

## MEASURING UP Evaluating Effectiveness Rather Than Results

By Peter T. Susca

**The value of leading indicators has been an important topic of discussion in the OSH community for some time. The common expectation is that these indicators will be effective predictors, thereby allowing an organization to recognize and avert unwanted outcomes.**

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**However,** some challenges are common in the development and deployment of these measures. Challenges include the design and implementation of these indicators, their correlation with the organization's primary goals and risk reduction strategies, and their ability to measure effectiveness over results.

Challenges and solutions in the creation of management and measurement strategies are not unique to OSH. Most organizational metrics are results oriented. Metrics such as profitability, cost per unit, quality nonconformities, retention rates, injuries and close calls are all results (outcome) based. Driving organizational health requires a preventive and predictive mind-set and measures that allow management to identify and avert impending harm. This article provides examples of weaknesses in predictive measurements and techniques to move an organization's measurement approach to a higher level.

### How Does the Organization Measure Safe?

"We worked safely last week" was the report given by the safety leader at a weekly executive committee meeting I attended. The operation he represented encompassed 14 square miles and employed approximately 25,000 workers. I feel fortunate to have survived a week there; it was that bad. Accordingly, his quote was as far from reality as Pluto is from Earth. Because injuries and events are the operation's principal measure of safety, his statement meant that there were no injuries (reported) during the prior week. This, of course, leads to the assumption that safety must be good when there are no injuries. As crude as this example is, many management teams suffer from the same skewed belief that having no reported injuries equates to a safe workplace.

As OSH professionals, we must influence a change in the way organizational health is measured. The March 2018 Business Class article (*PSJ*, pp. 18-22) discusses the importance of a common language for safety. The first step in the foundation of this language is the common definition and understanding of safe and unsafe. These terms should not be defined by outcomes, rather by the potential for them. OSH professionals need to characterize risk in terms that business leaders understand. Once these foundational elements of the language are solidified, the next step is measuring and valuing (acting upon) these measures the same way the organization responds to their outcomes.

### Measuring Effectiveness: Ending With the Beginning in Mind

"Begin with the end in mind" is the second habit in Stephen Covey's (2004) *The Seven Habits of*

*Highly Effective People*. Managing in accordance with this habit starts with envisioning an expected outcome, then working backward to the present state to determine the achievement approach. When measuring effectiveness, it is more like ending with the beginning in mind. That is, the strategic purpose of an initiative must be keenly understood and measurable because the successful and sustainable achievement of the strategy is what effectiveness measures.

Using Covey's (2004) second habit facilitates a valuable risk versus outcome calibration for leaders. What work area practices and conditions are necessary to achieve your OSH performance expectations? This question helps leaders move toward a risk-based management and measurement approach. Once their goal and risk management strategy are defined, effectiveness is measured by the ability of the risk reduction initiatives to reduce and sustain risk in accordance with the strategy. Simply put, are the actions we are taking getting us to where we want to go?

### Organizational Management Principles

Understanding the purpose and relationship between goal, strategy, plan, tactics and objectives is foundational to organizational management and effective measurement. The goal (mission) is the purpose and expected result of the undertaking. The strategy is the main approach and principles that will be used to achieve the goal. The plan is an ordered series of tactics (initiatives/methods) and objectives that will be deployed to support the strategy. Objectives are measurable steps to be taken in the achievement of the planned initiatives.

Organizations applying these principles sometimes enter into this process in a formalistic manner and lose sight of the real value and relationship of these elements. Many times the weakest element is the strategy. The crafting of a solid strategy takes significant effort and mental horsepower. Well-crafted strategies must consider many factors such as organizational culture, resource capacity and the business environment. Many organizations and their staff can be found heads down, working to implement their annual plans and personal objectives by deploying initiatives. Within this dynamic, the value of the strategy often ends up disappearing into the background.

To be effective at achieving any major undertaking, the strategy must be solid and measurable along the path to goal achievement. Without continual calibration to a strategy, it is possible to achieve tactical suc-

cess yet not achieve the goal. No amount of tactics can make up for a poorly defined or supported strategy.

