

Occupational Health Management™

*A monthly advisory
for occupational
health programs*



New research says sedentary workers risk chronic illness — Use this powerful data

INSIDE

- Powerful new data are strong incentive for programs. . . cover
- These low/no-cost fitness options can get big results. 107
- A low-cost incentive program cuts worker's comp 108
- Use this new tool to gauge success of costly weight loss programs 109
- Program gets employees back to work up to 50% faster . . 111
- Nearly 5% have high levels of psychological distress . . . 112
- Every \$1 invested in health programs returns \$5.60 within five years 113
- Employees who work overtime at increased risk of anxiety, depression. 114

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Exercise can improve a worker's health and productivity. That's a no-brainer, right? The vast majority of employees and managers at your workplace probably take that statement as a given. But new data show that lack of exercise can actually cause chronic, costly, and debilitating diseases.¹

Researchers asked participants in one group to reduce the number of steps they took per day from 6,000 to 1,400 for three weeks. Another more active group decreased their steps from 10,000 to 1,400 for two weeks. At the end of the study, participants had much higher levels of glucose and fat, and they took much longer to clear these substances from their bloodstream, which put them at greater risk for diabetes and other chronic diseases.

"We thought that not exercising just wasn't healthy, but we didn't think that a lack of activity could cause disease. That assumption was wrong," says **Frank Booth**, PhD, one of the study's authors and a professor of biomedical sciences in the University of Missouri in Columbia. "Reducing ambulatory activity by sitting around for one or two weeks, instead of walking, is detrimental to long-term health."

Data back your efforts

So how can you use this powerful new data as leverage for employee wellness programs?

The new research is very relevant, says **Karen Griffith**, global health,

EXECUTIVE SUMMARY

Reduced exercise increases a person's risk for chronic diseases in as little as two weeks, says a new study. Occupational health professionals can use this data to support the need for fitness programs.

- Make access to prevention programs easy and affordable.
- Offer employees health coaching or a personal trainer.
- Give discounted rates to local wellness centers.

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well-being, and productivity senior program manager at Chandler, AZ-based Intel Corp. "It is another tool that OHNs can cite, to help management and employees understand the importance of healthy lifestyles and prevention programs," Griffith says.

Don R. Powell, PhD, president and CEO of the American Institute for Preventive Medicine, a wellness program provider based in Farmington Hills, MI, says, "Given that OHNs [occupational health nurses] are, in many cases, the only employee in the company involved in health and wellness, you need to take this information and use it to justify programs."

Getting employees active is not as easy as simply telling them to start walking 30 minutes a day. "It's much more than that; it's about behav-

ior change and getting people ready to change," says **Nicolette Shriver**, health coach supervisor for Eden Prairie, MN-based Cigna. "If a lack of physical activity can actually make you sick, that's all the more reason for employers to start workplace wellness programs focused on increasing physical activity."

You should use the study's findings "to back the continuing effort to encourage an increase in daily activity for employees," advises **Pamela Dugger**, RN, employee health nurse for the City of Dalton, GA. "Some people, when told of the results, would increase activity in an effort to decrease their disease risk," she says.

Currently, City of Dalton employees are offered discounted rates to a local wellness center. "At this time we do not have any plans for new programs, but we are always looking for new and inventive ways to encourage our workers to lead a healthy, active life," says Dugger. (*Editor's note: For profiles of fitness programs, see stories on p. 107.*)

Reference

1. Olsen RH, Thomsen C, Booth FW. Metabolic responses to reduced daily steps in healthy nonexercising men. *JAMA* 2008; 299:1,261-1263. ■

SOURCES

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Editorial Questions

For questions or comments, call **Joy Dickinson** at (229) 551-9195.

These programs are making workers fitter

“You could put in a very expensive fitness facility, but if you don’t get to the heart of what motivates the employee, you’ll get a 12-week use of it followed by a major attrition,” says **Nicolette Shriver**, health coach supervisor for Eden Prairie, MN-based Cigna. Here are fitness programs that occupational health professionals have implemented to keep employees fit:

- **Employees receive a personal trainer.**

Chandler, AZ-based Intel Corp. is working to make access to its prevention programs “easy and affordable,” says **Karen Griffith**, global health, well-being and productivity senior program manager. She points to the company’s “Three-Step Wellness Check” program, which annually monitors employees’ biometrics — basic vital signs, body mass index, blood sugar, and lipid panel — and asks them to complete a health risk assessment questionnaire. Of Intel’s 45,000 employees, 17,000 went through the program in its first year. “We are hoping to do even more this year,” says Griffith.

