

## **Education and Research Center**

Summary Annual Report  
July 1, 2010 – June 30, 2011

NIOSH Training Grant  
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**Annual Report: July 1, 2010 to June 30, 2011**  
**Northwest Center for Occupational Health and Safety (NWCOSHS)**  
**Education and Research Center (ERC)**  
Center Director: Noah Seixas, PhD

The Northwest Center for Occupational Health and Safety is dedicated to preventing disease and injury among the workers in Washington, Idaho, Oregon and Alaska. This mission is accomplished through strong research-based graduate education, continuing education for practicing professionals, and outreach and services to the region. In the 2010-2011 academic year, each of our programs remained strong, with ERC-supported trainees numbering ten in Industrial Hygiene (IH), three in Occupational Health Nursing (OHN), four in Occupational and Environmental Medicine (OEM), two in Occupational Health Services Research Training (OHSRT), and one in Hazardous Substances Academic Training (HSAT). During the reporting period we graduated nine students with an MS in IH, one with a PhD in IH, two with an MPH in OEM, two with an MN in OHN, and one with a MS degree in HSAT.

**Center Administration** (Program Director: Noah Seixas)

The Northwest Center for Occupational Health and Safety (NWCOSHS), housed within the Department of Environmental and Occupational Health Sciences at the University of Washington, is guided by an executive committee made up of the program directors, and by a seven-member External Advisory Board which met at UW in May. Interdisciplinary training remains a hallmark of our programs, bringing together students and practitioners in IH, OHN, OEM, and other allied professions in academic classes, conferences, seminars, and research teams. We initiated digital media and social networking activities to enhance interaction between faculty, trainees and practitioners. In addition, all of our trainees participate in research ethics training through the Biomedical Research Integrity seminar series.

We were awarded a five year center grant, beginning July 1, 2010. The award included continued funding for occupational hygiene, occupational health nursing, occupational medicine residency and occupational health services research training. Our HSAT program was provided with only limited funding for a phase-out year, and our collaborative research training proposal was not supported. The year was also marked by uncertainty in the face of the President's proposal to eliminate ERC funding in the 2012 budget. As a result, our programs began planning for a possible future without ERC support.

**Industrial Hygiene** (Program Director: Michael Yost)

In the 2010 - 2011 year the industrial hygiene program graduated seven MS students from the program. Several students have accepted positions related to their field, including working with the WA State Dept. of Labor and Industries and King County. Another recent graduate, Dr. Dianna Caballos won an outstanding poster award at the recent annual AIHA industrial Hygiene meeting (AIHCE) in Portland, OR. Dr. Caballos is a post-doctoral fellow at NIOSH in the health hazard evaluation branch. Master's degree graduate Dominick Zanari also was awarded an outstanding poster prize at the AIHCE. Among the honors for continuing students, Ms. Jenna Armstrong (PhD candidate, EOH) was invited to speak to the UW regents and present her work on pesticide exposure measurement; she also presented her work at the ISEA meeting. Mr. Ryan Blood and (PhD Student) and Cody Cullison (MS student) both were awarded an Erma Byrd scholarship from the US Department of Education. In addition to the 4 new grants received during the reporting period, core faculty have starting work on a major Clean Air Research Center award from US-EPA.

**Occupational Health Nursing** (Program Director: Arnold (Butch) de Castro)

During this period, a total of seven students participated in the OHN program: three PhD, two MN-OHN Administrator, one MN-OHN Nurse Practitioner, and one DNP-OHN Nurse Practitioner students, including four individuals from underrepresented minority groups. The one MN-OHN Nurse Practitioner student, Amy Binder, graduated in June 2011 and was promptly hired at a local occupational health specialty clinic in Seattle. The one MN-OHN Administrator student, Allison Crollard, successfully defended her master's project in December 2010 and continued her graduate occupational health training as a MS student in the Exposure Sciences program. Other notable employment updates about recent graduates includes the following: Julie Ward (MN-OHN Administrator graduate in 2009) secured employment as a workplace health promotion coordinator with a large healthcare organization in Flagstaff, AZ, and, Kristy Ivicsek (OHN-MN Administrator graduate in 2009) obtained a research position with the University of Washington Pediatric Environmental Health Specialty Unit

