# **Creating Proactive Objectives Based on Leading Indicators**

By Jean Ndana

IF YOU THINK A SAFETY GOAL such as "reduce the OSHA recordable rate 5% by the end of the calendar year" is effective, think again. Setting such safety goals can have powerful side effects that can undermine an organization's efforts to build a solid, vibrant safety culture. The author's former employer learned this the hard way.

The old advice to "define your goals" is applicable to both one's personal life and to the occupational world. This axiom usually gets head nods from those who hear it. Many books and articles have been written throughout the years that support this advice. Goals are necessary for anyone who is trying to be successful in life or any business function striving for high performance, regardless of the industry or size of company. Michalewicz (2014) claims that "success = goal achievement" (p. 17). Focused, well-defined and challenging goals create alignment, clarity, job satisfaction and enhanced productivity (Locke & Latham, 2002; 2006). OSH is no different.

According to Janicak (2010), "the most commonly found goals in any safety and health program include lost-time injury rate, lost workdays, recordable injury rate and total injury rates" (p. 13). If you ask an OSH professional to state their safety goals for the year, you may likely receive answers such as:

#### **KEY TAKEAWAYS**

- Safety goals that are outcomes-focused and based on lagging indicators can hinder an organization's efforts in building a safe and healthy work environment. Such goals unintentionally send a message that the company cares more about numbers than about message that the company cares more about numbers than about people and lure frontline supervisors into unproductive behaviors. Such goals also inhibit learning and reduce intrinsic motivation.
- This article suggests an approach that OSH professionals can use to write safety goals that proactively fuel a safety program.
- •It offers a filter to guide when goals are being written for production floor workers. Specific questions OSH professionals should ask are also identified.
- The author recommends a key action that OSH professionals should take after setting safety goals.

- •reducing the OSHA recordable rate 5% by the end of the calendar year,
  - •reducing the lost time rate 5% by the end of the calendar year, or •reducing workers' compensation costs 10% by the end of the year.

These answers are given when the OSH professional is focused on the outcomes based on commonly accepted lagging indicators. Many times, these safety goals are communicated to all levels of the organization at the beginning of each year. For some OSH professionals, focusing on the outcomes is not surprising. First, such goals are considered "well-constructed safety goals" (Janicak, 2010, p. 14). We also live in an outcome-focused society. From a young age we have been conditioned to use numerical tar-



gets. In primary school, we are told that getting 8 of 10 test questions correct is necessary to pass. This continues into secondary school with requirements such as needing a B average or better to be accepted into a university. When entering the work environment, the focus on numerical goals continues and is heightened. In production, it is throughput; in quality, it is defect rates and customer complaints; and in marketing, it is the number of sales. Achieving these numerical goals are often connected to bonuses.

Setting safety goals based on lagging indicators is not all bad. The potential positive aspect is that they are specific, measurable, attainable, relevant and time bound. They provide clear, concise, unambiguous and objective means for evaluating organizational safety performance. However, these benefits belie the fact that setting safety goals this way contains some harmful side effects. As surprising as this may sound, safety goals based on lagging indicators inadvertently hinder efforts to create a safe workplace.

First, this article briefly discusses leading and lagging indicators. Next, it highlights specific pitfalls when using lagging indicators to set safety goals. It describes how the use of safety goals that are based on lagging indicators can hinder an organization's efforts in building a solid and vibrant safety culture by: appearing unintelligible to frontline workers; unintentionally sending the wrong message that the company cares more about numbers than it cares about its people; luring frontline supervisors into unproductive, uncaring, uncollaborative and unempathetic behaviors when handling a workplace incident; inhibiting learning; and reducing intrinsic motivation because production floor workers have a hard time understanding and remembering them. Finally, the author suggests an approach that OSH professionals can use to write safety goals that proactively fuel a safety program. A filter is offered to guide when goals are being written for production floor workers. Specific questions OSH professionals should ask are identified. The article concludes with a key action that OSH professionals should take after setting safety goals.

