OREGON HEALTHY WORKFORCE CENTER
Annual Report FY17 [October 1, 2016 - August 31, 2017]

SECTION I

Oregon Healthy Workforce Center (OHWC) (http://www.ohsu.edu/ohwc) is a National Institute for Occupational Safety and Health (NIOSH) Center of Excellence in Total Worker Health®. Housed within Oregon Health & Science University’s (OHSU) Oregon Institute of Occupational Health Sciences, we are partnered with researchers at OHSU-PSU School of Public Health, Portland State University (Occupational Health Psychology), University of Oregon (Labor Education Research Center), University of Washington (Department of Environmental and Occupational Health Sciences), and Johns Hopkins University (School of Nursing).

At OHWC, we develop and evaluate Total Worker Health (TWH) intervention programs for occupational safety, health, and employee well-being. Specifically, these programs incorporate NIOSH’s TWH approach to jointly address workplace safety and health hazards with employee health and lifestyle as a means to reduce work-related injuries and improve overall worker well-being. Thus, some hallmark targets pertinent to TWH are workplace environment, supervisor support, healthy lifestyles, and job stress.

Located in the Pacific Northwest, OHWC serves as a resource for the western states and complements the other five TWH Centers in New England (two Centers), Iowa, Illinois, and Colorado. We remain the only Center focused on intervention effectiveness, successfully conducting randomized trials of innovative interventions and adding value with a cross-study data repository collected using a set of common measures across projects. Our interventions include a combination of organizational and individual change strategies to bring about knowledge increase, positive behavior change, and improved supervisory practices, which will in turn result in positive

Figure 1: Members of the Oregon Healthy Workforce Center
outcomes such as hazard reductions, safer work practices, improved lifestyle choices, and better psychological and physical health.

Our 2016-2021 cycle includes two research projects, an expanded and restructured outreach, education, and dissemination component, and a program evaluation component, all of which are conceptually intertwined.

Relevance and Impact
OHWC’s research products are scalable and can be widely disseminated. Toolkits (goo.gl/k3Ymvv) from our 2011-2016 funding cycle were made available on our website in September 2016 and some materials have been adopted by organizations (Portland Parks and Recreation Department, Oregon Bureau and Labor and Industries, Oregon Home Care Commission) at their own cost. One of these, SHIP (https://goo.gl/4tErCq), is being adapted for dissemination in a large federal organization. Finally, tools from our studies and those developed at our home organization, the Oregon Institute of Occupational Health Sciences, are being widely distributed through our outreach activities.

Key Personnel
<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
<th>Role in OHWC</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kent Anger</td>
<td>OHSU</td>
<td>Program Director &amp; PI, ISC member</td>
<td><a href="mailto:anger@ohsu.edu">anger@ohsu.edu</a> 503-494-2512</td>
</tr>
<tr>
<td>Leslie Hammer</td>
<td>OHSU</td>
<td>Associate Director &amp; PI, ISC member</td>
<td><a href="mailto:hammerl@ohsu.edu">hammerl@ohsu.edu</a> 503-494-9193</td>
</tr>
<tr>
<td>Ryan Olson</td>
<td>OHSU</td>
<td>Associate Director &amp; PI, ISC member</td>
<td><a href="mailto:olsonry@ohsu.edu">olsonry@ohsu.edu</a> 503-494-2501</td>
</tr>
<tr>
<td>Todd Bodner</td>
<td>PSU</td>
<td>Subcontract PD/PI</td>
<td><a href="mailto:tbodner@pdx.edu">tbodner@pdx.edu</a> 503-725-3902</td>
</tr>
<tr>
<td>Donald Truxillo</td>
<td>PSU</td>
<td>ISC Chair</td>
<td><a href="mailto:truxillod@pdx.edu">truxillod@pdx.edu</a> 503-725-3969</td>
</tr>
<tr>
<td>Dorothy Montgomery</td>
<td>OHSU</td>
<td>Project PI &amp; ISC Member</td>
<td><a href="mailto:montgomd@ohsu.edu">montgomd@ohsu.edu</a> 503-494-4090</td>
</tr>
<tr>
<td>Anjali Rameshbabu</td>
<td>OHSU</td>
<td>Project Manager, MPI Outreach Core</td>
<td><a href="mailto:rameshba@ohsu.edu">rameshba@ohsu.edu</a> 503-494-3492</td>
</tr>
<tr>
<td>Ginger Hanson</td>
<td>Johns Hopkins University</td>
<td>Subcontract PD/PI</td>
<td><a href="mailto:ghanson4@jhu.edu">ghanson4@jhu.edu</a> 410-614-5747</td>
</tr>
<tr>
<td>Peter Johnson</td>
<td>University of Washington</td>
<td>Subcontract PD/PI, MPI, Tech4Rest study</td>
<td><a href="mailto:petej@uw.edu">petej@uw.edu</a> 206-221-5240</td>
</tr>
<tr>
<td>Miguel Marino</td>
<td>OHSU</td>
<td>Investigator</td>
<td><a href="mailto:marinom@ohsu.edu">marinom@ohsu.edu</a> 503-494-3233</td>
</tr>
</tbody>
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**SECTION II**

**Research Projects**
The OHWC has two research projects, Active Workplace Study and Tech4Rest.

ACTIVE WORKPLACE STUDY
Led by Dr. Brad Wipfli, this study was designed to determine the independent and synergistic effects of organizational level and individual level intervention strategies that target workplace sedentary behavior, an occupational risk factor that impacts worker health, safety, and well-being.

