EH&S TRENDS
Transformation Theme for 2018
By Karen O’Hara

The beginning of the year is a good time to reflect on past performance and prepare for anticipated opportunities and challenges.

For environment, health and safety (EH&S) professionals, the choice seems clear: Adapt, protect and prosper or disregard trends and potentially increase exposure risk for people and business operations.

This article features insights from industry experts on some of the workplace health and safety issues that are expected to predominate in 2018.

Transformation

J.A. Rodriguez Jr., a global EH&S manager and certified safety professional with more than 30 years of industry experience, predicts 2018 will be a “transformational, pivotal year” in which EH&S professionals will be compelled to think differently about their role.

He anticipates resources will be tighter while schedules compress and production demands increase. Rodriguez also foresees changes in the type of work being performed, such as in material-handling settings where there is a growing need for effective ways to reduce ergonomic exposure risks.

While some may see these conditions as obstacles, Rodriguez, a motivational speaker, puts a positive spin on them.

“There will be new audiences to support our efforts,” he said during a year-end webinar sponsored by EHS Today and Avetta, a supply chain management platform provider. “This is good news for our profession because we can innovate and streamline. A gap in the supply of qualified EH&S professionals will be likely to attract more people to the profession, and that will allow others in the field to advance at an accelerated rate.”

To be better equipped as leaders, Rodriguez advises EH&S professionals to: 1) get career planning guidance, and 2) educate themselves about business operations and finance to enhance the solid technical knowledge they already bring to the table. He believes professional success will depend on the ability to anticipate needs, prepare and act on plans, demonstrate value, be accountable and exceed expectations.

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Issues he predicts are likely to gain traction this year include:

- Use of the Occupational Health and Safety Management Systems standard (ANSI/ASSE Z10), which defines minimum requirements to prevent work-related fatalities, injuries and illnesses.
- The federal government’s de-regulatory agenda and the Occupational Safety and Health Administration’s renewed emphasis on its Voluntary Protection Program. (See related article on Page 6.)
- Greater urgency associated with ways to counteract an imminent “distraction crisis” in U.S. workplaces and communities.
- Emergence of advanced technological solutions and devices, such as hands-free command features using voice or eye recognition.

“Workers will begin to rely more on systems to think for them. The virtual and real worlds will join forces and place employees at another level of risk. When points of inflection occur, the systems we design will have to be future-proof,” he said.

Another global EH&S professional, Pamela Bobbitt, director of channel and product marketing for Cority (formerly Medgate), an environmental, health, safety and quality software company, also refers to transformational currents when evaluating industry trends.

“We are going through a transformation with technology,” Bobbitt said during a Cority webinar. While technology creates new kinds of demands, “innovation also make things better for the environment and for workers overall. It’s exciting, and it’s a great time for us as a profession.”

Bobbitt’s list of relevant issues for 2018 includes:

- Sustainability, product stewardship, brand and reputation
- Domestic and international standards and compliance
- Climate change-related policies and response to extreme weather events
- Internet of things, the network that connects devices, vehicles, appliances and other objects
- Data security, privacy and the EU General Data Protection Regulation (enforcement effective May 25, 2018)

With respect to incident prevention, Bobbitt expects employers to continue a shift toward the use of leading, behavior-based indicators to assess and manage risk. “It’s no longer just about tracking lagging indicators, and that’s better for business,” she said.

Bobbitt noted that leading indicators are a useful tool when managing “total worker health,” the concept of integrating health protection (safety) with health promotion (wellness). “People are realizing they need to focus on total worker health, tying human factor elements with incident prevention initiatives,” such as monitoring mental health and the effects of stress or violence in the workplace in order to better understand operational risk.
Sustainability

Organizations that score well on sustainability indices typically have higher profits and a more positive impact on society than those that do not rank as well, studies show. Investors, employers, regulators, customers and others who care about sustainability are aware that working conditions make a difference when evaluating investment options, vendors and products.

