

SECTION I

TPG Summary:

Little emphasis is given to educating physicians at both the undergraduate and post-graduate levels concerning occupational history-taking and little focus is placed in clinical encounters on discerning and reducing work-related risk factors. Since the mid-1990s, the number of accredited occupational medicine residency (OMR) programs has declined steadily (35%) in spite of a recognized shortfall of physicians with formalized training in this area.

In many specialty areas of medical practice, there is also little attention given to the special needs of non-urban populations. However, rural communities often lack the infrastructure for developing and sustaining a preventive approach to occupational disease and injury, particularly for specific work sectors such as agriculture where the hired and/or migrant workforce may constitute the majority of employees.

Over the past year, funds from the Training Project Grant (TPG) have helped to support, sustain and increase the number of occupational medicine trained physicians who have broad experience and sufficient competence to enter practice without direct supervision. The TPG has made it possible for 4 resident trainees to receive support through this funding during this year. In addition, the grant has allowed the University of Texas Health Science Center at Tyler (UTHSCT) Occupational Medicine Residency (OMR) Program to include a dimension of training that emphasizes the occupational health needs of the rural workforce with special attention to agriculture. This includes identifying related competencies within the six general competency domains established by the Accreditation Council for Graduate Medical Education (ACGME) and those outlined in the Preventive Medicine/Occupational Medicine program requirements. Relevant learning activities designed to help the resident gain experience with these competencies and reach target milestones also established by the ACGME are a part of the program. Such learning activities have included formal didactic training in an Agromedicine conference, multiple worksite walk-through experiences in agriculture, forestry, and fishing operations, and a supervised rotation in a Migrant and Community Health Center setting.

Over the past year, the TPG has made it possible for UTHSCT to integrate agricultural occupational safety and health into the residency training experience by implementing a multi-faceted training approach that relies upon a multi-disciplinary educational team effort, while also leveraging the strengths of the existent NIOSH supported Agricultural Center (the Southwest Center for Agricultural Health, Injury Prevention and Education, also referred to as the SW Ag Center). In addition to the learning activities outlined, collaboration with the Building Capacity Project at the Great Plains Center for Agricultural Health (University of Iowa) and with the National Center for Farmworker Health (NCFH, Buda, Texas), have been important to success of the project. The impact of this effort has been to build capacity in Occupational Medicine, a specialty with a recognized shortfall of physicians. Moreover, training emphasis has been placed on workers in the agriculture, forestry, and fishing industries who are up to 32 times more likely to die on the job than workers in other industries.

Public Health Relevance:

Texas is one of the fastest growing states in the U.S. with a population increase at nearly twice the rate of the nation as a whole. (Combs, Statewide view, 2008) Hispanics are the fastest growing group, making up 35.7 percent of the population in 2006 compared with 14.8 percent in the US. (Combs,

Statewide view, 2008) Texas also has the nation's largest rural population, with 3.36 million in 2005. Upper East Texas (the region where Tyler is located) is more rural than Texas as a whole. (Combs, East Texas, 2008) In 2007, metropolitan counties in Upper East Texas accounted for 46 percent of the population in contrast to 87 percent of all Texas residents. In other words, a greater percentage of East Texans live in rural rather than metropolitan counties compared with Texas as a whole. One can reasonably conclude that there is a need for training occupational medicine residents in Texas who have competencies, skills, and knowledge related to rural populations with special cultural considerations, and that the program at Tyler is suited to conducting that training.

Key Personnel:

Jeffrey L. Levin, M.D., M.S.P.H.

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Dr. Levin is Principal Investigator for this project. He is board certified in internal medicine and occupational medicine. Dr. Levin is Professor and Chair of the Department of Occupational Health Sciences and Senior Vice President for Clinical and Academic Affairs. He has been the Program Director for the Occupational Medicine Residency (OMR) since its provisional accreditation in 1994. He has served as Center Director for the NIOSH Southwest Center for Agricultural Health, Injury Prevention and Education (SW Ag Center) since 2001. Dr. Levin continues to administer/manage the program plan as well as participate in the teaching and supervision of residents. This includes the areas of rural and agricultural occupational health, where Dr. Levin helps to oversee delivery of the didactic curriculum, interactions with the SW Ag Center, as well as practicum experiences and field experiences/walkthroughs.

Sharon Huff, M.D., M.S.

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Dr. Huff is board-certified in occupational medicine and has been on faculty as Assistant Professor of Occupational Health Sciences since July of 2009. As the residency Associate Program Director, she dedicates significant effort to the UTHSCT OMR and this project. She is actively engaged as a resident preceptor in the Occupational Health Clinic, and provides lectures in academic coursework for the residents as well as in the didactic lecture series. She regularly supervises residents in other conferences and settings. She has demonstrated a record of scholarly activity in the field through publication and has served as co-director of the Southwest Center for Pediatric Environmental Health. She mentors students and residents in scholarly activities and provides direction to residents for their rotation with the Migrant and Community Health Center (MCHC). In addition to being residency trained and board-certified in Occupational Medicine, Dr. Huff also possesses unique qualifications having a graduate certificate in spatial science (GIS).