#### **Leading Indicators**

Leading indicators are a part of an organization's OSH system. They are measures of proactive efforts designed to min-



imize losses and prevent incidents (Janicak, 2010). Leading indicators (unlike lagging indicators) measure the presence of safety not the absence thereof. In other words, they measure the positives, what employees are doing right on a regular basis to prevent injuries. Leading indicators allow workers to see small improvements in performance, either daily or weekly. They make safety success a far more regular occurrence (daily or weekly), not a yearly outcome or occurrence. Leading indicators help workers enjoy the process of building a safe workplace each day in a way that reinforces safe behaviors. Some examples of leading indicators include number of employees adequately trained in hazard identification, percentage of employees actively participating in behavior-based safety and number of certified trainers in safety.

#### **Lagging Indicators**

Like leading indicators, lagging indicators are also a part of an organization's OSH system. Although these indicators look at broad data (e.g., first aids, incidents, injury and illness costs, workers' compensation costs) to help measure improvements or changes from past performance, they do not communicate why specific levels of performance are occurring. Lagging indicators describe performance over time, but they do not prescribe. In sports parlance, they tell the score at the end of the game, but they do not help players and coaches understand the strengths and weaknesses of their performance as the game progresses. They do not measure safety activities that lead to a safer work environment. They look backward in time and do not allow for forecasting. Many organizations tend to focus and rely on lagging indicator data to make OSH improvements because the data is easy to identify, collect and analyze.

## What's Wrong With Setting Safety Goals Based on Lagging Indicators?

When the author joined the safety and health department of his former employer, he knew the company was facing some tough challenges but did not know the real magnitude. To say that the employer was besieged with serious and deep trouble is an understatement. Only a few days after the author's arrival at the manufacturing plant, the signs of trouble were too many to miss.

The 350-person manufacturing plant specializing in motor vehicle components faced several challenges. The round-the-clock plant operated at an anemic 49% efficiency (corporate management expected a minimum of 85%), had a total case incidence rate (TCIR) of 12.6 (3.5 points higher than the industry average), high worker turnover, high workers' compensation costs and a strained relationship with Michigan OSHA (MIOSHA). Several years of ineffective safety management (e.g., honest mistakes were viewed as crimes; performance reviews focused on productivity and did not value safety-related actions; lack of consistency existed between stated intentions and actions by management) had fostered a culture of mistrust and disrespect that was so deeply rooted in the plant's DNA that it was pathological.

Hourly workers voiced persistent criticism of virtually every aspect of the plant, particularly of safety and health. No matter what plant management did, it could not shake the perception that it was indifferent to employees' safety and welfare. In addition, several OSHA citations originating from employee complaints led MIOSHA to put the plant on its radar. The CEO figuratively sounded the panic alarm and, in an attempt to reverse the trend at this plant, the author was hired to manage the safety program.

To determine the underlying causes of these challenges, the plant was put under a microscope. All the facets of the safety program, employees' practices and beliefs were closely examined at all angles with a critical, noncomplacent eye. The assessment included walk-throughs, observations, document review, and interviews with labor and management, followed by focus group discussions, to identify and explore factors shaping attitudes and behaviors.

The results of the assessment were used to craft an aggressive improvement strategy and action plan whose implementation set in motion long-term safety success.

The interviews and focus group discussions around the company's safety goals made it clear that part of the challenges stemmed from the way safety goals were framed and communicated throughout the plant. Safety goals that were communicated to everyone during the first plant-wide meeting of each year were based on lagging indicators. Answers to questions such as "What is safety currently focused on?" "What comes to mind first when you read or hear the plant's safety goals?" and "Can you describe the kind of environment the company's current safety goals create?" were quite revealing.

