FINAL REPORT

Title of Project: Injury and Illness Surveillance in Migrant Farmworkers

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Grant Numbers: 5 R01 OH04041 (01-03)

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LIST OF ABBREVIATIONS

BLS	Bureau of Labor Statistics
EPA	Environmental Protection Agency
FTE	Full-Time Equivalent
MEP	Migrant Education Program
NGS	New Generation System
OSHA	Occupational Safety and Health Administration
RGCCISD	Rio Grande City Consolidated Independent School District
WPS	Worker Protection Standard

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ABSTRACT

Injury prevention efforts have been hindered by a lack of effective surveillance in agriculture. The objective of this cohort study was to use a school-based tracking system for migrant farmworker students as a surveillance method to identify migrant farmworker families in Starr County, located along the Texas-Mexico border, in order to estimate the frequency and risk factors for occupational injuries over a two-year period. Injuries were defined as getting hurt when working or traveling to or from work while migrating in the past year. Rio Grande City Consolidated Independent School District (RGCCISD) is the largest of three school districts in Starr County, and enrolled nearly 60% of all students in the county. The Migrant Education Program (MEP) in RGCCISD maintained files computerized through the New Generation System (NGS) on 1,200 families in the 1998-99 school year.

Randomly sampled from the New Generation System, our cohort consisted of 267 families, who in the spring of 2000 responded to a screening questionnaire and indicated their intention to migrate. All were Hispanic. The average family size was 4.7 people. Mothers and fathers had an average of 7 years of education and had lived in Starr County for an average of 17 years (mean for mothers). The mother was the primary respondent for the family, and questions were asked about the mother, father, oldest and youngest child (Year 1 follow-up only). Approximately, 57.7% in Year 1 and 59.8% in Year 2 of eligible participant families migrated (n=154 at Year 1 follow-up and 143 at Year 2 follow-up) and 96% of these completed the follow-up interviews. These families represented about 310 individuals each year who had worked in the fields on average 6 days a week, 10 hours a day, for 2.7 months in the past year. Twenty-five work-related injuries (first injury events only) were reported during the 2 years of follow-up. The overall rate of injury was 12.52/100 FTE (95% C.I., 8.55-19.01). The most frequent injuries were cuts/jabs, transportation-related injuries (including head injury), blisters/rashes from pesticides, and heat exhaustion/stroke. Over one-third of the injuries resulted in lost work time. On average each year, 30% of mothers, 22% of fathers, 15% of oldest children and 10% of youngest children (Year 1 follow-up only) also reported chronic back pain. In terms of hazard surveillance, from 1/3 to 2/3 of all family members who worked in the fields were exposed to tractors, knives, chemicals, repetitive lifting (fathers). Of 102 mothers who participated in migrant farm work during the summer of 2001, only 44 (42%) reported having received EPA regulated pesticide safety training within the previous 5 years. Cox regression was used to examine risk factors for first injury events. Significant predictors of injury included employer-type, working with or around chemicals, general use of motor vehicle seat belts, number of farm jobs during the migration season, and employer-providing toilet paper. Logistic regression was used to examine chronic back pain and hand symptoms experienced during the last migration season. Factors associated with chronic back pain included age, depression during the last migration season, repetitive bending/stooping, hours of sleep while migrating, hours of sleep at home in Starr County, self-provided drinking water, sorting as a job task, and exposure to pesticide drift/spray. Factors associated with hand problems included age, working with or around chemicals, repetitive handwork, and average hours of work per day.

In addition, two methodological sub-studies were completed. A work diary (calendar with number of hours worked, tasks, crops and injuries/illnesses) was developed and the feasibility tested. Fifty mothers were invited to participate in the piloting of a work diary. Of invited mothers (n=50), 30 mothers migrated and were eligible to participate. Of these, 10 mothers returned a least some portion of the work diary (response rate, 33.3%). In addition, surveillance methodologic issues were examined regarding the feasibility/validity of asking the mother to respond on behalf of her family members. Concordance between mothers and a sub-sample of the fathers and children was assessed by computing kappa statistics and sensitivity/specificity for a subset of variables including acute injury, work hazards, and illness symptoms. Regarding reporting acute injury, kappa statistics for the father/mother and child/mother pairs were 0.84 (almost perfect) and 0.45 (moderate), respectively. Using the same pair order, the sensitivities were 0.75 and 0.40, and the specificities were 1.00 and 0.97, respectively. However, for back pain, the kappa statistics were reduced and back pain frequency as reported by the mother for both father and child was underestimated.

The New Generation System proved to be an effective method to identify migrant farmworker families in Starr County for epidemiologic studies or future interventions. Given that a majority (58%) of the migrant farmworker women in our study had not received Worker Protection Standard employer-mandated pesticide safety training, increased enforcement, education, and alternative delivery of this training are recommended. If person-time at risk for injuries is taken into account as well as symptoms of chronic back pain, the reported injuries are substantial. These data support the need for primary data collection from young farmworkers, systematic streamlined surveillance, and school-based and community interventions.

SIGNIFICANT FINDINGS

The significant findings of this study are identified and elucidated below:

- Participants reported a total of 25 acute work-related injuries (first injury events only). The cohort included 390 farmworkers who contributed a combined total of 399,462 person hours of time at risk over two years of follow-up. The overall rate of acute injury (first event) was 6.26/100,000 person-hours (95% C.I., 4.27-9.50). The overall injury rate per full-time equivalents (based on 2000 hours/year) was 12.52/100 FTEs (95% C.I., 8.55-19.01). Stratifying by person-type, the rates were: 16.70/100 FTEs (95% C.I., 9.61-31.32) among mothers, 11.02/100 FTEs (95% C.I., 5.86-23.05) among fathers, and 8.66/100 FTEs (95% C.I., 3.25-30.56) among their children. The most frequent injuries were cuts/jabs, transportation-related injuries (including head injury), blisters/rashes from pesticides, and heat exhaustion/stroke. Nine of the injuries resulted in lost work or recreation time. Eight injuries were treated at a hospital or clinic. Five of the injuries were treated by the employer. Seven injured workers indicated not seeking treatment of their injury because he/she could not take time away from their work.

- Predictors of acute injury were examined utilizing person-time at risk using Cox regression. The final model included:
    1. *Type of employer.* This variable was dichotomous and categorized as contractor/other and owner/grower only (referent). The hazard ratio was 7.33 (95% C.I., 2.57-20.93). This variable had the highest point estimate.
    2. *Working with or around chemicals.* This variable was dichotomous and categorized as yes or no (referent). The hazard ratio was 3.34 (95% C.I., 1.44-7.75).
    3. *General use of automotive seat belts.* This variable was dichotomous and categorized as yes or no (referent). The hazard ratio was 0.02 (95% C.I., .01-.08).
    4. *Number of farm jobs/employers during a migration season.* This variable was modeled continuously. The hazard ratio (per each additional unit increase i.e. job) was 0.39 (95% C.I., 0.22-0.69).
    5. *Access to employer provided toilet paper while working in the fields.* This variable was dichotomous categorized as yes or no (referent). The hazard ratio was 2.39 (95% C.I., 0.73-7.86). Note: Although this variable was not statistically significant, it was included in the final mode. It produced greater than a 15% change in the point estimate for the strongest predictor, type of employer.

- *Chronic back pain experienced during the migration season* was dichotomous and categorized as yes or no (referent); this variable was examined using logistic regression. The final model included:
    1. *Age.* This variable was modeled continuously. The odds ratio (per each additional unit increase i.e. year of age) was 1.02 (1.01-1.04).

2. *Depression during the last migration season.* This variable was dichotomous and categorized as yes or no (referent). The odds ratio was 5.52 (95% C.I., 2.33-13.06).
3. *Repetitive bending/stooping while working.* This variable was dichotomous and categorized as yes or no (referent). The odds ratio was 1.88 (95% C.I., 1.14-3.08).
4. *Number of hours of sleep while migrating.* This variable was modeled continuously. The odds ratio (per each additional unit increase i.e. hour of sleep) was 0.70 (95% C.I., 0.56-0.87).
5. *Number of hours of sleep while in Starr County.* This variable was modeled continuously. The odds ratio (per each additional unit increase i.e. hour of sleep) was 0.69 (95% C.I., 0.56-0.85).
6. *Access to self-provided drinking water while working in the fields.* This variable was dichotomous and categorized as yes or no (referent). The odds ratio was 2.15 (95% C.I., 1.25-3.71).
7. *Sorting as a farm job task.* This variable was dichotomous and categorized as yes or no (referent). The odds ratio (per each additional unit increase i.e. job) was 0.49 (95% C.I., 0.25-0.95).
8. *Exposed to pesticide drift or spray.* This variable was dichotomous and categorized as yes or no (referent). The odds ratio was 2.28 (95% C.I., 1.06-4.89).

- *Hand problems/pain experienced during the migration season* was dichotomous and categorized as yes or no (referent); this variable was examined using logistic regression. The final model included:
    1. *Age.* This variable was modeled continuously. The odds ratio (per each additional unit increase i.e. year of age) was 1.03 (1.01-1.05).
    2. *Working with or around chemicals.* This variable was dichotomous and categorized as yes or no (referent). The odds ratio was 2.23 (95% C.I., 1.40-3.55).
    3. *Doing repetitive handwork.* This variable was dichotomous and categorized as yes or no (referent). The odds ratio was 1.60 (95% C.I., 1.00-2.55)
    4. *Average hours of work per day.* This variable was modeled continuously. The odds ratio (per each additional unit increase i.e. hour of work) was 1.20 (95% C.I., 1.05-1.37).

- An extremely low proportion (17%) of our participants in Year 2 of follow-up reported ever having seen a dentist which is consistent with findings from California.

- Of 105 mothers who participated in farm work during the second year of follow-up in 2001, only 51 (48.6%) had ever received any type of Worker Protection Standard (WPS) pesticide safety training. WPS is regulated by EPA (Environmental Protection Agency) and has been in full effect since 1995. WPS mandates that employers provide pesticide safety training to their employees at

least every 5 years. Only 44 (42%) mothers had received training within the previous 5 years.

- The feasibility/validity of asking the mothers to respond on behalf of her family members was examined during a concordance sub-study. Agreement of responses describing work tasks, hazards, and injury between mothers and a sub-sample of farmworker fathers (n=41) and oldest children (n=38) was assessed using Kappa statistics and by computing sensitivity/specificity. The father's and oldest child's responses were used as the standards to which the mother's responses were compared. The kappa statistic was consistently higher for the father/mother agreement than the child/mother agreement. Regarding work hazards, the kappa statistics for agreement between fathers and mothers ranged from 0.32-0.75 (i.e. fair to substantial agreement) and between children and mothers ranged from 0.14-0.37 (i.e. slight to fair agreement). In general, the agreement between primary respondents and mothers were much lower for illness symptoms than for hazards. With one exception (occurrence of rash), the kappas were at most 0.36 (fair) for father/mother pairs and 0.21 (fair) for child/mother pairs.

  The sensitivities for the reporting of hazardous activities for the mother/father pairs was generally between 50-90% and for the child/mother pairs was generally 40-70%. The specificities for the reporting of hazardous activities for the mother/father pairs was generally between 60-80% and for the child/mother pairs was generally 50-70%. Regarding illness symptoms, sensitivities were generally less than 30%, and the specificities above 90% for both father and child concordant pairs.

  Regarding reporting acute injury, kappa statistics for the father/mother and child/mother pairs were 0.84 (almost perfect) and 0.45 (moderate), respectively. Using the same pair order the sensitivities were 0.75 and 0.40, and the specificities were 1.00 and 0.97, respectively.

USEFULNESS OF FINDINGS

The usefulness of findings is described below:

- A major contribution of this study is the ability to calculate acute non-fatal injury rates based on person-time at risk and to examine risk factors utilizing Cox regression also requiring person-time at risk. The mobile nature of migrant farmworkers often prohibits the formation of cohorts and studies implementing one of epidemiology's strongest analytic study designs, the cohort study. Furthermore, the New Generation System (NGS) made it possible to not only locate a cohort of migrant farmworker families in their home state but to draw a random sample. This method allows for limiting sampling bias and increasing the generalizability of results. In addition, participants were interviewed in their home state of Texas in the security of their own homes. Ideally, this would yield more accurate responses regarding work hazards (e.g. workplace safety) and injury occurrence as the participant is not affected by the presence of their employer.

- Very few studies have been able to calculate injury rates for migrant farmworkers in general and families specifically. In this study, the overall injury rate (12.52/100 FTEs) is greater than the rate (9.3/100 FTEs) reported from a study of California migrant Hispanic farmworkers by McCurdy et al., (2003) as well as the U.S. average (6.4/100 FTEs) for agriculture, forestry, and fishing in 2002 (BLS, 2004). However, our definition of injury was more inclusive and therefore the rates not directly comparable to other reported rates (see reasons in following bulleted item). The high rate found in this study suggests that an excess of acute non-fatal injures occurs among migrant farmworker families and supports the implementation of prevention efforts targeting this unique and mobile population.

- The qualitative data from this study suggest that the traditional definition of acute non-fatal occupational injury (e.g. loss of 4 or more hours of work time or medical treatment) that is often used in research and government reports is neither appropriate nor sufficient for this population. Thus, a modified definition would be desirable. Many injuries may go unreported under the "traditional" definition for the following reasons:
    - Participants indicated working through the pain of an injury. Motivations for not taking time away from work included: not allowed to do so by their employer and/or not wanting to lose pay.
    - There is not a word or phrase in Spanish that encompasses the meaning of the English phrase "work related injury." Therefore injuries may not be reported if the participant is a Spanish speaker and does not fully understand the scope of the translated concept.
    - Based on responses to qualitative survey items, we hypothesize that many types of injuries (e.g. cuts, scrapes, sprains, strains) although reportable under the "traditional definition," are everyday events among migrant

farmworkers. Therefore, injuries that are less severe or do not result in a disability are "normal" and an accepted consequence of working life. If we restricted the analyses to include only "traditional" injuries, we would underestimate the rate and limit our understanding of occupational non-fatal injuries in this population. In addition, to overcome the limitations listed above, we also suggest that interviewers be trained to utilize skillful probing if a complete injury reporting is desired.

- Results of the Cox regression suggest at least four predictors of acute injury that could be used to direct prevention efforts. Farmworkers employed by contractors or combined employer types (contractors and owner/growers) have 7.33 times the risk of acute injury compared to farmworkers employed exclusively by owners/growers. In fact, 17 of the 25 injuries occurred in jobs where the employer was a contractor. Farmworkers who usually wear their automotive seat belts are less likely (RR=0.02) to sustain an acute injury. This may be an indicator of risk taking behavior meaning that risk takers also experience a higher rate of acute injury. Farmworkers who held a greater number of jobs during a migration season were less likely (RR=0.39) to experience an acute injury and the risk decreased as the number of jobs increased. The protective effect of having more jobs is not fully understood. Having been provided toilet paper, a marker of access to basic field sanitation, was not statistically significant in the model. The variable decreased the point estimate for employer type by greater than 15% and was included in the final model.

- Results of the logistic regression model indicate that age, depression, repetitive bending/stooping, number of hours of sleep, sorting, exposure to pesticide drift predict chronic back pain experienced during the migration season. These risk factors can help inform and prioritize prevention efforts. The risk factors for hand pain include working with or around chemicals, repetitive handwork, and average hours of work per day and may be problematic to modify from the worker's standpoint. However, prevention could be addressed at the employer, governmental, or societal level.

- The data suggest that migrant farmworker mothers are not receiving the proper WPS pesticide safety training by their employers as mandated by EPA. Given that many of the families work together as a unit in the fields, we hypothesize that a minority of fathers and children are also receiving training. The majority of the migrant farmworker families in our study return to their home in Starr County each year at the end of the migration season. Consequently, a community based intervention program targeting migrant farmworkers living in Starr County could serve as new means of educating these families. Such training would not be provided by employers. But, it could educate families about behaviors (e.g. washing hands before eating/smoking) that significantly limit exposure to agricultural pesticides as well as inform participants of their rights under U.S. legislation (e.g. entry into recently treated fields).

- The results of the concordance sub-study suggest that data be obtained directly from farmworker children. Consequently a subsequent study (Sharon Cooper, Ph.D.) titled "A Study of Work Injuries in Farmworker Child" (1U50OH07541) is designed to collect data directly from farmworker adolescents while at school.

- The lack of dental care in our cohort is of great concern and documents the need to address access to health care services in general, and dental services in particular.

- It may be useful for other investigators, who may be planning studies with migrant farmworker populations from home states, to note that in each of our two years of follow-up, nearly 40% of the cohort did not migrate, despite their stated original intention.

SCIENTIFIC REPORT

Background

Agriculture is one of the most hazardous industries in the U.S. and in Texas in terms of work-related injuries and illnesses (May-Lambert et al., 1998; National Safety Council, 1988; Richardson and May-Lambert, 1997). Very little is known about both fatal and nonfatal occupational injuries and illnesses in agriculture in general, and among migrant farmworkers, specifically. The reasons for the paucity of data include: 1) incomplete surveillance (the National Agricultural Workers Survey includes farmworkers 14 years of age or older, excluding younger children who may work in the fields and go uncounted); 2) the occurrence of many non work-related injuries to migrant youth as they observe or play around their working parents; 3) inconsistencies in the definition of work, farmworker, and child; 4) the absence of legal injury-reporting requirements for small farms; and 5) a lack of a universal coding system for injuries (Institute of Medicine, 1998; May-Lambert et al., 1998; Mobed et al., 1992; Murphy, 1992; Slesinger, 1992; Stueland et al., 1996).

However, sufficient data exist to document agriculture as a hazardous work environment for children and adults (Anonymous, 1998, Bonauto et al., 2003; Chapman et al., 2003; Ciesielski et al., 1991, Demers and Rosenstock, 1991, Heryer et al. 1992, McCurdy et al., 2003; Villarejo, 2003) as shown by the following. Agriculture is the second most hazardous industry in the U.S. in terms of death rates: in 1997, the unintentional injury death rate for agriculture was 22.7 compared to 4.0 per 100,000 workers for all industries based on the Bureau of Labor Statistics (BLS) Census of Fatal Occupational Injury (BLS, 2003). The 2002 *nonfatal* occupational injury rate for agriculture, forestry, and fishing industries was 6.0 compared to 5.0 per 100 full-time private sector workers in all industries which tied for the third highest among eight major industry classifications (BLS, 2003). However, this estimate is based on the 2002 BLS Survey of Occupational Injuries and Illnesses, which excludes unpaid family workers, self-employed farmers, and farms with fewer than 11 employees (National Safety Council, 1998). And it is estimated that 85% of migrant and seasonal farmworkers work on farms with fewer than 10 employees (Meister, 1991). Further, many of the studies relate to farm owner and operators and their families and not farmworkers (Cohen et al., 1996, Cummings, 1991; MacCrawford et al., 1998; Nordstrom et al, 1995; Stueland et al., 1996; Xiang et al., 1999), and the majority of these data relate to adults.

Injury prevention efforts have been hindered by a lack of effective surveillance in agriculture (Gunderson et al., 1990), and while progress has been made toward estimating frequency and circumstances of injuries in farmers, surveillance data for injuries and illnesses in the migrant farmworker populations are lacking. Surveillance can be used to estimate the magnitude of injuries and illnesses, identify risk factors for these health outcomes, and evaluate prevention programs. For exposures that are already known to increase the risk of adverse health outcomes, hazard surveillance is especially beneficial as an early warning system and to help target interventions (Wegman, 1992). The ongoing collection, analysis, and dissemination of data from a surveillance system can be

used to establish priorities and better target scarce resources for these preventable injuries and illnesses.

Specific Aims

1. To utilize a school-based educational tracking system for migrant farmworker students to identify migrant farmworker children and their families for subsequent surveillance. Not revised.

2. To develop and test the feasibility of maintaining a work diary (calendar with number of hours worked, tasks, crops and injuries/illnesses). Not revised.

3. To develop two formats for a questionnaire (adult and child) to solicit demographic, psychosocial, employment, and work-related injury/illness information. Not revised.

4. To estimate the incidence rate of migration-related occupational injuries by following for a two-year period migrant farmworker children who attend public schools in Rio Grande City, Texas and their family members. Not revised.

5. To estimate the prevalence of illness symptoms and workplace hazards in the sample. Not revised.

6. To identify risk factors for occupational injuries and symptoms within this sample. Not revised.

7. To explore several surveillance methodologic issues related to concordance of responses and feasibility (i.e., reporting differences between parent/child and husband/wife, stability of the tracking system). Not revised.

8. To build a coalition of community and research members to address study findings and make recommendations for feasible interventions and future research. Not revised.

Procedures and Methods

The Committee for the Protection of Human Subjects at the University of Texas Houston Health Science Center approved these procedures.

Study Population

Approximately half of the estimated 360,000 migrant and seasonal farmworkers and household residents in Texas reside in the Texas-Mexico border county area (Larson, 2000). Starr County, Texas, is one of 32 contiguous counties located on or near the Texas-Mexico border and is approximately 550 kilometers southwest Houston. See Figure 1. Based on the 2000 US Census, the population of Starr County was 53, 597 and is expected to reach nearly 100,000 by the year 2010 (UT System Texas-Mexico Border Health Coordination Office). An estimated 97.5% of the population is Hispanic (almost

exclusively Mexican American). Approximately three-quarters (n=31,000) of this population are migrant and seasonal farmworkers and their dependents, one-third of which are foreign-born. Approximately 40% of the 31,000 migrant and seasonal farmworkers and their dependents are employed in the fields (US Department of Health and Human Services, 1990). Starr County is one of the most imporverished counties in the country with more than half of the families classified below the poverty level (Hanis et al., 1983). Compared to other Texas-Mexico border counties, Starr County is strikingly economically disadvantaged as shown by the following estimates: the population classified below poverty level in 1990 was 18.1% for Texas, 35.8% for the Texas-Mexico border counties, and 60% for Starr County (UT System Texas-Mexico Border Health Coordination Office, 1998).

The largest city in Starr County and the County Seat is Rio Grande City, which was incorporated in 1995 and has a population of 13,500 (Rio Grande City Chamber of Commerce, 1998). Rio Grande City Consolidated Independent School District (RGCCISD) is the largest of three school districts in Starr County. It enrolled 8,159 students in 1997-1998, which includes nearly 60% of all students in Starr County. It is 100% Hispanic, with 90.3% of its students classified as economically disadvantaged (Texas Education Agency, 1999). The RGCCISD is composed of 6 elementary school, 1 fifth grade campus, 2 middle schools, 1 high school, 1 alternative school, and one early childhood program. In this school district there are 2, 580 migrant students and an additional 675 non-enrolled children aged 1-22 years identified because of an enrolled sibling or previous enrollment. The Migrant Education Program in RGCCISD maintains files on 1,200 families to which these 3,255 migrant children belonged in the 1998-99 school year (personal communication, Mr. Joel Salinas, Director of Federal Programs, March 1999).

Surveillance System

The basis for this unique surveillance system is the New Generation System (NGS) created in 1997 by a consortium of states participating in the Migrant Program. The purpose of this system is to identify migrant students and to transfer enrollment, demographic, academic and health data across the United States, as these students move with their families for agricultural work. To be eligible for the Migrant Education Program, a child or his/her parent must be an agricultural worker (or migratory fisher) who has moved from one school district to another within the preceding 36 months to obtain temporary or seasonal employment that is the principle livelihood for the worker or family (Texas Education Agency, 1996). This system is intended to track migrant students and to monitor their progress through the educational system. This system is currently utilized in 10 states (including Texas). The system currently covers 200,000 migrant students nationwide (personal communication, Texas Education Agency, April 15, 1999).

Cohort Selection and Ascertainment

The objective of **Aim 1** was to use the NGS school-based tracking system for migrant farmworker students to identify migrant farmworker families in Starr County. The New Generation System (NGS), created in 1997 to track migrant students and to transfer

enrollment, demographic, academic and health data from Starr County to destination schools across the U.S., was used to identify migrant students attending public schools in Rio Grande City, Starr County, Texas.

Following the grant award, the Project Director contacted the Superintendent of Schools of the Rio Grande City Consolidated Independent School District and the Director of the Migrant Education Program (MEP) to obtain a list by maternal name of the 1520 families comprised in the MEP. From these 1520 families 550 families were randomly selected in batches of 50 families. Families were selected in batches of 50 to maintain the random nature of the selection process while at least 350 migrating families were identified for the sample. During January of 2000, MEP office staff helped the Project Director to abstract contact information for the 550 families. The staff updates MEP files at the beginning of each academic year in order to keep current the number of families participating in the Migrant Education Program. To identify new migrant families, MEP aides frequently visit Starr County communities where migrant families are known to reside. New migrant families are advised of the MEP and invited to enroll in the NGS.

Addressing **Aim 7**, the stability of the NGS system was examined by assessing the migration of 1,084 children from the 550 randomly selected families out of the system from 1999 to 2000 and from 1999 to 2001. MEP office staff provided an electronic data file of the list by maternal of name of the families enrolled in NGS in 1999, 2000 and 2001. Study investigators matched the data using SAS system for Microsoft Windows. In 2000, approximately 13% (139) of the children graduated. The denominator (945) for determining the percentage of kids lost from the system was calculated by subtracting 139 from 1084. Approximately, 36% (342) of the children was lost from the system. In 2001, the complete NGS database was not available. However, we were able to identify at least an additional 6 children (4 families) were lost from the system.

Screening Survey Development, Training, and Data Collection
Prior to development of the Year 1 follow-up survey, we developed a screening questionnaire (Appendix 1) to determine which members of our sample were planning on migrating, and to obtain consent to join the study. During January, February and March of 2000, research staff narrowed the scope of the screening questionnaire to 27 questions (demographic, years in Starr County, years in migrant farm work, contact information, plans for year 2000 migration, family composition and plans for migration of individual family members, and work-related injury information during the past 12 months for each family member). Because interviewers use both English and Spanish when interviewing, both languages were included side by side on the survey.

Following completion of the screening questionnaire, a focus group was held in Starr County to obtain feedback from migrant farmworker mothers about the screening form, incentives for diary participation, diary format, etc. Nine migrant farmworker mothers attended the focus group. Four mothers were asked to complete the form. This was accomplished without difficulty in approximately 15 minutes. The screening questionnaire was delivered to the Starr County Health Studies Office in Rio Grande City in March of 2000. (See Appendix 1). Training of Starr County Health Studies Office

interviewers by the Project Director and the Starr County Health Studies Office Liaison occurred by telephone and by face-to-face training during March and April of 2000.

The Starr County Health Studies Office interviewers in Rio Grande City then arranged to administer the screening questionnaire to the mothers of sampled families. For time and staff efficiency, the 550 randomly selected families were randomly sorted into two batched groups (350 and 200 families) because it was estimated approximately 350 families would need to be screened to obtain approximately 250 *migrating* families who would be willing to participate in the study. Telephone contact was attempted in order to obtain directions to the family's home. Appointment scripts describing the purpose of the study were read to migrant mothers and appointments made for face-to-face interviews in the homes of the migrant families. Screening questionnaires were either administered at the homes of migrant families, or following a number of attempts to contact the family for a face-to-face interview, by phone. Informed consent was obtained in either written or verbal form. All 350 families in the first batch and 22 families (n=372) from the second batch were contacted and interviewed during the months of March-May, 2000, either in the home of the selected family or by phone from the Starr County Health Studies Office. Of the 371 completed interviews, 269 families who indicated their intention to migrate were identified and invited to participate in the screening survey. See Figure 2.

Injury/Illness Definition

Work-related injury was defined as a non-fatal acute injury that occurred while doing farmwork during the migration season. A farmworker was considered to be *migrant* if he/she had to spend the night away from his/her usual home in Starr County in order to do their farm job. Examples of injuries included (but were not limited to): 1) Passing out due to heat; 2) Itchy painful rash after working in the fields; 3) Cut hand or other body part; 4) Severe insect bite; and 5) Sprained/strained muscle. (See injury forms and instructions in Appendix 1).

Follow-up Questionnaire Development and Training

The objective of **Aim 3** was to develop two questionnaires (adult and child) to solicit demographic, psychosocial, employment, and work-related injury/illness data from approximately 250 migrating families who agreed to participate in the study. See Appendix 1. During the fall of 1999, Houston staff reviewed previously developed migrant farmworker surveys from other researchers across the U.S., noting constructs of interest to the study. Specifically, the investigators reviewed questionnaires from the National Agriculture Workers Survey (US Department of Labor, 1988), the 1988 Occupational Health Supplement to the National Health Interview Survey (National Center for Health Statistics, 1988), the CDC Behavioral Risk Factor Survey and Youth Risk Behavior Survey (CDC, 1995, Kolbe et al., 1993), the Northeast Center for Agricultural & Occupational Health Agricultural Worker Occupational Injury Study (Northeast Center, 1998), the Association of Farmworker Opportunity Programs questionnaire for their study, "Risk Factors for Injury among Children of Migrant and Seasonal Farm Workers" (Association of Farmworker Opportunity Programs, 1997), NIOSH's draft survey for their planned study of injuries among adolescent farmworkers,

Layde et al. survey for "Identifying Preventable Risk Factors for Farm Injuries" (Layde et al., 1993), the National Cancer Institute's questionnaire to ascertain work histories from migrant farmworker adults (already pretested on 18 farmworkers in Starr County as part of the investigator's earlier feasibility studies) (National Cancer Institute, 1997), and the soon to be released (June 21, 1999) North American Guidelines for Children's Agricultural Tasks (National Children's Center for Rural and Agricultural Health and Safety, 1999). In accordance with **Aim 3**, Houston research staff developed a follow-up questionnaire to solicit demographic, psychosocial, employment, and work-related injury/illness data from approximately 250 migrating families (identified from the screening survey described earlier) who agreed to participate in the study. Rather than design one form for adults and another for children, information describing both adults and children was solicited using one form. Each question was phrased accordingly. Each mother was asked to respond for herself and on behalf of her husband, and her oldest and youngest child (Year 1 follow-up only) who migrated with her. The survey included sections on demographics, work history, injuries, illness symptoms, work hazards, pesticide safety training, pesticide exposure, smoking, alcohol consumption, sleep, and depression (see Appendix 1). In addition, the survey included a section describing injuries experience by her other children who may have migrated with her. The survey was reviewed by an expert panel of 5 researchers with extensive survey research experience.

Because interviewers use both English and Spanish during the interview, both languages were included side by side on the survey. To ensure that the meaning of the translations matched the meaning of the questions in English, the questions in Spanish were back-translated and any discrepancies were addressed.

In October of 2000, the Houston staff trained the interviewers at the Starr County Health Studies Office. During the first day of training, the meaning and administration of each item was discussed with the interviewers. The second day of training focused on practicing the survey with each other and with migrant farmworkers from the community who were not study participants. A second training session, held a couple of weeks later, allowed for the opportunity to address additional concerns while training interviewers who were unable to attend the initial session.

Year 1 and Year 2 Follow-up Data Collection

The Year 1 follow-up data collection initiated during the first week in November 2000 and ended prior to the end of January 2001. In total, 267 mothers (2 mothers were duplicates) were contacted and asked to complete the Year 1 follow-up survey.

The study staff determined that certain items on the Year 1 follow-up were not useful or confusing for participants. In addition, study staff decided not to collect data on the youngest child. Based on preliminary data from the Year 1 follow-up, very few youngest children participated in farm work, and we sought to reduce the reporting burden for the mother. Consequently, the Year 2 follow-up surveys were slightly shorter in length. In an effort to minimize the burden on participants, families participating in both the Year 1 and Year 2 follow-up surveys were administered a short form as study staff determined

that certain items (e.g. type of work done majority of life) did not need to be collected a second time. Prior to the Year 2 follow-up data collection, interviewers attended a brief re-training held at the Starr County Health Studies Office in the fall of 2001. The Year 2 follow-up data collection initiated in October 2001 and ended prior to the end of January 2002. A total of 137 mothers were interviewed—105 participated in Year 1 follow-up while 32 participated for the first time during the Year 2 follow-up.

Each mother was offered a $15.00 gift card from HEB Pantry Foods grocery store or Wal-Mart as a thank-you for her participation in a follow-up survey. The duration of each interview was approximately one half hour to one hour. The Starr County Health Studies staff who administered the screening questionnaire to sampled mothers also administered the Year 1 and Year 2 follow-up questionnaires. Similarly to the baseline survey, completed Year 1 follow-up surveys were sent to Houston for review. Incomplete surveys were returned to Starr County and corrected by the interviewers. Corrected surveys were entered into the Microsoft Access database.

Data Management

Starr County interviewers shipped the baseline, Year 1 follow-up, and Year 2 follow-up survey forms to the Houston staff. The liaison to the Staff County Health Studies office received the surveys and checked the family number against a master list before sending the surveys to the Project Director or the Data Manager to be entered in a tracking database. Project staff also checked the surveys for missing data/errors and returned surveys for error correction to Starr County. Surveys were then distributed to staff members to enter into a Microsoft Access database. A double data entry system was designed and certain numeric fields were re-entered into the database to guarantee accuracy. Double data entry was completed by at least two separate staff members. A comparison program was used to identify inconsistent entries. A staff member adjudicated inconsistencies manually by referring to the surveys forms. The datasets were cleaned using SAS system for Microsoft Windows and STATA statistical software packages.

Work Diary

The objective of **Aim 2** was the development of a work diary for migrant farmworkers who will travel from Starr County, Texas, to various states across the U.S. during the year 2000 spring, summer, and fall migration period. The primary purpose of the diary was to explore whether it would be possible to obtain injury and denominator data for risk of injury from diary participants who would be asked to record work and injury information on a daily basis, minimizing recall bias.

During the first few months of 2000, project staff considered various formats for the development of a "work diary". Due to concerns regarding literacy levels of the mothers of migrant families, who would answer for other family members, one strong candidate included graphic representations of crops and daily hours worked. Other formats were also considered including the use of a telephone answering machine and a toll-free cool line.

The format was a tear-out postcard (modeled after a diary developed for a fertility study) where work-related information would be recorded daily and mailed weekly, postage-paid, to the project staff at the University of Texas Houston Health Science Center School of Public Health. See Appendix 2. Instructions for completion of the diary were included in a flap that folds over the diary questions appearing on the stationary side of the form. Information collected in the diary included the number of days worked weekly, and the number of hours worked daily by work activity (driving a vehicle, operating a machine, hoeing or weeding, planting, picking or harvesting, cleaning produce, other activities). Diary participants were also asked to record kinds of crops worked (vegetables, fruits, field crops, other), and any incidents of work-related injury. The mother of the family would report for herself, her spouse, and the oldest working child in the family. Mothers were encouraged to obtain assistance from family members. Diaries were printed in both English and the Spanish language. Mothers selected the version in their preferred language.

The reviewers of our original proposal judged the potential for success of the diary plan to be low. Further, the budget was inadequate to both produce the diaries and compensate the farmworkers for this intensive task. The Principal Investigator therefore obtained the permission of the National Institute for Occupational Safety and Health to test the feasibility of maintaining the work diary with 50 families using one format, rather than 250 families randomized to two formats, as stated in the grant application. See Appendix 13.

To obtain the diary sub-sample, interviewers contacted migrant farmworker mothers who stated their willingness in the screening interview to keep a diary while migrating. Of those who agreed to participate in the diary and were planning to migrate in May or June (n=150), 79 mothers were randomly selected using a random numbers table. May and June migrators were chosen due to sample size concerns and training issues related to recall bias. Interviewers then telephoned the selected mothers until a sample of 50 diary participants were obtained. In a telephone call, the interviewers read a script to the migrant farmworker mother, which described the purpose of the diary and requirements for maintaining the diary, and invited the mothers to participate. If the mother agreed to participate in the diary, she was called at a later date to arrange training.

With respect to the diary training, mothers were asked to participate in one of several one-hour training sessions that were conveniently located in three Starr County locations. Houston staff traveled to Starr County on April 25, 2000 to train staff from the Starr County Health Studies Office. On April 26 and 27, three diary-training sessions were held in three separate locations. Informed consent was obtained from trained participants (n=35). A small thank-you gift, transportation and childcare were provided. Additionally, 15 mothers were trained in their homes with a 45-minute tutorial. A total of 40 Spanish language and 10 English language diaries were distributed (N=50).

Of the 50 mothers, 10 mothers migrated and returned at least 1 of the postage pre-paid diary postcards (the design entailed returning 1 postcard per week to the Houston staff via mail); 20 mothers migrated but did not return any postcards; 19 (38.7%) moms did not

migrate; and 1 mother refused further contact and was dropped from the study. Removing the non-migrating/refusing mothers from the denominator (n=30), the response rate was 33.3%.

Participant feedback was collected via a focus group with the respondents and an interviewer administered survey with the non-respondents. See Appendix 2. During the focus groups with respondents, mothers expressed that the diary was a worthwhile experience, important, and stated that they would participate again. Responding mothers reported that the diary was easy to use and that returning the diary by mail was not a problem. Of interest, responding mothers stated that the diary became a family project. Mothers suggested the following to increase participation and maintain interest in completing the diary: 1) a 1-800 number, 2) reports of project progress, and 3) payment. Reasons for non-participation (n=20) included not having enough time (55.6%), forgetting to complete the diary (50%), leaving the diary at home in Starr County, TX (55.6%), and lost the diary (11.1%). Due to the low response rate from the diaries and the high expense in producing them, the investigators decided not to repeat the diary pilot in Year 3 (Year 2 follow-up).

