



THE UNIVERSITY *of* TEXAS

SCHOOL OF PUBLIC HEALTH

EDUCATION AND RESEARCH CENTER
IN OCCUPATIONAL HEALTH & SAFETY

SOUTHWEST CENTER FOR OCCUPATIONAL AND
ENVIRONMENTAL HEALTH

UNIVERSITY OF TEXAS EDUCATION AND RESEARCH
CENTER FOR OCCUPATIONAL HEALTH AND SAFETY

SUMMARY ANNUAL REPORT

JULY 1, 2009 – JUNE 30, 2010

NIOSH TRAINING GRANT NO. T42 OH008421

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**The University of Texas School of Public Health Education and Research Center
Southwest Center for Occupational and Environmental Health
Annual Report July 1, 2009 to June 30, 2010**

ERC Goals and Objectives

The mission of the Southwest Center for Occupational and Environmental Health (SWCOEH) is to promote health, safety, and well being in the workplace and the community. The overall goal of the Center is to respond to the critical need for well-trained occupational and environmental health specialists by providing graduate-level academic training and continuing education with an underlying foundation of a state-of-the-art occupational and environmental health research program. The SWCOEH was established as a NIOSH ERC in 1977, and was most recently re-funded for the five-year period of 2005 – 2010, with an extension year for 2010-11.

ERC Programs and Multiple Campus Locations

The SWCOEH has core academic programs in Industrial Hygiene, Occupational Health for Nurses and an Occupational Medicine Residency Program; and two allied programs in Occupational Epidemiology and Occupational Injury Prevention. Programs in Pilot Projects Research Training, NORA research support, Continuing Education, and Hazardous Substance Training complete the spectrum of existing programs within the ERC. The ERC incorporates faculty and students from various disciplines related to occupational and environmental health. The SWCOEH is located at the University of Texas Health Science Center at Houston (UTHSCH) School of Public Health (UTSPH), and administratively housed in the Division of Environmental and Occupational Health Sciences (DEOHS) in the UTSPH in the Texas Medical Center. The UTSPH is a multi-campus institution with a Regional Campus system that provides teaching and research opportunities in San Antonio, Dallas, El Paso, Brownsville, and Austin, Texas. Additional ERC activities are carried out with the adjacent UT School of Nursing (UTSON), a collaborating institution in the Occupational Health for Nurses program. The multi-campus system at the University of Texas remains a unique aspect of teaching and research activities and enhances the opportunities for faculty and students. The UTSPH has a state-of-the-art interactive TV (ITV) connection that allows students to take courses from any of the Regional Campuses and promotes interaction and collaboration across campuses.

New Faculty Recruitment

During the reporting period, the SWCOEH has effectively expanded its core faculty through the UTSPH Regional Campus system in San Antonio (SARC). In February 2010, the UTSPH SARC successfully recruited Dr. Dave Douphrate from Colorado State University. Dr. Douphrate has a PhD in environmental health, along with an MBA and Masters of physical therapy, and will be a welcomed addition to the ERC faculty. His training in occupational health and safety and business management has fostered his interest in integrating occupational safety and health programs within the management/economic needs of employers and companies.

New Program Activity

New program activity during the reporting period has included the development of research to practice activities among community health workers (promotoras) in South and Western Texas. These activities are designed to introduce occupational health content to the under-served Latino communities through our Regional Campus networks in San Antonio, El Paso and Brownsville. The ERC co-sponsored an international conference with NIOSH in El Paso, Texas, in October 2009, to bring various stakeholder groups together to discuss information dissemination opportunities in these under-served Latino communities throughout Texas. During the reporting period, Center Administration has devoted considerable effort to developing needs assessment strategies to better describe the need for graduate training and continuing education in the core and allied Occupational Health and Safety disciplines. Surveys have been drafted and tested for three main target groups: 1) ERC graduates, 2) ERC Advisory Board members, representing the relevant disciplines, professional associations, industry and regulatory agencies in the region, and 3) industry in the region. Building on the prior reporting period's systematic SWOT analysis of all ERC component programs, and subsequent

root cause analysis, the needs assessment data will be used to enrich and further focus our academic and continuing education programs.

Interdisciplinary Interaction

The ERC is directed by an integrated team comprised of the Center Director, the Deputy Director, and ERC Program Directors, with the advice and assistance of the Center Advisory Board. This multidisciplinary team approach to Center Administration provides support for the multiple teaching, research, and service activities of the SWCOEH. Successful interdisciplinary activity this year has included: monthly journal club meetings, Occupational Health Field Trips course, interdisciplinary course work, and monthly research seminars in EOHS.

