Climate change will compromise global agricultural production and working outdoors. The story, Outdoor Workers Vulnerable to Climate Change, begins on page 3.

Lead Standards Studied for Health Impacts at COEH Symposium

A total of over 2,200 viewers have visited the webinar series from COEH’s Continuing Education symposium on workplace lead exposures led by Director Barbara Plog, with assistance from the California Department of Public Health (CDPH).

The one-day science symposium held in November 2013 in Berkeley, California, distilled the latest information on the occupational health risks of low-level lead exposures. The five-part video series is available to the public online at UC Berkeley Events.

Dr. John Howard, director of the National Institute for Occupational Safety and Health, moderated the highly successful event attended by approximately 335 participants from varying time zones in 22 states, the District of Columbia, Canada, and Germany. Guests took part in person or by live webcast. More than 60 registered to watch as groups, multiplying outreach.

The audience represented a cross-section of public health professionals from industry and government, including practitioners of clinical medicine and industrial hygiene.

“We’re excited that we reached so many people with new, breaking information in the field,” said Plog, who timed the symposium to address mounting evidence by Dr. Michael Kosnett, Barbara Materna, and others at the symposium that underscores the toxicity of lead at low doses. Kosnett is an adjunct associate professor of Environmental and Occupational Health in the University of Colorado’s School of Public Health and Materna is chief of the CDPH Occupational Health Branch.
The California Air Resources Board is charged with overseeing the state’s implementation of AB32’s mandate to mitigate climate change with concrete policies. These policies include energy conservation, a renewable electricity generation goal (33 percent by 2020), the reduction of high impact greenhouse gases, a technology-forcing advanced clean cars program, a low-carbon fuel standard, a cap-and-trade program to put a price on carbon emissions, and a sustainable communities strategy to reduce suburban sprawl and vehicle miles traveled. As a member of the Board since January 2008, I have had the opportunity to participate in the public debates about the implementation of these programs and am quite proud of how various stakeholders in California have come together to advance our state’s efforts to prevent severe climate change. Since California is leading the nation, if not the world, it can tend to give one an overly optimistic view of the future.

However, the newest Intergovernmental Panel on Climate Change (IPCC) report on health impacts that is discussed in this issue of Bridges provides a sobering reality check. COEH faculty member Kirk Smith, one of two coordinating lead authors of this IPCC report, is currently hampered by inadequate data on the frequency of, and risk factors for, these disorders. The potential impacts of workplace heat exposure are significantly underestimated due to the underreporting of heat-related illnesses. In addition to better surveillance data, more research is needed to quantify the extent to which high-risk manual workers are physiologically and psychologically affected by workplace heat exposure. How workers try to behaviorally adapt to extreme heat environments is another research question for which more data are needed.

With climate change driving increasing frequency of extreme heat days, efforts to both characterize the magnitude of the problem of work-related heat stress and develop policies to prevent it are increasingly imperative. Thus, I am proud to see that COEH members are doing critical work in both of these areas. In this issue of Bridges you can read about how UC Davis research team is characterizing farm worker heat stress and how an LOHP team is leading a campaign to educate California’s outdoor workers about what they can do to prevent heat-related illness. Additionally, the theme of this year’s COEH annual symposium on Friday, May 9, 2014, is about the occupational and environmental health impacts of climate change. We hope to see many of you at this event.

As time goes on, there will be more and more places in the world where you can’t work safely outdoors for a big part of the year, which results in a loss of productivity. Or an increase in health effects. Or both. You already see deaths from heat stroke, for example, in Central Valley and Central American farm workers,” says Smith.

The report, Climate Change 2014: Impacts, Adaptation and Vulnerability, focuses on three distinct time windows. “We are seeing anything up to two to three decades that can be associated with human-induced climate change, period one – up to mid-century and period three – past mid-century until year 2100,” asks Smith.

“Important to frame these three periods in the climate change story, the climate may happen among them. You can’t go back and change the past,” he adds. “If you change what you do now, however, you start to see big changes about how much warming there will be in the world past mid-century.”

