

## UMDNJ Snapshot:

<b>HDPT TRAINING:</b>
<b>Principal Investor:</b>
<ul style="list-style-type: none"><li>Audrey R. Gotsch</li></ul>
<b>Evaluator(s):</b>
<ul style="list-style-type: none"><li>Louise Weidner</li></ul>
<b>Grant Number:</b>
<ul style="list-style-type: none"><li>U45ES006179</li></ul>
<b>Goal(s) of Evaluation:</b>
<ul style="list-style-type: none"><li>To assess trainee opinions of trainers, instruction/technical instruction, facilities, activities, materials, equipment, the meeting of course objectives and the course overall</li><li>To elicit trainee input for program improvement</li><li>To assess content knowledge through written examination</li><li>To assess proficiency of critical hands-on skills and competencies</li></ul>
<b>Evaluation tools:</b>
<ul style="list-style-type: none"><li>Course evaluation surveys, which include a 4-point rating scale (1=poor, 4=excellent) for items related to trainers, facilities, activities, materials, equipment, accomplishment of course objectives, appropriateness of the technical level of instruction, and the course overall.</li><li>Course evaluation survey open comments/recommendations section eliciting specific comments and recommendations for program improvement.</li><li>Proficiency demonstration checklists used to assess skills and competencies related to procedures for equipment handling and mock decontamination.</li><li>A written examination.</li><li>Informal assessment of trainees regarding the impact of training in the workplace and on trainee health and safety practices.</li><li>Center's fifteen member Board of Advisors conducts a paper review of course curricula; a course file is maintained for each session that contains logs, certificates of completion, checklists, and post course-evaluations.</li><li>Ongoing input from the Board of Advisors regarding development of evaluation strategies.</li></ul>
<b>Population Served:</b>
<ul style="list-style-type: none"><li>Workers responding to disaster sites (including environmental response workers, skilled construction personnel, and healthcare workers)</li><li>Public and private sector personnel</li><li>Primarily male trainees, with at least a high school education and working in the public sector; as noted in the 2012 report, 44% of trainees self-identified as minority</li></ul>
<b>Types of Courses/ Training Curricula Offered:</b>
<ul style="list-style-type: none"><li>Include Construction and Construction Trainer courses, Disaster Site courses, Hospital Emergency Prep courses, and HAZWOPER Operations for Healthcare Workers courses.</li><li>Courses offered through the following agencies: UMDNJ, NYCOSH, Univ at Buffalo, and Universidad Metropolitana.</li></ul>
<b>Trainers:</b>
<ul style="list-style-type: none"><li>Instructors are professionals currently active in the hazardous waste and emergency response areas. They are required to keep current with new legislation, equipment, and trends in the industry.</li></ul>

**Proof of effectiveness/value?**

- In the 2012 report, 99% of trainees responded after training that the course objectives were completely met and that the level of technical instruction received was on target.
- In the 2012 report, trainees consistently rated items such as “instructors’ preparation,” “coverage of state and federal regulations,” “facilities and equipment,” and “hands-on activities” with ratings of 3.5 or 3.6 on a scale of 1 to 4 with 1 corresponding to poor and 4 to excellent.
- Numerous anecdotes indicate prevention of serious illness and injury at work due to application of training principles.

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

- Essential elements of training for the workplace included hazard recognition, personal protective equipment, and the need to work within a command structure.
- Transit workers are prepared to anticipate, recognize, and properly respond to potential chemical or biological threat or actual terrorist event in the New York City subway system or maintenance yards.

## **HWWT TRAINING:**

### **Principal Investor:**

- Audrey R. Gotsch

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

- Louise Weidner

### **Grant Number:**

- U45ES006179

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

- To assess trainee opinions of trainers, instruction/technical instruction, facilities, activities, materials, equipment, the meeting of course objectives and the course overall
- To elicit trainee input for program improvement
- To assess content knowledge through written examination
- To assess proficiency in critical hands-on skills and competencies
- To apply formative evaluation processes to guide training content and emphasis throughout the course

### **Evaluation tools:**

- Course evaluation surveys, which include a 4-point rating scale (1=poor, 4=excellent) for items related to trainers, facilities, activities, materials, equipment, accomplishment of course objectives, appropriateness of the technical level of instruction and the course overall.
- Course evaluation survey open comments/recommendations section eliciting specific comments and recommendations for program improvement.
- A written post-training examination.
- Proficiency demonstration checklists used to assess skills and competencies related to procedures for equipment handling and mock decontamination.
- Informal assessment of trainees regarding the impact of training in the workplace and on trainee health and safety practices.
- Periodic on-line survey of trainees regarding the impact of training in the workplace and on trainee health and safety practices.
- Group-based knowledge assessment through automatic response technology allows formative evaluation of learning during the course session. Instructors provide follow-up instruction for problem areas; reassessment verifies comprehension.
- Center's fifteen member Board of Advisors conducts a paper review of course curricula; a course file is maintained for each session that contains logs, certificates of completion, checklists, and post course-evaluations.
- Ongoing input from the Board of Advisors regarding development of evaluation strategies.
- Survey of employers' perspectives in training, funded by NIEHS and coordinated by the Western Region Universities Consortium.