- In 2017, intervention materials were developed that apply concepts of the Total Worker Health® approach to the call center environment, including the study website, several computer-based training units, supervisor-led scripted discussions, and environmental alteration materials. Intervention materials were also purchased, including pedal stands, accelerometers, and tools for collecting physiological data.
- In 2017, partnering call centers were finalized and the research team started discussions about logistics of recruitment, enrollment, and implementation.
- Two pilot studies were done in 2017 to aid in the design and development of intervention methods and materials for the Active Workplace Study.
  - The first pilot study identified a method to accurately detect when a person with a thigh-worn accelerometer was using a pedal stand. This study improved the evaluation of sedentary time at work by providing researchers with a reliable method to distinguish pedaling from other activities in the workplace.
  - The second pilot study introduced under-desk pedal stands into sedentary office environments, and assessed whether a team competition condition increased distance pedaled compared to a non-competition condition. Data collection is ongoing, but preliminary results indicate that a competition results in substantially greater pedaling. Study participants also provided feedback on intervention materials including computer-based training units and supervisor-led scripted discussions on health and safety topics.

TECH4REST
Dr. Ryan Olson and Dr. Pete Johnson (MPIs) co-lead the research team developing and evaluating an intervention to improve the Total Worker Health® of team truck drivers. In this study, named Tech4Rest, investigators aim to improve sleep and reduce fatigue among team drivers. The intervention involves an enhanced cab condition (vibration altering mattress with wing suspension and active suspension driving seat – see Figures below) as well as an additive behavioral sleep intervention, named Fit4Sleep.

- Dr. Olson (MPI) presented an overview of the Tech4Rest study to safety professionals in a short course series titled “Health and Safety in the 24/7 Economy” at the Northwest Occupational Health Conference (Portland, OR).
- In Spring 2017, a web developer was contracted to adapt Dr. Olson’s existing SHIFT intervention website to facilitate a behavioral sleep health intervention, named Fit4Sleep. After OHSU security clearances were obtained, work is anticipated to begin in the fall and complete in Winter 2018.
- Throughout the Spring and Summer of 2017 the research team worked to develop the website adaptation plan and outline for training content for the Fit4Sleep sleep health intervention.
- In the Summer of 2017, with a summer intern from Oregon State University, investigators pilot tested and evaluated study procedures, measurement devices, and data with a volunteer truck
driving team.

- In August 2017, the research team received approval on an IRB modification to conduct qualitative interviews with driving teams to inform the development of the Fit4Sleep intervention.
- All procedures and partnerships are in place for the Tech4Rest pilot study, which will begin in the Fall of 2017 with five initial teams that will provide an evaluation of the enhanced cab features while the behavioral intervention is developed.
- Investigators registered the Tech4Rest randomized controlled trial with clinical trials.gov.

Figure 2: Images from the Tech4Rest Study

**OHWC OUTREACH AND EDUCATION**

Our reach was expanded to new individuals, employers and partners through events, social media and our monthly newsletter. Outreach was supported through 1) face to face connections with our partners and stakeholders; 2) newly developed toolkits and workplace guides; 3) social media; and, 4) engagement in partnerships and committees.

*Highlights for this past year include:*

- Completed successful biannual symposia (Diversity and Inclusion in the Workplace: Impact on worker health and well-being (November) and Creating a Positive Work Environment for Safety and Health (May)).
- Completed OHWC-specific project chalk talks by faculty and staff, and monthly seminars among researchers and invited practitioners.
• Sixteen summer interns were recruited to the Oregon Institute of Occupational Health Sciences summer intern program, including OHWC projects (Summer 2017).

• The OHWC and the Oregon Institute of Occupational Health Sciences sponsored and exhibited at more than a dozen high profile safety, health and wellness conferences including the American Heart Association Worksite Wellness Summit, all conferences sponsored by Oregon OSHA, ASSE, ACOEM, Oregon Governor’s Occupational Safety and Health Conference, Oregon Worker Compensation Division, and the local section of AIHA.

• Presented at regional and national meetings to increase visibility of Total Worker Health (e.g., Oregon OSHA & ASSE-sponsored conferences, Work, Stress and Health; American Association of Occupational Health Nurses).

• Continued to grow our social media followers through our Twitter, Facebook, LinkedIn, and Blog channels, particularly emphasizing growth of our informative, monthly newsletter now reaching just under 2000 subscribers.

• Added two additional "Health Impacts Safety" meeting guides in English and soon to be translated into Spanish. Preparing to launch “A Year of Impact.” In addition to distributing live at conferences, electronic dissemination of impact guides included: >960 website hits and >450 downloads.

• Began dissemination of tools and toolkits derived from OHWC research projects with total of >5800 website hits and >725 downloads.

• COMPASS dissemination: the COMPASS intervention was launched in August 2017 within the Home Care Commission’s training system in Portland and Salem. This one-year contract may be further adapted to include personal support workers.

REPRESENTATIVE PUBLICATIONS
