

Using **Leading Indicators**
to Improve Safety and Health Outcomes

Public Stakeholder Meeting

November 7, 2019

MEETING SUMMARY

OSHA Stakeholder Meeting: Using Leading Indicators to Improve Safety and Health Outcomes

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On Thursday, November 7, 2019, the Occupational Safety and Health Administration (OSHA) held a public meeting inviting interested stakeholders to share their experiences, expertise, and opinions on the use of leading indicators to strengthen workplace safety and health outcomes. The meeting built on a June 2019 OSHA publication that provides guidance and information to employers on how to incorporate leading indicators into their safety and health programs.¹ Over 100 participants gathered for the meeting, during which dozens made comments.

Loren Sweatt, Deputy Assistant Secretary of Labor for Occupational Safety and Health, opened the session and stressed the importance of preventing workplace injuries and illnesses through the use of leading indicators. Unlike lagging indicators, leading indicators offer employers the opportunity to take preventative action before a hazard can lead to an incident. Participants at the meeting were invited to identify leading indicators, define their use, and recommend helpful actions OSHA could take.

Comments made throughout the session were uniformly supportive of the use of leading indicators in safety and health programs. Representatives from across sectors, including general industry, construction, and consulting consistently praised OSHA's advocacy for leading indicators. Throughout the session, individual businesses and trade groups invoked their own real-world experience with leading indicators and offered examples of how their indicators correlated with improved safety outcomes.

Many trade organizations and larger companies had already implemented the use or assessment of leading indicators, albeit with a great amount of variability. Although the tracking methods and longevity of the data sets differed considerably, those entities tracking leading indicators unvaryingly advocated for OSHA to further promote their use to improve workplace safety outcomes. Provided below is a list of some of the indicators that were cited during the session, along with the sector affiliation of the commenters who referenced them.

Safety Program-Related

- Toolbox talks or safety meeting held prior to the start of the work day, especially when held on the job site. (Construction industry, Roofing industry)
- Scorecard-based safety program. (Construction industry)
- Inclusion of safety in daily conversations with managers. (Safety professionals)
- Total hours devoted to safety engagement or safety training. (Chemical industry, Retail)

Culture

- Accountability and commitment at all levels. (Safety professionals)
- Time spent in plant by senior managers. (Recycling industry)

¹ See <https://www.osha.gov/leadingindicators>

- Workplace violence awareness. (Health care industry)
- Training time for frontline employees. (Construction industry)

Operations

- Unsafe acts and their potential severity. (Recycling industry)
- Identification of potential serious injuries or fatalities. (Steel industry)
- Wear and tear of equipment or floors. (Steel industry, Health care industry)
- Video usage/views of safety videos. (Emergency services)
- Quality of training/behavior modification from training. (Safety professional)

Health

- Substance abuse program. (Construction industry)
- Vaccination rate. (Health care industry)
- Suicide rate and mental health. (Construction industry)

Properties of Indicators

Beyond specific leading indicators, many commenters sought to generally describe the attributes that good leading indicators possess. Some of the traits identified, in many cases by several commenters, include the following:

- Action-based: they reflect something that happens in the workplace or as part of the business.
- Measurable: they are able to be quantified or assessed in some capacity.
- Practical: measuring or monitoring them is not overly complex.
- Useful: their status or trend reflects a meaningful aspect of the business' activity.

Organizations that established their own leading indicator programs, or trade organizations that aggregated such information from their members, catalogued these and other attributes about leading indicators. Many of those organizations invited OSHA to consult their findings as part of its leading indicator promotion efforts.

Commenters also offered additional nuance to what constitutes a leading indicator altogether. For example, many representatives emphasized the importance of the timing and feedback of leading indicators. While some commenters simply described leading indicator timing as being “at the beginning” or “midstream” in workplace activities, others stressed the need to view all indicators as being on a spectrum from beginning to end of a process or work system. In this latter framework, lagging indicators might be at the tail end of this spectrum. Such a view also shapes how closely outcomes can be connected to actions that are within the broad temporal range of leading indicators. Still others argued that there is a lack of a clear, widely held definition of what truly constitutes a “leading indicator.” The only consensus appeared to be that the concept of a leading indicator could be interpreted myriad ways, even by those who interact with them regularly.

