**Center for Health, Work & Environment**
colorado school of **public health**

# 2022 REQUEST FOR PROPOSALS

## Pilot Projects in *Total Worker Health*®

Center for Health, Work & Environment

A NIOSH Center of Excellence for *Total Worker Health*®

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# Overview of the Pilot Project Program

## *Total Worker Health*®

In accordance with its mission, the Center for Health, Work, and Environment (CHWE), a National Institute for Occupational Safety and Health (NIOSH) Center of Excellence in *Total Worker Health*® offers grant funding to support projects that focus on *Total Worker Health* (TWH). **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.**

**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 **(https://www.cdc.gov/niosh/twh/fundamentals.html).**

**For more information about TWH, please refer to the NIOSH website:** https://www.cdc.gov/niosh/twh/publications.html

## TWH pilot projects overview

The long-term goals of this pilot grant program are to:

1. Extend the research evidence base regarding the integration of protection and promotion of worker-related safety, health, and well-being;
2. Foster innovative new directions in research, prevention/intervention, education, translation, and outreach;
3. Increase awareness, adoption, and implementation of TWH best practices, programs, and policies across the region; and
4. Build TWH workforce capacity in public and private sectors, in academia and practice through pilot research funding

Although any proposal that meets a TWH need will be welcomed and considered, proposals will be particularly encouraged and given priority if they meet the priorities of NIOSH National Occupational Research Agenda (NORA) Goals/Objectives

([https://www.cdc.gov/nora/default.html](https://www.cdc.gov/nora/default.html)) and the Center's research and practice priorities. Center's research and practice priorities include but are not limited to projects that utilize multi-disciplinary collaborations to address:

- Small business
- Mental health in the workplace
- Worker well-being
- Disproportionate health impacts on some workers in the increasingly diverse workforce, such as the interrelationships between workers' race/ethnicity, gender, sexual orientation, and generational challenges, and workplace and work factors
- Opioid and substance use disorders
- Climate change and worker health
- Workplace emergency preparedness
- Relevant to identified NORA objectives
- Regional (Region VIII) focus

Junior applicants from Federal Region VIII – Colorado, Montana, North Dakota, South Dakota, Utah, & Wyoming – will be given priority.

There are two types of TWH projects that the CHWE supports through this grant program. Applicants should identify their proposal as either Research or Research to Practice (R2P) in their proposal cover letters. Example projects that have been funded in the past are listed below:

1) **Scientific research projects** are designed to enable investigators to establish a track record in TWH and occupational and environmental health research and practice, thereby increasing the likelihood of future funding.
   a. Fighting fatigue: A conceptual model of driver sleep in the gig economy
   b. Safety and Health Innovation in Preschools: A *Total Worker Health*® Pilot Project
   c. Functional Movement Screen as a Predictor of Occupational Injury Among Denver Firefighters
2) **Research-to-practice (R2P) projects** are designed to enable investigators to translate NIOSH generated knowledge into the real-world through community-based partnerships.
   a. Minority stress, work stress & health equity for Latinx/Hispanic K-12 teachers
   b. Alertness testing's effects on workplace incidents and related insurance claims

Available funding will be allocated to support minimum of two and up to three *research* and/or *research-to-practice (R2P)* pilot projects proposals. The requirements and criteria for each project type are described below. Following the description of each project type are application directions.

Both project types will be funded up to a maximum of $25,000 total, including indirect (facilities and administration) costs at the applicant organization's indirect cost rate, over a 1-year period from September 1, 2022 – August 31, 2023.

**The deadline for proposal submission is Wednesday, March 31, 2022, at 5:00pm MDT.**

You may submit an application if your organization/institution is any of the following:

- Public and Private nonprofit organizations, including Universities, Colleges, Research Institutions, Hospitals and Community-Based, and Faith-based Organizations
- For profit organizations, submissions from those meeting the federal definition of small, minority, and/or women-owned businesses are particularly encouraged
- Federally recognized or state-recognized American Indian/Alaska Native tribal governments, American Indian/Alaska Native tribally designated organizations, Alaska Native health corporations, Urban Indian health organizations, Tribal epidemiology centers, State and local governments or their Bona Fide Agents. A Bona Fide Agent is an agency/organization identified by the state as eligible to submit an application under the state eligibility in lieu of a state application. If you are applying as a bona fide agent of a state or local government, you must provide a letter from the state or local government as documentation of your status. Please include this document at the end of your application.

