A Program to Improve Access to Health Care Among Mexican Immigrants in Rural Colorado

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ABSTRACT: Context: Migration to the United States from Mexico is increasing every year. Mexican immigrants tend to be poor, uninsured, monolingual Spanish speakers without adequate access to appropriate medical care. As a further barrier, many are also undocumented. Purpose: This article describes a program developed to improve access to health care among Mexican immigrants in northern Colorado. Methods: The program was implemented by a migrant/community health center in rural northern Colorado based on findings from an in-depth health needs survey of the target population. The program consists of community outreach services vertically integrated into the main medical clinics, which comprise Salud Family Health Centers. A mobile unit went to nontraditional areas identified by community workers as gathering places for Mexican immigrants. Services provided included preventive health care (screening for diabetes, hypertension, mental health problems, dental problems, and HIV); education; and primary care for acute problems. Patients were referred to a health care home for ongoing care. Results: In the first 6 months, 1,553 Mexican immigrants were seen on the mobile unit. Hypertension and psychosocial problems were the most common problems in this population. Thirty-five percent of patients who received consultation in the mobile unit have visited any of the clinics for follow-up within the following year. Conclusions: A community-based mobile outreach program targeted toward Mexican immigrants can be effective in uncovering medical and mental illness and in directing patients to a health care home. This is an important first step in eliminating health disparities among this population.

This paper describes a program developed by the Salud Family Health Centers (SALUD) to reduce barriers to health care access among the Mexican immigrant population of northern Colorado. SALUD was founded in 1970 with the mission of providing health care to the poor and underserved of northern Colorado, with special attention to immigrant and minority populations. SALUD’s catchment area is mostly rural. Approximately two thirds of SALUD patients are Hispanic, most of whom are immigrants from Mexico. Colorado has traditionally been an important receiving state for Mexican immigrants. From 1990–2000, the number of Mexicans in the state has nearly doubled, resulting in a more visible Mexican population, particularly in rural areas of the state. Mexican immigrants account for up to 26.1% of the total population in some counties in the SALUD catchment area.

Many Mexican immigrants in rural areas do not receive medical care. In order to improve health care access to this group, we conducted an in-depth health needs assessment of the Mexican immigrant population. Based on the results of that health needs assessment, we developed a vertically integrated, comprehensive program of nontraditional service delivery to improve access to health care for this population. The ultimate goal of the program was to reduce health disparities among Mexican immigrants in northern Colorado, with an emphasis on rural populations (for the purposes of this paper, we define rural as communities of fewer than

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patterns. Most of these immigrants worked in seasonal and from the United States with identifiable, predictable flow based on the circular movement of male workers to the mid-1980s. Mexico-US migration involved a stable migration over the past 30 years is in order.

Immigrant Assistance

In order to better understand barriers to health care for Mexican immigrants, a short history of immigration over the past 30 years is in order.

From the end of the Bracero program in 1964 until the mid-1980s, Mexico-US migration involved a stable flow based on the circular movement of male workers to and from the United States with identifiable, predictable patterns. Most of these immigrants worked in seasonal agricultural jobs. In 1986, in response to the large volume of uncontrolled traffic across the border, the Immigration Reform and Control Act (IRCA) was implemented with the purpose of reducing undocumented immigration. As a consequence of IRCA, the border became more difficult and more dangerous to cross, and penalties to undocumented workers and their employers increased. However, the implementation of IRCA did not result in a decrease in undocumented migration from Mexico to the United States. Instead, immigrants became less likely to go home at the end of the year, forcing them to look for employment in the United States year-round. In order to avoid penalties from hiring undocumented workers, employers began subcontracting the hiring and firing process to labor contractors, which resulted in a decrease in real income of immigrant laborers over the decade from 1990 to 2000.

