

## **Project Narrative: Assessing Food Security Among Agricultural Workers in California's Central Valley (Funded by the California Nutrition Network, October 2004)**

### **1. Community/Target Audience Description**

Fresno County is the most productive agricultural region in California and the United States, with \$3.4 billion in agricultural sales each year (USDA, United States Fact Sheet). Paradoxically, however, extremely high levels of hunger and food insecurity exist amidst these “fields of plenty,” with the second highest rate of food insecurity in California in Fresno County, affecting 36% of all residents with incomes below 200% of the federal poverty level (Harrison et al. 2002).

Poverty is a key predictor of food insecurity (Nord and Andrews 2003). Agricultural workers are among the poorest of all California residents, with three in five households living below the poverty level and average annual incomes of \$7,500 for individuals and \$10,000 for families (Mehta et al. 2000). High rates of food insecurity in Fresno County may therefore be associated with the fact that Fresno County has the highest concentration of agricultural workers in California, with an estimated 260,000 farmworkers and family members (Larsen 2000).

While there is little information about food security among farmworkers in California, we do know that farmworkers suffer disproportionately from chronic diseases including high blood pressure, high serum cholesterol and high rates of iron deficiency (Villarejo et al. 2000), that are often associated with poor diet and nutrition. Additionally, despite their youth and the physical nature of agricultural labor, farmworkers are also more overweight than both other Hispanics and the general population, with rates of overweight of 81% and 76% among men and women respectively and corresponding obesity rates of 28% and 37% (Villarejo et al. 2000).

Factors contributing to food insecurity among farmworkers include poverty, underemployment, low levels of participation in food assistance programs, lack of legal documentation status in the U.S., limited English skills, transportation barriers and the high cost of basic needs such as housing and health care, which may detract from the family food budget. California Food Policy Advocates (2003) reports high rates of non-participation in food assistance programs in Fresno County, where an estimated 48% of eligible participants do not receive food stamps, 22% do not participate in WIC, 17% do not take advantage of the National School Lunch Program and 63% do participate in the School Breakfast Program. Since these figures are reflective of the general population, participation rates among farmworkers are likely lower still.

Nonetheless, public education campaigns regarding the importance of a healthy diet have shown encouraging results. An evaluation of the **California Latino Five a Day Campaign** (Backman and Gonzaga 2003) found that “Spanish speaking participants in the intervention community reported a significantly greater increase in fruit and vegetable consumption.” Similarly, farmworkers in the Salinas Valley have reported positive changes in their diets as a result of educational campaigns, consuming more fresh fruits and vegetables and less red meat and fried food (Strochlic et al. 2003).

## **2. Project Description and Major Goals, Objectives and Activities**

### *Project Description*

The proposed project consists of a food security assessment among hired agricultural workers and family members in Fresno County. The assessment consists of a household survey among farmworkers in both urban and rural parts of Fresno County, including migrant labor camps. The quantitative survey findings will be complemented by focus groups and key informant interviews with farmworkers and key stakeholders familiar with farmworker health and well-being. The assessment will take a participatory and collaborative approach. An advisory committee consisting of farmworkers and other key stakeholders will guide all phases of this project, while surveys, focus groups and key informant interviews will be administered by community members trained in data collection and interviewing techniques. The advisory committee will also take an active role in the formulation of program and policy recommendations based on assessment findings. This assessment represents Phase I of a four-year research and implementation project. Assessment findings will inform program and policy interventions to be implemented in years two through four. A Farmworker Food Security Task Force that will be formed, that will promote programs and policies interventions to increase food security for farmworkers, such as policy mechanisms or education and outreach to simplify access to food and nutrition programs, increase utilization of food assistance programs and improve diet and nutrition, the promotion of community gardens, the formation of food policy councils or the implementation of community food assessments that will empower farmworker communities to take greater control over their food systems. The assessment will also result in targeted, community-based research among farmworker populations in other California counties. UCCE Building Food Security Workgroup members from Solano, San Joaquin and San Diego counties have already expressed interest in participating in such research.

