



Collaborative on Health and the Environment eNewsletter - March 2014

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Contents

CHE Partnership Calls and Special Announcements Working and Regional Group Updates Announcements and News Highlights

Reports, Resources and Other Updates



Multiple and Interacting Contributors to Obesity by Elise Miller, MEd CHE Director

The obesity rate for children aged 2-5 years dropped a stunning 43% over the past decade, according to a report published last week by the Centers for Disease Control and Prevention (CDC). This is of course extremely good

news. Researchers, however, are not sure what combination of factors may have contributed to this significant decrease. Some theories are that a number of programs, such as the federally-funded Women, Infants and Children (WIC) initiative, which now subsidizes proportionately more vegetables and whole grains, and First Lady Michelle Obama's "Let's Move" campaign, which focuses on improving exercise and eating habits in child care settings, are making a difference. Others suggest that former New York Mayor Bloomberg's declaration that restaurants should no longer use transfats has played a role or that programs started in the 1980s when people became aware that there was a growing obesity problem are finally having a positive effect on this new generation.

Little public consideration, however, has been given to whether any reduction in chemical exposures might be another factor. A growing body of scientific literature suggests that some synthetic chemicals may contribute to obesity--chemicals now referred to as obesogens. For example, prenatal exposures to BPA (bisphenol-A) have been associated with obesity-related outcomes as well as other health concerns. Because of consumer pressure, BPA has been removed from many baby bottles, cashier receipts, and can linings over the last few years. Notably, during approximately the same period, NHANES (the National Health and Nutrition Examination Survey funded by the CDC) reported a reduction in BPA found in blood and urine.

Another example is perfluorooctanoic acid (PFOAs), which are chemicals found in protective coatings of packaging products, clothes, furniture, and non-stick cookware. These too have been associated with obesity. Heightened media reports on studies linking

teflon and other PFOAs to health problems, like obesity, have also raised strong concerns among consumers. In response, DuPont, a major manufacturer of products with PFOA, has now committed to no longer make, buy, or use PFOAs by 2015. Already, DuPont has significantly reduced its manufacture and use of the chemicals, meaning that human exposure levels have likely gone down.

I could mention other examples, but the point is this: We know that some people who do exercise and make healthy food choices remain obese despite their best efforts. We also know that obesity has multiple and interacting contributors to its onset. What we don't know is whether any decrease in exposures to obesogens may have played a role in the major reduction of obesity in children aged 2-5 years. Given recent scientific studies on obesogens, however, we have a collective responsibility to evaluate and address possible chemical contributors along with the mix of lifestyle factors currently prioritized in order to more effectively protect public health.

Of course, it's easier to tell people they should just exercise more and eat better, than to curb exposures to chemicals that have become the building blocks for so many of our consumer products and are ubiquitous in our air, water, and soil. But this is all the more reason to press for chemical policy reform, catalyze market change, and promote the use of green chemistry--in addition to improving personal behavior.

CHE's particular role in our collective efforts is to bring attention to the emerging environmental health science and to catalyze strategic collaboration in order to bolster all of these critical initiatives. We look forward to continuing to serve you as well as current and future generations in this way.

With warm regards, *Elise*

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CHE Partnership Calls

CHE Cafe call: Dr. Phil Landrigan and Dr. Ruth Etzel on Children's Environmental Health

Thursday March 13, 2014 at 10:00 am Pacific / 1:00 pm Eastern

RSVP for this call

Though a number of books have been written on children's environmental health over the years, *The Textbook of Children's Environmental Health*, published in January 2014, provides one of the most comprehensive overviews of the research and clinical applications to date. The editors of this new volume, Philip Landrigan, MD, MSc, and Ruth Etzel, MD, PhD, have been guiding lights in the burgeoning children's environmental health field over the last three decades. Their efforts to integrate environmental health into medical school curricula, galvanize support for seminal new research, and translate emerging science into more child-protective public health policy nationally and globally have prompted far wider recognition of these concerns. Join this call to hear them discuss their book in greater detail and how it can be used to generate positive action towards improving children's health.

