

## Characteristics of Clients at a Primary Care Clinic on the US/Mexico Border

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### Abstract

The goal of this study was to analyze the demographic and health characteristics of individuals seeking health care at a primary care clinic in San Elizario, Texas, a poor, largely Hispanic community located on the US/Mexico Border. The researchers also sought to obtain preliminary information about what services and assistance clients would find most helpful. A secondary goal of the study was to evaluate use of the health center by farmworkers during the local harvest season. Data were gathered from a convenience sample of 185 participants, 11 of whom were classified as farmworkers. Characteristics of the respondents and their responses to an open-ended question about health services are reported.

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The goal of this study was to analyze the demographic and health characteristics of individuals seeking health care at a primary care clinic in San Elizario, Texas, located on the US/Mexico Border. The researchers also sought to obtain preliminary information about what services and assistance clients would find most helpful. A secondary goal of the study was to evaluate use of the health center by farmworkers during the local harvest season.

San Elizario is located in the lower Rio Grande Valley of El Paso County, outside of the El Paso City limits. According to the United States Census (2000), 45% of the population in San Elizario lives below the poverty level, and 68% has less than a high school education. The population is 98% Hispanic with 55% classified as US citizens by birth and 45% foreign born. Spanish is spoken at home by 100% of the Hispanic population; 54% report that they speak English "less than very well".

A recent report from the U.S. Department of Health and Human Services (2005) revealed that health care was less accessible and of poorer quality for Hispanics as compared to non-Hispanic Whites. Hispanics were more likely to lack health insurance and to experience delays or difficulties in obtaining health care.

Although there are no data regarding the number of residents involved in farming or agricultural work in San Elizario, approximately 65% of the land in this region is devoted to agriculture (personal communication, Jaime Castillo, September 15, 2005). The principal crops include cotton, pecans, onions and alfalfa. According to the Farmworker Enumeration Profiles Study for Texas, there are 4,745 farmworkers and their family members in El Paso County (Larson, 2000).

In order to determine which participants in this study were farmworkers, the Office of Migrant Health definition was applied: A migrant farmworker is an individual "whose principal employment is in agriculture on a seasonal basis, who has been so employed within the last 24 months, and who establishes for the purpose of such employment a temporary abode" (U.S. Department of Health and Human Services, 1980). A seasonal farmworker is defined by the same criteria, but does not change residence.

According to the National Agricultural Workers Survey (NAWS) 81% of the farm labor force is foreign born and, of these, 95% are Mexican nationals (US Department of Labor, 2000). The average age of these workers is 31, and 80% are male. About 84% speak Spanish, and less than 5% of the Mexican-born farmworkers read and

speak English well. Over half (52%) lack work authorization. The median highest grade of schooling completed is sixth grade. Three-fifths of the workers and their families live below the poverty level (US Department of Labor, 2000).

## **Methods**

### **Setting**

The study was conducted at the Kellogg Health Education Center (KHEC), a primary care clinic in San Elizario, during the height of the local cotton and onion harvest between June and October, 2003. This time frame was chosen to maximize the possibility of encountering farmworkers seeking services at the health center.

At the time of the study, the KHEC was jointly administered by two local universities, the University of Texas at El Paso and the Texas Tech University School of Medicine. The clinic was staffed by several family practice physicians and a family nurse practitioner. Approximately 400 patients were seen by health care providers each month. All persons presenting to the health center were eligible for services, regardless of insurance status or income. Patients were responsible for purchasing their medications, although some qualified for reduced-cost drugs at the local county hospital pharmacy.

### **Research Protocol**

The study protocol was approved by the Institutional Review Board at the University of Texas at El Paso. All individuals ages 18 years or older presenting to the health center during the study period were eligible for participation in this study.

When individuals arrived at the health center, they were approached in the waiting room area by the bilingual community health worker (*promotora*) who was employed by the center on a full-time basis and asked if they wished to participate in a survey. Potential participants were assured that, if they declined to participate in the study, their ability to receive future health care services at this health center would not be affected. The promotora estimated that less than five percent of persons she approached declined to take part in the study.

