5 - IDENTIFY AND DISSEMINATE SOLUTIONS

Safety and health researchers study hazards and develop solutions in the form of safer work practices and equipment. However, those researchers often do not have a direct line to the contractors and workers who could benefit from their findings and new solutions.

Construction safety and health partnerships can play an important role in bridging the worlds of research and practice to reduce work-related injuries, illnesses, and deaths. Through their knowledge of the industry and relationships with key stakeholders, partnerships can increase contractors' and workers' awareness and use of research-based solutions, help identify hazards that need more attention, and ensure that the research conducted is relevant and in line with the demands of the construction industry.

This section focuses on ways that partnerships can identify and disseminate research-based solutions that will help them meet their goals and objectives.

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5.1 IDENTIFY RESEARCH-BASED SOLUTIONS AND RESEARCH NEEDS

Once your partnership has identified its key issues and set goals (see **Section 3: Develop a Shared Vision, Mission, and Goals**), it is important to find out if a research-based solution is available that the industry will adopt or if more research is needed to find a solution. Depending on the characteristics of your partnership's stakeholders (e.g., contractor size, industry segment), more than one type of solution may be needed to address a single hazard and meet the partnership's goals and objectives.

Every partnership will have access to individuals and organizations with different knowledge, skills, and resources to call on for help (see **Section 1: Identify and Involve Key Stakeholders**). Depending on the scope of the partnership's work and range of expertise, partners may already be aware of whether or not viable solutions exist to address a specific hazard or alternatively, where there are research gaps.

This section describes how your partnership can:

- Systematically find research-based safety and health solutions ready for use on a construction site (to move from **research to practice** or **r2p**),
- Take steps when no solution is available and a research need is identified (to move from **practice to research** or **p2r**)
- Set priorities for solutions and **dissemination,** and follow-up with end-users or those who you hope will use the solution to ensure they are being put into **practice** on construction sites.

Resources for Research to Practice (r2p) and Practice to Research (p2r)

Research to practice (r2p) is a process by which research on safe work practices and equipment is translated into easy-to-use materials and tools and then disseminated for adoption by workers and contractors.

There are several resources available to help your partnership find information about research-based solutions for hazards facing construction workers, including:

- CPWR's Construction Solutions (http:/www.cpwrconstructionsolutions.org/), offers information on solutions for a broad range of hazards by type of work (e.g., electrical, painting, residential construction).
- Work Safely with Silica (www.silica-safe.org), developed with support from government, manufacturers, labor and management, provides commercially available equipment control options for a broad range of silica-generating tasks, as well as detailed information on the hazard, the risk, and regulatory efforts.
- eLCOSH (www.elcosh.org), CPWR's electronic library of safety and health research, is searchable by hazard, trade and jobsite and allows a user to easily narrow their search to find research reports, articles, and more.

- The Choose Hand Safety website (www.choosehandsafety.org), developed under the guidance of the Masonry r2p Partnership, focuses on hand injuries and skin disorders and preventive measures.
- The Nail Gun Safety website (http://nailgunfacts.org/) includes information about nail gun injuries, related research, and solutions.
- The Publications section of CPWR's website (www.cpwr.com/publications/publications) has information on CPWR's research to practice initiatives, and reports, key findings, and peer-reviewed journal articles on the safety and health research conducted by CPWR researchers and Research Consortium members.
- The National Institute for Occupational Safety and Health's website (http://www.cdc.gov/niosh/) includes information and research findings on a broad range of hazards, including extensive information on noise hazards and solutions among other topics.
- The US National Library of Medicine and National Institutes of Health's (http://www.ncbi.nlm.nih.gov/pubmed/) provides access to abstracts of peer-reviewed journal articles on safety and health research.
- Trade journals and publications such as Engineering News Record (http://enr.construction.com/) frequently showcase new equipment and materials that may address safety and health hazards.

Practice to research (p2r) involves initiating new research that originates with – and responds to – the safety and health concerns and priorities of workers, employers, and other key stakeholders represented by your partnership. If your partnership identifies a hazard that lacks a viable solution, your partnership may need to pursue its own research agenda and enlist the help of safety and health researchers and other stakeholders, such as manufacturers, to develop a solution.

CPWR, NIOSH, and OSHA have programs that may help your partnership connect with researchers and safety experts who can develop or identify a solution:

- CPWR – The Center for Construction Research and Training provides access to safety and health researchers through its Research Consortium (http://www.cpwr.com/sites/default/files/ResearchConsortium_1.pdf), and has funds available to conduct research through its Small Studies Program (http://www.cpwr.com/research/small-studies-program).
- The National Institute for Occupational Safety and Health (NIOSH), through its website http://www.cdc.gov/niosh/hhe/, will assess exposures and employee health, and based on the findings, recommend ways to reduce hazards and prevent work-related illnesses. The evaluation is done at no cost to the employees, employee representatives, or employers.
- The Occupational Safety and Health Administration (OSHA) offers a free, confidential on-site consultation (https://www.osha.gov/dcsp/smallbusiness/consult.html) to help small- and medium-sized businesses identify and address hazards.

