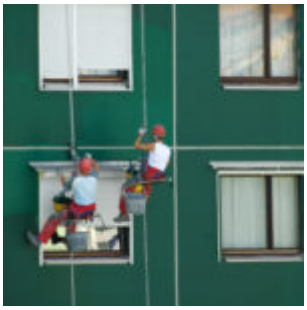
MANAGING YOUR OHS PROGRAM: Using Leading Indicators to Measure Your EHS Performance



Many environmental, health and safety (EHS) professionals rely on fatality and injury rates, absenteeism and other lagging metrics to measure their EHS performance despite the growing evidence that these failure-focused measures are ineffective in driving continuous improvement efforts. They should rely more on *leading* indicators, which appear to provide early warning signs of potential failure and so enable companies to identify and correct issues before they result in incidents and injuries. A new research report from the Campbell Institute in Chicago looks at the views on and use of leading indicators by EHS professionals and identification of the barriers to and factors that enable the use of these measures. Here's an overview of that report, which can help you understand how you might be able to use leading indicators to measure your EHS program's performance.

What Are Leading Indicators'

Lagging indicators are direct measures of harm or failures of the EHS program, such as injury rates. But there's no commonly accepted definition of 'leading' indicator, notes the Campbell report. The term is generally used to refer to activities such as safety audits, safety perception surveys and training. These indicators are sometimes described as upstream, positive and predictive. To be meaningful, the report concluded that

leading indicators must be:

- Actionable, that is, they can be utilized to identify and implement steps intended to reduce or eliminate risk;
- Achievable;
- Meaningful;
- Transparent;
- Easy to communicate;
- Valid;
- Useful; and
- Timely.

To develop a working definition of leading indicators, the researchers put together a panel of EHS experts who created this definition: 'Leading indicators are proactive, preventative and predictive measures that monitor and provide current information about the effective performance, activities and processes of an EHS management system that drive the identification and elimination or control of risks in the workplace that can cause incidents and injuries.'

The View & Use of Leading Indicators

The researchers also conducted a survey of companies in the mining, construction, manufacturing, and professional, scientific and technical services industries. The respondents were members of management who all indicated EHS as one of their primary areas of expertise. The majority of survey respondents (61%) said their companies' ability to measure EHS performance with leading indicators was extremely important; another 28% said it was very important. But 44% said that EHS performance at the corporate level was measured mostly by lagging indicators with some leading indicators. The most common types of leading indicators measured at the corporate level were:

- Behaviour-based observations, such as safe or unsafe

behaviours;
- Near misses, such as incidents with serious injury or fatality potential;
- Audits, including tracking overdue audit items and monitoring the speed of closing action items;
- Training, including EHS training for workers, managers and executives;
- Meetings; and
- Other actions, such as noncompliance, incident investigations and EHS suggestions.

The specific purposes for which leading indicators were used included to:

- Anticipate, prevent or eliminate risks and losses;
- Monitor and evaluate performance;
- Motivate safe behaviour, personal commitment and continuous improvement; and
- Communicate results.

The survey respondents said the main advantages to using leading indicators for these purposes included being proactive, gauging the effectiveness of safety policies and encouraging a culture of safety among management and workers. Not all companies tied leading indicators to specific EHS performance improvement goals, but those that did emphasized tracking key procedure audits and worker engagement actions, such as EHS meetings, talks and ideas. Other leading indicators associated with future performance improvement goals included:

- Emergency exercises;
- EHS culture survey results;
- Recycling indicators;
- Environmental impact evaluations; and
- Contractor pre-qualification and post-work evaluations.

Some examples of specific ways in which survey respondents used leading indicators to drive improvements in the EHS

program:

- Behaviour-based safety observations were used to identify the need for additional training in lockout and confined space procedures;
- Key procedure audits highlighted the need to revise specific procedures and fill in gaps between procedures and practices;
- Workers' ideas and observations were converted to maintenance notifications and forwarded to the appropriate departments for implementation; and
- When near misses and observations within a business unit indicated a higher risk of hand injuries due to improper gloves, a glove standardization project was undertaken to address this risk factor.

Barriers & Factors Related to the Use of Leading Indicators

Survey respondents rated the significance of the potential barriers to the implementation of leading indicators. The results indicated that the two main barriers were lack of leadership commitment and lack of best practices or benchmarks. Other factors that were barriers included:

- Lack of awareness among EHS staff;
- Limited EHS budget;
- Lack of time or competing priorities;
- Lack of quality data; and
- Choosing the correct leading indicators and knowing when to retire unsuccessful ones.

On the other hand, the most important factor that enabled companies to implement leading indicators as part of their EHS management systems was leadership commitment, engagement, understanding and support. Other critical enabling factors mentioned were:

- Open communication and knowledge sharing across company sites;

- Technology to track leading indicators;
- Linking leading indicators to incentives;
- Quality information technology systems; and
- Proactive safety mindsets among key staff and stakeholders.

BOTTOM LINE

The Campbell report suggests that leading indicators are a largely untapped source of data for EHS professionals. And the overwhelming majority of survey respondents (93%) reported that their use of leading indicators was likely to *increase* over the next five years. You should follow their lead. Because management buy-in is so important to the effective use of leading indicators, you should educate top-level decision makers about the technical aspects of effective performance measurement and convince them to give leading metrics more attention when assessing the effectiveness of the EHS program.

***Insider* Source**

'*Transforming EHS Performance Measurement Through Leading Indicators*,' The Campbell Institute, Chicago, Sept. 2013