The promotora was trained to conduct the interviews and follow the research protocols by the Principal Investigator (see the Acknowledgements). All interviews were conducted in a private room by the same promotora. The promotora first read the informed consent form to each potential participant in his/her choice of English or Spanish and provided each with a complete description of the study and its purpose. The statement of informed consent was read aloud to participants because many had completed minimal formal education. Each was given the opportunity to ask questions before giving verbal consent or declining to participate. Those who agreed to participate were given a copy of the consent form. Upon completion of the survey, participants were given a gift certificate worth \$5 at several local supermarkets and restaurants.

The promotora measured the height and weight for each participant prior to their seeing the health care provider, and she recorded this information in the patient's medical record and on the study interview form. After the promotora completed the interview, the family nurse practitioner (FNP) at the health center reviewed each interview form to look for symptoms (e.g., coughing up blood, recent exposure to tuberculosis) that might indicate serious health problems. As appropriate, the FNP either examined the person immediately or scheduled them for a future visit to evaluate these symptoms.

### **Instruments and Translation**

The interview instrument was developed for this study and consisted of three sections: (1) demographic information, (2) work experience, and (3) medical information and symptoms. There was one open-ended question designed to elicit suggestions about what the health center might do to help participants or their families.

The statement of informed consent and the interview instrument were written in English and translated into Spanish by a qualified translator familiar with the style of Spanish typical of El Paso County. The Spanish version was then back-translated into English by a second

qualified translator, and the results compared with the original English version. In order to ensure clarity in both versions, modifications were made to the instruments with the assistance of the translators following procedures for establishing equivalency of dual language instruments (Brislin, Lonner, & Thorndike, 1973; Lange, 2002; Marín & Marín, 1991).

**Data Analysis**

Descriptive statistics were used to summarize the demographic characteristics and health status of the sample, and the chi square test was applied to analyze differences between farmworkers and non-farmworkers on the study variables. The responses to the open-ended question about needed health services were classified by topic and summarized.

**Results**

**Demographic Characteristics**

Data were gathered from a convenience sample of 185 participants, including 122 males (66%) and 63 females (34%). When asked to identify their cultural group, 181 participants responded

that they were Mexican or Hispanic (97.8%), 3 were non-Hispanic white (1.6%), and one was American Indian (0.5%). Of the total sample, 99 participants were born in Mexico (53.5%) and 46 were born in the US (23.7%); forty individuals declined to provide information on place of birth. Ninety-four participants (50.8%) reported that they could speak English, and, of these, 46 (48.9%) rated their English ability as “excellent” or “good.”

Table 1 contains information about demographic characteristics of the sample, including age, number of children, and years of education completed. The majority of participants (70%) were either married or living as married.

The distribution of participants’ self-reported income for the previous year is presented in Table 2. The sample was overwhelming poor with 152 (83%) reporting their annual household income was less than \$20,000 and 69 (38%) participants reporting an income less than \$10,000.

Table 1  
Selected Demographic Characteristics (n = 183)

Category	Range	Mean	S. D.
Age	18 – 79	41.2	13.8
Number of children	0 – 19	3.2	2.7
Years of education	0 – 16	8.9	3.7

Table 2  
Distribution of Household Income for Previous Year (n = 183)

Income	Frequency	Percent
< \$10,000	69	37.7
\$10,000 - \$14,999	48	26.2
\$15,000 - \$19,999	35	19.1
\$20,000 - \$24,999	15	8.2
\$25,000 - \$33,999	12	6.6
\$35,000 - \$49,999	3	1.6
> \$50,000	1	0.5

Only 11 participants (6%) met the criteria to be classified as farmworkers. During the past year, these individuals had worked on dairy farms, in the fields harvesting onions, cotton, lettuce and pecans, and in food processing. The number of years engaged in farm labor ranged from 1 – 17 for these 11 individuals.

**Health Status and Symptoms**

When asked to rate their overall health status, 108 participants (58.7%) rated their health as good, very good or excellent. Participants were asked if they or any one in their family had been diagnosed with type 2 diabetes. Eighty-three

respondents (44.9%) answered in the affirmative, while 99 (53.5%) denied that diabetes affected themselves or their family members. Three persons declined to respond to this question. Twenty-six respondents (14%) reported that they personally had been diagnosed with diabetes.

