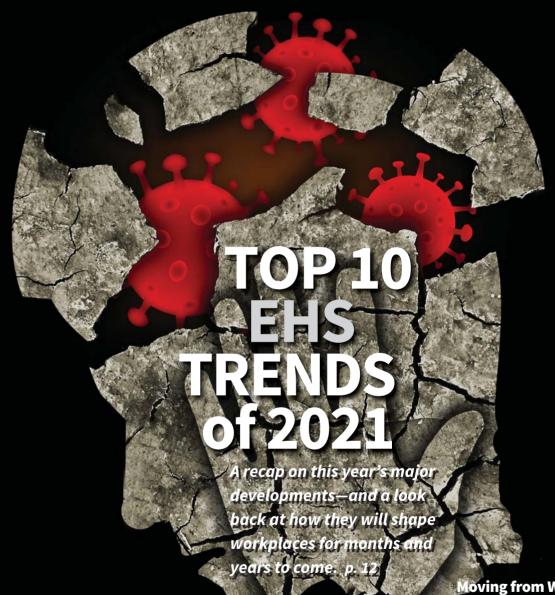
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THE TOP 10 EHS TRENDS OF 2021

A recap on this year's major developments—and a look at how they will shape workplaces for months and years to come.

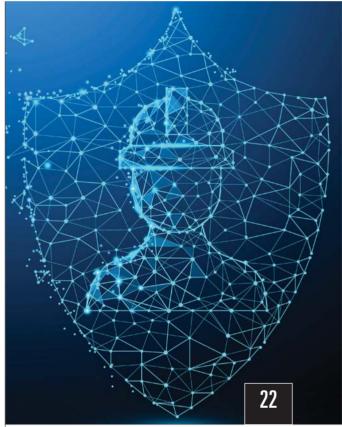
BY NICOLE STEMPAK

TIME TO MOVE FROM 18 WELLNESS TO WELL-BEING

While some companies launched wellness programs mainly to lower healthcare costs, a new focus on well-being aims to embrace the 'whole' employee.

BY ADRIENNE SELKO





HOW TO MAINTAIN TRUST IN THE POST-PANDEMIC WORKPLACE

Here are three qualities leaders should focus on as the situation with COVID-19 continues to evolve and as they prepare for the next normal.

BY KATE FIELD

3 WAYS TO BETTER ALIGN SAFETY AND SECURITY

Cyberattacks on operational technology put people, equipment, production capacity and the environment at risk. Here's what you need to know to protect your organization.

BY GEORGE SCHUSTER

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Visuals from the in-person Cleveland event, and the awards presentation to this year's America's Safest Companies.

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ON-DEMAND WEBINAR

Harley-Davidson's Safety Journey Using Technology to Control and Eliminate Risk

Sponsored by ProcessMAP

Several safety standards, such as ANSI B11.0 Safety of Machinery-2020, rely on the foundation of risk assessment to support conformance. But how do you ensure you have an effective risk assessment? Not only does risk assessment have to be a cross-functional activity but it also must be documented throughout the design process and into the operation of equipment.

The webinar showcases Harley-Davidson's safety journey using a digital EHS platform to control and eliminate risk. There is also a focus on the role of technology to support standardizing the crossfunctional activities necessary for evaluation and conformance to the

standards and allowing employees to have access to the risk assessments from a centralized platform.

This webinar will cover:

- Fundamentals of proactive risk assessment and management to drive workplace health and safety.
- How to leverage digital technologies to predict, identify and mitigate risks.
- Harley-Davidson's strategy and actionable approach to proactively eliminate risk.

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DAVE BLANCHARD





RANDOM ACTS OF SAFETY

Every time you engage with an employee, you're not just transforming the workplace—you're changing the world.

e've finally reached that time of the year when, even if just for a little while, we're able to turn our attention away from things like vaccine mandates, legal challenges, supply chain disruptions, and the latest exhibitions of political chicanery to focus on more ethereal concepts like gratitude, generosity and compassion. It's been an exhausting year, maybe even more of a grueling slog than 2020, because the hope we had a year ago that a COVID-19 vaccine could be quickly developed has somehow morphed into a contentious argument on the merits of that very vaccine.

But thankfully, whoever came up with the idea of holidays shrewdly devised it so that we'd have a whole bunch of them at the end of every year. And better still, the winter holidays are a time when all three components of the EHS trilogy—environment, health and safety—are manifest in the way people feel about their homes, their families and their communities. The year-end celebrations offer an opportunity for each of us to acknowledge how much we all depend on each other, and to say thank you.

Maybe it's a coincidence, but at our recent Safety Leadership Conference (SLC) 2021 in Cleveland, a common theme of compassion and empathy ran through many of the presentations. Rick Fulwiler, for instance, spoke about the three attributes of transformational safety leadership: listening, caring and engaging. Earlier in his career, Fulwiler served as worldwide director of health and safety at consumer products giant Procter & Gamble, and more recently he's served as an instructor at the Harvard T.H. Chan School of Public Health and a consultant with his own firm, Transformational Leadership Associates. So there's not much, if anything, about the safety profession he doesn't already know. And yet, when prompted for advice on how EHS managers can develop the kind of leadership that can truly make a difference in the workplace, Fulwiler's answer was short and simple: "Lead with your head and your heart."

Similarly, Rod Courtney has had a long career in safety, primarily at utility and construction companies, including Ampirical (which was named one of this year's America's Safest Companies). His keynote presentation offered some insights into how exactly a safety professional can make a difference. Courtney referred to what he calls "a just safety culture, one that maintains channels for communication that truly make it safe for people to raise issues regarding safety, quality of life, dignity, and respect on the site and throughout the company." Stop all the naming, blaming, shaming and retraining, he advises—none of that works. The hallmark of a just safety culture is accountability—people are accountable to each other and to themselves. When you know your boss and your co-workers have your back, and you have their backs, the workplace takes on an entirely different characteristic—it becomes a place where people care about each other.

Let's face it: These past two years have been very hard on everybody. We've lost friends and loved ones to a virus that refuses to go away, and the pandemic has not only impacted the physical health of millions of people, but it's taken an even greater toll on the mental health of who knows how many more. In EHS Today's "2021 Mental Health in the Workplace Report," we found that safety professionals are being challenged like never before by incidents of substance abuse, workplace violence and major depressive episodes among their workers. While 54% of those surveyed said their companies have a plan to address their workers' mental health as they return to the workplace, 31% have no plan in place, and 15% don't know if their companies have any such plan.

We're in danger of losing an entire generation of young people who are growing up under the cloud of the pandemic, and as The Great Resignation continues to play out, many people are leaving their jobs because they just don't see a future for themselves in their current situations. Another expert in leadership-Lt. General Russel Honoré, USA (Ret.), former Commander of Joint Task Force Katrina—offered this call to action in another SLC keynote: "Save your best leadership for when you get home from work. Your greatest legacy is not what you'll do for your industry, but in the kind of kids you'll raise."

There are plenty of things to be outraged about these days, but there are also plenty of things to be grateful for as well, including the EHS profession. It's not easy to champion safety in an era so polarized by political dissension that it can feel like protecting workers from disinformation is harder than protecting them from slips, trips and falls. But every time that you listen to, care for and engage with an employee, you are making a difference. It might seem like just a random act of kindness to you, but those moments can leave a positive impact on people that can truly change hearts.

Happy holidays!

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

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WE NEED TO **RECOGNIZE THOSE CHANGES** WHICH ARE PERMANENT AND ADOPT THEM RATHER THAN TRYING TO SIMPLY **OUTWAIT THE** SITUATION THAT CAUSED THFM

YOU CAN'T GO HOME AGAIN

The post-pandemic world has been changed in ways that will never be the same as they once were.

66 You Can't Go Home Again" is the title of a great American novel by Thomas Wolfe. In the book, he describes a longing for home amid the massively changing world of his times. The ultimate discovery is that the home you want to go home to again to is not there. It has changed.

Today, I hear organizational leaders wishing for-and waiting for-a "return to normal."

They, too, will ultimately discover that what they once viewed as normal is not there any longer.

The post-pandemic world has been changed in ways that will never be the same as they once were. We can bemoan this fact or realize that it is not new. The world has always been changing. The changes have not

always been this sudden or drastic, but they have always been there.