In 1996, welfare reform and new immigration acts barred undocumented immigrants from Social Security coverage and means tested federal programs. Federal actions also gave authority to states to limit public assistance to legal and illegal aliens. In response, many states began enacting laws restricting access to services, including health care, for undocumented workers and even to legal immigrants. At the same time, the economic disparities between Mexico and the United States were forcing more and more Mexicans to move north to support their families. Mexican states with little or no tradition of migration started to lose population to the north. These new immigrants did not have the support systems in place that the more traditional migratory groups had, and so had a significantly more difficult time negotiating the border crossing and dealing with the hostile environment in the United States. In order to find work, Mexican immigrants began locating to areas, particularly rural areas, of the United States with few resources to handle a large immigrant population.

The result of these forces and events was a larger population of undocumented workers who had less access to services, were less likely to be attached to important support systems, were less likely to be able to go home, and were making less money for the same work. In other words, the population of disempowered and disenfranchised Mexican immigrants living in poverty grew markedly from 1986 to 2000. Compared with other immigrant groups, Mexican immigrants generally have less schooling, earn less money in the United States, and have the highest poverty rates, with 1 in 4 living below the poverty line.

A recent study showed that Hispanics continue to lag behind whites in access to health care. Mexican immigrants are least likely of all immigrant groups to be covered by health insurance. Often, Mexican immigrants are undocumented and fearful of accessing needed health services in the United States. Studies show that immigrants limit their use of public services, even those for which they are eligible, for fear of possible demands for repayment, lack of knowledge of programs available, and concern over repercussions to their immigration status. The language barrier faced by most Mexican immigrants is also a deterrent to seeking formal medical services. Spanish speakers are more likely than English speakers to report discrimination and lack of respect from health care providers in the United States (R. Farley, unpublished data, 2003). In addition, because Mexican immigrants tend to come from small towns in Mexico, where formal health services are often not available, they tend not to access formal health services in the United States either. For most of these immigrants, there are many other barriers related to their cultural background, including lack of knowledge of the US health system, lack of familiarity of the role of medical providers and treatments available, and different beliefs about health and illness. These barriers tend to be more
pronounced in rural areas than in urban areas. In addition, geographical isolation and lack of health care facilities in rural areas add to the difficulty in accessing health services. In 2000, rural counties (as defined by the US Census Bureau) with a majority Hispanic population averaged 5.3 physicians per 10,000 residents, versus an average of 8.7 physicians per 10,000 persons across all rural counties.15

The lack of access to adequate health care among Mexican immigrants is of crucial importance considering that some of the most prevalent health problems in this population are preventable, or can be controlled effectively. Better access to health care, particularly in community health centers, would reduce the health disparities in this population. 16

Health Needs Assessment

Phase 1. We surveyed a convenience sample of 154 Mexican immigrants in rural northern Colorado. Eighty-four interviews took place in homes, and 70 interviews took place in SALUD clinic waiting rooms. Undergraduate students from Mexico conducted the surveys in Spanish.

Demographics. Fifty-two percent of participants were women (n = 85) and 44.8% were men (n = 69). The interviewees ranged in age from 16 to 68 years, with an average age of 33. They averaged 7.43 years of education. Almost 80% of participants were married at the time of the interview. The majority came from rural areas of Mexico (58%) and lived in rural areas in Colorado (60%).

Medical History. Forty-seven percent of the sample reported at least 1 physical problem during the past year. The medical problem mentioned with the highest frequency was back problems, followed by ulcers and hypertension. Women were significantly more likely to report medical problems than were men.

Mental Health Disorders. The presence of current mental disorders was evaluated with the Patient Health Questionnaire (PHQ).17 We evaluated for somatization disorder, major depression and other depressive syndromes, panic attacks, generalized anxiety, eating disorders, and alcohol abuse. Except for alcohol abuse, all disorders were more common in women than in men (see Table 1). Alcohol abuse was the most prevalent problem, and almost 10 times more prevalent in men than in women. Somatization was the second most important problem with preponderance among women compared with men of 2:1. More than 1 in 3 respondents met the criteria for at least 1 of the disorders evaluated.

