



RESEARCH-TO-PRACTICE (R2P) PLAN TEMPLATE

RESEARCH AND ENGAGEMENT ON ADAPTATION FOR CLIMATE AND HEALTH
(REACH) CENTER | COMMUNITY ENGAGEMENT CORE



**ENVIRONMENTAL
& OCCUPATIONAL
HEALTH SCIENCES**

SCHOOL OF PUBLIC HEALTH
UNIVERSITY of WASHINGTON

TABLE OF CONTENTS

[BACKGROUND](#)

[RESEARCH PROJECT SUMMARY](#)

[R2P GOALS AND TEAM](#)

[RESEARCH-TO-PRACTICE AUDIENCE\(S\)](#)

[RESEARCH DISSEMINATION](#)

[RESEARCH IMPLEMENTATION](#)

[OPPORTUNITIES, BARRIERS, AND SOLUTIONS](#)

[EVALUATION](#)

[PROJECT TIMELINE AND COSTS](#)

[REFERENCES](#)



BACKGROUND

REACH CENTER

The University of Washington [Research and Engagement on Adaptation for Climate and Health \(REACH\) Center](#) is an interdisciplinary center advancing climate and health adaptation through implementation science, with a focus on developing, implementing, and evaluating innovative climate and health interventions and supporting translation through broad community engagement.

The REACH Center's Community Engagement Core (CEC) increases climate and health literacy through partnership building, research translation and dissemination, and capacity building. The CEC collaborates with the Center's project teams, advisors, and partners to share research outcomes and sustain opportunities that empower organizations in the Washington, Wyoming, Alaska, Montana, Idaho (WWAMI) region to integrate health-related climate adaptation measures into public health practice.

RESEARCH-TO-PRACTICE PLAN TEMPLATE

WHAT IS THIS RESOURCE?

The Research-to-Practice (R2P) Plan Template, designed by the REACH CEC, facilitates the effective translation of climate and health adaptation research into practice to positively impact the target audience(s). This document does not help teams to plan research projects, but rather, to put the research into action once the project has concluded.

The R2P Template is one piece of a larger Community Engagement Toolkit. The Toolkit supports the broader planning, data collection, and implementation phases of research, ensuring the meaningful and equitable participation of the community throughout all stages of the project. It can be used in tandem with the R2P Template.

WHO SHOULD USE THIS RESOURCE?

This template is designed for researchers associated with the [Research and Engagement on Adaptation for Climate and Health \(REACH\) Center](#). However, any researcher seeking support translating their research findings into public health practice may use this template.

HOW SHOULD IT BE USED?

The R2P Template should be completed as a team, which will most likely consist of the research team and representatives from partner organizations. R2P plans must be tailored to the specific assets and needs of the target audience(s).

WHEN SHOULD IT BE USED?

The full R2P Template can be completed once the research team has identified preliminary research findings, but R2P partner organizations and intended audiences can be discussed from the start of the research project.

ADDITIONAL NOTES

Through this template, a hypothetical project about distributing modified box fans to reduce indoor exposure to wildfire smoke particulates is used as an example. **The example text is in purple.** The example is inspired by [a study by Holder et al.](#)



RESEARCH PROJECT SUMMARY



1) SUMMARIZE THE RESEARCH PROJECT THAT THE R2P PLAN IS BASED UPON.

WHAT ARE THE PRIMARY TAKEAWAYS FROM YOUR RESEARCH PROJECT?

Using public-facing language, briefly explain the background of the research (i.e., the climate-health issue of focus) and its main findings.

Climate change is linked to more frequent and intense wildfires. Each year, wildfire smoke exposure impacts millions of people around the country, which can lead to respiratory health effects. Children are particularly at risk for negative health effects from smoke exposure. Holder, et al. found that box fans modified with filters can serve as effective, low-cost indoor air cleaners during wildfire smoke events...



R2P GOALS AND TEAM



2) LIST THE GOALS AND OBJECTIVES OF THE R2P PLAN.

WHAT DOES YOUR PROJECT TEAM AIM TO ACCOMPLISH BY TRANSLATING RESEARCH FINDINGS INTO PRACTICE?

Goals are broad aims, and objectives are shorter-term steps toward achieving the goals. Researchers are encouraged to have at least one goal centered on community engagement (see the Community Engagement Toolkit: Guiding Principles for Successful Community Engagement).