From the hourly employees' perspective, the safety goals were framed in such a way that employees felt that to management, people were only numbers or job functions, such as crane operators, machine operators, millwrights and electricians. They felt the company did not care about them as human beings. Employees told the author that these beliefs were reinforced each time a work-related incident or injury occurred. Frontline supervisors' nonverbal communication (e.g., facial expression, the look in their eyes, gestures, body language, tone of voice) combined with their actions were the soil from which these beliefs and perceptions grew.

When responding to workplace injuries, frontline supervisors and previous safety leaders were reported to have had an attitude that was generally uncaring, uncollaborative and unempatheticin short, less attentive to the injured employee's safety and welfare. Injured employees were not put first. Frontline supervisors were perceived by employees to be judgmental and quick to blame the injured employee. Also, actions taken by frontline supervisors lacked minimum care and compassion for the injured employee. After the immediate crisis was over, the situation was closed for them. They did not touch base later with the injured employee, regardless of where the individual may have been (e.g., at home, at work on restricted duty) to see how the person was doing.

Instead of seeing these unfortunate workplace injuries as teaching or learning moments, management often viewed them only as being detrimental to the company's safety goals. Several golden opportunities to show how much management cares about its employees were missed because of the unproductive ways these events were handled. In the author's experience, these kinds of approaches not only inhibit learning, but also reduce intrinsic motivation because when employees do not feel cared about or believe they do not matter, it is very hard for them to be motivated and embrace the desired safety behaviors, let alone other organizational core values.

Interviews with frontline supervisors revealed that resources, energy and time were focused on injuries that had already occurred, rather than trying to find their root causes and developing preventive measures. The recordability of some cases was debated for hours, sometime days. Frontline supervisors chased down doctors to try to change the status of injuries that had already occurred and were deemed recordable or lost time.

For some hourly employees and frontline supervisors, these counterproductive attitudes were due in part to a lack of proper training as well as the way safety goals were framed. In other words, safety goals based on lagging indicators lured frontline supervisors into unproductive, uncaring, uncollaborative and unempathetic behaviors when handling a workplace incident.

The main issue was the fact that hourly employees and some frontline supervisors did not remember the specific goals, let alone understand what they meant. They found safety goals based on lagging indicators difficult to grasp. What does it mean to reduce the OSHA recordable rate by 5%? If an individual does not remember or understand a goal, it is difficult to work toward its achievement.

Indirectly, safety goals based on lagging indicators nudged or encouraged part of management to unconsciously create an environment of stress, cover up, fear and frustration—an atmosphere that the author termed a SCoFF environment. People did not feel cared for or appreciated.

Knowing that successful change is almost always a series of steps and not a big jump, reframing the way the plant wrote safety goals was, after the crafting of a compelling, inspirational and aspirational safety vision, the first step to creating a safer, healthier working environment that returns everyone home safe and well each day. The second step was to conduct periodic plant-wide progress meetings.

#### **Write Safety Goals in Human Terms** for Production Floor Workers

To be successful, a safety professional must develop many skills, one of which is the ability to craft safety goals that move the organization out of its current problems and into the desired future. To do so, the OSH professional must develop goals that are meaningful and appropriate for each level of the organization (e.g., upper management, middle management, frontline supervisors, production floor employees). The OSH professional must also put forth a coordinated and consistent effort to create goals for each group with a unified objective.

Crafting safety goals for production floor employees is a challenging task, but it has big payback when those employees can remember and, more importantly, adopt them as their own. Like any skill worth possessing, it takes work to develop safety goals for production floor workers. Following the three-step approach described here worked for the author and can help create humanistic safety goals at other organizations.

#### Step 1: Write Safety Goals With the Affected Group in Mind

When writing safety goals, avoid a one-size-fits-all approach. Write safety goals with the end user, recipients, or affected group or individual in mind. Use simple, direct sentence structure. Phrase goals in the language (e.g., wording, language) that is most relevant to the recipients, group or individual so they have a concrete understanding. Use action verbs for clarity.