Safety practices and leadership have been drastically impacted by recent events. Many safety professionals are hoping for a return to normal, and they will be forced to recognize the reality of a new era in safety. Many of the practices that were reactionary to the pandemic have proven to be superior to the previous practices. They will not go away just because we get the virus under control. The following are the six major areas of safety I believe will be permanently changed.

LEADERSHIP

Leaders of organizations and of safety processes have been pushed to be nimbler and quicker to react to change. Established practices must be constantly examined and adapted to new realities. Leadership must become more proactive or get run over by change.

SUPERVISION

Supervisors were forced to distance themselves while finding ways to remotely influence workers and help them to be more self-reliant.

This is not the "self-directed work teams" push of the 1980s but quite a different animal. Supervisors need to be safety coaches, not safety cops.

TRAINING

Before the pandemic, few aspects of the world of work were as stagnant as safety training. It was designed to check off the box of OSHA re-

> quirements with as little effort and interruption to work as possible. It was often delivered via computer-based modules that had not changed in years. It was sometimes done in the workplace or meeting rooms where workers were crowded together to listen to a less-than-perfect speaker. Now, training must adapt to new demands and be delivered in innovative

ways that minimize both large groups and rehashed modules.



COMMUNICATION

The CEO of a large organization told me that he longed to get his leadership team back into a conference room. He wanted them to look at one another across the table and discuss the pressing issues facing their business. Instead, he was forced to learn to use Zoom and meet virtually. He confessed that after a few months, he realized that Zoom meetings could actually be effective, and he learned techniques to make them better. Employees who got to work from home liked it, and they don't want to go back. Communication is going to be more remote, and we will have to learn how to make it more effective.

CONSULTING

Pre-pandemic, the use of safety consultants was almost exclusively in person. During the early stages of COVID, consultants could not travel to sites and, even if they could, they could not gain access due to quarantine restrictions. Over time, consultants modified their services



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to be delivered online, and clients accepted that as an effective way to move forward. Now that distance consulting is an accepted practice, clients can save the expense of travel, lodging and meals. Meanwhile, consultants can deliver value every day rather than having two travel days for each project. The savings for both parties is especially significant for international sites.

CULTURE

Just as the safety world was focused on improving cultures, the pandemic forced members of the safety culture to distance themselves from each other. It also forced leaders and supervisors to avoid direct contact with the workforce. The premise of MBWA (Management by Wandering Around) was completely shut down. Leaders had to find new ways to influence their safety cultures. Supervisors had to do likewise. Workers found themselves more isolated than ever before in many industries, and all the books and training in safety culture improvement became less relevant.

Many leaders thought they could simply make temporary efforts to hold things together and wait for a return to normal. However, many changes that seemed temporary were making a permanent impact. Leaders and supervisors changed management styles and modes of communication. Workers became more independent and self-reliant. Technical specialists moved from the site to home offices and learned how to work more effectively from remote bases.

When the world tried to return to normal, "normal" was not

what it used to be. Then the delta variant reared its ugly head and plunged the culture completely back into pandemic mode, undoing many of the efforts to return to the old normal.

A comedian once joked that lightning never strikes in the same place because the same place is not there after being struck by lightning. The world of safety we knew in 2019 has been struck by lightning, and we can't go home again. What we can do is recognize which changes are permanent and adopt them rather than trying to simply outwait the situation that caused them.

During the Dark Ages, mankind looked back to the Golden Ages and saw that the past was better than their present condition. They went back to a former way of life and learning, then started to progress from there. Our Golden Age is not behind us; it is ahead of us. We must resist the urge to go back and bravely go forward. As we do this, we should realize that these new realities, like the old ones, are not permanent. The greatest lesson of the pandemic is not one step-change but the openness to continuous change. **EHS**

Terry Mathis, founder and former CEO of ProAct Safety, served as a consultant and advisor for top organizations the world over for the past 28 years. He recently retired and was succeeded by Shawn Galloway, the former president of ProAct Safety. Terry and Shawn have worked closely over the past years on numerous projects around the world and have co-authored five books together. Shawn can be reached at info@proactsafety.com or (800) 395-1347.



ADRIENNE SELKO



DO YOUR EMPLOYEES BUY INTO YOUR MISSION?

There's a strong link between employee engagement and a company's financial prosperity.

ow did George Washington inspire a band of farmers and bricklayers to enlist their own boats and fight in the Battle of Trenton?

The answer is that they believed in the cause. And employees need to have this same faith. "How do you inspire your employees to buy into your mission?" asked Lt. Gen. Russel Honoré, USA (Ret.). Honoré earned notoriety as the commander of Joint Task Force Katrina, and earlier this year, House Speaker Nancy Pelosi asked him to come out of retirement to review security of the Jan. 6 attack at the United States Capitol. He delivered a keynote presentation at the Safety Leadership Conference and M&T Show, held in November in Cleveland.

"Every employee must know that if we achieve our objective, we will participate in the bounty of success. And it's not just the C-suite that gets new Escalades. Everybody in the organization, when the mission is accomplished, benefits from the bounty of success. That's how General Washington got the soldiers to go out in such miserable weather. When half of them were suffering from pneumonia and upper respiratory disease, they bought into the bounty of success—and that success would be freedom. How do we inspire our workers? By letting them know that if we meet our objective, they too will get a piece of stock."

Sharing the bounty has been a long-standing practice at some companies. For example, Lincoln Electric instituted a profit-sharing program back in 1914. Since 1934, Lincoln's bonus has never dropped below 25% of base wages or salary. It has even topped 120% some years.

Another company, U.S. Steel, offered record profit-sharing bonuses after the company's strong earnings in the second quarter of 2021. Many workers received more than \$9,000 in profit-sharing.

The link between company financial prosperity and employee engagement is circular. Companies that provide a strong employee experience (EX), to use the current term for engaged employees, see improved financial performance. A 2019 analysis by Willis Towers Watson, which included close to 50 years of research and a total database of 250 million employees, found that companies demonstrating a strong EX, where employees reported feeling inspired by the company's mission and purpose, performed stronger than competitors by a margin of 2 to 4 percentage points



across key performance metrics, including return on assets and equity.

How can all companies achieve these goals? "The most significant change comes through a transformation of leadership mindset—inspiring your organization around your purpose, driving agility and innovation to be ahead of the market, helping your people achieve their potential and building a culture of leadership trust," said Stephen Young, global practice leader, Employee Insights, Willis Towers Watson, in reporting the findings.

The sense of purpose is what many employees are searching for post-pandemic. It was also true pre-pandemic. A 2019 "Mission and Culture" survey, conducted by Glassdoor, found that 79% of adults across four countries (U.S, UK, France, Germany) would consider a company's mission and purpose before applying for a job. Furthermore, over half of the 5,000 respondents said that company culture is more important than salary when it comes to job satisfaction.

While current emphasis is on attracting employees, ensuring that current employees—and especially those that will be tapped for leadership positions—are engaged is critical. As companies face many "battles" in the current marketplace, it will be employee buy-in that will bring success.

Udriemi Delko

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



Mindful Approaches to Workplace Wellness

By Jonathan Katz

acob Aqua and Marshall Kupka-Moore begin every meeting with a breathing exercise. During our Zoom call, he led a brief guided meditation, asking us to close our eyes and take a few deep breaths.

"We start our meetings with a little bit of centering into the space so that we can all arrive at and fully be present for the work," Aqua explains after the short session.

Aqua and Kupka-Moore are cofounders of Source Wellness, an organization that helps businesses develop mental health programs focused on mindfulness techniques. As *EHS Today* research shows, more companies are incorporating stressreduction practices, such as mindfulness and yoga, into their corporate

health programs to address employee wellness.

Nearly one-third of employers responding to *EHS Today*'s

Mental Health in the Workplace 2021 survey conducted earlier this year offer meditation, mindfulness or yoga programs at their company. The pandemic has many companies rethinking the importance of mental health as part of their overall wellness programs (the full report is available at ehstoday.com/members).

"One thing the pandemic did was it broadened the definition of mental health," says Aaron Harvey, who founded a mental health advocacy group called Made of Millions.

In the past, mental health was primarily recognized as diagnosed conditions, such as depression, but it may also encompass other emotional issues and life-changing events, such as grief, stress and divorce, Harvey says.

