“Pesticide Education for Sunland Park and Neighbors”

The project “Pesticide Education for Sunland Park and Neighbors” targeted to 120 low income families with children under 14 years of age living in Sunland Park, Berino, Chaparral, La Union, Chamberino, Del Cerro, Anthony, Santa Teresa, and Hatch, NM.

The Southern Doña Ana County residents confront various conditions that may pose a risk to their children’s health. Factors such as environmental pollution, cultural and language barriers, and socio-economic status below the poverty level are recognized indicators of poor health. Twenty five percent of residents in this area of the Doña Ana County live below the poverty level and 63.4 % are of Hispanic origin (US Census 2000). Many of these families are farm workers. For many of these residents Spanish is their primarily language, making it harder to access information and services.

The overall goal of this project was to help Doña Ana County residents minimize risks from pesticide exposure at home, particularly to children. Two health promoters from Sunland Park and Chaparral, working as consultants for CERM, conducted home visits to 120 low income families with children under 14 years of age to teach them about the health risks associated with pesticide use in and around their homes and to promote safer alternatives.
The health promoter gave two visits to a given home, where she used a “check list” to discuss the knowledge and practices about pesticides and identify the possible health hazards dealing with pesticides. She supplied an “action plan” which included different ways to control pesticides and ways to create a healthier environment. At the end of the first visit a “healthy kit” was given with other educational materials.

After four to six weeks, a second visit was given to discuss the usefulness of the plan of action, the educational materials, and the healthy kit content. In this visit the health promoters asked some questions to evaluate changes in knowledge as well as the progress made and barriers for the given recommendations. More products were also given to refill the “Healthy Kit.”

The benefits from taking part of this study would be learning more about the advantages and disadvantages of the use of pesticides at home. The study indentified environmental health risks that most of us take for granted, and give recommendations to control them or eliminate them.

### Description of the Project

The overall goal of this project was to help Doña Ana County residents minimize risks from pesticide exposure at home, particularly to children. Two health promoters from Sunland Park and Chaparral, working as consultants for CERM, conducted home visits to 120 low income families with children under 14 years of age to teach them about the health risks associated with pesticide use in and around their homes and to promote safer alternatives.

### The specific objectives of the project are
1. To adapt the Healthy Environments and Living Places (H.E.L.P.) for kids protocol, developed by the Environmental Protection Agency, to focus particularly on the topic of pesticides.

2. To find 120 families that meet the selection criteria (low income, with children 14 years of age or younger, using pesticides) through presentations, referrals, and home visits.

3. To complete 120 initial home visits with participating families: During this visit, the health promoters performed a “home assessment” to recognize the presence of environmental health risks that might result from the use of pesticides. The information obtained from the assessment helps the health promoters to tailor the information and resources given to each family. An “action plan and recommendations” instrument was then given to the families to help them minimize and control the health risks that could possibly be associated with the use of pesticides. To provide more user friendly educational instruments, the health promoters also provided the comic books “Fuera químicos, ya llegó la alternativa,” developed by CERM, “Dígale adiós a las plagas,” developed by Wake Forest University School of Medicine, and “Aunque cerca sano” developed by Migrant Clinicians Network (if there are farm workers in the family). Also during this visit, the health promoters distributed a “healthy home kit” with safer alternatives to pesticides: pest traps, boric acid, vinegar, baking soda, etc; and show the families how to use them to reduce the health risks associated with pesticides.

4. To complete 120 follow-up visits with participating families: After 4-6 weeks from the initial visit, the health promoters visited all families a second time. During this visit, the health promoters conducted an evaluation to explore participant perceptions on the utility and helpfulness of the in-home education, comic books, and products from the “healthy home kit.” They also employed the same instrument used during the first visit to assess changes in knowledge and behavior towards reducing health risks from the use of pesticides. Some extra products for the healthy home kit were given to complete the intervention and thank the families for their time and effort in participating in the project.

5. To conduct presentations at health fairs and other community events. The health promoters participated in health fairs, community meetings, and events (estimated 15) to disseminate information about pesticides in general, the specifics of the project, and to distribute educational materials among attendees.
6. To conduct process and outcome evaluation. Process: Project staff met monthly to
discuss and evaluate progress and performed monitoring visits with the health promoters.
The number of attendees at meetings, trainings, visits, and presentations were
documented as well as the number of educational materials distributed. Outcome: Data
collected during the initial and final visit was be entered into a database and analyzed to
document changes in knowledge and practices; barriers towards implementing the
recommended alternatives; and the perceived usefulness of the project to participating
families. To disseminate results: Project staff shared project results with health agencies,
schools, community clinics, and any other organizations interested in them.

