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FOOD FOR THOUGHT

A PERIODIC EXAMINATION OF KEY ISSUES AND TRENDS FROM MARSH'S FOOD & BEVERAGE PRACTICE

WEARABLE TECHNOLOGY AND WORKPLACE SAFETY

In August 2015, a worker at a Midwestern food processing plant caught her hand in an unguarded conveyor belt, leading to an amputation. Over the next several weeks, two others at the same plant suffered serious injuries after getting their hands snagged in machinery.

Working on an assembly line in a food processing or bottling plant can be demanding and at times dangerous work. In fact, workers in the food and beverage manufacturing sector have some of the highest injury rates, right up there with farmers, fishermen, and hunters, according to the Occupational Safety and Health Administration (OSHA). But an emerging array of wearable electronic devices hold the potential to revolutionize workplace safety, spare workers from injury, and save companies millions of dollars.

CREATING WEARABLES

According to the National Safety Council, workplace injuries and illnesses cost the US economy approximately $198.2 billion dollars a year. And 4,251 workers were killed on the job in the private sector in 2014, according to OSHA.

However, a number of companies are testing a budding array of wearable devices that can be used in the workplace to do everything from keeping workers safe to collecting valuable actionable data. Wearable devices are moving from consumer goods that track miles walked and calories burned to workplace safety items ranging from clip-ons to helmets, caps, and vests.

Such devices aim to prevent workplace injuries, either by alerting workers to imminent danger or helping companies take precautions by analyzing injury patterns. For example, one technological platform can sense when a worker is getting too close to dangerous machinery or is entering an unsafe area. In a case like the food processing plant above, such a system has the potential to provide sufficient warning to avert tragedy. Other devices can detect unsafe practices, such as improper lifting or bending.

Still other wearable devices being developed include:

- A smartwatch for factory workers that allows them to send alerts or to be notified of dangers.
- Smart vests that could help prevent collisions between forklift drivers and warehouse workers, long a major problem.
- Sensors that monitor the impact from slips and falls.
- A baseball-style cap that uses sensors to monitor cognitive activity. Supervisors can track how tired their drivers are — and take appropriate action — based on data transmitted back to the home office.

Other devices under development can track internal functions such as heart rates, although these could potentially spark privacy concerns. Still, companies may find they have a compelling argument to make when the upside is preventing serious injury.

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CUTTING WORKPLACE LOSSES

Wearables can do much more than simply keep workers out of harm's way. They can help companies collect reams of valuable data that can be used in the design of safer and more productive workplaces, while also taking a bite out of workers' compensation claim costs. And that can translate into millions of dollars of savings each year.

For example, wearables can help organizations track injury patterns and take preventative action. That could be as complex as determining the cause behind a rash of shoulder or back injuries to figuring out, in the case of a restaurant, that a nonskid mat is needed to prevent slips and falls.

By closely tracking workplace activity and taking steps to actively reduce the number of incurred claims, companies can marshal data to strengthen their negotiating position with insurers. By lowering their experience modification factor — which is based more on an employer's frequency of workplace injuries than their severity — companies are better equipped to bargain for lower workers' compensation premiums. In fact, committing to such a major effort to track and reduce workplace injuries should in and of itself get the attention of insurers.

Other potential benefits of wearables include gathering data to track productivity and improve workflow.

HELPING DETER FRAUD

Workers' compensation fraud is a significant part of the estimated $30 billion in bogus insurance claims filed each year, according to the National Insurance Crime Bureau. Yet identifying workers who fake or exaggerate injuries can cost companies thousands of dollars in surveillance and legal fees.

Take the case of a restaurant employee who claimed she suffered serious back, knees, hip, arm, and ankle injuries after tripping over a bread tray. The company was able to convince a judge to dismiss her case after obtaining surveillance video that exposed her claims as fraudulent. But the estimated cost of proving that can run to $800 to $1,000 a day. However, if the employee was wearing a device clipped to her belt when she allegedly tripped and fell, it could have measured the impact, potentially flagging her claim early and preventing a costly investigation.

NEXT STEPS

The technology behind workplace wearable devices is changing rapidly. Although there are few products currently on the market, many are in development. Your organization should consider whether these devices can help you mitigate workplace hazards, encourage overall wellness and productivity, and protect your reputation and bottom line.

This briefing was prepared by Marsh's Food and Beverage Practice and Marsh's Workers' Compensation Center of Excellence (WC COE). Marsh's WC COE is dedicated to helping clients navigate the complex workers' compensation landscape. Through MPACT℠, Marsh's integrated approach to reducing total casualty cost of risk, we deliver to clients a full spectrum of casualty diagnostics and offerings: Optimal insurance program design and placement, advanced analytics and modeling, pre- and post-loss consulting strategies, claims management and advocacy, and thought leadership.

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