CREATING AWARENESS

Harvey started Made of Millions in 2016 after struggling with obsessive-compulsive disorder while working as the owner of an ad agency. It took him nearly 30 years of suffering before he knew his diagnosis. He would like to see the workplace fill a gap in health education.

"If we are able to use the corporation as a device or distribution vehicle to give people the psychoeducation that they need to better understand what's going on, they can then better navigate a very broken healthcare system," he says.

Harvey also serves as an adviser for Mind Together, a coalition of brands led by Verizon Media working to address mental health and set a new standard in how employees are supported at work. The growth in mental health awareness in the corporate world is more evident since the pandemic, says Michelle Riba, MD, a professor of psychiatry at the University of Michigan and co-director of workplace mental health solutions at the school's Eisenberg Family Depression Center.

"We recently had a major conference on this topic, with over 300 attendees throughout the country and Canada from employers

small and large, and mental health is clearly a growing and major issue for the workplace and all ages and genders," she says.

When it comes to addressing mental health in the workplace, employers need to create an environment where workers are comfortable talking about it, experts say. One participant in the *EHS Today* survey wrote, "Employees are depressed, and issues are never ad-

dressed in time. There are no clear communication lines between management and staff." Harvey says employers must go beyond sloganeering to foster a culture of mental health awareness.

"It can't just be like, 'Hey, we understand mental health is tough; if you're struggling reach out to us," he says. "You have to do the work behind the scenes first, having strategic alignment

with the management team, HR team and even the legal team, and then going out and messaging it."

MORE RELAXED, MORE PRODUCTIVE

Technology is one way employers can encourage staff to manage stress and keep tabs on their mental health. For example, Insight Timer is an app that sends reminders to perform breathing exercises at regular intervals, says Aqua, whose title at Source Wellness is chief mindfulness officer.

Calm is another meditation app that employers can distribute to employees, Riba notes. Calm offers a business-specific plan that employers can purchase. Other educational tools include webinars or lectures from mental health professionals, she says.

While employers have ethical reasons to address mental health, it also has an impact on their bottom line.

"It's very expensive for employers to have to fill positions, and we're seeing many service industries are hurting very badly because they don't have enough employees," Riba says. "It's very important to think about not only recruitment but retention. They're learning many millennials, for example, are looking at jobs and asking about whether or not there are mental health days, and asking very important questions about this topic."

Kupka-Moore explains that many large, multinational companies are incorporating mindfulness programs into their organizations because they recognize the productivity benefits.

"We're starting to realize that our mental health heavily impacts our physical health, and our mental and physical health together very heavily impact our productivity," says Kupka-Moore, CEO of Source Wellness. "Once people can see there is a very, very clear connection between the amount of money you can make and the amount of effectiveness you can derive from mindfulness, it's going to be impossible for them not to take on that approach." **EHS**

Jonathan Katz is a freelance writer based in Cleveland, Ohio, and a frequent contributor to Endeavor Business Media publications.



Tips on Preventing Eyestrain

by EHS Today Staff

he average American spends more than seven hours looking at a screen each day, according to a recent report from DataReportal, a site that offers thousands of free reports from third parties. Here are some tips from the American Industrial Hygiene Association (AIHA) on how to avoid eyestrain.

In an overall report on ergonomics, the organization identified several problem areas and possible corrections for eyestrain, including:

Glare

- Move or shield the light source.
- · Move the monitor.
- Change the monitor's angle.
- Apply a good quality glare filter to the monitor.
- When correcting for glare, don't create other problems. For instance, if you move your monitor, don't put it in a place that will produce neck strain. The monitor should be directly in front of you.
- When possible, place your monitor at a right angle with the window.

Lighting Levels

- Following the preceding recommendations, adjust your screen position and lighting sources (lamps, etc.) to achieve best results.
- Work with a light screen background (dark type or images on white or pale background). You will find it is easier on your eyes.
- Rest the muscles of your eyes by focusing on a distant object, away from your monitor, occasionally.
- When using a laptop, look into the distance more frequently. A laptop monitor will probably not have the best placement, since it is attached to the keyboard.
- If you are using a laptop at your primary workstation, a docking station with an
 external keyboard and mouse should be used. An external monitor, or display,
 should also be considered.

Readability of Screen and Document

- Place monitors directly in front of you and documents to the immediate right or left, at the same distance.
- · Upgrade or replace monitors with poor resolution or flicker.
- Adjust your monitor's font size, if appropriate.
- If you wear glasses, consider getting full-frame reading glasses prescribed for the working distance of your monitor (typically, 15 to 30 inches/ 38 to 76 cm).
 These will allow you to place the monitor correctly and see well without stressing your posture.
- Place the monitor so that the top of the screen is at your line of sight. If you
 wear bifocals, the top of the screen should be slightly below your line of sight.
- Don't skip visits to the eye doctor. Eyestrain could indicate a problem with your vision beyond the use of a computer monitor. EHS



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The TOP 10 EHS Trends of 2021

A recap on this year's major developments—and a look at how they will shape workplaces for months and years to come.

By Nicole Stempak

would be here? We certainly didn't.

We took some steps forward, but then COVID-19 reared its ugly head—again. There were some bright spots of 2021, including a brief semblance of normalcy, but we were quickly reminded that we are still living in a global pandemic.

ho would've thought we

Yes, it is disappointing that the virus is still with us, and there have been no shortage of resulting challenges and frustrations, including labor and supply chain shortages. Still, it's heartening to see how central safety has been to many of these conversations. Safety professionals are making a real difference in workers' lives, both now and for years to come.

And while 2021 turned out to be a lot like 2020, it hits different for us. If anything, we're more optimistic than we've ever been about the promise and potential of changes and innovations to substantially improve workplace safety.

Without further ado, here are our top 10 EHS trends of 2021.



COVID-19 MANDATES

Throughout 2021, COVID-19 mandates have been hanging over our heads. Once the Food and Drug Administration (FDA) granted Emergency Use Authorization (EUA) for COVID-19 vaccines, employees wondered if employers were going to mandate vaccination. Meanwhile, employers wondered if the federal or state governments were going to mandate vaccination.

Flash forward to just before Memorial Day. The Centers for Disease Control and Prevention (CDC) changed its guidance to say that, for the most part, fully vaccinated people no longer had to wear face masks indoors. Most everyone was caught off guard by that announcement. Employers largely heeded their guidance.

In August, the FDA issued full approval to Pfizer-BioNTech's vaccine, to be marketed as Comirnaty. Immediately after, employers across industries began issuing vaccine mandates en masse. A few companies announced penalties for failure to vaccinate, such as Delta Air Lines' decision to raise health insurance premiums for unvaccinated employees by \$200 a month.

Then, in a televised prime time address in early September, President Joe Biden announced that, in addition to federal government employees and contractors needing to be vaccinated, employers with 100 or more workers would be required to have their workers vaccinated or tested weekly. That

announcement has sparked extensive conversations, to say the least.

Time will tell how the mandates fare in the courts, but early indications show that mandates can result in most of an organization's workforce rolling up their sleeves for the jab. And, as lawyers remind their clients, private employers have long had the authority to require workers to meet certain criteria for employment, including vaccinations.

THE DELTA VARIANT

In spring 2021, we finally reached a point where the rate of vaccinations administered surpassed that of reported cases. The situation was finally looking brighter. July 4 festivities really did feel like a declaration of independence.

A few weeks later, everything changed. The delta variant quickly became the predominant variant of the virus in the U.S. Hospitals were overrun with patients in places that hadn't previously seen surges, including Alabama, Mississippi, Missouri and Alaska. The U.S. has averaged around 70,000 daily confirmed cases through much of the fall, suggesting that while COVID-19 wasn't over, maybe the worst of it was.

Unfortunately, cases started rising in November, this time in the Upper Midwest and Northeast. As we head into this holiday season, there are noticeable differences. As of press time, 59% of the total U.S. population is fully vaccinated. The FDA has authorized booster shots for all adults and, at long last, granted Emergency Use Authorization for pediatric doses of the Pfizer vaccine for children ages 5 to 11. The FDA has also authorized antibody and antiviral treatments, and more are expected.

