

Education and Research Center

Summary Annual Report
July 1, 2011 – June 30, 2012

NIOSH Training Grant
T42 OH008433

Submitted by:
Noah S. Seixas, PhD
Center Director
University of Washington
Seattle, WA 98195

October 2012

Northwest Center for Occupational Health and Safety: 2011-2012 Annual Report

SECTION I

ERC Summary

The Northwest Center for Occupational Health and Safety is a multidisciplinary training program located at the University of Washington, dedicated to the prevention of work-related injury and illness. The Center is administered through the Department of Environmental and Occupational Health Sciences (DEOHS) of the UW School of Public Health and includes program elements in the Schools of Nursing and Medicine. The primary focus of the Center is graduate student training with a strong emphasis in research-based education. In addition, the Center serves as a regional resource for continuing education and other outreach activities to health and safety practitioners in the region. The Center includes programs for Center-Wide Activities (CWA), four academic programs, Industrial Hygiene (IH), Occupational Health Nursing (OHN), Occupational Medicine Residency (OMR), and Occupational Health Services Research Training (OHSRT). In addition, it includes a Continuing Education programs (CE) and Outreach program.

Relevance

The NWCOS provides research-based training and continuing education for professional disciplines in recognition, control and management of occupational health and safety risks. Our graduates form a key workforce for prevention of work-related injury and illness, and the research and service undertaken by our faculty, staff and students provide vital guidance to businesses and workers on best practices for prevention and management of occupational health and safety.

Key Personnel:

<u>Name</u>	<u>Role</u>	<u>Phone</u>	<u>email</u>
Noah Seixas, PhD	Center Director	206-685-7189	nseixas@uw.edu
A.B. de Castro, PhD	Deputy Director, OHN Director	206-543-4436	butchdec@uw.edu
Michael Yost, PhD	IH Director	206-685-7243	airion@uw.edu
Victor Van Hee, MD, MPH	OMR Director	206-616-8285	vvanhee@uw.edu
Jeff Harris, PhD	OHSRT Director	206-616-8113	jh7@uw.edu
Janice Camp, MS	CE Director, Outreach Director	206-616-3039	jecamp@uw.edu

ERC web link: <http://depts.washington.edu/nwcohs/>

SECTION II

PROGRAM HIGHLIGHTS

CENTER-WIDE ACTIVITIES

In the face on continuing threats to ERC funding, the Northwest Center conducted an extensive strategic planning exercise to consider future program designs with and without continued of funding for the program. With the assistance of a management consulting organization, the program directors and the external advisory board lead the activities, while input was received through a series of focus groups and individual interviews with stakeholders. The report, delivered in August, 2012, provides a series of options for continued vitality of our programs under both scenarios, and the leadership team is developing an action plan in response to these findings.

Changes in Personnel

Steve Hecker retired from the University of Washington and was replaced as Director of the Continuing Education Program by Janice Camp. Ms. Camp is a Certified Industrial Hygienists and trained as an occupational health nurse, and has many years of experience in field based research and education in occupational health.

Conferences and Student Presentations

- The NWCOHS participated in the Northwest Occupational Health Conference. At the conference, the Center awarded three scholarships for graduate student research papers. The four scholarships went to:
- Janessa Graves, University of Washington, Occupational Health Services Research Training Program. "Washington State workers with low back pain: one-year health and disability outcomes associated with early imaging."
- Marie Anne Sanon, University of Washington, Occupational Health Nursing Program. "Nurses take home exposure: what can their scrubs tell us to help prevent the spread of infection into communities?"
- Allison Crollard, University of Washington, Exposure Sciences Program, "Occupational downgrading among immigrant workers."

In addition, the Center sponsored the annual Semiahmoo cross-border occupational and environmental health research conference. The keynote "Bates Lecturer" was Dr. Bruce Lamphear from Simon Fraser University who spoke about environmental lead and the links between science and policy. Our trainees also represented the Northwest Center at the annual "Weston" Western States Occupational Health Network conference in Denver, the American Industrial Hygiene Association Conference and Exposition..

