We do research to improve worker safety and health. While research efforts typically include plans to notify participants of the results and publish in the peer-reviewed literature, there are usually broader audiences that need to hear about and act on research findings in order to have an impact. The original researcher may be involved in just a first step, effectively handing off their results to others, or in moving the process further down the road toward safety and health goals. Planning for dissemination early in the research process provides opportunities to engage important partners and shape the study to maximize the chance the findings and results will be taken up in the real world. A “Research to Practice (r2p) Roadmap” can help researchers and their collaborators to envision the improvements to worker safety and health their research aims to promote and the steps that may be necessary to get there. We have designed this guidance document to be used with the Roadmap Worksheet to help lead your research team through the process of thinking through your research dissemination “journey.”

The ✍️ symbol indicates what you will write on your Worksheet.

Part 1: Purpose & Destination of Your Dissemination Journey
- Cargo (intervention/finding)
- Directional heading (health & safety goals)
- Point of departure (dissemination already conducted)
- Recipient of cargo (target audiences)

Part 2: Plan your Route
- Audience type (end user or intermediary)
- Desired action
- Local guides (partners)
- Types of vehicles (dissemination strategy)
- Transmission of message (communication channel(s))

Part 3: On the Road: Rest Stops, Detours, and Mile Markers
- Rest stops (dissemination efforts)
- Relief drivers (next steps for others)
- Fuel (resources)
- Potential roadblocks (barriers)
- Detours (addressing barriers)
- Mile markers (measures and indicators of success)
Access the General Industry Roadmap online at http://lohp.org/research-to-practice-r2p-roadmap/

Access the Construction-Specific Roadmap online at http://www.cpwr.com/research/r2p-tools-roadmaps

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This general industry r2p Roadmap is an adaptation of a product developed as part of CPWR’s Research to Practice (r2p) initiative, which aims to promote research dissemination and encourage widespread adoption of evidence-based safety and health solutions in construction. CPWR collaborates with The National Institute for Occupational Safety and Health (NIOSH) and the Occupational Safety and Health Administration (OSHA) through the r2p Working Group.
Part 1. Identifying the Purpose of Your Trip &

Determining Your Destination

In Part 1, you will answer a series of questions that will allow you to identify overall aims and audiences for your dissemination efforts.
### 1A.

What is your “cargo”?  

Intervention or findings to be disseminated.

**Consider:**

- Think about which of your research results should be shared with others who can apply them to improve workplace safety and health.

- Pick one key finding or product of your research that you feel will be important to disseminate.

Note: If there are a set of findings or interventions that should be disseminated together, you can group them as one, **as long as they have the same target audiences**. Otherwise, you will want to create separate roadmaps for different findings.

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**On Your Worksheet:**

- Write down one main finding or group of findings on your Roadmap Worksheet in Question 1A.

**Tips:**

*When thinking about how ready your findings or interventions are for dissemination, consider:*

**How strong are the findings?**  What is the strength of research design and results and are findings supported by other research?

**How large are the potential impact and reach of the findings?**  What is the potential impact on injury & illness prevention, the severity of the issue addressed, number of workers/trades/industry segments affected, etc.?

**How strong is the potential for effective partnerships for the dissemination effort?**  Are there clear partners/stakeholders? Are partners likely to bring resources to the effort?
How achievable is the proposed action/intervention? Is the proposed change an easy or hard one? Is the intervention readily available? Can the intervention be “packaged” with other interventions?

Do the findings address high priority areas? Do they address health inequities, NORA priorities, gaps in the field, make a unique contribution, impact safety culture, make "upstream" change at the industry/community/societal level, etc.?
1B. What is the “directional heading”?

Consider:

• What is the long-term safety or health goal of your research or intervention? How might your findings improve the safety and health of workers?

• What is a dissemination goal that will be an important step along the way to the safety or health goal?

• Think about what you wrote in the significance section of your proposal. What is the problem your research addresses and how big is the problem? If your findings or intervention were fully adopted in the field, what would be the potential impact?

Even if the potential impact on safety and health of this one study alone may be limited, it is important to have a vision for change in order to set off in the right direction.

