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Economic woes may ratchet up penalties for obesity, smoking

'Those who do not lose weight/stop smoking will be held accountable.'

Will employers facing soaring health care costs begin penalizing smokers or obese employees with higher premiums or surcharges?

"Employers are continuously looking at ways to cut costs, and this will continue to be the case," says **Barbara Klinner**, RN, BSN, CCM, LNC, CWC, director of business services at Marshfield (WI). "Costs of employer insurance premiums are impacted by employee health. Higher risk equals higher costs."

Smokers, for instance, have higher absenteeism rates and medical expenditures. "In recognizing these facts attributed to smoking, it's only natural that employers would seek similar correlation to other preventable health conditions," she says.

The downward trend of the economy makes the penalty approach more likely.

"As early as 2005, public and private sector employers were imposing additional fees for health insurance premiums for smokers," says **Susan Kennerly**, RN, PhD, associate professor and deputy director of the occupational health nursing program at the College of Nursing at University of Cincinnati (OH). "In some cases, policies were put in place requiring that workers be fired if they continued to smoke in violation of the company's policy."

According to the 2010 Hewitt Associates Incorporated survey of over 500 companies, risk factors such as body mass index are the focus of penalties for 17% of the companies. "The implication of obesity as a risk factor that impacts health and productivity has emerged more recently," she says.

EXECUTIVE SUMMARY

Rising health care expenditures and increased cost-cutting means more employers may impose penalties on workers for smoking or obesity, but incentives are viewed more favorably. Use these approaches:

- Get employees more involved in improving their health.
- Use biometric measurements to objectively determine progress.
- Offer alternative incentives for unsuccessful attempts at health behavior change.

Success is limited

However, "success of penalty-based programs is limited due to a variety of factors," says Kennerly. For instance, employee self-reports are usually used to determine whether someone is assessed a fee for smoking, and workers may be dishonest.

"In contrast, more successful incentive-based programs have been operated in which biometric tests were administered," she says. When this data is available on tobacco use, cholesterol, body mass index (BMI), blood pressure, and blood glucose, employers see increases in the number of employees with acceptable results.

"Over a five-year period, as much as a 25% savings in health costs has been reported," says Kennerly. "Consumer-based health plans are encouraging employers to get their employees more involved in the improvement of their own health."

While some workplaces currently implement penalties for their employees that smoke, primarily through higher insurance premiums, very few employers penalize obese workers for being overweight. "However, some states are leading the way — North Carolina, Alabama, and Arizona, for example — in charging obese state employees higher rates for health insurance," Klinner notes.

Incentives more appealing

Generally, incentives are viewed in a more favorable light by employees than penalties. "There is a tendency for people to measure what they are getting against what they are giving up," says Klinner. "Getting something is more palatable and well-received than being punished."

However, penalties can be represented as incentives. Klinner gives the example of an employer stating, "We wish to help you lead a healthy life and will be offering assistance in that regard. Those who do not lose weight/stop smoking will be held accountable for a specific surcharge on their insurance premiums."

It can be argued that in the case of an overweight employee who is penalized, BMI may not be an accurate measurement of true body fat.

"It does not account for a muscular body habitus," she explains. "Being overweight can also be the result of, albeit more rarely, a true medical condition. At what point do we limit the medical conditions on which differentiating premiums are based?"

For her part, Kennerly recommends these approaches:

- Use biometric measurements to objectively determine an employee's progress.
- Offer alternative incentives for employees who unsuccessfully attempt health behavior change.
- Set policies that prevent intrusion into the employee's personal life.

"There is a shift toward more programs with discounts for positive health behaviors, rather than surcharges for unhealthy habits or the presence of risk factors," she says.

SOURCES

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EDITORIAL QUESTIONS

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Does worker qualify for incentive? Be objective

The near future of health promotion and illness prevention programs is relatively clear in one aspect: In large part, they will be based on metrics such as body mass index and nicotine levels.

"These will be followed by an annual evaluation program which examines differences in the baseline assessment data for each individual," says **Susan Kennerly**, RN, PhD, associate professor and deputy director of the occupational health nursing program at the College of Nursing at University of Cincinnati (OH).

Objectively measurable signs can demonstrate that an employee qualifies for a particular incentive. "As we get smarter about this down the road, we will find that certain type of incentives work and others don't," adds **Paul Papanek**, MD, MPH, chairman of the board for the San Francisco, CA-based Western Occupational Environmental Medical Association.

