

**Request for Proposals
2020**

**Center for Health, Work & Environment
A NIOSH Center of Excellence for Total Worker Health ®**

Pilot Projects in Total Worker Health ®

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

Table of Contents

I. Overview of the Pilot Project Program	Page 3
II. Research Pilot Projects	Page 4
A. Applicant Eligibility	
B. Evaluation Criteria	
III. Research to Practice (R2P) Pilot Projects	Page 6
A. What Is “Research to Practice”?	
B. Applicant Eligibility	
C. Evaluation Criteria	
IV. Application Instructions	Page 9
A. Disqualifying Characteristics	
B. Important Dates	
C. Application Forms	
D. Submission Process	
E. Review Committee	
F. Awards	
G. Progress Report	
H. Final Written Report	
I. Acknowledgement of Support	
J. Annual Research Day	
K. Resulting Work	

I. Overview of the Pilot Project Program

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 in occupational and environmental safety and health (OESH) that focus on Total Worker Health®. **NIOSH defines Total Worker Health (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.”** Examples of Total Worker Health projects may include:

- Pilot testing workplace policies and programs
- Developing and disseminating best practices and tool kits
- Developing strategies for overcoming barriers to organizational acceptance and adoption of integrated, coordinated work-based interventions
- Investigating costs and benefits associated with integrated safety and health promotion programs

For more information about Total Worker Health, please refer to the NIOSH website:

<https://www.cdc.gov/niosh/twh/totalhealth.html>

There are two types of TWH projects that the CHWE supports through this grant program:

- 1) scientific research projects
- 2) research-to-practice (R2P) projects

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

1. Help increase the research evidence base regarding the integration of protection and promotion of worker-related safety, health, and well-being.
2. Foster innovative new research directions in health promotion, health protection and integration.
3. Increase awareness, adoption, and implementation of Total Worker Health® best practices, programs, and policies across Region VIII.
4. Help facilitate building Total Worker Health workforce capacity in public and private sectors, in academia and practice through pilot research funding.

Junior researchers and applicants from Federal Region VIII – Colorado, Montana, North Dakota, South Dakota, Utah, & Wyoming – will be given priority. We especially encourage projects that address Total Worker Health® among high risk and underserved worker populations, including high risk industries and Native American and Hispanic and Latino communities.

Available funding will be allocated to support 2 *research* or *research-to-practice (R2P)* pilot projects. The requirements and criteria for each project type are described below. Following the description of each project type are application directions.

Projects 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, 2020 – August 31, 2021.

The deadline for proposal submission is Tuesday, March 31, 2020 at 5:00pm MST.

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, and we particularly encourage submissions from those meeting the federal definition of small, minority, and/or women-owned businesses
- 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.

II. Research Pilot Projects

Pilot research grants are designed to enable investigators to establish a track record in Total Worker Health ® and occupational and environmental health research and practice, thereby increasing the likelihood of future funding.

Any areas of research related to Total Worker Health will be considered. The CHWE welcomes the submission of proposals that integrate the protection and promotion of worker-related safety, health, and well-being. Examples of OEHS 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.

A. Applicant Eligibility

Pilot research grants in TWH will be awarded to investigators who fit into one of two categories. The examples listed in each of the following categories are not meant to be comprehensive.

1. OESH investigators who are new to the research field in general:
 - a. Junior faculty members with research interests in TWH and occupational and environmental safety and health
 - b. Graduate research trainees, occupational medicine residents, or postdoctoral fellows in an occupational and environmental safety and health related discipline
2. Investigators who have done research in a related discipline AND who have an interest in developing a future in Total Worker Health and an OESH discipline.
 - a. Academic faculty members of any rank who are new to the field of TWH and/or occupational and environmental safety and health research, but who have experience doing high-quality research in a related discipline (e.g., public health, engineering, genetics, medicine, health economics, etc.)
 - b. Academic faculty members of any rank who are new to conducting Total Worker Health research and practice, but who have experience doing high-quality research in the field of occupational and environmental safety and health
 - c. Researchers in government agencies, community organizations and private companies who can demonstrate themselves to be capable of doing high-quality research independently and without assistance of the CHWE

B. Evaluation Criteria

In their cover letter applicants should identify their proposal as either Research or Research to Practice (R2P).