Another emphasis of the new report is the attention to what Working Group II calls detection and attribution. Take an increase in tropical cyclones, says Smith. “Can we detect a signal appearing out of the noise, i.e., is the trend increasing beyond natural variations at the 95 percent confidence level?” The second question is attribution. “If you do see a change, is it due to human causes? To actually say that we are seeing more drought-related deaths, for example, or outside the range of natural variability, and then to say those are due to human-caused climate change, that’s a very strict criterion.”

The IPCC concludes that until year 2050 climate change will act mainly by exacerbating existing health problems. “Out to the period 2050, if things continue the way they are going – and there is no sign they’ve not – the signal starts appearing out of the noise. If we don’t alter what we do, it’s very likely we’ll see an increase of health effects due to climate change. Not so dramatic that we couldn’t actually get ready for them through adaptation.”

Climate change is an incentive for providing basic public health services, argues Smith, such as clean drinking water, food security, and social safety nets for the poor, emergency warning systems, vaccinations, and vector control. “These could greatly buffer our vulnerability against the health impacts of climate change. But beyond the year 2050, in my opinion, is the most important reason to be worried about climate change. The world could be more stressful and risky for a lot of people, a place where there are not many conceivable adaptations.”

Smith notes one of largest potential impacts of climate change is on nutrition. “It’s pretty clear that there will be major impacts on agricultural production differentially around the world by 2050, but agricultural production is not equivalent to nutrition. Even in 2050, with impacts to the agricultural system, there will plenty of food around the world if we distribute it correctly. But we likely will not. On one hand, do we blame climate change, or do we blame poverty and poor governance? It’s hard to estimate how well the world will get its act together and provide that safety net. If we do, the impacts could be low. If we don’t, they could be very high.”

The IPCC honored Smith as one of roughly 800 authors worldwide who contributed to the Fourth Assessment Report published in 2007, which led to IPCC’s shared Nobel Peace Prize with Al Gore and Prof. H. E. Schellnhuber.


If climate change continues as projected by the Intergovernmental Panel on Climate Change (IPCC), by mid-century, high temperatures and humidity may cause more extreme events that could characterize global agricultural production and working outdoors, according to the report from IPCC’s Working Group II released on March 25 in Yokohama, Japan. The IPCC identifies lost work capacity and reduced labor productivity in vulnerable populations among the top impacts from global warming if no major mitigation efforts are taken.

Agricultural and construction workers are some of the most highly exposed, say climate change experts from Working Group II led by Kirk Smith, one of two coordinating lead authors of the health impacts chapter. Smith is associate director for International Programs for COEH, professor of Global Environmental Health, director of the MS program in Global Health and Environment in the UC Berkeley School of Public Health, and the recipient of the 2012 Tyler Prize for Environmental Achievement.

“It’s important to frame these three periods in the climate change story, the climate may happen among them. You can’t go back and change the past,” he adds. “If you change what you do now, however, you start to see big changes about how much warming there will be in the world past mid-century.”

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UC Davis Helps Farm Workers Avoid Heat Illnesses

The heat index hovered between 100 and 110 degrees on the tobacco farm on August 1, 2006, the day Juan Jose Soriano, a 44 year old Hispanic worker, told his supervisor he was not feeling well at around three in the afternoon. Driven home by the farmer, he fell unconscious by 3:45 p.m. on the steps of his house and was pronounced dead less than five minutes later by emergency medics. The father of five had been in the United States 11 days.

From 1992 to 2006, a total of 68 crop workers died from heat stroke, a rate nearly 20 times greater than for all U.S. civilian workers. Though regulations have been implemented in some states to protect workers, a significant number of heat illness injuries and fatalities still occur each year.

Currently, scientists from UC Davis are studying physiological responses to heat and physical work in inland valley field workers. They also seek to understand the social and cultural influences that affect farm workers’ behaviors and how they relate to heat illness. Their goal is ensure agricultural workers have the safest possible working conditions in a region where temperatures often exceed 100 degrees during summer and fall harvest.

The California Heat Illness Prevention Study (CHIPS) is a 5-year project sponsored by the National Institute for Occupational Safety and Health led by principal investigator Dr. Marc Schenker, the director of COEH at UC Davis and the associate vice provost for Outreach and Engagement. He also directs the Western Center for Agricultural Health and Safety (WCAHS) and the Migration and Health Research Center and co-directs the Center of Expertise on Migration and Health.

