FEAT URE S

11  Coordinated Approaches to Strengthen State and Local Public Health Actions to Prevent Obesity, Diabetes, and Heart Disease and Stroke
By Gia E. Rutledge, MPH; Kimberly Lane, PhD, RDN; Caitlin Merlo, MPH, RDN; and Joanna Elmi, MPH

19  Nursing Overtime: Should It Be Regulated?
By Cathleen Wheatley, MS, RN, CENP

26  Statins Affect Skeletal Muscle Performance: Evidence for Disturbances in Energy Metabolism
By Neeltje A. E. Allard, Tom J. J. Schirris, Rebecca J. Verheggen, Frans G. M. Russel, Richard J. Rodenburg Jan A. M. Smeitink, Paul D. Thompson, Maria T. E. Hopman, and Silvie Timmers

DEPA RT M ENTS

4  Staying Current on Government Affairs

7  Editor’s Column

8  Association Community Liaison Report

17  Annual Treasurer’s Report

23  Perspectives in Healthcare Safety

ISSN 2168-8044

Committed to the health, safety and well-being of healthcare workers.
You are not alone. Achieving sustainability and influencing culture acceptance can be the most challenging aspect to your program success. There are many successful program types and best practices, but which ones are right for you and how do you take on such a big initiative? This year at AOHP 2018, Andrew Rich, my co-presenter and I will be tackling these larger issues with practical tips and quality information to prepare you to harmonize SPHM with your organization.

We hope you are able to join the session.

“Making your Safe Patient Handling & Mobility Program Sing”

presented by

Amber Perez MHA, CSPHP - Director of Clinical Services Wy’East Medical
Andy Rich MS, OTR/L, CSPHP - Clinical Manager PHD & Diligent

Our objectives are simply to:
- Identify common constraints to SPH&M success that take your program out of tune
- Provide application-based solutions allowing harmony to prevail when driving success
- Show how short term and long term metrics will bring your safe patient handling audience to their feet and scream ENCORE!

September 5th – 8th, 2018 at the AOHP 2018 National Conference in Glendale, Arizona.

800.255.3126 | wyeastmedical.com
MISSION

Provide essential tools that empower members to ensure the health, safety and wellbeing of healthcare workers. This is accomplished through:
• Advocating for employee health and safety
• Occupational health education and networking opportunities
• Health and safety advancement through best practice and research.
• Partnering with employers, regulatory agencies and related associations

The Journal of the Association of Occupational Health Professionals (AOHP) – in Healthcare (© 2018 ISSN 2168-8044) is published quarterly by the Association of Occupational Health Professionals in Healthcare and is free to members. For information about republication of any article, visit www.copyright.com. The AOHP Journal is indexed in the CINAHL® database.

STATEMENT OF EDITORIAL PURPOSE

The occupational health professional in healthcare is vital to ensuring the health, safety and well-being of both employees and patients. The focus of this Journal is to: provide current healthcare information pertinent to the hospital employee health professional; afford a means of networking and sharing for AOHP’s members; and improve the quality of hospital employee health services.

The Association of Occupational Health Professionals in Healthcare and its directors and editor are not responsible for the views expressed in its publication or any inaccuracies that may be contained therein. Materials in the articles are the sole responsibility of the authors.

EDITORIAL GUIDELINES


Send Copy to
Kimberly Stanchfield, RN, COHN-S
AOHP Journal Executive Editor
KHSTANCH@sentara.com

Publication deadlines for the Journal of AOHP-in Healthcare:

<table>
<thead>
<tr>
<th>Issue</th>
<th>Closing Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring</td>
<td>February 28</td>
</tr>
<tr>
<td>Summer</td>
<td>May 31</td>
</tr>
<tr>
<td>Fall</td>
<td>August 31</td>
</tr>
<tr>
<td>Winter</td>
<td>November 30</td>
</tr>
</tbody>
</table>

Edited, designed & printed in the USA

All material written directly for the Journal of the Association of Occupational Health Professionals in Healthcare is peer reviewed.
A common question from occupational health professionals and human resource managers has been "What is the impact of the Health Insurance Portability and Accountability Act, better known as HIPAA, on an employer's ability to collect employee health information for purposes of workers' compensation, Family and Medical Leave Act (FMLA), and Americans with Disabilities Act (ADA) purposes?" It is a common misconception that HIPAA applies to employee health information. In fact, HIPAA generally does not apply to employee health information maintained by an employer. As healthcare professionals, we all know that HIPAA protects the privacy and security of patient health information (PHI). While it is generally true that HIPAA does not apply to employers simply because they collect employee health information, HIPAA will definitely affect employers in the process of obtaining this information because HIPAA usually applies to the healthcare entity – known as a "covered entity" - from which the employer is seeking the information. Covered entities are defined as: (1) health plans; (2) healthcare clearinghouses; and (3) healthcare providers that electronically transmit certain health information. If an employer does not fall into one of those categories, HIPAA does not apply to it at all. Indeed, even if an employer is a covered entity, HIPAA still does not apply to health information contained “in employment records held by a covered entity in its role as an employer.” So even for those healthcare employers, although HIPAA may apply to health information they acquire in their capacities as a healthcare provider, it does not apply to health information they acquire in their roles as employers.

Some employers that are not covered entities, however, are directly subject to HIPAA for other reasons. Legislation passed in 2009 as part of the American Reinvestment and Recovery Act expanded HIPAA privacy and security requirements to a wide range of businesses. Now, HIPAA applies directly to businesses that receive, create, maintain, and/or transmit protected patient health information so they can perform certain services on behalf of covered entities. These businesses are defined as “business associates” of covered entities under HIPAA. Business associates may be found non-compliant and subject to significant sanctions if they are not conforming to applicable provisions of the HIPAA Privacy and Security Rules.

Occupational health professionals need to be aware of their business associates. Examples of businesses that now may be directly responsible for HIPAA compliance include data analysis, storage (clouds), and transmission services (internet service providers or ISPs), legal and accounting services, billing and benefit management services, actuarial and claims processing services, and a whole host of other businesses that perform activities which require them to have access to PHI to provide services for or on behalf of heath industry entities. Among other things, HIPAA compliance means these businesses will have to engage in physical, technical, and administrative activities to ensure the protection of PHI from unauthorized access, use, or disclosure, and they will also have to comply with certain notification requirements in the event of a breach of patient health record security. Penalties for non-compliance can be substantial. It will be up to the Employee Health Manager or the healthcare facility’s HIPAA Compliance Officer to validate and verify that the levels of protection business associates are providing are adequate.

Employers should not forget, however, that HIPAA does apply to an employer’s request for health information from a covered entity. A covered entity may not disclose protected health information to an employer without the employee’s authorization or as otherwise allowed by law. This is true even where the employee is also a patient or member of the covered entity. Information maintained in that capacity may not be shared with human resources or an employee’s managers, except as expressly authorized by the employee or applicable law.

Generally speaking, a covered entity has broad authority to disclose protected patient healthcare information for treatment purposes. From there on, the limitations on disclosure begin to stack up. With the exception of disclosures for treatment activities, most other disclosures are subject to the “minimum necessary” limitation embodied in HIPAA. The protected health information disclosed
should be the *minimum necessary* to accomplish the purpose of the disclosure. Covered entities may disclose protected health information in cases where the law requires such disclosures, but only to the extent that such disclosure is required by law and the disclosure complies with and is limited to the relevant requirements of such law. This may explain why, as an employer of healthcare employees, you are typically not satisfied with the quantity or the quality of an employee’s FMLA or ADA paperwork from another provider.

In the case of workers’ compensation, HIPAA Section 164.512(l) provides that a covered entity may disclose protected health information “as authorized by and to the extent necessary to comply with laws relating to workers’ compensation or other similar programs, established by law, that provide benefits for work-related injuries.” As such, any disclosure would also be subject to state law regarding workers’ compensation. There is *no specific exception* in HIPAA regarding disclosures for FMLA and ADA purposes. Therefore, covered entities usually require a valid patient authorization, pursuant to section 164.508, prior to disclosing employee protected health information to an employer for purposes of FMLA and ADA.

**Protecting Employee Health Information Under ADA and GINA**

Even when HIPAA does not apply, healthcare employee health departments still have other legal obligations to protect the confidentiality of employee health information in their possession. For example, the ADA requires employers to obtain disability-related medical information about an employee to maintain it in a confidential medical file that is kept separate from the employee’s personnel file. Such information may be disclosed only in limited situations and to individuals specifically outlined in the regulations:

- Supervisors and managers who need to know about necessary work restrictions or accommodations.
- First aid and safety personnel, if a disability might require emergency treatment.
- Government officials investigating compliance with the ADA.

Similarly, the Genetic Information Nondiscrimination Act (GINA) requires employers that acquire an employee’s genetic information (although they generally should not request it) to treat it as a confidential medical record in a separate medical file. It can be maintained in the same confidential medical file as disability-related information. However, different rules regarding when and to whom genetic information may be disclosed apply - which do not include supervisors, managers, or first aid or safety personnel, but do include others not on the list for disclosure of disability-related information.

**Requests for Employee Health Information**

Notwithstanding the above, employers may disclose employee health information with an employee’s express authorization (which absolutely should be in writing). Employers also may, if certain legal requirements are met, disclose such information in response to subpoenas, court orders, or other legally authorized requests, but should examine such requests closely (possibly in consult with corporate legal counsel) and limit disclosure of health information only to the extent specifically requested and authorized by the employee or applicable law.

**Keeping Medical Records Separate**

Special guidelines apply to medical information pertaining to employees. For example, the ADA imposes very strict rules for handling information obtained through post-offer medical examinations and inquiries. Employers who are covered by the ADA must keep these medical records confidential and separate from other personnel records. As mentioned above, this information may be revealed only: to safety and first aid workers, if necessary to treat the employee or provide for evacuation procedures; to the employee’s supervisor, if the employee’s disability requires restricted duties or a reasonable accommodation; to government officials as required by law; and to insurance companies that require a medical exam.

HIPAA also imposes privacy obligations on many employers who provide group health plans. Employers who administer their own plans and have fewer than 50 participants don’t have to comply with HIPAA’s privacy rules, and employers that sponsor plans that receive only enrollment information have minimal obligations. Under HIPAA, employers are required to protect the privacy of employees’ personal health-related information by designating an in-house privacy official, adopting policies and procedures to keep this information private, and notifying employees of their privacy rights, among other things.

GINA also requires employers to keep employee medical records confidential. GINA prohibits employers from requesting or requiring that employees provide genetic information. If, however, the employer receives such information inadvertently or pursuant to one of the strict exceptions to the law, the employer must keep it in separate, confidential files.

According to an opinion letter by the Department of Labor’s Equal Employment Opportunity Commission (EEOC), employers must ensure that strict confidentiality and separation are provided to personnel records containing personal medical information, and that occupational health information *must not be intermingled* in an electronic health record (EHR) of an individual patient. Given that HIPAA normally exempts employment records from the scope of its privacy and security requirements, why should occupational health professionals, healthcare facilities, and health plans be concerned by this EEOC opinion?

