



# 4 Metrics Every Safety Scorecard Needs

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Metrics that provide a comprehensive picture of performance to help you make the right decisions about safety resources, strategy, and direction.

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# Why the OSHA Recordable Rate is Flawed

There is no perfect suite of measures common to all organizations. But for many, a company's safety scorecard begins and ends with the OSHA recordable rate.

Also known as the medical case injury rate, the OSHA recordable rate is defined as:

**the number of medical treatment cases per 200,000 hours worked.**

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The idea behind this metric was a good one: to level the playing field of what would be classified as a safety incident for recording purposes. However, DEKRA consultants say it has two primary flaws.

## WHAT IT MEASURES

"One specific example," DEKRA consultant Don Groover says, "is a fatality is one and a cut that required two stitches is one. They're both classified the same. They're one OSHA recordable. That's a problem in the metric."

## HOW IT'S USED

"Like every metric," DEKRA consultant Mike Mangan says, "it doesn't show you the whole world. It only tells you what it's measuring, and injury rate is only one piece of the pie. If it's the only measure you use [on your safety scorecard], you're going to miss a lot."

In addition to the OSHA recordable rate, this e-book shares the four metrics—with examples—that our consultants say should be included in every organization's safety scorecard. Presented in four categories, they provide a comprehensive picture of performance and help you make the right decisions about your safety resources, strategy, and direction.

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## CATEGORY 1:

# Exposure Metrics

Each organization should aim for a set of measures that provide useful and robust indicators of how it is doing against its objectives. One way to do that is to track “leading indicators.”

Leading indicators are things that provide a sign of what is likely to occur in the future.

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“The other thing that we talk about,” Groover says, “is leading activities. These are actions that, if we do them consistently and in a high-quality manner, will lead to a change in our injury rates. That’s also a valid measure.” There are two kinds of leading indicators when we speak of safety metrics. The first is exposure metrics. Exposure metrics measure risks and changes to those risks. The higher the exposure, the greater the likelihood there is of an incident.

### **Some examples of exposure metrics you might put on your organization’s safety scorecard:**

#### NUMBER OF SAFE WORK PERMIT JOBS

This is keeping track of the number of tasks for which safe work permits are required during the month. Jobs requiring safe work permits are, by definition, higher risk. Therefore, an increase in the number of these jobs is indicative of a higher exposure profile.

#### NEWER WORKERS

This measures the number of workers who performed work for which they had less than one-year experience during the last month. Workers are most likely to be injured and make errors during their first year, so growth in the number of newer workers is indicative of increase exposure in both personal and process safety.

Even when exceeded limits are managed without adverse outcome, their occurrence is indicative of exposure increase.

### PROCESS EXCURSIONS/UPSETS

We define this as the number of times during the month that any process has a parameter that falls outside the “not to exceed” limits for the process. Even when exceeded limits are managed without adverse outcome, their occurrence is indicative of exposure increase.

### PERCENT SAFE BEHAVIORS

This is the percentage of observed behaviors completed safely, provided that the observation process is specifically designed and implemented to produce “measurement quality” behavioral data.

### HOUSEKEEPING

Housekeeping issues might include trash pileup, pallets stored in walkways, or tools left out. “How free is my workplace of those hazards?” Mangan asks. “I would have something on the physical conditions and more importantly on our response to those conditions. I would be measuring that.”

### WORKER HOURS

When you look at the shifts and overtime hours of your workers, is it possible that fatigue is contributing to more incidents?



## CATEGORY 2:

# Control Metrics

Another kind of leading indicator is a control metric.

Control metrics provide data to help managers assure that intended activities are being done. They help measure the effectiveness of exposure mitigation.

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**Some examples of control metrics you might put on your organization's safety scorecard:**

### INSPECTIONS PLANNED VS. COMPLETED

This measure tracks the number of inspections, including safety committee and supervisory walk-arounds, completed compared to the number planned. The figure is reported as a number versus plan and as percentage of plan completed.

### OPEN SAFETY WORK ORDERS > 60 DAYS

This metric tracks the number of open items in the work order system that are designated as safety items and have been open for more than 60 days.

