

August 15, 2019

Ruth V. Watkins, PhD
President
University of Utah
Park Building

Business and Labor Interim Committee
Utah State Legislature

Rocky Mountain Center for Occupational and Environmental Health
ANNUAL REPORT: 53B-17-804.
SAFETY AND HEALTH (SB234, 2007 GS)

President Watkins and Legislators:

This is a summary of the annual report from the Advisory Board of the University of Utah's Rocky Mountain Center for Occupational and Environmental Health (RMCOEH) regarding how the State, University and RMCOEH can: (1) Improve workplace health and safety; and (2) Contribute to economic growth and development.

The RMCOEH has an active eighteen-member Advisory Board comprised of: Dennis Lloyd, J.D., Chair, WCF Mutual Insurance Company; Don Marano, CIH, PE (Terracon); Craig Allen, MPH, CSP, ARM (IHC); Taz Biesinger, J.D. (HBA); Todd Bingham, (UMA); Sen. Curtis Bramble; Jeff Worthington (AFL/CIO); Richard Clasby, (UTA); Rob Gardner, ARM, (Liberty Mutual Insurance); Paul Harris, MD, (Kennecott/Rio Tinto); Roger Jensen, J.D., PhD, (Montana Tech); Dean Lillquist, PhD, CIH(OSHA); Bart Raeymaekers, PhD (UU Manufacturing Ext. Partnership); Sen. Karen Mayne; Steve Packham, (DEQ); C. David Richards, MD, FACS (Richards Memorial Foundation); and J. Michael Taylor, MSPH, CIH (LDS Church).

I. RMCOEH ACTIVITIES AND ACCOMPLISHMENTS (e.g.)

- Produced treatment guidelines (e.g., post-traumatic stress disorder, opioids; traumatic brain injury, chronic pain, low back pain, carpal tunnel syndrome) to improve health while reducing morbidity and mortality. An important outcome produced in these guidelines includes the key recommendation that opioids are not appropriate for safety-sensitive work, like driving.
- Trained over 681 graduate students since 1977, with 17 graduates in 2018.
- Provided extensive continuing education and outreach programs train over 5,000 registrants annually.
- Conducted ground-breaking studies on causes of rotator cuff tears, carpal tunnel syndrome and back pain.
- Conducted research into truck driver health and crashes (~3,500 U.S. fatalities annually).

II. ADVICE AND RECOMMENDATIONS

Assuming the RMCOEH's acute space issues are resolved, opportunities exist to improve workplace health and safety, and to contribute to Utah's economic growth and development. The RMCOEH Advisory Board recommends the state, University and RMCOEH should:

- A. Recognize and meet the demand for more occupational safety and health-trained graduates.
- B. Manage Utah's higher education (OSH) needs to help it come into compliance with OSHA regulations, also not merely limited to the important laboratory safety issues.
- C. University Health Sciences should advocate the development and implementation of peer-reviewed treatment guidelines as a means of delivering effective and cost-conscious patient care.
- D. Public-policy makers should make rural occupational safety and health issues a priority.
- E. The state, University and RMCOEH should continue to strive to meet the OSH needs of non-English speaking workers.

We appreciate this opportunity to report to you on these very important issues. We stand ready to assist you in bringing to fruition viable programs to improve OSH and contribute to economic growth and development in Utah. We look forward to our continued dialogue and especially our joint efforts to make Utah safer and more productive.

Sincerely,

Dennis V. Lloyd

Dennis V. Lloyd
Chair
RMCOEH Advisory Board

Kurt T. Hegmann

Kurt T. Hegmann, MD, MPH
Center Director and Professor
RMCOEH

ANNUAL REPORT ON OCCUPATIONAL SAFETY AND HEALTH (53B-17-804; SB234 2007 G.S.)

This document serves as the annual report from the Advisory Board of the Rocky Mountain Center for Occupational and Environmental Health (RMCOEH). Pursuant to UCA 53B-17-804, this report summarizes the RMCOEH's activities and accomplishments in 2018, and provides information and the Board's advice and recommendations on how the State, University and RMCOEH can:

- Improve workplace health and safety; and
- Contribute to economic growth and development in Utah and the surrounding region.