If the employee completes the three-step program, he or she is given a \$50 gift card and also provided with health coaching and a free personal trainer. Griffith says that there is currently no limit on how many hours of free personal training employees can use, and that there is one trainer for every 5,000 employees.

“The coach reviews the health risks and guides people into programs we have at the sites, including fitness programs, to target the issues the employee has,” says Griffith. “This year, we have had over 12,000 employees participate in the U.S. We have also begun offering the program at three new international sites.”

- **Employees walk in teams.**

Employees of the City of Charleston (SC) get together after work or during lunch to walk together. The person who has logged the most minutes of walking time is given a \$25 sports store gift card, with one winner chosen each quarter. “This encourages employees to get moving on their lunch breaks,” says **Jan Park**, RN, the city’s wellness program coordinator. “We incentivized employees by giving free pedometers to the first 50 people that joined.” Of 1,750 employees, about 75 participated.

- **Employees identify their motivation.**

“All of Cigna’s coaching programs are designed to discover each individual’s personal motivation for change and then helping them make that change,” says Shriver.

For example, Cigna offers a verbal coaching program via telephone with six sessions or more, if needed, available to participants. The goal is not so much to educate employees about the benefits of fitness, because most of them already are aware it’s good for their health. “If someone tells us they think they should exercise more, we then ask them, ‘Why do you want to do that?’ It makes them step back and think about why they really want this lifestyle change,” says Shriver. It might be that an employee wants to play with their kids without getting winded, for instance.

Instead of giving employees a regimen, “we allow them to creatively solve their problems,” says Shriver, such as walking during a child’s ball practice. “I had a lady say to me, ‘You know what I could do? Instead of ordering lunch in every day, I could walk to a café a few blocks away and take the stairs on the way back.’”

What? No expensive new gym for workers?

Try these low or no-cost options

“You don’t need to build a half million dollar fitness center to have a fitness program,” says **Don R. Powell**, PhD, president and CEO of the American Institute for Preventive Medicine, a wellness program provider based in Farmington Hills, MI. “That is a lot of resources to devote to one aspect of wellness. Also, oftentimes the employees who do go to the gym are already working out. You are just making it a little more convenient for them.” Here are some less expensive options, suggested by Powell:

- Give employees a map showing a three-mile route and a five-mile route for them to walk or jog around the worksite to encourage exercise.

- Put in a shower so employees can work out during lunch breaks without going back to work sweaty.

- Bring local fitness instructors onsite, such as a YMCA personal trainer or a yoga teacher, at a

cost of \$20-\$40 per hour.

• Negotiate a reduced rate for a health club membership. Instead of subsidizing the cost, contact a local YMCA or sports club, and say, "We are going to encourage physical activity at ABC company, and we can publicize your club at the worksite with X number of employees. What can you offer as an incentive?"

"Other than the nurse's time, there is no cost associated with this," says Powell. ■

Safety reward program results in 'huge ROI'

Worker's comp costs cut more than 90%

Digital cameras, blenders, food processors, waffle makers, espresso machines, jewelry, luggage, gas grills, fishing rods, and telescopes. These are some of the items that workers at Wika Instrument Corp., a Lawrenceville, GA-based manufacturer of pressure and temperature instrumentation, can receive for improving their own safety.

A Safety Recognition program gives employees points for improving safety goals and initiatives. These can be redeemed online for merchandise. As a result of the program, the company decreased its worker's compensation costs by more than 90%, from \$1.35 per \$100 in payroll in 2005 to 10 cents per \$100 in 2007. "We also saw a marked increase in employees' adherence to safety guidelines," says Catherine

Bochenek, the company's environmental, health, and safety manager.

The program was implemented by Michael C. Fina, a New York City-based provider of employee recognition solutions, and other safety initiatives. Employees can earn points each quarter in four ways:

- if their department is in compliance;
- if they are in compliance as an individual;
- if they don't have a recordable injury, as recognized by the Occupational Safety & Health Administration (OSHA);
- by making a safety suggestion.

