

## **Center for Health, Work & Environment Pilot Grant Funding**

Request for Proposals

**Deadline for Proposals is March 29, 2024 5pm MDT**

### **I. Overview of the Pilot Grant Funding**

The Center of Health, Work & Environment (CHWE) is offering pilot grant funding in accordance with our mission to advance worker health, safety, and well-being. This pilot funding is supported by two grants from the National Institute for Occupational Safety and Health (NIOSH) - Center of Excellence for *Total Worker Health*<sup>®</sup> and Mountain and Plains Education and Research Center (MAP ERC). The pilot funding is used to support projects in occupational safety and health (OSH) and *Total Worker Health* (TWH). Pilot research grants are designed to enable investigators to establish a track record in OSH and/or TWH research and practice, thereby increasing the likelihood of future funding.

While we have two funding mechanisms, we have consolidated the request for proposals into a single process with one review committee. Projects that are recommended for funding by the review committee will be assigned administratively to be funded by either the CHWE Center of Excellence for TWH or the MAP ERC NIOSH grant.

- We fund approximately five grants per year
- Grants are available for a maximum of \$13,000 in direct costs, plus applicable indirect costs (see below), for a one-year project period
- We accept projects that are categorized as one of the following:
  - Scientific research projects
  - Research-to-practice (r2p) projects

**Review the differences between the MAP ERC and CHWE TWH funding sources in Table 1. This information may determine how you structure your proposal.**

- When you submit your proposal, you will be asked whether you think your proposal fits better under one funding source over the other and/or whether you prefer to be considered for one funding source over another. For example, you may prefer one start date over another or you may find the scope of your work is more in line with one over another.

### **Funding priorities**

Although any proposal that meets an OSH and/or TWH need will be welcomed and considered, proposals will be particularly encouraged and given priority if they meet the priorities of the National Institute for Occupational Safety and Health (NIOSH) National Occupational Research Agenda (NORA) Goals/Objectives (<https://www.cdc.gov/nora/default.html>) and CHWE research and practice priorities. Projects that address the following topics will be given special consideration:

- Disproportionate health impacts in the increasingly diverse workforce, including the interrelationships between workers' race, ethnicity, gender, sexual orientation, and generational challenges, and workplace and work factors
- Innovative ways to address the [future of work](#)
- Climate and worker health

- Workplace emergency preparedness
- Mental health in the workplace
- Worker well-being
- Opioid and substance use disorders
- Small businesses
- Regional focus

## Applicant Eligibility

Pilot grants will be awarded to investigators who fit into at least one of the following categories:

- 1) Graduate students and junior investigators (less than 7 years from terminal degree) from any discipline;
- 2) Investigators who have done research in a related discipline AND who have an interest in developing a future in an OSH and/or TWH discipline; or
- 3) Experienced investigators who seek to address innovative new research questions or develop innovative methods aimed to improve OSH and/or TWH research, translation, dissemination, or practice.

Note that investigators affiliated with another TWH Center of Excellence will have a lower priority for funding through this mechanism.

Finally, if you submit your project as an r2p project, the application **must include** at least one **Research Partner** and at least one **Community Partner**. You must include a signed letter of support from the participating partner.

Table 1. Key differences between proposals funded by the MAP ERC and CHWE TWH grants to consider when submitting your application