LaShonda Malrey-Horne, M.P.H., M.C.H.E.S.

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Ms. Malrey-Horne has a Masters of Public Health Degree from A.T. Still University (Missouri) and is also certified as a Master Certified Health Education Specialist by the National Commission for Health Education Credentialing (NCHEC). Previously, she worked for over 10 years implementing community and public health projects throughout Northeast Texas. She joined the Department of Occupational

Health Sciences at UTHSCT in May of 2012 as the Program Manager for the CDC/Texas Department of State Health Services funded Community Transformation Grant. She assumed the role of OMR Residency and Education Program Manager in January of 2015. This is a complex position as most residency coordinator positions have become. She is responsible for program planning and budget oversight, development of Program Letters of Agreement, scheduling resident practica and field experiences, orchestration of didactic programs, and coordination of diversity recruitment activities. She orchestrates all of these activities including necessary arrangements and distribution of materials and notices for distance learning. She is responsible for all logistical arrangements for practicum rotations as well as coordinating the subcontract activities for this project.

TPG web link: Please provide the link to your TPG website.

UTHSCT OM Residency Program

<http://www.uthealth.org/graduate-medical-education/occupational-medicine-residency-program/>

Texas Institute of Occupational Safety and Health®

<http://www.tiosh.org/> and <http://www.tiosh.org/programsocmedtpg.asp>

SECTION II

Program Highlights:

The highlights and significant results from this year are outlined below. Opportunities created through a project such as this one, help to sustain the number of occupational medicine graduates while providing residents with experience(s) in special populations (rural/agricultural), valuable to several who have gone to practice in locations serving these workers. This initiative began even before the TPG was first awarded in 2007. The UTHSCT OMR was initially accredited by ACGME in 1994, and the NIOSH Southwest Center for Agricultural Health, Injury Prevention and Education was established at roughly the same time. Both programs have collaborated over the years to offer training experiences for residents.

The following resident activities were accomplished during Year 5 of this cycle (07/01/2014–06/30/2015):

- Two resident graduates: Dr. **Rouk** and Dr. **Hampton**. Both received their MS degree in Environmental Science in May of 2015.
- Dr. **Benjamin Burris** and Dr. **Ryan Harris** attended Diversity Training/Orientation at NCFH in Buda on February 27, 2015.
- Dr. **Hampton**, Dr. **Rouk**, Dr. **Harris**, and Dr. **Burris** attended part one of an agricultural medicine training provided by the SW Ag Center in November, 2014. This training was partially funded by the Training Project Grant.
- Dr. **Hampton**, Dr. **Rouk**, Dr. **Burris**, and Dr. **Harris** rotated to NCFH and the Nuestra Clinica del Valle in Hidalgo and Starr Counties in the Rio Grande Valley, Texas.
- Dr. **Hampton**, Dr. **Rouk**, Dr. **Burris**, and Dr. **Harris** participated in the following worksite rotations: New Birmingham Resources Inc. (Tyler, TX), slaughter house and animal shelter (Kaufman, TX), US

Coast Guard (Galveston, TX), Dairy Research Center (Tarleton State University-Stephenville, TX), UT Health Northeast construction site (Tyler, TX), and North East Texas Public Health District (Tyler, TX).

- Dr. **Hampton** presented her resident research project, “Heat-Related Illness among Workers of the Great Smoky Mountains National Park” at the annual Texas College of Occupational and Environmental Medicine (TxCOEM) conference on May 1, 2015 in Austin, Texas. Dr. **Rouk** presented her research, “Tyler Asbestos Workers: Mortality Experience Update in a Cohort Exposed to Amosite.”
- Dr. **Hampton** presented a poster titled “Heat-Related Illness among Workers of the Great Smoky Mountains National Park” and Dr. **Rouk** presented a poster titled “Occupational Zoonotic Exposure to *Mycobacterium Tuberculosis* in an Urban Zoo” at the 2015 American Occupational Health Conference (AOHC) Conference held in Baltimore, Maryland, May 4-6, 2015.
- Dr. **Hampton** and Dr. **Rouk** participated in the UTHSCT Resident Research Forum at UTHSCT, May 8, 2015, conducted by the Graduate Medical Education department. The forum provides a platform for all UTHSCT post-graduate trainees to present their research to faculty and peers. Awards were given to the top three presentations. Dr. **Rouk** won 1st Prize for her research presentation, “Tyler Asbestos Workers: Mortality Experience Update in a Cohort Exposed to Amosite.”
- Dr. **Hampton** presented a Grand Rounds presentation at UTHSCT on June 26, 2015, titled “Crystalline Silica Exposure from Hydraulic Fracturing.”
- Dr. **Sharon Huff’s** feasibility study (funded by the SW Ag Center) on “Reaching South Texas Agriculture Workers through Lower Rio Grande Valley FQHCs” is in progress. The project will improve resident experiences and ability to reach agricultural workers in the clinical setting and to participate in rural community outreach with community health workers (CHWs) during their MCHC rotation.