Local or state universities are also good places to find researchers who may be interested in working with your partnership to develop a solution.

The original Asphalt Paving Partnership is an example of a partnership established to conduct new research and develop and test a solution to address a hazard that had no existing solution, bringing the experience from practice to research (p2r).

Case Study: Getting Ahead of the Issue in the Asphalt Paving Partnership

The Asphalt Paving Partnership was created at a time when concerns about the health effects of asphalt fumes were gaining momentum – in particular, their potential to cause cancer among asphalt paving workers. A series of events came together to bring heightened attention to the issue. Government and labor groups were researching the possible harmful effects of asphalt fumes, Congress had recently passed legislation with a requirement to add crumb rubber from scrap tires to asphalt paving mix which raised additional health concerns, and pressure was intensifying from communities and activists to examine the impact of fumes on public health and the environment.

From the National Asphalt Paving Association (NAPA) and the industry perspective, a possible classification of asphalt fumes as an occupational carcinogen was a serious concern. In addition to adverse health consequences for workers, the carcinogen label carried potential implications for regulation, legal liability, and public perception. Initially NAPA and other industry representatives responded to government and labor concerns by investing substantial sums to conduct their own research, but then a breakthrough occurred within the organization.

The chairperson, a prominent paving contractor, emerged as a champion for a new approach. He recalled thinking, “We’re crazy to fight this. Why don’t we just get away from exposing our people to these fumes, and then the issue goes away whether they’re bad or good.” The contractor leveraged his relationships to convince a core group of contractors and manufacturers to investigate the possibility of reducing worker exposures. Manufacturers developed prototype control packages, and initial tests suggested that fairly simple ventilation systems could significantly reduce the level of fumes near workers.

The partnership between industry, labor, and government agencies was formed around the promise that these early engineering controls would be a “win-win” solution for all involved – to reduce worker exposures to asphalt fumes without having to wait for conclusive evidence on health effects to emerge.

Each manufacturer partner of paving machines subsequently designed controls tailored to their specific paving machines while union, contractor, and government researcher members of the partnership worked together to rigorously test the solutions for effectiveness.

Identify Opportunities to Intervene

Before deciding on a solution to disseminate or reaching out to researchers to conduct new research, your partnership may want to conduct its own assessment of opportunities to intervene. The following tools offer two different approaches for helping partners identify these opportunities and the types of solutions needed.

Tool 5-A: Identify Opportunities for Intervention Using the Source-Exposure Pathway offers an approach to thinking about how to address a hazard by looking at the **source**, the **exposure**, and the **health effect** of the hazard. The **source** is where the hazard originates; the **exposure** is the way workers encounter the hazard; and the **health effect** is an injury or illness resulting from the hazard. In prevention, making a change at the source of a hazard is generally preferable to changing the exposure, and changing the exposure is preferable to having to wait to treat the health effect after it happens. The following are two examples of ways this approach could be used to identify opportunities for solutions or new research.

Example 1: There has been an increase in the incidence of asthma reported in workers while working with chemical x.

Pathway:

Source *-- Hazardous chemical X* → ***Exposure*** *-- Inhalation of hazardous chemical X* → ***Health Effect*** *-- Asthma*

Possible Solutions:

1. Change the **Source:** replace hazardous chemical X with a less hazardous alternative.
2. Change the **Exposure:** use an engineering control to capture the hazard at the source.

Example 2: Workers are dying or sustaining serious injuries from falls from working at heights on scaffolds.

Pathway:

Source *-- Working on a scaffold at height* → ***Exposure*** *-- Lack of fall protection* → ***Health Effect*** *-- Injury or death from falling*

Possible Solution:

1. Change the **Exposure**: provide safety harnesses for workers on scaffolds.

TOOL 5-A: IDENTIFY OPPORTUNITIES FOR INTERVENTION USING THE SOURCE-EXPOSURE PATHWAY

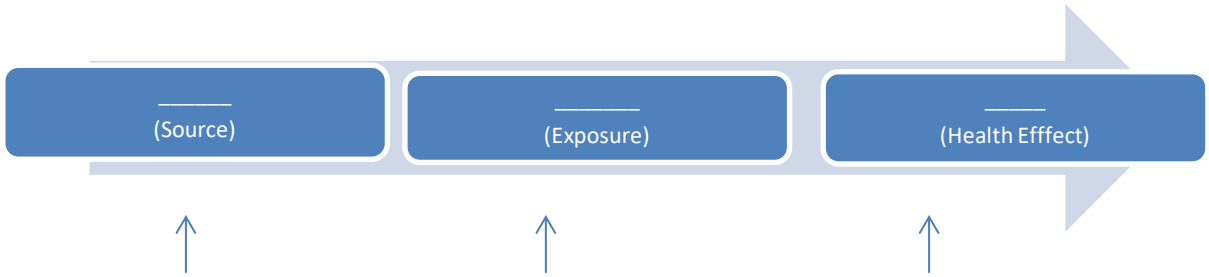
Instructions:

1. Draw the diagram below on a flip chart or whiteboard.
2. Write the hazard that your partnership wants to address across the top.
3. As a group, identify possible solutions by recreating the pathway for the hazard or issue you plan to address. Discuss the main source and point(s) of exposure, and identify the best point at which to intervene (shown with arrows below) given the available solutions. Write the possible solution(s) under the pathway.

