

CULTIVATION

The Newsletter for the Southwest Center for Agricultural Health, Injury Prevention & Education

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SW Center Hosts NIOSH Ag Center Directors and Guests

The SW Center recently had the privilege of hosting the directors of the other eight agricultural occupations research centers, funded by the National Institute for Occupational Safety and Health (NIOSH), on the campus of the University of Texas Health Center at Tyler.

To support collaboration and complementary work, NIOSH has asked the centers to meet twice a year for scientific presentations from Principal Investigators. The SW Center was pleased to partner with the High Plains Intermountain Center for Agricultural Health and Safety (HI-CAHS) (<http://www.hicahs.colostate.edu/>) at the Colorado State University in Ft. Collins, Colorado.



Dr. Michael Galvin, Director of the Office of Extra-mural Programs for NIOSH, comments on new initiatives to support agricultural

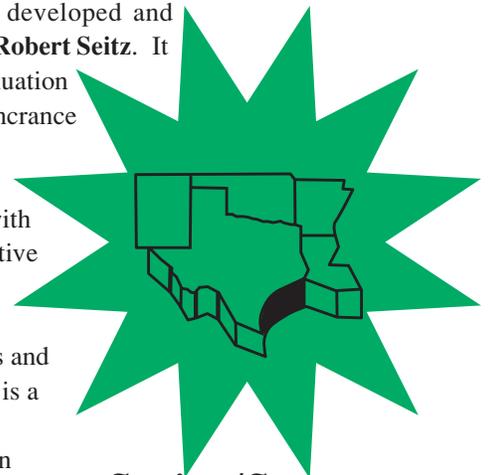
Presentations from SW Center investigators included, **Dr. Sharon Cooper** on her epidemiologic study of work injuries in farmworker children, **Dr. Dave Busbee** discussed progress on his work using reporter

genes to monitor the endocrine disruption that occurs in the presence of agricultural chemicals. **Dr. Ann Carruth** presented her work on effectiveness of various education and monitoring intervention strategies. She also unveiled the final version of First Aid Farm Quest, an interactive CD to teach children farm injury prevention and first aid. An innovative intervention has been spear-headed by PI **Dr. Deborah Helitzer** with the Navajo Nation. She has facilitated community-based research by teaching Navajo farmers and ranchers to use logic models to address their issues of agricultural safety and health. To wrap up the SW Center portion of the conference, SW Center Director **Dr. Jeffrey Levin** provided preliminary results from the survey of shrimpers in the U.S. Coast Guard District 8.

The SW Center was pleased that Karen Mulloy, D.O., MSCH and Chair of the center's external advisory board presented the role and contributions of the various external

advisory board members. This included their articulation of guiding and action principles for the purpose of prioritizing projects and activities, and their participation in a training session on indicators of Leading and Trailing boards. She also demonstrated the outcome of a 360 degree evaluation of the external advisory board effectiveness.

HI-CAHS Center Director, **Dr. Steve Reynolds** discussed progress with his project investigating endotoxin exposures from corn dust in relation to respiratory outcomes to determine whether endotoxin assay or a genetic marker is the better biomarker. Innovative work with engineering designs and standards for use of ROPS to prevent tractor rollovers was presented by **Dr. Paul Ayers**. A high school safety and health curriculum has been developed and implemented by **Dr. Robert Seitz**. It is currently in the evaluation phase. Dr. John Rosencrance reported on two projects, one involves strong collaboration with the Colorado Cooperative Extension Service to disseminate safety information to farmers and ranchers. The other is a pilot study analyzing worker's compensation claim data, the economic impact of the injuries, in addition to the medical and indemnity costs. Dr. John Tessari is working to test the hypothesis that it is possible to develop novel biomarkers of exposures to two classes of pesticides. Finally, a group of farmworkers from Guanajuato, Mexico who regularly migrate to Colorado are participating in a cultural comparison study using ethnography techniques. This study is under the direction of **Dr. Lorann Stallones** and was reported by **co-PI Dr. Martha Vela Acosta**.



Spring/Summer
2005

Initiative Offers Guidelines for Research Findings

The Research to Practice initiative launched by NIOSH last year is a reminder that to be of value, research findings need to be translated into understandable messages and put in the hands of the people who can apply the knowledge.

The external advisory board for the SW Center has encouraged researchers and program directors to answer the question, "So What?"

As a result, the Center is able to demonstrate several successful Research to Practice examples:

- The SW Center supported a survey of farmers and ranchers throughout Oklahoma to assess the prevalence of disabilities that prevented working to full capacity. Under the direction of AbelTech at Oklahoma State University and with the assistance of the Oklahoma Agricultural Statistical Service, the data collected persuaded the Cooperative Extension Service of the importance of establishing an AgrAbility project. A collaborative application was developed and funded to provide needed services to farmers and ranchers with disabling conditions.
- A survey of farmwomen in Louisiana revealed the concern that children on the farm might be "First Responders" if an injury event occurred. They indicated that children needed to be better prepared to recognize and avoid risk situations and be able to assess a situation and administer first aid if necessary. Developed through an iterative process including students, parents, and educators, Dr. Carruth has finalized an interactive CD that uses games, video clips, and quizzes to teach prevention of and first aid for farm injuries. If you are interested in receiving a free CD and are willing to participate in the evaluation process, contact Dr. Carruth at acarruth@selu.edu or (985) 549-3370.