Concordance Study

In accordance with **Aim 7**, study staff selected a subset of items from the Year 2 follow-up survey for the concordance study. See Appendix 1. The concordance study was conducted at the end of 2001 during collection of the Year 2 follow-up data. The responses of 79 concordance participants were compared with the responses given by mothers during the follow-up survey. Of the 79 concordant respondents, 41 were fathers and 38 were oldest children. Due to difficulty of coordinating concordant interviews, convenience sampling was used to select participating fathers and oldest children. Thirty-nine mothers were compared to only a father (n=21) or their oldest child (n=18) while 20 mothers were compared to both their spouse (family's father) and their oldest child. The mean ages of the mothers, fathers, and oldest children were 41, 43.6 and 17.3 years respectively. Of the 79 mothers, 93% had worked on a farm during the migration season, compared to 100% of the fathers and oldest children (included because they did farm work). All participants were Hispanic.

The data collection instrument referred to as the concordance survey consisted of a subset of 27 close-ended items from the follow-up survey. The items asked about participation in a variety of hazardous activities (e.g. use of a tractor, repetitive hand work) and having experienced specific illness symptoms (e.g. chronic back pain, severe headaches) or injury during the 2001 migration season. Possible responses included 'yes', 'no', or 'don't know.' The concordance survey was administered according to the same protocols employed to collect the follow-up data. The concordance survey required approximately 5-10 minutes to complete.

To evaluate the agreement of the mother's responses with those of her family member, kappa statistics and 95% confidence intervals were computed using SAS system for Microsoft Windows. In addition, the sensitivity and specificity of the mother's responses were computed using the oldest child or father as the gold standard. All 'unknown'

responses were excluded from the analysis and did not account for a substantial proportion of responses.

Tables 10 and 11 present the prevalence of hazardous activities and illness symptoms/injuries, respectively, as reported by the primary respondent (father or oldest child) versus mother. Overall, mothers tended to underreport both hazards and health symptoms/injuries for both their spouse and child. Table 12 presents the kappa statistics comparing report of various hazardous activities. In general, the father/mother agreement is consistently higher than child/mother agreement. The kappa statistics for agreement between fathers and mothers ranged from 0.32-0.75 with the highest agreement for 'use of a knife' (kappa=0.65), and 'lift objects repetitively' (kappa=0.75). The kappa statistics between oldest children and mothers ranged from 0.14-0.37 with the highest agreement for 'use of hand-held vibrating tools' (kappa=0.37) and 'moving heavy objects' (kappa=0.36). Large confidence intervals are a consequence of small cell size. Table 13 presents the kappa statistics comparing the concordant pair respondents for reporting various illness symptoms. In general, the agreement between primary respondents and mothers were much lower for illness symptoms than for hazards. With one exception (occurrence of rash), the kappas were at most 0.40 (fair) for father/mother pairs and 0.21 (fair) for child/mother pairs.

Sensitivity and specificity of the mother's responses regarding hazardous activities is presented in Table 14. The mother's affirmative response of the dad's involvement in hazardous activities in which he truly was involved was generally between 60-80%. Two exceptions were 'hand-held vibrating tools or machinery,' 36%, and 'move heavy objects,' 56%. A mother's knowledge of hazards for her oldest child was even lower, generally ranging from 50-70%. Again the question about 'hand-held vibrating tools or machinery' being the lowest at 40%. Mothers indicated with greater accuracy activities for which the primary respondent was not involved. The specificity of mother's responses for the dad ranged from 63-92%. The lowest specificity was for exposure to tractors at 63%, and the highest being hand-held vibrating tools the highest at 92%. Specificity of knowledge for hazardous activities among children ranged from 58-93%. The lowest specificity was for all-terrain vehicles at 58%, and the highest was for working with hand-held tools at 93%.

Table 15 presents the sensitivity and specificity of the mother's responses for various symptoms relative to dads and oldest children. Reporting of the symptoms investigated was very low, especially by the mothers (Table 11). The reported frequency of 0 by the mothers resulted in 13 of 24 sensitivities which were either 0 or non-computable (when the primary respondent also reported 0). As above, mothers underreport symptoms for both dads and children. The sensitivities that could be computed were generally less than 30%, and the specificities above 90%.

The reporting of occupational injuries was also examined. As indicated in the previously presented Table 13, kappa statistics for the father/mother and child/mother pairs are 0.84 and 0.45, respectively. Using the same pair order the sensitivities are 0.75 and 0.40, and the specificities are 1.00 and 0.97, respectively.

Study Advisory Board

The objective of **Aim 8** was to develop a coalition of community and research members to serve on a Community Advisory Board. On December 7, 1999, the Community Advisory Board met in Rio Grande City, Starr County, Texas, at the RGCCISD's Multi-Purpose Room, Fort Ringgold. Lunch was served to the members of the Community Advisory Board, and a slide presentation describing study features was shown to participants. A discussion followed the slide presentation. The advisory board was comprised of prominent citizens of Rio Grande City, Starr County, and other migrant community professionals whose experience with migrant farmworker families would be helpful to study staff. Following the Advisory Board Meeting, minutes and a letter were mailed to board members. Advice was sought from individual advisory board members throughout the study.

Statistical Analysis

Descriptive statistics and a descriptive analysis of the EPA Worker Protection Standard and the OSHA Field Sanitation Standard were completed using SAS system for Microsoft Windows, STATA, and SPSS statistical packages. Using STATA, a more in-depth examination of the following outcomes was completed: 1) time to first injury event using Cox regression; 2) chronic back pain using logistic regression; and 3) chronic hand pain using logistic regression.

Results (Aims 4, 5, 6)

Descriptive Statistics

Of the 267 mothers in the cohort, 154 (57.7%) moms migrated during Year 1 and 143 (59.8%) during Year 2. See Figure 2. Of note, not every mother who migrated participated in farm work with her family members. Each year, approximately 96% of the moms who migrated completed the follow-up survey. Of the 267 families, 100% were Hispanic and had lived in Starr County for an average of 17 years (moms' mean). The average family size was 4.70 members (range 1-10). In Year 1, 13 moms (2 moms could not be located, 9 moms moved, and 2 moms died) were lost to follow-up (4.87%) while 14 moms (3 moms could not be located, 8 moms moved, and 3 moms were still migrating at time of survey) were lost to follow-up in Year 2 (5.51%).

Description of Employment and Work Intensity

Appendix 5 displays data describing employment and work intensity by year of follow-up. Of the 154 migrating families in Year 1, 119 mothers, 104 fathers, 71 oldest children, and 21 youngest children participated in farm work. Of the 143 migrating families in Year 2, 105 mothers, 95 fathers, and 65 oldest children participated in farm work. On average, participants worked 6.25 days/week, 10.11 hours/day, and held 1.68 farm jobs in follow-up Year 1 and worked 6.03 days/week, 9.72 hours/day, and held 1.57 farm jobs in follow-up Year 2. Regarding type of employer, 75.2% (237) of family members were employed by growers/owners only, 11.1% (35) worked for contractors and growers/owners, and 13.7% (43) were employed by contractors only in follow-up Year 1. A higher proportion (32.5%; 86) of family members in follow-up Year 2 worked for only contractors, 58.5% (155) of family members were employed by growers, and 9.1% (24)

were employed by both growers/owners and contractors. The most frequently worked crops in follow-up Years 1 and 2 respectively included cotton (39%; 26%), corn (17.1%; 20.4%), asparagus (13.3%; 10.6%), potatoes (11.7%; 10.9%), beets (11.7%; 9.8%), grapes (4.1%; 6.4%), and peanuts (3.8%; 5.7%). In both the follow-up Years 1 and 2 respectively, the most frequently performed job tasks included hoeing (37.1%; 37.0%), sorting (21.0%; 17.7%), harvesting from the ground (18.4%; 12.5%), weeding (18.7%; 8.7%); harvesting from trees (5.1%; 5.3%), and detasseling (3.2%; 7.2%). The majority of participants worked only in states other than Texas. In follow-up Year 1, 63.8% (201) worked only outside Texas, 34.0% (107) worked only in Texas, and only 2.2% (7) worked in both locations. Similarly in follow-up Year 2, 72.1% (191) worked only outside Texas while 27.9% (74) worked only in Texas. States other than Texas included: Arkansas, California, Colorado, Florida, Georgia, Idaho, Illinois, Indiana, Kansas, Louisiana, Minnesota, Michigan, Mississippi, North Carolina, North Dakota, Nebraska, New Mexico, Ohio, Oklahoma, Oregon, Tennessee, Utah, Washington, Wisconsin, and Wyoming. Figures 3 and 4 display the top 10 states and crops worked within those states for Follow-up Year 1 and Follow-up Year 2.

Prevalence of Illness Symptoms

A variety of illness symptoms were included on the survey including chronic back pain and hand symptoms. See Appendix 6 and Appendix 11 for frequencies. The most common illness symptoms reported included (percentages provided for follow-up Years 1 and 2 respectively): chronic back pain (24.6%; 22.5%), chronic foot pain (23.9%; Year 2 only), hand symptoms (28.1%; 16.7%), severe headaches (22.3%; 13.1%), eye irritation (15.2%; 8.7%), skin rash (14.8%; 10.2%), heat exhaustion (5.5%; 10.3%), and nausea (7.8%; 6.5%).

Prevalence of Workplace Hazards

A variety of workplace hazards were examined and are displayed in Appendix 7. The most prevalent workplace hazards included working with or around the following (percentages displayed for follow-up Year 1 and 2 respectively): knives/cutting tools (57.9%; 59.8%), tractors (52.2%; 54.4%), repetitive hand work (44.7%; 50.4%), bending/stooping repetitively (43.8%; 46.2%), chemicals (41.5%; 43.8%), all terrain vehicles (37.7%; 46.0%), irrigation ditches (30.9%; 41.8%), hitched equipment (24.4%; 34.6%), lift objects repetitively (23.3%; 26.1%), moved heavy objects (20.5%; 24.6%), and hand-held vibrating tools (10.5%; 15.0%).

Health Behaviors

Appendix 8 presents data on health behaviors. On average, participants slept 6.8 hours Year 1) and 6.9 hours (Year 2) while migrating and 8.2 hours (Year 1) and 8.3 hours (Year 2) with better quality sleep while at home in Starr County. Over 20% of fathers reported alcohol use while migrating compared to less than 2% of mothers (Years 1 and 2). For both years, less than 10% of mothers reported ever smoking compared to more than 40% of fathers. Dental care during the past year was asked of participants during the second year of follow-up. Only 17% of participants reported ever having had dental care (19% of mothers, 6% of fathers, and 28% of oldest child).

EPA Worker Protection Standard and OSHA Field Sanitation Standard

Addressing **Aim 5**, a descriptive analysis was completed focusing on a sub-sample of migrant farmworker mothers (n=105) and compliance with two regulations: the Worker Protection Standard and the OSHA Field Sanitation Standard (n=104; 1 mother had missing data). The Worker Protection Standard (WPS) was promulgated by the EPA in 1992 and went in full effect by 1995. WPS requires employers to provide pesticide safety training to their workers at least every five years among other requirements related to worker safety. Second, the Occupational Safety and Health Administration (OSHA) field sanitation standard was put into effect in 1987; the goal being to decrease work-related pesticide exposure through access to: toilets, toilet paper, wash water, soap, and clean drinking water. The sample consisted of the mothers who participated in migrant farm work during Follow-up Year 2 (n=105). The mothers were 100% Hispanic, on average 40.2 years of age (median: 40 years; range: 27-62 years), and had a lifetime number of years doing farm work on average of 15.6 years (median: 14 years; range: 2-44 years). On average, the mothers worked approximately 6 days per week for approximately 9 hours per day. Less than 50% of mothers received training within last 5 years (in compliance with the WPS). See Table 1 and Appendix 9. But, the majority of mothers (90-93%) reported that their training covered key WPS areas. Regarding the OSHA Field Sanitation Standard, there was a large discrepancy between mothers working in TX versus outside TX regarding access to employer-provided and self-provided basic field sanitation. See Table 2. The majority of moms (68-85%) working in states other than Texas (AR, CA, CO, FL, IL, IN, MI, MN, ND, NE, OH, OK, TN, WA, WI) reported access to employer-provided field sanitation; whereas a minority (12-28%) of Texas workers reported similar access. Conversely, the majority of moms (76-88%) working in Texas reported providing their own field sanitation items compared to proportion of moms (17-35%) working in other states (Table 3).

Model Building Strategy

To address **Aim 6**, we used the following procedure to build the models examining first injury event (Cox regression), chronic back pain (logistic regression), and hand problems (logistic regression). All models were clustered by person as individuals who participated in both years of follow-up were allowed multiple records. We began with univariate analysis of factors considered primary predictors of interest or strong potential confounders based on our review of the literature and meaningful in the context of migrant farmworker injury prevention. The results of the univariate analyses indicated that the strongest variable for the Cox regression (first injury event) was *employer-type* and for the logistic regression (chronic back pain and chronic hand pain) the strongest variable was *age*. Each additional potential predictor, confounder or effect modifier was examined in a model that included the strongest variable. Using a criterion of less than or equal to a 0.05 significance level for the new "main effect" term or a 15% or greater change in the rate ratio for the employer-type (Cox regression) or age (logistic regression) with the inclusion of the new main effect term (Rothman and Greenland, 1998), other potential predictors, confounders, or effect modifiers were individually evaluated. We then ran a model that included the full set of potential predictors, confounders or effect modifiers and variables previously eliminated (e.g. gender, age, and place of employment). The next model included the subset of variables from the

intermediate model and all first-order interaction terms. The final, most parsimonious model included the subset of variables that were either significant as a main effect term or a confounder (15% change in the rate ratio for employer-type) or effect modifier (interaction term significant at the 0.05 level).

Analysis of Time to 1st Injury Event

Over the two years of follow-up, 25 work-related first injury events were reported. Ten injuries were reported in Year 1 and 15 injuries in Year 2. In total 12 injuries occurred in mothers, 9 injuries in fathers, and 4 injuries in children. Examples of injury events included: 1) Cuts with scissors, files, and knives while hoeing/harvesting; 2) Head injury after being hit with a steel pole; 3) Burns on the hand due to contact with a water filter; 4) Falls (off bench working in a grain silo); 5) Inflammation related to repetitive strain; 6) Blisters/rashes related to pesticide exposure; and 7) Sprains of the back/neck. One third of the injuries resulted in lost work time. See detailed injury descriptions in Appendix 10.

In total 390 individuals contributed 399,462 person-hours of time. Regarding **Aim 4**, the overall injury rate was 12.52 per 100 FTE (based on 2,000 work hours/year). Among adults, the rate per 100 FTEs was 16.70 (95% C.I., 9.61-31.32) for mothers and 11.02 (95% C.I., 5.86-23.06) for fathers and among children the rate was 8.66 (95% C.I., 3.25-30.56).

In preparation for the Cox regression, the data were recoded to accommodate all independent variables of interest with different values for the Year 1 and Year 2 surveys (within the same individual). Such variables are "time-dependent covariates." Even for individuals who participated in both surveys (Year 1 and Year 2), but did not change values for the independent variables of interest, we separated their person-time into two intervals (for Year 1 and Year 2). This separation will enable the most valid comparisons for possible secular trends between Year 1 and Year 2. The dataset for the Cox regression allowed for two records per subject. Study participants who completed both the Year 1 and Year 2 follow-up surveys had two records per subject. All other participants had only one single record in the dataset.

The Cox regression suggested that the strongest predictor of injury was employer-type (univariate hazard ratio, 5.12; 95% C.I., 2.24-11.73). (Table 4) Employer-type was categorized as dichotomous comparing owners/growers only (referent) to contractors only and individuals who worked for both owners/growers and contractors during a single migration season. Variables of interest were included alone in a model with employer-type as described above. The final model included employer-type, working with or around chemicals during the last migration season (dichotomous), general use of seat belts (dichotomous), number of farm jobs during the last migration season (continuous), and access to employer-provided toilet paper during the last migration season (dichotomous). See Table 5.

In addition, previously eliminated variables were re-introduced into model. But, no additional variables were significant ($p<.05$) or meaningful in terms of the effect on

employer-type. Finally, the existence of secular trends was examined. Three categories were created: 1) Year 1 follow-up served as the referent (individual may or may not have contributed during the Year 2 follow-up); 2) Year 2 follow-up but the individual also participated in the Year 1 follow-up; and 3) Year 2 follow-up only. No secular trends were identified.

Analysis of Chronic Back Pain

During the two years of follow-up, 21.6% of the farmworkers reported having ever experienced chronic back pain during the last migration season. The proportions are presented by year of follow-up and person-type in Appendix 11. If the farmworker experienced back pain during Year 1, the individual's information for Year 2 was excluded. Following univariate analysis of the variables of interest, age (continuous) was identified as the strongest variable (OR, 1.02; 95% C.I., 1.01-1.04). See Table 6. The remaining variables were entered into the model as described above. The final model (Table 7) included: age (continuous), depression during the last migration season (dichotomous), repeated bending/stooping (dichotomous), hours of sleep while migrating (continuous), hours of sleep while at home in Starr Co. (continuous), self-provided drinking water during the last migration season (dichotomous), sorting as a job task (dichotomous), and exposure to pesticide drift/spray (dichotomous).

In addition, previously eliminated variables were re-introduced into model. But, no additional variables were significant ($p<.05$) or meaningful in terms of the effect on age. Finally, the existence of secular trends was examined. Three categories were created: 1) Year 1 follow-up served as the referent (individual may or may not have contributed during the Year 2 follow-up); 2) Year 2 follow-up but the individual also participated in the Year 1 follow-up; and 3) Year 2 follow-up only. No secular trends were identified

Analysis of Hand Problems/Pain

During the two years of follow-up, 20.88% of the farmworkers reported having ever experienced hand problems during the last migration season defined as 1) problems with the hand, wrist, or fingers such as burning, tingling, numbness, stiffness, or muscle joint aches and pains and/or 2) difficulty picking up or holding things with hands or fingers. The proportions are presented by year of follow-up and person-type in Appendix 11. Following univariate analysis of the variables of interest (Table 8), age (continuous) was identified as the strongest variable (OR, 1.02; 95% C.I., 1.01-1.04). The remaining variables were entered into the model as described above. The final model (Table 9) included: age (continuous), working with or around chemicals during the last migration season (dichotomous), repetitive hand work (e.g. weeding) (dichotomous), and average number of hours per day (continuous).

In addition, previously eliminated variables were re-introduced into model. But, no additional variables were significant ($p<.05$) or meaningful in terms of the effect on age. Finally, the existence of secular trends was examined. Three categories were created: 1) Year 1 follow-up served as the referent (individual may or may not have contributed during the Year 2 follow-up); 2) Year 2 follow-up but the individual also participated in the Year 1 follow-up; and 3) Year 2 follow-up only. No secular trends were identified.

Discussion and Conclusions

Injury prevention efforts have been hindered by a lack of data on specific work patterns and risk factors for injuries to farmworker children. The objective of this NIOSH-funded cohort study was to use a school-based tracking system for migrant farmworker students as a surveillance method to identify migrant farmworker families in Starr County, along the Texas-Mexico border, in order to estimate the frequency and risk factors for occupational injuries over a two-year period. This study addresses the National Occupational Research Agenda priority areas of traumatic injuries, special populations at risk (working youth, migrant and seasonal workers, workers of color), and surveillance research methods. This completed study has now addressed all of the study aims submitted in the original proposal. Randomly sampled from the Migrant Education Program, 267 families who indicated their intention to migrate in 2000 comprised our cohort. Nearly 40% of families did not migrate each of the two follow-up years, so our data are based on approximately 150 families who had worked in the fields on average 6 days a week, 10 hours a day, for 2.7 months a year.

Using an unrestrictive definition, twenty-five work-related injuries were reported during the two years of follow-up for an injury rate of 12.52/100 FTE (95% CI = 8.55-19.01). These rates varied by person-type, being highest for mothers (16.70/100 FTE). This higher rate among mothers may reflect more complete reporting for herself as compared to other family members as indicated by the concordance subsample which suggested underreporting by the mother for injuries to the spouse or child. Nine of the injuries resulted in lost work or recreation time and eight were treated at a hospital or clinic. Because of our non-standard injury definition, our rates are not directly comparable to those of McCurdy et al. (2003). Cox regression was used to examine risk factors for first injury events. Significant predictors of injury included employer-type, working with or around chemicals, general use of motor vehicle seat belts, number of farm jobs during the migration season, and employer-providing toilet paper. While chemicals may have emerged as a risk factor due to several of the injuries being pesticide-related, the strongest risk factor was employer type where farmworkers employed by contractors or combined employer types (contractors and owner/growers) had 7.33 times the rate of acute injury compared to farmworkers employed exclusively by owners/growers. In fact, 17 of the 25 injuries occurred in jobs where the employer was a contractor. The implications of this risk factor are not clear and are inconsistent with results reported by McCurdy et al. (2003) for indirect employment. However, if contract work is related to piece-rate work, then these results would be supported by McCurdy et al. (2003) results for piece-rate work in women (RR 4.9; 1.8-12.8). It would be important to seek to understand the factors associated with contractor employment. A California study reported the increased impact of farm labor contractors in that state who reported that the lack of enforcement of regulations by the government places honest contractors at a relative economic disadvantage (California Agricultural Studies, 1992). However this study is more than 10 years old, and it is not clear if contractors in California are generalizable to contractors in Texas and across the country where Texas farmworkers migrate.

A major limitation of the overall study is the self-reported format in which injuries could not be validated. Also, medical assessment of injury severity was not possible. However, this population often does not have resources (money, time, availability) to access standard sources of medical care. Further, the standard definition of work-related injury requires 4 or more hours of work-loss time or medical treatment. In the migrant farmworker population, our experience has shown that this definition would exclude most minor as well as many serious injuries, as qualitative data from this study and our previous work with this population indicate that they often work through the pain of an injury because they cannot afford to lose pay or possibly their job. Further, there is not a single word or phrase in Spanish that encompasses the meaning of the English phrase "work-related injury". We found the need to provide examples of categories we wanted to include, such as sun and heat-related problems, car crashes getting to or from work, cuts from tools, strained backs after heavy lifting, electrical burns, getting pesticides in eyes resulting in infections, injuries involving animals or serious insect bites/stings while working. If we restricted the analyses to include only "traditional" injuries, we would further underestimate the rate and limit our understanding of occupational non-fatal injuries in this population.

The prevalence of back pain over the two years of follow-up ranged from 14% among children to 20% among father's and 28% among mothers. Many studies involving agricultural workers have indicated back strain to be a major problem (Decker and Knight, 1990; Low et al., 1996; McDermott and Lee, 1990; Mobed et al., 1992; Xiang et al., 1999). The greatest proportion (21%) of nonfatal injury cases involving days away from agricultural work in Texas in 1993 involved the back (Richardson and May-Lambert, 1997). In a random sample of 152 migrant workers in Wisconsin, 39% reported being bothered by backaches "very much" or "some" (Slesinger and Wheatley, 1999). In a recent comprehensive survey of approximately 1,000 agricultural workers in California, more than 20% of the participants reported back pain that lasted at least one week in the past year (Villarejo et al., 2000). Results of the logistic regression model indicate that age, depression, repetitive bending/stooping, number of hours of sleep, sorting, exposure to pesticide drift predict chronic back pain experienced during the migration season. Careful consideration of these risk factors can help inform and prioritize prevention efforts. Similarly, the prevalence of chronic hand pain over the two years of follow-up ranged from 10% among children to 22% among fathers to 28% among mothers. The California Agricultural Worker Health Survey also reported a significant level of hand pain (14%) among their sample (Villarejo et al., 2000). The risk factors for hand pain in this study include working with or around chemicals, repetitive handwork, and average hours of work per day and may be problematic to modify from the worker's standpoint. However, prevention could be addressed at the employer, governmental, or societal level. It is also worthy to note the disturbingly low proportion (17%) of our participants in Year 2 of follow-up reported ever having seen a dentist which is lower than but consistent with findings from California (Villarejo, 2000).

Of 102 mothers who participated in farm work during the second year of follow-up in 2001, only 51 (48.6%) had ever received any type of Worker Protection Standard (WPS) pesticide safety training. WPS is regulated by EPA (Environmental Protection Agency)

and has been in full effect since 1995. WPS mandates that employers provide pesticide safety training to their employees at least every 5 years. Only 44 (42%) mothers had received training within the previous 5 years. These data, therefore, suggest that migrant farmworker mothers are not receiving the proper WPS pesticide safety training by their employers as mandated by EPA. Given that many of the families work together as a unit in the fields, we hypothesize that a minority of fathers and children are also receiving training. The majority of the migrant farmworker families in our study return to their home in Starr County each year at the end of the migration season. Consequently, a community based intervention program targeting migrant farmworkers living in Starr County could serve as an alternative means of educating these families. Such training would not be provided by employers, but it could educate families about behaviors (e.g. washing hands before eating/smoking, washing clothes) that significantly limit exposure to agricultural pesticides as well as inform participants of their rights under U.S. legislation (e.g. entry into recently treated fields).

This study involved several methodologic strengths and advanced our knowledge about injuries and injury reporting. A major contribution of this study was the ability to calculate acute non-fatal injury rates based on person-time at risk over two years and to examine risk factors utilizing Cox regression also requiring person-time at risk. The nature of farmwork being sporatic and often intense in work hours can be best accounted for with a person-time analysis. Our method of ascertaining this cohort also comprised some major strengths. The New Generation System through the Migrant Education Program made it possible to not only locate a cohort of migrant farmworker families in their home state, but to draw a random sample. This method minimizes the potential for selection bias and increases the generalizability of our results. Interviewing participants in their home state and in their permanent homes (away from their employer) increased their ability to be more forthcoming with information about work hazards and injury occurrence. This sampling method also helped alleviate ascertainment problems associated with non-traditional housing. Reporting of injuries by the mother on behalf of her family continues to be used in other farmworker studies of children (Chapman et al., 2003, McCurdy et al., 2003), but may not be the optimum method. Concordance between mothers and a sub-sample of the fathers and children was assessed by computing kappa statistics and sensitivity/specificity for a subset of variables including acute injury, work hazards, and illness symptoms. The kappa statistic was consistently higher for the father/mother agreement than the child/mother agreement, but in general, the mother underestimated injuries, hazards, and illness symptoms for her husband and child.

Collectively, this study adds to our previous work (Cooper et al., 2001a; Cooper et al., 2001b; Cooper et al., 2001c) with farmworkers and continues to demonstrate our ability to access, trace, interview, and collect meaningful information from this previously understudied population. Our data support the need for systematic streamlined surveillance, primary data collection from young farmworkers, ascertainment of work histories to calculate person-time at risk, increased access to health and dental care, and development and implementation of school-based and/or community interventions. Because the number of injuries was small and quite diverse, specific interventions may have to focus on improved working conditions (physical and economic), ergonomic

modifications, and enhanced enforcement of existing regulations. Our results indicate that The New Generation System is an effective method for identifying migrant farmworker families in Starr County for an epidemiologic study. The New Generation Systems could also serve as a tool for targeting future interventions. Despite the overall decline of the number of family farms in the U.S., the need for intensive manual labor performed by migrant and seasonal farmworkers and their children is expected to increase (General Accounting Office, 1998), suggesting a continuation and proliferation of health risks to already vulnerable migrant farmworker families. From an international perspective, agriculture is the world's largest economic activity involving more than half of the population in many developing nations and involves large numbers of children. Therefore, knowledge about the circumstances and risk factors for injuries and illnesses among farmworkers in this country may have global implications (Levy and Wegman, 1995).

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FIGURES

Figure 1: Map of Starr County, Texas

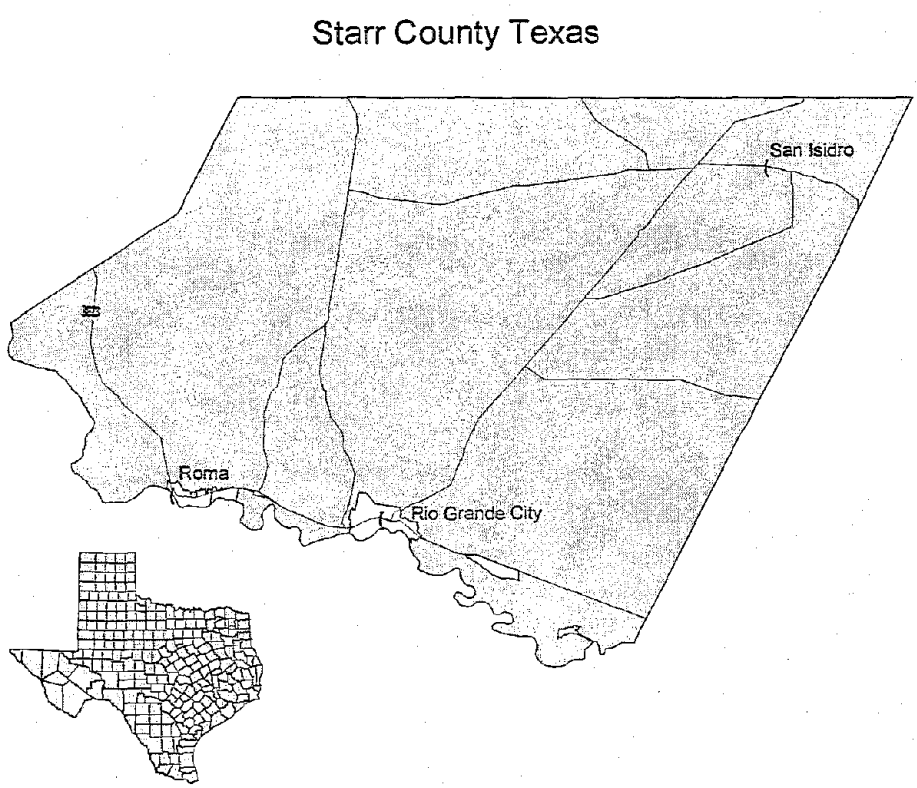


Figure 2:
PARTICIPATION

Note: Flowchart presents the participation of each family in the cohort. Some family members may have migrated and not participated in farm work.

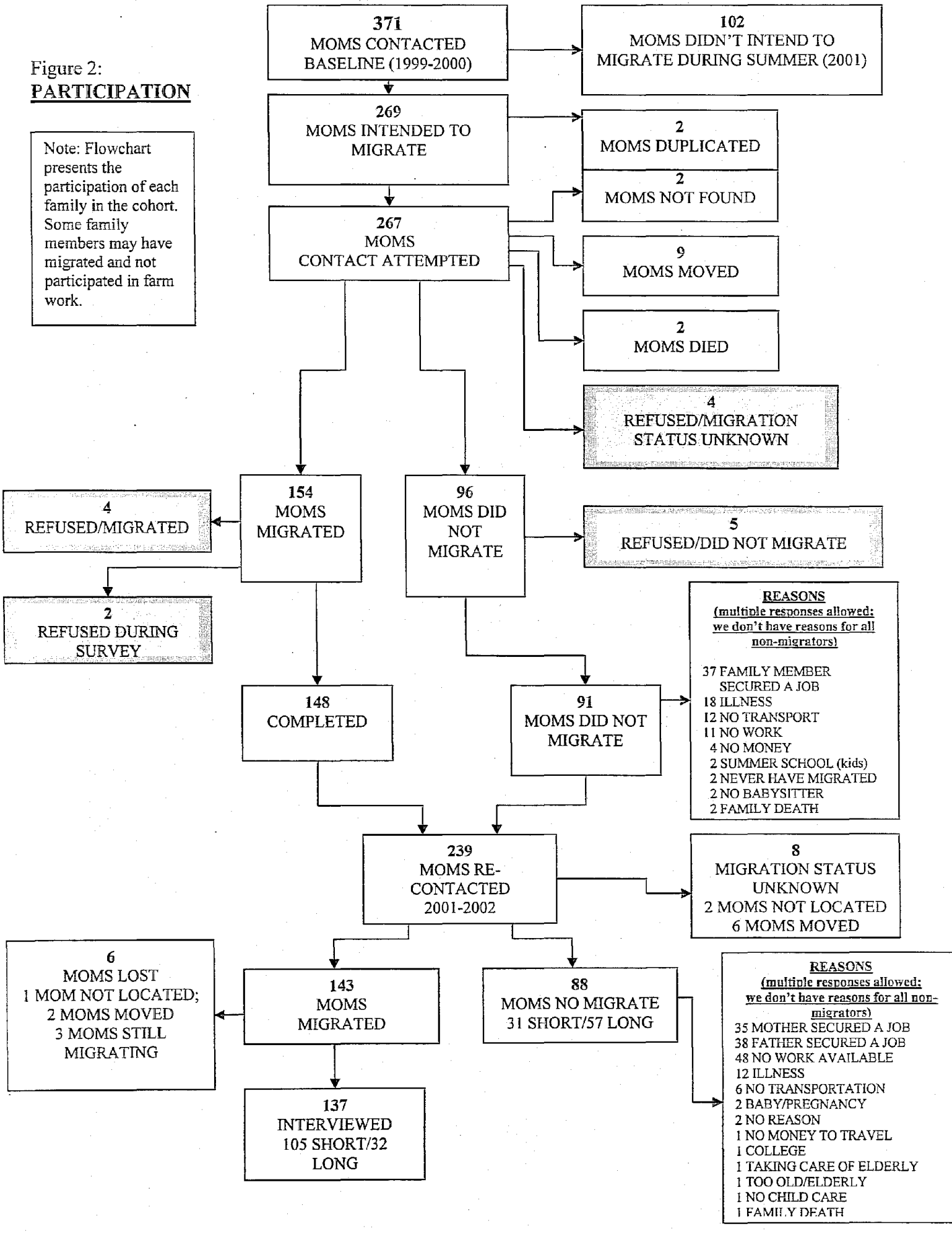


Figure 3: Top Ten States For Migrant Farmwork & Most Frequently Labored Crops in Follow-up Year 1

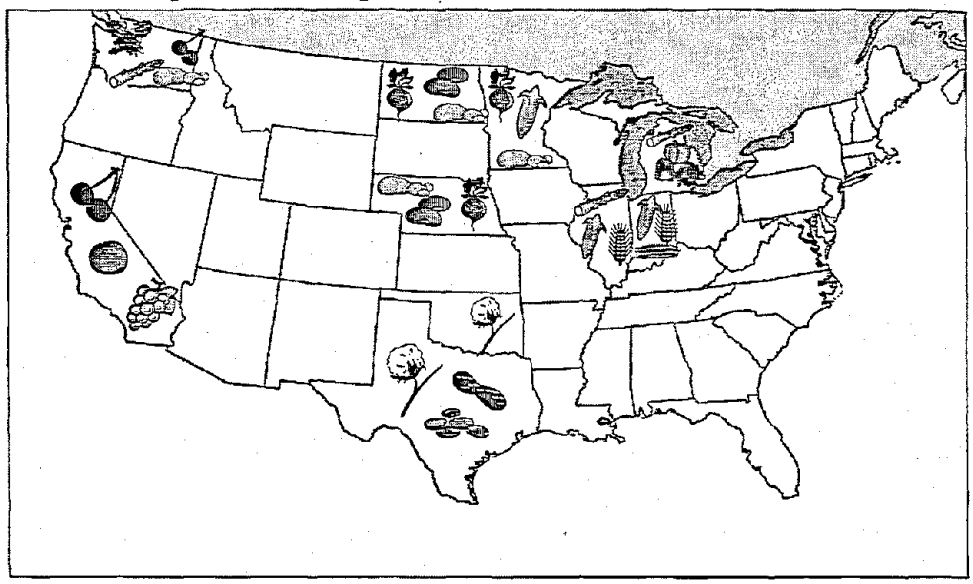
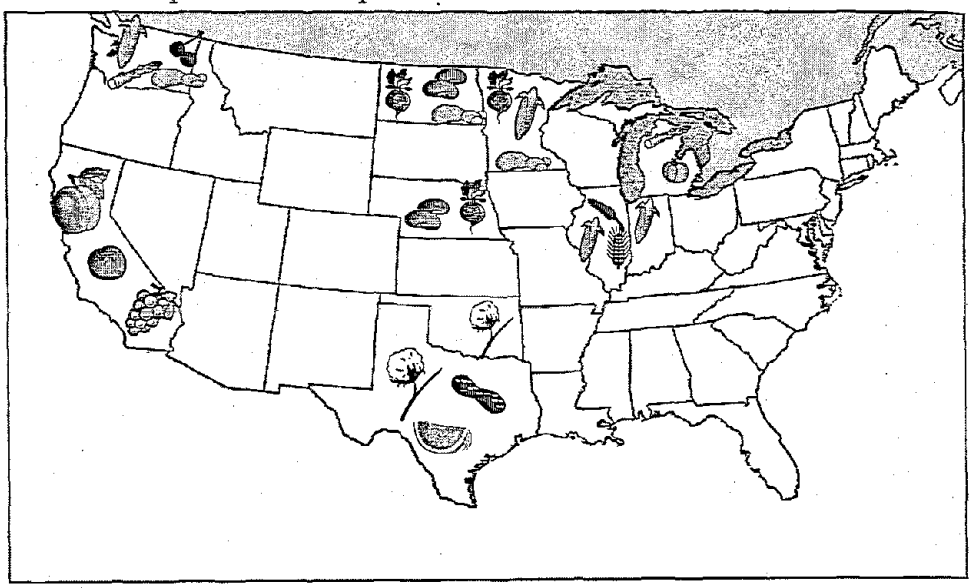


Figure 4: Top Ten States For Migrant Farmwork & Most Frequently Labored Crops in Follow-up Year 2



TABLES

Table 1: Pesticide Safety Training among Migrant Farmworker Mothers in Year 2 (n=105)

Variable	Frequency (%)
Mother ever trained in her lifetime (n=105)	51 (48.6%)
Mothers trained during last 5 years (n=105)	44 (41.9%)
Language used to deliver training (n=44)	Spanish 36 (86.4%) Both 6 (13.6%) English 2 (4.6%)
Training discussed when to enter recently treated fields (n=44)	40 (90.9%)
Training discussed illnesses/injuries related to pesticide exposure (n=44)	41 (93.2%)
Training discussed who to contact/where to go for emergency medical care if exposed (n=44)	41 (93.2%)

Table 2: Employer-Provided Field Sanitation among Migrant Farmworker Mothers in Year 2 (n=104).