Health risk assessments, which are relatively low-cost, may be the "low hanging fruit" when it comes to getting results from incentives. "We know that just the act of filling it out correlates with healthy behaviors," says Papanek. "Just having to check off 'yes' or 'no' makes people more likely to comply."

This could take the form of asking the workforce to fill out a questionnaire voluntarily, then having an occupational health professional follow up on the risk factors identified for that person. Based on this information, occupational health can work with the insurer to learn what benefits are available to help the worker.

Other incentives may require employees to log onto a website periodically to record visits to the gym. "Sure, there are a certain percentage of cheaters. But if you are even 50% effective in increasing the fitness level of employees, that's huge in terms of preventing cardiovascular risks," says Papanek. "You don't have to be perfect to be effective." ■

ACA incentives may be undercut by coalition

"Political battles" warrant research knowledge

The Affordable Care Act (ACA) contains provisions for offering financial incentives for wellness participation in workplaces, which is good news for occupational health. However, the American Heart Association and the American Cancer Society have created a coalition to persuade federal regulators to prohibit financial incentives for Health Risk Assessments when family history items are involved.

"Most recently, this coalition is trying to get changes made to the provisions in the ACA related to incentives for healthy behavior," says **Margie Weiss**, PhD, CEO and community health advocate at the Weiss Health Group, a Neenah, WI-based consulting company that works with companies and communities on health and wellness. "If these changes are adopted, they will undermine the effectiveness of worksite wellness efforts."

With the added burden of required reporting, employers would presumably be less likely to offer premium discounts tied to health promotion programs.

"The political battles waged over worksite wellness will be interesting to watch," she says. "Stay current on research related to the effectiveness of worksite wellness incentives."

Participation-based incentives

The ACA allows out-of-pocket costs for premiums to be discounted by up to 20% for various healthy behaviors, and this percentage will increase to 30% as of 2013. These include quitting smoking, going to the gym, participating in nutrition classes, filling out a Health Risk Assessment, and getting regular checkups.

"Under the part of the rule that allows for incentives or penalties for meeting certain health targets, the rule does allow for employers to do penalties as well as rewards, and in fact, to use one to pay for the other," says **JoAnn Volk**, a research professor at Georgetown University Health Policy Institute in Washington, DC.

The reward or penalty can be for up to 20% of the total premium amount, including employee and employee share. "So if the employee premium is $5,000, including both the employer and employee contribution, the penalty or reward can total $1000 in out-of-pocket costs for premium surcharges or discounts," she says.

If an employee gets a penalty for being a

smoker, however, there is a question as to how the penalty is likely to change this behavior. "You are basically taking their status and charging them more," says Volk. "It doesn't seem to fall under the category of using the reward or penalty to change behavior, if you don't first give them an opportunity to change their behavior."

Morale is one reason why more employers don't use sticks instead of carrots. However, "as employers struggle to get a handle on health care costs, this is one way you could pay for the rewards of some with the penalties of others," she adds. "At least in theory, it could be attractive."

Most wellness incentives are based on participation, as opposed to meeting a particular health standard. For example, employees might get a reduction in premiums if they stop smoking. Conversely, there may be a penalty if they are a smoker or, similarly, a penalty or reward based on body mass index.

"These seem to comprise a much smaller share of the programs that are out there," she says.

One reason is that employers need to meet different requirements if they give financial incentives for a specific health outcome. "Tying premium costs to achieving certain health goals can be potentially more problematic than participation-based incentive programs," says Volk.

Beat the $2k buyout

Under the ACA, employers must pay a $2000 fee if they choose not to provide employer-sponsored health care.

"The question is going to be, if they do provide health care and do implement wellness programs, which may cost more than $2000, will the productivity gain make up for the difference in price?" asks Papanek.

Several recent studies suggest that in fact, it would.

"If you do this right, you may find your productivity gains are well worth the cost of providing a very generous benefits package for your employees," he says.

When researchers offered 436 employees financial incentives to quit smoking, 20.9% quit for six months after being given a total of $500, compared with only 11.8% of a control group given only information and no incentives.[1] "So, we do know that money changes smoking habits. You can incentivize positive behaviors, " Papanek says.

Employers often see a significant return on investment when employees get diabetes or hypertension under control.

"If someone has one of the cardiovascular risk factors of a sedentary lifestyle, being overweight or being a smoker, we know that the incremental cost to the insurer is in the ballpark of $2000 a year, per risk factor. It's big," he says.