Featured speakers:

Philip J. Landrigan, MD, MSc, the Ethel H. Wise Professor of Preventive Medicine, is a pediatrician and epidemiologist. He has been a member of the faculty of Mount Sinai School of Medicine since 1985 and Chair of the Department of Preventive Medicine since 1990. He was named Dean for Global Health in 2010. Dr. Landrigan is also the Director of the <u>Children's Environmental Health Center</u>. Dr. Landrigan is known for his many decades of work in protecting children against



environmental threats to health. His research combines the tools of epidemiology with biological markers derived from clinical and laboratory

medicine. Dr. Landrigan is deeply committed to translating research into strategies for health protection and disease prevention.



Dr. Ruth Etzel, MD, PhD, has a broad background in public health, with specific training and expertise in pediatrics, preventive medicine, and children's environmental health. After completing a residency in pediatrics, Dr. Etzel was a Robert Wood Johnson Clinical Scholar at the University of North Carolina at Chapel Hill. During 20 years as a Commissioned Officer in the US Public Health Service, Dr. Etzel served in a variety of public-sector leadership positions including US CDC (Founding Chief of the Air Pollution and Respiratory Health Branch), US

Risk Assessment) and US Indian Health Service (Research Director at the Alaska Native Medical Center). Dr. Etzel is the founding editor of *Pediatric Environmental Health* (a 3rd edition was published by the American Academy of Pediatrics in 2011).

CHE Partnership call: Effects of Prenatal Exposures to EDCs on Childhood Development

Wednesday March 19, 2014 at 10:00 am Pacific/1:00 pm Eastern (30 minute call)

RSVP for this call



The next call in this ongoing series addressing endocrine disrupting chemicals will feature Dr. Frederica Perera. Dr. Perera's presentation will review data from a longitudinal cohort study following mothers and children from pregnancy into adolescence. In this study, prenatal exposure to the combustion-related air pollutants, polycyclic aromatic hydrocarbons, is associated with adverse neurodevelopmental outcomes as well as other disease endpoints. Prevention strategies will be discussed.

Special Announcements

CHE Partner Spotlight highlights Vi Waghiyi from ACAT

Vi Waghivi is a St. Lawrence Island Yupik mother and grandmother, Native Village of Savoonga Tribal Member, and Environmental Health and Justice Program Director, Alaska Community Action on Toxics which is also the organizational host of <u>CHE's Alaska Working Group</u>. In this CHE Partner Spotlight, Vi discusses her work addressing environmental contamination and its impact on human health in Alaska. <u>Read the full interview</u>



CHE Director interviewed on NYC-based public radio on health and the exposome

During this interview on WBAI-New York, Elise Miller, CHE's director, discusses how the success in mapping the human genome has fostered interest in mapping the "exposome", a term coined to describe everything a person is exposed to starting at conception and includes lifestyle choices and well as chemical exposures. Elise further explains



to health journalist Liz Seegret how the genome and the exposome, as well as the interactions between them, affect our health across the

lifespan. This interview was based on Elise's "pioneer pitch" to the Robert Wood Johnson Foundation last October in New York City.

Listen to the interview

Read more about RWJF's Pioneer Pitch

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:

- March 11, 2014: <u>The Link Between Arsenic Exposure and Diabetes: A Review of the Current Research</u>
- February 25, 2014: Chemical Trespassers in Your Indoor Air
- February 19, 2014: Endocrine Disruption of the Neuro-immune Interface

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 Facebook page.

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

~ New patient information leaflets: air quality and heart and lung health

HEAL and the EU ESCAPE project recently launched a series of information leaflets aimed at providing individuals, health professionals and heart, lung and asthma patient groups with the latest science-based guidance on how air pollution affects health in Europe, plus prevention tips.

