

**Northwest Center for
Occupational Health and Safety
Education and Research Center**

Summary Annual Report
July 1, 2008 – June 30, 2009

NIOSH Training Grant
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Northwest Center for Occupational Health and Safety
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. Each of our academic programs remain strong, with ERC-supported trainees numbering eleven in Industrial Hygiene, four in Occupational Health Nursing, two in Occupational and Environmental Medicine, three in Health Services Research Training, and one in Hazardous Substances Academic Training. During the reporting period we graduated ten students with an MS in IH, one with a PhD in IH, two with an MPH in OEM, four with an MN in OHN, and one with an MS in HSAT.

Center Administration, Program Director: Noah Seixas

The Northwest Center for Occupational Health and Safety (NWCOHS), housed within the Department of Environmental and Occupational Health Sciences at the University of Washington, is guided by a ten-member External Advisory Board.

We have continued to monitor several objective “Measures of effectiveness.” Our accomplishments are summarized in the following table below showing the number of various indices achieved during the reporting year, compared to the annual goals we previously established.

Figures show “Achieved/Goals” for report year July 1, 2008-June 30, 2009

	IH	OHN	OMR	HSRT	HSAT
Number of Core Faculty	8	5	12	4	5
Information Dissemination by Core Faculty					
# Peer Reviewed Publications	27/15	19/10	25/33	25/15	26/8
# Reports/Chapters/Lay Pubs	12/4	0/3	2/5	0/3	4/1
# Research New Grants/Contracts	11/6	0/4	12/6	1/5	4/2
Knowledge Transfer					
# Consultations with outside Groups	13/4	2/5	9/11	0/3	8/4
# Presentations to Regional Conferences	15/9	13/6	18/8	16/2	1/2
Training					
# Trainees enrolled (total)	28/18	9/12	8/6	3/3	8/8
# Graduates	11/7	4/6	2/3	0/1	1/4
# Minority Trainees enrolled	5/3	2/2	2/1	0/1	0/2
# Research papers by trainees published	6/5	3/2	0/2	7/2	3/3
# Conference presentations by trainees	12/9	3/4	1/4	4/4	4/4

Our programs performed very well, and achieved most of our goals. Our publication record is excellent and, despite the very difficult funding environment, the programs competed successfully for research grants and contracts. We provided extensive consulting and presentations with outside groups – primarily within the region. Our enrollment and graduation rates were solid, and students have been highly successful in presenting their work at conferences. Overall, the programs performed very highly.

Interdisciplinary training remains a hallmark of our programs, bringing together students and practitioners in IH, OHN, OEM, and the other allied professions in academic classes, conferences, seminars, and research teams. In addition, all of our research-oriented trainees participate in research ethics training through the Biomedical Research Integrity seminar series.

Highlights of each program's activities are provided, below.

Industrial Hygiene, Program Director: Michael Yost

Rick Neitzel (PhD Candidate) received the 2009 Gilbert S. Omenn Award for Academic Excellence for a doctoral student from the UW School of Public Health. Professor Michael Morgan was the recipient of the 2008 Meritorious Achievement Award from the American Conference of Governmental Industrial Hygienists (ACGIH). Dr. Peter Johnson was successfully promoted to the rank of Associate Professor in 2008. In addition to the 11 new grants received during the reporting period, core faculty anticipate the awarding of seven additional grants. Six research papers were published by trainees during the reporting period and we anticipate an additional three more publications to come out in the Fall of 2009.

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

Ten OHN students, including seven MN and three PhD students, were enrolled in the OHN program. Of these, four MN students graduated in June 2009. Kristy Ivicsek (MN trainee) was selected for the competitive federal OSHA Nurse Intern