There are two important reasons. First, healthcare facilities and health plans are themselves employers and should be concerned with maintaining strict confidentiality of medical information maintained in their employees’ personnel files. Second,
while HIPAA exempts employment records from application of the HIPAA Privacy and Security Standards applied to PHI, the EEOC states that personal health information maintained for medical purposes (e.g., PHI) and occupational (or work-related) medical information should not be maintained in a single EHR, and the latter information clearly is subject to strict confidentiality requirements under both the ADA and GINA. Therefore, occupational health professionals, health plans and healthcare employers should adopt appropriate restrictions and separation with respect to EHRs that contain both types of health information.

The opinion letter, written by the EEOC Office of Legal Counsel, states, “[a]ccessing an individual’s medical records directly is no different from asking an individual for information about current health status, which the EEOC considers a request for (disability or) genetic information where it is likely to result in the acquisition of such information, particularly family medical history.” Therefore, employers must respect the confidentiality of all medical information maintained for employment purposes, whether an EHR or paper medical record, and be careful when seeking authorization from employees to access their EHR or other medical records for work-related purposes. If done in an inappropriate way related to obtaining disability or genetic information regarding a job applicant or current employee, such access can run afoul of the confidentiality and nondiscrimination provisions under ADA and GINA.

The EEOC opinion letter makes clear that employers must ensure that personal health information about applicants or employees cannot be accessed, except under the circumstances and to the extent permitted under ADA and GINA.

The result of the EEOC opinion effectively requires that employers should, if not already doing so, take steps to ensure that:
1) various types of medical information about employees sought or maintained for purposes of disability determinations, work-related functions or accommodations, FMLA and other types of medical leave, are obtained lawfully in compliance with ADA, GINA and state confidentiality and nondiscrimination laws; and
2) medical information contained in employment files is segregated into confidential areas (whether paper or electronic) with access rights restricted only to such lawful purposes, as opposed to general access rights typically afforded to a wider range of management and human resources personnel.

The EEOC opinion letter also states that when personal health information is maintained together with occupational health information in a single EHR or paper medical record, particularly one that allows someone with access to the EHR or paper record to view any information therein without restriction, a real possibility of a violation of ADA, GINA, or HIPAA exists if the purpose of such access is prohibited under such laws. Thus, healthcare providers and health plans, both in their capacity as HIPAA-covered entities and in their capacity as employers, need to ensure appropriate separation and access controls exist with respect to both PHI and employment/occupational health information maintained in paper or electronic form. Failure to do so could result in potential liability under ADA and GINA, as well as the more typical risk of a “breach” under HIPAA’s requirement to notify patients when medical records have been accessed or acquired in an unauthorized, or illegal, manner.

In Summary
The HIPAA Privacy and Security Rules call for us to protect patients’ electronic personal health information to the best of our ability. Now, Meaningful Use Section 45 CFR 164.308(a)(1) - Protect Electronic Health Information - prompts us to perform a security risk analysis. When you review your policies and procedures, remember to think about the patients who are also your employees. Your occupational employee health records should be protected with extra safeguards because the data is at a higher risk of being accessed. Unfortunately, this extra layer of protection is often an oversight, or it is put on the back burner.

What can you do?
• Audit employee records on a regular basis.
• Run reports and logs to find out who is accessing specific charts, and record the reasons for access.
• Ensure that users are not sharing their unique logins. Most activity is tracked via the sign-on user name. If the user name shows up on the audit report, then that is the person believed to have accessed the medical chart.
• Find out the security layers within your software. Often, security is set up loosely during implementation and the advanced features and functionality are never used, allowing easier access for unauthorized users.
• Define and communicate internal policies and procedures for employee patients.

Want to Attend the AOHP National Conference for FREE?
Apply for the Sandra Bobbitt Scholarship. This award was established to provide annual continuing education scholarships to subsidize the educational efforts of members. Applicants for this scholarship will be considered for a complimentary attendance to the main conference plus a one-night hotel stay.
For more information, visit our website at http://aohp.org/aohp/ABOUTAOHP/AwardsScholarships.aspx.
Submission deadline is June 1.
Editor’s Column

By Kim Stanchfield, RN, COHN-S
Executive Journal Editor

“Connecting the Dots”

In my Occupational Health Department, we constantly communicate with healthcare workers regarding their immunization status and their immunity to specific communicable diseases. Following current CDC guidelines, our healthcare system considers anyone who has had two doses of MMR vaccine or a positive IGG titer of disease (Measles, Mumps, and Rubella) documentation of immunity.

We perform an annual occupational health screening on almost all staff (with few exceptions). During the employee’s month of birth, the employee is required to have an evaluation in Occupational Health. The evaluation includes:

- TB Screen (IGRA test if the screen is positive, as we are in a low risk patient population).
- N95 fit test, if the job requires it.
- Review of allergies, medications, and any significant health changes.
- Review of all immunizations and immunity status. We show each employee a copy of his/her immunization status, stressing what documentation of two MMR vaccines means in terms of staff immunity. We also explain what a Measles, Mumps, Rubella IGG titer means.

We repeat this same review each year to all staff during their annual screening. I understand, and I try to help our team understand that, in Occupational Health, we “live and breathe” this type of information daily. Staff in other areas outside of Occupational Health have multiple types of information to constantly deal with, and our information is quickly replaced by the million other facts and bits of data they need to perform their daily jobs.

I am famous for saying “healthcare employees do not connect the dots”. I believe that most of the counseling and communication we provide employees flies out the window if the word “exposure” is used. A recent example is a smaller scale outbreak of Mumps at a local educational facility in our area. Our department was following a possible Mumps exposure to staff in a patient care unit. As our team talked to healthcare workers, it was clear that they were not aware of what Occupational Health had communicated to staff during their annual review that was specific to each individual’s Mumps immunity.

Any type of communicable disease exposure is stressful for healthcare workers. It is our job to assess any potential exposure, follow up, and counsel. Healthcare workers need to be reassured that when we advised them during their annual evaluation that they were immune to Mumps, it means the patient they cared for with diagnosed Mumps has the same disease, and they are still immune. We are always “connecting the dots” for them.
Every day I am reminded of the important role that employee/occupational health professionals play in the lives of individuals working in healthcare. We have the opportunity to gain knowledge and to learn how we can adopt best practices and grow in our profession.

News of outbreaks of vaccine preventable communicable diseases reminds us how important it is to improve vaccination rates. Improved healthcare vaccination rates have been shown to reduce or eliminating the spread of disease among healthcare personnel and patients. The National Foundation for Infectious Diseases (NFID) held a summit in November 2017 which included representatives from professional healthcare organizations active in infection control and occupational health. From this meeting, a call to action was developed. This call to action, which can be found at nfid.org, notes the need to provide and document immunity to hepatitis B, MMR, varicella, influenza, and Tdap.

Vaccination of healthcare individuals prior to an exposure is much easier than responding to an exposure or outbreak of one of these communicable illnesses. To assist members with best practices, AOHP is working with Dr. Kim from the Centers for Disease Control and Prevention (CDC) to develop guidelines to assist with consistent immunization practices. Recent exposures include:

- **Mumps at a national competition** — During the weekend of February 23 to 25, over 230,000 people attended a national cheerleading competition in Dallas, Texas. About 25,000 of them were athletes and coaches exposed to mumps. Attendees were from 39 states and nine countries.

- **Measles at three airports** — In two separate incidents, international travelers with measles potentially exposed people at airports in Detroit, Newark, and Memphis. Detroit exposures occurred on March 6. Newark and Memphis exposures were the result of a connecting flight by one infected child on March 12.

**IAC Spotlight!**

The Immunization Action Coalition’s (IAC’s) Adult Vaccination Handouts web page on immunize.org contains many free, CDC-reviewed print materials you can use to make sure your adult patients are vaccinated. This web page can be found by selecting the “Handouts & Staff Materials” tab (second from the left) in the light gray banner across the top of every immunize.org web page and then selecting “Adult Vaccination” in the drop-down menu.

The Adult Vaccination Handouts web page contains a wide range of ready-to-print resources for both healthcare professionals and patients. Each item is accompanied by a brief description. When you hover over or click on the handout’s title, a preview of its image appears. Most of the handouts for patients are available in Spanish as well as English, and a few are available in six other languages as well.

Make sure you have updated your vaccine information sheets (VIS). CDC released new a VIS for recombinant zoster vaccine, an updated VIS for live zoster vaccine, and posted final VISs for MMR, MMRV, and varicella.

**Reported Cases of Hepatitis B Infection in Adults Increasing Due to Opioid Use**

On February 21, the U.S. Department of Health and Human Services published an article online titled The Rise in Acute Hepatitis B Infection in the U.S. Authored by Rhea Racho, Hepatitis B Foundation, and Kate Moraras, Hepatitis B Foundation and Hep B United, the article links the opioid epidemic in the United States to the risk of contracting infectious diseases through injection drug use. The first three paragraphs are reprinted below.

In light of the ongoing opioid epidemic in the United States, it is becoming increasingly important to raise awareness about the risk of contracting infectious diseases such as hepatitis B (HBV), hepatitis C (HCV), and/or HIV through injection drug use.

To help address the link between the opioid crisis and the spread of infectious diseases, state and local health departments, healthcare providers, and community organizations are working to coordinate treatment and services for substance use disorders with HCV and HIV prevention and care. However, even among public health workers and advocates, there remains a lack of awareness and action around the rise in acute hepatitis B infection.

Hepatitis B education and outreach often focuses on its most common global mode of transmission—from an infected mother to her baby during childbirth—but among the other modes of hepatitis B transmission, injection drug use is a growing concern. In 2015, the acute hepatitis B infection rate in the United States increased by 20.7%, rising for the first time since 2006. The sharpest increases in new hepatitis B cases are occurring largely in states that have been impacted the most by the opioid epidemic.

**Tuberculosis Guidelines for Healthcare Providers Discussed on Listserv**

Currently, a work group including AOHP members is developing guidelines to be published in the MMWR in June or July of 2018. The draft has been sent to several organizations and individuals, including AOHP members, for peer review. Companion documents will be written to assist with implementation of the new recommendations. As soon as documents be-
come available, they will be shared with AOHP members. These recommendations will not define the type of tuberculosis testing that is to be completed. The type of testing that shall occur is mentioned in the 2017 guidelines at https://academic.oup.com/cid/article/64/11/2811357.

In addition, CDC published Tuberculosis—United States, 2017 in the March 23 issue of MMWR (pages 317–323). The first paragraph is reprinted below.