   Note – Keep in mind that making a change at the source of a hazard is generally preferable to changing the exposure, and changing the exposure is preferable to having to wait to treat the health effect after it happens.

4. *You can repeat this exercise for each of the hazards your partnership would like to address.*

Hazard:_____



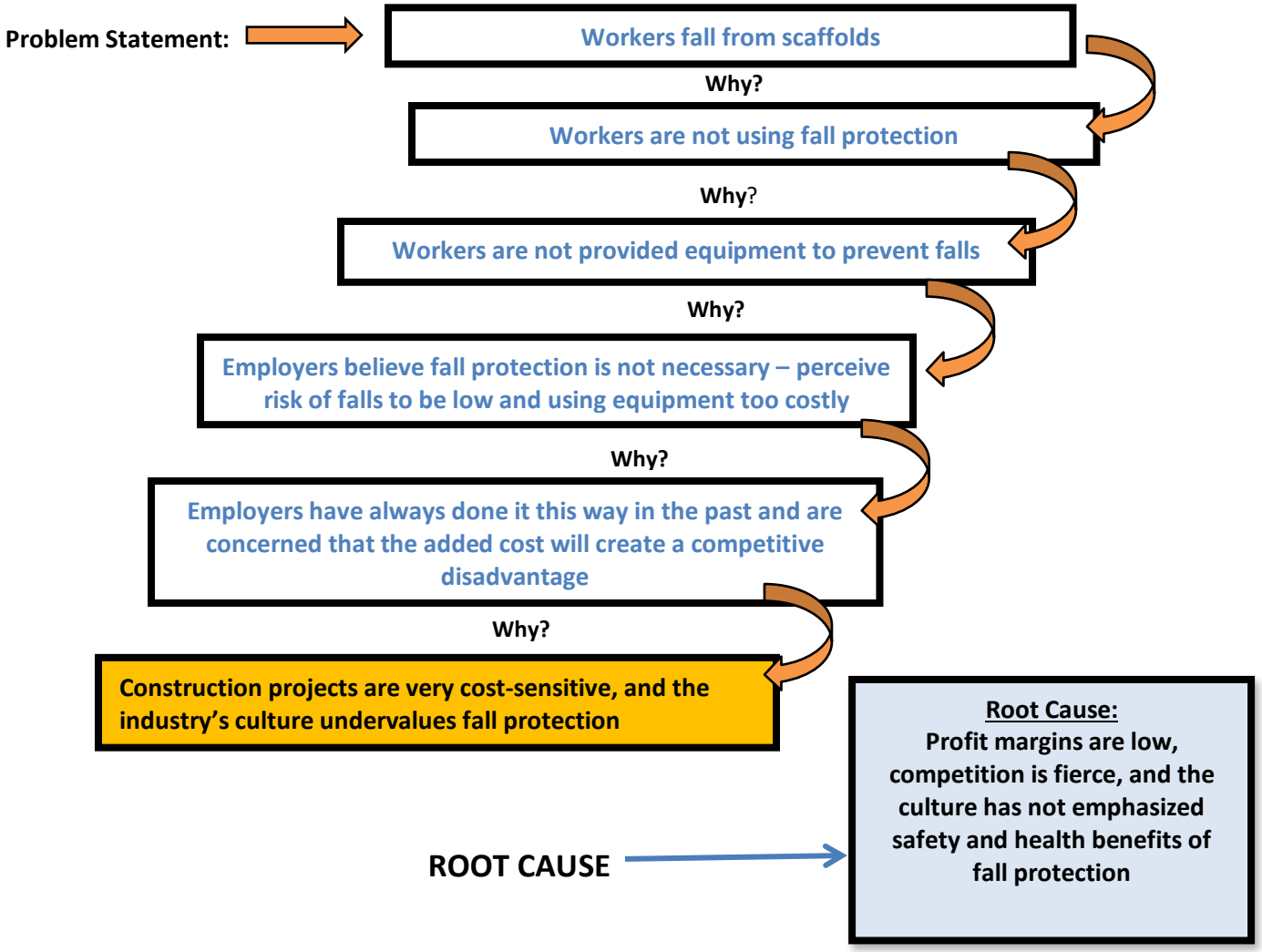
Based on the identified pathway, what are possible opportunities to intervene?

Possible Solution(s):_____

Tool 5-B: Root Cause Analysis offers another approach. While this type of analysis is typically done as part of an accident or near-miss investigation, there may be instances when such an approach could help your partnership better understand the underlying contributors to a type of injury or illness, as well as identify the factors that, if changed, would eliminate or minimize the hazard. Such an analysis may provide the partnership with insight into what type of solution(s) will best address the hazard. (If you completed **Tool 3-D: Map the Issue**, you may have already gained some insights.)

The following is an example of how this tool could be used to identify solutions or opportunities for new research.

