



Collaborative on Health and the Environment eNewsletter - January 2014

Not yet a CHE Partner? Join CHE now Invite a colleague to join CHE Send us feedback

Contents

CHE Partnership Calls and Special Announcements

Working and Regional Group Updates

Announcements and News Highlights

Reports, Resources and Other Updates



Water, water everywhere, but not (clean) enough to drink by Elise Miller, MEd CHE Director

Sometimes it's hard to see how CHE's work of bringing attention the emerging environmental health science links directly with the health of a particular community or population. Over this past week, residents of

Charleston, West Virginia, and others living along the Elk River have experienced firsthand how a major chemical spill, and the lack of knowledge about the toxic effects of that chemical, can impact their health and well-being. Though some of the "do-not-use" bans on water have been lifted in the past couple days, many thousands of people still don't have water with which to cook, bathe or do laundry. Hospitals, restaurants and other businesses have also been significantly disrupted.

Perhaps what is most disconcerting--aside from the state apparently ignoring federal recommendations years ago for stronger oversight of chemical plants--is that almost no toxicological data exists on the chemical of concern, known as "Crude MCHM", which is used in coal processing. In fact, no information is apparently available on its potential carcinogenic effects, mutagenic effects nor developmental toxicity. Some officials have pointed to the median lethal dose, or LD50, for the material as an indicator, but that only tells you what will kill half a rat population when exposed in a lab, not the level of exposure that could make people sick.

So what does this have to do with CHE's work? In short, if we don't have scientific research that is uncompromised by industry ties and fully transparent and available to the public, then we will continue to have public health disasters like the one in Charleston, WV. And if the research we do have on synthetic chemicals used in commerce suggests they can potentially harm human health, then that only strengthens the case that we can't wait for yet another spill to discover once again that what we thought was safe

actually isn't. CHE is committed to ensuring that this information--what we know and don't know and need to know--is prioritized in all levels of decision making from the research that gets funded to the regulations that are needed to protect community health.

Of course, a crisis like this really only points to the most visible and acute situations. Much of the current environmental health science suggests that low-dose, chronic chemical exposures are equally if not more critical in terms of human health because they often fall under the radar. And new studies are published almost daily affirming this. Water contamination, for example, is also become a concern around hydraulic fracking operations. A recent study published in the journal Endocrinology showed that water samples collected at Colorado sites where fracking is underway contain endocrine disrupting chemicals that have been linked to infertility, birth defects and cancer. And <u>four states last week confirmed</u> that the chemicals used in fracking have polluted well-water. These are not immediate disasters like what is happening in West Virginia, but the longterm health consequences could be equally if not more detrimental and costly because no preventive action is currently being taken.

Yes, our work is cut out for us. None of us wants more communities to wake up one day to find they can't drink the water because of chemical contamination. None of us wants environmental contributors to chronic disease to continue polluting not only our water, but our air, our soil, and our bodies and children's bodies.

Given this, we at CHE dedicate ourselves again in the New Year to providing you with opportunities to share and discuss the emerging science and its implications for human health with leading researchers in the field as well as those from other disciplines and backgrounds. We're well aware that collaboration is more essential than ever if we are to leverage our collective intelligence and creativity towards improving public health across the lifespan. And in that light, we are most grateful to get to continue to collaborate with all of you in 2014.

CHE Partnership Calls

CHE Partnership call: Radiation and Human Health: Three Years after the Japan Disaster

Thursday January 16, 2014 at 10:00 am Pacific / 1:00 pm Eastern

RSVP for this call

Radiation has long been identified as a serious risk factor in various human diseases. The earthquake and tsunami in Japan, and the resultant ongoing struggles to contain radiation released from reactors there, has brought radiation to the forefront again. This call will explore the many controversies which persist since the initial disaster: What are the primary risks to human health, of both acute high-level and lower-level exposures? Are there scientifically valid strategies for minimizing harm in those exposed? And how might such disasters best be avoided in the future?