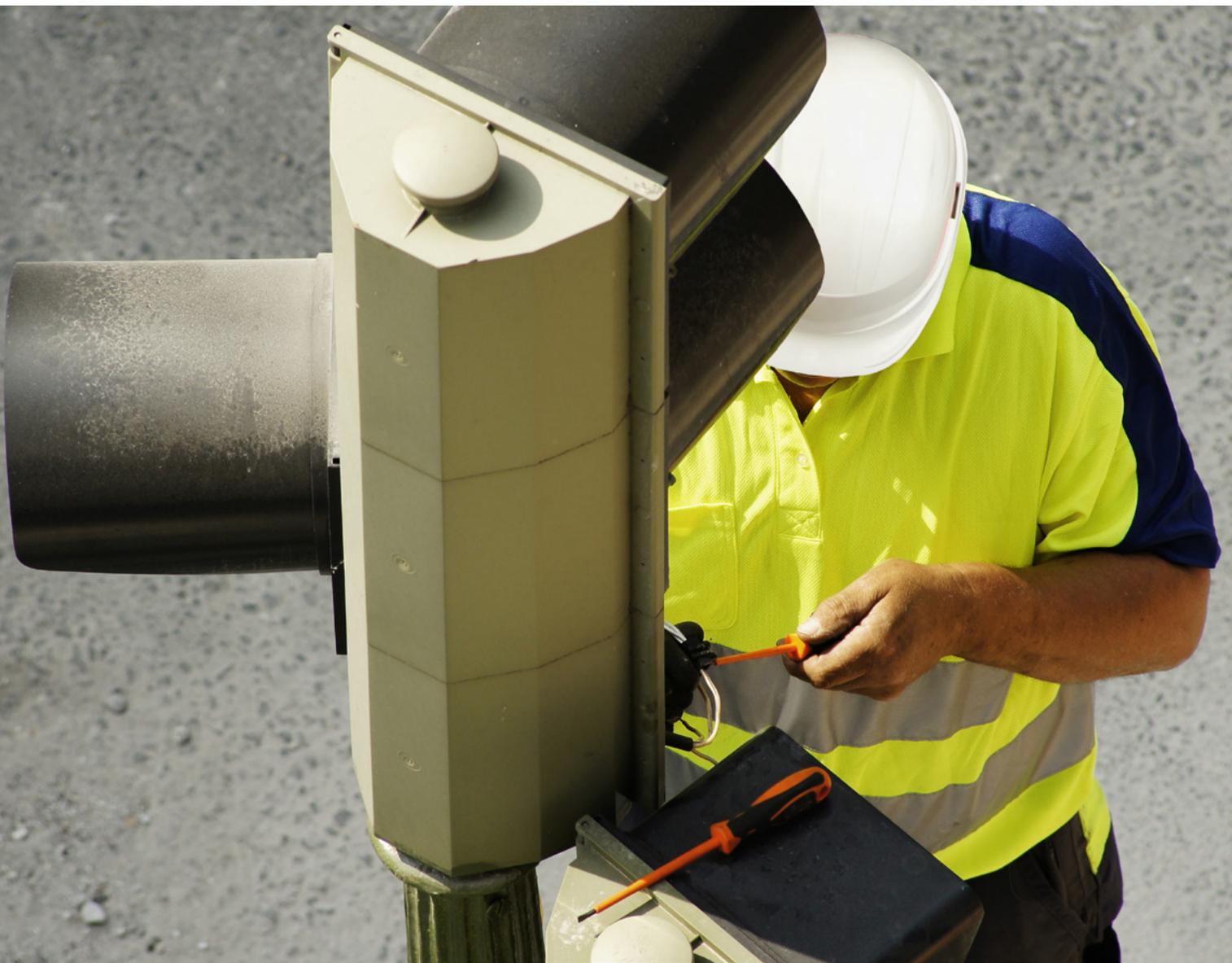
### LEADERSHIP AUDITS

What is the number of field audits, inspections, and walk-arounds completed by a location's senior leadership team members per team member during the quarter?

### MECHANICAL INTEGRITY TESTING % PAST DUE

This measure shows the percent (%) of scheduled mechanical integrity tests overdue for key equipment. "The extent to which you're doing a fix-it maintenance versus preventive maintenance," Mangan explains, "is a good [way] to know whether you've got a lot of problems in your process. This can also [indicate if] you're going to have incidents down the road because if you have a lot of folks scrambling to stabilize machinery that breaks down, you're more susceptible to incidents."

The extent to which you're doing fix-it maintenance versus preventive maintenance is a good way to know if you've got problems in your process.





## CATEGORY 3:

# Lagging Indicators

Lagging indicators quantify what has already happened. The OSHA recordable rate is an example of one.

While helpful in some ways, Groover says lagging indicator numbers are too often misjudged.

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“For a lot of companies, it’s the ratio,” he says. “You have to ask yourself, ‘Why am I measuring this? Why do I care?’ A lot of organizations miss that. Lagging indicators,” he continues, “provide information on whether I’m getting better or worse in my performance. It can be a barometer around change as long as I understand its limitations. I need other measures (leading indicators) that compliment it.”

“Some organizations get so caught up in the measurement of lagging indicators,” Mangan says, “that they burn a lot of energy there. The measurements are helpful but the information they give you is not the intervention. They’re not the change agent. So the question needs to be, ‘How do we have an impact on these measurements and how long is that going to take?’

The answer to that question, Groover and Mangan say, lies in your company’s culture.

“Culture is an indicator of leadership strength in a lot of ways,” Mangan says. “The way that culture is going to change is through what those leaders on site—foremen, supervisors, area leads, site managers—are doing differently, more, better. What are they focusing on? What are they attending to? How?”

“If you’re trying to change culture,” Groover says, “my experience is you better be in for the long haul. It takes three, five—and for some organizations it could take—10 years.”

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the change agent.





## CATEGORY 4:

# Precursor Events

Precursor events sit between leading and lagging indicators. They reflect things that have already happened but reveal the potential for future incidents with more severe outcomes.

