

# The Binational Farmworker Health Survey

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## EXECUTIVE SUMMARY

The study results detailed in this report provide new and vital information on the health status of California agricultural workers of Mexican origin. The results show that the well being of this population is in serious decline, specifically identifying high levels of chronic disease, injuries, and mental health disorders. The reason for these health problems can be linked to fundamental socioeconomic inequalities that exist between the United States and Mexico. The lack of economic alternatives in rural Mexican communities, recently amplified by trade liberalization, has increased the pressure on workers to abandon their homes and migrate north. Such forces, in part, account for the incredible cycle of suffering and sacrifice that farmworkers endure.

Notwithstanding this macro-level dimension, U.S. institutional barriers, which include obstacles in obtaining and retaining medical insurance, directly impede farmworkers' ability to secure adequate health care. And farmworkers' socially mediated treatment preferences, which include expectations of low cost and immediate relief of symptoms, do not mesh with the complex bureaucratic processes and medical procedures encountered in the United States. These obstacles, reinforced by farmworkers' constant contact with their communities of origin, engender mistrust, leading workers to believe that the care offered in the United States is ineffective. All of these factors contribute to serious rural health problems, which are more severe among the older farmworker populations.

### **Key Findings**

- Chronic illness was the most prevalent category of disease among respondents. One in four individuals reported having a diagnosed chronic ailment, with high-blood pressure, gastrointestinal problems, and diabetes being the most common. Though the numbers are alarming, the actual prevalence of disease in the sample is likely to be even higher, as the analysis was based only on those cases that self-reported a condition diagnosed by a physician.
- Twenty-one percent of respondents over age 55 suffered from high blood pressure, which was the most prevalent chronic disease reported among this group. Respondents age 51 and older also reported more cases of diabetes, heart problems, vascular disease, thyroid disease, and arthritis than younger individuals. The concentration of disease among the elderly is troubling, as this group spends much of its time in rural Mexico and depends on medicine in home areas where health policies tend to provide few services for the elderly.
- An overwhelming majority (80 percent) of respondents acknowledged the need for relief from stress or anxiety. Many sought relief by acquiring strong medications in Mexico or at U.S. flea markets and Latino stores. The culture-bound syndromes of *nervios*, *susto*, and *aires* were frequently treated with sedatives and antidepressants, though often with no diagnosis or clinical follow-up and rarely, if at all, with any form of counseling or

psychiatric care. In extreme cases such as schizophrenia, Hispanics are meeting their own needs by buying over-the-counter antipsychotics (such as Haldol) in Mexico.

- Twenty-two percent of respondents reported a loss of motivation or feelings of depression so severe that it affected their ability to work. Most of these (53 percent) indicated that their condition had been brought on by separation from family.
- Twenty-seven percent of respondents reported having at least one injury in their lifetime. Injuries on the job were highest for the youngest group of farmworkers, namely those between the ages of 14 and 21.
- Forty-four percent of respondents reported experiencing a pain problem for a week or more in the year before the interview. Forty-three percent of this group said they changed or left their job because of the discomfort. Even young workers, complaining of arthritic conditions, commented that pain forced them to switch their type of work.
- Respondents typically reported that pain and bodily injury are endured because it “comes with the job,” and many workers thus avoided seeking early treatment. Numerous health providers reported an increase in drug use among farmworkers, especially males, to help them withstand the hardship of farm work.
- Fifty-eight percent of respondents had no medical insurance, and 50 percent reported that no member of their family had insurance. Enrollment in publicly funded health programs in the United States was also low, with only 19 percent of respondents being Medi-Cal recipients. Among households with at least one U.S.-born child under 21 years of age, 68 percent did not have any members covered by Medi-Cal. Employment-based insurance covered 24 percent of the workers; however, this type of coverage is usually seasonal and often contingent upon a monthly quota of hours worked.
- Health care among farmworkers in both the United States and Mexico is fragmented, meaning this population receives treatments intermittently and in an uncoordinated fashion from a wide variety of service providers on both sides of the border. This situation precludes follow-up treatment and limits opportunities for prevention.
- Farmworkers frequently reject U.S. health care and return to Mexico for treatment. Fifty percent of respondents indicated that if given a choice, they would prefer to obtain treatment in Mexico (38 percent preferred treatment in the United States and 11 percent did not favor one system or the other). Thirty percent of respondents who favored the health-care system in Mexico said they did so because of its greater affordability. At the same time, almost one-quarter of these respondents also claimed Mexican medicines were more potent and effective in curing ailments.

## **Recommendations**

To improve the health of California’s farmworkers, collaboration and coordination must be increased between Mexican and U.S. health-care providers and programs. A first step is to identify other existing farmworker kinship networks by mapping the Mexican localities (the “sending areas”) from which farmworkers originate along with the U.S. “receiving areas.” These

informal networks and their associated linked sister communities can serve as a base for program planning and implementation.

Additional research in the following areas would also assist in guiding this binational approach:

- Cross-checking and enriching existing survey research data with additional systematic and rigorously collected field observations to improve the current knowledge base of farmworker networks. This effort would provide additional detail regarding the circumstances under which health and access outcomes are occurring, and help to build a model of outreach applicable to provider training and community education.
- Conducting detailed longitudinal research on insurance and health problems encountered by a cohort of workers over a one-year period—coupled with in-depth interviews among relevant personnel at health care institutions. It is crucial that the point of contact between health-care providers and farmworkers be handled carefully to avoid discouraging this population from receiving regular care or participating in preventive care programs. This research would provide insights about how to lower barriers that currently discourage farmworkers from enrolling in health-care programs.

With this information in hand, the following strategy would serve to improve health-care services among farmworkers.

- Cross-train health-care delivery specialists from the United States and Mexico. The objective would be to provide outreach workers and *promotores* in both countries with the knowledge and tools they need to encourage farmworkers to engage in preventive care, maintain proper diet and exercise, use appropriate medication, and seek insurance.
- Organize health-related outreach efforts in Mexico around existing informal binational organizations. Of particular relevance are hometown clubs called *clubes de hijos ausentes*, which many farmworker communities have formed. These, as well as other community organizations, can also serve as vehicles for creating private insurance pools. They are also possible avenues for developing support groups for farmworkers facing specific diseases, such as diabetes.
- Train health-care staff in the United States to effectively deal with the farmworker population. The objective would be to create a cadre of effective intermediaries to facilitate greater health-care access among this population. Outreach workers also need to be specifically trained to case manage families by piecing together a wide-range of resources with different eligibility criteria. This would help to minimize the fragmentation of health care within the family.
- Design educational efforts to help physicians and other providers in Mexico and the United States guide farmworkers in their use of medical resources, encourage preventive practices, and facilitate insurance coverage. Physicians, especially those in the United States, would be aided by information about patients' attitudes, their town of origin and destinations, occupations, and community history. The collaboration between health-care providers, outreach providers, and educators from both countries would aid in further targeting specific diseases to which this population is particularly vulnerable. It would also help in identifying culturally suitable and economically feasible diagnostic tests that could facilitate more consistency in the diagnosis of diseases.

## I. INTRODUCTION

This report is the second in a series presented by CIRS and funded by The California Endowment that focuses on the health of farmworkers in California. The first report, *Suffering in Silence: A Report on the Health of California's Agricultural Workers*, released in November 2000, revealed a rural health crisis in progress. The results of that study, known as the California Agricultural Worker Health Study (CAWHS), showed that nearly 75 percent of California's employed agricultural workers had no health insurance and only 7 percent were covered by any of the various government-funded programs intended to serve low-income groups. Furthermore, only 16.5 percent of workers indicated that their employer offered health insurance, but nearly one-third of these same workers did not participate in these insurance plans.

Accompanying these findings were equally distressing results regarding the prevalence of health risk factors and the frequency of medical visits. The study found high chronic disease risks among this population (respondents underwent a comprehensive physical examination as part of the study, which provided the first-ever baseline health data for farmworkers in California). Many respondents exhibited elevated risks for heart disease, stroke, asthma, diabetes, high blood pressure, and high serum cholesterol. Unhealthy diet is likely to be a major contributor to these conditions. Though their risks were high, respondents rarely saw a medical provider. Thirty-two percent of male subjects indicated they had never been to a doctor or clinic in their lives (among women the figure was 10 percent). Similarly, half of all male subjects and two-fifths of female subjects said they had never been to a dentist.

Clearly, these findings paint a dire picture. As indicated in the study report, "The lack of health insurance, the inability of existing programs to meet the needs of this population, and the infrequency of medical visits demonstrate a breakdown of this nation's health care system for hired farm workers."

In an effort to shed greater light on the problem and develop workable solutions, CIRS, with support from The California Endowment, examined these issues in the broader transnational context. Called the Binational Farmworker Health Survey (BFHS), this study focused on the health of Mexican farmworkers from the state of Zacatecas who have migrated to the United States to find work. The study obtained quantitative data using a survey instrument and qualitative data from open-ended interviews and field observations. Focusing on current, temporary, and former farmworkers—those who had returned to Mexico to retire or had shifted to other work—enabled the BFHS to test a methodology to assess the long-range health impact of farm labor on these workers. Inclusion of these former workers is a key distinction between the



CAWHS and the BHFS—the latter also assessed health service delivery systems on both sides of the border.