In focus groups organized by California Institute for Rural Studies, a partner on the project, farm workers confirm they had heat illness training, but if it is only once a year they forget most of it, according to study co-investigator Diane Mitchell. Many immigrant Mexican workers said they do not trust drinking water provided by their employer and want commercial water in bottles they can open, revealing a lack of trust. Verbal information is better than written, they added. Feedback from these focus groups will help Teresa Andrews from WCAHS improve outreach and education. Another main aim of CHIPS.

Epidemiology doctoral student Alondra Vega is testing how different clothing worn in the fields affects comfort, air flow, and body temperature. Some workers, for example, believe layers offer the best protection. Her data collection method will use ingested body sensors to assess core temperature and cooling due to sweat evaporation under variable conditions to recommend how farm workers can dress optimally for the heat.

The links between kidney disease and heat exposure will be examined by researcher Sally Moyce, a doctoral student in the Betty Irene Moore School of Nursing at UC Davis. She is basing her work on the known association of heat exposure and kidney disease, and an emerging epidemic of kidney failure among agricultural workers in Central America thought to be related to heat exposure.

Co-investigators of the study include Dr. James Jones, a professor in the UC Davis School of Veterinary Medicine and Gail Wadsworth, Executive Director of the California Institute for Rural Studies, COEH faculty Deborah Bennett, associate professor in the Department of Public Health Sciences and Daniel J. Tancredi, assistant professor of Pediatrics.

The Labor Occupational Health Program (LOHP) will coordinate a media campaign this summer to prevent heat-related illness among California’s outdoor workers. Now in its fifth year, the media campaign will include billboards and other outdoor ads as well as radio. LOHP will arrange media placement and coverage in inland areas of the state.

The campaign began in 2010 when the Department of Industrial Relations contracted with the University of California to develop and implement a multi-level social marketing effort that included media, training of trainers’ programs, and outreach and training to non-English-speaking workers, their employers as well as their families, local organizations, and communities. Cal/OSHA’s comprehensive campaign also included enforcement activities and education and outreach.

View campaign materials and ads at http://www.9Kcalor.org.

Heat Stress Prevention a Priority at LOHP

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UFCSF Continuing Medical Education
Focuses on Controlling Infectious Disease

Dr. Paul Blanc kicked off the UFCSF Department of Medicine Continuing Medical Education (CME) course on "Occupational and Environmental Factors in Infectious Disease" on March 7, 2014, at the Holiday Inn Fisherman’s Wharf in San Francisco, California. The course for the faculty provided updates on the latest "Advances in Occupational and Environmental Health" on the following two days, March 7-8.

Dr. Blanc, professor of medicine, endowed chair, and division chief in Occupational and Environmental Medicine at UCSF co-chaired the event with Dr. Robert Kosnik, professor of medicine and medical director of UCSF’s Occupational Health Services that provides care for UCSF employees and hospital workers.

The course attracted policy makers and leaders from state and federal government including Gina Solomon, deputy secretary for environment and health at the California Environmental Protection Agency; Deborah Gold, deputy chief of Health and Environmental Protection for the Division of Occupational Safety and Health in the State of California Department of Industrial Relations; Dr. Robert Harrison and Dr. Dennis Buettner, past directors, California Department of Public Health Occupational Health and Safety, and Dr. Bruce Bernard, Captain, U.S. Public Health Service and chief medical officer, Occupational Safety and Health Service.

Citing evidence from the CDC that condoms are highly effective in preventing the sexual transmission of HIV and other STDs, Bernard emphasized that sex workers still engage in transactional intercourse without a condom under financial pressures because clients demand this. Sexual minorities, drug users, and those having experienced violence are less likely to use a condom, and sex workers who solicit indoors in brothels are more likely to use condoms compared to those who work on the street. "The use of either straight or gay adult films can be problem-ridden," according Bernard’s review.