However, while occupational health and safety is part of the sustainability conversation, it is not necessarily top of mind. Further integration of health and safety initiatives with corporate sustainability programs is needed to ensure that resources are used wisely to reinforce best practices, according to Danny Shields, a certified safety professional and director of industry relations for Avetta.

“As EH&S professionals, we are going to be involved in sustainable business practices because we have our finger on the pulse. It’s our job to protect people who work for us – our most valuable resource – and the people who work for our contractors and suppliers,” Shields said. “We need to be thinking about how sustainability impacts our organizations, who is driving it and how we can support human capital.”

There are a number of ways to define sustainability. Shields offers these descriptions:

1. Meeting the needs of the present without compromising the ability of future generations to meet their own needs.
2. An interconnected combination of vibrant economy, healthy environment and equitable society that, when balanced, lead to a productive future.
3. An approach to creating long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental, and social trends and challenges. (Dow Jones Sustainability Indices)

Experts estimate more than $5 trillion in socially responsible investments are made annually in the U.S. marketplace, comprising about 20 percent of total investments. Investors use many instruments, including Dow Jones Sustainability Indices, to evaluate issues such as ethical practices, corporate governance, risk management, brand protection, climate change mitigation, supply chain standards and labor agreements.

“Where is health and safety in relation to the sustainability movement, and how do we drive the idea that it’s about human capital?” Shields asks.

He points to related articles in industry publications, presentations at conferences and OSHA’s sustainability webpage and 2016 paper Sustainability in the Workplace: A New Approach for Advancing Worker Safety and Health as examples of the strong connection.

Meanwhile, Shields said, mass casualties associated with high-profile incidents such as fires, explosions and building collapses draw attention to unsafe workplaces worldwide. The International Labour Organization (ILO) reports more than 2.78 million workers are killed and an average of 374 million non-fatal occupational injuries and illnesses occur annually worldwide. In addition to human suffering, the related cost burden is estimated at 4 percent of global gross domestic product per year.

“We can’t do a good job of running a sustainable organization without protecting our own employees and the safety of others,” he said. “We need to take better care of our staff and suppliers. Liability risk is high when you don’t understand sustainability practice in the supply chain.”

Training

Carl Heinlein, a senior safety consultant with American Contractors Insurance Group, has a bird’s eye view of health and safety trends in construction, which also apply to other types of industries. Among important developments, he cites the availability of new education and training resources, including gamification.

Surveys show an estimated 183,000 million American men and women in all age ranges play video games that consume billions of hours of leisure time.
“I want to suggest that we consider the benefits of using gaming as an alternative to traditional teaching methods,” which many learners find boring, Heinlein said. “Games provide highly engaged, individualized learning. Micro-gaming reinforces good behaviors. It is deliverable 24/7 and it removes language barriers.”

During a recent webinar, Heinlein referred to three organizations that have successfully implemented gamification:

- WalMart reportedly experienced a 54 drop in recordable injuries after introducing safety games with a 91 percent employee participation rate.
- Deloitte reports it reduced safety training time 50 percent while improving employee engagement by applying the essence of games to real-world objectives.
- Spotify replaced annual reviews with a game-oriented solution that garnered 90 percent voluntary participation.

In the workplace, “learning from each other is essential,” Heinlein said. “There are folks out there who have done a good job with gamification. There’s no reason we can’t benefit by learning from each other to address safety ‘blind spots’ in construction such as fatigue, driver safety and fleet risk management.

Health

A look at the occupational health and safety landscape would not be complete without an assessment of health care service delivery.

HLTH, a forum focused on “disruptive innovation across the health care ecosystem,” writes that Employers Are Poised to Lead Health Transformation. Other than the U.S. government, employers are the nation’s largest buyer of health care products and services. “That places a lot of responsibility – and affords a lot of opportunities – for employers to take the lead in helping shape the future of health care in America,” forum leaders say.

In addition to providing insurance coverage, employers shoulder absence and presenteeism – being on the job but working at less than full capacity – cost burdens associated with injury, acute and chronic illness, stress, depression and other factors.