### *Goals, Objectives and Activities*

The primary goal of this project is to increase food security among farmworkers and family members in Fresno County, by: (a) providing timely and accurate information regarding the prevalence of food insecurity among that population, in terms of access to sufficient food and access to a healthy diet; (b) identifying barriers to food security and community-based assets that can be leveraged to increase food security; (c) identifying variations in food security among sub-populations within the farmworker community, to identify priority sub-populations tailoring interventions to their specific needs; (d) promoting increased collaboration and research capacity among stakeholders working to improve the health and well-being of farmworkers in Fresno County; (e) formulating

program and policy recommendations to increase food security among farmworkers; and (f) creating a Farmworker Food Security Taskforce that will promote the implementation of recommendations.

The assessment will provide answers to the following specific questions:

What is the overall prevalence of food insecurity among farmworkers, in terms of both access to sufficient food and access to a healthy diet?

How does food security among farmworkers vary based on demographic factors, such as age, gender, ethnicity (i.e., mestizo or indigenous), educational level, household composition, etc?

How does food security among farmworkers vary based on other factors, including migratory status, place of residence (i.e., urban, rural, labor camp), citizenship or documentation status, fluency in English, access to food assistance programs, etc?

What are the main barriers to improved food security among farmworkers, such as poverty, limited transportation, limited access to fresh produce, limited cooking facilities, lack of time, lack of knowledge of diet and nutrition, etc?

What are the main assets that can be leveraged to promote increased food security among farmworkers, including knowledge of food and nutrition assistance programs, community networks that disseminate information, access to food from farms or community gardens, cultural practices that promote a healthy diet, etc?

To what extent do farmworkers access food assistance programs for which they are eligible?

Which programs are they most likely to access? What are the main reasons they do not access programs for which they are eligible?

Specific goals, objectives and activities associated with this assessment include the following:

**Goal 1:** To increase food security among farmworkers in Fresno County by gathering timely and accurate data that will lay the foundation for programmatic and policy interventions that to increase food security among that population.

**Objective 1:** By June 2005, administer a household food security survey to a minimum of 225 farmworkers and family members in Fresno County. This survey will be administered once during the summer and once during the winter, to detect seasonal variations in food security among farmworkers, who experience high levels of unemployment during the winter.<sup>1</sup>

**Activities:**

---

<sup>1</sup> Additional funding is concurrently being sought to increase the number of surveys to 450, which will provide more reliable data.

1. Develop a household survey instrument, comprised of four modules: (1) the complete 18-item USDA food security core module, which will measure hunger and access to a balanced diet among adults and children; (2) the Block “Rapid Food Screener to Assess Fat and Fruit and Vegetable Intake” (Block et al. 2000), which will gather in-depth information on dietary patterns, specifically consumption of fat, fruits and vegetables; (3) assets and barriers affecting food security, including knowledge of and participation in food and nutrition assistance programs; and (4) respondent demographic and other characteristics that may be associated with food security, such as documentation status, fluency in English, etc.
2. Translate draft survey into Spanish, Mixteco and Zapoteco.
3. Pilot, refine and finalize household survey instrument.
4. Recruit and train community-based interviewers.
5. Select sample of farmworkers to be interviewed. Using 2000 census data, a list of all census block groups in Fresno County will be generated, with the number of farmworkers as a percent of employed population. Each census block group will be assigned to an urban or rural cluster, based on the USDA Rural-Urban Commuting Area Codes (RUCA) system. Block groups corresponding to migrant labor camps will be assigned accordingly. The two census block groups with the highest concentration of farmworkers will be selected from each cluster. Purposive sampling will be used to select specific residences or housing complexes with high concentrations of farmworkers.
6. Administer household survey – summer and winter data points. The door-to-door household survey will be administered to half the sample in the winter and half in the summer.<sup>2</sup> The male or female head of household will be asked to participate in the interview. Should both be available, the interviewee with the most recent birthday will be selected for participation. In households consisting of several unrelated adults or families, the interviewee will be selected based on criteria including over 18 years of age and willingness to participate in the survey. If more than one person meets those criteria, the person with the most recent birthday will be selected. The survey will be conducted in Spanish and indigenous languages, primarily Mixteco and Zapoteco. Community-based promotores from Centro La Familia Advocacy Services (CLFA) will administer Spanish-language surveys, while community members identified through Frente Indígena Oaxaqueño Binacional (FIOB) will administer indigenous-language interviews.
7. Enter and analyze data. Survey data will be entered and analyzed using Statistical Package for the Social Sciences (SPSS) software.
8. Synthesize findings in final report.