Item	TX Only (n=25)	Other States Only* (n=79)
Clean drinking water	7 (28.0%)	56 (70.8%)
Disposable cups	7 (28.0%)	54 (68.4%)
Toilet facilities+	6 (24.0%)	66 (84.6%)
Toilet paper+	6 (24.0%)	65 (83.3%)
Water for washing hands	5 (20.0%)	57 (72.2%)
Soap for washing hands	5 (20.0%)	55 (69.6%)
Towels for drying hands	3 (12.0%)	56 (70.9%)

*AR, CA, CO, FL, IL, IN, MI, MN, ND, NE, OH, OK, TN, WA, WI
+(n=78 for other states only; 1 missing value)

Table 3: Self-Provided Field Sanitation among Migrant Farmworker Mothers in Year 2 (n=104)

Item	TX Only (n=25)	Other States Only* (n=79)
Clean drinking water	20 (80.0%)	28 (35.4%)
Disposable cups	19 (76.0%)	25 (31.6%)
Toilet paper+	19 (76.0%)	13 (17.1%)
Water for washing hands	20 (80.0%)	21 (26.6%)
Soap for washing hands	21 (84.0%)	17 (21.5%)
Towels for drying hands	22 (88.0%)	20 (25.3%)

*AR, CA, CO, FL, IL, IN, MI, MN, ND, NE, OH, OK, TN, WA, WI
+(n=78 for other states only; 1 missing value)

Table 4: Univariate Cox Regression Models Examining Time to First Injury Event

Variable	Hazard Ratio	95% C.I.	p-value
Employer-Type			
Owner/Grower Only	referent		
Contractor/Combined Employer Types	5.12	2.24-11.73	0.000
Chemicals			
No	referent		
Yes	2.69	1.15-6.28	0.023
General Seat-belt Use			
No	referent		
Yes	0.10	0.02-0.44	0.002
Number of Farm Jobs (continuous variable)	0.51	0.31-0.81	0.005
Employer-Provided Toilet Paper			
No	referent		
Yes	2.61	0.96-7.11	0.060

*9 records with missing values.

Table 5: Final Cox Model Examining Time to First Injury Event

Variable	Hazard Ratio	95% C.I.	p-value
Employer-Type			
Owner/Grower Only	referent		
Contractor/Combined Employer Types	7.33	2.57-20.93	0.000
Chemicals			
No	referent		
Yes	3.34	1.44- 7.75	0.005
General Seat-belt Use			
No	referent		
Yes	0.02	0.01- 0.08	0.000
Number of Farm Jobs (continuous variable)	0.39	0.22- 0.69	0.001
Employer-Provided Toilet Paper			
No	referent		
Yes	2.39	0.73- 7.86	0.150

*9 records with missing values.

Table 6: Univariate Logistic Regression Models Examining Chronic Back Pain

Variable	Hazard Ratio	95% C.I.	p-value
Age (continuous variable)	1.02	1.01- 1.04	0.005
Depression			
No	referent		
Yes	4.65	2.20-9.86	0.000
Repetitive Bending/Stooping			
No	referent		
Yes	2.05	1.34-3.12	0.001
Number Hours of Sleep while Migrating (continuous variable)	0.71	.59-.86	0.000
Number Hours of Sleep while in Starr Co. (continuous variable)	0.70	.57-.85	0.000
Self-Provided Drinking Water			
No	referent		
Yes	2.10	1.31-3.33	0.002
Sorting			
No	referent		
Yes	0.54	.30-.97	0.039
Exposed to Pesticide Drift/Spray			
No	referent		
Yes	3.30	1.76-6.20	0.000

Table 7: Final Logistic Regression Model Examining Chronic Back Pain

Variable	Hazard Ratio	95% C.I.	p-value
Age (continuous variable)	1.02	1.00- 1.04	0.013
Depression			
No	referent		
Yes	5.52	2.33-13.06	0.000
Repetitive Bending/Stooping			
No	referent		
Yes	1.88	1.14- 3.08	0.012
Number Hours of Sleep while Migrating (continuous variable)	0.70	0.56- 0.87	0.002
Number Hours of Sleep while in Starr Co. (continuous variable)	0.69	0.56- 0.85	0.001
Self-Provided Drinking Water			
No	referent		
Yes	2.15	1.25- 3.71	0.006
Sorting			
No	referent		
Yes	0.49	0.25- 0.95	0.034
Exposed to Pesticide Drift/Spray			
No	referent		
Yes	2.28	1.06- 4.89	0.034

*25 records with missing values

Table 8: Univariate Logistic Regression Models Examining Chronic Hand Symptoms

Variable	Hazard Ratio	95% C.I.	p-value
Age (continuous variable)	1.02	1.01-1.04	0.002
Working with or around Chemicals			
No	referent		
Yes	2.34	1.52-3.60	0.000
Repetitive Handwork			
No	referent		
Yes	1.78	1.16-2.74	0.008
Average Hours of Work per Day (continuous variable)	1.18	1.04-1.34	0.010

Table 9: Final Logistic Regression Model Examining Chronic Hand Symptoms

Variable	Hazard Ratio	95% C.I.	p-value
Age (continuous variable)	1.03	1.01-1.05	0.002
Working with or around Chemicals			
No	referent		
Yes	2.23	1.40-3.55	0.001
Repetitive Handwork			
No	referent		
Yes	1.60	1.00-2.55	0.049
Average Hours of Work per Day (continuous variable)	1.20	1.05-1.37	0.006

*29 records with missing values

Table 10: Prevalence of Hazardous Activities as Reported by Primary Respondent (Father or Child) versus Mother

Variable	Prevalence of Positive Reporting of Hazard Activity			
Hazard	**Father's Response**	**Mother's Response for Father**	**Child's Response**	**Mother's Response for Child**
Tractors	.80	.73	.68	.61
All terrain vehicle	.71	.56	.50	.53
Hand-held vibrating tools/machinery	.35	.18	.27	.16
Hitched equipment	.64	.49	.43	.32
Knives/cutting tools	.59	.56	.79	.63
Irrigation ditches	.51	.41	.47	.50
Chemicals	.73	.63	.50	.50
Bend over or stoop repetitively	.56	.59	.47	.47
Lift objects repetitively	.44	.46	.26	.26
Move heavy objects	.44	.34	.27	.24
Repetitive hand work	.60	.55	.54	.43

Table 11: Prevalence of Illness Symptoms and Injury as Reported by Primary Respondent (Father or Oldest Child) versus Mother

Variable	Prevalence of Positive Reporting of Illness Symptom or Injury			
Illness Symptoms & Injury	**Father's Response**	**Mother's Response for Father**	**Child's Response**	**Mother's Response for Child**
Severe sunburn	.00	.00	.00	.03
Heat exhaustion/stroke	.02	.10	.00	.05
Eye irritation/infection	.15	.10	.03	0
Chronic back pain	.49	.20	.33	.14
Muscle ache/pain (not hands)	.27	.12	.16	.08
Chronic foot pain	.51	.20	.26	.18
Burning, tingling, numbness, or stiffness in hands/wrist/finger	.27	.15	.13	.05
Difficulty picking up/holding things with hands/fingers	.07	.05	.03	.03
Skin rash	.07	.15	.13	.03
Nausea	0	.03	.05	.03
Vomiting	0	.02	.03	.03
Severe headaches	.08	.08	.11	.08
Injury	.10	.02	.13	.08

Table 12: Kappas for Agreement between Primary Respondent (Father or Oldest Child) and Mother's Response for Reporting of Work Hazards

Variable	Father vs Mother (n=41)	Oldest Child vs Mother (n=38)	Primary Respondent vs Mother (n=79)
Hazardous Activity	**Kappa (95% C.I.)**	**Kappa (95% C.I.)**	**Kappa (95% C.I.)**
Tractors	.38 (.06, .71)	.26 (-.05, .57)	.31 (.09, .54)
All terrain vehicle (2 or more wheels)	.38 (.11, .66)	.21 (-.10, .52)	.31 (.10, .51)
Hand-held vibrating tools/machinery	.32 (.02, .61)	.37 (.03, .71)	.34 (.12, .56)
Hitched equipment	.39 (.11, .66)	.32 (.02, .62)	.36 (.15, .56)
Knives/cutting tools	.65 (.42, .89)	.25 (-.05, .56)	.50 (.32, .69)
Irrigation ditches, rivers, or wells	.51 (.26, .77)	.21 (-.10, .52)	.39 (.19, .59)
Chemicals	.55 (.28, .82)	.33 (.03, .64)	.46 (.25, .66)
Bend over or stoop repetitively	.45 (.18, .73)	.26 (-.05, .57)	.37 (.16, .57)
Lift objects repetitively	.75 (.55, .96)	.32 (-.01, .66)	.64 (.47, .81)
Move heavy objects	.39 (.11, .67)	.36 (.03, .70)	.38 (.16, .60)
Repetitive hand work	.49 (.22, .76)	.14 (-.17, .46)	.34 (.14, .54)

Table 13: Kappas for Agreement between Primary Respondent (Father or Oldest Child) and Mother's Response for Reporting of Illness Symptoms

Variable	Father vs Mother (n=41)	Oldest Child vs Mother (n=38)	Primary Respondent vs Mother (n=79)
Illness Symptom/Injury	**Kappa (95% C.I.)**	**Kappa (95% C.I.)**	**Kappa (95% C.I.)**
Severe sunburn	(NC)	(NC) 2	(NC) 3
Heat exhaustion/stroke	-.04 (-.11, .02)	.00 (.00, .00)	-.04 (-.11, .02)
Eye irritation/infection	.09 (-.26, .45)	.00 (.00, .00)	.09 (-.26, .45)
Chronic back pain	.31 (.07, .54)	.05 (-.24, .34)	.20 (.02, .39)
Muscle ache/pain (not hands)	.40 (.08, .72)	.13 (-.25, .51)	.29 (.04, .53)
Chronic foot pain	.18 (-.05, .41)	.17 (-.17, .51)	.18 (-.01, .37)
Burning, tingling, numbness, or stiffness in hands/wrist/finger	.35 (.02, .67)	-.08 (-.17, .004)	-.05 (-.14, .03)
Difficulty picking up/holding things with hands/fingers	.36 (-.20, .92)	-.03 (-.06, .01)	-.03 (-.06, .01)
Skin rash	.63 (.26, 1.00)	-.05 (-.12, .03)	-.02 (-.09, .06)
Nausea	.00 (.00, .00)	-.04 (-.10, .01)	-.04 (-.10, .01)
Vomiting	.00 (.00, .00)	-.03 (-.06, .01)	-.03 (-.06, .01)
Severe headaches	-.08 (-.15, -.02)	.21 (-.25, .68)	-.08 (-.14, -.01)
Injury	.84 (.55, 1.14)	.45 (-.004, .89)	.72 (.47, .97)

(NC) Not Calculable

1) All 41 Fathers responding said No, 41 Mothers said No
2) All 38 Children responding said No, 1 Mother said Yes
3) All 79 Primary Respondents said No, 1 Mother said Yes

Table 14: Sensitivity & Specificity of Mother's Response Relative to Primary Respondent (Father or Oldest Child) for Work Hazards

Variable	Mother vs Father Sensitivity	Mother vs Father Specificity	Mother vs Child Sensitivity	Mother vs Child Specificity
Tractors	.81	.63	.69	.58
All terrain vehicle (3 or more wheels)	.69	.75	.63	.58
Hand-held vibrating tools/machinery	.36	.92	.40	.93
Hitched equipment	.64	.79	.50	.81
Knives/cutting tools	.83	.82	.70	.63
Irrigation ditches	.67	.85	.61	.60
Chemicals	.79	.82	.67	.67
Bend over or stoop repetitively	.78	.67	.61	.65
Lift objects repetitively	.89	.87	.50	.82
Move heavy objects	.56	.83	.50	.85
Repetitive hand work	.75	.75	.50	.65

Table 15: Sensitivity & Specificity of Mother's Response Relative to Primary Respondent (Father or Oldest Child) for Reporting of Illness Symptoms

Variable	Mother vs Father Sensitivity	Mother vs Father Specificity	Mother vs Child Sensitivity	Mother vs Child Specificity
Severe sunburn	(NC) 7	1.00	(NC) 8	.97
Heat exhaustion/stroke	(0.00) 1	.90	(NC) 2	.95
Eye irritation/infection	.17	.91	(0.00) 4	1.00
Chronic back pain	.35	.95	.17	.88
Muscle ache/pain (not hands)	.36	.97	.17	.94
Chronic foot pain	.29	.90	.30	.86
Burning, tingling, numbness, or stiffness in hands/wrist/finger	.36	.93	(0.00) 5	.94
Difficulty picking up/holding things with hands/fingers	.33	.97	(0.00) 6	.97
Skin rash	1.00	.92	(0.00) 3	.97
Nausea	(NC) 9	.98	(0.00) 10	.97
Vomiting	(NC) 11	.98	(0.00) 12	.97
Severe headaches	(0.00) 13	.92	.25	.94
Injury	.75	1.00	.40	.97

(NC) Not Calculable
1) Father responding Yes=1, Mothers responding Yes=0
2) Child responding Yes=0, Mother responding Yes=0
3) Child responding Yes=5, Mother responding Yes=0
4) Child responding Yes=1, Mother responding Yes=0
5) Child responding Yes=5, Mother responding Yes=0
6) Child responding Yes=1, Mother responding Yes=0
7) Father responding Yes=0, Mother responding Yes=0
8) Child responding Yes=0, Mother responding Yes=0
9) Father responding Yes=0, Mother responding Yes=0
10) Child responding Yes=2, Mother responding Yes=0
11) Father responding Yes=0, Mother responding Yes=0
12) Child responding Yes=1, Mother responding Yes=0
13) Father responding Yes=3, Mother responding Yes=0

APPENDICES

APPENDIX 1

SURVEYS

- Baseline Survey
- Follow-up Survey Year 1
- Follow-up Survey Year 2
- Concordance Survey

BASELINE SURVEY

Family ID#_____

3/8/00

Screening Questionnaire

[INTERVIEWER: PLEASE READ EXACTLY AS WORDED TO THE RESPONDENT.] **QUIERO ASEGURARLE QUE NO SE COMPARTIRA CON NADIE LA INFORMACION PERSONAL QUE NOS DARA. ESTA ENTREVISTA ES VOLUNTARIA; PUEDE REHUSAR CONTESTAR A CUALQUIER PREGUNTA, Y PUEDE TERMINAR LA ENTREVISTA CUANDO QUIERA.**

1. What is your complete name?
   (¿Cuál es su nombre completo?)
   a. First and second given name
      Primero y segundo nombre a._____
   b. Paternal surname (surname from father)
      El apellido de su abuelo paterno
      (El papá de su papá) b._____
   c. Maternal surname (surname from mother)
      El apellido de su abuelo materno
      (El papá de su mamá) c._____
   d. Spouse's paternal surname
      El apellido de su esposo, d._____

2. What is your birth date? 2. ____/____/____
   (¿Cuál es la fecha de su nacimiento?) MM DD YYYY

3. How old are you? **(¿Cuántos años tiene Ud.?)** 3. _____ years

4. Gender (1=male, 2=female) 4. _____

5. Where were you born? **(¿Dónde nació Ud.?)**
   a. City a._____
   b. State b._____
   c. Country c._____

Family ID#_____

6. What is your current marital status? **(¿Está Ud. casada ahora?)** 6._____
   1=single, never married 2=married 3=div/separated 4=widowed 5=other

7. What is/was your spouse's complete name? **(¿Cuál es/fue el nombre de su esposo?)**
   a. First and second names
      Primero y segundo nombre. a._____
   b. Paternal surname
      El apellido de su abuelo parterno
      (el papá de su papá) b._____
   c. Maternal surname
      El apellido de su abuelo materno
      (el papá de su mamá) c._____

8. About how long have you lived in Starr County? **(¿Por cuánto tiempo en total ha vivido Ud en el condado de Starr?)**
   [INTERVIEWER: IF RESPONDENT LIVED IN STARR CNTY <6 MOS., CIRCLE "<6 MONTHS", BUT IF RESPONDENT LIVED IN STARR CNTY <1 YR BUT ≥6 MOS., CONSIDER IT 1 YR OF RESIDENCY.]
   _____year(s)
   <6 months

9. What is your mailing address? **(¿Dónde recibe ud. su correo?)**
   a. Address/ P.O. Box #/Rt. # a._____
   b. City, State, Zip code b._____
   c. Telephone c.( )_____

10. Where is your house located? **(¿Dónde mismo está la casa?)** [INTERVIEWER: IF THE ABOVE IS NOT A STREET ADDRESS, COMPLETE BELOW WITH A STREET ADDRESS AND DIRECTIONS ON HOW TO GET THERE!]
    _____
    _____
    _____

Family ID#_____

11. Could you please give me the names, phone #s and relationship to you of 2 people who will always know how to contact you? **(¿Sería Ud. tan amable darme los nombres, números telefónicos y relación de dos personas quienes saben siempre como comunicarse con Ud.?)**

	Name	Phone #	Relationship
a.	_____	(____)_____	_____
b.	_____	(____)_____	_____

12. About how many years during your lifetime have you and your immediate family migrated for farmwork? If you are not sure, please give your best guess. **(¿Me podría decir por cuantos años en total durante su vida han Ud. y su familia inmediata viajado para trabajar como campesinos? Si no sabe exactamente, trate de acercarse lo mejor que pueda.)**
[INTERVIEWER: WRITE THE NUMBER OF YEARS AND ADD ANY COMMENTS BELOW. *IMMEDIATE FAMILY REFERS TO THE MOTHER, FATHER, AND THEIR CHILDREN.*]

_____Number of years 97=Don't know 98=Not answered

Family ID#_____

13A. Are you planning to migrate during this year? **(¿Ud., su esposo y sus niños tienen planeado viajar a algún lugar durante el próximo año para trabajar como campesinos?)**

1=Yes; *If yes* → *13B. When do you plan to migrate?* **(¿Cuándo planean viajar?)**

_____ *(SPECIFY)*
97=Don't know 98= Not answered 99=Not applicable

13C. Where do you plan to migrate? **(¿Dónde planean viajar?)**

_____ *(SPECIFY)*
97=Don't know 98= Not answered 99=Not applicable

2=No; *If no* → *13D. Why are you choosing not to migrate this season?*

(¿ Por qué no tienen planeado viajar para trabajar en los campos Ud. y su familia el año próximo?)

1. *Pregnancy*
2. *Illness*
3. *Need to take care of children*
4. *Injury*
5. *Lack of transportation*
6. *Lack of work opportunity*
7. *Secured a non-migratory job*
8. *Other*_____ *(SPECIFY)*

97=Don't Know

98=Not answered

*IF #13A IS NO; **SKIP** TO #27

[INTERVIEWER: TURN PAGE FOR #14] →

Family ID#_____

27. Would you be willing for us to contact you again in the future if we have other questions? **(¿En el futuro, si tenemos otras preguntas o necesitamos aclarar algo que nos ha dicho hoy, le podemos llamar o comunicarnos con Ud. otra vez?)**

1=Yes 2=No 97=Don't Know 98=Not answered

END OF SURVEY

FOR INTERVIEWER ONLY:

28. Consent Form completed, signed & dated? 1=Yes 2=No

29. Interview date [mm,dd,yyyy] _____/_____/_____

30. Interviewer ID# _____

31. Interviewer Name _____

32. Record any comments here:

_____

_____

_____

Family ID#_____

Household Grid

Now I would like to ask you some questions about you and your immediate family members, whether they also plan to migrate with you and about injuries in the past year. **Ahora quiero hacerle unas preguntas acerca de Ud y los miembros de su familia inmediata, si ellos la acompañarán para trabajar en los campos, y si han sufrido heridas graves el año pasado.**

[INTERVIEWER: PLEASE ENTER IMMEDIATE FAMILY MEMBERS INCLUDING RESPONDENT AND SPOUSE. FOR LARGER FAMILIES, PLEASE ATTACH EXTRA GRID PAGES]

14. Name	15. Relation	16. Gender	17. Does _____ live with you now? Vive____con Ud?	18. Birthdate mm/dd/yy	19. Will _____ migrate this season? Planea___viajar para trabajar en los campos esta temporada?
A.	1=Mother 2=Spouse 3=Child	1=Male 2=Female	1=Yes 2=No 98=Not answered	____/____/____ MM DD YY	1=Yes 2=No 97=Don't know 98=Not answered
B.	1=Mother 2=Spouse 3=Child	1=Male 2=Female	1=Yes 2=No 98=Not answered	____/____/____ MM DD YY	1=Yes 2=No 97=Don't know 98=Not answered
C.	1=Mother 2=Spouse 3=Child	1=Male 2=Female	1=Yes 2=No 98=Not answered	____/____/____ MM DD YY	1=Yes 2=No 97=Don't know 98=Not answered
D.	1=Mother 2=Spouse 3=Child	1=Male 2=Female	1=Yes 2=No 98=Not answered	____/____/____ MM DD YY	1=Yes 2=No 97=Don't know 98=Not answered

FOLLOW-UP SURVEY YEAR 1

GREETING & INTRODUCTION

READ TO INTERVIEWEE
("Good Afternoon, my name is _____. I am with the Starr County Health Studies Office. Earlier this year, you participated in our research study examining injuries and illnesses among migrant farmworkers. At this time, we would like to talk to you about your family's last migration out of Starr County to do farmwork. It will take approximately 1 hour and 15 minutes. For helping us, you will be compensated with a $15 gift card. You may stop the interview at any time. You are free to refuse to answer any of the questions at any time and doing so will not result in any negative consequences. The purpose of this research is to learn more about migrant farmworker health in order to design more effective policies and health programs. Would you be willing to help us?

(Buenos Días, trabajo con la Oficina de Estudios de Salud del Condado de Starr. Al principios del año Ud participó en nuestro estudio tratando de enfermedades y daños o heridas entre trabajadores migrantes. Hoy queremos hablar con Ud acerca de la última migración del condado de Starr para trabajar en las labores. Esta entrevista tomará a eso de una hora y quince minutos para. Por su participación en lo entrevista, le queremos regalar con un cupón de $15.00. Usted puede terminar la entrevista a cualquier tiempo que quiere. Usted tiene el derecho de no contestar a cualquier pregunta cuando quiera. Esto no resultará en ninguna consecuencia negativa para Ud y/o su familia. El propósito de este estudio es de aprender más acerca de la salud de trabajadores migrantes para poder diseñar mejores programas de salud y una política mas eficaz.)

	7.*.1. Did you migrate out of Starr County this past season? *¿Fue a las labores?*		7.*.2. If migrated, what did you usually do while you were away from Starr Co.? *Si "si" ¿qué hacía por lo general?*				
A. MOTHER	Yes (Go to 7.*2)	No (END INTERVIEW Complete Questions on Page 16)	FARM WORK whether or not paid	Child/ Adult Care Provider	Other	REF	NA
	01	02	01	02	_____	98	99

IF MIGRATED, READ TO INTERVIEWEE:
("Throughout the questionnaire we are going to ask about you, your husband and the oldest and youngest child who migrated with you. Questions will refer to the four of you unless otherwise indicated.")

("A lo largo del cuestionario, vamos a platicar sobre Usted y su familia, particularmente, su compañero e hijos mayor y menor que migraron con Usted, a menos que le indiquemos lo contrario. Cuando platiquemos sobre su hijo mayor o menor vamos a referirnos a los niños que migraron con Usted.")

Follow-up Questionnaire Schedule A-1

MANOS
Fall 2000

Review I (Valley) ☐ Review II (Houston) ☐ Coded ☐

Ready for Entry ☐ Entered I ☐ Entered II ☐ Corrected ☐

FOLLOW-UP QUESTIONNAIRE, MIGRANT FARMWORKERS
General Information Section

1. Interviewer ID Number	_____
2. Date of Interview	____ / ____ / ____ (month) (mes) (day) (día) (year) (año)
3. First Name of Interviewee	«FIRST_NAME»
4. Paternal Surname of Interviewee	«PAT_SUR»
5. Maternal Surname of Interviewee	«MAT_SUR»
6. Spousal Surname of Interviewee	«S_P_SUR»
Family ID	«FAMILY_ID»

NOTES TO INTERVIEWER:

i. The **"last migration season"** refers to *approximately* **March through October 2000.** Please make sure the respondent understands that this is a *very flexible definition.*

ii. Throughout the questionnaire, **circle the number that corresponds to the answer given by the interviewee in the appropriate cell.** For **open-ended questions**, write the mother's response **verbatim** in the space provided.

iii. Throughout the questionnaire, the words **"usually"** and **"in general"** refer to **more than 50% of the time**, unless otherwise specified.)

iv. For questions or sections that are **NOT APPLICABLE**, please **cross out the section & write NA** (For example, there is no husband or youngest child). **DO NOT leave any question blank.**

v. We are only interested in the time the family spent migrating **if the Mother migrated with the family. If the Mother did not migrate with the other family members, DON'T collect the data.**

FAMILY GRID

Family ID «FAMILY_ID»	7.*.1 Did he/ she migrate out of Starr Co. with you? *¿Fue a las labores?* Yes {Go to 7.*2	No {skip next person	REF {skip to next person}	7.*.2. If migrated, what did he/she usually do? *Si "si" ¿qué hacía usualmente?* FARM WORK whether or not paid *Trabajo de granja (pagado o no)*	Child/ Adult Care Provider *Cuidado de niños o adultos*	Fast Food Work *Comida rápida*	Came to fields but didn't work *Vino a los campos*	Stayed home/ went to daycare *Se quedó en casa*	Other	REF	NA
B. Husband «B_14»	01	02	03	01	02	03	04	05		98	99
C. Child «C_14»	01	02	98	01	02	03	04	05		98	99
D. Child «D_14»	01	02	98	01	02	03	04	05		98	99
E. Child «E_14»	01	02	98	01	02	03	04	05		98	99
F.Child «F_14»	01	02	98	01	02	03	04	05		98	99
G.Child «G_14»	01	02	98	01	02	03	04	05		98	99
H. Child «H_14»	01	02	98	01	02	03	04	05		98	99
I. Child «I_14»	01	02	98	01	02	03	04	05		98	99
J. Child «J_14»	01	02	98	01	02	03	04	05		98	99

P4

(Interviewer, identify the "oldest" and "youngest child". If ONLY ONE child migrated with you, he/she will be assigned as the "OLDEST CHILD" If the husband, the youngest child, or the oldest child didn't migrate, DO NOT ask about them for the remainder of the survey and Write NA in the appropriate cells.)

READ TO INTERVIEWEE: ("According to what you just told me, the Oldest and Youngest children that migrated with you are.... and their age is.....")
("De acuerdo a la información que Usted me acaba de dar, su hijo(s) mayor y menor es ..... y sus edades son...")

8. The oldest child that migrated with you is.... *De los niños que migraron con Usted, el nombre del mayor es....*	______________
9. And he/she is ____ years old? *¿él/ella tiene ______ años?*	______ Years
10. The youngest child that migrated with you is... *De los niños que migraron con Usted, el nombre del menor es ....*	______________
11. He/she is ____ years old? *¿él/ella tiene ____ años?*	______ Years

EDUCATION YEARS

12. About how many years of school have each of you completed? *¿Cuál es el nivel más alto de educación que cada uno de ustedes ha alcanzado?*	
a. Mother	______ years
b. Husband	______ years
c. Oldest Child	______ years
d. Youngest Child	______ years

LOCATION OF SCHOOLING

13.Where did you complete most of your education?
¿En que país recibió la mayor parte de su educación?

	US	Mexico	Other Specify *Otro Especifique*	DK	NA
a.Mother	01	02	______	97	99
b. Husband	01	02	______	97	99
c. Oldest Child	01	02	______	97	99
d. Youngest Child	01	02	______	97	99

CURRENT EMPLOYMENT

16. What is your {or name of person}'s current employment status?
¿Cuál es su situación de empleo ahorita?
[Interviewer, please read choices to Mother]

	Employed *Trabaja*	Housewife *Ama de casa*	Unemployed *Desempleada*	Retired *Retirada*	Disabled *Incapacitada*	Student	REF	NA
a. Mother	01	02	03	04	05	06	98	99
b.Husband	01	02	03	04	05	06	98	99
c.Oldest Child	01	02	03	04	05	06	98	99
d.Youngest Child	01	02	03	04	05	06	98	99

MOST RECENT EMPLOYMENT

17. When each of you IS NOT MIGRATING, what type of work do you/ he/ she USUALLY do?
INTERVIEWER: {Please read responses to Mother}
Cuando no están migrando, por lo general ¿Qué tipo de trabajo hace cada uno de ustedes?

	Agriculture *Agricultura (del campo)*	Construction *Construcción*	Child or Adult Care Provider *Cuidando niños o adultos.*	Fast food *En preparación de comida rápida*	Lawn care *Trabajo de jardinería*	Other, specify *Otro, Especifique*	REF	NA
a. Mother	01	02	03	04	05		98	99
b.Husband	01	02	03	04	05		98	99
c.Oldest Child	01	02	03	04	05		98	99
d.Youngest Child	01	02	03	04	05		98	99

ETHNICITY {Please wait to allow Mother to answer}

14. How would you describe your ethnicity?
¿Cómo describiría Usted su grupo étnico (raza) es su origen)?

Hispanic *Hispano/a*	01
Mexican *Mexicano a*	02
Mexican American *Mexicano/a Americana*	03
Other *Otro* Specify *Especifique.*	

LANGUAGE {Please wait to allow Mother to answer}

15. What language do you speak most of the time at home?
¿Qué idioma hablan en el hogar la mayor parte del tiempo?

English Only *Inglés únicamente*	01
Spanish Only *Español únicamente*	02
English More than Spanish *Inglés más que Español*	03
Spanish More than English *Español más que Inglés*	04
Both English and Spanish Equally *Igual inglés que español*	05
Other *Otro* Specify *Especifique.*	

EMPLOYMENT AND WORK HISTORY

{Interviewer: If there is no husband or oldest/ youngest child, please cross out the question or section and write NA throughout the cells corresponding to this person.}

READ TO INTERVIEWEE. ("Now we are going to talk about you and your family's work history. Questions will refer to you, your husband and, oldest and youngest child who migrated with you unless otherwise specified. Please answer the questions corresponding to this person the best you can. There are no right or wrong answers. Remember, you may refuse to answer a question or interrupt the interview at any time. Doing so will have no consequences for you and your family.")

"Ahora vamos a platicar de la historia de trabajo de Usted y su familia. Las preguntas van a ser sobre Usted, su Compañero y sus hijos mayor y menor que hayan viajado con Usted. Por favor, responda a las preguntas lo mejor que pueda, no hay respuestas correctas o incorrectas. Recuerde que usted puede dejar de contestar cualquier pregunta o interrumpir la entrevista en cualquier momento y que el hacerlo no traerá ninguna consecuencia para Usted o su familia."

WORK HISTORY GRID - LAST MIGRATION SEASON

{DIRECTIONS FOR INTERVIEWER}

1. Use one grid for each person.
2. Use the calendar to track the activities the interviewee and her family did throughout the migration season. Show the calendar to the interviewee and mark in the calendar travel periods, work periods, and "non work" periods. After you have obtained this information, proceed to fill out the Work History Grid for each person.
3. Fill sequentially up to the last employer
4. If any one person worked for more than one employer in one place, use consecutive lines in the grid to register the event.
5. Write "not applicable" on the extra grids and continue with the INJURY SECTION (Q 21 – P14)
6. For the cells designated for "CROPS" and "ACTIVITIES/ TASKS", write as many codes as apply for each person.

Read the following paragraph to the interviewee:
("Now we are going to talk about work done during the past migration season. The following questions refer to the past migration season--approximately March 2000 to October 2000. First, we are going to talk about you, then your husband and then your oldest and youngest child. We are going to work with a calendar to help you remember, and then we are going to talk about the work you did during each period of time.")

"Ahora vamos a platicar de la última migración. Las preguntas que vienen a continuación se refieren a la última migración, más o menos entre Marzo y Octubre del 2000. Primero vamos a hablar de Usted, después de su Compañero y por último de sus hijos mayor y menor. Vamos a trabajar con un calendario para ayudarle a recordar. Después vamos a hablar sobre el trabajo que hizo en cada uno de los momentos que señalemos"

WORK DURING MAJORITY OF LIFE

18. What type of work have you and your husband done for the majority of your/ his life? *Durante la mayor parte de su vida ¿Qué tipo de trabajo han hecho Usted y su Compañero?*	
a. Mother	
b. Husband	

NUMBER OF MIGRANT FARMWORKER YEARS

19. Approximately how many years have each of you EVER worked as a MIGRANT FARMWORKER? (1 season OR <12 months = 1 year; Also, if participant says "entire life", you may need to subtract the age that person began doing migrant farmwork from their current age.) *Aproximadamente, ¿en toda su vida por cuántos años han trabajado como migrantes?*	
a. Mother	years *años*
b. Husband	years *años*
c. Oldest Child	years *años*
d. Youngest Child	years *años*

FARMWORK WHILE NOT MIGRATING

20. When you are NOT migrating, have any of you ever worked in the Valley as a farmworker?
Cuando no están migrando, ¿En algún momento alguno de ustedes, ha trabajado las cosechas en el Valle?

	Yes	No	DK	REF	NA
a. Mother	01→How many years? *¿Por cuántos años?*	02	97	98	99
b. Husband	01→How many years? *¿Por cuántos años?*	02	97	98	99
c. Oldest Child	01→How many years? *¿Por cuántos años?*	02	97	98	99
d. Youngest Child	01→How many years? *¿Por cuántos años?*	02	97	98	99

STARR CO. YEARS

21. About how many years have you and your Husband lived in Starr Co? *Aproximadamente, ¿Cuantos años han vivido Usted y su Compañero en Starr County?*	
a. Mother	_______ years *años*
b. Husband	_______ years *años*

Husband:

1. Employment # ...	2. Month Began Work (mm/ yy)	3. Month Ended Work (mm/ yy)	4. Approx. # DAYS per WEEK	5. Approx. # of HOURS per DAY	6. Was the employer the grower or a contractor?		7. City OR County	8. State	9. What crop(s) did you work for this employer? *Cosecha(s)* (see card)	10. What activities/ tasks did you do for this employer? *Actividad/tarea* (see card)
					Grower	Contractor				
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										

Follow-up Questionnaire Schedule A-1
MANOS
Fall 2000

Mother:

1. Employment # ...	2. Month Began Work (mm/ yy)	3. Month Ended Work (mm/ yy)	4. Approx. # DAYS per WEEK	5. Approx. # of HOURS per DAY	6. Was the employer the grower or a contractor?		7. City OR County	8. State	9. What crop(s) did you work for this employer? *Cosecha(s)* (see card)	10. What activities/ tasks did you do for this employer? *Actividad/tarea* (see card)
					Grower	Contractor				
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										

Youngest Child:

1. Employment # ...	2. Month Began Work (mm/ yy)	3. Month Ended Work (mm/ yy)	4. Approx. # DAYS per WEEK	5. Approx. # of HOURS per DAY	6. Was the employer the grower or a contractor?		7. City OR County	8. State	9. What crop(s) did you work for this employer? *Cosecha(s)* [see card]	10. What activities/ tasks did you do for this employer? *Actividades/tareas* [see card]
					Grower	Contractor				
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										

Oldest Child:

1. Employment # ...	2. Month Began Work (mm/ yy)	3. Month Ended Work (mm/ yy)	4. Approx. # DAYS per WEEK	5. Approx. # of HOURS per DAY	6. Was the employer the grower or a contractor?		7. City OR County	8. State	9. What crop(s) did you work for this employer? *Cosecha(s)* [see card]	10. What activities/ tasks did you do for this employer? *Actividades/tareas* [see card]
					Grower	Contractor				
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										

EXAMPLES OF INJURIES

- **Allergic reactions:** ***Reacciones Alérgicas***
  - Experienced trouble breathing *Tuvo dificultad para respirar*
  - Hands/ face swelled after contact with pesticides/ chemicals *Las manos y/o la cara se hincharon después de entrar en contacto con pesticides o químicos*
  - Itchy/ Painful rash on hands or other area of body after working in the fields. *Sarpullido que pica y/o es doloros en las manos o en el cuerpo después de trabajar en el campo.*
  - Got pesticide in eyes resulting in an infection *Le entro pesticida en los ojos que resulto en una infección*
-
- **Sun and heat related problems:** ***Problemas por calor o sol***
  - Passed out due to heat *Se desmalló por el calor*
  - Sunburn that resulted in blisters *Quemadas por el sol que resultó en ampollas*
-
- **Car and Tool related accidents:** ***Accidentes relacionados con carros o herramientas***
  - Car crash resulting in fractures or lacerations *Accidente que resultó en fracturas o heridas*
  - Cut hand or other body part. *Se corto la mano o el cuerpo*
  - Debris from a tractor or combine flew into eyes/ face and resulted in a cut/ abrasion. *Basura de un tractor calló en los ojos/cara y produjo una cortada o rasquño.*
  - Fell from a tractor and got caught underneath it. *Se calló de un tractor y el tractor le pasó por encima.*
  - Fingernail got caught and ripped off. *La uña se atoró en algo y se le arrancó.*
  - Cut foot while hoeing. *Se cortó el pie mientras araba*
  - Fell from ladder and broke a bone. *Caída de una escalera y se rompló un hueso.*
-
- **Accidents or Events involving an animal:** ***Accidentes o Eventos que involucran un animal.***
  - Kicked by a horse or cow *Pateado por un caballo o vaca.*
  - Stung by a bee. *Picadura de abeja*
  - Bit by a snake. *Mordida de culebra*
  - Child got bit by a deer tick while playing in the field. *El niño sufrió una picadura por una garrapata mientras jugaba en los campos.*
-
- **Other kinds of accidents or injuries:** ***Otro tipo de accidentes o lesiones***
  - Strained back after lifting a heavy object or after working in a bent-over position. *Se dañó la espalda después de levantar un objeto pesado o después de trabajar agachado.*
  - Slipped and cracked ribs. *Se resbaló y se fracturó las costillas.*
  - Experienced an electrical burn. *Quemadura eléctrica*

Injuries

(Interviewer, READ TO INTERVIEWEE "Now I would like to talk to you about any injuries that you or any of your family might have had while migrating. EXAMPLES of injuries include (refer to sheet) 1) Experienced rash or painful skin reaction to pesticides; 2) Lifted a heavy object and strained back; 3) Cut hand/ finger with a knife while harvesting produce; 4) Caught leg in a tractor or combine; 5) Bit by a snake or wasp while in the field; and 6) Involved in a crash while traveling to the fields in a truck bed.") PLEASE PROBE FOR INJURIES

(Entrevistador: lea el siguiente párrafo a la entrevistada: "Ahora me gustaría platicar con Usted sobre cualquier daño o herida qua la haya ocurrido a Usted o su familia durante la última migración. EJEMPLOS: 1) Me cai de una escalara y me quebré el pie. 2) Levanté algo pesado y me torcí la espalda. 3) Me corté el dedo/ la mano con una navaja mientras cosechaba.")