In a speech at WorkCompCentral’s annual Comp Laude conference in California, Robert Pearl, M.D., former CEO of the Permanente Medical Group and one of Modern Healthcare’s 50 most influential physician leaders, reminded workers’ compensation system stakeholders that employee well-being is a top priority.

“I believe the patient (claimant) has to be at the center of change,” said Dr. Pearl, whose book Mistreated: Why We Think We’re Getting Good Healthcare – and Why We’re Usually Wrong, was published in 2017. “I wrote the book for the patient in all of us. We need to understand our health, make sure we have the preventive care we need and that we make good choices.

“When we give patients (employees) the information and tools they need to make sound decisions, they do a tremendous job. We know what happens (to outcomes) when there are information gaps.”

To encourage a commitment to prevention in the workplace, Dr. Pearl advocates moving away from fee-for-service medicine and toward a capitated, or 24-hour, delivery model. “We need to pay for prevention and the time it takes. There is no billing code for compassion. That has to be built into the system,” he said.

During an on-stage interview, moderator Kimberly George, a senior vice president and health care adviser at Sedgwick, and Dr. Pearl both commented on how the U.S. health care system seems to be directed more toward who’s responsible for paying the bills than toward the quality of care that is provided.

In most states personal health and workers’ compensation insurance plans provide two different types of coverage for similar medical problems. Regardless of whether an injury originates at work or at home, Dr. Pearl suggests the goal should be “maximizing patient health and wellness.” If workers’ compensation and group health were combined to provide a form of 24-hour coverage, he believes “employee health care would be radically improved.”

In a related blog post, Lessons on Workers’ Comp: An Overlooked Part of American Healthcare, Dr. Pearl writes about the impact of WorkCompCentral awards given annually to injured workers in recognition of efforts to lead productive lives.

“There’s something incredibly moving about people who are able to recover from severe injury and (opioid) addiction. Because the healing process never happens alone, these stories help remind those of us in health care why we chose medicine as our profession,” he said.
Employers seek new ways to promote healthy behavior

By Alexis Lupo

Employers who strive to support their employees’ physical and mental well-being are likely to find the next wave in health promotion programs of particular interest.

The following health and wellness initiatives are projected to be trendsetters in 2018.

Collaborative Space

Companies are adapting workspaces to facilitate interaction and communication among employees. According to Forbes, collaboration can increase work performance by 20 percent. Human, face-to-face contact releases oxytocin, a chemical that elevates mood and enhances the ability to focus and learn. An environment that encourages social interaction, such as an onsite cafe, courtyard or lounge, gives employees the freedom to exchange ideas directly with colleagues rather than via communication methods that are more impersonal.

Mental Health Services

Human resource and behavioral health professionals are expected to continue efforts to break down social stigma associated with mental illness by providing access to educational programs and counseling services. Examples include assistance with family, substance abuse or financial issues, and behavioral health classes on topics such as depression, stress management and good sleep habits. Many employers report plans to offer coverage for “mental health days” or provide Employee Assistance Programs.

Food Choices

When employees get hungry but are too busy to go out to eat or forgot to pack food from home, how likely are they to grab a healthy snack? Chances are relatively good at companies with onsite food services or vending machines that offer low-cost, healthy options such as fresh fruit, nuts, veggie wraps, nutrition bars and unsweetened beverages. Healthy food options provide fuel for the body and brain.

Active Working

Research shows that sitting in one place for too long can cause health problems. Consequently, companies are beginning to encourage “active working” – frequently changing postures and taking opportunities to move around. Examples include making stairwells more inviting, allowing micro-breaks, and creating walking programs and safe footpaths for employees. These types of low-cost initiatives help reduce the risk of cardiovascular disease, musculoskeletal disorders and vision-related complaints.

Technology

This year, many companies are expected to continue to gravitate toward promoting the use of personal devices and other types of technology by making it easier for users to monitor health behaviors or motivating them to achieve their fitness-related goals. For example, companies are encouraging employee access to applications such as:

- **Morale boosters:** Company-wide apps allow employers to show appreciation by celebrating employee milestones and rewarding results. Incentives may include gift cards and points toward merchandise or time off.

