

## International Chemical Workers Union (ICWU) Snapshot:

<b>DOE TRAINING:</b>
<b>Principal Investigator:</b>
<ul style="list-style-type: none"> <li>Frank Cyphers</li> </ul>
<b>Evaluator(s):</b>
<ul style="list-style-type: none"> <li>Ruth Ruttenberg, Evaluation Consultant</li> </ul>
<b>Grant Number:</b>
<ul style="list-style-type: none"> <li>ES09758</li> </ul>
<b>Goal(s) of Evaluation:</b>
<ul style="list-style-type: none"> <li>Participant evaluations intended to identify learning needs at the beginning of the program and to measure fundamental skills relating to each module.</li> <li>Determine how to efficiently measure worksite changes and participant effectiveness.</li> </ul>
<b>Evaluation tools:</b>
<ul style="list-style-type: none"> <li>Site specific tests and participant evaluation methods.</li> <li>Pre-/ post- test used for most courses that are longer than one day.</li> <li>Feedback from the trainers' report is collected.</li> <li>In grant year 2012, a Quizdom machine (allows each student to answer individually, shows immediate review of percent of answers correct, and information is reviewed by entire class if a student misses a question) is used.</li> <li>Two review game exercises have been developed to determine if training is effective: "Hazmat Pursuit" and "Hazmat/Toxic Jeopardy". These games, because all questions are read aloud, can also be compared to written tests to identify any literacy problems.</li> <li>Long-term evaluation project for follow up of DOE participants. Site-specific information gathered regarding the use of resources and ability to improve work place conditions (important questions regarding the perceived lack of need by participants to improve their working conditions raised).</li> <li>The Center Director and DOE Coordinator periodically audits programs, especially new programs as they are being piloted.</li> </ul>
<b>Population Served:</b>
<ul style="list-style-type: none"> <li>DOE workers with a range of hazardous substance responsibilities</li> <li>Women and minority participants are encouraged to participate in programs</li> </ul>
<b>Types of Courses/ Training Curricula Offered:</b>
<ul style="list-style-type: none"> <li>Include train-the-trainer courses, 40 hour CERCLE, 24 hour Bridge, an Emergency Response class, Treatment Storage and Disposal classes, and refresher courses</li> </ul>
<b>Trainers:</b>
<ul style="list-style-type: none"> <li>On site worker-trainers from the shop floor who have completed the Chemical Emergency Response program followed by the train-the-trainer program</li> <li>Training and development of trainers is a key objective of this program</li> </ul>
<b>Proof of effectiveness/value?</b>
<ul style="list-style-type: none"> <li>In the 2012 report, almost half of trainees said that they had tried to make changes in health and safety at their DOE facilities in areas such as gloves, respirators, and chemical protective clothing. Of those who had attempted to make changes, 65% reported being successful.</li> </ul>
<b>Most beneficial aspects/well received methods:</b>

- The ongoing analysis and monitoring of scores continues to be an effective quality assurance tool both of the participants and the trainers.