In 2017, a total of 9,093 new cases of tuberculosis (TB) were provisionally reported in the United States, representing an incidence rate of 2.8 cases per 100,000 population. The case count decreased by 1.8% from 2016 to 2017, and the rate declined by 2.5% over the same period. These decreases are consistent with the slight decline in TB seen over the past several years. This report summarizes provisional TB surveillance data reported to CDC’s National Tuberculosis Surveillance System for 2017 and in the last decade. The rate of TB among non-U.S.-born persons in 2017 was 15 times the rate among U.S.-born persons. Among non-U.S.-born persons, the highest TB rate among all racial/ethnic groups was among Asians (27.0 per 100,000 persons), followed by non-Hispanic blacks (22.0). Among U.S.-born persons, most TB cases were reported among blacks (37.1%), followed by non-Hispanic whites (29.5%). Previous studies have shown that the majority of TB cases in the United States are attributed to reactivation of latent TB infection (LTBI). Ongoing efforts to prevent TB transmission and disease in the United States remain important to continued progress toward TB elimination. Testing and treatment of populations most at risk for TB disease and LTBI, including persons born in countries with high TB prevalence and persons in high-risk congregate settings, are major components of this effort.

**OSHA Event Calendar Updates**

The Occupational Safety and Health Administration (OSHA) has developed a calendar of events for institutions to assist in promoting a safe workplace for all.

**May is National Safety Stand-Down to Prevent Falls month.** It was created to draw attention to falls in the construction industry, but, as many of you know, falls among hospital staff are a major concern. Some of the most severe injuries that occur to healthcare workers are falls. It is important to take dedicated time the week of May 7 to focus on fall prevention and training. Plan-Provide-Train.

There are also other fall risks at healthcare facilities. It is important at this time to make sure that your institution is aware of all fall risks and the new standard on Walking-Working Surfaces.

OSHA’s Final Rule to Update, Align, and Provide Greater Flexibility in its General Industry Walking-Working Surfaces and Fall Protection Requirements documents that fall from heights and on the same level (a working surface) are among the leading causes of serious work-related injuries and deaths. OSHA estimates that, on average, approximately 202,066 serious (lost-workday) injuries and 345 fatalities occur annually among workers directly affected by the final standard. OSHA’s final rule on Walking-Working Surfaces and Personal Fall Protection Systems better protects workers in general industry from these hazards by updating and clarifying standards, and adding training and inspection requirements.

As we get closer to summer it is important to remember Health Illness Prevention. The campaign kicks off May 25 with “Don’t Fry Day”. If you have workers who will be working outside or in hot environments, start planning on how you can protect them during the hot days.

OSHA and the National Safety Council have developed a calendar of other events for institutions to assist in preventing a safe workplace for all persons.

**June is National Safety Month.** During this month, it is time to highlight any safety concern you may have at your organization. In addition, National Forklift Safety Day is June 12 (make sure that you are abiding by the Power Industrial Truck standard), and June 23 is the compliance date for the long awaited respirable crystalline silica rule for general industry (which healthcare facilities fall under).

**July 1 – This is a big date to remember, the day that we are required to electronically submit the OSHA summary page 300A form from 2017 using the Injury Tracking Applications System. OSHA has put on hold the requirement to submit the 300 forms, so we currently just need to submit the Summary Form.**

**August 13-19 is Safe + Sound Week.** The goal for the campaign is to promote the understanding and adoption of safety and health programs. This is the time employers can show their safety commitment through activities related to common core elements of recognized safety and health programs, management leadership, worker participation, and a systematic approach to find and fix hazards.

**NIOSH Updates Study on Hearing Loss Prevalence in the Health Care and Social Assistance Sector**

A new study from the National Institute for Occupational Safety and Health (NIOSH) breaks down the prevalence of hearing loss experienced by workers in the Health Care and Social Assistance (HSA) sector. The overall prevalence of hearing loss among noise-exposed workers was found to be 19%, while some subsectors within the HSA had up to 31% prevalence of hearing loss. The study was published recently in the *Journal of Occupational and Environmental Medicine.*

Hearing loss is the third most common chronic physical condition in the United States. Although a smaller percentage of workers in the HSA sector are exposed to hazardous noise – unlike industries like mining or construction – NIOSH researchers found that some subsectors in the HSA had higher than expected prevalence of hearing loss for an industry that has had assumed “low-exposure” to noise.

Most of the HSA subsector prevalence estimates ranged from 14% to 18%, but the...
Medical and Diagnostic Laboratories subsector had 31% prevalence and the Offices of All Other Miscellaneous Health Practitioners had a 24% prevalence.

Further work is needed to identify the sources of noise exposure and protect worker hearing in the HSA sector. Successful noise reduction measures have been documented in hospital settings, exposure to chemotherapy drugs can be better prevented, and laboratories can be modified to reduce the level of noise. For general occupational hearing loss prevention, NIOSH recommends removing or reducing noise at the source, and when noise cannot be reduced to safe levels, implementing an effective hearing conservation program.

Total Worker Health®
NIOSH’s Total Worker Health® (TWH) is defined as policies, programs, and practices that integrate protection from work-related safety and health hazards with promotion of injury and illness prevention efforts to advance worker well-being. The second international TWH Symposium to promote worker health is scheduled for May 8-11 in Bethesda, MD. To learn more, please visit www.twsymposium.org. In addition, the latest Fundamental of TWH addressed ensuring confidentiality and privacy of workers. The article discusses the need for data collection while ensuring that employee privacy is maintained. Workplace health programs that penalize workers for their current health are not in alignment with NIOSH’s approach. To read more about the Fundamentals of TWH, please go to www.cdc.gov/niosh/twh/fundamentals.html.

NIOSH Centers of Excellence
NIOSH Centers of Excellence have been hard at work to promote workers’ health, and have published several new articles to share their research:

- Associations among healthcare workplace safety, resident satisfaction, and quality of care in long term care facilities- Researchers at the Center for the Promotion of Health in the New England Workplace (CPH-NEW) performed an integrated cross-sectional analysis of relationships among long term care work environments, employee and resident satisfaction, and quality of patient care. Facilities in the better-performing group were found to have: better patient care outcomes and resident satisfaction; lower rates of workers’ compensation claims; better SRHP performance; higher employee retention; and greater worker job satisfaction and engagement.

- Dissemination and implementation research for occupational safety and health- CPH-NEW researchers present dissemination and implementation (D&I) concepts, frameworks, and examples that can increase the capacity of occupational safety and health professionals to conduct D&I research and accelerate the translation of research findings into meaningful, everyday practices to improve worker safety and health.

- The Effect of Workforce Mobility on Intervention Effectiveness Estimates- Researchers at the Harvard Center analyzed a previously-conducted study to evaluate the impact of highly mobile workforce populations on intervention effectiveness. Results indicate that researchers should consider the effect of the workforce’s mobility on anticipated intervention outcomes.

Exploring the association between organizational safety and health climates and select productivity measures- Harvard Center researchers presented on this topic at the 2017 HERO Conference. Their selected breakout session presentation is captured in brief in these proceedings.

- Measuring best practices for workplace safety, health, and well-being: The Workplace Integrated Safety and Health Assessment- Researchers at the Harvard T.H. Chan School of Public Health Center for Work, Health, and Well-Being describe the Workplace Integrated Safety and Health (WISH) Assessment as a tool that may inform organizational priority setting and guide research around pathways influencing implementation and outcomes related to workplace safety, health, and well-being approaches.

- Predictors of nursing staff voluntary termination in nursing homes: A case-control study- CPH-NEW researchers utilized a case-control study to examine the contribution of work characteristics to individual nursing staff turnover in the long term care sector. Results demonstrate that evening shift work and shift length greater than eight hours were factors contributing to voluntary termination.

- Social Network Analysis of peer-specific safety support and ergonomic behaviors: An application to safe patient handling- OHWC researchers applied Social Network Analysis (SNA) to test whether advice-seeking interactions among peers about safe patient handling correlate with a higher frequency of equipment use. Results show a positive correlation between identifying more peers for safe patient handling advice and using equipment more frequently. These results suggest that having more or reciprocal sources of peer-based support may trigger ergonomically-related behaviors such as frequent utilization of equipment.

Work-family conflict, sleep, and mental health of nursing assistants working in nursing homes- Researchers at CPH-NEW examined the role of sleep in the association between work–family conflict and mental health by collecting questionnaires from 650 nursing assistants in 15 nursing homes. Results demonstrated that increased work–family conflict was associated with lower mental health scores. Workplace interventions to improve nursing assistants’ mental health should increase their control over work schedules and responsibilities, provide support to meet their work and family needs, and address healthy sleep practices.

Workplace Violence
Workplace violence continues to be an increasing problem in healthcare. OSHA has developed a publication titled Guideline to Preventing Workplace Violence, which can be found at https://www.osha.gov/SLTC/workplaceviolence/index.html.

Another resource is provided by the International Association for Healthcare Security and Safety (IAHSS). Its Industry Guidelines and IAHSS Design Guidelines are intended to assist healthcare administrators in providing a safe and secure environment while meeting all the regulatory requirements. These guidelines were published in 2015 and are only available to members. Contact your security force at your hospital to see if they have these guidelines to assist you with your workplace violence prevention programs.
Coordinated Approaches to Strengthen State and Local Public Health Actions to Prevent Obesity, Diabetes, and Heart Disease and Stroke

By Gia E. Rutledge, MPH1,2; Kimberly Lane, PhD, RDN2; Caitlin Merlo, MPH, RDN3; Joanna Elmi, MPH4

Chronic diseases, including heart disease, stroke, cancer, diabetes, and obesity, are the leading causes of death in the United States and account for most of the nation’s health care costs. Heart disease is the leading cause of death among men and women in the United States, accounting for 1 of every 4 deaths. Approximately 140,000 Americans die each year from stroke, and it is a leading cause of long-term disability. It is estimated that more than 9% of the US population has diabetes, which is the leading cause of kidney failure, lower-limb amputations other than those caused by injury, and new cases of blindness among adults. Additionally, more than one-third of US adults have obesity, which is associated with several chronic conditions.

Chronic diseases are common and costly, but many are preventable. Although it is important to address the underlying risk factors for chronic diseases at the individual level, it is also critical to implement population-based interventions, including health promoting policies and environments that affect where we work, live, play, and receive health care. This requires a multifaceted approach and the collective efforts of federal, state, local, private, and community-based organizations along with national partners.

The Centers for Disease Control and Prevention’s (CDC’s) mission is to prevent or control all diseases that affect Americans. CDC puts science into action by tracking diseases and determining their causes and by identifying the most effective ways to prevent and control them. This work entails tackling the major health problems that cause death and disability for Americans and promoting healthy and safe behaviors, communities, and environments.

The mission of CDC’s National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) is to “help people and communities prevent chronic diseases and promote health and well-being for all.” NCCDPHP supports disease control efforts through 5-year term funding mechanisms called cooperative agreements that are awarded to state and local public health agencies to strengthen partnerships to improve health at the community level. In 2013, NCCDPHP developed the State Public Health Actions to Prevent Obesity, Diabetes, and Heart Disease and Stroke (State Public Health Actions [SPHA]-1305), a cooperative agreement that combined the efforts of 4 CDC divisions: the Division for Heart Disease and Stroke Prevention (DHDSP); the Division of Diabetes Translation (DDT); the Division of Nutrition, Physical Activity, and Obesity (DNPAO); and the Division of Population Health’s School Health Branch (SHB). The agreement funded 50 state health departments and the District of Columbia to implement strategies in health systems and communities to prevent chronic disease and reduce complications associated with them. State Public Health Actions provides examples of how mutually reinforcing strategies are implemented. Two tiers of strategies were recommended, basic and enhanced (Figure 1).