Turning his focus to disease prevention, strategies, Dr. Bernard addressed California State Bill AB 1576, introduced in January 2014. This legislation seeks to prevent the spread of sexually-transmitted diseases within the adult film industry. This is particularly relevant to Los Angeles, California, which is the site of the largest adult film production worldwide, employing 12,000 workers and 1,500 performers, according to data reported by Bernard.

The UCLA course was supported in part with funding from the Center for Occupational and Environmental Health, which is part of its Institute for Medical Education outreach in occupational and environmental health.

For Dr. James Craner, growing up in northern New Jersey influenced his choice at an early age to become an environmental and occupational medicine physician. "I count myself as one of the few people who chose this specialty as the reason to enter medicine as a profession," says Craner, an assistant clinical professor in the Division of Occupational and Environmental Medicine at the UFCSF School of Medicine since 1995.

Dr. James Craner in his Nevada office and clinical images from Nevada’s mining industry. ©yankle tanks and a crane plant.

He encountered urban environmental pollution at a time when it was just becoming a prominent social issue, in particular, hazardous chemical waste. As a teenager growing up in densely populated Union County, NJ, Craner became actively involved in solid waste recycling. He successfully built a profitable recycling program through his high school and later founded and headed his town to one of the first curbside recycling programs in the state. In April 1980, as a high school senior, Craner vividly recalls the massive explosion and fire that erupted at the Chemical Control site in nearby Elizabeth, New Jersey, where over 35,000 drums of unlabeled chemical waste were stored. The plumes of black smoke that spread over a 15 mile radius led to school closures and quickly became a national news event that fostered what would eventually become the US Environmental Protection Agency’s Superfund program.

While an undergraduate at Princeton University, Craner continued his environmental activism, which sparked his academic interest in chemistry and the burgeoning field of environmental studies. At age 19, he became the youngest member of the Board of Directors of the New Jersey Environmental Lobby, a non-profit citizen’s organization. Through his role with the Board and other environmental organizations, he became involved in the "AIDS in the Workplace" movement, which resulted in the passage of the New Jersey Worker and Community Right to Know Act in 1983 — the first law of its kind, and the enactment of which Craner, then a resident at the University of Medicine and Dentistry of New Jersey, worked to create. This law state was the precursor to the corresponding Occupational Safety and Health Administration's (OSHA) right-to-know provisions.

"These industries have struggled with effectively complying with performance-based health regulations such as those for lead, silica, and noise," observes Craner, who has focused his career on clinical services to protect and monitor their employees’ health, and consultation for compliance program development, training, exposure control, and hazard assessment.

While at Princeton, Craner’s senior thesis involved the legal issues that gave rise to the creation and distribution of material safety data sheets—a right that today is utilized in workplaces and communities throughout the United States and other industrialized nations.

In recent years, Craner has collaborated with COEH and the UCSF Occupational Medicine residency program by educating students and faculty about the diagnosis and prevention of occupational diseases like silicosis and lead poisoning that Craner says “most occupational medicine physicians have never seen because they were supposed to be outlawed” by the health and safety laws passed over 30 years ago. He has hosted four US site visits to northern and southern Nevada, giving faculty and residents a first-hand glimpse into the complex world of mining, fire assaying and flux production, lead shot production, casinos, and other Nevada-based industries.

In 2012, Dr. Craner was invited to serve as the Nevada representative to the COEH Advisory Committee. He developed and chaired a COEH Continuing Education webinar series on Mining Health and Safety that was offered in the spring of 2013.

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1978 was groundbreaking in its time, The Federal OSHA lead standard in continuing from the front page Lead Standards Studied for Health Impacts at COEH Symposium years later, it is widely considered out concentration of 0.5 – 2.1 micrograms Permissible Exposure Limit (PEL) link to neurological lead exposure to neurological and reproductive health effects. CDPH recommends “air lead levels in the workplace must not exceed an 8-hour time-weighted average concentration of 0.5 – 2.1 micrograms lead per cubic meter of air,” which significantly lower than OSHA’s current permissible exposure limit of 50 micrograms per cubic meter as an 8-hour, time-weighted average. Kathleen York explained the California Environmental Protection Agency’s (Cal/EMA) physiologically-based pharmacokinetic modeling of the air lead and blood lead-level relation- ship. York, a research scientist in Cal/ EMA’s Office of Environmental Health Hazard Assessment, highlighted how the Leggett Model characterizes the way humans absorb, distribute, and eliminate lead over time based on published findings from occupational studies.

