



## Memorandum

Date: March 23, 2001

From: Roy M. Fleming, Sc.D., Director, Research Grants Program   
Office of Extramural Programs, NIOSH, D30

Subject: Final Report Submitted for Entry into NTIS for Grant 5 R01 OH003444-02.

To: William D. Bennett  
Data Systems Team, Information Resources Branch, EID, NIOSH, P03/C18

The attached final report has been received from the principal investigator on the subject NIOSH grant. If this document is forwarded to the National Technical Information Service, please let us know when a document number is known so that we can inform anyone who inquires about this final report.

Any publications that are included with this report are highlighted on the list below.

### Attachment

cc: Sherri Diana, EID, P03/C13

### List of Publications

McCurdy SA, Carroll DJ: Agricultural Injury. American Journal of Industrial Medicine, accepted

von Essen SG, McCurdy SA: Health and Safety Risks Associated with Work in Production Agriculture. Western J Med 169:214-220, 1998

## NIOSH Extramural Award Final Report Summary

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**Title:** Occupational Injury in Migrant Hispanic Farmworker Families  
**Investigator:** Stephen A. McCurdy, M.D.  
**Affiliation:** University of California  
**City & State:** Davis, CA  
**Telephone:** (916) 752-8051  
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### Abstract:

The agriculture industry is among the most hazardous industries in the United States. California hosts approximately 700,000 hired farm workers, who perform the majority of field production labor. In spite of the large size of this population and its economic importance for California, few data are available addressing its injury risk. We conducted a prospective cohort study of injury across the 1997 harvest season among migrant Hispanic farm workers living in six Northern California migrant family housing centers. Participants completed an initial interviewer-administered work-and-health questionnaire with periodic followup through the season. One thousand two hundred and six adult farm workers completed the initial survey. Participation rate was 85.2% among adults, and ranged from 81.1% to 93.4% in participating migrant housing centers. Eight hundred thirty-nine persons (69.6%) completed the fourth and final periodic questionnaire. There were 96 occupational (86 agricultural and 10 nonagricultural) and 44 nonoccupational injuries observed over the harvest season or reported for the preceding year, yielding a one-year reported occupational injury rate of 10.4/100 FTE. Increased risk was noted for men (11.0 vs. 9.2/100 FTE for women) and current smokers (14.1 vs. 9.0/100 FTE for never-smokers). Increased risk was also noted for persons paid piece-rate, although this finding was not statistically significant. No increased risk was seen associated with increased acetylcholinesterase suppression across the harvest season. Sprains and strains were predominant, comprising 29 (30%) occupational injuries, followed by lacerations, comprising 14 (15%) occupational injuries. The most commonly involved body parts were the head (28%) and trunk (26%). Overexertion and strenuous movements were the most common external cause, comprising 26 (27%) occupational injuries. The study also included 941 children (persons younger than 18 years of age), interviewed by proxy through their parents. There were 51 injuries among 49 children; two of the injuries were occupational. Quantitative injury risk for adults in this cohort appears comparable to that of agricultural workers in other U.S. settings. Further research should be undertaken to characterize the natural history of farm work and injury in this population, including the potential role of payment scheme in affecting injury risk. The heterogeneity of injury in this population presents a major challenge, because no specific injury type represents a majority. Thus, any given intervention may address only a minority of injuries. However, in view of the high frequency of strain and sprain injuries, ergonomic interventions deserve further study.

**Publications**

McCurdy SA, Carroll DJ: Agricultural Injury. American Journal of Industrial Medicine, accepted

von Essen SG, McCurdy SA: Health and Safety Risks Associated with Work in Production Agriculture. Western J Med 169:214-220, 1998

**Title:**

# Occupational Injury In Hispanic Farm-Worker Families

**Authors:**

Stephen A. McCurdy, M.D., M.P.H.<sup>1</sup>  
Steven J. Samuels, Ph.D.<sup>1</sup>  
Daniel J. Carroll, B.S.<sup>1,2</sup>  
James J. Beaumont, Ph.D.<sup>1,3</sup>  
Barry Wilson, Ph.D.<sup>4</sup>  
Lynne A. Morrin, B.S.<sup>1</sup>  
Jack Henderson, B.S.<sup>4</sup>

- 1 Department of Epidemiology and Preventive Medicine  
University of California, Davis  
One Shields Ave. Davis, CA 95616-8638
- 2 Department of Human and Community Development  
University of California, Davis  
Current Affiliation:  
U.S. Department of Labor  
Office of the Assistant Secretary for Policy, Rm. S-2312  
200 Constitution Ave., N.W. Washington, D.C. 20210
3. Current Affiliation:  
Beaumont Epidemiology  
222 D Street, Suite 6A  
Davis CA 95616
4. Department of Environmental Toxicology  
University of California, Davis  
One Shields Ave. Davis, CA 95616

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# Study Investigators and Staff

## Principal investigator

Stephen A. McCurdy, MD MPH  
Department of Epidemiology and Preventive Medicine  
University of California, Davis  
One Shields Ave.                      Davis, CA 95616-8638

## CoInvestigators

Jay Beaumont, PhD  
Department of Epidemiology and Preventive Medicine  
University of California, Davis  
One Shields Ave.                      Davis, CA 95616-8638

Steven J. Samuels, PhD  
Department of Epidemiology and Preventive Medicine  
University of California, Davis  
One Shields Ave.                      Davis, CA 95616-8638

Barry Wilson, PhD  
Department of Environmental Toxicology  
University of California, Davis  
One Shields Ave.                      Davis, CA 95616

## **Project Coordinators**

Lynne A. Morrin, BS  
Department of Epidemiology and Preventive Medicine  
University of California, Davis  
One Shields Ave.                      Davis, CA 95616-8638

Daniel J. Carroll, BS  
Department of Epidemiology and Preventive Medicine  
University of California, Davis  
One Shields Ave.                      Davis, CA 95616-8638

## **Project Staff**

Teresa Ramirez (Lead interviewer)

Patricio Ayala (Lead interviewer)

Nancy Aguirre (Interviewer)

Adriana Arreola (Interviewer)

Alicia Carrazco (Interviewer)

Patricia Castrejon (Interviewer)

Maria de la O Salas (Interviewer)

Beverley Landeros (Interviewer)

Cecilia Montanez (Interviewer)

Teresa Peña (Interviewer)

Guadalupe Rodriguez (Interviewer)

Norma Rodriguez (Interviewer)

Jairo Romero (Interviewer)

Esteban Magaña (Student assistant)

Luis Galvez (Student assistant)

Jed Katzel (Student assistant)

Chiek Er, PhD (Analytic assistance)

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Appendix B: Adult health-and-work questionnaire (Initial)

Appendix C: Children’s health-and-work questionnaire (Initial)

Appendix D: Injury module questionnaire

Appendix E: Interviewer training manual

## ABSTRACT

The agriculture industry is among the most hazardous industries in the U.S. California hosts approximately 700,000 hired farm workers, who perform the majority of field production labor. In spite of the large size of this population and its economic importance for California, few data are available addressing its injury risk. We conducted a prospective cohort study of injury across the 1997 harvest season among migrant Hispanic farm workers living in six Northern California migrant family housing centers. Participants completed an initial interviewer-administered work-and-health questionnaire with periodic followup through the season. One thousand two hundred and six adult farm workers completed the initial survey. Participation rate was 85.2% among adults, and ranged from 81.1% to 93.4% in participating migrant housing centers. Eight hundred thirty-nine persons (69.6%) completed the fourth and final periodic questionnaire. There were 96 occupational (86 agricultural and 10 nonagricultural) and 44 nonoccupational injuries observed over the harvest season or reported for the preceding year, yielding a one-year reported occupational injury rate of 10.4/100 FTE. Increased risk was noted for men (11.0 vs. 9.2/100 FTE for women) and current smokers (14.1 vs. 9.0/100 FTE for never-smokers). Increased risk was also noted for persons paid piece-rate, although this finding was not statistically significant. No increased risk was seen associated with increased acetylcholinesterase suppression across the harvest season. Sprains and strains were predominant, comprising 29 (30%) occupational injuries, followed by lacerations, comprising 14 (15%) occupational injuries. The most commonly involved body parts were the head (28%) and trunk (26%). Overexertion and strenuous movements were the most common external cause, comprising 26 (27%) occupational injuries. The study also included 941 children (persons younger than 18 years of age), interviewed by proxy through their parents. There were 51 injuries among 49 children; two of the injuries were occupational. Quantitative injury risk for adults in this cohort appears comparable to that of agricultural workers in other U.S. settings. Further research should be undertaken to characterize the natural history of farm work and injury in this population, including the potential role of payment scheme in affecting injury risk. The heterogeneity of injury in this population presents a major challenge, because no specific injury type represents a majority. Thus, any given intervention may address only a minority of injuries. However, in view of the high frequency of strain and sprain injuries, ergonomic interventions deserve further study.

## **SPECIFIC AIMS:**

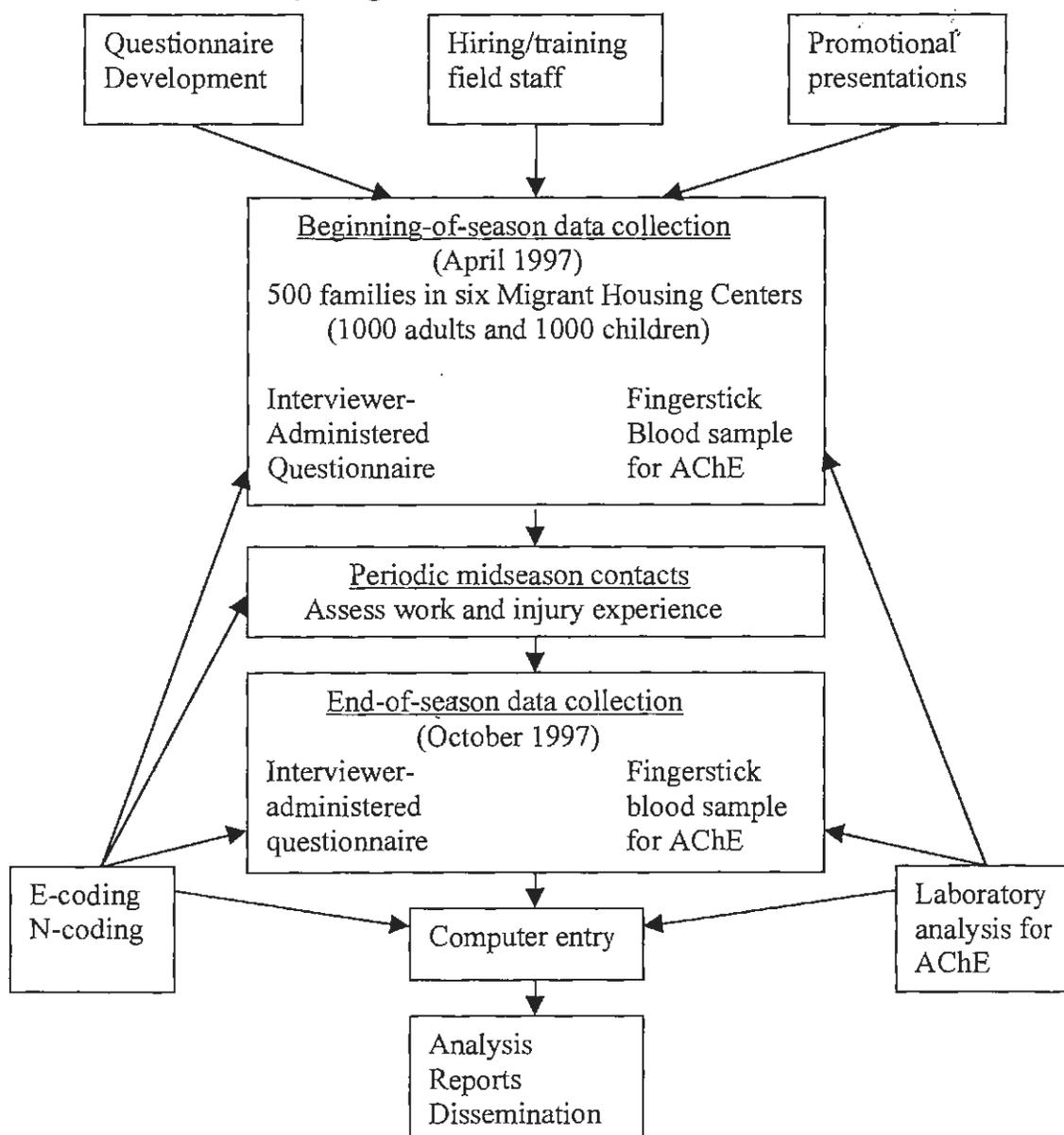
The goal of this proposal was to conduct a prospective cohort study of occupational injury through a harvest season among a population of California farm worker families, who are primarily of Hispanic ethnicity. The specific aims for achieving these goals were:

1. From the population of migrant agricultural worker housing residents, select a sample of approximately 500 families, yielding approximately 1000 adults and 1000 children.
2. At the beginning of the harvest season ( $t_0$ ), administer a baseline questionnaire to participating farm workers addressing demographic characteristics and potential risk factors for injury and measure erythrocyte acetylcholinesterase activity as an index of exposure to organophosphate pesticides.
3. Follow the cohort on a monthly basis through the harvest season to assess work and injury experience. At the end of the harvest season ( $t_0 + 4-5$  mo.), measure erythrocyte acetylcholinesterase activity.
4. Descriptive epidemiologic goals: Characterize injury experience of the group with respect to demographic characteristics, location, temporal characteristics, job factors, and natural history.
5. Analytic epidemiologic goals: Test the following hypotheses--
  1. Persons with evidence of organophosphate pesticide exposure as measured by erythrocyte acetylcholinesterase levels are at higher risk for injuries than are unexposed persons.
  2. Piece-work is a risk factor for injury, compared with hourly pay.
  3. Language-appropriate safety training is associated with decreased injury risk.
  4. Alcohol use is associated with injury risk.
  5. Persons with a previous injury are at greater risk for subsequent injuries.
  6. Persons with more than one employer during the season are at increased risk for injury.

## MATERIALS AND METHODS:

**Overview of study design:** This work represents a prospective cohort study of approximately 500 families comprising 1000 adults and a like number of children residing in migrant agricultural worker housing centers (Figure 1). Baseline variables were assessed at beginning of season, and participants were contacted periodically through the season and at 5 months (end of season) to assess injury experience. In total, four interviews were conducted: the initial and three followup surveys. The study was approved by the University of California, Davis Human Subjects Review Committee.

**Figure 1: Schematic of study design**



**The Migrant Housing Center (MHC) population:** The State of California administers 27 MHCs, many of which have been in existence for over 25 years (Appendix A). The system serves over 10,400 persons. MHCs open in mid-Spring and remain open until Fall harvest season ends. While MHCs vary in number of residents and size, most have 80-100 units housing 200-700 persons. The ethnic backgrounds of the residents tend to be fairly homogenous and are predominantly Hispanic. Residents live in family groups, typically with two adults working in agriculture. There is frequently another adult family member (e.g., grandparent, uncle) and two to three children. Approximately 45% migrate from as far away as central Mexico, and a third from the northern Mexican states. Approximately one-quarter have their home base near Yuma, Arizona or in the California-Mexico border area. While MHC housing units are small, each has a stove, refrigerator, indoor plumbing, and hot water. Day care is generally available for children six and younger. The Centers have regular meetings of the residents, providing a forum to provide information and study promotion.

Residency in the MHCs is restricted to migrant families (i.e., those who normally reside more than 50 miles from the fields in which they are employed). Resident families must have agricultural employment during the season and demonstrate that they obtain at least 50% of their income from agricultural work. The majority of residents stay in the Centers throughout the full six-month season.

**Sample selection:** The principal investigator contacted administrators at six MHCs: Madison, F.H. Rehrman, Harney Lane, Artesi II, Artesi III, and Williams (Appendix A). The PI and staff members spoke at the initial Centerwide residents' town meeting to introduce the study and request permission to proceed. All of the Centers agreed to allow the study to go forward.

As an incentive and to serve as a token of our appreciation for participating, subjects were paid \$30 for participation. Subjects received \$5 for each interview (total four interviews, or \$20) and \$5 for each of two fingerstick blood samples (total \$10). Payment was made in script usable at local grocery stores.

**Questionnaire Development:** The questionnaire drew on previously validated questions (e.g., for tobacco consumption, alcohol use, etc.) from standardized questionnaires (e.g., NHIS, NHANES, American Thoracic Society) and focus group sessions. Adults (over 17 years of age) completed an individual questionnaire (Appendix B). A children's module was completed by interviewing the parent as proxy for the child (Appendix C).

The questionnaire included demographic characteristics, health habits (e.g., smoking and alcohol), and occupational exposures. The initial baseline questionnaire included a detailed occupational history for the preceding twelve months, including job types, industry, duration of employment, and exposures to potentially harmful agents.

**Study outcome: qualifying injury:** The primary outcome of interest was unintentional occupational injury. Qualifying events were such injuries (including transportation-related events to and from work) associated with (a) loss of at least one-half day work or usual activities, or (b) use of professional medical care, or (c) loss of consciousness. A separate questionnaire module was developed for qualifying injuries (Appendix D)

Injuries were coded by an experienced nosologist with respect to nature, body part involved, type, and source, based on the American National Standards Institute (ANSI) codes used by the Workers' Compensation system, and N-codes and E-codes [World Health Organization, 1977]. A subsample of reports were submitted for recoding to assess reliability, in accordance with previous occupational injury studies by the principal investigator [McCurdy et al., 1989].

**Training of survey workers:** Bilingual survey workers were recruited from the local community. Survey workers completed a five-day training session to learn techniques for enumerating households, contacting candidates, and administering the questionnaire (Appendix E). Interviewers were paid an hourly rate.

**Contact with study candidates:** The interview team made arrangements with the Center administration to visit at agreed-upon times. Scheduled visit times were advertised to the residents through the Migrant Housing Center mail system and announcements at the regular Centerwide residents' town hall meetings. Interviewers visited each dwelling and asked to speak to an adult resident. The interviewer introduced him/herself and indicated that the visit is to obtain information for the study. The informant of choice for children's data was the mother, in accordance with recommendations of other researchers [Gerberich et al., 1993; Gerberich et al., 1991]. After reviewing the informed consent documents and addressing any questions the resident had, the interviewer proceeded with the interview, beginning with an enumeration of household members. Where subjects were not home, at least five attempts at different times and on different days were made to contact. The initial questionnaire took approximately 30-40 minutes to complete.

**Subject eligibility criteria:** All members of the migrant farm-worker family living together in the MHC were eligible. Persons unable to provide informed consent in Spanish or English were excluded.

**Erythrocyte acetylcholinesterase measurements:** We measured erythrocyte acetylcholinesterase as an index of exposure to organophosphate pesticides (OPs). The beginning-of-season measurement served as a baseline, and the end-of-season value was expressed as a percent of baseline in evaluating the degree of erythrocyte acetylcholinesterase suppression [Wilson, et al., 1998].

**Data handling and analytic approach:** Analyses were conducted on Macintosh computers using the Stata 5.0 software package (College Station, TX). Each of the study variables were first summarized in a one-way analysis. Continuous variables were summarized using mean and standard deviation or median and percentile scores for nonnormally distributed variables. Categorical variables were summarized using percent within each category.

Next, a two-way analysis characterized the population with respect to injury status versus sociodemographic characteristics, work history, and health habits. This was extended to a three-way analysis stratifying on important sociodemographic work history, and health habits (e.g., injury experience vs. prior injury history for each gender, for each level of smoking status, etc.). Age, gender, and smoking status were considered a priori confounders. On the basis of these results, we identified a set of variables for multivariate modeling utilizing Poisson regression models.

## SIGNIFICANT FINDINGS

### A. Adult

**Study sample and demographic characteristics:** There were 1206 adult participants, yielding a participation rate of 85.2%. Participation rates varied from 81.1% to 93.4% for the six Migrant Housing Centers (Table 1).

Center	Participation rate [n/n (%)]			
	Female Adults	Male Adults	Adult Total	Children
Madison	110/115 (95.7)	102/112 (83.6)	212/227 (93.4)	132/138 (95.7)
Williams	85/103 (82.5)	101/126 (80.2)	186/229 (81.2)	109/131 (83.2)
Artesi III	104/117 (88.9)	99/125 (79.2)	203/242 (83.9)	157/175 (89.7)
Artesi II	110/120 (91.7)	95/125 (76.0)	205/245 (83.7)	188/217 (86.6)
Dixon	96/104 (92.3)	89/103 (86.4)	185/207 (89.4)	139/144 (96.5)
Harney Lane	109/123 (88.6)	106/142 (74.6)	215/265 (81.1)	220/245 (89.8)
<b>TOTAL</b>	<b>614/682 (90.0)</b>	<b>592/733 (80.8)</b>	<b>1206/1415 (85.2)</b>	<b>945/1050 (90.0)</b>

Of the initial participants, 839 (69.6%) completed all four interviews (Table 2).

Characteristic	
<b>Participants [n (%)]</b>	
Initial questionnaire (#1)	1206 (100)
Followup questionnaire (#2)	1087 (90.1)
Followup questionnaire (#3)	878 (72.8)
Final questionnaire (#4)	839 (69.6)
<b>Center [n (%)]</b>	
Madison	212 (17.6)
Artesi II	205 (17.0)
Artesi III	203 (16.8)
Harney Lane	215 (17.8)
Dixon	185 (15.3)
Williams	186 (15.4)
<b>Gender [n (%)]</b>	
Male	592 (49.1)
Female	614 (50.9)

<b>TABLE 2</b>	
<b>SELECTED DEMOGRAPHIC CHARACTERISTICS AND PARTICIPATION OF 1206 ADULT MIGRANT HISPANIC FARM WORKERS</b>	
<b>Characteristic</b>	
<b>Place of Birth [n (%)]</b>	
Mexico	1086 (90.3)
U.S.A.	117 (9.7)
<b>Age [years]</b>	
Mean $\pm$ S.D.	Men: 38.1 $\pm$ 13.8 Women: 36.3 $\pm$ 12.8
Median	Men: 36.1 Women: 34.8
<b>Education [years]</b>	
Mean $\pm$ S.D.	6.4 $\pm$ 3.6
Median	6
<b>Household income earned in US, 1996 [n (%)]</b>	
\$0 – \$3,000	79 (6.6)
\$3,001 - \$6,000	103 (8.7)
\$6,001 - \$9,000	221 (18.6)
\$9,001 - \$12,000	227 (19.1)
\$12,001 - \$15,000	252 (21.2)
\$15,001 - \$20,000	225 (18.9)
>\$20,000	82 (6.9)
<b>Time in U.S., 1996 [months]</b>	
Mean $\pm$ S.D.	8.4 $\pm$ 3.2
Median	8
<b>Age first worked in agriculture [years]</b>	
Mean $\pm$ S.D.	Men: 15.7 $\pm$ 6.0 Women: 20.8 $\pm$ 9.1
Median	Men: 15 Women: 18

Median age for participants was in the mid-30s, and approximately half were women. Median household annual income was in the \$12,001 to \$15,000 category. All but one participant considered themselves Latino or Hispanic, and over 90% were born in Mexico. Spanish was the language used at home for 98.6% of respondents. Of respondents, 3.9% reported they spoke English well. The mean number of months in the U.S. in 1996 was 8.4  $\pm$  3.2. Respondents reported coming to the Migrant Housing Center for a mean of 7.2  $\pm$  6.5 years

**Health status and habits:** Three-quarters of respondents were never smokers, 13% were former smokers, and 12% were current smokers (Table 3). Of respondents ever smoking, the mean age for initiation was  $18.5 \pm 10.3$  years. Of current smokers, the median cigarette consumption was 5 cigarettes per day. The majority (79.7%) of current smokers did not smoke at work.

Over half of respondents reported past use of alcoholic beverages. Of these, 57% drank on less than one day per week; 16.5% drank on five or more days per week. When drinking, the median number of drinks was two. Nearly one-quarter (22.9%) of respondents reported drinking five or more drinks when drinking.

**TABLE 3  
BEHAVIORAL RISK FACTORS  
AMONG 1206 ADULT MIGRANT HISPANIC FARM WORKERS**

<b>Behavioral risk factor</b>	
<b>Cigarette smoking [n (%)]</b>	
Never smoker	907 (75.2)
Former smoker	151 (12.5)
Current smoker	148 (12.3)
Mean age at initiation	18.5 ± 10.3 years
Median daily cigarette consumption	5 cpd
<b>Alcohol consumption [n (%)]</b>	
Ever drink alcohol	669 (55.5)
<1 day per week	381 (57.0)
1-2 days per week	127 (19.0)
3-4 days per week	50 (7.5)
≥5 days per week	110 (16.4)
<b>Ever ride in back of uncovered pickup truck [n (%)]</b>	142 (11.8)
	Median 3 times in previous year
<b>Seat belt use [n (%)]</b>	
Always	1076 (89.3)
Nearly always	88 (7.3)
Sometimes	24 (2.0)
Seldom	11(0.9)
Never	5 (0.4)
<b>Use of supporting back belt when lifting or carrying heavy objects [n (%)]</b>	
Always	169(14.1)
Nearly always	57 (4.8)
Sometimes	155 (13.0)
Seldom	80 (6.7)
Never	655 (54.8)
<b>Most recent general medical examination [n (%)]</b>	
Past 12 months	511 (42.4)

<b>TABLE 3</b> <b>BEHAVIORAL RISK FACTORS</b> <b>AMONG 1206 ADULT MIGRANT HISPANIC FARM WORKERS</b>	
<b>Behavioral risk factor</b>	
1-2 years	233 (19.3)
2-5 years	150 (12.4)
More than 5 years	145 (12.0)
Never	154 (12.8)
<b>Health Insurance [n (%)]</b>	260 (21.6)

**Work characteristics:** Nearly three-quarters (74%) of the population reported paid work in the preceding 12 months. Men reported beginning agricultural work earlier than women (median age 15 vs. 18 years). Of those not working in the preceding year, 52.6% maintained a house and/or cared for children, 3.1% considered themselves too old for work, 3.1% did not have authorization to work in the U.S., and 21.7% reported a physical impairment preventing them from working.

Subjects reported a mean of 2.3 employers for the two-season period of the study, with a minimum of one and a maximum of six. Nearly half (44.7%) of jobs were through a farm-labor contractor, 22.5% were direct hire by the owner of the ranch or farm, and 31.8% were through a company. Work at 83.3% of jobs was conducted in Spanish. The most common commodities reported (Table 4) were tomato (40.4% of jobs), cherry (10.2% of jobs), and wine grapes (9.1% of jobs). Approximately two-thirds of subjects commuted to work in their own cars and one-quarter utilized a van pool. Subjects worked a median of 48 hours per week. Approximately one-half of subjects received some safety training in their employment, with a median of 10 hours.