### **Population Served:**

- Primarily workers in Region II at hazardous waste sites and TSD facilities as well as emergency responders
- Target audience includes state and local agencies and environmental consulting firms
- Private and public sector personnel
- Primarily male, English speaking Caucasians with at least a high school education; as noted in the 2012 report, 10% of trainees self-identified as minority

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

- Initial courses, Refresher courses, Supervisor courses, Confined Space courses, Confined Space Rescue courses, and Emergency Response courses
- Courses offered through the following agencies: UMDNJ, Hunter, Univ at Buffalo, NYCOSH, New Jersey State Police, NY District Council of Carpenters, and Universidad Metropolitana.

**Trainers:**

- Instructors in the program are professionals currently active in the hazardous waste and emergency response areas. They are required to keep current with new legislation, equipment, and trends in the industry.

**Proof of effectiveness/value?**

- Mean ratings from trainee evaluations reported in 2012 showed an Overall Rating of 3.6 on a 4-point scale with 1 being poor and 4 being excellent.
- In the 2012 report, 97% of trainees responded that the course objectives were completely met and 96% believed the level of technical instruction received was on target.
- Numerous anecdotes given in person and by survey indicate prevention of serious illness and injury at work due to application of training principles. Example of trainee feedback from the 2012 report provided through Buffalo was, "... relevant and timely information given about the hazards of beryllium exposure was directly applicable to two of the remediation sites we're currently facing. We now have a better understanding of the requirements of a comprehensive beryllium program and we can apply this understanding to mitigate health risks during future work."

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

- Education on hazard recognition and personal protective equipment was determined to be an essential element by students as well as the need to work within a command structure.
- Transit workers are prepared to anticipate, recognize, and properly respond to potential chemical or biological threat or actual terrorist event in the New York City subway system or maintenance yards.

## **MWT TRAINING:**

### **Principal Investor:**

- Audrey R. Gotsch

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

- Louise Weidner

### **Grant Number:**

- U45ES006179

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

- To assess trainee opinions of trainers, instruction/technical instruction, facilities, activities, materials, equipment, the meeting of course objectives and the course overall
- To elicit trainee input for program improvement
- To assess proficiency of critical hands-on skills and competencies
- To assess the longitudinal impact of this program with respect to employment
- To assess what skills could be taught or what services could be offered that might better prepare students to succeed in the long-term
- To assess graduation rates and employment rates following training

### **Evaluation tools:**

- Course evaluation surveys, which include a 4-point rating scale (1=poor, 4=excellent) for items related to trainers, facilities, activities, materials, equipment, accomplishment of course objectives, appropriateness of the technical level of instruction, and the course overall.
- Course evaluation survey open comments/recommendations section eliciting specific comments and recommendations for program improvement.
- Proficiency demonstration checklists to assess skills and competencies related to procedures for equipment handling and mock decontamination.
- Tracking of employment patterns of the graduates, both post-program job placement as well as longitudinal employment outcomes.
- Center's fifteen member Board of Advisors conducts a paper review of course curricula; a course file is maintained for each session that contains logs, certificates of completion, checklists, and post course-evaluations.
- Ongoing input from the Board of Advisors regarding development of evaluation strategies.

### **Population Served:**

- The MWT provides a "pre-apprenticeship" training curriculum in hazardous materials remediation and construction, coupled with job readiness skills, to low-skilled, chronically unemployed or under-employed residents of the New York City metropolitan and Newark, New Jersey areas.
- Nearly all students are male, unemployed or consistently under-employed, may have histories with legal altercations, have no experience working in environmental remediation or building, and 98% of trainees in 2012 self-identified as minority groups. Trainees are required to have completed either a high school diploma or GED in order to enroll in the program.

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

- Various courses including career guidance, math, OSHA 10, First Aid/CPR, Environmental Literacy, Diversity Awareness, Haz Waste Site Worker, Confined Space, PCB Awareness
- Courses offered through the Carpenters and UMDNJ

### **Trainers:**

- Community-based organizations (CBO) recruit qualified candidates and provide support for students through social support services, referral, counseling, and GED classes
- Trade skills instructors are Union Carpenters
- All UMDNJ instructors in the program are professionals currently active in the hazardous waste and emergency response areas; several also certified industrial hygienists or certified safety professionals

**Proof of effectiveness/value?**

- In 2012, 85% of those who enrolled graduated from the program.
- In 2012, the overall class average for all recorded grades between the two cohorts (NY and NJ) was 91%.
- Noted In the 2012 report, 6 graduates of the program were accepted into the Carpenters Union; 9 into the Electricians Union, 3 into the Sheet Metal Workers Union, 7 working as hazardous materials technicians, and 1 working as a bus driver.
- Of the 2011-2012 program graduates, 80% were currently known to be working by July 2012 with an average wage of \$15.58/hour.
- Graduates of the program have shared how the program has impacted their lives at annual meetings of the Board of Advisors.

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

- Woven into the curriculum are a host of academic, social, interpersonal, and professional issues.
- Workshops address issues such as conflict resolution, employer-employee relations, professional behavior, and diversity to prepare graduates fully for the workplace.
- A core set of academic competencies for the workplace (math and literacy) is provided.
- Service learning component is included that enables students to perform actual renovations to facilities of not-for profit agencies.