This report presents the results of the BFHS in five sections. Following this introduction, we begin with an overview of the study methods. We then examine how farmworker health-care preferences and behaviors play out within the U.S. medical system, focusing on obstacles that arise in the cultural divide that exists between the U.S. and Mexican medical systems. We then shift to principal health outcomes, describing the serious chronic disease, mental health, and injury risks faced by this population. We conclude with a series of recommendations focused on creating a framework for enabling farmworkers to obtain better access to high-quality care.

## II. METHODS

The BFHS utilized a binational sampling technique that specifically aimed at studying the broad universe of current, temporary, and former U.S. farmworkers of rural Mexican origin. It also obtained key information on U.S. farmworker families and their medical environments in Mexico and the United States.

Prior to beginning the data-

### Origin of the Binational Farmworker Health Survey

When the National Institute for Occupational Safety and Health decided to fund a health supplement to the U.S. Department of Labor's ongoing National Agricultural Workers Survey (NAWS), the Labor Department convened a group of 30 farmworker health experts to tackle the project. These included medical doctors, public health specialists, and epidemiologists from across the federal government. Together, they designed the questions that were later tested by the department and included in the NAWS health supplement. Many of these same questions were also included in the California Agricultural Worker Health Survey (CAWHS) funded by The California Endowment, which interviewed current farmworkers chosen randomly from seven California communities in 1999.

But neither the NAWS nor the CAWHS interviewed former farmworkers or those who returned to Mexico. A complete understanding of the issues these farmworkers face requires a focus not only on the immigrants' experience in the host country, but on the important relationships and formative experiences within their communities of origin. To precisely study this transnational farmworker population, a binational approach is necessary that focuses on health-care delivery systems as well as the workers' living conditions.

Consequently, this study was conceptualized by CIRS as a necessary complement (at least in pilot form) to the NAWS supplement and the CAWHS. Like the CAWHS, it closely follows the elements in the NAWS instrument—in all its components—including demography, employment practices, and health elements.

gathering phase, the study director visited dozens of Mexican villages throughout the state of Zacatecas, selecting ten villages that represented a diversity of U.S. crop specialties as well as exhibiting wide variation in migrant stream longevity (see map on page 28). To facilitate data collection and supervision, the villages were selected within a 75-mile radius of one another in the Dos Cañones region of Zacatecas. It is an area that has had an enormous flow of migrants to U.S. agriculture

and a variety of types of villages, destinations within California, and crop activities.

Though the villages themselves were selected systematically, the individual respondents were selected randomly. By working with community leaders, the study created universe lists of all living individuals raised in the villages who had worked a minimum of two seasons in the United States. The size of the lists from each village or town varied from 94 to 302 individuals, depending on the population, yielding a total of 1,123 persons. A random study sample of 467 individuals (42 percent) was selected by juxtaposing a random number series alongside the universe lists.

Survey interviews occurred between January and May of 2000, first in Mexico and then in the United States. Eleven interviewers in Zacatecas—eight of whom were local Zacatecanos and three of whom were experienced interviewers from the U.S. Department of Labor's National Agricultural Workers Survey (NAWS) in the United States—conducted 305 interviews in the villages. The three experienced staff conducted 162 additional interviews in the filial U.S. communities. By starting in the familiar home surroundings in Mexico, the approach facilitated successful sampling by building rapport and confidence within the community.

Semi-structured interviews also occurred with health-care providers and community leaders in Mexico and the United States, beginning in the survey phase and continuing in May 2000 and February 2001. These interviews, along with field observations from interviewers, provided important contextual information that enabled us to probe specific issues more deeply. This data proved extremely valuable in guiding the quantitative analysis, as well as enabling a preliminary assessment of health-care delivery systems on both sides of the border.

### ***Characteristics of the Sample***

Does the BFHS sample adequately represent the population of California farmworkers? In as much as the BFHS sample is made up of Mexican-raised individuals, it reflects the larger population.<sup>1</sup> However, there are also important differences in the BFHS sample that distinguish it

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<sup>1</sup> Ninety-one percent of California farmworkers are Mexican born and the proportion continues to increase. U.S. Department of Labor, Office of the Assistant Secretary for Policy, *Who Works on California Farms?*, Research Report no. 7 (Washington, D.C.: Government Printing Office, 1998).

from the greater farmworker population. First, the villages chosen tend to be comprised of relatively mature, rooted binational farmworker networks with a large proportion of legally documented members (though many undocumented individuals also exist in these communities).

Second, the chosen villages are in the Mestizo-dominated North Central Highlands, an area whose residents have a long-standing tradition of migrating north. However, as migration expands across Mexico, newer migrants are coming from parts further south and include indigenous peoples. These groups may bring different experiences and cultural norms, resulting in their own distinct health outcomes and needs. Nevertheless, the traditional points of origin, such as that of Zacatecas, still provide the majority of U.S. farmworkers.

Compared to the California NAWS population, the active farmworkers surveyed in the BFHS villages are on average older (41 years versus 33 years in the NAWS) and married (82 percent versus 61 percent in the NAWS). Moreover, the length of time spent in the United States is markedly longer for the BFHS group (18 years versus 11 years in the NAWS). The percent of farmworkers in the entire BFHS network who are men is also lower than the proportion of men in the NAWS sample (74 percent versus 82 percent in the NAWS). These indicators describe a population that has been doing farmwork in the United States for a longer period of time. The younger members of the network are beginning to move out of farm labor and, in some instances, into more economically rewarding areas of the U.S. economy. Also, the higher percent of women in farmwork and higher marriage rate indicates a more settled BFHS study population with comparatively fewer male farmworkers migrating alone.

### **III. HEALTH PREFERENCES AND U.S. INSTITUTIONAL BARRIERS**

In this section, we explore farmworker health-related preferences and behaviors and examine institutional barriers in the U.S. medical system. In understanding the former issue, it is important to emphasize that the farmworker's world is embedded in a web of binational family-centered relationships. These relationships can be understood as a set of complex social networks embedded in a tradition of migration that spans several generations and extends from Mexico to the United States. These binational networks reinforce a wide variety of behaviors and attitudes—including those related to health care—and contribute to the strength and resiliency of farmworker communities in the United States. This study focused on seven binational networks originating from ten towns and villages located in the state of Zacatecas. Before exploring the incongruities that exist between farmworker expectations and their experience with the U.S. health-care system, we briefly describe the history and development of the networks.

### **Binational Farmworker Networks**

Located in the southern section of Zacatecas, 100 miles north of Guadalajara, is a region locally known as Two Canyons. Migration from this and other areas of Zacatecas to the United States began as early as the 1920s, and it accelerated across Mexico in the 1940s when the agricultural contract system called the Bracero Program was introduced. It was then that Mexican communities began sending numerous “pioneers” north in search of work; at times recruiters with contacts to employers from across the border enlisted the pioneers.<sup>2</sup> These migrants returned to

**Table 1. Villages and Filial Communities in the United States\***

Community	Municipality	Village Census Count**	Universe List***	Interviews Performed	U.S. Destinations
La Ceja	García de la Cadena	575	94	41	Hood River, OR Pasco/Brewster, WA, Earlimart/Delano/Ukiah, CA
Mezquital del Oro/Los Huajes	Mezquital del Oro	1,361	302	108	Ukiah/Delano/Los Banos/ Irvine, CA Ephrata/Yakima/Brewster, WA
Cuxpala	Moyahua	950	129	58	Cutler/Orosi/Woodlake/Los Banos/Ivanhoe, CA
Santa Rosa	Moyahua	608	139	57	Watsonville/Salinas/Tulare, CA
Moyahua	Moyahua	2,238	143	63	Newman/Crows Landing/ Patterson/Gustine/Visalia, CA
San Miguel/ San Isidro	Apozol	757	175	81	Hamilton City, CA, Thibadoux, LA Medford, OR
San Pedro Apostol/ Rancho Nuevo	Huanusco	253	141	59	MacFarland, CA
Total		6,742	1123	467	

\* Because of their close proximity to one another and the fact that they share the same binational community network, the study combined six of the villages into three sets of two for the purpose of inter-village comparisons. The three sets are: 1) San Miguel/San Isidro, 2) San Pedro/Rancho Nuevo, and 3) Mesquital del Oro/Los Huajes.

\*\* These numbers were gathered by the 1990 Census done by the Instituto Nacional de Estadística, Geografía e Informática (INEGI) found at [www.inegi.gob.mx](http://www.inegi.gob.mx).

\*\*\* The universe lists represent all individuals raised in the village, regardless of their place of residence, who have worked two or more seasons in U.S. agriculture.

<sup>2</sup> Zabin, Carol, et al., *Mixtec Migrants in California Agriculture*, (Davis, Calif.: California Institute for Rural Studies, May 1993), 92.

their villages—in more recent times they have telephoned home—inviting relatives to join them. U.S.-Mexican farmworker networks have continued to develop over time. Some are still in the early pioneering stages, while others are well established in U.S. communities and labor markets. Mexican localities whose workers were among the first to migrate north were able to take fuller advantage of legalization programs, such as those that occurred from 1965–1968 and 1986–1989. These villages have been able to set up broad U.S. settlement communities, resulting in an early shift in how individuals perceive their home village—from a place of production to a place for recreation.