<b>TABLE 4</b> <b>COMMODITY FOR 1206 ADULT MIGRANT HISPANIC FARM WORKERS</b>	
<b>Commodity</b>	<b>% of jobs</b>
Tomato	40.37
Cherry	10.24
Wine grape	9.07
Nonagricultural work	6.05
Apricot	3.20
Unknown	2.92
Apple	2.57
Sugar beet	1.94
Nursery	1.75

**TABLE 4**  
**COMMODITY FOR 1206 ADULT MIGRANT HISPANIC FARM WORKERS**

Commodity	% of jobs
Peach	1.71
Pumpkin/Zucchini	1.58
Nut	1.30
Alfalfa	1.25
Cucumber	1.23
Wheat or barley	1.21
Corn	1.19
Watermelon	1.04
Cotton	1.04
Rice	1.02
Pear	0.91
Almond	0.86
Pepper	0.82
Table grape	0.80
Onion	0.69
Cleaning levies	0.69
Asparagus	0.56
Bean	0.43
Potato	0.43
Carpentry	0.43
Plum	0.37
Lettuce	0.37
Sunflower	0.26
Melon	0.26
Flowers	0.22
Citrus	0.19
Raisin grape	0.19
Heavy lifting	0.15
Garlic	0.13
Broccoli or cauliflower	0.11
Wood cutting	0.11
Olive	0.09
Strawberry	0.06
Safflower or Canola	0.04
Trucking	0.04
Vehicle	0.04
Carrot	0.02
Kiwi	0.02
Light tool work (e.g., bike shop)	0.02
Not Applicable	0.02

The most common main tasks (Table 5) were hand harvesting (20.6% of tasks), hoeing (14.9% of jobs), and selecting produce (12.6% of tasks).

<b>TABLE 5</b>	
<b>TASKS FOR 1206 ADULT MIGRANT HISPANIC FARM WORKERS</b>	
<b>Task</b>	<b>% of tasks</b>
Hand harvest	20.60
Hoeing	14.92
Selecting	12.57
Machinery operation	8.86
Irrigation	5.81
Harvest with knife	5.49
Conveyer Belt	3.30
Child Care	2.48
Packing	2.22
Machine harvest	2.07
Tying	2.05
General maintenance	1.66
Tipping	1.62
Pruning	1.38
Other	1.36
Planting by hand	1.27
Cannery	1.10
Manager <sup>1</sup>	1.04
Driving	1.02
Construction	0.91
Carrying and Lifting	0.73
Gardening	0.73
Thinning Fruit	0.67
Manufacturing	0.65
Clerical	0.63
Restaurant work	0.63
Checking	0.41
Machine De-seeding	0.41
Weeding	0.39
Thinning plants	0.39
Change irrigation	0.35
Apply Pesticides	0.30
Bailing	0.30
Girdling	0.26
Machinery Maintenance	0.19
Mechanic	0.19
Sales	0.17
Warehouse	0.17

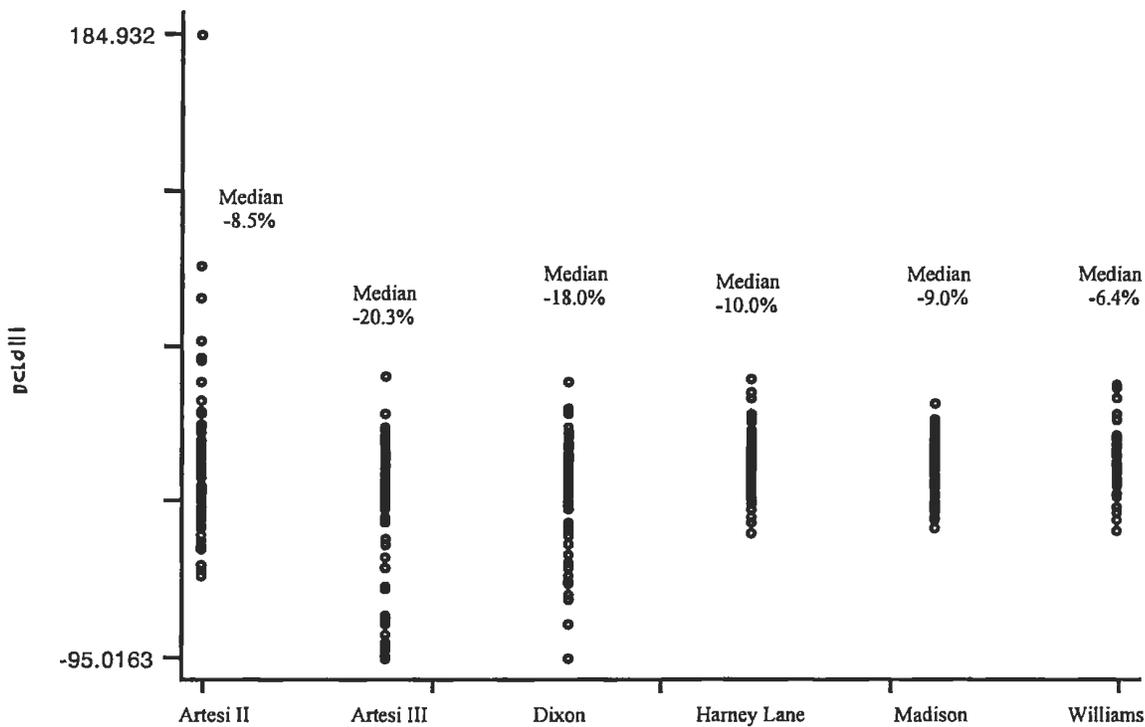
**TABLE 5**  
**TASKS FOR 1206 ADULT MIGRANT HISPANIC FARM WORKERS**

Task	% of tasks
Suckering	0.15
Carrying Bags	0.13
Carry Pesticides	0.11
Sanitation	0.11
Prepare Pesticides	0.09
Animals	0.04
Winery	0.04

**Acetylcholinesterase values:** Four hundred twenty-eight adults (35.5% of study sample) completed a beginning-of-season and end-of-season blood test for acetylcholinesterase. The beginning-of-season sample mean  $\pm$  SD was  $14.70 \pm 2.64$  nmol/min/mg hemoglobin, and the mean  $\pm$  SD for the end-of-season sample was  $12.45 \pm 3.46$  nmol/min/mg hemoglobin. The median difference between end-of-season and beginning-of-season values was  $-1.6$  nmol/min/mg hemoglobin, representing a  $-11\%$  change ( $p < 0.001$ , Wilcoxon one-sample test).

There was no significant difference in median percent acetylcholinesterase difference between subjects reporting injuries and subjects not reporting injuries ( $-13.9$  vs.  $-11.0$  nmol/min/mg hemoglobin;  $p = 0.56$ , Wilcoxon test). Similarly, no difference was noted when analysis was focused on injuries occurring after April 1, 1997. The median percent difference for acetylcholinesterase was greater for men than for women ( $-14.3$  vs.  $-9.8$  nmol/min/mg hemoglobin,  $p = 0.056$ , Wilcoxon test). The median percent difference also varied by Center ( $p < 0.001$ , Kruskal-Wallis test, Figure 2).

**Figure 2: Percent difference in acetylcholinesterase, end of season vs. beginning of season**



**Injury experience:** There were 84 (60%) previous-year injuries (4/1/96-3/31/97) reported on the initial questionnaire, and 56 (40%) current-season injuries (4/1/97-11/1/00), yielding a total of 140 injuries in 131 individuals. Of these, 96 (69%) were occupational (86 agricultural and 10 nonagricultural) and 44 (31%) nonoccupational (Table 6). Eighty percent of occupational conditions received care from a physician or other medical practitioner, eight percent were hospitalized.

**TABLE 6  
OCCUPATIONAL AND AGRICULTURAL CLASSIFICATION OF 140 INJURIES  
AMONG 1206 ADULTMIGRANT HISPANIC FARM WORKERS**

Injury category	N (%)
Occupational	96 (69)
Agricultural	86
Nonagricultural	10
Nonoccupational	44 (31)

The most common crops associated with occupational agricultural injury were tomatoes (39 injuries, 45.3%), cherries (7 injuries, 8.1%), and wine grapes (4 injuries, 4.7%, Table 7). The

remaining half of agricultural injury events were among a wide variety of crops and noncrop activities.

**TABLE 7  
COMMODITY ASSOCIATED WITH 86 AGRICULTURAL INJURIES  
AMONG 1206 ADULT MIGRANT HISPANIC FARM WORKERS**

<b>Crop</b>	<b>N</b>	<b>%</b>
Tomato	39	45.35
Cherry	7	8.14
Unknown	7	8.14
No Crop	5	5.81
Wine grape	4	4.65
Apple	3	3.49
Cotton	3	3.49
Nut	2	2.33
Cucumber	2	2.33
Rice	1	1.16
Sugarbeet	1	1.16
Pumpkin or Zucchini	1	1.16
Onion	1	1.16
Apricot	1	1.16
Asparagus	1	1.16
Corn	1	1.16
Melon	1	1.16
Pear	1	1.16
Pepper	1	1.16
Bean	1	1.16
Safflower or Canola	1	1.16
Broccoli or Cauliflower	1	1.16
Strawberry	1	1.16
<b>TOTAL</b>	<b>86</b>	<b>100</b>

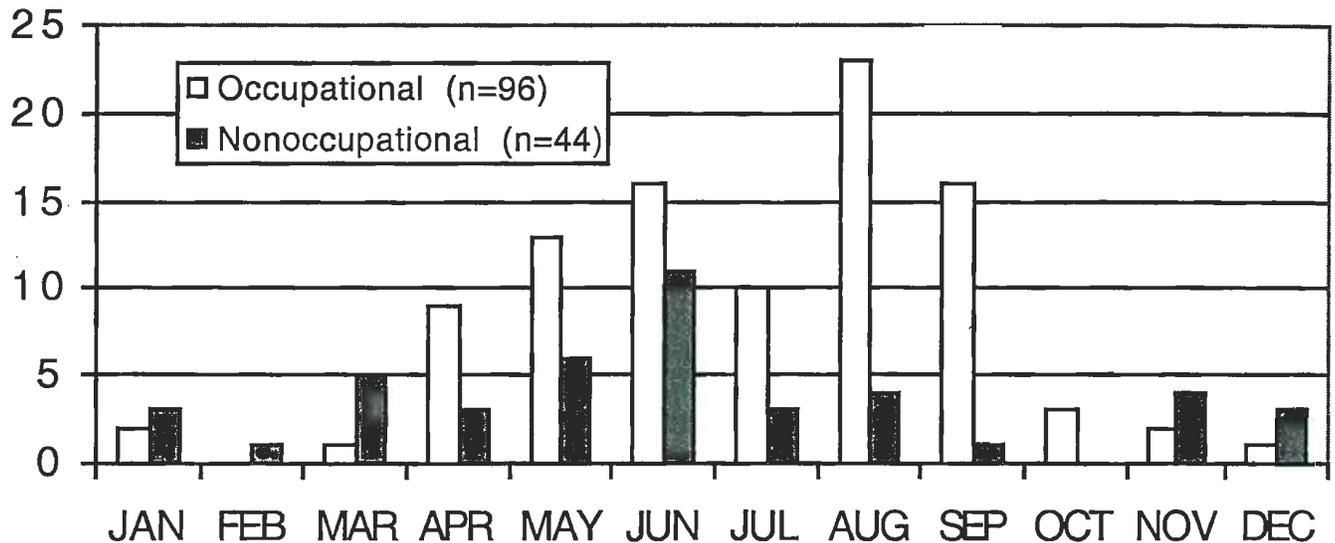
Hand harvesting was the most common task associated with an injury, followed by machinery operation and cannery work (Table 8).

**TABLE 8**  
**TASKS ASSOCIATED WITH 86 AGRICULTURAL INJURIES**  
**AMONG 1206 ADULT MIGRANT HISPANIC FARM WORKERS**

<b>Task</b>	<b>N</b>	<b>%</b>
Hand harvest	20	23.26
Machinery operation	19	22.09
Cannery	6	6.98
Hoeing	5	5.81
Irrigate	4	4.65
Conveyer Belt	4	4.65
Change Irrigation equipment	3	3.49
Select	3	3.49
Machine harvest	3	3.49
Gardening	3	3.49
Packing	2	2.33
General Maintenance	2	2.33
Machinery maintenance	1	1.16
Thinning Fruit	1	1.16
Carrying and Lifting	1	1.16
Hand Planting	1	1.16
Knife harvest	1	1.16
Pruning	1	1.16
Weeding	1	1.16
Drive	1	1.16
Carrying Pesticides	1	1.16
Applying Pesticides	1	1.16
Winery	1	1.16
Other	1	1.16
<b>TOTAL</b>	<b>86</b>	<b>100</b>

Month of occurrence for reported injuries is shown below (Figure 3). Injuries peaked in the late summer months of August and September. No clear pattern was noted by weekday.

**Figure 3: Injuries by month**



**Injury risk:** Total injury risk was 8.6/100 person-years; occupational injury risk was 10.4/100 FTE (Table 9). Occupational injury risk varied from 7.2 to 13.1/100 FTE between the Migrant Housing Centers. Men were at modestly elevated risk compared to women. Increased occupational injury risk was seen with increasing household income. Compared to never-smokers, progressively increased risk was noted for former smokers and current smokers. No important differences were seen with respect to age group, place of birth, education, time in U.S. in the preceding year, and alcohol use.

**TABLE 9**  
**UNADJUSTED INJURY RATES AMONG**  
**1206 ADULT MIGRANT HISPANIC FARM WORKERS**  
**BY SELECTED SUBJECT CHARACTERISTICS**

Characteristic	Unadjusted injury risk		
	Occupational [n/100 FTE (# injuries)]	Nonoccupational [n/100 p-y (# injuries)]	Total [n/100 p-y (# injuries)]
<b>Total population</b> (N=1206)	10.4 (96)	2.7 (44)	8.6 (140)
<b>Center</b>			
Madison	11.9 (22)	4.4 (13)	11.9 (35)
Artesi II	7.2 ( 9)	1.7 (5)	4.7 (14)
Artesi III	8.5 (10)	1.4 (4)	4.9 (14)
Harney Lane	13.1 (17)	2.0 (6)	7.7 (23)
Dixon	8.3 (14)	3.0 (8)	8.1 (22)
Williams	12.1 (24)	3.0 (8)	11.8 (32)
<b>Gender</b>			
Male	11.0 (67)	2.4 (20)	10.4 (87)
Female	9.2 (29)	2.7 (24)	6.0 (53)
<b>Place of Birth</b>			
Mexico	10.2 (86)	2.3 (36)	7.9 (122)
U.S.A.	12.5 (10)	4.9 (8)	11.0 (18)
<b>Age group [y]</b>			
17-25.9	9.0 (21)	3.6 (16)	8.4 (37)
26-35.9	11.8 (30)	1.8 (8)	8.7 (38)
36-45.9	8.3 (18)	2.5 (10)	7.0 (28)
46-max	12.2 (27)	2.3 (10)	8.5 (37)
<b>Education [y]</b>			
0 - 3	9.7 (21)	2.2 (9)	7.3 (30)
4 - 6	9.7 (34)	2.3 (15)	7.6 (49)
7 - 9	11.9 (20)	3.5 (11)	9.8 (31)
10 - 12	10.5 (15)	3.0 (8)	8.5 (23)
13 - 14	8.6 (4)	1.5 (1)	7.3 (5)
<b>Household income earned in US, 1996 [\$]</b>			
0 - 3,000	6.3 (4)	6.2 (7)	9.8 (11)
3,001 - 6,000	6.2 (4)	1.4 (2)	4.2 (6)
6,001 - 9,000	7.6 (12)	2.2 (7)	6.0 (19)
9,001 - 12,000	9.5 (16)	3.1 (10)	8.1 (26)
12,001 - 15,000	11.1 (21)	1.7 (6)	7.5 (27)
15,001 - 20,000	13.5 (27)	3.1 (10)	11.5 (37)
> 20,000	15.1 (12)	.9 (1)	11.1 (13)

**TABLE 9  
UNADJUSTED INJURY RATES AMONG  
1206 ADULT MIGRANT HISPANIC FARM WORKERS  
BY SELECTED SUBJECT CHARACTERISTICS**

Characteristic	Unadjusted injury risk		
	Occupational [n/100 FTE (# injuries)]	Nonoccupational [n/100 p-y (# injuries)]	Total [n/100 p-y (# injuries)]
<b>Time in U.S., 1996 [months]</b>			
0 - 5	10.6 (5)	4.4 (6)	8.1 (11)
6	8.3 (17)	2.1 (9)	6.0 (26)
7 - 9	8.8 (27)	2.3 (11)	7.9 (38)
10 - 12	12.9 (47)	2.7 (18)	9.8 (65)
<b>Alcohol use [days per week]</b>			
0 days	9.4 (59)	2.7 (35)	7.2 (94)
1 to 4 days	13.3 (24)	3.2 (8)	12.9 (32)
5 or more days	10.7 (13)	.6 (1)	8.8 (14)
<b>Smoking status</b>			
Never	9.0 (58)	2.7 (35)	7.2 (93)
Former	12.5 (17)	2.8 (6)	10.9 (23)
Current	14.1 (21)	1.4 (3)	11.4 (24)

**Injury characteristics:** Strains and sprains represented the most common occupational injury nature, comprising 30% of cases, followed by open wounds, comprising 15% of cases (Table 10). Strains and sprains were also the most common nonoccupational injury. There were 7 occupational and no nonoccupational eye injuries.

**TABLE 10  
NATURE OF INJURY  
FOR 140 INJURIES AMONG 1206 ADULT MIGRANT FARM WORKERS**

Nature code*	Description	Occupational [n (%)]	Nonoccupational [n (%)]
840-848	Sprains, strains	29 (30)	10 (23)
870-897	Open wound	14 (15)	5 (11)
959, 910-918	Unspecified injuries and superficial injuries	11 (12)	7 (16)
920-924	Contusion with intact skin surface	7 (7)	6 (14)
930, 940	Eye	7 (7)	0
802-829	Fractures	6 (6)	6 (14)
952-957	Nerve injuries	5 (5)	2 (5)
989	Toxic effects	5 (5)	0
830-839	Dislocation	3 (3)	2 (5)

<b>TABLE 10</b> <b>NATURE OF INJURY</b> <b>FOR 140 INJURIES AMONG 1206 ADULT MIGRANT FARM WORKERS</b>			
<b>Nature code*</b>	<b>Description</b>	<b>Occupational [n (%)]</b>	<b>Nonoccupational [n (%)]</b>
692, 703	Dermatitis, nail disease	3 (3)	1 (2)
854	Skull (intracranial injury)	3 (3)	1 (2)
553.2	Hernia	2 (2)	0
863, 943-945, 991	Other (stomach, burns, cold)	1 (1)	4 (9)
	<b>Total</b>	<b>96 (100%)</b>	<b>44 (100%)</b>

The head, trunk, and upper extremities were each involved in approximately one-quarter of the occupational injuries (Table 11).

<b>TABLE 11</b> <b>BODY PART</b> <b>FOR 140 INJURIES AMONG 1206 ADULT MIGRANT FARM WORKERS</b>			
<b>Body part code</b>	<b>Description</b>	<b>Occupational [n (%)]</b>	<b>Nonoccupational [n (%)]</b>
100-198	Head	27 (28)	6 (14)
410-498	Trunk	25 (26)	13 (30)
300-340	Upper extremities	24 (25)	12 (27)
510-540	Lower extremities	17 (18)	12 (27)
700, 800	Multiple & System	3 (3)	1 (2)
	<b>Total</b>	<b>96 (100%)</b>	<b>44 (100%)</b>

Overexertion and strenuous movements were the most common external causes reported for occupational injuries (Table 12). Falls; striking, being struck, or pinned between objects; and machinery each constituted between 13% and 16% of occupational injuries. There were no animal-related injuries. Motor vehicles comprised 4% of occupational injuries and over 30% of nonoccupational injuries.

**TABLE 12  
EXTERNAL CAUSE  
FOR 140 INJURIES AMONG 1206 ADULT MIGRANT FARM WORKERS**

<b>E code*</b>	<b>Description</b>	<b>Occupational [n (%)]</b>	<b>Nonoccupational [n (%)]</b>
E927	Overexertion and strenuous movements	26 (27)	5 (11)
E880-888	Accidental falls	15 (16)	12 (27)
E916-918	Striking or struck by objects or persons, caught between	13 (14)	3 (7)
E919	Machinery	12 (13)	0
E920	Cutting or piercing instrument or object	8 (8)	3 (7)
E914	Foreign body in eye	7 (7)	0
E863.9,866.9	Poison (agricultural chemical, unspecified chemical)	6 (6)	0
E810-829	Motor vehicle accidents	4 (4)	14 (32)
E900, 901.8, 923.2, 925,905.3, 905.7,906, 924.1,924.8, 928.9	Other (Excessive heat, cold; explosive gases; electric current; bee sting; plant poison; dog bite; caustic substance; hot object; accidental NOS)	5 (5)	7 (16)
	<b>Total</b>	<b>96 (100%)</b>	<b>44 (100%)</b>

**Injury Risk According to Selected Occupational Characteristics:** Occupational characteristics related to the study specific aims were examined using Poisson regression to discern possible associations with injury risk (Table 13). Piece-rate pay was associated with a 54% increase in injury risk compared to hourly employees (14.0 vs. 9.1/100 FTE); however, this was not statistically significant (p=0.15). The number of employers also was associated with injury risk, but the effect was not statistically significant and showed no clear trend.

**TABLE 13  
UNADJUSTED INJURY RATES AMONG  
1206 ADULT MIGRANT HISPANIC FARM WORKERS  
BY SELECTED OCCUPATIONAL CHARACTERISTICS**

<b>Characteristic</b>	<b>Unadjusted occupational injury rate [n/100 FTE (# injuries)]</b>	
<b>Payment status</b>		
Piece-rate	14.0 (18)	
Hourly	9.1 (63)	
Other/both	3.4 (1)	p=0.15
<b>Employment type</b>		
Indirect (through farm-labor contractor)	7.2 (23)	
Direct hire	10.9 (58)	p=0.31
<b>Multiple employers</b>		
1	9.6 (25)	
2	15.7 (21)	
3	10.2 (15)	
4	9.5 (16)	
5-6	6.9 (12)	p=0.19
<b>Any safety training</b>		
Yes	9.6 (46)	
No	10.4 (45)	p=0.71
<b>Commodity</b>		
Row crop	9.6 (64)	
Tree crop	11.8 (11)	
Noncrop-related	7.8 (7)	p=0.67
<b>Task</b>		
Pre-harvest field preparation	8.3 (29)	
Harvest	12.3 (21)	
Post harvest	10.8 (12)	
Packing house work	10.8 (3)	
Other	8.9 (17)	p=0.69

## **B. Children**

**Study sample and demographic characteristics:** There were 941 children (persons below 18 years of age). Age mean  $\pm$  SD was  $8.6 \pm 5.1$  years. Males represented the majority (54.9% vs. 45.1%), and 61.3% had been born in the U.S. (Table 14). Of those born in Mexico, the majority were born in the state of Michoacán.

**TABLE 14**  
**SELECTED DEMOGRAPHIC CHARACTERISTICS OF 941 CHILDREN OF**  
**MIGRANT HISPANIC FARM-WORKER FAMILIES**

<b>Characteristic</b>	<b>N</b>	<b>(%)</b>
<b>Participants</b>	941	(100)
<b>Center</b>		
Artesi II	188	(20.0)
Artesi III	156	(16.6)
Dixon	137	(14.6)
Harney	220	(23.4)
Madison	132	(14.0)
Williams	108	(11.5)
<b>Gender</b>		
Males	517	(54.9)
Females	424	(45.1)
<b>Place of birth</b>		
USA	577	(61.3)
Mexico	364	(38.7)
Aguas Calientes	3	(.8)
Baja California Norte	6	(1.7)
Distrito Federal	3	(.8)
Guanajuato	39	(10.8)
Jalisco	85	(23.5)
Michoacán	194	(53.7)
Nuevo Leon	16	(4.4)
Queretaro	2	(.6)
San Luis Potosi	1	(.3)
Sinaloa	5	(1.4)
Sonora	4	(1.1)
Tamaulipas	1	(.3)
Yucatan	2	(0.6)
<b>Age group [y]</b>		
0 - 6	390	(41.4)
7 -12	325	(34.5)
13 -17	226	(24.1)
<b>Education</b>		
01-12 = grade	566	(60.2)
13 = post high school	1	(.11)
Kindergarten	77	(8.2)
No school yet	296	(31.5)

**Health Status:** Approximately three-quarters of children had no health insurance according to parental report (Table 15). Ninety-two percent of children had no medical problems, and only 4% required a medication. The most commonly reported medical problems were eye problems, allergy, and asthma.

<b>TABLE 15</b>		
<b>SELECTED HEALTH STATUS CHARACTERISTICS OF 941 CHILDREN OF MIGRANT HISPANIC FARM-WORKER FAMILIES</b>		
<b>CHARACTERISTIC</b>	<b>N</b>	<b>%</b>
<b>Insurance in the US</b>		
Yes	253	26.9
No	678	72.1
Doesn't know	10	1.1
Type of insurance if "Yes"		
Medicaid	231	91.3
Purchased by family	6	2.4
Purchased by employer	11	4.3
Missing/ don't know	5	2
<b>Medical problem 1</b>		
Yes	75	8
No	866	92
Medication if Medical problem 1 is "Yes"		
Yes	38	50.7
No	35	46.7
Missing	2	2.7
<b>Classification of Medical problem 1</b>		
Bronchitis	3	4.0
Ear	3	4.0
Throat	3	4.0
Allergy	10	13.3
Asthma	9	12.0
Flu	1	1.3
Cough	1	1.3
Eye	13	17.3
Headaches	2	2.7
Kidney	2	2.7
Nose	1	1.3
Rash	1	1.3
Convulsion	5	6.7
Stomach	3	4.0
Mouth	3	4.0
Other	15	20.0
<b>With 2<sup>nd</sup> concurrent medical problem</b>		
Yes	11	14.7
No	64	85.3

**TABLE 15**  
**SELECTED HEALTH STATUS CHARACTERISTICS OF 941 CHILDREN OF**  
**MIGRANT HISPANIC FARM-WORKER FAMILIES**

CHARACTERISTIC	N	%
<b>Classification of 2<sup>nd</sup> Medical problem</b>		
ear	1	
allergy	2	
asthma	1	
eye	1	
headaches	1	
Nose	1	
other	4	

**Safety practices:** Over 80% of children always used a seatbelt when riding in a car (Table 16). Only 5.7% always or nearly always used a helmet when riding a bicycle. Fewer than 5% of children reportedly rode in the back of an uncovered pickup truck in the preceding year.