Programs

Two novel programs were developed and sponsored by the Center. First, Dr. Jill Jones from the University of Nevada, Reno, presented "Casino Women" describing her research on the working conditions of female workers

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in the Casino industry in Nevada. The symposium exposed our students to methods of social science research, and included a talk about her book at the University Bookstore.

We recognized the potential for significant sexual harassment problems for our students and staff while conducting field work, and sponsored a sexual harassment workshop, attended by about 15 staff and students. The workshop demonstrated significant issues and the need for on-going attention to the issue when we send our trainees into to conduct field work. We plan to continue offering the workshop annually.

INDUSTRIAL HYGIENE

The Industrial Hygiene Program graduated 9 students from our MS program during the project period. Going into the new academic year 2012-2013, we have enrolled 8 new MS students and 5 new PhD students, yielding a current class of 17 MS and 17 PhD students enrolled in our program.

Ryan Blood, a PhD candidate in Occupational and Environmental Hygiene, presented results from his research on whole body vibration exposures at the 2012 American Industrial Hygiene Association meeting in Indianapolis, Indiana. At the meeting, his presentation was selected for the Tischauer Award for Best Student Ergonomics Presentation.

Jenna Armstrong (PhD student, Occupational and Environmental Hygiene), received the DEOHS Outstanding Student Award at the school awards banquet. She developed an innovative approach for pesticide monitoring using passive samplers for her dissertation research. Jenna has been an exceptional contributor to her program, department, and school, carrying out lab and field studies, in one case with farmworkers in the Yakima Valley and working with the Yakama Indian Nation. Jenna recently accepted a post-doctoral fellowship with NIOSH at the Morgantown office.

Professor Peter Johnson and his students have been testing computer devices and desks to see what designs prevent musculoskeletal injuries and make workers more productive. Computer-maker Hewlett-Packard and furniture-maker Steelcase provided support for some of this research. Steelcase Senior Researcher David Trippany said this research allowed the company to scientifically evaluate the benefits of a new soft edge desk. The company sold its first large order this past year. "Steelcase believes that worker comfort is a key aspect in their overall health and productivity while at work," he said.

EOH PhD student Vanessa Galaviz received a Community Volunteer Recognition Awards at the Martin Luther King, Jr. Tribute event in January 2012. Vanessa works with Professor Michael Yost and is researching personal exposure and uptake of diesel particulate matter among people who cross the US–Mexico border at San Ysidro to work in the USA. Vanessa also is an active participant in the local chapter of the Society for Advancement of Chicanos and Native Americans in Science (SACNAS), and mentors undergraduate students on their projects. She recently interviewed at NIOSH for a possible post –doctoral position.

Several trainees had successful internships over the summer. Lea Duffin and Abigail Sutphen had internships this summer with The Boeing Company. The internships provided them with hands on experience in a factory in Renton, WA and they were given several IH projects to be completed throughout the summer. This internship proved valuable practical translation of concepts learned from classes. Lyndsey Banks did an internship with the Washington State OSHA program (DOSHS), an experience made possible by ERC assistance which bridged limited

state resources. Her experience in the Industrial Hygiene Compliance division of DOSH provided valuable training on the implementation of codes and regulations and insight into how employers and employees view our efforts as industrial hygienists.

OCCUPATIONAL MEDICINE RESIDENCY

The Occupational Medicine Program graduated 7 students from our MPH program during the project period. We currently have 2 students continuing in our MPH programs. Going into the new academic year, we have enrolled 3 students. Graduate (OM 2010) June Spector was appointed Assistant Professor in the UW Department of Environmental & Occupational Health Sciences during the reporting period and is now Associate OM Residency Program Director.

Over the reporting period, the OM program has significantly expanded its online / distance learning course offerings of ENVH 597, 576, and 596, allowing greater participation of Madigan Army Medical Center Occupational Medicine and Preventive Medicine trainees throughout the three years of their training program. Our program has also developed additional national and international training opportunities in OM, with trainees working with the Accident Compensation Corporation in New Zealand and the National Occupational Health Service in Brunei, and 2 trainees having the opportunity to go to Washington DC to serve and train at OSHA. The enhanced online offerings of core OM courses and case conferences allow trainees at these remote locations to remain fully engaged with the program while outside Seattle.