### ***Preferences and Behaviors***

When Mexican farmworkers walk into a U.S. medical clinic, they encounter a health-care environment very different from that of their home country. They are required to be literate, often in English, and are asked to fill out lengthy questionnaires related to their medical history while waiting to be examined by a clinician. When they do get examined, it may be followed by a blood sample or other test procedure, with the requirement that they return for another appointment after several weeks. Though this may be considered routine for patients socialized in the United States, it is an experience that does not coincide with what Mexican farmworkers understand or expect. One respondent complained that U.S. treatment procedures seemed pointless.

One goes to the doctor with an illness and they don't attend to you, only at the emergency room. And that comes out to \$500 dollars. They give you an appointment three days later, and you can't buy medicines in the pharmacies.

The BFHS found that farmworkers expect a treatment approach that involves the use of fast-acting, potent medicines, few (if any) laboratory tests, and minimal paperwork. They also tend to seek out the lowest-cost remedies. These expectations reflect their experience with the health-care system in rural Zacatecas, and they are among the reasons farmworkers reject U.S. care and return to Mexico for treatment. Fifty percent of the BFHS respondents indicated that if given a choice, they would prefer to obtain treatment in Mexico (38 percent preferred treatment in the United States and 11 percent did not favor one system over the other).<sup>3</sup> Among respondents' Mexican-born family members who had gone to the United States, more than half sought treatment in

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<sup>3</sup> Respondents with no clear preference indicated that the type or severity of their health problem and proximity to a service provider influenced their choice. In general, respondents preferred the U.S. system for serious health problems. They also will tend to choose whatever health-care provider happens to be closest to where they are living at the time. Those suffering from chronic conditions, however, prefer Mexican services.

Mexico when they fell ill. Males, elderly adults, and the very young were those most frequently treated in Mexico, while most of the working-age group sought medical help in the United States.

Though their preference for Mexican-style medicine steadily declines as they spend more time in the United States and obtain medical coverage, farmworkers still seek out Mexican treatment with surprising resiliency. Thirty-six percent of individuals who resided three-quarters or more of their adult lives in the United States still favored the Mexican system. The fact that over one-third of these more settled residents remain partial toward Mexican medicine speaks, in part, to the impact of their early experiences in Mexico and the continued contact with binational networks, which tend to reinforce traditional attitudes about health. It also reflects their perception that health care is better and more affordable in Mexico (see Table 2).

The BFHS found that Mexican women tend to be more partial to the U.S. system than men. Forty-seven percent of all women interviewed in this study indicated that they favored the U.S. system, while 37 percent of men expressed a similar preference. This finding most likely reflects the greater access for women to health care in the United States (U.S. government-funded health programs that target low-income populations often exclude men, whereas pregnant women generally qualify regardless of immigrant status).

**Table 2. Preference for U.S. or Mexican Health Care by Work Years\***

	Proportion of Adult Life Spent in the United States			
	Less than 25% (N=70)	25% to less than 50% (N=118)	50% to less than 75% (N=122)	75%+ (N=100)
Mexico	84%	67%	48%	36%
U.S.	16%	33%	52%	64%

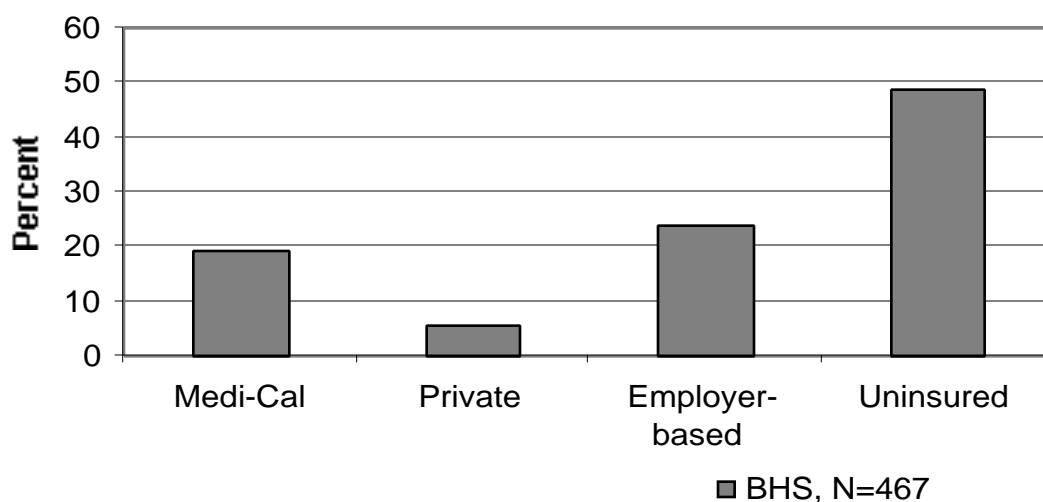
\* Percents do not include “don’t know” responses.

**Table 3. Treatment Preference by Age Group**

	Age		
	16 to 24 (%)	25 to 50 (%)	51 and older (%)
Mexico	43	48	76
U.S.	57	52	24

Note. Table 3 percents do not include “don’t know” responses.

Also, since many programs (such as CHDP, CCS) cover undocumented children, and since mothers generally are the ones responsible for their children’s health, women generally have more contact with the U.S. system. In addition, men show a reluctance to see a doctor unless they are

**Figure I. Insurance Coverage for Farmworker Households**

under extreme duress, regardless of the country of treatment. Medical staff on both sides of the border mentioned this tendency. An intern at a Mexican government clinic said, “Men feel shame to come [to the clinic in Mexico]. Ninety percent of my patients are women and children.” A physician with a private practice in Mexico indicated that he treats many patients with muscular and back problems, but the majority are women. When asked why, he responded, “The men don’t come.”

Both education and age also appear to affect the preference of where farmworkers seek medical treatment, with older farmworkers preferring Mexican medical care and the younger population favoring U.S. medical care. Over three-quarters of those 51 and older preferred treatment options in Mexico. Alternatively, those 25 to 50 years of age have a slightly greater preference for U.S. medicine, while individuals under 25 display an even greater tendency to favor U.S. health care. The preference for Mexican medicine is more prevalent among the least educated groups—those with less than four years of school—whereas those with more education favor U.S. medicine.

### **Cost and Insurance**

Nearly 30 percent of respondents who favored the health-care system in Mexico said they did so because of its greater affordability. At the same time, almost one-quarter of these respondents also claimed Mexican medicines were more potent and effective in curing ailments. This combination of high cost in the United States and the perceived ineffectiveness of its treatment are what led many farmworkers to favor the Mexican health-care system.

But farmworkers' high health-care costs in the United States reflect the fact that few have medical insurance.<sup>4</sup> Approximately half of all BFHS households reported having no medical insurance, and 58 percent of the individual respondents were uninsured. And despite the poverty of the population, enrollment in publicly funded health programs in the United States was low—only 19 percent of respondents in the BFHS are Medicaid recipients.<sup>5</sup> Among households with at least one U.S.-born child under 21 years of age (which makes them eligible for Medi-Cal), 68 percent do not have any members covered by Medi-Cal. Employment-based insurance covers 24 percent of the workers; however, this type of coverage is usually seasonal and often contingent upon a monthly quota of hours worked.

A previous study has shown that intricate application processes and confusing eligibility criteria for health-care coverage impede enrollment of those targeted for various programs and services.<sup>6</sup> The high proportion of uninsured farmworkers observed in the BFHS was due, in part, to such eligibility requirement problems. Public health insurance programs exclude individuals on the basis of age, county residency, and immigration status. Furthermore, the application process involves intrusive questions, particularly about personal assets. The sheer burden of unfamiliar and complex

### Lost in Translation

Successful doctor-patient communication is vital for patient confidence. Mexican doctors' ability to speak Spanish gives them a key advantage over many physicians in the United States. Some U.S. providers use translators to overcome this obstacle. However, as one respondent from the BFHS indicated, even when a translator is present, the situation may go awry.

I went to the doctor and my eldest daughter accompanied me. There was a translator present. However, when I realized that the doctor thought it was my daughter who was ill, not me, I no longer could trust the translator or, for that matter, the doctor.

In some cases, miscommunication leads to misunderstandings about the doctor's instructions to patients. As another respondent indicated, a common source of confusion lies in instructions regarding medication dosage. "I was taking prednisone, three times a day. . . . I thought I was supposed to take three a day, but it was actually supposed to be only once a day. Once I realized this, I gradually reduced the quantity."

<sup>4</sup> Azevedo, K. *Medical Insurance Coverage and Usage Among Farmworker Families: A Case Study*. California Program on Access to Care Brief. Vol. 12, No. 7. (2000) California Policy Research Center, University of California, Berkeley, Calif.

<sup>5</sup> Eighty-eight percent of the BFHS sample resided in California and thus qualified for Medi-Cal.

