

TPG Summary:

The major goal of this funding is to train and graduate competent occupational medicine physicians who will be productive members of the community caring for the safety and health of the workforce. We are pleased to note that we have been able to maintain training our full allotted complement under the ACGME for over seven years, in large part due to the funding received from this grant. The focus of the training provided to the current cohort of residents includes:

1. Focus on Total Worker Health (TWH) competencies through didactics, practicum rotations, and research:

Progress: Didactic lectures related to Total Worker Health were included over the past year. Residents participated in a wide array of topics relevant to the integration of health protection and promotion in the workplace. Additionally, a presentation prepared with the help of Casey Chosewood, MD, MPH on Total Worker Health was provided at the Annual Primary Care Update where all Occupational Medicine residents attended, along with faculty, residents and students at Meharry and the surrounding community. Questions and comments from the audience were proof of the need to incorporate the health of the workforce into daily visits with primary care practitioners. PGY-3 residents attended the American Occupational Health Conference (AOHC) in Denver, CO where they were exposed to other topics relevant to workplace interventions that support worker health, as well as presented posters that discussed the need for influenza vaccination in healthcare workers, more stringent policies on obstructive sleep apnea in the Federal Motor Carrier Safety Administration guidelines, and knowledge and perception of Zika Virus in healthcare professionals. All of these topics are related to the core tenets of Total Worker Health.

During the practicum experiences, residents are challenged to utilize skills learned through didactic sessions during their encounters with patients and other inter-professional planning meetings related to patient care. IRB approval is pending for use of the Health Appraisal Form in the Middle Tennessee Occupational and Environmental Medicine clinic during worker visits. The collection of data from this intervention will allow our program to assess workers' use of alcohol and/or drugs and need for brief counseling or referral for treatment through screening questionnaires. The lack of existing research exhibits that this method is not a common practice in the workplace and could prove to be an added benefit to enhancing workplace interventions.

IRB approval was attained for the implementation of data collection related to the knowledge and use of integrative health modalities in farmworkers. Data collection been occurred throughout the months that residents rotate on Agricultural Health (May – September). An abstract was submitted by Kenya Miles (PGY-3 resident) and accepted to the Tennessee Public Health Association

Conference in September, 2017 on preliminary findings discussing diabetes dietary self-management practices by migrant farmworkers. There is current work being done to publish the final findings in a peer-refereed journal.

2. Emergency preparedness training:

Progress: We have successfully rotated all PGY- 3 residents through the newly implemented Emergency Preparedness rotation at the Tennessee Department of Health. Residents and the preceptor, John Benitez, MD, MPH, have both provided positive feedback about this rotation and believe that it is an added benefit. The 2017-2018 academic year rotation schedule is structured to allow for the current PGY-3's to participate in this rotation. The residents that have completed this rotation have finished the Environmental Epidemiology and FEMA training modules as projected. Additionally, residents have worked on and are close to finalizing the fixed nuclear facilities Tennessee Department of Health disaster plan. They are also able to participate in any disaster related events occurring while on the rotation, as well as when they are not on the rotation. The addition of this rotation has become a highlight of the resident's practicum experience.

3. Worker's Dignity outreach projects:

Progress: Tristan Philip and Jack Wiley, representatives from Worker's Dignity a Nashville-based outreach group, have participated in our monthly Prevention Leadership Advocacy Rotation (PLAR)/Quality Improvement (QI) meetings to work with the residents on worker-led participatory research related to the care, safety, and workplace conditions encountered by economically disadvantaged workers. Thus far, one resident in Occupational Medicine has been working with this group to identify and design an advocacy framework for urgent occupational health needs in the Nashville hospitality industry, including an evidence-based workplace health and safety framework for a future 'High Road Hotels' program. The work from this interaction will both help workers in Nashville and assist with the thesis requirement for this resident's MSPH degree.

The inclusion of this group is in line with our continuous goal to expand the research experiences for our residents and add beneficial information to the health of disadvantaged workers in Nashville. We continue to engage in activities with Progreso Community Center, Vanderbilt Occupational Health, and Agricultural Health with Wake Forest University.

Relevance

The funding opportunity provided through the NIOSH Training Program Grant (TPG) will allow for the residents trained in occupational medicine at Meharry Medical College to be well-informed of the health and safety needs surrounding the workplace. Through the incorporation of Total Worker Health™ and

conducting research at a working community level, residents will be able to provide a more holistic approach to caring for the worker which will serve to improve worker, family and community health with a focus on underserved populations.

Key Personnel

Heather O'Hara, MD, MSPHU – Associate Professor in the Department of Family and Community Medicine. As the Director of the Occupational Medicine Residency, she is the Primary Investigator (PI) for this grant and is responsible for the development, implementation, and progress of the proposed program plan. Contact information: hohara@mmc.edu; 615-327-5780.

