How to Demonstrate the Value of an OHS Management System

OSHA is talking about adopting a rule requiring employers to implement a written illness and injury program. Such programs are already required by Cal-OSHA. Of course, many companies implement a program that goes beyond minimal requirements and encompasses more elaborate systems to prevent illness and injury. These efforts are generally referred to as occupational health and safety management systems (OHSMSs). Here's how to demonstrate to management the effectiveness of OHSMSs using a recent review from the Canadian Institute for Work & Health (IWH).

What Is an OHSMS?

The basic injury and illness prevention program required by Cal-OSHA and proposed by fed OSHA contains policies and procedures to identify and control hazards in the workplace, including hazard assessment, training, inspection, incident investigation and recordkeeping.

An OHSMS is more proactive, comprehensive and integrated that this and incorporates more robust evaluation and continuous improvement elements. The IWH report is a systematic review of existing research evidence on the effectiveness of OHSMSs around the world. The report first defines an OHSMS in terms of 27 elements, the primary 5 of which are:

- A communication system;
- An evaluation system;
- Continual improvement;
- Integration; and
- Management review.

According to the report, OHSMS have the following 4 secondary elements:

- Document and record management;
- Auditing and self-inspection;

- Incident investigation and root cause analysis; and
- A health/medical program and surveillance.

The review groups OHSMSs into 2 broad types:

Mandatory OHSMSs. In some countries, mandatory OHSMSs are imposed on companies by OHS law and contain the elements required by statutes and regulations. In general, mandatory OHSMSs are simpler in terms of what they require of companies because they're intended for adoption by all or most workplaces, including small ones.

Voluntary OHSMSs. Voluntary OHSMSs aren't required by a country's OHS laws. Instead, the basic architecture and design of a voluntary OHSMS may be set by professional organizations or standards associations, such as the Canadian Standards Association or the British Standards Institute. Although these kinds of systems aren't mandatory, government-related agencies, such as workers' comp boards or insurance carriers sometimes offer incentives to companies to adopt a particular voluntary OHSMS.

The review notes that OHSMSs have developed considerably over the last 20 years. But little is known about the effectiveness of these systems and their financial impact on the companies that implement them. So the IWH researchers decided to assess the existing research.

The OHSMS Review

The original goal of the researchers was to answer 3 questions:

1) What's the relative effectiveness of mandatory and voluntary OHSMSs as to worker health and safety and associated economic outcomes, such as its workers' comp rates?

2) What facilitators and barriers are there to the adoption and effectiveness of OHSMSs?

3) What evidence exists relating to the cost-effectiveness of OHSMSs?

The researchers searched seven electronic databases covering a

wide range of journals, which contained mainly peer-reviewed articles from a variety of disciplines, looking for relevant studies on OHSMSs. Their initial search located 4,807 studies.

The researchers then screened these studies for relevance. For inclusion, a study had to address at least two of the 27 elements in a comprehensive OHS framework; one of these two had to be a management element. After this screening, potentially relevant publications were tested again against the inclusion criteria. At this point, 18 studies were considered eligible.

The researchers rated the methodological quality of each eligible study independently using a set of explicit criteria. For a study to be included in the review, it had to be of at least "moderate" quality. Nine studies met this requirement. Of these, four examined voluntary OHSMSs (three from Australia and one from Manitoba) and five evaluated mandatory systems (three from Norway, one from Ontario and one from Québec). Unfortunately, none of them provided enough quality evidence on facilitators and barriers to OHSMSs or estimated the cost of OHSMS implementation. So researchers were only able to answer the first of their three original questions.

The Results of the OHSMS Review

The researchers came to the following key conclusions:

Voluntary OHSMSs. All studies involving voluntary OHSMSs reported positive findings. Although the outcomes measured varied among studies, the benefits found included:

- Increased implementation over time;
- Better safety climates;
- Increased hazard reporting by workers;
- More organizational action taken on OHS issues; and
- Decreased workers' compensation premiums, including declines in premium rates of 23% and 52%.

Although data on injury rates wasn't included in these studies, the findings on
workers' comp premiums and additional data provided by the studies

imply that injury rates declined, too.

Mandatory OHSMSs. All of the 5 studies examining mandatory OHSMSs also reported positive findings. Some of the benefits noted included:

- Increased OHSMS implementation over time;
- Improved worker perceptions of the physical and psychosocial working environment;
- Increased worker participation in health and safety activities;
- Reduced lost time injury rates; and
- Increases in productivity.

However, the researchers did note that all the studies were of only "moderate" quality, largely because their study designs were so simple. For example, three of the four studies on voluntary OHSMSs involved single workplaces, making the applicability of the findings to other workplace settings uncertain. In fact, the researchers recommend that more research be done on the effectiveness of OHSMSs, particularly their cost-effectiveness.

Bottom line: Although there are limitations to the conclusions that can be drawn from the review, the studies on both voluntary and mandatory OHSMSs that were included in the review all provide more than just anecdotal evidence that these systems positively impact workplace safety.

Conclusion

Before senior management is willing to invest in an OHSMS, they're going to demand some proof of their effectiveness. Using the results of the IWH's review, you can demonstrate that investing in an OHSMS is worth pursuing and will improve health and safety and cut workers' comp and related costs.

Source: "The Effectiveness of Occupational Health and Safety Management Systems: a Systematic Review," the Institute for Work & Health, Robson, L. S.; Clarke, J. A.; Cullen, K.; Bielecky, A.; Severin, C.; Bigelow, P. L. et al (2007).