



National Institute of  
Environmental Health Sciences  
*Worker Training Program*

National Institute of Environmental Health Sciences  
Worker Training Program

Report from the Fall 2015 Workshop

# **Setting the Stage for the Worker Training Program 2015–2020**

*Leveraging Program Collaborations,  
Strengths, and Data*

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# WORKSHOP SUMMARY

**Table 1: Summary of Major Take-home Points from the Workshop**

Strategic Priorities and Worker Training Program (WTP) Data	<ul style="list-style-type: none"> <li>• Capture how WTP awardees' progress aligns with the National Institute of Environmental Health Sciences Strategic Plan</li> <li>• Consider wealth and utility of WTP data for data science priorities and initiatives</li> </ul>
Data Collection and Evaluation	<ul style="list-style-type: none"> <li>• Consider the utility of existing data to evaluate short- and long-term impacts of the WTP</li> <li>• Find ways to engage in more Level 3 evaluation that are considerate of costs and burden to awardees</li> <li>• Address challenges with follow-up, such as establishing trust between trainers and trainees and using multilevel approaches and tools for data collection and evaluation</li> <li>• Develop a database to report anecdotes and stories by congressional district</li> </ul>
HAZMAT and Public Health Partnerships	<ul style="list-style-type: none"> <li>• Increase visibility of organization and establish trust and partnerships before a disaster occurs</li> <li>• Invite communities to the table as partners for HAZMAT and disaster preparedness efforts</li> <li>• Enhance communication and foster understanding of HAZMAT capabilities with public health stakeholders and communities</li> <li>• Identify local individuals or use medically-trained professionals who can connect HAZMAT to the public health system</li> </ul>
Government, Organizational, and Inter-Awardee Partnerships	<ul style="list-style-type: none"> <li>• Perform outreach, share resources, and work within each agency or organization's strength</li> <li>• Negotiate and establish guidelines and parameters of the partnership upfront</li> <li>• Create clear lines of communication and demonstrate flexibility and patience</li> <li>• Incorporate a field into the Data Management System that encourages the sharing of training numbers and outcomes among awardees</li> </ul>
Enhance Instructor Development Programs (IDPs)	<ul style="list-style-type: none"> <li>• Capitalize on resources and relationships with local entities and awardees to implement IDPs</li> <li>• Use blended approaches, hands-on activities, social media, and innovative technologies to enhance IDPs</li> <li>• Develop a training document or guideline on adult education</li> <li>• Consider ways that more practical information can be shared and exchanged during forthcoming WTP Trainers' Exchange meetings</li> </ul>
Enhance National Response and Recovery Resource Capabilities	<ul style="list-style-type: none"> <li>• Leverage community- and agency-based partnerships to facilitate response and recovery efforts</li> <li>• Establish a cadre of trainers and get them authorizations and certifications</li> <li>• Place more emphasis on mental health issues for trainers and trainees that are deployed for response</li> <li>• Distribute toolkits and training materials to impacted individuals and groups</li> </ul>

## INTRODUCTION

One of the core values of the National Institute of Environmental Health Sciences (NIEHS) Worker Training Program (WTP) is to concentrate on the basics of training for workers – to save lives, prevent injury, and determine how the work can be done to keep workers healthy so they can eventually retire. The WTP works where the need is often greatest, identifying at-risk populations and responding to their training needs on a variety of topics, such as disaster preparedness, mental health resiliency, and biosafety for infectious disease.

On Sept. 29 – 30, 2015, WTP staff, awardees, and partners held a workshop where they discussed and shared insights regarding collaborations, strengths, and data as a means of setting the stage for impending efforts of the WTP. This workshop marked the beginning of a new five-year award period for the program, which now has 18 awardees and organizations that are funded through August 2020. The WTP has also secured another five-year contract with MDB, Inc. to operate the National Clearinghouse for Worker Safety and Health Training (Clearinghouse). A brief synopsis of the workshop is provided in a November 2015 NIEHS Environmental Factor article, and presentation slides are available on the workshop website.

NIEHS Director Linda Birnbaum, Ph.D., expressed her excitement looking forward to the next five years as she recalled the many successes of the WTP. “Over the past 20 years, the NIEHS WTP has been at the forefront of workers’ safety and health training and communication,” Birnbaum mentioned. “The program has trained approximately 3 million workers and has mobilized staff to respond to both natural and man-made disasters. Several lessons have been learned, including the need to be responsive to target worker populations who often have diverse education levels and literacy skills, and the need to use practical methods for delivering complex information in training environments. Not only has the WTP been active in developing innovative programs related to environmental health science, but it has also had tremendous impacts in training people from underserved and environmental justice communities.”

NIEHS WTP Director Chip Hughes stated the importance of identifying key objectives and delivering affirmative messages about the WTP in moving forward over the next five years. The program continues to face a difficult political climate, as well as limited financial resources. Identifying the organizational challenges and obstacles will enable the WTP to build the worker-training community of practice and facilitate greater partnership opportunities. There is also a need to demonstrate the various resources that the WTP brings to the table, such as time, money, and people. These resources need to be aligned with the program’s strategic priorities.



**Birnbaum recalls the many successes of the WTP and looks forward to the next five years of the program. (Photo courtesy of Steve McCaw)**



**Hughes welcomes and prepares workshop participants to engage in discussions on leveraging program collaborations, strengths, and data. (Photo courtesy of Steve McCaw)**

## NIEHS UPDATES, STRATEGIC PLAN, AND DATA SCIENCE: WHAT IT MEANS FOR THE WTP

### WTP and the NIEHS Strategic Plan

NIEHS Division of Extramural Research and Training Director Gwen Collman, Ph.D., provided a summary of the WTP's accomplishments in fiscal year 2015, focusing on the role of the program in addressing goals of the 2012-2017 [NIEHS Strategic Plan](#). Table 2 lists a few of the accomplishments that were highlighted during this session.

**Table 2: NIEHS Strategic Plan Goals and WTP Activities**

NIEHS Strategic Plan Goal	WTP Activities
<p><b>Strategic Plan Goal 5:</b> Identify and respond to emerging health threats</p>	<p>Involvement in creating infrastructure for others to think about disaster research response (DR2) via tabletop exercises</p> <p>Engagement with federal partners in efforts related to science preparedness for worker training and disaster response</p>
<p><b>Strategic Plan Goal 6:</b> Establish an environmental health disparities research agenda</p>	<p>Participation in the U.S. Department of Health and Human Services (HHS) Climate Justice Conference hosted at NIEHS (June 2015)</p>
<p><b>Strategic Plan Goal 7:</b> Use knowledge management techniques</p>	<p>Completion of a gap analysis and needs assessment survey to determine where the United States currently stands in terms of response for Ebola and other infectious diseases</p>
<p><b>Strategic Plan Goal 8:</b> Enhance environmental health science (EHS) teaching at all levels of education and teaching</p>	<p>Engagement with NIEHS Office of Science Education and Diversity to perform citizen science work</p> <p>Development of disaster resilience training manual</p>
<p><b>Strategic Plan Goal 10:</b> Evaluate the economic impact of health policies and practices</p>	<p>Collaboration with labor economists and Clearinghouse staff to evaluate and quantify a wide range of economic benefits of the Environmental Career Worker Training Program (ECWTP)</p> <p>Documented findings of economic impact analysis in a report</p>
<p><b>Strategic Plan Goal 11:</b> Promote communication and collaboration between researchers and stakeholders</p>	<p>Involvement with promoting communication about biological threats, disasters, and occupational health hazards through national conferences</p>



## Knowledge Management and Data Science

Collman also provided an overall review of knowledge management and data science, and highlighted unique needs and potential opportunities for the WTP.

The National Institutes of Health (NIH) is interested in promoting sustainability, training, innovation, process, and communication for big data and data science through the [Big Data to Knowledge \(BD2K\) Initiative](#). NIEHS' investment in ongoing EHS research is of particular interest for the BD2K Initiative, which seeks to answer new questions using existing data. There are various types of EHS big data which are generated from a variety of sources, including laboratory and human studies, as well as educational or training activities. The scope of EHS big data can be viewed based on the following factors:

**Volume:** Scale of data

**Velocity:** Analysis of streaming data

**Variety:** Different forms of data related to environmental and occupational health

**Veracity:** Uncertainty of the data (i.e., confidence limits and bounds around effects measures)

In order to think about what can be accomplished in coming years, NIEHS is making an effort to look at data challenges and solutions across landmark programs such as the WTP. The Clearinghouse maintains various fact sheets, training booklets, and curricula that are accessible for others to retrieve based on topic of interest. The [NIH DR2 website](#) is another meaningful data resource related to worker safety and health training.