Read more

CHE Breast Cancer

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

~ Web chats available from the Breast Cancer Fund

The Breast Cancer Fund recently hosted two web chats. The first chat features Dr. Ami Zota, Assistant Professor in the Department of Environmental and Occupational Health at the George Washington University School of Public Health and Health Services. Dr. Zota speaks about phthalates. The second chat features Dr. Ted Schettler on breast cancer and ecological complexity.

Web chat: <u>Ami Zota</u> Web chat: <u>Ted Schettler</u>

CHE Climate Change

~ coordinated by Genon Jensen, info@healthandenvironment.org

~ Global health and justice in a changing environment

HEAL's coal and health officer recently participated in Healthy Planet UK's landmark conference *Global Health and Justice in a Changing Environment* in London.

The conference, organized by medical students, gave the opportunity for participants to discuss the links between environmental change and health in general, as well as related issues including disasters, food security, transport, reproduction, and energy policy. Read more

~ WHO to hold first global conference on climate and health, August 27-29, 2014

The World Health Organization (WHO) is pleased to announce that it will host the first global conference on climate change and health at its headquarters in Geneva on August 27-29, 2014. It will bring together leading experts in the fields of health and climate change. The purpose is to articulate a shared vision of how the health sector can best prepare for climate change, and to give voice to the health benefits of climate actions. The outcomes will inform the UN Secretary-General's Climate Summit 2014 in September, as well as discussions on climate change and sustainable development taking place this year. Further information will be made available in the coming months on the WHO website.

~ Why farmers can prevent global warming just as well as vegetarians

A new study argues that eating less meat isn't a very practical climate-protection recipe for developing countries. The study's authors say there's a better path: Help farmers produce livestock more efficiently, and reduce the incentive to snap up new land to graze their animals. Science Friday, NPR.

Read more

See the study: <u>Climate change mitigation through livestock system transitions</u>

\sim Public forum to inform the interagency special report on the impacts of climate change on human health in the US, March 13, 2014

This public forum, organized by the <u>Interagency Crosscutting Group on Climate Change</u> and Human Health (CCHHG), will facilitate engagement with stakeholders, non-federal subject matter experts, and interested public in order to inform the Interagency's special report on the impacts of climate change on human health in the United States. Persons unable to attend the public forum in Washington, DC, are invited to register for a live broadcast of the public forum via webinar.

Read more

CHE Diabetes-Obesity

~ coordinated by Sarah Howard, sarhow@gmail.com

~ Diabetes research summit

CHE's Diabetes-Obesity Spectrum Working Group national coordinator, Sarah Howard, attended and tabled at the JDRF Type 1 Diabetes Research Summit in Bethesda, MD on March 1st (<u>http://www.jdrfsummit.org/</u>). One young boy with diabetes had a popular table selling jewelry made from used diabetes pump supplies. Many of the presentations are available at the website. Sarah presented research on the links between diabetes, obesity, and environmental chemical exposures--a topic of interest to many participants.

CHE Fertility and Reproductive Health

~ coordinated by Karin Russ, karin@healthandenvironment.org

~ New articles and research published in academic and scientific journals

The Human Early-Life Exposome (HELIX): Project rationale and design. In six existing birth cohort studies in Europe, HELIX will estimate prenatal and postnatal exposure to a broad range of chemical and physical exposures. Environmental Health Perspectives. The study design is perhaps unique on the use of smartphones to assess mobility and physical activity, and perform personal exposure monitoring.

Acetaminophen use during pregnancy, behavioral problems, and hyperkinetic disorders. Children whose mothers used acetaminophen during pregnancy were at higher risk for receiving a hospital diagnosis of hyperkinetic disorders, use of ADHD medications, or having ADHD-like behaviors at age 7 years. JAMA Pediatrics. This study sheds new light on a standard recommendation in obstetric practice.

Bisphenol A (BPA) pharmacokinetics with daily oral bolus or continuous exposure via silastic capsules in pregnant rhesus monkeys: Relevance for human exposures.