Obstacles to a successful program could be: Not finding enough families that meet the selection
criteria and are interested in the program, people not understanding our messages, partners or
family members that are uncooperative and unwilling to implement some of the
recommendations given including changing habits or risky behaviors.

**Time Frame**

March 2006
- Receive notification and sign memorandum of agreement
- Attend two day training by PdNHF

April 2006
- Review and adapt the “home assessment” and “action plan and recommendations” and submit to IRB
- Practice the reviewed instruments and define fieldwork plan with health promoters
- Purchase products for the “healthy home kits”
- Establish procedures for data collection, entry, and analysis

May 2006
- Initiate first visits to selected households
- Evaluation meeting to analyze first visits
Pilot data entry

June 2006
Submit first quarterly report
Continue first visits to households
Data entry of “home assessments”

September 2006
Submit second quarterly report
Initiate second visits to households
Continue first and second visits
“Evaluation instrument” data entry

October 2006
Submit third quarterly report (Nov.)
Continue data entry

December 2006
Complete first and second visits
Finish data analysis
Design project results dissemination plan

January 2007
Initiate results presentation to health departments, schools and community clinics and organizations

February 2007
Continue with results presentations and prepare final report

March 2007
Submit final report to PdNHF

Target Population
The project “Pesticide Education for Sunland Park and Neighbors” targeted to 120 low income families with children under 14 years of age living in Sunland Park, Berino, Chaparral, La Union, Chamberino, Del Cerro, Anthony, Santa Teresa, and Hatch, NM. The Southern Doña Ana County residents confront various conditions that may pose a risk to their children’s health. Factors such as environmental pollution, cultural and language barriers, and socio-economic status below the poverty level are recognized indicators of poor health. Twenty five percent of residents in this area of the Doña Ana County live below the poverty level and 63.4 % are of Hispanic origin (US Census 2000). Many of these families are farm workers. For many of these residents Spanish is their primarily language, making it harder to access information and services. In Sunland Park, 10.4% of their total population (13,309) is younger than 14 years of age, with 25.4 being the median. Almost all of the residents (96.4%) are Hispanic (82.7% Mexican), and 47.7% of the 25 years and older population have less than a 9th grade education (US Census 2000). The demographic characteristics of the selected neighboring communities are very similar.

As a major research university located in the heart of the U.S.-Mexico border, UTEP serves a similar population. Nearly 72 percent of its student body is Hispanic, and another 10 percent are Mexican nationals. The majority are first-generation college students. CERM has been working with low-income communities on both sides of the border for 15 years.

Evaluation
The number of households and children approached and number of visits performed was documented (120 households for a total of 240 visits directly benefiting approximately 360 people). Contacts and meetings with related organizations were also documented.

All 120 “home assessments” and “evaluation instruments” were entered for data analysis (SPSS). The analysis looked for knowledge and behavioral changes, perceived barriers/obstacles towards implementing the given recommendations, and the overall usefulness of the visits, educational materials and products provided.

Before initiating contact with target families, project personnel and promotoras assured that protocol and assessment forms are well understood and practiced. Project protocol and activities were culturally and linguistically adapted to the target community. Promotoras, agencies, and organizations contacted were asked for feedback and advice to implement the project accordingly.

Project staff and promotoras designed a plan to disseminate project results to local health departments, schools and community clinics and organizations. Participants’ feedback and household evaluation assessment results provided information to assess project impact.

Therefore, the proposed project meets the evaluation criteria specified in the application because it defines goals and objectives clearly, it includes community participation in the design and implementation of the project, and finally, it empowers low-income Hispanic caregivers in the US-Mexico border to reduce their children’s asthma, allergies and sensitivities, and upper respiratory problems.

Along with the action plan and recommendations document, we plan to distribute the comic books “Fuera químicos, ya llegó la alternativa,” developed by CERM, “Dígale adiós a las plagas,” developed by Wake Forest University School of Medicine, and “Aunque cerca sano”
developed by Migrant Clinicians Network. We needed 500 of the first two and 100 of the last. If the materials are available in English, we could probably use 50 of each.