## THE IMPORTANCE OF DATA AND EVALUATION FOR THE WTP

Demia Wright, public health educator for the WTP, provided an overview of current efforts, and outlined future evaluation needs and ideas to enhance evaluation during the 2015-2020 funding cycle of the WTP.

The [\*Centers for Disease Control and Prevention \(CDC\) Framework for Program Evaluation in Public Health\*](#) (Figure 1) provides a good reference for understanding a framework for the implementation of evaluation. The framework emphasizes the use of evaluation findings through the important steps of engaging stakeholders and focusing the evaluation design. There is an increased need for the WTP to perform Level 3 evaluations. Per the [\*Kirkpatrick Model\*](#), these evaluations can be used to determine what behavioral or practical changes are taking place in the workplace after training.

WTP evaluation data are used for program improvement and accountability. More robust evaluation data is needed so that it can be shared with decision-makers, particularly for congressional justification. The WTP has an incredible amount of training data in the Data Management System (DMS), along with countless anecdotes and stories that add a human element to program evaluation. Overall, there are challenges to identifying best practices for harvesting and collecting data, identifying primary areas of evaluation on which to focus, and determining if we should look at existing or new data. Possible ideas for moving forward include: 1) mining past data from evaluation reports; 2) creating a more robust system for collecting and reporting stories and anecdotes; 3) providing guidance on collecting and reporting Level 3 impact evaluation; and 4) developing a national evaluation framework.

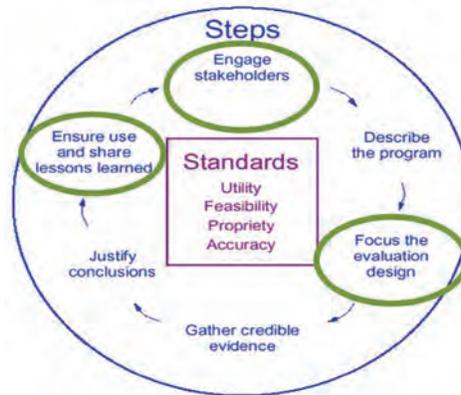
### Challenges and Lessons Learned for Level 3 Evaluations

The NIEHS WTP is living proof that training makes a difference – training brings a jolting awareness of hazards for workers. Evaluation is important, but it is lacking. Academic methodologies suggest accounting for the lives that are saved or diseases prevented; however, there are several meaningful outcome numbers that can be generated from data that exists within the WTP, such as increased use of personal protective equipment (PPE).

Level 3 evaluations are important to determine what happens once a trainee completes training and returns to the workplace. The Kirkpatrick Model includes specific guidelines for this type of evaluation; it is important to consider when to evaluate, how often to evaluate, and how to evaluate training. Awardee evaluators Judy Daltuva and Ruth Ruttenberg, Ph.D., provided some considerations for Level 3 evaluations based on their experiences.

Daltuva summarized the challenges and lessons learned from Level 3 evaluations related to four projects that the [\*United Auto Workers \(UAW\) - University of Michigan\*](#) Hazardous Waste Worker Training Program (HWWTP) has

### CDC Framework for Program Evaluation in Public Health



**Figure 1: Wright demonstrated the utility of the CDC Framework for Program Evaluation in Public Health as an example model for performing evaluations in the WTP. (Figure courtesy of Demia Wright presentation for the WTP fall 2015 workshop)**

performed. Overall, the organization has reported lessons learned related to follow-up timing, contacting respondents, and the interview process. Although follow-up methods vary based on training topic, Daltuva explained the organization's use of brief interviews (via phone calls), short questionnaires, story-telling sessions, and focus groups. In terms of timing for post-training follow-up, Daltuva found that six months is most optimal and one-and-a-half years is too long. Cell phones are most useful as methods of contact compared to land lines.

Ruttenberg, evaluation consultant and president of Ruth Ruttenberg and Associates, Inc., shared some examples of lessons learned from WTP organizations she has worked with over time and more insight on the importance of Level 3 evaluations. The [International Chemical Workers Union Council](#) (ICWUC) exhibits a prime example that well-trained workers improve the safety culture of the workplace. There are thousands of good stories that exist to show the impact of training on workers. The [Center for Construction Research and Training](#) (CPWR) has demonstrated use of the "I Have a Story to Tell" form to gather anecdotes from trainees. Ruttenberg reiterated the importance of awardees collecting data with robust evaluation efforts. Sharing evaluation results is equally important, because training has been a significant force in making people's lives and workplaces safer. This adds to the richness of NIEHS' return on investment for the WTP.

In closing, Ruttenberg cited the need for a national anecdote database, which can be used to collect stories across national congressional districts. She also recommended documenting the unintended consequences of training. Although not all trainees will work in remediation, they are often placed in unrelated, yet successful career paths. For example, some trainees may go on to obtain their GEDs. Others may acquire union leadership roles or join community management groups as a result of the training.

## **ECWTP Economic Impact Report**

Sharon Beard, industrial hygienist for the WTP, provided an overview of "[The Economic Impact of the Environmental Career Worker Training Program](#)" and how it demonstrates the importance of data and evaluation for the WTP. The report was released in late November 2015 and will be submitted as a manuscript for target journals.

The ECWTP is a model of intervention in classic public health. Since 1995, the program has trained more than 10,000 people in more than 30 communities across 20 states, and has resulted in nearly 70 percent employment for trainees. The ECWTP economic impact analysis provided an opportunity to compile different types of data and document the significant contributions of the program. The analysis involved the collection of data such as employment and wages (before and after training), job placement, and earnings. Major findings of the analysis showed increases in employment, hours, and wages for trainees. There is an interest in emulating this analysis to begin exploring the economic impact of other program areas within the WTP.

## **Considerations for Next Steps: Strategic Priorities, Data, and Training Evaluation**

Conversations on how the WTP aligns with NIEHS strategic goals and priorities for big data will be useful for demonstrating the value and effectiveness of the program. Hughes encouraged awardees to capture how their organization has helped and can help implement the NIEHS Strategic Plan in proposals and progress reports. This information will be useful for congressional justifications.

"WTP awardees have a significant amount of data that is collected from training activities amongst target worker populations," Collman explained. This includes data about training rosters, trainee demographics, training courses, and evaluations. WTP staff and awardees are encouraged to consider the utility of these

data to evaluate the short- and long-term impacts of the program, and to determine what significant topics and questions could be explored using the wealth of data from the WTP (Figure 2).

Workshop participants voiced some concerns regarding barriers to effective evaluation for the WTP. Overall, there is not enough money for good training and evaluation. The strength of evaluation is always compromised based on time spent collecting data. There is a need to look at real opportunities and barriers and determine how these combine with compliance on other measures.

Some awardees have looked at how employers' decisions impact the effectiveness of training offered to trainees. Employers may spend money on trainings, but do they allow employees to participate in creating a safer work environment? Currently, no big dataset exists on employer attitudes about worker health and safety. To generate lasting change in the workplace, it is important to have programs that teach advocacy and activism at the manager level. (See "Engaging with Other Awardees and Organizations" for a description of a recent WTP awardee study assessing manager perceptions.)

During small group discussions among workshop participants, common themes arose regarding challenges and best practices for data collection and evaluation. Some of the major challenges identified included those related to limitations on funding and resources (e.g., time, money, and manpower) needed to effectively and consistently gather or evaluate data. Other challenges that were identified included limited responsiveness of trainees, or difficulty in contacting students for follow-up once training is complete. Participants elaborated on best practices such as establishing trust between trainees and trainers, and using multilevel approaches or tools for data and evaluation (e.g., evaluation sheets, mobile technologies, social media, survey instruments, face-to-face interactions). Collaborating with partner agencies or businesses that interact with the target trainee population could facilitate better follow-up and data collection. Participants also mentioned the utility of incentives (e.g., coupons, free equipment) for increasing data collection and evaluation compliance among trainees.