(PEHSU). One PhD student and three MN-OHN Administrator students applied in January 2011 – all were admitted and will begin their graduate programs in fall quarter 2011. Dr. Butch de Castro was reviewed for promotion to Associate Professor in February 2011, with a final decision expected in spring, 2012. Dr. Randal Beaton continued as Assistant Director, though announced his official retirement in June 2011. He was granted Research Professor Emeritus status and will continue to assist the OHN Program with student supervision and clinical practicum placement, as well as developing continuing education programming for the 2011-2012 academic year. Julie Ward vacated her administrative and Clinical Instructor roles with the program in January 2011 transitioning to the clinical position described above. OHN Program faculty continued to actively pursue research funding. Two grant proposals were submitted to CDC-NIOSH and subsequently awarded: a R21 focused on agriculture safety and health among Hmong farmers submitted as part of the competing renewal application for the UW Pacific Northwest Agricultural Safety and Health (PNASH) Center (de Castro), and a R21 focused on identifying inter-connectedness and capacities of community organizations for implementing community-based occupational health and safety programs for low-wage immigrant workers. (Tsai). The OHN Program curriculum continued to emphasize a population orientation that considers an ecological framework to examine the impact and interplay of individual, family, organizational, community, and societal factors on worker health issues. Continuing education (CE) offerings during the grant reporting period included a presentation on crisis management in the workplace at the NWCOHS Grand Rounds in May 2011 and a distance CE course in June of 2011 focused on educating nurse practitioners about workers' compensation issues and injured worker policies in Washington State.

#### **Occupational and Environmental Medicine Residency** (Program Director: Victor Van Hee)

Over the last year, the OEMR was able to provide its trainees with unique international and national training opportunities. 2010 entering class trainees Dr. Deborah Havens and Dr. Nicholas Reul each trained in the Kingdom of Brunei in the summer of 2011, where they worked directly with the national Occupational Health Service and had the opportunity to interact with the nation's Minister of Health. Later in the summer, Deborah Havens went on to begin leadership of a research project involving mitigation of environmental exposure to arsenic in drinking water in Cambodia, and Nicholas Reul went on to a two month rotation with OSHA. The OEM residency training program has substantially increased its direct patient care training activities over the last year through enhanced collaboration with several training sites: the Harborview Medical Center Emergency Department, where Dr. Louis Lim trained during 2010-2011; Valley Medical Center, with all trainees now rotating through this high quality clinical OEM training site; and Group Health Cooperative Occupational Medicine Clinic, where first year trainee Dr. John Linnett has been spending the first three months of his training. Recently, the OEMR has also expanded its core courses (ENVH 576, ENVH 596, and ENVH 597) to remote locations, with an interactive webinar format that has allowed additional Madigan Army Medical Center OMR trainees to participate while on clinical duties at Fort Lewis. Such a format will soon allow broader regional participation in UW OEM case conference. Our trainees continue to graduate from our program as highly competitive OEM leaders. After receiving eight job offers prior to finishing his training, 2011 graduate Dr. Louis Lim accepted a position as Medical Director of Quality for Franciscan Medical Group in Washington State. While finishing up a post-doctoral fellowship and serving as interim clinic director of the Harborview Occupational Medicine Clinic, 2010 graduate Dr. June Spector was recently offered an Assistant Professor position in the UW DEOHS.

#### **Occupational Health Services Research Training** (Program Director: Diane Martin)

The Occupational Health Services Research (OHSRT) Training Program was directed by Drs. Diane Martin and Gary Franklin. They replaced Dr. Tom Wickizer who accepted an endowed professorship at the Ohio State University. Two doctoral students were supported by the OHSRT program this year. One, Janessa Graves, gave two presentations at occupational health meetings, including her work in Kenya on an intervention to promote handwashing in schools. For her dissertation, she is evaluating a Washington State policy to decrease the use of expensive imaging for low back pain. The other student, Benjamin Keeney, is working with Dr. Franklin on the utilization, cost and health outcomes for Washington State workers with low back pain. A third OHSRT student, supported by NORA funds, conducted research with low income Vietnamese men and women and asked about how their jobs affected their health and mental well being.