<sup>6</sup> Azevedo, K. *Medical Insurance Coverage and Usage Among Farmworker Families: A Case Study*. California Program on Access to Care Brief. Vol. 12, No. 7. (2000) California Policy Research Center, University of California, Berkeley, Calif.



paperwork for a non-English-speaking population with an average of six years of schooling is the first and perhaps most difficult obstacle. One U.S. health provider described how convoluted the process can be for those applying to these programs.

Take Healthy Families applications . . . a family applies and mails in their check with the application. The application is denied but the check is cashed. The family appeals, but the check is lost. Furthermore, the supposed process by which a Healthy Families application that is denied automatically becomes a Medi-Cal application simply doesn't happen. Applications end up in La-La land. . . . We spend a lot of money on training our staff on enrollment and billing, but we're so disjointed—there are so many players that no one knows what they're doing. Fifty percent of our Medi-Cal bills were denied and we must appeal this. There are litigious attitudes on both sides.

The large group of workers who lack immigration papers have the greatest difficulty receiving care, since they are ineligible for most U.S. public medical insurance programs. Moreover, fear of immigration authorities discourages otherwise eligible persons from applying for these programs. Rumors within binational networks lead individuals to believe that receiving public medical insurance will negatively affect their own or their relatives' immigration cases with the U.S. Immigration and Naturalization Service.

But even workers who are eligible and qualify for public health insurance often become frustrated. Some who successfully complete the application process are subsequently disqualified either because they have small but disqualifying assets, neglect to pay their monthly Healthy Families premium, or fail to stay abreast of Medi-Cal's on-going asset information requirements during the times of year that they earn a relatively higher income. One staff person from a community action agency described the problem this way:

[Farmworkers] don't make sure they keep it (their paperwork) up-to-date and often get dropped both from Medi-Cal and somewhat less from Healthy Families. They detest paperwork and drop behind. Also, it is in part Medi-Cal's fault because the papers are unnecessarily complex. If a date is off or a check is slightly late, they get thrown off and then don't get around to reapplying. This causes families to struggle in a long process of applying and reapplying.

Moreover, those that get care often encounter communication difficulties with the provider. The inability to communicate with health-care providers, often due to farmworkers' low literacy levels, affects both the quality of care, as well as the patient-provider relations. The lack of communication is a frequent observation, as one woman put it:

I don't have confidence in the doctors here because they don't speak Spanish. When they diagnosed me with diabetes, they didn't explain anything or give me any advice. They just gave me some medicine that made me feel really bad.

But farmworkers' mistrust and cynicism regarding the U.S. health-care system involves more than a communication breakdown. One respondent described that she goes to Mexico to receive care for her chronic conditions, not only because the doctors spoke her language, but because of the prompt, streamlined treatment.

I have to go to Tijuana once a year for treatment of my high cholesterol, high blood pressure, and diabetes . . . but at least I can communicate with the doctors in Mexico. In Mexico, I wait about 10 minutes to be seen by the doctor, even when I have no appointment. When I got an appointment here in the U.S., I had to wait more than 45 minutes and then had to leave before I was seen because the person taking care of my children could not stay longer. This happened twice. In the U.S., one medical appointment takes two to three hours of one's time. In Tijuana, I don't have to wait; I don't have to fill out paperwork.

### **Mexican Health Insurance and Service**

Mexican health services are organized into three divisions:

- 1) Public health services for uninsured individuals provided by institutions such as the Secretary of Health.
- 2) Social Security programs such as IMSS, ISSSTE or public companies such as PEMEX (Servicios Medicos de Petr6leos Mexicanos) that serve specific employment sectors.
- 3) Private medicine used by the insured wealthy and the uninsured population that pays in cash.

The public insurance programs cover 41 percent of the population, but in rural Zacatecas the proportion is much lower (less than 16 percent). Services offered by the various government programs are fragmented and uncoordinated, while the private sector is largely unregulated. In general, government clinics in the villages are used for minor ailments and private physicians are sought for more serious cases.

Physicians in Mexico understand that they must treat patients quickly and effectively. As one doctor at a private clinic pointed out, physicians that fail the immediate effectiveness test can lose patient confidence. "If my treatment doesn't work or the case is more complicated, patients will readily dismiss you as a doctor that is no good." The urgency for a quick cure often leads physicians to prescribe a treatment after a physical exam and without further testing. Rural Zacatecano doctors estimated that about 90 percent of their diagnoses are presumptive and 10 percent are based on laboratory tests. They combine this approach with the practice of prescribing "strong medications," particularly injections of antibiotics. This strategy is commonplace and patients have come to expect this style of treatment.

From their encounters with U.S. health-care, some farmworkers believe that the system is designed to enrich those who administer it rather than provide patients with needed relief. Farmworkers feel particularly cheated if they do not receive potent medication after a medical

consultation and are still charged for the visit. Some informants reasoned that U.S. doctors do not offer potent medications as part of a clever business tactic for making more money (by having patients return repeatedly for mild treatments) or because they were afraid of being sued. One worker considered treatments that involved anything other than penicillin injections as a scam.

When I go to the doctor, I want to be made to feel better. Otherwise, what's the point? I miss more work. But in the U.S. they always give pills, never injections. Injections are indispensable for fevers, coughs, sore throats. . . . I don't want to see a *pastillero* [doctor who prescribes pills]; those that prescribe pills, like Tylenol, simply want you to return to see them. I've had penicillin injections all my life and they've never harmed me!"

As this worker points out, a good doctor makes you feel better fast. Long-term, routine care and treatment—discussed in the next section—is not a high priority.

### ***Fragmented Care***

The complexities of U.S. health insurance eligibility requirements and program enrollment contribute to differential medical coverage within farmworker households. Fifteen percent of the study respondents reported having insurance coverage just for themselves, 26 percent had coverage for their families as well as themselves, and 9 percent obtained insurance plans that covered only family members. This latter group refers mostly to undocumented parents with citizen children. Health plans offered by the United Farm Workers, Transwestern Insurance Company, and the Western Growers Association provide 100 percent payment in Mexico, but require co-payments in the United States.

Overall, children and pregnant women are much more likely to be covered by public insurance programs than adult men and non-pregnant women. For this reason, children are often taken to a public clinic, while parents go to a private clinic.<sup>7</sup> This practice contributes to the fragmentation of medical care among farmworker families. Indeed, more than one-quarter of the households that used services providers in the United States used two or more (more than 30 percent of those who used providers in Mexico used two or more). Obtaining health services from several different sources renders follow-up medical procedures and record maintenance difficult. It also precludes the kind of informed, long-term preventive care that comes with having a routine provider.<sup>8</sup> Moreover, failure to maintain continuity often results in reliance on immediate treatment for symptoms that may become intolerable due to neglect or delay in treatment, which increases both costs and health risks to the patient.

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<sup>7</sup> Many respondents also noted that public clinics are closed when they return home from work. This was cited as the reason for their use of private clinics (some clinics do have extended hours).

<sup>8</sup> Solís, J., Marks, G., García, M., and Shelton, D. "Acculturation, Access to Care, and Use of Preventive Services by Hispanics: Findings from NHANES 1982–84," *American Journal of Public Health* 80 (1990):11–19.

This dearth of private and public health insurance coverage leads a plurality of farmworkers to pay for medical services in cash. Thirty-eight percent of BFHS respondents covered part of their medical costs themselves, while 27 percent paid entirely in cash. In the United States, 17 percent relied on Medi-Cal to cover at least a portion of payments, while 25 percent relied on their employer-based insurance to cover some costs. Understandably, a single medical emergency can easily place a family into a catastrophic economic position, as pointed out by this orange picker:

I make \$5.75 an hour picking oranges. When my son got sick last year, he was hospitalized for one night and underwent an appendectomy. I received a bill for \$12,000 for that one night at the hospital. I worked out a payment plan with the hospital and am still paying. I don't know what I'd do if something like this happens again.

In rural Mexico, where public clinics are used infrequently and insurance for private medicine is uncommon, four out of five individuals pay for their medical care in cash. Private physicians are the primary source of medical care in these cases.<sup>9</sup> Some individuals go to public clinics belonging to the Secretary of Health, which charge very low or, at times, no payments, but only very few attend these facilities.<sup>10</sup> Only 13 percent of the respondents' families sought free services from public clinics while in Mexico. Mexican Institute of Social Security (IMSS) qualified patients receive free services, but few individuals qualify. In all of Zacatecas, both rural and urban, only 32 percent of the population is eligible for health services from the IMSS, the Institute of Social Security Services for State Employees (ISSSTE), or other institutional programs.<sup>11</sup>

Preventive measures remain largely underutilized by the transnational community, the effects of which are likely to have the most profound consequences for the elderly. A large proportion of the community over the age of 60 has been returning at least seasonally to Mexico. At the time of the interviews, over 80 percent of the men over the age of 60 had returned to the villages. This group of older, returning farmworkers accounted for 16 percent of the total study respondents, or nearly one in six laborers. Sixty-three percent of these respondents reported having no insurance in the United States. Among elderly households, only 12 percent receive Medi-Cal benefits, 18

<sup>9</sup> The Mexican National Health Survey II (ENSA-II) indicates that Mexicans prefer using private physicians. A large proportion of older social security recipients obtained services outside the system of care—25 percent for IMSS and 45 percent for ISSSTE. See Borges-Yáñez, S. and Gómez-Dantés, M. *Uso de los Servicios de Salud por la Población de 60 Años y Más en México* (Health Service Utilization by the 60-Year-Old and Older Population in Mexico), *Salud Publica de México*, 40 (1998): 13-23.; and Diringer, J., Ziolkowski, C., and Paramo, N. *Hurting in the Heartland: Access to Health Care in the San Joaquin Valley, A Report and Recommendations*. (1996) Rural Health Advocacy Institute, California Rural Legal Assistance Foundation, Sacramento, Calif.