In terms of future ideas and action items, participants echoed Ruttenberg's idea for an "I Have a Story to Tell" form or database framework to collect anecdotal stories by congressional district. Participants also mentioned the potential use of online surveys to collect information and use of social media to access training or to track students. Another idea was to have the Clearinghouse create a repository of evaluation instruments to increase collaborations and big data collection among awardees.

### Questions to Consider for WTP Data

- What questions can be answered in the field of occupational health and safety using WTP data?
- Are WTP awardees willing to share or combine data for analyses of common interest?
- Are WTP awardees willing to combine WTP data with other public sources of occupational health and safety data?
- What are some other compelling data questions that will be useful for discussions with federal partners and agencies?

Figure 2

### ACTION ITEM

**Develop a database to report anecdotes and stories by congressional district**

## ENCOURAGING COLLABORATION FOR PUBLIC HEALTH THROUGH PARTNERSHIPS

### HAZMAT and Disaster Preparedness

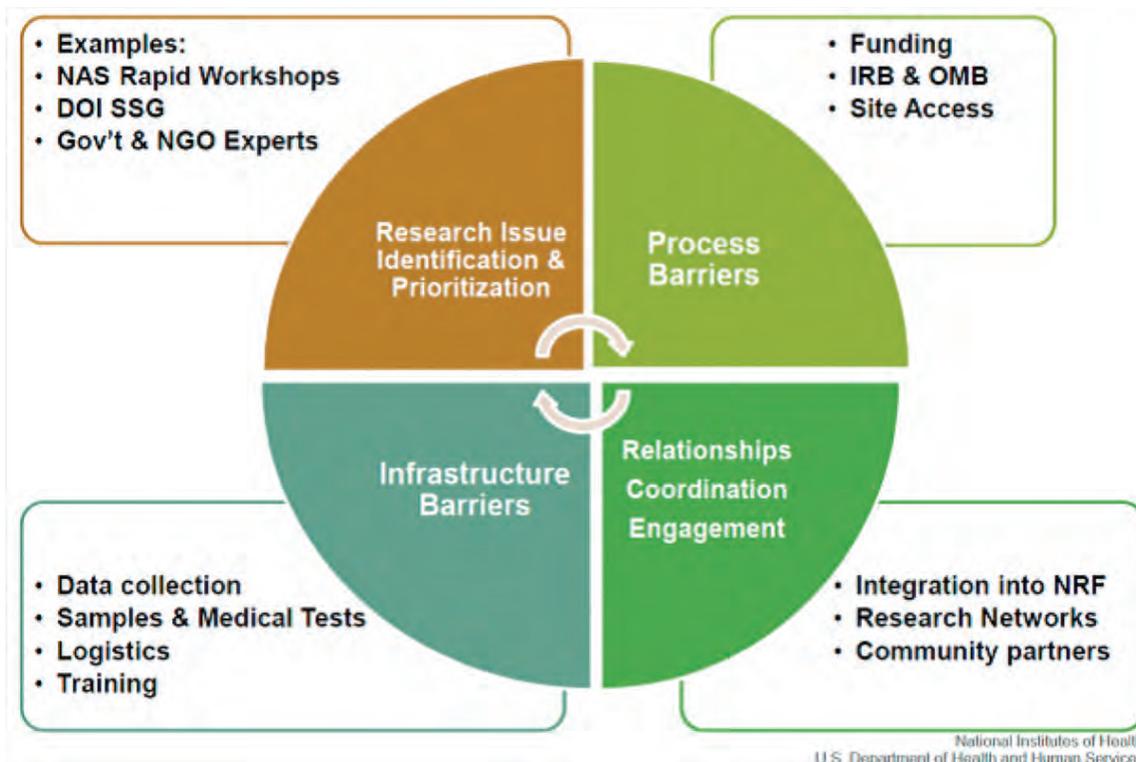
This session was used to discuss how connectivity can be created and enhanced between HAZMAT and public health communities. Per the WTP logic model, one goal is to develop organizational connectivity around specific awardees and communities. The success of the WTP is dependent on several state and local public health relationships.

Janelle Rios, Ph.D., co-principal investigator for the [Texas-Utah Consortium for Hazardous Waste Worker Education and Training](#) (Texas-Utah Consortium), shared lessons learned about forming partnerships. “The perfect partner will not only commit, but will deliver well and on time,” Rios stated. Although the Texas-Utah Consortium is relatively young, several successful partnerships have been achieved thus far, including those with the University of Texas Medical Branch and the University of Nebraska Medical Center.

Rios briefly elaborated on lessons learned from a failed partnership that involved collaboration between the Texas-Utah Consortium and a local health department. Due to animosity expressed by a health department program for not being included in designing training content, Rios and others decided to move the training to a different city. Moving forward, Rios and others will be sure to communicate early and often about training and notify as many potential collaborators as possible.

Linda Delp, Ph.D., principal investigator of the [Western Region Universities Consortium](#) (WRUC) and director of the [University of California at Los Angeles Labor Occupational Safety and Health Program](#) (UCLA-LOSH), shared lessons learned in bridging the gap and forming partnerships to promote HAZMAT training efforts. UCLA-LOSH has been particularly focused on partnerships to recruit students, to collaborate with worker-community environmental justice programs, and to work with state and local public health departments. Delp underscored how a new initiative – Safe Jobs Safe Communities, which originated in Richmond – has expanded to Southern California’s Los Angeles County/South Bay. It focuses on providing training and improving conditions for refinery workers and surrounding communities. Through their efforts, many challenges have emerged, which program coordinators seek to address, including: 1) how to overcome language barriers; 2) how to schedule trainings and meetings, given that refinery workers have a tight turnaround schedule; 3) how to empower workers, given that many fear losing their jobs; and 4) how to maximize resources and funding.

Aubrey Miller, M.D., senior medical advisor and NIEHS liaison to HHS, spoke about key takeaway lessons from the [NIH DR2 Project](#) (Figure 3), which he coordinates. This project seeks to enhance the timely collection of human data during disasters, and includes ready-to-go research data collection tools, pre-approved research protocols, and a network of specially-trained intramural and extramural research responders. These tools will help promote the timely gathering of environmental and toxicology data to complement the health information collected during disaster response.



**Figure 3: The above flowchart illustrates some of the critical elements that need to be considered to maximize coordination during disaster response. (Figure courtesy of Aubrey Miller presentation for the WTP fall 2015 workshop)**

To systematize this process, Miller outlined a four-step process focused on: researching issues to identify hazards and prioritize the response; overcoming process barriers, such as the institutional review board and funding; building coordination, relationships, and engagement; and overcoming infrastructure barriers, such as data collection.

## Engaging with Federal, Regional, and Local Governments

This session was used to discuss challenges and share lessons learned regarding establishing, strengthening, and maintaining successful partnerships within the WTP. Panelists represented and reported on various levels of partnerships – federal, state, local – experienced in their WTP organizations.

Natalie Grant, senior program analyst for the [Office of the Assistant Secretary for Preparedness and Response](#) (ASPR), shared lessons learned from disaster recovery collaboration for Hurricane Sandy. Several partner organizations were involved in cleanup and recovery efforts for Hurricane Sandy, and each organization brought varying levels of training, knowledge, and skills to the table for disaster response. For example, volunteer organizations, government programs, private businesses, and individual citizens had varying levels of understanding related to the threat-risk environment and wearing proper PPE. This presented a significant challenge for ASPR staff in coordinating cleanup efforts.



Grant mentioned the importance of ongoing communication, language, and situational awareness amongst partner organizations. Having a process or mechanism to effectively coordinate cleanup efforts amongst several different organizations, each with unique and varying capabilities, is important for a successful partnership and safe disaster response effort. Furthermore, it is important for each organization to understand their local role to ensure that the solutions connect with the proximate issues.

Patricia Aldridge, HAMMER/Hanford Training Conduct training manager, briefly discussed some of the partnerships that have contributed to success at the [HAMMER Federal Training Center](#). HAMMER is a safety and emergency response training center that manages several nationally-recognized training and safety programs, including those offered at the [Hanford Site](#) in Washington state. HAMMER demonstrates success through several ongoing partnerships with WTP awardees, the U.S. Department of Energy, the U.S. Department of Transportation (DOT), and others.