I. RMCOEH ACTIVITIES AND ACCOMPLISHMENTS

The mission of the RMCOEH is to help employers and workers be safer, healthier and more productive by:

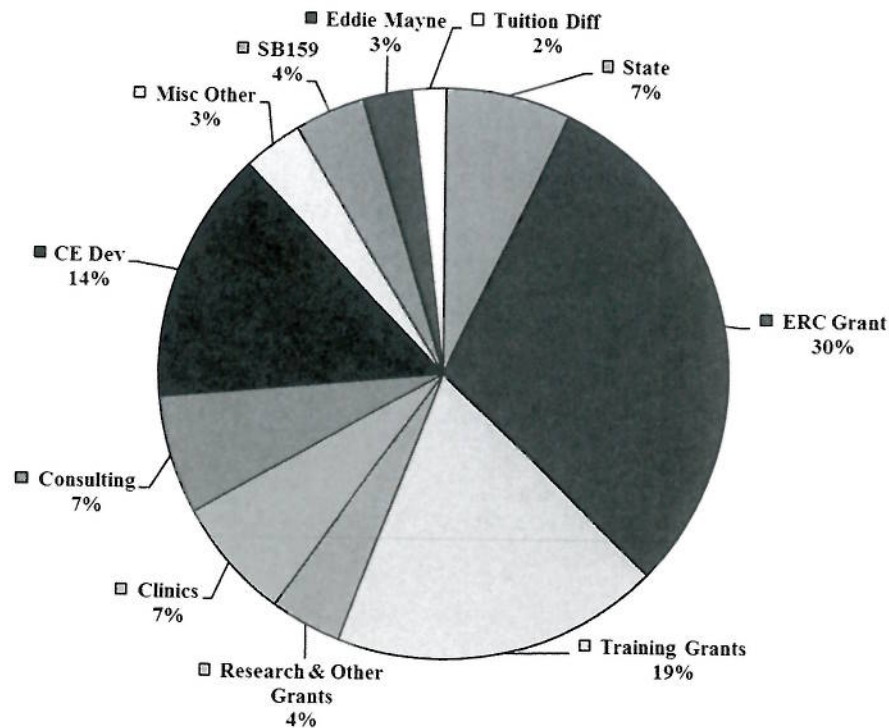
- Providing interdisciplinary, graduate level training and continuing education for occupational health and safety professionals; and
- Conducting interdisciplinary research and targeting service for occupational safety and health issues which impact employers and workers.
 - o A major recent example involves RMCOEH taking a leading effort in not only publishing peer-reviewed guidelines on opioids, but to evaluate their impacts. These guidelines have been partly incorporated into the CDC Guidelines for opioids (March 2016), although there is more detail in the guidelines developed by the RMCOEH than from the CDC. Implementation of these guidelines has resulted in major reductions in the numbers and doses of opioids pills, and in all probability deaths in Utah.
 - o The RMCOEH has developed the most extensive medical treatments guidelines for post-traumatic stress disorder (2018), traumatic brain injuries (2017), chronic pain (2017), back pain (2019) and hand, wrist and forearm disorders (2015) including rotator cuff tendinitis, carpal tunnel syndrome that has been compiled, involving the synthesis of over 20,000 studies. We are now completing work on guidelines for treatment of depressive disorders.

RMCOEH trains graduate students in Occupational Safety, Industrial Hygiene, Hazardous Substances, Occupational Injury Prevention, Occupational Medicine and Ergonomics. Over 681 students have been awarded graduate degrees since the inception of the Center in 1977, with 17 graduating in 2018. Approximately half of these students continue to live and work in Utah.

A. RMCOEH LEVERAGING FOR GRANTS

The RMCOEH receives funding from multiple sources. These include SB 159 contributions (\$228,000) and the Eddie P. Mayne Fund appropriation (\$152,333) that have been used to support the RMCOEH. Such funds have provided us the ability to leverage considerable additional monies. The total budget for the coming year in the RMCOEH is \$6.4 million. Included in these

funds are \$2.6 million in Federal grants, which would not have been available without this excellent State support.