OCCUPATIONAL HEALTH NURSING

The OHN Program graduated 1 trainee from the MN degree program and 1 trainee from the PhD degree program during the project period. Currently, there are 3 MN trainees and 1 PhD trainee continuing in the OHN program. Both faculty and trainees have actively carried out research projects, submitted to or published in peer-reviewed scientific/professional journals, and contributed presentations to scientific/professional conferences. Also, a faculty member and a trainee received notable award recognitions.

Recognition and Honors

OHN Program trainee, Rachael De Souza (MN), received the Outstanding Master of Nursing Student of the Year at the UW School of Nursing graduation (June 2012), being selected from among the entire graduating class. She was honored primarily for her academic excellence in concurrently completing the Master of Public Health degree along with the Master of Nursing degree, submitting two manuscripts for publication in peer-reviewed scientific journal publications based on theses for each degree, organizing students to attend the Washington State Nurses Association Legislative Day, and advocating for occupational and environmental health in the context of social justice.

OHN Program Director, Dr. Butch de Castro, was named as the UW School of Nursing award winner of Martin Luther King, Jr. Service Award (January 2012). This recognition was attributed to his research and teaching efforts involving partnerships with community-based organizations serving under-represented populations.

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Presentations and Publications

OHN Program trainee, Susan Johnson (PhD) gave national meeting presentations based on her dissertation research on workplace bullying at the National Conference for Workplace Violence Prevention & Management in Healthcare Settings at the University of Cincinnati (“Organizational and Regulatory Discourses of Workplace Bullying,” May 2012) and at the American Medical Association Conference on Strategies for Reducing Medical Student and Resident Mistreatment in Chicago (“Roles and Responsibilities of Groups in Reducing Learner Mistreatment,” December 2011).

Dr. Butch de Castro was an invited Co-Author for a NIOSH-sponsored Occupational Health Disparities white paper titled, “Discrimination, harassment, abuse, and bullying in the workplace: Contribution of workplace injustice to occupational health disparities” which was also presented at the NIOSH Eliminating Health and Safety Disparities at Work conference in Chicago, IL (September 2011).

OHN Program Deputy Director, Dr. Randy Beaton, was invited as a presenter for an Institute of Medicine of the National Academies workshop on Workforce Resiliency Programs in Washington, DC, which was sponsored by the Department of Homeland Security’s (DHS) Office of Health Affairs (OHA) (September 2011).

Additionally, between OHN Program faculty, current trainees, and former trainees, a total of 4 journal articles have been published, 1 produced and currently in review, and another 4 were initiated and currently in development.

OCCUPATIONAL HEALTH SERVICES RESEARCH TRAINING

The Occupational Health Services Research Training (OHSRT) program provides doctoral training to students in the Health Services PhD program in the Department of Health Services in the UW School of Public Health. Each trainee receives 2 years of support and completes 16 credit hours of coursework related to occupational health. As a result, these students focus their research on health services research issues related to workers and the workplace.

In the past year, the program supported 3 students, one each in the first, second, and third years of the 4-year PhD program. Their research focused on three areas: 1) workers’ compensation and programmatic efforts to improve quality of compensated care while controlling costs; 2) workplace support for working mothers and the effects of this support on maternal depression, childhood obesity, and use of recommended early-childhood preventive care; and 3) increasing workplace vaccination and its health-promotion/protection benefits for workers. In addition, one recent participant in the program completed his PhD dissertation on predictors of poor outcomes from occupational back injury and moved on to a prestigious post-doctoral fellowship at Dartmouth University. In the past year, these four students made 16 presentations at national and regional scientific conferences, published four peer-reviewed articles, and submitted three others for review.