Aldridge reflected on more than a decade of experience in establishing, strengthening, and maintaining successful partnerships during her years as a training manager at HAMMER. It is important to recognize that some partnerships will only be used periodically, and not on a day-to-day basis, and that the scope and goal of a partnership may develop and evolve over the years. Partnerships are relationship-based, and sustaining them requires personal interactions, among other efforts. Successful partnerships are based on open and honest communication, mutual respect, a common goal (usually for the good of others), and a willingness to make them work. It is important to recognize that the sum is greater than the whole – partnerships can help accomplish more than can be accomplished individually or as a single entity.

Mollie Dowling, executive director of the community-based agency [OAI, Inc.](#), provided an overview of the different types of partnerships her organization works with at the local level in Chicago, and how these partnerships have resulted in mutual benefits for all involved parties. In one successful partnership, OAI worked with the [Little Village Environmental Justice Organization](#) to take trainees on a toxic tour of a local urban coal plant, which helped ECWTP students become aware of local environmental justice issues. OAI also partners with [Chicago Women in Trades](#) to increase the recruitment of women in well-paid, blue collar occupations and trades. Dowling also described a successful partnership with the Chicago Southland Economic Development Corporation, which looks to OAI for workforce development strategies.

In order to obtain great partners, you first have to be a great partner. Dowling reiterated the importance of good communication to maintain strong partnerships. When partnering with businesses, it is important to demonstrate the economic value of recruiting and training the local workforce. It is critical to find mission-compatible organizations to partner with to ensure that partnerships are formed with organizations that have similar goals.

## **Engaging with Other Awardees and Organizations**

This session provided an opportunity for WTP awardees to discuss various types of inter-awardee and organizational partnerships, as well as some of the logistical challenges and mutual benefits resulting from these collaborations.

Kevin Riley, Ph.D., director of research and evaluation for the UCLA-LOSH program, elaborated on a partnership that took place with three other university-based WTP awardees. This partnership enabled them to conduct a program evaluation project to explore how managers impact workers' ability to make

behavioral changes in the workplace. They compiled a list of key questions, interviewed key managers, and developed a survey that was sent out to 325 managers. Main findings from this project showed that managers perceive training to be effective for improving the workplace. However, regulations are the most important factor for managers to provide workers with training. Also, if there is no standard in place, managers would rely on less time-intensive forms of training. Findings from this project are documented in a 2015 [publication](#) in the *American Journal of Industrial Medicine*.

Several challenges were experienced within this partnership, including the distribution of funds, bureaucratic issues within the university and federal government, and dealing with multiple institutional review boards. Logistical challenges were also experienced, such as reaching managers in different programs and working across different regions. There was also some disagreement between partners concerning claims that could be made after analyzing the data. However, the partnership was successful because pre-existing relationships had provided a baseline level of trust and understanding. Continued communication throughout the process was a key component for the success of the partnership, as awardees held regular meetings, conference calls, and occasional in-person meetings. The partnership included collaborations with evaluation staff and sharing information about how each awardee program conducts trainings.

Craig Slatin, Sc.D., summarized some lessons learned from partnerships experienced within [The New England Consortium](#). For example, to bridge a funding gap when the Civil Service Employees Association joined as a partner, several Consortium members provided a portion of their budget. This demonstrated solidarity needed to generate a sustainable partnership. When updating their computer-simulated training tool, The New England Consortium partnered with NIEHS Small Business Innovation Research awardee [inXsol](#). Following an initial update of the tool, trainers reported that it was not interactive enough. In order to improve the tool, inXsol staff met with trainers and listened to their concerns, feedback, and ideas. This partnership story highlights the importance of communication and incorporating input from all parties to develop an effective solution.

Darrell Hornback, director of health and safety for ICWUC, stated that the program cannot function effectively without partnerships with other organizations. These partnerships create a beneficial fan-out effect, where ICWUC gains access to all of the partners that each organization works with. Although partnerships will not always work out, they are very important to pursue. Hornback encouraged others to utilize the HAMMER model when searching for, developing, and expanding partnerships.

## **Considerations for Next Steps: Establishing and Sustaining Successful Partnerships**

WTP staff and awardees need to think strategically about building partnerships and collaborations. Strong, sustainable partnerships are often the result of knowing each other's strengths and doing extra work. This may require providing assistance with projects for which you may not be funded or performing tasks that are not in the original scope of your program. If you are committed to a partnership and want it to thrive, you should be willing to give a little to serve the partner's needs. This may include helping a partnership organization write and apply for grants or serving on the organization's advisory board. Forming partnerships with organizations that can reach certain people helps broaden the scope of target populations for training efforts. Sharing resources provides a mutual benefit for both partners by reducing costs. In the context of training, it is equally as important to be patient, listen, and allow partnerships to develop naturally over time. As relationships are cultivated, groups can enhance the sharing of resources and critical lessons.

Group discussion provided workshop participants with an opportunity to further elaborate on challenges and best practices related to establishing and sustaining successful partnerships in the context of HAZMAT and public health communities, federal partners, and WTP awardees and organizations.

### ***HAZMAT, Public Health Communities, and Disaster Preparedness***

Several challenges and opportunities exist with respect to encouraging collaboration between WTP awardees and public health communities for HAZMAT and disaster response operations. For example, marketing a disaster response organization is challenging because people don't always see the need for the organization until a disaster happens. Partnerships with [\*National Voluntary Organizations Active in Disaster\*](#) (VOADs) can also be challenging, as they lack the safety and health training needed to properly train volunteers during response efforts.

Other challenges in encouraging collaboration between HAZMAT and public health communities include limited resources, lack of trust, and infrastructure. Communities often experience a certain level of distrust, especially when federal agencies are involved, and may have a general lack of knowledge regarding certain training and response protocols. Some public health professionals simply do not want to partner, and often perceive that HAZMAT trainers lack the experience needed to deal with site-specific issues. Political turf wars are also a common issue between large public health units and HAZMAT agencies. The pre-existing infrastructure of public health departments can present a barrier for collaborative efforts. Individual communities and volunteer organizations are often disconnected from these infrastructures, with little to no knowledge of available health and safety resources. This creates decentralized, fragmented relationships.

Differences in response protocol, perspective, and language barriers present a significant disconnect in communication between trained responders, public health professionals, and communities. For example, the HAZMAT perspective is based on principles of reaction for acute, emergent responses; however, the public health perspective is based on principles of prevention or recovery. Infectious disease has no enforceable standards, and there are different constructs when dealing with infection control, environmental health, and safety at the patient level versus the worker level. These factors, among many others, can create a hierarchy of distorted role perceptions for individuals or groups involved in disaster response.

Public health workers and responders also face some issues when dealing with employers and supervisors. For example, these workers may not be allowed to attend training because their supervisor perceives that HAZMAT training and response is outside of their mission. Furthermore, many first responders (e.g., city workers, police officers, and firefighters) do not get paid to attend HAZMAT training. Employers need to adopt emergency preparedness plans, and workers should be advocating for this in their respective workplaces. WTP awardees are encouraged to offer flexibility in providing training to responders and interested stakeholders.

These challenges underscore several best practices for WTP awardees and HAZMAT organizations to form effective collaborations with public health stakeholders and communities.

**ACTION  
ITEM**

**Establish trust and  
partnerships before a  
disaster occurs**

Workshop participants offered ideas on ways to increase the visibility of an organization or establish partnerships before a disaster occurs. For example, organizations can educate people, potential partners, and stakeholders by providing a real-world context – this would help them understand the direct implications by portraying the context and risk environment. Awardees should use outreach strategies to identify needs and interests, and offer incentives (e.g., free training courses) for workers to attend. A marketing and outreach budget for WTP awardees would be useful in creating visibility for available HAZMAT training. Relationships and trust need to be established with communities before a disaster hits. Awardees should look at partnerships with VOADs as an opportunity to educate volunteers, and bring safety and health to the culture. VOAD leaders need to be educated so that they understand their volunteers' risk and need for training.

Communities should be invited to the table as partners, and should then be asked what their needs are pertaining to HAZMAT and disaster preparedness (e.g., trainers or resources). There is a need to enhance communication and foster understanding of HAZMAT capabilities with public health officials and stakeholders. This can be achieved by finding a local individual who can connect HAZMAT to the public health system, or having medically-trained people on HAZMAT staff who can help develop or facilitate training. A facilitated forum to discuss common interests between HAZMAT professionals and public health communities would also enhance communication. WTP awardees can work to share resources, initiate funded partnerships, and provide training in the context of the incident command system (ICS) for public health stakeholders and communities. Extra funding and resources are needed to develop programs and exercises between HAZMAT and public health communities.