**Goal 1, Objective 2:** By September 2005, conduct eight focus groups, four with farmworkers and four with other stakeholders familiar with farmworker diet, health and nutrition. One focus

---

<sup>2</sup> In light of farmworker mobility and the difficulties associated with locating the same individuals again, a panel approach will be utilized in which a different set of farmworkers will be interviewed during the winter and summer.

group will be conducted with farmworkers prior to developing the survey, to obtain information that will permit the development of questions and response categories. At least three focus groups will be conducted with farmworkers following the survey, to gain a more in-depth understanding of the dynamics behind specific findings, such as low rates of participation in food assistance programs or variations in food security among sub-populations of farmworkers. Focus groups will also elicit farmworker recommendations for improving food security and will be used to “test” potential recommendations. A minimum of four focus groups will also be conducted with key stakeholders to obtain a better understanding of specific survey findings. Stakeholders to be included in focus groups and key informant interviews include food and nutrition providers and advocates, farmworker advocates, health care providers, public health officials, migrant services providers, and if possible, growers, restaurant owners, *loncheros*, and food retailers serving farmworkers.

**Activities:**

1. Develop focus group questions.
2. Identify and recruit farmworkers to participate in a pre-survey focus group.
3. Identify and recruit farmworkers representing specific sub-populations to participate in post-survey focus groups.
4. Train interviewers to conduct post-survey focus groups.
5. Conduct focus groups with farmworkers.
6. Identify and recruit additional stakeholders knowledgeable about farmworker diet, nutrition and health; conduct at least four focus groups.
7. Analyze and synthesize all focus group findings.

**Goal 1, Objective 3:** By September 2005, conduct a minimum of 10 key informant interviews to supplement gaps in the household survey and focus group findings.

**Activities:**

1. Identify issues requiring further clarification based on preliminary survey and focus group findings.
2. Develop key informant interview protocols.
3. Identify stakeholders knowledgeable about issues requiring further clarification.
4. Conduct key informant interviews with targeted stakeholders.
5. Analyze and synthesize key informant interview findings.

**Goal 2:** To promote the daily consumption of 5 to 9 servings of fruits and vegetables; increased participation in food assistance programs; and increased physical activity among adults and children.

**Objective 1:** During the course of survey administration, provide at least 400 farmworkers with oral and written information on the benefits of a healthy diet and how to do so; eligibility criteria and how to access food assistance and nutrition education programs; and the benefits of physical activity for adults and children.

**Activities:**

1. Assemble informational packets with Spanish-language outreach materials.
2. Train community-based interviewers to conduct outreach and education among interviewees.
3. Community-based household survey administrators will conduct verbal and written outreach during the course of survey administration. In order to maximize the number of people reached through this activity, information will be provided to all individuals contacted, including those not eligible for or refusing to participate in the household survey.

**Goal 3:** To increase the internal research and evaluation capacity of participating community-based organizations and community-based interviewers.

**Objective 1:** By September 2005, participating CBOs and community-based interviewers will report increased research skills as a result of participation in this assessment.

**Activities:**

1. Provide advisory committee members with “hands-on” training in research methods, include survey design and administration, focus groups and key informant interviews and interpreting survey findings.
2. Provide community-based interviewers with training in survey administration, conducting focus groups and conducting outreach and education on diet and nutrition.

**Goal 4:** To promote increased collaboration among stakeholders working to improve the health and well-being of farmworkers in Fresno County.

**Objective 1:** Formation of an advisory committee that will guide all phases of this assessment.

**Activities:**

1. Solicit membership in advisory committee from key stakeholders.
2. The advisory committee will meet up to four times during the course of the year to guide the implementation of the assessment.