The largest number of points is earned by the whole department passing an audit, in order to encourage teamwork and camaraderie. "When a safety audit is performed in their area, employees cheer on their coworkers to answer safety-related questions," says Bochenek. (See list of sample questions, p. 109.)

Audits are done every quarter with a checklist of about 80 items of OSHA requirements and company safety policies, either checked by observation or with questions that employees have to answer. "Supervisors audit work cells that do not belong to them," says Bochenek. "The auditor for a particular work cell changes every quarter, to have a fresh set of eyes auditing and to share best practices with other work cells."

At first, Bochenek says she was worried that the program might "drive injuries underground" because employees get an incentive for not having injured themselves. When the program first started, any first aid case resulted in an employee not receiving points. If workers failed to report minor injuries, this could result in infections developing in poorly cleaned wounds, or masking of training or procedural deficiencies. Shortly after the program started, it was made clear that only OSHA-recordable injuries would result in loss of points.

The program has dramatically improved department compliance. "Everyone looks out for everyone else," says Bochenek. "People make sure their coworkers are paying attention during training, because they know they are going to be questioned on it."

Bochenek says the company spent about \$20,000 in the past year. "We only get charged when the employee purchases something, so we really haven't spent a whole lot of money," she says. Employee safety ideas, which are submitted in writing, have also resulted in savings.

EXECUTIVE SUMMARY

Employees at Wika Instrument Corp. earn points for improved compliance and fewer injuries as part of a Safety Recognition program. Worker's compensation costs were reduced by more than 90%.

- Employees answer safety-related questions during audits.
- Checklists are completed every quarter on Occupational Safety & Health Administration requirements and company safety policies.
- Employees earn points for safety tips.

SOURCE/RESOURCE

For more information on the safety recognition program, contact:

- **Catherine Bochenek**, Environmental, Health, and Safety Manager, Wika Instrument Corp., Lawrenceville, GA. Phone: (770) 513-8200 E-mail: cbochenek@wika.com.

- The Mobile Scissor Lift Table with 330-pound capacity purchased by Navistar is manufactured by Ontario, Canada-based Bishamon. To order, telephone (800) 358-8833 or (909) 390-0055. Web: www.bishamon.com.

Ask these questions during safety audits

Below are some sample questions asked of employees during safety audits at Wiki Instrument Corp.:

- If there is a fire, what is your primary route of exit?
- Do all employees know what a MSDS is and the information it provides?
- Do all employees know where to find MSDSs?
- Do all employees know what "lockout/tagout" is?
- Do all employees know what to do if a lock or tag is on their machine?
- Do all employees understand that injuries must be reported to their supervisor immediately?
- Do all employees know and understand blood-borne pathogens?
- Do all employees know their collection area for severe weather?

Employees are also asked specific questions based on training they received that quarter, such as:

- Do all chemical containers used on your line need a label?
- When cutting open a box, do you cut toward yourself or away from yourself?

One employee with an aching back asked for a cart that raises and lowers hydraulically so she would not have to bend over. "We implemented that to see how well it would work, and it was tremendous," says Bochenek. "We ended

up buying about 20 of the carts, which cost \$260, for every single work cell, and our back injuries went to zero. The company had a huge ROI." (For more information on the carts that were purchased, see resource box, above. Do you have an innovative idea for cutting workers' compensation costs? Contact Stacey Kusterbeck, Editor, Hospital Access Management, at (631) 425-9760 or StaceyKusterbeck@aol.com.) ■

Use this new tool to ID gaps in programs

Inexpensive changes result in savings

[Editor's Note: This is the second of a two-part series on evaluating weight loss programs. Last month, we gave strategies to demonstrate the impact of your programs. This month, we report on the use of an audit tool to measure the effectiveness of obesity prevention programs.]

Do you want to know how a health-promoting environment affects your company's bottom line? One new weapon in your arsenal is the Environmental Assessment Tool (EAT). EAT has been used by occupational health professionals in about a dozen worksites thus far to assess organizational, environmental, and social support for health promotion interventions in the workplace. EAT has been used particularly to assess those interventions directed at physical activity, access to healthy food choices, and weight management.¹

The EAT scores a worksite on how well it encourages physical activity, good nutrition, and weight management. Points are also scored based on parking, availability of bicycle racks, location of stairs and elevators, access to shower and changing facilities, fitness facilities, and healthy foods. "The data allow you to identify areas of the environment to improve," says **Heather Bowen**, MS, RD, LD, research coordinator for The Workplace Health Group at the University of Georgia in Athens.