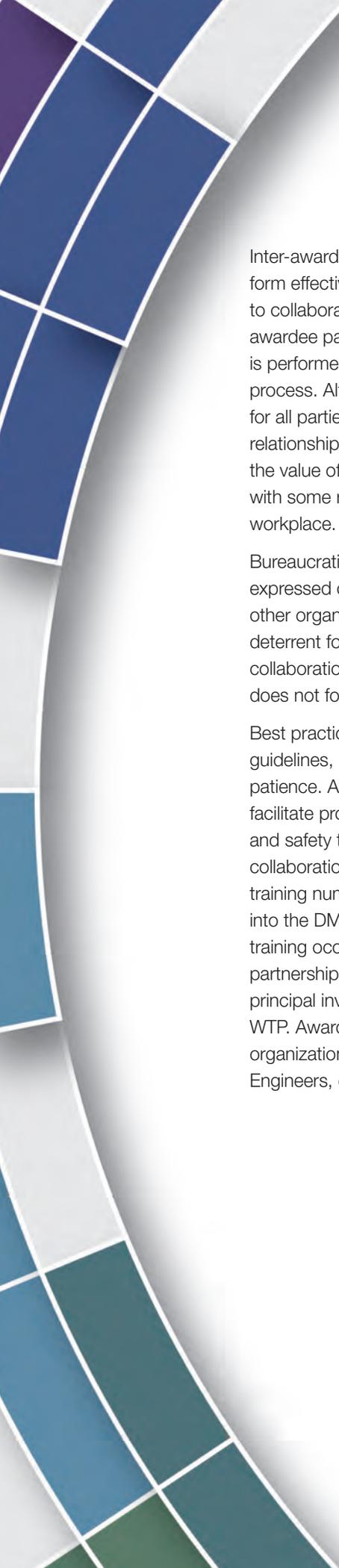
### ***Government, Organizational, and Inter-awardee Partnerships***

WTP awardees face challenges in establishing and maintaining partnerships with federal, state, and local government agencies. Identifying mutually beneficial collaborations between awardees and these agencies can also be difficult. Having partners across these levels often presents the challenge of working with people who have different timelines and capacities. Administrative and managerial issues such as lack of leadership, turnover, or changes in departmental contacts create difficulty in maintaining these partnerships. Sometimes, it can be difficult to get managers to buy into training. Limited funding and competing regulations between WTP awardees and agencies also present a barrier. Some government agencies are very rigid with little flexibility in curricula, which hinders the effectiveness of training.

Some best practices and ideas to enhance partnerships with federal, state, and local government agencies include outreach, communication, sharing of resources, and working within each agency's area of strength. Creating clear lines of communication and allowing government agencies into training via incentives without cost can create more sustainable relationships. WTP staff and awardees need to develop a plan for marketing training services and create more opportunities for outreach to state agencies and hospitals. Identifying greater opportunities for these partnerships may require development of unsolicited proposals by NIEHS.

#### **ACTION ITEM**

**Market and capitalize on strengths to increase government and inter-awardee partnerships**



Inter-awardee partners may have differences in time scales and flexibility, which hinders the capacity to form effective collaborations. Funding and distance for face-to-face interaction also present a barrier to collaboration between WTP awardees. Other unique challenges in forming and maintaining inter-awardee partnerships include the reporting of training numbers and sharing of funding when joint training is performed. These discussions and agreements should be dealt with upfront as part of the partnership process. Although negotiation is not always easy, there is a need to create a mutually beneficial situation for all parties involved. These are often difficult conversations to have, but defining the parameters of the relationship in the beginning stages is part of establishing a successful partnership. It is important to realize the value of partnering with and involving smaller organizations within consortiums, as it provides them with some release from funding pressures while continuing to build the health and safety culture of the workplace.

Bureaucratic hurdles can also be a barrier to forming inter-awardee partnerships. Some participants expressed concerns with how training numbers and cost per student are reflected when partnering with other organizations, and whether it impacts NIEHS funding decisions. Others mentioned the DMS as a deterrent for collaboration, and requested that a field be added to indicate training as a result of collaboration. Beard stated that NIEHS looks mostly at whether the training is reasonable and justified, and does not focus on cost per student or similar metrics.

Best practices for inter-awardee collaborations include establishing guidelines, sharing resources, and demonstrating flexibility and patience. Awardees should be cognizant of partnerships that would facilitate proposals and funding for additional worker education and safety training. Moving forward, strategies to increase these collaborations would include addressing the allocation issue of training numbers between partners. A field should be incorporated into the DMS that asks if training numbers are shared or if joint training occurs with other awardees. In considering inter-awardee partnerships, there is also a need to focus on the transition of principal investigators and mentorship of new members of the WTP. Awardees could potentially focus on partnering with trade organizations such as the American Industrial Hygiene Association, the American Society of Safety Engineers, or the American Public Health Association.

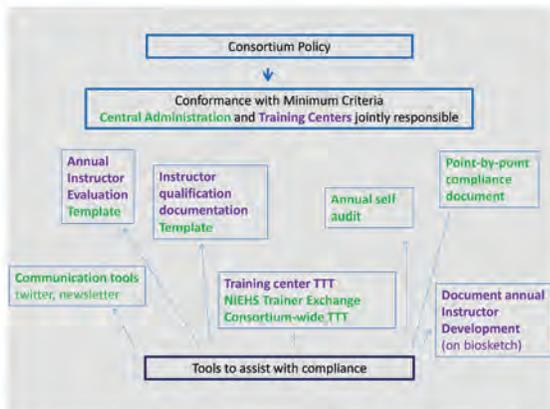
**HIGHLIGHT**

**LIUNA and Nova  
Southeastern University  
spoke of a newly formed  
partnership**

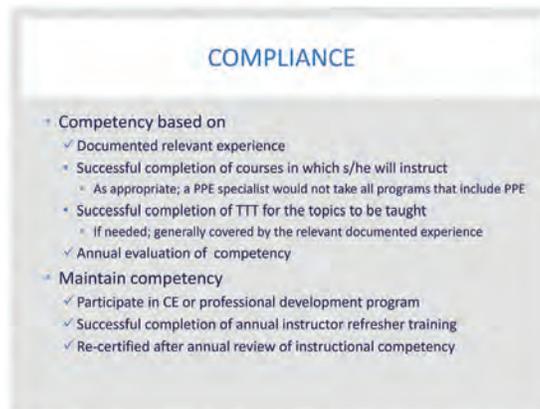
## INSTRUCTOR DEVELOPMENT PROGRAMS (IDPs)

Instructors and peer trainers are important and form the base of the WTP. This session was used to share best practices and provide an overview of where the WTP currently stands with implementation of IDPs. The NIEHS [Minimum Health and Safety Training Criteria document](#) (Minimum Criteria) provides guidelines on how to set up training programs, and how to develop programs within the structure of an organization.

Carol Rice, Ph.D., principal investigator of the [Midwest Consortium](#) HWWTP, shared some of their best practices that are used to implement IDPs and assure trainer proficiency. The Minimum Criteria outlines important principles that are needed for instructors to obtain and maintain training competency. The Midwest Consortium includes a host of training centers that are very diverse, so they experience challenges with respect to balancing institutional and Consortium requirements. Therefore, the Consortium utilizes several methods to assist training centers with conformance to the Minimum Criteria, such as communication tools (Twitter and newsletters), annual self-audits, annual instructor evaluations, and instructor qualification documents (Figure 4). Compliance is based on several factors related to competency, including documented relevant experience, successful completion of courses, and train-the-trainer topics. Instructor competency is maintained by participating in continuing education or professional development programs, refresher training, and recertification (Figure 5).



