THE MAGAZINE FOR ENVIRONMENT, HEALTH AND SAFETY LEADERS

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An EHS Today Special Report

TOP 10 EHS Trends of 2022

COVID may still be with us, but numerous other challenges are now demanding more attention from safety leaders. *p. 10*

Hazard Communication p. 14

Fall Protection Training p. 18

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EHS Today

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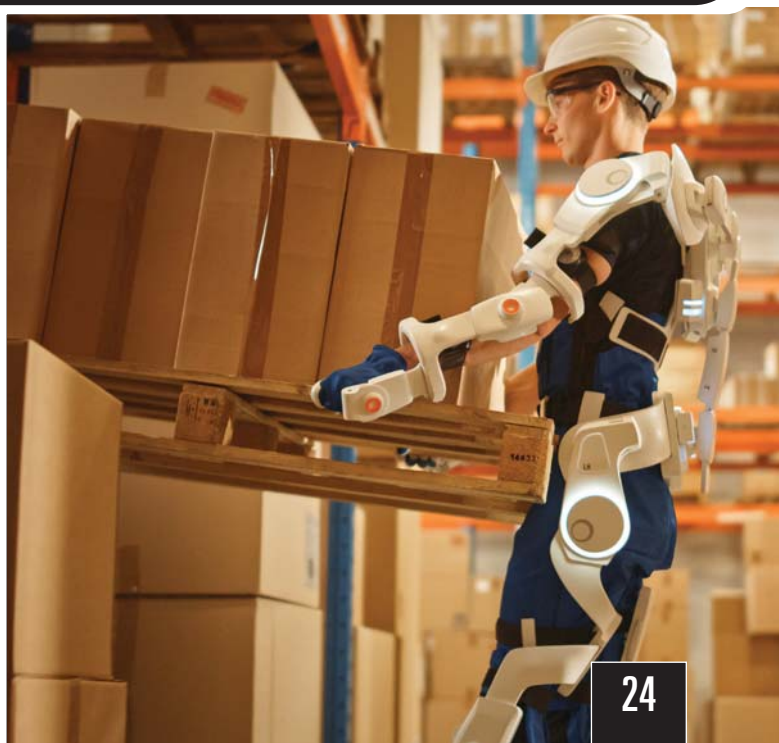

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ON-DEMAND WEBINAR

Safety Promotes Profit: Why Common Sense Is Not Commonplace

Improving an organization's safety culture requires reestablishing a working bond between safety and production goals. It is easy to talk about safety and say what needs to get done on paper, but there is a real demand for production numbers that often seem to surpass safety and machine maintenance. Those who become complacent in their day-to-day tasks risk hurting more than a profit. Managers, supervisors and engineers need a revitalized respect for the safety culture they represent for their workers. Not everyone truly understands that there is life-threatening danger around every corner.

This webinar presentation emphasizes that no one is above safety, and we all can stand to learn something new. It does not matter what your background, education, or job title are: common sense safety practices are not to be taken lightly or overlooked. There is never an excuse for an employee getting injured or killed because someone assumed that what they were doing was safe. Safety leaders owe it to their staff to make time for safety and preventive maintenance measures. Compliance and productivity work together. Safety promotes profit.

The webinar also focuses on how to implement OSHA compliance in the workplace without interrupting or interfering with productivity.

Presented by Taylor Waller, safety and maintenance manager with DCA Manufacturing (Debron Circuit Assembly). He also serves as vice president for the WWSC (Western Wisconsin Safety Council).

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Dave Blanchard

Editor-in-Chief

Warning: The Workplace Could Be Hazardous to Your Mental Health

The Surgeon General is urging companies to be proactive in protecting their workers' well-being.

When I was a kid, I used to think that the U.S. Surgeon General was a doctor who treated all the senior officers in the U.S. Armed Forces. As I got a little older, and I figured out there was no connection to the military in the role, I got a clearer idea of who the Surgeon General was—namely, the person who put all those warning labels on cigarette packages. Those warnings, in fact, were quite effective in keeping me from smoking; not so much, unfortunately, in my dad's case.

According to the Department of Health and Human Services, the Surgeon General is "the nation's doctor, providing Americans with the best scientific information available on how to improve their health and reduce the risk of illness and injury." That job description is even more impressive than the imaginary one I concocted in my youth.

The current Surgeon General, Dr. Vivek Murthy, has largely been focused on the pandemic since his appointment in 2021. He's been particularly concerned about COVID's lingering effects—not just the physical nature of the virus, but also its impact on mental and emotional health. In October 2022, Murthy's office released a Framework for Mental Health & Well-Being in the Workplace, which is the first time a Surgeon General has issued a report specifically addressing workplace mental health.

"A healthy workforce is the foundation for thriving organizations and healthier communities," said Murthy in announcing the framework. "As we recover from the worst of the pandemic, we have an opportunity and the power to make workplaces engines for mental health and well-being, and this framework shows us how we can start. It will require organizations to rethink how they protect workers from harm, foster a sense of connection among workers, show workers that they matter, make space for their lives outside work, and support their growth. It will be worth it, because the benefits will accrue for workers and organizations alike."

In explaining the need for workplaces to increase their vigilance on promoting mental health, Murthy cited several workplace statistics:

- 76% of U.S. workers last year reported at least one symptom of a mental health condition, such as anxiety or depression. Prior to the pandemic, the percentage was 59%.
- 81% of workers anticipate seeking work at organizations that support mental health.
- 84% of workers have experienced at least one workplace incident that has had a negative impact on their mental health.

The framework maps out five essential areas that employers should focus on (see sidebar, "How to Support the Mental Health of Your Workers"). And, as we noted in our own *EHS Today* **Mental Health in the Workplace Report**, companies must do a better job of allocating resources to prioritize mental health awareness, support and treatment. Substance abuse, workplace violence and major depressive episodes have markedly increased since the onset of COVID, yet many companies still devote much more attention to protecting employees' physical health than their mental health.

As an advocate for the nation's youth, Murthy has already helped raise the public's awareness of the mental health crisis in school-aged children, and it's hoped that the workplace framework will contribute to a heightened sense of alarm among all employers. Safety leaders have long known about the importance of protecting their workers from dangers both external and internal. Having the Surgeon General's imprimatur on the framework can go a long way in reinforcing the message that an organization's financial health is ultimately dependent on its employees' mental and physical health.

Send an e-mail with your thoughts to dblanchard@endeavorb2b.com.

How to Support the Mental Health of Your Workers

1. Protection from Harm
- Prioritize workplace physical and psychological safety
- Operationalize diversity, equity and inclusion policies

2. Connection and Community
- Foster collaboration and teamwork
- Cultivate trusted relationships

3. Work-Life Harmony
- Make schedules as flexible and predictable as possible
- Respect boundaries between work and non-work time

4. Mattering at Work
- Build a culture of gratitude and recognition
- Connect individual work with organizational mission

5. Opportunity for Growth
- Offer quality training, education and mentoring
- Ensure relevant, reciprocal feedback

Source: U.S. Surgeon General's Framework for Mental Health & Well-Being in the Workplace

Strong Link Between Driver Behavior and Crashes

Study looked at various truck crash predictive behaviors.

By David Sparkman

Truck driver behavior is a key predictor of whether any driver will be involved in a road accident in the future, according to the American Transportation Research Institute (ATRI), the nonprofit research arm of American Trucking Associations (ATA).

"Having a science-based model for predicting crashes is one of the most important tools the trucking industry can have," declared Dan Horvath, ATA's vice president of safety policy. "ATRI's Crash Predictor research allows carriers to target and monitor those truck driver behaviors that matter most. With truck crashes increasing, there is no better time to have this data in our hands."

PHOTOVS | DREAMSTIME

The new report provides an update to the organization's Predicting Truck Crash Involvement research, which was first aired in 2005 with updates published in 2011 and 2018 as well as this year.

"Four years have passed since the release of the last Crash Predictor report," ATRI noted. "Since then, [there have been] substantial changes in the regulatory environment, technology adoption, safety performance and working conditions."

However, the report's authors made the point that the time periods covering when the study was conducted generally preceded the impacts stemming from the COVID pandemic. "The industry's efforts have generally shown promise: from 2005-2010, fatal truck-involved crashes decreased significantly by 24.8%," they said. "Unfortunately, recent upticks in truck crashes may negate the long-term progress."

ATRI's analysis identified more than 25 different violations and convictions that increased the likelihood of future crashes, five of which increased future crash likelihood by over 100%. Simply having a previous crash increased a truck driver's probability of having a future crash by 113%, which is 28.4% higher than previous ATRI Crash Predictor reports.

According to the institute, its research has succeeded in designing and testing a predictive model that is capable of identifying statistically significant relationships between truck driver safety behaviors and future crash probability. The new 2022 report uses the same statistical methods and is based on looking into more than 580,000 individual truck driver records.

A number of behaviors have consistently been strong indicators of future crash involvement across three or more reports, ATRI pointed out. In the 2022 report, these were found to be:

- A reckless driving violation increased crash likelihood by 104%, showing an 8.8% decrease from 2018 to 2022.
- On the other hand, a failure to use/improper signal conviction increased crash likelihood by 116%, a 41.5% hike from 2018 to 2022.
- Prior crash involvement showed a 113% increased likelihood of a driver being involved in a future crash, 28.4% higher than previous reports.
- A failure to yield right-of-way violation increased crash likelihood by 141%, a 39.6% increase from 2018 to 2022.
- Improper or erratic lane changes conviction predictability remains at 79%, unchanged from past reports.

AGE AND GENDER MATTERS

The 2022 Crash Predictor update includes several new analyses, including a safety comparison between 18- to 20-year-old truck drivers and those who were older than 24 years. What ATRI found was that drivers younger than 21 years old have statistically fewer crashes than those older than 24.

Due to the small sample size of drivers under the age of 21, however, further research is needed, they said. Also, because young drivers are currently excluded from obtaining a commercial driver's license for operating in interstate operations except in highly supervised pilot research projects, most of their truck driving occurs in local service.

When it comes to gender, the analysis also documents a surprising differential between the percentage of female truck drivers overall (6.7%) and their much smaller representation among truck driver inspections (2.7%). Several explanations are being tested to better understand the basis for the difference, according to the researchers.

"While ATRI research corroborates that female truck drivers are safer, there is no clear basis for female truck drivers being inspected less frequently than male truck drivers—as is shown in this latest Crash Predictor data," the researchers said.

They examined the inspection anomaly further by testing several hypotheses through research and interviews with female drivers. Most of these theories failed to pass muster (e.g., that they tend to drive for well-known, safer fleets), but one that appears to be accurate is that females are more conscientious about driving clean and well-maintained trucks.

Based on the inspector interviews and site visits, inspectors generally look for damage, cleanliness and odd driving behaviors. In addition, the researchers said a number of female drivers mentioned in their survey responses that they tend to be more inclined to pursue jobs where they can be home at the end of the day. This may motivate them toward Class B and Class C licenses, shorter trip lengths, and straight truck configurations, ATRI said.