One challenge is that all worksites are different, even within the same company. "How do you compare a worksite that has a company cafeteria with one that doesn't have a cafeteria?" asks Bowen. "Does having a company

EXECUTIVE SUMMARY

To measure the effectiveness of obesity prevention programs, occupational health professionals are using the Environmental Assessment Tool (EAT).

- The tool can help to identify inexpensive changes, such as adding healthy items to vending machines, and determine whether worksite policies encourage physical activity.
- Be sure that policies encouraging employees to be active are well-communicated.

cafeteria make a worksite more health supporting? Does it depend on the food being served?"

Many physical environmental changes are inexpensive to implement, but could save a significant amount of money by improving employee health. For instance, one component of the EAT is the number of healthy items in vending machines. "There is little to no expense for a company to ask a vendor to provide healthier vending options," says Bowen. If the EAT reveals that only 10% of items meet healthy criteria, an action plan could be developed to increase that percentage to 25%.

The EAT might also show you that although your worksite has policies supporting employee physical fitness, these aren't being communicated effectively, adds Bowen.

EAT ID'd these gaps

At The Dow Chemical Co., based in Midland, MI, EAT recently was used to assess 12 sites.

Karen Tully, global health promotion leader at Dow, says, "This tool is in its infancy stage and has great future potential for health professionals in the workplace."

Generally speaking, employees that work in environments that promote healthier eating, options for physical activity, and leadership support for healthy behaviors have lower health care costs, says Tully.

As a result of the audit tool, Dow created on-site walking paths with clear signage and easy accessibility. "Ongoing communications that encourage use of the walking paths during lunch hours and breaks help boost participation," says Tully.

SOURCES

For more information on use of the Environmental Assessment Tool, contact:

- **Heather M. Bowen**, MS, RD, LD, Research Coordinator, The Workplace Health Group, Department of Health Promotion and Behavior, The University of Georgia, Athens. Phone: (706) 542-4328. E-mail: hmbowen@uga.edu.
- **Karen Tully**, Global Health Promotion Leader, Health Services Expertise Center, The Dow Chemical Co., Midland, MI. Phone: (989) 638-9001. E-mail: kjtully@dow.com.

EAT revealed that there weren't too many healthy food choices in Dow's cafeterias and vending machines. Flagging nutritious food options also was needed, so workers know which selections are healthiest. "Once these opportunities were discovered, we developed an action plan to increase our healthy options to at least 25% and ensured that the options were clearly identified," says Tully. **(For more on EAT, see story below.)**

Reference

1. DeJoy, DM, Wilson MG, Goetzel, RZ, et al. Development of the Environmental Assessment Tool (EAT) to measure organizational, physical and social support for worksite obesity prevention programs. *J Occ Environ Med* 2008; 50:126-137. ■

Tool is best in the hands of an OHN

If your employer turns to the Environmental Assessment Tool (EAT) to find out how wellness-friendly its worksites are, you should be a key player.

You are the best person to determine how to apply the EAT to the worksite, according to **Heather Bowen**, MS, RD, LD, research coordinator for The Workplace Health Group at the University of Georgia in Athens.

"The occupational health professional is familiar with the company's work environment, as

well as the company's health risks," says Bowen. "Therefore, they can lead the initial piloting or preliminary work to fine-tune the tool before using it in a given work setting."

You know the key site partners to involve, not only for using the EAT, but also addressing opportunities identified in the audit, says **Karen Tully**, global health promotion leader at The Dow Chemical Co. in Midland, MI.

"Occupational health professionals have a direct influence on the site environment and employees," says Tully. "They also have the unique opportunity for ongoing education and follow up with employees, to ensure that healthy behaviors are sustained." ■

Musculoskeletal injuries cut 75% with this program

Workers are back on the job up to twice as fast

Fifty more trucks produced a year. That's the result of regaining just six more days of productivity per injured employee, as a result of a musculoskeletal disability management program implemented in Warrenville, IL-based Navistar's truck division.