B. RMCOEH PROGRAMS AND IMPACTS

The Board of Regents approved our Master of Science in Occupational Health and Master of Occupational Health degrees January 18, 2008. These programs are helping to better train RMCOEH graduates in Occupational Safety and Health. The programs to date have graduated over 100 students/residents. The program currently has 27 students with anticipation of 10 more matriculating this fall. We also train MS and PhD students in Mechanical Engineering (currently 9+ students).

A new PhD in Occupational and Environmental Health was approved by the Utah Board of Regents in March 2012. Six students are currently enrolled in this important program. Industry needs such experts to train the professional workforce that Utah's industries require, solve complex safety and health problems, integrate the behavioral factors estimated by Liberty Mutual to be involved in over 75% of injuries, and to implement state-of-the-art programs further reducing injuries and workers compensation costs, as well as solving complex problems.

The Center also initiated a graduate Certificate in Occupational Safety and Health program in August 2013 after approval by the University of Utah Board of Trustees.

The Center has also supported the inception of a baccalaureate Minor in Occupational Safety and Health in the College of Health. This is an important step towards a major and better supplying industry with the trained personnel to reduce on-the-job injuries and make Utah businesses both safer and more competitive.

The RMCOEH has an extensive continuing education and outreach program with over 5,000 registrants annually, the majority of whom are employed by Utah businesses and beyond in Health and Human Services (HHS) Region VIII.

Additional features and impacts of the RMCOEH include:

- RMCOEH is one of only 18 regional Education and Research Centers (ERC) in the United States designated by the National Institute for Occupational Safety and Health (NIOSH). As such, RMCOEH is partially funded by federal grant monies.
- The RMCOEH scored the best score by a panel of 31 experts who reviewed the Center's performance in 2018 as part of the NIOSH ERC grant's 5-year renewal process. This scoring also occurred when directly compared with programs at Johns Hopkins University, University of Michigan and Harvard. We also bested these 3 centers in 2013 and all 6 competing centers in our prior competitive renewal in 2007.
- The RMCOEH is currently working with the University of Utah's College of Health to improve marketing and knowledge of the undergraduate minor in Occupational Safety and Health within Health Promotion and Education. This degree is of great importance to the businesses and workers of Utah, as the job openings either go unfilled or to individuals lacking formal training.
- The RMCOEH currently has one of the most extensive research programs in the US that seek to prevent common musculoskeletal disorders such as carpal tunnel syndrome, shoulder tendinitis, and low back pain. These disorders cost the U.S. approximately \$200 billion per year. We have published over 2 dozen studies over the past 3 years on these topics.
- RMCOEH faculty have received two training grants, one regarding opioids and a training grant from the National Institute of Environmental Health Sciences (NIEHS).
- The RMCOEH is engaged in two research projects that are seeking to reduce motor vehicle crashes among truck drivers, which result in approximately 3,500 fatalities annually.
- The Dr. Paul S. Richards Endowed Chair in Occupational Safety and Health was established. An additional Endowed Chair in Mining Safety has also been established.
- RMCOEH faculty has significant expertise in planning for and preparing to handle bioterrorism and other mass casualty events.
- RMCOEH faculty consults with, and/or educate professionals from over 2,000 Utah businesses annually to provide assistance to reduce or prevent workplace injuries and illnesses. Including companies beyond Utah, the RMCOEH faculty have involvement in over 3,500 US businesses annually.
- RMCOEH faculty work with local industries to solve complex occupational safety and health problems, such as a study at Kennecott to solve underground diesel exhaust (a suspected carcinogen) monitoring problems as they continue to re-start underground mining operations. These impacts include development of real time measurements instead of the typical delay of days from currently used instruments and methods, thereby improving health of workers.
- RMCOEH faculty are continuing to work to move a few remaining courses to hybrid and distance-based course formats to facilitate both traditional student's learning as well as non-traditional, in-plant students employed in OSH positions.