**TABLE 16**  
**SAFETY PRACTICES OF 941 CHILDREN**  
**OF MIGRANT HISPANIC FARM-WORKER FAMILIES**

Safety Practice	N	%
<b>Seatbelt or safety seat use</b>		
Always	781	83.0
Nearly always	74	7.9
Sometimes	49	5.2
Seldom	26	2.8
Never	5	.5
Never drove or rode in a car	5	.5
Declined	1	.1
<b>Use of bicycle helmet</b>		
Always	35	3.7
Nearly always	14	1.5
Sometimes	31	3.3
Seldom	21	2.2
Never	377	40.1
Doesn't know/Not sure	1	.1
Never rode a bicycle	461	49.0
Declined		
<b>Rode in an uncovered truck in past year</b>		
Yes (Median: 4 times)	44	4.7
No	885	94.2
Doesn't know	10	1.1

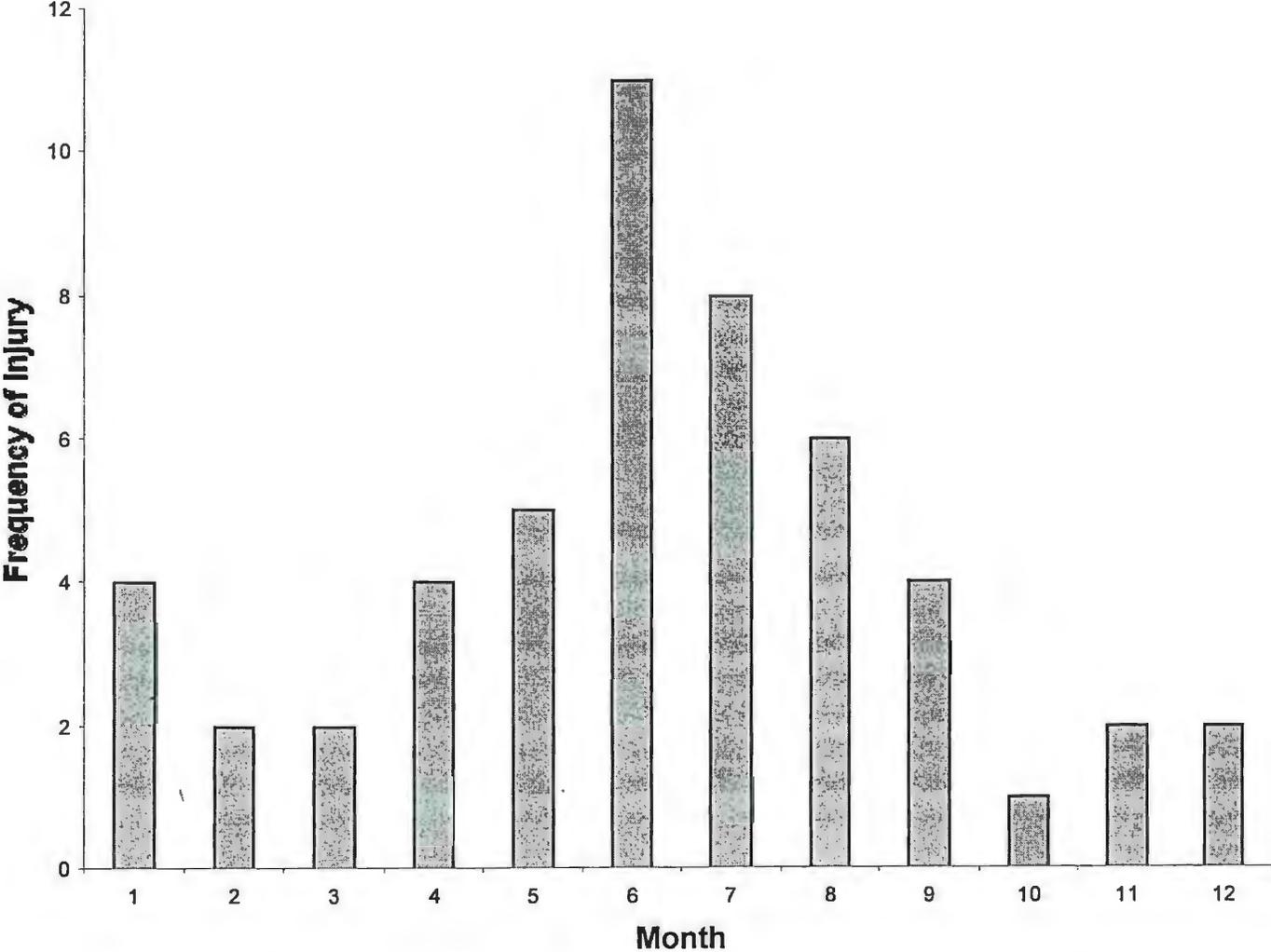
**Children at work:** Approximately 8% of children reported working for pay in the preceding year. The distribution of crops in which they worked was similar to those for adults: tomatoes comprised approximately 40% of jobs, followed by cherries (20%) and wine grapes (3.7%). Similarly, tasks included hoeing (30%), hand harvest (29%), and selection of produce (10%). Approximately 8% of working children worked in childcare, 6% in clerical jobs, and 3% in restaurants. Fewer than 7% of children accompanied their parents to work (Table 17). Fewer than 5% of children reportedly assist their parents at work.

<b>Characteristic</b>	<b>n</b>	<b>%</b>
<b>No of times the child is taken to workplace</b>		
3 days or more per week	28	3.0
1-2 days per week	32	3.4
1-3 days per month	4	.4
Never or less than once per month	770	81.9
Don't know	2	.2
Care-giving parent doesn't work	104	11.1
<b>Child activities when at work with parent</b>		
Child not at work	632	67.8
Child assists work	46	4.9
Child not working but supervised by adult	109	11.7
Child not working and unsupervised	9	1.0
Other	23	2.5
Doesn't know	1	.1
Declined to answer	1	.1
Care-giving parent doesn't work**	111	11.9
<b>Work History</b>		
Yes	78	8.3
No	863	91.7

**Injury experience:** There were 51 childhood injuries occurring in 49 children. Thirty-four (66.7%) occurred in the previous year (4/1/96-3/31/97), and 17 (33.3%) occurred in the current season (4/1/97-11/1/97). Two injuries were occupational. Both involved injuries to the hand while sorting tomatoes on a harvester. Cumulative incidence for injury was 5.8% for boys and 4.9% for girls. No significant associations were seen with Center, country of birth, medical history, safety habits (e.g., seatbelt use), or age group.

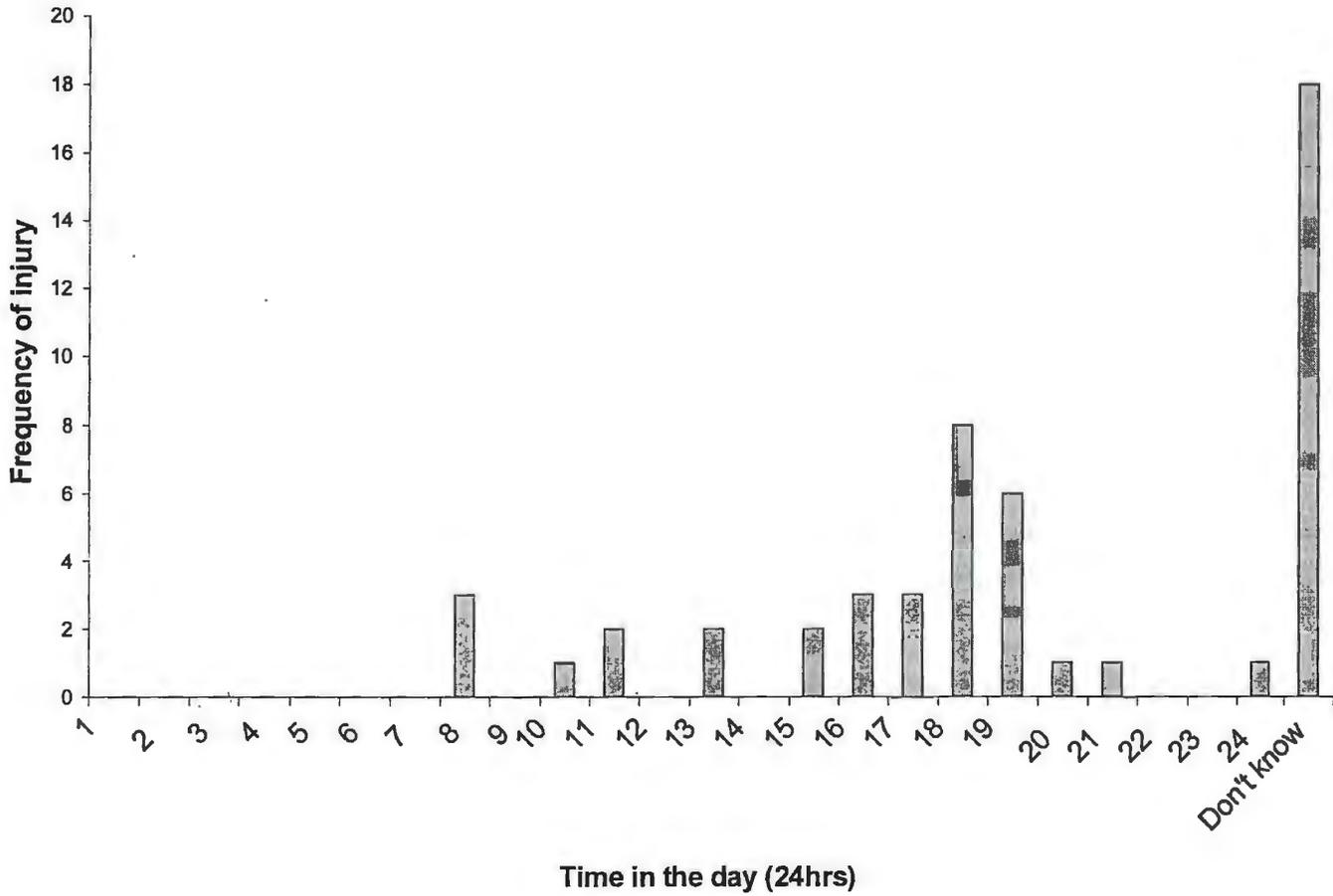
Of 51 injuries recorded in 49 children of migrant farm workers (941 children or their parents were interviewed), June had the highest frequency of occurrence [11 (21.5%)] while October had the lowest [1 (2%)] (Figure 4).

Figure 4: Injury distribution by month of occurrence



Out of 51 injuries recorded in 49 children of migrant farm workers (941 children or their parents were interviewed), 14 (27%) injures occurred between 6 and 7 p.m. (Figure 5).

**Figure 5: Injury distribution by time of day**



**Injury characteristics:** The most common nature of injury was lacerations and fractures, each comprising approximately 30% of the total injuries (Table 18).

<b>TABLE 18</b> <b>NATURE OF INJURY</b> <b>FOR 51 INJURIES AMONG 49 CHILDREN OF MIGRANT FARM</b> <b>WORKERS</b>		
<b>Nature code</b>	<b>Description</b>	<b>[n(%)]</b>
	<b>Open wounds</b>	<b>16(31.4)</b>
873	Other open wound of head	7(13.7)
891	Open wound of knee, leg [except thigh], and ankle	3(5.9)
881	Open wound of elbow, forearm, and wrist	2(3.9)
890	Open wound of hip and thigh	2(3.9)
882	Open wound of hand except finger(s) alone	1(2.0)
892	Open wound of foot except toe(s) alone	1(2.0)
	<b>Fractures</b>	<b>15(29.4)</b>
814	Fracture of carpal bones	6(11.8)
959	Fracture of radius and ulna	4(7.8)
816	Fracture of one or more phalanges of hand	2(3.9)
815	Fracture of Metacarpal bones	1(2.0)
812	Fracture of humerus	1(2.0)
824	Fracture of ankle	1(2.0)
	<b>Sprains and Strains</b>	<b>7(13.7)</b>
845	Sprains and strains of ankle and foot	5(9.8)
840	Sprains and strains of shoulder and upper arm	1(2.0)
847	Sprains and strains of other and unspecified parts of back	1(2.0)
	<b>Intracranial and Nerve injuries</b>	<b>6(11.8)</b>
813	Injury, other non specified nerves	4(7.8)
955	Injury to peripheral nerve(s) of shoulder girdle and upper limb	1(2.0)
854	Intracranial injury of other and unspecified nature	2(3.9)
	<b>Superficial injuries</b>	<b>4(7.8)</b>

<b>TABLE 18</b> <b>NATURE OF INJURY</b> <b>FOR 51 INJURIES AMONG 49 CHILDREN OF MIGRANT FARM</b> <b>WORKERS</b>		
<b>Nature code</b>	<b>Description</b>	<b>[n(%)]</b>
920	Contusion of face, scalp, and neck except eye(s)	2(3.9)
910	Superficial injury of face, neck, and scalp except eye	1(2.0)
914	Superficial injury of hand(s) except finger(s) alone	1(2.0)
	<b>Crushing injury</b>	<b>2(3.9)</b>
927	Crushing injury of upper limb	1(2.0)
928	Crushing injury of lower limb	1(2.0)
	<b>Total</b>	<b>51(100)</b>

Falls were the most common injuries, comprising over one-third of cases, followed by bicycle injuries, representing over 17% of cases (Table 19).

<b>TABLE 19</b> <b>EXTERNAL CAUSE</b> <b>FOR 51 INJURIES AMONG 49 CHILDREN OF MIGRANT FARM WORKERS</b>		
<b>E Codes</b>	<b>Description</b>	<b>[n(%)]</b>
	<b>Falls</b>	<b>19(37.3)</b>
888	Other and unspecified fall	8(15.7)
884	Other fall from one level to another	7(13.7)
885	Fall on same level from slipping, tripping, or stumbling	4(7.8)
826	Bicycle accident	9(17.6)
917	Striking against or struck accidentally by objects or person	8(15.7)
920	Accidents caused by cutting and piercing instruments or objects	7(13.7)
919	Accidents caused by machinery	2(3.9)
814	Motor vehicle traffic accident involving collision with pedestrian	2(3.9)
918	Caught accidentally in or between objects	1(2.0)

<b>E Codes</b>	<b>Description</b>	<b>[n(%)]</b>
927	Overexertion and strenuous movements	1(2.0)
906	Other injury caused by animals	1(2.0)
928	Other and unspecified environmental and accidental causes	1(2.0)
	<b>Total</b>	<b>51(100)</b>

The upper extremities were the most frequently injured body part, comprising over 40% of cases, followed by head and face and lower extremities (Table 20).

<b>Body part code</b>	<b>Description</b>	<b>Non occupational [n (%)]</b>
<b>310 - 340</b>	<b>Upper extremities</b>	<b>21(41.2)</b>
320	Wrist	8(15.7)
315	Forearm	4(7.8)
330	hand	4(7.8)
340	finger	3(5.9)
310	arms	1(2.0)
311	Upper arms	1(2.0)
<b>100 - 198</b>	<b>Head and face</b>	<b>15 (29.4)</b>
149	forehead	7(13.7)
100	head	3(2)
110	Brain	1(2.0)
141	Jaw including others	1(2.0)
148	Multiple parts	1(2.0)
160	skull	1(2.0)
<b>511 - 540</b>	<b>Lower extremities</b>	<b>14 (27.5)</b>
520	Ankle	4(7.8)
530	Foot or feet	4(7.8)

**TABLE 20**  
**BODY PART**  
**FOR 51 INJURIES AMONG 49 CHILDREN OF MIGRANT FARM WORKERS**

<b>Body part code</b>	<b>Description</b>	<b>Non occupational [n (%)]</b>
511	Thigh	2(3.9)
513	knees	2(3.9)
519	Legs (multiple)	1(2.0)
540	toes	1(2.0)
<b>420</b>	<b>Back</b>	<b>1 (2)</b>
	<b>Total</b>	<b>51(100)</b>

## USEFULNESS OF FINDINGS

The major strength of this study is that it represents the first cohort study of injury in migrant Hispanic farm workers, a large, important, and understudied ethnic minority population. It provides descriptive information that will be of value in focusing and designing prevention programs. It also has an analytic component addressing previously untested hypotheses for important remediable risk factors for injury. It is a multidisciplinary study incorporating expertise in industrial hygiene and safety, agricultural engineering, objective determination of OP exposure, and including an Advisory Panel of members of the injury epidemiology research community, state health department, and a community rural studies institute focusing on Hispanic farm workers. The major findings of the study are that adult farm workers experience an injury risk of approximately 10/100 FTE, comparable to rates seen in other large studies of agricultural workers. Men are at increased risk compared to women, although it is not clear whether this finding is confounded by more hazardous work and/or greater risk-taking behavior among the men. Risk also increased for current smokers.

Occupational risk factors of interest included piece-rate vs. hourly pay. We observed a 50% increase in injury risk for persons paid piece-rate. This increase was not statistically significant. The hypothesis that piece-rate pay increases injury risk is plausible because piece-rate payment schemes provide immediate incentive to boost productivity, which may come at the cost of faster and less careful work. Further research in specific work situations—ideally a randomized trial—would help shed further light on this issue.

We also examined whether exposure to acetylcholinesterase-suppressing pesticides, such as organophosphate (OP) agents, could increase injury risk. Organophosphate agents may be neurotoxic both centrally and peripherally, and subtle nerve damage may manifest as increased injury risk. Although we found a slightly greater median suppression of end-of-season acetylcholinesterase levels in injured persons than in noninjured, the difference was not of great magnitude and was not statistically significant.

An interesting finding of the study relates to the number of employers reported by subjects. The mean number of employers over the two harvest seasons examined by the study was 2.3. This is in accord with data from the National Agricultural Workers Survey occupational risk factors [Mehta, et al., 2000] showing that over 60% of farm workers report a single employer in the previous year. Although risk increased dramatically for persons with two employers vs. a single employer (15.7 vs. 9.6/100 FTE), the risk dropped with increasing number

of employers, and the differences were not statistically significant. Thus, the study does not provide clear evidence that increasing numbers of employers raises injury risk.

The limitations for this study lie in several areas. First, the target population is California Hispanic farm workers. Ideally, one would expand this study geographically to involve the other “migrant streams” within the U.S. Unfortunately, funding limitations and feasibility considerations did not allow this. However, based on available demographic comparisons of our previous work in California [Gamsky et al., 1992; Gamsky et al., 1992; Gamsky et al., 1992; McCurdy et al., 1994] with investigators in other regions [Ciesielski et al., 1994; Ciesielski et al., 1991; Hibbs et al., 1989; Jacobson et al., 1987; Simmons et al., 1989; Villarino et al., 1994], we believe that the Western stream target population chosen is demographically similar to Hispanic farm workers in other areas of the nation.

In addition, we focused on residents of Migrant Housing Centers. This group may not represent the entire population of migrant Hispanic farm workers or farm-worker families. It is possible, for example, that single men living outside of MHCs are at greater injury risk due to job characteristics or lifestyle. However, conducting a cohort, cross-season study on a general community sample would be extremely difficult and costly. The MHC resident population holds a major advantage in that they tend to stay in the MHC through the season and are accessible. The most likely result of using this target population is that injury rates may be lower than one might observe in a community sample. The low rate of occupational injury among children is likely a reflection of selection bias. Because participants live in families and have an organized life style, it was rare for children to work or be taken to work. A different picture of childhood injury would likely have emerged if the study sample had included families following the crops and children engaged in agricultural work.

The second potential limitation lies in the participation rate. It is important to have as high a participation rate as possible so that selection bias from nonresponse is minimized. We are pleased that we were able to achieve an overall participation rate of greater than 85%, minimizing potential selection bias.

There are potential pitfalls in the analysis and interpretation of results for the analytic, or hypothesis- testing, portion of the study. The study is designed to evaluate several hypotheses, raising concern regarding power and Type I errors. However, given the early state of research for this group and the expense of such studies, we believe it is appropriate to include several hypotheses rather than just one. For this reason we incorporated a descriptive component into

our specific aims. Interpretation and dissemination of results will reflect a cautious approach acknowledging these issues.

In some cases it may not be possible to account satisfactorily for the effects of confounding. For example, persons with certain characteristics (e.g., poor English skills) may tend to be involved with higher-risk work, making it difficult to know whether it is the personal characteristic or the work that is responsible for increased injury risk. The interpretation and discussion of results will adopt a cautious approach where indicated.

In summary, this study represents to our knowledge the only prospective cohort study of injury risk among Hispanic migrant farm workers, a large and important demographic group in California and the nation. Risk for qualifying injuries (i.e., those associated with medical care, lost or restricted work days, or loss of consciousness) was approximately 10/100 FTE, comparable to rates seen in other large studies of agricultural workers. Men and current smokers were at increased risk. Although no specific injury characteristic characterized more than 30% of the occupational injuries, the largest categories included sprains and strains and injuries due to overexertion and strenuous movements. Further research should be conducted to look at the role of payment scheme (piece-rate vs. hourly) and the natural history of injury and farm work in this population. The great heterogeneity of injuries presents a major challenge for prevention, limiting the effect that an intervention in a given area can have on the sum total of injuries. In view of the high frequency of sprains and strains, ergonomic evaluations and preventive measures may have a large impact. This study also confirms others showing an elevated risk for foreign-body injuries to the eye. Further research into these injuries and encouragement to wear protective goggles when at risk is warranted.

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### **Advisory Panel**

Lorann Stallones, Ph.D. (University of Colorado)

Barbara Lee, R.N., M.S.N. (National Farm Medicine Center, Marshfield, WI)

Jeffery Roseman, M.D., Ph.D., M.P.H. (Department of Epidemiology, University of Alabama at Birmingham)

John Miles, Ph.D. (U.C. Davis Agricultural Engineering)

Robert Lawson, C.I.H., C.S.P., (U.C. Davis Agricultural Health and Safety Center)

Donald Villarejo, Ph.D. (California Institute for Rural Studies)

Roger Trent, Ph.D. (California Department of Health Services)

### **Migrant Housing Centers and Department of Housing and Community Development**

Denise Boswell, Program Manager of Farmworker Housing Assistance Programs (Office of Migrant Services, Department of Housing and Community Development)

Manuel Castro (Department of Housing and Community Development)

Raul and Sara Lira (Managers, Madison Migrant Housing Center)

Marguerite Kittyle (Manager, F.H. Rehrman Migrant Housing Center, Dixon)

Jack Lawrence (Manager, Williams Migrant Housing Center)

Jesus Enrique (Manager, Artesi II Migrant Housing Center)

Pilar Diaz (Manager, Artesi III Migrant Housing Center)

Edmundo Hernandez (Manager, Harney Lane Migrant Housing Center)

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## **ABBREVIATIONS**

AchE: Acetylcholinesterase

MHC: Migrant Housing Center

OP: organophosphate pesticide

SD: Standard deviation

## **PUBLICATIONS**

### **Journal Articles, Book Chapters, and Reports**

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## **LIST OF APPENDICES**

Appendix A: Map of California Migrant Housing Centers

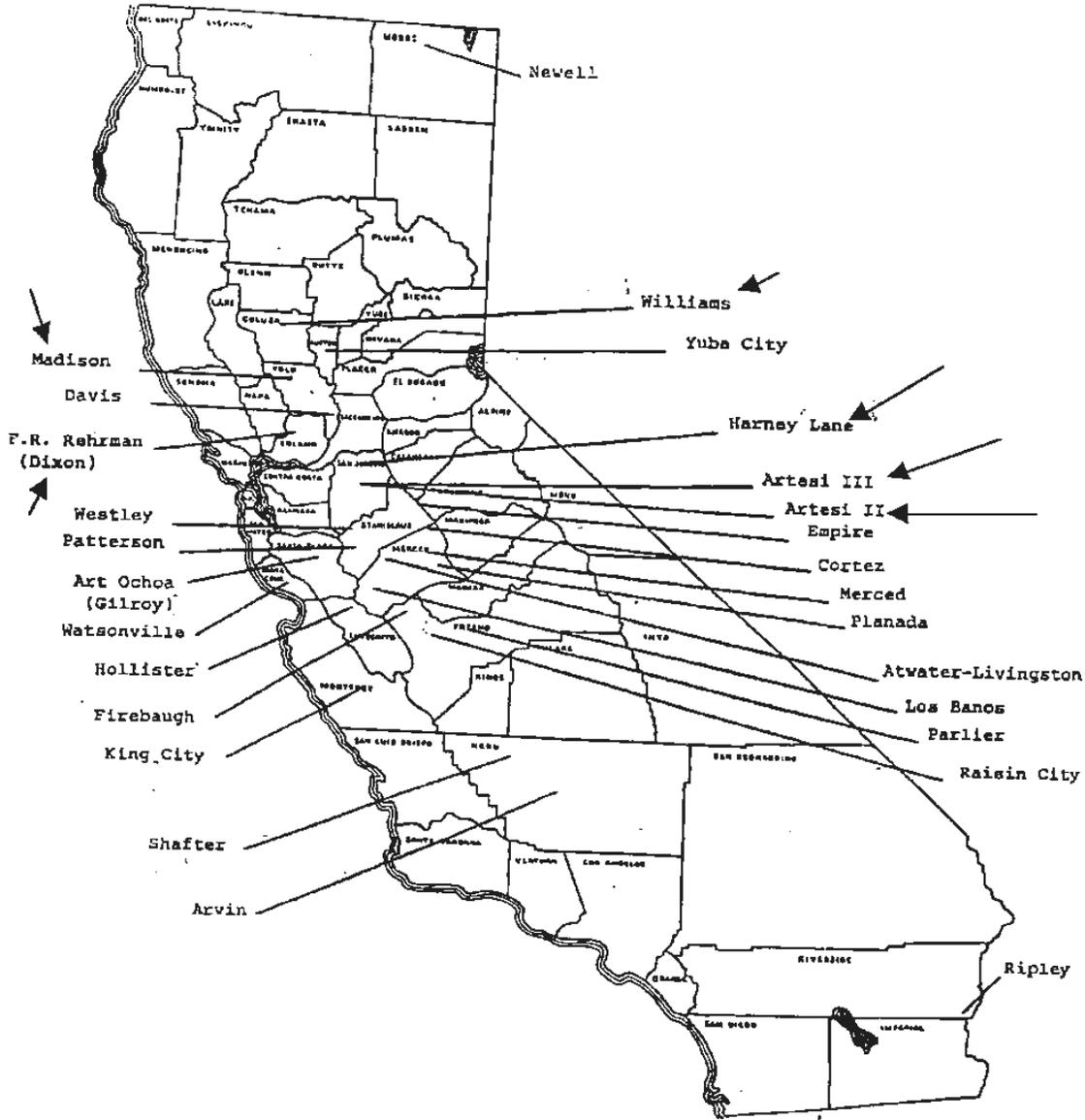
Appendix B: Adult health-and-work questionnaire (Initial)

Appendix C: Children's health-and-work questionnaire (Initial)

Appendix D: Injury module questionnaire

Appendix E: Interviewer training manual

**California State Migrant Family Housing Centers  
Office of Migrant Services**



**Appendix A: State Migrant Family Housing Centers.** The Centers utilized in the study are indicated with arrows.

## UC-DAVIS MIGRANT HEALTH SURVEY QUESTIONNAIRE:

### Initial Dialogue for Interviewer

#### At the door of the apartment:

Buenos días / Buenas tardes, mi nombre es \_\_\_\_\_. Represento a la Escuela de Medicina de la Universidad de California en Davis. Estamos entrevistando personas para un estudio acerca de las condiciones de salud y lesiones. Los participantes que completan el estudio podrán recibir hasta un total de treintaicinco dólares en certificados para compras de alimentos. Si usted decide participar en este estudio, puede estar seguro(a) de que toda la información será confidencial. Le gustaría oír más acerca de la participación en este estudio?

