barriers appears to impact utilization of curative and preventive care services among a sample of Mexican immigrant women in Alabama. Specifically, in the US, structural barriers appear to overpower intrapersonal barriers. For example, not knowing where to go for care was a barrier to curative care twice as often in the US than in the country of origin. Elucidating differences and similarities in utilization gives some insight into the needs of Mexican immigrant women upon arrival to the US. Such insight may shed light on ways in which the American public health system may improve access and promote preventive care utilization in this population. Second, understanding patterns of and barriers to utilization may help to improve clinical practices and policies that may be consequential for access, particularly among areas like the Southeast of the US, where immigrant populations are new and rapidly growing. It is therefore all the more important to understand the healthcare needs of this new demographic so as to enable and facilitate the coordination of structural, political and cultural efforts aimed at increasing and restructuring preventive care and curative care utilization.

**Acknowledgments** This study was supported by a grant from the National Cancer Institute (Grant No. R03-CA931431). The first author was also supported by a T32 training grant from the National Cancer Institute (Grant No. 3R25CA047888-23S1).

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