Sangita Chakrabarty, MD, MSPH – Staff Physician, Alvin C. York Veterans Affairs. As immediate past Director of the Occupational Medicine Residency and PI of the previous competitive NIOSH grant funding opportunities, Dr. Chakrabarty serves as liaison to Dr. O'Hara to ensure implementation of the proposed program plan. She also provides didactic lectures and direct clinical training to residents through both the Clinical Preventive Medicine and Integrative Medicine rotations. Contact information: Sangita.chakrabarty@va.gov; 615-225-4743.

Muktar Aliyu, MD, DrPH – Associate Professor in the Department of Family and Community Medicine. As Associate Director of the Occupational Medicine Residency, Dr. Aliyu is responsible for assisting the PI in carrying out the program plan, as well as working with residents and faculty to disseminate scholarly products in peer-refereed journals or other publications. Contact information: Muktar.Aliyu@vanderbilt.edu; 615-343-0626.

Robert Levine, MD, FACPM – Professor in the Family and Community Medicine Department at Baylor College of Medicine and immediate past Vice-Chair for Research in the Meharry Department of Family and Community Medicine. Dr. Levine provides lectures during didactic sessions, serves as an advisor to the residency program, and assists with seeking other opportunities to enhance and advance the level of training provided to residents. Contact information: Robert.levine@bcm.edu; 615-308-4443.

Thomas Arcury, PhD – Director, Center for Worker Health and Professor of Family and Community Medicine, Wake Forest University School of Medicine. Dr. Arcury provides guidance and direction to residents during and beyond their Agricultural Health rotation. He is also instrumental in the application of knowledge with regard to research of underserved populations. Contact information: tarcury@wakehealth.edu; 336-716-9438.

James Talmage, MD – immediate past Director, Occupational Health Clinic, Cookeville, Tennessee and Associate Editor of The Guides Newsletter and The

Guides Casebook, member of the 6th Edition working group for the AMA Guides to the Evaluation of Permanent Impairment, and co-editor of 'A Physician's Guide to Return to Work'. As a prolific researcher and renowned authority in the field of occupational health, injury and disability, Dr. Talmage serves as a resource for our residency and residents. He actively participates in resident thesis projects and provides much needed mentorship by supporting research initiatives and direct teaching in educational sessions. Contact information: olddrt@charter.net; 931.510.7920.

Roy Johnson, MD, MSPH – President, Middle Tennessee Occupational and Environmental Medicine, Inc. (MTOEM). Dr. Johnson serves as a clinical and research mentor for the residency program. He is also intricately involved in the organization and curriculum development of the residency. Contact information: jclark@mtoem.net; 615-443-1744 X114.

Robert Cooper, PhD – Assistant Professor, Family and Community Medicine at Meharry. Dr. Cooper collaborates with Dr. O'Hara on Screening, Brief Intervention, and Referral to Treatment training for the occupational medicine residents. He is a Licensed Clinical Social Worker and has involved residents in his research interests pertaining to developing interventions for alcohol and drug misuse, HIV treatment acceptance, and lifestyle modifications. Contact information: rcoper@mmc.edu; 615-327-6355.

James Ekundayo, MD, DrPH – Epidemiologist, Jr., Family and Community Medicine at Meharry. Dr. Ekundayo assists residents with the design and analysis of their research projects. He also provides lectures during the weekly didactic sessions on epidemiology and biostatistics. Contact information: jekundayo@mmc.edu; 615-327-6782.

TPG Website

<https://home.mmc.edu/education/graduate-medical-education/family-community-medicine-residency/#1496219610967-2230da6c-35d8>

High Impact Stories

Through the long-standing collaborative efforts with Dr. Thomas Arcury and Mr. Doug Smith during the Agricultural Health rotation in North Carolina, the residency has conducted a resident-initiated research project titled Farmworkers' Knowledge and Use of Integrative Health Modalities. This study was conducted between May and September 2017 while residents were on the rotation and participated in collecting data from migrant farmworkers. A significant aspect of the overall project examined constraints farmworkers face practicing effective diabetes dietary self-management. These results were accepted through a peer-review process for presentation at the Tennessee Public Health Association

Conference in a poster titled Practicing Effective Diabetes Dietary Self-Management: Issues for Migrant Farmworkers. Kenya Miles, MD, MSPH, a PGY-3 occupational medicine resident presented the need for improved food storage and cooking facilities, as well as findings related to food insecurity in this underserved population. Her project highlighted the importance of promoting effective dietary self-management by increasing knowledge and utilization of healthy shopping habits in 'super-grocery' stores, farmers markets, and gardens. Additionally, Dr. Miles discussed policies and strategies to connect food insecure farmworkers to local resources. One possible solution included the enhanced role of clinics, which serve migrant workers, to provide health education to farmworkers and foster relationships with growers to increase growers' awareness of their workers' health needs.