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:*

- Does the project address issues related to Total Worker Health? 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?
- Does the research address an important problem or critical barrier to progress in the field of Total Worker Health®?
- Does the research address an important problem in Total Worker Health?
- Will the research increase the research evidence base regarding the integration of protection and promotion of worker-related safety, health, and well-being?
- Will the project increase awareness, adoption, and implementation of Total Worker Health® best practices, programs, and policies?
- Will the project help facilitate building Total Worker Health workforce capacity in public and private sectors, in academia and practice?
- If the aims are achieved, how will scientific knowledge, technical capability and/or clinical practice be advanced?
- How will successful completion of the aims change the concepts, methods, technologies, treatments, services or preventive interventions that drive this field?

2. *Investigator(s):*

- Are the Program Directors and/or Principal Investigators (PDs/PIs), collaborators, and other researchers well-suited to the project?
- If *early-stage* or *new* investigators, do they have appropriate experience and training? Do they have suitable mentors to support the project?
- If *established* investigators, are they new to the field of Total Worker Health research and/or practice?
- 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:*

- Will the project foster innovative new research directions in health promotion, health protection and integration?
- Does the application challenge and/or seek to shift current research or clinical practice paradigms?
- Does the research project involve novel concepts, approaches, methods, instrumentation or interventions?
- Are the concepts, approaches, methods, instrumentation and/or interventions novel to TWH or novel in a broad sense?
- Does the application refine or improve existing theoretical concepts, approaches, methods, instrumentation or interventions?

4. *Approach:*

- 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?
- Does the study involve multiple stakeholders (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 and environmental health and safety?
- Does the applicant acknowledge potential problem areas and consider alternative tactics?

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?
- Does the proposed project increase the institution's ability to conduct OESH research and contribute to regional needs?

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?

III. Research to Practice Pilot Projects

In their cover letter, applicants should identify their proposal as either Research or Research to Practice (R2P). A definition of a R2P and the evaluation criteria used to determine eligibility are described in the following sections.

A. What is "Research to Practice"?

The National Institute for Occupational Safety and Health (NIOSH) is the federal organization that supports the Center for Health, Work, and Environment, a NIOSH Total Worker Health Center of Excellence, and the Mountain & Plains ERC. Through its "Research to Practice (R2P) Initiative" NIOSH emphasizes the importance of integrating new research into "the real world" in order 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."

According to NIOSH, “translating” knowledge, interventions and technologies into workplaces and communities requires attention to six related steps:

- **Prioritize:** Address the most important occupational and environmental health and safety issues.
- **Partner:** Work together with both internal and external partners to encourage adoption and use of research findings.
- **Target:** Adapt research results into information products tailored to the target audience.
- **Translate:** Transfer and translate research findings, technologies and information into prevention practices and procedures.
- **Disseminate:** Use communication science to guide the movement of research into workplaces and communities
- **Evaluate:** Build data collection into each program to determine effectiveness in preventing workplace injury and illness

You can learn more about the R2P initiative on the NIOSH website (<http://www.cdc.gov/niosh>). Applicants to the R2P pilot project program are strongly 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 webpages:

- <http://www.cdc.gov/niosh/docs/impact/>
- http://www.cdc.gov/niosh/pubs/workplace_date_desc_nopubnumbers.html
- <http://www.cdc.gov/niosh/data>
- <http://www.cdc.gov/niosh/docs/video/>
- http://www.cdc.gov/niosh/pubs/all_date_desc_nopubnumbers.html

B. 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 following descriptions:
 - a. A faculty member of any rank with an interest in Total Worker Health ® for OESH.
 - b. A graduate student, medical resident or postdoctoral fellow in an OESH-related discipline
 - i. Students, residents and fellows must demonstrate in their applications that they have adequate faculty supervision
 - c. An OESH professional in a government agency, community organization or private company who can demonstrate herself/himself to be capable of leading high-quality research-to-practice activities independently and without assistance of the CHWE
- 2) Every R2P project must include at least one **Community Partner** who meets one of the following descriptions:
 - a. For-profit businesses
 - b. Labor unions
 - c. Not-for-profit organizations with a commitment to workplace safety, public health, disease and injury prevention and/or sustainable community development
 - d. Public health professionals located throughout the region with little or no experience in TWH and OESH