An example of a precursor event would be a plane blowing out a tire on landing but still safely pulling up to its gate on time.

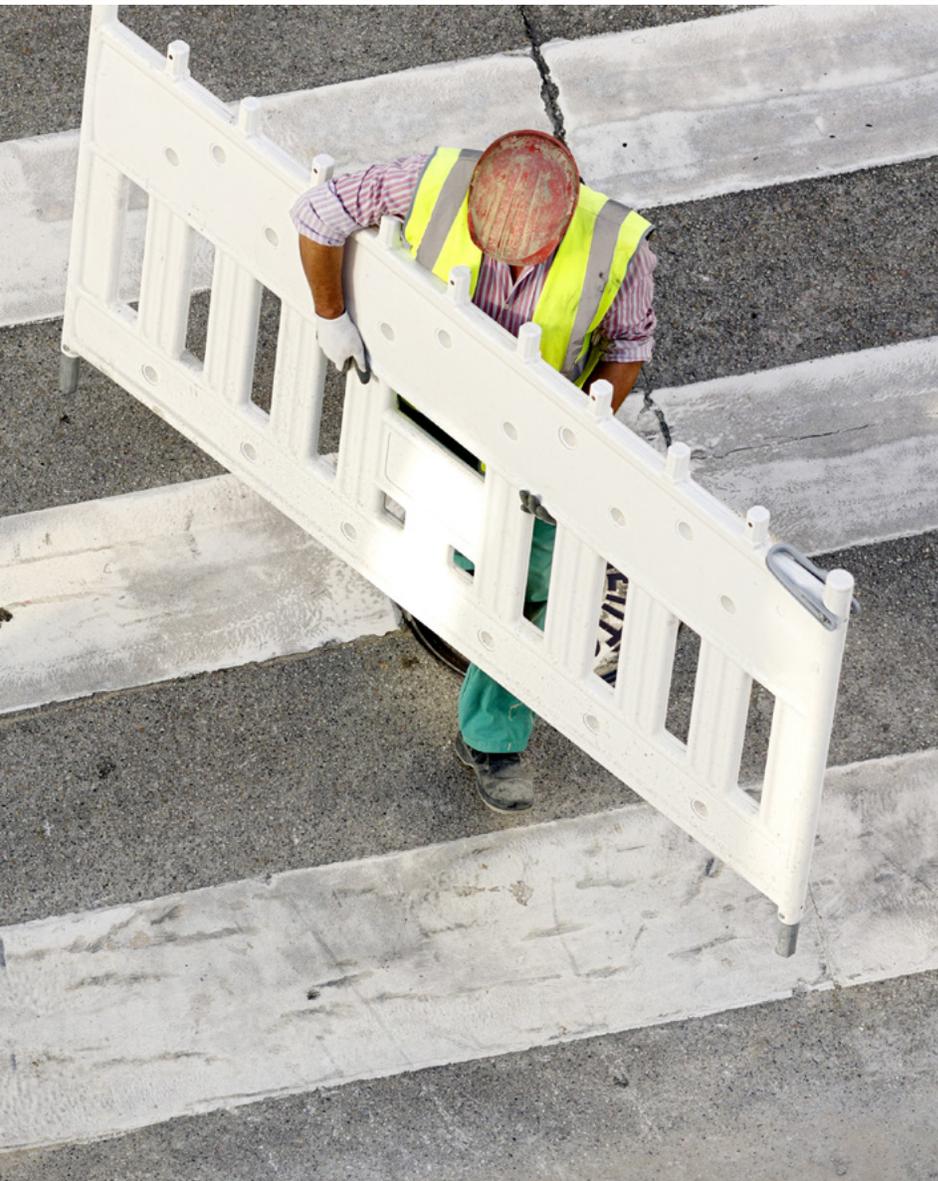
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Precursor events are typically associated with serious injuries and fatalities (SIF). It is not uncommon for managers to react to fatalities or life-altering injuries by suggesting that the incident was a fluke and not indicative of a broader safety issue. This is flawed thinking. If SIFs truly were fluke occurrences, then there would be little chance of preventing them. However, because they are not random, but rather the product of conditions and behaviors that have occurred previously, it is possible to detect exposures with SIF potential and mitigate them.

With precursor events, it's important to track the potential for fatalities and serious injuries separately from incidents with less-serious potential. That's because the potential for these different outcomes are varied. Managers who understand the potential for fatality and serious injury can make conscious decisions about targeting and prioritizing safety efforts.

You should use targeted mechanisms to identify and address precursors. Most precursors can be identified through a system that combines effective observation with focused discussion and interviewing in the workplace. Implementation of this process should occur within a change management framework.

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of preventing them.



# FINAL NOTE

There is no perfect suite of measures common to all organizations. Each organization should develop its own set of leading indicators and precursors of serious injuries.

**Learn More** Email us: [OSR.Info.us@dekra.com](mailto:OSR.Info.us@dekra.com) Call us: +1-805-646-0166 Website: [www.dekra.us/osr](http://www.dekra.us/osr)