



## Executive Summary

# 2021-2022 NWCOHS Evaluation Report

### Overview

The Northwest Center for Occupational Health and Safety (NWCOHS) is a National Institute for Occupational Safety & Health-funded Education and Research Center (ERC). NWCOHS is housed in the University of Washington (UW) Department of Environmental & Occupational Health Sciences (DEOHS) and brings together faculty from the UW Schools of Public Health, Nursing and Medicine. NWCOHS is committed to ensuring high quality training, education, and outreach to prepare current and future generations of occupational health and safety professionals for the workforce.

This Executive Summary provides highlights from an 80+ page evaluation report that describes NWCOHS accomplishments and identifies areas for improvement from Year 2 (July 1, 2021 – June 30, 2022) of our current 5-year competing renewal cycle (July 1, 2020 - June 30, 2025). Year 2 of our evaluation program integrated evaluation efforts focused on our in-residence graduate programs, along with a more in-depth review of Continuing Education (CE), Outreach, and the Professional Training Opportunities Program (PTOP).

Our evaluation, which will be conducted annually, is guided by our [strategic plan](#) and [logic model](#). The annual evaluation seeks to address four overarching questions:

1. How is NWCOHS increasing awareness about occupational health and safety in Region X among practitioners, community stakeholders, underserved and underrepresented communities, and academia?
2. How does NWCOHS research contribute to the knowledge of Northwest worker safety and well-being?
3. How is NWCOHS preparing trainees and CE professionals to address regional occupational health & safety (OHS) needs?
4. What are the impacts of NWCOHS activities on Northwest OHS?

### Data Collection

We leveraged a mixed methods approach to answer each of our evaluation questions, collecting and synthesizing information from Program Directors, trainees, and external stakeholders, as well as secondary sources. Specific information sources included: Program director annual reporting forms, trainee feedback via annual surveys and a focus group, trainee activity summaries, seven one-on-one stakeholder interviews, three Program Director focus groups, enrollment reports, the ERC's annual Research Performance

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Progress Report, External Advisory Board Annual Letter, social media analytics, and web analytics.

## Findings and Discussion

We synthesized findings across data sources to address the evaluation questions, presented below. Due to the interconnected nature of the ERC's goals and activities, some findings addressed multiple questions.

### 1) How is NWCOHS increasing awareness about occupational health and safety in Region X among practitioners, community stakeholders, underserved and underrepresented communities, and academia?

#### Health and Safety Solutions in Agriculture

NWCOHS CE partnered with faculty from the Pacific Northwest Agriculture Health and Safety (PNASH) Center to offer a community engagement webinar series for employers, managers, safety professionals, and community educators on sexual harassment prevention, heat illness, dairy safety and health, and pesticide safety. Lectures were offered simultaneously in English and Spanish.

The NWCOHS increased awareness of OHS research and training through 51 accepted publications and 79 presentations at conferences, workshops, and seminars authored or co-authored by Program Directors and trainees, 36 media engagements (radio, digital, paper) and 71 social media posts. Additionally, trainees reported 44 conference presentations, guest lectures, and other speaking opportunities, 25 manuscripts in progress, submitted, or published, and 14 other written products (e.g., blog posts and op-eds). Program Directors also consulted with 31 organizations including government agencies, policymakers, unions, and nonprofit/community

groups. The NWCOHS website received 14,046 unique pageviews and [NWCOHS blog](#) shared 15 stories that discussed OHS activities among our students, faculty, and community partners.

Program Directors conducted diverse recruitment activities to attract potential trainees/students, including direct outreach, social media advertisements, and conference/workshop appearances.

Stakeholders highlighted the breadth of CE courses and praised the availability and quality of both online and in-person courses.

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**2) How does our research contribute to the regional knowledge of worker safety and well-being?**

As described above, we publish and share our research with diverse audiences through multiple media types. Stakeholders recognized the strength of existing NWCOS research partnerships, faculty service on science committees, and consultation with state agencies. Stakeholders noted that they group research from the UW School of Public Health and DEOHS with NWCOS research given the overlap in focus area and faculty.

**Occupational health risks due to wildfire smoke**

NWCOS faculty and trainees are researching the occupational health risks due to large regional wildfire events and ways to mitigate the effects of wildfire smoke. Some of these efforts are highlighted in this University of Washington Department of Environmental and Occupational Health feature, [The risk is real.](#)

**3) How has NWCOS prepared trainees and CE professionals to address regional OHS needs?**

*CE praised for offering a wide breadth of topics, "...from nursing to food truck safety, to clean water and environmental compliance aspects, as well as the basics of occupational health and safety."*

- NWCOS stakeholder

The ERC supported 29 master's and PhD trainees during the 2021-22 academic year. Trainees receive training and education through various mechanisms that aid in their preparation for the OHS workforce, including internships, coursework, and faculty mentorship.

Overall, trainees reported favorable impressions of their experiences during their time with the ERC, highlighting the value of mentorship, specifically, and particular course offerings. Notably, all 14 trainee

survey respondents shared that they strongly agreed or agreed that they would advise people interested in OHS to apply to the University of Washington.

Our CE program offered 68 courses and reached 1,390 participants to address regional OHS needs.

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#### 4) What are the impacts of NWCOHS activities on Northwest OHS?