Differences in pharmacokinetics of dBPA were evident between pre-pregnancy, early and late pregnancy, likely reflecting changes in maternal, fetal and placental physiology. Reproductive Toxicology.

Researchers from this group have produced additional publications with related data:

- Fetal Exposure of Rhesus Macaques to Bisphenol A Alters Cellular Development of the Conducting Airway by Changing Epithelial Secretory Product Expression. Environmental Health Perspectives.
- Prenatal exposure to bisphenol A impacts midbrain dopamine neurons and hippocampal spine synapses in non-human primates. NeuroToxicology.
- Bisphenol A alters early oogenesis and follicle formation in the fetal ovary of the rhesus monkey. PNAS.
- Bisphenol A alters the development of the rhesus monkey mammary gland. PNAS.
- Maternal Bisphenol A Exposure Impacts the Fetal Heart Transcriptome. PLoS ONE.
- Bisphenol A Exposure Alters Developmental Gene Expression in the Fetal Rhesus Macaque Uterus. PLoS ONE.

~ Upcoming events

Reproductive environmental health webinar

The Mid-Atlantic Center for Children's Health and the Environment and the US Environmental Protection Agency offer the latest information on reproductive environmental health for men and women during this webinar on March 19, 2014, from 12:00-1:00 pm Eastern. Primary care and reproductive health care clinicians will be provided with practical strategies for clinical assessment of patient risk and reduction in patient exposure to environmental contaminants.

Read more and register

CHE Initiative on Children's Environmental Health

~ coordinated by Elise Miller, info@healthandenvironment.org

~ New evidence on chemicals and children's stunted neurological development

Two leading experts on how children's health is affected by environmental pollution recently published a major review of the evidence about chemicals contributing to a 'global, silent pandemic' of disorders of brain and nervous system. Read more

CHE Regional Working Groups Update

CHE Alaska

~ coordinated by Pamela Miller, pamela@akaction.org

~ Working Group call: Exposure to Toxic Chemicals Among Pregnant Women and Children: The Role of Prevention with Dr. Tracey Woodruff Tuesday March 25, 2014 at 3:00 pm Alaska/4:00 pm Pacific/7:00 pm Eastern

RSVP for this call



Join Tracey Woodruff, PhD, MPH, Director of University of California at San Francisco's Program on Reproductive Health & the Environment for a discussion on evaluating prenatal exposures to environmental chemicals and related adverse pregnancy outcomes, and characterizing developmental risks. Learn how children and pregnant women are especially vulnerable to exposures from harmful chemicals found in everyday products. Hear the latest scientific evidence linking exposure to environmental chemicals during critical and sensitive windows of development.

CHE HEAL

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

~ Mid-term review of WHO environment and health process, November 2014 Later this year, health and environment ministers from 53 countries will come together to assess how far countries have progressed in reaching the ambitious targets set in the 2010 Parma Declaration. HEAL will contribute as a member of the European Environment and Health Task Force (EHTF) and through outreach with the health community.

Read more

~ EU summit on chronic diseases

In April, the EU Commissioner for Health, Tonio Borg, will host the first EU summit on chronic diseases, a follow up to the 2011 UN political meeting and declaration on this issue. The summit will discuss medical, social, and economic benefits of sustainable investment in health in the EU, ways to reduce the burden of chronic diseases, and how to strengthen the prevention and management of chronic diseases, with a focus on EU added value and action.

Read more

~ Call for action on EDCs by the European Parliament and member states

The Swedish minister for environment, Lena Ek, threatened to sue the EU Commission for the delay in identifying EDCs. This announcement echoes concerns from the S&D party in the European Parliament, who called on the council to act. Read more

~ French report on EDC strategy calls for urgent action from EU

HEAL joined French member NGOs, Générations Futures (GF) and Réseau Environnement Santé (RES) in welcoming a French report calling for urgent action from the EU on EDCs.