Leaving inspections behind, when it comes to breaking the law, ATRI found that males continue to be more likely than females to have violations, convictions and crash involvement for all statistically significant events. From 2018 to 2022, males continued to be significantly more likely than females to commit 11 behaviors that are considered predictive of future crash involvement, the researched explained.

Of these behaviors, three experienced an increased likelihood compared to 2018. These three behaviors include: a medical certificate violation, failure to obey traffic sign conviction, and failure to obey traffic control device violation.

The remaining eight behaviors, while still more likely among males than females, had a lower increased likelihood in 2022 than in 2018. These eight behaviors include: a seat belt violation, hours-of-service violation, and a failure to obey traffic signal or light conviction.

Also, violations by males were more likely to presage another incident, an out-of-service (OOS) violation; false/no log book violation; any conviction; speeding more than 15 miles over speed limit conviction; and a past crash.

A female driver explained to the researchers, "Women have more to prove than men in this industry, and we have an image to uphold, so we have to make sure our record is clear."

Finally, the report includes an updated list of the 10 Top Tier States for truck safety, as ranked by the relationship between traffic enforcement inspections and crashes. The top-ranked states (in order) were Washington, Indiana, New Mexico, Arizona, Massachusetts, Georgia, Pennsylvania, Illinois, California and Michigan.

Over the years, ATRI has said a correlation has been found between the number of state law enforcement inspections and the number of truck crash incidents. That is, the more inspections conducted by a state, the lower the number of accidents.

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10 Ways Mental Health Impacts the Workplace

A recent study from the WHO offers recommendations for employers.

By Adrienne Selko

Recently, the World Health Organization released a report, "WHO Guidelines on Mental Health at Work," that offers research as well as recommendations for how to deal with the issue of mental health at work.

The organization notes that an estimated 15% of working-age adults have a mental disorder at any point in time.

Depression and anxiety are estimated to cost the global economy $1 trillion USD each year driven predominantly by lost productivity.

As "people living with severe mental health conditions are largely excluded from work despite participation in economic activities being important for recovery," the report's recommendations are aimed at enabling people with mental health conditions the ability to participate in the workforce.

WHO offers the following 10 categories of psychosocial risk factors for poor mental health (as well as poor physical health) related to the workplace:

1. Work content/task design: lack of variety or short work cycles, fragmented or meaningless work, under-use of skills, high uncertainty, continuous exposure to people through work.

2. Workload and work pace: work overload or under-load, machine pacing, high levels of time pressure, continual subjection to deadlines.

3. Work schedule: shift-working, night shifts, inflexible work schedules, unpredictable hours, long or unsociable hours.

4. Control: low participation in decision-making, lack of control over workload, pacing.

5. Environment and equipment: inadequate equipment availability, suitability or maintenance; poor environmental conditions, such as lack of space, poor lighting and excessive noise.

6. Organizational culture and function: poor communication; low levels of support for problem-solving and personal development; lack of definition of, or agreement on, organizational objectives; organizational change; high competition for scarce resources; over-complex bureaucracies.

7. Interpersonal relationships at work: social or physical isolation; poor relationships with superiors; interpersonal conflict; harmful work behaviors; lack of perceived or actual social support; bullying, harassment or mobbing; microaggressions.

8. Role in organization: role ambiguity, role conflict, responsibility for others.

9. Career development: career stagnation and uncertainty, under-promotion or over-promotion, poor pay, job insecurity, low social value of work.

10. Home-work interface: conflicting demands of work and home, including for persons with caregiving responsibilities; low support at home; dual career problems; living at the same site where the work is done; living away from family during work assignments.

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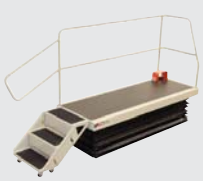

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Top 10 OSHA Violations of 2022

By Dave Blanchard

Falling down on the job seems to be a perennial workplace issue, as does failing to provide adequate fall protection, because for the twelfth year in a row "fall protection - general requirement" is the most cited standard violation, according to the Occupational Safety and Health Association (OSHA).

All violations on this year's list also appeared on the previous year's list, although there was a good deal of shifting up or down the rankings. The tally includes federal OSHA violations occurring from Oct. 1, 2021, to Sept. 6, 2022. (Data collected from state OSHA agencies is not included.)

Patrick Kapust, deputy director of OSHA's Directorate of Enforcement (DEP), said at the recent National Safety Council show in San Diego that the agency makes this list available every year to help employers determine what areas in their workplaces they should focus on to improve safety.

Here are OSHA's most common violations:

10 **Machine Guarding** (1910.212): 1,370 violations. Ranked at # 10 in 2021; 257 more violations than in the previous year.

9 **Personal Protective & Lifesaving Equipment**: Eye and Face Protection (1926.102): 1,401 violations. Ranked at # 8 in 2021; 51 fewer violations than in the previous year.

8 **Fall Protection–Training Requirements** (1926.503): 1,666 violations. Ranked at # 7 in 2021; 110 fewer violations than in the previous year.

7 **Forklifts and Powered Industrial Trucks** (1910.178): 1,749 violations. Ranked at # 9 in 2020; 183 more violations than in the previous year.

6 **Lockout/Tagout** (1910.147): 1,977 violations. Ranked at # 6 in 2021; 279 more violations than in the previous year.

5 **Scaffolding** (1926.451): 2,058 violations. Ranked at # 5 in 2021; 110 more violations than in the previous year.

4 **Ladders** (1926.1053): 2,143 violations. Ranked at # 3 in 2021; 117 more violations than in the previous year.

3 **Respiratory Protection** (1910.134): 2,185 violations. Ranked at # 2 in 2021; 342 fewer violations than in the previous year.

2 **Hazard Communication** (1910.1200): 2,424 violations. Ranked at # 5 in 2021; 477 more violations than in the previous year.

1 **Fall Protection–General Requirements** (1926.501): 5,260 violations. Ranked at # 1 in 2021; 35 fewer violations than in the previous year.

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In a Deskless Economy, What do Workers Want?

New research shows that 49% of frontline managers are feeling burned out on a daily basis.

Given that deskless workers make up 80% of the global workforce, Axonify wanted to uncover what issues workers were facing. Its new study, "The Deskless Report," is comprised of interviews with 260 corporate leaders and 1,000 workers and managers across multiple industries. Here are three key findings from the report:

1. FRONTLINE MANAGERS ARE CRITICAL BUT BURNING OUT— FAST

Managers are expected to be everything to everyone. They link corporate to staff, often relying on outdated or ill-fitting communication systems, lead the implementation of new initiatives with tight time lines and little information, and have to quickly fill gaps that erupt on the frontline due to labor shortages—all while just trying to stay afloat amid everyday challenges.

The research shows that 49% of frontline managers are feeling burned out on a daily basis.

2. MISALIGNMENT IS LEAVING FUNDAMENTAL EMPLOYEE NEEDS UNMET

Organizations want employees to understand the "why" behind their work, but it's a two-way street. Frontline workers have a "why" too, and without equitable compensation, steady schedules, adequate support or a dependable way to communicate when things aren't right—all identified as significant happiness drivers for workers—success and satisfaction will continue to stay out of reach. Employees are craving stability, community and empathetic leadership, but what happens when it feels like no one's listening? The Great Resignation. Quiet Quitting. And whatever the next trend is that puts workers in impossible scenarios that don't serve them or the business.

3. TECH NEEDS AN UPGRADE

Technology has the power to transform the workplace and, when done right, it can elevate the frontline associate experience by making the job more efficient, engaging and rewarding.

But when done poorly (such as putting new devices in employees' hands without setting usage expectations or baselining knowledge) the result is more frustration, poor company culture and wasted investment dollars.

There also needs to be a shift in perception. Leaders should focus on tech as an employee enablement opportunity that can solve some of the most pressing issues—compensation, community, burnout, etc.—and treat it with the same enthusiasm as customer-facing digital initiatives.

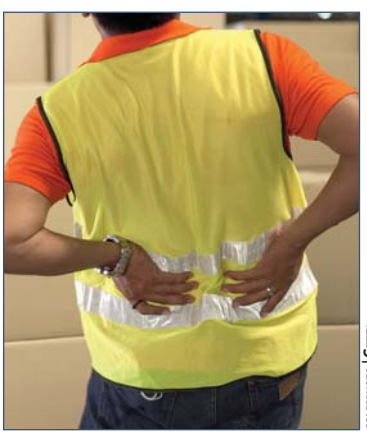
Adrienne Selko
Senior Editor

Will a Pledge to Reduce MSDs Lead to Change?

More than 100 organizations plan to significantly reduce workplace musculoskeletal disorders by 2025.

When a tree falls in the woods with no one there to hear it, the question becomes: Does it make a sound? When it comes to public statements, the opposite premise might be: If you publicly declare you will do something, then it will get done.

This is part of the thinking when asking companies to take the MSD (musculoskeletal disorders) Pledge. And it seems to be working. More than 100 organizations across the globe have signed a pledge to reduce workplace MSDs by 25% by 2025.



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The pledge, which includes an index to measure the goal, is housed in the MSD Solutions Lab, which is part of the National Safety Council. The lab, which was established in 2021 with funding from Amazon, notes that MSDs—which include ergonomics injuries such as tendinitis, back strains, and sprains as well as carpal tunnel syndrome—are the most common workplace injuries.

In 2020 the U.S. private-sector workers experienced 247,620 non-fatal MSDs severe enough to miss at least one day of work. And the cost is huge due to injuries caused by the following:

- heavy lifting: $13 billion;
- awkward postures: $4.7 billion;
- competitive motions: $1.6 billion.

"This is an idea whose time has come," says Corrine Towler, director of the MSD Solutions Lab. "Organizations are telling us that they are excited to have a method to measure efforts in this area and to elevate the conversation. This is true whether an organization already has a program in place to help reduce these injuries or are just beginning. This index can keep energy focused on the issue."

The MSD Index evaluates an organization's performance against the pledge commitment and includes metrics on risk reduction strategies, workplace safety culture and innovation efforts. But what the index doesn't do, unlike most indexes, is rank companies. Information that comes from the companies is de-identified and counted as aggregate data.

"We are not trying to announce which company is doing better than another toward the goal, but instead we are tracking the entire community's evolution," notes Towler. "Every organization will have their own target and metrics."

Another way the MSD Solutions Lab will interact with companies who sign the pledge is to assist in vetting safety technology. "In my very long safety career, I have not seen this kind of emphasis on human-centered technology like we are seeing now. Our organization will work alongside this emerging technology and share what they are doing. We want to open up the spectrum of what's possible."

The goal of decreasing MSD injuries has been something companies have been chasing awhile. Part of the difficulty regarding treating these injuries is that they are often difficult to pin down, but they affect a person throughout their career.