EXAMPLE: ROOT CAUSE ANALYSIS TOOL



If you removed this root cause, (e.g., by modifying the work practice, having different equipment in place, etc.) would the injury or exposure be prevented? Yes

What type of solution or research is needed to remove the root cause?

1. Provide fall protection and training on its use to workers
2. Social marketing research on changing industry norms to encourage the use of fall protection
3. Cost-benefit analysis demonstrating the business case for using fall protection

TOOL 5-B: ROOT CAUSE ANALYSIS

Instructions:

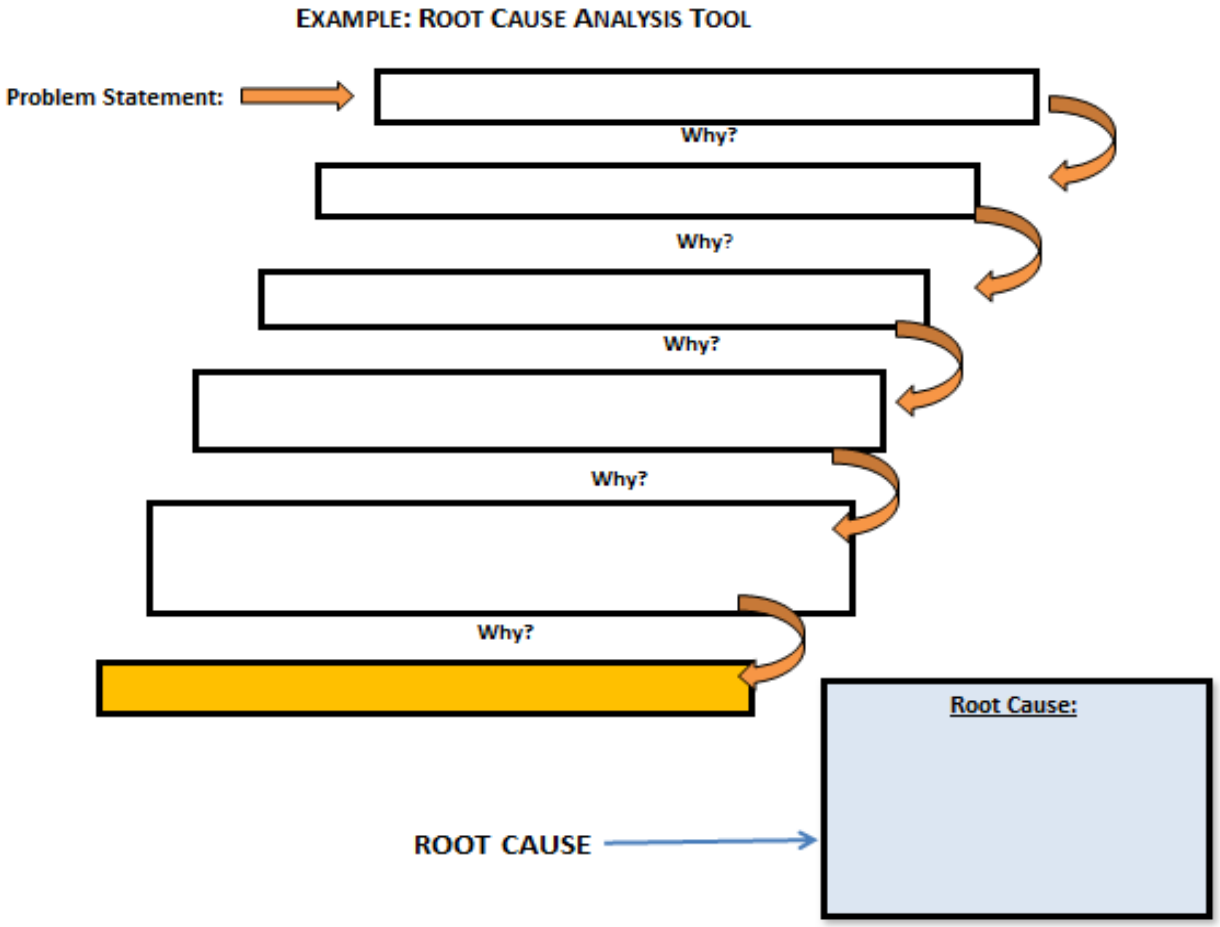
1. This exercise can be done with the entire partnership or in small groups. If done in small groups, provide each group with the same problem statement, a copy of the following diagram, and flip charts or whiteboards to keep track of their discussion. Ask each group to report back and then compile all the comments on one flip chart or whiteboard for further discussion.

2. Define the problem. Write a succinct description of the hazard or issue you need to address. You may have already completed this in **Section 3: Develop a Shared Vision, Mission, and Goals**. If so, simply transfer that information to this tool.

3. Ask the group why the hazard exists, or why the exposure or injury occurs. For example, if the hazard is "falls from scaffolds," a response might be, "workers fall from scaffolds because they are not tied off," followed by "why aren't workers tied off?"