**Figure 4:** The above figure illustrates some of the methods that the Midwest Consortium uses to assist trainers at different training centers with conformance to the Minimum Criteria. (Figure courtesy of Carol Rice presentation for WTP fall 2015 workshop)



**Figure 5:** The above figure lists the factors that are considered for instructor competency at the Midwest Consortium. (Figure courtesy of Carol Rice presentation for the WTP fall 2015 workshop)

John LeConche, principal investigator for the [LIUNA Training and Education Fund](#) (LIUNA), shared some best practices that are utilized by their organization for implementing IDPs. LIUNA has a long history of instructor training and certification, dating back to 1969. LeConche has learned that if the training certification doesn't relate to the instructor's personal needs or wants, it will mean nothing to them. The basis of instructor certification at LIUNA comes from the Minimum Criteria. No matter their background, all instructors start from ground zero and complete a baseline assessment to measure their knowledge



and teaching, math, reading, and computer skills. Following the baseline assessment, all instructors are required to complete a teaching assessment which includes specific sessions on lesson planning, teaching, and reflection. Instructors are required to complete different teaching and learning-centered online courses over the course of two years. LIUNA ensures the standardization of new courses by using a specific set of criteria for curriculum development. Each piece of curriculum, whether it is for trade or construction, follows the same criteria. Furthermore, LIUNA offers a certification test that is accredited by the [International Accreditation Service \(IAS\)](#) and the [American National Standards Institute \(ANSI\)](#). LeConche stated that LIUNA spent over \$1.2 million in terms of the commitment to instructor certification. Fees spent on maintaining certification from IAS and ANSI were about \$24,000 per year.

Elizabeth Harman, principal investigator for the [International Association of Fire Fighters \(IAFF\)](#), echoed the importance of the Minimum Criteria, particularly for HAZMAT. Harman has found that this document can be very foreign when dealing with other organizations, as many don't know that it even exists. Other federal agencies, such as DOT, often have different expectations compared to NIEHS. Some federal partners like to control the development and implementation of curricula, which limits flexibility. In addition to an annual recertification test, IAFF utilizes a mentoring program where seasoned instructors are paired with new instructors to offer advice on teaching and instructing basic courses prior to advanced courses. This mentoring program helps break down barriers between instructors. IAFF also utilizes innovative approaches to assist instructors, such as the Instructor Resource Center, a Web-based tool, and Elmo, a projector tool used to display information from electronic devices (e.g., phones and tablets).

With regard to career paths for LIUNA instructors, some are highly variable depending on the training center or academic unit. There is no intricate layout for developing separate career paths for instructors who are involved in community groups, as they usually continue to serve their community. In other cases, there are definitely career paths for individuals beyond becoming instructors. For example, several instructors have moved on to become apprenticeship coordinators. They also serve as subject matter experts when developing new curricula or train-the-trainer modules. Most instructors have been with LIUNA long-term, for 20-30 years.

With the IAFF it is different, as all instructors' careers are established. "If they are in it for the money, then they are in it for the wrong reason," Harman stated. Most of the IAFF instructors are very passionate about teaching and it is often difficult to get them outside of the classroom, such as those in state fire training academies. Most of the instructors are appointed for a three-year term, where they report and respond to local presidents. Instructors are front-line firefighters. They complete and submit a re-evaluation form every year that is signed by the local president. They then reapply at the end of every three-year term. Some instructors have been with IAFF for more than 20 years.

Other participants commented on the issue of training instructors around the approach to chemical standards. Occupational Safety and Health Administration (OSHA) standards are not currently protective of worker health. It is important and fundamental to educate instructors about navigating these standards. The Minimum Criteria should be updated to reflect this. Hughes stated that the topic of chemical regulations in the workplace was the basis of the WTP spring 2015 workshop held in Portland, Oregon. The report from this workshop is available on the [workshop website](#).

## Considerations for Next Steps: Enhancing the Implementation of IDPs

Workshop participants provided thoughts on challenges for the implementation of IDPs. Size is an issue for some awardee consortiums: having a larger organization makes it more difficult to create classroom opportunities, whereas smaller organizations experience challenges in funding, access to qualified instructors, and limited capacity to establish or manage IDPs. Differences in skill level between instructors, experienced versus non-experienced, can create difficulty in implementing effective IDPs. Additionally, working professionals have limited time to participate or contribute to IDPs.

Best practices for implementation of IDPs are largely dependent upon the target group. WTP awardees should capitalize on resources and relationships with other local entities and awardees to implement IDPs. Participants mentioned networking and use of social media or innovative technologies as effective practices for IDPs. IDP curricula should be exciting, interesting, and fun to keep students engaged.

Participants elaborated on goals and future ideas to enhance the implementation of IDPs. NIEHS could develop a training document, guideline, or handout on adult education to be used for IDPs. Standardized training per the Minimum Criteria, as well as an annual evaluation process, are needed for IDPs. Mentoring programs and recertification processes are also needed for instructors at all sites. The use of blended approaches, hands-on activities, and ancillary trainings would also be useful for enhancing IDPs. For example, tablets, e-learning, simulations, or YouTube videos would be useful for students and instructors. The use of distance learning technologies, clickers, or other audience participation devices would also be effective.

Workshop participants also provided several action items regarding future WTP Trainers' Exchange meetings. Forthcoming meetings should focus on the exchange of information and cross-pollination of ideas that would result in practical tools, techniques, and exercises to take back to organizations. There should be a larger focus on training strategies and hands-on operations to improve training versus basic subject matter materials.



ACTION  
ITEM

**Use innovative  
strategies to  
enhance IDPs**

## WTP AS A NATIONAL RESPONSE AND RECOVERY TRAINING RESOURCE: WHAT IT MEANS FOR AWARDEES

Jim Remington, program analyst for the WTP, reminded awardees that every disaster is different. It is important to make sure that responders are mentally prepared when they go out into the field. Although they may face restrictions to certain populations given regulations from other response agencies, awardees must be prepared for various circumstances and keep audience and population diversity in mind for response (e.g., cultural norms, literacy level).

Ron Snyder, director of health and safety training for the [National Partnership for Environmental Technology Education](#) (PETE), described his group's experience working on disaster relief efforts for Hurricane Katrina, where they had to figure out how to deliver training as quickly as possible. "In this situation, we had to focus on just-in-time, just-enough training," Snyder stated. "We had to modify, adapt, and adjust the training approach."



**Remington elaborates on disaster response and recovery needs. Remington participated in a ZMapp clinical trial in Sierra Leone during the fall of 2015. His rich experience will be particularly useful moving forward with the NIEHS Ebola Biosafety and Infectious Disease Response Training Initiative. (Photo courtesy of Steve McCaw)**



**Snyder (right) elaborates on the concept of just-in-time, just-enough training for disaster response efforts. (Photo courtesy of Steve McCaw)**

Snyder elaborated on the concept of just-in-time, just-enough training. This type of training is delivered based upon critical knowledge for workers to protect themselves. There has to be a hazard assessment of needs to tailor the appropriate response and educate people on acute and chronic effects. Realistically,

in day-to-day training, it is not possible to take into account every situation given limited time. If nothing else, the basic instructions should be provided. Nothing is accomplished by putting workers in a haphazard position, because down the road it will be very costly.

When training workers who are responding to national disasters, PETE talks to them about things that they will see (e.g., fatalities) and things they will have to deal with after the disaster. Snyder and others do their best to prepare workers to respond to hazards on the spot, and remain in communication with them on a daily basis.

PETE dispensed many flood training booklets to help people prepare and respond to the aftermath of Hurricane Katrina. Following Hurricane Sandy, trainers from the United Steelworkers' Tony Mazzocchi Center walked through devastated communities, handing out booklets and talking to affected individuals. "It's a real tribute to NIEHS as awardees work to deliver training and continue to know how, why, and where to take action," Snyder stated. "This ensures that many groups are prepared to respond at a state and national level."

Executive Director Charlene Obernauer provided an overview of the training provided by the [New York Committee for Occupational Safety and Health](#) (NYCOSH), an organization that has been providing training to keep workers safe for nearly 36 years. NYCOSH has been involved in the [New Jersey/New York Consortium](#) to offer hazardous materials worker training for 27 years. This work has expanded to include response, recovery, and preparedness efforts for disasters, including the World Trade Center and Hurricane Sandy. For example, they have worked together to offer respirator training, as well as training to respond to the Ebola epidemic and 9/11-related illnesses. They utilize a disasters and policy advocacy model to assist with problem identification, monitoring, and evaluation. Obernauer stated that good policy requires good partners.

When performing disaster response training, Obernauer mentioned that NYCOSH's [World Trade Center Health Program](#) provides a useful model to emulate. Through this program, they have looked at the exploitation of day laborers and undocumented workers. They also tracked the 10 worst violators of wage theft, since contractors have been known to steal money and are often known as disaster chasers. NYCOSH's work to expose this problem has helped underscore the need for improved contractor standards.