Read more

~ Pesticide Action Week

During the 9th edition of Pesticide Action Week, HEAL and its members will be raising awareness about the impacts of pesticides on our health and the environment through a number of events. On March 27th HEAL brings together pesticide victims and EU policy makers to discuss how to prevent impacts of pesticides on our health. HEAL will co-host a screening of the French documentary La mort est dans le pré (Death is in the Meadow) at the European Parliament with MEP Hiltrud Breyer. Read more Film screening information

CHE Oregon

~ coordinated by Colin Price, <u>colinp@oeconline.org</u>

~ 6th Annual Northwest Environmental Health Conference

Tuesday April 8, 2014 Portland State University, Portland, Oregon

The conference will host leading scientists, researchers, and health professionals in the multidisciplinary field of environmental health to continue our robust dialogue on the interrelationship between the environment and health and healthcare practices. Registration is now open.

Read more

CHE Washington

~ coordinated by Aimee Boulanger and Steve Gilbert, info@healthandenvironment.org

~ CHE-WA Children's Environmental Health Working Group meeting Thursday March 13, 2014 at 9:30-11:30 am Pacific

This meeting is open to those interested in children's environmental health exposures in Washington State. At this meeting, in lieu of a monthly speaker, the working group will join the CHE Partnership call featuring Dr. Landrigan and Dr. Ruth Etzel speaking on children's environmental health.

Location: Local Hazardous Waste Management Program Office, 130 Nickerson St., Suite 150, Seattle, WA 98109

For more information or to RSVP contact Gail Gensler, gail.gensler@kingcountry.gov or 206-263-3082.

Announcements and News Highlights

Training opportunity in community based participatory research in breast cancer, the environment, and disparities

Do you wonder about the effects of the environment on the development of breast cancer? And why some groups of women are more likely to get breast cancer or die from the disease? Commonweal, the California Breast Cancer Research Program and Plumbline Coaching and Consulting are partnering this summer to train academics and community-based leaders to conduct community based participatory research to answer these questions. California-based teams are encouraged to apply. To learn more, participate in one of our informational webinars (April 8, April 23 or May 2). Register for an informatinal webinar and learn more

Call for abstracts: 14th annual workshop on brominated and other flame retardants

This scientific conference (Indianapolis, IN June 22-24, 2014) covers current and emerging flame retardants (brominated or not) in the environment. Typically, the focus is split between chemistry and toxicology, but all topics related to flame retardants are welcome. The deadline is March 14, 2014. Read more

EPA seeks input on proposed agricultural worker protection standards

The Environmental Protection Agency has announced proposed changes to the agricultural Worker Protection Standard (WPS) to increase protections from pesticide exposure for the nation's 2 million agricultural workers and their families. The EPA seeks your input at <u>http://www.regulations.gov</u>. Your comments will help EPA to determine the final version of this regulation.

BPA-free plastics: New science leads to new concerns

The Center for Environmental Health tested BPA-free sippy cups. More than 1/4 came back positive for estrogenic activity.

Read more

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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.

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March 2014 issue of *Environmental Health Perspectives* available online Read more

March 2014 issue of *Environmental Factor* available online Read more CHE maintains a news feed of environmental health related news announcements and events collected from a multitude of sources on CHE's website.

Reports, Resources and Other Updates

The Overlapping Issues of Health and Housing: A Report on California Statewide Data and Healthy Housing Indicators

The California Breathing Asthma Program and the Division of Environmental and Occupational Disease Control announce the publication of this new resource from the California Department of Public Health. Read more

Video: Sick and Tired of Being Sick and Tired: Leveraging Law to Facilitate Citizen Epidemiology

CHE Partners Phil Brown, Dick Clapp, Peggy M. Shepard and Wilma Subra were among those on a February 10th panel discussion at Brooklyn Law School about how community residents (that is, citizens of a place) who are experiencing health effects from industrial toxins can document exposures and hold industrial polluters accountable. <u>See the video</u>

Read more about the roundtable discussion

See a related CHE call: <u>Nature's Trust: Environmental Law for a New Ecological Age</u>

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

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