3. Advisory committee members will review the final report and participate in the formulation of program and policy recommendations to improve food security among farmworkers in Fresno County.

**Goal 5:** To promote the development and implementation of program and policy interventions to improve food security among farmworkers in Fresno County.

**Objective 1:** Formation of a Farmworker Food Security Taskforce comprised of relevant stakeholders, including farmworkers, providers, policymakers, growers and food sellers.

**Activities:**

1. Develop program and policy recommendations to improve farmworker food security based on assessment findings.
2. Identify potential members of the proposed Farmworker Food Security Taskforce.
3. Invite potential members to join the Taskforce, which will convene in October 2005.

**3. Community Involvement**

Low-income community residents will be involved in project planning in a variety of ways. Community input in framing the research questions will be obtained via focus groups with farmworkers and input from farmworker members of the advisory committee. Focus groups with farmworkers will also be used to obtain farmworker input on recommendations for increasing food security. Community residents will administer the household survey and assist in conducting focus groups. An Advisory Committee consisting of providers and community members will oversee all aspects of this assessment.

**4. Agency Capabilities/Experience**

*Experience Planning and Implementing Food Security and Nutrition Education/Promotion Programs*

The Building Food Security Workgroup is a workgroup within UC's Division of Agriculture and Natural Resources. It is currently co-chaired by Christy Getz, a Cooperative Extension Specialist in UC Berkeley's Department of Environmental Science, Policy and Management and Diane Metz, a Nutrition Advisor in Solano County. It is comprised of over 40 members, representing AES faculty, UCCE specialists and advisors, and a number of stakeholders from public and private agencies throughout the state. Members of the workgroup have participated in a number of very successful projects over the last five years, including sponsoring two food-security symposiums, co-hosting workshops with the Community Food Security Coalition, and writing the document: A Framework for Understanding Food Insecurity: An Anti-Poverty Approach and A Food Systems Approach, which

will soon be published on the website of UC Berkeley's Center for Weight and Health. The workgroup is also represented on the Bay Area Regional Food Systems Advisory Committee and has its own website to promote networking among its members. Individual specialist and advisors have implemented a number anti-hunger and food security programs within their counties; the project is our first opportunity to collectively implement a multi-county research and outreach project.

### *Key Project Personnel*

#### **Christy Getz, UC Berkeley, Cooperative Extension Specialist, Team Leader**

Dr. Getz received her PhD in Sociology in 2002 from the University of California, Berkeley. She joined UC Berkeley's Environmental Science, Policy, and Management Department as an Assistant Cooperative Extension Specialist. As a member of the Division of Society and Environment, Dr. Getz develops research and extension programs that link natural resource-dependent people, activities, enterprises and organizations in California with teaching and research programs at the University of California, Berkeley. More specifically, her research and outreach program is focused on the following areas: 1) community and economic development in natural resource dependent communities; 2) social justice and labor in natural resource dependent industries; and 3) sustainable food systems and community food security. She has successfully managed and administered a number of projects within these programs (please see accompanying resume). Dr. Getz is also fluent in Spanish.

#### **Ron Strohlic, California Institute for Rural Studies, Research Analyst**

Mr. Strohlic has an MS in Rural Sociology from the University of Wisconsin-Madison, with a concentration in international development. He has conducted qualitative and quantitative research on farmworker health, agriculture, land tenure, natural resource conservation and rural development in the U.S. and Central America. Ron served as the lead researcher for CIRS' Agricultural Worker Health Study in the Salinas sub-region, and is currently Principal Investigator for diverse studies including social relations on CSAs in California, Oregon and Washington and the impacts on the USDA National Organic Standards on consumer attitudes and behaviors. Ron is fluent in Spanish and has been conducting field research with small farmers/*campesinos* and hired agricultural workers in the U.S. and abroad since 1988.