Employers who pay attention to this data, and identify these risk factors in their workforce, can end up saving a great deal of money. However, certain health risks are tougher to show a return on investment on than others.

While it's difficult to link improved productivity to better compliance with diabetes measures, for instance, it's easier to show this for smoking, fitness, depression, seasonal allergies, better compliance with migraine medications, and weight control.

"If you intervene, you really can change the risk factors," Papanek says. "If you measure the cost to put the whole machine in place, it's much less than the payback you get."

While a wide variety of incentives are allowed under the ACA if employees change to healthier behaviors, there are some caveats built in to avoid discriminating against one group of people.

"My sense is that people will test that," he says. "There will be lawsuits claiming discrimination. People will say, 'This is a risk factor I can't do anything about, and I should get the discount anyway.'"

Since incentives are based on data that is personal health information, occupational health professionals will be getting more involved in benefits administration.

"Some of these behaviors are part of confidential health records. We think that means that occupational health folks will become much more involved in this process," he says. "You will need medical people working to check that the criteria have been met."

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Urge workers to spot, report hidden hazards

'Who's counting on you?'

Often, safety hazards are "hiding in plain sight" in workplaces and not reported, acted on or corrected. One reason is that employees are inundated on a daily basis with all kinds of information, both at work and at home.

"We are trying to carve out a little bit of bandwidth in every person for safety," says **Gregg Clark**, director of global occupational safety and hygiene for Dallas-based Kimberly-Clark Corporation.

The organization's "Who's counting on you?" campaign accomplishes this by reminding workers that somebody at home, or an activity they enjoy, is a reason for them to return home safely.

"When you're walking to the break room from your work station and you identify a hazard that has the potential for a fatal or catastrophic loss and correct it, you have potentially saved a life," he says. "This is the answer to the question, 'Why should I take time out of my day?'"

If a stressed, overworked employee does not have an answer to that question, he may take the attitude that it's not worth taking a few minutes to report a concern.

"Offering workers incentives for reporting hazards — such as a gift card — sort of belittles what we are trying to do," says Clark. "We believe that safety is a core value and one can't place a monetary value on that."

In a recent quarter, one of Kimberly-Clark's businesses reported more than 150 sentinel events, which are potentially loss events, near misses or substandard conditions with the potential for a fatal or catastrophic loss.

"That means that somebody is seeing the good in taking the time to report these," says Clark.

Workers may tell themselves, "It's been there forever and nobody's ever died, so why should I report it?" or may not even realize the specific types of hazards that can kill them.

For example, a worker may look at a large pallet loaded with material going up a conveyor near a fixed object such as a beam every day, yet never realize that the pallet could potentially pin a worker against the pole.

"Those are the kinds of things that people may look right over," he says. "The thing about fatalities is that they are rare events — infrequent but devastating if they occur, so people tend to say, 'That could never happen.' It's true that the probability is pretty low, but it only has to happen once."

Kimberly Clark's employees are getting used to the fact that a high number of reported hazards is actually a good thing. "It's a different mindset," Clark says. "When we first introduced this, senior leaders said, 'Don't we want fewer hazards? Don't we want the number to go down?'"

The number of reports will go way up initially, but will eventually go down as the identified hazards are corrected. Thus, instead of rewarding businesses with the fewest reported hazards, the company is considering finding a way to reward the one with the most reports.

"Yes, it is kind of displaying your dirty laundry. But would you rather not do it and have somebody die?" he asks. ■

Putting it into practice

Do you want to send a very strong message that employees' input on safety is valued? Do so by getting the word out any way you can, with newsletters, posters, web sites, advises **Sean Revels**, an occupational health professional at RoyOMartin, an Alexandria, LA-based lumber company. Here are some good approaches:

1. Simply ask workers for ideas.

"Create a forum or program where ideas can be shared," he says. "Designate a time frame to solicit ideas before or after safety meetings."

2. Offer recognition, possibly including monetary incentives.

If an employee's idea is implemented, consider giving a monetary incentive based on a metric or scale that is internally developed by the company. "These should be based on an appropriate scale, proportionate to the benefits that would be gained," Revels says.

Even if a suggestion isn't implemented, employees should be recognized in some way for making an effort. "A simple thank you, or an article in the employee newsletter, could encourage other

employees to be engaged in the process," he says.

3. Tell the workplace about success stories.

"We've had Safety Week for the umpteenth year, like all companies do. But this year, for the first time, we have a communication plan," Clark says. A marketing professional is helping to get the message out about the "Who's Counting on You?" campaign and the fatality elimination strategy, with banners hung picturing stamp-sized photos of more than 1000 family members of employees.

