

and accessible to people with disabilities, for example, adds cost not only to development, but also to maintenance. Despite the obstacles, OSHA feels that social media has a place in our future and we are continuing to develop new strategies and tools.

#### **SR-107-04**

#### **Health and Safety in Small Auto Collision Repair Shops – Outcomes of a 1-year Intervention**

A. Bejan, D. Parker, M. Skan, Park Nicollet Institute, Minneapolis, MN; B. Lisa, University of Minnesota, Minneapolis, MN.

**Objective:** This study evaluated the effectiveness of a 1-year intervention to assist owners of small collision shops with workplace safety and health improvements.

**Methods:** A comprehensive evaluation containing 92 safety-related questions was conducted by an industrial hygienist at baseline and after one year. Questions addressed safety programs and training, fire safety, personal protective equipment, and shop equipment and were assigned one of four priority ratings. After the baseline evaluation, shop owners received a written report and were asked to commit to correcting at least 30% of the problems identified, with emphasis on the highest priority issues. Participants received quarterly phone calls, written reminders, safety newsletters, and had access to online services and in-person assistance with creating safety programs and respirator fit testing.

**Results:** Forty-nine shops received baseline assessments and 45 were visited for 1-year follow-up. At baseline, shops had 17–49% of items missing (mean=34.4% items, SD=7.5%). After one-year, shops had 7–36% of items missing (mean=19.8% items, SD=7.6%). Statistically significant improvements ( $p<0.03$ ) were identified in seven of the eight survey sections (safety in the shop and right-to-know training, emergency planning, ergonomics, personal protective equipment, respiratory protection, paint booth and mixing room, electrical and machine safety). Facilities that were working or had worked with a safety consultant had significantly fewer missing items at baseline ( $p<0.03$ ), but not at follow-

up. On average, shop owners chose to correct 59% of the missing items (SD= 17%) and after one year reported a completion rate of 70% (SD= 28%). One-year assessments indicate that, on average 56% of the items selected for improvement were actually completed (SD=27%).

**Conclusions:** Results indicate that most business owners were able to improve health and safety in the shop if they were provided specific information about hazards and solutions, received regular reminders and utilized tailored technical assistance.

#### **SR-107-05**

#### **Safety Programs, Workplace Safety Conditions and Employee Safety Practices in Auto Collision Repair Businesses**

L. Brosseau, University of Minnesota, Minneapolis, MN; A. Bejan, D. Parker, M. Skan, Park Nicollet Institute, Minneapolis, MN.

**Objective:** The goal of this project was to measure workplace safety conditions in 49 representative collision repair businesses in Minnesota, as a first step in motivating owners to make improvements.

**Methods:** Safety conditions were measured using observations, owner interviews, program reviews, and safety practice and climate surveys.

**Results:** Businesses employed an average of 7 employees (range 1–29) and achieved an average safety assessment score of 66% (SD 7.5%). Most frequent deficiencies were in written programs and policies, right-to-know and respiratory protection (50–60% of items). Businesses generally performed well (80%) on items related to electrical and machine safety and lockout/tagout. Overall scores were significantly higher for the 13 businesses that had a past or current relationship with a safety consultant; scores were also higher for written safety programs, right-to-know, paint booth and mixing room conditions, electrical and machine safety, lockout/tagout and respiratory protection. Most businesses provided employees with safety glasses (84%) and hearing protection (91%). Half of the shops provided disposable latex rather than nitrile gloves; employees reported wearing gloves consistently for paint spraying, mixing

and cleaning spray guns. All shops provided respirators with adequate protection: 80% half-mask elastomeric with organic vapor cartridges and N95 prefilters and 20% air supplied respirators. While most employees reported using respirators more than 75% of the time when spraying inside the booth, fewer wore respirators consistently when spraying outside. Less than half of the elastomeric respirator users reported being clean-shaved when using respirators. Safety climate scores were significantly lower for employees in comparison to owners and managers; perceptions of management commitment showed the biggest differences. **Conclusions:** All of these measures were useful in identifying specific areas for improvement and for motivating owners to commit to making specific improvements. Each type of measure yields different insights about safety conditions while also corroborating specific areas needing improvement.

#### **CS-107-06**

#### **Violence Prevention in the Workplace**

B. Saravanabawan, HRSDC Labour Program, Ottawa, ON, Canada; W. Eng, HRSDC Labour Program, Ottawa, ON, Canada.

**Situation/Problem:** Violence in the workplace is a growing concern in Canada. A violent incident in a bus depot in Ottawa on April 6, 1999 resulted in coroner's inquest that made 77 recommendations. The first recommendation on this list was that Federal and Provincial governments create legislation to address workplace violence. How was the Federal Government going to amend their OHS regulation to prevent violence in the workplace?

**Resolution:** A Tripartite Working Group of worker, employer and government representatives appointed to develop consensus-based new regulation to prevent violence in the work place. Part XX of the Canada Occupational Health and Safety Regulations (Regulation), entitled Violence Prevention in the Work place, came into effect on May 28, 2008. Regulation contains a definition of workplace violence that is all encompassing to include not only incidents

that involve physical violence, but also factors that may increase the risk of physical violence or psychological harm such as harassment, teasing, threats, and intimidation. This performance based regulation requires that employers under federal jurisdiction in consultation and participation with the applicable OHS committee develop a violence prevention policy, conduct hazard identification, assessment and control and training of all employees, including managers and supervisors. There are also provisions for responding to as well as recording and investigating acts of violence. The collaboration between employees and the employer is essential for an effective result. **Results:** This regulation has resulted in employers under federal jurisdiction having to create a program to protect employees against violence in the work place. In addition the Regulation has raised awareness of violence in the work place.

**Lessons learned:** Employers and employees have required more assistance to interpret this regulation and to customize a program to their work place. Guidance materials were created to assist in explaining and implementing the requirements.

#### **WITHDRAWN: SR-107-07**

#### **Occupational Health Problems of Waste Collectors and the Validity of Installation of Washing Facilities in the Workplace in Korea**

K. Ha, Changwon National University, Changwon, Gyungnam, Republic of Korea; D. Park, Korea National Open University, Seoul, Republic of Korea; S. Kim, Wonjin Institute for Occupational and Environmental Health, Seoul, Republic of Korea.

### **Podium Session 108**

#### **Innovative Approaches to Exposure Assessment**

**Monday, May 20, 2013, 1:30 PM – 5:00 PM**

#### **SR-108-01**

#### **Measuring Workplace Stress – A Pilot Study**

J. Oudyk, Occupational Health Clinics for Ontario Workers Inc. (Hamilton Clinic), Hamilton, ON, Canada; T. Aversa, Ontario

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