Featured speakers:



Robert M. Gould, MD, graduated from Albert Einstein College of Medicine, and from 1981 until 2012 worked as a pathologist at Kaiser Hospital in San Jose. In 2012 Bob was appointed as an associate adjunct professor in the Department of Obstetrics, Gynecology and Reproductive Sciences at the UCSF School of Medicine, to serve as Director of Health Professional Outreach and Education for the UCSF Program on Reproductive Health and the Environment (PRHE). Since 1989, he has been president of the San Francisco-Bay Area Chapter of Physicians for Social Responsibility (PSR), and in 2003 was president of National PSR, to serve again in this capacity in 2014. Since 1986, Bob has been an active in the Peace Caucus of the American Public Health Association, for which he has been chairperson for numerous years, and in 2009 APHA awarded Bob the prestigious Sidel-Levy Peace Award.



Arjun Makhijani, PhD, president of The Institute for Energy and Environmental Research (IEER), holds a doctorate in engineering (specialization: nuclear fusion) from the University of California at Berkeley. He has produced many studies and articles on nuclear fuel cycle related issues, including weapons production, testing, and nuclear waste, over the past twenty years. Most recently, Dr. Makhijani has authored *Carbon-Free and Nuclear-Free: A Roadmap for US Energy*

Policy. He is the principal editor of *Nuclear Wastelands* and the principal author of *Mending the Ozone Hole*, both published by MIT Press.



Anna O'Malley, MD, graduated from the Medical College of Wisconsin in 2005 and completed her residency in Family and Community Medicine at the University of California-San Francisco in 2008. She was awarded a Bravewell Fellowship in Integrative Medicine, and completed the University of Arizona's Program in Integrative Medicine fellowship in December of 2010. She brings a strong commitment to environmental health and social justice to her integrative primary care practice with the Coastal Health Alliance in West Marin, California.

CHE Partnership call: Chemical and Psychological Stressors and Health Tuesday January 21, 2014 at 10:00 am Pacific / 1:00 pm Eastern *Hosted by the Cumulative Impacts Working Group*

RSVP for this call



A growing body of scientific literature on the influence of multiple, interacting factors on health makes it clear that chemical exposures do not happen in isolation. Recent studies indicate that the combination of toxins and social stressors can have synergistic effects that may contribute to diseases such as asthma, obesity and neurobehavioral disorders. Dr. Rosiland Wright, professor of Pediatrics, Pulmonary, Critical Care and Preventive Medicine at the Mt. Sinai School of Medicine, spearheads seminal research that explores the role of both social and environmental determinants of health with a primary interest in early life

predictors of developmental diseases and disabilities. On this call, Dr. Wright will discuss some of her recent findings on the physiological pathways through which chemical and psychological stressors may influence health and how this research underscores the need for more effective upstream intervention strategies to promote public health.

CHE Partnership call: Nature's Trust: Environmental Law for a New Ecological Age

Tuesday February 4, 2014 at 10:00 am Pacific / 1:00 pm Eastern

RSVP for this call



On this call, Mary Wood, professor at the University of Oregon School of Law and founding director of its Environmental Natural Resources Law program, will discuss her new book, *Nature's Trust: Environmental Law for a New Ecological Age.* Professor Wood will review what is wrong with current environmental law and offer proposals for transformational change based on the public trust doctrine. An ancient and enduring principle, the trust doctrine asserts public property rights to crucial resources. Its core logic compels government, as trustee, to protect natural inheritance such as air and water for all humanity. Professor Wood will speak directly to the interface of science and regulation,

including the importance of the advancement of the precautionary approach through the public trust principle. Joseph Guth, PhD, JD, former legal director of the Science and Environmental Health Network, and Carolyn Raffensperger, executive director of the Science and Environmental Health Network (SEHN), will then participate in a discussion with Professor Wood about environmental law, future generations work and the intersection with the commons.

CHE Partnership call: Endocrine Disruption of the Neuro-immune Interface Wednesday February 19, 2014 at 10:00 am Pacific / 1:00 pm Eastern

RSVP for this call



Building on the January 8, 2014, teleconference featuring Dr. Rodney Dietert (visit the call page and listen to the MP3 recording) on how the developing immune system is a target for endocrine disrupting chemicals, Dr. Jamie DeWitt will discuss how certain cells of the immune system may mediate endocrine signals to direct aspects of brain development. She also will describe scenarios where endocrine disrupting chemicals can alter brain development by changing signals to

the immune cells that can mediate development of sex specificity in the brain.