**Hazardous Substance Academic Training** (Program Director: John Kissel) In the July 1, 2010-June 30, 2011 window, two prior recipients of HSAT support received their MS Degree. One additional trainee, who was

supported in 2010-2011, was on track to graduate in August of 2011. One journal article with a trainee first-author was published and a second was submitted. Three conference platform presentations and three posters with trainee authors or co-authors were delivered in the annual reporting period. All three HSAT trainees completed all requirements for 40-hour HAZWOPER certification. Four additional certifications or re-certifications were issued to non-trainees under HSAT auspices. This is the last year of funding for this program.

#### **Hazardous Substance Training** (Program Director: Steven Hecker)

The HST program provided in-person courses to 206 trainees, with 86% representative of governmental agencies. The year's offerings centered on seven sessions of the ever popular "8hr Hazardous Waste Refresher" course along with one session of the "Essentials of Hazardous Material Management (EHMM)". This latter class was presented in cooperation with the Pacific Northwest Chapter of the Academy of Hazardous Materials Managers (PNWC-AHMM), an affiliate of the Alliance of Hazardous Materials Professionals (AHMP), and was designed as a broad introduction to the industry, providing instruction about laws and regulations as well as technologies and practices. Online HST training was provided to 123 participants and included the training topics of: asbestos for general industry and construction, and an on-line 8hr Hazwoper refresher. Slightly less than half of the online participants came from private industry.

#### **Continuing Education/Outreach** (Program Director: Steven Hecker)

The 2010-11 period reflects a total of 1505 trainees who attended and completed online and in-person courses for both CE and HST. Of these, a total of 794 trainees attended CE and HST classroom courses and 711 trainees participated in online CE and HST offerings.

Program highlights included a two-day paint and welding course, a one-day occupational medicine symposium, and a two-day healthcare ergonomics conference. The paint/welding courses, "A Base Coat of Painting Hazards: What Every Painter Should Know" and "Your Weld as Your Signature: Advances in Research and Practice to Lay it Down Safely", featured a host of experts who covered exposure hazards and controls, epidemiological research, innovations in programs and live demonstrations. The occupational medicine symposium, "Your GPS for Ethical and Legal Issues in Occupational Medicine" brought together an array of physicians, nurses, case managers and attorneys to learn about employment law, concepts of causation, documentation of opinions and providing testimony, interventions for disruptive behaviors, and management of ethical dilemmas.

Concluding the year for in-person programs featured the two-day 4<sup>th</sup> National Healthcare Ergonomics Conference, in Tacoma Washington. Sponsored by the Washington State Safe Patient Handling Committee, the Oregon Coalition for Healthcare Ergonomics, and the Northwest Center for Occupational Health and Safety, the conference hosted 185 registrants who attended a range of presentations and workshops covering topics related to: enhancing the quality of care through attention to patient and employee safety, the safety and health of aging healthcare workers, designing a safe patient handling program, promoting patient mobility, and managing care for long-term residents and obese patients in the hospital. In addition, as an ongoing effort to reach out to local and distant OHN colleagues about Washington State worker's compensation changes, a webinar was delivered to 14 locations across the state on "Disability Prevention, Health Care Cost Control and Innovation in Health Care Delivery: Historic Changes in WA Workers' Compensation".

Lastly, from the foundation of the previous five "round the state" workplace violence in healthcare workshops provided in 2009-2010, and with the Northwest Center (NWC) in partnership with Washington State Nurses Association, the Northwest Organization of Nurse Executives, and the Washington State Hospital Association (WSHA), a one hour interactive webinar program, "Workplace Violence: Helping Washington Hospitals Respond" was developed and delivered in March to educate WSHA CEOs of the dynamics of WPV in healthcare. Around the state, 145 sites were logged into this webinar. Several post program follow-up calls were received by WSHA and the NWC. A local reporter who listened to the webinar, used the information provided as a foundation to produce the recently disseminated news series "Danger at Work" <http://www.kuow.org/program.php?id=23813>).