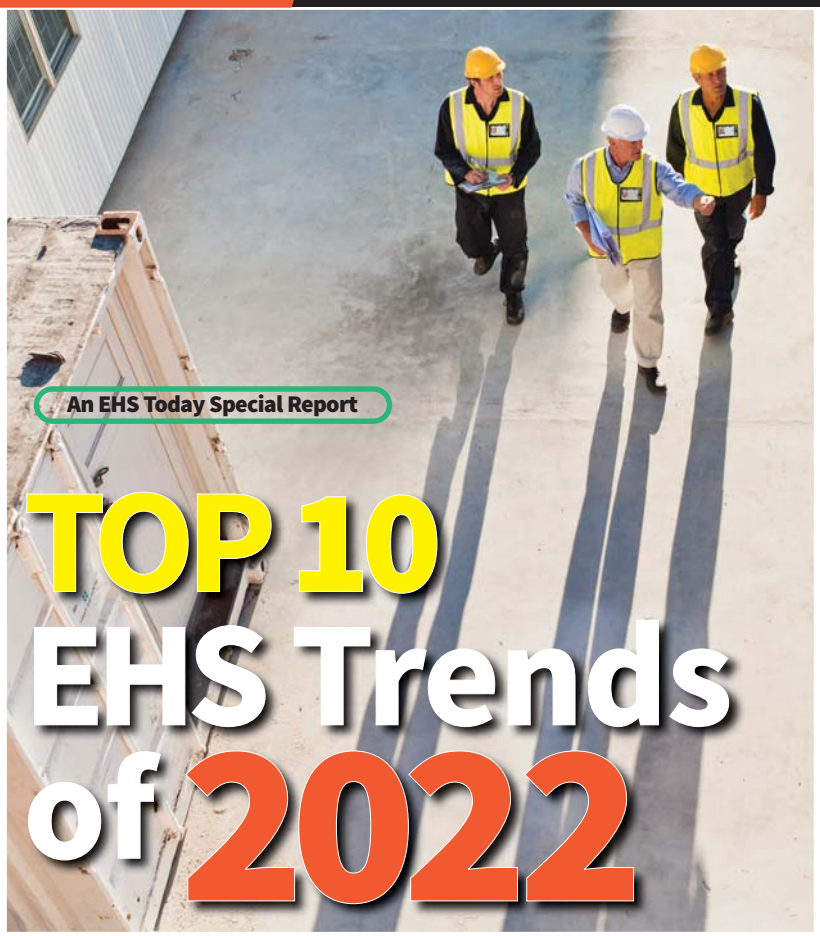
"If you look at the lifespan of these issues, an employee might start out with no injuries and years later these injuries start to manifest," notes Towler. "They might be at the same employer or a different employer. So, this really is an issue of total worker health that all companies must recognize and work toward solving."

Towler, who spent 16 years at Boeing and created the Boeing Industrial Athlete program (an industry-leading injury prevention program), reflects that the company benefitted by ensuring that its employees had the tools and resources needed to stay healthy at every stage. "Some employees had long careers at Boeing, so keeping them healthy throughout their career benefitted everyone," notes Towler.

From a larger vantage point, the responsibility that companies now have due to COVID-19 has become a determining factor when candidates choose jobs. "The ability to both retain and attract employees can be helped as companies can publicly share their commitment to health and safety," Towler asserts, "which can make them an employer of choice."

Adrienne Selko

Send an e-mail with your thoughts to aselko@endeavorb2b.com.



An EHS Today Special Report

TOP 10 EHS Trends of 2022

HYBRID IMAGES| GETTY

COVID may still be with us, but numerous other challenges are now demanding more attention from safety leaders.

By EHS Today Staff

As we near the end of 2022, it's a fair question to ask: Did anything really change over the past year? While COVID cases have dropped off considerably, we're still in a pandemic situation, and there's no clear sign that the World Health Organization (WHO)—which officially declared the pandemic back in March 2020—plans to call it off any time soon. The predicted "red wave" from the midterm elections turned out to be a mirage, and it sounds like we're in for two years of solid political gridlock. And far too many workers are still getting injured and killed on the job and on the highways from safety violations of the industrial kind (e.g., falls from heights, explosions, electrocutions) as well as the psychological kind (e.g., active shooting, suicides).

Rather than sugarcoating the bad news by focusing only on positive developments, our year-end wrap-up will do what it's designed to do: review some of the major trends in the EHS profession (these trends are not ranked in any particular order), shining a light on where progress occurred and where more work needs to be done. It's likely, but not at all certain, that the pandemic could end in 2023, but the COVID variants—and vaccinations—will be with us for who knows how long. Meanwhile, safety leaders will continue to do what they always do: make their workplaces and communities safer.

In any event, we at *EHS Today* wish all our readers the very happiest of holidays and an equally Happy New Year.

PAIN IN THE BACK… AND THE NECK, AND THE SHOULDER, AND…

SABUHI NOVRUZOV | DREAMSTIME

One in two Americans experiences back, neck or shoulder pain, or another musculoskeletal disorder (MSD) in any given year, according to data from the Centers for Disease Control and Prevention as well as the National Health Interview Survey, representing over 252 million adults. And the economic cost of MSD medical claims has doubled in the U.S. over the last decade, despite the population with MSD conditions remaining relatively constant.

MSD care remains one of the top three cost drivers in the U.S. health system, consuming one-sixth of employer-sponsored plan dollars and costing $600 billion to the U.S. economy.

Part of the cost is that people with MSD pain missed 8.2 days of work, more than double the average workers' sick days. For those who experience MSD pain and mental health needs, the figure increases to 13 days.

In addition, more than 100 companies, representing 2.6 million employees, have taken the MSD Pledge, a commitment to reduce MSDs in the workplace. The initiative is under the leadership of the National Safety Council (NSC), with support from retail giant Amazon. By signing the pledge, these organizations commit to:

- Analyze the causes of MSD injuries and invest in solutions and practices that reduce risks to workers;
- Leverage innovations and share learnings that improve safety practices;
- Build a culture of safety where everyone, at every level, is accountable for the safety and health of workers;
- Collectively reduce MSD risk and subsequent injuries across the pledge community by 25% by 2025.

DEI IN THE WORKPLACE

Diversity, equity and inclusion (DEI) has moved from the initiative status to a strategic necessity. Much of the emphasis in developing DEI programs is to recognize the varying backgrounds, cultures and other characteristics of specific groups of people. Understanding, appreciating and—most importantly—including every employee and tapping into their knowledge are at the heart of DEI's mission.

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In the safety realm, DEI means that when employees can be their authentic selves and therefore feel secure at work, they can then extend their safety reach toward the entire organization.

"If you view safety from the perspective of a company culture at the highest level, safety means having each other's back," says Lorraine Martin, CEO of the NSC. "Our heads are in the game, and we are watching out for each other. Therefore, all leaders—safety professionals included—need to understand the diversity of who they need to serve." To watch out for each other, employees must "feel that their voices matter and they are able to use that voice to keep everyone safe," she adds.

Therefore, it becomes the role of companies to create an environment where people are able to speak up when they see unsafe processes and not worry about retribution. "In company cultures where employees may not feel safe or don't feel included, the first reaction to seeing an unsafe situation is to mind your own business," explains Martin. "This culture of non-belonging and potentially fear causes safety hazards to go undetected."

BEATING THE HEAT

In April, the Occupational Safety and Health Administration (OSHA) launched a National Emphasis Program (NEP) to protect millions of workers from heat illness and injuries. As part of the program, OSHA will proactively initiate inspections in over 70 high-risk industries in indoor and outdoor work settings when the National Weather Service has issued a heat warning or advisory for a local area. On days when the heat index is 80 degrees Fahrenheit or higher, OSHA inspectors and compliance assistance specialists will engage in proactive outreach and technical assistance to help stakeholders keep workers safe on the job.

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Inspectors will look for and address heat hazards during inspections, regardless of whether the industry is targeted in the NEP.

According to the agency, the three-year average of workplace deaths caused by heat has doubled since the early 1990s.

OSHA's On-Site Consultation Program, a free and confidential health and safety consulting program for small- and medium-sized businesses, will assist employers in developing strategic approaches for addressing heat-related illnesses and injuries in workplaces.

PREVENTING WORKPLACE VIOLENCE

When is it going to end? When will the incidence of mass shootings and workplace violence become a rarity rather than a daily item in the news? From 1992-2019, workplace violence killed almost 18,000 people, according to a study conducted by NIOSH, the Bureau of Justice Statistics and the Bureau of Labor Statistics (which includes incidents that occurred outside the workplace but stemmed from work-related issues.)

While this is not a new problem, the current situation represents a renewed challenge to employers because it has arisen following the widespread deterioration of mental and emotional health because of the COVID-19 lockdowns.

As of press time, there have been

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662 mass shootings in the U.S. this year, resulting in 671 fatalities and 2,616 wounded. Murder rates in a number of cities have hit record levels, as have the incidents of assault and injuries resulting from street violence. It is not surprising that the soaring rise in the crime rate has risen to the level of a top public concern.

At *EHS Today*'s Safety Leadership Conference 2022, NSC's Kenna Carlsen pointed out that workplace violence impacts on organizational health in a number of ways: physical (e.g., injuries and fatalities), psychological (e.g., anxiety, stress, depression, burnout), financial (e.g., medical costs, increased absenteeism), and social (e.g., disturbed relationships, withdrawal). She outlined the five building blocks of an effective workplace violence prevention plan, which include: top-down management; worksite analysis and hazard identification; hazard prevention and control; health and safety training; and record-keeping and program evaluation.

Various technologies are available to help companies and safety leaders address workplace violence, such as virtual reality training programs, access control equipment, weapons detection sensors, lone worker monitoring wearables, and panic button wearables and apps.

THE 'NEW' BLACK LUNG DISEASE

This past summer, the federal Mine Safety and Health Administration (MSHA) launched an enforcement initiative targeting the exposure of coal miners to respirable crystalline silica, which when added to coal dust creates a more deadly form of black lung disease than the older form of the illness. The new initiative focuses on both coal and other, non-coal mining operations, such as mining for metals.

Crystalline silica is a common min-

eral found in the Earth's crust. Materials such as sand, stone, concrete and mortar contain crystalline silica. Respirable crystalline silica—minute particles at least 100 times smaller than ordinary beach sand—become airborne during the cutting, sawing, grinding, drilling and crushing of stone and rock.

SEBASTIAN KAULITZKI | DREAMSTIME

Without proper protections and engineering controls in place, miners can be exposed to dangerous levels of crystalline silica particles, which increases their risk of developing serious silica-related diseases, MSHA observed. These conditions can include incurable lung diseases such as coal workers' pneumoconiosis, commonly referred to as "black lung;" progressive massive fibrosis, the most severe form of black lung; silicosis; lung and other cancers; chronic obstructive pulmonary disease and kidney disease.

The relatively new version of black lung disease came to prominence late in the last decade and it has been observed to progress more quickly than the older version, resulting in some coal miners dying from it in their 20s. The widespread addition of silica to coal dust is believed to have occurred because seams of almost pure coal have been disappearing, resulting in the mining of more coal mixed with rock. Back in June, MSHA said it hopes to have a silica rule in place by the end of the year.