<sup>10</sup> Public clinics charge a voluntary payment of 20-25 pesos (approximately \$2.50) per visit. Private clinics charge 50-70 pesos (approximately \$7.50) in rural Zacatecas.

<sup>11</sup> Instituto Nacional de Estadística, Geografía e Informática (INEGI) XII Censo General de Población y Vivienda, 2000. (General Census of the Population and Housing) *Tabulados de la Muestra Censal* (Tabulations of the Census Sample).

percent reported an employer-based insurance plan, and 58 percent were uninsured. In Mexico, it is unlikely that individuals over 60 years of age have health insurance, as 78 percent of respondents seek care from private physicians and 80 percent pay in cash.

#### IV. HEALTH OUTCOMES

We examine three categories of health outcomes in this section: chronic disease, mental health, and injuries. The results are based on self-reported data obtained during interviews of farmworkers from the binational networks and health care professionals in Mexico and the United States.

##### **Chronic Disease**

Chronic ailments were the most prevalent category of disease among farmworkers. One in four individuals reported having a diagnosed chronic ailment, with high-blood pressure, gastrointestinal problems, and diabetes being the most common. CIRS's California Agricultural Workers Health Survey (CAWHS) had previously reported percentages of chronic disease among farmworkers in California. The proportion of individuals with chronic illness was slightly higher in the BFHS than in the CAWHS, reflecting the older, more settled attributes of those in the BFHS sample.

Though the numbers are alarming, the actual prevalence of disease in the sample is likely to be even higher, as our analysis was based only on those cases that self-reported a condition diagnosed by a physician.<sup>12</sup> Moreover, 30 percent of respondents had not seen a doctor in the two years previous to this study (or longer). It is reasonable to assume that some of these individuals had health conditions that were undiagnosed.

The most prevalent chronic condition was high blood pressure, particularly among those 55 and older. While few young workers suffered from the ailment, 21 percent of those over 55 had the disease. Respondents 51 and older also reported more cases of diabetes, heart problems, vascular disease, thyroid disease, and arthritis. Younger individuals suffered from urinary infections, hernias, and gastrointestinal problems. The concentration of disease among the elderly is particularly troubling, as this group spends much of its time in rural Mexico and depends on medicine in home areas where the health policies tend to exclude the elderly.<sup>13</sup>

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<sup>12</sup> Self-reporting can underestimate disease levels in a population. See Sallie Newell, et al., "Accuracy of Patients' Recall of Pap and Cholesterol Screening," *American Journal of Public Health*, Sept. 2000.

<sup>13</sup> Rodríguez Ramírez, H. "Principales Características Sociodemográficas de los Adultos Mayores en Zacatecas," (Principal Sociodemographic Characteristics of Older Adults in Zacatecas) in *Los Retos Demográficos de Zacatecas en el Siglo XXI*. García Zamora, R. and Padilla, M., eds. (2000) Secretaría Académica de la Universidad Autónoma de Zacatecas, Mexico.

**Table 4. Reported Disease (BFHS and CAWHS)**

Disease	BFHS (N=467) Percent	CAWHS (N=968) Percent
High Blood Pressure	11.1	7.6
Gastrointestinal	6.2	*
Diabetes	5.1	3.1
Urinary Infection	5.1	*
Arthritis	5.1	7
Asthma	3.4	1.6
Hernias	3.4	*
Vascular	3	*
Typhoid	2.7	*
Heart	2.6	0.8
Renal/urological	2.3	*
Infections	1.5	*
Tuberculosis	1.1	3
Respiratory	1	*
Thyroid	0.9	*
Hepatitis	0.9	0.4
Pulmonary	0.6	*
Cancer	0.4	0.7
Epilepsy	0.4	1.2

\*CAWHS did not ask these questions.

BFHS respondents were also asked to report the occurrence of illness and disease among family members. Respondents and their adult family members showed a similar pattern of illness, affirming that high blood pressure, diabetes, and arthritis are the most prevalent diseases among farmworker communities. These conditions are presented in rank order in Table 5.

Sexually transmitted diseases were not included in the rank order summary. Although the survey requested information about “any other ailment not specifically mentioned,” no one, understandably, admitted to having had a sexually transmitted disease. Furthermore, many such diseases are asymptomatic in males, who comprised the majority of survey respondents. Nevertheless, staff at clinics in both the United States and Mexico stated that sexually transmitted diseases were prevalent among this population—especially the female patients who they were more likely to treat.

**Table 5. Rank Order of Disease for Family Members (Age 18+)\***

Disease	Rank Order	Disease	Rank Order
High Blood Pressure	1	Typhoid	6
Diabetes	2	Cancer	7
Urinary Infection	3	Hernia	7
Arthritis	4	Hepatitis	8
Heart	5	Thyroid	9
Asthma	5	Tuberculosis	9

A doctor in one Mexican clinic stated that of all the village women of fertile age, 90 percent had sexually transmitted diseases and/or cervical infections. She attributed this to the wives being infected by their husbands. Since many of these diseases require medication of both partners, she doubted the efficacy of her treatments.

The high rates of illness among farmworkers are compounded by the fact that many do not obtain treatment or simply self-medicate. Of the cases involving chronic conditions, 59 percent saw a doctor in the year before the interview, but 70 percent were self-medicating during that year.<sup>14</sup> They also travel to Mexico to obtain what they perceive as more cost-effective treatments from either doctors or dentists, often returning to the security of their native villages if they become sick or need care. Those with the fewest financial resources rely on over-the-counter prescription medicines purchased in Mexico. Such self-medication practices can be dangerous. “Patients come in taking antibiotics, vitamins, even seizure medicine without really knowing why they are taking it,” indicated one California physician. A California psychiatrist expressed a similar complaint. “Family members that treat other family members with these kinds of over-the-counter medicines,” he said, “have no pattern of going to physicians to get prescriptions and get no kind of support for family members suffering from acute conditions.”

Because of their infrequent check-ups or other medical treatments, farmworker communities are at high risk for co-morbidity of chronic conditions, and the BFHS results bear this out. Of the high blood pressure cases reported, 56 percent also experienced other conditions (23 percent had been diagnosed with vascular conditions or heart disease, and 8 percent were also diagnosed with arthritis at some time). Half of all diabetes cases were also diagnosed with other conditions at

<sup>14</sup> Some farmworkers use improper mixtures of prescribed medicines, substances obtained without prescription, or those not listed in the *Physicians' Desk Reference*. For example, from about 1970 to 1980, Mexican farmworkers were buying a medicine called *azareon* or *polvo de plomo*. This substance contained lead dust and was poisonous. In Mexico, it was mixed with bee honey and sold as a cure-all.

some point, the most common of which was arthritis (25 percent), followed by high blood pressure and vascular or heart disease. Twenty-five percent of reported asthma cases also experienced high blood pressure. While 75 percent of the diabetic cases reported consulting a doctor, 83 percent of respondents reported taking medications to treat the condition.

### ***Mental Health***

The BFHS found that some farmworkers considered themselves to be suffering from mental health conditions—particularly anxiety and depression. A significant proportion (22 percent) reported a loss of motivation or feelings of depression so severe that it affected their ability to work. Most of these (53 percent) indicated that their condition had been brought on by separation from family. “I don’t think there is a person that doesn’t feel depressed in this country [U.S.] when they leave their families,” said one respondent. “This is not a familiar community.”

But despite the hardships, many farmworkers remained hopeful. Ninety percent claimed to be attaining a better life because of work opportunities and less poverty. Twenty percent of this group attributed their success to owning possessions, 20 percent cited employment opportunities, and 17 percent claimed that being able to provide for oneself and one’s family was key. However, the remaining one-third of this group explained that, though life was better, they had not attained their goals in coming north. A significant number of these indicated that they were barely surviving, had not earned enough money, were unable to purchase basic items, or felt trapped in farm work and desired other opportunities, particularly educational ones. Common statements among the disillusioned included:

- “[Did I meet my goals?] Yes and No. I was able to help my family move forward [economically], but it wasn’t easy. I suffered a lot.”
- “In the north, there is more opportunity than in the city of Zacatecas or in one’s own village; the North pays well but it’s really hard on you.”
- “There is more of a chance to make money and help your family [in the U.S.] even though the work in the north is backbreaking.”

