

SCALABLE

injury prevention

BY BILL GONSER AND BRETT WEISS

PREVENTING ON-THE-JOB ILLNESSES AND INJURIES HAS always been an important goal for companies, but recent trends suggest that it is about to become an even higher business priority.

Global competition is fierce and companies are seeking every possible source of competitive advantage. Companies now consider human capital as a key business advantage. They are doing everything possible to keep their employees healthy, productive, and on the job. This means they are no longer willing to accept preventable work-related injuries and the





Safety assurance is a key business advantage

scalable injury prevention

associated lost time as just the cost of doing business. It is easy to see why. The direct cost of on-the-job injuries is estimated to be 14 percent to 16 percent of payroll. Indirect costs, including lost productivity, employee replacement costs, poor morale, record-keeping, and other administration costs, conservatively can add up to three times that much. Add in the cost of workers on the job who are not fully functioning because of illness or injury — so-called presenteeism — and the cost of these incidents is even greater.

Injury prevention can also be viewed in terms of shareholder value creation. In addition to the short-term benefits in the form of improved margins, fewer business interruptions, and better customer service, injury prevention can also create long-term benefits by improving the value of human capital through higher retention and productivity.

Internal changes in many organizations are also making the time ripe for focusing on injury prevention. The combination of more robust technology and improved business process management (BPM) has created fertile ground for injury prevention programs. Indeed, the intersection of technology and BPM is critical to managing the data required to focus injury prevention efforts effectively because these systems allow the organization to learn by capturing a baseline of performance and measuring subsequent improvements.

Many companies have also begun to explore using enterprise risk management solutions that allow them to view, manage, and mitigate business risks on a holistic rather than piecemeal basis. Executives throughout these companies are becoming more deeply involved in risk management and are assuming more responsibility and have more accountability for managing risks effectively than ever before. As a result, they are looking at risk across the organization and seeking ways to be more aggressive in controlling those risks and their related costs.

Across the enterprise

With hundreds or thousands of employees, jobs, processes, and procedures and tens of thousands of factors contributing to workplace injuries, creating a comprehensive injury prevention program that can manage all this can be a daunting prospect. This is particularly true for companies that are still using paper- or spreadsheet-based systems to manage their health and safety activities.


However, companies can manage that complexity by implementing a scalable injury prevention program. In order for an injury prevention program to be scalable, it must set priorities based on which efforts will yield the greatest benefits. Steps include gathering, analyzing, acting on, and measuring a con-

More injury prevention programs utilize sophisticated products created for high-risk environments.



tinuous flow of data from across the organization. When this process is in place, risk can be compared across the organization, the highest risks can be prioritized, and resources can be allocated based on these new priorities for risk reduction.

Technology enables scalability. The most successful technology-based injury prevention programs are customized to the specific organization according to a host of factors, including its size, goals, culture, and geography. That means that the program, its data collection, and its supporting technology should be flexible enough to accommodate the variability of internal processes, the organization's unique attributes, and its general



ways of doing business. The more data the program can collect that reflects the company's real needs and circumstances, the more effective the injury prevention effort will be.

When this data collection occurs, the system becomes populated with the many types of risk that occur in the modern workplace, including repetitive body motion, working at heights, chemical/environmental risks, stored energy, and electrical risks. Without a system that brings all these risks together in one place, an organization is likely to rely on multiple experts who focus on tasks that have a high probability of severe injury but a relatively low probability of occurring, instead of tasks that have a moderate probability of injury and a higher probability of occurring. For example, by redesigning or eliminating the task that requires a worker to lift a 20-pound replacement part 20 times while standing on a six-foot

ladder for two hours in a room with 103 decibels of noise, an electrical disconnect, and lock-out block-out 50 yards away, the organization can eliminate a huge amount of risk that might have otherwise not been dealt with.