(Note to the interviewer:
1. At this point, there are different schedules for recording injuries. Each schedule is color coded according to family member. First, ask the injury question (#26 below) for each family member. If there is an injury for any family member, go to the appropriate schedule. If there are no injuries, continue the interview with Schedule A-2, Section "Hazardous Activities" P.2.)

26. When you were migrating, did any of you get hurt while working or while traveling to or from work?
Mientras estaban en las labores ¿Alguno de ustedes sufrió una lesión o se lastimó mientras trabajaba o mientras iba y venía del trabajo?

	YES	NO	DK	REF	NA
26.a. Mother	01	02	97	98	99
	Go to next person				
26.b. Husband	01	02	97	98	99
	Go to next person				
26.c. Oldest Child	01	02	97	98	99
	Go to next person				
26.d. Youngest Child	01	02	97	98	99
	(If no other children, go to interviewer note on the next page. If other children migrated with them, go to Q.27, below)				

27. Were any of the other children that migrated with you injured? *¿Alguno de los otros niños que viajó con Usted sufrió un daño?*		
Yes	No	No Other Children Who Migrated
01 Go to Schedule C & complete interview.	02 Go to Schedule A-2	99 Go to Schedule A-2
{INTERVIEWER SEE BELOW}		

Interviewer: If there were NO injuries reported, continue with the next section: Schedule A-2, Q.28. P.2.

If there was an injury to any of the family members, go to Schedule B (colored injury forms) as follows:

Mother:	**Go to PINK schedule**
Husband:	**Go to BLUE schedule**
Oldest Child:	**Go to YELLOW schedule**
Youngest Child:	**Go to GREEN schedule**
Other Children:	**Go to GRAY schedule**

If there WERE injuries to any family member, including the mother, go to the appropriate schedule as indicated above. AFTER completing the appropriate schedule(s) go to Schedule A-2, section "HAZARDOUS ACTIVITIES"

Review I (Valley) ☐ **Review II (Houston)** ☐ **Coded** ☐

Ready for Entry ☐ **Entered I** ☐ **Entered II** ☐ **Corrected** ☐

Follow-up Questionnaire #1, Migrant Farmworkers
General Information Section

{Interviewer: this information will be pre-printed from Schedule A-1, do not ask these questions again. Start at Q. 23. P.2.}

1. Interviewer ID Number *Número de Identificación del entrevistador*	________________
2. Date of Interview *Fecha de la entrevista*	____ / ____ / ____ (month) (day) (year) *(mes)* *(día)* *(año)*
3. First Name of Interviewee	«FIRST_NAME»
4. Paternal Surname of Interviewee	«PAT_SUR»
5. Maternal Surname of Interviewee	«MAT_SUR»
6. Spousal Surname of Interviewee	«S_P_SUR»
Family ID#	«FAMILY_ID»

(Interviewer, read the following paragraph to the interviewee: "Now we are going to talk about any hazardous activities which any of you might have engaged. In this section we are going to ask about you first, then your husband and then your children. Remember there are no right or wrong answers, we are interested in your experiences.")

("Ahora vamos a platicar sobre algunas actividades que pudieran ser peligrosas que ustedes pueden haber hecho. En esta sección vamos a preguntar de todos Ustedes. primero de Usted, la mamá y después sobre su esposa y luego sus hijos. Recuerde que no hay respuestas correctas o incorrectas, estamos interesados en su experiencia").

28. During the LAST MIGRATION SEASON, did any of your family members WORK OR PLAY around the following?
¿Algun miembro de su familia ha trabajado o jugado alrededor de los siguientes?

Activity / *Actividad*	MOTHER			HUSBAND			OLDEST CHILD			YOUNGEST CHILD		
	YES	NO	NA	YES	NO	NA	YES	NO	NA	YES	NO	NA
I. At heights as high as a house (trees, barns, silos) *Alturos más que una casa, tal como en un silo, establo (barn) o árboles.*	01	02	99	01	02	99	01	02	99	01	02	99
J. Electrical lines or exposed wiring. *Líneas eléctricas o cables dañados.*	01	02	99	01	02	99	01	02	99	01	02	99
K. Farm animals *Animales de granja*	01	02	99	01	02	99	01	02	99	01	02	99
L. Chemicals *Químicos.*	01	02	99	01	02	99	01	02	99	01	02	99
M. Other Activites *Otras Actividades* *Specify Especifique*	a. b. c.			a. b. c.			a. b. c.			a. b. c.		

Hazardous Activities

{Interviewer: For each family member, circle the appropriate number for each activity in the grid. IF the children are of an adult age, don't add "playing" inserts.}

28. During the LAST MIGRATION SEASON, did any of your family members WORK OR PLAY around the following?
¿Algun miembro de su familia ha trabajado o jugado alrededor de los siguientes?

Activity / *Actividad*	MOTHER			HUSBAND			OLDEST CHILD			YOUNGEST CHILD		
	YES	NO	NA	YES	NO	NA	YES	NO	NA	YES	NO	NA
A. Tractor. *Tractor*	01	02	03	01	02	03	01	02	03	01	02	03
B. All terrain vehicle with three or more wheels *Todo vehiculo terreno con tres ruedas o más*	01	02	03	01	02	03	01	02	03	01	02	03
C. Other farm equipment or machinery (harvester, hay balers) *Otro equipo maquinaria(barrenas o empacadoras de pastura)*	01	02	03	01	02	03	01	02	03	01	02	03
D. Power driven tools (power saws) *Maquinaria, tales como serruchos eléctricos.*	01	02	03	01	02	03	01	02	03	01	02	03
E. Hand-held vibrating tools or machinery *Maquinaria que se sostiene con la mano u operado máquinas que vibran.*	01	02	03	01	02	03	01	02	03	01	02	03
F. Hitched equipment (plow) *Equipo ganchado*	01	02	03	01	02	03	01	02	03	01	02	03
G. Knives/ other cutting tools *Cuchillos u otros objetos filosos*	01	02	03	01	02	03	01	02	03	01	02	03
H. Irrigation ditches, rivers, or wells *Cerca de fosas de irrigación, rios o norias.*	01	02	03	01	02	03	01	02	03	01	02	03

TRANSPORTATION TO WORKSITE WHILE AWAY FROM STARR CO.

30. How did you and your family USUALLY get to and from your work site from where you were living?
Regularmente ¿Que media de transporte usaron para Ir y venir del trabajo la mayor parte de los dias?

	Car *Carro* Go to Q31 →	Bus *Autobus* Go to Q31 →	Inside of a Truck *En la cabina de una Troca* Go to Q31 →	Bed of Truck *En la parte de atrás de una Troca* Go to Q33 on next page	Walked *Caminó* Go to Q33 on next page	Other *Otro, Especifique* Go to Q33 on next page	NA Go to Q33 on next page	31. Did this vehicle have seat belts? *¿Este vehiculo tenia cinturón de seguridad?* Yes Go to 32 →	No	DK	Ref	NA	32. If yes, did you usually use the seat belt? *Si "si" ¿Lo usó usualmente?* Yes	No	DK	Ref	NA
a. Mother	01 →	02 →	03 →	04	05	_____	99	01 Go to 32 →	02	97	98	99	01	02	97	98	99
b. Husband	01 →	02 →	03 →	04	05	_____	99	01 Go to 32 →	02	97	98	99	01	02	97	98	99
c. Oldest Child	01 →	02 →	03 →	04	05	_____	99	01 Go to 32 →	02	97	98	99	01	02	97	98	99
d. Youngest Child	01 →	02 →	03 →	04	05	_____	99	01 Go to 32 →	02	97	98	99	01	02	97	98	99

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29. During the LAST MIGRATION SEASON, did any of your family members DO the following?
¿Alguien de su familia ha hecho lo siguientes?

ACTIVITY	MOTHER YES	MOTHER NO	MOTHER NA	HUSBAND YES	HUSBAND NO	HUSBAND NA	OLDEST CHILD YES	OLDEST CHILD NO	OLDEST CHILD NA	YOUNGEST CHILD YES	YOUNGEST CHILD NO	YOUNGEST CHILD NA
A. Ride in the back of a pickup or other truck *Montar en la parte de atrás de una troca o pick-up.*	01	02	99	01	02	99	01	02	99	01	02	99
B. Go barefoot in the field *Trabajado en los campos descalzo.*	01	02	99	01	02	99	01	02	99	01	02	99
C. Bend over or stoop repetitively *Con el cuerpo doblado, inclinado o agachado, repetidamente.*	01	02	99	01	02	99	01	02	99	01	02	99
D. Lift objects repetitively (buckets) *Levantar objetos repetidamente (como cargar cubetas)*	01	02	99	01	02	99	01	02	99	01	02	99
E. Move heavy objects *Mover objetos pesados*	01	02	99	01	02	99	01	02	99	01	02	99
F. Repetitive hand work (hand weeding, planting) *Trabajo manual repetitivo, tal como destazar, cosechar o plantar manualmente,*	01	02	99	01	02	99	01	02	99	01	02	99
G. Load, mix, or apply pesticides {Use "close by someone"for a child} *Cargado mezclado o aplicado pesticidas.(para niños jugando cerca)*	01	02	99	01	02	99	01	02	99	01	02	99
H. Clean/ repair pesticide equipment {Use "close by"for a child} *Limpiado o reparado equipo para aplicar pesticidas .(para niños jugando cerca).*	01	02	99	01	02	99	01	02	99	01	02	99
I. Other Activites *Otras Actividades* *Specify Especifique*	a._____ b._____ c._____			a._____ b._____ c._____			a._____ b._____ c._____			a._____ b._____ c._____		

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SAFETY TRAINING AND PRACTICES

Interviewer, READ TO INTERVIEWEE: ("Now we are going to talk about safety training and practices that you may have received. In this section, the items only ask about you and not your family members. Remember, there are no right or wrong answers. You can interrupt this interview at any time.")

("Ahora vamos a platicar sobre prácticas y entrenamiento en seguridad que Usted ha recibido en relación a pesticidas. Solo vamos a platicar sobre Usted en esta sección. Recuerde que no hay respuestas correctas o incorrectas y que usted puede interrumpir esta entrevista en cualquier momento.")

MOTHER'S PESTICIDE TRAINING

33. Have YOU received training or instruction in the safe use of pesticides in the LAST 12 MONTHS?
En los últimos 12 meses, ¿ha recibido Usted entrenamiento en el uso seguro de pesticidas?

	Yes	No	DK	REF
Mother	01	02	97	98
		If No, DK or REF go to Q.38 @ P.7		

↓

34. In what language was the training in the LAST 12 MONTHS delivered?
¿En qué idioma recibió el entrenamiento más reciente?

	English *Inglés*	Spanish *Español*	Both English and Spanish *Tanto inglés como español*	NA	99
Mother	01	02	03	Other Specify *Otro Especifique* _____	

35. Did your training or instruction in the LAST 12 MONTHS cover when you could enter a field recently treated with pesticides?
El entrenamiento más reciente ¿Incluyó cuanto tiempo hay que esperar para poder entrar al campo, después de que se ha rociado con pesticidas?

	Yes	No	DK	REF	NA
Mother	01	02	97	98	99

36. Did your training or instruction in the LAST 12 MONTHS cover illnesses or injury related to pesticide exposure?
El entrenamiento más reciente ¿Incluyó que tipo de enfermedades, heridas o daños se relacionan con el uso de pesticidas?

	Yes	No	DK	REF	NA
Mother	01	02	97	98	99

37. Did your training or instruction in the LAST 12 MONTHS cover where to go or who to contact for emergency medical care if exposed to pesticides?
El entrenamiento más reciente ¿incluyó a dónde ir o a quién contactar para tratamiento médico de emergencia si hubiese exposición a pesticidas?

	Yes	No	DK	REF	NA
Mother	01	02	97	98	99

Interviewer: READ TO INTERVIEWEE: ("Now we are going to talk about contact with pesticides that any one of you may have had during the last migrating season. Remember that we are going to be referring to you, your husband and oldest and youngest child.")

"Ahora vamos a platicar sobre posibles contactos que ustedes hayan podido tener con pesticidas. Recuerde que vamos a estar platicando acerca de Usted, su esposo y sus hijos mayor y menor."

PESTICIDE EXPOSURE--ENTIRE FAMILY

38. During the LAST MIGRATION SEASON, have any one of you gotten sprayed with pesticides, directly or indirectly, or by a cloud of pesticides (drift)?
¿Alguno de Ustedes ha sido rociado, directa o indirectamente con una nube de pesticidas en los últimos 12 meses?
(Interviewer: show laminated card)

	Yes	No	DK	REF	NA
a. Mother	01	02	97	98	99
b. Husband	01	02	97	98	99
c. Oldest Child	01	02	97	98	99
d. Youngest	01	02	97	98	99

39. DURING THE LAST MIGRATION SEASON did any of you use or wear any item on this card to protect yourself on the job? (Show laminated card to mother and ask about each person separately. DO NOT read all the choices)
Cuando fueron a los trabajos ¿Alguno de sus empleadores alguna vez le ha dado cualquiera de los objetos que están en esta tarjeta para protegerse en el trabajo?

	39.a. Mother					39.b. Husband					39.c. Oldest Child					39.d. Youngest Child				
	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA
8. Goggles *Lentes protectores*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
9. Paper Mask *Mascaras de papel*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
10. Bandana/Handkerchief *Pañoletas o Pañuelos*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
11.Other	a._____ b._____ c._____					a._____ b._____ c._____					a._____ b._____ c._____					a._____ b._____ c._____				

("Now we are going to talk about field sanitation and safety devices that you, your husband, and your oldest or youngest child may have used in the fields. Remember, there are no right or wrong answers. If you have any doubts, please ask me and I will be happy to clarify. (Interviewer: Show card to the interviewee")

"Ahora vamos a platicar sobre medidas y dispositivos de seguridad que Usted, su Compañero o su hijo mayor o menor pueden haber usado en los campos, también vamos a hablar un poquito acerca de sanidad en los campos. Recuerde que no hay respuestas correctas o incorrectas. Si usted tiene dudas, por favor pregúnteme y con gusto aclararé las dudas."

PROTECTIVE EQUIPMENT

39. DURING THE LAST MIGRATION SEASON did any of you use or wear any item on this card to protect yourself on the job? (Show laminated card to mother and ask about each person separately. DO NOT read all the choices)
Cuando fueron a los trabajos ¿Alguno de sus empleadores alguna vez le ha dado cualquiera de los objetos que están en esta tarjeta para protegerse en el trabajo?

	39.a. Mother					39.b. Husband					39.c. Oldest Child					39.d. Youngest Child				
	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA
1. Gloves *Guantes*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
2. Long Sleeves *Camisa manga larga*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
3. Boots *Botas*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
4. Coveralls/jumpsuit *Overoles o pecheras*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
5. Respirator *Respiradores*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
6. Hard Hat *Cascos*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
7. Soft Hat or Cap *Sombreros o gorras*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99

Field Sanitation—Self Provided

41. In general, did YOU USUALLY provide the following for YOURSELF AND YOUR FAMILY while you/ they worked in the fields DURING THE LAST MIGRATION SEASON?
En general, ¿LLEVARON USTEDES alguno de los siguientes objetos al campo para su uso personal durante la última migración?

	Yes	No	DK	REF	NA
a. Clean drinking water *Agua limpia para tomar*	01	02	97	98	99
b. Disposable cups *Vasos desechables*	01	02	97	98	99
c. Toilet paper *Papel de baño*	01	02	97	98	99
d. Water for washing hands *Agua para lavarse las manos*	01	02	97	98	99
e. Soap for washing hands *Jabón para lavarse las manos*	01	02	97	98	99
f. Towels for drying hands *Toallas para secarse las manos*	01	02	97	98	99
11.Other	a._____ b._____ c._____				

Field Sanitation—Employer Provided

40. In general did any of YOUR EMPLOYERS USUALLY provide the following for YOU OR YOUR FAMILY while you/ they worked in the fields DURING THE LAST MIGRATION SEASON?
En general, ¿su EMPLEADOR les ha dado alguno de los siguientes objetos mientras han estado trabajando en el campo, durante la última migración?

	Yes	No	DK	REF	NA
a. Clean drinking water *Agua limpia para tomar*	01	02	97	98	99
b. Disposable cups *Vasos desechables*	01	02	97	98	99
c. Toilet facilities *Excusados*	01	02	97	98	99
d. Toilet paper *Papel de baño (higiénico)*	01	02	97	98	99
e. Water for washing hands *Agua para lavarse las manos*	01	02	97	98	99
f. Soap for washing hands *Jabón para lavarse las manos*	01	02	97	98	99
g. Towels for drying hands *Toallas para secarse las manos*	01	02	97	98	99
11.Other	a._____ b._____ c._____				

42. Have ANY OF YOU EVER been told, by a medical professional, like a doctor or nurse, that you or they have the following?
¿Un profesional de la salud, como doctor o enfermera, les ha dicho alguna vez que, alguno de ustedes, tiene cualquiera de las siguientes enfermedades o condiciones?

Illness/Condition	42.a. Mother					42.b. Husband					42.c. Oldest Child					42.d. Youngest Child				
	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA
h. Epilepsy, Seizure disorders *Convulsiones*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
i. Impairments due to prior injuries (such as hearing loss, back injury, amputations) *Impedimentos por daños anteriores (pérdida del oído, lastimaduras en la espalda, amputaciones etc.)*	01 ↓	02	97	98	99	01 ↓	02	97	98	99	01 ↓	02	97	98	99	01 ↓	02	97	98	99
Describe impairments→	1. 2.					1. 2.					1. 2.					1. 2.				
j. Other Illnesses/Conditions *Otras enfermedades o condiciones* Describe illness/ condition →	1. 2.					1. 2.					1. 2.					1. 2.				

HEALTH STATUS

Interviewer: READ TO INTERVIEWEE ("Now we are going to talk about your health and that of your husband, oldest and youngest child.")

"(Ahora vamos a platicar acerca de su salud y la salud de su Compañero e hijos mayor y menor.)"

General Illnesses

42. Have ANY OF YOU EVER been told, by a medical professional, like a doctor or nurse, that you or they have the following?
¿Un profesional de la salud, como doctor o enfermera, les ha dicho alguna vez que, alguno de ustedes, tiene cualquiera de las siguientes enfermedades o condiciones?

Illness/Condition	42.a. Mother					42.b. Husband					42.c. Oldest Child					42.d. Youngest Child				
	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA
a Cancer *Cancer*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
b. Diabetes *Diabetes. azúcar en la sangre*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
c. High Blood Pressure *Alta presión*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
d. Tuberculosis/TB *Tuberculosis*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
e. Arthritis *Artritis*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
f. Asthma *Asma*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
g. Hepatitis *Hepatitis*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99

43. DURING THE PAST MIGRATION SEASON, did ANY OF YOU experience any of the following conditions or symptoms? *¿Ha sufrido alguno de ustedes cualquiera de los siguientes síntomas?*	43.a. Mother					43.b. Husband					43.c Oldest Child					43.d Youngest Child				
	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA
5. Experienced problems with the *hand, wrist, or fingers* such as burning, tingling, numbness, stiffness or muscle/ joint aches and pains. *Dolores musculares o articulares (Dolores en las manos, muñecas y/o dados con sensación de hormigueo, punzadas, dormisón o tiesos)*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
6. Aches and pains of *other muscles, joints, or body parts (knees, shoulder, neck, leg cramps) or reumas? Dolores musculares o articulares en otras partes del cuerpo.*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99

(Interviewer read to the interviewee: "Now we are going to talk about any symptoms or illnesses that any of you might have experienced during the last migration season. Remember the last migration season is approximately the period between March and October of 2000.")

"(Ahora vamos a platicar acerca de cualquier síntoma o enfermedad que cualquiera de ustedes haya tenido cuando fueron a los trabajos ésta vez. Recuerde que esto se refiere de Marzo a Octubre del 2000.)"

SYMPTOMS & ILLNESSES

43. DURING THE PAST MIGRATION SEASON, did ANY OF YOU experience any of the following conditions or symptoms? *¿Ha sufrido alguno de ustedes cualquiera de los siguientes síntomas?*	43.a. Mother					43.b. Husband					43.c Oldest Child					43.d Youngest Child				
	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA
1. Heat exhaustion/stroke (Passing out due to heat and/or elevated body temperature.) *Golpe de calor (desmayos y/o tener fiebre por el calor)*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
2. Skin Rashes *Erupciones en la piel, ronchas o sarpullidos*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
3. Eye Irritations/Infections *irritaciones o infecciones en los ojos*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
4.Chronic Back Pain *Dolor de espalda constante*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99

44. Do any of you USUALLY take any medications? *¿Alguno de ustedes está tomando alguna medicina ahorita?*	37.a. Mother	37.b. Husband	37.c. Oldest Child	37.d. Youngest Child
	01	01	01	01
Yes				
1. If Yes, What is the medicine? *Si "si" ¿Cómo se llama la medicina?*	_____	_____	_____	_____
a. Why taking it? *¿Por qué la está tomando?*	_____	_____	_____	_____
2. What is the medicine? *¿Cómo se llama la medicina?*	_____	_____	_____	_____
a. Why taking it? *¿Por qué la está tomando?*	_____	_____	_____	_____
3. What is the medicine?: *¿Cómo se llama la medicina?*	_____	_____	_____	_____
a. Why taking it? *¿Por qué la está tomando?*	_____	_____	_____	_____
No	02	02	02	02
Don't Know	97	97	97	97
REF	98	98	98	98
NA	99	99	99	99

43. DURING THE PAST MIGRATION SEASON, did ANY OF YOU experience any of the following conditions or symptoms?
¿Ha sufrido alguno de ustedes cualquiera de los siguientes síntomas?

	43.a. Mother					43.b. Husband					43.c Oldest Child					43.d Youngest Child				
	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA	Yes	No	DK	REF	NA
7. Difficulty picking up or holding things with hands or fingers *Dificultad para levantar o detener cosas con las manos o dedos.*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
8. Severe sunburn (blisters, etc) *Quemadura del sol grave, que salen ampoyas)*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
9. Nausea *Nausea*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
10. Vomiting *Vómitos*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
11. Severe headaches *Dolores de cabeza fuertes*	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99	01	02	97	98	99
12. Other symptoms *Otros síntomas* Specify *Especifique:*	12.a.1 _____ 12.a.2 _____					12.b.1 _____ 12.b.2 _____					12.c.1 _____ 12.c.2 _____					12.d.1 _____ 12.d.2 _____				

LIFE STYLE FACTORS

("Interviewer: READ TO INTERVIEWEE: Now we are going to talk about life style behaviors engaged in by you and your family.")
("Ahora vamos a platicar sobre algunos hábitos y costumbres que Usted y su familia pueden tener").

TOBACCO

45. Have YOU or your HUSBAND EVER smoked at least 100 cigarettes in your/ his lifetime?
Durante toda su vida ¿Alguno de ustedes ha fumado más de 100 cigarrillos?

	Yes	No	Don't Know	REF	NA
a. Mother	01	02	97	98	99
b. Husband	01	02	97	98	99

INTERVIEWER: If mother nor husband smoke, SKIP to 47

46. Do YOU or your HUSBAND now smoke cigarettes every day, some days, or not at all?
En este momento, Usted o su esposo fuma cigarrillos todos los dias, algunos dias, nunca?

	Every day	Some days	Not at all	DK	REF	NA
a. Mother	01	02	03	97	98	99
b. Husband	01	02	03	97	98	99

47. Do YOU or your HUSBAND CURRENTLY use other tobacco products such as cigars, chewing tobacco, snuff?
En este momento, ¿Alguno de ustedes utiliza cualquiera de los siguientes productos del tabaco?

	Other Tobacco Products? *¿Algún otro producto del tabaco?*	No	DK	REF	NA
a Mother	YES 01 ↓ If Yes, specify Name of tobacco product *Si "si", especifique* _____ ↓ How many times do you use it per day?_____times *¿Cuántos por día?*	02	97	98	99
a Husband	YES 01 ↓ If Yes, specify Name of tobacco product *Si "si", especifique* _____ ↓ How many times do you use it per day?_____times *¿Cuántos por día?*	02	97	98	99

Follow-up Questionnaire – Activities - Schedule A-2
MANOS
Fall 2000

ALCOHOLIC BEVERAGES

48. Did you or your husband drink alcoholic beverages WHILE MIGRATING?
¿Alguno de ustedes tomó bebidas alcohólicas mientras migraban?

	Yes	No	DK	REF	NA
a. Mother	01 If Yes, How many per week? *Si "si" ¿Cuántas por semana?*	02	97	98	99
b. Husband	01 If Yes, How many per week? *Si "si" ¿Cuántas por semana?* _____	02	97	98	99

SEAT BELTS—General Use

49. In general, when you drive or ride in your family vehicle (car, truck, etc.) do you/they usually wear a seatbelt?
Por lo general, cuando ustedes van en el vehículo familiar ¿Usualmente se ponen el cinturón de seguridad?

	YES	NO	No family vehicle	DK	REF	NA
a Mother	01	02	03	97	98	99
b. Husband	01	02	03	97	98	99
c. Oldest Child	01	02	03	97	98	99
d. Youngest Child	01	02	03	97	98	99

SLEEP—PAST MIGRATION SEASON

50. While you were MIGRATING THIS PAST SEASON, about how many hours of sleep did each of you USUALLY get each night?
Mientras estaban en los trabajos ¿Cómo cuántas horas dormía cada uno de ustedes cada noche?

		DK	REF	NA
a. Mother	_____ hours	97	98	99
b. Husband	_____ hours	97	98	99
c. Oldest Child	_____ hours	97	98	99
d. Youngest Child	_____ hours	97	98	99

51. While you were MIGRATING THIS PAST SEASON, how would you rate the USUAL quality of your/their sleep overall?
Durante la última migración, ¿Por lo general, cómo durmió cada uno de ustedes?

	Very good *Muy bien*	Fairly good *Bien*	Fairly bad *Mal*	Very bad *Muy mal*	DK	REF	NA
a. Mother	01	02	03	04	97	98	99
b. Husband	01	02	03	04	97	98	99
c. Oldest Child	01	02	03	04	97	98	99
d. Youngest Child	01	02	03	04	97	98	99

SLEEP—STARR CO.

52. Since you returned to Starr Co., about how many hours of sleep did each of you USUALLY get each night?
Desde que regresaron a Starr County ¿Cómo cuánta hora duermen cada noche cada uno de ustedes?

		DK	REF	NA
a. Mother	_____ hours	97	98	99
b. Husband	_____ hours	97	98	99
c. Oldest Child	_____ hours	97	98	99
d. Youngest Child	_____ hours	97	98	99

53. Since you returned to Starr Co., how would you rate the USUAL quality of your/their sleep overall?
Desde que regresaron a Starr County ¿Por lo general, cómo durmtó cada uno de ustedes?

	Very good *Muy bien*	*Fairly good Bien*	Fairly bad *Mal*	Very bad *Muy mal*	DK	REF	NA
a Mother	01	02	03	04	97	98	99
b. Husband	01	02	03	04	97	98	99
c. Oldest Child	01	02	03	04	97	98	99
d. Youngest Child	01	02	03	04	97	98	99

Follow-up Questionnaire – Activities - Schedule A-2

MANOS
Fall 2000

[Interviewer: READ the closing paragraph below to finish the interview.]
("Thank you for the opportunity you have given us to interview you. The information you have provided will help us better understand the health problems of migrant farmworkers. As a result, we will be able to design better research studies and intervention programs.")

("Gracias por la oportunidad que nos ha dado entrevistarlo. La información que nos ha dado, nos ayudará a entender mejor los problemas de salud de los trabajadores migrantes y nos permitirá desarrollar mejores programas de intervención.")

FOR THE INTERVIEWER:

55. The interview is:

Complete	01
Incomplete	02

56. Please comment on anything that you feel may have influenced the mother's responses (such as the presence of husband, children, grandmother, or distractions)?

57. Other comments: _____

58 Were there any injuries reported?

Yes (Go to Q.59 below)	01
No (Go to A2)	02

59. Is there a completed schedule B for each person for whom an injury was reported (Mother, Husband or Youngest or Oldest child)?

Yes	01
No	02
NA	99

If "No" why? _____

60. Is there a completed schedule C for each additional child for whom an injury was reported (child that migrated with them and is NOT youngest or oldest)?

Yes	01
No	02
NA	99

If "No" why? _____

Follow-up Questionnaire – Activities - Schedule A-2

MANOS
Fall 2000

MOOD

54. During the PAST 12 MONTHS, did any of you EVER feel so sad or hopeless almost EVERY DAY FOR TWO WEEKS OR MORE IN A ROW?

Durante los últimos 12 meses, alguno de ustedes se sintió triste o sin esperanza, casi cada día por dos semanas seguidas o más?

			NO 02 Skip to next person	DK 97 Skip to next person	REF 98 Skip to next person	NA 99 Skip to next person
a. Mother	YES 01 ↓ ↓ ↓					
	1. Did you have to stop doing some usual activities? → *Tuvo que dejar de hacer actividades usuales?*	YES 01	02	97	98	99
	2. Was this during the LAST MIGRATION SEASON? → *Ocurrió esto durante la última migración?*	YES 01	02	97	98	99
b. Husband	YES 01 ↓ ↓ ↓		NO 02 Skip to next person	DK 97 Skip to next person	REF 98 Skip to next person	NA 99 Skip to next person
	1. Did you have to stop doing some usual activities? → *Tuvo que dejar de hacer actividades usuales?*	YES 01	02	97	98	99
	2. Was this during the LAST MIGRATION SEASON? → *Ocurrió esto durante la última migración?*	YES 01	02	97	98	99
c. Oldest Child	YES 01 ↓ ↓ ↓		NO 02 Skip to next person	DK 97 Skip to next person	REF 98 Skip to next person	NA 99 Skip to next person
	1. Did you have to stop doing some usual activities? → *Tuvo que dejar de hacer actividades usuales?*	YES 01	02	97	98	99
	2. Was this during the LAST MIGRATION SEASON? → *Ocurrió esto durante la última migración?*	YES 01	02	97	98	99
d. Youngest Child	YES 01 ↓ ↓ ↓		NO 02 Skip to 55	DK 97 Skip to 55	REF 98 Skip to 55	NA 99 Skip 55
	1. Did you have to stop doing some usual activities? → *Tuvo que dejar de hacer actividades usuales?*	YES 01	02	97	98	99
	2. Was this during the LAST MIGRATION SEASON? → *Ocurrió esto durante la última migración?*	YES 01	02	97	98	99

FOLLOW-UP YEAR 1 SURVEY/INJURY SCHEDULE

Review I (Valley) ☐ Review II (Houston) ☐ Coded ☐

Ready for Entry ☐ Entered I ☐ Entered II ☐ Corrected ☐

INJURIES: MOTHER

[Note: Interviewer, remind the respondent that "during the last migration season" refers to the period of approximately March 2000 to October 2000 (show calendar), and make sure that she understands and is clear about the time reference.]
Please use an additional injury schedule for each injury. Be sure to write, Injury #1, #2, #3 etc., as needed for each person in the space provided in the first row of the grid below, and complete Q2-8.]

INFORMATION COLUMN	
1. Injury No. (1, 2, 3, 4, etc.)	___ ___
2. Interviewer ID Number	
3. Family ID	
4. First Name of Interviewee	
5 Paternal Surname of Interviewee	
6. Maternal Surname of Interviewee	
7. Spousal Surname of Interviewee	
8. Date of Interview	___/___/___ (month) *(mes)* (day) *(día)* (year) *(año)*

You got hurt this past migration season, I would like to talk to you about each injury
Usted me dijo, que se dañó mientras trabajaba. Me gustaría platicar con Usted acerca de cada una de las heridas o daños que recibió.

9. How many injuries occurred to you during the last migration season? *¿Cuántos daños o heridas le ocurrieron durante la última migración?*	______ **Interviewer: [Fill out the same number of pink schedules as the number of injuries indicated above)**

10. a. What type of injury did you experience?(i.e. fracture, cut, abrasion) *¿Qué tipo de lesion o herida? (Tipo: fractura, cortada, abrasión)*	11. Body Part *¿En dónde en el cuerpo?*	12. What was the time of the day *¿Cuándo?*	13. What was the approximate date when the injury happened? *Me puede decir qué daños o heridas sufrió y en qué fechas aproximadamente?*	14. Did you lose time from your usual activities (work, school, recreation) due to this problem? *¿Perdió tiempo de sus actividades normales (trabajo, escuela, recreación) por este problema?*	
			___/___/___ (mm / dd / yy)	Yes 01 ↓ ↓ **How much time did you lose?** **Interviewer: Fill in 1 blank.** ____hours ____days ____weeks	No 02

15. How did you take care of your injury?
{Wait for response; DO NOT read all choices to Mother}
¿Cómo atendió la herida?

Did nothing *No hice nada*	01
Took care of it myself *Encontré remedio yo misma*	02
Friend/Family member *Amigo / Familiar*	03
Herbalist *Herbalista / Hierbero*	04
Curandero/a *Curandero/a*	05
Employer *Empleador*	06
Went to hospital, migrant health clinic, or private doctor's office *Hospital, clínica de migrantes, médico privado*	07 **SKIP TO Q. 17**
Other *Otro:* Explain *Explíqueme*	
DK	97
REF	98

16. Why did you NOT go to a doctor or other medical professional?
¿Por qué no buscó ayuda? {Interviewer: Circle ALL the options that apply.}

No money *No había dinero*	01
No transportation *No tenía transporte, como ir*	02
Not serious enough *No era lo suficientemente serio*	03
No time/had to work *No tenía tiempo, tenía que trabajar*	04
No permission from employer *Mi empleador no me dio permiso*	05
No medical facilities *No había a donde ir, no había clínica*	06
Other: *Otro* Specify *Especifique* →	
DK	97
REF	98
NA	99

17. When did this injury happen?
¿Cuándo ocurrió esta lastimadura o herida?

While at work or working *Mientras trabajaba*	01
Going to/from housing *Yendo o viniendo de la vivienda*	02
Traveling to/from Starr Co. *Viajando desde o hacia Starr County*	03
While at home En casa	04
Other *Otro:* Explain *Explíqueme*	

18. In what location did the injury occur?
Dónde ocurrió el daño o herida?

Field, Orchard, Nursery *En el campo, huerta o semillero (vivero de plantas, nursería)*	01
Pasture *En los pastos*	02
Grain storage/silo *Almacén de granos o silo*	03
Barn *Establo, granero*	04
Public roadway *Camino o calle pública*	05
In migrant farmworker housing *En la casa*	06
Other: *Otro* Explain. *Explíqueme*	
DK	97
REF	98
NA	99

19. What were you doing when you were injured?
¿Qué tareas o trabajos estaba haciendo?

Interviewer: (Circle the code for the activity and ask if it was a normal work activity if aplicable.)		Was this task a normal work activity? *¿Era esta tarea o actividad parte de su trabajo usual?*			
Harvesting by hand *Cosechando a mano*	01→	Normal work activity? →	Yes 01	No 02	NA 99
Hoeing *Azadonando, sachando*	02→	Normal work activity? →	Yes 01	No 02	NA 99
Sorting/selecting *Ordenando - seleccionando*	03→	Normal work activity? →	Yes 01	No 02	NA 99
Weeding *Desyerbando*	04→	Normal work activity? →	Yes 01	No 02	NA 99
Pruning *Podando*	05→	Normal work activity? →	Yes 01	No 02	NA 99
Seeding *Sembrando*	06→	Normal work activity? →	Yes 01	No 02	NA 99
Loading *Cargando*	07→	Normal work activity? →	Yes 01	No 02	NA 99
Packing *Empaquetando*	08→	Normal work activity? →	Yes 01	No 02	NA 99
Operating/Driving farm machinery *Operando o manejando maquinaria de granja* (other than tractor)	09→	Normal work activity? →	Yes 01	No 02	NA 99
Driving a tractor *Manejando un tractor*	10→	Normal work activity? →	Yes 01	No 02	NA 99
Irrigating *Irrigando*	11→	Normal work activity? →	Yes 01	No 02	NA 99
Spraying *Rociando, pulverizando*	12→	Normal work activity? →	Yes 01	No 02	NA 99
Driving/ riding in family vehicle *Manejando o siendo pasajero del vehículo familiar*	13 →	**SKIP TO Q 21 PAGE 6.**			
Riding in someone else's vehicle *Siendo pasajero en el vehículo de otra persona.*	14 →				
Other: *Otro* Explain *Explíqueme* _____ →	→	Normal work activity? →	Yes 01	No 02	NA 99
DK	97				
REF	98				
NA	99				

20. What type of commodity or crop were you working AT THE TIME OF THE INJURY?
¿Con qué tipo de cosecha estaba usted trabajando cuando ocurrió el daño o herida?