## Applicant Eligibility

Eligible Pilot Project investigators include applicants who fit into at least one of the following three categories:

1. Investigators who are new to the research field
   a. Junior faculty members with research interests in worker safety, health, and well-being
   b. Graduate students or graduate research trainees, or postdoctoral fellows in a TWH related discipline

2. Investigators who have done research in an occupational health and safety discipline AND who are new to TWH
   a. Academic faculty members of any rank who are new to the field of health protection, health promotion, and integration research, but who have experience doing high-quality research in a related discipline (e.g., public health, occupational therapy, psychology, business, medicine, health, economics, human development and family studies, social work, etc.)
   b. Academic faculty members of any rank who have experience in occupational health and safety, but not in TWH, who aim to develop research to contribute to TWH paradigms and evidence.
   c. Researchers in government agencies, community organizations or private companies who have the capacity to conduct high-quality independent research.

3. Experienced investigators who seek to address innovative new research questions or develop innovative methods aimed to improve TWH research, translation, dissemination, or practice.
   a. Academic faculty members of any rank or researchers in government agencies, community organizations or private companies who are not new to occupational health and safety or TWH research, but who aim to gather pilot data in preparation for larger-scale projects and proposals.

# Research Pilot Projects

Pilot research grants are designed to enable investigators to establish a track record in TWH research and practice, thereby increasing the 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 criteria:

1. Significance:

   a. Does the project address the burden, need, and impact (BNI) of the proposed research?
   b. Does the project address NIOSH NORA sector/cross-sector goal(s)?
   c. Does this project involve or impact CHWE priority areas?
   d. Does the project address an important problem or critical barrier to progress in TWH? That is, does the project address BOTH **protection from work-related safety and health hazards with promotion of injury and illness prevention efforts to advance worker well-being?**
   e. Does the project likely have impact on TWH needs in the CHWE region?
   f. If the aims are achieved, how will TWH, scientific knowledge, technical capability and/or clinical practice be advanced?
   g. How will successful completion of the aims change the concepts, methods, technologies, treatments, services or preventive interventions that drive TWH?

2. *Investigator(s):*

   a. Are the Program Directors and/or Principal Investigators (PDs/PIs), collaborators, and other researchers well-suited to the project?
   b. Does the project provide support or experience for new or junior investigators?
   c. If *early-stage* or *new* investigators, do they have appropriate experience and training? Do they have suitable mentors to support the project?
   d. If *established* investigators, are they new to the field of TWH research and/or practice?
   e. If the project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; is their leadership approach, governance and organizational structure appropriate for the project?

3. *Innovation:*

   a. Does the application challenge and/or seek to shift current research or practice paradigms?
   b. Does the research project involve novel concepts, approaches, methods, instrumentation or interventions?
   c. Are the concepts, approaches, methods, instrumentation and/or intervention

novel to TWH or novel in a broad sense?

    d. Does the application refine or improve exiting theoretical concepts, approaches, methods, instrumentation or interventions?

4. *Approach:*

    a. Are the overall strategy, conceptual framework, design (including composition of study population), methods, and analyses adequately developed, well-integrated, well-reasoned and appropriate to the aims of the project?

    b. Is there interdisciplinary or transdisciplinary interaction or potential?

    c. Does the proposal include graduate students or other who will benefit from training in research and/or practice methods in TWH?

    d. Does the study involve multiple stakeholders, for example employees, employers, organized labor, and/or academia?

    e. Does the applicant acknowledge potential problem areas and consider alternative tactics?

5. *Environment:*

    a. Does the environment in which the work will be performed contribute to the probability of success?

    b. Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed?

    c. Can the project be accomplished in the timeline presented?

    d. Will the project benefit from unique features of the scientific environment, subject populations or collaborative arrangements?

    e. Does the proposed project increase the institution's ability to conduct TWH research?

6. *Additional Criteria:*

    a. 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?

    b. 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 new research into "the real world" to improve worker and community health. As stated on NIOSH's website:

"The goal of R2P is to reduce illness and injury by increasing the use of NIOSH-generated knowledge, interventions, and technologies."