- **Employee feedback:** These apps allow employees to safely voice opinions and make suggestions for improvements in their work environment.

- **Personal health:** Some companies provide fitness tracking devices or applications that allocate points accrued through physical activity and can be cashed in for rewards.

It’s too soon to assess potential long-term benefits associated with investments in emerging health promotion technology. However, other types of wellness programs designed for specific working populations have been shown to help reduce health risks associated with smoking cigarettes, obesity, diabetes and high blood pressure.●
OSHA 2018 Forecast

Deregulation on the Agenda

"If confirmed, I will work very hard every day, side by side with the best safety professionals at America's ultimate safety department." - Scott Mugno

The federal Occupational Safety and Health Administration (OSHA) operated with interim leadership in 2017.

Scott Mugno, vice president of safety, sustainability and vehicle maintenance at FedEx Ground, is President Trump’s nominee to head OSHA as assistant secretary of labor. During a hearing before the Senate Health, Education, Labor and Pensions Committee, Mugno emphasized the importance of teamwork but did not explain his stance on specific regulations. The committee affirmed Mugno’s nomination and forwarded it to the full Senate on Dec. 13, 2017. A final vote was pending when Vitality Atlas was published.

“If confirmed, I will work very hard every day, side by side with the best safety professionals at America’s ultimate safety department,” Mugno said in an opening statement. “The discussions or debates on how to reach that goal (of safety) can, at times, lead some to believe one side or another doesn’t believe in the goal. Nothing could be further from the truth.”

Legal Perspective

Eric Conn, a partner at Conn Maciel Carey, a Washington, D.C.-based law firm specializing in labor and employment law, offered his take on What to Expect from OSHA during a year-end webinar sponsored by EHS Today and Avetta, a supply chain management company. Conn, who leads the law firm’s national OSHA practice group, said the agency is in the Trump administration’s regulatory reform sights, which are aimed at “scaling back the landscape to make it easier for employers to do business in the U.S.”

In the foreseeable future, Conn said employers can expect OSHA to:

• De-emphasize civil penalties
• Promote compliance assistance and cooperative programs
• Revise Obama administration repeat violation policies
• Continue a shift away from “public shaming” of violators via press releases
• Modify newly introduced electronic recordkeeping rules

Budget

According to the Department of Labor’s Budget in Brief, the proposed Fiscal Year 2018 budget would allocate $543,257,000 and 1,969 full-time equivalent (FTE) positions for OSHA, a decrease of $8,479,000 and 26 FTEs from the FY 2017 continuing resolution (CR) level. However, in a July 12, 2017, vote, the House Appropriations Committee allocated $531.5 million for OSHA in FY 2018. Appropriations work was scheduled to resume after lawmakers passed a resolution to fund the government for a limited period.

Case Studies Used to Assess Value of NIOSH Research

The National Institute for Occupational Safety and Health (NIOSH) asked the RAND Corporation, a California-based public policy research organization, to develop an approach for estimating the economic benefits of its research.

A team of experts at RAND selected the following cases for this purpose.

Case 1: Silica

The case involves research to develop, test and support implementation of engineering control measures to limit exposure to silica among road construction workers.

Researchers estimate:

• Median savings of $692 million per year due to ventilation and control measures.
• $4.9 million in annual avoided lung cancer-related medical and productivity losses.

Case 2: Firefighters

Two NIOSH studies examined links between firefighting activities and increased risk of certain cancers among firefighters.

Researchers estimate decreased mortality and morbidity would reduce medical costs and productivity losses by an average of $71 million per year, depending on risk assumptions and adopted control measures.

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The FY 2018 Budget includes the following descriptions:

• An increase of $4 million and 20 FTEs to hire compliance assistance specialists for OSHA’s training, outreach, compliance assistance and cooperative programs, including its Voluntary Protection Program.

• A decrease of $1,962,000 and 11 FTEs reflecting the administration’s commitment to reducing regulatory activities.

• A decrease of $10,517,000 for the elimination of Susan Harwood Training Grants. The agency proposes to eliminate these grants in order to maximize flexibility and use alternative methods to develop and distribute training materials to reach the broadest possible audience.