Each of the 4 divisions focuses on a specific area of chronic disease. DHDSP provides public health leadership to improve cardiovascular health for all Americans and to reduce the burden and end disparities related to heart disease and stroke. DDT supports programs and activities to prevent or delay the onset of type 2 diabetes and to improve health outcomes for people diagnosed with diabetes. DNPAO focuses on decreasing obesity in the United States by encouraging regular physical activity and good nutrition at every stage of life. DNPAO supports healthy eating, active living, and obesity prevention by creating healthy child care centers, hospitals, schools, and worksites; building the capacity of state health departments and national organizations; and conducting research, surveillance, and evaluation studies. SHB’s aims are to improve the well-being of youth through healthy eating, physical education, and physical activity; to reduce risk factors associated with childhood obesity; and to manage chronic health conditions in schools. The primary purpose of SPHA-1305 is to support state-level and statewide implementation of cross-cutting, evidence-based strategies to promote health and prevent and control chronic diseases and their risk factors. SPHA-1305 uses a collective approach to 1) improve environments in worksites, schools, early childhood education services, state and local government agencies, and community settings to promote healthy behaviors and expand access to healthy choices for people of all ages related to diabetes, cardiovascular health, physical activity, healthy foods and beverages, obesity, and breastfeeding; 2) improve the delivery and use of quality clinical and other health services aimed at preventing and managing high blood pressure and diabetes; and 3) increase links...
between community and clinical organizations to support prevention, self-management, and control of diabetes, high blood pressure, and obesity. The ultimate goal of SPHA-1305 is to make healthy living easier for all Americans. The following are primary outcomes of SPHA-1305:

• Increased consumption of a healthy diet
• Increased physical activity across the life span
• Improved medication adherence for adults with high blood pressure or diabetes
• Increased self-monitoring of high blood pressure tied to clinical support
• Increased access to and participation in diabetes self-management programs and type 2 diabetes prevention programs
• Increased breastfeeding

In 2014, CDC developed a second cooperative agreement, State and Local Public Health Actions to Prevent Obesity, Diabetes, and Heart Disease and Stroke (SLPHA-1422), a program designed for states and large cities to implement strategies to control and prevent chronic disease through a dual approach — targeting both the overall population and priority populations (groups of people who are at high risk of chronic disease, are experiencing a disproportionate incidence of chronic diseases and conditions, or are experiencing racial/ethnic or socioeconomic disparities). This competitive cooperative agreement combined the efforts of 3 NCCDPHP divisions (DDT, DNPAO, and DHDSP), and was awarded to 17 states and 4 large cities to implement additional evidence-based strategies to expand the reach and impact of SPHA-1305 with the aim of reducing health disparities and improving health equity among adults. SLPHA-1422 supports interventions to prevent obesity, type 2 diabetes, heart disease, and stroke (through control of high blood pressure) and to reduce health disparities in the prevalence of these among adults in the population overall and in priority populations. SLPHA-1422 awardees used the dual approach and mutually reinforcing strategies to maximize the impact of strategies implemented in SPHA-1305 by working with partners and funding subawardees at the local level. By applying the dual approach, states and large cities implemented strategies to improve the health of the whole population and of priority populations. The strategies are described as mutually reinforcing because they are implemented simultaneously and synergistically to address multiple risk factors and chronic diseases.

Three tiers of strategies make up SLPHA-1422, environmental strategies, health system strategies, and community–clinical linkage strategies. The purpose of SPHA-1422 environmental strategies is to “support environmental and system approaches to promote health, support and reinforce healthful behaviors, and build support for lifestyle improvements for the general population and particularly for those with uncontrolled high blood pressure and those at high risk for developing type 2 diabetes.” The purpose of community–clinical linkage strategies is to “support health system interventions and community–clinical linkages that focus on the general population and priority populations” (Figure 2). Environmental strategies were implemented in the same communities and jurisdictions as health system strategies and community–clinical linkage strategies, with local improvements supported by statewide efforts funded by this cooperative agreement as well as those supported by SPHA-1305. The following are primary outcomes of SLPHA-1422:

• Increased consumption of nutritious food and beverages and increased physical activity
• Increased engagement in lifestyle change to prevent type 2 diabetes
• Improved medication adherence for adults with high blood pressure
• Increased self-monitoring of high blood pressure tied to clinical support
• Increased referrals to and enrollment in CDC-recognized lifestyle change programs to prevent type 2 diabetes

This special collection of articles in Preventing Chronic Disease describes how SPHA-1305 and SLPHA-1422 use a coordinated approach to chronic disease prevention and control. The collection describes an evaluation approach that was designed for state and local health departments with differing levels of evaluation capacity and highlights early outcomes at the national, state, and local levels. This special collection contains 12 articles: 4 by state health departments, 2 by one large city, and 6 authored by CDC staff members. Articles highlight a range of SPHA-1305 and SLPHA-1422 strategies. An article by Park et al describes in detail the foundations for SPHA-1305, the strategies recommended by each NCCDPHP division, the administrative and management structure, and the model for providing cross-division program and evaluation technical assistance. Given this complex approach to implementing a national chronic disease prevention initiative, it was imperative that the evaluation design use a robust, multi-tiered approach to accountability and learning. This comprehensive evaluation approach is described by Vaughan et al.

Smith et al summarize Maryland’s approach to improving implementation of quality improvement processes in Federally Qualified Health Centers through the use of health information technology and standardized reporting of clinical quality measures. Other states interested in learning how to harness the potential of electronic health records and how to use population health data to drive improvements in quality of care will appreciate this step-by-step explanation of how to gain the buy-in of health centers and how to build the operational structure of a data warehouse. The article also discusses challenges encountered in the process and plans for scaling up these efforts.

Oser et al describe how the Montana Department of Public Health and Human Services used SPHA-1305 funding to conduct an evaluation of a 3-year intervention among pharmacies in rural areas to improve adherence to blood pressure medication. In addition to patient-level data, Montana also implemented a statewide survey of pharmacists and identified barriers perceived from the pharmacy point of view. Results indicate that the intervention was successful with promising improvements in patient medication adherence.

Barragan et al focus on pharmacy-led strategies that the Los Angeles County Department of Public Health implemented with SLPHA-1422 funding. Authors report results from a community and stakeholder needs assessment for pharmacist services for management of hypertension medication therapy. The needs assessment included 3 components: 1) a policy context scan, 2) a survey of participants in a pharmacy leadership symposium, and 3) an internet public opinion survey of a final sample of more than 1,000 English- and Spanish-speaking Los Angeles County residents. A synthesis of results from these 3 assessments produced a list of needs and assets for scaling up and spreading pharmacy-led patient care services in Los Angeles County.

Figure 2. State and Local Public Health Actions to Prevent Obesity, Diabetes, and Heart Disease and Stroke (SLPHA-1422) Strategies

<table>
<thead>
<tr>
<th>COMPONENT 1</th>
<th>Environmental strategies to promote health and support and reinforce healthful behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Implement food and beverage guidelines including sodium standards (e.g., food service guidelines for cafeterias and vending machines) in public institutions, worksites, and other key locations, such as hospitals</td>
</tr>
<tr>
<td></td>
<td>Strengthen access to and sales of healthy foods (e.g., fruit and vegetables, more low/no sodium options) in retail venues (e.g., grocery stores, supermarkets, chain restaurants, markets) and community venues (e.g., food banks) through increased availability and improved pricing, placement, and promotion</td>
</tr>
<tr>
<td></td>
<td>Strengthen community promotion of physical activity through signage, worksite policies, social support, and joint-use agreements</td>
</tr>
<tr>
<td></td>
<td>Develop and/or implement transportation and community plans that promote walking</td>
</tr>
<tr>
<td></td>
<td>Strategies to build support for lifestyle change, particularly for those at high risk, to support diabetes, heart disease, and stroke prevention efforts</td>
</tr>
<tr>
<td></td>
<td>Plan and execute strategic data-driven actions through a network of partners and local organizations to build support for lifestyle change</td>
</tr>
<tr>
<td></td>
<td>Implement evidence-based engagement strategies (e.g., tailored communications, incentives) to build support for lifestyle change</td>
</tr>
<tr>
<td></td>
<td>Increase coverage for evidence-based supports for lifestyle change by working with network partners</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPONENT 2</th>
<th>Health system interventions to improve the quality of health care delivery to populations with the highest hypertension and prediabetes disparities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Increase the adoption of electronic health records and the use of health information technology to improve performance (e.g., implement advanced Meaningful Use data strategies to identify patient populations who experience cardiovascular disease–related disparities)</td>
</tr>
<tr>
<td></td>
<td>Increase the institutionalization and monitoring of aggregated/standardized quality measures at the provider level (e.g., use dashboard measures to monitor health care disparities, implement activities to eliminate health care disparities)</td>
</tr>
<tr>
<td></td>
<td>Increase engagement of nonphysician team members (e.g., nurses, pharmacists, dietitians, physical therapists and patient navigators/community health workers) in hypertension management in community health care systems</td>
</tr>
<tr>
<td></td>
<td>Increase use of self-measured blood pressure monitoring tied with clinical support</td>
</tr>
<tr>
<td></td>
<td>Implement systems to facilitate identification of patients with undiagnosed hypertension and people with prediabetes</td>
</tr>
<tr>
<td></td>
<td>Community–clinical linkage strategies to support heart disease, stroke, and type 2 diabetes prevention efforts</td>
</tr>
<tr>
<td></td>
<td>Increase engagement of community health workers to promote linkages between health systems and community resources for adults with high blood pressure and adults with prediabetes or at high risk for type 2 diabetes</td>
</tr>
<tr>
<td></td>
<td>Increase engagement of community pharmacists in the provision of medication self-management for adults with high blood pressure</td>
</tr>
<tr>
<td></td>
<td>Implement systems to facilitate bi-directional referral between community resources and health systems, including lifestyle change programs (e.g., electronic health records, 800 numbers, 211 referral systems)</td>
</tr>
</tbody>
</table>
Journal of the Association of Occupational Health Professionals in Healthcare

Mosst et al describe a practice-grounded framework used by the Los Angeles County Health Department to scale and sustain the National Diabetes Prevention Program (National DPP) by using a diverse partner network. By developing a 3-pronged framework (expanding outreach and education, improving health care referral systems and protocols, and increasing access to insurance coverage for the National DPP), Los Angeles County took an approach that other large jurisdictions can use to identify people with prediabetes and expand access to and use of CDC-recognized type 2 diabetes prevention programs.