A MENTALLY HEALTHIER WORKPLACE

In a study of more than 11,000 U.S. employees conducted by Mental Health America (MHA), 71% of respondents said they find it difficult to concentrate at work due to stress and distractions of various kinds. Another study conducted by Robert Half indicated that 41% of 2,400 U.S. workers feel more burned out than they did a year ago—even as COVID recedes as a health or workplace concern.

Whether the pandemic is to blame or has just helped expose the issue, worker burnout is typically caused by heavier-than-normal workloads and staff shortages, exacerbating the "doing more with less" syndrome affecting large swaths of the working population.

On top of burnout, an estimated 15% of working-age adults have a mental disorder at any point in time, according to the WHO. Depression and anxiety are estimated to cost the global economy $1 trillion USD each year, driven predominantly by lost productivity.

According to the Society for Human Resource Management Foundation, tens of millions of U.S. workers are experiencing mental health issues and are less productive because of it, inundating organizations with a vast array of new challenges. "Mental health issues, such as burnout and stress, are hampering short-term productivity and long-term business growth," the organization says.

AUFAL HUDALLAH | DREAMSTIME

EHS Today's **Mental Health in the Workplace Report** found that a large number of employers say they are prioritizing mental health as part of their wellness programs, with 81.8% saying their companies have a program in place that focuses on mental health and another 6.3% saying they have one planned.

In its "2022 Mind the Workplace" report, MHA suggests EHS professionals can contribute to a mentally healthier workplace by: cultivating relationships with employees based on trust and respect; applying active listening skills; providing appropriate guidance to assist employees with workload management; becoming aware of signs of increasing stress or burnout in employees; and encouraging employees to take time-off when needed.

OSHA FINES

At the beginning of 2022, OSHA announced a 5% increase in the civil penalties assessed for violations of its regulations. The maximum penalty for willful or repeated violations increased by nearly $10,000 from 2021 to $145,027. The maximum penalty for failure-to-abate violations rose to $14,502 for each day after the abatement deadline where no abatement has taken place. And the maximum penalty allowed for serious, other-than-serious, and posting requirements violations increased by nearly $1,000 to $14,502. All states with their own occupational safety and health agencies were required to adopt maximum penalty levels at the same level (if not higher) as federal OSHA.

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The good news for employers is that the penalties could have gotten much more severe. Perhaps because it was an election year, the U.S. Senate decided not to go forward with the potential quadrupling of fines that the U.S. House of Representatives had recommended. The House bill would have increased the maximum penalty for willful or repeated violations to $700,000, with the imposition of a $50,000 minimum.

However, as a result of the 2015 Federal Civil Penalties Inflation Adjustment Act Improvements Act, passed during the Obama administration, OSHA's fines and civil penalties are adjusted upward each January to match the previous year's rise in the Consumer Price Index. With inflation running rampant throughout the economy over the past year, employers should brace themselves for a steeper-than-usual rate hike from OSHA early in new year.

CAMMERAYDAVE | DREAMSTIME

SUSTAINABILITY AND CORPORATE HEALTH

The success of corporate sustainability programs hinges upon four primary factors: staffing, funding, employee support and meaningful metrics. These are the top areas companies struggle with when implementing or maintaining a sustainability program,

according to *EHS Today*'s Sustainability Progress Report. Industry consultants suggest that companies should prioritize sustainability initiatives as a strategic focus to overcome these challenges—but they may not have a choice. Earlier this year, the Securities and Exchange Commission proposed rule changes that would require registrants to include information about climate-related business risks. Also, an Intergovernmental Panel on Climate Change report suggested that industry needs to play a critical role in achieving net-zero greenhouse gas emissions targets.

Company size can impact how an organization implements and executes a sustainability program. While virtually all large public companies have some kind of ESG (environment, social and governance) plan in place, that's certainly not the case for smaller, privately-held companies. But no matter what the size of the company, it's important that leadership demonstrates the strategic value of these efforts, and given their central role within the company, EHS professionals are increasingly being asked to shoulder some of that responsibility—if they haven't already.

Stakeholders and employees alike are paying much closer attention to how seriously companies are adhering to their stated ESG goals. Merely paying lip-service to sustainability is no longer, well, sustainable as a corporate strategy. Whether it's mitigating environmental risks in the workplace (e.g., heat-related stress), complying with regulatory agencies, or leading recycling and waste reduction efforts, companies are achieving tangible benefits from their ESG programs. Sixty percent of companies surveyed for the *EHS Today* report indicated they have already achieved modest to significant value from their ESG initiatives. The biggest barriers to more progress are insufficient staffing and insufficient funding.

DRUG TESTING

One of the biggest dilemmas facing employers today is how to maintain a safe workplace while laws and popular attitudes toward psychoactive drugs like marijuana appear to be lining up against them. This is particularly true for employers in industries with safety-sensitive jobs such as construction, warehousing, transportation and manufacturing.

Along with legalizing medical and recreational marijuana, some states also have passed additional laws to prohibit employers from discriminating against workers who use cannabis off the job—except for those who are restricted by law. Also, debate continues to rage over what is the most appropriate and effective testing method for employers to use.

OLGA OSTAPENKO | DREAMSTIME

In its guidance to employers on how to deal with opioid use disorder, the U.S. Department of Justice said that drug addiction is considered a disability under the Americans with Disabilities Act (ADA)—but only as long as the individual is not currently using illegal drugs. The ADA regulations define "current illegal use of drugs" as the "illegal use of drugs that occurred recently enough to justify a reasonable belief that a person's drug use is current or that continuing use is a real and ongoing problem."

Employers may have a drug policy and conduct drug testing for opioids. However, an employee who tests positive because they are taking legally prescribed opioids may not be fired or denied employment based on their drug use, unless they cannot do the job safely and effectively or they are disqualified under another federal law, such as Department of Transportation regulations.

Employers should also be aware that the Equal Employment Opportunity Commission says that employees may be entitled to take leave under the Family and Medical Leave Act for their treatment or recovery.

SAFETY TECHNOLOGY

When *EHS Today* asked 1,100 safety professionals what was the biggest workplace challenge they faced, by far the most common answer was a need for more staff, more employees, more resources, more support, or similar statements lamenting too much work and not enough workers. In fact, the theme of the **2022 National Safety and Salary Survey** could be summed up as: "Doing more with less." One of the lasting impacts of the pandemic was that it drove many people out of the workplace entirely, forcing employers to scramble for ways to keep making and delivering products despite shrinking or remotely-located staffs.

As a result, safety leaders find themselves having to constantly train new workers (when they can find them), while reinforcing a consistent safety message throughout the workforce. Establishing and maintaining a culture of safety becomes very difficult when the workplace itself resembles a revolving door of incoming and outgoing employees.

That situation has helped propel the adoption and use of various types of technology to improve workplace safety. As the pandemic's impact has lessened, the need for companies to invest heavily in personal protective equipment to protect workers from COVID has also diminished. Now, those safety budgets are being used on technologies that have continued to advance in capabilities over the past several years, particularly for various digital solutions, such as artificial intelligence, data-based analytics tools, Internet of Things sensors, wearable apps and mobile devices, and virtual reality-based training modules and equipment.

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According to Christopher Sayers, an industry analyst in research firm Verdantix's EHS practice: "For the past two years, the sudden and nascent challenges posed by the pandemic have dictated EHS budget allocations, leading to inflated occupational health and PPE spend." It remains to be seen, now that COVID is on the wane, as to whether EHS professionals can expect budget levels to stay on par with the past few years.

"With inflation surpassing 8%, many firms are increasing EHS budgets in reaction to heightened prices. Significantly, few firms will be reducing their EHS budgets, with only 1% expecting decreases in 2023, highlighting the resilience of EHS in the face of economic uncertainty." **EHS**

Dave Blanchard, Adrienne Selko, Nicole Stempak, David Sparkman and Jonathan Katz contributed to this article.

3 WAYS Safety Professionals Can Benefit from BETTER COMMUNICATION

Effective communication is critical to establishing and maintaining a safety culture.

By Peter Steinfeld

Safety professionals are responsible for ensuring their companies follow a wide range of workplace rules. Whether it's emergency exits, fire safety training, industry-specific guidelines, or OSHA's new national emphasis program on heat exposure, regulatory compliance is an increasingly complex field.

However, nearly every specific rule extends from OSHA's General Duty Clause, which essentially states that employers have an obligation to promote a safe work environment.

Effective communication is one of the most critical aspects of workplace safety. Employers must clearly identify workplace hazards and explain how to mitigate and avoid them. And workers need a way to report changing conditions and seek help in the event of an emergency.

Unfortunately, the most common OSHA violations involve a failure to adequately communicate safety risks to employees. From neglecting to provide two-way monitoring for divers and alarm devices for psychiatric ward employees, to improper training on emergency scenarios (e.g., active shooters or severe weather), failed communication directly contributes to workplace violence, injuries and even fatalities.

With the increasing volume, frequency and uncertainty of threats facing businesses and their employees today, safety leaders need robust and reliable means of communication. Here are three benefits of building effective communication into organizational preparedness plans.

1. Increase Employee Engagement

In the event of an emergency, workers are counting on their employers for information and guidance. The 2022 Edelman Trust Barometer found that 77% of respondents trust their employers while just half trust the government or media.

Trust is the cornerstone of a safe workplace. Employers can check every box for required training and communication. But if employees aren't listening, engaged and believing what they hear, will they actually use the information to build a safer environment?

To earn employee buy-in, a company needs a strong and positive safety culture.

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Organizations should build it into every aspect of operations, from onboarding to training to day-to-day activities.

Focusing on proactive prevention rather than reactive discipline, such as a quick-turn training after an emergency occurs, encourages employees to be mindful of safety practices in a routine-like manner. Once employees are used to implementing daily safety tactics, getting involved in larger safety plans—such as joining a fire safety or operational safety team—becomes a more welcomed concept across the organization.

Another key aspect of maintaining a healthy safety culture is ensuring employee feedback loops are in place. Employees often experience workplace safety through a different lens than those responsible for writing policies and procedures. They face hazards every day, see safety plans in action, and are well-positioned to keep them in motion and provide insight into improvements.

Yet according to research from HR software company UKG, 86% of workers feel that colleagues are not heard fairly or equally at their companies. Listening to employees not only refines safety plans, it helps build trust in the employer's commitment to safety.

2. Optimize Emergency Response

Every second counts in a crisis, and communication can be the difference between life and death. The Sept. 11, 2001, terrorist attacks are a painful but powerful reminder of this. While many companies in the World Trade Center towers were in disarray, Morgan Stanley deployed swift disaster response and evacuated all but 13 of its 3,800 employees to safety within 45 minutes.

Many people think of emergency preparedness as a discrete set of plans. In reality, it's a constantly evolving continuum, from planning to practice to refinement. And, in rare but critical cases, execution.

When a company needs to put its disaster plans into action, a robust two-way communications tool is critical. Centralized software allows a dedicated safety officer to push alerts out to the entire company instantly, delivering the message via voice, SMS, email and any other necessary channels. Content can also be dynamically tailored to different segments of the audience to provide the most relevant information, such as conditions pertaining to a specific building or location.

Whether it's safety training, regular updates or emergency alerts, employees are counting on accurate and reliable information.