Hello, my name is \_\_\_\_\_. I represent the School of Medicine at the University of California, Davis. We are interviewing people for a study of health and injuries. Participants will receive a total of up to \$35 in grocery certificates (depending on how many times we interview you) for completing the study. If you decide to participate in the study, you can be assured that all information will be confidential. Would you like to hear more about participating in this study?

#### **IF YES:**

El estudio trata de condiciones de salud y lesiones. Consistirá de entrevistas mensuales durante el verano. Además, quisiéramos extraer una gota de sangre de su dedo al comienzo y una gota al final del estudio. La muestra de sangre nos ayudará a determinar si es que usted estuvo expuesto a ciertos tipos de pesticidas. El estudio es completamente voluntario y usted será compensado(a) con certificados para la compra de alimentos. Por la primera entrevista le daremos un certificado de diez dólares. Por cada entrevista mensual le daremos un certificado de cinco dólares. También, le daremos un certificado de cinco dólares por cada muestra de sangre. Toda la información que reunamos será confidencial.

Usted tiene el derecho de participar o no en cualquier parte del estudio.

Aquí está una copia de sus derechos como participante y una hoja con la descripción del estudio. Usted me puede hacer cualquier pregunta que tenga. Si desea participar, necesito su firma para poder comenzar la entrevista.

The study is about general health and injuries and involves monthly interviews through the summer. In addition, we would like to take a drop of blood from your finger tip at the beginning of the study and at the end of the summer. The blood samples will help us determine if you were exposed to certain types of pesticides. The study is completely voluntary, and you will be paid ten dollars worth of grocery certificates for the initial interview, five dollars in certificates for each monthly interview and five dollars in certificates for each blood sample. All of the information we collect will be confidential.

You may choose not to participate in any portion of the study.

ONCE INSIDE: Distribute the Bill of Rights, get an initial on both copies. Read the Consent Form, get a signature on both copies. GIVE ONE OF EACH TO THE SUBJECT, PUT ONE OF EACH IN SUBJECT'S FILE. Ask them if they have any questions.

#### **IF NO:**

*DIALOGUE:* Podría yo u otro entrevistador volver otro día que sea más conveniente para usted? /

May I or one of the other interviewers come back at another time that's better for you?

NO: ((Try and elicit the subject's concerns and address these.))

YES: Make appointment

**UC-DAVIS MIGRANT HEALTH SURVEY QUESTIONNAIRE**

FULL NAME: \_\_\_\_\_

CENTER NAME:     ARTESI II     ARTESI III     DIXON     HARNEY LANE  
                           MADISON     WESTLEY     WILLIAMS     PATTERSON     DAVIS

DWELLING NUMBER: \_\_\_\_\_

TELEPHONE NUMBER: \_\_\_\_\_

LANGUAGE USED FOR INTERVIEW:     SPAN     ENG

INTERVIEWER: \_\_\_\_\_

DATE OF INTERVIEW: \_\_\_\_/\_\_\_\_/\_\_\_\_  
                                   MO     DAY     YR

Do you know when you plan to leave here?  
 Sabe cuándo va a mudarse de este Centro?

Date: \_\_\_\_\_

**I INTRODUCTION / FAMILY ENUMERATION FORM**

***DIALOGUE:*** Gracias por participar en nuestro estudio. La entrevista durará entre treinta y cuarenta minutos. Primero, le quisiera hacer algunas preguntas acerca de las personas que viven aquí con usted. Esta información será utilizada sólo para llevar a cabo el estudio. Por favor, **quiénes viven en esta casa con usted? /**

Thank you for participating in our study. The interview will last between thirty and forty minutes. I would like to begin with some questions about the people that live with you. This information will only be used to carry out the research. Will you please tell me who lives with you here in this house.

	Parentesco / Relationship	Nombre / FIRST Name	Sexo / Gender	Edad / Age	Subject ID
1			M	_____	_____
			F	_____	_____
2			M	_____	_____
			F	_____	_____
3			M	_____	_____
			F	_____	_____
4			M	_____	_____
			F	_____	_____
5			M	_____	_____
			F	_____	_____
6			M	_____	_____
			F	_____	_____
7			M	_____	_____
			F	_____	_____
8			M	_____	_____
			F	_____	_____

## INITIAL INTERVIEW WITH ADULT

<b>CENTER NAME:</b>	ARTESI II	ARTESI III	DIXON	HARNEY LANE	
	MADISON	WESTLEY	WILLIAMS	PATTERSON	DAVIS
DWELLING NUMBER:	_____				
LANGUAGE USED FOR INTERVIEW:		SPAN	ENG		
INTERVIEWER:	_____				
DATE OF INTERVIEW:	____/____/____				
	MO	DAY	YR		

### II. DEMOGRAPHIC INFORMATION

**DIALOGUE:** **Ahora, me gustaría hacerle unas preguntas acerca de usted. /**  
Now I would like to ask a few questions about you.

1. Se considera usted./ Do you consider yourself:

(**CONFIRM ASSUMPTION, CIRCLE FIRST ANSWER THAT APPLIES**)

- 1 LATINO (HISPANO)/ HISPANIC
- 2 BLANCO- NO LATINO (HISPANO)/ WHITE - NOT HISPANIC
- 3 NEGRO / BLACK
- 4 OTRO / OTHER: \_\_\_\_\_
- 5 DOESN'T KNOW
- 6 DECLINED TO ANSWER (**DO NOT READ**)

2. Sexo / Gender: 1 MALE 2 FEMALE (**DO NOT READ, CIRCLE APPROPRIATE ANSWER**)

3. En qué fecha nació usted? / What is your date of birth?

\_\_\_\_/\_\_\_\_/\_\_\_\_ (IF SUBJECT DOES NOT KNOW, GIVE AGE: \_\_\_\_ YEARS)  
MONTH DAY YEAR (CIRCLE: 00 = REFUSED)

4. Dónde nació? / Where were you born? (**CIRCLE FIRST ANSWER THAT APPLIES**)

- 1 LOS ESTADOS UNIDOS / U.S.
- 2 MEXICO (STATE: \_\_\_\_\_) (CODE: \_\_\_\_)
- 3 AMERICA CENTRAL (NOT MEXICO) (PAIS/COUNTRY: \_\_\_\_\_) (CODE: \_\_\_\_)
- 4 AMERICA DEL SUR (PAIS/COUNTRY: \_\_\_\_\_) (CODE: \_\_\_\_)
- 5 OTRO / OTHER: \_\_\_\_\_
- 6 DECLINED TO ANSWER (**DO NOT READ**)

5. Cuántos años tenía usted cuando empezó, por primera vez, a trabajar en la agricultura? / How old were you when you first began farm work?

\_\_\_\_ YEARS OLD (CIRCLE: 99 = DOESN'T RECALL 00 = REFUSED NN = NEVER WORKED IN AG)

6. En qué año vino usted por primera vez a Los Estados Unidos? / When did you come to the United States for the first time?

19 \_\_\_\_ YEAR (CIRCLE: 99 = DOESN'T RECALL 00 = REFUSED BB = BORN IN USA)

7. Cuántos meses vivió usted en Los Estados Unidos en el año 1996? / How many months did you live in the United States in 1996?

\_\_\_ MONTHS (CIRCLE: 99 = DOESN'T RECALL 00 = REFUSED)

8. Cuántas veces tuvo que cambiar de residencia en 1996 por motivo de buscar trabajo? / How many times did you move (that is, change living quarters) for work purposes during 1996?

- 2 1-2 TIMES/YR
- 3 3-4 TIMES/YR
- 4 5-6 TIMES/YR
- 5 7 + TIMES/YR
- 6 DECLINED TO ANSWER (DO NOT READ)

9. Incluyendo éste año, por cuántos años ha venido a vivir en éste centro? / Including this year, how many years have you been coming to live in this center?

\_\_\_ YEARS (CIRCLE: 99 = DOESN'T RECALL 00 = REFUSED)

10.Cuál fue el último grado o año que usted terminó en la escuela o secundaria? / What is the highest grade that you have completed in school? (CIRCLE HIGHEST GRADE OR YEAR COMPLETED)

01 02 03 04 05 06 PRIMARIA	07 08 09 10 11 12 SECUNDARIA	13 14+	99 = DOESN'T RECALL 00 = REFUSED NN = NO SCHOOL KK = KINDERGARDEN
-------------------------------	---------------------------------	--------	--

11. Normalmente, qué idioma habla usted en casa? / What language do you usually speak at home? (CIRCLE ANSWER)

SPAN 1 ENG 2 AMBOS 3 OTRO: 4 \_\_\_\_\_

12.Cuál es su opinión sobre su habilidad para leer el español? / How well do you read Spanish?  
Diría usted: (READ CHOICES & CIRCLE ANSWER)

EXCELENTE 1 BIEN 2 MAS O MENOS 3 UN POQUITO 4 NADA 5 REFUSED (DO NOT READ) 6

13.Cuál es su opinión sobre su habilidad para hablar el inglés? / How well do you speak English?  
Diría usted: (READ CHOICES & CIRCLE ANSWER)

EXCELENTE 1 BIEN 2 MAS O MENOS 3 UN POQUITO 4 NADA 5 REFUSED (DO NOT READ) 6

14.Cuál es su opinión sobre su habilidad para leer el inglés? / How well do you read English?  
Diría usted: (READ CHOICES & CIRCLE ANSWER)

EXCELENTE 1 BIEN 2 MAS O MENOS 3 UN POQUITO 4 NADA 5 REFUSED (DO NOT READ) 6

15. ¿Cuál es su estado civil? / What is your marital status? (*CIRCLE ANSWER*)

- 1 CASADO(A) / MARRIED
- 2 VIVE COMO PAREJA SIN ESTAR CASADO(A) / LIVING AS MARRIED WITH PARTNER
- 3 SOLTERO(A), NUNCA CASADO(A) / NEVER MARRIED
- 4 DIVORCIADO(A), SEPARADO(A) / DIVORCED, SEPARATED
- 5 VIUDO(A) / WIDOWED
- 6 DECLINED TO ANSWER (*DO NOT READ*)

(UCD-FH)

16. ¿Cuál de las siguientes categorías describe mejor el ingreso total en su casa en Los Estados Unidos en el año 1996? / Which of the following categories best describes your total household income in the United States for 1996? (*SHOW VIEWCARD, ASK SUBJECT TO TELL YOU THE LETTER*)

- |                       |   |
|-----------------------|---|
| A \$0 - 3,000         | F \$15,001 - \$20,000                       |
| B \$3,001 - \$6,000   | G MAS DE \$20,000                           |
| C \$6,001 - \$9,000   | H DECLINED TO ANSWER ( <i>DO NOT READ</i> ) |
| D \$9,001 - \$12,000  | I DOESN'T KNOW                              |
| E \$12,001 - \$15,000 | J DIDN'T WORK IN USA IN 1996                |

17. Aproximadamente, cuánto mide de estatura? / What is your height, approximately?

\_\_\_ PIES / FEET, \_\_\_ PULGADAS / INCHES (OR \_\_\_ CENTIMETERS)

18. Aproximadamente, cuánto pesa ahora? / How much do you weigh now, approximately?

\_\_\_ LIBRAS / POUNDS (OR \_\_\_ KILOGRAMS)

19. Con qué mano escribe? / What hand do you write with?

- 1 LA MANO DERECHA / RIGHT-HANDED
- 2 LA MANO IZQUIERDA / LEFT-HANDED
- 3 AMBAS / BOTH (AMBIDEXTROUS)
- 4 UNAWARE OR DECLINES TO STATE

### III. HEALTH STATUS AND HABITS

**DIALOGUE:** Ahora, me gustaría hacerle unas preguntas acerca de los hábitos y costumbres. Algunas de estas preguntas pueden ser un poco sensibles. Sus respuestas serán confidenciales y apreciaremos su franqueza. / Now, I would like to ask you some questions about habits and lifestyle. Some of these questions may be a little sensitive. Your answers are confidential and we will appreciate your frankness.

#### SMOKING HISTORY

1. ¿Alguna vez ha fumado cigarillos con regularidad? Conteste NO si ha fumado menos de 20 cajetillas, o si no llega a 1 cigarillo por día en todo el año. / Have you ever smoked cigarettes regularly? NO means less than 20 packs overall, or less than 1 cigarette per day for 1 year). (*CIRCLE ANSWER*)

- 1 YES    2 NO    9 REFUSED (*IF 'NO', GO TO ALCOHOL USAGE, PAGE 6*)

**IF YES:**

1A. ¿A qué edad comenzó usted a fumar cigarillos con regularidad? / How old were you when you first started smoking cigarettes regularly?

\_\_\_ YEARS OLD (*CIRCLE: 99 = DOESN'T RECALL    00 = REFUSED*) (UCD-DERM)

1B. Durante todo el tiempo que usted fumó cigarillos, cuál sería el promedio de cigarillos que fumaba al día?  
On the average for the entire time you smoked, how many cigarettes did you usually smoke per day?  
(1 PACK = 20 CIGARETTES)

\_\_\_ CIGS PER DAY (CIRCLE: 99 = DOESN'T RECALL 00 = REFUSED)

1C. Fuma cigarillos con regularidad ahora? / Do you smoke cigarettes regularly now?

1 YES 2 NO 9 REFUSED (DO NOT READ)

**IF YES:**

1C1. Cuántos cigarillos fuma usted al día ahora? / How many cigarettes do you smoke per day now?  
(1 PACK = 20 CIGARETTES)

\_\_\_ CIGS PER DAY (CIRCLE: 99 = DOESN'T RECALL 00 = REFUSED)

**IF NO:**

1C2. Si ha dejado completamente de fumar cigarillos, a qué edad dejó de fumar? / If you have stopped smoking cigarettes completely, how old were you when you stopped?

\_\_\_ YEARS OLD (CIRCLE: 99 = DOESN'T RECALL 00 = REFUSED)

(SKIP QUESTION 2 BELOW IF SUBJECT ANSWERED NO TO 1C)

2. Fuma cigarillos en su trabajo? / Do you ever smoke while at work?

1 YES 2 NO 3 ONLY ON BREAKS 9 REFUSED

**IF YES:**

2A. Cuántos cigarillos fuma usted al día en su trabajo? / How many cigarettes do you smoke during the day at work?

\_\_\_ CIGS PER DAY (CIRCLE: 99 = DOESN'T RECALL 98 = REFUSED) (SMC)

### ALCOHOL USAGE AND SAFETY HABITS

1. En alguna ocasión, toma o ha tomado bebidas alcohólicas? / Do you drink or have you drunk alcoholic beverages on any occasion?

1 YES  
2 NO (IF 'NO', SKIP TO QUESTION 5 ON PAGE 7)

2. Normalmente, cuántos días a la semana toma usted cerveza, vino, o licor? / On average, how many days each week do you drink beer, wine, or liquor?

1 MENOS QUE UN DIA POR SEMANA (ocasiones especiales) / LESS THAN ONE DAY PER WEEK  
2 1-2 DAYS PER WEEK  
3 3-4 DAYS PER WEEK  
4 5 OR MORE DAYS PER WEEK  
5 DECLINED TO ANSWER (DO NOT READ)

3. En los días que toma alcohol, cuál sería el promedio de bebidas alcohólicas que usted toma? Se considera que una bebida es 1 lata/botella de 12 onzas de cerveza, 1 copa de vino, 1 lata o envase de 'wine cooler', 1 coctel, o un trago de licor. / On days that you drink alcohol, how many drinks do you have, on the average?

One alcoholic drink is a 12-ounce can/bottle of beer, a 4-ounce glass of wine, or a 1.5 ounce shot of hard liquor.

1 1 DRINK PER DAY  
2 2 DRINKS PER DAY  
3 3-4 DRINKS PER DAY  
4 5 OR MORE DRINKS PER DAY  
5 DECLINED TO ANSWER (DO NOT READ)

4. En la hora del lonche en el trabajo, o durante una quebrada, bebe usted cerveza? / At work, do you drink beer at lunch or break time?

- 1 YES
- 2 NO (*GO TO QUESTION 5*)
- 3 REFUSED (*DO NOT READ*) (*GO TO QUESTION 5*)

**IF YES:**

<p>4A. Por lo general, cuántos días de la semana toma usted cerveza en la hora del lonche o durante la quebrada en el trabajo? On average, on how many work days each week do you drink beer at lunch or break time?</p> <ul style="list-style-type: none"><li>1 0 DAYS PER WEEK</li><li>2 1-2 DAYS PER WEEK</li><li>3 3-4 DAYS PER WEEK</li><li>4 5 OR MORE DAYS PER WEEK</li><li>5 DECLINED TO ANSWER (<i>DO NOT READ</i>) (<i>GO TO QUESTION 5</i>)</li></ul> <p>4B. En los días que usted toma cerveza en la hora del lonche o durante una quebrada, cuántas cervezas toma usted normalmente? / On days that you drink beer with lunch or during a break at work, how many beers do you have, on the average?</p> <ul style="list-style-type: none"><li>1 1 BEER PER DAY</li><li>2 2 BEERS PER DAY</li><li>3 3-4 BEERS PER DAY</li><li>4 5 OR MORE BEERS PER DAY</li><li>5 DECLINED TO ANSWER (<i>DO NOT READ</i>) (<i>GO TO QUESTION 5</i>)</li></ul>
--

**DIALOGUE:** Ahora quisiera preguntarle acerca de otros hábitos. /

Now I would like to ask you about other habits.

5. Durante los últimos 12 meses, ha viajado en la parte trasera de una camioneta que no estaba cubierta? / During the last 12 months, have you ever ridden in the back of an uncovered pickup truck?

- 1 YES
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED (*DO NOT READ*) (*GO TO QUESTION 6*)

**IF YES:**

<p>5A. Durante los últimos 12 meses, cuántas veces viajó en la parte trasera de una camioneta que no estaba cubierta? / During the last 12 months, how many times have you ridden in the back of an uncovered pickup truck?</p> <ul style="list-style-type: none"><li>1 _____ CANTIDAD DE VECES / NUMBER OF TIMES</li><li>2 DOESN'T KNOW</li><li>3 DECLINED TO ANSWER (<i>DO NOT READ, GO TO QUESTION 6</i>)</li></ul>
--

6. Con qué frecuencia usa usted el cinturón de seguridad cuando maneja o viaja en carro? Diría usted: / How often do you use a seatbelt when you drive or ride in a car? Would you say: (*READ CHOICES*)

- 1 SIEMPRE / ALWAYS
- 2 CASI SIEMPRE / NEARLY ALWAYS
- 3 A VECES / SOMETIMES
- 4 RARA VEZ (CASI NUNCA) / SELDOM
- 5 NUNCA / NEVER
- 6 DOESN'T KNOW
- 7 NUNCA MANEJO O VIAJO EN CARRO / NEVER DRIVES OR RIDES IN A CAR
- 8 DECLINED TO ANSWER (*DO NOT READ*)

7. Con qué frecuencia usa usted una faja para proteger la espalda cuando levanta o carga algo pesado? Diría usted: / How often do you wear a belt for back support when you lift or carry something heavy? Would you say: **(READ CHOICES)**

- 1 SIEMPRE / ALWAYS
- 2 CASI SIEMPRE / NEARLY ALWAYS
- 3 A VECES / SOMETIMES
- 4 RARA VEZ (CASI NUNCA) / SELDOM
- 5 NUNCA / NEVER
  
- 6 DOESN'T KNOW
- 7 NUNCA LEVANTO O CARGO COSAS PESADAS / NEVER LIFT OR CARRY HEAVY THINGS
- 8 DECLINED TO ANSWER **(DO NOT READ)**

**IV. HEALTH STATUS AND MEDICATION USAGE**

1. En esta próxima pregunta, le voy a leer una lista de antecedentes médicos. Por favor, dígame si usted padece de algunos de ellos. / In this next question, I'm going to read you a list of medical conditions. Please tell me if you have any of them.

<p>Tiene usted ...? / Do you have ...?</p>	<p>Está tomando medicina ahora para este problema? / Are you taking medication now for this problem?  IF YES: Me puede decir el nombre de ese medicamento? / Can you tell me the name of the medication?</p>	<p>Ha perdido días de trabajo ahora o durante el año pasado a causa del problema?  Have you lost any work days now or over the past year due to the problem?</p>
<p>problemas con su CORAZON? / problems with your HEART?</p> <p>1 NO 2 YES <input checked="" type="radio"/> 3 DOESN'T KNOW 4 DECLINED TO ANSWER</p>	<p>1 NO 2 YES  (NAME IF AVAILABLE): _____</p>	<p>1 NO 2 YES  IF YES, cuántos días? / how many days? _____ días</p>
<p>Tiene usted ASMA? / Do you have ASTHMA?</p> <p>1 NO 2 YES <input checked="" type="radio"/> 3 DOESN'T KNOW 4 DECLINED TO ANSWER</p>	<p>1 NO 2 YES  (NAME IF AVAILABLE): _____</p>	<p>1 NO 2 YES  IF YES, cuántos días? / how many days? _____ días</p>
<p>Tiene usted otros problemas con los PULMONES o al RESPIRAR? / Do you have other problems with your LUNGS or with BREATHING?</p> <p>1 NO 2 YES <input checked="" type="radio"/> 3 DOESN'T KNOW 4 DECLINED TO ANSWER</p>	<p>1 NO 2 YES  (NAME IF AVAILABLE): _____</p>	<p>1 NO 2 YES  IF YES, cuántos días? / how many days? _____ días</p>

<p>Tiene usted...? / Do you have ...?</p>	<p>Está tomando medicina ahora para este problema? / Are you taking medication now for this problem?</p> <p>IF YES: Me puede decir el nombre de ese medicamento? / Can you tell me the name of the medication?</p>	<p>Ha perdido días de trabajo ahora o durante el año pasado a causa del problema?</p> <p>Have you lost any work days now or over the past year due to the problem?</p>
<p>problemas con el ESTOMAGO? / problems with your STOMACH?</p> <p>incluyendo diarrea, vómito, dolor de estómago y gastritis.?</p> <p>1 NO 2 YES <input checked="" type="checkbox"/>  3 DOESN'T KNOW 4 DECLINED TO ANSWER</p>	<p>1 NO 2 YES</p> <p>(NAME IF AVAILABLE): _____</p>	<p>1 NO 2 YES</p> <p>IF YES, cuántos días? / how many days? _____ días</p>
<p>Tiene usted DOLOR DE ESPALDA, ARTRITIS o REUMATISMO? / Do you have BACK PAIN, ARTHRITIS or RHEUMATISM?</p> <p>1 NO 2 YES <input checked="" type="checkbox"/>  3 DOESN'T KNOW 4 DECLINED TO ANSWER</p>	<p>1 NO 2 YES</p> <p>(NAME IF AVAILABLE): _____</p>	<p>1 NO 2 YES</p> <p>IF YES, cuántos días? / how many days? _____ días</p>
<p>problemas CON LA VISTA? / POOR VISION?</p> <p>1 NO 2 YES <input checked="" type="checkbox"/>  3 DOESN'T KNOW 4 DECLINED TO ANSWER</p> <p>Usa lentes o lentes de contacto? / Do you wear glasses or contacts?</p> <p>1 NO      2 YES</p>	<p>1 NO 2 YES</p> <p>(NAME IF AVAILABLE): _____</p>	<p>1 NO 2 YES</p> <p>IF YES, cuántos días? / how many days? _____ días</p>
<p>problemas PARA OIR? / HEARING PROBLEMS?</p> <p>1 NO 2 YES <input checked="" type="checkbox"/>  3 DOESN'T KNOW 4 DECLINED TO ANSWER</p> <p>Usa un aparato auditivo? / Do you wear a hearing aid?</p> <p>1 NO      2 YES</p>	<p>1 NO 2 YES</p> <p>(NAME IF AVAILABLE): _____</p>	<p>1 NO 2 YES</p> <p>IF YES, cuántos días? / how many days? _____ días</p>

<p>Tiene usted ...? / Do you have ...?</p>	<p>Está tomando medicina ahora para este problema? / Are you taking medication now for this problem?  IF YES: Me puede decir el nombre de ese medicamento? / Can you tell me the name of the medication?</p>	<p>Ha perdido días de trabajo ahora o durante el año pasado a causa del problema?  Have you lost any work days now or over the past year due to the problem?</p>
<p>DIABETES o alto nivel de azúcar en la sangre? / DIABETES or high blood sugar?</p> <p>1 NO 2 YES <input checked="" type="radio"/>  3 DOESN'T KNOW 4 DECLINED TO ANSWER</p>	<p>1 NO 2 YES  (NAME IF AVAILABLE): _____</p>	<p>1 NO 2 YES  IF YES, cuántos días? / how many days? _____ días</p>
<p>ALTA PRESION DE SANGRE? / HIGH BLOOD PRESSURE?</p> <p>1 NO 2 YES <input checked="" type="radio"/>  3 DOESN'T KNOW 4 DECLINED TO ANSWER</p>	<p>1 NO 2 YES  (NAME IF AVAILABLE): _____</p>	<p>1, NO 2 YES  IF YES, cuántos días? / how many days? _____ días</p>
<p>ALERGIAS O SINUSITIS? / ALLERGY OR SINUS PROBLEMS?</p> <p>1 NO 2 YES <input checked="" type="radio"/>  3 DOESN'T KNOW 4 DECLINED TO ANSWER</p>	<p>1 NO 2 YES  (NAME IF AVAILABLE): _____</p>	<p>1 NO 2 YES  IF YES, cuántos días? / how many days? _____ días</p>
<p>DEPRESION? / DEPRESSION?</p> <p>1 NO 2 YES <input checked="" type="radio"/>  3 DOESN'T KNOW 4 DECLINED TO ANSWER</p>	<p>1 NO 2 YES  (NAME IF AVAILABLE): _____</p>	<p>1 NO 2 YES  IF YES, cuántos días? / how many days? _____ días</p>
<p>OTRO PROBLEMA DE SALUD? / OTHER HEALTH PROBLEM?</p> <p>1 NO 2 YES <input checked="" type="radio"/>  DESCRIPCION: _____ 3 DOESN'T KNOW 4 DECLINED TO ANSWER</p>	<p>1 NO 2 YES  (NAME IF AVAILABLE): _____</p>	<p>1 NO 2 YES  IF YES, cuántos días? / how many days? _____ días</p>

## V. PREVENTIVE HEALTH BEHAVIORS

**DIALOGUE:** Ahora, me gustaría hacerle unas preguntas sobre exámenes de salud. / Now, I would like to ask you some questions about health examinations.

1. Algunas personas visitan al médico para un chequeo o examen general, aunque se sientan bien y no hayan estado enfermos. Cuándo fue la última vez que vió un médico para un “chequeo” o examen general? Fué durante el año pasado, hace 1 a 2 años, hace 2 a 5 años, o hace más de 5 años?.. / Some people go to the doctor for a checkup or general examination even when they’re well and not feeling sick. How long has it been since your last checkup or general exam? Has it been during the past year, between 1 and 2 years, between 2 and 5 years, or more than five years?