4. Continue this train of thought and keep asking "why" until you think you have hit the root cause. Then ask the questions "If you removed this root cause (e.g., by modifying the work practice, having different equipment in place, etc.), would the injury or exposure be prevented?" Then ask, "What type of solution or research is needed to remove the root cause?

Tip: In addition to your partners, consider asking other stakeholders and experts for information to help you complete the following diagram. Your partnership may also want to identify a specific jobsite where the potential for this hazard is present or where an injury or exposure has occurred and use it for this analysis.



If you removed this root cause, (by modifying the work practice, having different equipment in place, etc.) would the injury or exposure be prevented?
What type of solution or research is needed to remove the root cause?

[Adapted from: Minnesota Department of Public Health. *Root Cause Analysis Toolkit*, http://www.health.state.mn.us/patientsafety/toolkit/5whystool.pdf.]

Additional Resources

For more on root cause analysis, visit the resources below:

- **Final Solution Via Root Cause Analysis (with a Template) -** http://www.isixsigma.com/tools-templates/cause-effect/final-solution-root-cause-analysis-template/
- **Finding the Root Causes of Accidents, EHS Today** - http://ehstoday.com/news/ehs_imp_32824
- **CAF Construction Site Safety Certificate Program PowerPoint presentation** - http://www.powershow.com/view4/47faeb-MTRmM/CAF_Construction_Site_Safety_Certificate_Program_powerpoint_ppt_presentation

Prioritize and Track Solutions and New Research

A partnership with a mission and vision that encompasses more than one hazard and potential solution (see **Section 3: Develop a Shared Vision, Mission, and Goals**) may need to do more upfront work to compile information on solutions for the hazards it wants to address. This work can be useful in setting priorities, as well as identifying when a hazard lacks any available solutions.

How information on solutions is gathered and compiled will depend on your partnership's resources and how it plans to use this information. One of the partner organizations may have staff available to complete this task, or the partnership may decide to designate a subcommittee to compile a document or database summarizing various solutions for each hazard. Working with university students to help with background research can be an effective means and can help build relationships with potential faculty research partners. One place to start is to see if there is a NIOSH Educational Resource Center (ERC) (http://niosh-erc.org) in your area. ERCs are funded to train occupational health professionals and conduct interdisciplinary research in occupational safety and health.

The Masonry r2p Partnership is an example of a partnership that established a broad mission and vision and developed a comprehensive database of safety and health hazards affecting the industry, available solutions, and gaps in solutions. The partnership used this database to solicit stakeholder input to help the partners set priorities.

Case Study: Taking an Industry-Wide Approach in the Masonry r2p Partnership

The goal of the Masonry r2p Partnership is to increase awareness and use of tools, materials, and work practices that have been found to reduce workers' risk of injury or illness in the masonry industry.

As a first step, the partnership developed a comprehensive database of work-related hazards potentially facing workers in each of the masonry crafts (e.g. brick, tile, stone, cement, etc.) and identified the risks, related research-based solutions, and types of solution based on the **hierarchy of controls.** The partnership used existing resources and information, such as CPWR's Construction Solutions Database (http://www.cpwrconstructionsolutions.org/) published research studies, and their own experiences to identify and select solutions. This information was then used to create discussion guides and tables of hazards and related solutions specific to each masonry craft and presented to the International Union of Bricklayers and Allied Craftworkers' Labor-Management Craft Committees.

More than 100 contractor and labor members of the six Craft Committees reviewed and discussed the materials for their specific craft segment. Each committee used the list to identify the topmost hazards of concern and the related research-based solutions with the greatest potential to be widely accepted and used on job sites.

Based on their feedback, several safety and health areas surfaced as priorities for the Partnership's work including:

- Ergonomics hazards such as back or hand injuries
- Noise hazards and hearing loss
- Silica and dust exposures
- Skin related conditions such as contact dermatitis

Two new issues were identified as needing additional research:

- Alternatives to using 7 1/4" circular saws for stone work
- Radiation exposures from working near cell towers

[Adapted from *CPWR's Masonry r2p Partnership*: http://www.cpwr.com/research/masonry-research-practice-partnership.]

Tool 5-C offers an approach for compiling information on hazards and solutions, identifying needs for further research, and establishing priorities for dissemination.

TOOL 5-C: COMPILE HAZARD-SOLUTION INFORMATION AND SET PRIORITIES

Instructions:

1. Assign a partner or subcommittee to identify and compile a list of the hazards your partnership wants to address and available research-based solutions. Use a spreadsheet, database, or paper copies of the table below to compile the information. Since there may be more than one solution available per hazard, complete a new row in the table for each solution. Keep track of solutions that may address several hazards (if a solution has the potential to have a broad impact, the partners may want to make it a priority).

2. Once the first two columns are filled in, as a group ask the partners to consider the following and keep track of their responses:
   - Level of Priority (Short-Term; Long-Term; Not a Priority) – Should the hazard-solution combination be a short or long-term priority for dissemination or a low priority?
   - Barriers to Use on Job Site – Are there barriers to using the solution? If yes, what are they?
   - More Research Needed – Is more research needed to understand the effectiveness of the solution before it can be promoted for use, to address the hazard, or to overcome barriers to use?
   - Additional Concerns/Comments – Are there any other concerns or questions regarding the listed solution?