OSHA TAKES ACTION

On the campaign trail, Biden made a promise to labor unions that he would do more to protect workers. He started by issuing an Executive Order on Protecting Worker Health and Safety the day after his inauguration.

Biden tasked OSHA with developing

new COVID-19 guidance for employers, which it published Jan. 29, and Emergency Temporary Standard (ETS) for employers, due March 15. The ides of March came and went, but no ETS. OSHA did, however, issue a new National Emphasis Program for COVID-19 enforcement action focusing on certain industries. (The agency subsequently changed the name to an updated Interim Enforcement Response Plan.)

In the spring, Biden submitted nominations for key labor leadership positions. Marty Walsh, the former mayor of Boston who also served in senior positions in labor unions, was confirmed as secretary for the U.S. Department of Labor on March 23. Doug COVID-19 Parker, the former head of the Cal/OSHA, was variant confirmed as assistant secretary of labor on Oct. 25; he is the first Senate confirmed head of wee OSHA in nearly five years.

OSHA finally published its ETS detailing vaccination and testing requirement in the Federal Register on Nov. 5. Challenges to the mandate will be consolidated and heard by the Ohio-based 6th US Circuit Court of Appeals.

The legal process will take time, and some lawyers suspect it could work its way up to the U.S. Supreme Court. Lawyers are counseling their clients to continue preparing for the ETS's testing and vaccination deadlines of Dec. 5 and Jan. 4, respectively, rather than relying on a possible favorable court ruling. EHS Today will continue to bring you the latest in 2022.

MENTAL HEALTH CRISIS

For the past two years, COVID-19 has upended our daily lives. It has isolated us from seeing family, friends, coworkers and other support networks. It has incited feelings of anxiety and depressive episodes. It has brought grief, suffering and loss. It has introduced chaos, instability and uncertainty.

Working parents have struggled to find childcare and help their children with virtual learning. Women have left the workforce in record numbers to provide childcare. People of color have been disproportionately affected by COVID-19, (e.g., higher likelihood of exposure to the virus) as well as other events (e.g., hate crimes) throughout the pandemic. The Great Resignation and labor shortages have placed a heavy burden on the remaining workers. It's no wonder that people are struggling with their mental health.

People are coping as best as they can, the only way they know how. Cigarette sales increased 0.4% from 2019 to 2020, a modest increase, but the first increase in two decades, according to the Federal Trade Commission's annual Cigarette Report. There have been reports of people with alcohol and substance abuse addictions who are relapsing. And, for the first time ever, more than 100,000 people died of drug overdoses in the U.S., according to provisional CDC data collected from April 2020 to April 2021.

Workers have long struggled with mental illnesses and disorders. Now, because of the opioid epidemic and COVID-19 pandemic, we're talking about mental health in the workplace.

In *EHS Today*'s "2021 Mental Health in the Workplace Report," 72% of respondents report their company has a workplace wellness program. Further-



more, about 82% of respondents report their workplace wellness program includes a focus on mental health.

HEALTH AND WELL-BEING

COVID-19 has put the spotlight on health and well-being. Employees know they should stay home and rest when they're unwell, but for too long pushing through the pain has been rewarded in the workplace. Now, employers are stepping in (or stepping up).

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Employers and employer-provided programs are expanding the definition of health and wellness to include psychical, emotional and mental fitness. In other words, we're starting to see more employers embrace the concept of total worker health. The CDC and National Institute for Occupational Safety and Health (NIOSH) define total worker health as "policies, programs, and practices that integrate protection from work-related safety and health hazards with promotion of injury and illness-prevention efforts to advance worker well-being."

In practice, that means workers don't get hurt but also that the work is designed around their physical and psychological well-being. That includes supporting workers who are struggling with addiction and suicide; creating and enforcing policies to stop discrimination and harassment; helping workers manage their diabetes and other chronic illnesses.

"Psychological safety is a precursor to adaptive, innovative performance—which is needed in today's rapidly changing environment—at the individual, team and organization levels," according to February 2021 survey findings from McKinsey and Company.

Regardless of the reason, employers are seeing the impact health and wellbeing, previously considered personal problems, have during the workday. Proactively addressing those needs improves workplace safety and reduces the potential for safety incidents. It also helps workers be more productive. It can even help with employee recruitment and retention, which is crucial during a tight labor market. In other words, it's good for employees, and it's good for business.

EXTREME HEAT

July 201 was the world's hottest month ever recorded, according to NOAA. More extreme weather and a warming planet is the future unless we take immediate and substantial actions to reverse course.

Both outdoor and indoor workers are at risk of heat-related illnesses and death while they are working in hazardous hot environments. Those illnesses and deaths are entirely preventable if safety measures are issued and, more



importantly, followed. A handful of state OSHA plans have or are in the process of issuing standards. There are no federal standards, but that could change.

In September, OSHA announced it is implementing an enforcement initiative on heat-related hazards, developing a National Emphasis Program on heat inspections, and launching a rulemaking process to develop a workplace heat standard. In addition, the agency is forming a National Advisory Committee on Occupational Safety and Health Heat Injury and Illness Prevention Work Group to provide better understanding of challenges and to identify and share best practices to protect workers.

The efforts are in line with other steps Biden has taken to stymie climate change. On Inauguration Day, Biden signed an executive order to rejoin the Paris Agreement. A week later, he tasked top officials at every government agency to consider the most pressing climate threat and brainstorm how to cope with them. The resulting 2021 Federal Climate Adaptation Plans offer blunt descriptions of the dangers climate change pose.

Meanwhile, environmental, social and governance (ESG) programs have been gaining traction, especially as more investors, regulators and the general public are demanding more accountability from organizations.

EMPATHETIC LEADERSHIP

COVID-19 has humbled and humanized us. Even though everyone's struggles are not all the same, there is a commonality to them, and that has helped to instill empathy, even among the highest ranks of leadership.

Every stage of the pandemic has brought different challenges. The loss of daily routines and normalcy. The difficulty securing basic supplies, such as toilet paper and disinfectants. The fear of having someone you know come down with COVID-19. The sadness brought on by loneliness and social distancing. And so, so much more.

The saying "Check your problems at the door" need not apply to this pandemic. Good leaders realized this, and they leaned into their emotions. They shared more than they used to, both with their own personal lives and about the company. They reached out more frequently to employees through written correspondence (e.g., emails, blog posts, social media posts) and video conferences. They made themselves more available and seemed to flatten the organizational hierarchy.

In addition, leaders are mentioning health and safety more than ever before in communications with employees, suppliers, customers, stakeholders and investors. It all goes back to health and safety.

You don't need a fancy degree or run a billion-dollar empire to understand that workers want to feel cared for and safe, regardless of their race, gender, sexuality, religion or otherwise. Workers who feel safe will share their concerns and their ideas. That, in turn, helps workers reach their potential and businesses be more profitable. As safety leaders, you already knew this.

Still, it's important to have buy-in from the top. The concept of empathetic leadership is changing the way leaders view other workplace issues such as employee retention; employee engagement; and diversity, equity and inclusion. In other words, empathy is helping leaders realize the importance of total worker health and well-being.

REMOTE COMMUNICATIONS

Keeping in contact with remote workers has always been important, but the need hasn't been so urgent or wide-spread. COVID-19 changed that. Not surprisingly, there's been a proliferation of vendors entering the space and expanding their offerings of remote communications. These new platforms and devices have helped employers and employees stay connected these past two years, even if they had to stay far apart.

Emergency communication systems allow supervisors to contact employees in mass at a moment's notice in the



Get a Head Start on Your Safety Resolutions

Most people wait for the new year to make resolutions—a time for a fresh start. But in order to be successful, you first need a plan to work on your habits and that plan needs to expand across the entire year, not just the month of January.

Whether you're looking to make a change individually or at the organizational level, our guides on habit building, change management, toolbox talks and human factors will help you achieve your goals.







event of an emergency, crisis or natural disaster. Those messages can be delivered via text, email or app to a personal or other company-issued device.

Wearable devices provide workers and supervisors with a seemingly endless array of potential safety incidents for workers on-site, remote or lone workers. For example, some wearables allow workers to push to call for help, take pictures or record voice messages. Some wearable devices collect and transmit information recordings, biometrics, environmental readings and other data back to supervisors. The technology may also use artificial intelligence and machine learning to alert workers and/or supervisors if a safety event is likely or detected. That's especially reassuring for monitoring workers in hazardous conditions.