In terms of recent successes and milestones, NYCOSH recently welcomed two new staff personnel. NYCOSH members held a train-the-trainer program for youth where they trained young people on knowing their job rights. This population needs people in the communities to do health education, according to the total worker health model. NYCOSH held a panel discussion on disaster preparedness and provided essential information for workers on the Ebola virus. NYCOSH has also authored publications on different topics, including disaster economics, airport safety, and stories about the World Trade Center response. They are focused on the intersection between training, policy, and education in all of the projects and campaigns they work on. This includes climate justice and healthy nail salons.

Don Ellenberger provided an overview of CPWR's involvement in disaster response. Ellenberger described how some of their involvement with disaster response with the Building Trades Council required bargaining with the mayor's office and employers to get health and safety plans developed and implemented. This process took a long time, but eventually was accomplished. Unions were in a position to insist on health and safety plans, and CPWR was able to develop a successful training program based on the health and

safety plan. The training was site-specific, and included recommendations on respiratory protection. Local partners also served in the role of trainers.

NIEHS has provided CPWR with support for disaster response, which has yielded great success. For example, no fatalities were experienced during the cleanup of the World Trade Center. In this case, OSHA went into a nonenforcement mode and was doing only consultation. This was unfortunate since standards are put in place to protect workers and the most vulnerable people. During Hurricane Katrina efforts, CPWR was able to provide training, but it wasn't enough. Many trainers were too emotionally compromised to teach, and this could have turned into a real problem. Trainers are no less immune to disaster circumstances than anyone else, particularly if they live in the impacted community. CPWR delivered training to 2,000 workers in the aftermath of Hurricane Katrina. Again, OSHA enforcement was suspended during these cleanup efforts.

Participants further discussed approaches to prepare for and address the contamination of hazardous materials, especially mold. Clearinghouse representative Jonathan Rosen mentioned that disaster response after Hurricane Sandy presented a daunting challenge due to an inadequate ICS and poor coordination between groups. To prevent such situations from occurring again, Rosen and other participants said that improved communication and coordination should take place between volunteer groups, homeowners, and faith-based groups. This should involve clarifying objectives and coordinating resources among all involved parties, while also conducting a hazard assessment to identify the most harmful threats.

## Considerations for Next Steps: Moving Forward as a National Response and Recovery Resource

WTP awardees face several challenges in post-disaster training, including limited funding to deploy trainers to disaster cleanup sites and restricted access to adequate training facilities. There is also some difficulty in contacting nontraditional populations, as well as gaining trust and overcoming language barriers with non-English speakers. Inadequate communication and collaboration with agency representatives has also presented a barrier for awardees' participation in national response and recovery.

Workshop participants highlighted several action items to further improve the WTP's capacity as a national response and recovery resource. Awardees should be flexible and leverage partnerships with other training organizations that have resources and enhanced training capabilities. Stronger community- and agency-based partnerships would facilitate WTP awardees' response and recovery efforts. Dissemination of toolkits and training manuals to disaster-impacted groups would further assist populations in responding locally. Awardees need to establish a cadre of trainers and help get them authorizations and certifications. Using lessons learned from previous disasters, such as hurricanes Katrina and Sandy, awardees need to better prepare disaster workers and responders for what they might see, as well as the issues that can come up during response. It is important to place more emphasis on mental health issues (e.g., post-traumatic stress disorder) for trainers and trainees who are being deployed for disaster response. Workers can become distracted by their concern for families during a disaster, and in this case they should be reminded that family comes first.

### ACTION ITEM

**Place greater emphasis on potential mental health issues for deployed trainers and trainees**

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## CONCLUSIONS

Although they face pressing political, structural, and financial challenges, WTP staff and awardees are hopeful about leveraging program collaborations, strengths, and data as they transition into a new funding cycle for 2015-2020. Conversations from this workshop undoubtedly set the stage for forthcoming actions that will further demonstrate the successes and legacy of the WTP.

Partnerships are a meaningful aspect of the WTP, all of which occur at the federal, state, organizational, community, and inter-awardee level. Some partnerships are more successful than others. Key components of a successful partnership include negotiation, communication, and mutual respect. A partnership is like any relationship – everyone has to bring something to the table, be open to ideas, and demonstrate flexibility. There is a need from both sides involved for the partnership to work and exist. When this need goes away, the partnership dissolves. Enforcement from the regulatory community often drives this need; when regulation is not there, the need for partnership often dissolves. It is important to establish the parameters of partnerships upfront and learn to work with and utilize each other's strengths to ensure that efforts are not duplicated. Since each partnership is different, there is a need to do whatever works with that particular partner. Inherent differences need to be recognized and respected between partners to avoid downstream issues. Establishing partnerships with communities and public health stakeholders before a disaster occurs is extremely important for HAZMAT awareness and training. Although some bureaucratic and structural challenges exist when partnering with government, organizations, and other awardees, these partnerships enable the sharing of resources and enhance the capabilities of awardees to reach different populations. Partnerships, at any level, can be used to enhance several aspects of the WTP, including data collection, training evaluation, IDPs, and disaster response and recovery efforts.

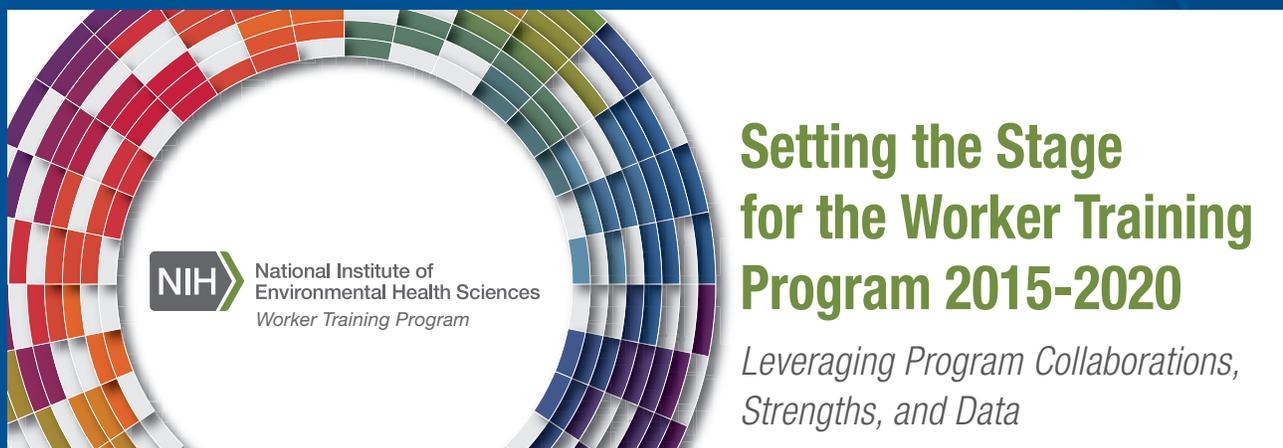
There is an increased need to expand ideas for data collection and evaluation, and to align these ideas with strategic priorities of NIEHS and the WTP. Although awardees face several barriers in this area, collaborating with partner agencies and use of multilevel tools or incentives could potentially enhance trainee contact and follow-up. Greater emphasis is needed on Level 3 evaluations to determine practical changes in workers' behaviors post-training. Stories and anecdotes are a great way for trainees and workers to share how training has impacted their day-to-day functions within and outside the workplace. The recent push for data science and big data priorities at NIEHS underscores the need for methods to expand upon and leverage the existing wealth of training and outcomes data that WTP awardees report. The ECWTP economic impact report provides a great example of reporting and justifying the federal return on investment and significance of the WTP.

The enhancement of IDPs calls for further implementation of the Minimum Criteria to be sure that instructors' skill sets are standardized across all sites. Evaluation and recertification processes are needed to ensure that instructors' skill sets are maintained for training purposes. Training certification should relate to instructors' personal interests and needs. Mentoring programs are useful in providing novice instructors with knowledge as it is passed on from more experienced instructors. Innovative and blended hands-on strategies are needed to make IDP curricula fun, exciting, and engaging. Although career trajectories vary for instructors based on field, experience, and interest, IDPs offer a wide range of basic, yet applicable skill sets that can be useful in different job settings and activities.