Dozens of employees have offered their own safety success stories, some of which will be used in future articles in company publications. Each year, two facilities are featured in the company's safety video, to demonstrate successful approaches in reducing hazards such as combustible dust.

4. Show the workforce that you will take action.

At RoyOMartin, a screen was installed along an area where flying debris often landed after a worker suggested this, and another employee suggested that a conveyor be lowered to reduce the reach distance for shorter employees. "The solution resulted in a happy medium for shorter and taller employees that worked at that conveyor," says Revels.

SOURCES

For more information on getting safety feedback from employees, contact:

• **Gregg Clark**, Director, Global Occupational Safety and Hygiene, Kimberly-Clark Corporation, Dallas, TX. E-mail: Gregg.L.Clark@kcc.com.
• **Sean Revels**, RoyOMartin, Alexandria, LA. E-mail: Sean.Revels@royomartin.com. ■

Got feedback? Get it to lift stalled program

A failed program is one that workers unaware of

Companies looking to cut costs may take one look at an occupational health program that isn't getting results and decide to cut their losses. Before things get to that point, get some feedback from employees about the program. To get the best possible results:

• Do surveys or post suggestion boxes to make it easy for participants to give input.

"Once a program is offered, give employees a way to provide feedback," says **Christine M. Kalina**, MBA, MS, RN, FAAOHN, COHN-S/CM, director of global employee health and wellness at MedImmune in Gaithersburg, MD. "Maybe they want ten more programs like it, or a different program on something specific."

• Set goals and objectives for the program, then tie these into your marketing strategy.

"It is important to understand that marketing involves many different concepts, not just advertising," she says.

• Base programs on the health risks in the population.

There is no sense in having a healthy pregnancy program if there are very few women of childbearing age. "There are a limited amount of resources available," she says. "Target programs to make the best use of them."

• Make sure leaders model a healthy lifestyle.

Do managers ridicule employees who choose fitness walks over going outside for a smoke? Are buildings filled with snack machines containing only junk food and soda? If so, money spent on wellness programs is likely to be wasted.

"You cannot promote wellness on one side, and ask your employees to work in unsafe conditions at the same time," says **Kenneth A. Pravetz**, health and safety officer at the Virginia Beach Fire Department. "Marketing does not make a program successful. The organization must incorporate the wellness program into its culture."

• Develop programs on issues that are prevalent in your insurance pool.

"You can invest millions in diabetic programs, but if your work force is not at high risk, or you do not look at other risk factors that lead to diabetic problems, your money will be wasted," says Pravetz. He gives these recommendations:

— Focus your wellness investments on the issues that your employees are dealing with.

— Find the indicators in your population for manageable diseases.

— Lower pharmacy copays for medications that control progressive diseases.

— Encourage disease management to offset emergency treatment.

If programs aren't getting results, market them with a new focus on prevention and disease management, based on actual medical experience.

"Disease prevention and reduced medical costs are good indicators of a successful program," says Pravetz. "A failed program is one that employees are not aware of, has no focus,

is not based on actual experience, and has no advocates."

SOURCES

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Look within to tweak occ health programs

In 2007, Omaha, NE-based Union Pacific conducted a retrospective analysis to examine the relationship between employees' health status and injury occurrences. Data were matched for employees in various departments who completed a voluntary health risk appraisal and experienced an injury during a defined period of time.

"Based on the health risk assessment results for the study sample of more than 700 employees, six factors showed statistical significance for the likelihood of injury," says **Jackie Keenan**, senior manager of occupational health psychology. Those six factors are being overweight, fatigue, inactivity, smoking, depression and stress.

Union Pacific's occupational health professionals used this data to improve its health promotion and behavioral health promotion programs. "The study validated what research has been stating," she says. "Health risks increase the direct and indirect costs of workplace injury."

The good news is that most indirect behavioral health problems such as depression are highly treatable, and workplace programs usually require minimal investment. "It is much more costly to not address behavioral health, than to implement comprehensive programs to address the problems created by this major cost driver," says Keenan.

Use existing research on contributory factors to illness and injury to make your case for program development. When you do so, ask your employee population for help.

"Employees frequently are interested in providing information that will give them a better program or increased quality of life," she says. ■

AHA backs flu shot mandate for workers

Egg allergy may not be a contraindication

Hospitals geared up for their annual influenza immunization campaigns this fall with a greater emphasis on mandatory policies to achieve the highest possible coverage of employees. An advisory from the American Hospital Association gave a push toward mandatory vaccination of health care workers.