On Your Worksheet:

• List a safety and health goal on your Roadmap Worksheet in Question 1B.

• List an intermediate dissemination goal on your Roadmap Worksheet that will help lead to the safety and health goal.

Tips:

• Be as specific as possible. Try to state what change will result and what the impact will be (e.g., approximate size of reduction in injuries and illnesses or scope of improvements in safety and health conditions/practices if possible) and how broad the impact may be (across an industry, a specific region, a specific trade or sector, etc.)

For example:
<table>
<thead>
<tr>
<th>Safety and Health goals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The majority of worksites in the industry have implemented a new engineering control to protect workers.</td>
</tr>
<tr>
<td>2. There is a 50% decrease in related industry injuries over time.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Dissemination goals:</td>
</tr>
<tr>
<td>1. The engineering control developed through research is commercially available.</td>
</tr>
<tr>
<td>2. There is widespread awareness of the efficacy and availability of the new control in the industry.</td>
</tr>
</tbody>
</table>
1C. What is the “point of departure”?

Consider:

- Think about what, if anything, you have already done or have already planned to reach and involve your target audience(s).

- What can you do to package or frame your findings or interventions so that they are accessible and appealing to target audiences?

- Perhaps your dissemination plans have evolved since you first described them in your research proposal. Consider how they might be different now than they were before.

On Your Worksheet:

- Describe what you have already done or are in the process of doing or planning to package or disseminate your findings or intervention on your Roadmap Worksheet in Question 1C.

- If applicable, describe any changes you have made to previous dissemination plans.

Tips:

- If you have a specific intervention to disseminate, these are attributes that make solutions more likely to be adopted and diffused:

  Relative advantage: Is the solution better than what was there before?

  Compatibility: Does the solution fit with the intended audience?
<table>
<thead>
<tr>
<th>Complexity: Is the solution easy to use?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td><strong>Trialability</strong>: Can the solution be tried before making a decision to adopt?</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Observability</strong>: Are the results of the solution visible and easily measurable?</td>
</tr>
</tbody>
</table>

(From Oldenburg and Glanz, 2008. Diffusion of Innovations. In Health Behavior and Health Education.)
### 1D. Who will be the recipient of your cargo?

**Intended users & target audiences**

Consider:

- Think about who will need to know about and act on your results. There are going to be the people you ultimately want to reach and see using your solution or findings, such as employers or workers. We will call these audiences **end users**.

- There are also going to be people who can influence your end users. Consider those who make the key decisions affecting these populations and those who can help reach, connect with, and influence your ultimate target group. We will call these audiences **intermediaries**.

**On Your Worksheet:**

- List up to 3 key audiences on your Roadmap Worksheet in Question 1D. They can be either end users or intermediaries.

- If you have more than key 3 audiences, you can list them to revisit in the future. For this roadmap activity, you will focus on up to 3 audiences.

*Tip: Use the list below to help you identify possible specific target audiences. Note that some audiences can be both end users and intermediaries.*
| o Employers (individually)          | o State-based insurance providers |
| o Supervisors/managers (individually) | o Employer associations            |
| o Trade associations               | o Safety and health professional associations |
| o Workers                          | o Consensus standard groups        |
| o Labor unions                     | o Safety and health professional professionals (individually) |
| o Joint labor-management programs  | o Federal or state OSHA            |
| o Community colleges/other training providers | o Other federal government agency — e.g., CPSC, EPA |
| o Non-profit community organizations (national, regional, or local community-based organizations) | o Local government agency (e.g., local building or environmental health inspectors, licensing and permitting offices) |
| o Equipment manufacturers           | o Academic institutions/researchers |
| o Material suppliers               | Policymakers (e.g., elected officials) |
| o Tool and equipment rental firms   | o Public interest groups           |
| o Insurance associations           | o Other: _______                   |
| o Insurance companies (individually) |                                      |
Part 2. Plan Your Route

Now that you have identified your research findings, your goals, and your target audiences, take each of the 3 key target audiences you listed in 1D and go through the remaining exercises.