Previously, physicians routinely kept employees out of work until they were fully recovered. This cost Navistar an average of 12.5 days of productivity per injured employee.

Occupational health professionals set out to

educate employees and primary care physicians about options for returning to work after an injury.

As a result, physicians gained better insight into the tasks required of employees, the company's onsite physical therapy facility, and light-duty work assignments that were available. Here are three results:

- **A faster return to work.**

Several employees have returned to work 42 days after carpal tunnel surgery — the previous norm was 56-84 days. "Furthermore, transitional duty assignments have allowed us to bring that lost time down to as little as two or three weeks," says **Dan Pikelny**, MA, MBA, Navistar's director of health and productivity.

By working closely with their physicians, employees are better able to gauge their ability to return to some form of work based on range of motion. Injured workers now return to work 50% faster on average.

- **Better care for injured workers.**

Referrals of employees to orthopedic specialists were inconsistent, with some primary care physicians giving inappropriate referrals, while others were not referring when it was appropriate. "Prescribing sedatives also prevented a safe return to work, often eliminating the light-duty work option," notes Pikelny.

Using guidelines from the American Academy of Orthopedic Surgeons, Navistar partnered with local primary care physicians to establish treatment protocols for injured truck production employees. Occupational health nurses refer to the guidelines specific to an employee's injury during follow-up interactions with treating physicians. **(To obtain guidelines, see resource box on p. 112.)**

- **Sharply reduced workers' comp costs.**

Before the program was implemented, a single truck production facility was responsible for about 25% of Navistar's musculoskeletal disability claims. This accounted for 65% of the company's total workers' compensation costs. As a result of the program, work-related injuries at the facility decreased by 75%.

Indemnity and medical costs per employee also were drastically reduced. With a minimal investment, the program reduced workers' compensation costs by more than \$1,500 annually per full-time equivalent (FTE) employee. "In extreme cases, the costs associated with hiring replacement workers can reach hundreds of thousands of dollars," says Pikelny. ■

EXECUTIVE SUMMARY

Injured employees get back to work 50% faster as a result of a musculoskeletal disability management program implemented at Navistar's truck division. Worker's compensation costs were reduced by more than \$1,500 annually per employee.

- Local physicians give consistent care based on treatment protocols.
- Local primary care physicians are educated about light-duty work assignments.
- Transitional duty assignments are used, based on the employee's range of motion.

SOURCE/RESOURCE

For more information on Navistar's musculoskeletal disability management program, contact:

- **Dan Pikelny**, MA, MBA, Director, Health and Productivity, Navistar, Warrenville, IL. Phone: (312) 836-3928. E-mail: dan.pikelny@navistar.com.

- Guidelines on musculoskeletal conditions from the American Academy of Orthopedic Surgeons can be accessed at the organization's web site (www.aaos.org.) at no charge. Click on "Research," "Clinical Guidelines & Performance Measures," and scroll down for a list of guidelines in PDF format.

Workers have high rates of 'psychological distress'

Results may aid employee mental health efforts

Nearly 5% of employees have high levels of psychological distress associated with a high likelihood of a mental disorder, reports a recent study.¹

Led by **Michael F. Hilton**, PhD, of The University of Queensland, Australia, the study was based on a survey of more than 60,500 full-time employees of 58 Australian companies. Workers anonymously completed the "Kessler 6" questionnaire, which asked how often they felt sad, nervous, hopeless, etc. Scores of 13 or higher (on a 24-point scale) indicated high psychological distress, with a high likelihood of a mental disorder.

Overall, 4.5% of the employees had high psychological distress. Another 9.6% had moderate psychological distress (score of 8-12), indicating a "possible" mental disorder.

Just 22% of workers with high psychological distress were currently receiving treatment for a mental health condition. Another 29% said they had a mental disorder but had never sought treatment, while 31% denied having any problem.

Workers in sales positions were at greatest risk of high psychological distress: 5.6% of men and 7.5% of women. Workers expected to work long hours (60 or more per week) also had high rates of psychological distress.

Another risk factor was working in "non-traditional gender roles," such as women who worked as equipment operators or laborers and for men who worked in clerical or administrative jobs. Marital separation and low education also were linked to high psychological distress.