By comparison, the proposed budget for the National Institute for Occupational Safety and Health, which supports federal agencies, employers and the U.S. labor force by conducting research under the auspices of the Centers for Disease Control and Prevention, is $324.2 million – $10 million less than FY 2017.

**Regulatory Agenda**

OSHA’s *Current Regulatory Plan and the Unified Agenda of Regulatory and Deregulatory Actions* helps tell the story, with the word “deregulatory” included in the title for the first time. (Refer to the *Department of Labor Agency Rule List, Fall 2017* and OSHA’s *semi-annual agenda of regulations* published Aug. 24, 2017.) Long-term (i.e., indefinitely delayed) actions include:

• Musculoskeletal disorder-related recording and reporting requirements
• Infectious diseases
• Process safety management and prevention of major chemical accidents
• Shipyard fall protection – scaffolds, ladders and other working surfaces
• Emergency response and preparedness
• Update to the Hazard Communication Standard
• Tree care standard
• Prevention of workplace violence in health care and social assistance

In other noteworthy OSHA-related actions, Republicans deployed the rarely used Congressional Review Act of 1996 to nullify the agency’s *Clarification of Employer’s Continuing Obligation to Make and Maintain Accurate Records of Each Recordable Injury and Illness*. Also known as the Volks rule, the clarification allowed OSHA to issue citations for recordkeeping violations during its mandatory five-year record retention period. OSHA now has to issue citations during a six-month period established by a statute of limitations. Based on volume, Conn said recordkeeping violations will be “hard for the agency to enforce within the six-month limit… and that is the lay of the land in the foreseeable future.”

The Congressional Review Act was also used to repeal *Fair Pay and Safe Workplaces Executive Order (E.O. 13673)*, also referred to as “contractor blacklisting.”

Contrary to some observers, attorneys with Seyfarth Shaw, a national employment law firm, predict OSHA will continue to pursue aggressive enforcement in 2018 as new leadership acclimates. “At its core, OSHA remains an enforcement agency,” attorneys said during a forecast session. “Eight years of enforcement (during the Obama administration) is now baked into the system.”

**Other OSHA Updates**

• Effective Jan. 2, 2018, civil penalties for violations of workplace safety and health standards were increased 2 percent, with a new maximum fine of nearly $130,000 to adjust for inflation as required by the Federal Civil Penalties Inflation Adjustment Act of 2015. The act calls for a 78 percent increase over 20 years, with annual incremental adjustments.

• Covered employers were given an extra two weeks, until Dec. 31, 2017, to electronically submit their completed 2016 form 300A (Summary of Work-Related Injuries and Illnesses) to OSHA.

• The U.S. Court of Appeals for the District of Columbia Circuit rejected industry challenges to OSHA’s 2016 rule on Occupational Exposure to Respirable Crystalline Silica in a Dec. 22, 2017, ruling.

**Case 3: Grants**

This study evaluated the effectiveness of Ohio’s Safety Intervention Grant Program in reducing the prevalence and cost of workplace injuries.

Evidence suggests that between 2013 and 2017, NIOSH research was annually associated with $4-$7 million in avoided workers’ compensation costs, $7-$11 million in new streams of annual productivity gains, and from almost $700,000 to more than $16 million in avoided uncompensated wage losses.

Citation: *Understanding the Economic Benefit Associated with Research and Services at the National Institute for Occupational Safety and Health: An Approach and Three Case Studies; B Miller, et al.; RAND Corporation, 2017.*
**Clinical Conversations**

*Perceived Work Ability Key in Mental Health Cases*

Common mental disorders (CMDs) often result in work absence. To learn more about the root cause of absence, researchers followed 106 employees with CMDs for six months after their received treatment at a return-to-work-oriented clinic. They found that employees with low perceived occupational status and low work ability had a higher risk of long-term disability than those with high perceived work status and work ability.