📝 Start by writing in your first key audience next to “Audience 1” at the top of page 2.
2A. What is your audience type?

End user or intermediary

Consider:

- Is this audience an end user or an intermediary? (See 1D for details.)

On Your Worksheet:

- Check the appropriate audience type.
2B. What do you want the target audience to do?

**Consider:**

- Think about what you would like this audience to do with your findings.

**On Your Worksheet:**

- List the desired action for this audience on your Roadmap Worksheet, by Question 2B. Use the list below to help you.
  - Increased awareness
  - Increased knowledge
  - Change in attitudes
  - Increased skills
  - Change in behaviors (use or apply the solution)
  - Collective/social action
  - Policy change
  - Enforcement

**Tips:**

- Developing a graphic logic model, conceptual model, or model of your theory of change may be very helpful in this step as you make explicit the path by which you imagine change happens. Having a picture and a clear description of this change can help you be more strategic in prioritizing and weighing different actions and barriers to address.

- Be as specific as possible. If you are including “increased awareness” as a desired action, is it increased awareness of susceptibility to a hazard? Increased awareness of an effective solution to address the hazard? Increased awareness of requirements to provide protection?

- When thinking about what you would like your audience to do, some ideas from behavior change theories* may help. For example:
**Stages of change** – is your audience in the pre-contemplation, contemplation, preparation, action, or maintenance stage of considering the change? Progress may involve moving them from one stage to another.

Does your audience need to:
- Believe the problem is serious?
- Believe it will happen to them?
- See how it will benefit them?
- See how they can overcome barriers?
- Feel confident they can accomplish the behavior?

Do members of this target audience tend to be:
- Innovators?
- Early adopters?
- Early majority adopters?
- Late majority adopters?
- Laggards?

What aspects of their larger working environment will affect your audience’s ability to make the desired change?

2C. Are there knowledgeable “local guides” who can help you learn more about your destination?

Consider:

- Brainstorm potential partners. They may be able to help you to reach and/or to better understand your target audience.

On Your Worksheet:

- List any partner group that you would like to involve now or later to better connect to your target audience on your Roadmap Worksheet, by Question 2C.

Tip:

- Describe the connection of the partner(s) to your target audience.
- Note any leads or in-roads you might have to these partner groups.
- You may decide that a potential partner group you list here is a critical intermediary target audience, perhaps even more strategically important to reach than an end-user audience! In this case, you may decide to shift gears and plan specifically for dissemination to this audience.
2D.

What types of “vehicles” are best suited to promote change?

Consider:

- Different dissemination strategies have their strengths and weaknesses and work well for some issues and audiences and less well for others.

- Think about the strategies that are likely to be the most impactful for achieving the changes you are seeking. What combination of approaches might work best to spread the word and influence the decisions of your target audiences?

On Your Worksheet:

- Write in your dissemination strategy for this target audience on your Roadmap Worksheet, by Question 2D. Use the list below to help you.
  
  - Education
  - Training
  - Health communication outreach/Marketing
  - Policy development
  - Technology transfer
  - Coalition-building
  - Making a business case
  - Other

Tips:

- Write down why you chose the dissemination strategy(ies) you indicated.

- Being as explicit as possible in laying out your rationale will help you be strategic in your research to practice (r2p) efforts.
2E. **How will you transmit your message?**

**Communication channel(s)**

**Consider:**

- Communication is an important part of all dissemination efforts. In some cases, it may also be your main dissemination strategy. Think about the best ways to reach and influence your intended audiences – their attitudes, literacy level, preferences, affiliations, etc.

- Are there trusted sources your target population goes to for information?

- Do you need to know more about your target audience? Would doing some audience research or talking to partners help you better understand and communicate with the audience?

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**On Your Worksheet:**

- Write in your communication channel(s) for this target audience on your Roadmap Worksheet, by Question 2E. Use the list below to help you.