Virtual reality affords workers the ability to safely learn and train before walking onto the jobsite. Workers can familiarize themselves with the environment they'll be in, the technology they'll be using and the hazards to watch for. In fact 35% of contractors increased online training in the past year, and 63% of contractors now use it, according to a recent survey from Dodge Data & Analytics.

DIGITAL TRANSFORMATION

Any talk of the future isn't complete without talking about digital transformation. Industry 4.0 and the Industrial Internet of Things (IIOT) are revolutionizing manufacturing processes, and with it, safety.

Sensors on equipment alert supervisors if something is amiss, helping to prevent any number of potential safety incidents. They're also capturing more

data than ever before, which can help improve efficiencies and operations over time that, again, can benefit workplace safety.

For years, safety professionals have criticized safety reporting as a historical activity. Recording an event that happened in the past 12 months is necessary and important, but it likely won't prevent similar events from recurring. Now, digital technologies are transforming safety data collection from a passive to real-time exercise—with significant future benefits.

Better yet, these benefits are easily understood by all and have broad buyin. Workers want to go home safe to their families, not the emergency room. Management wants workers healthy and productive and keep costs down. In this instance, the savings are so evident that companies quickly recoup their return on investment, which in turn allows them to make other investments.

Part of this process may mean leveraging existing tools and technologies in new ways. It could also mean a complete technology overhaul, such as equipping workers with new exoskeletons or smart glasses and purchasing a fleet of drones for remote monitoring. There's no one right way to adopt technology, but it does need to be adapted to a company's specific needs. As more players enter the market, new offerings and customization of features will allow companies to reap the full benefits of digital transformation.

THE POST-PANDEMIC WORKPLACE

COVID-19 prompted many organizations to quickly implement changes in an effort to protect workers. As we look to a post-pandemic workplace, some of those safety threats will no longer be present. Employers will be presented with a rare opportunity to ask what's working, what isn't and what do workers want.

Survey after survey tells us that remote work is at the top of that list. Earlier this year, workplace platform Envoy found that 48% of respondents would like to keep working remotely, at least for part of the time. They mean

it. Forty-one percent said they would be willing to take a job with a lower salary in exchange for a hybrid work model, and 47% say they would likely leave their job if it didn't offer a hybrid work model once the pandemic ends. It's safe to say that there will be more remote workers in the future than there was pre-pandemic. It's worth considering what technologies, policies and options can employers adopt to make remote work better for everyone.

On the flip side, if/when a return to the workplace is necessary, employers must ask themselves what they can do to make workers feel more comfortable about coming back. Some companies



AMENIC181 DREAMSTIME.

and design firms are redesigning offices to include more distance between workstations, more collaborative spaces and other perks like indoor green space to lure employees back. That means listening to employee needs and desires, then thoughtfully creating an environment where workers will be productive, comfortable and safe while also satisfying business requirements.

As baby boomers retire, Gen Z enters the workforce and The Great Resignation further shakes up the employee makeup, employers have to reconsider dynamics and policies. It's also a chance to be intentional about core values. That my include retaining some practices adopted during COVID-19, such as the technologies used to do business, how leadership communicates with employees, a commitment to safety and an emphasis on mental health.

It's incredible to reflect on what we have accomplished and how businesses survived two very difficult years. As the promise of a post-pandemic workplace comes into sight, we get to decide what kind of future we want. **EHS**

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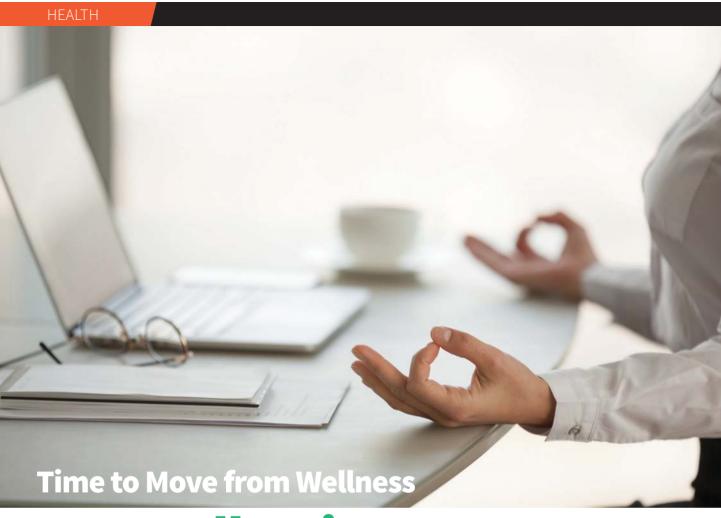
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to Well-Being

While some companies launched wellness programs mainly to lower healthcare costs, a new focus on wellbeing aims to embrace the 'whole' employee.

By Adrienne Selko

here was a time when employees had a tacit understanding that their employer had a vested interest in their well-being. Companies often signaled this concern through wellness benefits. Company newsletters would talk about nutrition, gym memberships were subsidized, and on-site weight management programs were offered and often held in a large conference room.

Why did companies invest in these programs? "Wellness was the answer to rising medical costs," explains Sara Martin, CEO of WELCOA (the Wellness Council of America), a group that

has been around for 30 years helping businesses create healthier organizations. "Companies were facing doubledigit increases year-over-year. To keep costs under control, programs were instituted to manage chronic conditions."

By getting buy-in to these programs, sometimes using incentives, companies thought this would make people healthier and, in turn, lower costs. However, these programs didn't always work as planned, Martin says. "People weren't getting well because health care is more complex than getting people to exercise more or submit to biometric health screenings."

Her statement is confirmed by a June 2021 study from the Harvard Medical School and University of Chicago, entitled, "Health and Economic Outcomes Up to Three Years After a Workplace Wellness Program." The study concludes that while employees at treatment worksites had better self-reported health behaviors, "no significant differences were found in self-reported health; clinical markers of health; healthcare spending or use; or absenteeism, tenure, or job performance."

"What companies refuse to see is that often it was the company that was making employees sick in the first place," Martin says. "Somewhere, we lost our way and took the human being out of the work equation, and everyone got sick. If you have a terrible work-life balance, an awful job and you dislike your boss, buying a Fitbit won't solve the problem."

What can be powerful, however, is when an organization digs deep and faces the issue. And that's where wellbeing comes into play. Well-being enThe World Health Organization (WHO) states:

"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

compasses a larger perspective on what makes an employee healthy. The World Health Organization (WHO) states: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

In the workplace, well-being also means providing employees with a psychologically safe environment, social connections and rich relationships, Martin adds.

TAKE A CLOSER LOOK AT EMPLOYEES' NEEDS

As companies start to view an employee as a complex person with a variety of needs, and then find ways to meet those needs in the workplace, they are turning to well-being programs. In fact, some have created specific jobs to incorporate this philosophy.

Jen Fisher, the U.S. chief well-being officer for consulting firm Deloitte, says that companies are coming to understand this evolved way of thinking. "Many companies just don't know how to do this, as work has always been viewed separately from the worker's personal life," Fisher explains. "Managers were trained to reward those who put in long hours, not understanding the toll that took on someone's health and well-being. Now, we need to switch what we value and celebrate what is uniquely human, such as creativity and the ability to problem-solve."

Studies confirm the value paradigm shift. The 12th annual Employer-Sponsored Health & Well-Being Survey from Fidelity Investments and Business Group on Health looked specifically at well-being strategies. "This year, the number one reason for offering well-being programs is employee engagement," explains LuAnn Heinen, vice president at the group, which rep-

resents large employers. She leads the organization's well-being-as-a-work-force-strategy function.

"In light of the issues this past year, mental health is now included in well-being programs, where it might not have been included before," Heinen notes. The survey shows that 92% of respondents increased mental health offerings this year, and 62% said they intend to keep these programs.

One company that understands the aspect of mental health is Ampirical, a utility engineering and construction company and one of America's Safest Companies in 2021. "The pandemic is stressful for people," explains Rod Courtney, HSE manager. "Fear and anxiety about a new disease and what could happen can be overwhelming and cause strong emotions in adults and children. Public health actions, such as social distancing, can make people feel isolated and lonely and can increase stress and anxiety.