Corporate occupational health and safety (OH&S) programs are increasingly taking an active approach to prevention, screening, and early treatment of physical health problems in workers. However, companies have been less proactive in identifying and providing treatment for workers with mental health problems. Despite extensive evidence showing the high rates and costs of mental health disorders in the workplace, many employers have the perception that their employees are somehow "immune" to such problems.

The new study, using methods familiar to OH&S professionals and managers, demonstrates a high rate of psychological distress in the working population. The risk factors identified may help in targeting groups of workers at high risk of psychological distress and mental health problems.

"Employers need to focus health resources on a common, debilitating, largely untreated illness group that substantially reduces employee productivity at work, increases absences from work, and increases employee attrition," Hilton and colleagues write.

Reference

1. Hilton M, Whiteford H, Sheridan J, et al. The prevalence of psychological distress in employees and associated occupational risk factors. *J Occup Environ Med* 2008; 50: 746-757. ■

\$10 a person equals \$16 billion annually

Payoff seen within five years

Little changes can make a big difference. Although that message still is seen as counterintuitive by some health care experts, Trust for America's Health (TFAH) has concluded that an investment of \$10 per person per year in proven community-based programs to increase physical activity, improve nutrition, and pre-

vent smoking and other tobacco use could save the country more than \$16 billion a year within five years, or a return of \$5.60 for every \$1 invested.

TFAH executive director **Jeffrey Levi** says that prevention often is not seen as a viable cost-saving option by those who work on health care budgets in Washington, DC, but research has been proving the value of prevention activities. That research has been advanced by the TFAH work, which Levi says is the first community-level study to estimate the difference prevention can make.

Of the estimated annual savings of \$16 billion, the report says, Medicare could save more than \$5 billion, Medicaid more than \$1.9 billion, and private payers more than \$9 billion. The report's focus is on disease prevention programs that don't require medical care and target communities or at-risk community segments. Examples include providing access to affordable nutritious foods, increasing sidewalks and parks in communities, and raising tobacco tax rates.

The estimated returns on investment are from a model developed by researchers at the Urban Institute and a review of evidence-based studies conducted by the New York Academy of Medicine. The researchers found that many effective prevention programs cost less than \$10 per person and that they have succeeded in lowering rates of diseases that are related to physical activity, nutrition, and smoking. "The evidence shows that implementing these programs in communities reduces rates of Type 2 diabetes and high blood pressure by 5% within two years; reduces heart disease, kidney disease, and stroke by 5% within five years; and reduces some forms of cancer, arthritis, and chronic obstructive pulmonary disease by 2.5% within 10-20 years," the report asserts.

The researchers note that their savings estimates cover only medical cost savings and don't include the likely significant gains that could be achieved in worker productivity and enhanced quality of life. They say they built the model to yield conservative savings estimates, using low-end assumptions for the impact of programs on disease rates and high-end assumptions for costs.

The model also shows estimated state-specific savings ranging from a return-on-investment of 3.7:1 in Utah (saving \$89 million) to 9.9:1 in Washington, DC (\$57 million). Projected five-year savings range from \$29 million in Wyoming to \$1.7 billion in California. Levi says the variations from state to state relate to differing underlying

health care processes in the states.

The researchers say they evaluated 84 studies to develop the assumptions for the drops in disease rates and the programs' costs. Examples of the types of studies include programs that:

- keep schools open after hours where children can play with adult supervision;
- provide access to fresh produce through farmers markets;
- make nutritious food more affordable and accessible in low-income areas;
- require clear calorie and nutrition labeling of foods;
- provide young mothers with information about how to make good nutrition choices;
- offer information and support for people trying to quit smoking and other tobacco use;
- raise cigarette and other tobacco tax rates.

To build the model, the researchers evaluated which diseases can be affected by improving physical activity and nutrition and preventing smoking and other tobacco use; how effective programs are at reducing disease rates; the current rates of these diseases and current annual costs for treating them; and the amount that could be saved if disease rates were reduced based on the estimates. **(See more on report, below. Download the report at healthyamericans.org/reports/prevention08/Prevention08.pdf. Contact Levi at (202) 223-9870.)** ■

Research outlines three prevention types

Recent research from Trust for America's Health (TFAH) says there are three types of prevention: primary, secondary, and tertiary:

• **Primary prevention** involves taking action before a problem arises to avoid it entirely, rather than treating or alleviating its consequences. Primary prevention can include clinical interventions such as specific immunizations. It also can include broader public health interventions such as clean water and sewage systems, fortification of food with specific nutrients such as folic acid, and protection from carcinogens such as second-hand smoke.