Special Announcements

Top 10 selections from the last quarter of 2013

For the Top 10 list from the last quarter of 2013, CHE selected several items in which we perceived clusters of news stories -- patterns and connections that we share with our partners and other readers. From changes in flame retardant regulations to endocrine disruptors at fracking sites, from early life exposures and mental health to new actions from the FDA, this list includes environmental health stories that are changing conversations, policy and public health. Comments are welcome. Read the Top 10 list

Recommended videos

In August, CHE compiled a list of videos on a wide variety of environmental health topics for our partners to peruse. Descriptions and links are now posted on a page on <u>CHE's website</u>, with new videos to be added as time and resources allow. Partner recommendations are welcome.

Resources from recent CHE calls:

If you missed any of the following CHE calls, you may listen to MP3 recordings and find supporting materials at the following links:

- January 8, 2014: Endocrine Disruption and Immune Dysfunction
- December 16, 2013: The Ecology of Breast Cancer with Ted Schettler, MD, MPH
- December 10, 2013: <u>The Link Between EMF and Autism? A Conversation with</u> <u>Cindy Sage and Martha Herbert</u>
- December 2, 2013: Chemical Brain Drain: A Conversation with Philippe Grandjean

You can subscribe via podcast to receive notifications of new call recordings added to the CHE archives. <u>View a list of past calls and subscribe to the podcast</u>.

CHE Working and Regional Group Updates

Stay in touch with CHE through social media:

Visit <u>CHE's blog</u> to read recent posts. Visit CHE's <u>Facebook page</u>. Join CHE on <u>Twitter</u>. CHE now tweets during most Partnership calls. Join the online conversation by following CHE on Twitter.

CHE Asthma

~ coordinated by Genon Jensen, info@healthandenvironment.org

~ HEAL welcomes health objective in EU air quality strategy but regrets much else

Last month, the European Commission launched its Communication on the future air quality strategy giving a central place to health but with no clear roadmap for achieving it. It sets a long-term EU objective of not exceeding World Health Organization (WHO) guidelines but offers no timetable for adjusting the law which matters most for health. Read more

NGO assessment of the EU Year of Air

~ Breakfast briefing on lung health in Europe

In December HEAL spoke at a briefing co-organised by the European Voice and the European Respiratory Society (ERS). On this occasions ERS and the European Lung Foundation launched a White Book, 'Lung health in Europe Facts & Figures'. Read more

CHE Breast Cancer

~ coordinated by Michael Lerner and Jeanne Rizzo, info@healthandenvironment.org

~ Occupation and breast cancer webinar series

The Breast Cancer Fund is hosting a virtual study group series on Occupation and Breast Cancer. The next session will be held on February 3, 2014, at 11:00 am Pacific /2:00 pm Eastern, and it will focus on exposures and health concerns among military, firefighters and other first responders. Speakers will include Dick Clapp, professor emeritus at Boston University and adjunct professor at UMass-Lowell, speaking about military exposures and the male breast cancer cluster at Camp LeJeune, and Susan Shaw, professor and founder of the Marine Environmental Research Institute, presenting recent research on exposures and health among firefighters. In addition, Rachel Morello-Frosch, professor at UC-Berkeley; Tony Stefani, retired captain in the San Francisco Fire Department; and Heather Buren, lieutenant in the San Francisco Fire Department, will present the Women Firefighters Biomonitoring Collaborative (a CBCRP-funded project from the 2013 grant cycle).

Register here

CHE Climate Change

~ coordinated by Genon Jensen, info@healthandenvironment.org

~ HEAL's Unpaid Health Bill launched in Romania

Last month HEAL launched the Romanian version of The Unpaid Health Bill at a press briefing in Bucharest. HEAL's report shows that annual health costs due to coal pollution in Romania are the second highest in EU at 6.4 billion EUR. Read more

CHE/SEHN Cumulative Impacts

~ coordinated by Carolyn Raffensperger and Elise Miller, info@healthandenvironment.org

~ Working group call will address chemical and psychological stressors

Tuesday January 21, 2013 at 11:00 am Pacific / 2:00 pm Eastern On this call, Dr. Wright will discuss some of her recent findings on the physiological pathways through which chemical and psychological stressors may influence health and how this research underscores the need for more effective upstream intervention strategies to promote public health.