"However, these actions are necessary to reduce the spread of COV-ID-19. Coping with stress in a healthy way will make you, the people you care about, and your community stronger. So, our company set up virtual counseling services for all employees who may experience anxiety during these unprecedented times."

Creating programs to address specific needs, such as Ampirical did, is one way that well-being programs are developed. To uncover the spectrum of employee needs, Heinen advises companies embark on "listening tours." Part of the purpose of these tours are to uncover barriers to program participation. From an organizational perspective, she advises against adding well-being strategy to already overworked human resource people. There is training and certification to becoming a well-being manager, which WELCOA provides.

LEADERSHIP IS NECESSARY WHEN CHANGING CULTURE

Well-being stretches across all functions of a company.

"During the pandemic, a sense of well-being became bigger and moved to become part of the culture rather than being a program, policy or initiative," Heinen says. "There was more transparency and communication, either through town halls or even pulse surveys." She cites a company that has instituted a Feedback Friday asking employees how the week went.

Becoming a culture that concentrates on and values employees' well-being isn't as challenging as companies might think, Fisher says. She offers advice on some specific tactics:

- Encourage open conversations. Focus on creating a safe workplace where people feel comfortable speaking openly about physical, relational and mental health. Offer different avenues for personal conversation, either openly in teams or in confidence with a counselor.
- Build mental health literacy.
 Add virtual courses in mental health to a company's learning program so that everyone is conversant and comfortable talking about mental health, a topic many find difficult because of cultural stigmas or personal anxiety.
- Share through storytelling.
 Teach employees to share their experiences and tell their stories in their own words. It can be a great exercise in team bonding.

Well-being should be a core value, Martin emphasizes. "It is the fuel that drives all other areas of performance for a company. It's baked into your company's operations and into the DNA of your organization." **EHS**



Here are three qualities leaders should focus on as the situation with COVID-19 continues to evolve and as they prepare for the next normal.

by Kate Field

he pandemic has taken a massive toll on our global health, upended entire industries and led to The Great Resignation—a worldwide mass exodus of employees seeking new opportunities in the wake of a once-in-a-lifetime crisis. As a result, worker wellness—from both a physical and psychological standpoint—has never been more important.

As business leaders scramble to keep their workforces engaged and focused on advancing company goals, many crucial decisions related to worker health, safety and well-being loom on the horizon. Within the next few months, organizations will need to clarify hybrid/remote working models and navigate everevolving COVID-19-related regulations, restrictions, recommendations and more.

Existing management standards such as ISO 45001, the overarching occupational health and safety standard, and the newly issued ISO 45003, which focuses specifically on psychological health and safety, can help organizations lay the foundation of a strong culture. However, some decision-makers may not know where to go from there. With that in mind, here are three best practice organizational characteristics, based on BSI's new Prioritizing People Model, to strive for as leaders prepare to set a course for the next normal.

SAFETY

According to BSI's Organizational Resilience Index, there has been a significant rise in leadership trust among employees during the pandemic. It seems the early days of COVID-19 left many business leaders facing a sink-orswim moment in which those who acted quickly, connected emotionally and prioritized employee welfare managed to earn their employees' respect.

Workforces seemed to respond positively to the way some leaders rapidly shifted work models to adapt to COVID-19 requirements and prioritize worker safety. They also enjoyed the humanization of leaders that was necessitated by crowded living room Zoom calls, which provided a glimpse into the private world of professional colleagues. But with big changes coming to most organizations, such as return-



ing to the office and rebounding from the Great Resignation, business leaders must work to maintain these gains.

The solution to this challenge lies in collaborative, communicative and emotionally intelligent leadership that meets workers in the middle. Consider Maslow's Hierarchy of Needs: If employees' basic needs for a safe and compliant workplace are not met, their trust in leadership will immediately begin to erode.

Some organizations' business models may necessitate employees return to an office or worksite, but there are still tangible ways to maintain their trust despite this reality. Ensuring employees have personal space to retreat to when fatigued; providing sufficient absence management policies; and cracking down on adverse social behavior, such as bullying and harassment, are all examples of how to foster an organizational culture that values safety.

BELONGING

ISO 45003 defines employee wellbeing as the "fulfilment of the physical, mental and cognitive needs and expectations of a worker related to their work." Once basic employee expectations for physical and emotional safety are met, organizations must focus on the finer aspects of well-being, namely emotional and mental health.

In the past, employers have tried to "solve" emotional health through reactive initiatives targeted at individuals, such as mindfulness exercises, wellness programs and employee assistance programs. These can have an adequate short-term impact, but they rarely sustain momentum.

Proactive, organizational-level action that focuses on creating supportive relationships, active listening and social engagement are all part of fostering a genuine sense of belonging among workers. Effective strategies can vary by industry and workplace, so leaders should frequently consult with workers to pinpoint their evolving needs. The heart of workplace interaction is between a worker and their line manager, so ensuring those relationships are open, honest and responsive is one common key to success in this area.

Beyond social interactions, employers must also consider work-life balance. Workers who no longer feel connected to their personal lives because of work are among the most likely candidates to experience burnout and quickly lose faith in their leaders.

ESTEEM

If establishing a sense of belonging is a matter of ensuring employees feel comfortable raising issues and expressing their mental health concerns at work, building up employees' esteem is more about establishing a culture that fulfills workers by appropriately rewarding achievement and allowing them to fulfil their potential.

Early in the pandemic, workers clung to their jobs, fearing the harsh unemployment cycle. However, with the world gradually reopening, new opportunities are now plentiful. Millions of employees are resigning each month, according to the U.S. Bureau of Labor Statistics. What's more, recent Gallup data suggests that nearly half (48%) of America's working population is actively job searching or watching for opportunities. Workers who don't feel appreciated after nearly two years of pandemic-inhibited work will not hesitate to leave for greener pastures.

Employees must feel safe and secure in the workplace regardless of their race, ethnicity, gender, sexuality, religion or otherwise. This is related to belonging, certainly, but it also covers esteem because of how pay, promotion and recognition are so intertwined with issues of diversity and inclusion. The jobs that cause people the most emotional stress are those that become grinds—monotonous mountains of work that employees must process with little hope of autonomy on the horizon.

Many employees are willing to spend extra time to get their work done, but they should be allowed the flexibility to do so on their own terms as much as possible. Hybrid working gave many workers a taste of an improved worklife balance equation, and businesses that fully revert to old arrangements are more likely to lose talent. When it comes to creating an engaged and productive workforce, leaders must ensure that rewards match employees' efforts and that career development happens at an appropriate pace for all.

The global turbulence caused by the pandemic proves that many of the changes that lie ahead will be beyond businesses' control; however, leaders must still work internally to prepare for and eventually overcome those challenges.

If organizations can embrace the learnings of the pandemic—that workers prize trustworthy, empathetic and innovative leadership—and convert those lessons into actions that prioritize their people, they'll be future-ready for whatever the next normal looks like. **EHS**

Kate Field is global head of health, safety and well-being at BSI (www.bsigroup. com), a nonprofit distributing organization that offers global services in the linked fields of standardization, systems assessment, product certification, training and advisory services.



Cyberattacks on operational technology put people, equipment, production capacity and the environment at risk. Here's what you need to know to protect your organization.

By George Schuster

yberattacks no longer impact just the IT environment. As operational technology (OT) systems in production environments have become more connected, cyberattacks on those systems have put people, equipment, production capacity and the environment at risk.

Back in 2014, cyber attackers were able to gain access to a steel mill's network by hacking the company's email to steal login information. After the hackers gained access to the mill's network, workers lost control of a blast furnace containing molten metal heated to over 1,000 degrees Fahrenheit. The attack caused a massive amount of damage to the facility. Thankfully, no one was injured, but if the hack had escalated, the risk to workers could have been catastrophic.

In February 2021, cyber attackers hacked a Florida wastewater treatment plant's computer system and increased the levels of sodium hydroxide in the water from 100 parts per million to 11,100 parts per million. Luckily, a plant manager noticed the hack as it happened and was able to return the system to normal before it caused damage or endangered the public. If it had gone unnoticed, residents of Oldsmar, Fla., and surrounding communities would have suffered severe consequences, such as burns to the mouth, throat, eyes, lungs, esophagus, nose and stomach, resulting in permanent damage or death.