Calling the symposium an “historic day,” Dr. Howard closed the event by facilitating a Question and Answer session where scientists and policy makers fielded questions specific to the public health consequences of low-dose lead exposure in the workplace. Questions were taken from both the in-person and on-line audiences.

Both are graduates of COEH training programs. The Federal OSHA lead standard in 1978 was ground breaking in its time, said Materna. But now, more than 30 years later, it is widely considered out of date and insufficiently protective. Materna presented the health-based Permissible Exposure Limit (PEL) for lead recommended by the CDPH based on government agency reviews linking lead exposure to neurological and reproductive health effects.

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Small Businesses Learn Injury Prevention Practices from LOHP

Lien (TJ) Tran worked for two years as a flight surgeon for the U.S. Air Force before starting her Occupational and Environmental medicine residency at UCSF in June 2013. Stationed at Fairchild Air Force Base in Spokane, Washington, TJ was the Squadron Medical Element (SME) for the 92d Air Refueling Squadron. His responsibilities included providing medical support service to all flyers and their families.

Hundreds of small businesses from across California are taking advantage of the Labor Occupational Health Program’s (LOHP) half day training workshops designed to help owners and managers develop their Injury and Illness Prevention Programs (IIPP).

To date, 165 participants representing 131 different businesses or work places have been trained. By July 2014, LOHP will deliver a total of 16 workshops in the cities of Stockton, Salinas, Bakersfield, Fresno, Sacramento, Vacaville, Pleasanton, Oakland, Monterey Park, Santa Ana, and more.

Organizer and trainer Robin Dewey notes the diversity of work settings represented at the training, such as auto body shops, hair salons, restaurants, and light manufacturing businesses with 10 to 50 employees. Dewey, coordinator of public programs for LOHP, likes to structure the program to encourage group interaction. Participants learn from each other, she says, brainstorming ideas to address hazards specific in their workplace.

Group involvement really made the information pop,” confirmed one participant.

“A flyer is anyone who has wings,” says TJ. Flyers include fixed and rotary wing pilots, “boomers” or boom operators, “jumpers” or troops who are parachutists, and other personnel with aeronautical rating. “The planes we flew refuel other planes in the air and our motto is ‘Danibus Damus-We Give So That You May Give,’” adds TJ. As part of a team of four flight surgeons he was deployed every two to three months. He earned his air and achievement medals on his second deployment.

As a flight surgeon, TJ recognized that occupational and environmental factors weighed into many of the health issues he saw in clinical practice. When the troops who refueled the jets complained of back pain, for example, TJ and his team came up with ergonomic solutions to resolve the problem. While deployed to remote military locations, he worked closely with public health officials and bioenvironmental engineers to ensure the purity of food and water for service members.

Conducting hearing conservation programs for aviation and machine shop workers, toxicology investigations related to environmental and occupational exposures like jet fuel, and conducting Initial Flying Class exams for those who enlist to become flyers, helped prepare TJ for his chosen career.

“When I decided to look around for an occupational medicine residency, my preference was the West Coast, somewhere with nice weather, and I was fortunate to learn UCSF offers this specialty,” says TJ. A California native, he chose UCSF because it was close to family and is a renowned institution. “If I gave him the chance to learn from experts like Dr. Paul Blanc and Dr. Robert Harrison, whom he calls “grand masters” of the field. Eventually I will head back to the military,” notes TJ, “but if any issues arise I know I have friends at UCSF like Paul and Bob to refer back to for help.”

When TJ completes his residency in June 2015 and returns to the US Air Force, he plans to obtain his pilot’s license. He admits willingly, “I’m really passionate about flying.”