Goal	Objective(s)
<i>Increase the number of households with children in Cherry County using modified box fans to reduce children's indoor exposure to wildfire smoke particulates and improve their respiratory health.</i>	<i>Partner with 5 community clinics in Cherry County and work with staff to co-develop a box fan distribution plan that targets households with children.</i> <i>Develop and distribute educational materials for parents about the health impacts of wildfire smoke on children and proper fan use and maintenance to filter indoor air.</i>





3) LIST TEAM MEMBERS AND THEIR ROLES.

WHO IS ON THE R2P TEAM, AND WHAT ARE THEIR ROLES IN IMPLEMENTING THE PLAN?

Include community leaders/project partners who will be involved in R2P implementation. Relevant skills/expertise may include community engagement, science communication, graphic design, public speaking, etc.

Name	Organization	Relevant Skills/Expertise	Project Role(s)





4) DESCRIBE THE PLAN'S CONNECTION WITH CLIMATE JUSTICE.

HOW WILL THIS PLAN ADVANCE CLIMATE JUSTICE AND/OR ENGAGE COMMUNITIES THAT ARE HISTORICALLY VULNERABLE TO CLIMATE CHANGE?

By prioritizing intentional community engagement and centering the voices of those most impacted by climate change, researchers can ensure equitable and long-lasting climate health adaptation.

The project is based in a rural county with a lower median household income than the state median household income. The county historically experiences high levels of wildfire smoke during wildfire season, while having disproportionately low levels of at-home air conditioning and disproportionately high levels of childhood asthma. The County was selected as the area for research implementation due to its high exposure and sensitivity to the climate and health threat of wildfire smoke.



RESEARCH-TO-PRACTICE AUDIENCE(S)



1) IDENTIFY THE AUDIENCE/KNOWLEDGE USERS OF THE R2P PLAN.

WHICH INDIVIDUALS/GROUPS WILL BE TARGETED BY RESEARCH DISSEMINATION/IMPLEMENTATION?

This may include both primary and secondary audiences. Primary audiences are directly connected to the project goals, while secondary audiences may be able to influence primary audiences and/or have a general interest in the findings. Primary audiences may also be a project partner.

Audience	Anticipated Project Benefits to Audience
<i>Community members who are parents of children under 18 years of age</i>	<i>The project aims to improve children's respiratory health during wildfire smoke events using a low-cost intervention.</i>
<i>School administrators</i>	<i>School administrators of the Cherry County School District may be interested in reviewing the educational materials to decide whether to adopt the modified box fans in their classrooms.</i>



--	--



RESEARCH DISSEMINATION



2) OUTLINE THE MESSAGES AND CALLS TO ACTION FOR EACH TARGET AUDIENCE.

WHAT MESSAGES DO YOU WANT TO COMMUNICATE TO EACH AUDIENCE, AND WHAT ACTION STEPS DO YOU WANT THEM TO TAKE BASED ON THESE MESSAGES?

Audience	Main Message(s) for Audience	Implications for Audience <i>Why is the research important for the audience?</i>	Calls to Action for Audience <i>Do you want the audience to pursue behavior change, policy change, etc.?</i>	Measures to Meet Audience's Accessibility Needs
<i>Parents of children</i>	<i>Wildfire smoke leads to negative indoor air quality and disproportionate respiratory health impacts on children.</i> <i>Modified box fans are a low-cost way to improve indoor</i>	<i>Cherry County experiences high levels of wildfire smoke, which affects children's health. Modified box fans are a low-cost way to reduce children's indoor exposure to wildfire smoke.</i>	<i>Parents should get a box fan from their local health center by June 1, use it during wildfire smoke events, and replace the filter regularly.</i>	<i>Create a Spanish version of communication materials, as Cherry County has a large Spanish-speaking population.</i>



	<i>air quality during wildfire smoke events.</i> • <i>Filters must be replaced regularly to maintain the efficacy of the box fans.</i>			



3) DESCRIBE THE PROPOSED RESEARCH COMMUNICATION PRODUCT(S) AND DISSEMINATION STRATEGIES.

WHAT COMMUNICATION PRODUCTS DO YOU PLAN TO CREATE, AND HOW DO YOU PLAN TO SHARE THEM?

Products may include slide decks, infographics, websites, videos, training programs, recommended policy changes, etc. Dissemination strategies may include conference presentations, webinars, social media engagement, etc. View pages 8-9 of [this resource](#) for more ideas on dissemination products and strategies.