The increasingly interrelated nature of safety and security in today's connected production environment means that these two elements must be addressed together. But how do you make the necessary changes to align two areas of risk management that have historically been managed separately? Given that safety and security are both reliant on people, processes and technologies, there are

tremendous opportunities for your organization to improve efficiencies and effectiveness by bringing together efforts in the following three areas.

PEOPLE: FOSTER SAFETY AND SECURITY COLLABORATION

Understanding and addressing your security-based safety risks require a combination of safety and IT expertise. Therefore, better collaboration is needed between your EHS, IT and operations teams. They must work together to develop safety and security objectives; identify vulnerable assets and critical safety data requirements; and conduct risk assessments that address both safety and security risks.

In our work with organizations in this area, we've identified several best practices for how teams can collaborate in meaningful ways for their organizations. As you get started in this area, we recommend the following:

- First, identify common goals between the disparate teams, such as reducing costs associated with production interruptions, injuries or noncompliance, or damage to brand image.
- Second, cultivate a common language by using terms such as "risk assessment," "risk mitigation," "layers of protection," "validation protocols" and more.
- Third, agree on shared ways to measure success through key performance indicators (KPIs). Examples of KPIs common to both safety and security risks include unscheduled asset downtime, supply chain interruptions and costs of noncompliance.
- Fourth, develop a response plan that includes continuous improvement measures to enhance both defenses and response.
- Fifth, identify proactive measures that could identify vulnerabilities before an attack or accident occurs. This includes architecture and technology reviews, assessments, system validation/analysis, testing and more.
- · And, finally, establish leadership

and executive accountability for risk management. This often involves members of the legal and compliance teams who are well-versed in management of many risk types.

Bringing together these critical teams can help your organization cultivate an enterprise-wide mindset that prioritizes safety and security as integral pillars to helping achieve operational excellence and business performance.

PROCESS: LEVERAGE INDUSTRY STANDARDS AND METHODOLOGIES

Addressing safety through security is no longer just an aspiration—it's a matter of compliance. Standards now provide formal guidelines for addressing safety in the context of security.

The functional safety standard IEC 61508, for instance, states that hazards associated with equipment and control systems must be determined under all reasonably foreseeable circumstances. According to the standard, "This shall include all relevant human factor issues and shall give particular attention to abnormal or infrequent modes of operation of the EUC [equipment under control]. If the hazard analysis identifies that malevolent or unauthorized action, constituting a security threat, as being reasonably foreseeable, then a security threats analysis should be carried out."

For cybersecurity, the ISA/IEC 62443 standard defines requirements for implementing electronically secure industrial control systems. They apply to any organization that designs, manufactures, implements or manages these systems. This includes not only product and service providers, but also system integrators and asset owners that do their own integration and maintenance of control systems.

Fortunately, safety and security share common risk management methodologies that come from interrelated safety and security standards that take a lifecycle approach to assessing and mitigating risk. Security guidance also comes from the National Institute of Standards and Technology (NIST) cybersecurity framework, which organizes basic cybersecurity activities into functional levels. The ISO 12100 functional safety lifecycle helps maximize productivity and improve safety with steps required to assess and mitigate machinery risks.

Each process begins with a proactive and methodical approach based on the specific standards. Generally, this involves asset analysis to identify any safety hazards or security vulnerabilities in your systems. The next step for both processes involves analyzing and mitigating potential failures in the design stage. For security, this entails developing an architecture that thwarts and detects security attacks. For safety, it's devising a system that can account for failures of technology and human errors.

Your organization can implement a companywide risk management strategy to manage security threats and vulnerabilities, and their potential implications for safety. Two assessments are essential to this strategy:

- A safety risk assessment to confirm compliance with standards, including IEC 61508 and ISO 12100, which addresses standard operating functions and all human-machine interactions.
- A security risk assessment that describes the overall security posture regarding software, network, control system, policies and procedures, and even employee behaviors. It also should outline what steps must be taken to achieve the desired level of security.

Your EHS and IT teams can complete these assessments on their own or use a collaborative partner with expertise in both safety and security. A partner can identify blind spots that might be overlooked by an internal team that is involved with the systems and networks day in and day out. Working together, a plan can be developed that helps your team comply with the standards of today and prepares your organization for tomorrow. And, most importantly, an external partner can help you best identify and address potential safety risks that could result from the security threats facing your company.

Aligning safety and security processes using these similar, standards-based

methodologies can help your company address safety and security risks together. Ultimately, this will create a more compliant work environment.

TECHNOLOGY: SECURE SAFETY EQUIPMENT

Modern safety equipment is increasingly connected and programmable. Safeguarding the equipment from threats that could compromise the system is critical.

To help protect safety equipment against cyberattacks, you need a defense-in-depth security approach that



Understanding and addressing your security-based safety risks require a combination of safety and IT expertise. Therefore, better collaboration is needed between your EHS, IT and operations teams.

uses multiple layers of defense. Two of those layers can include CIP Security and CIP Safety, which can be combined to provide a robust, certified basis for achieving safety and security in industrial automation control systems.

CIP Security is an extension of the Common Industrial Protocol (CIP). It helps protect devices by rejecting potential threats, including altered data, messages sent by untrusted people or devices, and messages requesting actions that aren't allowed.

CIP Safety is also a CIP extension and provides fail-safe communication between nodes such as safety input/output blocks, safety interlock switches, safety light curtains, safety controllers and robots. It helps protect communication-transmission integrity by detecting errors and allowing devices to take appropriate actions.

Safety devices with CIP Safety also make possible a smarter approach to safety in production environments. For example, the devices give users access to diagnostic data that can provide in-



sights into common failures or misuse and can help improve productivity.

While this may seem complicated, your team does not have to do this alone. A services partner can help you create a reliable and secure network infrastructure. This strategic partnership can combine the correct knowledge and expertise needed to provide a holistic approach that can help you design, deploy and manage a network infrastructure that is central to your enterprise.

CASE STUDY: CHEMICAL COMPANY ADDRESSES IT AND OT RISKS

COVID-19 has forced companies to find new ways to manage safety and security while keeping operations running smoothly.

A Latin American chemical company needed to implement a greenfield project during the pandemic. Due to the significant increase in the number of employees working from home to protect employee health and safety, the company needed a safe and secure solution for employees and suppliers to access their IT/OT network remotely to support the implementation. The company needed the ability to monitor and audit remote interactions with the site's industrial control system by operations while maintaining system reliability and reducing risk of potential cybersecurity incidents.

By deploying secure remote-access solutions and a pre-engineered virtualized environment solution, the company was able to:

- Complete the greenfield project using secure remote access for implementation.
- Reduce overall cybersecurity risk to the corporate and OT networks.
- Simplify control and monitoring of all OT remote access sessions and increase system reliability.
- Improve workforce efficiency with reduced travel needs and improved systems support coverage.
- Protect employee safety by reducing the number of people on-site.

NAVIGATING CHANGE

Implementing change to bring together safety and security can seem intimidating. But a planned, holistic approach that encompasses people, processes and technologies can bring these two entities together as part of a larger companywide risk management strategy. And if you have strained resources, or don't know where to start on an effort like this, a partner with industrial safety and security experience can help you address your specific security-based safety challenges. **EHS**

George Schuster, TÜV functional safety expert (FSExp), TÜV cyber security specialist (CySec), joined the Rockwell Automation Industry Solutions Team as a senior industry specialist in 1997. In this position, he has provided controls and safety-application consulting in the areas of advanced process development and system integration. He has also been involved in the development of control system solutions, safety systems and services business development.



Highlights from the SAFETY LEADERSHIP CONFERENCE 2021

CLEVELAND was the host city for *EHS Today*'s **2021 Safety Leadership Conference**, held Nov. 9-11 and co-located with *IndustryWeek*'s Manufacturing & Technology (M&T) Show. After going virtual in 2020 due to the pandemic, the SLC celebrated its 10th year by returning with a hybrid event. The Cleveland event featured facility tours, workshops, keynote presentations (see **p. 27**), an exhibit hall (**p. 28**), and 15 breakout sessions focused on safety technology, regulatory compliance, and risk management.

