Oregon Healthy Workforce Center

PSU (Portland State University)

U of O (University of Oregon Labor Education Research Center)

OHSU (Oregon Institute of Occupational Health Sciences + Health Promotion & Sports Medicine)

CHR (Kaiser Permanente Center for Health Research)

OSU (Oregon State University)
The Oregon Healthy Workforce Center (OHWC), a National Institute of Occupational Safety and Health-funded Center of Excellence, is a collaboration of:

• Oregon Health & Science University's Oregon Institute of Occupational Health Sciences
• Portland State University's Occupational Health Psychology program
• The Center for Health Research,
• Kaiser Permanente
• The University of Oregon's Labor Education Research Center.

The OHWC’s theme is Intervention Effectiveness, focused on:

• Team- and technology-based interventions to promote and protect health, all crafted with attention to translating research to practice.

• Improved social support and reduced job stress—that will in turn produce improved lifestyle choices, safer work practices, and better psychological and physical health.
Effective Interventions to Improve Worker Health

Dr. Kent Anger, OHWC Director and Associate Director for Applied Research, Oregon Institute of Occupational Health Sciences, is creating effective Total Worker Health (TWH) interventions to improve safety, health and well-being in the Oregon Workforce. The Anger lab develops computer-based training that is based on behavioral education principles for hazard prevention, skills acquisition, and wellbeing. The training is supported with practices that create new habits or patterns of behavior, and reinforce desired changes in behavior.

In 2014, Dr. Anger and OHWC Principal Investigators published a review of the TWH literature that revealed TWH to be at least as effective in improving safety, health and wellbeing as less ambitious interventions that focus on single outcomes. TWH interventions are capable of changing 10 or more outcomes or risk factors in a single intervention and are thus more efficient.

The Neurobehavioral Core Test Battery (NCTB) is a series of behavioral tests used to evaluate the performance of the central nervous system in individuals who are potentially exposed to neurotoxic chemicals. Test batteries consist of tasks that measure performance of particular neurologic function, such as ability to learn, reaction time, memory, and coordination. Dr. Anger recommended reconsideration of the World Health Organization (WHO) recommended NCTB, because alternative non-copyrighted tests are also sensitive to the effects of neurotoxic chemicals.
Dr. Ryan Olson’s research is focused on the application of behavioral science to reduce injuries and promote health among isolated workers in dangerous and demanding occupations.

SHIFT (Safety & Health Involvement For Truckers) is a National Heart, Lung, and Blood Institute (NHLBI)-funded weight loss and health promotion intervention for truck drivers. The intervention is supported with computer-based training, weekly weight and behavior logging, and motivational interviewing. The SHIFT intervention was shown to produce clinically significant weight loss among truck drivers in the initial pilot study. Results from the NHLBI randomized controlled trial will be available in 2015.

Dr. Olson obtained a “safety and health improvement grant” from the Washington Department of Labor and Industries for cab environment interventions to improve the sleep and health of truck drivers (Peter Johnson UW, PI).

COMPASS (Community of Practice and Safety Support) is a NIOSH-supported study testing a Total Worker Health intervention that is being developed and studied as part of the Oregon Healthy Workforce Center. COMPASS uses a peer-led curriculum to organize home care workers into neighborhood-based teams that provide education and social support for improving lifestyle (e.g., diet, exercise) and safety behaviors.

A pilot study has shown that the COMPASS intervention improved the use of lifting tools and improves both safety and health behaviors among home care workers. Randomized trial results will be available in 2015.
Prison work is regarded as one of the most difficult occupations with correctional officers having one of the highest nonfatal injury rates of all U.S. occupations. As part of a collaboration with the Oregon Healthy Workforce Center, the Division of Health Promotion & Sports Medicine investigators, headed by Kerry Kuehl, MD, DrPH, have studied a scripted peer-taught program for public safety workers including firefighters and police officers. This approach has proven to reduce injuries and illness while at the same time being cost-effective.

This year, Portland Parks and Recreation Aquatics Department and Youth Conservation Corp adopted the PUSH Training for all new summer hires.

PUSH (Promoting U through Safety and Health), headed by Dr. Diane Rohlman, is a program that is improving the health and reducing the incidence of workplace injury among young workers through an online, age-appropriate safety and wellness training.

With limited job experience, young workers may not recognize workplace hazards. Lifestyle and behavioral factors, such as risk-taking, substance use, and distracted behaviors, as well as fatigue or sleep deprivation that can be more prevalent in young workers, can also impact safety on the job.