The power of a scalable injury prevention program also lies in its ability to leverage what has already been discovered and learned about injury prevention in every part of the organization. By using a technology-based approach, an organization learns by formally establishing a baseline of performance against which to measure enhancements. This makes it possible to compare risks from one area or job to another and to see what steps have been taken to address those risks. This way, if one area of the company has successfully taken steps to reduce injuries, other areas may be able to emulate or adapt that approach to fit a different situation. This type of internal benchmarking and best practice sharing can help any injury prevention program gain important momentum.

With a proactive focus, a scalable injury prevention program can also provide employees with personalized communication and information about risk avoidance and mitigation based on each employee's level and type of risk. This way, employees have the information and insights they need to make changes in their work approach themselves without any expert intervention. For example, when a company sets up storerooms/stockrooms, the best practice for reducing body motion injuries is to create a storage plan based on the weight and frequency items retrieved. This involves labeling the shelves and making sure that they are used and maintained in accordance with the standard. Employers may conduct in-person training or communicate via email to ensure that employees comply with

best practices.

In addition, managers and supervisors can receive information about potential opportunities to mitigate risk among their employees, and receive reports on the effectiveness of current risk-mitigation activities. If the data reveals that certain jobs or processes are driving losses from injury, this information can be funneled to the right people so they can make changes and modifications to prevent future injuries.

By identifying and strengthening a company's existing business processes and leveraging emerging technology, companies can create scalable programs that enhance injury prevention efforts. However, the technology is only as good as its ability to meet the changing needs of a specific organization. Without that capability, there is little point in using technology to support an injury prevention program. Companies are best

served when they evaluate technology for managing injury prevention programs based on whether it focuses on BPM.

Business process management

Since a scalable injury prevention program represents a new way of identifying and managing job-related risks, it needs to be supported with stronger business processes. Focusing on BPM is important for making injury prevention management more efficient across multiple people, jobs, and geographies.

Using BPM, companies can systematically integrate a set of activities to optimize business processes or adapt them to new organizational needs. Because employees' work habits change significantly every six months or so, the fifth largest global energy company regularly gathers new information about those work habits using its BPM software. The company then uses that information to update risk calculations and to ensure that it is focusing injury prevention efforts on high-risk employees.

In another situation, a company can use new or enhanced business processes to improve the method and speed with which it identifies at-risk individuals for on-the-job injury or illness. In this case, a company can use BPM to manage activities related to the identification of risk-for-injury factors and the distribution of solutions to supervisors and health and safety staff to help employees avoid those injuries.

This BPM-supported approach often requires some level of process improvement. To achieve that improvement, a company should begin by deciding what metrics are necessary to determine the injury prevention program's success, then identify the processes most critical to achieving success and high-

scalable injury prevention

light any opportunities for improving those processes.

Many companies have implemented risk-based injury prevention business processes that focus on “sources of error” to identify which employees are at the highest risk of injury. With this information, the company can then set priorities for addressing these issues and identify and implement solutions for the employees with the greatest risk first, followed by employees with lower risk. Once these remediation efforts are underway, companies can follow up using software analytics to identify any risks that are not being effectively reduced and take additional steps to address those risks appropriately to decrease the severity and cost of injuries over time.

Throughout this effort, it is important to remember that business processes are only as good as the people who define

workers’ compensation costs through injury prevention, it must first look at lagging indicators, such as incidence rates, lost work days, and case severity rates. These data points illuminate where costs have historically occurred and provide a preliminary indication of where risk may lie. A scalable program supported by software can also include leading indicators that identify priority risks within a department, as well as objective measurements of risk reduction as process and/or physical changes are made. If this company’s historical data indicates that 90 percent of costs come from 10 percent of its claims and that those claims occur in the rotor manufacturing department, it should make injury prevention in that department a priority by emphasizing leading indicators, such as safety inspection rates, best practice implementation rates, program

and implement them. Simply purchasing software and using it to automate risk management business processes will not benefit a company if those processes are not used correctly and consistently by everyone throughout the enterprise. This is especially true when it comes to processes in areas that directly affect the company’s core business objectives. For example, automating notices to managers about the risk factors in the work environment will only be effective if notified managers follow up by addressing those risk factors. Software-based analytical tools help identify the adoption and compliance rates for those processes as well.