<b>HDPT TRAINING:</b>
<b>Principal Investigator:</b>
<ul style="list-style-type: none"> <li>• Frank Cyphers</li> </ul>
<b>Evaluator(s):</b>
<ul style="list-style-type: none"> <li>•</li> </ul>
<b>Grant Number:</b>
<ul style="list-style-type: none"> <li>• ES06162</li> </ul>
<b>Goal(s) of Evaluation:</b>
<ul style="list-style-type: none"> <li>• To identify learning needs at the beginning of the program and to record improvements that have occurred over each class.</li> </ul>
<b>Evaluation tools:</b>
<ul style="list-style-type: none"> <li>• Use of pre-/post-tests. All tests are administered anonymously.</li> <li>• Survey measures for before and after training include: students' use of the web and resource materials introduced during training, the amount of secondary training, trainee attempts in obtaining workplace change, and trainee successes in obtaining workplace change.</li> <li>• For the plume evaluation, the emphasis is the use and application of the software and the basic shelter in place principles rather with less emphasis on change in the workplace, as was on the previous evaluation projects.</li> <li>• Plans to hold a focus group and based on this discussion to update the questionnaire used.</li> <li>• One type of follow-up information gather is regarding spills, the number of serious chemicals spills or accidents that occurred before training and six months after training are compared.</li> <li>• Plans to contact past participants and use open ended questions to determine what information has proved to be the most useful.</li> <li>• Educational staff assists with most programs and can give each other feedback.</li> </ul>
<b>Population Served:</b>
<ul style="list-style-type: none"> <li>• Those involved in HazMat disaster relief and work</li> <li>• Women and minority participants are encouraged to participate in programs</li> </ul>
<b>Types of Courses/ Training Curricula Offered:</b>
<ul style="list-style-type: none"> <li>• Include First Receiver, Chemical Plume Software, Disaster HAZWOPER, First Aid/CPR, Train the Trainer</li> </ul>
<b>Trainers:</b>
<ul style="list-style-type: none"> <li>• Worker-trainers</li> </ul>
<b>Proof of effectiveness/value?</b>
<ul style="list-style-type: none"> <li>• In the 2012 report in pre training there were 17% report evacuations, while in post training there were 65%. In the majority of the results, however, there is noticeable consistency between pre and post data.</li> </ul>
<b>Most beneficial aspects/well received methods:</b>
<ul style="list-style-type: none"> <li>• Instructors and trainers learn to read the text of problems and questions to ensure that all participants fully understand the material regardless of literacy level.</li> </ul>

## **HWWT TRAINING:**

### **Principal Investigator:**

- Frank Cyphers

### **Evaluator(s):**

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### **Grant Number:**

- ES06162

### **Goal(s) of Evaluation:**

- Identify learning needs at the beginning of the program and to record improvements that occur
- Evaluate how well used training materials are following training

### **Evaluation tools:**

- Gather pre-and post-test data from all participants attending the Center's courses in Cincinnati and field hands on programs. Tests administered anonymously. Individual scores compared within each session and to the average score for all previous sessions
- Measures used on pre and post training questionnaires include student's use of the web and resource materials introduced during training, the amount of secondary training, trainee attempts and successes in obtaining workplace change, and occurrence and handling of workplace spills.
- A part time employee conducts post-training phone calls typically six to eight months after the initial training date. This employee is blind to the results of the pre-training questionnaire.
- Anecdotal success stories from participants are collected.
- A follow up questionnaire asking whether participants have accessed the web in the last 6 months, if they have accessed health and safety web sites, and if so, which sites. Comparing this data to pre training data from the 2004 American Journal of Industrial Medicine on question identical to those in the post questionnaire.

### **Population Served:**

- Workers with collateral duty who respond to a variety of emergencies in industrial, school, government, health care and community settings
- Train-the trainer courses intended to teach workers how to conduct participatory health and safety training back at their locals
- Women and minority participants are encouraged to participate in programs

### **Types of Courses/ Training Curricula Offered:**

- Include Mold Remediation, First Aid/CPR/AED classes, Workforce Development, Safety Computer Skills, Plume Software, Train-the-trainer courses

### **Trainers:**

- Worker-trainers used

### **Proof of effectiveness/value?**

- In 2012, participants correctly answered, post training, between 78 to 96% of the time and generally show improvement and show very similar improvement over the last few years.
- The 2012 report states that students are coming into the program with more information and they need to adjust our curriculum accordingly. Representative of a general increase in health and safety knowledge in the population.
- Comparisons of paired data from pre- and post- training responses reveal that the intervention of the ICWU Center's program motivates, educates, and arms these workers with skills to return to their worksite and make dramatic improvements in site safety plans and procedures

- In 2012, following training all except one for the first participants are above 90% with respirator success at 67%

**Most beneficial aspects/well received methods:**

- Empowerment and participatory training philosophy.
- Because it is often difficult to determine if a participant has a literacy problem, all modules are interactive and primarily conducted verbally so that all participants can learn the material without being singled out.