	Field crops (tobacco, cotton, sugar cane) *Cosechas del campo (tobaco, algodón, caña)*	01
	Fruits and nuts *Frutas y nueces*	02
	Horticulture (Christmas trees, flowers, ferns, house plants) *Horticultura (Arboles de navidad, flores, helechos, plantas domésticas)*	03
	Vegetables *Vegetales*	04
	Miscellaneous / multiple crops *Miscelaneo – varias cosechas*	05
	Other: *Otro* Explain. *Explíqueme* _____	
	DK	97
	REF	98
	NA	99

21. What type of object caused the injury?
¿Qué objeto causó el daño o herida?

INTERVIEWER: (BELOW IS A FILTER QUESTION, BE READY FOR SKIP PATTERNS)

Go to Q.22, P. 7	Hand held tool *Herramienta manual*	01
Go to Q.24, P.7	Tractor or other farm machinery *Tractor u otra maquinaria agrícola*	02
Go to Q.28, P.8	Car or other vehicle *Automóvil u otro tipo de vehículo*	03
Go to Q.33, P.9	Ladder (Fall from ladder) *Escalera (caída de una escalera)*	04
Go to Q.33, P.9	Animal/Insect/Snake (See p.9) *Animal, insecto, culebra*	05
Go to Q.33, P.9	Other: *Otro* Explain. *Explíqueme*	
	DK	97
	REF	98
	NA	99

(Note to Interviewer: After determining the type and number of injuries, go to the specific section for that type of injury For example, "Hand-Held Tool, A Vehicle", etc.)

HAND-HELD TOOL

22. What tool was used during the accident/injury? Examples: (hoe, shears, knife, cutter, etc)
¿Qué herramienta estaba usando cuando se hirió o lesionó? Ejemplo: azadón, tijeras de jardín, cuchillo, cortador, etc.)

a. _____
b. _____
c. _____
d. _____

23. Had you received any training or instruction on how to safely use the tool before the injury?
¿Había recibido algún entrenamiento o instrucciones en el cómo usar, de manera segura, esta herramienta, antes de que se lesionara?

	YES	NO	DK	REF
	01	02	97	98

Go to Q. 33. P.9.

TRACTORS OR OTHER FARM MACHINERY

24. What type of machinery was involved? Examples: tractor, plow, combine, harvester, etc
¿Qué clase de maquinaria estaba usando a ese tiempo? Ejemplos: Tractor, arado, cosechadora, segadora, etc.

a. _____
b. _____
c. _____
d. _____

25. Had you received any training or instruction on how to safely use the machine before the injury?
¿Había recibido algún entrenamiento o instrucciones en el cómo usar, de manera segura, esta maquinaria, antes de que se lastimara?

	YES	NO	DK	REF
	01	02	97	98

INTERVIEWER: {Continue next page with TRACTOR questions.} →

TRACTOR continued

26. Was this machine equipped with a seat belt?
Esta máquina ¿Estaba equipada con cinturones de seguridad?

	YES	NO	DK	REF	NA
	01	02	97	98	99

If NO, DK, REF, NA Go to Q.33 P.9.

27. Were you wearing the seat belt at the time of the accident?
¿Tenía el cinturón de seguridad puesto al momento del accidente?

	YES	NO	DK	REF
	01	02	97	98

Go to Q. 33. P.9

CAR OR VEHICLE

28. What kind of vehicle was involved? Example: Pickup truck, van, car, etc.
¿Qué tipo de vehículo estuvo involucrado? Por ejemplo Troca, van, carro, etc.

a. _____
b. _____
c. _____
d. _____

29. Was the vehicle equipped with a seat belt?
Este vehículo ¿Estaba equipado con cinturones de seguridad?

	YES	NO	DK	REF
	01	02	97	98

If NO, DK, REF Go to Q.33 P.9.

30. Were you wearing the seat belt at the time of the accident?
¿Tenía el cinturón de seguridad puesto al momento del accidente?

	YES	NO	DK	REF
	01	02	97	98

Go to Q. 33. P.9.

ANIMAL

31. What kind of animal was involved? Example: horse, cow, pig, snake, bee etc.
¿Que tipo de animal estuvo involucrado? Por ejemplo: Caballo, Vaca, Cerdo, etc.

a. _____
b. _____
c. _____
d. _____

[Interviewer: If a wild animal (snake, wasp, antyscorpion) was involved, skip to Q 34.]

32. Had you received any training or instruction on how to safely work with animals before the injury?
¿Había recibido algún entrenamiento o instrucciones en el cómo trabajar, de manera segura, con este animal, antes de que se lesionara?

	YES	NO	DK	REF
	01	02	97	98

33. Is there anything else about the injury that you would like to add about this injury?
¿Alguna otra información a cerca del daño que quisiera añadir?

	YES	NO	DK	REF
	01	02	97	98

Comments:

Interviewer: If there were NO MORE INJURIES, continue with the next section: SCHEDULE A-2, Q.28. P.2.

If there is ANOTHER INJURY TO ANY FAMILY MEMBER, GO TO SCHEDULE B as follows:

Mother:	**Go to PINK schedule**
Husband:	**Go to BLUE schedule**
Oldest Child:	**Go to YELLOW schedule**
Youngest Child:	**Go to GREEN schedule**
Additional Child	**Go to GRAY schedule**

FOLLOW-UP SURVEY YEAR 2

Mother's Name: _____

The University of Texas
Health Science Center at Houston
School of Public Health

Injury and Illness Surveillance in Migrant Farmworkers

A1 LONG FORM
Follow-up Questionnaire 2001

Time Began:	
Time Ended:	

TASK	Date	Initials
Reviewed in Valley		
Reviewed in Houston		
Interview Corrected/Complete		
Coded/Ready for Entry		
Entry 1 Complete		
Entry 2 Complete		

FOLLOW-UP QUESTIONNAIRE
MIGRANT FARMWORKERS
General Information Section

Interviewer ID Number	
Date of Interview	___ ___ / ___ ___ / ___ ___ ___ ___ (month) (day) (year)
First Name of Interviewee	«FIRST_NAME»
Paternal Surname of Interviewee	«PAT_SUR»
Maternal Surname of Interviewee	«MAT_SUR»
Spousal Surname of Interviewee	«S_P_SUR»
Family ID	«FAMILY_ID»

NOTES TO INTERVIEWER:

- The **"last migration season"** refers to ***approximately*** **March through October 2001.** Please make sure the respondent understands that this is a ***very flexible definition.***
- Throughout the questionnaire, **place a check mark in the appropriate box that corresponds to the answer given by the interviewee.** For **open-ended questions,** write the mother's response **verbatim** in the space provided.
- Throughout the questionnaire, the words **"usually"** and **"in general"** refer to **more than 50% of the time,** unless otherwise specified.
- For questions or sections that are **NOT APPLICABLE,** please **cross out the section & write NA** (For example, there is NO husband or oldest child). **DO NOT leave any question blank.**
- We are only interested in the time the family spent migrating **if the Mother migrated with the family.**
- **If the Mother did not migrate with the other family members, DO NOT collect the data.**

GREETING & INTRODUCTION

READ TO INTERVIEWEE
("Good Afternoon, my name is _____. I am with the Starr County Health Studies Office. Last year, you participated in our research study examining injuries and illnesses among migrant farmworkers. At this time, we would like to talk to you about your family's migration out of Starr County this year. This will take approximately 45 minutes. For helping us, you will be compensated with a $15 gift card. You may refuse to answer any of the questions at any time. The purpose of the research is to learn more about migrant farmworker health. Would you be willing to help us?

("Buenos Dias, mi nombre es_____. Trabajo con la Oficina de Estudios de Salud de Starr County. El año pasado usted participó en nuestro estudio que examinó enfermedades y daños / heridas entre trabajadores migrantes. Hoy queremos hablar con usted sobre su familia y la última migración fuera de Starr County. Esta entrevista tomará a eso de unos cuarenta y cinco minutos para completar. Por su participación en la entrevista, le queremos regalar un cupón de $15.00. Usted puede acabar con la entrevista en cualquier momento. Usted tiene el derecho de no contestar cualquier pregunta cuando quiera; esto no resultará en ninguna consecuencia negativa para usted y/o su familia. El propósito de éste estudio es de aprender más acerca de la salud de trabajadores migrantes. ¿Estás dispuesta ayudarnos? ")

MOTHER MIGRATE

	1. Did you migrate out of Starr County this past season? *¿Fuiste a las labores, fuera de Starr County durante la última temporada de migración?*		2. If migrated, what did you usually do while you were away from Starr Co.? *Si "sí", ¿Qué hacía por lo general?*	
MOTHER	**YES**	**NO**  **Interview**	**PAID or NOT PAID** **FARMWORK**	**OTHER**_____

IF MIGRATED, READ TO INTERVIEWEE:
"Throughout the questionnaire we are going to ask about you, your husband and your oldest child who migrated with you. "

("A lo largo del cuestionario, vamos a platicar sobre usted y su familia, particularmente su esposo o compañero, y su hijo mayor que migraron con usted.")

FAMILY GRID

Family ID	3. Did he/she migrate with you? *¿De los siguientes, el o ella viajó con usted?*		4. If migrated, what did he/she usually do? *Si "sí", ¿Qué hacía usualmente?*	
	YES (Go to #4) →	**NO** (Go to next person)	**FARM WORK** PAID or NOT PAID	**OTHER** (Please describe the member's activity below if they didn't do farmwork.)
Husband				
Child # 1				
Child # 2				
Child # 3				
Child # 4				
Child # 5				
Child # 6				
Child # 7				

OLDEST CHILD WHO MIGRATED (Interviewer: if only 1 child migrated, then he/she is the oldest)

5. To clarify, the oldest child who migrated with you is..... _____
Para dejar en claro, el hijo mayor que viajó con usted se llama.....

6. How old is {insert oldest child's name here}**?** _____**years**
¿Cuantos años tiene éste hijo.....?

EMPLOYMENT AND WORK HISTORY

READ TO INTERVIEWEE:
"Now we are going to talk about you and your family's work history. Questions will refer to you, your husband and your oldest child who migrated with you unless otherwise specified. Please answer the questions the best you can; there are no right or wrong answers. Remember, you are free to not answer a question or interrupt the interview at any time. Nothing will happen to you or your family if you don't want to answer a question or you want to stop the interview.

"Ahora vamos a platicar sobre la historia de trabajo de usted y su familia. Las preguntas van a ser sobre usted, su esposo o compañero, y su hijo mayor que hayan viajado con usted. Por favor, responda a las preguntas lo mejor que pueda. No hay respuestas correctas o incorrectas. Recuerde que usted puede dejar de contestar cualquier pregunta o interrumpir la entrevista en cualquier momento y que al hacerlo no traerá ninguna consecuencia para usted o su familia."

CURRENT EMPLOYMENT

7. What is your/your husband's/your oldest child's current employment status?
¿Cuál es la situación de empleo ahorita de usted, esposo, e hijo mayor?
(Interviewer: Please read choices to Mother)

	Employed *Trabaja*	Housewife *Ama de casa*	Unemployed *Desempleada*	Retired *Retirada*	Disabled *Incapacitada*	Student *Estudiante*	Other *Otro*
Mother							_____
Husband							_____
Oldest Child							_____

USUAL EMPLOYMENT

8. When each of you IS NOT MIGRATING, what type of work do you/he/she USUALLY do?
Cuando NO ESTAN MIGRANDO, POR LO GENERAL, ¿Qué tipo de trabajo hace cada uno de ustedes?
(Interviewer: Please read responses to the Mother)

	Agriculture *Agricultura (del campo)*	Construction *Construcción*	Child / Adult Care *Cuidando niños o adultos*	Unemployed *Desempleado*	Other—Specify: *Otro—Especifique:*
Mother					_____
Husband					_____
Oldest Child					_____

WORK DURING MAJORITY OF LIFE

9. What type of work have you and your husband done for the majority of your/his life?
Durante la mayor parte de su vida, ¿Qué tipo de trabajo han hecho usted y su esposo/compañero?

Mother	
Husband	

TOTAL NUMBER OF LIFETIME MIGRANT FARMWORKER YEARS

10. About how many years during your lifetime have you EVER worked as a MIGRANT FARMWORKER and how many years during your husband and oldest child's lifetimes has he/she ever worked as a migrant farmworker?
(1 season OR <12 months = 1 year; Also, if participant says "entire life", you may need to subtract the age that the person began doing migrant farmwork from their current age.)
Aproximadamente, ¿Durante todas sus vidas, por cuántos años han trabajado como TRABAJADORES MIGRANTES?

Mother	_____ yrs
Husband	_____ yrs
Oldest Child	_____ yrs

VALLEY FARMWORK WHILE NOT MIGRATING

11. While NOT migrating, have any of you EVER worked in the Valley as a farmworker?
Cuando no están migrando, ¿En algún momento alguno de ustedes ha trabajado las cosechas en el Valle?

	YES →	If YES, how many years? *Si "si", ¿Por cuántos años?*	NO	NA
Mother	→	_____ yrs		
Husband	→	_____ yrs		
Oldest Child	→	_____ yrs		

TOTAL NUMBER OF YEARS LIVED in STARR COUNTY

12. About how many years have you and your husband lived in Starr County?
Aproximadamente, ¿Cuantos años han vivido usted y su esposo/compañero en Starr County?

Mother	_____ yrs
Husband	_____ yrs

13. MOTHER

	Month Began Work (mm/yy)	Month Ended Work (mm/yy)	Approx. Days/ Week	Approx. Hours/ Day	Was your employer a GROWER, CONTRACTOR, or OTHER? (SPECIFY) *¿Quién lo contrató—dueño de una granja, contratista, u otro?*	City or County	State	What crop(s) did you work? *¿Con que tipos de cosecha(s) trabajaste?*	What activities/ tasks did you do? *¿Que tipos de actividades / tareas hiciste?*	Did you get hurt while you were in _____ or were traveling to/from _____? {Interviewer: prompt mom here with injury list} *¿Sufriste algún daño en _____ o mientras viajabas a / de _____?*
1										
2										
3										
4										
5										

LONG Form Schedule A-1
Fall 2001

WORK HISTORY GRIDS - LAST MIGRATION SEASON
{DIRECTIONS FOR INTERVIEWER}

1. Use one grid for each person.
2. Show the green calendar to the interviewee to help her determine the date work began and ended.
3. Fill the grid in order, up to the last place the person went.
4. If any one person worked for more than one employer in one place, use consecutive lines in the grid to register the event.
5. For the cells designated for "CROPS" and "ACTIVITIES/TASKS", write the names of as many crops or tasks that apply for each person.

{Read the following to interviewee:}
"Now we are going to talk about work done during the past migration season. The following questions ask about the past migration season--approximately March 2001 to October 2001. First, we are going to talk about you, then your husband, and then your oldest child. We are going to work with a calendar to help you remember."
"Ahora vamos a platicar sobre la última temporada de migración. Las siguientes preguntas se refieren a la última temporada, más o menos entre marzo y octubre del 2001. Primero vamos a hablar sobre usted, después de su esposo o compañero, y último de su hijo mayor. Vamos a trabajar con un calendario para ayudarle a recordar."

INJURY EXAMPLES

- **Allergic reactions:** ***Reacciones alérgicas***
  - Experienced trouble breathing *Tuvo dificultad respirando*
  - Hands/face swelled after contact with pesticides/chemicals *Las manos y/o la cara se hincharon después de estar en contacto con pesticidas o químicos.*
  - Itchy/Painful rash on hands or other area of body after working in the fields. *Sarpullido que pica y/o es doloroso en las manos o en el cuerpo después de trabajar en el campo.*
  - Got pesticide in eyes resulting in an infection *Le entró pesticida en los ojos que resultó en una infección.*

- **Sun and heat related problems:** ***Problemas de calor o sol***
  - Passed out due to heat *Se desmayó por el calor.*
  - Sunburn that resulted in blisters *Quemada por el sol que resultó en ampollas.*

- **Car and tool related accidents:** ***Accidentes relacionados con coches o herramientas***
  - Car crash resulting in fractures or lacerations *Accidente de coche que resultó en fracturas o heridas.*
  - Cut hand or other body part *Se cortó la mano o el cuerpo.*
  - Debris from a tractor or combine flew into eyes/face and resulted in a cut/ abrasion. *Basura de un tractor o trilladora calló en los ojos/cara y produjo una cortada o rasguño.*
  - Fell from a tractor and got caught underneath it. *Se calló de un tractor y el tractor le pasó por encima.*
  - Fingernail got caught and ripped off. *La uña se atoró en algo y se le arrancó.*
  - Cut foot while hoeing. *Se cortó el pie mientras araba.*
  - Fell from ladder and broke a bone. *Se cayó de una escalera y se rompió un hueso.*

- **Accidents or events involving an animal:** ***Accidentes o eventos que involucran un animal.***
  - Kicked by a horse or cow *Pateado por un caballo o vaca.*
  - Stung by a bee *Picado por una abeja*
  - Bit by a snake *Mordido por una culebra*
  - Child got bit by a deer tick while playing in the field. *El niño sufrió una picadura por una garrapata mientras jugaba en los campos.*

- **Other kinds of accidents or injuries:** ***Otros tipos de accidentes o lesiones***
  - Strained back after lifting a heavy object or after working in a bent-over position. *Se dañó la espalda después de levantar algo pesado o después de trabajar agachado.*
  - Slipped and cracked ribs. *Se resbaló y fracturó las costillas.*
  - Experienced an electrical burn. *Sufrió una quemadura eléctrica.*

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Injuries

Interviewer, READ TO INTERVIEWEE:

"Now I would like to talk to you about any injuries that you might have had while migrating. EXAMPLES of injuries include (refer to sheet): 1) Got a rash or painful skin reaction from pesticides; 2) Lifted a heavy object and strained back; 3) Cut hand/finger with a knife while picking produce; 4) Bit by a snake or wasp while in the field; 5) Involved in a car crash while traveling to the fields; 6) "Bad sunburn".

PLEASE PROBE FOR INJURIES

(Entrevistador, LEA EL SIGUIENTE PARRAFO A LA ENTREVISTADA:

"Ahora me gustaría platicar con usted sobre cualquier daños o heridas que le haya ocurrido a usted o su familia durante la última temporada de migración. EJEMPLOS de heridas incluyen: 1) Recibió sarpullidos o una reacción de piel dolorosa por contacto de pesticidas; 2) Levantó algo pesado y se torció la espalda; 3) Se cortó la mano / el dedo con un cuchillo mientras cosechaba; 4) Le picó una culebra o avispa mientras cosechaba; 5) Sufrió un choque de coche mientras viajaba a las labores; 6) Sufrió una fea quemadura de sol."

16. At any time while you were migrating, were there any other injuries experienced by you, your husband or ANY of your children who migrated with you? *Mientras estaban en las labores, ¿Alguno de ustedes sufrió cualquier otra lesión mientras trabajaba, o mientras iba o venía del trabajo?*			
	YES	**NO**	**NA**
Mother			
Husband			
Oldest Child			
Other Children who migrated			

Interviewer: If there were NO injuries, START Schedule A-2.

If there was an injury to ANY family member who migrated, go to the injury schedule.

Schedule A-2 LONG Version
Fall 2001

Follow-up #2

LONG FORM
Migrant Farmworkers
General Information Section

Interviewer ID Number	
Date of Interview	____ / ____ / ____ (month) (day) (year)
First Name of Interviewee	«FIRST_NAME»
Paternal Surname of Interviewee	«PAT_SUR»
Maternal Surname of Interviewee	«MAT_SUR»
Spousal Surname of Interviewee	«S_P_SUR»
Family ID	«FAMILY_ID»

Interviewer, read the following paragraph to the interviewee:

"Now we are going to talk about any hazardous activities that you did while migrating. In this section, we are going to ask about you first, then your husband and then your oldest child. Remember there are no right or wrong answers."

"Ahora vamos a platicar sobre actividades peligrosas que tal vez hicieron durante la última temporada de migración. En ésta sección vamos a preguntarle primero a usted (la mamá), después a su esposo, y luego su hijo mayor. Recuerde que no hay respuestas correctas o incorrectas."

HAZARDS
(Interviewer: If this is the Mother or Husband, DON'T add "playing" inserts.)

1. During the LAST MIGRATION SEASON, did any of you WORK WITH or PLAY AROUND the following?
Durante la ULTIMA TEMPORADA DE MIGRACION, ¿Algún miembro de su familia trabajó o jugó alrededor de los siguientes?

	MOTHER		HUSBAND			OLDEST CHILD		
HAZARD	**YES**	**NO**	**YES**	**NO**	**NA**	**YES**	**NO**	**NA**
A. Tractor *Tractor*								
B. All terrain vehicle with three or more wheels *Vehiculo todo terreno con tres ruedas o más*								
C. Hand-held vibrating tools or machinery *Maquinaria que se sostiene con la mano o máquinas que vibran*								
D. Hitched equipment (plow) *Equipo ganchado (arado)*								
E. Knives/other cutting tools *Cuchillos u otras herramientas filudas*								
F. Irrigation ditches, rivers, or wells *Canales de irrigación, ríos o norias*								
G. Chemicals *Químicos*								
H. Other—Specify: *Otro—Especifique:* **Interviewer: Please PROBE for other activities.**								

HAZARDOUS ACTIVITIES

2. During the LAST MIGRATION SEASON, did any of you DO the following?
Durante la ULTIMA TEMPORADA DE MIGRACION, ¿Alguien de su familia hizo lo siguiente?

	MOTHER		HUSBAND			OLDEST CHILD		
ACTIVITY	**YES**	**NO**	**YES**	**NO**	**NA**	**YES**	**NO**	**NA**
A. Bend over or stoop repetitively *Trabajar con el cuerpo doblado o agachado, repetidamente...*								
B. Lift objects repetitively (buckets) *Levantar objetos repetidamente (como cargar cubetas)*								
C. Move heavy objects *Mover objetos pesados*								
D. Repetitive hand work (hand weeding, planting) *Trabajo manual repetitivo (como desherbar, cosechar, o plantar a mano)*								
E. Other—Specify: *Otro—Especifique:* **Interviewer: Please PROBE for other activities.**								

TRANSPORTATION TO WORKSITE WHILE MIGRATING

3. How did you and your family USUALLY get to and from your worksite from where you were living?
REGULARMENTE, ¿Qué medio de transporte usaron para ir y volver del trabajo la mayor parte de los días?

	Car *Coche*	Inside of a truck *En la cabina de una troca*	Other—Specify: *Otro—Especifique:*	NA
Mother				
Husband				
Oldest Child				

4. Did the transportation vehicles have seat belts? *¿Este vehículo tenía cinturón de seguridad?*				**5. If YES, did you/he/she usually use the seat belt?** *Si "sí", ¿Usó el cinturón usualmente?*		
	YES; go to # 5 →	NO go to #6	NA go to #6	YES	NO	NA
Mother	go to # 5 →					
Husband	go to # 5 →					
Oldest Child	go to # 5 →					

SAFETY TRAINING AND PRACTICES

PESTICIDE EXPOSURE--ENTIRE FAMILY
Interviewer, READ TO INTERVIEWEE:
"Now we are going to talk about contact with pesticides that happened during the last migration season. Remember that we are going to be asking about you, your husband, and your oldest child."

"Ahora vamos a platicar sobre posibles contactos con pesticidas que tuvieron durante la última temporada de migración. Recuerde que vamos a estar platicando acerca de usted, su esposo, y su hijo mayor."

6. During the LAST MIGRATION SEASON, was any one of you sprayed with pesticides, directly or indirectly by a cloud of pesticides (drift)?
Durante la ULTIMA TEMPORADA DE MIGRACION, ¿Alguno de ustedes fue rociado, directa o indirectamente con una nube de pesticidas?
(Interviewer: show laminated card)

	YES	NO	NA
Mother			
Husband			
Oldest Child			

Schedule A-2
Fall 2002

MOTHER'S PESTICIDE TRAINING

Interviewer, READ TO INTERVIEWEE:
"Now we are going to talk about safety training and practices that you may have received. In this section, the items only ask about you and NOT your family members. Remember, there are no right or wrong answers. You can stop this interview at any time."
"Ahora vamos a platicar sobre prácticas y entrenamiento en seguridad que usted ha recibido con relación a pesticidas. Solo vamos a platicar sobre usted en ésta sección. Recuerde que no hay respuestas correctas o incorrectas y que usted puede parar ésta entrevista en cualquier momento."

7. Have YOU EVER received training or instruction in the safe use of pesticides? *¿ALGUNA VEZ ha recibido usted entrenamiento o instrucción en el uso seguro de pesticidas?*		
	YES	NO skip to #11
Mother	**When was your most recent training?** ___/___ *¿Cuándo ocurrió su más reciente entrenamiento?* month/ year	

↓

8. In what language was your MOST RECENT training delivered? *¿En qué idioma recibió el entrenamiento MAS RECIENTE?*				
	English *Inglés*	Spanish *Español*	Both English and Spanish *Tanto Inglés como Español*	Other—Specify: *Otro—Especifique:*
Mother				

9. Did your MOST RECENT training or instruction discuss when you could enter a field recently treated with pesticides? *El entrenamiento o instrucción MAS RECIENTE, ¿Incluyó cuánto tiempo hay que esperar para poder entrar al campo, después de que se ha rociado con pesticidas?*				
Mother	YES	NO	Don't Remember	NA

10. Did your MOST RECENT training or instruction discuss illnesses or injury related to pesticide exposure? *El entrenamiento o instrucción MAS RECIENTE, ¿Incluyó qué tipo de enfermedades, heridas o daños se relacionan con el uso de pesticidas?*				
Mother	YES	NO	Don't Remember	NA

11. Did your MOST RECENT training or instruction discuss where to go or who to contact for emergency medical care if exposed to pesticides? *El entrenamiento o instrucción MAS RECIENTE, ¿Incluyó a dónde ir o a quién contactar para tratamiento médico de emergencia si hubiese exposición a pesticidas?*				
Mother	YES	NO	Don't Remember	NA

PROTECTIVE EQUIPMENT

Interviewer: SHOW INTERVIEWEE THE PICTURES.

"Now we are going to talk about field sanitation and safety devices that you, your husband, and your oldest child may have used in the fields. Remember, there are no right or wrong answers. I will be happy to answer any question that you may have."

"Ahora vamos a platicar sobre medidas y aparatos de seguridad que usted, su esposo o compañero, su hijo mayor tal vez usaron en los campos; también vamos a hablar un poquito acerca de sanidad en los campos. Recuerde que no hay respuestas correctas o incorrectas. Si usted tiene dudas, por favor pregúnteme y con gusto aclararé las dudas."

12. During the LAST MIGRATION SEASON, did any of you use or wear any of the items on this card to protect yourself on the job? (Interviewer: only show card; DON'T read all the choices)
Durante la ULTIMA TEMPORADA DE MIGRACION, ¿Alguno de sus empleadores alguna vez le dieron cualquiera de los objetos que están en ésta tarjeta para protegerse en el trabajo?

	Mother		Husband			Oldest Child		
	YES	NO	YES	NO	NA	YES	NO	NA
A. Gloves *Guantes*								
B. Long Sleeve Shirt *Camisa manga larga*								
C. Boots *Botas*								
D. Coveralls/jumpsuit *Overoles o pecheras*								
E. Respirator *Respirador*								
F. Hard Hat *Casco*								
G. Soft Hat or Cap *Sombrero o gorro*								
H. Goggles *Lentes protectores*								
I. Paper Mask *Máscara de papel*								
J. Bandana/Handkerchief *Pañoleta o Pañuelo*								
K. Other *Otro*								

FIELD SANITATION

13. In general, did YOU or ANY of YOUR EMPLOYERS USUALLY provide the following for YOU OR YOUR FAMILY while you/they worked in the fields DURING THE LAST MIGRATION SEASON? (Interviewer: please check all that apply.)
En general, ¿USTED o su EMPLEADORES le ha dado alguno de los siguientes objetos a SU FAMILIA o a USTED, mientras han estado trabajando en el campo, DURANTE LA ULTIMA TEMPORADA DE MIGRACION?

	Employer-Provided	Self-Provided
A. Clean drinking water *Agua limpia para tomar*		
B. Disposable cups *Vasos desechables*		
C. Toilet facilities *Escusados*		
D. Toilet paper *Papel de baño (higiénico)*		
E. Water for washing hands *Agua para lavarse las manos*		
F. Soap for washing hands *Jabón para lavarse las manos*		
G. Towels for drying hands *Toallas para secarse las manos*		
H. Other—Specify: *Otro—Especifique:*		

HEALTH STATUS

Interviewer, READ TO INTERVIEWEE:
"Now we are going to talk about your health and that of your husband, and oldest child."
"Ahora vamos a platicar acerca de su salud, y la salud de su esposo, e hijo mayor."

14. Have ANY OF YOU EVER been told, by a medical professional, like a doctor or nurse, that you or they have the following?
¿Un profesional de salud, como doctor o enfermera, EN ALGUN MOMENTO les ha dicho que alguno de ustedes tiene cualquiera de las siguientes enfermedades o condiciones?

	Mother		Husband			Oldest Child		
	YES	NO	YES	NO	NA	YES	NO	NA
A. Cancer *Cancer*								
B. Diabetes *Diabetes (azúcar en la sangre)*								
C. High Blood Pressure Presión alta								
D. Arthritis Artritis								
E. Asthma Asma								
F. Impairments due to prior injuries (such as hearing loss, back injury, amputations) *Impedimentos por daños anteriores (pérdida del oído, lastimaduras de la espalda, amputaciones, etc.)*								

15. Have ANY OF YOU EVER been told, by a medical professional, that you or they have ANY OTHER chronic or severe health conditions?
¿Un profesional de salud, como doctor o enfermera, EN ALGUN MOMENTO les ha dicho que alguno de ustedes tiene CUALQUIER OTRA enfermedad crónica o condición de salud grave?

	Mother		Husband			Oldest Child		
	YES	NO	YES	NO	NA	YES	NO	NA
	↓ Specify		↓ Specify			↓ Specify		

ILLNESS SYMPTOMS

Interviewer, READ TO INTERVIEWEE:
"Now we are going to talk about any symptoms or illnesses that any of you might have experienced during the last migration season. Remember that the last migration season is approximately the period between March and October of 2001."

"Ahora vamos a platicar acerca de cualquier síntomas o enfermedades que cualquiera de ustedes haya tenido durante la última temporada de migración. Recuerde que esto se refiere al periodo entre marzo y octubre del 2001."

16. DURING THE PAST MIGRATION SEASON, did ANY OF YOU have any of the following conditions or symptoms?
DURANTE LA ULTIMA TEMPORADA DE MIGRACION, ¿ALGUNO DE USTEDES sufrió cualquiera de las siguientes condiciones o síntomas?

	Mother		Husband			Oldest Child		
	YES	NO	YES	NO	NA	YES	NO	NA
A. Heat exhaustion/stroke, dizziness, or passing out due to heat and/or elevated body temperature. *Golpe de calor, mareo, desmayos y/o tener fiebre por causa del calor*								
B. Skin Rashes *Erupciones en la piel, ronchas o sarpullidos*								
C. Eye Irritations/Infections *Irritaciones o infecciones en los ojos*								
D. Chronic Back Pain *Dolor de espalda constante*	⇓ **Did the pain occur everyday for a week or more?** *¿Ocurrió el dolor cada día por una semana o más?* YES NO		⇓ **Did the pain occur everyday for a week or more?** *¿Ocurrió el dolor cada día por una semana o más?* YES NO			⇓ **Did the pain occur everyday for a week or more?** *¿Ocurrió el dolor cada día por una semana o más?* YES NO		
E. Chronic Foot Pain/Discomfort *Dolor del pie(s) constante / malestar*	⇓ **Did the pain occur everyday for a week or more?** *¿Ocurrió el dolor cada día por una semana o más?* YES NO		⇓ **Did the pain occur everyday for a week or more?** *¿Ocurrió el dolor cada día por una semana o más?* YES NO			⇓ **Did the pain occur everyday for a week or more?** *¿Ocurrió el dolor cada día por una semana o más?* YES NO		

16. DURING THE PAST MIGRATION SEASON, did ANY OF YOU have any of the following conditions or symptoms?
DURANTE LA ULTIMA TEMPORADA DE MIGRACION, ¿ALGUNO DE USTEDES sufrió cualquiera de las siguientes condiciones o síntomas?

	Mother		Husband			Oldest Child		
	YES	NO	YES	NO	NA	YES	NO	NA
F. Experienced problems with the *hand, wrist, or fingers* (such as burning, tingling, numbness, stiffness or muscle/joint aches and pains) *Problemas de las manos, muñecas y/o dedos (como sensación de hormigueo, punzadas, dormisón o tiesos)*								
G. Aches and pains of *other muscles, joints, or body parts (knees, shoulder, neck, leg cramps) or "reumas".* *Dolores musculares o articulares en otras partes del cuerpo (rodillas, hombro, cuello, calambres de piernas) o "reumas".*								
H. Difficulty picking up or holding things with hands or fingers. *Dificultad para levantar o sujetar cosas con las manos o dedos.*								
I. Severe sunburn (blisters, etc) *Quemadura del sol grave (que salen ampollas, etc.)*								
J. Nausea *Nausea*								
K. Vomiting *Vómitas*								
L. Severe headaches *Dolores de cabeza fuertes*								
M. Other—Specify: *Otro—Especifique:*								

MEDICATIONS

17. Do any of you USUALLY take any medications?
¿Alguno de ustedes esta tomando alguna medicina USUALMENTE (ahorita)?

	YES ⇒	If YES, what is the medicine(s)? *Si "sí", ¿Cómo se llama la medicina?* Interviewer: CHECK BOTTLE ⇒	Why taking it? *¿Por qué la está tomando?*	NO	NA
MOTHER	⇒				
HUSBAND	⇒				
OLDEST CHILD	⇒				

DENTAL CARE

18. Have any of you EVER been to the dentist for any reason? *¿Alguno de ustedes ha ido a un dentista por CUALQUIER RAZON?*	YES go to #19	NO go to #21	NA go to #21	**19. When was your/their last visit to the dentist?** *¿Cuándo fue su última visita al dentista?*	**20. What was the reason for the visit?** *¿Por qué fue al dentista?*
Mother	→			___/___ MM / YY	
Husband	→			___/___ MM / YY	
Oldest Child	→			___/___ MM / YY	

LIFESTYLE FACTORS

(Interviewer, READ TO INTERVIEWEE:
"Now we are going to talk about tobacco and alcohol use.")
("Ahora vamos a platicar sobre el uso de tabaco y alcohol").

TOBACCO

21. Have YOU or your HUSBAND EVER smoked at least 100 cigarettes in your/his lifetime?
Durante toda su vida, ¿USTED o su ESPOSO ha fumado por lo menos 100 cigarrillos?

	YES	NO	NA
Mother			
Husband			

INTERVIEWER: If mother or husband NEVER have smoked, SKIP to 24.

22. Do YOU or your HUSBAND NOW smoke cigarettes every day, some days, or not at all?
EN ESTE MOMENTO, ¿USTED o su ESPOSO fuma cigarrillos cada día, algunos días, o nunca?

	Every day	Some days	Not at all	NA
Mother				
Husband				

23. Do YOU or your HUSBAND CURRENTLY use other tobacco products such as cigars, chewing tobacco, or snuff?
EN ESTE MOMENTO, ¿USTED O SU ESPOSO utiliza productos de tabaco como cigarros, tabaco que se mastica, o tabaco en polvo?

	Other Tobacco Products? *¿Algún otro producto del tabaco?*	NO	NA
Mother	YES 01 ↓ **If YES, specify name of tobacco product.** *Si "si", especifique el nombre del producto.* _____ ↓ **How many times do you use it per day?**_____**times** *¿Cuántas veces lo usas cada día?*		
Husband	YES 01 ↓ **If YES, specify name of tobacco product.** *Si "si", especifique el nombre del producto.* _____ ↓ **How many times do you use it per day?**_____**times** *¿Cuántas veces lo usas cada día?*		

ALCOHOLIC BEVERAGES

24. Did you or your husband drink alcoholic beverages like beer or wine during the LAST MIGRATION SEASON?
¿Alguno de ustedes tomó bebidas alcohólicas, como cerveza o vino, durante LA ÚLTIMA TEMPORADA DE MIGRACIÓN.

	YES	NO	NA
Mother	YES **If YES, how many per week?** *Si "si", ¿Cuántos tragos por semana?*		
Husband	YES **If YES, how many per week?** *Si "si", ¿Cuántos tragos por semana?* _____		

SEAT BELTS—General Use

25. In general, when you drive or ride in your family vehicle (car, truck, etc.) do you/they usually wear a seatbelt?
Por lo general, cuando ustedes andan en el vehículo familiar (coche, troca, etc.), ¿Usualmente se ponen el cinturón de seguridad?