Using the right tools ensures that companies have critical information that will enable them to allocate resources where they are needed most. These tools also empower employees to change their work habits and environments — minimizing their discomfort levels, increasing their job satisfaction, getting them back to work sooner, and ultimately decreasing injury-related costs for the company.

Metrics for injury prevention

Identifying the metrics for determining program success is a critical factor in building a sustainable, scalable injury prevention program. Most companies’ choice of metrics will be greatly influenced by what is currently causing the pain — too many injuries, injuries that are too expensive, or too many expensive injuries. These metrics will be used to measure the current state of injury prevention and any future improvements, but they also help to shape thinking, organizational culture, and how companies choose to solve these injury-related problems.

If a company hopes to achieve a reduction in overall incurred

participation rates, and risk priority identification.

By contrast, companies that focus too much on one metric can end up with a dysfunctional program. For example, focusing on the number of injuries, claims, or incidents often leads to programs designed to eliminate the highest number in those categories. It could even lead to programs with a built-in incentive to suppress injury reporting or intimidate employees. Similarly, only focusing on injury severity can cause a company to allocate too many resources to mitigate very severe, but unlikely, events.

To ensure a more balanced and dynamic injury prevention program, many companies keep track of both lagging and leading indicators. Although relying primarily on lagging indicators can create a reactive injury prevention strategy, the right mix of leading and lagging indicators can lead to a more progressive approach.

Bigger servings

With this increased emphasis on risk management in general and on injury prevention in particular, industrial engineers are likely to become more involved in these issues in the future. Engineers are trained to gather and analyze information, which is a key part of a successful injury prevention program. However, engineers bring much more than these skills to the injury prevention table.

Industrial engineers can play an important role in scalable injury prevention programs by maintaining and encouraging an overall injury prevention mentality in their day-to-day work. More specifically, companies will be counting on engineers to identify injury-related risks quickly and to set priorities for dealing with those risks. For example, if the loss prevention



The U.S. Department of Safety reports that back injuries make up the majority of work-related injuries in the United States.



program uncovers a cluster of injuries, the engineers will be asked to identify designs and other changes that will help reduce or eliminate those injuries.

Because of the nature of their work, engineers tend to have frequent contact with individuals at all levels of the organization from senior executives to machine operators on the plant floor. This often creates a level of rapport with operations and other areas of the company that individuals from the risk management and health and safety departments may not have. Moreover, it also provides engineers with both an intimate knowledge of day-to-day operations and jobs and a

broader, more strategic understanding of the organization and its goals.

This combination of insight and experience puts engineers in a unique position. They can use this knowledge to quickly identify where risks exist and how to deal with those risks, often with input from a range of people throughout operations. This means defining the parameters for risk and identifying new equipment and behaviors that could positively or negatively affect those risks. Ultimately, it will be engineers who validate the effect of an injury prevention program and any benefits the program creates.

At the same time, engineers can also bring an important operations perspective when working with individuals from the risk management and health and safety functions. Moreover, they can use their frequent contact with operations staff and management on the front lines to talk about the injury prevention program, how it works, operations' role in its success, and how the program fits in with the broader goals and objectives of the company.

Eventually, it will be up to engineers to incorporate an injury prevention mentality into their day-to-day thinking and activities. After all, the ultimate goal is to get companies to recognize that safety is just another element of doing business the right way and that quality and efficiency are all rolled up with safety when it comes to defining the one best way to perform a task. If managed well, an injury prevention program will not just keep employees healthy and productive; it will keep the entire organization healthy and productive from a business process management, risk management, and financial standpoint. ❖

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