Program. She also spent the remainder of that summer interning at the World Health Organization (WHO) in Geneva in the Occupational Health Program assisting with developing materials to build occupational and environmental health knowledge and capacity among nurses and other health care workers globally. Jerry Green (PhD trainee) also interned at WHO Geneva assisting with a literature and policy review about avian influenza and the impact on workplaces in a multinational context. Also, in summer 2008, Ms. Ayelet Rupp (MN trainee) was selected for the competitive Occupational Health Internship Program (OHIP), directed by the ERC at University of California, Berkeley. She worked with a hotel housekeepers union in San Diego, CA to conduct a workplace hazard evaluation with Latina women. Julie Ward (MN trainee) received the 2009 MN Outstanding Student Award selected from among all graduating MN students for the entire UW School of Nursing. Dr. Julie Postma (PhD graduate in June 2007) was hired as a Research Associate at Washington State University School of Nursing and Dr. Susan Matt (PhD graduate in June 2008) was hired as Assistant Professor at Seattle University College of Nursing. Dr. Randal Beaton, Research Professor, was named as Assistant Director of the OHN Program to replace Ms. Annie Bruck, who transitioned to be Assistant Director of Continuing Education for the Northwest Center for Occupational Health and Safety. Dr. Butch de Castro, Director of the OHN Program received a NIOSH National Occupational Research Agenda Partnering Awards for 2008 and the Washington State Nurses Association 2009 Researcher Award. He also completed a NORA-funded pilot research project examining work stressors and allostatic load among Latino day laborers.

Occupational and Environmental Medicine, Program Director: Joel Kaufman

The OEM weekly conference series has been expanded as a formal course offering (ENVH 590B) to encourage the participation of multidisciplinary students throughout the UW. The weekly conference series includes not only clinical cases, but also journal club and a supplemental speaker series. The program developed interdisciplinary mentorship committees for each second-year trainee, consisting of national experts in each trainee's fields of interest, designed to provide targeted guidance regarding plans to achieve career goals. OEM Associate Residency Program Director Matthew Keifer received the UW Health Sciences Dr. Martin Luther King, Jr. Tribute Community Volunteer Recognition Award. Core OEM Faculty Bill Daniell received the Rohm & Haas Endowed Professor in Public Health Sciences Award. Graduate Rachel Roisman began work with the California EPA Office of Environmental Health Hazard Assessment as a Public Health Medical Officer. Our two new residents (Sukriti Singhal and Rachel Fischer) each presented at the Winter Scientific Meeting of the Northwest Association of Occupational and Environmental Medicine (NAOEM). The program successfully recruited two highly qualified candidates to begin training in 2009: Louis Lim is an experienced internist who served as chief resident during his Internal Medicine residency, and June Spector will be completing her second year of OEM training with us after receiving the prestigious Occupational Physicians Scholarship Fund and beginning her OEM training at Johns Hopkins.

Health Services Research Training, Program Director: Thomas Wickizer

The HSRT program maintains a strong national and regional presence in occupational health services training and research. Dr. Wickizer has accepted an endowed professorship at Ohio State University, and will be replaced by Drs. Diane Martin and Gary Franklin as program co-directors. Drs. Turner, Wickizer and Franklin received the ISSLS Prize for Lumbar Spine Research for their article in *Spine* 2008. In addition, Dr. Wickizer gave the 2008 Irwin E. Nachemson Memorial Lecture at the Institute for Work and Health in Toronto, October 2008, and gave the UW School of Public Health's Distinguished Faculty Lecture on May 18, 2009. Bert Stover, an HSRT alumnus provided leadership and made substantial contributions to occupational health services by producing the first comprehensive report of safety and injuries for Region X. Three students were supported by the HSRT program this year. One, Janessa Graves received the James P. Keogh Memorial Scholarship from the American Public Health Association Occupational Health and Safety Section in 2008. Another, Sarah Veele-Brice, was an American Public Health Association Public Health Nursing Section-Junior Investigator Award Nominee (May 14, 2009), and a Harry Bridges Center for Labor Studies Grant Recipient (July 2008 – July 2009). These national awards demonstrate the high quality of the ERC HSRT trainees.

NORA Research Training, Program Director: Noah Seixas

The NORA program supported four students from three programs. The NORA program also helped complete an analysis of the 19 indicators of occupational health in four states, and the results have been published on our website (<http://depts.washington.edu/nwcohs/hsindicators.html>). In addition, NORA support was enlisted for completing a comprehensive alumni survey and needs assessment (<http://depts.washington.edu/envhlth/pdf/reportdeohs.pdf>), in preparation for the five year competing renewal, which was also completed during the funding year.