Proposed	Target	Description of Product	Plan for Developing the Product	Dissemination Strategies
----------	--------	------------------------	---------------------------------	--------------------------

Product	Audience(s)			
<i>Infographic</i>	<i>Cherry County parents</i>	<i>Infographic explains that wildfire smoke can create indoor air pollution that harms children's health. Describes modified box fans as an indoor air quality improvement measure with a step-by-step process for how to use the fans.</i>	<i>The project team will develop a draft infographic using Canva and finalize it following feedback from community health center partners.</i>	<i>Digital version posted to social media of community-based organizations. Poster versions posted on bulletin boards at the local library, community center. Pamphlet version sent home with schoolchildren to show their parents.</i>





4) CONSIDER BEST PRACTICES FOR COMMUNICATING SCIENCE TO PUBLIC AUDIENCES.

HOW DO YOU ENSURE THAT RESEARCH IS COMMUNICATED MOST EFFECTIVELY TO YOUR INTENDED AUDIENCE(S)?

Review the following questions with your team to ensure that the communication products are accessible to a public audience.

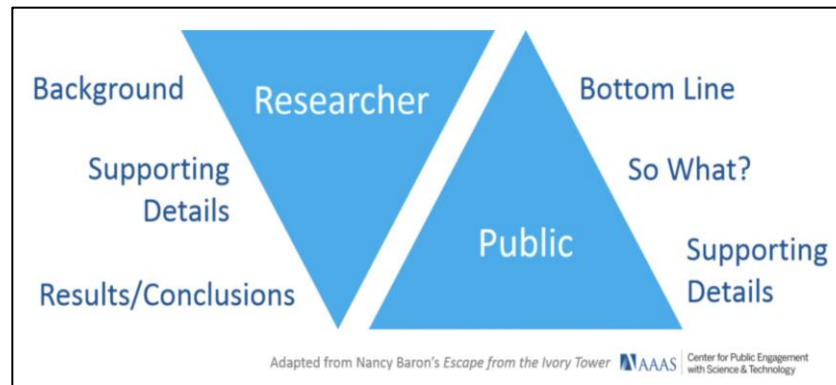
AUDIENCE

- ☐ Why would the audience be interested in the project?
- ☐ What are the values and concerns of the audience?
- ☐ What questions might the audience ask?

STRUCTURING THE MESSAGE

- ☐ What are your main messages?
- ☐ Have you used a three-point structure to organize your messages? *A three-point structure refers to organizing the messages around the three key points that you want the audience to remember and respond to.*
- ☐ Have you structured your message by leading with the bottom-line message, an explanation of why it matters, and relevant supporting details? Note that this is the opposite structure of academic scientific writing. See the following graphic for reference.





(American Association for Advancement of Science, n.d.)

FRAMING THE MESSAGE

- ☐ Are you framing the message so that it is compelling to the audience?
- ☐ Have you explained why the research is important for the audience?
- ☐ Are you linking the message to current events or issues?
- ☐ Are you telling stories, not just delivering a list of facts?

LANGUAGE

- ☐ Are you using a simple explanation without jargon?
- ☐ Have you tested the effectiveness of the communication with a public audience?

- ☐ Have you conveyed the information in a respectful tone that doesn't stigmatize people affected by the climate and health issue?

MEDIUM OF MESSAGE

- ☐ Have you chosen your medium so that it is most appropriate for the audience and messages?

Considerations specific to different media:

- ☐ If you are delivering an [in-person public presentation](#), have you considered nonverbal communication cues?
- ☐ If you are engaging in an [online form](#) of science communication, have you selected the correct platform for your target audience and considered how to build credibility?
- ☐ If you are [engaging policymakers](#), are you prepared for a brief conversation and to deliver a specific ask?
- ☐ If you are [speaking with reporters](#), are you prepared to deliver three main points and respond neutrally if asked difficult questions?
- ☐ If you are creating an [infographic](#), have you included only necessary text with effective colors and an organized flow of information?

MANAGING TRUST

- ☐ Have you planned for how to manage skepticism or mistrust amongst the intended audience?
- ☐ What commonalities do you share with the audience that you might draw upon to build trust?
- ☐ Have you been transparent about the limitations of the intervention or the information that is still unknown?
- ☐ Are there opportunities to involve community leaders in science communication to help build community trust?



RESEARCH IMPLEMENTATION

Note: If the project is focused solely on research communication/awareness-raising, then this section may not be necessary to complete.

Implementation science vs. research implementation:

This template focuses on the practical considerations of translating research into implemented practice. This is different from designing a study that uses implementation science, which is a discipline that seeks to understand how to effectively use or integrate evidence-based approaches into practice, with the goal of more quickly closing the gap between knowledge and practice. Implementation science can provide an opportunity to identify what factors are precluding or supporting the implementation of an intervention. The REACH Center's Implementation and Evaluation Core is developing resources for researchers pursuing implementation science.