- 1 DURANTE LOS ULTIMOS 12 MESES / DURING THE PAST 12 MONTHS
- 2 HACE 1 - 2 AÑOS / BETWEEN 1 AND 2 YEARS AGO
- 3 HACE 2 - 5 AÑOS / BETWEEN 2 AND 5 YEARS AGO
- 4 HACE MAS DE 5 AÑOS / MORE THAN 5 YEARS AGO
- 5 DOESN'T KNOW
- 6 DECLINED TO ANSWER (*DO NOT READ*)
- 7 NUNCA TUVO UN CHEQUEO / EXAMEN GENERAL / NEVER HAD A CHECKUP

2. Algunos de los siguientes factores podrían influir su decisión para consultar un doctor. Por cada pregunta que le hago, por favor conteste usted si el factor es: “muy importante”, “algo importante” o “no es importante”. Some of the following factors can influence your decision to see a doctor. For each question that I ask, please answer if the factor is “very important”, “somewhat important” or “not important”.

RAZON	muy importante	algo importante	no es importante
1 Qué tan importante es tener transportación para ir al doctor? / How important is having transportation to get to the doctor?	1	2	3
2 Qué tan importante es el precio de la consulta? / How important is the cost of the consultation?	1	2	3
3 Qué tan importante es que el doctor hable español? / How important is it that the doctor speaks Spanish?	1	2	3
4 Qué tan importante es el horario de atención médica? / How important is the office hours?	1	2	3
5 Qué tan importante es que el doctor entienda su problema? / How important is it that the doctor understand your health problems?	1	2	3
6 Qué tan importante es que el doctor le trate bien? / How important is it that the doctor treats you well?.	1	2	3

3. Durante los últimos 12 meses, hubo alguna ocasión cuando NECESITO ver un médico o comprar alguna medicina pero no pudo debido al PRECIO de la consulta o la medicina? / Has there been any time in the past 12 months when you needed to go to the doctor or get some medicine but could not because of the price of the consultation or the medicine?

- 1 SI / YES
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER (*DO NOT READ*)

## VI. WOMENS' HEALTH

**INTERVIEWER:** *The next 10 questions are to be asked of adult women only. If the subject is male, go to MEDICAL / HEALTH INSURANCE, page 14.*

**DIALOGUE:** **La próxima serie de preguntas trata de salud preventiva de mujeres. Algunas de las preguntas pueden ser sensibles. Sus respuestas serán confidenciales y apreciaremos su colaboración.** / The next ten questions are about womens' preventive health. Some of the questions are sensitive. Your responses will be confidential, and we appreciate your collaboration.

1. Ahora, me gustaría hacerle unas preguntas sobre los exámenes para detectar el cáncer en las mujeres. Ha OIDO HABLAR de la prueba de Papanicolaou o Pap? / Now, I would like to ask some questions about examinations to detect cancer in women. Have you ever heard about the Papanicolaou or Pap test?

- 1 SI / YES
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

2. (Como usted sabe, la...) La prueba de Papanicolaou o Pap es cuando un médico raspa el cuello del útero y la matriz durante un examen de la pelvis para detectar el cáncer. Le han hecho la prueba de Papanicolaou alguna vez? / (As you know,...) the Papanicolau or Pap test is when a doctor scrapes the opening and the body of the uterus during a pelvic examination to detect cancer. Have you ever had a Papanicolaou or Pap test?

- 1 SI / YES
- 2 NO (SKIP TO #5)
- 3 DOESN'T KNOW (SKIP TO #5)
- 4 DECLINED TO ANSWER (SKIP TO #5)

### **IF YES:**

3. Tuvo su última prueba de Papanicolaou a causa de un problema de salud o era parte de un examen general? / Did you have your last Papanicolaou or Pap test because of a health problem or as part of a general examination?

- 1 PROBLEMA DE SALUD / HEALTH PROBLEM
- 2 EXAMEN GENERAL / GENERAL EXAMINATION
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

4. Cuándo fue la última vez que le hicieron la prueba de Papanicolaou? Fué durante el año pasado, hace 1 a 3 años, hace 4 a 5 años, o hace más de 5 años? / When was the last time you had a Papanicolaou or Pap test? Was it during the past 12 months, between 1 and 3 years, between 4 and 5 years, or has it been more than 5 years?

- 1 HACE 0-12 MESES
- 2 HACE 1-3 AÑOS (13-36 MESES)
- 3 HACE 4-5 AÑOS (37-60 MESES)
- 4 HACE MAS DE 5 AÑOS (61 MESES O MAS)
- 5 DOESN'T KNOW
- 6 DECLINED TO ANSWER

5. Ahora me gustaría preguntarle acerca de los exámenes para detectar el cáncer de los senos. Sabe usted como examinarse los senos para detectar nudos o bolitas? / Now, I would like to ask you about examinations to detect breast cancer. Do you know how to examine your breasts to find lumps or nodes?

- 1 SI / YES (*GO TO NEXT QUESTION*)
- 2 NO (*SKIP TO #7, PAGE 13*)
- 3 DOESN'T KNOW (*SKIP TO #7, PAGE 13*)
- 4 DECLINED TO ANSWER (*SKIP TO #7, PAGE 13*)

**IF YES:**

6. Aproximadamente cada cuándo se examina los senos para detectar bolitas o nudos? /  
Approximately how often do you examine your breasts to find lumps or nodes?

- 1 \_\_\_\_\_ VECES A LA SEMANA / TIMES PER WEEK
- 2 \_\_\_\_\_ VECES AL MES / TIMES PER MONTH
- 3 \_\_\_\_\_ VECES AL AÑO / TIMES PER YEAR
- 4 NUNCA / NEVER
- 5 DOESN'T KNOW
- 6 DECLINED TO ANSWER

7. Hay otro tipo de examen que se utiliza para detectar el cáncer en los senos. Se llama mamograma o mamografía. Ha oído hablar de mamogramas o mamografía? / There is another type of exam that is used to detect breast cancer. It is called a mammogram or mammograph. Have you ever heard of a mammogram?

- 1 SI / YES
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

8. (Como usted sabe, un...) Un mamograma es un rayo equis de los senos tomado por una máquina que presiona el seno y saca una foto. Le han hecho alguna vez un mamograma? / (As you know, a...) A mammogram is an X-ray of the breasts taken by a machine that presses the breast and takes a photo. Have you ever had a mammogram?

- 1 SI / YES .. (*GO TO NEXT QUESTION*)
- 2 NO (*GO TO MEDICAL / HEALTH INSURANCE, PAGE 14*)
- 3 DOESN'T KNOW (*GO TO MEDICAL / HEALTH INSURANCE, PAGE 14*)
- 4 DECLINED TO ANSWER (*GO TO MEDICAL / HEALTH INSURANCE, PAGE 14*)

9. Tuvo su último mamograma debido a un problema de los senos o como parte de un examen general? / Did you get your last mammogram because you had a problem with your breasts or as part of a general physical examination?

- 1 PROBLEMA DE LOS SENOS / PROBLEM WITH MY BREASTS
- 2 EXAMEN GENERAL / AS PART OF A GENERAL PHYSICAL EXAMINATION
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

10. Aproximadamente cuánto tiempo ha pasado desde que le hicieron su último mamograma? Fue durante los últimos 12 meses, hace 1 a 2 años, hace 3 a 5 años, o hace más de 5 años? / Approximately how long has it been since your last mammogram? Was it during the past 12 months, between 1 and 2 years, between 3 and 5 years, or more than 5 years?

- 1 HACE 0-12 MESES / DURING THE PAST 12 MONTHS
- 2 HACE 1-2 AÑOS (13-24 MESES) / DURING THE PAST YEAR (BETWEEN 0 AND 12 MONTHS)
- 3 HACE 3-5 AÑOS (25-60 MESES) / IT HAS BEEN 1 TO 2 YEARS (BETWEEN 13 AND 24 MONTHS)
- 4 HACE MAS DE 5 AÑOS (61+ MESES) / IT HAS BEEN 2-5 YEARS (BETWEEN 25 AND 60 MONTHS)
- 5 DOESN'T KNOW
- 6 DECLINED TO ANSWER

## VII MEDICAL / HEALTH INSURANCE

**DIALOGUE: La próxima pregunta trata de aseguranza médica (seguro médico).**

The next question asks you about health insurance.

1. Tiene usted aseguranza médica (seguro médico) en Los Estados Unidos? / Do you have medical insurance in the U.S.?

- |   |          |   |   |
|---|----------|---|---|
| 1 | SI / YES | 3 | DOESN'T KNOW                              |
| 2 | NO       | 4 | DECLINED TO ANSWER ( <i>DO NOT READ</i> ) |

### **IF YES:**

1A. Qué tipo? / What kind?

- |   |   |
|---|---|
| 1 | MEDI-CAL / MEDICAID / MEDICARE                              |
| 2 | COMPRADO POR MI O MI FAMILIA / PURCHASED BY ME OR MY FAMILY |
| 3 | COMPRADO POR MI PATRON / PURCHASED BY MY EMPLOYER           |
| 4 | DOESN'T KNOW  |
| 5 | DECLINED TO ANSWER ( <i>DO NOT READ</i> )                   |
| 6 | OTRO / OTHER: _____   |

## VIII IDENTIFYING THE WORKING POPULATION

1. Ha tenido usted un trabajo durante los últimos 12 meses que fue pagado? / Have you had a paid job during the past 12 months?

- |   |                    |                                 |
|---|--------------------|---------------------------------|
| 1 | SI / YES           | ( GO TO WORK HISTORY, PAGE 15 ) |
| 2 | NO                 | ( GO TO 'IF NO' BOX BELOW )     |
| 3 | DOESN'T KNOW       |                                 |
| 4 | DECLINED TO ANSWER |                                 |

**IF NO:** ( ASK QUESTION 1A IN BOX BELOW. THEN GO TO 'IDENTIFYING A QUALIFYING INJURY', PAGE 21 )

1A. Me podría decir el motivo por el cual no le fue posible trabajar durante los últimos 12 meses? / Could you tell me the reason why it hasn't been possible for you to work over the past 12 months?

- |   |  |
|---|--|
| 1 | MANTIENE LA CASA PERO NO HAY NIÑOS / MAINTAINS THE HOUSE / NO CHILDREN   |
| 2 | MANTIENE LA CASA Y CUIDA NIÑOS / MAINTAINS THE HOUSE AND TAKES CARE OF CHILDREN  |
| 3 | SE CONSIDERA DEMASIADO VIEJO(A) PARA TRABAJAR / CONSIDERS SELF TOO OLD TO WORK   |
| 4 | NO TIENE PERMISO LEGAL PARA TRABAJAR EN LOS ESATADOS UNIDOS / DOESN'T HAVE LEGAL PERMISSION TO WORK IN THE UNITED STATES |
| 5 | TIENE ALGUN DAÑO FISICO QUE NO LE PERMITE TRABAJAR / PYHSICAL IMPAIRMENT PREVENTS WORKING                                |

Qué problema tiene? / What problem do you have?

SPECIFY: \_\_\_\_\_ ( \_\_\_\_\_ )

- |   |                    |
|---|--------------------|
| 6 | OTRO / OTHER _____ |
| 7 | DOESN'T KNOW       |
| 8 | DECLINED TO ANSWER |

**IX. WORK HISTORY**

**DIALOGUE:** Ahora me gustaría hacerle unas preguntas acerca de su trabajo o trabajos que haya tenido durante los últimos 12 meses. / Now I would like to ask you about your current work and work you've had over the last 12 months.

	Qué hacía? What did you do for this job?			
<p>1. Para quién trabaja (trabajaba) ahora (antes)? Trabaja (trabajaba) para un contratista, directamente para un ranchero, para una compañía, u otro?</p> <p>2. En qué idioma recibe (recibía ) usted sus instrucciones de trabajo?</p> <p>1. For whom do you work right now? Do you work for a FLC, work directly for a farm owner, work for a company, or other?</p> <p>2. In what language do (did) you receive your work instructions?</p>	<p><i>Cosechas o cultivos?</i></p> <p>Crops or commodities? (Ag only; use pick list)</p>	<p>Cuáles son (fueron) sus responsabilidades en éste (ese) trabajo?</p> <p>What are (were) your job duties? (Ag only; use pick list)</p>	<p>Cuándo comenzó éste (ese) trabajo?</p> <p>When did this (that) job begin?</p>	<p>Cuándo terminó éste (ese) trabajo?</p> <p>When did this (that) job end?</p>
<p>1.</p> <p>1 CONTRATISTA / FLC</p> <p>2 RANCHERO / DIRECT HIRE</p> <p>3 COMPAÑIA / COMPANY</p> <p>4 OTRO _____</p> <p>Nombre del empleador (if known)? _____</p> <p>Ciudad? / Estado? _____ / _____</p> <p>Idioma? 1 SPA 2 ENG 3 AMBOS</p>	<p>_____ =&gt;</p> <p>_____ =&gt;</p> <p>_____ =&gt;</p> <p>_____ =&gt;</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>____/____/____</p> <p>mo day yr</p>	<p>____/____/____</p> <p>mo day yr</p> <p><u>OR</u></p> <p>STILL WORKING (CIRCLE)</p>
<p>2.</p> <p>1 CONTRATISTA / FLC</p> <p>2 RANCHERO / DIRECT HIRE</p> <p>3 COMPAÑIA / COMPANY</p> <p>4 OTRO _____</p> <p>Nombre del empleador (if known): _____</p> <p>Ciudad? / Estado? _____ / _____</p> <p>Idioma? 1 SPA 2 ENG 3 AMBOS</p>	<p>_____ =&gt;</p> <p>_____ =&gt;</p> <p>_____ =&gt;</p> <p>_____ =&gt;</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>____/____/____</p> <p>mo day yr</p>	<p>____/____/____</p> <p>mo day yr</p> <p><u>OR</u></p> <p>STILL WORKING (CIRCLE)</p>

<p>Cómo llega (llegaba) al trabajo?</p> <p>How do (did) you get to work?</p>	<p>1. Cuántas horas a la semana trabaja (trabajaba)? 2. Le pagan (pagaban) por hora o por contrato? How many hours per week do (did) you work? Are you (Were you) payed an hourly wage or piece-rate wage?</p>	<p>Recibió algún entrenamiento? Por ejemplo como manejar de una forma segura una máquina o como evitar lesiones mientras trabaja? Did you receive any safety training on this job (for example, how to safely operate a machine or how to do your job safely)?</p>	<p>Mezcló/cargó, aplicó o trabajó de alguna manera con productos químicos en éste (ese) trabajo? Did you mix/load, apply or work in any way with chemical products on this (that) job?</p>
<p>1.</p> <p>1 CARRO PROPIO 2 CARPOOL 3 RAITERO 4 OTRO: _____ 5 REFUSED</p>	<p>_____ HRS/WK</p> <p><i>(Si no sabe, obtenga una estimación. .... If doesn't know, get an estimate.)</i></p> <p>1 POR HORA 2 POR CONTRATO 3 OTRO: _____ 4 DOESN'T KNOW 5 REFUSED</p>	<p>TRAIN: 1 YES 2 NO 3 DK 4 REFUSED</p> <p>Tema principal: / Main topic: _____</p> <p>Forma: / Idioma / Language Form SP ENG OTH</p> <p>VIDEO 1 2 3 FDEM 1 2 3 READ 1 2 3 OTH: 1 2 3</p> <p>Cuánto tiempo? How much time? _____ circle ==&gt; hours / minutes</p>	<p>1 YES 2 NO 3 DK 4 REFUSED</p> <p>Qué clase de producto químico fue? / What kind of chemical product was it?</p> <p>1 PESTICIDA ==&gt; (go to tareas) 2 FERTILIZANTE 3 DOESN'T KNOW 4 REFUSED</p> <p>Tareas: Qué fue lo que hizo?</p> <p>1 MIX/LOAD 2 APPLY 3 OTHER _____</p> <p>Con qué frecuencia? / How often?</p> <p>1 2 3 4 ≤1 D/W 2-6 D/W daily DK</p>
<p>2.</p> <p>1 CARRO PROPIO 2 CARPOOL 3 RAITERO 4 OTHER: _____ 5 REFUSED</p>	<p>_____ HRS/WK</p> <p><i>(Si no sabe, obtenga una estimación. .... If doesn't know, get an estimate.)</i></p> <p>1 POR HORA 2 POR CONTRATO 3 OTRO: _____ 4 DOESN'T KNOW 5 REFUSED</p>	<p>TRAIN: 1 YES 2 NO 3 DK 4 REFUSED</p> <p>Tema principal: / Main topic: _____</p> <p>Forma: / Idioma / Language Form SP ENG OTH</p> <p>VIDEO 1 2 3 FDEM 1 2 3 READ 1 2 3 OTH: 1 2 3</p> <p>Cuánto tiempo? How much time? _____ circle ==&gt; hours / minutes</p>	<p>1 YES 2 NO 3 DK 4 REFUSED</p> <p>Qué clase de producto químico fue? / What kind of chemical product was it?</p> <p>1 PESTICIDA ==&gt; (go to tareas) 2 FERTILIZANTE 3 DOESN'T KNOW 4 REFUSED</p> <p>Tareas: Qué fue lo que hizo?</p> <p>1 MIX/LOAD 2 APPLY 3 OTHER _____</p> <p>Con qué frecuencia? / How often?</p> <p>1 2 3 4 ≤1 D/W 2-6 D/W daily DK</p>

	Qué hacía? What did you do for this job?			
<b>INTERVIEWER: CONTINUE OBTAINING EMPLOYMENT HISTORY. GO BACK TO MAY OF 1996.</b>	<i>Cosechas o cultivos?</i>	Cuáles son (fueron) sus responsabilidades en éste (ese) trabajo?	Cuándo comenzó éste (ese) trabajo?	Cuándo terminó éste (ese) trabajo?
	Crops or commodities? <i>(Ag only; use pick list)</i>	What are (were) your job duties? <i>(Ag only; use pick list)</i>	When did this (that) job begin?	When did this (that) job end?
3. 1 CONTRATISTA / FLC 2 RANCHERO / DIRECT HIRE 3 COMPAÑIA / COMPANY 4 OTRO _____ Nombre del empleador (if known)? _____ Ciudad? / Estado? _____ / _____ Idioma? 1 SPA 2 ENG 3 AMBOS	_____ ==> _____ ==> _____ ==>	_____ _____ _____	____ / ____ / ____ mo day yr OR STILL WORKING (CIRCLE)	____ / ____ / ____ mo day yr OR STILL WORKING (CIRCLE)
4. 1 CONTRATISTA / FLC 2 RANCHERO / DIRECT HIRE 3 COMPAÑIA / COMPANY 4 OTRO _____ Nombre del empleador (if known): _____ Ciudad? / Estado? _____ / _____ Idioma? 1 SPA 2 ENG 3 AMBOS	_____ ==> _____ ==> _____ ==>	_____ _____ _____	____ / ____ / ____ mo day yr OR STILL WORKING (CIRCLE)	____ / ____ / ____ mo day yr OR STILL WORKING (CIRCLE)

<p>Cómo llega (llegaba) al trabajo?</p> <p>How do (did) you get to work?</p>	<p>1. Cuántas horas a la semana trabaja (trabajaba)? 2. Le pagan (pagaban) por hora o por contrato? How many hours per week do (did) you work? Are you (Were you) payed an hourly wage or piece-rate wage?</p>	<p>Recibió algún entrenamiento? Por ejemplo como manejar de una forma segura una máquina o como evitar lesiones mientras trabaja? Did you receive any safety training on this job (for example, how to safely operate a machine or how to do your job safely)?</p>	<p>Mezcló/cargó, aplicó o trabajó de alguna manera con productos químicos en éste (ese) trabajo? Did you mix/load, apply or work in any way with chemical products on this (that) job?</p>
<p>3.</p> <p>1 CARRO PROPIO 2 CARPOOL 3 RAITERO 4 OTHER: _____ 5 REFUSED</p>	<p>_____ HRS/WK</p> <p><i>(Si no sabe, obtenga una estimación. .... If doesn't know, get an estimate.)</i></p> <p>1 POR HORA 2 POR CONTRATO 3 OTRO: _____ 4 DOESN'T KNOW 5 REFUSED</p>	<p>TRAIN: 1 YES 2 NO 3 DK 4 REFUSED</p> <p>Tema principal: / Main topic: _____</p> <p>Forma: / Idioma / Language Form SP ENG OTH VIDEO 1 2 3 FDEM 1 2 3 READ 1 2 3 OTH: 1 2 3</p> <p>Cuánto tiempo? How much time? _____ circle ==&gt; hours / minutes</p>	<p>1 YES 2 NO 3 DK 4 REFUSED</p> <p>Qué clase de producto químico fue? / What kind of chemical product was it?</p> <p>1 PESTICIDA ==&gt; (go to tareas) 2 FERTILIZANTE 3 DOESN'T KNOW 4 REFUSED</p> <p>Tareas: Qué fue lo que hizo?</p> <p>1 MIX/LOAD 2 APPLY 3 OTHER _____</p> <p>Con qué frecuencia? / How often?</p> <p>1 2 3 4 ≤1 D/W 2-6 D/W daily DK</p>
<p>4.</p> <p>1 CARRO PROPIO 2 CARPOOL 3 RAITERO 4 OTHER: _____ 5 REFUSED</p>	<p>_____ HRS/WK</p> <p><i>(Si no sabe, obtenga una estimación. .... If doesn't know, get an estimate.)</i></p> <p>1 POR HORA 2 POR CONTRATO 3 OTRO: _____ 4 DOESN'T KNOW 5 REFUSED</p>	<p>TRAIN: 1 YES 2 NO 3 DK 4 REFUSED</p> <p>Tema principal: / Main topic: _____</p> <p>Forma: / Idioma / Language Form SP ENG OTH VIDEO 1 2 3 FDEM 1 2 3 READ 1 2 3 OTH: 1 2 3</p> <p>Cuánto tiempo? How much time? _____ circle ==&gt; hours / minutes</p>	<p>1 YES 2 NO 3 DK 4 REFUSED</p> <p>Qué clase de producto químico fue? / What kind of chemical product was it? -</p> <p>1 PESTICIDA ==&gt; (go to tareas) 2 FERTILIZANTE 3 DOESN'T KNOW 4 REFUSED</p> <p>Tareas: Qué fue lo que hizo?</p> <p>1 MIX/LOAD 2 APPLY 3 OTHER _____</p> <p>Con qué frecuencia? / How often?</p> <p>1 2 3 4 ≤1 D/W 2-6 D/W daily DK</p>

<p><b>INTERVIEWER: CONTINUE OBTAINING EMPLOYMENT HISTORY. GO BACK TO MAY OF 1996.</b></p>	<p>Qué hacía? What did you do for this job?</p>			
	<p><i>Cosechas o cultivos?</i> Crops or commodities? <i>(Ag only; use pick list)</i></p>	<p>Cuáles son (fueron) sus responsabilidades en éste (ese) trabajo? What are (were) your job duties? <i>(Ag only; use pick list)</i></p>	<p>Cuándo comenzó éste (ese) trabajo? When did this (that) job begin?</p>	<p>Cuándo terminó éste (ese) trabajo? When did this (that) job end?</p>
<p>5.</p> <p>1 CONTRATISTA / FLC 2 RANCHERO / DIRECT HIRE 3 COMPAÑIA / COMPANY 4 OTRO _____</p> <p>Nombre del empleador (if known)? _____</p> <p>Ciudad? / Estado? _____ / _____</p> <p>Idioma? 1 SPA 2 ENG 3 AMBOS</p>	<p>____ =&gt;</p> <p>____ =&gt;</p> <p>____ =&gt;</p> <p>____ =&gt;</p>	<p>____ _</p> <p>____ _</p> <p>____ _</p> <p>____ _</p>	<p>___ / ___ / ___ mo day yr</p>	<p>___ / ___ / ___ mo day yr</p> <p>OR</p> <p>STILL WORKING (CIRCLE)</p>
<p>6.</p> <p>1 CONTRATISTA / FLC 2 RANCHERO / DIRECT HIRE 3 COMPAÑIA / COMPANY 4 OTRO _____</p> <p>Nombre del empleador (if known): _____</p> <p>Ciudad? / Estado? _____ / _____</p> <p>Idioma? 1 SPA 2 ENG 3 AMBOS</p>	<p>____ =&gt;</p> <p>____ =&gt;</p> <p>____ =&gt;</p> <p>____ =&gt;</p>	<p>____ _</p> <p>____ _</p> <p>____ _</p> <p>____ _</p>	<p>___ / ___ / ___ mo day yr</p>	<p>___ / ___ / ___ mo day yr</p> <p>OR</p> <p>STILL WORKING (CIRCLE)</p>

<p>Cómo llega (llegaba) al trabajo?</p> <p>How do (did) you get to work?</p>	<p>1. Cuántas horas a la semana trabaja (trabajaba)? 2. Le pagan (pagaban) por hora o por contrato? How many hours per week do (did) you work? Are you (Were you) payed an hourly wage or piece-rate wage?</p>	<p>Recibió algún entrenamiento? Por ejemplo como manejar de una forma segura una máquina o como evitar lesiones mientras trabaja? Did you receive any safety training on this job (for example, how to safely operate a machine or how to do your job safely)?</p>	<p>Mezcló/cargó, aplicó o trabajó de alguna manera con productos químicos en éste (ese) trabajo? Did you mix/load, apply or work in any way with chemical products on this (that) job?</p>
<p>5.</p> <p>1 CARRO PROPIO 2 CARPOOL 3 RAITERO 4 OTRO: _____ 5 REFUSED</p>	<p>_____ HRS/WK</p> <p><i>(Si no sabe, obtenga una estimación. .... If doesn't know, get an estimate.)</i></p> <p>1 POR HORA 2 POR CONTRATO 3 OTRO: _____ 4 DOESN'T KNOW 5 REFUSED</p>	<p>TRAIN: 1 YES 2 NO 3 DK 4 REFUSED</p> <p>Tema principal: / Main topic: _____</p> <p>Forma: / Idioma / Language Form SP ENG OTH</p> <p>VIDEO 1 2 3 FDEM 1 2 3 READ 1 2 3 OTH: 1 2 3</p> <p>Cuánto tiempo? How much time? _____ circle ==&gt; hours / minutes</p>	<p>1 YES 2 NO 3 DK 4 REFUSED</p> <p>Qué clase de producto químico fue? / What kind of chemical product was it?</p> <p>1 PESTICIDA ==&gt; (go to tareas) 2 FERTILIZANTE 3 DOESN'T KNOW 4 REFUSED</p> <p>Tareas: Qué fue lo que hizo?</p> <p>1 MIX/LOAD 2 APPLY 3 OTHER _____</p> <p>Con qué frecuencia? / How often?</p> <p>1 2 3 4 ≤1 D/W 2-6 D/W daily DK</p>
<p>6.</p> <p>1 CARRO PROPIO 2 CARPOOL 3 RAITERO 4 OTRO: _____ 5 REFUSED</p>	<p>_____ HRS/WK</p> <p><i>(Si no sabe, obtenga una estimación. .... If doesn't know, get an estimate.)</i></p> <p>1 POR HORA 2 POR CONTRATO 3 OTRO: _____ 4 DOESN'T KNOW 5 REFUSED</p>	<p>TRAIN: 1 YES 2 NO 3 DK 4 REFUSED</p> <p>Tema principal: / Main topic: _____</p> <p>Forma: / Idioma / Language Form SP ENG OTH</p> <p>VIDEO 1 2 3 FDEM 1 2 3 READ 1 2 3 OTH: 1 2 3</p> <p>Cuánto tiempo? How much time? _____ circle ==&gt; hours / minutes</p>	<p>1 YES 2 NO 3 DK 4 REFUSED</p> <p>Qué clase de producto químico fue? / What kind of chemical product was it? -</p> <p>1 PESTICIDA ==&gt; (go to tareas) 2 FERTILIZANTE 3 DOESN'T KNOW 4 REFUSED</p> <p>Tareas: Qué fue lo que hizo?</p> <p>1 MIX/LOAD 2 APPLY 3 OTHER _____</p> <p>Con qué frecuencia? / How often?</p> <p>1 2 3 4 ≤1 D/W 2-6 D/W daily DK</p>

## X. IDENTIFYING A QUALIFYING INJURY

**INTERVIEWER:** *BE SURE TO ASK ALL FIVE QUESTIONS IN THIS SECTION BEFORE GOING TO THE INJURY MODULE OR BEFORE ENDING THE INTERVIEW.*

**DIALOGUE:** Ahora me gustaría preguntarle acerca de lesiones que usted haya tenido durante los últimos 12 meses. Estamos interesados en oír acerca de todas las lesiones, incluyendo aquellas que hayan pasado mientras iba al trabajo o regresaba a la casa y, también, aquellas que no tuvieron nada que ver con el trabajo. /

Now I would like to ask you about any injuries you may have had during the past 12 months. We are interested in hearing about all your injuries, including those that may have happened while you went to and from work and even those that had nothing to do with work.