#### **Margarita Rocha, Executive Director, Centro La Familia Advocacy Services**

Margarita Rocha, a child of immigrant parents, was appointed Executive Director of Centro La Familia Advocacy in 1991 and has served the organization in that capacity since then. She has led Centro from a small, grassroots organization into a major presence in Fresno. Centro has become a community leader in rural outreach and promotora programs, as well as in building and sustaining community coalitions to better meet the needs of the community. Centro is the

lead organization in a Robert Wood Johnson Foundation national initiative to increase the number of eligible people utilizing public health care programs, by identifying and documenting barriers to the use of health care services and developing and testing strategies to improve access to those services.

### *Developing and Maintaining an Effective Working Partnership*

This assessment provides the opportunity for an exciting collaboration between two research organizations and three community-based organizations. An effective working partnership will be maintained via clear, on-going communication throughout all phases of the assessment. In addition to regular and on-going contact via email and telephone, quarterly partner meetings will be held in order to ensure that the team is collaborating effectively. Partner meetings will serve to discuss progress made during the past quarter, identify successes and challenges, highlight specific issues that have impeded progress and how those can be addressed in the future and troubleshoot potential issues that may affect future progress.

### *Coalition Development*

This assessment will result in the formation of a Farmworker Food Security Task Force, which will consist of relevant stakeholders, including farmworkers, providers, public health officials, and if possible, growers and food sellers serving farmworkers. The Task Force will identify and promote interventions that will increase food security among farmworkers in Fresno County.

## Appendix A: References Cited

- Backman, D., and Gonzaga, G. (2003). Media, festival, farmers'/flea market, and grocery store interventions lead to improved fruit and vegetable consumption for California Latinos. Sacramento: California Department of Health Services, Cancer Prevention and Nutrition Section.
- Block, G., MD, PhD, Gillespie, C., MD, Rosenbaum, E.H., MD, Jenson, C., PhD, RD. A rapid food screener to assess fat and fruit and vegetable intake. *American Journal of Preventive Medicine* 2000;18(4). [http://ehscenter.berkeley.edu/publications/00\\_block\\_1.pdf](http://ehscenter.berkeley.edu/publications/00_block_1.pdf)
- California Food Policy Advocates. (2003). Fresno County: A profile of poverty, hunger and food assistance. San Francisco, CA: Author.
- Harrison, G., Disogra, C., Manalo-Leclair, G., Aguayo, J. & Yen, W. (2002). Over 2.2 million low-income California adults are food insecure. Los Angeles: UCLA Center for Health Policy Research.
- Larsen, A. (2000). Migrant and seasonal farmworker enumeration profiles study: California. Washington, DC: Migrant Health Program, Bureau of Primary Health Care, Health Resources and Services Administration.
- Nord, M. and Andrews, M. Putting food on the table: Household food security in the United States. *Amber Waves*. Washington, DC: U.S. Department of Agriculture, February 2003.
- Strochlic, R., Mullenax, N., Samaniego, M., Villaseñor, X., Salcido, L. & Mines, R. (2003). The Agricultural Worker Health Study: Case study #5, Salinas Valley. Davis, CA: California Institute for Rural Studies.
- United States Department of Agriculture, Economic Research Service. United States Fact Sheet. <http://www.ers.usda.gov/StateFacts/US.HTM>
- Villarejo, D., Lighthall, D., Williams, D., Souter, A., Mines, R., Bade, B., Samuels, S. & McCurdy, S.A. (2000). *Suffering in Silence: A Report on the Health of California's Agricultural Workers*. Davis, CA: California Institute for Rural Studies.

## **Appendix B: Advisory Committee Members**

The following organizations have agreed to serve on the Farmworker Food Security Advisory Committee. Additional members will be recruited as necessary.

Fresno County Cooperative Extension  
Centro La Familia Advocacy Services  
Frente Indígena Oaxaqueño Binacional  
Fresno Metro Ministry  
Fresno Department of Human Services, Food Stamp Program  
Fresno County Community Health Department  
United Health Centers  
Fresno Community Food Bank  
Fresno County WIC  
Fresno Migrant Head Start  
Fresno Unified School District, Parent Engagement Center  
Madera County Community Action Agency  
California Rural Legal Assistance  
Community Food Security Coalition