	YES	NO	No family vehicle	NA
Mother				
Husband				
Oldest Child				

SLEEP

PAST MIGRATION SEASON

	26. While you were MIGRATING THIS PAST SEASON, about how many hours of sleep did each of you USUALLY get each night? *Durante la ULTIMA TEMPORADA DE MIGRACION, ¿Cómo cuántas horas dormía cada uno de ustedes cada noche?*	27. While you were MIGRATING THIS PAST SEASON, how would you rate the USUAL quality of your/their sleep overall? *Durante la ULTIMA TEMPORADA DE MIGRACION, ¿Por lo general, cómo durmieron cada uno de ustedes?*				
		Very good *Muy bien*	Fairly good *Bien*	Fairly bad *Mal*	Very bad *Muy mal*	NA
Mother	____ hours					
Husband	____ hours					
Oldest Child	____ hours					

STARR COUNTY

	28. Since returning to Starr County, about how many hours of sleep do each of you USUALLY get each night? *Desde que regresaron a Starr County, ¿Como cuántas horas duermen cada noche cada uno de ustedes?*	29. Since returning to Starr County, how would you rate the USUAL quality of your/their sleep overall? *Desde que regresaron a Starr County, ¿POR LO GENERAL, como han dormido cada uno de ustedes?*				
		Very good *Muy bien*	Fairly good *Bien*	Fairly bad *Mal*	Very bad *Muy mal*	NA
Mother	____ hours					
Husband	____ hours					
Oldest Child	____ hours					

MOOD

30. During the PAST 12 months, did any of you EVER feel sad or hopeless almost EVERY DAY FOR 2 OR MORE WEEKS IN A ROW?
Durante los ULTIMOS 12 MESES, ¿Alguno de ustedes se ha sentido triste o desesperado casi CADA DIA POR DOS SEMANAS SEGUIDAS, o más?

	YES Go to # 31 below	NO Skip to next person	NA
Mother			
Husband			
Oldest Child			

↓

(INTERVIEWER: Please ask BOTH items below)

	31. Did you/he/she have to stop doing some usual activities because of the sadness or hopelessness? *¿Usted / él / ella, tuvo que dejar de hacer cualquiera actividad usual a causa de sentirse tan triste o desesperado/a?* Go to #32 →			32. Was this during the LAST MIGRATION SEASON? *¿Ocurrió esto durante la ULTIMA TEMPORADA DE MIGRACION?*		
	YES Go to #32 →	NO Go to #32 →	NA	YES	NO	NA
Mother						
Husband						
Oldest Child						

(Interviewer: READ the closing paragraph below to finish the interview.)

"Thank you for talking to us. Your information will help us better understand the health problems of migrant farmworkers."

("Gracias por la oportunidad que nos ha dado entrevistarla. La información que nos ha dado, nos ayudará a entender mejor los problemas de salud de los trabajadores migrantes.")

END OF INTERVIEW

FOLLOW-UP YEAR 2 INJURY SCHEDULE

INJURY SCHEDULE

{Note: Interviewer, remind the respondent that "during the last migration season" refers to the period of approximately March 2001 to October 2001 (show calendar), and make sure that she understands and is clear about the time reference.}
Please use an additional injury schedule for each person and each injury. Be sure to write, Injury #1, #2, #3 etc., as needed for each person in the space provided in the first row of the grid below.

INFORMATION COLUMN	
1. Injury No. (1, 2, 3, 4, etc.)	____ ____
2. Interviewer ID Number	
3. Family ID #	
4. First Name of Interviewee	
5. Paternal Surname of Interviewee	
6. Maternal Surname of Interviewee	
7. Spousal Surname of Interviewee	
8. Date of Interview	____ / ____ / ____ (month) (day) (year)

9. I.D. OF INJURED PERSON Interviewer: Please Complete Box

Name of Injured Person			
Who is the family member?	Mother	Father	Oldest Child
	(please mark one)		
This is the injured person's (1st,2nd,3rd,etc.) injury.	____ **injury**		

10. Please tell me about the (1st, 2nd, 3rd etc) injury that happened to _____. How, when, where, and what happened?
Dígame, por favor, acerca de la (primera, segunda, tercera,etc.) lesión o herida que sufrió _____. ¿Cómo, cuándo, y dónde ocurrió? ¿Qué pasó?

FOR INTERVIEWER: Please place an **"X"** in the boxes below as the interviewee discusses each topic. Make sure that the interviewee discusses **ALL** the topics below and please fill in the date and time of the injury.

What type of injury was it? (fracture, cut, abrasion) *¿Qué tipo de lesión o herida? (fractura, cortada, abrasión)*	**Injured body part(s)?** *¿Dónde en el cuerpo?*	**Date & Time of Injury** *¿Que fecha y a que hora sufrió ésta herida?*	**Location of injury (fields, car/public roads, farm roads, migrant housing)** *¿Dónde ocurrió la herida? (campos, coche /carreteras, caminos de campo, alojamientos)*	**When did this injury occur? (while working, traveling to/from Starr County or playing)** *¿Cuándo ocurrió ésta herida? (mientras trabajaba, viajando a / de Starr County, o jugando)*	**20. What commodity or crop were you/he/she working at the time of injury?** *¿Con qué tipo de cosecha estaba usted / él / ella trabajando cuando ocurrió la lesión o herida?*
		___/___/___ mm / dd / yy ____ am ____ pm			

11. What activity was ___(name)___ doing when he/she was injured? *¿Qué tarea o actividad estaba haciendo _____ cuando se lastimó?*		Was this task a normal work activity? *¿Esta tarea o actividad era parte de su trabajo usual?*	
Interviewer: check all that apply & include "OTHERS" if applicable		YES	NO
Harvesting by hand *Cosechando a mano*	→		
Hoeing *Azadonando / sachando*	→		
Sorting/selecting *Ordenando / seleccionando*	→		
Packing *Empaquetando*	→		
Driving a tractor *Manejando un tractor*	→		
Driving/riding in family vehicle *Manejando o siendo pasajero del vehículo familiar.*	SKIP to Q.12		
Other—*Otro:* Explain—*Explíqueme:*	Normal work activity?→ *¿Parte de su trabajo usual?*		

12. Did ___(name)___ lose time from usual activities (work, school, recreation) due to this problem? *¿(_____) perdió tiempo de las actividades usuales (como trabajo, escuela, recreo) a causa de éste problema?*	
YES	**NO (Skip to Q. 14)**

↓

13. About how much time did ___(name)___ lose from doing usual activities? *¿Como cuánto tiempo perdió _____ de poder hacer sus actividades usuales?*	
Interviewer: (Fill in 1 blank)	_____hours _____days _____weeks

14. How did ___(name)___ take care of this injury? (Wait for response, DO NOT read all choices to Mother) *¿Cómo atendió _____ la herida?*	
Did nothing *No hizo nada*	
Took care of it himself *Encontró remedio él mismo*	
Friend/Family member *Amigo / Familiar*	
Employer *Empleador*	
Curandero/a *Curandero / a*	SKIP TO Q. 17
Went to hospital, migrant health clinic, or private doctor's office *Fue al hospital, clínica de migrantes, o médico privado*	SKIP TO Q. 17
Other—*Otro:* Explain—*Explíqueme:* _____	

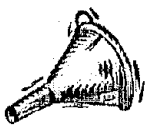
CARE OF INJURY

15. Did ___(name)___ believe that you/he/she needed to go to a doctor or medical professional for this injury? *¿Usted / él / ella pensó que ésta herida necesitaba atención por un doctor o un profesional médico?*		
	Yes	**No ; SKIP to Q.17**

↓

16. What prevented ___(name)___ from going to a doctor or other medical professional? *¿Qué le impidio a _____ ir a ver al doctor u otro profesional médico?* (Interviewer: Check ALL the options that apply.)	
No money *No habia dinero*	
No transportation *No tenía transporte, como ir*	
Not serious enough *No era lo suficientemente serio*	
No time/had to work *No tenía tiempo / tenía que trabajar*	
No permission from employer *El empleador no le dio permiso*	
No medical facilities *No habia a donde ir / no habia clinica*	
Other—*Otro:* Specify—*Especifique:*	

INTERVIEWER: {BELOW IS A FILTER QUESTION, BE READY FOR SKIP PATTERNS}



17. What type of object caused the injury?
¿Qué tipo de objeto causó la lesión o herida?

Hand held tool *Herramienta de mano*	**Skip to Q. 18**
Tractor or other farm machinery *Tractor u otra maquinaria agrícola*	**Skip to Q.20**
Car or other vehicle *Coche u otro tipo de vehículo*	**Skip to Q.24**
Animal/Insect/Snake (See p. 9) *Animal / Insecto / Culebra*	**Skip to Q.27**
Ladder (fall from ladder) *Escalera (caída de una escalera)*	**Skip to Q.29**
Other—*Otro:* Explain—*Explíqueme:* _____	**Skip to Q.29**

{Interviewer: Go to the specific section as indicated above. For example, "Hand-Held Tool", "Vehicle", etc.}

HAND-HELD TOOL

18. What tool was being used when the accident/injury happened? (Examples: hoe, shears, knife, cutter, etc.)
¿Qué herramienta estaba usando cuando se hirió o lesionó? (Ejemplos: azadón, tijeras de jardín, cuchillo, cortador, etc.)

a. _____

b. _____

19. Had __(name)__ received any training or instruction on how to safely use the tool before the injury?
¿_____ había recibido algún entrenamiento o instrucciones en cómo usar, de manera segura, ésta herramienta, antes de que se lesionara?

	YES	NO Go to Q29	DK

TRACTORS OR OTHER FARM MACHINERY

20. What type of machinery was involved? Examples: tractor, plow, combine, harvester, etc.
¿Qué clase de maquinaria estaba usando? (Ejemplos: tractor, arado, cosechadora, segadora, etc.)

a. _____

b. _____

21. Had __(name)__ received any training or instruction on how to safely use the machine before the injury?
¿_____ había recibido algún entrenamiento o instrucciones en cómo usar, de manera segura, ésta maquinaria, antes de que se lastimara?

	YES	NO	DK

22. Was this machine equipped with a seat belt?
Esta máquina, ¿Estaba equipada con cinturones de seguridad?

	YES	NO Go to Q 29	DK

↓

23. Was __(name)__ wearing the seat belt at the time of the accident?
¿_____ tenía el cinturón de seguridad puesto al momento del accidente?

	YES	NO	DK
		Go to Q. 29	

CAR OR VEHICLE

24. What kind of vehicle was involved? Examples: pickup truck, van, car, etc.
¿Qué tipo de vehículo estuvo involucrado? (Ejemplos: troca, van, coche, etc.)

a. _____

b. _____

25. Was the vehicle equipped with a seat belt?
Este vehículo, ¿Estaba equipado con cinturones de seguridad?

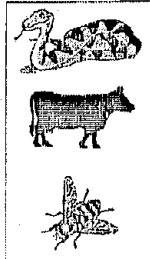
	YES	NO Go to Q.29	DK

↓

26. Was __(name)__ wearing the seat belt at the time of the accident?
¿_____ tenía el cinturón de seguridad puesto al momento del accidente?

	YES	NO	DK
		Go to Q.29	

ANIMAL



27. **What kind of animal was involved? (Examples: horse, cow, pig, snake, bee etc.)**
¿Qué tipo de animal estuvo involucrado? (Ejemplos: caballo, vaca, cerdo, culebra abeja, etc.)

{Interviewer: If a wild animal (snake, wasp, ant, scorpion) was involved, skip to Q 29.}

a. _____

b. _____

28. **Had** ___(name)___ **received any training or instruction on how to safely work with animals before the injury?**
¿_____ había recibido algún entrenamiento o instrucciones en cómo trabajar, de manera segura, con éste animal, antes de que se lesionara?

	YES	NO	DK

29. **Is there anything else about the injury that you would like to add?**
¿Alguna otra información acerca de la herida o lesión que quisiera añadir?

	YES	NO

Comments:

_____
_____
_____
_____
_____
_____
_____

Interviewer: If there were NO MORE INJURIES, continue with the next section: SCHEDULE A-2

If there is ANOTHER INJURY TO ANY FAMILY MEMBER, COMPLETE ANOTHER INJURY SCHEDULE

CONCORDANCE SURVEY

The University of Texas
Health Science Center at Houston
School of Public Health

Injury and Illness Surveillance in Migrant Farmworkers

Concordance Survey 2001

Family ID	_____	
Name of Interviewee		
Is the respondent the father or oldest child who migrated with the mother?	FATHER	OLDEST CHILD
Interviewer ID Number		
Date of Interview	____ / ____ / ____ (month) (day) (year)	

Time Began:	Time Ended:

TASK	Date	Initials
Reviewed in Valley		
Reviewed in Houston		
Interview Corrected/Complete		
Coded/Ready for Entry		
Entry 1 Complete		
Entry 2 Complete		

Script for Concordance Survey

Interviewer: Please read to father/oldest child:

Good afternoon, my name is _____. I am from the Starr County Health Studies Office. At this time, we would like to talk to you and your oldest child who migrated this year about your experiences migrating out of Starr County for work this year. It will take only about 5 minutes and is much shorter than the survey administered to your wife (mother). For helping us, your family will receive a $10.00 gift card. If both you and your child (you and your child/ you and your father) participate, your family will receive two $10.00 gift cards. You (and/or your child) may refuse to answer any of the questions at any time. The purpose of the research is to learn more about migrant farmworker health. Would you (or he/she) be willing to help us?

Buenos días, mi nombre es _____. Trabajo con la Oficina de Estudios de Salud de Starr County. En este momento, me gustaría hablar con usted (el esposo) y su hijo mayor que migró este año, sobre sus experiencias migrando fuera de Starr County para trabajar este año. Esto solo se demora 5 minutos y es mucho más breve comparado con el cuestionario que su esposa (madre) completó. Por su ayuda, su familia recibirá una tarjeta de regalo con $10.00 de valor. Si los dos de ustedes (padre e hijo) participan, su familia recibirá dos tarjetas de regalo con $10.00 de valor cada uno (total de $20.00). Usted y/o su hijo pueden decidir no contestar cualquier pregunta en cualquier momento. El propósito de este estudio es para aprender más acerca de la salud de trabajadores migrantes. ¿Estaría usted (o él / ella) dispuesto ayudarnos?

Is father/oldest child willing to participate?	YES	NO

ITY WHILE MIGRATING

What did you usually do while migrating?
¿Qué hacia usualmente, en las labores?

Interviewer: "Usually" refers to more than 50% of the time.

	OTHER (Please describe the member's activity below if they didn't do farmwork.)
FARMWORK PAID or NOT PAID	

HAZARDS

(Interviewer: If this is a child, add "playing" inserts.)

2. During the last migration season, did you WORK WITH or PLAY AROUND the following?
Durante la ULTIMA TEMPORADA DE MIGRACION, ¿Usted TRABAJO o JUGO ALREDEDOR de los siguientes?

HAZARD	Yes	No	NA
A. Tractor *Tractor*			
B. All terrain vehicle with three or more wheels *Vehiculo todo terreno con tres ruedas o más*			
C. Hand-held vibrating tools or machinery *Maquinaria que se sostiene con la mano o máquinas que vibran*			
D. Hitched equipment (plow) *Equipo ganchado (arado)*			
E. Knives/other cutting tools *Cuchillos u otras herramientas filudas*			
F. Irrigation ditches, rivers, or wells *Canales de irrigación, ríos o norias*			
G. Chemicals *Químicos*			

HAZARDOUS ACTIVITIES

3. During the LAST MIGRATION SEASON, did you DO the following?
Durante la ULTIMA TEMPORADA DE MIGRACION, ¿Hiciste lo siguiente?

ACTIVITY	Yes	No	NA
A. Bend over or stoop repetitively *Trabajar con el cuerpo doblado o agachado, repetidamente...*			
B. Lift objects repetitively (buckets) *Levantar objetos repetidamente (como cargar cubetas)*			
C. Move heavy objects *Mover objetos pesados*			
D. Repetitive hand work (hand weeding, planting) *Trabajo manual repetitivo (como desherbar, cosechar, o plantar a mano)*			

ILLNESS SYMPTOMS

DURING THE PAST MIGRATION SEASON, did YOU have any of the following conditions or symptoms?
Durante la ULTIMA TEMPORADA DE MIGRACION, ¿Sufriste cualquiera de las siguientes condiciones o síntomas?

	Yes	No
A. Heat exhaustion/stroke, dizziness, or passing out due to heat and/or elevated body temperature. *Golpe de calor, mareo, desmayos y/o tener fiebre por causa del calor*		
B. Skin Rashes *Erupciones en la piel, ronchas o sarpullidos*		
C. Eye Irritations/Infections *Irritaciones o infecciones en los ojos*		
D. Chronic Back Pain *Dolor de espalda constante*	⇓ Did the pain occur everyday for a week or more? *¿Ocurrió el dolor cada día por una semana o más?* YES NO	
E. Chronic Foot Pain/Discomfort *Dolor del pie(s) constante/Malestar*	⇓ Did the pain occur everyday for a week or more? *¿Ocurrió el dolor cada día por una semana o más?* YES NO	
F. Experienced problems with the *hand, wrist, or fingers* such as burning, tingling, numbness, stiffness or muscle/joint aches and pains. *Problemas de las manos, muñecas y/o dedos (como sensación de hormigueo, punzadas, dormisón o tiesos)*		
G. Aches and pains of *other muscles, joints, or body parts (knees, shoulder, neck, leg cramps) or "reumas".* *Dolores musculares o articulares en otras partes del cuerpo (rodillas, hombro, cuello, calambres de piernas) o "reumas".*		
H. Difficulty picking up or holding things with hands or fingers. *Dificultad para levantar o sujetar cosas con las manos o dedos.*		
I. Severe sunburn (blisters, etc) *Quemadura del sol grave (que salen ampollas, etc.)*		
J. Nausea *Nausea*		
K. Vomiting *ómitos*		
L. Severe headaches *Dolores de cabeza fuertes*		

Injuries

PLEASE PROBE FOR INJURIES—more examples on next page.

Interviewer, READ TO INTERVIEWEE:
"Now I would like to talk to you about any injuries that you might have had while migrating. EXAMPLES of injuries include (refer to sheet): 1) Got a rash or painful skin reaction from pesticides; 2) Lifted a heavy object and strained back; 3) Cut hand/finger with a knife while picking produce; 4) Bit by a snake or wasp while in the field; 5) Involved in a car crash while traveling to the fields; 6) "Bad sunburn".

(Entrevistador, LEA EL SIGUIENTE PARRAFO A LA ENTREVISTADA:
"Ahora me gustaría platicar con usted sobre cualquier daños o heridas que le haya ocurrido a usted o su familia durante la última temporada de migración. EJEMPLOS de heridas incluyen: 1) Recibió sarpullidos o una reacción de piel dolorosa por contacto de pesticidas; 2) Levantó algo pesado y se torció la espalda; 3) Se corto la mano / el dedo con un cuchillo mientras cosechaba; 4) Le picó una culebra o avispa mientras cosechaba; 5) Sufrió un choque de coche mientras viajaba a las labores; 6) Sufrió una fea quemadura de sol.")

5. At any time while you were migrating, did you experience an injury? *Mientras estaba en las labores, ¿Alguna vez sufrió cualquier tipo de herida o lesión?*	
YES	NO

6. Please tell me about your injury. *Favor deme más detalles sobre la lesión.*

INJURY EXAMPLES

- **Allergic reactions:** ***Reacciones alérgicas***
  - Experienced trouble breathing *Tuvo dificultad respirando*
  - Hands/face swelled after contact with pesticides/chemicals *Las manos y/o la cara se hincharon después de estar en contacto con pesticidas o químicos.*
  - Itchy/Painful rash on hands or other area of body after working in the fields. *Sarpullido que pica y/o es doloroso en las manos o en el cuerpo después de trabajar en el campo.*
  - Got pesticide in eyes resulting in an infection *Le entró pesticida en los ojos que resultó en una infección.*

- **Sun and heat related problems:** ***Problemas de calor o sol***
  - Passed out due to heat *Se desmayó por el calor.*
  - Sunburn that resulted in blisters *Quemada por el sol que resultó en ampollas.*

- **Car and tool related accidents:** ***Accidentes relacionados con coches o herramientas***
  - Car crash resulting in fractures or lacerations *Accidente de coche que resultó en fracturas o heridas.*
  - Cut hand or other body part *Se cortó la mano o el cuerpo.*
  - Debris from a tractor or combine flew into eyes/face and resulted in a cut/ abrasion. *Basura de un tractor o trilladora calló en los ojos/cara y produjo una cortada o rasguño.*
  - Fell from a tractor and got caught underneath it. *Se calló de un tractor y el tractor le pasó por encima.*
  - Fingernail got caught and ripped off. *La uña se atoró en algo y se le arrancó.*
  - Cut foot while hoeing. *Se cortó el pie mientras araba.*
  - Fell from ladder and broke a bone. *Se cayó de una escalera y se rompió un hueso.*

- **Accidents or events involving an animal:** ***Accidentes o eventos que involucran un animal.***
  - Kicked by a horse or cow *Pateado por un caballo o vaca.*
  - Stung by a bee *Picado por una abeja*
  - Bit by a snake *Mordido po una culebra*
  - Child got bit by a deer tick while playing in the field. *El niño sufrió una picadura por una garrapata mientras jugaba en los campos.*

- **Other kinds of accidents or injuries:** ***Otros tipos de accidentes o lesiones***
  - Strained back after lifting a heavy object or after working in a bent-over position. *Se dañó la espalda después de levantar algo pesado o después de trabajar agachado.*
  - Slipped and cracked ribs. *Se resbaló y fracturó las costillas.*
  - Experienced an electrical burn. *Sufrió una quemadura eléctrica.*

FOR THE INTERVIEWER:

7. Is the interview complete?		
	YES	NO

8. Please comment on anything that you feel (your gut feeling) may have influenced the mother's responses (such as the presence of husband, children, grandmother, or distractions).

APPENDIX 2
DIARY PAGE
DIARY FOLLOW-UP SURVEY

DIARY PAGE

DIARY QUESTIONS

Please, fill in the date for this week: _____

Answer this week for yourself, your spouse/partner, and your oldest child.

Activity

1. During the week, did you, your spouse/partner, or oldest child drive a vehicle such as a truck, car, van, bus, motorcycle or bicycle?

2. During the week, did you, your spouse/partner, or oldest child operate a machine such as a tractor, trimmer, sower, reaper, plough or harvester?

3. During the week, did you, your spouse/partner, or oldest child spend time hoeing or weeding by hand?

4. During the week, did you, your spouse/partner, or oldest child spend time planting by hand?

5. During the week, did you, your spouse/partner, or oldest child spend time picking or harvesting by hand?

6. During the week, did you, your spouse/partner, or oldest child spend time cleaning produce by hand?

7. During the week, did you, your spouse/partner, or oldest child spend time on any other work related activity not listed above? (please specify)

Crops

8. Please tell us what kind of crops you, your spouse/partner, or oldest child worked on during the week. *(mark as many as appropriate)*

   8.a. Vegetables *(such as cauliflower, beets, carrots or asparagus)*
   8.b. Fruits *(such as strawberries, avocados, tomatoes or grapes)*
   8.c. Field Crop *(such as cotton, tobacco or sugar cane)*
   8.d. Other *(please, specify)*

Injury

9. Did you, your spouse/partner, or oldest child suffer an injury* during the week?
   9b. If yes, please specify who was injured, what body part, and what was person doing when the injury occurred.

* An injury is considered any harm to the body that might have required the interruption of an activity and/or the services of a healer, a physician, or self medication was provided.
** If more than one person is injured, write it on the space provided.

Your name: _____ Family # _____ Week #

Week beginning ____ / ____, 200____

	Adult #1 (Mother)	Adult #2 (Spouse/Partner)	Oldest Working Child
1. Driving	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____
2. Operating a Machine	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____
3. Hoeing or Weeding	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____
4. Planting	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____
5. Picking or Harvesting	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____
6. Cleaning Produce	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____
7. Other work related activity	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____	yes ❑ no ❑ If yes, # days? _____ If yes, # hours per day _____

	Mother	Spouse/Partner	Oldest Child
8.a. Vegetables	❑	❑	❑
8.b. Fruits	❑	❑	❑
8.c. Field Crop	❑	❑	❑

8.d. Other _____

9.a. Yes ❑ No ❑

9.b.** _____

Migrant Farmworkers Study

This diary contains a card for each week of your participation. Diary questions are to be answered each week, and mailed to us at the end of the work week so that we will have the very best information. There is enough space for you to answer each question for you (mother), your spouse, and the oldest child doing farmwork with you.

Please try to complete the card at the end of your work week, for example on Saturday or Sunday. Write your name and the name of your spouse and your oldest child who is doing farmwork with you in the boxes at the top of the page. Indicate whether you, your spouse, or your oldest child performed any of the activities listed by marking the boxes – either yes or no – underneath the name. If the answer to the question is "yes," write in the approximate number of hours per day worked on each activity. Also tell us how many days per week this activity was performed.

Below you will find three sets of definitions for 1) Activity, 2) Crop, and 3) Injury. If you do not find a definition for an activity you performed or crop you worked, please use the space marked "other" at the end of the section.

Definitions:

Activity

1. Driving a vehicle, such as a truck, car, bus, van, motorcycle, or bicycle.
2. Operating a machine, such as a tractor, trimmer, mower, reaper, plow, or harvester.
3. Hoeing or weeding, such as digging, tilling, or loosening the earth with a hoe, or weeding the earth by hand.
4. Planting, such as placing seeds, seedlings or sprouts in the earth by hand.
5. Picking or harvesting, such as picking melons, strawberries, grapes, apples by hand.
6. Cleaning produce by hand, such as detasseling corn.
7. Other. Please specify any other farmwork-related activity not listed above that you, your spouse, or oldest child performed, and who did it.

Crops

8.a. Vegetables, such as cauliflowers, beets, or asparagus.

8.b. Fruits, such as strawberries, melons, or grapes.

8.c. Field crops, such as tobacco, sugar cane, or cotton.

8.d. Other. Please specify any other crop that you worked that is not listed above.

Injury

9.a. Did you or anyone in your family suffer a serious injury during the week? Please mark either "yes" or "no". A serious injury is considered any harm to the body that might have required the services of a health care professional, or the interruption of work.

9.b. If yes, please specify whether you, your spouse or oldest child was injured, where the injury occurred (part of the body), and what activity the person was performing when injured.

Thank you for completing your diary every week!

Please mail your completed card at the end of your work week.

DIARY FOLLOW-UP SURVEY

DIARY FOLLOWUP QUESTIONNAIRE

Last spring you participated in a diary training session and we invited you to fill out a diary while you were migrating. Presently, we are asking everyone who agreed to participate about their experience with the diary. Already, people have commented that they had problems. We would like to know about your experience with it and whether you had similar problems. Your input is very important to us, so we can improve the research we are doing together.

A principio de año le invitamos a ser parte del estudio que incluía participar en un entrenamiento para llenar un diario y llenar el diario mientras estaban en los trabajos. Le estamos preguntando a aquellas personas que aceptaron participar en el diario, que tipo de problemas tuvieron. Queremos que sepa que algunas personas nos han dicho que tuvieron problemas, por favor no se preocupe, quisiéramos que nos diga cuál fue su experiencia. La información que Usted nos va a dar es muy importante para nosotros, porque nos permitirá mejorar la investigación que con Ustedes estamos desarrollando.

1. Did you fill in the diary? *¿Escribió en el diario?*		
	yes	no
	01	02

(Interviewer: Ask each option below. Circle as many options as the interviewee gives you. If something that she says is not in the following list, use the space "Other, specify". Write verbatim the answer given by the interviewee. Prompt the interviewee by asking "Anything else")

2. Did you have any of the following problems: *Tuvo Usted alguno de los siguiente problemas:*			
		Yes	No
	a. Filled it out -, but could not mail it *Lo llené pero no pude ponerlo en el correo*	01	02
	b. Lost it *Lo perdí*	01	02
	c. Left it at home in Starr County *Se me quedó en casa en Starr County*	01	02
	d. The print was very little and I could not read it *La letra era muy pequeña y no podía leerlo*	01	02
	e. The questions were difficult to answer *Las preguntas eran muy difíciles*	01	02
	f. Nothing that I or my family, did had any relation to what was in the diary *Lo que yo o mi familia hicimos no tenía nada que ver con lo que estaba en el diario*	01	02
	g. Was not interested *No estaba interesada*	01	02

2. Did you have any of the following problems: *Tuvo Usted alguno de los siguiente problemas.*			
	h. Was too tired *Estaba muy cansada*	01	02
	i. Did not have enough time *No tenía tiempo*	01	02
	j. Forgot about it *Se me olvidó*	01	02
	k. Too long *Muy largo*	01	02
	l. Other (specify) _____ *Otro (especifique)*		

3. Do you have any suggestions that would make working with this diary easier?
Para que trabajar con el diario sea más sencillo ¿Tiene Usted alguna recomendación?

APPENDIX 3
DEMOGRAPHICS (ENTIRE MIGRATING COHORT)

APPENDIX 3
DEMOGRAPHICS (ENTIRE MIGRATING COHORT)

GENDER, PERSON TYPE, INJURY STATUS

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
STUDY YEAR * GENDER	616	99.8%	1	.2%	617	100.0%
STUDY YEAR * PERSON TYPE	617	100.0%	0	.0%	617	100.0%
STUDY YEAR * INJURY STATUS	617	100.0%	0	.0%	617	100.0%

STUDY YEAR * GENDER Crosstabulation

			GENDER		
			Male	Female	Total
STUDY YEAR	1	Count	173	159	332
		%	54.4%	53.4%	53.9%
	2	Count	145	139	284
		%	45.6%	46.6%	46.1%
Total		Count	318	298	616
		%	100.0%	100.0%	100.0%

STUDY YEAR * PERSON TYPE Crosstabulation

			PERSON TYPE				
			Mother	Father	Oldest Child	Youngest Child	Total
STUDY YEAR	1	Count	125	111	76	21	333
		%	53.2%	51.4%	52.4%	100.0%	54.0%
	2	Count	110	105	69		284
		%	46.8%	48.6%	47.6%		46.0%
Total		Count	235	216	145	21	617
		%	100.0%	100%	100.0%	100.0%	100.0%

STUDY YEAR * INJURY STATUS Crosstabulation

			INJURY STATUS		
			Uninjured	Injured	Total
STUDY YEAR	1	Count	323	10	333
		%	54.6%	40.0%	54.0%
	2	Count	269	15	284
		%	45.4%	60.0%	46.0%
Total		Count	592	25	617
		%	100.0%	100.0%	100.0%

AGE

YEAR 1

	N	Minimum	Maximum	Mean	Std. Deviation
AGE	330	10	68	34.44	13.311
Valid N (listwise)	330				

YEAR 2

	N	Minimum	Maximum	Mean	Std. Deviation
AGE	272	10	69	37.13	12.712
Valid N (listwise)	272				

YEARS OF EDUCATION

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	PERSON TYPE	N	Percent	N	Percent	N	Percent
YEARS OF EDUCATION	Mother	125	53.2%	110	46.8%	235	100.0%
	Father	109	50.5%	107	49.5%	216	100.0%
	Oldest Child	76	52.4%	69	47.6%	145	100.0%
	Youngest Child	21	100.0%	0	.0%	21	100.0%

Descriptives

	PERSON TYPE		Statistic	Std. Error
YEARS OF EDUCATION	Mother	Mean	7.06	.261
		Median	6.00	
		Std. Deviation	2.920	
		Minimum	0	
		Maximum	12	
	Father	Mean	7.28	.331
		Median	6.00	
		Std. Deviation	3.458	
		Minimum	0	
		Maximum	20	
	Oldest Child	Mean	10.63	.195
		Median	11.00	
		Std. Deviation	1.704	
		Minimum	4	
		Maximum	13	
	Youngest Child	Mean	8.38	.587
		Median	8.00	
		Std. Deviation	2.692	
		Minimum	2	
		Maximum	13	

NUMBER OF YEARS LIVED IN STARR COUNTY

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	PERSON TYPE	N	Percent	N	Percent	N	Percent
NUMBER OF YEARS LIVED IN STARR COUNTY	Mother	143	60.9%	92	39.1%	235	100.0%
	Father	126	58.3%	90	41.7%	216	100.0%

Descriptives[a,b]

	PERSON TYPE		Statistic	Std. Error
NUMBER OF YEARS LIVED IN STARR COUNTY	Mother	Mean	17.16	.931
		Median	14.00	
		Std. Deviation	11.128	
		Minimum	3	
		Maximum	53	
	Father	Mean	18.04	1.083
		Median	14.00	
		Std. Deviation	12.153	
		Minimum	3	
		Maximum	57	

a. NUMBER OF YEARS LIVEDIN STARR COUNTY is constant when PERSON TYPE = Oldest Child. It has been omitted.

b. NUMBER OF YEARS LIVED IN STARR COUNTY is constant when PERSON TYPE = Youngest Child. It has been omitted.