Alumna Profile: Assistant Professor Carisa Harris-Adamson

It was while treating physical therapy patients in occupational health and orthopedic clinics that Carisa Harris-Adamson became convinced of the critical role musculoskeletal injuries play in worker health. “I really felt I wanted to learn more about preventing injuries in the workplace,” says Harris-Adamson. She fortunately followed her instincts and in 2011 added a PhD in Environmental Health Sciences (EHS) from UC Berkeley to her academic degrees of Master of Science, Physical Therapy, and Master of Arts, Kinesiology.

Now, as an assistant professor of physical therapy at Samuel Merritt University, Harris-Adamson teaches biomechanics, kinesiology, and research methods to doctoral students. She believes physical therapists (PTs) have a lot to offer in the multidisciplinary field of occupational health. Currently, her students are conducting a movement analysis project to assess work-related risks in different occupations. “It’s my way of opening their eyes to workplace exposures,” notes Harris-Adamson.

“Although PT students are taught to ask about people’s work, they don’t always think about how the biomechanical risk factors that people are exposed to may contribute to their condition. That’s what I’m really passionate about,” adds Harris-Adamson. “Regardless of whether they are going into occupational health or not, they are going to be treating people who have exposures in the workplace, so hopefully they will be more adept at helping them.”

Harris-Adamson sees her career in two waves—one teaching and the other research. A half-time post-doc appointment in UC Berkeley at EHS allows her to pursue her award-winning contributions to science. As a PhD student, Harris-Adamson’s San Francisco study of blue-collar workers with wrist tendinitis earned her first place for Best Paper at the international conference on the Prevention of Work-related Musculo-Skeletal Disorders, or PREMUS. In 2013, Harris-Adamson received Honorable Mention for the M. Donald Whorton Writing Award from COEH. Previously, she won Best Student Paper at the Human Factors and Ergonomics Society Conference in 2011.

Next on her research agenda is a project examining biomechanical exposures affecting hotel room cleaners. Also in the works is a paper on the risk factors for carpal tunnel syndrome with

Here’s how participants described LOHP’s workshop:

“Group involvement really made the information pop.”

“Excellent program. This brings life to our current IIPP.”

“This really made me examine what we do compared to what needs to be done.”

Title 8 of the California Code of Regulations requires every employer to develop and implement an effective IIPP. But for multitasking small business owners, the responsibility can be daunting. They often tell Dewey they have an IIPP, but it sits shelved and unused. That is where the workshop comes in. Dewey and her co-trainer from Cal/OSHA Consultation Service help them tailor an action plan to begin implementing their IIPP. To learn more about LOHP training for small businesses, visit http://lohp.org/iipp or e-mail Robin Dewey at rdewey@berkeley.edu.

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Chronic obstructive pulmonary disease (COPD) accounts for 12 percent of all disability-adjusted life years lost world-wide according to the 2010 Global Burden of Disease report. Approximately 15 percent of cases are linked to occupational exposures such as dust and fumes in the workplace. Auto workers are particularly at risk of COPD when metalworking fluids used during manufacturing become aerosolized, inflaming airways and irritating lungs.

In a new study, researchers at UC Berkeley have found that lowering the recommended occupational exposure limit to aerosolized metalworking fluids may be an effective intervention to save lives. Though the National Institute for Occupational Safety and Health recommends an average daily exposure limit of 0.4 milligrams per cubic meter, the recent analysis found no sure limit of 0.4 milligrams per cubic meter, the recent analysis found no evidence supporting a threshold below which exposure is safe.

Sally Picciotto, assistant researcher and lead author of the study published in the journal, Epidemiology, examined a longitudinal cohort of over 38,500 auto workers followed for COPD mortality. “We wanted to frame our research question from a perspective of occupational health protection. How many years of life could have been saved if we had set the recommended exposure limit at different levels?”

“We sometimes struggle to make the results of our studies relevant to policy makers,” says Picciotto. “With this framework, we have a number they can understand and our results are easy to interpret.”

She measured the impacts of lowering the occupational exposure limit for particulate matter less than 3.5 microns in diameter using three types of aerosolized metalworking fluids: straight or oil-based, soluble, and synthetic.

“For each fluid type, we could have saved many years of lost life from COPD had we banned it. For soluble fluids, we could have saved 3,800 years of life from COPD mortality. For straight fluids, we could have saved 4,600 years of life. For synthetic fluids, we could have saved 1,700 years of life,” says Picciotto.