A summary of potentially serious symptoms reported by respondents is included in Table 3. All participants presenting with symptoms were examined by the nurse practitioner. Information about the evaluation and outcomes related to these symptoms was not tracked for this study.

Table 3  
Potentially Serious Symptoms Reported (n = 185)

Symptoms	Frequency	Percent
Fatigue	66	35.7
Difficulty breathing	28	15.1
Chest pain	27	14.6
Weight loss	23	12.4
Wheezing	20	10.8
Visit to ER for difficulty breathing	19	10.3

When asked where they purchased medications, 108 participants reported buying medicines exclusively in the US (58.4%), nine exclusively in Mexico (4.9%), and 68 in both the US and Mexico (36.7%). The same question was asked about where herbal remedies were purchased. Eighty-three respondents did not use herbs, while, of the remaining 102 participants, 55 purchased herbs in the US (53.9%), 24 in Mexico (23.6%), and 23 in both countries (22.5%).

Questions were included in the survey about the use of tobacco and alcohol. There were 26 (14%) smokers in the sample, and the majority (88%) smoked less than 1/2 pack per day of cigarettes. Participants were asked three questions from the CAGE questionnaire designed primarily to screen for alcohol abuse in the clinical setting (Ewing, 1984), and one

question to quantify number of alcoholic drinks per day. Of 185 participants, 29 (15.7%) reported they drank alcohol in any amount. Of these, 15 (51.7%) believed they should cut down on drinking, four (13.8%) reported receiving complaints about their drinking, nine (31%) felt guilty about drinking, and 10 (34.5%) had five or more drinks on some days.

The distribution of participants' BMI according to category is presented in Table 4. The mean BMI (29.8) for the sample was in the obese category, and 78% of participants were classified as overweight or obese.

We had planned to apply the Chi-square test to determine if there were differences on any of the study variables for farmworkers versus non-farmworkers. The fact that there were only 11 farmworkers in a sample of 185 suggested that a

cross-tabulation would result in a high number of cells containing less than the minimum requirement of 5. In fact, this was true, and the number of cells with an expected count less than

five greatly exceeded the requirements of the Chi-square test, and as such, the test was not applied.

Table 4  
Distribution of BMI for participants (n = 185)

BMI (kg/m <sup>2</sup> )	Frequency	Percent
Underweight (<18.5)	3	1.6
Normal (18.5 – 24.9)	38	20.5
Overweight (25.0 – 29.9)	69	37.3
Obese (>30.0)	75	40.6

Mean = 29.8; Standard Deviation = 6

Source for BMI categories: [National Heart, Lung and Blood Institute](#).

### Qualitative Data

A single open-ended question was posed to participants: “What could we do to help you and your family be healthier?” Responses to this question were grouped by category and the most frequently mentioned items are displayed in Table 5.

Lower costs for health care, and assistance with purchasing medications were mentioned by more participants than any other need. Participants also requested shorter waiting times at the clinic as well as shorter waits to obtain an appointment. To this end, several respondents

suggested hiring additional doctors and clinic staff. Two respondents requested that “non-US citizens” not be provided care at the clinic so that citizens would receive faster service. Although the health center is not directly responsible for environmental issues in the community, respondents requested that the clinic “increase spraying for mosquitoes”, “stop spraying pesticides so close to our houses”, “build more parks”, and “reduce air pollution in our community”. Five respondents requested assistance with their homes, including help putting on a new roof.

Table 5  
Responses to open-ended question (n = 185)

Response Category	Frequency	Percent
Reduce charges for care at clinic	33	17.8
Provide help with buying medications	30	16.2
Provide exercise classes	20	10.8
Provide nutrition classes	19	10.2
Shorter waiting times at clinic	17	9.1

### Discussion

The respondents in this convenience sample of 185 participants were largely poor, Hispanic, and Spanish-speaking. About one half of the

sample rated their English ability as “good” or better. These characteristics mirror closely the 2000 US census data for San Elizario.

Although half of the sample classified their health as “good” or better, a rather large percentage of participants reported potentially serious symptoms during the preceding year, with nearly 36% reporting symptoms of fatigue, and smaller numbers mentioning respiratory and cardiac symptoms, including some serious enough to warrant visits to the emergency room. It is not known whether some of the emergency visits could have been avoided by seeking regular health care at the health center. The self-reported prevalence of type 2 diabetes was 14% for individuals in the study. This is consistent with the national prevalence of 10.6% in Mexican American adults (American Diabetes Association, 2005). Nearly 45% of the participants either had diabetes or had a family member with diabetes.