The ambivalence expressed by these farmworkers reflects a deep tension that besets those who migrate north, emerging from the difficult choice they must make between hardship and survival. But the stress of separation also affects family members who remain in Mexico. Despite the high proportion of legal immigrants in Zacatecano villages, large numbers of women stay with their children in Mexico. Of 226 Mexican-born women married to U.S. workers interviewed in Mexico, 104 (or 46 percent) had never been to the United States. Even in these villages, with their relatively long-term migration patterns, almost half of the women remained in the villages while



their husbands worked for long periods north of the border. The burden on these women has been severe. A medical intern from one of the Mexican villages explained it thus:

The most serious problem we confront [in the village] is the disintegration of the family caused by the absence of the fathers. The women and children are left alone. They must do everything. While the husbands almost always send money, many times the money isn't enough or the flow isn't continuous. Women don't know what they will be receiving from the North. Mothers must be both mothers and fathers at the same time; and alone they must worry about the education and well being of their children. This lack of stable family relations is serious and at the root of a lot of psychological problems and other problems, like teenage alcoholism.

But even when farmworker families live together in the United States, they suffer separation of a different kind. Young mothers who initially migrate with their husbands, or later join their husband, suffer the separation from their natal families, while also undergoing the cultural shock of living in a strange country. As one young bride, living with her husband and his family in the States, explained:

I'm a worrier. The fact that I am without my family depresses me. I always want to cry, I am sad, I don't want to do anything and I only sleep. I did go to the doctor here [in the U.S.] but she told me to see a counselor. But I don't want to go tell a stranger my problems. And furthermore, they probably don't understand Spanish. How can they understand me if they are from here?

Young members of the family also bear the burden. The physically demanding work, which often includes long or odd hours, separates parents from their children before and after school.

### A Perilous Road

Crossing the U.S.–Mexican border can be a harrowing experience for farmworker migrants. One interviewee's first crossing continued to haunt and traumatize him more than a decade later.

I came with my brother and cousins. On the Mexican side, the night before we were going to cross, the *coyote* took us to a hillside and told us to sleep there. It was outdoors. We slept in our clothes, huddled. It was cold. In the middle of the night we were attacked by a band of young male robbers who demanded from us the money we carried to pay the *coyote*. When I didn't have any, because my brother carried it, I was beaten and stabbed several times. I received a wound to my head. I wasn't able to wash the wound or blood until we got to Los Angeles, four days later.

However, it is not only the south-to-north border crossing that has perils. Many interviewees complained about crossing the border into Mexico where immigration officials would steal their belongings. One respondent lamented the theft of her second-hand sewing machine that she had brought with her so that she might begin work as a seamstress. Another said she didn't understand the pay-off system and was reprimanded by a guard when she supplied him with the money he requested in front of a video camera. "When I cross the border from the U.S. to Mexico, I feel very insecure because the government officials behave badly and rob people," she said. "They want to take everything away that one has earned in the United States through sacrifice."

Children grow-up with little parental supervision at crucial times of the day, which undermines the development of strong parent-child relationships. This phenomenon has severe repercussions for both the family and community, and contributes to truancy, low rates of academic achievement, decreased parental involvement in children's' school success, and increased teenage delinquency.

Another problem arising between parents and children is a loss of communication, which some health providers consider to be causally linked to depression and other psychological disorders. Migrant children living in the United States are learning and speaking English, while their parents remain monolingual. This further separates children from parents and, in some cases, leads to a complete loss of parental control over their offspring. "The family [in Mexico] is raised without a father figure; the older kids lose respect for their parents," said one Mexican doctor from a public clinic, speaking with respect to the Mexican side. "When the father returns, they say 'You don't tell me what to do. Who are you? You don't even live here.'"

Finally, family separation also carries economic repercussions, which, in turn, can amplify the stress on its members. Husbands who migrated alone spent much less time in the United States than families who travel north together. The solo husbands spent 47 percent of their working lives in the north, while those husbands whose wives accompanied them to the United States spent 67 percent of their time there. This has meant much more earning power and better jobs for the latter group, and a comparison of the assets held between the two groups reveals large disparities.<sup>15</sup> The families that travel together to the United States had more assets in both countries than the families where the wife stays in Mexico. Wives who remained in Mexico were among the poorest of the villagers.

### ***Coping with Emotional Stress and Mental Disorders***

In the Mexican villages from which the BFHS sample was drawn, there were no mental health providers in the Western sense of the term—that is, counselors, psychiatrists, or psychologists. In the corresponding U.S. communities, there were also very few mental health providers; those that did exist primarily served children with severe problems or very acute adult

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<sup>15</sup> About 17 percent of the husbands who do not take their wives to the United States reported having assets in the United States, while among the husbands with their wives, 56 percent own assets there. Husbands without wives are far less likely to own a vehicle or a house. Approximately 15 percent of husbands without wives have a vehicle, and only 2 percent own a house. However, in the group whose wives are with them, 48 percent have a vehicle and 22 percent own a house. The families of the men whose wives stay behind have some assets in Mexico. About 76 percent of these men own a house in Mexico, 40 percent have land, 35 percent have a vehicle, and 26 percent own animals. In comparison, 76 percent of men with wives in the United States own a house, 34 percent have land, 40 percent have a car or truck, and 31 percent have animals in Mexico. Furthermore, 13 percent of these men have a house in Mexico and in the United States, compared to only 1 percent of husbands

cases. Moreover, those providers were overburdened, their programs understaffed, and few had bilingual staff available.<sup>16</sup> This situation is common with respect to ethnic minority communities in the United States. According to a recent report by the U.S. Department of Health and Human Services, minorities carry a high disability burden because of unmet mental health needs.<sup>17</sup>

Though mental health services are scarce, the need is great. Four out of five BFHS respondents (80 percent) acknowledged the need for relief from stress or anxiety. Of this group, 15 percent said they talked or socialized with friends and family to relieve stress, 10 percent said they drank alcohol, and 7 percent said they exercised or played sports. The remaining respondents focused on their work, watched television or listened to music, tried to relax, wrote letters home to their families in Mexico, tried to find solutions, cried, smoked cigarettes, or prayed (each category represented less than 4 percent of the total). Twenty-five percent of the respondents said they simply withstood the stress and anxiety and did nothing. No one in the sample sought out Western psychiatric or counseling services.<sup>18</sup>

Many farmworkers sought relief from depression and anxiety by acquiring strong medications in Mexico or at U.S. flea markets and Latino stores. The culture-bound conditions of *nervios*, *susto*, and *aires* (described in the next section) were frequently treated with sedatives and antidepressants, though often with no diagnosis or clinical follow-up and rarely, if at all, with any form of counseling or psychiatric care.<sup>19</sup> Sometimes symptoms are so acute that individuals go to emergency rooms. According to one U.S. mental health provider, in extreme cases such as schizophrenia, Hispanics are meeting their own needs by buying over-the-counter antipsychotics (such as Haldol) in Mexico.

Numerous health providers reported an increase in drug use among farmworkers, especially males, to be able to withstand the hardship of farm work. A health outreach worker indicated that heroin and crack cocaine were among the abused substances.

A large number of male farmworkers use drugs to be able to withstand (*aguantar*) the workday. They smoke marijuana or smoke/inject heroin. Now there is more crack

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without wives.

<sup>16</sup> Cultural as well as linguistic barriers also hinder the ability of farmworkers to obtain mental health services. As one U.S. psychiatrist noted, "The first contact with the county's mental health providers is an 800 number . . . if the phone is answered in English, Spanish speakers hang up. Plus, Hispanics aren't comfortable with 800 numbers. They don't like speaking to strangers, much less an 800 number."

<sup>17</sup> U.S. Department of Health and Human Services, U.S. Public Health Service, *Mental Health: Culture, Race and Ethnicity* (Washington, D.C.: SMA-01-3613, Aug. 2001).

<sup>18</sup> Severe depression often goes untreated, as the stigma attached to such mental conditions is negative. One is considered *loco* (crazy) and, as one health provider put it, "it is hard for them to understand that there may be good reasons for certain mental states of mind."

<sup>19</sup> Medicines for depression and/or anxiety are being prescribed by Mexican doctors, and in a few cases, nurses, pharmacists or U.S. doctors. However, these medications are being used in the absence of clinical supervision, counseling or psychiatric care, and in many instances, without appropriate diagnosis.

because it is less expensive. Sometimes they use cocaine. Women rarely seem to be involved with these drugs, but they often inject themselves or get injected with vitamins (especially vitamin B) for a period of three months prior to the work season's beginning.

Many BFHS respondents used alcohol (75 percent of men and 11 percent of women). Among those who drank, the median was two days per week, three drinks per day. A few drinkers (about 13 percent of the total) said they drank six or seven days a week and averaged 21 drinks.