In contrast, the American Medical Association endorsed "universal vaccination" but stopped short of advocating mandatory policies, stating that the medical staff should determine the structure of the programs.

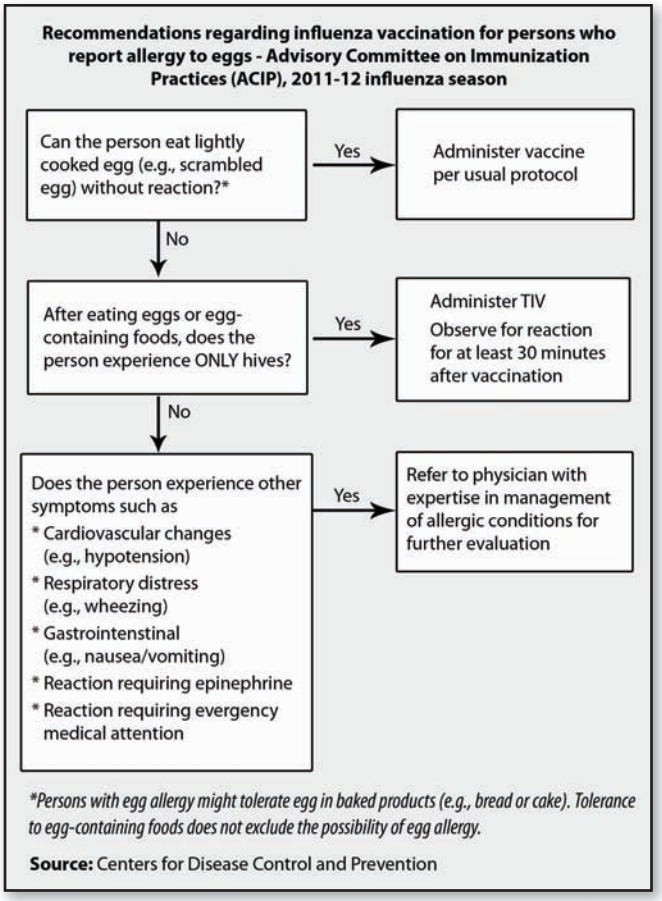
Meanwhile, exemptions to immunization may narrow as a federal advisory panel said many people with egg allergy can still receive the influenza vaccine.[1]

The panel listed trivalent inactivated vaccine (TIV) as a possible alternative for some people with mild reactions. *(See algorithm, p. 116)*

In its advisory, the AHA stated: "To protect the lives and welfare of patients and hospital employees, the American Hospital Association's Board of Trustees recently approved a policy supporting mandatory patient safety policies that require either influenza vaccination or wearing a mask in the presence of patients across health care settings during flu season. This policy aims to achieve the highest possible level of protection."

The AHA responded to recommendations from major infection control organizations, including the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America, says **Nancy Foster**, AHA's vice president for quality and patient safety.

"While the resources needed to implement a mandatory policy are significant, especially in terms of financial and personnel resources, the benefits of protecting vulnerable patients and reducing employee illness and absenteeism far outweigh the costs," the AHA advisory states. "Further, employee resistance can be overcome through careful education and open communication between hospital leadership and staff, as well as policies that permit certain reasonable exclusions and allow employees who cannot receive influenza."



Pushback from HCWs

Even as it becomes more common, mandatory influenza immunization remains controversial. The American College of Occupational and Environmental Medicine advocates comprehensive voluntary programs, and unions representing health care workers have successfully challenged the mandates as an imposition of a condition of employment without collective bargaining.

Even vaccinated employees sometimes bristle at the "vaccinate or be fired" approach. At St. Jude Children's Research Hospital in Memphis, TN, where more than 90% of health care workers receive the seasonal flu vaccine without a mandatory program, a survey of employees showed ambivalence about a mandate. A third (33.5%) of health care workers who reported receiving the vaccine over the past five years said they opposed mandating the vaccine.[2]

Further, requirements for unvaccinated health care workers to wear masks seem punitive rather than patient safety-oriented, says **Bill Borwegen**, MPH, health and safety director of the Service Employees International Union (SEIU). Health care workers were not required to wear masks during routine patient contact when there was no vaccine available in the early months of the H1N1 pandemic, and some hospitals even failed to provide N95 respirators to protect health care workers when they were recommended by the Centers for Disease Control and Prevention, he says.