In a related study of 164 employees treated for CMDs, researchers recommended assessing work ability and expectations of return to work at the beginning of treatment to identify people at risk of long-term sick leave. “It is essential that treatment focus not only on symptom relief, but also on improving work ability and expectations of return to work. A return-to-work-focused approach in therapy is associated with RTW,” the authors concluded.

Citations:

*Predictors of Return to Work Six Months After the End of Treatment in Patients with Common Mental Disorders: a Cohort Study; M Victor, B Lau, T Ruud; J Occup Rehab, Dec. 12, 2017.*


**MRI Detects Changes in Workers Over 40**

Occupational injury claimants over 40 years old who have work-related knee or shoulder injuries tend to also have age-related changes detected in magnetic resonance imaging (MRI) studies. Consequently, efforts should be made to distinguish age-related disorders from acute injury, researchers concluded in a study of 294 employees in Texas.

“Minor events that occur in the workplace sometimes are evaluated with MRI, which may reveal age-related changes in the symptomatic body part. These age-related changes are often ascribed to the event. However, evidence of similar or worse pathophysiology in the contralateral joint would suggest that the symptoms might be new, but the pathophysiology is not,” the study authors report.

Citation: *Patients Older Than 40 Years With Unilateral Occupational Claims for New Shoulder and Knee Symptoms Have Bilateral MRI Changes; TCC Liu, et al.; Clin Orthop Relat Res, 475(10):2360-2365, October 2017.*

**Tobacco Use Highest in Construction**

An analysis of National Health Interview Survey data for 2014-2016 found 22 percent of working adults used a tobacco product.

By industry, from 2014-2016, tobacco product use ranged from a high of 34.3 percent among construction workers to a low of 11 percent among employees in education services. By occupation, tobacco use ranged from 37.2 percent among installation, maintenance and repair workers to 9.3 percent among life, physical and social science workers.

Study findings underscore the importance of using proven strategies to prevent and reduce tobacco use, according to researchers at the Centers for Disease Control and Prevention. Public health professionals encourage employers to combine comprehensive tobacco cessation programs with other health promotion programs in the workplace.

Citations:


*Percentage of Adults Aged ≥18 Years Who Currently Use E-Cigarettes, by Sex and Age Group — National Health Interview Survey, 2016; MMWR, 66(5152):1412, Jan. 5, 2018.*
Comp Pharmacy Costs Decline

Workers’ compensation insurers’ pharmacy costs decreased an average of 11 percent from 2015 to 2016. Meanwhile, over the last seven years, workers’ compensation prescription drug costs have declined 22 percent, reducing spend by approximately $1 billion, according to CompPharma’s 14th annual Prescription Drug Management in Workers’ Compensation survey.

All but four of 23 state funds, insurers, third-party administrators (TPAs) and self-insured employers surveyed spent less on drugs in 2016 than in the previous year, with seven respondents reporting declines greater than 15 percent. Payers experiencing cost reductions identified lower claim volumes, decreased use of opioids and compounds, and a variety of clinical management strategies as key drivers.

“Clearly the efforts of workers’ comp regulators, payers, desk-level staff, pharmacy benefit managers and prescribers have paid off,” CompPharma President Joseph Paduda said. “While we have much left to do, this represents a dramatic improvement in the lives of thousands of patients.”

Artists Exposed to Workplace Hazards

Artists face a range of hazardous occupational exposures and working conditions. In the visual arts health hazards are typically associated with materials, tools and equipment, according to a collection of articles published in the Journal of Occupational and Environmental Medicine. For example, painters may be exposed to pigments and solvents by inhalation, ingestion or through the skin, leading to an increased risk of cancer and other adverse health effects.

Mine Citations Used to Study Hearing

In a review of 13,446 Mine Safety and Health Administration citations issued between 2000 and 2014, 25.6 percent of coal mines and 14.7 percent of non-coal mines were cited at least once for violations of health standards for occupational noise exposure that went into effect in 2000.

Researchers said the citations:

• Indicate stone, sand and gravel mines had higher rates of non-compliance.
• Suggest inadequate efforts in audiometric testing and minimizing risk after excessive noise exposure.
• Correlate mine size with increasing risk of non-compliance.