Disasters happen in several places and in several different capacities, yet the WTP is strongly prepared



to address this response and recovery at the national level. WTP awardees have embodied meaningful training approaches for disaster response, and are well-positioned to adjust these approaches within and outside the classroom setting. Awardees are also capable of assisting disaster workers and impacted groups with issues related to resiliency, stress, and trauma; however, greater focus is needed on specific safety and health hazards. Experiences from disasters such as the World Trade Center, Hurricane Katrina, and Hurricane Sandy, have offered awardees several lessons to better prepare workers and trainees for issues during and after deployment. Enhanced communication and collaboration with local communities, agencies, and volunteer organizations is needed for effective disaster response and recovery efforts. WTP staff and awardees look to improve these capabilities, to engage, and to contribute to disaster research and response initiatives such as the NIH DR2 Project.



SEPTEMBER 29-30, 2015 • Research Triangle Park, North Carolina

# Fall Workshop Agenda

## Tuesday, September 29, 2015

9:00–9:10 a.m. **Welcome** ..... *Rodbell Auditorium*  
*Joseph “Chip” Hughes, NIEHS*

9:10–9:30 a.m. **The Worker Training Program and the NIEHS Strategic Plan**  
*Gwen Collman, PhD, NIEHS*

9:30–10:00 a.m. **Looking Forward: Mission, Vision and Expectations**  
*Chip Hughes, NIEHS and Don Elisburg, National Clearinghouse*

10:00–10:15 a.m. **Break**

10:15–11:30 a.m. **The Importance of Data and Evaluation**

This session will provide an overview of the importance of evaluation for the Worker Training Program and possible next steps for enhancing WTP evaluation. Additionally, examples of economic and outcome evaluations done within the WTP will be discussed.

**MODERATOR:** *Demia Wright, NIEHS*

- *Demia Wright, NIEHS – Overview of current WTP evaluation efforts, future evaluation needs, and ideas for next steps to advance WTP evaluation in the new funding cycle*
- *Judy Deltuva, University of Michigan/UAW – Examples of and lessons learned from Level 3 evaluations*
- *Ruth Ruttenberg, Ruth Ruttenberg & Associates/Chemical Workers, Midwest Consortium, CPWR, and Rail Workers – Examples of and lessons learned from Level 3 evaluations via WebEx*
- *Sharon D. Beard, NIEHS – Economic impact report from ECWTP*

### **SMALL GROUP DISCUSSION QUESTIONS:**

- What data do you collect in addition to what WTP requires for input to the DMS?
- What factors are associated with success? What different measures do people use at various points on the logic model?
- What are creative ways to collect anecdotal information, including the potential of leveraging funds to do longer term interventions and/or trials to follow certain worker cohorts over time?

- Where should we strategically publish our successes and findings to bolster importance of the program? This could include scientific journals or non-scientific magazines such as National Safety Council, OS&H Magazine, etc.

11:30 a.m.–12:30 p.m. **Public Health and HAZMAT: Encouraging Collaboration**

The overall goal of this session is to discuss how connectivity can be created and enhanced between HAZMAT and public health communities. One goal of the WTP, per the program logic model, is to develop organizational connectivity around specific grantees and communities. Several state and local public health relationships have been established, and the success of WTP is dependent on these types of relationships. Grantees can accomplish this through a variety of methods, including community advisory boards, consortia, training teams, etc. The broad topic of risk communication will also be addressed during this session.

**MODERATOR:** *Jim Remington, NIEHS*

- *Janelle Rios, University of Texas at Houston*
- *Linda Delp, UCLA-Labor Occupational Safety and Health Program (LOSH)/Western Region Universities Consortium*
- *Aubrey Miller, NIEHS, Office of the Director, Bethesda*

**SMALL GROUP DISCUSSION QUESTIONS:**

- How can you market your organization as a resource to your community?
- What organizations do you partner with day-to-day versus only during disasters?

12:30–1:30 p.m. **Lunch**..... NIEHS cafeteria

1:30–2:30 p.m. **Partnerships Session 1: Engaging with Other Departments/Agencies, Including Federal, Regional, and Local Governments and Other Organizations**

This session presents an opportunity to discuss the thematic area of partnerships for the WTP. WTP partnerships have extended far beyond disaster response.

**MODERATOR:** *Chip Hughes, NIEHS*

- *Natalie Grant, Office of the Assistant Secretary for Preparedness and Response (ASPR), via WebEx*
- *Patricia Aldridge, U.S. Department of Energy, HAMMER*
- *Mollie Dowling, OAI, inc.*

**SMALL GROUP DISCUSSION QUESTIONS:**

- How were the partnerships developed?
- What helps make your partnerships sustainable?
- Are the challenges the same at each level of government? Or are there better opportunities or fewer barriers at a particular level?
- What are the lessons learned?

2:30–2:45 p.m. **Break**

2:45–4:00 p.m. **Partnerships Session 2: Partnering with Other Awardees and Other Organizations – Leveraging Your Resources**

**MODERATOR:** *Joseph “Chip” Hughes, NIEHS*

- *Kevin Riley, UCLA-LOSH/Western Region Universities Consortium*
- *Craig Slatin, University of Massachusetts Lowell, New England Consortium*
- *Darrell Hornback, International Chemical Workers Union Council*

**SMALL GROUP DISCUSSION QUESTIONS:**

- If you have partnered with other grantees, what are some of the best practices you’ve discovered in partnering activities?
- Under what circumstances were these partnerships created?

- What are the lessons learned from these partnerships?
- Have the partnerships been sustainable, if not, why?

4:00–5:30 p.m. **Poster Session**

Each grantee poster will share the project/s they are most excited about implementing during the next five years.

## Wednesday, September 30, 2015

9:00–10:15 a.m. **Instructor Development Programs** ..... *Rodbell Auditorium*

This panel will share best practices in instructor development programs and provide an overview of where the WTP is currently with implementation of IDPs, how to develop worker trainers and the role of trainers exchanges

**MODERATOR:** *Sharon D. Beard, NIEHS*

- *Carol Rice, Midwest Consortium*
- *John LeConche, LIUNA Training*
- *Elizabeth Harman, International Association of Fire Fighters*

**SMALL GROUP DISCUSSION QUESTIONS:**

- What is the role of the trainers' exchanges in developing trainers?
- Are there new innovations in train-the-trainer/instructor development training that you are utilizing that can be considered a best practice?
- How do you as a consortia use the Minimum Criteria to hold your consortium partners accountable?
- Are there E-learning tools and resources such as social media or other innovations that you are using to share and exchange resources with your instructors or trainers?

10:15–10:30 a.m. **Break**

10:30 a.m.–12:00 p.m. **WTP as a National Response and Recovery Training Resource: What it Means for Grantees**

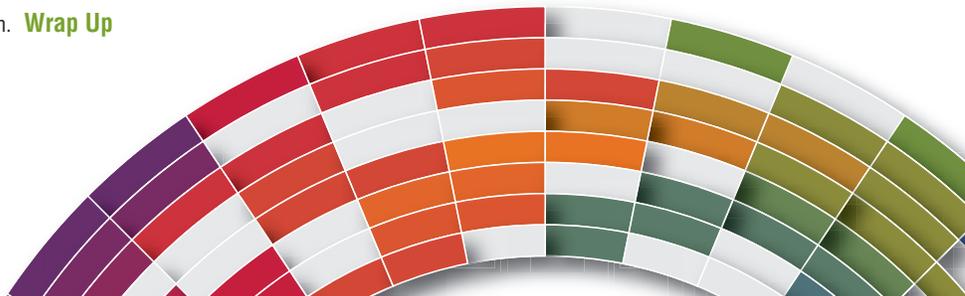
**MODERATOR:** *Jim Remington, NIEHS*

- *Ron Snyder, National Partnership for Environmental Technology Education*
- *Charlene Obernauer, NYCOSH*
- *Don Ellenberger, CPWR-The Center for Construction Research and Training*

**SMALL GROUP DISCUSSION QUESTIONS:**

- If your organization has deployed trainers post disaster, what lessons learned have they shared with you?
- How did your organization's deployment benefit your organization? How did it benefit WTP? How did it benefit the community?
- If your organization has not deployed trainers following a disaster, what are some of the reasons why not? What do you think would help you overcome those obstacles?
- During disasters there is typically a need to train populations other than our traditional target populations. But this also creates challenges. Discuss whether you feel it is important for this program to engage in training these other populations, and the challenges it may present for your organizations.

12:00–12:15 p.m. **Wrap Up**





**National Institute of  
Environmental Health Sciences**  
*Worker Training Program*

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