"Their prioritization [of a vaccine mandate] seems to be based more on a power dynamic in the workplace than a true effort to make the workplace safer," he says.

Yet Foster says the AHA position is based on unpublished data from hospitals that implemented mandatory policies and saw a reduction in influenza cases.

"As we have learned about the evidence from our colleagues in infection control, the evidence now is pretty substantial that inadvertently our employees can transmit flu to our very vulnerable patients," she says.

The patient safety goal is paramount, says Foster, though acknowledging that hospitals may need to work with employees or their unions to develop mandatory policies. "Every hospital has to work through the appropriate processes to adopt substantial changes in their employee policies," she says. "For some, it may involve a negotiation with a union, for some it may involve other steps. Our board is asking the hospital leadership to begin to engage in that process.

While the influenza vaccine varies in effectiveness, that's not an ethical excuse for health care workers to decline vaccination, says **Matthew Wynia**, MD, MPH, director of the Institute for Ethics and the Center for Patient Safety at the American Medical Association in Chicago.

"It's always more protective than not having the vaccine at all," says Wynia. "It always provides some protection. The question is the degree of protection."

Egg allergy and vaccination

Fewer employees may receive exemptions from flu vaccine mandates, based on recent recommendations from the Advisory Committee on Immunization Practices (ACIP), a CDC advisory panel.

Some package inserts for the trivalent inactivated vaccine no longer list hypersensitivity as a contraindication, although severe allergic reaction, such as anaphylaxis, remains a contraindication, says **Lisa Grohskopf**, MD, medical officer with CDC's influenza division.

"We are recommending in these guidelines that essentially only individuals who have hives, spe-

Why HCWs get the flu vaccine — or don't

Almost three in four (71%) of hospital-based health care workers received their flu vaccine last year, showing a sustained commitment to vaccination even after the pandemic subsided, according to a survey conducted by the Centers for Disease Control and Prevention.

About 13% of health care workers reported being required to have the vaccine as a condition of employment. That was a slight increase from the 2009-2010 season when 11% of health care workers reported having a flu vaccine mandate.

For those without mandatory policies, convenience was the greatest determinant of vaccination. Health care workers were more likely to have the vaccine if they the vaccine was offered onsite, if they received a personal reminder to be vaccinated, and if the vaccine was offered for more than one day and at no cost, the survey found.

"Making vaccination convenient for health-care personnel is a key strategy for raising vaccination rates," says **Carolyn Bridges**, MD, associate director for adult immunization in CDC's Immunization Services Division.

When health care workers were offered the vaccine at their workplace, 66% received it, compared with a 38.5% vaccination rate when the vaccine wasn't offered at the workplace. This has implications for home health services, notes **Carla Black**, PhD, a CDC epidemiologist who helped coordinate the survey, which was conducted by the RAND Corp. of Santa Monica, CA. Only about half (53.6%) of home health workers received the flu vaccine last year, according to the survey.

"The settings that have the highest coverage are those that have vaccine more available," says Black. "And those who work in, say, home health-care who don't go to an office every day [and] have to get vaccine on their own have lower coverage [rates]."

Unvaccinated health care workers were less likely to believe that they or "people around [them]" were at risk of getting influenza. They also may question the effectiveness of the flu vaccine. Only 54% of unvaccinated workers said they believe "influenza vaccination can protect me from getting influenza" and only 44.6% agreed that "if I get an influenza vaccination, people around me will be better protected from influenza." ■

cifically only hives, as a symptom as their allergy, [can] go ahead and receive vaccine without some further risk stratification," she says. "It's possible for a health-care worker to be stratified for the risk."

People who experience only hives following exposure to egg should be monitored for at least 30 minutes for signs of reaction. Other people with more severe reactions should be referred to a physician "with expertise in management of allergic reactions," the guidelines state. The vaccine should be administered in a setting where there can be rapid recognition and treatment of anaphylaxis, CDC says.

If someone has previously had a severe reaction to any component of the influenza vaccine, they should not receive the vaccine, the guidelines state.

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Is it an ethical duty to mandate flu shot?

Critic: A 'disingenuous veneer of safety'

More and more hospitals are adopting a policy that mandates influenza immunization for their employees with patient safety as the primary rationale. But some ethical questions linger: What is the balance between the potential risk to patients from unvaccinated health care workers and the rights of health care workers to refuse a vaccine? How are the ethics of a mandate affected by the drawbacks of the vaccine — such as its variable effectiveness and occa-

How effective is the flu vaccine?