• **Secondary prevention** is a set of measures used for early detection and prompt intervention to control a problem or disease and minimize the consequences.

- **Tertiary prevention** focuses on reducing further complications of an existing disease or problem through treatment and rehabilitation.

TFAH says its model is based on studies of strategic low-cost community-based primary and secondary prevention efforts that have demonstrated results in lowering disease rates or improving health choices, but don't involve direct medical care.

While poor health is putting the country's economic security in jeopardy, the report says, America's health care system currently is set up to focus on treating people once they have a problem. Some experts have described this approach as "sick care" rather than health care.

Our country must start focusing on how to prevent people from getting sick, the authors say, with an emphasis on improving the choices we make that affect our risk for preventable diseases. "Experts widely agree that three of the most important factors that influence our health are physical activity; nutrition, including eating foods of high nutritional value and in the right quantities; and whether we smoke," they says. "As a nation, if we develop strategies and programs that help more Americans become physically active, practice good nutrition, and stop smoking and other tobacco use, while also helping our youth from ever starting smoking or other unhealthy practices, we could have a tremendous payoff, both in improving health and reducing health care costs."

TFAH executive director Jeffrey Levi says that having done the first community-level survey on this issue, TFAH now will work to spread the message in hopes of engaging in conversations about it with policymakers. "Our goal is to make prevention policies an integral part of health care reform," Levi says. ■

Working overtime linked to anxiety and depression

Employees who work overtime are at increased risk of anxiety and depression, suggests a recent study.¹

Elisabeth Kleppa, MD, and colleagues of the University of Bergen, Norway, analyzed data on work hours from a larger study of Norwegian men and women. Symptoms of anxiety and depression were assessed using a standard

screening questionnaire. Anxiety and depression scores were compared for 1,350 workers who worked overtime, 41-100 hours per week, and approximately 9,000 workers who worked 40 hours or less per week.

Working overtime was associated with higher anxiety and depression scores among men and women. The rate of questionnaire scores indicating "possible" depression increased from about 9% for men with normal work hours to 12.5% for those who worked overtime. For women, the rate of possible depression increased from 7% to 11%. In both sexes, rates of possible anxiety and depression were higher among workers with lower incomes and for less-skilled workers.

The relationship between overtime and anxiety/depression was strongest among men who worked the most overtime: 49-100 hours per week. Men working such very long hours also had higher rates of heavy manual labor and shift work and lower levels of work skills and education.

Overtime focus is new

Previous studies have raised possible health and safety concerns of working long hours. However, most studies of this issue have focused on the health effects of shift work, rather than overtime. Under European Union work rules, employees have the right to refuse to work more than 48 hours per week.

The new results support this directive by showing increased rates of anxiety and depression among overtime workers. Men working more than 48 hours per week are at highest risk, although the authors note that working even moderate overtime hours seems to increase the risk of "mental distress."

The study permits no conclusions about how working long hours leads to increased anxiety and depression. It could be that working overtime leads to increased "wear and tear," or that individuals with characteristics predisposing to anxiety and depression (such as low education and job skills) are more likely to take jobs requiring long work hours.

Reference

1. Kleppa E, Sanne B, Tell G. Working overtime is associated with anxiety and depression. *J Occup Environ Med* 50: 658-666. ■

Chronic pain guidelines now available online

ACOEM offers more than 200 recommendations

The American College of Occupational and Environmental Medicine (ACOEM) in Chicago has published new medical treatment guidelines for providing care to workers with chronic pain. The new guidelines represent the latest chapter in ACOEM's publication *Occupational Medicine Practice Guidelines*.

More than 200 recommendations for chronic pain are outlined in the new evidence-based guidelines, which were developed by a multi-disciplinary panel of experts and were reviewed by representatives of medical and health organizations. The recommendations focus on diagnostic and other testing and treatments for several chronic pain conditions, including complex regional pain syndrome (CRPS), neuropathic pain, trigger points/myofascial pain, chronic persistent pain, fibromyalgia, and chronic low back pain. The recommendations feature more than 1,500 references, including 546 randomized controlled trials.