Read more and RSVP

CHE Diabetes-Obesity

~ coordinated by Sarah Howard, sarhow@gmail.com

~ Call for abstracts: ICE/ENDO

The joint meeting of the International Society of Endocrinology and The Endocrine Society, <u>ICE/ENDO 2014</u>, will be held June 21- 24 in Chicago, IL. Abstract submission closes on January 29, 2014.

~ New articles and research published in academic and scientific journals <u>Toxicity beyond the Lung: Connecting PM2.5, Inflammation, and Diabetes</u>. In the January issue of EHP, investigators tease out some of the complex cellular mechanisms that could explain how PM 2.5 may work with a high-fat diet to cause insulin resistance. Environ Health Perspect.

<u>Urinary Polycyclic Aromatic Hydrocarbons and Childhood Obesity: NHANES (2001-2006)</u>. Total urinary PAH metabolites and naphthalene metabolites were associated with higher body mass index, waist circumference, and obesity in children ages 6-11, with positive but less consistent associations among adolescents. Environ Health Perspect.

<u>Circulating levels of perfluoroalkyl substances and prevalent diabetes in the elderly</u>. PFNA was related to prevalent diabetes in a non-monotonic fashion in this crosssectional study, supporting the view that this perfluoroalkyl substance might influence glucose metabolism in humans at the level of exposure seen in the general elderly population. Diabetologia.

Association between Traffic-Related Air Pollution, Subclinical Inflammation and Impaired Glucose Metabolism: Results from the SALIA Study. Exposure to nitrogen oxides may contribute to impaired glucose metabolism, but the associations did not reach statistical significance so that further studies with larger sample sizes are required to substantiate the findings. PLoS One.

<u>Associations between blood persistent organic pollutants and 25-hydroxyvitamin D3 in pregnancy</u>. Background exposure to PCBs may result in lower 25(OH)D3 concentrations in pregnant women. Environ Int.

CHE Working Group on Electromagnetic Fields

~ coordinated by Antoinette Stein, <u>nettestein@gmail.com</u>

~ Top cell phone radiation safety stories of 2013

Research published last year established greater health risks from exposure to cell phone radiation. Major governmental reports were released, and policies were adopted in Europe and India to reduce risks from cell phone radiation exposure. Read more

~ Cell phones' link to health problems debated

Scientifically, there is no consensus on whether, or to what extent, cell-phone radiation causes harm to humans. Some recent studies have tied phone use to cancer, decreased sperm count, impaired brain development and other maladies, but other research has found no such evidence. In December 2013 a panel of scientists and physicians at the Commonwealth Club in San Francisco discussed cellphones and health. Read more

~ Commentary: Mobile Phones and Cancer: Next Steps After the 2011 IARC Review

Mobile phone use increasingly begins in childhood and will likely extend across the full life span, if this technology is not surpassed by another mode of communication. From the public health viewpoint, the introduction of mobile phones, now used by some 5.5 billion people, represents a massive new exposure for which safety information is needed.

Read more

CHE Fertility and Reproductive Health

~ coordinated by Karin Russ, karin@healthandenvironment.org

~ New articles and research published in academic and scientific journals

Rates and determinants of seasonal influenza vaccination in pregnancy and association with neonatal outcomes. This study and others have shown an association between

maternal influenza vaccination and improved neonatal outcomes, which supports stronger initiatives to promote vaccination during pregnancy. CMAJ.

Perinatal outcomes by mode of assisted conception and sub-fertility in an Australian data linkage cohort. Births after assisted conception show an extensive range of compromised outcomes that vary by treatment modality, that are substantially reduced after embryo freezing, but which co-occur with an increased risk of macrosomia. PLoS One.

Bisphenol A promotes human prostate stem-progenitor cell self-renewal and increases in vivo carcinogenesis in human prostate epithelium. The present findings demonstrate that human prostate stem-progenitor cells are direct BPA targets and that developmental exposure to BPA at low doses increases hormone-dependent cancer risk in the human prostate epithelium. Endocrinology.