The flu vaccine is very effective for older children and adults, aged 10 to 49 years, but may be less effective than believed for the population overall, according to two recent studies.

A study of 6,757 patients seeking medical care for respiratory illness evaluated the pandemic vaccine effectiveness in communities in Michigan, Wisconsin, Tennessee and New York. Fifteen percent of them tested positive for influenza.[1]

The study, funded by the Centers for Disease Control and Prevention, found that the inactivated vaccine was 89% effective among people ages 10 to 49, but that few children 9 and under received the recommended two doses, the authors stated. Including children in the analysis lowered the overall effectiveness of the vaccine to 56%.

"Our results suggest that a single dose of a US licensed non-adjuvanted pandemic vaccine was capable of preventing over half of medical care visits associated with pandemic virus infection, and that inactivated vaccines were very effective for those aged 10 to 49 years," the authors said.

Another study at the University of Michigan School of Public Health found that flu vaccine efficacy may be overestimated in some studies if they used cell culture rather than real-time PCR to identify influenza virus.[2]

In the study, all influenza A (H3N2) and B cases that were isolated in cell culture were also identified by rtPCR, but only 69% of the influenza A cases identified by rtPCR were also isolated in cell culture, the authors stated.

The overall vaccine efficacy, based on rtPCR testing, was about 70%, they said. "That may suggest that we should lower the usual description of vaccine efficacy from 70%–90% in healthy adults to closer to 70%; however, further confirmation by other studies is desirable," the authors said. "Given 70% efficacy in a population with 50% vaccine coverage, approximately one-quarter of influenza cases may occur among vaccinated persons, regardless of attack rate in a given year."

Interestingly, there was less viral shedding among people who were vaccinated but still developed influenza, the study found.

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sional supply shortages?

Experts in bioethics and occupational health from the Mayo Clinic in Rochester, MN, recently wrote articles reflecting on the health care worker responsibilities and rights.

'First, do no harm'

This maxim of medical ethics underlies the push for influenza vaccination. Complications from influenza can be life-threatening for some elderly or vulnerable patients. Since there is a vaccine that can reduce the risk of nosocomial transmission, health care workers should have it, says **Abigale Ottenberg**, MA, a medical bioethicist with the Mayo Clinic who was the lead author of a paper on "the ethical and legal rationale for a mandate" in the American Journal of Public Health.[1]

"I'm not sure I see it as [an ethical] balance but instead as two obligations that health care workers have that are in sync with one another," Ottenberg told *HEH*. "Health care workers have an individual professional obligation to become vaccinated against influenza. They also have an obligation in the public health perspective — the organizational commitment to their profession and to their patients.

"Health care workers freely choose their profession. They're not required to become health care workers," she says. "With the privilege of being a health care worker, they also have obligations to their patients and the public."

Ottenberg and her colleagues conclude that states have the authority to mandate influenza immunization of health care workers based on protection of the public health. Fifteen states require at least one immunization of health care workers, although none currently mandate influenza immunization.

Health care workers should be able to avoid immunization due to medical contraindications or religious or philosophic objections, but the employer can require alternative measures to protect patients, she says. Many hospitals require unvaccinated health

care workers to wear surgical masks during patient care throughout the flu season. (Infectious disease societies do not endorse exemptions for personal belief, but some do allow for religious objections.)

Yet there are obligations that employers have to their employees, as well, Ottenberg says. For example, employers must provide information about influenza and the vaccine and answer questions that health care workers may have. The vaccine should be free of charge and employers should make vaccination convenient, she says.

"An organization that implements a mandate does have a responsibility to their workforce to make it as easy as possible to fulfill those obligations," she says.

Flaws in the logic

Everyone agrees that the influenza vaccine is an imperfect vaccine. It has to be produced every year, grown in chicken eggs in a cumbersome process. Glitches in the manufacturing process have occasionally led to delays or shortages. Because the effectiveness varies significantly, even people who are vaccinated sometimes get influenza and can transmit the virus. And when a new strain emerges, as with H1N1, a vaccine is not available for about six months.

The drawbacks of this particular vaccine makes it hard to justify a vaccination mandate, says **Bill Buchta**, MD, MPH, medical director of the Occupational Health Service at the Mayo Clinic, in an online opinion piece on the Pediatric Supersite.