HAZARDOUS SUBSTANCE TRAINING

The 2011-2012 year was the final year of the HST program as part of the Northwest Center for Occupational Health and Safety. The HST program provided in-person courses to 374 trainees, with 66% representative of governmental agencies. The year’s offerings featured sessions of the “8hr Hazardous Waste Refresher” course along with one session of the “Essentials of Hazardous Material Management (EHMM)”. This latter class was

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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. Finally, HST training took on a new dimension this year with the synchronous interactive webinar series, “Building, Fire, Electrical and Mechanical Codes (BFEMC).” During the summer, fall and winter quarters, six different one-hour BFEMC webinars were offered, resulting in 18 different BFEMC sessions. Examples of select BFEMC topics included, “Hazardous Materials Evaluation”, “Combustible Dusts”, “Stationary Battery Systems”, “Chlorine and Other Toxic Gases” and “Safety System Testing.”

CONTINUING EDUCATION

The 2011-12 period reflects 1389 program participants who completed in-person, webinar and online courses for CE and HST. Of these, 811 trainees attended CE and HST in-person and/or webinar sessions and presentations through conferences, synchronous interactive webinars or classroom courses, the balance participated in courses exclusively online.

This reporting period featured several programs that brought together interdisciplinary health and safety professionals. Highlights included the Washington Governor’s Industrial Safety and Health Pre-Conference Symposium, “Identifying Back Injury Risks, Innovations and Best Practices to Prevent Disability, Live Strong and Work Well,” where University of Washington ergonomics faculty Dr. Peter Johnson served as course co-director and gave a presentation on whole body vibration in the trucking industry. The one-day course, “Tools and Techniques to Improve Your Safety Program,” directed by ERC faculty Rick Gleason and included English-as-a-Second Language (ESL) experts from the Seattle-based Refugee Women’s Alliance who addressed best practices for safety training among culturally diverse workers.

The Occupational and Environmental Medicine Grand Rounds series brought together physicians, nurses, safety professionals and industrial hygienists and featured contributions by ERC faculty and the dean of the University of Washington, School of Public Health. ERC Occupational Health Services faculty, Dr. Gary Franklin presented, “The Future of Workers’ Compensation in Washington and the COHE Expansion.” ERC OEM faculty, Dr. June Spector lectured on, “Optimizing the Care of Injured Workers: The Role of Evidence-based Public Health Practice.” UW School of Public Health Dean Howard Frumkin’s lecture addressed “Climate Change and Human Health.”

The 2012 Occupational Health Nursing (OHN) Institute concluded the year and brought together nurses experienced in the practice of occupational health, as well as several nurses who are seeking occupational health positions and therefore wanted to learn more about the field through this hybrid course. Participants completed five online interactive learning modules and attended a half-day in-person session that incorporated a review of the online learning modules by course director and OEHN program director, Dr. Butch de Castro, a lecture on “Resilience in OHN” delivered by OHN assistant director, Dr. Randy Beaton, along with a case study exemplifying best practices for occupational health assessment presented by PhD student and OHN practitioner, Ellen Meyer.

OUTREACH

The Outreach activities for Northwest Center during this reporting period included lectures delivered by Mr. Hecker to national and regional conferences. This effort consisted of: a presentation to nearly 100 attendees at

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the Association of Occupational Health Professionals annual meeting in Minneapolis (title, "Safe Patient Handling: Washington's Experience with Legislation, Implementation, and Education"); a presentation to 120 attendees at the Portland, Greater Portland Construction Partnership quarterly meeting (title, "The Aging Workforce and Safety and Health in Construction") and a presentation to 65 attendees at the Wenatchee Washington Meeting of the Minds Workers' Compensation conference, sponsored by Washington State Labor Council and Project Help (title, "The Aging Workforce: Implications for Workers' Compensation"). Together Mr. Gleason and Dr. Bruck represented the Northwest Center for the Washington Labor and Industries Construction Advisory Committee meetings. Mr. Gleason continues to serve on the Washington Governor's Industrial Safety and Health Advisory Board. In addition, Dr. Bruck continued her two-year term on the Washington State Nurses Association (union) Safety and Health Committee and remains an active member on the Washington State Safe Patient Handling Steering Committee.