Mensa-Wilmot et al use a mixed-method evaluation approach to describe preliminary findings of a collaborative effort between CDC and state health departments designed to scale and sustain the National DPP. Grantees reported reimbursement availability, practice and provider referral policies, and having standard curricula as facilitators to implementing the National DPP lifestyle change program. Understanding activities implemented by grantees and the barriers and facilitators they identify is critical for developing relevant and timely technical assistance and for understanding the impact of the program.

Morgan et al describe activities state health departments implemented to increase referrals to, coverage for, and availability of diabetes self-management education and support (DSMES) programs. By year 3 of SPHA-1305, more than 3,000 DSME programs had been established in 41 states. State health departments contributed to these increases by assisting organizations in establishing new DSME programs, providing technical assistance to providers, convening stakeholders to address gaps in DSME insurance coverage, and using marketing strategies to educate patients about the importance of DSME. Conducting early assessments of the activities implemented by state health departments and analyzing progress in performance measures associated with them provides early outcome results that can be used to develop technical assistance to help grantees identify where more focus is needed to further improve results by the end of the 5-year cooperative agreement.

An article by Fritz et al examines the SPHA-1305 strategy of increasing physical activity through community design. In this community case study, the authors describe how the Indiana State Department of Health used a workshop model to support communities with implementation of active-living opportunities in their communities to improve or increase access to physical activity. The authors report that providing a workshop model with follow-up support to the community resulted in policy adoption, the creation of new advisory committees, and new local funding allocations for active-living projects. These findings may inform efforts of other state health agencies as they collaborate with communities to improve physical access.

Geary et al describe the extent to which 38 states’ Quality Rating and Improvement Systems (QRIS) include obesity prevention content. States can use QRIS to set standards that define high-quality care and to award child care programs with a quality rating designation based on how well they meet these standards (eg, a star rating). The authors reviewed each state’s QRIS standards and compared them with the 47 “high impact” obesity prevention standards contained in Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs, 3rd Ed (Caring for Our Children). The authors found that 38 states with publically available standards, 20 included at least one standard with obesity prevention content; however, most had fewer than 5, suggesting room for states to embed additional obesity prevention standards into QRIS.

The article by Papa et al examines 5 of the child care standards of the Arizona Department of Health Services related to obesity prevention that are part of the Arizona Empower Program, a program that promotes healthy environments for children in Arizona’s licensed child care facilities. The authors examined 2 years of statewide data, tracked progress in implementing these 5 Empower standards, and identified areas in which facilities needed additional support to fully implement the standards. The results indicate that 1 in 5 facilities fully implemented all 5 standards, with the staff training standard having the highest level of implementation across facilities (77%) and the breastfeeding standard having the lowest implementation (44%). These findings can inform training and technical assistance efforts to further support the implementation of these standards in Arizona’s licensed child care facilities.

An article by Pitt Barnes et al examines performance measures and reported evaluation data from all 51 awardees to assess progress in improving the school nutrition environment and services over the first 4 years of the program. Findings indicated that, compared with year 2, by year 4 awardees made significant progress, especially related to providing professional development on strategies to improve the school nutrition environment, adopting and implementing policies to establish standards (including standards for sodium) for all competitive foods available during the school day, not selling unhealthy foods and beverages during the school day, placing fruits and vegetables near the cafeteria cashier where they are easy to access, and providing information to students or families on the nutrition, calorie, and sodium content of foods available. However, the data also show that only 33.5% of local education agencies adopted and implemented policies that prohibit all forms of advertising and promotion of unhealthy foods and beverages. Because the federal requirement for local school wellness policies now includes addressing the marketing of unhealthy foods, additional training, technical assistance, and guidance is likely needed to help districts adopt marketing policies. This special collection describes overarching approaches and examples of interventions implemented by state and local health departments to prevent and manage obesity, diabetes, heart disease, and stroke. Readers should note that these articles represent early evalu-
ation results of both SPHA-1305 and SLPHA-1422 and demonstrate promise that the implemented strategies are reaching populations in need and are beginning to have a population-wide impact. As of 2016, the 2 national programs are in the final year of funding. With ongoing analysis of performance-measure data, the impact of these programs will continue to be examined and reported.

Collectively, the work of SPHA-1305 and SLPHA-1422 demonstrates the barriers and facilitators that affect state and local program development, implementation, and evaluation of chronic disease prevention initiatives and describes a coordinated approach to implementing programs. This information will inform other state and local programs and further the potential reach of these approaches. The findings presented in this special collection contribute practice-based knowledge to the field of chronic disease prevention and management, evidence of combining different disease-specific funding streams to achieve early outcomes with greater efficiency, and lessons learned for future coordinated national chronic disease programs.

Acknowledgments
This research received no grant from any funding agency in the public, commercial, or nonprofit sector.

Author Information
Corresponding Author: Gia Rutledge, MPH, Lead Health Scientist, Division of Diabetes Translation, Health Education and Evaluation Branch, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 4770 Buford Hwy NE, MS-75, Atlanta, GA 30341. Telephone: 770-488-5661. Email: hez2@cdc.gov.

Author Affiliations:
1 Division of Diabetes Translation, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.
2 Division of Nutrition, Physical Activity, and Obesity, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.
3 Division of Population Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.
4 Division for Heart Disease and Stroke Prevention, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia.

References

Citations:
Rutledge GE, Lane K, Merlo C, Elm J. Coordinated Approaches to Strengthen State and Local Public Health Actions to Prevent Obesity, Diabetes, and Heart Disease and Stroke. Prev Chronic Dis 2018;15:170493. DOI: http://dx.doi.org/10.5888/pcd15.170493.
You Can Be a ROC Star!
AOHP Recruit Our Colleagues (ROC) – A Better and Greater Campaign.

The Recruit Our Colleagues (ROC) campaign is back, and it’s bigger and better than ever! ROC is a great way for members to help AOHP grow while earning rewards that can be used toward education and membership. The new ROC campaign offers five levels of individual awards, as well as an award for the chapter recruiting the most new members.

AOHP members are the organization’s most valuable asset, and the best way to spread the word about the value and benefits of our organization. When looking for ways to recruit new members to AOHP, consider the following:

• Connect with colleagues in your own organization who are not AOHP members. AOHP is not just for nurses. Reach out to physicians and advanced practice professionals who are involved in your occupational health program.
• Connect with providers outside your organization who partner with you in your program.
• Reach out to colleagues from other facilities in your local area.
• Obtain a list of facilities in your chapter’s geographic area, and make “cold calls” to the occupational/employee health employees in those facilities. (Lists were recently provided to chapter presidents). Briefly introduce them to AOHP and refer them to the AOHP website, or offer to send them information. Be sure to let them know what you value about your membership in AOHP.
• Connect with occupational/employee health providers in non-hospital facilities such as clinics and post-acute care.

The new ROC campaign offers a grand prize that includes free registration to the next AOHP National Conference, three nights hotel, airfare reimbursement up to $250, round trip transportation from the airport to the conference hotel (up to $50), and a free AOHP membership for the following year. The total value of this prize is approximately $1,500. It would be so exciting to award this prize for the first time to one of our members at our conference in Glendale, Arizona in September 2018!

The current ROC campaign period runs from July 1, 2017 through June 30, 2018. There is still plenty of time to work toward a ROC reward, so get busy!

LET’S ROC! The following ROC awards are available:

• The Whole Shebang – one award to the member recruiting the most new members (must recruit at least 10 to qualify).
• Kit and Caboodle – awarded to members recruiting 10 or more new members, but not the winner of The Whole Shebang.
• Half Kit and Caboodle – awarded to members recruiting six to nine new members.
• Caboodle – awarded to members recruiting three to five new members.
• Feather in My Cap – awarded to members recruiting one to two new members.
• Pie in the Sky Chapter Award – awarded to the chapter recruiting the most new members.


Every new member strengthens our organization. Participate in our ROC Revival by sharing the benefits of AOHP membership with your colleagues, and earn rewards that will benefit your practice. For more information, visit www.aohp.org, call Headquarters at 800-362-4347, or email info@aohp.org.

***In order to count as your recruit, new members must list your name as their recruiter when completing their AOHP Membership Application!

Let’s ROC someone’s world!!! Recruit Our Colleagues!
Reach out and share the benefits of AOHP membership with your area colleagues.
AOHP Annual Treasurer’s Report

Year Ending 2017

In looking back at 2017, AOHP continues to maintain financial stability with a balanced budget as we move forward into 2018. The AOHP Board strives to maintain a positive financial position as an organization to meet the needs of our members by providing resources, assistance, and educational opportunities that are beneficial and of interest. We explore opportunities to expand membership, produce positive marketing strategies, and investigate other sources of revenue to grow as an organization.

A financial review was completed for the year ending December 31, 2017 in accordance with accepted auditing standards. AOHP works with Stelmack, Dobransky and Eannace, LLC, certified public accountants and business consultants.

AOHP publishes the Journal of the Association of Occupational Health Professionals in Healthcare quarterly. The association also utilizes the services of a management company, Kamo Management Services, LLC, to handle daily activities. Kamo is paid a fixed monthly fee, with separate charges for certain other services, and is contracted through December 31, 2021.

Overview for 2017:
- Total income and expenses for 2017 remained stable.
- Publications and advertising revenue continued to increase.
- Membership income remained stable.
- Annual National Conference income and expense ratio continues to be positive.

The following graphs depict AOHP’s financial position for the year 2017. Questions concerning this report, or requests for additional information, can be obtained by contacting me by e-mail at jenningsd@craighospital.org or by phone at 303-789-8491. The financials are available for members to review upon request.

AOHP strives to maintain financial stability, and we welcome your suggestions as AOHP moves forward as a world class organization.

Respectfully submitted,
Dana Jennings, RN, BSN, CCM
AOHP Executive Treasurer
Mark Your Calendar! AOHP 2018 National Conference

September 5-8, 2018 • Glendale, AZ
Renaissance Glendale Hotel • 9495 W. Coyotes Blvd., Glendale, AZ 85305

It is never too early to start planning. Join us at the 2018 National Conference – Occupational Health A-Z. It will feature the most up-to-date information from A to Z and everything in between. A conference for both novice and experienced professionals in many occupational health practices areas.

Need help to get approval?
Go to our website http://www.aohp.org/aohp/EDUCATION/NationalConference.aspx to download the Articulating Attendance Value Guideline and use the template to help to justify your conference attendance with your supervisor.

Keep Your Benefits - Renew Your Membership!
AOHP is your single best source for advanced practice information and support, and the only national professional organization with an exclusive focus on the needs and concerns of occupational health professionals in healthcare. Our association represents thousands of healthcare workers – including you. AOHP’s success is measured by the level of experience and dedication shown by our members.

The deadline to renew your membership for the coming year is February 28, 2018, but you can renew at any time online at https://www.aohp.org/aohp/MEMBERSERVICES/RenewMembership.aspx. Just log in with your user name, as showed on the renewal notice, and password.