<u>Preterm birth linked with maternal phthalate exposure during pregnancy.</u> Researchers report that women with the highest levels of phthalate exposure during pregnancy had up to five times the odds of preterm birth, compared to women with the lowest exposure. Environmental Factor.

Estrogen and androgen receptor activities of hydraulic fracturing chemicals and surface and ground water in a drilling-dense region. The majority of water samples collected from sites in a drilling-dense region of Colorado exhibited more estrogenic, antiestrogenic, or anti-androgenic activities than reference sites with limited nearby drilling operations. Our data suggest that natural gas drilling operations may result in elevated EDC activity in surface and ground water. Endocrinology.

Perfluorooctanoic acid (PFOA) exposures and incident cancers among adults living near a chemical plant. PFOA exposure was associated with kidney and testicular cancer in this population. Because this is largely a survivor cohort, findings must be interpreted with caution, especially for highly fatal cancers such as pancreatic and lung cancer. Environ Health Perspect.

Perfluorinated chemicals studied in breast milk, menopausal women. Two new studies of perfluorinated compounds in women raise concerns. In the first, the longer the women nursed their babies, the higher the levels of certain perfluorinated chemicals in their babies' blood. In the second, higher PFC levels in women were associated with early menopause. Environmental Health News.

<u>Miscarriages increased with high levels of lead in DC water.</u> Late-term miscarriages and spontaneous abortions occurred at an unusually high rate among Washington women from 2000 through 2003 - during the same time frame that lead levels were dangerously high in the drinking water in Washington, DC, a study has found. Washington Post.

<u>Mice exposed to diagnostic ultrasound in utero are less social and more active in social situations relative to controls.</u> These results suggest that fetal exposure to diagnostic ultrasound applied in utero can alter typical social behaviors in young mice that may be relevant for autism. Autism Research.

~ Upcoming conferences

UCLA/LA County DPH/PSR's Reproductive Health and the Environment: Best Practices: The Iris Cantor-UCLA Women's Health Education & Resource Center, the LA County Department of Public Health's Office of Women's Health, and Physicians for Social Responsibility-Los Angeles invite you to the upcoming free Reproductive Health and the Environment: Best Practices conference set for Monday, January 27, 2014 from 8:00 am to 12:00 pm. The conference will bring together health professionals, community activists, researchers, academicians, civic and business leaders, politicians, and government officials to learn about best practices related to research, policy, and community advocacy. Register at: <u>http://www.surveymonkey.com/s/HVT6S56</u>

~ Call for abstracts

The call for scientific abstracts is now open for the 26th Annual International Society for Environmental Epidemiology (ISEE) conference. This year's theme is: "From Local to Global: Advancing Science for Policy in Environmental Health." The meeting will be held in Seattle, Washington, USA on August 24-28th, 2014. Read more

The call for abstracts for the 142nd Annual Meeting of the American Public Health Association (APHA) is now open. This year's theme is: "Healthography: How Where You Live Affects Your Health and Well-being." The meeting will be held November 15-19, 2014, in New Orleans. Deadlines range from February 10-14 depending on topic area. <u>Read more</u>

CHE Healthy Aging and the Environment Initiative

~ coordinated by Maria Valenti, <u>mvalenti@igc.org</u>

~ Upcoming Events

<u>New Partners for Smart Growth Annual Conference</u> February 13-15, 2014, Denver, CO "Building Safe, Healthy, Equitable and Prosperous Communities". Pre-conference on "Advancing Healthy Equitable Food Systems".

Making the Connection 2014: Environmental Health Across the Lifespan

February 28-March 1, 2014, Madison, WI This conference is hosted by the Wisconsin Environmental Health Network. Maria Valenti will present on healthy aging and the environment.

CHE Regional Working Groups Updates

CHE Alaska

~ coordinated by Pamela Miller, pamela@akaction.org

 Working group call: Fire Safety Without Harm: How new flammability standards in California protect the health and environment of Alaskans
Wednesday February 5, 2014 at 9:00 am Alaska / 10:00 am Pacific / 1:00 pm Eastern

RSVP for this call



A number of studies have linked flame retardant chemicals used in home furniture and baby products to human health concerns such as cancer, neurological impairments and fertility problems. In response, California Governor Jerry Brown announced changes to the state's furniture flammability standards in November that would increase fire safety without the use of harmful chemicals. California's standard had become the *de facto* standard for manufacturers across the US and Canada. Will the new standard succeed in shifting

manufacturers to safer ways to achieve fire safety? Why is this an important public health concern in Alaska? Join Arlene Blum PhD, author, mountaineer, and founder of the Green Science Policy Institute, for a discussion of the health effects of flame retardant chemicals and the likely impacts of California's new standard.