1. En los últimos 12 meses, ha tenido alguna lesión por la cual le atendió alguien como: (**READ CHOICES**) / In the last 12 months, have you had any injury for which you were attended by someone such as: ?
- 1 YES      2 NO      3 DOESN'T KNOW      4 DECLINED TO ANSWER

**IF YES:**

1A. Quién le atendió? / Who attended you?

- A DOCTOR (MEDICO) / DOCTOR  
B ENFERMERA / NURSE  
C ASISTENTE DE MEDICO / PHYSICIAN'S ASSISTANT  
D QUIROPRACTICO / CHIROPRACTOR  
E TECNICO DE EMERGENCIAS / EMERGENCY MEDICAL TECHNICIAN  
F PARAMEDICO / PARAMEDIC  
G PROMOTOR DE SALUD / COMMUNITY HEALTH WORKER  
H CURANDERO / LOCAL HEALER  
I OTRO / OTHER: \_\_\_\_\_

2. En los últimos 12 meses, fué usted al hospital, sala de emergencia o clínica por CUALQUIER (ésta) lesión? / In the last 12 months, did you go to a hospital, an emergency room or a clinic for ANY (this) injury?
- 1 YES      2 NO      3 DOESN'T KNOW      4 DECLINED TO ANSWER

**IF YES:**

2A. Cuánto tiempo estuvo usted en el hospital, sala de emergencia o clínica? / How long did you stay at the hospital, emergency room or clinic? \_\_\_\_\_ MINUTES / HOURS / DAYS (**CIRCLE**)

3. En los últimos 12 meses, quedó usted inconsciente debido a CUALQUIER (ésta) lesión? / In the last 12 months, did you lose consciousness because of ANY (this) injury? 1 Y 2 N 3 DOESN'T KNOW 4 DECLINED TO ANSWER
4. En los últimos 12 meses, tuvo que faltar al trabajo (la escuela) por lo menos la mitad de un día a causa de CUALQUIER (ésta) lesión? / In the last 12 months, did you have to stay off work (school for kids) for at least half a day because of ANY (this) injury? 1 YES 2 NO 3 DOESN'T KNOW 4 DECLINED TO ANSWER

**IF YES:**

4A. Cuánto tiempo? / How much time? \_\_\_\_\_ . \_\_\_\_\_ HOURS / DAYS (**CIRCLE**)

5. En los últimos 12 meses, hacía trabajo liviano o redujo sus actividades normales a causa de CUALQUIER (ésta) lesión? / In the last 12 months, were you on light duty at work or did you reduce your usual activities because of ANY (this) injury?
- 1 YES      2 NO      3 DOESN'T KNOW      4 DECLINED TO ANSWER

**IF YES:**

5A. Cuánto tiempo? / How much time? \_\_\_\_\_ . \_\_\_\_\_ HOURS / DAYS (**CIRCLE**)

**INTERVIEWER:** *IF 'YES' TO ANY OF THE ABOVE, GO TO THE INJURY MODULE AND RECORD THIS AS AN INJURY.*

*IF 'NO' TO ALL OF THE ABOVE, END THE INTERVIEW AND ANSWER ANY QUESTIONS THAT THE SUBJECT MAY HAVE AT THIS TIME.*

**END OF INTERVIEW DIALOGUE:** Esa fue mi última pregunta. Tiene usted alguna pregunta?  
Gracias por hablar conmigo hoy. Espero tener el gusto de volver a verle en la próxima entrevista que será aproximadamente en un mes. Hasta pronto.

That was my last question. Do you have any questions?  
Thank you for speaking with me today. I hope to have the pleasure of seeing you at the next interview which will be approximately one month from now. Until then.

WERE THERE ANY SECTIONS OF THE QUESTIONNAIRE THAT YOU FEEL THE SUBJECT WAS NOT ABLE TO ANSWER OR MIGHT NOT HAVE PROVIDED RELIABLE INFORMATION?

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Interviewer Notes:

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# INITIAL QUESTIONNAIRE FOR CHILDREN 17 YEARS OR YOUNGER

CENTER NAME:	ARTESI II	ARTESI III	DIXON	HARNEY LANE	
	MADISON	WESTLEY	WILLIAMS	PATERSON	DAVIS
DWELLING NUMBER	_____				
LANGUAGE USED FOR INTERVIEW:	SPAN		ENG		
INTERVIEWER:	_____				
DATE OF INTERVIEW:	____/____/____ MO DAY YR				
RESPONDENT (CIRCLE) ( MOTHER , FATHER , CHILD ) OTHER:	_____				

## I. DEMOGRAPHIC INFORMATION

**DIALOGUE:** **Voy a comenzar con hacerle unas preguntas acerca de su hijo/hija.**  
I'll begin by asking a few questions about your child.

- CHILD'S FULL NAME: \_\_\_\_\_
- Gender/Sexo: 1 MALE 2 FEMALE (**DO NOT READ, CIRCLE APPROPRIATE ANSWER**)
- En qué fecha nació su hijo/hija? / What is your child's date of birth?  
\_\_\_\_/\_\_\_\_/\_\_\_\_ (IF SUBJECT DOES NOT KNOW, GIVE AGE: \_\_\_\_ YEARS)  
MONTH DAY YEAR (CIRCLE: REFUSED = 0 0)
- Dónde nació? / Where was your child born? (**CIRCLE FIRST ANSWER THAT APPLIES**)
  - ESTADOS UNIDOS / U.S.
  - MEXICO (STATE: \_\_\_\_\_) (CODE: \_\_\_\_)
  - AMERICA CENTRAL (NOT MEXICO) (PAIS/COUNTRY: \_\_\_\_\_) (CODE: \_\_\_\_)
  - AMERICA DEL SUR(PAIS/COUNTRY: \_\_\_\_\_) (CODE: \_\_\_\_)
  - OTRO / OTHER: \_\_\_\_\_)
  - REFUSED TO ANSWER (**DO NOT READ**)
- Cuál fue el último grado o año que su hijo/hija terminó en la escuela o secundaria? / What is the highest/last grade that your child completed in school? (**CIRCLE HIGHEST GRADE OR YEAR COMPLETED**)

01	02	03	04	05	06
PRIMARIA					

07	08	09	10	11	12
SECUNDARIA					

13	14+
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99 = DOESN'T RECALL
00 = REFUSED
NN = NO SCHOOL
KK = KINDERGARDEN

6. Tiene aseguranza médica (seguro médico) para ( ) cuando esté en Los Estados Unidos ? / Is ( ) covered by health insurance while in the United States?

- 1 YES      2 NO      3 DOESN'T KNOW

**IF YES:**

<p>6A. Qué tipo? / What kind?</p> <p>1 MEDI-CAL / MEDICAID / MEDICARE</p> <p>2 COMPRADO POR MI O MI FAMILIA / PURCHASED BY ME OR MY FAMILY</p> <p>3 COMPRADO POR MI PATRON / PURCHASED BY MY EMPLOYER</p> <p>4 OTRO / OTHER _____</p> <p>5 DOESN'T KNOW</p> <p>6 DECLINED TO ANSWER</p>
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**II. HEALTH STATUS**

<p>Tiene su hijo/hija algún problema de salud? / (If 'yes', obtain condition and any medications.) ( MARK AN 'X' IN THE BOX IF NO HEALTH PROBLEMS ) <input type="checkbox"/></p> <p>Does your child have any health problems?</p>	<p>Está tomando algún medicamento por éste problema? /</p> <p>Is he/she taking any medications for this problem?</p>	<p>Por favor, me podría decir el nombre de ese medicamento?</p> <p>Could you tell me the name of the medication?</p>
<p>Qué problema tiene? / What is the problem?</p> <p>_____</p> <p>_____</p>	<p>1 YES =====&gt;</p> <p>2 NO</p>	<p>_____</p> <p>_____</p>
<p>Tiene algún otro problema? / Does he/she have another problem?</p> <p>_____</p> <p>_____</p>	<p>1 YES =====&gt;</p> <p>2 NO</p>	<p>_____</p> <p>_____</p>
<p>Tiene algún otro problema? / Does he/she have another problem?</p> <p>_____</p> <p>_____</p>	<p>1 YES =====&gt;</p> <p>2 NO</p>	<p>_____</p> <p>_____</p>

### III. SAFETY HABITS

1. Con qué frecuencia usa ( \_\_\_\_\_ ) un cinturón o asiento de seguridad cuando viaja en carro? Diría: / How often does he/she [[the \_\_\_-yr-old child in your household]] use a seatbelt or safety seat when they ride in a car? Would you say: **(READ CHOICES)**

- 1 SIEMPRE / ALWAYS
- 2 CASI SIEMPRE / NEARLY ALWAYS
- 3 A VECES / SOMETIMES
- 4 RARA VEZ / SELDOM
- 5 NUNCA / NEVER
- 6 DOESN'T KNOW / NOT SURE
- 7 NUNCA MANEJA O VIAJA EN CARRO / NEVER DRIVE OR RIDE IN A CAR
- 8 DECLINED (**DO NOT READ**) (BRFS)

2. Durante los últimos 12 meses, con qué frecuencia ha usado ( \_\_\_\_\_ ) un casco para manejar la bicicleta? Diría: / During the last 12 months, how often has he/she [[the \_\_\_-year-old child]] worn a bicycle helmet when riding a bicycle? Would you say: **(READ CHOICES)**

- 1 SIEMPRE / ALWAYS
- 2 CASI SIEMPRE / NEARLY ALWAYS
- 3 A VECES / SOMETIMES
- 4 RARA VEZ / SELDOM
- 5 NUNCA / NEVER
- 6 DOESN'T KNOW
- 7 NUNCA MANEJA BICICLETA / NEVER RIDES A BICYCLE
- 8 DECLINED (**DO NOT READ**) (BRFS)

3. Durante los últimos 12 meses, ha viajado su hijo/hija en la parte trasera de una camioneta que no estaba cubierta? / During the last 12 months, has your child ridden in the back of an uncovered pickup truck?

- 1 YES (**ASK #3A IN THE BOX BELOW**)
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED (**DO NOT READ**) (**GO TO QUESTION 6**)

**IF YES:**

3A. Durante los último 12 meses, cuántas veces viajó su hijo/hija en la parte trasera de una camioneta que no estaba cubierta? During the past 12 months, how many times has your child ridden in the back of an uncovered pickup truck?

- 1 \_\_\_\_\_ CANTIDAD DE VECES / NUMBER OF TIMES
- 2 \_\_\_\_\_ DOESN'T KNOW
- 3 \_\_\_\_\_ DECLINED TO ANSWER (**DO NOT READ**)

#### **IV. CHILD ACTIVITIES WHILE GUARDIAN AT WORK**

1. Con qué frecuencia lleva ( \_\_\_\_\_ ) al trabajo? / How often do you take ( \_\_\_\_\_ ) to your workplace?

- 1 3 DAYS PER WEEK OR MORE
- 2 1-2 DAYS PER WEEK
- 3 1-3 DAYS PER MONTH
- 4 NEVER OR LESS THAN ONCE PER MONTH
- 5 DOESN'T KNOW
- 6 DECLINED TO ANSWER

2. Qué hace su niño ahí mientras usted trabaja? / What does your child do when at work with you?

- 1 NO LLEVO MI HIJO AL TRABAJO / I DO NOT BRING MY CHILD TO WORK
- 2 ME AYUDA CON EL TRABAJO / THE CHILD ASSISTS WITH THE WORK
- 3 NO TRABAJA, PERO ES SUPERVISADO POR UN ADULTO / THE CHILD DOESN'T WORK, BUT HE/SHE IS SUPERVISED BY AN ADULT
- 4 NO TRABAJA, PERO NO ES SUPERVISADO POR UN ADULTO / THE CHILD DOESN'T WORK, AND IS UNSUPERVISED BY AN ADULT
- 5 OTRO / OTHER \_\_\_\_\_
- 6 DOESN'T KNOW
- 7 DECLINED TO ANSWER

3. Cuando ( \_\_\_\_\_ ) no está con usted en el trabajo o no está trabajando, dónde pasa el día? / When ( \_\_\_\_\_ ) is not with you at work or is not working, where does he/she spend the day?

- 1 - GUARDERIA / DAY CARE
- 2 - SE QUEDA CON UN PARIENTE / STAYS WITH RELATIVE
- 3 ESCUELA DE VERANO / SUMMER SCHOOL
- 4 OTRO / OTHER \_\_\_\_\_
- 5 DOESN'T KNOW
- 6 DECLINED TO ANSWER

#### **V. WORK HISTORY**

**DIALOGUE:** Ahora me gustaría hacerle unas preguntas acerca de tareas o trabajos que su hijo/hija haya tenido durante últimos 12 meses. / Now I would like to ask you about tasks or jobs your son/daughter may have had over the past 12 months.

1. Durante los último 12 meses, ha trabajado ( \_\_\_\_\_ ) por dinero o ha ayudado a usted u otro miembro de la familia alguna vez en el trabajo? / During the last 12 months, has ( \_\_\_\_\_ ) ever worked for money or has he/she ever helped you or another member of the family at work?

- 1 YES (COMPLETE WORK HISTORY ON NEXT PAGE)
- 2 NO (SKIP TO 'IDENTIFYING A QUALIFYING INJURY', PAGE 12)
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

	Qué hacía su hijo / hija? What did your child do at this job?			
<p>1. Para quién trabaja (trabajaba) su hijo/hija ahora (antes)? Trabaja (trabajaba) para un contratista, directamente para un ranchero, para una compañía, u otro?</p> <p>2. En qué idioma recibe (recibió) su hijo/hija sus instrucciones de trabajo?</p> <p>1. For whom does your child work right now? Does he/ she work for a FLC, work directly for a farm owner, work for a company, or other?</p> <p>2. In what language does (did) your child receive his/her work instructions?</p>	<p><i>Cosechas o cultivos?</i></p> <p>Crops or commodities? (Ag only; use pick list)</p>	<p>Cuáles son (fueron) sus responsabilidades en éste (ese) trabajo?</p> <p>What are (were) his/her job duties? (Ag only; use pick list)</p>	<p>Cuándo comenzó éste (ese) trabajo?</p> <p>When did this (that) job begin?</p>	<p>Cuándo terminó éste (ese) trabajo?</p> <p>When did this (that) job end?</p>
<p>1.</p> <p>1 CONTRATISTA / FLC</p> <p>2 RANCHERO / DIRECT HIRE</p> <p>3 COMPAÑIA / COMPANY</p> <p>4 OTRO _____</p> <p>Nombre del empleador (if known)? _____</p> <p>Ciudad? / Estado? _____ / _____</p> <p>Idioma? 1 SPA 2 ENG 3 AMBOS</p>	<p>____ =&gt;</p> <p>____ =&gt;</p> <p>____ =&gt;</p> <p>____ =&gt;</p>	<p>____</p> <p>____</p> <p>____</p> <p>____</p>	<p>____/____/____ mo day yr</p>	<p>____/____/____ mo day yr</p> <p><u>OR</u></p> <p>STILL WORKING (CIRCLE)</p>
<p>2.</p> <p>1 CONTRATISTA / FLC</p> <p>2 RANCHERO / DIRECT HIRE</p> <p>3 COMPAÑIA / COMPANY</p> <p>4 OTRO _____</p> <p>Nombre del empleador (if known): _____</p> <p>Ciudad? / Estado? _____ / _____</p> <p>Idioma? 1 SPA 2 ENG 3 AMBOS</p>	<p>____ =&gt;</p> <p>____ =&gt;</p> <p>____ =&gt;</p> <p>____ =&gt;</p>	<p>____</p> <p>____</p> <p>____</p> <p>____</p>	<p>____/____/____ mo day yr</p>	<p>____/____/____ mo day yr</p> <p><u>OR</u></p> <p>STILL WORKING (CIRCLE)</p>

<p>Cómo llega (llegaba) al trabajo?</p> <p>How does (did) he/she get to work?</p>	<p>1. Cuántas horas a la semana trabaja (trabajaba)? 2. Le pagan (pagaban) por hora o por contrato? How many hours per week does (did) your child work? Is your (Was your) child payed an hourly wage or piece-rate wage?</p>	<p>Recibió algún entrenamiento? Por ejemplo como manejar de una forma segura una máquina o como evitar lesiones mientras trabaja? Did your child receive any safety training on this job (for example, how to safely operate a machine or how to do the job safely)?</p>	<p>Mezcló/cargó, aplicó o trabajó de alguna manera con productos químicos en éste (ese) trabajo? Did your child mix/load, apply or work in any way with chemical products on this (that) job?</p>
<p>1.</p> <p>1 CARRO PROPIO 2 CARPOOL 3 RAITERO 4 OTRO: _____ 5 REFUSED</p>	<p>_____ HRS/WK</p> <p><i>(Si no sabe, obtenga una estimación.. If doesn't know, get an estimate.)</i></p> <p>1 POR HORA 2 POR CONTRATO 3 OTRO: _____ 4 DOESN'T KNOW 5 REFUSED</p>	<p>TRAIN: 1 YES 2 NO 3 DK 4 REFUSED</p> <p>Tema principal: / Main topic: _____</p> <p>Forma: / Idioma / Language Form SP ENG OTH VIDEO 1 2 3 FDEM 1 2 3 READ 1 2 3 OTH: 1 2 3</p> <p>Cuánto tiempo? How much time? _____ circle ==&gt; hours / minutes</p>	<p>1 YES 2 NO 3 DK 4 REFUSED</p> <p>Qué clase de producto químico fue? / What kind of chemical product was it?</p> <p>1 PESTICIDA ==&gt; (go to tareas) 2 FERTILIZANTE 3 DOESN'T KNOW 4 REFUSED</p> <p>Tareas: Qué fue lo que hizo?</p> <p>1 MIX/LOAD 2 APPLY 3 OTHER _____</p> <p>Con qué frecuencia? / How often?</p> <p>1 2 3 4 ≤1 D/W 2-6 D/W daily DK</p>
<p>2.</p> <p>1 CARRO PROPIO 2 CARPOOL 3 RAITERO 4 OTRO: _____ 5 REFUSED</p>	<p>_____ HRS/WK</p> <p><i>(Si no sabe, obtenga una estimación.. If doesn't know, get an estimate.)</i></p> <p>1 POR HORA 2 POR CONTRATO 3 OTRO: _____ 4 DOESN'T KNOW 5 REFUSED</p>	<p>TRAIN: 1 YES 2 NO 3 DK 4 REFUSED</p> <p>Tema principal: / Main topic: _____</p> <p>Forma: / Idioma / Language Form SP ENG OTH VIDEO 1 2 3 FDEM 1 2 3 READ 1 2 3 OTH: 1 2 3</p> <p>Cuánto tiempo? How much time? _____ circle ==&gt; hours / minutes</p>	<p>1 YES 2 NO 3 DK 4 REFUSED</p> <p>Qué clase de producto químico fue? / What kind of chemical product was it?</p> <p>1 PESTICIDA ==&gt; (go to tareas) 2 FERTILIZANTE 3 DOESN'T KNOW 4 REFUSED</p> <p>Tareas: Qué fue lo que hizo?</p> <p>1 MIX/LOAD 2 APPLY 3 OTHER _____</p> <p>Con qué frecuencia? / How often?</p> <p>1 2 3 4 ≤1 D/W 2-6 D/W daily DK</p>

	Qué hacía? What did he/she do at this job?			
<b>INTERVIEWER: CONTINUE OBTAINING EMPLOYMENT HISTORY. GO BACK TO MAY OF 1996.</b>	<i>Cosechas o cultivos?</i>	Cuáles son (fueron) sus responsabilidades en éste (ese) trabajo?	Cuándo comenzó éste (ese) trabajo?	Cuándo terminó éste (ese) trabajo?
	Crops or commodities?  <i>(Ag only; use pick list)</i>	What are (were) his/her job duties?  <i>(Ag only; use pick list)</i>	When did this (that) job begin?	When did this (that) job end?
3.				
1 CONTRATISTA / FLC	___ ==>	___	___ / ___ / ___ mo day yr	___ / ___ / ___ mo day yr
2 RANCHERO / DIRECT HIRE				
3 COMPAÑIA / COMPANY	___ ==>	___		<u>OR</u>
4 OTRO _____				STILL WORKING
Nombre del empleador (if known)?	___ ==>	___		(CIRCLE)
_____				
Ciudad? / Estado? _____ / _____	___ ==>	___		
Idioma? 1 SPA 2 ENG 3 AMBOS				
4.				
1 CONTRATISTA / FLC	___ ==>	___	___ / ___ / ___ mo day yr	___ / ___ / ___ mo day yr
2 RANCHERO / DIRECT HIRE				
3 COMPAÑIA / COMPANY	___ ==>	___		<u>OR</u>
4 OTRO _____				STILL WORKING
Nombre del empleador (if known):	___ ==>	___		(CIRCLE)
_____				
Ciudad? / Estado? _____ / _____	___ ==>	___		
Idioma? 1 SPA 2 ENG 3 AMBOS				

<p>Cómo llega (llegaba) al trabajo?</p> <p>How does (did) he/she get to work?</p>	<p>1. Cuántas horas a la semana trabaja (trabajaba)? 2. Le pagan (pagaban) por hora o por contrato? How many hours per week does (did) your child work? Are you (Were you) paid an hourly wage or piece-rate wage?</p>	<p>Recibió algún entrenamiento? Por ejemplo como manejar de una forma segura una máquina o como evitar lesiones mientras trabaja? Did your child receive any safety training on this job (for example, how to safely operate a machine or how to do the job safely)?</p>	<p>Mezcló/cargó, aplicó o trabajó de alguna manera con productos químicos en éste (ese) trabajo? Did your child mix/load, apply or work in any way with chemical products on this (that) job?</p>
<p>3.</p> <p>1 CARRO PROPIO 2 CARPOOL 3 RAITERO 4 OTRO: _____ 5 REFUSED</p>	<p>____ HRS/WK</p> <p><i>(Si no sabe, obtenga una estimación.. If doesn't know, get an estimate.)</i></p> <p>1 POR HORA 2 POR CONTRATO 3 OTRO: _____ 4 DOESN'T KNOW 5 REFUSED</p>	<p>TRAIN: 1 YES 2 NO 3 DK 4 REFUSED</p> <p>Tema principal: / Main topic: _____</p> <p>Forma: / Idioma / Language Form SP ENG OTH VIDEO 1 2 3 FDEM 1 2 3 READ 1 2 3 OTH: 1 2 3</p> <p>Cuánto tiempo? How much time? _____ circle ==&gt; hours / minutes</p>	<p>1 YES 2 NO 3 DK 4 REFUSED</p> <p>Qué clase de producto químico fue? / What kind of chemical product was it?</p> <p>1 PESTICIDA ==&gt; (go to tareas) 2 FERTILIZANTE 3 DOESN'T KNOW 4 REFUSED</p> <p>Tareas: Qué fue lo que hizo?</p> <p>1 MIX/LOAD 2 APPLY 3 OTHER _____</p> <p>Con qué frecuencia? / How often?</p> <p>1 2 3 4 ≤1 D/W 2-6 D/W daily DK</p>
<p>4.</p> <p>1 CARRO PROPIO 2 CARPOOL 3 RAITERO 4 OTRO: _____ 5 REFUSED</p>	<p>____ HRS/WK</p> <p><i>(Si no sabe, obtenga una estimación.. If doesn't know, get an estimate.)</i></p> <p>1 POR HORA 2 POR CONTRATO 3 OTRO: _____ 4 DOESN'T KNOW 5 REFUSED</p>	<p>TRAIN: 1 YES 2 NO 3 DK 4 REFUSED</p> <p>Tema principal: / Main topic: _____</p> <p>Forma: / Idioma / Language Form SP ENG OTH VIDEO 1 2 3 FDEM 1 2 3 READ 1 2 3 OTH: 1 2 3</p> <p>Cuánto tiempo? How much time? _____ circle ==&gt; hours / minutes</p>	<p>1 YES 2 NO 3 DK 4 REFUSED</p> <p>Qué clase de producto químico fue? / What kind of chemical product was it?</p> <p>1 PESTICIDA ==&gt; (go to tareas) 2 FERTILIZANTE 3 DOESN'T KNOW 4 REFUSED</p> <p>Tareas: Qué fue lo que hizo?</p> <p>1 MIX/LOAD 2 APPLY 3 OTHER _____</p> <p>Con qué frecuencia? / How often?</p> <p>1 2 3 4 ≤1 D/W 2-6 D/W daily DK</p>