Please budget accordingly for 2018 so you can retain all the benefits AOHP offers while continuing to be a part of this vibrant, thriving organization that is well known as an authority in occupational health in healthcare.

Do You Know the Many Benefits AOHP Offers to Members? Let’s Name A Few!

Listserv
AOHP hosts an electronic Discussion Email List Service as a free benefit of membership. The purpose of the AOHP Listserv is to facilitate discussions among AOHP members. By joining, you can connect with colleagues across the nation via email to share best practices and dialogue about the challenges and successes of working in occupational health in healthcare. Subscribe now to explore electronic networking, change your subscription format and access archived posts.

E-Bytes
AOHP E-Bytes provides a summary of current occupational health information. It is distributed electronically from Headquarters every month and provides updates on the latest educational, regulatory and association information to keep members informed about pertinent, current information related to your professional practice.

AOHP Insight!
AOHP Insight, offered exclusively to AOHP members, provides a wide range of occupational health tools and resources that can enhance every level of practice from beginner to enhanced. From up-to-date professional information to legislative updates, AOHP Insight is committed to deliver the knowledge you need to the right place, at the right time.

For more information about the benefits of your AOHP membership, visit http://www.aohp.org/aohp/MEMBERSERVICES/MemberBenefits.aspx or email info@aohp.org.
The healthcare industry faces ongoing challenges with cost containment, workforce shortages, and a growing chronically ill patient population. These challenges are driven by reimbursement constraints and expanding unfunded care; a global shortage of nurses and other providers; and the aging Baby Boomer generation’s consumption of services and longer life expectancy (Garrett, 2008). To maintain economic viability, hospitals must provide services to as many patients as possible to leverage overhead, maximize revenue, and meet federal and state mandates for provision of services. Key strategies employed by the healthcare industry to provide appropriate nurse staffing levels include the use of contracted labor, flexible unbenefted positions, and both mandatory and voluntary overtime (Lobo, Fisher, Peachey, Ploeg, & Akhtar-Danesh, 2015).

Concerns have arisen about the negative impact of overtime on both nurses and patients due to nurse fatigue from long work hours, inadequate sleep, and inadequate recovery time between shifts (Bae, 2012; Garrett, 2008). Nursing overtime, regulations governing overtime, and the effects of those regulations are reviewed, and a call to action is posed.

### Definitions of Overtime
A fundamental challenge in assessing the prevalence and consequences of nursing overtime is the lack of a consistent definition. Lobo, Fisher, Peachey, and Akhtar-Danesh (2013) found the term overtime was poorly defined and indiscriminately used. Definitions included mandatory, voluntary, coerced, and extended work hours; working an off day; having on-call hours; having unpaid versus paid overtime; and varied quantifications of hours per week and hours per extended shift. They noted lack of agreement on the definition has led to disparate research methodologies, limiting the validity of findings and the ability to compare results or develop appropriate intervention strategies. Similar inconsistencies were found in the author’s review (see Table 1), and in an integrative review of nursing overtime by Lobo and colleagues (2015). Discussions of the overtime concept have addressed antecedents that are societal, organizational, and individual; attributes of perception of control or reward, relative value to off duty; and the stress associated with inability to prepare; and consequences that both benefit and impose risk for key stakeholders, including nurses, patients, and organizations (Lobo et al., 2013) highlighting the complexity of nursing overtime as a phenomenon of interest to the profession, industry, and society.

### Overtime Prevalence
Nursing overtime is prevalent in the United States and in Europe. Bae (2012) found 60% of U.S. nurses surveyed worked at least one type of overtime, with only 10% reporting unpaid overtime. Of nurses who reported work-

### Table 1. Overview of Published Literature on Nurse Overtime: Study Definitions and Methodologies

<table>
<thead>
<tr>
<th>Source</th>
<th>Overtime Definition</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bae, 2012</td>
<td>Paid and unpaid mandatory, paid and unpaid voluntary, paid and unpaid on call, an excess of 40 hours per week in principal position</td>
<td>Cross-sectional survey</td>
</tr>
<tr>
<td>Bae &amp; Brewer, 2010</td>
<td>Mandatory/unscheduled overtime, voluntary overtime, paid on call, hours per week of 41-60 and ≥61</td>
<td>Secondary analysis of cross-sectional survey data</td>
</tr>
<tr>
<td>Bae &amp; Yoon, 2014</td>
<td>In excess of 40 hours worked per week and in excess of 60 hours in principal position</td>
<td>Quasi-experimental</td>
</tr>
<tr>
<td>Beckers et al., 2008</td>
<td>Hours per week in excess of regularly scheduled/contracted hours</td>
<td>Questionnaire</td>
</tr>
<tr>
<td>Berney et al., 2005</td>
<td>Hours per week in excess of 40 hours</td>
<td>Secondary analysis of institutional cost reports</td>
</tr>
<tr>
<td>Geiger-Brown et al., 2011</td>
<td>Hours per day in excess of 9-11 and ≥12; hours per week of 41-49 and ≥60</td>
<td>Longitudinal survey with random selection</td>
</tr>
<tr>
<td>Griffiths et al., 2014</td>
<td>Shift length of 8:1-10, 10:1-11:9, 12-13, ≥13 hours</td>
<td>Cross-sectional survey</td>
</tr>
<tr>
<td>Olds &amp; Clarke, 2010</td>
<td>Mandatory overtime, paid overtime, and unpaid overtime</td>
<td>Secondary analysis of anonymous questionnaire, random selection</td>
</tr>
<tr>
<td>Rogers et al., 2004</td>
<td>Hours worked that exceeded scheduled hours, scheduled overtime hours</td>
<td>Prospective survey</td>
</tr>
<tr>
<td>Stimpfel et al., 2015</td>
<td>Shift length of 8, 10, 12, or “other” hours; mandatory and voluntary overtime hours (not quantified) worked per week in principal position</td>
<td>Secondary analysis of cross-sectional survey data</td>
</tr>
</tbody>
</table>
ing overtime, 54% worked less than 12 hours a week of overtime and 46% worked 12 hours or more per week. For those working less than 12 hours, 62% reported voluntary overtime, 18% mandatory, and 37% on call. For those working 12 hours or more per week of overtime, 35% reported mandatory and 72% on call. Of the total sample, approximately 17% reported working more than 40 hours per week as the norm. Most nurses reported working overtime to make money and/or to not let their co-workers down. Nurses who worked unpaid overtime reported doing so to finish their work. Approximately half of the sample reported chronic nursing shortages on their unit.

Berney, Needleman, and Kovner (2005) found similar high usage in a retrospective study of nursing overtime in New York hospitals between 1995 and 2000, with an average of 4.5% of total worked hours as overtime in all hospitals. Hospital characteristics associated with higher overtime usage were for-profit status, unionization, lower nurse-to-patient ratios, and higher wages for registered nurses.

In European countries, Griffiths and colleagues (2014) found 27% of nurses reported working overtime, but there was wide variation between hospitals and countries. Approximately half of all nurses (working both 8 and 12-hour shifts) reported working some overtime, but nurses who worked shifts longer than 13 hours reported the most end-of-shift overtime (60%).

**Overtime Effects**

Researchers exploring the effects of nursing overtime have identified relationships between overtime and practice errors, nurse fatigue and injuries, and adverse patient outcomes (Bae & Fabry, 2014; Beckers et al., 2008; Lobo et al., 2015; Olds & Clarke, 2010; Rogers, Hwang, Scott, Aiken, & Dinges, 2004). Medication administration errors were the most frequently reported practice error. Olds and Clarke (2010) found nurses working overtime of any type reported an increased occurrence of wrong-dose medication error, and Lobo and coauthors (2015) identified similar findings after 4 hours of overtime, regardless of shift length. Nurse fatigue and low work satisfaction have been associated with involuntary overtime (Beckers et al., 2008; Garrett, 2008), and an increased odds ratio (OR) of inadequate sleep (OR 1.36) was found in nurses working mandatory overtime or being on call more than once per month and for quick turnarounds (Geiger-Brown, Trinkoff, & Rogers, 2011). A greater occurrence of inadequate sleep was found for nurses working 9-11 hours per day versus 8 or fewer, and for those reporting weekend shift work compared to those working no weekends (Geiger-Brown et al., 2011). In addition to safety risks, the fatigue associated with overtime negatively impacts nurse morale and increases turnover intent, with associated increased organizational costs due to vacancies and voluntary turnover (Garrett, 2008; Reed, 2013).

An association between overtime and nurse outcomes such as needlestick and musculoskeletal injuries, fatigue, illness, absenteeism, burnout, job dissatisfaction, and turnover intent was reported in studies reviewed by Bae and Fabry (2014). They found a statistically significant relationship between overtime and falls, pressure ulcers, and nosocomial infections. Significant relationships were also found between quick turnarounds and hypoglycemic events and pneumonia deaths.

An increased risk of needlestick injury was reported by Stimpfel, Brewer, and Kovner (2015) in newly licensed nurses who worked 12-hour shifts, over 40 hours per week, and weekly overtime greater than 8 hours per week, with significance (incidence rate ratio 1.25) at more than 8 hours of weekly overtime. When comparing nurses working more than 8 hours of overtime per week with those who did not work overtime, they

---

**Table 2. Overview of State Nursing Overtime Regulations (as of 2015)**

<table>
<thead>
<tr>
<th>State</th>
<th>Mandatory Overtime</th>
<th>Shift Length and Respite Requirements</th>
<th>Year Passed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>Illegal</td>
<td>14 consecutive hours</td>
<td>2010</td>
</tr>
<tr>
<td>California</td>
<td>Illegal, right to refusal without retaliation</td>
<td>12 hours in any 24-hour period</td>
<td>2001</td>
</tr>
<tr>
<td>Connecticut</td>
<td>Illegal</td>
<td>Extension required beyond scheduled shift length prohibited except for emergency or completion of procedures</td>
<td>2004</td>
</tr>
<tr>
<td>Illinois</td>
<td>Illegal</td>
<td>Shift extension capped at 4 hours even for emergencies. 8-hour required rest following any 12-hour shift</td>
<td>2005</td>
</tr>
<tr>
<td>Maine</td>
<td>Illegal, right to refusal without retaliation</td>
<td>10 consecutive rest hours after working any overtime</td>
<td>2001</td>
</tr>
<tr>
<td>Maryland</td>
<td>Illegal</td>
<td>Require extension beyond scheduled shift in a predetermined schedule prohibited unless emergency or critical skill needed</td>
<td>2002</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Illegal</td>
<td>12 consecutive hours in any 24-hour period</td>
<td>2012</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Illegal, right to refusal without retaliation</td>
<td>12 consecutive hours</td>
<td>2002</td>
</tr>
<tr>
<td>Missouri</td>
<td>Illegal for licensed practical nurses only</td>
<td>None</td>
<td>2006</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>Illegal, right to refusal without retaliation</td>
<td>12 consecutive hours</td>
<td>2008</td>
</tr>
<tr>
<td>New Jersey</td>
<td>Illegal</td>
<td>Hours per week cannot exceed 40</td>
<td>2002</td>
</tr>
<tr>
<td>New York</td>
<td>Illegal</td>
<td>None</td>
<td>2008</td>
</tr>
<tr>
<td>Oregon</td>
<td>Illegal</td>
<td>12 consecutive hours, hours per week cannot exceed 48, shift extension capped at 4 hours even for emergencies</td>
<td>2001</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>Illegal</td>
<td>Extension beyond scheduled shift prohibited except for emergency</td>
<td>2008</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>Illegal</td>
<td>12 consecutive hours</td>
<td>2008</td>
</tr>
<tr>
<td>Texas</td>
<td>Illegal, right to refusal without retaliation</td>
<td>None</td>
<td>2007</td>
</tr>
<tr>
<td>Washington</td>
<td>Illegal, right to refusal without retaliation</td>
<td>None</td>
<td>2002</td>
</tr>
<tr>
<td>West Virginia</td>
<td>Illegal, right to refusal without retaliation</td>
<td>16 consecutive hours, 8 consecutive hours rest required after any 12-hour shift</td>
<td>2004</td>
</tr>
</tbody>
</table>

*Emergency situation exceptions apply.