"These guidelines were developed using ACOEM's published methodology, which incorporates the highest scientific standards for reviewing evidence-based literature, ensuring the most rigorous, reproducible, and transparent occupational health guidelines available," said Kurt T.

Hegmann, MD, MPH, editor-in-chief.

Other highlights include:

- an in-depth review of more than 20 medications (prescription, over-the-counter, complementary, and alternative) used to treat patients with chronic pain, including an extensive appendix on guidance for the use of opioids;
- detailed recommendations regarding the use of appliances such as magnets; skilled allied-health provided medical therapies such as acupuncture, manipulation/mobilization, and myofascial release; and electrical therapies such as percutaneous electrical nerve stimulation (PENS) and tran-

scutaneous electrical nerve stimulation (TENS);

- uses and limitations of injection therapies such as diagnostic and therapeutic facet joint injections, trigger/tender point injections, botulinum injections, and intrathecal drugs;
- a discussion of spinal cord stimulation for complex regional pain syndrome (CRPS) and other painful conditions;
- a detailed review of psychological services, such as evaluation and behavior therapy, and rehabilitation for delayed recovery, including biofeedback, work conditioning/work hardening/early intervention programs, and interdisciplinary pain rehabilitation programs;
- a focus on functional restoration, including an active exercise program and behavioral program.

An electronic version is available now. The chapter price is \$49.95 for members and \$59.95 for non-members. At press time, the print version was expected to be available in October in

CE Objectives / Instructions

The CE objectives for *Occupational Health Management* are to help nurses and other occupational health professionals to:

- Develop employee wellness and prevention programs to improve employee health and productivity.
- Identify employee health trends and issues.
- Comply with OSHA and other federal regulations regarding employee health and safety.

Nurses and other professionals participate in this continuing education program by reading the issue, using the provided references for further research, and studying the questions at the end of the issue.

Participants should select what they believe to be the correct answers, then refer to the list of correct answers to test their knowledge. To clarify confusion surrounding any questions answered incorrectly, please consult the source material.

After completing this semester's activity, you must complete the evaluation form provided in the June issue and return it in the reply envelope provided in order to receive a letter of credit. When your evaluation is received, a letter of credit will be mailed to you. ■

COMING IN FUTURE MONTHS

■ Slash medical costs by offering primary care onsite

■ The surprising dangers posed by sleepy workers

■ How to compute the true cost of presenteeism

■ Small changes in scheduling cut depression risk

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CE questions

13. Which is true regarding lack of exercise, according to a study in *The Journal of the American Medical Association* (2008; 299:1,261-1263)?
 - A. It took several months for reduced exercise to have an impact on an employee's health.
 - B. Employees had increased risk for chronic diseases after only several weeks of reduced exercise.
 - C. Reduced exercise had no effect on glucose tolerance test results.
 - D. There was no link between risk of chronic diseases and a lack of exercise.
14. For which of the following is the largest incentive given to employees as part of a safety recognition program at Wiki Instrument Corp.?
 - A. Individual compliance.
 - B. Lack of an Occupational Safety and Health Administration recordable injury.
 - C. Turning in a safety suggestion.
 - D. The whole department passing an audit.
15. Which is true of the Environmental Assessment Tool (EAT) and evaluation of obesity prevention programs?
 - A. Most of the physical environment changes identified by the tool are too costly to implement.
 - B. The assessment makes the assumption that the worksite has a company cafeteria.
 - C. Occupational health nurses should only be involved in using the tool, not addressing opportunities identified in the audit.
 - D. The tool assesses whether there are worksite policies supporting employee physical fitness and whether the policy is communicated to employees.
16. Which is part of a musculoskeletal disability management program implemented at Navistar?
 - A. Local health care providers have varied plans for managing musculoskeletal injuries.
 - B. Employees are routinely kept out of work until they are fully recovered.
 - C. Employees work with their physicians to better gauge their ability to return to some form of work.
 - D. Primary care physicians are encouraged to use their own discretion for referring employees to orthopedic specialists.

Answers: 13. B; 14. D; 15. D; 16. C.