When writing goals, ask the following questions, with the safety goals or objectives framed or written this way:

- •How might hourly workers perceive the goals?
- Could the goals help illustrate to hourly workers that management thinks they are important?
- •Will these goals or objectives be relatively easy for employees at all levels to understand?
- •How could these goals or objectives help hourly workers envision the desired future the company is trying to accomplish?
- •Could these goals or objectives highlight the changes that are required for people to achieve the desired future?

- •Will these goals be easy for hourly workers to remember?
- •What type of environment could these goals or objectives indirectly or unintentionally create?
- •Could these goals or objectives inspire and motivate workers to embrace a new vision for safety?

## Step 2: Limit Safety Goals Based on Lagging Indicators to Managers & Senior Leadership

Safety goals based on lagging indicators are not completely useless or bad. They are just not for everyone in the organization. For example, they are handy for middle and upper management (Petersen, 1998). At the author's former employer, safety goals based on lagging indicators continued in use, but they were only assigned to a handful of people including the managers and others in senior leadership.

### Step 3: Create Safety Objectives Based on Leading Indicators for Mostly Hourly Paid Workers

If safety goals based on lagging indicators are only for managers and senior leadership, what goals should be used for the general plant population, especially employees on the production floor, who deal with repetitive tasks each day? The answer is safety objectives based on leading indicators. Safety objectives based on leading indicators written in human terms with an obvious meaning were distributed to everyone, with feedback and discussion specifically solicited from hourly workers. These safety objectives focused on the most important areas of need, both in the prevention of injuries and the pursuit of a culture of safety excellence. To write safety objectives, the objectives and key results (OKR) approach was used.

OKR is a technique that was developed by late Andy Grover, legendary CEO of Intel, and has been popularized by John Doerr, one of the most successful venture capitalists of all time (Doerr, 2018). Doerr introduced OKR at Google and other large tech companies.

Doerr (2018) defines OKR as "A management methodology that helps to ensure that the company focuses efforts on the important issues throughout the organization" (p. 7). As the name implies, OKR has two components: the objective and the key results. The structure of an OKR is best explained by Doerr's formula: I will (objective) as measured by (set of key results).

Doerr (2018) defines an objective as "what is to be achieved." He says, "By definition, objectives are significant, concrete, action oriented and (ideally) inspirational" (Doerr, 2018, p. 7). Simply put, objectives are memorable qualitative descriptions of what you want to achieve.

Key results, on the other hand, are a set of specific, measurable, time-bound, aggressive yet realistic metrics that measure progress toward the objective (Doerr, 2018, p. 7). For each objective, there should be a set of two or three key results.

From these definitions, an objective can be long-lived and rolled into a safety department's objectives for many years, with key results evolving as the work progresses.

#### **Examples of Safety Objectives**

Following are some examples of safety objectives based on leading indicators using the OKR approach.

#### Example 1

*Objective*: Create a workplace environment where people feel safe to report near-misses, incidents, unsafe acts and unsafe conditions.

*Key results:* 

- 1. Develop a near-miss policy by Aug. 10, 2020.
- 2. Develop and roll out a plant-wide training on near-misses, unsafe acts and unsafe conditions by Aug. 30, 2020.

3. Develop and roll out an incentivized near-miss, unsafe acts and unsafe conditions reporting program by Aug. 30, 2020.

#### Example 2

*Objective:* Create a workplace where our valued employees feel cared for, valued and appreciated.

Kev results:

- 1. Each frontline supervisor gives a genuine, honest piece of praise or positive feedback to at least one member of the supervisor's team each day.
- 2. Each frontline supervisor conducts at least one one-on-one discussion a week with at least one direct report.
- 3. During daily prestart talks, the supervisor begins with two things the supervisor is grateful for: one about the team and one about someone specific on the team.

#### Example 3

Objective: Give our valued employees the knowledge, skills and aptitudes to do their jobs productively and safely.

