The Challenge

Construction workers and employers need information to help them identify and address work-related hazards. Trainers are always on the lookout for presentations, handouts, photos, and instructional materials to use when teaching safe work practices. Scientists rely on current and historical information to support their research. Finding the information needed by each group was frequently time consuming and costly.

The Internet offered a new mechanism to collect and disseminate academic studies, government reports, training materials, news articles, photos, and videos. Even with this new technology, however, tracking down information that focused on construction safety and health was difficult.

The Response

In the late 1990s CPWR, as the National Institute for Occupational Safety and Health (NIOSH) supported National Construction Research Center, began investigating how to use the Internet to improve access to reliable construction safety and health information. CPWR convened an advisory board including representatives from federal agencies, academia, safety organizations, and industry to guide the process. Through focus groups, the advisory board learned that potential users of construction safety and health information were unaware of, or did not have access to, existing materials and supported the establishment of a central resource.

The advisory board also determined that an online clearinghouse was technologically feasible and, given the steady growth in Internet use, a practical, cost-effective mechanism for collecting and sharing safety and health information.

The Results

In August 2000, CPWR launched the electronic Library of Construction Occupational Safety and Health, or eLCOSH, at www.eLCOSH.org. The content for the website consisted of several hundred documents generated by researchers, unions, trainers, trade organizations, equipment manufacturers, government agencies, and other stakeholders.

Two years later, CPWR enlisted a professional evaluator to assess the website's use and identify ways to improve its content and format. Changes and upgrades made since that study reflect the findings and recommendations, including:

- Expanding the content to include videos and podcasts
- Creating a Spanish-language version of the site
- Establishing a related website, eLCOSH Images, to provide users with access to photos of good and bad safety and health practices
- Taking advantage of social media to expand the site's reach
- Expanding outreach beyond North America to increase use of the site

By 2010, technological advances allowed CPWR to begin addressing the evaluator's recommendations related to usability. An eLCOSH renovation team engaged end users, including trainers, safety and health professionals, and academics in a complete redesign of the site's look and functionality: from identifying menu categories and home page content to prototype usability testing. The resulting upgrades to eLCOSH and the consolidation of eLCOSH and eLCOSH Images improved the site's functionality. Users of eLCOSH can now easily narrow and filter search results by any of the menu categories, quickly identify the type of content contained in each item retrieved, and find "What's New" or related items with just a couple of clicks.
Since its initial launch in 2000, eLCOSH has grown in terms of content, industry recognition, and use.

- The number of “unique visitors” each month has grown from roughly 5,000 following the launch to more than 38,000.
- The site’s reach now spans the globe with users from 168 different countries accessing materials on eLCOSH.
- More than 9,000 people have liked the eLCOSH Facebook page, joined a dialogue about construction safety and health issues, and posted their own information and insights.
- Content has grown from several hundred documents to more than 2,000 documents, videos, images and podcasts. eLCOSH has become both a resource and repository for researchers’ and trainers’ work including, for example, information on nail gun hazards and solutions, research and government requirements related to hexavalent chromium, and training materials developed by the Labor Occupational Health Program at U.C. Berkeley.
- Presentations on eLCOSH have been made at meetings of the BCTD Safety and Health Committee, employer associations and NIOSH, and related articles have run in industry publications.

What made it a success?

Today, eLCOSH is considered the primary online source for quality construction safety and health information because of:

- NIOSH’s willingness to support the establishment of a central, web-based repository.
- The early evaluation of the website and the resulting improvements based on the evaluator’s recommendations.
- CPWR’s inclusion of end users in all phases of its development.
- Design features that enhance user access.
- The quality and variety of safety and health materials available, which encourage the adaptation and use of existing materials – saving resources previously used “reinventing the wheel.”
- The use of social media to augment eLCOSH’s reach and engage users in an ongoing dialogue.

“I was able to use a photo from eLCOSH to show a hazard that is almost impossible for compliance officers to document in the field. When you can get a photo that demonstrates exactly the lesson you are teaching, it’s magic.”

— Carlos Gallegos, Occupational Safety and Health Specialist
Region 5 - Enforcement Programs, Occupational Safety & Health Administration, U.S. Department of Labor

“eLCOSH is the first place I go when I need construction-specific safety and health information. It’s well organized so it’s easy to find whatever information I need. It’s a great resource for training materials!”

— Deborah Weinstock, Director, National Clearinghouse for Worker Safety & Health Training

www.eLCOSH.org