	Qué hacía? What did he/she do at this job?			
<b>INTERVIEWER: CONTINUE OBTAINING EMPLOYMENT HISTORY. GO BACK TO MAY OF 1996.</b>	<i>Cosechas o cultivos?</i>	Cuáles son (fueron) sus responsabilidades en éste (ese) trabajo?	Cuándo comenzó éste (ese) trabajo?	Cuándo terminó éste (ese) trabajo?
	Crops or commodities?  <i>(Ag only; use pick list)</i>	What are (were) his/her job duties?  <i>(Ag only; use pick list)</i>	When did this (that) job begin?	When did this (that) job end?
5.				
1 CONTRATISTA / FLC	___ ==>	___	___ / ___ / ___ mo day yr	___ / ___ / ___ mo day yr
2 RANCHERO / DIRECT HIRE				
3 COMPAÑIA / COMPANY	___ ==>	___		<u>OR</u>
4 OTRO _____	___ ==>	___		STILL WORKING
Nombre del empleador (if known)? _____	___ ==>	___		(CIRCLE)
Ciudad? / Estado? _____ / _____	___ ==>	___		
Idioma? 1 SPA 2 ENG 3 AMBOS				
6.				
1 CONTRATISTA / FLC	___ ==>	___	___ / ___ / ___ mo day yr	___ / ___ / ___ mo day yr
2 RANCHERO / DIRECT HIRE				
3 COMPAÑIA / COMPANY	___ ==>	___		<u>OR</u>
4 OTRO _____	___ ==>	___		STILL WORKING
Nombre del empleador (if known): _____	___ ==>	___		(CIRCLE)
Ciudad? / Estado? _____ / _____	___ ==>	___		
Idioma? 1 SPA 2 ENG 3 AMBOS				

<p>Cómo llega (llegaba) al trabajo?</p> <p>How does (did) he/she get to work?</p>	<p>1. Cuántas horas a la semana trabaja (trabajaba)? 2. Le pagan (pagaban) por hora o por contrato? How many hours per week does (did) your child work? Are you (Were you) payed an hourly wage or piece-rate wage?</p>	<p>Recibió algún entrenamiento? Por ejemplo como manejar de una forma segura una máquina o como evitar lesiones mientras trabaja? Did your child receive any safety training on this job (for example, how to safely operate a machine or how to do the job safely)?</p>	<p>Mezcló/cargó, aplicó o trabajó de alguna manera con productos químicos en éste (ese) trabajo? Did your child mix/load, apply or work in any way with chemical products on this (that) job?</p>
<p>5.</p> <p>1 CARRO PROPIO 2 CARPOOL 3 RAITERO 4 OTRO: _____ 5 REFUSED</p>	<p>_____ HRS/WK</p> <p><i>(Si no sabe, obtenga una estimación.. If doesn't know, get an estimate.)</i></p> <p>1 POR HORA 2 POR CONTRATO 3 OTRO: _____ 4 DOESN'T KNOW 5 REFUSED</p>	<p>TRAIN: 1 YES 2 NO 3 DK 4 REFUSED</p> <p>Tema principal: / Main topic: _____</p> <p>Forma: / Idioma / Language Form SP ENG OTH VIDEO 1 2 3 FDEM 1 2 3 READ 1 2 3 OTH: 1 2 3</p> <p>Cuánto tiempo? How much time? _____ circle ==&gt; hours / minutes</p>	<p>1 YES 2 NO 3 DK 4 REFUSED</p> <p>Qué clase de producto químico fue? / What kind of chemical product was it?</p> <p>1 PESTICIDA ==&gt; (go to tareas) 2 FERTILIZANTE 3 DOESN'T KNOW 4 REFUSED</p> <p>Tareas: Qué fue lo que hizo?</p> <p>1 MIX/LOAD 2 APPLY 3 OTHER _____</p> <p>Con qué frecuencia? / How often?</p> <p>1 2 3 4 ≤1 D/W 2-6 D/W daily DK</p>
<p>6.</p> <p>1 CARRO PROPIO 2 CARPOOL 3 RAITERO 4 OTRO: _____ 5 REFUSED</p>	<p>_____ HRS/WK</p> <p><i>(Si no sabe, obtenga una estimación.. If doesn't know, get an estimate.)</i></p> <p>1 POR HORA 2 POR CONTRATO 3 OTRO: _____ 4 DOESN'T KNOW 5 REFUSED</p>	<p>TRAIN: 1 YES 2 NO 3 DK 4 REFUSED</p> <p>Tema principal: / Main topic: _____</p> <p>Forma: / Idioma / Language Form SP ENG OTH VIDEO 1 2 3 FDEM 1 2 3 READ 1 2 3 OTH: 1 2 3</p> <p>Cuánto tiempo? How much time? _____ circle ==&gt; hours / minutes</p>	<p>1 YES 2 NO 3 DK 4 REFUSED</p> <p>Qué clase de producto químico fue? / What kind of chemical product was it?</p> <p>1 PESTICIDA ==&gt; (go to tareas) 2 FERTILIZANTE 3 DOESN'T KNOW 4 REFUSED</p> <p>Tareas: Qué fue lo que hizo?</p> <p>1 MIX/LOAD 2 APPLY 3 OTHER _____</p> <p>Con qué frecuencia? / How often?</p> <p>1 2 3 4 ≤1 D/W 2-6 D/W daily DK</p>

## VI. IDENTIFYING A QUALIFYING INJURY

**INTERVIEWER: BE SURE TO ASK ALL FIVE QUESTIONS IN THIS SECTION BEFORE GOING TO THE INJURY MODULE OR BEFORE ENDING THE INTERVIEW.**

**DIALOGUE:** Ahora me gustaría preguntarle acerca de lesiones o lastimaduras que su hijo(a) haya tenido durante el último año. Estamos interesados en oír acerca de todas las lesiones, incluyendo aquellas que hayan pasado mientras iba al trabajo o regresaba a la casa y, también, aquellas que no tuvieron nada que ver con el trabajo. / Now, I would like to ask you about any injuries your child may have had in the past year. We are interested in hearing about all injuries, including those that may have happened while your child went to and from work and even those that had nothing to do with work.

1. En los últimos 12 meses, ha tenido su hijo/hija alguna lesión por la cual le atendió alguien como: **(READ CHOICES)**  
/ In the last 12 months, has your child had any injury for which he/she was attended by someone such as:  
1 YES      2 NO      3 DOESN'T KNOW      4 DECLINED TO ANSWER

**IF YES:**

1A. Quién le atendió? / Who attended your child?

- A DOCTOR (MEDICO) / DOCTOR
- B ENFERMERA / NURSE
- C ASISTENTE DE MEDICO / PHYSICIAN'S ASSISTANT
- D QUIROPRACTICO / CHIROPRACTOR
- E TECNICO DE EMERGENCIAS / EMERGENCY MEDICAL TECHNICIAN
- F PARAMEDICO / PARAMEDIC
- G PROMOTOR DE SALUD / COMMUNITY HEALTH WORKER
- H CURANDERO / LOCAL HEALER
- I OTRO / OTHER \_\_\_\_\_

2. En los últimos 12 meses, fué su hijo/hija al hospital, sala de emergencia o clínica por CUALQUIER (ésta) lesión? / In the last 12 months, did your child go to a hospital, an emergency room or a clinic for ANY (this) injury?  
1 YES      2 NO      3 DOESN'T KNOW      4 DECLINED TO ANSWER

**IF YES:**

2A. Cuánto tiempo estuvo su hijo/hija en el hospital, sala de emergencia o clínica? / How long did your child stay at the hospital, emergency room or clinic? \_\_\_\_\_ MINUTES / HOURS / DAYS **(CIRCLE)**

3. En los últimos 12 meses, quedó su hijo/hija inconsciente debido a CUALQUIER (ésta) lesión? / In the last 12 months, did your child lose consciousness because of ANY (this) injury?  
1 YES      2 NO      3 DOESN'T KNOW      4 DECLINED TO ANSWER
4. En los últimos 12 meses, tuvo que faltar su hijo/hija al trabajo o a la escuela por lo menos la mitad de un día a causa de CUALQUIER (ésta) lesión? / In the last 12 months, did your child have to stay off work or miss school for at least half a day because of ANY (this) injury? 1 YES      2 NO      3 DOESN'T KNOW      4 DECLINED TO ANSWER

**IF YES:**

4A. Cuánto tiempo? / How much time? \_\_\_\_\_ HOURS / DAYS **(CIRCLE)**

5. En los últimos 12 meses, hacía trabajo liviano su hijo/hija o redujo sus actividades normales a causa de CUALQUIER (ésta) lesión? / In the last 12 months, was your child on light duty at work or did he/she reduce usual activities because of ANY (this) injury? 1 YES      2 NO      3 DOESN'T KNOW      4 DECLINED TO ANSWER

**IF YES:**

5A. Cuánto tiempo? / How much time? \_\_\_\_\_ HOURS / DAYS **(CIRCLE)**

**INTERVIEWER: IF 'YES' TO ANY OF THE ABOVE, GO TO THE INJURY MODULE AND RECORD THIS AS AN INJURY.**

**IF 'NO' TO ALL OF THE ABOVE, END THE INTERVIEW AND ANSWER ANY QUESTIONS THAT THE SUBJECT MAY HAVE AT THIS TIME.**

**INJURIES MODULE**

**DATE/ interview:** \_\_\_\_\_

month / day / year

INJURY NUMBER: \_\_\_\_\_

**DIALOGUE:** Por favor, cuénteme sobre su lesión. Qué pasó? / Please tell me about your injury. What happened? **WRITE A COMPLETE AND SHORT STORY OF THE INJURY**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**INTERVIEWER: BASED ON THE SUBJECT'S DESCRIPTION, PLEASE ANSWER THE FOLLOWING 4 QUESTIONS. PROMPT THE SUBJECT FOR MORE INFORMATION IF YOU NEED IT:**

- 1. Qué tipo de accidente fue? Por ejemplo, fué una 'caída desde arriba', 'un objeto chocó con usted', ..?  
What type of accident was it? For example, was it a 'fall from elevation', 'struck by object', ..?  
(USE 'TYPE OF ACCIDENT PICK LIST' TO DESCRIBE)

TYPE OF ACCIDENT CODE

\_\_\_\_\_

\_\_\_\_\_

- 2.Cuál fue el diagnóstico? Por ejemplo, fué una fractura, una torcedura, una cortada, .. ?  
What was the diagnosis? For example, was it a fracture, a sprain, a cut, .. ?

DIAGNOSIS (N CODE)

\_\_\_\_\_

\_\_\_\_\_

- 3. Qué objeto causó la lesión? Por ejemplo, fué un cuchillo, un tractor, el suelo, .. ?  
What object caused the injury? For example, was it a knife, a tractor, the ground, .. ?

ASSOCIATED OBJECT  
(E CODE)

\_\_\_\_\_

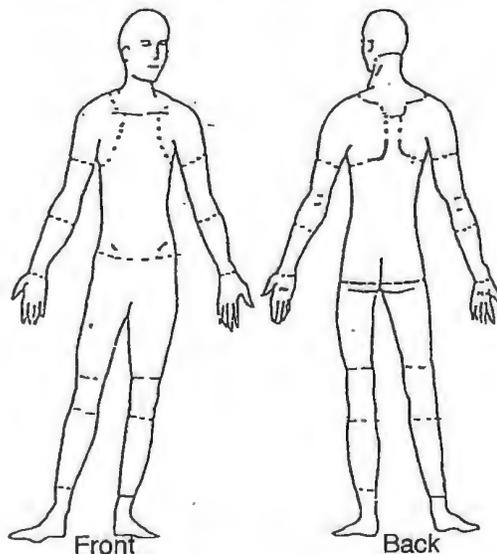
\_\_\_\_\_

- 4. Qué parte del cuerpo estuvo lesionado? Por ejemplo, fué la mano izquierda, el ojo derecho, .. ?  
What part of the body was injured? For example, was it the left hand, the right eye, .. ?

BODY PART CODE

\_\_\_\_\_

\_\_\_\_\_



**PLACE AN 'X' ON THE BODY PART INJURED.**

5. Qué tarea o trabajo estaba haciendo? / What task or job were you doing? JOB CODE

5A. Hacer ésta tarea, es parte de los quehaceres usuales de su trabajo? / Is doing this task a normal work activity?

- 1 YES (COHB-FFHHS)
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

6. En qué cultivo o cosecha estaba trabajando? / What crop or commodity were you working with? COMMODITY CODE

6A. Tenía mucha experiencia haciendo ésta tarea en éste cultivo (ésta cosecha)? / Did you have much experience doing this task in this commodity?

- 1 YES, EN ESTE CULTIVO (ESTA COSECHA) / YES, IN THIS COMMODITY
- 2 NO, TAREA NUEVA / NO, NEW TASK (COHB-FFHHS)
- 3 YES, EN OTRO CULTIVO / YES, IN ANOTHER CROP (COMMODITY)
- 4 DOESN'T KNOW
- 5 DECLINED TO ANSWER

7. En qué fecha ocurrió ésta lesión? / On what date did this injury occur?  
*(INTERVIEWER: YOU MAY NEED TO PROMPT. SETTLE FOR MONTH AND YEAR.)*

\_\_\_\_ / \_\_\_\_ / \_\_\_\_  
MONTH DAY YEAR

8. En qué día de la semana ocurrió ésta lesión? / On what day of the week did this injury occur?

1 2 3 4 5 6 7 8  
SU / M / TU / W / TH / F / SA DOESN'T RECALL

9. A qué hora del día ocurrió ésta lesión? / What time of day did the injury occur?

\_\_\_ AM / PM (ENTER: 08, 09, 10, 11, etc. CIRCLE: 99 = DOESN'T RECALL)

10. Por cuánto tiempo había estado trabajando ese día antes de que ocurriera la lesión? / How long had you been working that day at the time of the injury?

\_\_\_ HRS (ROUND TO NEAREST HOUR; CIRCLE: 99 = DOESN'T RECALL)

11. Dónde ocurrió la lesión? / Where did the injury happen?

- 1 EN EL TRABAJO / AT WORK
- 2 YENDO AL TRABAJO / GOING TO WORK
- 3 EN CASA / AT HOME
- 4 OTRO / OTHER

12. Si fue atendido por alguien o fue al hospital, sala de emergencia o a una clínica, cómo fue pagada la atención médica? / If you were attended by someone or if you went to a hospital, an emergency room or a clinic, how was the medical care paid for?

- 1 MEDI-CAL / MEDICAID / MEDICARE
- 2 PROPIO DINERO / OWN MONEY
- 3 COMPENSACION DE TRABAJADORES / WORKERS' COMPENSATION
- 4 ASEGURANZA MEDICA PRIVADA (seguro médico privado)/ PURCHASED BY ME OR MY FAMILY
- 5 ASEGURANZA MEDICA DEL TRABAJO / HEALTH INSURANCE PURCHASED BY MY EMPLOYER
- 6 DOESN'T KNOW
- 7 DECLINED TO ANSWER
- 8 DID NOT SEE DOCTOR OR GO TO HOSPITAL OR EMERGENCY ROOM

13. Resultó la lesión en alguna incapacidad continua? / Has the injury resulted in a continuing disability?

- 1 YES            2 NO            3 DOESN'T KNOW

If YES, Cómo? / How? \_\_\_\_\_

14. Había recibido alguna orientación sobre como hacer la tarea de una forma segura antes de que ocurriera el accidente? / Had you received any instruction on how to do the job safely before the injury occurred?

- 1 YES ----> (**COMPLETE THE TRAINING SQUARE**)  
 2 NO  
 3 DOESN'T KNOW  
 4 DECLINED TO ANSWER

15. Cómo pudiera haber prevenido éste accidente? / How could you have prevented this accident?

\_\_\_\_\_  
 \_\_\_\_\_

Tema principal: / Main topic: _____			
Forma: / Form	Idioma / Language SP    ENG    OTH		
VIDEO	1	2	3
FDEM	1	2	3
READ	1	2	3
OTH:	1	2	3
Cuántas horas? How many hours? _____			

**IF THE INJURY INVOLVED A VEHICLE: SEE BELOW**

**IF THE INJURY INVOLVED FARM MACHINERY (NOT VEHICLES): GO TO PAGE 4**

**IF THE INJURY INVOLVED A HAND-HELD TOOL: GO TO PAGE 5**

**IF THE INJURY INVOLVED AN ANIMAL: GO TO PAGE 6**

**IF THE INJURY INVOLVED A CHEMICAL: GO TO PAGE 7**

**IF THE INJURY INVOLVED A VEHICLE:**

1. Qué tipo de vehículo estuvo involucrado? / What kind of vehicle was involved?

CIRCLE VEHICLE Vehículo / Vehicle	Tenía el vehículo cinturones de seguridad? / Did the vehicle have seat belts? _____			Estaba usando el cinturón de seguridad? / Were you using the seat belt? _____		
	Y	N	DNR	Y	N	DNR
Carro / Car	Y	N	DNR	Y	N	DNR
Vagón (Furgoneta) / Van	Y	N	DNR	Y	N	DNR
Camioneta / Pickup truck	Y	N	DNR	Y	N	DNR
Otro tipo de camión / Other truck	Y	N	DNR	Y	N	DNR
Autobús / Bus	NA	NA	NA	NA	NA	NA
Motocicleta / Motorcycle	NA	NA	NA	NA	NA	NA
Motocicleta de tres llantas / 3-wheel all-terrain vehicle	Y	N	DNR	Y	N	DNR
Motocicleta de cuatro llantas / 4-wheel all-terrain vehicle	Y	N	DNR	Y	N	DNR
Bicicleta / Bicycle	NA	NA	NA	NA	NA	NA
Tractor / Tractor	Y	N	DNR	Y	N	DNR
Otro / Other (_____)	Y	N	DNR	Y	N	DNR

**FOR TRACTORS ONLY:**

Marca / Brand: \_\_\_\_\_ or DNR

Año de fabricación / Year of manufacture 19\_\_ \_\_ / DNR

Caballos de fuerza / Horsepower: \_\_\_\_\_ / DNR

Motriz (tracción): de dos o de cuatro (doble tracción) / Drive: (CIRCLE) 1 two-wheel 2 four-wheel 3 DNR

Barra protectora de volques / Rollover protection: (CIRCLE) 1 Present 2 Absent 3 DNR

Arranque mecanizado / Power takeoff (PTO): (CIRCLE) 1 Present 2 Absent 3 DNR

Si había un arranque mecanizado, estuvo puesto el seguro? / If PTO present, was the guard attached?

(CIRCLE) 1 Present 2 Absent 3 No PTO 4 DNR

2. Había recibido alguna orientación sobre como manejar el vehículo de una forma segura antes de que ocurriera el accidente? / Had you received any instruction on how to safely operate the vehicle before the injury?

- 1 YES ----> (COMPLETE THE TRAINING SQUARE)
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

Tema principal: / Main topic: _____			
Forma: /	Idioma / Language		
<b>Form</b>	<b>SP</b>	<b>ENG</b>	<b>OTH</b>
VIDEO	1	2	3
FDEM	1	2	3
READ	1	2	3
OTH:	1	2	3
Cuántas horas? How many hours? _____			

3. Cómo pudiera haber prevenido éste accidente? / How could you have prevented this accident?

\_\_\_\_\_

\_\_\_\_\_

**IF THE INJURY INVOLVED FARM MACHINERY (NOT VEHICLES)**

1. Qué clase de maquinaria estuvo involucrada? / What type of machinery was involved?  
(INTERVIEWER: WRITE THE NAME OF THE MACHINE UNDER THE APPROPRIATE 'POWER SOURCE' HEADING)

Nonpowered	Electric Powered	Gas Powered	Other

2. La máquina que estuvo involucrada cuando se lastimó, trabajar con o alrededor de ella es una actividad normal de su trabajo? / The machine that was involved when you were injured, is working with or around it a normal work activity?

- 1 YES
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

3. Había recibido alguna orientación sobre como trabajar con o cerca de la máquina de una forma segura antes de que ocurriera el accidente? / Had you received any instruction on how to safely work with or near the machine before the injury?

- 1 YES ----> (COMPLETE THE TRAINING SQUARE)
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

Tema principal: / Main topic: _____			
Forma: /	Idioma / Language		
<u>Form</u>	SP	ENG	OTH
VIDEO	1	2	3
FDEM	1	2	3
READ	1	2	3
OTH:	1	2	3
Cuántas horas? How many hours? _____			

4. Cómo pudiera haber prevenido éste accidente? /  
How could you have prevented this accident?

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**IF THE INJURY INVOLVED A HAND-HELD TOOL**

1. Qué herramienta estaba usando cuando se lastimó? / What tool were you using when you became injured?  
(INTERVIEWER: WRITE THE NAME OF THE TOOL UNDER THE APPROPRIATE 'POWER SOURCE' HEADING)

Nonpowered	Electric Powered	Gas Powered	Other

2. La herramienta que estaba usando cuando se lastimó, la usaba como actividad normal de su trabajo? / The tool that you were using when you were injured, is using it a normal work activity?

- 1 YES
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

3. Había recibido alguna orientación sobre como usar la herramienta de una forma segura antes de que ocurriera el accidente? /  
Had you received any instruction on how to safely use the tool before the injury occurred?

- 1 YES ----> (COMPLETE THE TRAINING SQUARE)
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

Tema principal: / Main topic: _____			
Forma: /	Idioma / Language		
<u>Form</u>	SP	ENG	OTH
VIDEO	1	2	3
FDEM	1	2	3
READ	1	2	3
OTH:	1	2	3
Cuántas horas? How many hours? _____			

4. Cómo pudiera haber prevenido éste accidente? /  
How could you have prevented this accident?

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**IF THE INJURY INVOLVED AN ANIMAL:**

1. Qué clase de animal causó o tuvo algo que ver con su lesión? / What type of animal caused or was involved in causing your injury?

- 1 VACA/BECERRA/TERNERO / COW/CALF
- 2 BUEY / STEER
- 3 CABALLO / HORSE
- 4 PUERCO / HOG
- 5 OVEJA / SHEEP
- 6 GUAJOLOTE / TURKEY
- 7 POLLO / CHICKEN
- 8 OTRO: \_\_\_\_\_

2. Cuántos animales estuvieron involucrados en el incidente? / How many animals were involved in the incident? \_\_\_\_

3. Qué estaba haciendo cuando sucedió el incidente? / What were you doing at the time of incident?

- 1 DANDO DE COMER / FEEDING
- 2 ACORRALANDO / HERDING
- 3 MARCANDO (HERRANDO) / BRANDING
- 4 ORDEÑANDO / MILKING
- 5 INSEMINANDO / BREEDING
- 6 LIMPIANDO / CLEANING PEN
- 7 OTRO: \_\_\_\_\_

4. Qué parte del cuerpo del animal causó la lesión? / Which part of the animal's body caused the injury?

- 1 LA CABEZA o PARTE DE LA CABEZA / HEAD OR PART OF HEAD
- 2 EL TRONCO (TORSO) / TORSO (BODY)
- 3 LAS EXTREMIDADES (LAS PATAS) / THE EXTREMITIES (THE FEET)
- 4 OTRO: \_\_\_\_\_

5. Estuvo el animal bien amarrado? / Was the animal properly secured?

- 1 YES, ADEQUATELY SECURED
- 2 NO, INADEQUATELY SECURED
- 3 NOT SECURED AT ALL

6. Trabajar con o cerca del animal que causó la lesión, es una actividad normal de su trabajo? / Is working with or close to the animal that caused the injury a normal work activity?

- 1 YES
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

7. Había recibido alguna orientación sobre como trabajar con o cerca de ese (esos) animal(es) de una forma segura antes de que ocurriera el accidente? / Had you received any instruction on how to work with or close to this (these) animal(s) before the injury occurred?

- 1 YES ----> **(COMPLETE THE TRAINING SQUARE)**
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

8. Cómo pudiera haber prevenido éste accidente? / How could you have prevented this accident?

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Tema principal: /  
Main topic: \_\_\_\_\_

Forma: / Idioma / Language

Form	SP	ENG	OTH
VIDEO	1	2	3
FDEM	1	2	3
READ	1	2	3
OTH:	1	2	3

Cuántas horas? \_\_\_\_\_  
How many hours? \_\_\_\_\_

**IF THE INJURY INVOLVED A CHEMICAL:**

1. Qué clase de producto químico estuvo involucrado? / What type of chemical product was involved?

- 1 HERBICIDA / HERBICIDE: NAME IF KNOWN: \_\_\_\_\_
- 2 INSECTICIDA / INSECTICIDE: NAME IF KNOWN: \_\_\_\_\_
- 3 FUNGICIDA / FUNGICIDE: NAME IF KNOWN: \_\_\_\_\_
- 4 FERTILIZANTE / FERTILIZER: NAME IF KNOWN: \_\_\_\_\_
- 5 OTRO: NAME IF KNOWN: \_\_\_\_\_

2. Fué el producto químico un líquido, un polvo o un gas? / Was the chemical product a liquid, a powder, or a gas?

- 1 LIQUIDO / LIQUID
- 2 POLVO / POWDER
- 3 GAS / GAS
- 4 OTRO: \_\_\_\_\_

3. Qué estaba haciendo cuando ocurrió el accidente? / What were you doing when the accident occurred?

- 1 APLICANDO / APPLYING
- 2 MEZCLANDO / MIXING
- 3 CARGANDO / LOADING
- 4 TRANSPORTANDO O MANIPULANDO / TRANSPORTING OR HANDLING CHEMICALS
- 5 TRABAJANDO EN AREAS QUE HAN SIDO FUMIGADAS RECIENTEMENTE / WORKING IN AREAS THAT HAD BEEN SPRAYED
- 6 TIRANDO EL PRODUCTO EN LA BASURA / DISPOSING
- 7 REPARANDO EQUIPO / REPAIRING EQUIPMENT
- 8 LIMPIANDO LO QUE SE DERRAMO ACCIDENTALMENTE / CLEANING UP AN ACCIDENTAL SPILL
- 9 OTHER: \_\_\_\_\_

4. Estaba usando.....? / Were you wearing. . . ?

EQUIPO PROTECTIVO / PROTECTIVE GEAR	1	Y	2	N	3	DNR
LENTES DE PROTECCION / GOGGLES	1	Y	2	N	3	DNR
MASCARA DE RESPIRAR / RESPIRATOR	1	Y	2	N	3	DNR
DELANTAL o TRAJE PROTECTIVO / APRON OR SUIT	1	Y	2	N	3	DNR

5. Trabajar con o cerca del producto químico que causó la lesión, es una actividad normal de su trabajo? / Is working with or close to the chemical product that caused the injury a normal work activity?

- 1 YES
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

6. Había recibido alguna orientación sobre como trabajar con o cerca de éste material de una forma segura antes de que ocurriera el accidente? / Had you received any instruction on how to safely work with or close to this material before the injury occurred?

- 1 YES ----> (*COMPLETE THE TRAINING SQUARE*)
- 2 NO
- 3 DOESN'T KNOW
- 4 DECLINED TO ANSWER

7. Cómo pudiera haber prevenido éste accidente? / How could you have prevented this accident?

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Tema principal: / Main topic: _____			
Forma: /	<u>Idioma / Language</u>		
<u>Form</u>	SP	ENG	OTH
VIDEO	1	2	3
FDEM	1	2	3
READ	1	2	3
OTH:	1	2	3
Cuántas horas? How many hours? _____			

**INTERVIEWER: THIS COMPLETES THE DESCRIPTION FOR ONE INJURY. NOW PROMPT FOR ANY OTHER INJURIES THAT OCCURRED IN THE PAST YEAR (SINCE THE LAST INTERVIEW). BE SURE TO ASK ALL FIVE QUESTIONS IN THIS SECTION BEFORE GOING BACK TO THE BEGINNING OF THE INJURY MODULE OR BEFORE ENDING THE INTERVIEW.**

**PROBING FOR FURTHER INJURIES:**

1. En los últimos 12 meses (Desde nuestra última visita), ha tenido **cualquier otra** lesión por la cual le atendió alguien como: (**READ CHOICES**) / In the last 12 months, (Since our last visit) have you had **any other** injury for which you were attended by someone such as: 1 YES 2 NO 3 DOESN'T KNOW 4 DECLINED TO ANSWER

**IF YES:**

1A. Quién le atendió? / Who attended you?