3. Before completing this exercise, take one final look through the list of solutions and ask the partners:
   - Are there any important hazards or solutions missing from the list?
   - Which do you consider the two highest priorities?
   - How will we know if our partnership is succeeding in getting the solution into use? *Remember to come back to this information as you plan your evaluation efforts (see **Section 6: Evaluate Your Work Together**).*

Hazard	Solution(s)	Level of Priority:			Barriers to Use on Job Sites?	More Research Needed?	Concerns/ Comments
		Short-Term	Long-Term	Not a priority			

5.2 DISSEMINATE RESEARCH-BASED SOLUTIONS

Once your partnership has identified the solution(s) to promote, a plan for dissemination should be created. **Dissemination** refers to the targeted distribution of information and intervention materials to a specific public health or clinical practice audience. In the case of construction, this audience could be workers, contractors, a specific segment of the industry or some combination (e.g., residential workers and contractors, etc.). Given the different types of audiences, more than one dissemination method may be needed. For example, different methods might be needed to reach contractors vs. workers or large vs. small contractors.

The following case study on the Electrical Transmission & Distribution Partnership demonstrates how a partnership's structure and specific efforts can both be influenced by and serve to carry out their dissemination goals.

Case Study: R2p in Action: Electrical Transmission & Distribution Partnership Identifies & Disseminates Best Practices

The Electrical Transmission and Distribution Partnership (ET&D) was created to improve the safety culture of the industry by ensuring that sound safety practices are used. Their approach involves many of the steps needed to move research to practice, including conducting research and data analysis, developing materials, and active dissemination. The partnership uses a committee-based structure, that includes an executive committee, a steering committee, and four mission-related task teams – each created to meet a specific goal related to identifying and disseminating research-based information that will lead to the improvement of safety and health in the industry. The specific goals of the partnership are to (1) analyze accident and incident data to identify common causes for fatalities, injuries and illnesses suffered by linemen, apprentices and other appropriate job classifications; (2) develop recommended best practices for each identified cause; (3) develop implementation strategies for each best practice and promote these strategies among the partners; and (4) identify training criteria for foremen, general foremen, supervisors, linemen and apprentices, including training to create a change in industry culture to place value on safety and health.

The corresponding task teams include:

(1) Data Analysis
(2) Training
(3) Best Practices
(4) Communications

Through these teams, information is gathered and disseminated in a variety of ways. The Data Analysis task team provides needs assessment information by researching available industry data in order to recommend areas of concern for the partnership to focus on as well as ways to improve them. The

Training task team develops safety training courses and videos for workers and supervisors in the electric line construction industry, including OSHA 10 and OSHA 20 hour courses on OSHA safety regulations, as well as a supervisory leadership outreach skills course. Disseminating new and better information through training like this is only one of the step in improving the safety and health knowledge of workers. The Best Practices and Communications task teams help create fast, efficient ways to disseminate industry practices that serve to protect the workforce. The purpose of ET&D's best practices is to educate the industry on properly executing Insulate and Isolate (I&I) techniques that allow a line worker to safely work on and around energized equipment and conductors. A best practice consists of multiple dynamic comprehensive facets that include but are not limited to consistent training, auditing, discipline, job safety analysis, and I&I field criteria that may show specific insulating goods application. By identifying, publishing, and promoting best practices, the partnership is able to get protective measures into the field sooner rather than later. Communications helps with this by ensuring the best practices information gets beyond the partners and into the industry as a whole.

Working in combination with each other, these four task teams have managed to consistently refresh their methods, keep in touch with the needs of the industry and identify new ways to meet them, and work to get those innovations and information into the hands of both supervisors and workers in the field.

While your partnership may not be equipped to conduct the full r2p process from start to finish, the following tools are designed to help your partnership refine its priorities based on available resources and decide how best to disseminate information and promote the use of a research-based solution once it is available.

Tool 5-D asks a set of questions to help your partnership focus attention on the resources that will be needed for dissemination of a solution, potential benefits and costs, how the solution will actually be used, and who will use it.

The table in **Tool 5-E** includes questions to help your partnership identify methods and strategies for disseminating safety and health solutions and a format for keeping track of the methods, resources required, and responsibilities.

TOOL 5-D: SOLUTION ASSESSMENT CHART

Instructions:

1. Distribute a list of solutions that your partnership has decided to promote with workers and contractors. This list should also include the partnership's goals and objectives that will be advanced with the increased awareness and use of the solutions.

2. On a flipchart or whiteboard, select one solution to discuss and use the categories in the following table to assess whether or not the solution should be a priority. For example, if current use of a solution in the industry is low, but there is a large target audience and a high likelihood of adoption based on benefits and cost, your partnership might want to push that solution forward. On the other hand, if your partnership listed a research-based solution that is unlikely to be adopted due to factors like low support and high cost, it may not be the time to promote it.