Study findings may be used to guide resource allocations for preventing noise-induced hearing loss and help improve risk management in mining.

Under 30 CFR, Part 62, mine operators are required to implement hearing conservation programs, including a system of continuous noise monitoring, provision of hearing protection devices, audiometric testing, hearing loss training and record keeping.

Citation: Evaluating Hearing Loss Risk in the Mining Industry through MSHA Citations; J Occup Environ Hyg; K Sun, AS Azman; Dec. 4, 2017.
Flu Reaches Epidemic Levels

Many Americans rang in the New Year at the same time influenza reached epidemic levels nationwide, according to the Centers for Disease Control and Prevention (CDC). Public health officials encouraged people with non-emergency flu symptoms to stay home, avoid visiting over-crowded hospitals, and practice good hygiene by covering coughs and sneezes, frequently washing hands and avoiding direct contact with others.

For those who did not get an annual flu shot, late-season vaccination was recommended as a precaution for children older than 6 months and most adults.

For the week ending Jan. 6, 2018, the CDC reported:
- The proportion of people seeing a health care provider for influenza-like illness was 5.8 percent, compared to the national baseline of 2.2 percent.
- Since Oct. 1, 2017, 6,486 confirmed flu-related hospitalizations – an overall rate of 22.7 per 100,000 people.
- The highest hospitalization rates were among people 65 years and older (98 per 100,000), followed by adults aged 50-64 years (24 per 100,000) and children younger than 5 years (16 per 100,000).
- Deaths attributed to pneumonia and influenza reached 7 percent for the week ending Dec. 23, 2017; the epidemic threshold is 7 percent.

Flu symptoms are caused by various types of viruses. Among cases reported before Jan. 6, 86 percent of 1,398 influenza-positive tests were influenza A viruses and 14 percent were influenza B viruses. Of the A viruses that were subtyped, 88.6 percent were H3N2 viruses and 11.4 percent were (H1N1)pdm09 viruses. Medical professionals say the H3N2 strain causes more serious health complications and hospitalizations, especially among vulnerable populations, than other types of viruses.

Annual flu shots are recommended because the composition of U.S. vaccines is updated annually to match circulating flu viruses. According to the CDC, this season the majority of influenza viruses “were characterized antigenically and genetically as being similar to the cell-grown reference viruses representing the 2017-18 Northern Hemisphere influenza vaccine viruses.”

Injected vaccine contains inactivated virus. Some people experience reactions that cause discomfort but they are usually mild and temporary.

How Effective is the Shingles Shot?

Shingles is a virus linked to higher medical costs, lost productivity and work absence, especially among older employees.

About half of the estimated 1 million shingles cases reported annually in the U.S occur in adults over 60. A shingles vaccine called Zostavax® was licensed by the Food and Drug Administration (FDA) in 2006. It reportedly reduces the risk of developing shingles by 51 percent and associated recurring nerve pain by 67 percent. It is recommended for people over 60.
Shingrix®, a new vaccine for shingles, was licensed Oct. 20, 2017, by the FDA. Based on clinical trials that show the vaccine prevents more than 90 percent of shingles cases, the national Advisory Committee on Immunization Practices (ACIP) has recommended its adoption as the preferred vaccine for preventing shingles and related complications for:

- Healthy adults 50 and older
- Adults who previously received the Zostavax® vaccine

Insurers are expected to start covering the vaccine following approval from the Centers for Disease Control and Prevention (CDC) and publication in the Morbidity and Mortality Weekly Report. The vaccine manufacturer, GlaxoSmithKline, reports it should be widely available in 2018. People who have had shingles can still receive the vaccine to help prevent another outbreak. A prescription is required in all instances.

Shingles symptoms include pain, itching or tingling in areas where a rash will appear, usually as a stripe on one side of the body, and in some cases on one side of the face. The rash typically blisters, forms scabs and clears up within two to four weeks. Other symptoms include fever, headache, chills and upset stomach. While these symptoms dissipate, nerve pain (post-herpetic neuralgia) may continue to affect the ability to function.