- A DOCTOR (MEDICO) / DOCTOR
- B ENFERMERA / NURSE
- C ASISTENTE DE MEDICO / PHYSICIAN'S ASSISTANT
- D QUIROPRACTICO / CHIROPRACTOR
- E TECNICO DE EMERGENCIAS / EMERGENCY MEDICAL TECHNICIAN
- F PARAMEDICO / PARAMEDIC
- G PROMOTOR DE SALUD / COMMUNITY HEALTH WORKER
- H CURANDERO / LOCAL HEALER
- I OTRO / OTHER: \_\_\_\_\_

2. En los últimos 12 meses (Desde nuestra última visita), fué usted al hospital, sala de emergencia o clínica por cualquier otra (ésta) lesión? / In the last 12 months (Since our last visit), did you go to a hospital, an emergency room or a clinic for any other (this) injury? 1 YES 2 NO 3 DOESN'T KNOW 4 DECLINED TO ANSWER

**IF YES:**

2A. Cuánto tiempo estuvo usted en el hospital, sala de emergencia o clínica? / How long did you stay at the hospital, emergency room or clinic? \_\_\_\_\_ MINUTES / HOURS / DAYS (**CIRCLE**)

3. En los últimos 12 meses (Desde nuestra última visita), quedó usted inconsciente debido a cualquier otra (ésta) lesión? / In the last 12 months (Since our last visit), did you lose consciousness because of any other (this) injury?  
1 YES 2 NO 3 DOESN'T KNOW 4 DECLINED TO ANSWER

4. En los últimos 12 meses (Desde nuestra última visita), tuvo que faltar al trabajo (la escuela) por lo menos la mitad de un día a causa de cualquier otra (ésta) lesión? / In the last 12 months (Since our last visit), did you have to stay off work (school for kids) for at least half a day because of any other (this) injury?  
1 YES 2 NO 3 DOESN'T KNOW 4 DECLINED TO ANSWER

**IF YES:**

4A. Cuánto tiempo? / How much time? \_\_\_\_\_ HOURS / DAYS (**CIRCLE**)

5. En los últimos 12 meses (Desde nuestra última visita), hacía trabajo liviano o redujo sus actividades normales a causa de cualquier otra (ésta) lesión? / In the last 12 months (Since our last visit), were you on light duty at work or did you reduce your usual activities because of any other (this) injury?  
1 YES 2 NO 3 DOESN'T KNOW 4 DECLINED TO ANSWER

**IF YES:**

5A. Cuánto tiempo? / How much time? \_\_\_\_\_ HOURS / DAYS (**CIRCLE**)

**INTERVIEWER: IF 'YES' TO ANY OF THE ABOVE, GO TO THE INJURY MODULE AND RECORD THIS AS AN INJURY.**

**IF 'NO' TO ALL OF THE ABOVE, END THE INTERVIEW AND ANSWER ANY QUESTIONS THAT THE SUBJECT MAY HAVE AT THIS TIME.**

***END OF INTERVIEW DIALOGUE:*** Esa fue mi última pregunta. Tiene usted alguna pregunta? Gracias por hablar conmigo hoy. Espero tener el gusto de volver a verle en la próxima entrevista que será aproximadamente en un mes. Hasta pronto.

That was my last question. Do you have any questions?

Thank you for speaking with me today. I hope to have the pleasure of seeing you at the next interview which will be approximately one month from now. Until then.

WERE THERE ANY SECTIONS OF THE QUESTIONNAIRE THAT YOU FEEL THE SUBJECT WAS NOT ABLE TO ANSWER OR MIGHT NOT HAVE PROVIDED RELIABLE INFORMATION?

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Interviewer Notes:

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# Interviewer Training Manual

Farmworker Health Survey  
1997

Agricultural Health and Safety Center  
University of California  
Davis, Calif. 95616

## Overview of the Study Plan - Our Goal

Injury represents an important health and economic problem in the agricultural industry. Although an important body of research has accumulated for injury among farmers and agricultural worker in other areas of the US, there are no studies focusing on migrant farmworkers. There are approximately 3 million migrant and seasonal farmworkers and dependents in the US. California is the nation's leading agricultural production state and hosts between 600,00 and 1.2 million migrant and seasonal farmworkers and their dependents. In California and nationwide, migrant farmworkers tend to belong to ethnic and linguistic minorities. The predominant ethnic group is Hispanic, and in California this group constitutes approximately 90% of migrant farmworkers.

Farmworkers may be at increased risk for injury because they are most immediately involved in production tasks. Hazards include animals, machinery, chemicals, and dangerous environmental conditions. Contributing factors in this population include low educational status, poor English and literacy skills, and inadequate understanding of existing reporting and support structures such as Workers' Compensation. Finally, agriculture is unusual among industries in that law and custom allow family labor, putting children at risk.

In spite of the potential for increased injury risk among migrant and seasonal farmworkers, few epidemiologic data exist addressing this group. **Our goal is to conduct a study of injury risk through a harvest season among a population of California farmworker families, who are primarily of Hispanic ethnicity.** The specific aims for achieving these goals are:

1. From the population of migrant agricultural worker housing residents, **select a sample of approximately 500 families**, getting approximately 1,000 adults and 1,000 children.
2. At the beginning of the growing season **administer an initial questionnaire** to participating farmworker families collecting demographic characteristics (age, sex, education) and risk factors for injury (training, employment history, injury history). A **finger prick blood sample** at the beginning of the season will measure the worker's acetylcholinesterase activity as an index of exposure to organophosphate pesticides.
3. **Follow the group of families on a monthly basis through the harvest season** to describe their work and injury experience with follow-up questionnaires.
4. At the end of the harvest season, **conduct a final interview and measurement of acetylcholinesterase activity** with a finger stick blood sample.

# Training calendar

## Day 1 - Monday, April 14

### Morning session: 9:00 - 12:00

- Refreshments
- Introductions
  - Round table introductions of all staff
- Overview of the study plan: Dr. McCurdy
- Work Expectations: Lynne Morrin
  - Time line for interviews
  - Expected work schedules
  - Personal time limitations
  - What to bring to work
  - Qualities of a good interviewer
  - Standards of quality and quantity
  - Transportation to farm worker centers

- Break for lunch - 12:00 - 1:00

### Afternoon Session: 1:00 - 4:00

- Introduction of the Initial Adult Questionnaire
  - Q-by-Q explanation and discussion

## Day 2 - Tuesday, April 15 *potluck reminder*

### Morning session: 9:00 - 12:00

- What to expect in the field - Patricio Ayala and Teresa Ramirez
  
- Work folder contents
  - Emergency numbers for staff
  - Family folders - one per apartment
    - Contact record sheet
    - Subject folders - one per person
  - Work Materials

### Afternoon Session: 1:00 - 4:00

- Scheduling and time sheets - work hours
  - Benefits
- Gift certificates - record keeping
- Personal car use and reimbursement
- First practice of Initial Adult Questionnaire

**Day 3** - Wednesday, April 16

**All day:** 9:00 - 12:00, 1:00 - 4:00

Practice the Adult Initial Questionnaire  
Potluck tonight!

**Day 4** - Thursday, April 17

**Morning session:** 9:00 - 12:00

- Initial Child Questionnaire  
Q-by-Q explanation and discussion  
One-on-One Practice

**Afternoon Session:** 1:00 - 4:00

- Injuries Module  
Q-by-Q explanation and discussion  
One-on-One Practice

**Day 5** - Friday, April 18

**Morning session:** 9:00 - 12:00, 1:00 - ?

Practice Questionnaires

Work Expectations

Survey Timeline

Interviewer training  
April 14 - 18  
6 - 8 hours daily

•  
••  
•

Survey farm workers  
Start April 19 - until camps close, about Oct 31, 1997

•

Biweekly staff meetings at ITEH for all interviewers  
to be scheduled

Weekly supervisors meetings

•  
••  
•

Data entry and analysis

## Work Expectations

### What time to come to work

The times that you will be expected to be at ITEH will change from week to week depending on what camp we are surveying that week. The overall plan is that we will want to arrive at the camp by 3:00 or 3:30 on weekdays, as the farm workers are getting home. We will need 30 minutes to pack up the cars, and get your survey packets distributed to you, plus the travel time to the camp. The northern camps are close by and only take 30 to 45 minutes to get there. The southern camps in Stockton and Westley will take 60 -90 minutes of driving time. So it will be important that you always check with your supervisor for the time of your expected arrival. We are going to do our best to plan the work schedule so that there will be a weekly work calendar for you to check. However, research often requires us to be flexible so that we can meet the time availability of the farm workers.

On Saturdays, we will plan to get to the camps by 10 am, and interview all day. We will time our departures so that we can be back in Davis by 8:00 or 9:00. On Sundays, we are hopeful that the workers will be willing to be interviewed, but we anticipate that some will not want to be disturbed on Sunday. So, Sundays will most likely be shorter days. Again, we have to be flexible, if the workers are willing to be interviewed, we have to be there. But, if it becomes apparent that Sundays are not working we will change the schedule. Weekends are the best time for us to travel to the southern camps, so we are hopeful that Sundays will be productive.

We want to be sure that we know what your schedules are so that we can schedule you for work at times that you are available. We are going to be very careful not to have anyone work more than 40 hours a week. Not only do we not want to over work anyone, the department does not approve overtime very often. As a result, everyone will

have days off during the week, and we would like to have those days be the ones that are best for your schedule.

The work load will come in waves, at the beginning of the study we have to get through the entire population to give them the initial interview and to get the reference blood sample. The follow-up questionnaires are shorter so that the work load will probably not be as heavy. Then at the end of the season in September, it will be heavy again as we re-interview the entire population and get their end-of-the-season blood sample.

## Work Expectations

### What to bring to work

#### Personal comfort:

- food and beverages in an iced cooler for duration of day; on the weekends that will be lunch and dinner
- lightweight jacket for evening, early in the summer
- any medications, including chap stick and sun screen
- dress clean, cool and neat; no strong colognes
- try not to bring a purse, bring driver's license, small amount of cash if necessary
- sunglasses will be a good idea, but be sure to take them off when interviewing

#### Study identity:

- T-shirt and hat - everybody will get a yellow shirt to wear, that will probably need washing after every day in the field. We recommend not using a dryer every time or it will fade quickly.
- ID badge

## Work Expectations

### Quality Control

All completed questionnaires will be reviewed on site by the field supervisor for completeness. This is a standard procedure for surveys, and not a personal reflection of anyone's work habits. Even the most experienced interviewers miss questions occasionally, and a second pair of eyes catches that omission before we leave the area.

At the end of each day, each interviewer will inspect their gift certificate records for completeness and have the record sheet signed off by your supervisor. We will have more complete instructions regarding the gift certificates later in the training.

All interviewers will be accompanied by a field supervisor during an interview on a regular basis so that the supervisor can help the group maintain overall consistency and answer any questions that you may have.

Weekly staff meetings will be held to discuss any subject that concerns the team as a whole... the interviews, the questionnaire, the schedule, difficult interview situations. If any interviewer has any issue that they wish to discuss, please take it to one of the supervisors so it can be added to the agenda. These meetings will help everyone stay current and it will help to talk about situations that have happened to you during the interviews.

## Work Expectations

### Being a good interviewer

#### General Comments:

The interviewer is part of the questionnaire by virtue of the fact that you are asking the questions. In order to maintain consistency, each interviewer must resemble all other interviewers in questioning style, voice inflection, demeanor, and small talk. That is why it is crucial that you understand each question in the questionnaire, that you are comfortable with the flow of the questions, and that you all receive the same training.

We want to encourage a professional and supportive environment for this survey. If you, the interviewers, are comfortable and really well trained then you will be more relaxed and accurate in your work. The questionnaire should be so familiar to you that you can enjoy the process without detracting from the quality of the information that you are gathering. If you are comfortable and interested, then the subjects will relax and enjoy the encounter. We want the farmworkers to be pleased with our presence in their homes. We want them to be interested in participating because it will help improve their work environment, and because you, the interviewer, are so pleasant to talk to.

The scientific integrity and consistency of the questionnaire is the primary concern, however if the workers don't want to talk to us because we don't make the interview as pleasant as possible, then there will be too many refusals and partial questionnaires. A good interviewer must be persuasive, but non-biased so that the subject's answers are not affected by your attitudes. A good interviewer must be thorough and productive so that the questionnaires are completed accurately in a timely manner. An interviewer must remember that they are part of a group that is working as a team for a common goal, so that personal flexibility and a smile are your most frequent qualities. It is difficult sometimes to stay focused on the goal, to know when to probe for more specific information, but not inject any personal attitudes. You will be your own best monitors. But, always, know that the field supervisors are there to help you collect the best possible information.

## **I. GUIDANCE IN CONDUCTING INTERVIEWS**

### Getting the Interview

Identify yourself, read the introduction slowly and clearly to the study participant, explaining the purpose of the interview. If they refuse to participate: Write down verbatim (word for word), respondent's reason for refusal on the "Subject Contact Log". If respondent is very busy, or for whatever reason this is a bad time for an interview, attempt to reschedule the interview for a better time. If the situation becomes sticky for any reason, make notes and contact your supervisor for guidance in the particular situation.

### Specific Instructions:

1. Instructions to the interviewers are always capitalized/italicized on the interview, and

should not be read to the respondents.

2. There is suggested dialogue at transition points in the Questionnaire. Try to make it sound as natural as possible.
3. All questions should be asked in the order in which they appear and asked exactly as they are printed.
4. Record all responses using black pen or soft (#2) pencil and record responses to open-ended questions exactly as they are stated by the respondent. Try to note any additional comments that the respondents make that are relevant to the question being asked.
5. An interviewer should not pressure or rush the respondent or provide an answer, but should be a patient and good active listener.
6. If, at any point, the participants ask you whether a particular factor (pesticides, etc.) has been associated with any illness or problems, assure them that: "I do not know of any such association. We are trying to investigate all of the possibilities that we can think of." If you have any further questions, you can call your supervisor. In general, answer any questions simply and honestly. There may be some questions you are not qualified to answer; so don't. In particular, do not give any medical or health-related advice. If a respondent wants a physician to talk to, contact Dr. Stephen McCurdy (916) 752-8051. In addition, if the respondent is interested in the results of the study, tell her to call the study office so that we may send the results when they are available.
7. Repeat any questions which are not understood by the respondent.
8. DO NOT leave questions blank unless you are following instructions to skip one or several questions.
9. For questions which have a "SPECIFY" category, ask the respondent: "Could you please be more specific about \_\_\_\_\_?"
10. At all times an interviewer should strive to be diplomatic, understanding, and completely professional. An interviewer is taken seriously and treated as a professional if she or he projects that image. The interviewer must be alert to questions which may be especially sensitive or delicate for the respondent, since certain questions may be upsetting to some. In such cases, the interviewer should not press the respondent for an answer, but rather calmly and smoothly move on to the next question and indicate REFUSED in the answer section.

### **Getting the interview**

The respondent's initial reaction to the request for an interview is likely to be an indication of curiosity and a desire to be courteous to a stranger. While this expression of interest is not sufficient to conduct a full interview, it does allow the interviewer time to demonstrate friendly intentions and to describe the study in such a way that the respondent's interest can be stimulated further. Your job is to convince the subjects to participate, to do this you need to “sell” yourself and the study.

Generally, the first thing the respondent notices about the interviewer is appearance. Aim for simplicity, neatness, and comfort. Wear the study T-shirt and cap, and identification badge. Avoid identification with groups or politics (pins and rings, for instance). The respondent should be led to concentrate on you as a person and the interview you want to take, not on the way you are dressed. The next thing the respondent focuses on is what you say and the way in which you say it. The following are some pointers for your introduction:

1. If requested, show the respondent the official identification that you have been provided.
2. Tell the respondent who you are and whom you represent.  
“My name is Lynne, and I am from the UC Davis Agricultural Health and Safety Center”
3. Tell the respondent what you are doing.  
“We are interviewing farm workers in the housing facilities, asking for information about their work history and injuries”
4. Tell the respondent how she was chosen. It is important that the study participant understands that he/she is part of a study because all families living in the Center are being asked to participate.
5. Adapt your approach to the situation. The most successful interviewer is the one who is able to size up the situation quickly on the basis of what little information is available, and to act accordingly. Vary your approach according to your intuition about the person. With some respondents; you can get an interview with only a brief explanation of the basic points; and with others you will need to go into some detail.  
Remember not to get too specific about the interview while introducing yourself and the study. It is very important to avoid introducing a bias into the interview by influencing the respondent to answer in any certain way. Very general statements can be made successfully: "We are asking workers and their families who are living in migrant centers about their health and work history."
6. Rapport is your goal. Rapport establishes the foundation for a good interview by providing a relationship of confidence and understanding. A limited discussion about the weather, gardening, etc. topics in which you can establish a joint interest with the

respondent sometimes eases the situation. An important part of completing the interview is to make notes that might help the next interviewer, if you are not able to be there for the follow-up questionnaire for this family.

7. Ending the interview. The participants should feel that their time has been well spent and that the interview has been worthwhile. Any questions or doubts about the interview should be cleared up before you leave. Then warmly thank the respondent for their cooperation and time. Remember to give each adult subject a \$5.00 gift certificate at the end of the interview, and have them initial the receipt sheet.

### **Suggestions for Handling Potential Refusals on Interviews**

By being sensitive to the respondent's feelings, you may be able to anticipate areas for hesitancy. Therefore, be prepared with reassurance, which may or may not work. Leave the door open for another try at a later time. If you are not having any success at your first attempt, try to leave before the respondent gives a final "No". It may just not be the right time for any number of reasons.

So, as a last resort, leave and return some other day, in the hope that it will be a better time. Make an appointment to return if the respondent suggests or allows it. Try to leave the door open for another interviewer to try to obtain an interview. For any number of reasons, it is possible that the respondent will accept one interviewer and not another. Bring all refusals to the attention of your supervisor for advice.

#### **To Conduct a Complete Interview**

##### **You must be:**

1. Absolutely honest in your work.
2. Reliable and conscientious.
3. Always objective in your manner of asking questions.
4. Faithful and neutral in recording answers.
5. Diligent in writing answers fully and legibly.
6. Understanding and compassionate with people.
7. Able to inspire people's confidence and put them at ease.
8. Inconspicuously, but appropriately and neatly dressed.

##### **Your attitude should be:**

1. Neutral (when recording answers)
2. As an interviewer, your responsibility is to record information regardless of whether you think it is accurate, complete or exciting. Do not indicate surprise, pleasure, or disapproval at any answer. Even a slight change in expression will cue a respondent that you have reacted. Do not attempt to influence responses in any way. Never suggest an answer, and do not give your own opinion. If the respondent does not understand a question, repeat it exactly as written, rather than attempting to explain it. There will be detailed discussion during your training about each question on the questionnaire, so that you will have an opportunity to learn and discuss allowable comments and explanations.

### 3. Casual

This is not in any sense a quiz or intelligence test. Relax and enjoy it. Approach the interview enthusiastically; it will undoubtedly be transmitted to the respondent. Assume that the respondent's opinions are important and that you are giving her the opportunity to be heard on an important issue.

### 4. Friendly

Your attitude must be sympathetic and understanding. Emphasize that there are no correct answers. If the respondent objects to a question, it is acceptable to agree with her only to the extent that you pleasantly say "I don't know why, but that's the way the office has the question worded".

## **Interviewing Skills**

1. Usually the first meaningful reaction to a question is the important or true one. Be sure to record the response exactly as stated.
2. Do not record a "Don't Know" or an "Unknown" answer too quickly. The phrase merely may be an introduction to a meaningful comment; therefore, give the respondent some time to think.
3. Record comments or remarks just as they are stated. Do not edit or summarize. If any abbreviations are used, make sure that they are clearly understandable. Also, make sure the comments you write down can be understood by someone else. If you do not understand the respondent's comment or think it is inconsistent with a prior response, ask the respondent for clarification and write down the complete comments such that someone else can follow and understand the response.
4. Maintain eye contact with the respondent, and write as unobtrusively as possible. Keep talking as you write. Start the respondent thinking about the next question. If you let a silence grow, other than an expectant pause, the respondent has more opportunity to

become distracted, bored, resentful, or have a change of mind.

5. Record all the answers yourself; never allow the respondent to do so.
6. Get all information that you are asked to get, and record it in the correct place. Check over the questionnaire at the end of each interview before you leave the respondent's presence. Say, "Now let's see if we've got everything," to allow you to look over each question to see that it is answered and that the answer is recorded completely, correctly, and legibly.

### **Interviewing Cautions**

#### **Never do the following:**

1. Never take a friend or anyone other than a study-approved individual along when you do interviewing.
2. Never allow anyone other than the designated respondent to answer your questions. Seek privacy.
3. Never let anyone else do the work for you. You are the trained interviewer, and substitutes are unacceptable.
4. Never reveal the details of any specific interviews to others. The information you obtain is confidential and you must respect this provision. Revealing interviewer information to anyone but study staff members will constitute grounds for dismissal.
5. Never correct errors on someone else's advice. Instead, tell your supervisor about your difficulties; feel free to ask your supervisor any questions, no matter how insignificant you think they are -- there are no dumb questions, someone always profits.
6. Never falsify interviews.

### **Answers to Common Questions Asked by Respondents**

What you should say if:

1. Respondent asks: "Who is doing the study?"  
Answer: "This study is being conducted by the UC Davis Agricultural Health and Safety Center."
2. Respondent presses for a better answer:  
Answer: "I am a professional interviewer, trained specifically for this study. The people in charge of this study are at the University of California, at Davis. They would be willing to explain the study to you in greater detail. Would you like the phone number so that you can call them?" (Dr McCurdy, 7528051, or supervisor Daniel Carroll 752-

8939) OR "Would you like to talk to my supervisor, here at the Center?"

3. Respondent wonders why she is being interviewed, or suggests interviewing someone else:

Answer: "You were selected, according to procedures worked out by my office. It is from you that they want the information, so your participation is very important, and my supervisors do not want me to interview someone else."

4. Respondent says that she does not have time to be interviewed. Respondent insists that she is too busy:

Answer: "When would be a better time for me to interview you? I will make an appointment that will be more convenient for you."

5. Respondent says that he/she does not know enough to give good answers:

Answer: "Most of the questions are about your personal health and do not require extensive knowledge for any particular item. If you do the best you can, that will be very helpful."

6. Respondent is afraid to answer some questions or asks: "What are you going to do with these answers?":

Answer: "We are asking many people these same questions. Whatever you say, of course, is confidential. We are interested in these questions expressly to better understand the health and injuries of migrant workers. We hope this will be helpful in understanding the health needs here."

7. Respondent resents questions that talk down:

Answer: "The researchers in my office designed these questions, and I am instructed to read each one just as it is written."

8. Respondent is annoyed and refuses to answer a question.

Answer: "Of course, you do not have to answer any question if you prefer not to. I am only trying to get this information so that our study will be more accurate and complete."

If the respondent still refuses, do not comment, just go on quickly to the next question, and mark the item "Refused".

### **Stimulating Discussion -- Probing**

One of the most challenging and important aspects of the interviewer's work is probing, a technique used by the interviewer to stimulate discussion and obtain more information. Probing has two major functions:

1. Probing motivates the respondent to communicate more fully so that she enlarges on what she has said or clarifies what she has said, or explains the reasons for her comments.
2. Probing focuses the discussion on the specific content of the interview so that irrelevant and unnecessary information can be eliminated. Probing must perform these two functions without introducing bias by avoiding the introduction of unplanned and unwanted influence.

### **Kinds of Probing:**

1. A brief assertion of understanding and interest. By saying such things as "uh-huh" or "I see" or "Yes", the interviewer indicates that she has heard the response given so far, that she is interested in it and that she expects more.
2. An expectant pause. The simplest way to convey to a respondent that you know that she has begun to answer the question, but that you feel she has more to contribute is to be silent. The pause allows the respondent time to gather her thoughts.
3. Repeating the questions. When the respondent does not seem to understand the question, misinterprets it, is unable to make up her mind, or strays from the subject, it is often helpful to repeat the question just as it is written.
4. Repeating the respondent's reply. Simply repeating what the respondent has said as soon as she has stopped talking is often excellent probing and will often stimulate further thought.
5. A neutral question or comment. The following are examples:
  - "What do you mean?"
  - "What did you have in mind?"
  - "Why do you think that is so?"
  - "Do you have any other reasons for thinking that?"
  - "Is there anything else?"
6. Asking for further clarification. In probing, it is often a good technique to appear unclear as to what the respondent meant, particularly in the case of an answer that is inconsistent with previous answers.
7. Probing methods should be neutral. Since the potential for introducing bias is great when using probes, the interviewer must be cautious and avoid hinting that certain responses are more acceptable than others.
8. The "I don't know" response. The "I don't know" answer can mean many things, but if you feel it indicates that the respondent is still thinking over the question, a silent

pause, a neutral question, repeating the question, or a reassuring comment will encourage the respondent to reply.

## **II. INTERVIEWER CONFIDENTIALITY**

1. Do not communicate what you hear during interviews with anyone.
2. Do not inform the women's husbands, families or supervisors of ANYTHING told to you in the interviews.
3. Always talk to the study staff away from ALL other people.
4. Do not talk to the press about the study.

### Productivity:

5 completed questionnaires for every 1 refusal or partial

### Voice and demeanor

Keep a positive, calm energy level

### Follow the questionnaire to the letter - No short cuts

Do not take short cuts through the survey, accept the repetitive nature of giving the same questions in the same order, again and again. Take a break, remind yourself that the SUBJECT has never heard it before. The scientific reliability of the study is absolutely dependent on giving the questionnaire the same way to each subject.

### Maintain fluidity

Stay focused on your place in the questionnaire, use transitions between sections to help the subject stay alert and interested. Practice makes perfect, as you become more comfortable, your probing will take less time and you will be able to move efficiently through the questionnaire without compromising it.

### Stay positive and pleasant

If a situation gets uncomfortable ...

### Active listening

If something is not clear, stop and ask for clarification.

### Monitor yourself

Are you starting to expect certain kinds of responses? You will be biasing the results. Be ever vigilant and honest with yourself about the biases that you may or may not be developing. Your opinions about the study and the people will grow and change through the course of the summer. If you need to 'down load', talk to your supervisor, or bring it

up in a staff meeting, chances are you are not alone. The best survey interviewers are teams with open communication of ideas and problems.