**SOURCE:** Adapted from J. Haebler, American Nurses Association, personal communication, July 13, 2016.
found a 32% increased risk (incidence rate ratio 1.32) for the overtime group. An increased risk of musculoskeletal injuries such as neck and back strain has been similarly associated with overtime and extended shift length (Bae & Fabry, 2014; Lobo et al., 2015; Olds & Clarke, 2010; Stimpfel et al., 2015).

Olds and Clarke (2010) found a statistically significant increased risk for patient falls with injury (p<0.05) and for nosocomial infections (p<0.01) for nurses working over 40 hours in the average week. Lobo and associates (2015) found significant relationships between overtime and catheter-associated urinary tract infections (OR 4.72) and pressure ulcers (OR 1.91). Bae (2013) found similar trends for falls (OR 3.65) and for pressure ulcers (OR 3.50).

Despite the negative effects of nursing overtime, select stakeholders receive advantages. Healthcare facilities can manage nursing shortages and high census peaks without hiring additional permanent personnel with the associated costs for benefits (Berney et al., 2005; Griffiths et al., 2014), and nurses are able to “make money” (Bae, 2012, p. 69) and eliminate the negative financial impact of flexing down during low census periods (Nelson & Kennedy, 2008). Mandatory overtime restrictions also benefit certain groups: travel nurses and their employers have the potential to benefit from the opportunities created when hospitals turn to this contracted labor pool to manage staffing needs without breaching overtime restrictions (Sederstrom, 2013).

**Current Regulations**

The negative effect of fatigue on performance has been demonstrated in other high-risk industries such as aviation, commercial vehicle transit, and public safety (Lindsay, 2007; Olds & Clarke, 2010). While these industries have work hour regulations, the healthcare sector has been slow to adopt similar regulations (Berney et al., 2005; Lindsay, 2007). Except for work hour restrictions for medical residents instituted by the Accreditation Council for Graduate Medical Education in the early 2000s and several state regulations on nursing overtime or extended shift regulation, overtime in the healthcare industry remains largely unregulated at both the federal and state levels (Berney et al., 2005; Brooke, 2011).

Many state-based nursing associations have been pursuing nursing mandatory overtime regulation since the early 2000s (Schildmeier, 2012). In general, regulations prohibit hospitals and other healthcare institutions such as nursing homes from forcing nurses to work more than their regularly scheduled hours (Bae & Brewer, 2010). As of 2017, 18 states have passed legislation restricting nurses’ mandatory overtime (J. Haebler, personal communication, January 30, 2017). As shown in Table 2, some states have regulation addressing mandatory overtime only, while others include restrictions on shift length and required respite periods. All states exempt these regulatory requirements during emergency or disaster situations, and some states, such as Massachusetts, have defined emergency situations that qualify for the mandatory overtime exemption (“Nursing Practice Alert,” 2013).

Attempts to regulate nursing mandatory overtime at the federal level occurred in 2005 with the introduction of the Safe Nursing and Patient Care Act (H.R. 791). This bill would have prohibited Medicare-participating healthcare facilities from mandating nurses to work more than 12 hours in a 24-hour period or more than 80 hours in a 2-week period except during emergencies or disasters (Gonzalez, 2005). The bill did not progress further through the legislative process and has not been reintroduced to subsequent congressional sessions.

Current attempts to address safe nursing staffing have been approached in two related acts, neither of which specifically restricts nurses’ mandatory overtime or shifts. The first, the Registered Nurse Safe Staffing Act of 2015 (H.R. 2083/S.1132), was introduced in 2007 and reintroduced in 2010, 2011, 2013, and 2015 (Civic Impulse, 2017a). This bipartisan bill would amend Title XVIII (Medicare) of the Social Security Act and stipulates that Medicare-participating hospitals establish a nurse staffing committee comprising a minimum of 55% direct-care nurses and develop staffing plans specific to each unit to provide safe levels of nursing care based on patient population and nurse proficiency (Civic Impulse, 2017a). H.R. 2083 also includes whistle-blower protections and requires public reporting of staffing information, including nursing overtime usage. The second, the Nurse Staffing Standards for Patient Safety and Quality of Care Act of 2015 (H.R. 1602), was introduced in 2004 and reintroduced in 2005, 2007, 2009, 2011, 2013, and 2015 (Civic Impulse, 2017b). This bipartisan bill would amend the Public Health Service Act and require hospitals to establish minimum direct-care registered nurse-to-patient staffing ratios. The bill would allow nurses to refuse any assignment they believe breaches minimum ratios or for which they do not feel prepared, by education or experience, to perform the assignment without compromising patient safety or their own license. The bill would prohibit retaliation or discriminatory treatment by the hospital to the nurse for refusing such an assignment. Neither bill progressed through the legislative process in the 114th Congress.

**Impact of Regulation**

Bae and Brewer (2010) analyzed total nursing hours worked, regular and overtime, including both mandatory and voluntary, in states with and without overtime regulations. Regulations included restrictions on total hours worked per day or per week, banning of mandatory overtime, and nurse right to overtime refusal. Findings indicated states that restricted total hours worked showed more mandatory overtime usage than states that did not, indicating a possible permissive effect for mandatory overtime within capped limits. Voluntary overtime was not similarly affected. Conversely, in a later study, Bae and Yoon (2014) found states with regulations limiting mandatory overtime and consecutive work hours reduced mandatory overtime hours by 3.9 percentage points and the incidence of working more than 40 hours per week by 11.5 percentage points, concluding that both mandatory
overtime and consecutive work hour regulations effectively reduced nurse hours worked. In the analysis of the association between mandatory overtime regulation and outcomes, no effect was shown for nurse injuries, but the regulation of mandatory overtime was associated with statistically significant higher odds of nurse-reported adverse patient events, inferring the same permissive effect in capped-hour states (Bae, 2013).

Conclusion

Nursing overtime, both mandatory and voluntary, is prevalent in the healthcare industry as a solution for managing staff shortages and high census episodes. There is sufficient evidence of the negative impact of this practice on nurse personal wellness and risk for workplace injury, patient outcomes, and nursing turnover to warrant the continued attention of policymakers. Current evidence demonstrating the impact of regulation is limited by the lack of a consistent definition for nursing overtime and by disparate research methodologies. Nurse researchers need to continue to study this topic to advance the body of knowledge and support the development and promotion of effective regulation. Although several states have been successful in regulating nursing overtime and extended shifts, attempts at the federal level have not been successful. Two bills proposed to the 114th Congress had the potential to address the problem through staffing requirements and transparency, but they lacked specific language related to overtime, extended shifts, or respite periods. Neither bill was enacted; either those bills or new bills will need to be introduced to the 115th Congress for further progression. Continued efforts by individual nurses, professional nursing associations, and other vested stakeholders should focus on influencing policymakers through direct personal contact, lobbying, expert testimony, political action committees, policy drafts, alignment with other stakeholder special interest groups, as well as exercising the power of the ballot.

REFERENCES


Brooke, P. S. (2011). Legally speaking ... when can staff say no? *Nursing Management*, 41(1), 40-44. doi:10.1097/01.NUMA.0000391673.35403.4b


Rogers, A.E., Hwang, W., Scott, L.D., Aiken, L.H., & Dinges, D.F. (2004). The working hours of hospital staff nurses and patient safety: Both errors and near errors are more likely to occur when hospital staff nurses work twelve or more hours at a stretch. *Health Affairs*, 23(4), 202-212.


There have been several instances in both written and spoken language in which I have called the safety profession “professionally paranoid.” Later, as I’ve briefed high-reliability theory and operationalization, others have called me and the safety profession “paranoid.” Some mean it as a compliment, a tell-tale of someone doing diligence through each operation. Others mean it quite literally, believing me and the concept of high-reliability to be an act of paranoia, being over the top and a loose cannon. Some have gone so far as to accuse me of being against the very organization I advocate for, as though bypassing safety is a noble act of loyalty to one’s employer.

High-reliability organizations can be distilled down to those who strive to create the safest and most effective operations. They then constantly re-assess these operations for any semblance of the possibility of failure so that concerns can be resolved before an incident occurs, including near-miss events.

High-reliability principles include: preoccupation with failure; reluctance to simplify; sensitivity to operations; deference to expertise; and commitment to resilience. These principles often come across to the uninstructed as abstract concepts, while to others, they counter the very hierarchal structures they’ve known since entering the workforce - healthcare organizations, military, public service, or other organizations.

For example, while organizations are striving to meet customer satisfaction standards, regulatory compliance measurements, and key performance indicators, how exactly does one display preoccupation with failure? What does that look like? Obviously, organizations are much attuned to operations and their outcomes, so how does an organization show sensitivity to operations? If an organization, especially military, fire protection, and law enforcement units, has had centuries of hardwired chains of command, how exactly do these teams learn to defer to expertise when that supposed expert is not the ranking person on the scene? (Christianson, Sutcliff et al., 2011). In short, how does high-reliability become operationalized?

Operationalization

In seeking to operationalize high-reliability theory and to create an organization consistently aspiring to better their operations, the timeline of an incident can be consulted (Worden & Lombardo, 2016).
Within this timeline, all proactive measures such as hazard analyses, information programs, and leading indicators fall to the left of the incident, a phenomenon Riley and Van Horne of the United States Marine Corps referred to as striving to keep all actions to the left of bang (Riley & Van Horne, 2014). All actions falling to the right of the incident are reactive, the actions responding, recovering, and reconstituting from the incident. By placing operational, actionable activities around each element of the incident timeline, high-reliability can transition from an abstract concept to a pragmatic, actionable practice.