	MAP ERC Grant	CHWE TWH Grant
<b>Scope</b>	Any areas of research or r2p related to OSH will be considered for MAP ERC awards. Examples of OSH disciplines include occupational medicine, occupational health nursing, industrial hygiene, occupational and environmental safety, ergonomics, engineering, toxicology, occupational and environmental epidemiology, health physics, and occupational health psychology.	<p>Areas of research or r2p specific to the emerging field of TWH.</p> <p>NIOSH defines TWH as “policies, programs, and practices that integrate protection from work-related safety and health hazards with promotion of injury and illness prevention efforts to advance worker well-being.” In doing so, researchers and practitioners who use the TWH approach target working conditions (e.g., physical, psychological, work organization, etc.), rather than individual worker behaviors, to advance worker well-being.</p> <p>The TWH approach is used to first and foremost protect the health of all workers to ensure that they are not exposed to hazardous working conditions that may put them at risk for injury, disease or death. The TWH approach then expands upon this to consider the whole health of the worker – mental, social, physical, financial, etc. It asks us to consider the ways in which the workplace can enhance physical and mental health to promote well-being. Fundamental to the approach is 1) Demonstrating leadership commitment to worker safety and health at all levels of the organization, 2) Designing work to eliminate or reduce safety and health hazards and promote worker well-being, 3) Promoting and supporting worker engagement throughout program design and implementation. 4) Ensuring confidentiality and privacy of workers, and 5) Integrating relevant systems to advance worker well-being (<a href="https://www.cdc.gov/niosh/twh/fundamentals.html">https://www.cdc.gov/niosh/twh/fundamentals.html</a>).</p> <p>For more information about TWH, please refer to the NIOSH website: <a href="https://www.cdc.gov/niosh/twh/publications.html">https://www.cdc.gov/niosh/twh/publications.html</a></p>
<b>Funding dates</b>	<b>July 1, 2024 through June 30, 2025</b>	<b>September 1, 2024 through August 31, 2025</b>
<b>Regional focus</b>	Proposals <u>must be</u> from organizations/institutions within the following five state region and tribal nations within it: Arizona, Colorado, Montana, New Mexico, and Wyoming.	No regional limitations, but applicants from Federal Region 8 (CO, MT, ND, SD, UT, WY) will be given priority.
<b>Example awarded projects</b>	<p><u>Research projects:</u></p> <ul style="list-style-type: none"> <li>• Telework, work ability, and well-being among workers with chronic health conditions</li> <li>• Characterizing Lung Particulate Matter Burden from Workplace Mineral Dust Exposures</li> <li>• Providing real-time feedback on ergonomic risk factors using wearable sensors in construction work</li> </ul> <p><u>Research to practice project:</u></p> <ul style="list-style-type: none"> <li>• Youth@Work/Safety Matters: Implementing a Safety and Health Curriculum for Young Workers in Colorado</li> </ul>	<p><u>Research projects:</u></p> <ul style="list-style-type: none"> <li>• Fighting fatigue: A conceptual model of driver sleep in the gig economy</li> <li>• Safety and Health Innovation in Preschools: A <i>Total Worker Health</i>® Pilot Project</li> <li>• Functional Movement Screen as a Predictor of Occupational Injury Among Denver Firefighters</li> </ul> <p><u>Research to practice projects:</u></p> <ul style="list-style-type: none"> <li>• Minority stress, work stress &amp; health equity for Latinx/Hispanic K-12 teachers</li> <li>• Alertness testing’s effects on workplace incidents and related insurance claims</li> </ul>

## II. Project Types

### Research Pilot Projects

Pilot research grants are designed to enable investigators to establish a track record in OSH and/or TWH research and practice, thereby increasing likelihood of future funding.

### Evaluation Criteria

For research proposals, review committee members will provide an overall impact/priority score to reflect their assessment of the likelihood for the project to exert a sustained influence on the research field(s) involved using the following evaluation criteria:

1. Significance:
  - Does the research address an important problem or critical barrier to progress in the field of OSH and/or TWH research?
  - Does the research address an important regional problem?
  - Does the project address [NORA sector/cross sector goal\(s\)](#)?
  - If the aims are achieved, how will scientific knowledge, technical capability and/or clinical practice be advanced?
  - Does the project address the [burden, need, impact \(BNI\)](#) of the occupational exposure and hazards that are the focus of the proposed research?
2. Investigator(s):
  - Are the Principal Investigators (PIs), collaborators, and other researchers well-suited to the project?
  - Does the research team have complementary and integrated expertise relevant for the project?
  - If *early-stage* or *new* investigators, do they have appropriate experience and training? Do they have suitable mentors?
  - If *established* investigators, are they new to the field of OSH and/or TWH research?
3. Innovation:
  - Does the application challenge and/or seek to shift current research or practice paradigms?
  - Does the research project involve novel concepts, approaches, methods, or interventions (either novel to OSH and/or TWH or novel in a broader sense)?
  - Does the application refine or improve existing concepts, approaches, methods, or interventions?
4. Approach:
  - Are the overall strategy, conceptual framework, design (including study population), methods, and analyses adequately developed, well-integrated, and appropriate to the aims of the project?
  - Does the study involve multiple stakeholders (e.g., employees, employers, and academia)?
  - Is there interdisciplinary interaction or potential?
  - Does the proposal include graduate students or others who will benefit from training in research methods in occupational health and safety?
  - Are potential problems, alternate strategies, and benchmarks for success presented?
5. Environment:
  - Does the environment in which the work will be performed contribute to the probability of success?
  - Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed?
  - Can the project be accomplished in the timeline presented?
  - Will the project benefit from unique features of the scientific environment, subject populations or collaborative arrangements?

## 6. Additional Criteria:

- Does the research project have the potential of obtaining pilot data that may increase the probability of developing fundable larger grants or contracts in the future?
- Is the budget appropriate to complete the scope of the work proposed?

## **Research to Practice Pilot Projects**

Through its [Research to Practice \(r2p\) Initiative](#) NIOSH emphasizes the importance of integrating evidence based research into “the real world” in order to improve worker and community health. The r2p approach is an interactive process in which the OSH and TWH communities – including researchers, communicators, decision-makers, and employer/employee groups – work collaboratively to:

- Identify research needs
- Design, plan, and conduct studies
- Translate and disseminate existing knowledge, interventions, and technologies to relevant users for implementation in the workplace
- Evaluate results to determine the impact on OSH and/or TWH

NIOSH uses the Research to Practice Roadmap guidance document and worksheet to plan their dissemination and facilitate the use, adoption, and adaptation of NIOSH knowledge, interventions, and technologies to prevent injuries and illness and promote worker well-being: <https://www.cpwr.com/research/research-to-practice-r2p/r2p-library/resources-for-researchers/research-to-practice-r2p-roadmap-tool-and-triage-process/>. You do not need to focus solely on NIOSH knowledge, interventions, and technologies, but their planning road map helps to frame r2p projects.

## **Applicant Eligibility**

Every r2p application must include at least one **Research Partner** and at least one **Community Partner**. You must include a signed letter of support from the participating partner.

1. Every R2P project must include at least one **Research Partner** who meets one of the three criteria outlined on page 2.
2. Every R2P project must include at least one **Community Partner** who meets one of the following descriptions:
  - For-profit businesses
  - Labor unions
  - Not-for-profit organizations with a commitment to workplace safety, public health, disease and injury prevention and/or sustainable community development
  - Public health professionals with little or no experience in OSH and/or TWH research

## **Evaluation Criteria**

Review committee members will provide an overall score for the project based on criteria developed from the r2p program goals. While it is recognized that pilot funding is limited and not all projects will be able to completely address all goals, applicants should describe the r2p goals they will address, with particular emphasis on their approach to project evaluation. The review panels overall score will reflect the reviewers’ assessment of the project’s potential to address as many goals as feasible while also exerting a sustained influence on worker health in the region.

1. Burden, Need & Impact:
  - Does the project address [NORA sector/cross sector goal\(s\)](#)?
  - Does the project have a likely impact on OSH and/or TWH needs in the region?
  - If the aims are achieved, how will OSH and/or TWH be advanced in the field?