Center Recruitment and Diversity Efforts

The University of Texas Health Science Center – Houston (UTHSC-H) School of Public Health is committed to equal access for all qualified applicants seeking quality graduate education in the fields of public health regardless of age, sex, race, disability, religion, or national origin. The policies and programs are designed to create a diverse student population: a Diversity Office has been established in the School of Public Health and a director was appointed. The UTHSC-H School of Public Health has one of the highest minority enrollments for a school of public health in the United States. During the reporting period, a comprehensive student recruitment program was launched in the large state universities within DHHS Region VI, as well as with Historically Black and Minority Colleges and Universities (HBMCU). We have seen an increase in applicants to EOHS that we believe is directly related to this recruitment effort.

Meeting Regional Needs and Impact Evaluation

The main accomplishment in this area has been through the Pilot Project Research Training Program, which provides support to new or transitioning researchers in DHHS VI. This funding opportunity is disseminated throughout Region VI and many of our past investigators have come from universities in the five-state region. Our Continuing Education program provides training through a regional network of professional associations. Also, a very successful Certificate in Industrial Hygiene has been offered to professionals in the region responsible for workplace health and safety. We have recently completed an evaluation of our CE program to determine relevance of courses offered and data on preferred mode of course instruction, including venue and course duration. These assessments have also provided information regarding the impact of courses, continuing education, professional development, and community outreach. Regional needs assessments are performed in a variety of media: post course evaluations from continuing education courses; post course evaluations from students and alumni; informal surveys distributed by mail; booths at national and regional conferences; advisory committees and boards; biannual state and local health and environmental agency hazardous training needs; health and safety professional groups position statements; focus groups; changes in government regulations and standards; and internet web page review.

Regional Needs Assessment

Plans for this coming year include launching a significant and systematic needs assessment from among key stakeholders including: employers, graduates, ERC Advisory Board, professional associations, and other industry representatives. In addition, each ERC program component will develop a comprehensive program training plan that will be peer reviewed to assure that the academic and professional needs of the occupational health and safety profession are being met.

Training Outcomes for 2009 – 2010

Data are presented for the number of NIOSH funded trainees by program, the number of continuing education courses offered by content area and the number of pilot project research training awards made for the 2009 – 2010 period.

NIOSH funded trainees by program

Academic Program	# Total Trainees 2009-2010
Industrial Hygiene	5
Occupational Medicine	5
Occupational Health for Nurses	2
Occupational Epidemiology	4
Injury Prevention	2
TOTAL	18

Continuing education courses offered

Academic Program Area	# Courses Offered
Industrial Hygiene	8
Occupational Medicine	10
Occupational Health for Nurses	7
Hazardous Substance Training	3
Other OS & H	5

Pilot project research training grants for the 2009 – 2010

1. PI: Adriana Petrova, PhD Oklahoma State University
Title: Performance Evaluation of Glove Designs for Firefighters. Amount: \$19,709.97.
2. PI: David Wallace, PhD, Oklahoma State University, Center for Health Sciences
Title: Dopamine-Chemokine Interactions: Target for Heavy Metal Toxicity. Amount: \$7,992.
3. PI: Candace Robledo, PhD Student, University of Oklahoma
Title: A Comparison of Bisphenol-A Exposure Among Women with and without Gestational Diabetes.
Amount: \$10,000.
4. PI: Georgianna Gould, PhD, UT San Antonio
Title: Modeling in Zebrafish the Effects of Repeated & Developmental Pesticide Exposures on Behavior, Serotonergic and Dopaminergic Systems. Amount: \$5,000.
5. PI: Darrah Haffner, Medical Student, UT Southwestern Medical School Dallas
Title: Emerging Persistent Organic Pollutants in Occupational Exposed Workers. Amount: \$9,985.
6. PI: Jaymin Kwon, Postdoctoral Fellow, UT Houston
Title: Assessment of the Inhalation Exposures to Traffic Related Air Pollutants of Public Transportation.
Amount: \$10,000.
7. PI: Amber Mitchell, PhD Student, UT Houston
Title: Occupational Face & Eye Exposures to Blood and Body Fluids in U.S. Hospitals. Amount: \$10,000.
8. PI: Abiodun Oluyomi, PhD Student, UT Houston
Title: A Prospective Observational Study of Aerial Dissemination of C. Difficile Spores in Hospital Air and Association with Clostridium Difficile Associated Disease (CDAD). Amount: \$9,872.64.
9. PI: Yogesh Reddy, MD, Occupational Medicine Resident, UT Houston
Title: Prevalence of MRSA Colonization Among Dental Professionals. Amount: \$10,000.