You can learn more about the R2P initiative on the NIOSH website (https://www.cdc.gov/niosh/r2p/). Applicants to the R2P pilot project program are encouraged to identify NIOSH-generated knowledge, interventions and technologies to serve as the bases of their applications.

Examples of NIOSH-generated knowledge, interventions and technologies that could qualify for a R2P pilot project can be found on the following webpage: https://www.cdc.gov/niosh/r2p/impact.html

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.cdc.gov/niosh/r2p/about.html#Research%20to%20Practice%20Tools

This Roadmap outlines key areas to address while planning for dissemination:

1. Understand what knowledge, interventions, and/or technologies will be disseminated
2. Consider the health and safety goal(s) – if you meet your goal what will be the impact
3. Consider actions already taken to reach and involve the target audience
4. Consider who will need to know about and act upon the knowledge, interventions, and technologies
5. Identify the target audience
   a. Is the audience an intermediary or end user?
   b. What do you want the audience to do with your knowledge, interventions, and technologies?
   c. Brainstorm potential partners
   d. Consider the best dissemination strategies
   e. Think about the best ways to reach the target audience
6. Consider whether other partners can help with dissemination when the project is over
   a. Who should you approach
   b. What resources are needed
   c. Consider barriers and strategies to overcome barriers
   d. What indicators will tell you are on the right track with your dissemination effort

R2P Pilot project should demonstrate that they have considered all these areas. See evaluation criteria below.

## Additional Applicant Eligibility Requirements

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 community partner.

1. Every R2P project must include at least one **Research Partner** who meets one of the three following descriptions as described in the "Applicant Eligibility" section on page 5.

2. Every R2P project must include at least one **Community Partner** who meets one of the following descriptions:
    a. For-profit business
    b. Labor union
    c. Not-for-profit organization with a commitment to workplace safety, public health, disease and injury prevention and/or sustainable community development
    d. Public health professional located throughout the region with little or no experience in TWH and occupational safety and health

## Evaluation Criteria

For R2P proposals, review committee members will provide an overall impact/priority score to reflect their assessment of the likelihood for the project to "translate" knowledge, interventions and technologies into workplaces and communities using the following criteria:

1. _Burden, Need and Impact_:

    a. Does the project address NIOSH NORA sector/cross-sector goal(s)?
    b. Does this project involve or impact CHWE priority areas?
    c. Does the project address an important problem or critical barrier to progress in TWH? That is, does the project address BOTH **protection from work-related safety and health hazards with promotion of injury and illness prevention efforts to advance worker well-being?**
    d. Does the project likely have impact on TWH needs in the CHWE region?
    e. If the aims are achieved, how will TWH research to practice be advanced?

2. _Investigator(s) and partners_:

    a. Are the Program Directors and/or Principal Investigators (PDs/PIs), collaborators, and other researchers well-suited to the project?
    b. Have the research partner(s) and community partner(s) submitted letters that indicate their commitment to the project?
    c. Does the project provide support or experience for new or junior investigators?
    d. If _early-stage_ or _new_ investigators, do they have appropriate experience and training?  Do they have suitable mentors to support the project?
    e. If _established_ investigators, are they new to the field of TWH research and/or practice?

     f.   If the project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; is their leadership approach, governance and organizational structure appropriate for the project?

     g.   Is it reasonable to expect that the research partner(s) and community partner(s) will effectively encourage adoption and use of research findings?

3. *Target:*

     a.   Is the target audience clearly defined?

     b.   Is it clear what the target audience will do with the knowledge, interventions, and/or technologies?

     c.   Does the project adapt research results into products tailored to the target audience? Are their methods to adapt appropriate and sufficient?

4. *Translate:*

     a.   Does the proposal adequately describe how research findings, technologies, and/or information will be translated/transferred into prevention/promotion practices and/or procedures?

     b.   Is the project based on evidence-based research?

5. *Disseminate:*

     a.   Does the project use communication, dissemination and/or implementation science to guide the movement of research into the workplace?

     b.   Does the proposal describe the channels of communication that will be used?

     c.   Does the proposal 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:*

     a.   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?

     b.   Does the applicant acknowledge potential problem areas and consider alternative tactics?

     c.   Can the project be accomplished in the timeline presented?

     d.   Does the proposal include adequate explanation of how the team will measure short-term success?