Health-related Quality of Life. The overall health-related quality of life of participants was evaluated using the Short Form 36.18 The mental health and psychosocial problems of the participants greatly affected their functioning. Participants were more likely to report limitations on activity due to emotional problems than to physical problems. Compared with men, women reported worse physical functioning, greater role limitations due to physical health, and worse general mental functioning.

The majority of participants indicated that they would be willing to seek help for mental and physical health problems. However, knowledge of how to go about seeking care was found to be an obstacle, particularly regarding mental health care. Fifty-five percent of respondents said they would not know how to find help for a mental health problem, compared with 17% who said they would not know how to find help for a medical problem. Among participants who had a medical problem during the past year, only 20% had sought care. Having health insurance was not significantly related to seeking medical attention.

Phase 2. In order to get a better understanding of the specific health needs of Mexican immigrants in the community (rather than of immigrants already seeking care at a health clinic), the second phase of the health needs assessment was conducted among Mexican immigrants from around the state applying for an identification card at the Mexican Consulate in Denver. Although this survey was conducted in an urban locale, 50% of respondents lived in rural areas of the state. Four hundred immigrants (65% men, 35% women) were
screened for hypertension, diabetes, high cholesterol, and mental health problems. Of the total sample, 10% had blood pressures higher than 140/90, 8% had random blood sugars higher than 130, 35% screened positive for depression, and 12% screened positive for panic disorder. Depression and panic disorder were most often comorbid conditions.

**Phase 3.** As part of the ongoing mobile unit program described below, a subset of patients filled out a short demographic survey, migration history, and health services utilization survey. The data collected through this questionnaire helps with a continuing understanding of the health needs of this population. Services offered on the bus are continually modified based on the results of these surveys.

**Mobile Unit Community Outreach Program**

Based on the results of the health needs assessments, we developed a community outreach program with the following objectives:

- To improve health screening services to those Mexican immigrants currently not receiving them, and to direct those who need further care to a health care home.
- To target men. Most Mexican immigrants are men in the age range of 15–64. This is the demographic group least likely to seek medical care.\(^\text{19}\)
- To go into the community. Mexican immigrants are less likely than other groups to seek out medical care in established medical clinics.\(^\text{20}\) Community outreach, particularly in rural areas, is important in trying to increase health care access to Mexican immigrants.
- To adapt to the changing demographics of the Mexican immigrant population. In the past, most rural Mexican immigrants lived in farmworker camps and traveled back and forth with the growing seasons. Now, however, that is no longer true. Rural Mexican immigrants work in a wide variety of jobs, including dairy farms, landscaping businesses, construction work, and the hotel and restaurant industries, and they live in a wide variety of places. Efforts to improve access by targeting only farmworker camps, as has been done in the past, are not likely to be successful in reaching a significant number of Mexican immigrants.
- To include mental health services. Many national programs looking at the Mexican immigrants’ health needs focus on occupational injury, motor vehicle accidents, and chemical exposures. However, mental health issues, including substance abuse, have a high prevalence in this population and are more likely to be considered problems by the Mexican immigrants themselves compared with physical health problems.

- To include comprehensive patient education. As indicated in the health needs assessment, many Mexican immigrants do not know how to find medical and mental health services in the United States.
- To employ culturally competent personnel. Besides the usual barriers to care of poverty, lack of insurance, and too few health centers, there are cultural barriers to care as well. Culturally competent providers will have the best chance of eliminating barriers to care that are based on cultural beliefs and behaviors.

**Services Offered.** The SALUD mobile health clinic operates 3 evenings weekly, primarily in rural areas, offering preventive health services as well as acute care consultations. Screening is done for diabetes, hypertension, HIV, dental problems, and mental health disorders. A physician or physician assistant is also available for acute medical problems. With the exception of HIV testing, patients are informed of the results of all screenings immediately. Patients undergoing HIV screening are contacted in person 2 weeks later with HIV test results. Test results are explained thoroughly in Spanish. Based on the results of the screenings, some patients are seen immediately by the physician or physician assistant on the unit, whereas others are referred to a SALUD clinic for further care. Patients with appropriate literacy skills are given educational materials relevant to their health issue. Patients are educated in HIV and STD prevention both on the mobile unit and again when HIV results are delivered. Patients seen for mental health screening are given mental health education. Mobile unit staff also provide general health education and inform patients of the availability of services, addresses of clinics, the process of obtaining an appointment, the methods of paying for health care in the United States, and the discount programs or financial assistance programs available. As part of the service package, the mobile unit staff distributes a “survival guide” containing important health, legal, and other information geared toward new arrivals to the United States.\(^\text{21}\) The mobile unit does not attempt to be a full-service clinic. Clients needing follow-up care are referred to a local SALUD primary care clinic. All SALUD clinics provide dental and mental health care and accept all patients, regardless of ability to pay.