"It's a simple strategy for giving the veneer of safety," says Buchta, who advocates strong but voluntary health care worker vaccination programs. "You can measure it. You can crow about it to the public, saying 100% of our staff are vaccinated against influenza, without telling them what that means and what it doesn't mean. To me that is disingenuous."

Most of the respiratory disease circulating in the winter is actually "influenza-like illness," (ILI) but not influenza, says Buchta. The vaccine has no effect on non-influenza viruses. Meanwhile, hospitals rarely require patients or visitors to be vaccinated, leaving patients vulnerable even if health care workers have been vaccinated.

"The implication is that if you get this vaccine you are protecting your patients from ILI. It's a false sense of security. It also sends the message that if you get this vaccine, you will not shed vaccine," he says.

The Centers for Disease Control and Prevention recommends vaccination of health care workers as one part of a comprehensive strategy to prevent health care-associated transmission. But Buchta worries that the push for mandatory vaccination overshadows the importance of the other infection control precautions, such as encouraging health care workers to stay home if they're sick and isolating patients or placing a mask on coughing patients, if possible.

Yet Buchta does see room for compromise. "If we chose specific units in the hospital with patients who are at high-risk, [a vaccine mandate] makes sense and it's ethical. You do everything reasonable to protect those patients," he says.

CNE OBJECTIVES / INSTRUCTIONS

The CNE 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.

To earn credit for this activity, please follow these instructions.

1. Read and study the activity, using the provided references for further research.
2. Log on to **www.cmecity.com** to take a post-test; tests can be taken after each issue or collectively at the end of the semester. *First-time users will have to register on the site using the 8-digit subscriber number printed on their mailing label, invoice or renewal notice.*
3. Pass the online tests with a score of 100%; you will be allowed to answer the questions as many times as needed to achieve a score of 100%.
4. After successfully completing the last test of the semester, your browser will be automatically directed to the activity evaluation form, which you will submit online.
5. Once the completed evaluation is received, a credit letter will be e-mailed to you instantly.

COMING IN FUTURE MONTHS

- Make your workplace environmentally healthier
- Get record participation for influenza immunizations
- Find out whether workers really kept the weight off
- What federal grants for wellness will mean for occ health

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1. Ottenberg AL, Wu KT, Poland GA, et al. Vaccinating health care workers against influenza: The ethical and legal rationale for a mandate. *Am J Public Health* 2011; 101:212–216.
2. Buchta WG. The current influenza vaccine: Best defense from flu? Infectious Diseases in Children 2011. Available online at http://bit.ly/qMOSEW. ■

CNE QUESTIONS

1. Which is recommended regarding incentive programs to reduce health care costs, according to Susan Kennerly, RN, PhD, associate professor and deputy director of the occupational health nursing program at the College of Nursing at University of Cincinnati (OH)?
   A. Use penalties instead of incentives to get the best smoking cessation rates.
   B. Implement an annual surcharge for smokers based solely on employee-self reports.
   C. Administer biometric tests as part of incentive-based programs for tobacco use, cholesterol, body mass index, blood pressure, and blood glucose.
   D. Never offer alternative incentives for employees who unsuccessfully attempt health behavior change.

2. Which of the following is recommended for occupational health professionals, according to Paul Papanek, MD, MPH, chairman of the board for the San Francisco, CA-based Western Occupational Environmental Medical Association?
   A. Since incentives may involve personal health information, occupational health professionals should become more involved in benefits administration.
   B. Less focus should be put on control of diabetes or hypertension, as these have not shown a significant return on investment.
   C. Better compliance with diabetes medications should be used to justify programs, since this is the easiest measure to demonstrate a return on investment.
   D. Resources should not be directed toward employees with only a single cardiovascular risk factor, as this doesn't increase health care costs.

3. Which is recommended to improve workplace safety, according to Gregg Clark, director of global occupational safety and hygiene for Dallas-based Kimberly-Clark Corporation?
   A. Remind workers that someone's life may be saved if a hazard is corrected.
   B. Avoid wasting resources on low-probability hazards.
   C. Instruct employees to focus on hazards that have previously resulted in injuries.
   D. Penalize facilities with a high number of reported hazards.

4. Which is recommended to get the best possible results from an occupational health program, according to Kenneth A. Pravetz, health and safety officer at the Virginia Beach Fire Department?
   A. Avoid basing programs on indicators for manageable diseases in your population.
   B. Develop programs on issues that are prevalent in your insurance pool.
   C. Do not lower pharmacy copays for medications that control progressive diseases.
   D. Don't use reduced medical costs as an indication of a successful program.