FAMILY SIZE

ENTIRE COHORT

	N	Minimum	Maximum	Mean	Std. Deviation
SIZEFAM	269	2.00	10.00	4.6952	1.23234
Valid N (listwise)	269				

APPENDIX 4
DEMOGRAPHICS (FARMWORKERS ONLY)

APPENDIX 4
DEMOGRAPHICS (FARMWORKERS ONLY)

AGE

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	PERSON TYPE	N	Percent	N	Percent	N	Percent
AGE	Mother	222	99.1%	2	.9%	224	100.0%
	Father	194	97.5%	5	2.5%	199	100.0%
	Oldest Child	128	94.1%	8	5.9%	136	100.0%
	Youngest Child	21	100.0%	0	.0%	21	100.0%

Descriptives

	PERSON		Statistic	Std. Error
AGE	Mother	Mean	40.59	.529
		Median	40.00	
		Std. Deviation	7.882	
		Minimum	23	
		Maximum	64	
	Father	Mean	44.06	.606
		Median	44.00	
		Std. Deviation	8.443	
		Minimum	26	
		Maximum	69	
	Oldest Child	Mean	17.89	.279
		Median	18.00	
		Std. Deviation	3.155	
		Minimum	10	
		Maximum	29	
	Youngest Child	Mean	14.38	.563
		Median	15.00	
		Std. Deviation	2.578	
		Minimum	10	
		Maximum	20	

EDUCATION

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	PERSON TYPE	N	Percent	N	Percent	N	Percent
YEARS OF EDUCATION	Mother	119	53.1%	105	46.9%	224	100.0%
	Father	102	51.3%	97	48.7%	199	100.0%
	Oldest Child	71	52.2%	65	47.8%	136	100.0%
	Youngest Child	21	100.0%	0	.0%	21	100.0%

Descriptives

	PERSON		Statistic	Std. Error
YEARS OF EDUCATION	Mother	Mean	7.08	.272
		Median	6.00	
		Std. Deviation	2.965	
		Minimum	0	
		Maximum	12	
	Father	Mean	7.08	.325
		Median	6.00	
		Std. Deviation	3.284	
		Minimum	0	
		Maximum	13	
	Oldest Child	Mean	10.56	.204
		Median	11.00	
		Std. Deviation	1.722	
		Minimum	4	
		Maximum	13	
	Youngest Child	Mean	8.38	.587
		Median	8.00	
		Std. Deviation	2.692	
		Minimum	2	
		Maximum	13	

NUMBER OF YEARS IN LIFETIME AS A MIGRANT FARMWORKER

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	PERSON TYPE	N	Percent	N	Percent	N	Percent
NUMBER OF YEARS WORKED AS MFW	Mother	223	99.6%	1	.4%	224	100.0%
	Father	196	98.5%	3	1.5%	199	100.0%
	Oldest Child	134	98.5%	2	1.5%	136	100.0%
	Youngest Child	21	100.0%	0	.0%	21	100.0%

Descriptives

	PERSON		Statistic	Std. Error
NUMBER OF YEARS WORKED AS MFW	Mother	Mean	15.00	.599
		Median	13.00	
		Std. Deviation	8.946	
		Minimum	1	
		Maximum	45	
	Father	Median	16.00	
		Std. Deviation	9.550	
		Minimum	1	
		Maximum	45	
	Oldest Child	Mean	7.48	.468
		Median	5.00	
		Std. Deviation	5.415	
		Minimum	0	
		Maximum	23	
	Youngest Child	Mean	5.00	.865
		Median	4.00	
		Std. Deviation	3.962	
		Minimum	1	
		Maximum	17	

NUMBER OF YEARS IN LIFETIME LIVED IN STARR COUNTY

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	PERSON TYPE	N	Percent	N	Percent	N	Percent
NUMBER OF YEARS LIVED IN STARR COUNTY	Mother	137	61.2%	87	38.8%	224	100.0%
	Father	117	58.8%	82	41.2%	199	100.0%

Descriptives

	PERSO		Statistic	Std. Error
NUMBER OF YEARS LIVED IN STARR COUNTY	Mother	Mean	17.32	.961
		Median	14.00	
		Std. Deviation	11.247	
		Minimum	3	
		Maximum	53	
	Father	Mean	18.07	1.139
		Median	14.00	
		Std. Deviation	12.318	
		Minimum	3	
		Maximum	57	

FAMILY SIZE

FARMWORKERS THAT MIGRATEDIN YEAR 1 OR 2 (COX MODEL POPULATION)

	N	Minimum	Maximum	Mean	Std. Deviation
SIZEFA_1	156	2.00	10.00	4.7692	1.26413
Valid N (listwise)	156				

APPENDIX 5
DESCRIPTIVE STATISTICS FOR EMPLOYMENT VARIABLES (FARMWORKERS ONLY)

APPENDIX 5
DESCRIPTIVE STATISTICS FOR EMPLOYMENT VARIABLES (FARMWORKERS ONLY)

NUMBER OF FARM JOBS

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	PERSON TYPE	N	Percent	N	Percent	N	Percent
NUMBER OF FARM JOBS	Mother	224	100.0%	0	.0%	224	100.0%
	Father	199	100.0%	0	.0%	199	100.0%
	Oldest Child	136	100.0%	0	.0%	136	100.0%
	Youngest Child	21	100.0%	0	.0%	21	100.0%

Descriptives

	PERSON		Statistic	Std. Error
NUMBER OF FARM JOBS	Mother	Mean	1.58	.057
		Median	1.00	
		Std. Deviation	.853	
		Minimum	1	
		Maximum	5	
	Father	Mean	1.77	.071
		Median	1.00	
		Std. Deviation	.997	
		Minimum	1	
		Maximum	6	
	Oldest Child	Mean	1.52	.072
		Median	1.00	
		Std. Deviation	.834	
		Minimum	1	
		Maximum	4	
	Youngest Child	Mean	1.33	.159
		Median	1.00	
		Std. Deviation	.730	
		Minimum	1	
		Maximum	4	

CROPS WORKED

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	%	N	%	N	%
EVER WORKED ON COTTON * PERSON TYPE * STUDY YEAR	580	100%	0	.0%	580	100%
EVER WORKED ON CORN * PERSON TYPE * STUDY YEAR	580	100%	0	.0%	580	100%
EVER WORKED ON POTATOES * PERSON TYPE * STUDY YEAR	580	100%	0	.0%	580	100%
EVER WORKED ON BEETS * PERSON TYPE * STUDY YEAR	580	100%	0	.0%	580	100%
EVER WORKED ON ASPARAGUS * PERSON TYPE * STUDY YEAR	580	100%	0	.0%	580	100%
EVER WORKED ON GRAPES * PERSON TYPE * STUDY YEAR	580	100%	0	.0%	580	100%
EVER WORKED ON PEANUTS * PERSON TYPE * STUDY YEAR	580	100%	0	.0%	580	100%
EVER WORKED ON TREES * PERSON TYPE * STUDY YEAR	580	100%	0	.0%	580	100%
EVER WORKED ON POULTRY * PERSON TYPE * STUDY YEAR	580	100%	0	.0%	580	100%

EVER WORKED ON COTTON * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER WORKED ON COTTON	No	Count	75	68	41	8	192
			%	63.0%	65.4%	57.7%	38.1%	61.0%
		Yes	Count	44	36	30	13	123
			%	37.0%	34.6%	42.3%	61.9%	39.0%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER WORKED ON COTTON	No	Count	78	73	45		196
			%	74.3%	76.8%	69.2%		74.0%
		Yes	Count	27	22	20		69
			%	25.7%	23.2%	30.8%		26.0%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER WORKED ON CORN * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER WORKED ON CORN	No	Count	96	83	62	20	261
			%	80.7%	79.8%	87.3%	95.2%	82.9%
		Yes	Count	23	21	9	1	54
			%	19.3%	20.2%	12.7%	4.8%	17.1%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER WORKED ON CORN	No	Count	82	73	56		211
			%	78.1%	76.8%	86.2%		79.6%
		Yes	Count	23	22	9		54
			%	21.9%	23.2%	13.8%		20.4%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER WORKED ON POTATOES * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER WORKED ON POTATOES	No	Count	105	91	62	20	278
			%	88.2%	87.5%	87.3%	95.2%	88.3%
		Yes	Count	14	13	9	1	37
			%	11.8%	12.5%	12.7%	4.8%	11.7%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER WORKED ON POTATOES	No	Count	94	84	58		236
			%	89.5%	88.4%	89.2%		89.1%
		Yes	Count	11	11	7		29
			%	10.5%	11.6%	10.8%		10.9%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER WORKED ON BEETS * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER WORKED ON BEETS	No	Count	106	91	63	18	278
			%	89.1%	87.5%	88.7%	85.7%	88.3%
		Yes	Count	13	13	8	3	37
			%	10.9%	12.5%	11.3%	14.3%	11.7%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER WORKED ON BEETS	No	Count	96	86	57		239
			%	91.4%	90.5%	87.7%		90.2%
		Yes	Count	9	9	8		26
			%	8.6%	9.5%	12.3%		9.8%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER WORKED ON ASPARAGUS * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER WORKED ON ASPARAGUS	No	Count	102	88	64	19	273
			%	85.7%	84.6%	90.1%	90.5%	86.7%
		Yes	Count	17	16	7	2	42
			%	14.3%	15.4%	9.9%	9.5%	13.3%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER WORKED ON ASPARAGUS	No	Count	94	84	59		237
			%	89.5%	88.4%	90.8%		89.4%
		Yes	Count	11	11	6		28
			%	10.5%	11.6%	9.2%		10.6%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER WORKED ON GRAPES * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER WORKED ON GRAPES	No	Count	112	99	70	21	302
			%	94.1%	95.2%	98.6%	100.0%	95.9%
		Yes	Count	7	5	1		13
			%	5.9%	4.8%	1.4%		4.1%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER WORKED ON GRAPES	No	Count	96	88	64		248
			%	91.4%	92.6%	98.5%		93.6%
		Yes	Count	9	7	1		17
			%	8.6%	7.4%	1.5%		6.4%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER WORKED ON PEANUTS * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER WORKED ON PEANUTS	No	Count	115	101	67	20	303
			%	96.6%	97.1%	94.4%	95.2%	96.2%
		Yes	Count	4	3	4	1	12
			%	3.4%	2.9%	5.6%	4.8%	3.8%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER WORKED ON PEANUTS	No	Count	100	90	60		250
			%	95.2%	94.7%	92.3%		94.3%
		Yes	Count	5	5	5		15
			%	4.8%	5.3%	7.7%		5.7%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER WORKED ON TREES * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER WORKED ON TREES	No	Count	109	93	68	21	291
			%	91.6%	89.4%	95.8%	100.0%	92.4%
		Yes	Count	10	11	3		24
			%	8.4%	10.6%	4.2%		7.6%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER WORKED ON TREES	No	Count	97	89	63		249
			%	92.4%	93.7%	96.9%		94.0%
		Yes	Count	8	6	2		16
			%	7.6%	6.3%	3.1%		6.0%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER WORKED ON POULTRY * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER WORKED ON POULTRY	No	Count	115	101	71	21	308
			%	96.6%	97.1%	100.0%	100.0%	97.8%
		Yes	Count	4	3			7
			%	3.4%	2.9%			2.2%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER WORKED ON POULTRY	No	Count	103	93	64		260
			%	98.1%	97.9%	98.5%		98.1%
		Yes	Count	2	2	1		5
			%	1.9%	2.1%	1.5%		1.9%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

WORK LOCATION

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
WORK LOCATION * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%

WORK LOCATION * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	WORK LOCATION	Texas Only	Count	38	29	29	11	107
			%	31.9%	27.9%	40.8%	52.4%	34.0%
		Both	Count	1	4	1	1	7
			%	.8%	3.8%	1.4%	4.8%	2.2%
		Out of Texas Only	Count	80	71	41	9	201
			%	67.2%	68.3%	57.7%	42.9%	63.8%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	WORK LOCATION	Texas Only	Count	25	25	24		74
			%	23.8%	26.3%	36.9%		27.9%
		Out of Texas Only	Count	80	70	41		191
			%	76.2%	73.7%	63.1%		72.1%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

LIST OF STATES MANOS PARTICIPANTS WORKED

Statistics

STATE

N	Valid	1012
	Missing	0

STATE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	AR	20	2.0	2.0	2.0
	CA	95	9.4	9.4	11.4
	CO	10	1.0	1.0	12.4
	FL	3	.3	.3	12.6
	GA	3	.3	.3	12.9
	ID	7	.7	.7	13.6
	IL	113	11.2	11.2	24.8
	IN	41	4.1	4.1	28.9
	KS	2	.2	.2	29.1
	LA	1	.1	.1	29.2
	MI	99	9.8	9.8	38.9
	MN	70	6.9	6.9	45.8
	MS	1	.1	.1	45.9
	NC	1	.1	.1	46.0
	ND	90	8.9	8.9	54.9
	NE	33	3.3	3.3	58.2
	NM	2	.2	.2	58.4
	OH	3	.3	.3	58.7
	OK	27	2.7	2.7	61.4
	OR	8	.8	.8	62.2
	TN	6	.6	.6	62.7
	TX	244	24.1	24.1	86.9
	UT	1	.1	.1	87.0
	WA	119	11.8	11.8	98.7
	WI	12	1.2	1.2	99.9
	WY	1	.1	.1	100.0
	Total	1012	100.0	100.0	

TASKS PERFORMED

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
EVER HOED * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
EVER SORTED * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
EVER HARVESTED FROM THE GROUND * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
EVER WORKED CLEANING * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
EVER WEEDED * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
EVER HARVESTED FROM TREES * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
EVER CUT * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
EVER DETASSLED * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
EVER OPERATED FARM MACHINERY * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%

EVER HOED * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER HOED	No	Count	76	67	43	12	198
			%	63.9%	64.4%	60.6%	57.1%	62.9%
		Yes	Count	43	37	28	9	117
			%	36.1%	35.6%	39.4%	42.9%	37.1%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER HOED	No	Count	66	65	36		167
			%	62.9%	68.4%	55.4%		63.0%
		Yes	Count	39	30	29		98
			%	37.1%	31.6%	44.6%		37.0%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER SORTED * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER SORTED	No	Count	89	81	60	19	249
			%	74.8%	77.9%	84.5%	90.5%	79.0%
		Yes	Count	30	23	11	2	66
			%	25.2%	22.1%	15.5%	9.5%	21.0%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER SORTED	No	Count	84	78	56		218
			%	80.0%	82.1%	86.2%		82.3%
		Yes	Count	21	17	9		47
			%	20.0%	17.9%	13.8%		17.7%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER HARVESTED FROM THE GROUND * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER HARVESTED FROM THE GROUND	No	Count	99	83	57	18	257
			%	83.2%	79.8%	80.3%	85.7%	81.6%
		Yes	Count	20	21	14	3	58
			%	16.8%	20.2%	19.7%	14.3%	18.4%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER HARVESTED FROM THE GROUND	No	Count	92	81	59		232
			%	87.6%	85.3%	90.8%		87.5%
		Yes	Count	13	14	6		33
			%	12.4%	14.7%	9.2%		12.5%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER WORKED CLEANING * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER WORKED CLEANING	No	Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER WORKED CLEANING	No	Count	86	83	53		222
			%	81.9%	87.4%	81.5%		83.8%
		Yes	Count	19	12	12		43
			%	18.1%	12.6%	18.5%		16.2%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER WEEDED * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER WEEDED	No	Count	96	90	57	13	256
			%	80.7%	86.5%	80.3%	61.9%	81.3%
		Yes	Count	23	14	14	8	59
			%	19.3%	13.5%	19.7%	38.1%	18.7%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER WEEDED	No	Count	97	86	59		242
			%	92.4%	90.5%	90.8%		91.3%
		Yes	Count	8	9	6		23
			%	7.6%	9.5%	9.2%		8.7%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER HARVESTED FROM TREES * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER HARVESTED FROM TREES	No	Count	113	96	69	21	299
			%	95.0%	92.3%	97.2%	100.0%	94.9%
		Yes	Count	6	8	2		16
			%	5.0%	7.7%	2.8%		5.1%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER HARVESTED FROM TREES	No	Count	98	90	63		251
			%	93.3%	94.7%	96.9%		94.7%
		Yes	Count	7	5	2		14
			%	6.7%	5.3%	3.1%		5.3%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER CUT * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER CUT	No	Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER CUT	No	Count	96	87	59		242
			%	91.4%	91.6%	90.8%		91.3%
		Yes	Count	9	8	6		23
			%	8.6%	8.4%	9.2%		8.7%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER DETASSLED * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER DETASSLED	No	Count	116	100	68	21	305
			%	97.5%	96.2%	95.8%	100.0%	96.8%
		Yes	Count	3	4	3		10
			%	2.5%	3.8%	4.2%		3.2%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER DETASSLED	No	Count	98	87	61		246
			%	93.3%	91.6%	93.8%		92.8%
		Yes	Count	7	8	4		19
			%	6.7%	8.4%	6.2%		7.2%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

EVER OPERATED FARM MACHINERY * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EVER OPERATED FARM MACHINERY	No	Count	119	98	70	21	308
			%	100.0%	94.2%	98.6%	100.0%	97.8%
		Yes	Count		6	1		7
			%		5.8%	1.4%		2.2%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EVER OPERATED FARM MACHINERY	No	Count	104	82	64		250
			%	99.0%	86.3%	98.5%		94.3%
		Yes	Count	1	13	1		15
			%	1.0%	13.7%	1.5%		5.7%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

AVERAGE HOURS/DAY, AVERAGE DAYS/WEEK, AND NUMBER OF FARM JOBS

YEAR 1

	N	Minimum	Maximum	Mean	Std. Deviation
AVERAGE HOURS WORKED PER DAY	315	4.00	16.00	10.1074	1.70516
AVERAGE DAYS WORKED PER WEEK	315	3.50	7.00	6.2452	.76337
NUMBER OF FARM JOBS	315	1	6	1.68	.959
Valid N (listwise)	315				

YEAR 2

	N	Minimum	Maximum	Mean	Std. Deviation
AVERAGE HOURS WORKED PER DAY	264	4.00	18.00	9.7194	1.86482
AVERAGE DAYS WORKED PER WEEK	265	2.00	7.00	6.0292	.97572
NUMBER OF FARM JOBS	265	1	4	1.57	.828
Valid N (listwise)	264				

EMPLOYER TYPE

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
EMPLOYER TYPE * PERSON TYPE * STUDY YEAI	580	100.0%	0	.0%	580	100.0%

EMPLOYER TYPE * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EMPLOYER TYPE	Grower/Owner Only	Count	89	73	56	19	237
			%	74.8%	70.2%	78.9%	90.5%	75.2%
		Both	Count	10	16	7	2	35
			%	8.4%	15.4%	9.9%	9.5%	11.1%
		Contractor Only	Count	20	15	8		43
			%	16.8%	14.4%	11.3%		13.7%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EMPLOYER TYPE	Grower/Owner Only	Count	61	57	37		155
			%	58.1%	60.0%	56.9%		58.5%
		Both	Count	8	11	5		24
			%	7.6%	11.6%	7.7%		9.1%
		Contractor Only	Count	36	27	23		86
			%	34.3%	28.4%	35.4%		32.5%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

APPENDIX 6
DESCRIPTIVE STATISTICS FOR EMPLOYMENT VARIABLES (FARMWORKERS ONLY)

APPENDIX 6
DESCRIPTIVE STATISTICS FOR EMPLOYMENT VARIABLES (FARMWORKERS ONLY)

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
HEAT EXHAUSTION/STROKE * PERSON TYPE * STUDY YEAR	573	98.8%	7	1.2%	580	100.0%
SKIN RASH * PERSON TYPE * STUDY YEAR	574	99.0%	6	1.0%	580	100.0%
EYE IRRITATION * PERSON TYPE * STUDY YEAR	574	99.0%	6	1.0%	580	100.0%
ACHES OF MUSCLES/JOINTS OTHER THAN HANDS * PERSON TYPE * STUDY YEA	574	99.0%	6	1.0%	580	100.0%
SEVERE SUNBURN * PERSON TYPE * STUDY YEAR	573	98.8%	7	1.2%	580	100.0%
NAUSEA * PERSON TYPE * STUDY YEAR	572	98.6%	8	1.4%	580	100.0%
VOMITING * PERSON TYPE * STUDY YEAR	574	99.0%	6	1.0%	580	100.0%
SEVERE HEADACHES * PERSON TYPE * STUDY YEAR	562	96.9%	18	3.1%	580	100.0%
CHRONIC FOOT PAIN * PERSON TYPE * STUDY YEAR	264	45.5%	316	54.5%	580	100.0%

HEAT EXHAUSTION/STROKE * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	HEAT EXHAUSTION/STROKE	No	Count	109	98	65	21	293
			%	92.4%	97.0%	92.9%	100.0%	94.5%
		Yes	Count	9	3	5		17
			%	7.6%	3.0%	7.1%		5.5%
	Total		Count	118	101	70	21	310
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	HEAT EXHAUSTION/STROKE	No	Count	91	85	60		236
			%	87.5%	89.5%	93.8%		89.7%
		Yes	Count	13	10	4		27
			%	12.5%	10.5%	6.3%		10.3%
	Total		Count	104	95	64		263
			%	100.0%	100.0%	100.0%		100.0%

SKIN RASH * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	SKIN RASH	No	Count	101	87	58	18	264
			%	85.6%	86.1%	82.9%	85.7%	85.2%
		Yes	Count	17	14	12	3	46
			%	14.4%	13.9%	17.1%	14.3%	14.8%
	Total		Count	118	101	70	21	310
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	SKIN RASH	No	Count	93	84	60		237
			%	89.4%	88.4%	92.3%		89.8%
		Yes	Count	11	11	5		27
			%	10.6%	11.6%	7.7%		10.2%
	Total		Count	104	95	65		264
			%	100.0%	100.0%	100.0%		100.0%

EYE IRRITATION * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	EYE IRRITATION	No	Count	95	88	62	18	263
			%	80.5%	87.1%	88.6%	85.7%	84.8%
		Yes	Count	23	13	8	3	47
			%	19.5%	12.9%	11.4%	14.3%	15.2%
	Total		Count	118	101	70	21	310
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	EYE IRRITATION	No	Count	91	87	63		241
			%	87.5%	91.6%	96.9%		91.3%
		Yes	Count	13	8	2		23
			%	12.5%	8.4%	3.1%		8.7%
	Total		Count	104	95	65		264
			%	100.0%	100.0%	100.0%		100.0%

ACHES OF MUSCLES/JOINTS OTHER THAN HANDS * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	ACHES OF MUSCLES/JOINTS OTHER THAN HANDS	No	Count	87	71	59	19	236
			%	73.7%	70.3%	84.3%	90.5%	76.1%
		Yes	Count	31	30	11	2	74
			%	26.3%	29.7%	15.7%	9.5%	23.9%
	Total		Count	118	101	70	21	310
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	ACHES OF MUSCLES/JOINTS OTHER THAN HANDS	No	Count	72	79	58		209
			%	69.2%	83.2%	89.2%		79.2%
		Yes	Count	32	16	7		55
			%	30.8%	16.8%	10.8%		20.8%
	Total		Count	104	95	65		264
			%	100.0%	100.0%	100.0%		100.0%

SEVERE SUNBURN * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	SEVERE SUNBURN	No	Count	113	97	64	21	295
			%	96.6%	96.0%	91.4%	100.0%	95.5%
		Yes	Count	4	4	6		14
			%	3.4%	4.0%	8.6%		4.5%
	Total		Count	117	101	70	21	309
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	SEVERE SUNBURN	No	Count	99	94	63		256
			%	95.2%	98.9%	96.9%		97.0%
		Yes	Count	5	1	2		8
			%	4.8%	1.1%	3.1%		3.0%
	Total		Count	104	95	65		264
			%	100.0%	100.0%	100.0%		100.0%

NAUSEA * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	NAUSEA	No	Count	109	93	63	20	285
			%	92.4%	93.0%	90.0%	95.2%	92.2%
		Yes	Count	9	7	7	1	24
			%	7.6%	7.0%	10.0%	4.8%	7.8%
	Total		Count	118	100	70	21	309
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	NAUSEA	No	Count	95	91	60		246
			%	91.3%	96.8%	92.3%		93.5%
		Yes	Count	9	3	5		17
			%	8.7%	3.2%	7.7%		6.5%
	Total		Count	104	94	65		263
			%	100.0%	100.0%	100.0%		100.0%

VOMITING * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	VOMITING	No	Count	115	100	66	21	302
			%	97.5%	99.0%	94.3%	100.0%	97.4%
		Yes	Count	3	1	4		8
			%	2.5%	1.0%	5.7%		2.6%
	Total		Count	118	101	70	21	310
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	VOMITING	No	Count	98	93	60		251
			%	94.2%	97.9%	92.3%		95.1%
		Yes	Count	6	2	5		13
			%	5.8%	2.1%	7.7%		4.9%
	Total		Count	104	95	65		264
			%	100.0%	100.0%	100.0%		100.0%

SEVERE HEADACHES * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	SEVERE HEADACHES	No	Count	82	84	57	18	241
			%	69.5%	83.2%	81.4%	85.7%	77.7%
		Yes	Count	36	17	13	3	69
			%	30.5%	16.8%	18.6%	14.3%	22.3%
	Total		Count	118	101	70	21	310
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	SEVERE HEADACHES	No	Count	83	82	54		219
			%	83.0%	91.1%	87.1%		86.9%
		Yes	Count	17	8	8		33
			%	17.0%	8.9%	12.9%		13.1%
	Total		Count	100	90	62		252
			%	100.0%	100.0%	100.0%		100.0%

CHRONIC FOOT PAIN * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE			
				Mother	Father	Oldest Child	Total
2	CHRONIC FOOT PAIN	No	Count	72	75	54	201
			%	69.2%	78.9%	83.1%	76.1%
		Yes	Count	32	20	11	63
			%	30.8%	21.1%	16.9%	23.9%
	Total		Count	104	95	65	264
			%	100.0%	100.0%	100.0%	100.0%

APPENDIX 7
DESCRIPTIVE STATISTICS FOR WORK HAZARDS VARIABLES (FARMWORKERS ONLY)

APPENDIX 7
DESCRIPTIVE STATISTICS FOR WORK HAZARDS VARIABLES (FARMWORKERS ONLY)

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
TRACTOR * PERSON TYPE * STUDY YEAR	575	99.1%	5	.9%	580	100.0%
ATV * PERSON TYPE * STUDY YEAR	573	98.8%	7	1.2%	580	100.0%
HITCHED EQUIPMENT * PERSON TYPE * STUDY YEAR	574	99.0%	6	1.0%	580	100.0%
HAND-HELD VIBRATING TOOLS * PERSON TYPE * STUDY YEA	573	98.8%	7	1.2%	580	100.0%
KNIVES/CUTTING TOOLS * PERSON TYPE * STUDY YEAR	573	98.8%	7	1.2%	580	100.0%
IRRIGATION DITCHES * PERSON TYPE * STUDY YEAR	577	99.5%	3	.5%	580	100.0%
ANIMALS * PERSON TYPE * STUDY YEAR	309	53.3%	271	46.7%	580	100.0%
CHEMICALS * PERSON TYPE * STUDY YEAR	564	97.2%	16	2.8%	580	100.0%
MOVE HEAVY OBJECTS * PERSON TYPE * STUDY YEAR	567	97.8%	13	2.2%	580	100.0%
BEND/STOOP REPETITIVELY * PERSON TYPE * STUDY YEAR	572	98.6%	8	1.4%	580	100.0%
LIFT OBJECTS REPETITIVELY * PERSON TYPE * STUDY YEAR	577	99.5%	3	.5%	580	100.0%
REPETITIVE HAND WORK * PERSON TYPE * STUDY YEAR	573	98.8%	7	1.2%	580	100.0%

TRACTOR * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				
				Mother	Father	Oldest Child	Youngest Child	Total
1	TRACTOR	No	Count	66	43	30	11	150
			%	55.5%	41.7%	42.3%	52.4%	47.8%
		Yes	Count	53	60	41	10	164
			%	44.5%	58.3%	57.7%	47.6%	52.2%
	Total		Count	119	103	71	21	314
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	TRACTOR	No	Count	54	37	28		119
			%	52.4%	39.4%	43.8%		45.6%
		Yes	Count	49	57	36		142
			%	47.6%	60.6%	56.3%		54.4%
	Total		Count	103	94	64		261
			%	100.0%	100.0%	100.0%		100.0%

ATV * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				
				Mother	Father	Oldest Child	Youngest Child	Total
1	ATV	No	Count	79	61	41	12	193
			%	66.4%	60.4%	58.6%	60.0%	62.3%
		Yes	Count	40	40	29	8	117
			%	33.6%	39.6%	41.4%	40.0%	37.7%
	Total		Count	119	101	70	20	310
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	ATV	No	Count	62	49	31		142
			%	59.6%	52.1%	47.7%		54.0%
		Yes	Count	42	45	34		121
			%	40.4%	47.9%	52.3%		46.0%
	Total		Count	104	94	65		263
			%	100.0%	100.0%	100.0%		100.0%

HITCHED EQUIPMENT * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				
				Mother	Father	Oldest Child	Youngest Child	Total
1	HITCHED EQUIPMENT	No	Count	90	71	56	18	235
			%	75.6%	70.3%	80.0%	85.7%	75.6%
		Yes	Count	29	30	14	3	76
			%	24.4%	29.7%	20.0%	14.3%	24.4%
	Total		Count	119	101	70	21	311
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	HITCHED EQUIPMENT	No	Count	70	58	44		172
			%	68.0%	61.1%	67.7%		65.4%
		Yes	Count	33	37	21		91
			%	32.0%	38.9%	32.3%		34.6%
	Total		Count	103	95	65		263
			%	100.0%	100.0%	100.0%		100.0%

HAND-HELD VIBRATING TOOLS * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				
				Mother	Father	Oldest Child	Youngest Child	Total
1	HAND-HELD VIBRATING TOOLS	No	Count	105	89	67	19	280
			%	88.2%	86.4%	94.4%	95.0%	89.5%
		Yes	Count	14	14	4	1	33
			%	11.8%	13.6%	5.6%	5.0%	10.5%
	Total		Count	119	103	71	20	313
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	HAND-HELD VIBRATING TOOLS	No	Count	90	77	54		221
			%	88.2%	82.8%	83.1%		85.0%
		Yes	Count	12	16	11		39
			%	11.8%	17.2%	16.9%		15.0%
	Total		Count	102	93	65		260
			%	100.0%	100.0%	100.0%		100.0%

KNIVES/CUTTING TOOLS * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	KNIVES/CUTTING TOOLS	No	Count	49	42	31	8	130
			%	41.9%	41.6%	44.3%	38.1%	42.1%
		Yes	Count	68	59	39	13	179
			%	58.1%	58.4%	55.7%	61.9%	57.9%
	Total		Count	117	101	70	21	309
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	KNIVES/CUTTING TOOLS	No	Count	42	37	27		106
			%	40.4%	38.9%	41.5%		40.2%
		Yes	Count	62	58	38		158
			%	59.6%	61.1%	58.5%		59.8%
	Total		Count	104	95	65		264
			%	100.0%	100.0%	100.0%		100.0%

IRRIGATION DITCHES * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	IRRIGATION DITCHES	No	Count	88	73	42	14	217
			%	73.9%	70.9%	59.2%	66.7%	69.1%
		Yes	Count	31	30	29	7	97
			%	26.1%	29.1%	40.8%	33.3%	30.9%
	Total		Count	119	103	71	21	314
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	IRRIGATION DITCHES	No	Count	62	57	34		153
			%	59.6%	60.6%	52.3%		58.2%
		Yes	Count	42	37	31		110
			%	40.4%	39.4%	47.7%		41.8%
	Total		Count	104	94	65		263
			%	100.0%	100.0%	100.0%		100.0%

ANIMALS * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	ANIMALS	No	Count	101	86	57	16	260
			%	84.9%	85.1%	82.6%	80.0%	84.1%
		Yes	Count	18	15	12	4	49
			%	15.1%	14.9%	17.4%	20.0%	15.9%
	Total		Count	119	101	69	20	309
			%	100.0%	100.0%	100.0%	100.0%	100.0%

CHEMICALS * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	CHEMICALS	No	Count	71	58	39	11	179
			%	60.2%	58.0%	57.4%	55.0%	58.5%
		Yes	Count	47	42	29	9	127
			%	39.8%	42.0%	42.6%	45.0%	41.5%
	Total		Count	118	100	68	20	306
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	CHEMICALS	No	Count	60	50	35		145
			%	58.8%	53.8%	55.6%		56.2%
		Yes	Count	42	43	28		113
			%	41.2%	46.2%	44.4%		43.8%
	Total		Count	102	93	63		258
			%	100.0%	100.0%	100.0%		100.0%

MOVE HEAVY OBJECTS * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	MOVE HEAVY OBJECTS	No	Count	97	75	55	17	244
			%	82.2%	74.3%	80.9%	85.0%	79.5%
		Yes	Count	21	26	13	3	63
			%	17.8%	25.7%	19.1%	15.0%	20.5%
	Total		Count	118	101	68	20	307
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	MOVE HEAVY OBJECTS	No	Count	85	63	48		196
			%	83.3%	67.0%	75.0%		75.4%
		Yes	Count	17	31	16		64
			%	16.7%	33.0%	25.0%		24.6%
	Total		Count	102	94	64		260
			%	100.0%	100.0%	100.0%		100.0%

BEND/STOOP REPETITIVELY * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	BEND/STOOP REPETITIVELY	No	Count	69	55	37	12	173
			%	58.5%	54.5%	53.6%	60.0%	56.2%
		Yes	Count	49	46	32	8	135
			%	41.5%	45.5%	46.4%	40.0%	43.8%
	Total		Count	118	101	69	20	308
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	BEND/STOOP REPETITIVELY	No	Count	58	50	34		142
			%	55.8%	52.6%	52.3%		53.8%
		Yes	Count	46	45	31		122
			%	44.2%	47.4%	47.7%		46.2%
	Total		Count	104	95	65		264
			%	100.0%	100.0%	100.0%		100.0%

LIFT OBJECTS REPETITIVELY * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	LIFT OBJECTS REPETITIVELY	No	Count	96	71	55	18	240
			%	80.7%	69.6%	77.5%	85.7%	76.7%
		Yes	Count	23	31	16	3	73
			%	19.3%	30.4%	22.5%	14.3%	23.3%
	Total		Count	119	102	71	21	313
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	LIFT OBJECTS REPETITIVELY	No	Count	80	65	50		195
			%	76.9%	68.4%	76.9%		73.9%
		Yes	Count	24	30	15		69
			%	23.1%	31.6%	23.1%		26.1%
	Total		Count	104	95	65		264
			%	100.0%	100.0%	100.0%		100.0%

REPETITIVE HAND WORK * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	REPETITIVE HAND WORK	No	Count	69	53	39	12	173
			%	58.0%	51.5%	54.9%	60.0%	55.3%
		Yes	Count	50	50	32	8	140
			%	42.0%	48.5%	45.1%	40.0%	44.7%
	Total		Count	119	103	71	20	313
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	REPETITIVE HAND WORK	No	Count	51	44	34		129
			%	49.5%	47.3%	53.1%		49.6%
		Yes	Count	52	49	30		131
			%	50.5%	52.7%	46.9%		50.4%
	Total		Count	103	93	64		260
			%	100.0%	100.0%	100.0%		100.0%

APPENDIX 8
DESCRIPTIVE STATISTICS FOR HEALTH BEHAVIORS, SLEEP, & MOOD (FARMWORKERS ONLY)

APPENDIX 8
DESCRIPTIVE STATISTICS FOR HEALTH BEHAVIORS, SLEEP, & MOOD
(FARMWORKERS ONLY)

HOURS OF SLEEP MIGRATING AND HOURS OF SLEEP STARR COUNTY

YEAR 1

	N	Minimum	Maximum	Mean	Std. Deviation
HOURS OF SLEEP MIGRATING	310	3	12	6.77	1.322
HOURS OF SLEEP STARR COUNTY	308	3	12	8.17	1.187
Valid N (listwise)	308				

YEAR 2

	N	Minimum	Maximum	Mean	Std. Deviation
HOURS OF SLEEP MIGRATING	264	4	10	6.90	1.236
HOURS OF SLEEP STARR COUNTY	262	6	12	8.26	.927
Valid N (listwise)	262				

QUALITY OF SLEEP MIGRATING AND QUALITY OF SLEEP STARR COUNTY

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
QUALITY OF SLEEP MIGRATING * PERSON TYPE * STUDY YEAR	575	99.1%	5	.9%	580	100.0%
QUALITY OF SLEEP STARR COUNTY * PERSON TYPE * STUDY YEAR	571	98.4%	9	1.6%	580	100.0%

QUALITY OF SLEEP MIGRATING * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	QUALITY OF SLEEP MIGRATING	Very Good	Count	4	4	4		12
			%	3.4%	3.9%	5.7%		3.9%
		Fairly Good	Count	86	71	53	20	230
			%	72.9%	69.6%	75.7%	95.2%	74.0%
		Fairly Bad	Count	18	19	7		44
			%	15.3%	18.6%	10.0%		14.1%
		Very Bad	Count	10	8	6	1	25
			%	8.5%	7.8%	8.6%	4.8%	8.0%
	Total		Count	118	102	70	21	311
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	QUALITY OF SLEEP MIGRATING	Very Good	Count	8	6	6		20
			%	7.7%	6.3%	9.2%		7.6%
		Fairly Good	Count	79	74	50		203
			%	76.0%	77.9%	76.9%		76.9%
		Fairly Bad	Count	13	11	7		31
			%	12.5%	11.6%	10.8%		11.7%
		Very Bad	Count	4	4	2		10
			%	3.8%	4.2%	3.1%		3.8%
	Total		Count	104	95	65		264
			%	100.0%	100.0%	100.0%		100.0%

QUALITY OF SLEEP STARR COUNTY * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	QUALITY OF SLEEP STARR COUNTY	Very Good	Count	87	78	60	19	244
			%	73.7%	78.0%	85.7%	90.5%	79.0%
		Fairly Good	Count	29	20	10	2	61
			%	24.6%	20.0%	14.3%	9.5%	19.7%
		Fairly Bad	Count	1	1			2
			%	.8%	1.0%			.6%
		Very Bad	Count	1	1			2
			%	.8%	1.0%			.6%
	Total		Count	118	100	70	21	309
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	QUALITY OF SLEEP STARR COUNTY	Very Good	Count	83	72	51		206
			%	79.8%	77.4%	78.5%		78.6%
		Fairly Good	Count	21	21	14		56
			%	20.2%	22.6%	21.5%		21.4%
	Total		Count	104	93	65		262
			%	100.0%	100.0%	100.0%		100.0%

ALCOHOL USE, SMOKING, AND DENTAL CARE (FARMWORKERS ONLY)

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
ALCOHOL USE WHILE MIGRATING * PERSON TYPE * STUDY YEAR	417	71.9%	163	28.1%	580	100.0%
EVER SMOKED 100 CIGARETTES OR MORE LIFETIME * PERSON TYPE * STUDY Y	418	72.1%	162	27.9%	580	100.0%
SMOKE NOW * PERSON TYPE * STUDY YEAR	133	22.9%	447	77.1%	580	100.0%
DENTAL CARE * PERSON TYPE * STUDY YEAR	264	45.5%	316	54.5%	580	100.0%

ALCOHOL USE WHILE MIGRATING * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE		
				Mother	Father	Total
1	ALCOHOL USE WHILE MIGRATING	No	Count	115	80	195
			%	98.3%	78.4%	89.0%
		Yes	Count	2	22	24
			%	1.7%	21.6%	11.0%
	Total		Count	117	102	219
			%	100.0%	100.0%	100.0%
2	ALCOHOL USE WHILE MIGRATING	No	Count	104	75	179
			%	100.0%	79.8%	90.4%
		Yes	Count		19	19
			%		20.2%	9.6%
	Total		Count	104	94	198
			%	100.0%	100.0%	100.0%

EVER SMOKED 100 CIGARETTES OR MORE LIFETIME * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE		
				Mother	Father	Total
1	EVER SMOKED 100 CIGARETTES OR MORE LIFETIME	No	Count	109	58	167
			%	92.4%	56.9%	75.9%
		Yes	Count	9	44	53
			%	7.6%	43.1%	24.1%
	Total		Count	118	102	220
			%	100.0%	100.0%	100.0%
2	EVER SMOKED 100 CIGARETTES OR MORE LIFETIME	No	Count	95	49	144
			%	91.3%	52.1%	72.7%
		Yes	Count	9	45	54
			%	8.7%	47.9%	27.3%
	Total		Count	104	94	198
			%	100.0%	100.0%	100.0%

SMOKE NOW * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE		Total
				Mother	Father	
1	SMOKE NOW	No	Count	17	20	37
			%	65.4%	37.7%	46.8%
		Yes	Count	4	17	21
			%	15.4%	32.1%	26.6%
		2	Count	5	16	21
			%	19.2%	30.2%	26.6%
	Total		Count	26	53	79
			%	100.0%	100.0%	100.0%
2	SMOKE NOW	No	Count	2	12	14
			%	22.2%	26.7%	25.9%
		Yes	Count	4	21	25
			%	44.4%	46.7%	46.3%
		2	Count	3	12	15
			%	33.3%	26.7%	27.8%
	Total		Count	9	45	54
			%	100.0%	100.0%	100.0%

DENTAL CARE * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE			Total
				Mother	Father	Oldest Child	
2	DENTAL CARE	No	Count	84	89	47	220
			%	80.8%	93.7%	72.3%	83.3%
		Yes	Count	20	6	18	44
			%	19.2%	6.3%	27.7%	16.7%
	Total		Count	104	95	65	264
			%	100.0%	100.0%	100.0%	100.0%

MOOD
(FARMWORKERS ONLY)

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
SAD EVERY DAY FOR 2+ WEEKS IN THE LAST 12 MONTHS * PERSON TYPE * STUDY YEAR	572	98.6%	8	1.4%	580	100.0%
STOPPED DOING NORMAL ACTIVITIES BECAUSE OF DEPRESSION * PERSON TYPE * STUDY Y	59	10.2%	521	89.8%	580	100.0%
DEPRESSION DURING LAST MIGRATION SEASON * PERSON TYPE * STUDY YEAR	57	9.8%	523	90.2%	580	100.0%