All patients requiring further care are referred to a SALUD clinic. When transportation is a problem, the community health workers arrange appointments and transportation to the clinic. Health workers may also deliver medications to the patients’ home or work as necessary. Due to the great need for dental services, a SALUD dental clinic holds extended summer evening hours once a week, with a transportation service for those patients living in remote areas.
Staff. The regular staff on the mobile unit includes a physician assistant, a dental hygienist, a health educator, a medical assistant, a psychologist, and an outreach worker. Volunteers, including physicians, social workers, and registered nurses, add to the staff from time to time. All staff are bilingual and bicultural.

Places Visited. Currently, the mobile unit provides services in 5 towns in 3 counties in north-central Colorado. These counties are primarily rural. The locations the unit visits vary depending on information gathered from community sources about where we are most likely to find populations of immigrants. These locations may vary from grocery store parking lots and apartment complexes in small towns to farmworker camps or mobile home parks located in the country. The process of identifying the best places may take some time, since it requires knowing well the communities that are served. Once locations are identified, permission to bring services via the mobile unit is obtained from appropriate people. The services are promoted in advance through flyers. Often, people need to be invited verbally to come onto the mobile unit, and the services offered are then explained in their language and with nonmedical terminology.

Program Results

In the first 6 months of operation, from March through August 2003, 1,553 immigrants received care from the mobile unit. Most of these patients (62.5%) had never before been seen by SALUD. Since SALUD is the only provider of health care for low-income people in the catchment area of the mobile unit program, it is reasonable to assume that most of this group had not seen a medical provider while in the United States. A total of 260 men and 124 women underwent a full demographic and migratory history and service utilization survey. These patients were selected simply based on whether the mental health screening staff person was busy with another client or not. There was no selection process beyond this. The sample that underwent this screening was not different in age and sex distribution from the entire sample of 1,553 patients. Results of all surveys and health screenings are discussed below.

Demographics. Two thirds of patients were men, which is significantly higher than in the population that presents to primary care clinics. Compared with women, men were younger (32.5 versus 37.3; P<.001). The majority of the participants came from rural Mexico. Men were significantly more likely than women to have rural origin (73.5% versus 51.6%; P<.001). Sixty percent of the sample reported 6 years of education or less. Most of the participants reported being married (72.4%). Men were more likely than women to be in the United States without their spouse (70.4% versus 1%, P<.0001).

Migratory History. The average time that this sample of Mexican immigrants had been in this country was 6.8 years, with a range from 0 to 47 years. Fifty-six percent of the sample reported they had been in the United States less than 4 years. Time since their last trip to Mexico ranged from 1 month to 13 years ago. Almost half (47.7%) had been to their hometowns during the previous 12 months, although this was more likely for men (54%) than for women (33.9%).

Health Services Utilization. As noted above, 62.5% of this group were new patients to SALUD. Thirty-nine percent of the total group reported they had a health problem in the year before the interview, and 35% reported seeing a doctor when they had a health problem.
Discussion

Rural Mexican immigrants are a difficult population to reach for a variety of reasons. Unfortunately, many programs to improve care to Mexican immigrants fail because they are not based on a good understanding of the health needs and barriers to care faced by this population. Our program to improve the health of Mexican immigrants in rural Colorado is based on a health needs assessment, a careful assessment of the barriers to care, and a delivery model tailored to provide the most appropriate services in the most effective way. The high utilization of the mobile unit illustrates both the need among the target population and the appropriateness of service delivery.