### **Culture-bound Syndromes**

Migrant farmworkers of Mexican origin, as well as Mexicans in general and other Latinos, suffer from illnesses that are not widely recognized by the U.S. biomedical establishment. These illnesses—described as “culture-bound syndromes” by the U.S. Department of Health and Human Services—have a large presence in these communities.<sup>20</sup> They include such afflictions as *nervios* (anxiousness), *aires* (a complex of symptoms induced by an incongruence between ambient air and body temperatures), and *empacho* (an impacted digestive system), to name a few. (Among Latino subgroups there are regional and cultural variations that create differences in the way these conditions are understood.) In this study, 12 percent of the respondents, or nearly one in eight farmworkers in a sample of 467, reported suffering from at least one such condition—20 percent of these experienced two or more during their lifetime. In general, the farmworker community does not perceive U.S. doctors as being familiar with these ailments. Nevertheless, individuals often seek out some form of U.S. medical intervention to alleviate their symptoms.<sup>21</sup>

**Table 6. Injuries by Age Group (Current Farmworker Population)**

Age at Time of Injury	Number of Respondents Injured	Number Engaged in Farmwork*	Percent of Total Injured
14-21	17	62	27.4
22-24	11	55	20.0
25-34	47	240	18.8
35-44	23	184	12.5
45-50	10	95	10.5
51-54	8	54	14.8
55-64	11	71	15.4
All Ages	127	761	20.6

\*Includes parents, children, siblings, and others who were engaged in farmwork.

<sup>20</sup> *Mental Health: Culture, Race and Ethnicity* (Washington, D.C.: SMA-01-3613, Aug. 2001).

<sup>21</sup> U.S. physicians often interpret *nervios* as an anxiety disorder. Symptoms associated with this condition include numbness around the mouth and hands and feet, which are often manifest due to hyperventilation. Individuals experiencing these symptoms frequently believe they are having a stroke.

*Nervios* was the most commonly cited disease among both male and female respondents, including their household members. Of 92 reported cases of *nervios*, doctors treated 58 percent, *curanderos* treated 14 percent, and over 20 percent received no care.<sup>22</sup> Individuals sought therapies in both the U.S. and Mexico, with 63 percent of the cases treated in Mexico. Commercial drugs were most often used to treat *nervios*, with 50 percent of respondents reporting having taken some medication—usually sedatives or antidepressants.<sup>23</sup> Among those who were not taking anxiety-relieving drugs or antidepressants, 21 percent used herbs, vitamins, teas, or *sobadas* (massage). A common herb used was *tilia* (linden flowers), a sedative and diaphoretic (a substance capable of increasing perspiration). Most individuals treated for the condition reported some relief, if not complete recuperation as a result of the medications or remedies employed.

### **Injuries**

The BFHS results underscore the need for medical care for farmworkers injured on the job, as well as increased precautionary and accident prevention measures in the field. The study found that pain and bodily injury are endured by farmworkers because it “comes with the job,” and many workers avoid seeking early treatment.<sup>24</sup>

Overall, 27 percent of respondents reported having at least one injury while working on U.S. farms (140 injuries were reported with 11 respondents reporting two injuries).<sup>25</sup> Injuries on the job were highest for the youngest group of farmworkers, namely those between the ages of 14 and 21.<sup>26</sup> Thereafter, injury risk declines, but begins to rise again as farmworkers approach old age. This pattern reflects that found in other studies.<sup>27</sup>

To obtain a more detailed view of the types of injury risks, we divided the injuries reported by respondents into two groups. The first, called Type A, included sprains, dislocations, bruises, hernias, and pain. These were conditions caused by either a repetitive activity or single event (based on farmworker testimony). The second,

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<sup>22</sup> *Curanderos* administer curative therapies based on a combination of ritual and empirical experience. They are not to be confused with *sobadores*, namely masseuses or folk chiropractors, though they may share diagnostic and treatment techniques.

<sup>23</sup> These include anxiety-relieving drugs such as clonazepam and diazepam, as well as antidepressants.

<sup>24</sup> The BFHS networks were purposively chosen to represent a variety of crop specialties in U.S. agriculture; consequently, the data provide a valuable cross-sectional comparison of labor injuries across these specialties. More importantly, although the data do not permit a meaningful comparison of incidence of injuries with other data sets (such as those of the Bureau of Labor Statistics), they do provide important information on the lifetime injury risk on U.S. farms.

<sup>25</sup> The study findings are based on worker self-reports of injury that have not been classified by injury specialists. In one-fifth of the cases, respondents did not provide information adequate to classifying the injury by one of the common injury categories. Instead, they stated that the problem that caused them to miss work was pain. For this reason, we added a pain category to our analysis.

<sup>26</sup> The average age of the individuals reporting an injury was 46. Although considerable time may have passed since an injury had occurred, all workers gave detailed descriptions of injuries that interfered with their ability to work. On average, workers recalled injuries that on average occurred 12 years before the interview.

called Type B, included only injuries associated with a single event. With respect to Type B injuries, four workers had lost fingers, one lost a hand, and two suffered a loss of sight during accidents. The amputations were caused by machines and, in one case, a saw. The loss of sight resulted from a pesticide exposure. Overall, the body parts most frequently injured were a hand, leg, or foot. The objects or tools involved in injurious events included a combination of tree branches, ladders, clippers, and machine parts.

Most injuries resulted from falls (31 percent of all injuries), while human error and machine malfunction accounted for 11 percent each. Next were incidents involving an individual struck by an object, machine, vehicle, or plant (8 percent) and chemical exposure (5 percent). The fewest injuries occurred in nurseries and in herb crops.<sup>28</sup>

Fourteen percent (or 19) were repetitive motion injuries—problems not associated with a single event. Equipment was involved in 94 of the 140 injury cases. In the remaining cases, the problem was caused by the activity (such as bending, climbing, or lifting) and equipment was not directly involved. The most dangerous piece of equipment was the ladder. In 30 percent of the incidents involving equipment, a ladder was involved. Next in level of danger were various kinds of farm equipment; these were involved in about one-fourth of the events.

**Table 7. Proportion of Type A and Type B Injuries Among 140 Farmworkers**

Type of Injury		Number	Percent
Type A Subject to repetitive or single incident events	Pain	28	20.0
	Sprain	15	10.7
	Dislocation	15	10.7
	Bruise	8	5.7
	Hernia	5	3.6
Type B No repetitive or cumulative causes mentioned	Fracture, crushed	19	13.6
	Cuts, tears	23	16.4
	Burns, swelling	9	6.4
	Amputation, loss of sight	7	5.0
	Others*	11	7.9
Total		140	100.0

\*Rashes, infections, irritations, animal bites that interfered with work.

<sup>27</sup> McCurdy, S. and Carroll, D. "Agricultural Injury," *American Journal of Industrial Medicine* 38 (2000): 463–480.

<sup>28</sup> The BFHS networks were purposively chosen to represent a variety of crop specialties in U.S. agriculture; consequently, the data provide a valuable cross-sectional comparison of labor injuries across these specialties. More importantly, although the data do not permit a meaningful comparison of incidence of injuries with other data sets (such as those of the Bureau of Labor Statistics), they do provide important information on the lifetime injury risk on U.S. farms.

**Table 8. Cause of Injurious Event or Process**

Type	Number	Percent
Falls	43	30.7
Repetitive motion	19	13.6
Human error	15	10.7
Machine malfunction	15	10.7
Struck by object or plant	11	7.9
Chemical exposure, pesticide	7	5.0
Human negligence	5	3.6
Explosion	3	2.1
Animal bite, sun exposure	2	1.4
Accident, unspecified	10	7.1
Unspecified	10	7.1
Total	140	100.0

### ***Coping with Pain***

Forty-four percent of the respondents reported a pain problem occurring in the year before the interview. Pain victims who suffered within a year of the BFHS interview sought a doctor's care 38 percent of the time. Fifteen percent of the cases sought other forms of help, and 47 percent went without any medical attention. Many workers simply changed or left their jobs because of physical pain that either resulted from or was exacerbated by their work. Forty-three percent experiencing some form of pain said they changed or left their job because of the discomfort. Even young workers commented that because of pain they had to switch their type of work, complaining of arthritic conditions. In general, the change in jobs was from a arduous field task, for example, harvesting or hoeing, to a less strenuous job, such as irrigating, pruning, or supervising.

Despite the fact that the reported pain was in most cases caused or exacerbated by U.S. farmwork, 57 percent of the treatment occurred in Mexico.<sup>29</sup> To obtain relief from physical pain, some farmworkers bought medications in Mexico that contained morphine—to which they were becoming addicted. Valium and other kinds of addictive sedatives are also purchased in Mexico, along with vast quantities of antibiotics. Farmworkers also returned to Mexico to obtain injections that will “make them stronger”—like vitamin B shots and steroids—in an effort to better endure their work in the fields. Mexican stores in the United States also stock these popular drugs.

<sup>29</sup> Since half of the current and former farmworkers in the BFHS who suffered from pain changed or left their U.S. farm job due to pain, it is safe to assume that U.S. farm work was the cause of or contributed to pain in most cases.

## V. CONCLUSIONS AND RECOMMENDATIONS

Farmworkers suffer from high rates of chronic disease and chronic pain. Though serious in nature, these diseases often go untreated and lead to debilitating conditions with serious economic and human costs. This population also carries a crushing mental health burden, related to the stress and peril of migrating between countries and the associated separation from family. In addition, the physically demanding nature of the work and low wages makes farmworkers vulnerable to stress-related disorders, most notably, depression and anxiety. At the same time, mental health resources are extremely scarce for this population and, if available, are often not culturally appropriate. Consequently, self-medication is frequently the norm and strong and frequently addictive medicines are being self-administered in these communities.