7. *Additional Criteria:*

     a.   Is the budget appropriate to complete the scope of the work proposed?

# Application Instructions

## 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 does not meet the criteria for TWH
- The project aims and objectives do not relate to the mission and goals of the CHWE
- 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

## Important Dates

- Letter of Intent:  To assistant with planning the review process potential applicants are encouraged to send a non-binding Letter of Intent via email to Natalie.Schwatka@cuanschutz.edu by 5:00 p.m. MST, Wednesday March 17, 2022.  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.
- Application deadline: 5:00 p.m. MST, Wednesday March 31, 2022.
- Letters confirming the funding status of your project will be sent by July 2022.
- Funding will be provided from September 1, 2022, through August 31, 2023.
- Note: No funds will be disbursed without proof of Human Subjects (or Animal Care) Institutional Review Board approval (if applicable).

## Application Forms

Please submit the following PHS398 forms (Revised 3/2020), which can be found at: http://grants.nih.gov/grants/funding/phs398/phs398.html

1) Face Page (PHS398 Form Page 1)
   *Note: if you are currently at University of Colorado Denver, this application does not require internal routing for Pre-Award signature. UCD applicants, please submit unsigned form.*
2) Summary/Relevance/Performance Sites (PHS398 Form Page 2)
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)

   Your application should also include the following:

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
   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
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.
8) Letter(s) of Support, including the following as applicable:
   a. Research partner(s)
      i. 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.
   b. Community partner(s)
9) **For students only.** Letter of Support from a mentor or faculty sponsor is required for all students. 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. 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.

## Submission Process

Submit your application electronically as a **single PDF file** to: Natalie.Schwatka@cuanschutz.edu

by **5:00 pm MST, Wednesday March 31, 2022**

## Review Committee

Complete applications will be evaluated by a review panel. The review panel consists of 7-10 members representing institutions collaborating with the CHWE, including the University of Colorado Denver, Colorado State University, as well as other members with 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.

## Awards

- Pilot project funds are awarded on a competitive basis.
- The budget period covers a one-year budget period. It is possible to request a 1-year no-cost extension for a total period of 2 years.
- The maximum award is $25,000 including indirect costs at the PI's institutional federal negotiated rate. If the applicant does not have a federally negotiated rate, they may request 10% de minimus rate, or none. Indirect costs are calculated based on Modified Total Direct Costs.
- Grantees cannot receive more than a cumulative total of 2 pilot research or R2P grants as a Project Investigator.
- Allowable expenses include all relevant project expenses including:
  - 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).
  - Supplies and small specialized equipment
  - Domestic travel necessary to conduct the research and to scientific meetings to present results
  - Indirect costs
- Awards will be announced by July, 2022.

## Progress Report

A brief written interim report is due **3 months <u>prior</u>** to the end of the proposed budget period. This report should indicate the progress of the study including preliminary results and any problems encountered.

## Final Written Report

A final written report needs to be submitted **3 months <u>after</u>** the end of the budget period, with results preferably presented in manuscript form or, in the case of community projects, in form of a brief white paper with executive summary. This report should also document all presentations, publications and extramural funds that have resulted, in part, directly or indirectly from this award.

## Acknowledgement of Support

The investigator must acknowledge support from the CHWE TWH Pilot Project Program in all their related publications, which resulted from the pilot grant award.

Publications, journal articles, etc. produced under this project must bear an acknowledgement

and disclaimer, as appropriate, stating:

> *This publication (journal article, etc.) was supported by the Grant 1U19OH011227, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.*

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

## Annual Research Day

Investigators will be encouraged to participate and present their project at an Annual Research Day, sponsored by the NIOSH Mountain and Plains Education and Research Center (MAP ERC); date and location for 2023 to be determined. Interested applicants are invited to attend this year's in-person Research Day, which will be convened on April 14, 2022. For more information about Research Day, please our website: https://coloradosph.cuanschutz.edu/research-and-practice/centers-programs/chwe/events/research-day-symposium

## Resulting Work

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

**Center for
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colorado school of **public health**

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*The Center for Health, Work & Environment is one of six Centers of Excellence for Total Worker Health® and houses the Mountain & Plains Education
and Research Center, one of 18 centers of its kind supported by the National Institute for Occupational Safety and Health (NIOSH).*