We distributed these materials in health fairs and presentations but mostly during the home visits. We documented their usefulness with the evaluation instrument during the follow-up visit. You can find these materials under our resource materials section of the website.

Organization Description and Mission

The University of Texas at El Paso (UTEP) is dedicated to teaching and to the creation, interpretation, application, and dissemination of knowledge. UTEP is the only major research university in the country whose students are predominantly Mexican-American. As Hispanics become the largest minority group, the university is winning national recognition for its innovative teaching methods and programs designed to help students succeed. Because of the international and multicultural characteristics of this region, the University provides its students and faculty with distinctive opportunities for learning, teaching, research, artistic endeavors, cultural experiences, and service. UTEP embraces this as its mission: Providing access and excellence in higher education.

The Center for Environmental Resource Management (CERM) provides university-wide leadership and coordination for energy and environmentally-related academic, policy, research, and service activities. CERM was initiated in 1990 and has since grown to be the largest and most diverse research center at UTEP and home to the Environmental Science and Engineering Ph.D. program. As a university-wide center, CERM strives to integrate all of its activities into the academic mission of the university. Major components of CERM are the environmental research center, energy center, environmental information technology / GIS unit, environmental policy and outreach section, and the Rio Bosque Wetlands Park. CERM's support comes from a wide array of federal, State, and private sources.
**Job Descriptions**

Co-Principal Investigator Patricia M. Juárez, performed activities in coordination with Verónica Corella-Barud, CERM Assistant Director. Ms. Juárez has coordinated and served as a consultant in many environmental health studies. She had an active role along with Ms. Corella-Barud in the implementation of the HELP-for kids’ project in the San Elizario area. Also, she was the part time community coordinator for a National Institute of Environmental Health Sciences-funded research of childhood lead poisoning in El Paso and Ciudad Juárez. She also participated in a study assessing indoor home environments in Anthony, NM, co-designed community manuals and trainings, as well as comic books. In the past, she participated as a part-time research assistant to a binational cohort study that estimates incidence of *H. pylori* among U.S.-Mexico border children. She has extensive experience in performing focus groups, developing curricula, and managing participatory trainings with *promotoras*.

**Consultants**

Community *Promotoras*: *Promotoras* are well known and trusted bilingual members of their community experienced in in-home health education topics such as immunizations, aids, Medicaid/Medicare and currently collaborating in the implementation of the “Healthy Home Environments for the Paso del Norte Region” project.

**Budget**

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<th>1. SALARIES AND WAGES</th>
<th>PdNHF</th>
<th>UTEP</th>
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<tr>
<td>Name, months, %, base</td>
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<td>$</td>
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<tr>
<td>Corella-Barud, 12%, 12 mos.</td>
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<td>UGRA</td>
<td>$2,080</td>
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<td>Total Salaries and Wages:</td>
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<td>2. FRINGE BENEFITS</td>
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<td>Corella-Barud 18.0% + $486/mo health ins.</td>
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<td></td>
<td>UGRA 1.0%</td>
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<td>Total Fringe Benefits:</td>
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<td>Total Personnel:</td>
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<td>Total Travel:</td>
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<td>5. SUPPLIES</td>
<td>Products for healthy home kits</td>
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<td>6. SUBCONTRACTS/CONSULTANTS</td>
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<td>Total Subcontracts:</td>
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<td>7. OTHER</td>
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<td>Posters &amp; promotion materials</td>
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<td><strong>10. TOTAL COSTS TO PDNHF</strong></td>
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<td><strong>12. TOTAL BUDGET</strong></td>
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<td>$40,348</td>
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**NOTE:** A 3% Cost-of-Living increase has been included in the salaries and wages portion of the budget effective September 1, 2006. All personnel transactions required to fulfill the provisions of this proposal was made in accord with, and was governed by the appropriate University Personnel Policies and Regulations. All salary increased conform to University policies subject to the availability of funds. No officer, member, or employee of the University and no other public official for the governing body of the locality or localities in which the project was situated or was carried out who exercise any functions or responsibilities in the review or approval of the undertaking or carrying out of this project shall participate in any decision relating to this project which affects his personal interest or have any personal or pecuniary interest direct or indirect in this project or the proceeds hereof.