Solution Assessment Chart	
Research-Based Solution	
Who Will Use It?	
Support Needed for Adoption (e.g., training, marketing)	
Funding Support	
***Use in Industry Today** (High, Medium, Low)	
Benefits (e.g., cost savings)	
Costs (e.g., purchasing, leasing, training)	

3. Repeat this process for all of the solutions under consideration.

**Tip: If it is difficult to determine how widespread use of a solution is in the industry, your partnership may want to consider conducting focus groups or surveys to fill the information gap. The Masonry r2p Partnership, for example, conducted a baseline telephone survey of workers and contractors to find out their awareness of the hazards, use of solutions, and barriers to use.*

TOOL 5-E: SELECT DISSEMINATION METHODS

Instructions:

1. Provide copies of the chart to all members of the partnership. As a group, review the different dissemination methods and discuss which are best for each solution. Your partnership should consider the following questions:
   - ❖ Who is the target audience? Who has to decide to make, accept, or use the new solution (e.g., contractors, workers, owners)? Is there more than one target audience?
   - ❖ What is the best way to get information to them? These may be different for different audiences.
   - ❖ What resources will be needed to develop materials and tools to reach the audience?
   - ❖ Who is the best messenger or point person for that audience?
   - ❖ Are there additional stakeholders or new partners who might be able to help reach the audience?
   - ❖ Are there any factors that might hinder dissemination?

2. Using a flip chart and the format in the table below, keep track of the discussion and the partner(s) assigned to serve as the "responsible partner(s)" for different methods and audiences.

3. Following the meeting, type up the information for each solution and distribute it with the meeting notes to all participants so that they can refer back to it and use it to keep track of who is responsible for which tasks.

Dissemination Methods Chart	
Method	**Description**
Education/Training	Integration of solution into apprenticeship or upgrade training, professional training, tailgate/toolbox training, supervisor training, educational materials, peer training, etc.
Outreach/Marketing	Social marketing campaign, targeted diffusion effort, health & safety communications program, media advocacy, educational entertainment, etc.
Policy Development	Regulations, voluntary standards, building codes, collective bargaining agreements, licensing exam changes, etc.
Technology Transfer	Licensing, manufacturing, and marketing approaches
Coalition-building	Multi-partner effort to promote solutions at the industry or trade level; building alliances with other constituencies
Communication Products	Press releases, materials for lay audience, web posting/links, mailings, new/social media, etc.

Solution:_____				
Dissemination Method	**Target Audience**	**Resource(s) Needed**	**Responsible Partner(s)**	**Additional Partners/ Stakeholders Involved**
1.				
2.				
3.				
4.				

[Adapted from: CPWR. Triage tool for intervention ready research, http://www.cpwr.com/sites/default/files/research/TriageToolInterventionStage.pdf.]

Deciding on dissemination methods and who will be responsible is only part of the process. Partnerships should also consider developing more detailed plans for how the dissemination methods will be implemented. Such a detailed planning and tracking system will help your partnership work efficiently.

Tool 5-F contains instructions for using the planning and tracking tool outlined in **Appendix 3**. This tool was developed by the NIOSH, OSHA, and the CPWR r2p Working Group to help partnerships and other groups develop plans for getting solutions into use and for tracking their progress.

TOOL 5-F: DISSEMINATION, PLANNING, AND TRACKING TOOL

Instructions:

1. Complete a dissemination plan using the outline in **Appendix 2** for each solution or group of solutions identified to address a hazard. If your partnership used **Tool 5-E**, you may have already developed some of this information.
2. If your partnership has already identified dissemination methods and the point person for each, ask those individuals to take the lead in developing the related plan.
3. If your partnership has not yet assigned dissemination responsibilities, discuss with the partnership how the dissemination plans will be completed. Depending on the number of solutions to disseminate, the partnership may decide to do this as a whole group or in subcommittees.
4. Establish a deadline for completing the dissemination plan(s) and a meeting schedule to review and refine the plan(s). Distribute the completed dissemination plan(s) ahead of time to make the meeting as effective as possible.

Note – As you review the plan(s), keep in mind the resources available and timing of activities to ensure the partnership does not become overburdened or run into conflicts.

The final plans will serve as a guide and checkpoint for the partnership's work moving forward, with progress reports given at each meeting. You may want to update and revise the plans as you learn more about your audiences and partners or as circumstances change.

A second case study on the Masonry r2p Partnership below provides an example of how dissemination fits into the larger r2p-p2r cycle.

Case Study: Masonry r2p Partnership -- Soliciting Feedback, Disseminating Resources, and Tracking Results

In the years since the Craft Committees first provided input on the Partnership's priorities, the partners have reported back to them annually on their efforts and asked for additional feedback to make sure they are on the right track.

The Masonry r2p Partnership uses annual labor-management Craft Committee meetings to report on progress, solicit input on priorities and support for new initiatives, gauge awareness and use of solutions, and disseminate new safety and health research findings and resources. (See the Case Study: Taking an Industry-Wide Approach in the Masonry r2p Partnership for more detail – page 88.) In addition, the Partnership conducts periodic surveys of Committee members and workers (BAC members) to help set priorities and track progress.