- Many communities within the five states served by the SW Center sponsor Farm Safety Camps for children of various ages. The camps typically are interactive and consist of short lessons addressing tractor/farm machine safety, PTO safety, avoiding poisonous animals, livestock safety, first aid, hygiene/handwashing, accessing emergency care (9-1-1), safety practices around pesticides. Following one such camp in West Texas, one young student was able to assist an injured farmer by recognizing an arterial versus venous bleed and helped contact 9-1-1 for assistance.

- Data collected from owner/operators of cow/calf enterprises about work injuries related to cattle handling indicated that in the vast majority of cases human error was the primary contributing factor. Ag engineers at Oklahoma State University used the results to develop a fact sheet on corral design features to reduce the opportunity for injuries. They also partnered with Temple Grandin, DVM a noted animal behaviorist, to assist with the development of a short video to demonstrate animal behaviors, flight zones, and appropriate human behavior in common situations working cattle. The 11 minute video won the category of best educational material from the American Society of Agricultural Engineers in 1999. The material is available at no cost in video or DVD format while supplies last. Contact the SW Center office [http://www.swagcenter@uthct.edu.org](mailto:www.swagcenter@uthct.edu.org) or (903) 877-5896. This is appropriate for teen through adult ages.

This video has also been dubbed into Navajo, an oral language, for use by this target population.

Farmworker Stream Forum Set for S. Padre Island

The Migrant Farmworker Stream Forums began in 1987 on the East Coast and have since been adopted on the West Coast and Midwest States.

The Stream Forums represent a combined national effort to enhance the cultural competence of migrant health providers and others who work with the population, create networking

and collaboration opportunities, and to identify additional resources, program models and effective training for the more efficient provision of health care services to farmworkers.

The Midwest Farmworker Stream Forum offers farmworker-specific continuing education accreditation in the following disciplines: Medical, Dental, Nursing, Health Education, and Social Work.

Pre-conference intensive sessions this year will focus on educational opportunities for community health workers.

Facing the Challenges of Diversity in Health Care
November 10-12, 2005

From the Director

Observations from the April NIOSH Meeting held in Tyler



As indicated elsewhere in this issue, the Southwest Center for Agricultural Health, Injury Prevention, and Education was recently privileged to host a joint meeting of the NIOSH Agricultural Centers in Tyler at the end of April. The presentations showcased the important work of both the Southwest Center and the HI-CAHS center in Colorado. This conference followed on the heels of a meeting of the Southwest Center's External Advisory Board and principal investigators, such that we were well represented among the other Centers with our NIOSH partners.

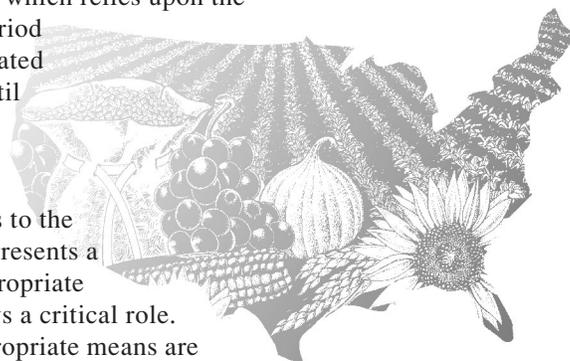
Dr. Karen Mulloy, the Chair of the Southwest Center's External Advisory Board since its inception, explained how the board has guided the work of the Center through the articulation of Guiding and Action principles as well as fostering a collegial atmosphere for offering important feedback to principal investigators. She described the training of board members using Leading and Trailing Practices and reported the results of a 360 degree evaluation the Board used to assess its effectiveness on that matrix. Though the range of work and maturation of the various projects was quite exciting and merits mention, I would like to focus on two key observations of recurring themes at this meeting.

First, it is clear that much of the work of the Centers hinges upon the formation of critical relationships with stakeholders in the agricultural community, relationships which require time for development and nurturing. Hence, the successful conduct of research, intervention, outreach, and education represents a process of maturation which relies upon the establishment of trusted relationships over the five year period of such an effort. Setbacks along the way are to be anticipated and very often, the work itself may not begin in earnest until the middle of the grant period.

Second and equally important is the diverse nature of the agricultural populations we work with. This diversity adds to the quality, importance, and excitement of the work, but also presents a new challenge in conducting our efforts in a culturally appropriate manner. As with many health-related issues, behavior plays a critical role. Nurturing trust and communicating through culturally appropriate means are at the heart of enhancing healthy and safe behaviors if we are to be effective partners with the agricultural community.

It is my belief that these two factors are at the core of ongoing success in our Centers, and I anticipate they will be threads woven into future projects as the Centers head into the period of competitive renewal. We rely upon you within our communities to continue to guide the direction of this important work.

Jeff Levin





SW Center Awards Outreach Grants

The new NIOSH initiative Research to Practice, influenced the SW Center to develop an outreach grant mechanism to expand agricultural safety messages to the grassroots. A request for application was circulated to Cooperative Extension offices, migrant education programs, 4-H and FFA, and agricultural education programs. The grants are for a maximum of \$5,000 for up to twelve months for program efforts to reach agricultural community members with messages to improve safety practices. Applications were reviewed and scored on the basis of capacity-building, extent of outreach, and fit with Center priorities. The following awards have been made for programs that will begin prior to September 15, 2005:

- Livestock Handling Safety and Education, Miller Grove FFA, Cumby, TX
- Certified Safe Tractor Operators, Collegiate FFA, TAMU-Commerce, TX
- Lafourche Parish Ag Safety, LSU Cooperative Extension Service, Thibodaux, LA
- Cyber Voices from the Fields, People First, McAllen, TX

The SW Center anticipates the availability of additional outreach funds for projects that would begin in 2006. Please send an email to the SW Center at swagcenter@uthct.edu to receive the program announcement.

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