Shingles is caused by varicella zoster virus, which also causes chickenpox; it can only occur in people who have had chickenpox. In the U.S., most adults had chickenpox as children. Today, a childhood vaccine licensed for use in 1995 prevents an estimated 3.5 million cases and 9,000 chickenpox-related hospitalizations and 100 deaths per year, according to the CDC.

**Why Encourage Vaccination?**

Shingles is a painful condition that can hit employers and older workers particularly hard.

In one study, employees who had shingles reported missing an average of 31.6 hours of work and experiencing an average of 84 hours of presenteeism — being on the job but not functioning at full capacity. Work loss tended to increase with age, along with duration and severity of the shingles episode. (Refer to J Med Econ. 2011;14(5):639-45.)

In another study, shingles and nerve pain were found to have a negative impact on the productive life of workers. (Refer to Vaccine. 2012;30(12):2047-2050.)

Among survey respondents:

- 64 percent missed work and 76 percent reported decreased effectiveness
- There was a mean of 27 hours of absenteeism and 34 hours of presenteeism
- Higher pain severity and longer pain duration were associated with greater productivity loss

In both studies, the authors suggest using findings to inform decision-making around the promotion of vaccination to prevent shingles in older adults. To learn more, review WorkCare's Fact Sheet on preventing shingles and chickenpox.

**Zika Still a Public Health Threat**

The World Health Organization identified the spread of the mosquito-borne Zika virus as a public health emergency of international concern in 2016. Since then, the virus has become established in more than 80 countries, infected millions of people and left many babies with birth defects.

It is still important for U.S.-based employees who travel internationally to take precautions to prevent mosquito bites and the potential for sexual transmission of the virus, especially when traveling to areas where Zika is prevalent. Precautions include using insect repellent containing DEET, wearing protective clothing, sleeping in rooms with screened windows and, if sexually active, using condoms.

Zika virus is a nationally notifiable condition in the U.S. In 2017, 385 symptomatic cases were reported to the CDC. Of those, 378 involved travelers returning from an affected area. Three cases were acquired through presumed local mosquito-borne transmission in either Florida or Texas and four cases were acquired through sexual transmission. To learn more, refer to WorkCare's Fact Sheet on Zika Virus.

**Citation:** Pandemic Zika: A formidable challenge to medicine and public health; DM Morens, AS Fauci; Journal of Infectious Diseases, special supplement, Dec. 2017.
TIPS FOR A HEALTHFUL WORKPLACE

Nurturing Your Brain

Growing evidence indicates that people can reduce their risk of cognitive decline by adopting certain lifestyle habits.

Pillars of brain health include physical exercise, good nutrition, health risk management, adequate sleep, learning and solving, and social engagement. For example, the Global Council on Brain Health recommends stimulating the brain through intellectual activity and focusing on positive relationships and social connections.

Eat Your Fish

If your parents told you to eat your fish because it is "brain food," they were on to something.

In a University of Pennsylvania study, children who ate fish at least once a week slept better and had higher IQs by an average of four points compared to non-fish eaters.

Previous studies have shown omega-3 fatty acids found in many types of fish improve intelligence. A separate association has been established between omega-3s and better sleep. However, a connection between fish consumption, reduced sleep disturbance and higher intelligence was not previously established.

The study was published Dec. 21, 2017, in *Scientific Reports*, a Nature journal.

Sleep Affects Cognition

There is increasing evidence that chronically poor or missed sleep increases risk of cognitive decline.

“We're not exactly sure how, but recent research indicates that poor sleep may hamper the brain's ability to clear out pathogenic substances,” said Vaibhav Narayan, Ph.D., vice president research and therapeutic area IT, Janssen Research & Development, part of the Johnson & Johnson family of companies. Pathogens are organisms capable of causing infections and disease.

The National Sleep Foundation recommends seven to nine hours of sleep per day for adults age 18 to 64 and slightly less for people 65 and older. Sleep surveys show that at least one-third of Americans have “poor” or “only fair” sleep quality, which has detrimental effects on their overall health. Cutting down on stimulants and sticking with a consistent sleep schedule is recommended.

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