D EVERY DAY FOR 2+ WEEKS IN THE LAST 12 MONTHS * PERSON TYPE * STUDY YEAR Crosstabulati

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	SAD EVERY DAY FOR 2+ WEEKS IN THE LAST 12 MONTHS	No	Count	101	91	66	19	277
			%	85.6%	89.2%	95.7%	95.0%	89.6%
		Yes	Count	17	11	3	1	32
			%	14.4%	10.8%	4.3%	5.0%	10.4%
	Total		Count	118	102	69	20	309
			%	100%	100%	100.0%	100.0%	100.0%
2	SAD EVERY DAY FOR 2+ WEEKS IN THE LAST 12 MONTHS	No	Count	90	89	62		241
			%	86.5%	93.7%	96.9%		91.6%
		Yes	Count	14	6	2		22
			%	13.5%	6.3%	3.1%		8.4%
	Total		Count	104	95	64		263
			%	100%	100%	100.0%		100.0%

STOPPED DOING NORMAL ACTIVITIES BECAUSE OF DEPRESSION * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	STOPPED DOING NORMAL ACTIVITIES BECAUSE OF DEPRESSION	No	Count	2	3	1		6
			%	10.5%	23.1%	25.0%		16.2%
		Yes	Count	17	10	3	1	31
			%	89.5%	76.9%	75.0%	100.0%	83.8%
	Total		Count	19	13	4	1	37
			%	100.0%	100%	100.0%	100.0%	100.0%
2	STOPPED DOING NORMAL ACTIVITIES BECAUSE OF DEPRESSION	No	Count	7	6	1		14
			%	50.0%	100%	50.0%		63.6%
		Yes	Count	7		1		8
			%	50.0%		50.0%		36.4%
	Total		Count	14	6	2		22
			%	100.0%	100%	100.0%		100.0%

DEPRESSION DURING LAST MIGRATION SEASON * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	DEPRESSION DURING LAST MIGRATION SEASON	No	Count	2	5	1		8
			%	11.1%	38.5%	25.0%		22.2%
		Yes	Count	16	8	3	1	28
			%	88.9%	61.5%	75.0%	100.0%	77.8%
	Total		Count	18	13	4	1	36
			%	100.0%	100%	100.0%	100.0%	100.0%
2	DEPRESSION DURING LAST MIGRATION SEASON	No	Count	4	2			6
			%	30.8%	33.3%			28.6%
		Yes	Count	9	4	2		15
			%	69.2%	66.7%	100.0%		71.4%
	Total		Count	13	6	2		21
			%	100.0%	100%	100.0%		100.0%

APPENDIX 9
DESCRIPTIVE STATISTICS FOR FIELD SANITATION VARIABLES
(FARMWORKERS ONLY)

APPENDIX 9
DESCRIPTIVE STATISTICS FOR FIELD SANITATION VARIABLES (FARMWORKERS ONLY)

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
DRINKING WATER (FAMILY) * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
DRINKING WATER SELF-PROVIDED (FAMILY) * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
CUPS (FAMILY) * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
CUPS SELF-PROVIDED (FAMILY) * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
TOILET PAPER (FAMILY) * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
TOILET PAPER SELF-PROVIDED (FAMILY) * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
WASH WATER FOR HANDS (FAMILY) * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
WASH WATER FOR HANDS SELF-PROVIDED (FAMILY) * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
SOAP FOR WASHING HANDS (FAMILY) * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
SOAP FOR WASHING HANDS SELF-PROVIDED (FAMILY) * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
TOWELS FOR DRYING HANDS (FAMILY) * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
TOWELS FOR DRYING HANDS SELF-PROVIDED (FAMILY) * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%
TOILET FACILITIES (FAMILY) * PERSON TYPE * STUDY YEAR	580	100.0%	0	.0%	580	100.0%

DRINKING WATER (FAMILY) * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				
				Mother	Father	Oldest Child	Youngest Child	Total
1	DRINKING WATER (FAMILY)	No	Count	54	52	45	16	167
			%	45.4%	50.0%	63.4%	76.2%	53.0%
		Yes	Count	65	52	26	5	148
			%	54.6%	50.0%	36.6%	23.8%	47.0%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	DRINKING WATER (FAMILY)	No	Count	42	43	35		120
			%	40.0%	45.3%	53.8%		45.3%
		Yes	Count	63	52	30		145
			%	60.0%	54.7%	46.2%		54.7%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

DRINKING WATER SELF-PROVIDED (FAMILY) * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				
				Mother	Father	Oldest Child	Youngest Child	Total
1	DRINKING WATER SELF-PROVIDED (FAMILY)	No	Count	30	34	20	3	87
			%	25.2%	32.7%	28.2%	14.3%	27.6%
		Yes	Count	89	70	51	18	228
			%	74.8%	67.3%	71.8%	85.7%	72.4%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	DRINKING WATER SELF-PROVIDED (FAMILY)	No	Count	57	54	30		141
			%	54.3%	56.8%	46.2%		53.2%
		Yes	Count	48	41	35		124
			%	45.7%	43.2%	53.8%		46.8%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

CUPS (FAMILY) * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				
				Mother	Father	Oldest Child	Youngest Child	Total
1	CUPS (FAMILY)	No	Count	61	59	49	17	186
			%	51.3%	56.7%	69.0%	81.0%	59.0%
		Yes	Count	58	45	22	4	129
			%	48.7%	43.3%	31.0%	19.0%	41.0%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	CUPS (FAMILY)	No	Count	44	44	36		124
			%	41.9%	46.3%	55.4%		46.8%
		Yes	Count	61	51	29		141
			%	58.1%	53.7%	44.6%		53.2%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

CUPS SELF-PROVIDED (FAMILY) * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				
				Mother	Father	Oldest Child	Youngest Child	Total
1	CUPS SELF-PROVIDED (FAMILY)	No	Count	40	44	27	6	117
			%	33.6%	42.3%	38.0%	28.6%	37.1%
		Yes	Count	79	60	44	15	198
			%	66.4%	57.7%	62.0%	71.4%	62.9%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	CUPS SELF-PROVIDED (FAMILY)	No	Count	61	59	32		152
			%	58.1%	62.1%	49.2%		57.4%
		Yes	Count	44	36	33		113
			%	41.9%	37.9%	50.8%		42.6%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

TOILET PAPER (FAMILY) * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				
				Mother	Father	Oldest Child	Youngest Child	Total
1	TOILET PAPER (FAMILY)	No	Count	51	50	46	15	162
			%	42.9%	48.1%	64.8%	71.4%	51.4%
		Yes	Count	68	54	25	6	153
			%	57.1%	51.9%	35.2%	28.6%	48.6%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	TOILET PAPER (FAMILY)	No	Count	34	35	29		98
			%	32.4%	36.8%	44.6%		37.0%
		Yes	Count	71	60	36		167
			%	67.6%	63.2%	55.4%		63.0%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

TOILET PAPER SELF-PROVIDED (FAMILY) * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	TOILET PAPER SELF-PROVIDED (FAMILY)	No	Count	45	46	25	6	122
			%	37.8%	44.2%	35.2%	28.6%	38.7%
		Yes	Count	74	58	46	15	193
			%	62.2%	55.8%	64.8%	71.4%	61.3%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	TOILET PAPER SELF-PROVIDED (FAMILY)	No	Count	73	69	42		184
			%	69.5%	72.6%	64.6%		69.4%
		Yes	Count	32	26	23		81
			%	30.5%	27.4%	35.4%		30.6%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

WASH WATER FOR HANDS (FAMILY) * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	WASH WATER FOR HANDS (FAMILY)	No	Count	56	54	47	16	173
			%	47.1%	51.9%	66.2%	76.2%	54.9%
		Yes	Count	63	50	24	5	142
			%	52.9%	48.1%	33.8%	23.8%	45.1%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	WASH WATER FOR HANDS (FAMILY)	No	Count	43	43	36		122
			%	41.0%	45.3%	55.4%		46.0%
		Yes	Count	62	52	29		143
			%	59.0%	54.7%	44.6%		54.0%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

WASH WATER FOR HANDS SELF-PROVIDED (FAMILY) * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	WASH WATER FOR HANDS SELF-PROVIDED (FAMILY)	No	Count	46	47	26	5	124
			%	38.7%	45.2%	36.6%	23.8%	39.4%
		Yes	Count	73	57	45	16	191
			%	61.3%	54.8%	63.4%	76.2%	60.6%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	WASH WATER FOR HANDS SELF-PROVIDED (FAMILY)	No	Count	64	62	35		161
			%	61.0%	65.3%	53.8%		60.8%
		Yes	Count	41	33	30		104
			%	39.0%	34.7%	46.2%		39.2%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

SOAP FOR WASHING HANDS (FAMILY) * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	SOAP FOR WASHING HANDS (FAMILY)	No	Count	61	58	48	16	183
			%	51.3%	55.8%	67.6%	76.2%	58.1%
		Yes	Count	58	46	23	5	132
			%	48.7%	44.2%	32.4%	23.8%	41.9%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	SOAP FOR WASHING HANDS (FAMILY)	No	Count	45	45	37		127
			%	42.9%	47.4%	56.9%		47.9%
		Yes	Count	60	50	28		138
			%	57.1%	52.6%	43.1%		52.1%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

SOAP FOR WASHING HANDS SELF-PROVIDED (FAMILY) * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	SOAP FOR WASHING HANDS SELF-PROVIDED (FAMILY)	No	Count	61	60	37	10	168
			%	51.3%	57.7%	52.1%	47.6%	53.3%
		Yes	Count	58	44	34	11	147
			%	48.7%	42.3%	47.9%	52.4%	46.7%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	SOAP FOR WASHING HANDS SELF-PROVIDED (FAMILY)	No	Count	67	63	35		165
			%	63.8%	66.3%	53.8%		62.3%
		Yes	Count	38	32	30		100
			%	36.2%	33.7%	46.2%		37.7%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

TOWELS FOR DRYING HANDS (FAMILY) * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	TOWELS FOR DRYING HANDS (FAMILY)	No	Count	62	59	49	16	186
			%	52.1%	56.7%	69.0%	76.2%	59.0%
		Yes	Count	57	45	22	5	129
			%	47.9%	43.3%	31.0%	23.8%	41.0%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	TOWELS FOR DRYING HANDS (FAMILY)	No	Count	46	45	39		130
			%	43.8%	47.4%	60.0%		49.1%
		Yes	Count	59	50	26		135
			%	56.2%	52.6%	40.0%		50.9%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

TOWELS FOR DRYING HANDS SELF-PROVIDED (FAMILY) * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				
				Mother	Father	Oldest Child	Youngest Child	Total
1	TOWELS FOR DRYING HANDS SELF-PROVIDED (FAMILY)	No	Count	54	55	32	8	149
			%	45.4%	52.9%	45.1%	38.1%	47.3%
		Yes	Count	65	49	39	13	166
			%	54.6%	47.1%	54.9%	61.9%	52.7%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	TOWELS FOR DRYING HANDS SELF-PROVIDED (FAMILY)	No	Count	63	60	33		156
			%	60.0%	63.2%	50.8%		58.9%
		Yes	Count	42	35	32		109
			%	40.0%	36.8%	49.2%		41.1%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

TOILET FACILITIES (FAMILY) * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				
				Mother	Father	Oldest Child	Youngest Child	Total
1	TOILET FACILITIES (FAMILY)	No	Count	47	47	44	15	153
			%	39.5%	45.2%	62.0%	71.4%	48.6%
		Yes	Count	72	57	27	6	162
			%	60.5%	54.8%	38.0%	28.6%	51.4%
	Total		Count	119	104	71	21	315
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	TOILET FACILITIES (FAMILY)	No	Count	33	34	29		96
			%	31.4%	35.8%	44.6%		36.2%
		Yes	Count	72	61	36		169
			%	68.6%	64.2%	55.4%		63.8%
	Total		Count	105	95	65		265
			%	100.0%	100.0%	100.0%		100.0%

APPENDIX 10
DESCRIPTIVE STATISTICS FOR INJURY VARIALBLES (FARMWORKERS ONLY)

MANOS INJURIES USED IN THE COX MODEL

	STUDY YEAR	PERSON TYPE	INJURY TYPE	PART OF BODY INJURED	WAS TIME LOST FROM WORK/RECREATION	AMOUNT OF TIME LOST	WAS IT HOURS, DAYS, OR WEEKS?	CARE OF INJURY	DESCRIPTION OF OTHER CARE	NO MONEY
1	Study Year 1	Father	HIT HIMSELF WITH METAL IRON POLE	FOREHEAD	No	.	.	Employer		No
2	Study Year 1	Father	HE WAS SITTING ON SOME BENCH AND FELL AND ABRACED HIS KNEE.	KNEE	No	.	.	Went to hospital/clinic		.
3	Study Year 1	Oldest Child	INJURED LIFTING A HEAVY BOX NOTE ADDED BY INTERVIEWER: "COULDN'T STOP WORKING, BOSS DIDN'T BELIEVE HE GOT HURT."	WAIST	No	.	.	Took care of it myself		No
4	Study Year 1	Mother	INFLAMMATION OF FOREARM IN LEFT ARM EXCESSIVE USAGE OF KNIFE & CLIFF. ALSO STIFFNESS OF FINGERS IN SAME ARM.	ARM & FINGER	No	.	.	Employer		No
5	Study Year 1	Father	INFLAMMATION OF LEFT FOREARM & STIFFNESS OF ALL 5 FINGERS	ARM	No	.	.	Employer		No
6	Study Year 1	Mother	SHE TWISTED HER NECK & DIDN'T WORK FOR 10 DAYS.	NECK	Yes	10	2	Took care of it myself		No
7	Study Year 1	Mother	FELL TO GROUND & WAS UNCONSCIOUS	WAIST	Yes	1	2	Went to hospital/clinic		.
8	Study Year 1	Mother	SHE CUT HERSELF WITH THE SCISSORS THEY USE FOR HARVESTING.	FINGER	No	.	.	Employer		No
9	Study Year 1	Father	CUT WITH SCISSORS WHILE WORKING.	FINGER	No	.	.	Employer		No
10	Study Year 1	Mother	SHE SLIPPED WITH WATER IN COMPANY.	HAND & HIP	No	.	.	Went to hospital/clinic		.
11	Study Year 2	Mother	ABRASION	RIGHT EYE	No	.	.	Went to hospital/clinic		.
12	Study Year 2	Mother	HURT RT LEG	RT LEG	Yes	24	1	Went to hospital/clinic		.
13	Study Year 2	Father	HEMMORHAGE TO HIS HEAD	HEAD	Yes	2520	1	Went to hospital/clinic		.
14	Study Year 2	Father	RASH TO HANDS	HANDS	No	.	.	Took care of it myself		No
15	Study Year 2	Father	ABRASION	UPPER BACK	Yes	48	1	Did nothing		No
16	Study Year 2	Mother	INFECTION TO EYES AND RASH TO ARMS	EYES AND ARMS	No	.	.	Took care of it myself		Yes
17	Study Year 2	Father	INFECTION TO EYES & RASH TO ARMS	EYES & ARMS	No	.	.	Took care of it myself		Yes
18	Study Year 2	Father	SWOLLEN AND BRUISED	LEFT FOOT	No	.	.	Went to hospital/clinic		.
19	Study Year 2	Mother	RASH	BETWEEN LEGS	Yes	48	1	Took care of it myself		Yes
20	Study Year 2	Oldest Child	TOE NAIL FELL OFF	RIGHT AND LEFT TOES	Yes	24	1	Took care of it myself		Yes
21	Study Year 2	Oldest Child	CUT	PART MIDDLE LEG	No	.	.	Took care of it myself		.
22	Study Year 2	Mother	HEAT STROKE	NONE	Yes	48	1	Took care of it myself		No
23	Study Year 2	Oldest Child	CUT ABRASION	RIGHT KNEE	No	.	.	Took care of it myself		No
24	Study Year 2	Mother	PESTICIDE POISON	LEGS	Yes	2	1	Employer		Yes
25	Study Year 2	Mother	FRACTURE	RIGHT FOOT	No	.	.	Went to hospital/clinic		.
Total N	25	25	25	25	25	9	9	25	25	16

MANOS INJURIES USED IN THE COX MODEL

	NO TRANSPORTATION	NOT SERIOUS ENOUGH	NO TIME/HAD TO WORK	NO PERMISSION FROM EMPLOYER	NO MEDICAL FACILITIES	OTHER REASON	DESCRIPTION OF OTHER REASON	WHEN DID INJURY HAPPEN
1	No	No	No	No	No	Yes	HE REFUSED TO GO TO THE DOCTOR...	While working
2	.	.	.	.	.	.		While working
3	No	No	No	Yes	No	No		While working
4	No	Yes	No	No	No	No		While working
5	No	Yes	No	No	No	No		While working
6	Yes	No	No	No	No	No		While working
7	.	.	.	.	.	.		While working
8	No	No	Yes	No	No	No		While working
9	No	Yes	No	No	No	No		While working
10	.	.	.	.	.	.		While working
11	.	.	.	.	.	.		.
12	.	.	.	.	.	.		.
13	.	.	.	.	.	.		.
14	No	Yes	Yes	No	No	.		.
15	No	No	No	No	No	Yes	AS PER PATRICIPANT HE DIDN'T ATTEND TO DR. BECAUSE IT WAS A DOCTOR THAT EMPLOYER HAD PROVIDED THEY NEVER GIVE NOTHING TO HELP.	.
16	No	No	Yes	No	Yes	Yes	INJURY CARE Q: COULDN'T AFFORD TO STOP WORKING JUST KEPT WASHING HER EYES & PUTTING SOME EYE DROPS ONTHAT SHE BOUGHT FROM OFF THE COUNTER. COULDN'T AFFORD TO SEE DOCTOR.	.
17	No	No	Yes	No	Yes	.		.
18	.	.	.	.	.	.		.
19	Yes	.	Yes	.	.	.		.
20	Yes	No	Yes	No	No	.		.
21	.	.	.	.	.	.		.
22	No	No	No	No	Yes	.		.
23	No	Yes	No	No	No	.		.
24	No	No	Yes	No	No	.		.
25	.	.	.	.	.	.		.
Total N	16	15	16	15	15	9	25	10

MANOS INJURIES USED IN THE COX MODEL

	DESCRIPTION OF OTHER	InjWhen	LOCATION OF INJURY	DESCRIPTION OF OTHER	InjLocat	InjDo	DESCRIPTION OF OTHER	WAS IT A NORMAL WORK ACTIVITY	TYPE OF COMMODITY/CROP	DESCRIPTION OF OTHER	InjCrop
1			Field/Orchard/Nursery			9		Yes	Fruit/nut		
2			Grain storage/silo			15	PELANDO EL MAIZ	Yes	Vegetables		
3			Other	FACTORY		8		Yes	Vegetables		
4			Other	INSIDE OF COMPANY WHERE THEY CUT THE MEAT		15	CUTTING MEAT	Yes	Other	MEAT	
5			Barn			15	CLEANING CATTLE	Yes	Other	MEAT	
6			Field/Orchard/Nursery			15	WOKE UP LIKE THATt - TWISTED WHILE SLEEPING	Yes	Field crop		
7			Field/Orchard/Nursery			4		Yes	Vegetables		
8			Field/Orchard/Nursery			1		Yes	Field crop		
9			Field/Orchard/Nursery			1		Yes	Vegetables		
10			Other	CANNERY		15	CLEANING	Yes	Vegetables		
11		WHILE WORKING			IN THE BUSHES						HOEING CARROTS
12		WORKING			FIELD						TOMATOES
13		GOING TO JOB			CAR						ASPARAGUS
14		WORKING			FIELDS						GRAPEVINES
15		WHILE WORKING			FACTORY						POTATOES
16		WORKING			FIELDS						CORN
17		WORKING			FIELDS						CORN
18		WHILE WORKING			FIELDS						CALABAZA (SQUASH)
19		WHILE WORKING			FIELDS						ESPIGA (GRAIN)
20		ALL OF THE ABOVE			ALL OF THE ABOVE						ESPIGA (GRAIN)
21		WORKING			FIELDS						SORGO (SORGHUM)
22		WHILE WORKING			FIELDS						ASPARRAGUS
23		WHILE WORKING			FIELD						BERRIES
24		WHILE WORKING			FIELDS						BARLEY
25		WHILE WORKING			FACTORY						CELERY
Total N	25	25	10	25	25	10	25	10	10	25	25

MANOS INJURIES USED IN THE COX MODEL

	TYPE OF OBJECT CAUSING INJURY	DESCRIPTION OF OTHER CAUSE	Inja	Injb	HAD THE INJURED PERSON RECEIVED ANY TRAINING	InjDescript
1	Hand held tool		METAL IRON POLE		Yes	
2	Other	SITTING ON A BENCH AND FELL				
3	Other	BOXES / HEAVY CRATES / LIFTING				
4	Hand held tool		KNIFE		Yes	
5	Hand held tool		KNIFE		Yes	
6	Hand held tool		Interviewer wrote N/A			
7	Other	SLIPPED & FELL				
8	Hand held tool		SCISSORS		Yes	
9	Hand held tool		SCISSORS		Yes	
10	Other	WATER ON FLOOR				
11	Other					XXXXXX WAS GOING TO THE BATHROOM IN THE BUSHES AND SHE HURT HERSELF WITH A STICK IN HER EYE. SHE HAD TO GO SEE THE DOCTOR.
12	Tractor/Other farm machinery		TRACTOR		No	AS I WAS RIDING ON TRACTOR WORKING I LOST MY BALANCE AND FELL DOWN, I HURT MY RIGHT LEG, DOCTOR PUT ON A BRACE, AND I HAD TO STAY HOME FOR A DAY, TILL I FELT BETTER. I DID NOT FRACTURE MY LEG ONLY THAT IT WAS SORE.
13	Car/Other vehicle		TRUCK	EIGHTEEN WHEELER		GOING TO WORK ON THE ROAD AND A EIGHTEEN WHEELER TRUCK HIM IN BACK. WHILE BEING ON A LIGHT STOPPED THE DRIVER HIT HIM.
14	Other	FIELD WORK				HE WOKE UP WITH A RASH ALL OVER HIS BODY. HE DID NOT GO SEE A DOCTOR FOR THIS RASH. HE DID NOT STOP WORKING OR MISSED DAYS FROM WORK. HE STATES HE HAD IT FOR A WEEK, HE STATES HE WOULD RUB ALCOHOL IN HIS HANDS.
15	Other					HUSBAND WAS STANDING ON A BOX THEN HIS BROTHER IN LAW MOVED IT AND FALL AND LANDED ON HIS BACK. THIS WAS IN THE FACTORY WHILE WORKING THEY WERE TAKING OUT POTATO FROM BOX.
16	Other					INCIDENT HAPPENED WHE SHE WAS DETASSLING CORN IN THE FIELDS & SHE PULLED THE CORN & FELT SOMETHING GO INTO HER EYES & FELT A BURNING SENSATION ON EYES & ARMS.
17	Other					IT HAPPENED WHEN HE WAS WORKING IN THE FIELDS DETASSLING CORN. APPARENTLY THE CORN HAD SOME WHITE POWDER ON THEM & IT GOT ON HIS ARMS & EYES. IT WOULD BURN THE EYES & MADE BLISTERS ON THE ARMS.
18	Other					A BOX OF CALABASA (SQUASH) FELL ON HIS (LT) FOOT AND HIS FOOT GOT SWOLLEN AND BRUISED
19	Other	FIELD WORK				STATED AFTER WORKING 1 WEEK SHE NOTICED A RASH BETWEEN HER LEGS. STATED SHE ALMOST STARTED BLEEDING SHE STATES SHE STARTED USING PEROXIDE--NEOSPORINE, VASELINE.
20	Other	CHEMICALS				XXXXX STATED WHEN SHE STARTED TO WORK JULY, SHE WAS WORKING IN THE ESPIGA (GRAIN), SHE GOT BLISTERS IN HER LEFT TOE, AND SHE STATES THAT SHE IS ALSO GETTING BLISTERS IN HER RIGHT TOE, AND THAT HER NAIL FELLOFF. SHE STATED SHE CARED FOR IT HERSELF.
21	Hand held tool		MACHETE		No	HE WAS WORKING CUTTING (SORGO) AND HE CUT HIMSELF ON RT LEG MIDDLE PART. HE STATED HE FELT IT WAS NOT SERIOUS ENOUGH TO GO SEE A DOCTOR HE DID TAKE CARE OF IT BY PUTTING PEROXIDE TO CLEAN CUT.
22	Other	FIELDWORK				
23	Car/Other vehicle		TRUCK			
24	Other	PESTICIDES				AS PER XXXXX THEY HAD JUST SPRAYED FIELD WITH PESTICIDES WHEN THEY WENT TO WORK. SHE STARTED FEELING WET HER LEGS AFTER THAT SHE WAS GETTING BLISTERS ON ALL HER LEGS RIGHT AWAY.
25	Other	STEPPED ON CELERY				SHE WAS WORKING CLEANING CELERY SHE DROPPED A PIECE OF ONE STEPPED ON IT AND FELL ON THE FLOOR.
Total N	25	25	25	25	7	25

APPENDIX 11
DESCRIPTIVE STATISTICS FOR CHRONIC BACK PAIN & HAND SYMPTOMS
(FARMWORKERS ONLY)

CHRONIC BACK PAIN

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
CHRONIC BACK PAIN * PERSON TYPE * STUDY YEAR	571	98.4%	9	1.6%	580	100.0%

CHRONIC BACK PAIN * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				
				Mother	Father	Oldest Child	Youngest Child	Total
1	CHRONIC BACK PAIN	No	Count	78	77	59	19	233
			%	66.7%	76.2%	84.3%	90.5%	75.4%
		Yes	Count	39	24	11	2	76
			%	33.3%	23.8%	15.7%	9.5%	24.6%
	Total		Count	117	101	70	21	309
			%	100.0%	100%	100.0%	100.0%	100.0%
2	CHRONIC BACK PAIN	No	Count	74	75	54		203
			%	71.8%	78.9%	84.4%		77.5%
		Yes	Count	29	20	10		59
			%	28.2%	21.1%	15.6%		22.5%
	Total		Count	103	95	64		262
			%	100.0%	100%	100.0%		100.0%

PROBLEMS WITH HAND/WRIST/FINGERS

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
PROBLEMS WITH HAND/WRIST/FINGERS * PERSON TYPE * STUDY YEA	574	99.0%	6	1.0%	580	100.0%

PROBLEMS WITH HAND/WRIST/FINGERS * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	PROBLEMS WITH HAND/WRIST/FINGERS	No	Count	76	69	61	17	223
			%	64.4%	68.3%	87.1%	81.0%	71.9%
		Yes	Count	42	32	9	4	87
			%	35.6%	31.7%	12.9%	19.0%	28.1%
	Total		Count	118	101	70	21	310
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	PROBLEMS WITH HAND/WRIST/FINGERS	No	Count	77	81	62		220
			%	74.0%	85.3%	95.4%		83.3%
		Yes	Count	27	14	3		44
			%	26.0%	14.7%	4.6%		16.7%
	Total		Count	104	95	65		264
			%	100.0%	100.0%	100.0%		100.0%

DIFFICULTY PICKING UP/HOLDING THINGS WITH HANDS/FINGERS

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
DIFFICULTY PICKING UP/HOLDING THINGS WITH HANDS/FINGERS * PERSON TYPE * STUDY YEAR	574	99.0%	6	1.0%	580	100.0%

DIFFICULTY PICKING UP/HOLDING THINGS WITH HANDS/FINGERS * PERSON TYPE * STUDY YEAR Crosstabulation

STUDY YEAR				PERSON TYPE				Total
				Mother	Father	Oldest Child	Youngest Child	
1	DIFFICULTY PICKING UP/HOLDING THINGS WITH HANDS/FINGERS	No	Count	103	97	69	21	290
			%	87.3%	96.0%	98.6%	100.0%	93.5%
		Yes	Count	15	4	1		20
			%	12.7%	4.0%	1.4%		6.5%
	Total		Count	118	101	70	21	310
			%	100.0%	100.0%	100.0%	100.0%	100.0%
2	DIFFICULTY PICKING UP/HOLDING THINGS WITH HANDS/FINGERS	No	Count	93	91	64		248
			%	89.4%	95.8%	98.5%		93.9%
		Yes	Count	11	4	1		16
			%	10.6%	4.2%	1.5%		6.1%
	Total		Count	104	95	65		264
			%	100.0%	100.0%	100.0%		100.0%

APPENDIX 12
DOCUMENTATION FOR CHANGE OF PRINCIPAL INVESTIGATOR

THE UNIVERSITY OF TEXAS
HOUSTON
HEALTH SCIENCE CENTER

School of Public He
Southwest Center for
Occupational and Envi

April 17, 2002

Angie Nation
Grants Management Specialist
Centers for Disease Control & Prevention (CDC)
Procurement and Grants Office, Branch A, Team 4
2920 Brandywine Road, Suite 3000
Atlanta, GA 30341-4146

RE: 5 R01 OH04041-03

Dear Ms. Nation:

I am currently the Principal Investigator (PI) on 5 R01 OH04041-03, "Injury an Illness Surveillance in Migrant Farmworkers". This study is in the third year of a three year grant cycle that will conclude 9/29/02. We will likely request a one-year no-cost extension, which apparently can be done internally through our research office. I have accepted a new position at Texas A&M School of Rural Public Health, which I will sta July 1, 2002. I have decided to leave this grant at The University of Texas School of Public Health and have a personal and professional investment to continue to actively work on the analyses and subsequent publications (and I will only be 90 miles away). Our study is on schedule, and we have just completed data collection. And I am continuing to work with this population on a subsequent study.

I am therefore writing to request transferring PI status to Dr. Keith Burau, just promoted to Associate Professor of Biometry, who is currently co-Principal Investigat I have worked with Keith for 20+ years, and am committed to continue to work with hi to see the final successful completion of this study. Since we are in the data clean-up a analysis phase, this will be the ideal time to transition the study to him. Attached is a copy of his CV. I am working closely with our Associate Dean for Research, Dr. Sue McPherson and our Office of Sponsored Projects Sr. Contracts and Grants Officer, Mr. Frank Velasquez, who both support this request (see signature below).

I would like to request this change as soon as possible, so that Keith and I can work together to make a smooth transition. Thank you for your help with this and plea let me know if you need additional information.

UT Houston School of Public Health • P.O. Box 20186 • Houston, Texas 77225-0186 • (713) 500-9440 FAX (713) 500-9
A World Health Organization Collaborating Center and a National Institute for Occupational Safety and Health Educational Resource Cente
Located in the Texas Medical Center

Very sincerely,

Sharon Cooper

Sharon Cooper, Ph.D.
Associate Professor of Epidemiology
The University of Texas School of Public Health
(713)500-9460

Velásquez

Frank F. Velasquez
Sr. Contracts and Grants Officer
The University of Texas Health Science Center at Houston
(713)500-9352

cc: Dr. R. Sue McPherson
Associate Dean for Research

Dr. Keith Burau
Assistant Professor of Biometry

Dr. George Delclos
Center Director
Southwest Center for Occupational and Environmental health

Burau
201-6-7701

Change of PI
NCE from 9/30/02 - 9/29/03

**********NOTICE OF GRANT AWARD**********

Research Issue Date: JUN 12 2002

Department of Health and Human Services
Centers for Disease Control & Prevention
National Institute For Occupational Safety and Health

****

Grant Number: 5 R01 OH04041-03 (Revised)
Principal Investigator: BURAU, KEITH, PHD
PROJECT TITLE: INJURY AND ILLNESS SURVEILLANCE IN MIGRANT FARMWORKERS

DIRECTOR
UNIVERSITY OF TEXAS
HLTH SCI CENTER AT HOUSTON
POST OFFICE BOX 20708
HOUSTON, TX 77225-0708

Budget Period: 09/30/2001-09/29/2003
Project Period: 09/30/1999-09/29/2003

Dear Business Official:

The Centers for Disease Control & Prevention hereby revises the award to UNIVERSITY OF TEXAS in support of the above referenced project. This award is pursuant to the authority of 42 USC 241 - P.L. 91-596 and is subject to attached terms and conditions.

Acceptance of this award including attached Terms and Conditions is acknowledged by the grantee when funds are drawn down or otherwise obtained from the grant payment system.

Award recipients are responsible for appropriate acknowledgment of CDC support when preparing publications, or issuing statements, press releases, request for proposals, bid solicitations, and other documents describing projects or programs funded in whole or in part with CDC support.

If you have any questions about this award, please contact the individual(s) referenced in the attachments.

Sincerely,

ROBERT L. WILLIAMS
Grants Management Officer

Attachments

cc: Principal Investigator

SECTION I - AWARD DATA - 5 R01 OH04041-03 (Revised)

AWARD CALCULATION (U.S. Dollars):

Direct Costs	175,000
F&A Costs	73,375
APPROVED BUDGET	248,375
FINANCIAL ASSISTANCE	248,375
AMOUNT OF THIS ACTION	0

FISCAL INFORMATION
CFDA Number: 93.262
EIN: 1741761309A2
Document Number: R1OH04041A
List Number: CL023J02

IC	CAN	FY01
OH	218875	248,375

ADMINISTRATIVE DATA:
PCC: / OC: 41.4E / Processed: 020528 1808 ANN 01

SECTION II - PAYMENT/HOTLINE INFORMATION - 5 R01 OH04041-03 (Revised)

For Payment and HHS Office of Inspector General Hotline information, see the NIH Home page at
http://grants.nih.gov/grants/policy/awardconditions.htm

SECTION III - TERMS AND CONDITIONS - 5 R01 OH04041-03 (Revised)

This award is based on the application submitted to, and as approved by, the CDC on the above-titled project and is subject to the terms and conditions incorporated either directly or by reference in the following:

a. The grant program legislation and program regulation cited in this Notice of Grant Award.

b. The restrictions on the expenditure of federal funds in appropriations acts, to the extent those restrictions are pertinent to the award.

c. 45 CFR Part 74 or 45 CFR Part 92, as applicable.

d. The PHS Grants Policy Statement, including addenda in effect as of the beginning date of the budget period.

e. The award notice, INCLUDING THE TERMS AND CONDITIONS CITED BELOW.

(See NIH Home Page at
http://grants.nih.gov/grants/policy/awardconditions.htm
for certain references cited above.)

SECTION III - TERMS AND CONDITIONS - 5 R01 OH04041-03 (Revised) (continued)

Treatment of Program Income: Additional Costs

ADDITIONAL TERMS AND CONDITIONS

1. The purposes of this amended notice of grant award is to provide a twelve month no cost extension to September 30, 2003, under Expanded Authority, and to approve the change in Principal Investigator from Dr. Sharon Cooper to Dr. Keith Burau. These were requested in University of Texas at Houston correspondence dated April 17, 2002.

2. Closeout documents and the Year 02 FSR are now due December 31, 2003.

3. **Human Subjects**: Please be sure to send the Grants Management Office of your approved IRBs as soon as you receive a renewal and reference your grant number on the IRB form.

4. For any questions concerning this action please contact Angie Nation, CDC Grants Management Specialist at (770) 488-2719, or for programmatic questions, please contact the programmatic official, Dr. Lee Sanderson, at (404) 498-2546.

5. All previous terms and conditions apply.

APPENDIX 13
APPROVAL FOR REVISION OF PROTOCOL FOR DIARY PILOT

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
and Prevention

MAR 14 2000

Sharon P. Cooper, Ph.D.
Associate Professor of Epidemiology
Southwest Center for Occup. & Envir. Health
The University of Texas health Science Center at Houston
P.O. Box 20186
Houston, TX 77225

Reference: 1 R01 OH04041-01

Dear Dr. Cooper:

This is in response to your letter dated February 8, 2000, requesting approval to revise the protocol related to the study work diaries. Also provided in a follow-up fax dated March 10, 1999, was an updated I.R.B. for the University of Texas Houston. **This protocol revision is approved. It is noted that no additional funds will be required to implement this design change.**

For any programmatic questions, please contact Roy Fleming, Sc.D, NIOSH, at (404) 639-2810. If you have any business management questions, please contact Joanne Wojcik, Grants Management Specialist, at (770) 488-2717.

Sincerely yours,

Lisa T. Garbarino

Lisa T. Garbarino
Grants Management Officer
Grants Management Branch

cc: Business Office
Roy Fleming, Sc.D., D-30

FUTURE PUBLICATIONS

A Cohort Study of Injuries in Migrant Farmworker Families.

The Use of Concordant Respondents to Determine Occupational Hazards and Symptoms among Migrant Farmworkers.

Pesticide Safety Training and Field Sanitation in Migrant Farmworker Mothers from Starr County, TX.

ACKNOWLEDGEMENTS

We are grateful for the participation of each of the 267 participating migrant farmworker families who generously shared their time and information with us.

We greatly appreciate the time and expertise that Dr. Deborah del Junco contributed to advancing the methodology and analyses of these data.

This research would not have been possible without the dedication of the following individuals:

George Baum
Marice Barahona
Laura Freimanis-Hance, M.D. Ph.D.
Hilda Guerra & the Starr County Health Studies Office Staff, Rio Grande City, TX
Richard Jimenez, Dr.P.H. Candidate
Nancy MacNaughton, M.P.H.
Yolanda Morado
Dario Oliphant
Ryan Whitworth, M.P.H.

We would like to express our gratitude to the following individuals for helping us develop our survey instrument:

Toni Alterman Ph.D.
David Lighthall, Ph.D.
Stephen A. McCurdy, M.D. M.P.H.
John R. Myers, Ph.D.
Lorann Stallones, Ph.D.
Andrea Steege, M.S.
Shelia Hoar Zahm, Sc.D.