Key results:

- 1. Develop at least one shop floor job hazard analysis per week by involving relevant people from all shifts.
- 2. Develop at least one training checklist or protocol per week by involving relevant people from all shifts.
- 3. Select and train at least one peer trainer within a month. When using the OKR approach, only the objectives are communicated to the general plant population. The key results are the part of the dashboard that is visible to management.

#### **Conduct Periodic Plant-Wide Progress Meetings**

Developing safety goals, safety objectives and key results, and communicating them to the entire workforce are all necessary actions, but they do not represent the entire picture. It is naive and unreasonable to believe that the entire workforce will absorb safety objectives based on leading indicators the first time around. You must keep repeating them until they finally sink in with everyone, especially at the shop floor level. For people to be fully engaged, not only must they understand and see how their own work contributes to the safety mission, but they must also feel that they are making steady progress (no matter how small), not just slogging away in hopes of a big jump.

One way to accomplish that is by conducting periodic plant-wide progress meetings. Based on the author's experience, these progress meetings should be led by the OSH professional, conducted with small- to medium-size groups. The ideal frequency is for the meetings to be held weekly if the organization is still at the beginning of its journey for safety excellence and would like to see significant results within 1 or 2 years.

At the author's former employer, for each safety objective based on leading indicators, progress was tracked. One segment of the presentation people enjoyed a lot was reviewing reports and solutions implemented for unsafe behaviors and conditions. It was a union plant, and it was agreed that unsafe behaviors should be reported in a manner that kept identities anonymous. People were shown the list of unsafe behaviors that were reported and how those unsafe behaviors were addressed or how they were used to amend or update current standard operating procedures during weekly toolbox talks or plant-wide safety training. Regarding unsafe conditions, people were shown before and after pictures. In this way, the safety department was not simply telling, it was showing. Meanwhile, the employees who reported the unsafe conditions, as well as the employees who corrected them were recognized and praised publicly.

This strategy worked well. Safety objectives based on leading indicators were communicated throughout the organization.

During periodic progress meetings that were held by the author, these safety objectives based on leading indicators and the progress toward them were reviewed with the employees. Hourly employees could recall safety objectives based on leading indicators more easily and were able to see how their daily actions influenced them. They embraced safety and started to feel cared for, appreciated, included and part of something bigger than themselves. The "us versus them" mentality faded, and trust and credibility gradually increased.

Why did this approach work? There are several primary reasons the new safety goal setting approach produced positive results, including:

•Senior leadership at this plant spoke and understood a "numbers language." So, safety goals based on lagging indicators were more suitable to their needs. Continuing the use of such indicators helped secure management's commitment to the needed changes in other parts of the plant. Safety professionals should learn to speak several "languages" and adapt the language to their audience.

•Safety goals based on lagging indicators such as "reduce the OSHA recordable rate by 5% by the end of the year" or "reduce the lost-time rate by 5% by the end of the year" all have a lagged effect. There is a considerable amount of time between the actions we take and the results we are hoping for. Without signs of ongoing improvement, many people will lose focus or become discouraged (especially when the process of getting better means things can appear to get worse in the early part of the process) and ultimately the implementation or execution will suffer. When dealing with hourly workers, goals must measure something they can influence and improve every day or week. Therefore, safety objectives based on leading indicators paired with key results are more meaningful to hourly workers.

•Safety objectives based on leading indicators framed in human terms illustrated that management, and particularly frontline supervisors and safety professionals, care for employees and are willing to take positive steps to put that caring into action.

•Safety objectives based on leading indicators were framed as activity-based goals. Just this little tweak relieved pressure off the safety professional and frontline supervisors by giving them control of the situation.

 Safety objectives based on leading indicators were memorable, understandable, had intuitive meaning and illustrated the cultural attributes the plant wished to achieve. Therefore, they significantly increased the chances of everyone working in unison toward their accomplishment.