1) OUTLINE A PLAN FOR RESEARCH IMPLEMENTATION.

The implementation plan can be grouped into four stages: exploration, installation, initial implementation, and full implementation. Note that not all stages may be included in every project, depending on its scope.

- **Exploration:** Assess the assets and needs of the audience, the fit of the program, and the feasibility of implementation. Activities may include growing relationships with partners, assessing the readiness of the project team, etc.
- **Installation:** Build the infrastructure to implement the practice. Activities may include developing team communication structures, providing training for practitioners on how to use the program/practice, etc.
- **Initial implementation:** Begin efforts to use the practice, while checking data for continuous improvement. Activities may include regular team meetings to examine implementation progress, refining implementation structures, etc.



- **Full implementation:** Practitioners use the practice successfully, and the audience is impacted by the practice. Activities may include evaluating for the expected outcomes, planning for sustained knowledge use, etc.

More information on the stages of implementation and examples of implementation plans can be found [here](#) and [here](#).

Implementation Stage	Implementation Goal	Strategies	Timeline
<i>Exploration</i>	<i>Grow relationships and build trust with community partners in Cherry County.</i>	<i>Table at a local health fair hosted by the Cherry County Health Department. Ask partners for feedback on the project plan.</i>	<i>Duration of project</i>
<i>Installation</i>	<i>Establish regular communication pathways with project partners.</i>	<i>Schedule regular meetings with the research team and project partners. Create a project management board and give access to all team members.</i>	<i>Month 3, onwards</i>



OPPORTUNITIES, BARRIERS, AND SOLUTIONS



1) IDENTIFY WINDOWS OF OPPORTUNITY FOR RESEARCH DISSEMINATION/IMPLEMENTATION.

WHAT OPPORTUNITIES EXIST THAT CAN BE LEVERAGED TO SUPPORT RESEARCH DISSEMINATION?

You can increase the likelihood that the research will be effectively translated into impact by leveraging opportunities in the policy environment, budgeting or strategic planning processes, existing program initiatives, community events, etc.

Key Process or Opportunity	Important Dates (if applicable)	Key People <i>Who is involved in decision-making for this opportunity?</i>
<i>A county-wide Earth Day festival occurs every year. The project team can table at the event to demonstrate fan use and educate the community on the importance of addressing indoor air quality during wildfire smoke events.</i>	<i>The event is hosted on Earth Day. Table reservations are due one month before.</i>	<i>Contact the Parks and Recreation Department to reserve a table at the event.</i>
<i>The State Health Department has an environmental health grant opportunity, which the project team could apply for to fund more box fans and filters.</i>	<i>Applications are due April 2nd.</i>	<i>State Health Department</i>





2) IDENTIFY POTENTIAL BARRIERS TO ACHIEVING THE GOALS OF THE R2P PLAN.

WHAT ARE THE BARRIERS YOU MAY FACE, AND POTENTIAL SOLUTIONS TO THESE ANTICIPATED BARRIERS?

Barriers may include any accessibility or time constraints to the target audience using the communication products, resource limitations, etc.

Anticipated Barrier	Potential Solution(s)
<i>Community members use the box fans but do not replace the filters often enough, reducing the effectiveness of the fans.</i>	<i>Work with community health centers to set up a system to mail new filters to participating homes when filters need to be replaced.</i>



--	--



EVALUATION



1) IDENTIFY INDICATORS.

WHAT INDICATORS/METRICS SHOULD BE TRACKED TO UNDERSTAND WHETHER PROJECT GOALS HAVE BEEN ACHIEVED?

Indicators may include reach (e.g., the number of audience members reached by the products), usefulness (e.g., satisfaction of audience members with the products), knowledge change (e.g., increase in knowledge of the topic area by target audience), partnership/collaboration (e.g., number of products developed with partners), etc. View page 4 of the [Hospital for Sick Children Knowledge Translation Template](#) for more potential indicators.

Indicator	Plan for Tracking Indicator
<i>Number of households using modified box fans.</i>	<i>Work with community health centers to ensure the number of box fans distributed is recorded.</i>
<i>Usefulness of box fans to community members</i>	<i>Conduct interviews of ~10 community members to understand their experience with using the box fans and any barriers/facilitators to their use.</i>



<i>Rate of childhood asthma-related ED visits</i>	<i>Work with the local hospital system to track the childhood asthma-related ED visits to assess changes in children's respiratory health.</i>



PROJECT TIMELINE AND COST



1) OUTLINE A PROJECT TIMELINE.