Respondents reported purchasing medications and herbal remedies in both the US and Mexico which is consistent with other studies conducted on the US/Mexico border (Poss, Pierce, & Prieto, 2005; Rivera, Ortiz, Lawson, & Verma, 2002). Although the number of respondents who drank alcohol was relatively small (15.7%), a significant percentage of these reported drinking behaviors potentially indicative of alcoholism including wanting to cut down, receiving complaints, feeling guilty, and drinking 5 or more drinks on some days.

Nearly 78% of the participants in this study were classified as overweight or obese based on height and weight measured at the health center, and the mean BMI for the sample was 29.8. According to the National Center for Health Statistics, the prevalence of overweight and obesity among Hispanics for the period 1999-2000 was 73% (Hedley, Ogden, Johnson, Carroll, Curtin, & Flegal, 2004). A recent study of farmworkers employed in the El Paso area revealed similar BMI distribution with 71% of participants classified as overweight or obese and a mean BMI of 28 for the sample (Poss & Pierce, 2003).

The responses to the open-ended question about what the health center might do to improve the health of participants are commensurate with the overall income and

educational levels of the population. Because of the large proportion of participants with annual household incomes less than \$20,000, it is understandable that many requested assistance with purchasing medications and paying for health care. According to the 2000 census, 33% of persons living in El Paso County lack health insurance. Costs for health care are out of reach for the poor, especially those who do not qualify for federal entitlements, such as Medicaid or Medicare, or who lack health insurance.

Only 11 participants were classified as farmworkers based on their history of working in agriculture during the preceding year. Because there is a large amount of agricultural land in San Elizario, it is notable that so few farmworkers presented at the health center during the period of this study.

There are several possible explanations for this low utilization rate. Most farmworkers lack health insurance, and health care in the US is often financially inaccessible to them. Many farmworkers seek less costly health care services in Mexico (Poss & Pierce, 2003). In addition, at the time of the study, the health center in San Elizario was open Monday through Friday from 9 am to 5 pm. Most farmworkers are in the fields during these hours, and they are unwilling to lose wages by missing work in order to seek health care services (Poss & Pierce, 2003). Other studies have shown, however, that when health care is delivered to farmworkers via a mobile health clinic, they will avail themselves of these services (Poss, 2000; Poss & Rangel, 1997).

### **Conclusions**

The participants for this study were not randomly selected; therefore, they may not be characteristic of the population living in El Paso County or along the US/Mexico border. Nevertheless, several findings may be helpful to health care providers delivering health care services for similar populations.

The participants in the study were mostly poor Hispanics with a mean education level of about 9th grade. Assessing educational level is especially important in planning how health-related educational materials are presented to

patients. Persons with a 9th grade education cannot read or understand the majority of educational materials that are written for high school graduates. In order to meet the needs of patients with low educational levels, most standard patient education materials need to be adapted. For those individuals who do not speak English well, materials also should be translated into Spanish written at a reading level that they can comprehend. It is also important for health care providers to assess the style of Spanish used in the region where they work. The Spanish used in the Northeastern US where many residents are Puerto Rican is not the same as Spanish used in Florida or in the Southwest.

Based on both the results of this study and on national surveys, health care providers should expect to find high levels of overweight and obesity as well as type 2 diabetes in Hispanic populations. There is a need for culturally relevant exercise, nutrition and diabetes

education classes to help individuals learn better ways of caring for themselves and their families. The rise in prevalence of chronic diseases affecting the Hispanic population, especially type 2 diabetes, is the direct result of the epidemic of obesity affecting this and other groups in the US.

Finally, health care providers who work in similar health centers should assess if their clinics are providing services to all residents of the communities where they are located. Although it was likely that there was a sizable farmworker population in the area at the time of this study, few farmworkers accessed the health center. Consideration should be given to making services more available by expanding the hours of operation to include evenings and weekends, providing low cost or free services, and making health care services more widely available to workers by using mobile health care clinics.

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