As always, SLC provided plenty of opportunities for attendees to network and share best practices with fellow

safety professionals. And as in the past, a highlight of the event was the presentation of the **America's Safest Companies** awards. Below you'll see leaders from nine of the winning companies being congratulated by *EHS Today*'s chief editor Dave Blanchard.

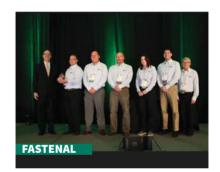
We also hosted a live virtual SLC on Dec. 7-8, which you can access at www.safetyleadershipconference.com.

The following pages offer some visual highlights from the Cleveland conference (all photos taken by Endeavor's Charles Thomas). We hope to see everybody at Safety Leadership Conference 2022, Oct. 18-20, again in Cleveland.

AMERICA'S SAFEST COMPANIES CLASS OF 2021

(unable to attend: CJ Drilling)













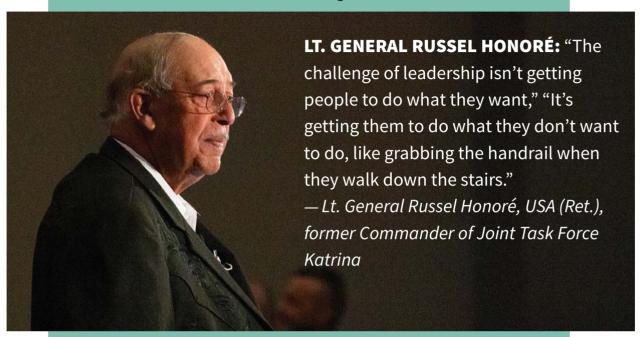




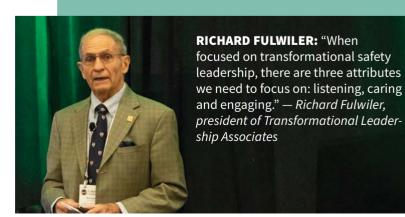


ROSENDIN ELECTRIC

KEYNOTE QUOTES



















NEW PRODUCTS

Face and Respiratory Headgear

The Honeywell North Primair 900 (PA900) Series Headgear offers a combined face and respiratory protection that is



ANSI-certified and NIOSHapproved for a range of applications. The headgear was designed for challenging work environments, e.g., chemical production and manufacturing, where workers are required to use powered air-purifying respirators (PAPRs) to pro-

tect workers from inhaling harmful dust, vapors and gases. An optimized air-flow distribution allows air to be kept away from the worker's face to help them stay cool and avoid dry eyes.

Honeywell Safety and Productivity Solutions (SPS)

www.sps.honeywell.com

Adjustable Ladder

Werner has developed a multi-position ladder for contractors, painters and facilities maintenance that is ANSI and OSHA certified. The new LEANSAFE X5 features a one-handed lock adjustment for seamless transitions through all five ladder positions: step



Advertiser Index **Advertiser** Page # 3M PERSONAL SAFETY DIVISION BC AIR CONTROL INDUSTRIES INC. 24 AMERICAN SOCIETY OF SAFETY PROFESSIONALS **IBC** AUTOMATIONDIRECT 3 2 **BOARD OF CERTIFIED SAFETY PROFESSIONALS COAST PRODUCTS** 5 IFC **GRAINGER NFPA** 7.17 NORTHERN SAFETY CO., INC. 8 **SAFESTART** 15 SCHMERSAL INC. 11 ULINE 25 WOOSTER PRODUCTS INC. 29 ladder, stairway ladder, leaning ladder, extension ladder and twin ladder that can support one user on each side simultaneously. The ladder is 6 feet tall with a maximum reach height of 14 feet.

Werner

www.wernerladder.com

Hi-Vis Safety Harness

360 USA has adapted its consumer reflective running harness for the workplace. The high-visibility safety harness provides an alternative to traditional safety vests that doesn't restrict movement or trap body heat. The harness is ANSI/ISEA 107-2020



Type O Class I compliant. It doesn't cover workers' uniforms or pockets to ensure tools remain uncovered and are accessible. The harness is lightweight (9 ounces) with fully adjustable shoulder and waist straps that can fit up 54 inches.

360 USA

360usaproducts.com



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NICOLE STEMPAK Managing Editor



FORGING AHFAD

A look back on what has been and imagining what could be.

ver since my 2022 planner arrived in the mail, my mind keeps wandering back to December 2019. Specifically, I have been thinking about my last day in the office before the holiday shutdown. It's still strange to think how quickly everything changed.

I can't recall the first time I heard of SARS-CoV-2, but I remember wondering (and perhaps naively hoping) that this novel coronavirus would be quickly contained so I could go back to my regularly scheduled life. We all know how that went.

Still, I was surprised to find a story in *EHS Today* from June 2020 that people were already thinking life would never go back to normal. According to a survey from the University of Phoenix, 86% of Americans were "concerned" about the outcome of the pandemic on their everyday lives.

Even so, I doubt many people could've predicted how things would unfold. The U.S. has so far endured five waves of the pandemic. As of press time, there have been more than 47 million confirmed cases of COVID-19 and 766,000 attributed deaths in the U.S., the most of any country worldwide. Case numbers are once again starting to rise, causing experts to worry about the upcoming holiday celebrations and winter months spent mostly indoors.

Experts continue to update their models and forecasts as new information is available, but it's difficult—if not impossible—to know what will come next.

"Every morning, I scrape five inches of mud off my crystal ball," said Michael T. Osterholm, director of the Center for Infectious Disease Research and Policy at the University of Minnesota, to *The New York Times*. "Any effort to predict a future course beyond 30 days relies on pixie dust for its basis."

At some point, though, the World Health Organization (WHO) will downgrade its rating from pandemic to endemic. It's unclear how that will change our everyday lives, though. We may live somewhere or work for an organization that requires us to continue COVID-19 measures or resume them if area cases increase or there's an outbreak.

"Pandemics are messy in how they end, and the ending is sort of arbitrary," said Steven Taylor, professor and clinical psychologist at the University of British Columbia, Canada, and author of *The Psychology of Pandemic*, to the BBC. "The WHO will announce one day that we're entering a post-pandemic period, but what does that mean? The coronavirus is still around, infecting and killing people, but the rates are low enough that it's OK to open up the economy."

Experts say the longer the pandemic draws on, the less

likely it is that we can eliminate COVID-19. Instead, we must collectively learn how to live with the virus. That also means learning to live with the loss, trauma, grief and other physical and mental difficulties brought on by COVID-19.

"We tend to think of pandemics and epidemics as episodic," said Allan Brandt, a historian of science and medicine at Harvard University, to *The New York Times*. "But we are living in the COVID-19 era, not the COVID-19 crisis. There will be a lot of changes that are substantial and persistent.

We won't look back and say, 'That was a terrible time, but it's over.' We will be dealing with many of the ramifications of COVID-19 for decades, for decades."

As an example, the U.S. Centers for Disease Control and Prevention found

VASYL DUDA | DREAMSTIME Disease Control and Prevention found that more than 42% of people reported symptoms of anxiety or depression, according to a survey by the U.S. Census Bureau in December 2020, up from 11% in 2019. These mental health challenges will persist until situations change for people. They can be assisted by therapy and medication, but those also take time.

"I don't know that most people have even processed how extraordinary this year was, how extraordinary the demand placed on individuals has been," said Tess Wilkinson-Ryan, a professor of law and psychology at the University of Pennsylvania to NPR-affiliate WHYY in July 2021. "And so, it seems to me that everybody should get this enormous grace period for trying to figure out what's OK with them."

It's not possible for me to return to The Before Times. Too much has changed. I'm not the same person I was or the living the life I had in 2019, and that includes working for *EHS Today*.

COVID-19 has altered my plans, and it's also shaped how I look at the future. I've reassessed priorities, set boundaries and kicked bad habits. I'm putting my safety and well-being first more often. I'm kinder to myself and not putting myself down as much. (I've also learned some new bad habits, but I'm working on those.)

And, for the first time in a long while, I am excited about the future. It may not be back to normal, but I wouldn't want to forget all the things I've learned and experienced these past two years. Instead, I want to carry them with me to build a different future, a better future. It's never too late, or too early, to start.

Midle Sampak

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



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