In general, workers and their families obtain infrequent and irregular medical treatment from a mosaic of different providers, with little follow-up treatment or preventive care. The providers may include private and public clinics, emergency rooms, and unlicensed Mexican doctors practicing in the United States. Farmworkers also obtain medicine and home remedies from various sources, including those available near the border, U.S. Latino markets and flea markets, and from private doctors and pharmacists who specialize in Mexican patients. Some are increasingly becoming dependent on illegal substances to cope with the physical pain and stress.

The structural and cultural factors that contribute to this picture of inadequate farmworker health care are complex. Most of the farmworkers participating in the study did not have U.S. health insurance, regardless of their eligibility for such programs and despite the fact that they have spent the majority of their adult life in the United States. When these Zacatecanos, most of whom earn extremely low wages, do seek out health services in the United States, they frequently rely on private physicians and pay them in cash. The reason farmworkers resort to such methods is related, in part, to the confusing and limiting insurance eligibility criteria, compounded by the common fear among workers that use of U.S. public programs will jeopardize their immigration status. At the same time, the seasonal nature of their work and the corresponding fluctuations in income cause many workers to be periodically ineligible for U.S. low-income insurance programs.

Another key factor observed in this study has to do with the cultural barriers that exist between the health-care system common in rural Zacatecas and the U.S. system. These obstacles, reinforced by farmworkers' constant contact with their communities of origin, engender mistrust, leading workers to believe that the care offered in the United States is ineffective. Moreover, the proximity to Mexico and the temptation to use a more familiar style of medicine makes for a difficult transition to U.S. health care for this population.



Some providers in farmworker communities attempt to customize their services to the Mexican community and facilitate their entry into the U.S. health-care system. Nevertheless, the majority of Zacatecano farmworkers prefer medicine in Mexico because the U.S. system does not suit their needs and treatment and medication are more affordable in their home country.

### ***Improving Farmworker Health: A Binational Strategy***

To improve the health of farmworkers, collaboration and coordination must be increased between Mexican and U.S. health-care providers and programs. A first step is to identify existing farmworker kinship networks by mapping the Mexican localities (the “sending areas”) from which farmworkers originate along with the U.S. “receiving areas.” These informal networks and their associated linked sister communities can serve as a base for program planning and implementation.

Additional research in the following areas would also assist in guiding this binational approach:

- Cross-checking and enriching existing survey research data with additional systematic and rigorously collected field observations to improve the current knowledge base of farmworker networks. This effort would provide additional detail regarding the circumstances under which health and access outcomes are occurring, and help to build a model of outreach applicable to provider training and community education.
- Conducting detailed research on insurance and health problems encountered by a cohort of workers over a one-year period—coupled with in-depth interviews among relevant personnel at health care institutions. It is crucial that the point of contact between health-care providers and farmworkers be handled carefully to avoid discouraging this population from receiving regular care or participating in preventive care programs. This research would provide insights regarding lowering barriers that currently discourage this population from enrolling in health-care programs.

With this information in hand, the following strategy would serve to improve health-care services among farmworkers.

Within the context of the binational networks and sister communities, it is essential to cross-train health-care delivery specialists from both countries. The objective would be to provide outreach workers and *promotores* in the United States and Mexico with the knowledge and tools they need to encourage farmworkers to engage in preventive care, maintain proper diet and exercise, use appropriate medication, and seek insurance. It is feasible to organize health-related outreach efforts around existing binational organizations. Of particular relevance, are hometown clubs called *clubes de hijos ausentes*, which many farmworker communities have formed. These, as well as other community organizations, can also serve as vehicles for pooling people for private

insurance. They are also possible avenues for developing support groups for farmworkers facing specific diseases, such as diabetes.

Intake staff in the United States must be trained to effectively deal with this population. The objective would be to create a highly trained cadre of effective intermediaries to facilitate greater health care access among this population. Outreach workers also need to be specifically trained to case manage families by piecing together a wide-range of resources with different eligibility criteria to minimize the fragmentation of health care within the family. And doctors should have translators available to them who know where the clients come from and are familiar with the customs of the particular communities.

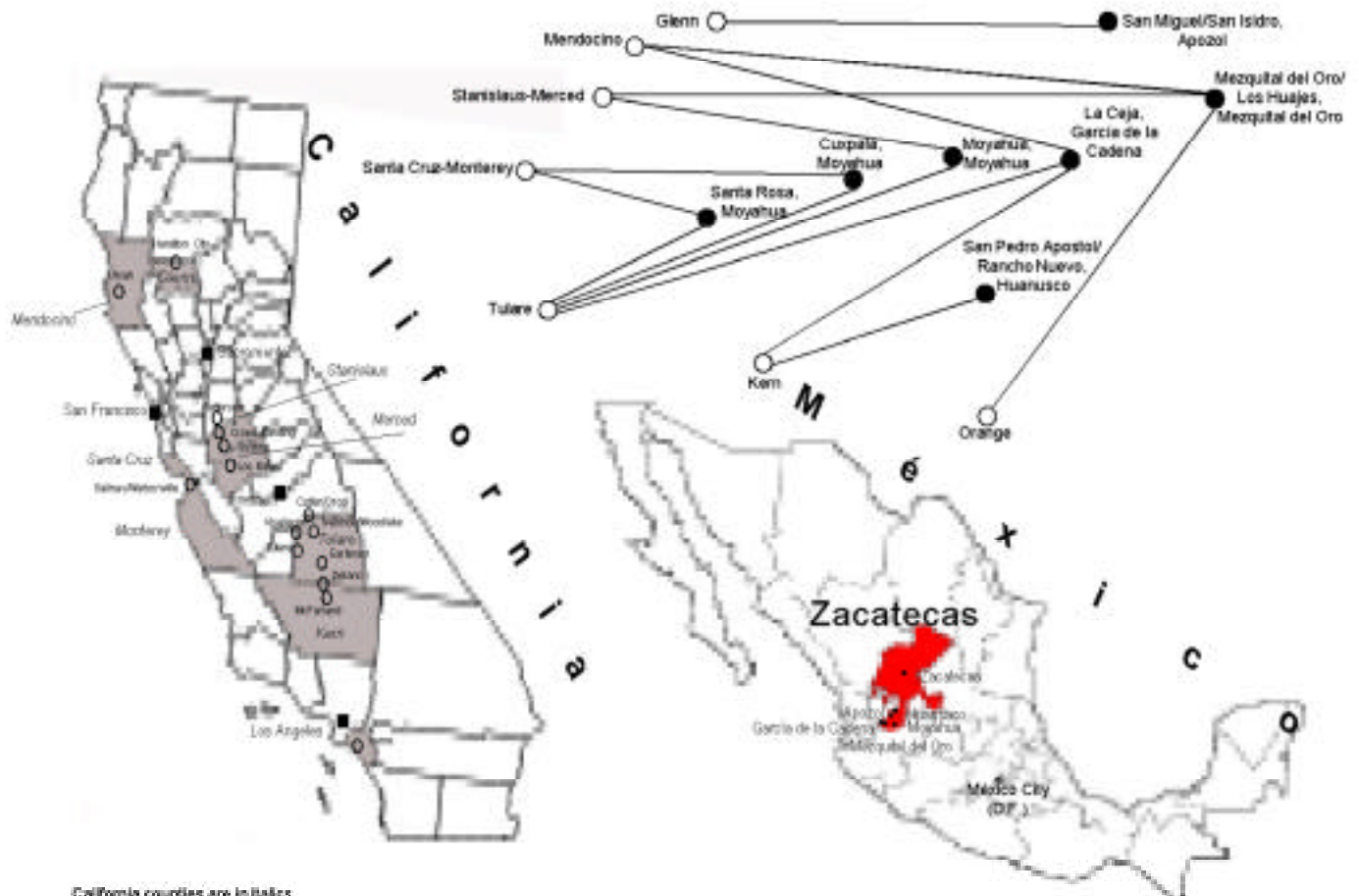
Educational efforts must also be specifically designed to help physicians and other providers in Mexico and the United States guide farmworkers in their use of medical resources, encourage preventive practices and facilitate insurance coverage. Physicians, especially those in the United States, would be aided by information about patients' attitudes, their town or origin and destinations, work lives and community history. It would assist them in adapting their communication and bedside manner to ensure more successful patient-provider interactions. Training programs for providers should also include information regarding the risks to farmworkers of uncoordinated treatment from a variety of sources, as well as their lack of medical records and patient histories. This would also facilitate a better understanding of patient expectations and common health risks.

Finally, the collaboration between health-care providers, outreach providers and educators from both countries would aid in further targeting specific diseases to which this population is particularly vulnerable. It would also help in identifying culturally suitable and economically feasible diagnostic tests that could facilitate more consistency in the diagnosis of diseases. However, most rural Mexican communities lack diagnostic laboratory equipment and the medical staff to run the equipment. In some cases, additional resources will be needed to obtain the necessary devices and training.

# Map of Zacatecas Sending Sites and California Filial Communities

Filial Community Counties

Sending Sites (Village) &amp; Municipalities



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