Using the Craft Committees for Feedback & Dissemination

Each year, as part of the individual craft committee breakout sessions, Partnership representatives present on the status of current research projects and dissemination efforts related to the industry priorities and to discuss emerging safety and health issues. Each member also receives a more detailed written status report via email. These presentations and status reports serve two purposes: 1) they are a way to make contractor and labor representatives aware of new findings, resources, and solutions that they can then make other stakeholders aware of; and 2) they provide a way to keep the stakeholders engaged by showing Committee members how they have influenced the Partnership's work and safety and health research, and helped to advance the use of safety interventions.

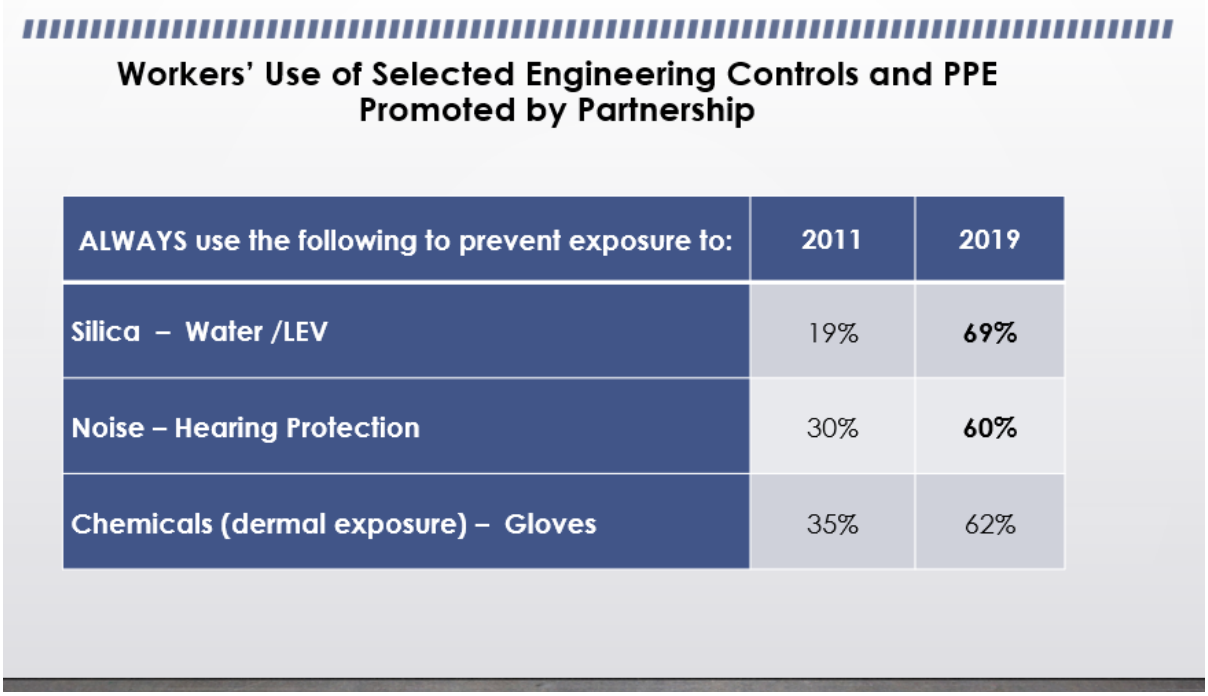
Soliciting Input & Gauging Progress

In addition to disseminating information, the meetings provide an avenue for these industry stakeholders to provide input on the efforts of the Partnership and what direction it should take. After each meeting, Committee members are sent a short online anonymous survey to solicit additional input on the Partnership's work and safety and health priorities. These surveys have also been used to find out how best to communicate with contractors and workers, the types of products and materials that are most effective for conveying safety and health information and use of technologies and solutions on the jobsite.

The Partnership also conducts periodic surveys of BAC members and contractors to gain additional insights into the industry's safety and health concerns to use when establishing priorities, and to gauge progress in advancing the use of selected interventions to address those priorities already established.

As shown in the following table, the Partnership's efforts to advance the use of selected

interventions to protect masonry workers (BAC members) from exposure to silica, noise and dermal hazards have been successful. Between 2011 and 2019, the percentage of BAC members surveyed who said they "Always" use the silica, noise, and dermal interventions promoted by the Partnership to prevent exposure increased.



Workers' Use of Selected Engineering Controls and PPE Promoted by Partnership

ALWAYS use the following to prevent exposure to:	2011	2019
Silica – Water /LEV	19%	**69%**
Noise – Hearing Protection	30%	**60%**
Chemicals (dermal exposure) – Gloves	35%	62%

Additional Resources

For more information on dissemination, visit the following resources:

- **Theory at a Glance A Guide for Health Promotion Practice (2005). DHHS, NIH, NCI** - http://www.sbccimplementationkits.org/demandrmnch//wp-content/uploads/2014/02/Theory-at-a-Glance-%E2%80%93-A-Guide-For-Health-Promotion-Practice.pdf
- **Making Health Communication Programs Work**, National Cancer Institute - http://www.cancer.gov/cancertopics/cancerlibrary/pinkbook/pink-book.pdf