Lowering the limits for all three fluids would have been less effective than a ban. Picciotto notes banning all three fluids is not realistic, but if the use of respiratory strategies were enforced, workers would not be breathing the aerosolized contaminants around them.

“From a methodological perspective, “says Picciotto, “we were also interested in addressing the healthy worker survivor effect. With COPD, because it’s a highly symptomatic and debilitating disease, the people who suffer from it have to leave work permanently and therefore stop accumulating exposure. But others who don’t happen to get sick remain at work longer and may, thus accumulate more exposure.” Most statistical analyses would then find that exposure was protective, because the healthier workers were more exposed and the least healthy workers were less exposed.

In studies of COPD, this healthy worker survivor effect can muddy the association between occupational exposure and disease. “This is a very real problem for every occupational study that looks at cumulative exposure.” Their study, therefore, used a statistical method that could avoid this bias.

Co-authors from UC Berkeley include John Balmes, director of COEH; Ellen Eisen, director of the Occupational Epidemiology Program; and Jonathan Chevrier, formerly a research epidemiologist in the School of Public Health and now an assistant professor at McGill University. The study was funded by the Centers for Disease Control – National Institute for Occupational Safety and Health.

AWARDS AND HONORS

Smith Recognized for Achievements in Environmental Toxicology

Martyn Smith was honored with the 2014 Alexander Hollaender Award by the Environmental Mutagenesis and Genomics Society (EMGS) for his contributions to the field of environmental toxicology. The award recognizes outstanding contributions in the application of the principles and techniques of environmental mutagenesis and genomics to the protection of human health. Smith is a professor of toxicology in the UC Berkeley School of Public Health and director of the Superfund Research Program.

Smith’s research focuses on the mechanisms by which a variety of environmental agents—such as benzene, pesticides, and arsenic—exert genotoxic effects relevant to cancer. Many of the major advances in understanding the adverse effects of benzene have been derived from his group’s research. According to the EMGS Awards committee he has been a pioneer in the use of genomic, proteomic, and epigenomic approaches to more fully characterize changes occurring in people exposed to environmental toxicants. His work has also advanced the field of environmental epidemiology by identifying critical pathways involved in carcinogenesis.

In addition to his research contributions, including more than 360 publications, Smith has served as president of the local Genetic and Environmental Toxicology Association, and serves on the editorial board of several journals. He is also involved with health-protective organizations around the world, including the Scientific Council of the International Association for Research on Cancer, that is part of the World Health Organization, and serves on the Advisory Boards of numerous large Centers and Projects in the U.S. and Europe.

Homes Honored for His Book on Migrant Farmworkers

Seth Holmes received the 2013 New Millennium Book Award from the Society for Medical Anthropology for his book, Fresh Fruit, Broken Bodies: Migrant Farmworkers in the United States. The Society established the award to recognize and promote excellence in medical anthropology and impact beyond the discipline of anthropology. Holmes is the Martin Sisters Endowed Chair Assistant Professor in the School of Public Health at UC Berkeley and co-director of the MD/PhD track in medical anthropology coordinated between UC Berkeley and UCSF.

The Society for the Anthropology of Work also honored Holmes with its 2013 Anthropology of Work Book Award.

In Fresh Fruit, Broken Bodies, Holmes examines the social and economic inequalities facing Mexican and Central American migrants based on five years of research in the field. Through the lens of his experiences and the voice of the workers themselves, Holmes explores how these inequalities produce health disparities in the United States. He questions the mechanisms that normalize social and health inequalities and how they play out in the context of Mexico-US migration.
Laura Stock became the executive director for the UC Berkeley Labor Occupational Health Program (LOHP) in November 2013. Formerly the associate director of LOHP, Stock has been working for UC the field of education and training for over 30 years. She earned her MPH from the UC Berkeley School of Public Health in 1983.

While at LOHP, Stock has become a national leader in the field of occupational safety and health. She has a strong commitment to worker-centered training and has partnered with labor unions, worker centers, and small business associations to promote worker participation in the development of safe workplaces. Stock has served as principal investigator for many of LOHP’s programs including the statewide Workers’ Occupational Safety and Health Training and Education Program, and nationally recognized Heat Illness Prevention Campaign.