  - Mass media
  - Social media
  - Internet/web
  - Events/meetings
  - Peer-to-peer
  - Influential spokespeople/opinion leaders
  - Written materials (checklists, impact cards, newsletters)
  - Products/swag

**Tips:**

- *Write down why you chose the communication channel(s) you indicated.*

- *Being as explicit as possible in laying out your rationale will help you be strategic in your research to practice efforts.*
REPEAT PART 2 FOR EACH REMAINING TARGET AUDIENCE BEFORE MOVING ON TO PART 3.
Part 3. On the Road: Rest Stops, Detours, and Mile Markers

You have now identified your purpose, destination, and mapped your general route. But this is likely to be a long journey. You may need to make rest stops or allow someone to take over as a relief driver along the way. There may also be unplanned roadblocks you will need to overcome. In this section, you will do your best to plan the specifics of your trip. Complete this section for the dissemination effort overall. You do not need to do it for each individual target audience, unless you would find it useful to do so.
3A. What are your next stops?

Your dissemination efforts

Consider:

- At some point, you may need to hand off further dissemination to others (see 3B). But, how far would you like to take this dissemination effort yourself?

- Look back over the target audiences, desired actions, proposed strategies, and communication channels from Part 2. What dissemination steps can you take in the next year to advance those aims?

On Your Worksheet:

- Write down the first 3 dissemination steps you will take in the next year of the project.

Tip:
- Be specific, including people, actions, and the connection to target audience(s) and aims you described in Part 2.
3B. **Who are your “relief drivers”?**

**Consider:**
- Consider who you could approach to take over the next leg of the trip when your leg is completed. This may be another type of research team, an intermediary target group, an advocacy organization, a manufacturer, etc.

<table>
<thead>
<tr>
<th>Next steps others will take</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On Your Worksheet:</strong></td>
</tr>
<tr>
<td>- Write down the steps you hope others will take on after your work is completed. You may want to refer to the potential “local guides” or partners you listed in 2C.</td>
</tr>
</tbody>
</table>

**Tip:**
- Refer back to your list of “local guides” in 2C. Perhaps they may help along the journey or be able to recommend other relief drivers.
### 3C. What “fuel” do you need for the trip?

**Resources**

*Consider:*

- Think about the resources that are needed to carry out the kind of dissemination plan envisioned, including money, materials, expertise, etc. What resources are already available to you?
- If you do not already have all the resources you need, think about other outside resources that may be available to you. Who else is addressing the same problem and how might their efforts “intersect” with or join your own? What supplemental funding sources might be available?

**On Your Worksheet:**

- List the resources needed along with how or where they will be obtained in Question 3C.

### 3D. What potential “roadblocks” might you encounter?

**Barriers**

*Consider:*

- Examples of common barriers include: resistance to change in your target population, a lack of resources, anti-regulatory sentiment, time constraints, and economic challenges.

**On Your Worksheet:**

- List 1 – 3 major barriers that you think will challenge the dissemination and adoption effort in Question 3D.
### 3E.

**What “detours” will you take to get around potential barriers?**

| DETOUR |
|---|---|

**Addressing barriers**

#### Consider:

- Examples of strategies to help overcome barriers include: asking one of your partners to help, reframing your message, engaging in continuous repetition of your message, providing additional education, making the business case, identifying incentives, etc.

#### On Your Worksheet:

- By Question 3E, provide at least one strategy to address each of the barriers listed in 3D.
3F.

What “mile markers” will you use to measure your progress and ultimate success?

Consider:

- What indicators will let you know that you are on the right track with your dissemination effort? What are some short-term measures? What are some long-term measures?

- How will you know when your results have been successfully disseminated?

On Your Worksheet:

- List up to 3 measures or indicators that you might use in Question 3F. Use the list below for ideas to help you.

  - Reach of your outputs
    - # orders for products or outputs
    - # responses/conversation generated through new media use
    - # requests for additional information, web hits, downloads
  - # of times your output/information is used (by other publications, organizations, etc.)
  - Change in policy, e.g., creation of a voluntary or binding standard
  - Change in awareness, attitudes, or behaviors
  - Documented adoption of a practice/tool on a small or large scale (# or % of employers who adopt)
  - Change in exposures
  - Change in injury/illness rates