The leading indicators identified in the session largely focused on those with positive associations with safety outcomes. For example, toolbox talks and managerial engagement metrics tend to correlate well with safer work environments. Few commenters referenced leading indicators whose upticks might signal a concern about increased workplace hazards. There is a qualitative difference between identifying metrics that increase the risk for hazards versus metrics that show lapses in preventative

measures. This difference may partially explain the difficulty some commenters expressed about how to act upon leading indicators.

Incorporating Use of Leading Indicators

A portion of the discussion focused on the need to create resources for businesses to better integrate leading indicators into their safety and health programs. One respondent suggested that small businesses tend to need the most help promoting safety. In the construction or roofing industries, for example, employers tend to be small owner-operator businesses with just a handful of employees. These businesses lack the resources to establish a complex safety and health program. Several commenters stressed the value OSHA could deliver by providing tools, guides, or other resources specifically aimed at helping small employers incorporate leading indicator strategies. One participant singled out the Small Business Administration as a source of useful information for such entities and one that could prove to be a good model or partner in addressing that market.

Additional commenters indicated that providing incentives to adopt leading indicators could accelerate participation by businesses of all sizes. One suggestion endorsed by several commenters was tying leading indicators to insurance premiums. If leading indicators were more closely factored into penalties from insurance companies, or annual premiums themselves, OSHA could see their use increase accordingly. Some commenters argued that those in attendance at the meeting were generally already convinced of the value of safety programs, but that smaller, cash-strapped enterprises depended on immediate financial outcomes to motivate them to adopt workplace safety improvements.

Despite the roundly supportive comments and positive engagement by commenters, few in attendance offered specific and concrete proposals for OSHA's overall leading indicator strategy. Several commenters recognized this incongruity and admitted that it was unclear what the best course of action would be for OSHA to promote the use of leading indicators. While participants generally supported OSHA's role in promoting the use of leading indicators, some cautioned that any agency action should encourage flexibility to reflect the different needs of each industry and business size. Some observed that an OSHA mandate could reduce the effectiveness of leading indicators and employee buy in. Still, there was some modest appetite for OSHA to facilitate benchmarking, playing a role in encouraging standardization of metrics (perhaps through an indicator inventory), and promoting leading indicators as a complement to lagging indicators.

Barriers to Implementing Leading Indicators

Commenters also reflected on the challenges across industries due to a knowledge and engagement gap among and within organizations. While smaller businesses often lack the time and resources to pursue a leading indicator program, medium and large businesses may lack the level of commitment or engagement at various levels of management. Many commenters indicated the need for buy in across levels: workers, immediate managers, mid-level management, and corporate executives. The complement to getting cross-cutting buy in is empowering each employee to champion a company's safety culture on an individual level, regardless of their level in the workplace—a point reiterated by numerous commenters, as well.

One commenter pointed out that leading indicators have the potential to generate tremendous amounts of new data that may be difficult to analyze, process, and act upon. Technology solutions may

offer employers the ability to leverage such data effectively. Others echoed this concern by reiterating the absence of clear ways to use leading indicators, even when well defined.

Conclusion

The meeting ended with OSHA representatives reiterating the Agency's appeal for additional comments to be submitted through the docket, which closes on February 7, 2020.² OSHA encourages all interested stakeholders, especially those with direct experience with the deployment and analysis of leading indicators, to share their insights on how OSHA can support their use. To review more information about OSHA's leading indicators initiative, visit <https://www.osha.gov/leadingindicators> or contact safeandsoundcampaign@osha.gov.

² See <https://www.regulations.gov/document?D=OSHA-2019-0005-0001>