Our health needs assessment brought new information to light that helped inform our model of improving access to rural Mexican immigrants. For example, many programs for rural Mexican immigrants target only migrant farmworkers. For these programs, farmwork has an exclusive definition, including only crop production and some related packing activities. Most Mexican immigrants who live in rural areas may not be farmworkers under that definition, but rather are engaged in a wide variety of jobs including construction, landscaping, service industries, dairy farms, and meatpacking plants. Conversely, some immigrants employed in rural areas may live in suburban areas and commute every day to work. Our program targets and tracks farmworkers as well as other Mexican immigrants. The number of farmworkers we have reached has increased dramatically since we started our program, because we are reaching a greater number of Mexican immigrants altogether. As fewer Mexican immigrants seek work in agriculture, and as the farmworker camps continue closing, rural programs based solely on the farmworker model will see their penetration into the immigrant community continue to shrink.

We have found the program equally useful for rural, semirural, and semiurban settings. However, the geographic isolation, absence of public transportation, and lower availability of health services that characterize rural areas make effective outreach even more important in that setting. Evening hours and transportation arrangements for groups of workers helped us in getting rural immigrants in for care.

Nationally, many programs for rural Mexican immigrants focus on motor vehicle accidents, pesticide exposure, and occupational overuse injuries. However, we found that psychosocial problems and mental disorders, including substance abuse, were more likely to interfere with daily activities and to be perceived as important problems by the immigrants seeking care through our program. The obstacles to returning home caused by the stricter immigration laws have added to the mental health stressors faced by this already vulnerable population. Based on these findings, our mobile unit program emphasizes mental health screening and education.

Our health needs assessment also found a lack of knowledge on the part of Mexican immigrants on how to access a variety of services in the United States. In rural areas, where services are scarcer, this lack of knowledge is more problematic. Based on this finding, we developed a booklet21 that contains a great deal of information on a wide variety of topics dealing with life in the United States, some having to do directly with health and some not. The booklet is in high demand among the population encountered by the mobile clinic.

Cultural factors also play an important role as barriers to care. In 1 study of a community sample of Mexican immigrants, almost half reported that their health care provider treated them disrespectfully and discriminated against them (R. Farley, unpublished data, 2003). A majority reported a poor understanding of the US health care system, and half were unable to speak to their doctor in the language most comfortable to...
for them. We addressed these issues by staffing our mobile unit with entirely bilingual and bicultural personnel. We have found that patients commonly approach staff on our bus for explanations of what other, monolingual, English-speaking providers have told them. In the United States, there is a tendency to emphasize high technology as the means to better health. However, the true root causes of health disparities are more likely the result of low-tech issues such as respect and communication.

Although we have not yet conducted an impact evaluation of this program, some of the outcomes described in this paper are an indicator that we are on the right path to improved health care delivery among this population. In implementing any new program, it is important to systematically document activities and outcomes since this data will inform future iterations of the program.

Conclusions and Recommendations

Many programs aimed at improving health care to rural immigrants have failed to adapt to the markedly changed nature of migration, the changing demographics of immigrants, and the changed environment they find themselves in once they get to the United States. Rural Mexican immigrants face numerous barriers to medical care, both external and internal. External barriers include poverty, lack of health care resources, an environment hostile toward immigrants, and lack of health insurance. Internal barriers include stigma associated with mental health care, cultural considerations that may prevent seeking help, fear of deportation, and lack of knowledge about how to find health care. The program developed by SALUD is aimed at reducing many of these barriers.

Any successful model must be based on needs identified by the community. Programs that do not actively reach out into the community to deliver services and identify patients in need of further care are not likely to reach most immigrants. Programs that do not employ culturally competent, bilingual staff are unlikely to adequately serve the immigrant population. A successful program requires education of the immigrant population on a wide variety of issues. We believe that an educated population is a healthier population, and that health disparities cannot be eliminated without a move toward eliminating educational disparities as well.

References