WHAT ARE THE MAIN PROJECT ACTIVITIES, AND WHICH TEAM MEMBERS ARE RESPONSIBLE FOR EACH?

A Gantt chart template is included below, but other formats for project timelines can be used.

	Assigned team member(s)	Y1 Q1	Y1 Q2	Y1 Q3	Y1 Q4	Y2 Q1	Y2 Q2	Y2 Q3	Y2 Q4



Activity 1:									
Activity 2:									
Activity 3:									



2) DESCRIBE THE PLAN FOR PROJECT SUSTAINABILITY.

HOW WILL YOU ENSURE THAT THE PROJECT CONTINUES TO POSITIVELY IMPACT THE TARGET AUDIENCE BEYOND THE OFFICIAL END OF THE PROJECT?

Sustainability measures might include training community partners to implement the intervention on their own, giving ownership of evaluation data to the community, housing educational materials in an accessible online portal, establishing a sustained funding mechanism, etc.

The implementation team will work with the environmental health staff of the Cherry County Health Department to integrate box fans into their annual budget and appoint individuals at the community health centers to liaise with the Health Department to ensure that box fans are distributed to households each year in advance of wildfire season.



3) IDENTIFY RESOURCES NEEDED TO PURSUE THE R2P PLAN.

WHAT RESOURCES ARE NEEDED TO SUCCESSFULLY PURSUE THE R2P PLAN?

Resources may include materials, travel, personnel, meeting space, etc. More in-depth budgetary planning is likely necessary. This table is only for outlining initial considerations.

Resource	Cost
<i>Box fan kits</i>	<i>\$_ per unit</i>
<i>Printing costs for educational infographics</i>	<i>\$_ per unit</i>



REFERENCES

- Active Implementation Hub. (2020). *Tool: Implementation Stages Planning*. <https://implementation.fpg.unc.edu/resource/implementation-stages-planning-tool/>
- American Association for the Advancement of Science. (n.d.). *AAAS Communication Toolkit*. <https://www.aaas.org/resources/communication-toolkit>
- Collaborative for Implementation Practice. (2021). *Implementation Plan Template and Examples*. <https://www.implementationpractice.org/wp-content/uploads/2021/05/NIRN-CIP-Implementation-Plan-Template-and-Examples-fillable-v1.pdf>
- Holder, A. L., Halliday, H. S., & Virtaranta, L. (2022). Impact of do-it-yourself air cleaner design on the reduction of simulated wildfire smoke in a controlled chamber environment. *Indoor air*, 32(11), e13163. <https://doi.org/10.1111/ina.13163>
- MacPherson-Krutsky, C (2023). *Using Infographics to Communicate Hazards Research—CONVERGE Extreme Events Research Check Sheets Series*. DesignSafe-CI. <https://doi.org/10.17603/ds2-pr5v-kr06> <https://www.designsafe-ci.org/data/browser/public/designsafe.storage.published/PRJ-4213>
- National Institutes of Health. (2024). *A Checklist for Communicating Science and Health Research to the Public*. <https://www.nih.gov/about-nih/what-we-do/science-health-public-trust/checklist-communicating-science-health-research-public>
- Ontario Ministry of Agriculture, Food and Rural Affairs. (2014). *Knowledge Translation and Transfer Plan*. https://www.uoguelph.ca/alliance/sites/default/files/Knowledge%20Translation%20and%20Transfer%20Plan%20Toolkit_ac.pdf
- QUEST. (n.d.). *Checklist for scientists: Quality and effective science communication for public audiences*. <https://questproject.eu/download/leaflet-checklist-for-scientists-communicating-science-to-the-public/?wpdmdl=15894&refresh=675713b6e3ce81733759926>
- SciLine. (2023). *Five Quick Tips for Scientists Speaking to Reporters – CONVERGE Extreme Events Research Check Sheets Series*. DesignSafe-CI. <https://converge.colorado.edu/download/8625/?tmstv=1750956345>

The Hospital for Sick Children. (2021). *Knowledge Translation Planning Template*. https://www.sickkids.ca/siteassets/learning/kt_planning-template_may2021.pdf

USAID Learning Lab. (2024). *Research-to-Action Plan Template*. https://usaidlearninglab.org/system/files/2024-09/02_r2aplan_template.pdf