Stock serves on the California Occupational Safety and Health Standards Board and is a member of the NOISH/HODA committee helping to set the national research agenda for the Health Care and Social Assistance Sector.

IN THE MEDIA

LA TIMES: California Air Resources Board member and COEH Director John Balmes was quoted in the Los Angeles Times on January 23, and on March 25, 2014. The January 23 article provided detailed coverage of the Board’s assessment that, although air pollution has dropped in California over the last decade, smog remains above federal standards in Los Angeles, the San Joaquin Valley, Sacramento, and San Diego. “Of the state’s five biggest urban areas, only the San Francisco Bay Area meets all federal standards for ozone – the worst component of smog.” The March 25 article discusses how the World Health Organization has determined that one in eight deaths worldwide are linked to air pollution. The greatest number of pollution related fatalities take place in Asia due to both indoor (use of biomass burning, cook stoves) and outdoor (vehicles and industrialization) pollution.

IN THE MEDIA continued

IN THE MEDIA

KQED forum with Michael Krasny: Megan Schwarezman joins the March 6 discussion on BPA-free plastics and the latest controversial news of how the plastics industry fights to keep the chemical additives from regulation.

THE NATION: Brenda Eskinsazi and her team received significant coverage in an article in The Nation entitled, “Warning signs: How pesticides harm the young brain.” The story provides an in-depth account of the Center for the Health Assessment of Mothers and Children of Salinas project, or CHAPS, a longitudinal birth cohort study examining the effects chemical exposure on children’s health.

THE LOS ANGELES SENTINEL: Seniors are altering the image of how life after retirement can be lived by actively contributing to community bettering, healthy aging, and social justice. The March 21 LA Sentinel attributes Meredith Minkler as the developer of the California Senior Health, Safety and Physical Activity Leaders Award” along with the California Wellness Foundation. This year’s award recipient, Elizabeth Johnson of Inglewood, was honored at a two day training event in Oakland.

NATIONAL GEOGRAPHIC: Kirk Smith is quoted on March 25, 2014, in National Geographic on the effects of indoor cooking, which is linked to deaths by exposure to air pollution. The WHO reports that based on 2012 numbers, seven million people die each year. The 2012 numbers double the WHO’s previous 2008 estimate. Smith is a COEH faculty member and is the director for International Programs. Smith has been studying the effects of indoor cooking since the 1970s.

CALIFORNIA MAGAZINE: A paper co-authored by Kirk Smith, professor of Environmental Health Sciences in the UC Berkeley School of Public Health, suggests the weather when you were in utero can influence heart disease in later years. The story focuses on 2012 numbers, seven million people die each year. The 2012 numbers double the WHO’s previous 2008 estimate. Smith is a COEH faculty member and is the director for International Programs. Smith has been studying the effects of indoor cooking since the 1970s.

Event Location: University of California, San Francisco Health Sciences West Building, Room 302

Hosted by: The Occupational and Environmental Health Nursing and the Occupational and Environmental Health Programs

We hope that you will be able to join us.

Please RSVP to Sharon Solario: Sharon.solario@nursing.ucsf.edu or (415) 476-1361.

Photo by: Frank Farm
ABOUT COEH
The Northern California Center for Occupational and Environmental Health (COEH), a multidisciplinary program of the University of California at Berkeley, Davis, and San Francisco, promotes health and safety in workplaces and communities by:

- Educating health professionals in epidemiology, ergonomics, industrial hygiene, medicine, nursing, toxicology, and related fields to be leaders in occupational and environmental health.
- Developing new knowledge through an interdisciplinary research agenda focused on preventing illness and injury.
- Responding to the needs of people affected by hazards in their workplaces or communities, with special attention to vulnerable populations.

Through these activities COEH supports federal, state, and local agencies, health and safety professionals, industry, labor, and community-based organizations in their efforts to prevent occupational and environmental disease and injury.

COEH is an Education and Research Center (ERC) of the National Institute for Occupational Safety and Health (NIOSH).