2. Investigator(s) and Partner(s):
  - Are the Principal Investigators (PIs) and other partners and/or researchers well-suited to the project?
  - If *early-stage* or *new* investigators, do they have appropriate experience and training? Do they have suitable mentors?
  - Is it reasonable to expect that the research partner(s) and community partner(s) will effectively encourage the adoption and use of research findings?
  - Have the research partner(s) and community partner(s) submitted letters that indicate their commitment to the project?
  - Has there been an appropriate amount of input from both parties in the development of the proposal?
3. Target:
  - Is the target audience clearly defined?
  - Is it clear what the target audience will do with the knowledge, interventions, and/or technologies?
  - Does the project adapt research results into products tailored to the target audience?
  - Are their methods to adapt appropriate and sufficient?
4. Translate:
  - Is the project based on evidence-based OSH and/or TWH research?
  - Does the proposal adequately describe how research findings, technologies and information will be translated/transferred into prevention practices and/or procedures?
5. Disseminate:
  - Does the project use communication, dissemination and/or implementation science to guide the movement of research into the workplace?
  - Does the project describe the channels of communication that will be used? This may include, but is not limited to trade journal publications, websites, reports, informational materials, workshops and conferences, peer reviewed journals.
  - Does the application outline future plans for the project? Does the project have the potential for partners to continue disseminating the knowledge, interventions, and technologies when the project is over?
6. Evaluate:
  - Does the project seek to determine the implementation, effectiveness and/or cost-effectiveness of a particular strategy to translate/disseminate knowledge, interventions, and/or technologies, preferably applying an established framework?
  - Does the applicant acknowledge potential problem areas and consider alternative tactics?
  - Can the project be accomplished in the timeline presented?
  - Does the proposal include adequate explanation of how the team will measure short-term success?
7. Additional Criteria:
  - Is the budget appropriate to complete the scope of the work proposed?

## III. Application Instructions

### A. Disqualifying Characteristics

In addition to assessing the strengths and weaknesses of applications according to the criteria listed above, the Review Committee reserves the right to **withdraw** an application from consideration if:

- The application is incomplete
- The application is submitted after the deadline
- The applicant does not follow the application instructions outlined here
- The project aims and objectives do not relate to the mission and goals of CHWE or the MAP ERC

- The application does not clearly relate to OSH or TWH
- A member of the review committee has specialized knowledge suggesting that a given project would be of little merit
- The application refers to participating organizations or collaborators that have not submitted letters of support for the grant

## B. Important Dates

- **March 8, 2024, 5 p.m. MDT** - Letter of Intent
  - To assist with planning the review process, potential applicants are encouraged to send non-binding Letter of Intent via email to [Carol.Brown@cuanschutz.edu](mailto:Carol.Brown@cuanschutz.edu). Please provide a tentative title for your project and identify if it is a Research or R2P application. Letters are non-binding, i.e., titles may be updated and proposal types may switch categories without penalty as long as they meet other criteria and due dates. You may still submit a proposal even if you did not submit a letter of intent.
- **March 29, 2024, 5 p.m. MDT** - Application deadline
- **June 14, 2024** - Letters emailed confirming the funding status of project

Funding will be provided from:

- **July 1, 2024** through **June 30, 2025** under the MAP ERC grant funding mechanism
- **Sept. 1, 2024** through **Aug. 31, 2025** under the TWH grant funding mechanism

**Note:** No funds will be disbursed without proof of Human Subjects (or Animal Care) Institutional Review Board approval (as applicable).

## C. Application Materials

**Please submit the following items as a single pdf:**

- 1) Cover page that includes project title, Principal Investigator, Co-Investigator(s) and Mentor (if applicable)
- 2) Abstract – 350 words maximum
- 3) Detailed Budget and Budget Justification including travel to present the results at an annual research day (will be held in Denver Metro area) (PHS398 Form Pages 4 and 5 <http://grants.nih.gov/grants/funding/phs398/phs398.html>)
  - a. The budget period covers a 12-month budget period.
  - b. The maximum award is \$13,000 direct costs. Projects funded by the MAP ERC are capped at 8% indirect cost rates. Projects funded by the TWH Center of Excellence include your institution's federally approved indirect cost rate or a 10% de minimus rates.
  - c. Grantees cannot receive more than a cumulative total of 2 pilot research or r2p grants as a Principal Investigator.
  - d. Allowable expenses include all relevant project expenses including:
    - i. Support personnel including salary (maximum salary support for a faculty PI or senior mentor is limited to 5% of a 12-month equivalent salary, plus fringe benefits). The percent support of the 12-month equivalent salary for students, post-doctoral fellows, and/or research staff can be higher than 5% as long as the overall budget is within the limit outlined in this RFP)
    - ii. Supplies and small specialized equipment
    - iii. Domestic travel necessary to conduct the research and to scientific meetings to present results
- 4) A biographical sketch or resume for each person involved in the project (5 page maximum for each person): <http://grants.nih.gov/grants/forms/biosketch.htm>
- 5) A proposal outlining the project. The proposal should be no longer than 5 pages (single-spaced, 12 point font, 1-inch margins) and it should include:

- a. Project overview, introduction
  - b. Specific Aims and objectives including, where appropriate, a hypothesis or research question
  - c. Background and significance, specifically, proposals should address burden estimates, the need for the proposed study, and the potential for public health impact (<https://www.cdc.gov/niosh/programs/bni.html>)
  - d. Project Design and Methods
    - i. Target Population
    - ii. Methods
    - iii. Data collection methods and plan
    - iv. Data analysis methods and plan
    - v. Expected results and implications of the project
  - e. Future Directions
  - f. Timetable
- 6) References (do not count against page total)
- 7) (Where appropriate) IRB approval or copy of submitted application and NIH Certification. Projects involving human subjects are required to obtain IRB approval. Alternatively, a copy of animal care committee approval is required if animal research is being proposed. *Approval does not need to be obtained prior to applying, but if funded, will be required before funds are released.*
- 8) Letters of Support
- a. Students must include a letter from a mentor or faculty sponsor. This letter should indicate the student investigator's ability to complete the proposed study in the timeline given, the student investigator's potential as a researcher, and the potential for future funding. It should also outline the mentorship that the mentor/faculty sponsor will provide the student.
  - b. Any co-investigators/collaborators must provide a letter(s) of support, which should indicate their agreement to collaborate, and what will be their role(s) in the project.
  - c. Applications requiring extensive data analysis should either include a statistician co-investigator on their research team or the applicant should provide a letter of support from someone qualified to conduct or give guidance on the proposed analysis.

## D. Submission Process

Submit your application electronically as a single PDF file here:

<https://app.smartsheet.com/b/form/19aff1e2fd2d4ee1a8d94e350e3260df> by 5pm MDT, **March 29, 2024**.

## E. Review Committee

Complete applications will be evaluated by a single review panel, consisting of 10-15 members representing collaborating institutions, including the University of Colorado Anschutz Medical Campus, Colorado State University, and National Jewish Health, as well as other members with appropriate expertise. At least two members of the review panel will review each proposal. Meritorious applications will be assigned a priority score based on the applicable criteria for Research and r2p projects.

## G. Progress Report

A brief written interim report is due 3 months **prior** to the end of the proposed budget period. This report should indicate the progress of the study including preliminary results and any problems encountered. A template will be provided.

## H. Final Written Report

A final written report needs to be submitted 3 months **after** the end of the budget period, with results outlined. This report should also document all presentations, publications and extramural funds that have resulted, in part, directly or indirectly from this award. A template will be provided.

## I. Acknowledgement of Support

The investigator must acknowledge support from the NIOSH MAP ERC Pilot Research Training Program



or the NIOSH Center for Health, Work & Environment Total Worker Health Center of Excellence in all their related publications, which resulted from the pilot grant award. Specific language will be provided if project is funded.

## **J. Annual Research Day**

Investigators will be required to participate and present their project at our Annual Research Day Symposium, date and location in the Denver area for 2025 to be determined. Interested applicants are invited to attend this year's Research Day, which will be on April 4, 2024. For more information about Research Day, please our website: <https://coloradosph.cuanschutz.edu/research-and-practice/centers-programs/chwe/events/research-day-symposium>.

## **K. Resulting Work**

Funded recipients will be contacted periodically for 3 years to provide an update about work that resulted from this pilot project.

Publications resulting from this work should meet the NIH Public Access Policy and have a PMCID number associated with them. More information about this is located:

<http://publicaccess.nih.gov/index.htm>