The importance of the two-way aspect is not to be overlooked here. With read receipts, delivery notifications and employee responses, safety teams can get a clear picture of whether employees have received information, the latest changes in site conditions and instructions for where to deploy help.

This two-way flow of information provides enhanced direction during a crisis and facilitates a rapid, effective emergency response to maximize employee safety.

3. Improve Business Resiliency

The past few years have been an immense test of resilience for companies across all industries. Millions of businesses shuttered—some temporarily, others permanently—and revealed how fragile many organizations were. In the wake of the pandemic, an Accenture survey found that 74% of C-suite executives feel they need to completely rethink their companies' operating models to be more resilient.

COVID-19 was beyond the scope of any reasonable emergency scenario, but companies face smaller and more foreseeable crises every year. While ensuring employee safety is the top priority, companies need to maintain business continuity as well. One of the keys to improving both safety and resilience is maintaining a constant state of readiness.

Severe weather storms are an excellent example of how to focus on preparation to build resilience.

Before a storm arrives, companies should keep their teams abreast of forecasts, provide reminders on preparedness plans and actively field incoming questions. Once the storm approaches, an organization can leverage its two-way communication system to keep employees updated on conditions, announce location closures and allow employees to request assistance if needed. After the event, employees can document any damage or injuries, and company-wide alerts keep everyone informed throughout the reopening process.

Proactive measures before an emergency scenario will always lead to better outcomes than a hurried and improvised reaction.

PROMOTE A SAFETY CULTURE WITH EFFECTIVE COMMUNICATION

Strong safety culture is critical to successfully protecting employees in the workplace. A company can develop complex plans and perform regular drills, but if employees don't buy into and believe in the process, they're not truly prepared for an emergency.

Effective communication is critical to building that trust. Whether it's safety training, regular updates or emergency alerts, employees are counting on accurate and reliable information. With a robust plan and a two-way communication platform in place, organizations can better position themselves to protect their employees and ensure business resilience when disaster strikes. **EHS**

Peter Steinfeld is senior vice president of safety solutions at AlertMedia, a threat intelligence and emergency communication provider. Peter is the host of The Employee Safety Podcast and also leads AlertMedia's sales organization. He has been involved in the emergency communications industry for nearly 20 years, where he has advised organizations of all sizes on matters related to employee safety.

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VR TRAINING
for Ensured Safety and Knowledge Retention

VR provides opportunities for employees to become familiar with a work environment before they ever set foot inside them.

By Vi Kellersohn

Safety training and updating the skills of tenured employees is complicated. It is also costly and can be largely ineffective in imparting lasting knowledge.

Traditional training methods are simply unable to recreate the dangers and unexpected scenarios that employees are likely to encounter in the field. The objective with any workplace training is to ensure that both new and tenured employees can reduce their risk by evaluating potential dangers in otherwise safe situations. Working at heights is no exception.

Traditional training methods require trainees to be put into a dangerous situation without knowing how they will react, or they rely on classroom simulations and e-learning courses to illustrate the dangers of working at heights in the field. Both leave employers with either unsafe or ineffective training options: Passive classroom training methods have lower retention and recall rates, and real-world field training comes at a high risk of injury to the trainee and/or trainer.

Using virtual reality (VR) training solutions, employers can leverage the fully immersive and photorealistic virtual environments to train employees and effectively gauge both skills competence and emotional reactions.

A trainee may be familiar or even proficient with equipment and procedures at ground level, but employers need to ensure that knowledge recall and decision-making is efficient when the trainee has to face the added pressure of being at the top of a skyscraper, standing atop a ladder, or simply working on the second story of your facility.

VR removes all risks of a real fall, allowing trainees to familiarize themselves not only with the tools and tasks required for the job but also the environment in which they will be required to perform the work.

VR TRAINING VS. LEGACY TRAINING

Emerging research continues to demonstrate the effectiveness of VR training. A 2020 PwC study found that employees can complete VR training four times faster than in-person training and 1.5 times faster than e-learning training. Employees also retain knowledge of what they learned at a rate of up to 80% one year after the training, compared to 20% just one week after traditional training.

Further, VR scenarios can elicit true emotional reaction to trigger the fight, flight or freeze reflex. For training in a hazardous fall risk scenario, trainees can experience the very real sensations of falling or getting close to a fall.

Knowing your employees' capabilities and reactions before they are put into a real-world situation allows for a better understanding of where to spend additional time to minimize skills gaps, reduce stress and avoid critical errors.

While VR training methods are new to many industries, some sectors have been using immersive training methods for decades out of necessity. Astronauts and airline pilots must train in flight simulators before ever getting into the real thing, largely because of the risks and difficulties of the work.

VR scenarios now make it possible to create a digital twin of any environment or equipment at a fraction of the cost of a simulator—making it possible to recreate a wide variety of scenarios and provide more accessibility than ever before.

Potential use cases for VR training include:

- New employee onboarding;
- Facility and working environment familiarization;
- Equipment location and identification;
- Emotional evaluation (e.g., testing for fear of heights, claustrophobia, motion sickness, etc.);
- Standard operating procedures;
- Advanced skills training;
- Hazard identification;
- Inspection procedures;
- Maintenance procedures;
- Safety procedures;
- Compliance training; and
- Skills and environment screening.

COST BENEFITS AND ROI OF VR TRAINING

VR training methods provide a high return on investment (ROI) by reducing costs of instructor training, equipment and employee downtime. These training methods save actual classroom time as well as time that would typically be spent assembling and disassembling training props or taking equipment out of production.

The efficiency of existing operations is high, as high-value equipment and more tenured employees can remain in the field rather than be used to train new hires. Furthermore, employees can gain experiences in a matter of hours that could otherwise take years to accumulate in the field, thereby helping them \ be more prepared and better equipped for their duties, regardless of experience.

Other savings that are difficult to quantify include eliminating fall risks during training, saving in early screening and eliminating investments in employees who will ultimately not be able to be put into the field.

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Knowing your employees' capabilities and reactions before they are put into a real-world situation allows for a better understanding of where to spend additional time to minimize skills gaps, reduce stress and avoid critical errors.

Within the virtual environments, you can create a limitless number of scenarios. You can also redirect training based on feedback and results with more focus on special areas of need.

TRAINING BENEFITS UNIQUE TO VR

Locational Awareness: VR provides opportunities for trainees to acquaint themselves with a work environment before they ever set foot inside them. Someone who has never visited an oil facility or been suspended from a skyscraper cannot predict skill recall or emotional response to that hazardous environment.

Knowledge Transfer: Bridging the knowledge gap continues to pose a challenge as more baby boomers retire and the workforce continues to be rocked by the Great Resignation. VR technology can help ensure that institutional knowledge is not lost; instead, it can be captured in a virtual scenario. VR is also a useful recruiting tool to attract the next generation of talent.

Playback and Analytics: Digital training methods allow the trainer to assess performance on the spot. They also afford trainees the opportunity to see specific examples of mistakes or best practices. VR even allows for data analysis to identify trends and pain points that can guide future training to better focus on trainees' needs.

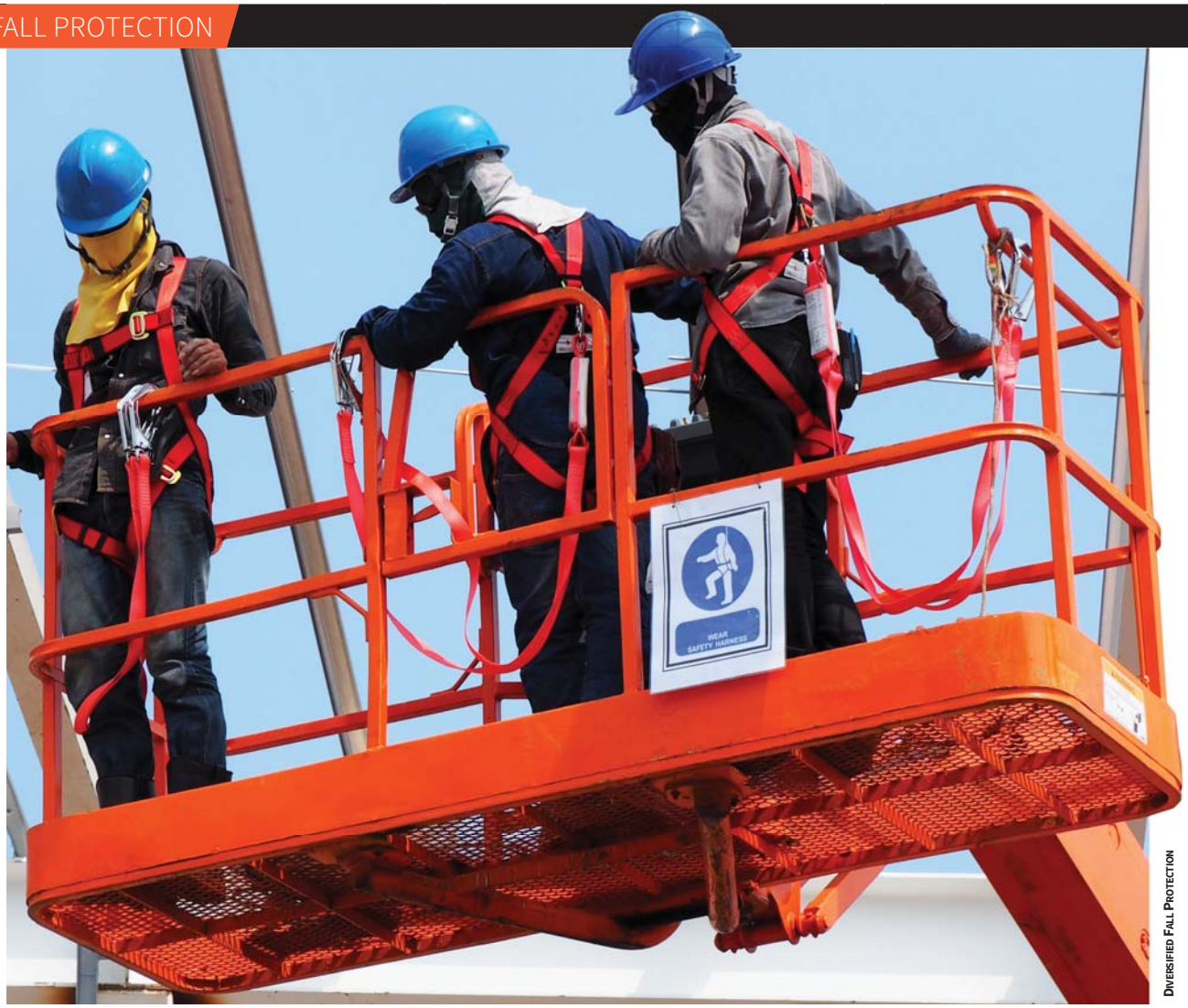
Hazardous Scenario Simulation: VR allows trainers to introduce simulations into the training that would be impractical or dangerous for trainees at their current level of knowledge and experience. VR provides important hands-on experience without the risk sand costs associated with real-world learning.