C. 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 six main R2P goals are to:

- 1) **Relevance:** Does the project address issues related to Total Worker Health? 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? Does the research address an important problem or critical barrier to progress in the field of Total Worker Health®?
- 2) **Prioritize:** Does the R2P project address an important TWH issue?
 - Does the project address one of the CHWE priorities?
 - If not, does the applicant justify the importance of the project National Occupational Research Agenda (<http://www.cdc.gov/niosh/nora/>), an Occupational Health Indicator Report and/or some other criteria?
- 3) **Partner:** Is it reasonable to expect that the research partner(s) and community partner(s) will effectively encourage the adoption and use of research findings?
 - Are the applicants qualified to implement the project? Do they have appropriate experience and training? If not, do they have suitable mentors?
 - 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?
- 4) **Target:** Have the applicants adequately considered who the target audience is? If so, have they tailored their approach to meet the needs of their target audience?
 - Is the target audience clearly defined?
 - Are the ways in which the applicant(s) have tailored their approach to the target audience appropriate and sufficient?
- 5) **Translate:** Will the project transfer and/or translate research findings, technologies and information into prevention practices and procedures?
 - Is the project based off of sound OESH research?
 - Does the proposal adequately describe how research findings, technologies and information will be translated/transferred into prevention practices and/or procedures?
- 6) **Disseminate:** Have the applicants considered how their project might reach other workplaces and communities?
 - 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?
- 7) **Evaluate:** Have the applicants developed an evaluation so that they (or someone else) can determine its effectiveness in achieving its goals? Its effectiveness in preventing injury and illness?
 - Does the applicant acknowledge potential problem areas and consider alternative tactics?
 - Can the project be accomplished in the timeline presented?
 - Is the budget appropriate to complete the scope of the work proposed?

The review panel's 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 Total Worker Health.

IV. 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 does not meet the criteria for Total Worker Health (i.e., integration of health protection and health promotion to achieve worker safety, health, and well-being)
- The project aims and objectives do not relate to the mission and goals of the CHWE
- The application does not clearly relate to OESH and 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

- Letter of Intent: To assist with planning the review process potential applicants are encouraged to send a non-binding Letter of Intent via email to Gwen.Fisher@colostate.edu by **5:00 p.m. MST, Tuesday March 17, 2020**. 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, Tuesday March 31, 2020**.
- Letters confirming the funding status of your project will be sent by **July, 2020**.
- Funding will be provided from **September 1, 2020** through **August 31, 2021**.
 - Note: No funds will be disbursed without proof of Human Subjects (or Animal Care) Institutional Review Board approval (if applicable).

C. Application Forms

Please submit the following PHS398 forms (Revised 1/2018), 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 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.
- 9) Other Letters of Support: 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** to: Gwen.Fisher@colostate.edu by **5:00 pm MST, Tuesday March 31, 2020**.

E. 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, Clemson 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.

F. Awards

- 1) Pilot project funds are awarded on a competitive basis.
- 2) 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.
- 3) The maximum award is \$25,000, including indirect costs at the investigator's institution's indirect (facilities & administration or F&A) rate, for a one year grant duration.
- 4) Grantees cannot receive more than a cumulative total of 2 pilot research or R2P grants as a Project Investigator.
- 5) 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

6) Awards will be announced by July, 2020.

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.

H. Final Written Report

A final written report needs to be submitted **3 months after** 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.

I. 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.*

J. Annual Research Day

Investigators will be encouraged to participate and present their project at an Annual Research Day, sponsored by the NIOSH Mountain & Plains Education and Research Center (MAP ERC); date and location for 2021 to be determined. Interested applicants are invited to attend this year's Research Day, which will be on March 26, 2020. For more information about Research Day, please email chwe@cuanschutz.edu or call 303.724.7844.

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>