Fatality Narratives

An effective way to convey hazard information

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The Washington State Fatality Assessment and Control Evaluation (FACE) Program is funded by NIOSH. Through the program, staff tracks acute occupational fatalities in the state, conducts targeted research investigations, and disseminates findings and educational material. Acute trauma fatalities are identified as events that occurred in the state to a person conducting work during the course of formal employment. The cases are identified and information is gathered from various sources, including the state Division of Occupational Safety and Health (DOSH), Department of Public Health, coroners/medical examiners, newspapers/media and federal agencies.

The case definition and program priorities for Washington state’s FACE Program largely follow the direction of NIOSH’s FACE Program. However, each funded state has the opportunity to focus on specific areas and industries, which often vary by the region and makeup of industry in the state.

Construction incident fatality narratives were developed by the Washington state FACE Program with the goal of providing tools for education and conducting training sessions directly with workers and companies. The one-page descriptions of the incident include bullet-point lists of best practice recommendations or requirements that could have prevented the death. Although the controls are meant to respond to the specific incident, they often apply to more general situations as well, such as hazards associated with falling from heights.

The narratives are developed initially by a research analyst who reviews case information such as the industrial insurance report, industry safety inspection investigation and media reports. The document then is completed by a safety engineer who researches preventive measures and applicable solutions. The level of research and analysis involved is more limited than that involved with a full fatality investigation, but possible incident root causes, including human factors issues, supervisory procedures and communication, are evaluated. The recommendations are focused on prevention, not compliance. However, in many cases these are one in the same and are identified by an exclamation mark as a bullet symbol before the recommendation description in the narrative. The resulting narrative is then finalized with input from the state DOSH (the state’s OSHA plan).

The Focus on Construction

The fatality narratives were developed after an analysis of industry impact potential. Review of acute work-related fatality data for the state revealed that the construction industry consistently had both the highest count (16 per year) and rate (8.7 per 100,000 workers) by industry on a year-to-year basis.

The industry also has opportunities for outreach and dissemination because of an industry focus on safety, particularly in the western part of the state. General contractors have focused significant resources on safety and health to reduce costs associated with injury risk and to improve bidding status. The trend to not award subcontracts to companies with higher injury experience factors has prompted more companies to provide resources for safety and injury prevention.

Additionally, the Puget Sound region has a long history of voluntary construction safety organizations, which makes it easier to distribute information and develop contacts. One informal organization of construction safety professionals has been meeting for more than 50 years, and another is the largest monthly meeting of construction safety personnel in...
the country. These factors, the high fatality frequency and rate, and the ready avenue for intervention led to the decision to develop a narrative for every construction fatality in the state.

The fatality narratives are posted at www.lni.wa.gov/safety/research/FACE. They are sent via e-mail to a list of nearly 600 construction safety professionals each month. The narratives are meant to be used for toolbox training and as informational resources for both professional and workers. FACE Program trainers also use the narratives when training workers. In this case, the incident description is read to the group and supporting pictures are provided in many cases. Workers then discuss what happened and how it could have been prevented.

Surveying the Users
A web survey was developed to evaluate the recipients’ perception and use of the narratives. A link to the survey was included in the monthly e-mail distribution for 3 consecutive months. Answers recorded the respondent’s job position, type of company, types of uses and types of changes made in response to the narratives. Respondents also completed categorical scales of 1 (poor) to 5 (excellent) rating readability, usefulness and overall opinion. A total of 110 respondents submitted answers out of 579 valid e-mail addresses for a response rate of 19%.

The narratives were also used as training materials for presentations given to workers in different companies over a 2-year period. Seven sessions were delivered to a total of 377 workers; of these, 318 completed post-session evaluations for a response rate of 84%. Training participants also rated narrative readability, usefulness and overall quality.

As part of the survey, workers were asked to record their top three prevention strategies for the presented incident and changes they planned to make based on the training (selected from provided categories). The training sessions used different narratives to better tailor the material to the audience. An example of a narrative for a struck-by forklift fatality is provided above. Photo 1 is an example of an image that might accompany a narrative.

Results of the Web Survey
Of the web survey respondents, 59% were safety and health professionals; 22% reported their position as management; approximately 14% were hourly or salaried employees; and 6% were owners or supervisors. The employer demographics were relatively distributed with 17% each in general contracting and specialty trades, 13% in consulting, 26% in government, 12% in university/research and 13% in other construction or material supply.

Abstract: Narratives of fatal workplace incidents were developed by the Washington State Fatality Assessment and Control Evaluation Program. These one-page documents have been distributed for use in toolbox training and as an information source. These materials have proven to be a quick, effective way to convey safety information to workers. More than 60% of trainers who use the narratives reported making changes in their work based on a narrative, while nearly 70% of trainees surveyed stated they would make changes in the way they performed their jobs following a narrative training session. Overall, both users and trainees rated the usefulness of the narratives as very good.
**Training Session Evaluations**

The narratives were used in training sessions delivered to construction workers, superintendents, apprentices and maintenance workers. Trainees rated the materials and training as “very good”—4 on a 1-to-5 scale—on average for overall opinion, usefulness and readability. Approximately 70% stated that they planned to make changes in identifying hazards and 50% planned to make changes in planning or setting up a job after the training. More than 25% reported planning to make changes in the use of tools or safety gear as a result of the training session.

**Effective Way to Share Hazard Information**

Developing and presenting safety and health training material in an exciting and informative manner is a challenge. The ultimate goal of training and education is to promote change and adoption of best practices. Fatality narratives have proven to be an effective tool to communicate hazards and promote changes on the job. The evaluation of the materials and presentations both by professionals and workers demonstrated the utility of this training tool.

Audience involvement was a key component of the fatality narrative training sessions with workers. Previous studies have shown benefits to using a participatory approach to safety training (LaMontagne, Kelsey, Ryan et al., 1992). This type of “narrative storytelling” has been used by other SH&E professionals to transmit safety information in a more personal way (Smith, 2005).

In the presentations, trainees were given the written incident narratives and pictures, but were tasked as a group to consider prevention strategies. If key concepts were not initially derived through the group process, the trainer then would prompt the audience for more ideas. The description of a fatal incident is emotive and normally grabs listeners’ attention. Having the group participate in the presentation of control strategies appears to help keep the listeners involved and attentive to key “take-away” points.

As noted, these materials were developed primarily for distribution to industry for use in training and toolbox talks. The narratives provide vivid descriptions and concise recommendations that are intended for short presentations. Field staff presentation of the material may be more effective in construction and other industries because workers identify with the trainer (Kurtz, Robins & Schork, 1997). Companies have informally acknowledged this and have expressed their desire to continue receiving the materials regularly.

Recent fatality narratives have included photographs of the actual incident scene as well. Photos can be a valuable addition because they bring home the reality of the tragic loss of life and enhance the event description. It can be helpful to distribute copies of these or, if possible, to project them on a screen so that workers can all see the scene. Another effective method is to enlarge and laminate the photographs, then pass them around during training.

In addition, translating these materials into lan-
Thus, it can be argued that safety training alone is unlikely to be effective without recognizable management actions to reinforce the importance of the presented material.

Conclusion
The FACE narratives discuss workplace fatalities. However, the same method can be used to present other types of information such as injury risk factors. The goal of the process is to use a real incident to capture the attention of people in an industry and highlight the concept that hazards are real and can occur in operations that they perform. In some cases, workers may feel that training is removed from their reality and job. The use of fatality narratives has proven to be an effective way to connect and demonstrate real-world experience and practical controls.

References

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