Unlimited Use: Once a VR environment has been created, it can be used and reused on an almost limitless basis. This greatly extends the potential for training and knowledge acquisition while at the same time reducing the time and cost of off-site training.

Enhanced Proficiency Training: VR allows workers to undertake proficiency training before entering a work site, with details that match the actual environment they will be working in.

Improved Engagement: VR fully engages the senses and prevents employees from being distracted by outside influences, thus maximizing their learning engagement and retention. **EHS**

Vi Kellersohn is chief marketing officer of Oberon Technologies, a provider of extended reality (XR) training and information delivery technologies.



DIVERSIFIED FALL PROTECTION

Why Training is Still One of the Best Ways to PREVENT FALLS

Many organizations are not doing enough to address fall hazards, and their employees are paying the price.

By Kevin Kelp

Over the past decade, businesses and regulators have focused more on preventing fatal workplace falls. Unfortunately, falls continue to occur at an alarming rate. Falls are one of the leading causes of workplace death in the United States, according to the U.S. Bureau of Labor Statistics.

Although fall prevention has been a big topic of conversation within construction for many years, no industry is safe from fall hazards. In 2020, 368 construction workers died from falls, while 805 workers across all sectors lost their lives to falls.

Despite the high incident rate and increased awareness, many companies continue to struggle with fall prevention. In fact, fall protection has been the most cited OSHA violation for the past decade.

One of the most prominent hurdles organizations face when addressing fall hazards is how complex the subject can be. All the standards, regulations, equipment options and required training make managing the issue properly a real challenge for even the most safety-conscious companies.

Also, while fatal falls happen regularly across the country, most companies have never experienced one. This relative rarity means many businesses are inexperienced and unprepared for and are then left picking up the pieces when a fall occurs.

A deeper understanding of the root causes of these accidents is greatly needed

to strengthen standards and save lives.

A recent survey uncovered interesting findings into the underlying causes of workplace falls from height. The anonymous 32-question Fall Experience Survey, conducted by The Center for Construction Research and Training with support from the American Society of Safety Professionals, gathered information from 671 safety professionals and others about workplace falls they had been involved in, witnessed or investigated.

Here are some key survey findings:

- Insufficient or ineffective planning was the most selected primary cause for falls (27%).
- The likelihood of using fall protection was 71% lower for individuals whose employer or competent person did not do any planning.
- Nearly half (49%) of respondents said that no fall protection was being used at the time of the fall.
- Respondents who believed fall protection was required by their employer were eight times more likely to use it.
- The odds of a fall being fatal were 76% lower for those who had self-rescue training compared to those who did not have this training.
- Subcontractor employees were 2.7 times more likely to die from the fall than those who worked for a general contractor.

Companies have a moral and legal obligation to protect their workers from recognized hazards in their workplace. Those who want to avoid such pain and suffering—not to mention the steep price tag of severe or fatal workplace falls—must reevaluate their approach and refocus their attention on the subject. Unfortunately, the survey shows that many organizations are not doing enough to address fall hazards, and their employees are paying the price.

In addition, this survey also illuminates something safety professionals figured out a long time ago: If your company doesn't adequately train its employees to use fall protection, you're not doing enough to protect your workers from severe or fatal falls.

INVESTING IN FALL PROTECTION

Companies' continuous push to boost profits by increasing efficiency and cutting costs has negative consequences for workplace safety. This idea of doing more with less means leaders may try to make a job work with the tools and supplies they currently have instead of investing in the best tools.

Unfortunately, this is a recipe for disaster when it comes to fall protection. That's because there is no one-size-fits-all solution when addressing fall hazards. Fall threats are unique. Each situation may require a different answer, and using the wrong piece of fall protection equipment may not provide the protection the user intended.

Some organizations buy the latest gear and install anchor points and other fall protection systems throughout their facilities and think that is enough to become OSHA-compliant and eliminate workplace falls. While this is an excellent first step, it misses one of the most crucial steps to protecting your workers from falls: training.

TRAINING AND ENGAGEMENT

What's the point of investing all that money into fall protection if nobody knows how to use it properly?

Fall protection is a complicated subject. Without proper training, the best equipment in the world can't protect your workers from falls. The consequences are too extreme to leave fall protection up to chance; that's why OSHA makes training mandatory.

According to OSHA 1910.30, employers must provide fall protection training from a qualified person before employees can perform work that may expose them to a fall. That training must educate on recognizing fall hazards; minimizing their risks; and identifying the correct way to install, inspect, operate and disassemble the personal fall protection employees will use.

In addition, employers must retrain workers periodically and whenever there are any changes to fall protection systems and equipment.

When choosing fall protection, one mistake in judgment is enough to land an employee in the hospital—or worse. Fall protection also tends to give users a false sense of security. This is especially true for users who do not fully understand the nuances of fall protection and its application.

Let's look at a couple common scenarios where an incomplete understanding of the applications of fall protection components can result in severe consequences.

Scenario 1: A construction worker is near the unprotected third-floor edge of an exposed concrete slab. They are wearing a harness with a nylon self-retracting lanyard connected to an anchor point on the roof above. The worker assumes they are safe because they're tied off. However, they slip over the edge and the nylon lanyard is cut when it contacts the sharp edge of the concrete slab.

If the worker and their supervisor were adequately trained, they would know they were performing leading-edge work. Leading-edge work requires fall protection designed for the application, often a reinforced steel cable lanyard that can withstand the cutting force of the leading edge.

Scenario 2: An employee is inside the basket of a boom lift and is tied off to the designated anchor point with a harness and a 6-foot nylon lanyard. The lift hits a bump while driving, and the employee is thrown from the basket and left hanging over the side of the lift. They now require someone to rescue them and are in a potentially fatal situation because hanging in a harness for as little as 10 minutes can be fatal.

If the worker and their supervisor were adequately trained, they would know that a self-retracting lanyard is a better fit for this scenario and would likely have prevented the employee from leaving the basket.

Scenarios like these illustrate why proper employee fall protection training is so vital. However, training doesn't end with picking the appropriate protection for the job or identifying hazards; it also includes maintaining your equipment.

Fall protection must be continuously maintained to ensure that it works as intended and protects your workers when they need it most. OSHA requires that employers perform regular equipment inspections on all fall protection components to ensure it is safe and compliant. In addition, users must inspect their fall protection before every use.

Conducting these inspections is essential to maintain the quality and safety of your equipment—and the health and well-being of your employees. **EHS**

Kevin Kelp is brand manager with Diversified Fall Protection, a provider of fall protection solutions.

How to Deal with HARASSMENT in the WORKPLACE

PROSKY | GETTY

Learn to recognize, understand and mitigate risks of workplace threats and violence.

By Adrienne Selko

Increasingly, employees are looking to their employers to handle workplace violence situations that can be considered safety risks, such as threats, altercations, sexual harassment, and others. And the legal system is willing to address these issues even if employers are not.

For example, in October 2022, a jury awarded $250,000 to a former Sam's Club employee who alleged that the company fired her in retaliation for complaining about sexual harassments. The jury found that the employee had made the complaint to someone she believed had the authority to investigate her complaint, but she was fired for doing just that.

Incidents of this type are growing. Between 2018 and 2021, 98,411 charges were made alleging harassment under any basis, and 27,291 charges alleged sexual harassment, according to the U.S. Equal Employment Opportunity Commission (EEOC). Over the same period of time, the EEOC recovered almost $300 million for individuals making sexual harassment claims. In short, it's more important than ever that companies learn to recognize, understand and mitigate risks of workplace threats and violence.

EHS Today talked with attorney Abby Warren, a partner with Robinson+Cole's Labor, Employment Benefits and Immigration Group, about specific action-steps safety professionals can take to address these issues.

EHS Today: **Given your experience with setting up investigations into safety issues at work, can you provide some processes that companies can implement to evaluate an employee who is raising a harassment complaint around these issues?**

Abby Warren: The first decision with a complaint is to determine if an investigation is necessary. Things to consider are the law around the issues and the policy that the company has created for itself. For example, even if there isn't a particular legal obligation to investigate the complaint, the company may have decided that it is company policy to investigate these issues. It could be they are viewing the issues from a business, operations or employee relations perspective.

The next step—once it's been determined an investigation needs to be done—is to decide who is going to handle it. For larger companies there might already be a department, or even HR that handles these types of things. If you have a trained HR staff and the situation is not complicated, they might be able to handle it. For a smaller company, outside help might be necessary.

Another important factor in deciding between an internal or

external investigation is the nature of the complaint. Is this a very specific case or is it systemic? Does the complaint involve the C-suite? In such a case it might be better to have a couple of different perspectives on the situation so both an internal and external investigation might be in order. And there is always the issue of optics, or how it would look to the employees, other stakeholders, or a judge or jury. Would an external person bring a level of credibility to the situation that might not be achieved internally?

EHS: Once a company decides to investigate the complaint, what are the next steps?

Warren: Some major decisions happen along the way, so I'll explain the process.

Scope—A company shouldn't conduct an open-ended investigation. It should be narrowly defined. For example, did sexual harassment occur between the employees and were these the statements made? When you sit down with a complainant the scope of the investigation might be changed but that change has to be intentional. If it changes everyone involved with this issue must understand exactly what is being looked into.

Privacy and Confidentiality—A decision must be made whether statements made to the investigator are covered under attorney-client privilege or will be maintained confidentially. There also has to be agreement, if confidentiality or privilege is waived, as to what information will be made public and who will get the information.

In general, the issue of confidentiality is interesting because the interpretation of the law that governs it—under the National Labor Relations Act—changes under different administrations. For example, the issue of whether an employer can require confidentiality during an investigation could be at issue. Currently a company has the option to require employee confidentiality, but that could change.

Once an investigation is closed there is usually some type of communication made to both parties about the determination. It could be that the matter is now closed, or they can detail which allegations were substantiated and which were not.

> "To help prevent aggressive behavior in the workplace, companies are making sure that supervisors are very visible. The more they are on the floor, for example in a manufacturing plant, the more they know the behaviors of employees, and if something seems off, they can identify it."
>
> —**Abby Warren**

Sometimes corrective or remedial action can be the results of an investigation. It could be changes in policy or training.

As far as communicating the result to the entire company, that would be a strategic decision.

Safety Considerations—What are the implications of the complaint, or issue, from a safety prospect? Does an internal measure need to be taken because of this complaint? Is someone at risk? Does something need to be done that might not impact the integrity of the investigation, but needs to happen for safety reasons? At the end of the day, you must have a safe workplace. Ensuring safety in the workplace is a legal obligation.

EHS: When rendering findings on a case, many investigators use the guiding principles of the Association of Workplace Investigators (AWI). Can you explain that?

Warren: Once we've made the decisions I talked about, we then interview witnesses, gather documents, ask for responses, and then render findings. When coming to a finding we use AWI's guidelines, which are a set of principles at a high level. While every investigation is different, these guidelines provide a standard as to how to review and analyze the information using the same set of factors. For example, we don't use a person's demeanor in deciding the case, because people present themselves in different ways based on race, gender, culture, upbringing, etc.