The Safety & Health Improvement Program (SHIP), led by Dr. Leslie Hammer, is testing the effectiveness of an intervention that combines supervisor training and team effectiveness training designed to increase work-life support and improve safety among construction workers in the City of Portland. Using a randomized experimental design, a total of 528 employees participated in the initial intervention or in follow-up control groups, and a total of 388 employees participated in the evaluation of the intervention between August 2012-March 2014. Initial analysis revealed group blood pressure improvements in the intervention group.
Studies at the population level...

Diane Rohlman, PhD, conducts basic and applied research to identify, characterize, and prevent occupational and environmental illness and injury in high-risk populations, including children, young workers, and those working in hazardous industries, such as agriculture.

Agricultural families represent a high-risk population due to their exposure to physical and chemical hazards, their limited resources, and limited access to medical care. Dr. Rohlman is currently conducting a farmworker stress study to characterize the risk factors and basic health parameters in agricultural families and to examine changes in these factors due to workplace activities.

Dr. Rohlman is also working with the Oregon Bureau of Labor and Industry (BOLI) and Oregon Department of Transportation on a nutrition training study for pre-apprentices in the highway and transportation construction trades. The study is designed to educate new workers about fundamental nutrition concepts, including healthy snacking, foods to fuel the workday, and making good choices about food. Based on the success of the randomized control trial, she has initiated an evaluation of the BOLI nutrition training in at-risk youth between the ages of 16-24 enrolled in Portland Youth Builders Pre-Apprenticeship Program.

Diane Rohlman (center) and (L-R) summer intern, Colin Boehnlein and staff scientist, Megan Parish.
Let’s Get Healthy!, headed by Dr. Jackilen Shannon, is a popular education and research exhibit that travels around the state (and nation) to help the public learn about their health and to collect data that is available for group analysis. Participants receive personalized, multi-lingual health feedback while their anonymous health information becomes part of a population database available for use in support of school projects, community and workplace wellness policy decisions, and research opportunities. The program accomplishes this by providing an interactive, scientifically-based educational and research experience to schools, communities and workplace partnerships.

In 2014, Let’s Get Healthy!

- Held 16 events throughout Oregon, Washington, and California where 2,091 people participated in the research study. Approximately 150 volunteers were trained to run the research study in their own communities.

- Over 99% of the student volunteers reported that they were aspiring to a health career and that Let’s Get Healthy! served as a unique opportunity to get experience in their field of interest.

- Launched a new interactive educational game about epigenetics that won a 2014 International Serious Play Award silver medal.

- Published a paper in a national journal for middle school science teachers about how to teach developmental origins of health and disease to adolescents.

- Launched a new partnership with Bangkok Dusit Hospital System in Thailand to integrate Let’s Get Healthy! with their worksite wellness program.

- The Let’s Get Healthy! website (www.letsgethealthy.org) continues to be a great resource for the public to visualize results from communities around the state, explore teacher-developed lessons, and play interactive games!
Outreach and Education

In collaboration with the Institute, OHWC is engaged in providing timely information and tools for occupational health, safety, and employee well-being to industries, practitioners, and the public.

The Web....

Occhealthsci.org, the Institute’s widely respected health & safety resource webpage, links to over 1,200 occupational safety & health resources.

Social media....

We use the full range of available web technologies to provide the public with the latest in health and safety information.

Continuing education....

We provide two health and safety symposia per year, one sponsored jointly with the Portland State University Occupational Health Psychology program.

2014 symposia* included:

- Healthy Workplace Solutions: From Research to Practice, November 7, 2014
- Sedentary, Stationary and Physically Demanding Work: Health Consequences and Workplace Solutions, June 5, 2014

*All symposia are available online as recorded webinar presentations.

The Oregon Healthy Workforce Center also sponsors a luncheon that includes talks by authorities in the Health and Safety/Wellness field.
Members of the Institute also attend conferences sponsored by other organizations, including the American Society of Safety Engineers and the American Heart Association.

Oregon OSHA-sponsored Conferences are an important means by which we reach out to working Oregonians. In addition, we are frequently asked to provide health & safety training.

Overall, conferences allow us to meet Oregonians in all corners of the state.
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The Oregon Healthy Workforce Center is a federally-funded Center of Excellence in Total Worker Health.

The home of the Oregon Healthy WorkForce Center is at the Oregon Institute of Occupational Health Sciences at Oregon Health & Science University.

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