### Winning the Battle, Losing the War

In *The Art of War*, Sun Tzu says, “Strategy without tactics is the slowest route to victory. Tactics without strategy is the noise before defeat.” Following is a fire service example of the impact of not measuring the strategic effectiveness of tactical success. The goal (mission) of fire response is to make the situation better upon arrival. In a typical residential fire, after sizing up the scene and determining the conditions, the department’s strategic priority is to conduct a primary search for occupants and facilitate their safe egress from the structure. This strategy is deployed through a plan of attack that includes entry into the structure carefully balanced with ventilation to remove the smoke and heat. Vertical ventilation is accomplished by sending a team to cut a hole in the roof above the fire. This effort requires a careful synchronization of tactics, and shared information and status between those inside and outside of the structure.

I recall a fire at a condominium complex where the roof crew called the incident commander to tell him that they had successfully cut a hole in the roof and were on their way off the roof. Needless to say, climbing on a roof in poor visibility, walking over the fire, then cutting a 4x4 hole with a saw is a tough and dangerous job even in the best conditions. So, when the crew members accomplished their task, they were pretty proud of themselves. Unfortunately, the hole they cut was over the wrong condo. They were tactically perfect: they had cut a perfect hole in a safe manner. But, strategically, they were not successful and their tactical actions made the overall situation worse. Poor fire ground communication and coordination put the lives of the occupants and interior firefighters in additional danger and resulted in unnecessary damage to the condominium complex.

### Measuring Poorly Creates Poor Results

An OSH manager at a site decided it would be a good idea to complete all required OSH training during a week in January when production pressure was low. The site hired a group of contracted trainers to orchestrate this training blitz on the shop workforce. The average shop floor worker would attend 15 instructor-led sessions of approximately 1 hour in duration over the course of the week. While the company leadership celebrated that everyone was 100% green on the training goal, the workers saw red.

Not only did the workers receive ineffective training, but also they lost faith in the company’s expressed value for safety. “Management is more interested in their well-being than ours” was the general feeling expressed by disillusioned attendees. If the organization’s success expectations and measures were based on worker knowledge and capacity rather than just training completion, this flawed training initiative would have been dismissed at the

idea phase. We often witness organizations getting so caught up in their objectives, data and accountability that they forget that someone (the customer, workers and their families) expects them to do the right thing the right way.

### Do Not Make Every Indicator Into a Numeric Goal

Often, in an attempt to create leading metrics, organizations take a good indicator and turn it in the wrong direction by making it into a numeric objective. This often shifts organizational value perception, moving it from quality to quantity and from good to bad.

An example of this comes from a company that started a safety conversation process about 10 years ago. The company valued sincere, felt leadership, and viewed these safety conversations as a way to support its value. Supervisors were trained to initiate a conversation with employees specifically regarding safety. The process started off well with the expectation that superiors would carry out safety conversations for about 10 minutes at a rate of about two per week. The supervisors and workers began to appreciate the dynamic these were creating and the process received rave reviews from the workers and their union.

The results of the conversation process were discussed at a management meeting where it was decided that if a few conversations per week were good, a few more would be much better. Thereafter an objective was set for every supervisor to conduct 10 safety conversations per week, averaging two per day. Supervisors were also required to document the results in a tracking system and ensure that every employee was spoken with at least once per week. The process that previously took 20 minutes a day now took over an hour to conduct and document. Somehow, every supervisor found a way to comply with the edict. Since the effectiveness of the conversation was not being measured, the quality of the conversations dropped significantly. Supervisors and employees soon became frustrated with the

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**TABLE 1**  
**EXAMPLES OF TACTICAL VS. EFFECTIVENESS MEASURES**

Topic	OSH tactical success measure	OSH effectiveness measure
Forklift safety	Percentage of pretrip inspections completed	Percentage of forklifts in use or available for use that are well maintained or the rate of unplanned downtime
Safety training	Percentage of workers that have received all required training	Percentage of workers who know how or when to apply the applicable skills and knowledge
Worker engagement	Number of safety issues and suggestions provided by area	Percentage of workers willing to bring up another safety issue or suggestion