EHS: What are some proactive steps that companies can take to help ensure that the workplace culture is such that complaints like these do not occur?

Warren: Over time companies have become more involved with interpersonal issues and so [they] view potential employees differently than in the past. Today, we see that many companies are checking references and engaging in other pre-employment screenings.

Once on board, reviewing conduct and behavior has become more important. To help prevent aggressive behavior in the workplace, companies are making sure that supervisors are very visible. The more they are on the floor, for example in a manufacturing plant, the more they know the behaviors of employees, and if something seems off, they can identify it.

Supervisors should be trained and expectations of workforce behavior should be set. One idea is to put that directly into performance reviews of supervisors.

To ensure a safe workplace for all, a company's value statement should be instilled in specific policies. **EHS**

Improving Workplace Safety Through WAREHOUSE AUTOMATION

Robots can help reduce ergonomic risks and environmental hazards in the warehouse.

By Adam Gurga

When most young job seekers think about warehousing jobs, they picture traditional facilities where products are stored, picked and packed by hand. In these manual warehouses, employees usually work long hours doing repetitive and labor-intensive tasks, such as loading and unloading delivery trucks, traveling up and down aisles to pick orders, stacking heavy boxes, and moving pallets around the warehouse. All the while, everyone is under constant pressure to work fast since their speed and physical endurance are what keep orders moving out the door.

This constant bending, stretching, reaching and lifting puts significant stress on the human body, which makes workers more prone to injury. While injuries might start out small (e.g., sprains, strains and pulled muscles), some lead to chronic conditions and lifelong pain.

And ergonomic risks aren't the only concern. Workers need to stay on high alert to avoid injuries from heavy machinery or hazards such as falling loads. They may also have to deal with harsh environmental conditions. Pickers in cold storage facilities, for instance, brave freezing temperatures to pick products for customer orders.

So, when it comes to filling open positions, the talent pool is limited to those willing and physically able to take on such demanding work. The problem is, hiring and retaining qualified warehouse workers is one of the top challenges for companies, particularly as order fulfillment demands are increasing and labor pools are shrinking.

ROBOTS IN THE WAREHOUSE

How can companies better attract job seekers from a wider talent pool? One of the best ways is to focus on improving employee safety and working conditions. Here, automation can make a major impact.

Robotic solutions can take over the repetitive, labor-intensive processes involved in order fulfillment. Automated solutions—able to run 24/7 with minimal human involvement—can rapidly and accurately move products from receiving and storage through picking and dispatch. All movements are precisely controlled by intelligent software for optimal material flow and maximum throughput—even when demand spikes or labor is scarce.

A wide range of automated technologies are available today, so every warehouse can find a solution suitable for its unique product handling needs. That flexibility and customization contributes to a safer working environment. Some possibilities include:

- Order picking solutions that can handle everything from full pallet layers to crates to individual cases.
- Automated storage and retrieval systems (AS/RSs) that can move products in and out of high-density storage areas with ease.
- Automated guided vehicles (AGVs) that can safely and efficiently transport bulk inventory between various stages of fulfillment.

HOW AUTOMATION BENEFITS EMPLOYEES

Automated order fulfillment solutions, when appropriate to the situation, help enable warehouses to run with speed and efficiency. In the process, they also create workplaces that attract and satisfy employees. Here are five ways that automation can provide a safer and more worker-friendly environment:

1. Reduced ergonomic risks. With robots doing the heavy lifting, employees don't have to perform all those

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strenuous, repetitive tasks. However, if manual picking is still required for certain products, automation can make the process as ergonomically friendly as possible.

In a goods-to-person setup, for example, automation brings products directly to employees at ergonomically designed picking stations. Products arrive in plastic totes, crates or bins positioned at an optimal height and angle, enabling workers to pick the required products with speed and ease.

2. Fewer environmental hazards. Automated storage, retrieval and picking solutions operate in completely contained environments, which keeps employees well out of danger. Staff no longer have to work in close proximity to heavy machinery, look out for fast-moving forklifts or worry about heavy falling loads from precariously stacked pallets.

Automated solutions also free employees from spending time in harsh conditions, including the storage and picking areas of a cold storage facility or in the heat of an outdoor loading bay.

3. A diverse workforce. While labor-intensive roles are limited to those who can physically perform the job, automation enables warehouses to bring on a much more diverse range of employees. Job seekers of any age, gender and physical ability can excel in the tech-focused roles made possible by automation.

4. Alignment with personal values. As younger generations enter the workforce, companies must remember that these job seekers see work as much more than a paycheck. They also want to work for a company that aligns with their personal beliefs and values. In a 2022 Deloitte study of Gen Z and millennial employees, nearly two in five said they have rejected a job based on their personal ethics.

One of the most important values young job seekers consider is sustainability. And warehouse automation can help companies to reduce their environmental impact in many ways. For example, automated solutions can run in a lights-out environment where all robotic movements and product flow are optimized for energy efficiency. Potential and existing employees prefer to work for a company willing to invest in sustainability.

HAIYIN | DREAMSTIME

While labor-intensive roles are limited to those who can physically perform the job, automation enables warehouses to bring on a much more diverse range of employees.

5. New and engaging roles. There are many misconceptions about automation taking jobs away from people. But the reality is that automation opens up a whole new set of better job opportunities. Automated warehouses, though less reliant on manual labor, still need people to operate, supervise and maintain the robotic systems. Other emerging roles may focus on the software side of things, such as analyzing performance data for optimization opportunities.

These types of jobs are tech-focused and engaging—exactly what the younger generation of job seekers look for in a career. Of course, these positions will require new skills. Some automation providers offer hands-on training during implementation and beyond, so all employees are well-versed and comfortable working with the new technology.

CREATING THE WORKPLACE OF THE FUTURE

In the short term, automation can fill any existing gaps and ensure warehouse operations won't be hindered by labor shortages. In the long run, automation will help companies build a strong workforce of the future, where skilled employees use technology for optimal performance.

It's a win-win for companies and employees alike when job safety and satisfaction take priority. **EHS**

Adam Gurga is national manager of grocery and retail partnerships with Cimcorp, a provider of intralogistics automation solutions.

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WORKPLACE SAFETY and WEARABLES

By the Numbers

Statistics show how prevalent injuries are among industrial and frontline workers—and how wearables can ease the burden on both workers and employees.

By Haytham Elhawary

Frontline and industrial workers comprise 80% of the global workforce. They're delivery drivers, healthcare providers, housekeepers, manufacturing line workers, warehouse packers, grocery stockers, restaurant servers and more. That's according to "The Rise of the Deskless Workforce" report from Emergence.

While these 2.7 billion workers span multiple industries, one common concern they all share is safety. Industrial and frontline employees perform tasks that are often labor-intensive and can, in and of themselves, be hazardous. In fact, nearly 1 million workplace injuries occur each day in the world, according to the International Labour Organization.

This high number of injuries suggests that safety among this critical workforce is in crisis. Many companies only invest in minimal safety personnel, equipment or training, mostly driven by compliance with government and other regulatory agencies. It doesn't help that many companies have long considered worker injuries or fatalities as part of the cost of doing business.

Worse, we're now seeing a growing push for productivity across workforce operations. Most operations departments at large organizations have goals that usually include an annual increase in productivity. This is coupled with

hiring shortages across industries, which means that workers are often working harder and faster with more overtime, more shifts and more output. The coupling of increased productivity requirements and more working hours creates conditions that make it harder to ensure worker safety.

For example, package delivery drivers have complained about pressure to meet strict production quotas, which could increase their risk of injury on the job. These workers used to deliver 10 to 15 packages an hour, but now the expectation is 25 per hour. This puts a lot of pressure on drivers to perform their work faster. A report from the Strategic Organizing Center showed nearly one in five drivers who make deliveries for Amazon suffered injuries in 2021, a 40% increase from the company's injury rate in 2020.

And, a *Washington Post* investigation found that in 2020, for every 200,000 hours worked at an Amazon warehouse in the U.S., there were 5.9 serious incidents—nearly double the injury rate of non-Amazon warehouses. Amazon temporarily suspended its quotas during the early days of the pandemic, which was thought to have improved workplace safety, but has since reinstated performance metrics for how quickly warehouse workers must stow, pick and pack orders.

Reducing injuries among industrial frontline workers has traditionally been difficult. The technology used to keep them safe hadn't significantly changed in decades: eye protection became prominent in the 1910s, the hard hat in the 1930s and the safety vest in the 1960s. But now, a new generation of safety technology is becoming more readily available and affordable, which should help address many of the issues facing this workforce.

Since the start of the COVID-19 pandemic, companies are increasingly adopting new technologies to enhance worker safety and productivity. Some Internet of Things (IoT) technologies, such as wearables, are well-suited for frontline industrial workers because of their ability to improve the way workers move on the job, thereby reducing their risk of strains and sprains from laborious, repetitive-motion tasks. The technology also offers employers an opportunity to reduce injuries and lower workers' comp claims costs.

A January 2022 special report by Microsoft reflects how technology is bringing about a new opportunity for digital tools to help ease the burden on frontline workers. The report's findings—based on data from a survey of 9,600 frontline employees in eight industries across five continents—revealed technology ranks third on the list of factors that workers say could help reduce workplace stress. The report states: "Despite their essential role in every industry, these workers have traditionally been underserved by technology. Just as the pandemic was a catalyst for spurring rapid digital transformation for information workers, the data suggests we're at a similar inflection point on the front line."

As the emphasis on productivity for frontline workers has increased, not enough emphasis has been put on training them to move their bodies correctly to avoid injury at work.

Here are three ways that safety technology can improve workplace safety.

1. Injury Frequency

A variety of safety hazards threaten the industrial workforce, including organizational and environmental risks. However, one of the most pervasive is ergonomic hazards because workstations or workspaces are not typically designed with individual workers in mind. Examples of poor ergonomics include repetitive movements, awkward postures and forceful exertions performed during daily tasks.

When workers repeatedly bend, twist and reach improperly, it stresses their musculoskeletal systems. Over time, this can lead to musculoskeletal disorders (MSDs). The U.S. private sector experienced nearly 250,000 MSD injuries involving days away from work in 2020, according to the National Safety Council (NSC). Furthermore, the NSC estimates that MSDs accounted for 96.8% of all overexertion and bodily-reaction-related injuries as well as 63.2% of all sprains, strains and tears in 2020.

Frontline workers are especially at risk for injury since the jobs they perform, from warehouse pickers to nurses to delivery drivers, are often labor-intensive and involve tasks that require repetitive and sustained awkward postures. In 2018, the manufacturing; construction; healthcare and social assistance; and transportation and warehousing industries accounted for 67% of all MSD cases in the private sector, according to the Bureau of Labor Statistics (BLS).

As the emphasis on productivity for frontline workers has increased, not enough emphasis has been put on training them to move their bodies correctly to avoid injury at work. Typical ergonomic solutions, such as onetime trainings, might encourage employees to temporarily alter the way they move, but they don't change long-term behavior or create new habits.