CHE HEAL

~ coordinated by Lisette van Vliet, lisette@env-health.org

~ EU environmental assessment law must include fracking, says HEAL New evidence published in December prompted renewed calls from HEAL for the environmental impact assessment to address shale gas fracking in Europe. <u>Read more</u>

~ Public interest groups raise public health and environmental concerns over

potential US-EU trade agreement Organizations from around the world wrote to Ambassador Michael Froman, US Trade Representative and EU Commissioner for Trade Karel de Gucht to express their opposition to the inclusion of investor-state dispute settlement (ISDS) in the Trans- Atlantic Trade and Investment Partnership (TTIP). <u>Read more</u>
Announcements and News Highlights
West Virginia official trust shaky science in rush to restore water service Richard Denison, PhD, Senior Scientist at the Environmental Defense Fund discusses last week's chemical spill in West Virginia and the science behind deciding the water of the Elk River is once again safe to drink. Read more
Study shows fracking is bad for babies This study found that proximity to fracking increased the likelihood of low birth weight by more than half, from about 5.6 percent to more than 9 percent. The chances of a low Apgar score, a summary measure of the health of newborn children, roughly doubled, to more than 5 percent. <u>Read more</u>
*** Environmental Health News (EHN) and its sister site, The Daily Climate, offer a wealth of valuable information each day at no cost to subscribers. The daily email subscriptions and the 350,000-item news archive have recently been supplemented by a Facebook page and Twitter feed.
Environmental Health News: email, Facebook, Twitter and a website archive Visit the website Visit the EHN archives page Sign up for EHN's free weekly e-newsletters focused on children's health and energy and health
Friend EHN on Facebook by searching for Environmental Health News January 2014 issue of Environmental Health Perspectives available online Read more
January 2014 issue of <i>Environmental Factor</i> available online Read more
CHE maintains a <u>news feed</u> of environmental health related news announcements and events collected from a multitude of sources on CHE's website.
Reports, Resources and Other Updates
Health impact assessment of shale gas extraction This report is the summary of a workshop convened in 2012 by the Institute of Medicine (IOM) Roundtable on Environmental Health Sciences, Research, and Medicine to discuss the human health impact of shale gas extraction through the lens of a health impact assessment. Read more
California Safe Cosmetics Program Public Database Search the database for a type of product; a product name; or a brand or company name. Read more

EPA launches new Citizen Science website

The US Environmental Protection Agency has revamped its Citizen Science website to provide new resources and success stories to assist the public in conducting scientific research and collecting data to better understand their local environment and address issues of concern.

Read more

CHE lists hundreds of reports, books, videos, databases and other resources in a searchable <u>Portal to Science</u> on CHE's website.

Thank you for taking the time to read the latest about CHE. As always, we welcome your questions and suggestions. Please direct comments to Elise Miller, Director of CHE, at <u>elise@healthandenvironment.org</u>

Best wishes,

Elise Miller, MEd, Director Steve Heilig, Director of Public Health and Education at San Francisco Medical Society and CHE Erika Sanders, Administrative Coordinator

You are receiving this message because you are subscribed to the CHE National listserv. This message comes to you from the Collaborative on Health and the Environment, online at: <u>http://www.healthandenvironment.org/</u>.

We encourage sharing of resources and welcome recipients of this email to forward it to others. However we do ask that you forward this message in its entirety, complete with its attribution and footer.

Forward email

SafeUnsubscribe"

Trusted Email from Constant Contact Try it FREE today.

This email was sent to erika@healthandenvironment.org by <u>erika@healthandenvironment.org</u> | <u>Update Profile/Email Address</u> | Instant removal with <u>SafeUnsubscribe</u>[™] | <u>Privacy Policy</u>.

Collaborative on Health and the Environment | P.O. Box 316 | Bolinas | CA | 94924