Our evaluation plan calls for a longitudinal approach using consistent, annual data collection activities to assess impacts. As this was only the second year of our comprehensive, ERC-wide evaluation program, we are only starting to capture data that will ultimately contribute to our assessment of these impacts. However, we were able to glean preliminary, perceived impacts from NWCOHS activities based primarily on findings from stakeholder interviews, which highlighted the regional reputation and leadership of NWCOHS when it comes to OHS training and education and positive impressions of NWCOHS research.

#### Climate change and precarious work case studies

NWCOHS developed training materials on climate-related hazards and precarious work to incorporate into our NWCOHS interdisciplinary events and graduate coursework. See recent [blog post](#).

## Recommendations

During the August 2022 evaluation retreat, program directors and staff reflected on the detailed recommendations provided by trainees, stakeholders, and the evaluation team. Following this retreat, the evaluation team consolidated the initial recommendations into feasible and actionable overarching recommendations provided below. Following these recommendations are initial or planned efforts to address them.

**Continue to cultivate relationships with research and outreach partners.** We plan to expand our social media outreach to include both original content and to repost/share other relevant content (e.g., highlight local occupational health work via interviews with practitioners).

**Support faculty and students to do outreach work.** We will promote broad use of trainee 'travel' funds for professional development or participation in outreach opportunities, and reach out to our stakeholders to identify outreach opportunities for our trainees to participate in.

**Consider new focus areas for ERC research (e.g., mental health and suicide prevention).** While recognizing that the ERC does not directly fund research activities, except through PTO, we reviewed current efforts and noted faculty and students are already doing work in these areas (e.g., worker mental health and stress during the COVID-19 pandemic, health care worker burnout, and compassion fatigue resilience in animal research facilities). Our CE program has developed a Total Worker Health course and certificate program that highlights the mental health needs of workers. We are identifying other training materials to share with our trainees that highlight the importance of mental health and suicide prevention as part of the landscape of supporting healthy and safe work environments.

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**Continue to nurture relationships with occupational health and injury-related research centers at UW (e.g., Pacific Northwest Agricultural Safety and Health (PNASH), Harborview Injury Prevention Center, etc.).** We recognize that many faculty already have multiple partnerships/affiliations with other UW research centers. The ERC will participate in fall 2022 Centers meeting with PNASH and the Oregon Health Sciences University Total Worker Health Center to identify ongoing opportunities for collaboration and cross promotion of resources.

**Improve communication and organization of trainee orientation and interdisciplinary events.** We will offer the annual NWCOHS Fall Trainee Orientation as a standalone event to provide an overview of ERC academic programs, the ERC evaluation process and how the previous year's feedback was addressed, and administrative and reporting requirements. We plan to offer interdisciplinary events at various times of the day. We will announce event dates/times and expectations for pre-work and make-up work early in the quarter and provide food at interdisciplinary events (COVID-19 permitting). We will also provide trainees ongoing education on ERC roles and responsibilities, share about other ERCs /national ERCs, and promote the ERC peer mentorship program.

**Provide more opportunities for trainees to develop professional skills including communication, project management, and leadership (via courses, mentorship, networking, field trips, and practical experiences).** We will promote the fall 2022 CE safety leadership course and other relevant CE courses to trainees. We will also continue to provide funds to defray costs of trainee participation in CE courses.

**Consider a landscape analysis for potential career pathways for Occupational Health at the Human Animal Interface (OHAI) trainees.** The OHAI Program Director and Center Director will discuss scope, timeline, and potential resources to support such an assessment.

**Consider forming a curriculum review workgroup comprised of ERC faculty to provide DEOHS leadership with explicit recommendations for course changes/improvements based ERC trainee feedback.** We plan to discuss specific feedback received from trainees through evaluation-related data collection efforts at an ERC Program Directors meeting in fall 2022, such as: include more industrial hygiene topics in occupational medicine seminars to further engage Industrial Hygiene trainees; incorporate more practical assignments so students have a product at the end of the course (e.g., a presentation); connect coursework to real life (e.g., a policy brief to share with a stakeholder on a timely issue/topic); modernize coursework to include discussion on topics such as tech safety and ergonomics; and incorporate anti-racism content more broadly into existing courses.

**Review CE content and outreach to ensure it comprehensively meets needs of regional stakeholders.** NWCOHS CE programs conducts an annual needs assessment

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survey to our audiences in all four states. Survey questions include field of specialty, employment sector, attendance to CE courses, type of preferred delivery format, and topics for future programming. Approximately 75-150 students reply each year from all states in Region 10. The respondents represent three of the four fields of practice that we target. CE uses the survey data to guide course planning, including many successful programs on leadership, accident investigation, workplace violence, and emerging issues such as mental health in the workplace. Due to the lack of responses from occupational health nursing professionals, CE reached out to various organizations and professionals to identify training needs, and developed a new online on-demand program that will launch in October 2022. CE also conducts 3-6 month follow up surveys and interviews with students to measure impact.

**Consider opportunities to improve visibility, recruitment, and networks throughout the region.** We will review our ongoing outreach efforts to identify regional opportunities to enhance recruitment, including at the UW Bothell and Tacoma campuses. The Center Manager will continue to participate in the DEOHS Communicators group and amplify Center faculty and trainees' activities via social media. The Industrial Hygiene and CE programs will continue to engage with Northwest Occupational Health Conference (NOHC), the Cascadia symposium and the AIHCE conference, and the OEM program will continue its participation in Northwest Association of Occupational and Environmental Medicine (NAOEM).

## Contact Info

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