Wearables, however, serve as an always-on, continuous coaching system. Sensors on these unobtrusive devices can detect risky movements and alert users through haptic feedback, such as a light vibration each time one is performed.

These real-time alerts aid workers in recognizing poor posturing or positioning and encourage them to create new habits. This can help drive sustained behavior change to reduce the number of high-risk postures that can lead to musculoskeletal injury. Data from wearables can generate reports and analyses to

show management areas to focus their attention on that could lead to injury, helping to reduce risk further.

In a 2021 report, the actuarial consulting firm Perr&Knight found a direct correlation between the rate of high-risk movements and the frequency of strain and sprain injuries. The report (commissioned by my company, Kinetic Insurance) showed worker strain and sprain injuries declined by 49.5% in the manufacturing industry and 58.8% in the warehouse industry as a result of using a wearable device designed to reduce risky postures.

2. Lost Work Days

The indirect costs of workplace injuries include a serious impact on worker productivity and retention as well as employee morale, workplace culture and employee quality of life. The Occupational Safety and Health Administration (OSHA) reports that work-related MSDs are among the most frequently reported causes of lost or restricted work time. In 2018, 30% of all days away from work cases were MSD-related, according to the BLS. Similarly, MSDs accounted for 32% of all injuries resulting in 31 or more days away from work in 2020, according to the NSC.

The indirect costs related to MSDs can be up to five times the direct costs, according to OSHA. Injured employees may not be able to work scheduled shifts for weeks, months or even years after an accident. In 2020, the median number of days away from work for MSDs was 14 compared to 12 for all work-related injuries, according to the NSC. For some industrial workers, the stakes are much higher: In 2018, the median number of days away from work for MSDs was 26 for workers in the transportation and warehousing industry, according to the BLS.

This is another area where wearables can shine. Wearables help to reduce the frequency of sprain and strain injuries, which typically require long recovery times. This means that they can also help reduce the number of lost or modified work days.

Additionally, by encouraging proper body mechanics, wearables can help employees experience less soreness and fatigue. This allows them to maintain their productivity for longer, miss less work, and experience greater emotional and mental well-being. The result is a safer, more productive workforce.

UnitoneVector | Getty

MSDs are the largest category of workplace injuries and are responsible for 30% of all workers' compensation costs, according to OSHA.

The aforementioned Perr&Knight report also showed a reduction in the rate of absences when using a wearable device. Missed workdays were reduced by 72%, based on data from participating businesses showing the number of days employees were either absent from work or limited to light duty.

3. Workers' Comp Claims

The economic costs of these common, yet preventable, MSD injuries are significant beyond lowering productivity. The Institute in Medicine estimates the economic burden of work-related MSDs—as measured by compensation costs, lost wages and lost productivity—is between $45 and $54 billion annually.

MSDs are the largest category of workplace injuries and are responsible for 30% of all workers' compensation costs, according to OSHA. For MSD-related workers' compensation costs alone, a recent annual cost estimate for U.S. companies is $32.9 billion, according to Liberty Mutual Insurance.

Fortunately, wearables can reduce overall workers' comp claims costs by up to 50% in environments where high strain and sprain injury rates are present, as shown in the Perr&Knight report. The reduction of high-risk movements among a workforce serves as a leading indicator that injuries will decrease, since bad ergonomics often lead to injury. As high-risk postures are reduced, injury rates start to decrease, leading to fewer workers' compensation claims and fewer expenses.

Recently, some workers' compensation providers have started offering wearables to policyholders at no extra cost. These prevention-focused programs provide policyholders with devices designed to prevent workplace injuries and lower workers' comp claims and costs while also helping to improve worker productivity.

A COMPETITIVE EDGE

Amid these many current industrial workplace challenges, leveraging wearables can help companies become more resilient and even maintain—or gain—a competitive edge. Innovative safety technology, such as wearables, not only enhances workplace safety; it helps to retain an existing workforce as well as attract new employees. **EHS**

Haytham Elhawary is CEO of Kinetic Insurance, a partnership between Kinetic and Nationwide that provides insurtech offerings that equip workers with wearable technology.

Sammy Davis, VP of safety & security at Papa John's International

That's a Wrap!

A look (in pictures) at the eleventh annual Safety Leadership Conference.

by Nicole Stempak

Safety Leadership Conference 2022, held in October in Cleveland, Ohio, saw hundreds of industry professionals gather to learn best practices and the latest trends over three jam-packed days.

The event kicked off with a panel discussion about electric vehicles and the rush to scale operations, both safely and responsibly.

Over the course of the conference, attendees had their choice of attending 10 breakout sessions devoted to safety management and safety solutions. They could also see the latest EHS products on display in the exhibit hall.

Attendees heard how Rockwell Automation weathered the COVID-19 pandemic from keynote speaker Majo Thurman, director of EHS. She shared in great detail actions Rockwell took to keep workers safe worldwide, including constantly revising and updating safety plans for the company. The industry has come a long way, and Thurman says we're all stronger for it.

The winners of the 2022 America's Safest Companies awards were recognized in a ceremony hosted by *EHS Today* editor-in-chief Dave Blanchard. Attendees also had the opportunity to hear from safety leaders at past America's Safest Companies winners Ampirical (Rod Courtney), Fastenal (Ryan Tucker) and Victualic (Bill D'Amico) in a keynote panel discussion about how they have built and sustained a culture of safety excellence.

The event concluded with safety tours of Goodyear's Innovation Center Manufacturing, home of the company's race tires; Goodyear Airship Operations to see how the Goodyear Blimp is maintained and serviced; and National Safety Apparel, a manufacturer of PPE and other worker apparel.

The following pages offer visual highlights from SLC 2022, as photographed by Charles Thomas, Danielle Blanchette and Nicole Stempak. Couldn't make it this year? Don't fret. We'll be back in 2023! More details on next year's event coming soon.

Attendees toured the Goodyear Airship Operations, the Ohio home of the Goodyear Blimp.

L to R: Ryan Tucker, Bill D'Amico, Rod Courtney, Dave Blanchard

Majo Thurman, director of EHS at Rockwell Automation

Kenna Carlsen, research associate at the National Safety Council

A worker assembles clothing at the National Safety Apparel factory

AMERICA'S SAFEST COMPANIES CLASS OF 2022

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NEW PRODUCTS

Absence of Voltage Tester

The VeriSafe 2.0 Absence of Voltage Tester from Panduit Corp. expands on its previous model with new applications and features, including real-time diagnostics and performance reporting. With the push of a button, workers can quickly determine voltage status and see an active indication when the absence of voltage is confirmed. The tester can be used in a variety of environments, including power distribution, motor control, automation, data centers, industrial and commercial facilities.

Panduit
www.panduit.com

Ladder Transport Solution

A ladder transport solution designed to prevent accidents and injuries common with carrying ladders, Ergodyne's Arsenal 5300 Ladder Shoulder Lifting Strap and Carrying Handle protects against pinched fingers, sprains and strains, cuts, and damaged property. Featuring carry handle and padded shoulder strap options, the ladder carrying system offers workers more control, comfort, and support while loading, unloading, and transporting ladders. An additional strap secures around the outer rails to keep the ladder from opening when in transit. The self-contained solution attaches quickly to ladders with no need to remove it when the ladder is in use.

Ergodyne
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For more new products, visit newequipment.com
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Worker Safety Wearable

As a fully connected and intuitive wearable, the G6 personal gas detector from Blackline Safety offers fast incident response time and a more efficient way to manage safety and compliance. Leveraging the latest in IoT cellular connectivity, the solution delivers longer battery life, lower cost of ownership and fewer false alarms. The sensor options quickly alert workers to exposure of toxic gases, including hydrogen sulfide (H2S), carbon monoxide (CO), oxygen (O2) and sulfur dioxide (SO2).

Blackline Safety
www.blacklinesafety.com

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Nicole Stempak
Managing Editor

When Safety Hits Close to Home

Sometimes, we need to make safety personal to make our message more effective.

In my previous column, I shared some advice for making the most of safety conferences. Based on the positive feedback I received, it seems many of you can appreciate the need to make safety personal.

That got me thinking about some of my own experiences with safety.

Back in 2019, I was working in a drafty building. It was so cold that the office manager ordered personal heaters for any employee who wanted one. I got a personal heater but had to move some things around so that I could plug the space heater directly into a wall outlet.

Once I did, I started walking around cubicles and instructing my colleagues to do the same. I was surprised that no one else had seen the videos of fires caused by space heaters plugged into power strips, extension cords or outlet extenders. I mentioned it to my friends, and one taught me that electric blankets and electric mattress toppers need to be plugged into the wall as well.

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It can seem like a minor detail. It can even seem like an inconvenience to rearrange furniture and dedicate precious electrical wall outlet space to these devices. But now, I recognize what's at stake, and I realize I have a responsibility to do better and help others, too.

I am embarrassed to think about how I didn't always practice electrical safety when I was a college student living in the dorms. My alma mater, as I imagine happens at other universities, had strict requirements about what you could and couldn't bring into the dorms. Some of those restrictions were common courtesies or for hygienic purposes, such as no amps to play loud music or housepets, but the majority were focused on electrical safety.

Our dorms came with mini fridges and microwaves. We could bring blenders, coffee makers and toasters but not George Foreman grills or hot plates. My roommates and I brought them anyway—and hid them when not in use to avoid confiscation during a random inspection.

From our student perspective, we wanted a way to quickly and easily prepare food in our rooms. We didn't always want to go to the cafeteria or even the dormitory kitchen, which required both time and equipment that we either didn't have or didn't want to bother with. Never mind the fact that those kitchens often had strange stains and lingering smells despite housekeeping's best efforts.

I calculated the risks and determined the benefit of illicitly using a George Foreman to make a panini was worth it. I did, at least, unplug it immediately after use. Now that I'm older (and perhaps a little wiser), I understand that the university imposed those rules keep us safe.

I also remember how the residence hall fire alarms were so sensitive that microwave popcorn often prompted evacuations and a visit from the local fire department. It was an annoying disruption at the time, but fortunately there was never a fire in my dorm.

Once, there was an actual fire in another dormitory hall. Several students lost their belongings, either because of the blaze or the water used to douse it.

The fire was the result of a floor lamp. According to reports, the lamp was knocked onto a beanbag and covered by clothing while turned on and caught flame. It was an accident, but it also opened my eyes to electrical hazards.

I probably shouldn't admit my past safety transgressions to a bunch of experienced professionals, though I suspect you see them on a daily basis. You might even feel like you could turn blue in the face for all the educating you do to prevent or avoid accidents. It may seem an impossible task, but please don't give up. We desperately need you, even if we don't realize it or express our gratitude (at least, not in the moment).

I hope you're able to help protect colleagues, friends and family from the many hazards out there. One way to help your message resonate is to bravely share your own bad examples, as I have done above.

Sometimes, the rules are sufficient. Sometimes, the rewards and incentives are enough to change behaviors. Other times, we need to hear others' mistakes.

We owe it to others, and ourselves, to never stop trying to make safety personal—even if that means admitting our own faults—in order to make the workplace better for all.

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