**TABLE 2**  
**BUSINESS INTEGRATED OSH GOAL & STRATEGIC DEVELOPMENT**

Goal	Strategy	Initiative (tactic)	OSH tactical success measure	OSH effectiveness measure	Organizational effectiveness measure
The safety management system will become a valued source of predictive organizational data	Strengthen the predictive elements of the management system (e.g., auditing)	Rebuild the audit process to assess management system predictive health	Process complete, number of auditors trained and audits performed on schedule	Percentage of audit findings that identify management system weaknesses	Percentage of audit findings identifying common organization-wide system weaknesses
Each work group will be capable of managing their high risks	Deploy a risk management process that is practical at the group level	Develop the risk management process and train work groups	Process and training completed on schedule for all required work groups	Percentage of groups sustaining the approach in their areas with high risks controlled	Percentage of work groups applying these principles to manage other high-risk issues (e.g., quality)

time commitment, redundancy and forced nature of the approach. About a year after the inception of this great idea, the entire process was hated by all and scrapped by management.

### Creating Improved Measures of Effectiveness

Whether those performing tactical initiatives are fighting a fire or implementing controls to reduce OSH risk, every action they take must be measured against the main strategy to achieve the goal (i.e., injury or harm reduction). We consistently observe a wide variety of programmatic-level activities (e.g., machine guarding, PPE) and systems-level activities (e.g., employee engagement, leadership) measured solely by their completion. Metrics such as the number of employees attending training, the completion of management walks, the submittal of job hazard analysis forms and forklift inspections are not adequate measures of effectiveness because they only measure tactical completion.

For example, attending a training class is a small part of what is required to ensure that the information intended to be relayed by the training is consistently and appropriately applied in the workplace. Safety is personal; therefore, it should be measured in a personal manner. If workers are expected to apply knowledge and skills acquired through training, then their capacity to do this should be assessed individually in a real-world environment. For training, measuring knowledge and skill transfer and application capacity is measuring effectiveness.

Tactical success measures typically lend themselves to results that are measured by successful completion of the objective, (such as cutting the ventilation hole over the fire). Effectiveness measures focus on whether the completion of the initiative supported the strategic purpose for the initiative. Effectiveness requires a more thorough, interactive and humanistic assessment of reality. Measuring effectiveness typically requires a greater level of skill and effort. Tactical success is generally easier to measure and quantify, and therefore can be evaluated and communicated to upper management more rapidly. Organizational decisions on

the use of tactical versus effectiveness measures (Table 1, p. 23) set the tone for quantity versus quality operational decisions.

In addition, measuring OSH effectiveness without considering operational process health is working in a silo. To be successful in the business dynamic, OSH professionals must work across traditional boundaries in a constructive manner. Helping another function achieve their objectives is a great way to build organizational value. Every OSH risk management decision should be evaluated on its ability to support the other key business imperatives (e.g., cost, quality, schedule). Therefore, when setting OSH goals and strategy, they should be designed to further business success, not just OSH. Table 2 shows examples of how OSH goal and strategy development and strategic effectiveness measures can be deployed in a manner that is holistically valuable. The table also shows how measuring tactical success is not indicative of strategic effectiveness because it does not verify that the strategic expectation has been advanced.

### Conclusion

Many organizations are so results driven that it is hard for them to pull back and examine important factors such as strategic alignment and the effectiveness of initiatives. OSH professionals must find the time. In the realm of risk management, ineffective activity directly correlates to the creation of excessive risk.

This article offers ways to look at strategies, initiatives and success measures to determine where weaknesses and opportunities may exist. Initiate a conversation regarding these principles with peers in other functions. Focus on measures that relate to significant process/OSH risk, impact productivity, create waste and are manageable within the scope of your responsibility. Make a concerted effort to raise the effectiveness of at least one key measure starting today. **PSJ**

### References

Covey, S.R. (2004). *The seven habits of highly effective people*. New York, NY: Free Press.