Pilot/Small Project Research Training Program (Noah Seixas)

The PSPRTP had only two projects proposed, and one of these was approved for funding. The project, "Work Related Stressors among Immigrant Day Laborers in Seattle" was conducted by Dr. Butch De Castro in the OHN program. The

project tested the feasibility of recruiting and examining a group of Latino Day Laborers, and testing them for work related stress indicators including both self-reported stress and salivary cortisol as a biomarker of increased allostatic load. The project successfully recruited twenty subjects, transported them to the UW for interviews and sample collection, and a manuscript is in preparation describing the results.

Hazardous Substance Academic Training, Program Director: John Kissel

Within the HSAT program one trainee received their MS Degree, two trainees will graduate in 2010, and two new additional students will be supported in the 09-10 academic year. Three journal articles with trainee first-authors and seven conference presentations with trainee authors or co-authors were delivered in the reporting period. A survey of program alumni revealed that 96.6% rated their professional preparation "excellent" (62.1%) or "very good" (34.5%) in comparison to their employee peers. Six trainees completed all requirements for 40-hour HAZWOPER certification or recertification. Five additional certifications or re-certifications were issued to non-trainees under HSAT auspices.

Hazardous Substance Training, Program Director: Steven Hecker

The HST program provided in-person courses to 293 trainees, with slightly over 80% representative of governmental agencies. The year's program profile included the three day "Essentials of Hazardous Materials Management" course; eight sessions of the highly regarded Annual Hazardous Waste Refresher course; one course for supervisors of Hazardous Waste Operations; and the "Chemical Reactivity Hazards for Laboratory Workers", offered in both Seattle and Portland. In addition, the Chemical Reactivity course was brought by special request to the PNNL in Richland where 39 attended.

Continuing Education/Outreach, Program Director: Steven Hecker

The 2008-09 period brought a total of 3,492 trainees to the collective 94 online and in-person offerings for both CE and HST. Of these, a total of 1059 trainees attended CE and HST classroom courses and a total of 2433 trainees took online CE and HST offerings. Program highlights include outreach projects in two critical areas: health and safety of the aging workforce and safe patient handling. The 2008 Washington Governor's Safety Conference provided both a "Solutions for the Aging Worker" conference and a safe patient handling roundtable. March 2009 witnessed the delivery of a train-the-trainer course to 12 trainers recruited under the aging workforce initiative. The associated curriculum development has been completed. Three trainer-led aging workshops were completed by June 30th, 2009 and another two were completed by the end of August. The recipients of these trainings were: 1 private manufacturing firm, 1 public sector union, 2 Washington state agencies, and a mixed group of vocational consultants, group home operators, and state hospital personnel. A construction-specific version of the curriculum was developed, but two efforts to deliver the workshop to construction audiences failed to attract enough attendees.. The Age-Friendly Workplace curriculum will be the basis for the Dec. 7-8 national forum for ERCs on aging workforce training and action planning.

Collaborating with the Washington Safe Patient Handling (SPH) Steering Committee and the Oregon Coalition for HealthCare Ergonomics, the Northwest Center co-sponsored the 3rd National Healthcare Ergonomics Conference in conjunction with the March 2009 Oregon Governor's Safety Conference. The SPH committee is a coalition of healthcare, labor, management organizations, and government agencies offering information, training, and technical resources to hospitals implementing safe patient handling programs. Over 200 regional participants attended the ergonomics sessions. Additional SPH activities included an April webcast, co-sponsored by the Washington Hospital Association, and completion of the Washington SPH website. The Occupational Medicine Grand Rounds Series drew 186 participants from across the OHS disciplines and included webinar distance technology for real time distance participation. Additional programs and collaborations included the one day Advanced Accident and Incident Investigation course, several multi-day sessions for spirometry training, the Health and Safety in Western Agriculture regional conference Nov. 11-13, in eastern Washington and the CIH Review course held in Vancouver British Columbia in April 2009.

Linked to both CE and HST in terms of trainees and content, the "Emerging Technologies in Occupational and Environmental Health " course conducted in conjunction with the October 2008 Northwest Occupational Health Conference, provided 180 trainees with key nanotechnology updates along with addressing new and persistent HST compounds. Rounding out the year in June, the Northwest Center partnered with Battelle Memorial Institute and the University of Oregon to co-sponsor the two day international "Nanotechnology Health and Safety Forum " (NHSF) in Seattle, Washington. Ninety-eight participants attended this forum, which was delivered in conjunction with the first world-wide meeting of the International Organization for Standardization (ISO) TC 229 -- Nanotechnologies held in the United States.