Hazard Analysis
Hazard analyses are an ongoing, constant practice of proactive organizations. Without consistent and recurring efforts to identify possible failure modes and means to resolve them, the organization will be vulnerable to unknown hazards and threats. Hazard analyses must first be completed through a process of brainstorming and also through a reactive process to identify failure modes already observed. These analyses must cover possible hazards and threats and who in the organization is vulnerable to the hazard/threat. These hazards and threats can also be assessed by their function of frequency of previous occurrences and possible severity of consequence should the hazard/threat manifest itself. This can help in identifying which hazards/threats are more likely to manifest so that resources can be allocated to them more quickly when budget, manpower, and other constraints are applicable.

With this, the organization has now created a pragmatic means to be preoccupied with failure. Additionally, by gathering information on processes, equipment, and other factors in the workplace, deference to expertise is also now exemplified in an actionable process.

Hazard Controls and Information Programs
Once hazards are analyzed, hazard controls must be put in place for each to prevent or mitigate injuries or damage from the hazard. These hazards must be addressed with the most effective hazard control, starting with elimination and moving on to substitution, engineering, administration, and Personal Protective Equipment if not possible. Additionally, as with any hazard control, training must be provided to ensure all affected employees know how to use the control, where it is located, how to maintain it, and other means to the effective safe operations now enabled by the implemented hazard control.

With these hazard controls now in place and employees trained, an information program – everything from bulletin boards to safety huddles to emails to meetings to training sessions and everything in between – provides consistent and recurring reinforcement of the expectation of the use of the applicable hazard controls. Through these hazard control developments and their associated information programs, the organization has now created a pragmatic means to continue deferring to experts on each process to create the most effective hazard control while also beginning to eliminate in place for each to prevent or mitigate, or to substitute, engineering, administration, and Personal Protective Equipment if not possible. Additionally, as with any hazard control, training must be provided to ensure all affected employees know how to use the control, where it is located, how to maintain it, and other means to the effective safe operations now enabled by the implemented hazard control.

Leading and Lagging Indicators
Leading and lagging indicators are the processes developed to validate whether or not the pre-determined safe processes and hazard controls are being operationally used and whether or not they are operationally effective and as safe as possible. For example, if the determined hazard control for a table saw is to use the machine guard over the point of operation/saw blade, a leading indicator could be an observation to monitor whether or not the guard is being used and also whether or not the guard is providing the proper safety as intended.

In another example, if the determined hazard control for avoiding a needlestick in a healthcare organization is to never recap needles, to never leave needles in an uncontrolled area, and to always safely dispose of contaminated needles in the properly placed disposal container, a leading indicator could be an observation to see if employees are not recapping needles, not leaving needles laying in uncontrolled areas, and safely disposing of needles in the appropriate disposal boxes. Furthermore, another observation could be to check whether the needle disposal boxes are appropriately designed (such as puncture-resistant) and placed (such as appropriate height on the wall).

On the contrary, lagging indicators are the measurements of how many incidents occurred and how bad the consequences were – physically, financially, and otherwise – when the hazard controls and safe work practices were not followed. For example, should the previously discussed machine guard not be used and incidents occur, lagging indicators – those indicators developed and measured after the incident has occurred – could be the number of incidents from the same causal factors, the causal factors themselves – such as lack of training, lack of equipment, human error, or other – financial implications of the incidents, or other. The major difference between leading indicators and lagging indicators is that a leading indicator provides critical data that can be used to prevent injuries, while lagging indicators can be used to prevent future injuries, but only based on data derived from injuries having already occurred.

In terms of high-reliability operations, leading and lagging indicators again allow for deference to expertise in that those most knowledgeable of the tasks at hand should be consulted to determine which indicators to determine, measure, and analyze regardless of rank, title, or position. Additionally, indicator development allows for
sensitivity to operations in that these indicators should be developed to capture data during normal operational tempos so as to not interrupt workflows and while allowing for a commitment to resilience.

Lagging indicators, despite an incident having occurred, allow for resilience from the incident and a means to determine what went wrong, whether the safe process and hazard controls were followed/used, whether the safe process and hazard control was sufficient, or if another culprit was at hand in causing the incident. In either case, a thorough investigation into the incident based on the applicable lagging indicators allows for a pragmatic means to operationalize the appropriate high-reliability concepts and to use them to benefit safety throughout the organization.

In Conclusion
Ultimately, high-reliability organizations must understand and implement high-reliability principles as a real-world, pragmatic, operationalized part of their operations. These must exist in every part of the operation, every day. There cannot be a once-a-year safety stand-down. These high-reliability facets must be in effect every day during every operation with every employee. The line employee must have just as much influence on the safety of a process as the general manager, especially as a subject matter expert. There is a great deal of swallowing pride that goes into high-reliability concepts. Without it, the concept cannot become realized. However, when realized, it can create a safety culture above and beyond all else.

References
Statins Affect Skeletal Muscle Performance: Evidence for Disturbances in Energy Metabolism

By Neeltje A. E. Allard,1 Tom J. J. Schirris,2,3 Rebecca J. Verheggen,1 Frans G. M. Russel,2,3 Richard J. Rodenburg,3,4 Jan A. M. Smeitink,3,4 Paul D. Thompson,5 Maria T. E. Hopman,1 and Silvie Timmers1
Julie Schmid Research Scholarship
The Association of Occupational Health Professionals in Healthcare invites proposals for an original research project on current and/or anticipated issues in hospital or healthcare-related occupational health. The Research Scholarship Award is $2,000. Proposals from non-members are welcome. 

The proposal deadline is July 1. Visit the AOHP website for more information at www.aohp.org.

Other Awards and Scholarship Offerings
AOHP proudly offers several additional opportunities for members and non-members alike. Do you or someone you know deserve to be nominated? Do you want to earn a free conference registration to attend the 2018 National Conference? Nominate someone or apply TODAY!

- **AOHP Business Recognition Award** – Recognizes a business(es) that supports occupational health professionals, and their membership and participation in AOHP. Nominations close July 1.
- **Honorary Membership Award** - Recognizes a person(s) who is supportive of AOHP and has made a significant contribution to the field of occupational health in healthcare. Nominations close August 15.
- **Joyce Safian Scholarship Award** - A $500 scholarship to be used for educational purposes. This scholarship recognizes a past or present association officer who best portrays an occupational health professional in healthcare role model. Nominations close July 1.
- **National Award for Extraordinary Member** - Recognizes an association member who has demonstrated extraordinary leadership in the field of occupational health in healthcare. Nominations close July 1.
- **Sandra Bobbitt Continuing Education Scholarship** - Provides annual continuing education scholarships to subsidize the educational efforts of members. Nominations close June 1.
- **Ann Stinson President’s Award for Association Excellence** - Recognizes a chapter which has demonstrated outstanding performance and enhanced the image of occupational health professionals. Nominations close July 1.

Consider applying for the AOHP awards and scholarships available to you. Learn more at http://www.aohp.org/aohp/ABOUTAOHP/AwardsScholarships.aspx.
Journal of the Association of Occupational Health Professionals in Healthcare

WHILE YOU LOOK AFTER OTHERS, WHO LOOKS AFTER YOU? We do.

AOHP Headquarters
Annie Wiest, Executive Director
125 Warrendale Bayne Road, Suite 375,
Warrendale, PA 15086
(800) 362-4347; Fax: (724) 935-1560
E-mail: info@aohp.org Web: www.aohp.org

AOHP Executive Board of Directors
Executive President: Mary Bliss
dmbliss@gmail.com
Vice President: Lydia Crutchfield
lydia.crutchfield@carolinas.org
Executive Secretary: Stacy Stromgren
stromgrenAOHP@yahoo.com
Executive Treasurer: Dana Jennings Tucker
jenningsd@craighospital.org

Regional Directors
Region 1: Jill Peralta-Cuellar
jperalta@svmh.com
Region 2: Cory Worden
cory.worden@memorialhermann.org
Region 3: Peggy Anderson
peggy.anderson@beaumont.org
Region 4: Alfred Carbuto
acarburto@montefiore.org
Region 5: Cynthia Hall
cynthia.hall@emoryhealthcare.org

Chapter Presidents
Alabama: – contact Cynthia Hall
California
Northern: Curtis Chow
Curtis.Chow@DignityHealth.org
Southern: Lori McKinster Cox
lorimcmcox@sbcglobal.net
Florida: Susan Davis
SuDavis@mhs.net
Georgia: Roger Burnett
rogerburnett@gmail.com
Heart of America – Kansas City:
Michelle Andra
myandra@cmh.edu
Houston Area: Kathleen O’Neill
katoneil@utmb.edu
Illinois: Lorraine Pacha
pacha@genesishealth.com
Maryland: Tabe Mase
tmase@christianacare.org
Michigan: Christine Schemansky
cschemansky@comcast.net
Midwest States: Lisa Kincaid
lkincia@hendricks.org

New England: Alfred Carbuto
acarburto@montefiore.org
New York – Nassau/Suffolk:
Lorraine Chambers Lewis
llewis@northwell.edu
North Carolina: Jo Ella Waugh
beJoEllaWaugh@aol.com
Pacific Northwest: Rebecca Schirle
rebecca.schirle@kingcounty.gov
Pennsylvania:
Central: Kimberly Kilheeney
kikilheeney@geisinger.edu
Eastern: Alfred Carbuto
acarburto@montefiore.org
Southwest: Megan Kapoika
mkapoika@excelahealth.org
Rocky Mountain:
Rose Rennell
Rose.Rennell@cchwyo.org
South Carolina: E. Denise Smith
edsmith2@lexhealth.org
Virginia: Sarah Parris
sparris@virginiahospitalcenter.com
Wisconsin: Sharon (Sherry) Lemerond
sharon.lemerond@hshs.org

Mission
AOHP is dedicated to promoting the health, safety and well-being of workers in healthcare. This is accomplished through:
• Advocating for employee and safety.
• Occupational health education and networking opportunities.
• Health and safety advancement through best practice and research.
• Partnering with employers, regulatory agencies and related associations.

Advertisement Guidelines
Advertisement guidelines are available from AOHP Headquarters
(800) 362-4347; Fax: (724) 935-1560; E-mail: info@aohp.org.

Subscription Rates
One year (4 issues) $180; back issues when available, $55 each

Membership/Subscriptions
Address requests for information to AOHP Headquarters, 125 Warrendale Bayne Road, Suite 375, Warrendale, PA 15086;
(800) 362-4347; Fax: (724) 935-1560; E-mail: info@aohp.org.

Upcoming AOHP Conferences
2018 – September 5-8, Glendale, AZ
Always feel confident about the next step.

The complexities of Occupational Medicine make for some imposing terrain. Agility® delivers specialized documentation that supports the most rugged claims, billing, invoicing, and employer reporting scenarios you can imagine. Combined with efficient workflow and expert coaching, there’s nothing to knock you off balance.

Learn more at nethealth.com/see-Agility

Agility
Employee Health
Urgent Care
Occ Med
MARK YOUR CALENDAR!

AOHP 2018 National Conference

September 5 - 8, Glendale, AZ
Occupational Health A-Z