•The progress meetings were short in duration (15 min maximum) and happened at rapid cadence, every week. This showed hourly workers that, unlike the previous years, this time is different; it is not the "flavor of the month"; management is serious about safety. That is why it is investing a lot of time, effort and the resources on safety.

•The safety department used the weekly progress meetings as an employee involvement tool. In fact, the weekly meeting was also used to shop around for ideas and suggestions regarding some safety issues the plant was trying to solve.

•Frontline supervisors were now held accountable for things they had full control of (e.g., shift prestart meetings, daily or weekly praises, training, regular inspection, near-miss reporting), not on end results over which they had little control (e.g., no injuries, no illnesses).

#### Conclusion

When trying to improve safety performance and develop a high performing culture, it is paramount to set safety goals for the entire workforce. However, safety goals and objectives in any organization, especially manufacturing and construction organizations, must be written with the end user, the recipient, the targeted group or individuals in mind. When the targeted group is senior leadership who understand and speak a numbers "language," safety goals that are outcome focused and based on lagging indicators can be used. When the affected group is the production floor employees, safety goals based on lagging indicators should be avoided as much as possible. Safety goals based on lagging indicators appear unintelligible to frontline workers and make them believe that the company cares more about numbers than it does about people. They lure frontline supervisors into unproductive, uncaring, uncollaborative and unempathetic behaviors when they are handling a workplace incident. Safety objectives based on leading indicators written in human terms, in a language and vocabulary that workers can understand should be utilized instead. With this strategy, employees will likely feel cared for and valued, they will remember the goals, take ownership of them and work hard to achieve them. OKR is a tool that any safety professional can use to accomplish this.

Jean Ndana, CSP,

PMP, ASQ-SSBB,

ASQ-CQE, is a

health, safety and

environmental profes-

sional with more than

20 years of experience

in multiple industries.

He is a senior regional EHS manager for

a global company

specializing in steel

manufacturing. Ndana

is the author of several

peer-reviewed profes-

sional articles. In 2017,

he was named the J.J.

Keller Safety Profes-

sional of the Year and

received an honorable mention recognition

during the 2018 ASSP

Innovation Award. A

consultant, speaker

and trainer at safety

also an external ad-

of the University of

Michigan Center for

Occupational Health

and Safety Engineer-

ing. He is a member of

ASSP's Greater Detroit

Chapter and Blacks in

conferences, Ndana is

visory board member

Safety Excellence Com-Focusing on reducing injury rates, mon Interest Group. workers' compensation costs, or number of audits or OSHA violations leads to surrogation, which occurs when there is a substitution of the metric for the strategy; that is, the achievement of the strategic safety goal (in this case) is replaced with the achievement of the metric.

The things that need to change are not injury rates, workers' compensations costs, the number of violations or OSHA citations. The things that need to change are factors that precede those outcomes: the mindsets, beliefs, behaviors, habits, practices and norms that are shared among workers. These are the different parts of an organization's safety culture that can be influenced and, in time, improve safety culture and safety metrics. PSJ

#### References

Doerr, J. (2018). Measure what matters: How Google, Bono and the Gates Foundation rock the world with OKRs. Portfolio/Penguin.

Janicak, C.A. (2010). Safety metrics: Tools and techniques for measur*ing safety performance* (2nd ed.). Government Institutes.

Locke, E.A. & Latham, G.P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. American Psychologist, 57(9), 705-717. https://doi.org/10.1037/0003-066X.57.9.705

Locke, E.A. & Latham, G.P. (2006). New directions in goal-setting theory. Current Directions in Psychological Science, 15(5), 265-268. https://doi.org/10.1111%2Fj.1467-8721.2006.00449.x

Michalewicz, M. (2014). Life in half a second: How to achieve success before it's too late. Hybrid Publishers.

Petersen, D. (1998, Oct.). What measures should we use, and why? Measuring safety system effectiveness. Professional Safety, 43(10), 37-40.