"Connected Wisdom": Thinking Like a System

The other evening, my six-year-old son and I were listening to "Connected Wisdom," a new award-winning CD of stories and parables from ancient and modern cultures around the world, collected by Linda Booth Sweeney and told engagingly by Courtney Campbell. Each story is a reminder that humanity is simply one part of an incomprehensively complex, yet exquisitely expressed system. As we listened, I reflected on the myriad structures in our society that seem to be so at odds with this understanding that all life is irrevocably interdependent and interconnected. I wondered when and how did we stop 'thinking like a system'?

Obviously, many historians and philosophers have grappled with some form of that question for centuries. They have studied how and why Western culture over hundreds of years started to give greater and greater value to individualization and specialization. But don't worry: I am not going to embark on a pedantic review of these issues. Instead, I would simply like to highlight how system-based approaches are currently being reintroduced and recognized. And how our "connected wisdom" is being reclaimed in order to solve some of the most inscrutable problems we face.

One prominent example is the growing attention being given to cumulative impacts on human and ecological health. For those with "core expertise" in toxic chemicals, trying to press for funding to study the health impacts of more than one chemical at a time has been (and continues to be) a herculean task. In this context, adding a multitude of other interacting variables--such as nutrition, socioeconomic status, gene-environment interactions, access to nature, ecosystem services and psychosocial factors--to the 'chemical soup' in which we live, and then trying to determine their additive and likely synergistic impacts on health, may seem almost impossible. But it is the conviction of an increasing number of colleagues in different fields that if we don't start developing interventions that leverage systemic change, we will only continue to bail water while our ship sinks with a gaping hole in its hull.
So what are system-based approaches that could make a significant difference to the health, sustainability and resilience of real communities? The new national Cumulative Impacts Project, co-sponsored by the Science and Environmental Health Network (SEHN) and the Collaborative on Health and the Environment (CHE), is trying to get at this question. The project is committed to collecting and evaluating scientific studies and community-based initiatives that take into account and address cumulative impacts on health. Last week, SEHN and CHE officially launched a website and working group (please see: www.cumulativeimpacts.org). We hope you will join us in our efforts to implement innovative models and initiatives--ideas and actions that spring from the understanding that we are indeed invaluable parts of an exquisite, intricate and interconnected system.

Along these lines, we welcome your participation in a two-part teleconference series, co-sponsored by CHE and SEHN and focused on several new community-based research projects. The studies to be presented are designed to assess different aspects of cumulative impacts on health and are funded by the US EPA. Tomorrow (June 9th) and on June 16th, pairings of academic researchers and their community partners will discuss the scope and goals of their respective projects.

As part of our collective work to reduce cumulative impacts, CHE is also hosting a call June 21 with some leading European colleagues who are developing criteria for defining endocrine disrupting chemicals. In addition to discussing the research behind this process, the presenters will speak to the influence this work may likely have on health policy and chemical regulation.

As spring officially turns to summer this month, may you connect with your own wisdom on how to create systemic change--no matter how great or small the scale--to make our world healthier.

With Warm Regards,
Elise Miller, MEd
Director, Collaborative on Health and the Environment (CHE)

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This essay is available on CHE's blog for comment and further discussion.

CHE Partnership Calls and Special Events

CHE and SEHN co-host two upcoming Partnership calls on cumulative impacts community-based research projects

CHE Partnership call: Cumulative Impacts on Health: New Community-Based Research Projects,
Part 1
Thursday June 9, 2011 at 11:00 a.m. Pacific / 2:00 p.m. Eastern
RSVP for this call

Special note: This is the first call in a 2-part series co-sponsored by CHE and the Science and Environmental Health Network (SEHN) featuring EPA funded researchers and their community partners discussing cumulative impacts research projects on a community level. This call will last 1.5 hours

Multiple aspects of the environment in which we live, learn, work, and play can impact our health. However, the general practice of governmental agencies and policymakers responsible for protecting public health and the environment is to focus on one factor at a time, and more specifically, one chemical contaminant at a time. For many years, the environmental justice movement and local communities have advocated for the
consideration of multiple exposures and cumulative impacts in environmental policy and regulatory decisions. The emerging science, in fact, affirms what these advocates have been calling for—explicitly, the need to take into account interacting concerns, such as socioeconomic, nutritional and psychosocial factors along with multiple toxic exposures, if we are to improve public health. Join CHE and SEHN on **Thursday June 9, 2011 at 11:00 a.m. Pacific / 2:00 p.m. Eastern** for this conference call featuring researchers, recently funded by the US EPA, who are working with poor and underserved communities to determine how multiple stressors, such as hazardous chemicals, poor nutrition, and lower socioeconomic status, undermine their health as well as what interventions could be implemented to create healthier, more resilient communities.

**Featured speakers will include:**

- **Jane Clougherty**, MSc, ScD, University of Pittsburgh Department of Environmental and Occupational Health and community partner
- **Peggy Shepard**, Executive Director, West Harlem Environmental Action, Inc
- **Rob Laumbach, MD, MPH, CIH**, University of Medicine and Dentistry of New Jersey School of Public Health and **Ana Baptista, PhD**, Environmental and Planning Projects Director, Ironbound Community Corp
- **John Levy, PhD**, Boston University School of Public Health and community partner
- **Maria Mojica**, Program Assurance and Community Outreach Specialist, NorthStar Learning Centers
- **Devon Payne-Sturges, DrPH**, US EPA National Center for Environmental Research

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**CHE Partnership call: Cumulative Impacts on Health: New Community-Based Research Projects, Part 2**

Thursday June 16, 2011 at 11:00 a.m. Pacific / 2:00 p.m. Eastern

[RSVP for this call](#)

**Special note:** This is the second call in a 2-part series co-sponsored by CHE and the Science and Environmental Health Network ([SEHN](#)) featuring EPA funded researchers and their community partners discussing cumulative impacts research projects on a community level. **This call will last 1 hour.**

Multiple aspects of the environment in which we live, learn, work, and play can impact our health. However, the general practice of governmental agencies and policymakers responsible for protecting public health and the environment is to focus on one factor at a time, and more specifically, one chemical contaminant at a time. For many years, the environmental justice movement and local communities have advocated for the consideration of multiple exposures and cumulative impacts in environmental policy and regulatory decisions. The emerging science, in fact, affirms what these advocates have been calling for—explicitly, the need to take into account interacting concerns, such as socioeconomic, nutritional and psychosocial factors along with multiple toxic exposures, if we are to improve public health. Join CHE and SEHN on **Thursday June 16, 2011 at 11:00 a.m. Pacific / 2:00 p.m. Eastern** for this conference call featuring researchers, recently funded by the US EPA, who are working with poor and underserved communities to determine how multiple stressors, such as hazardous chemicals, poor nutrition, and lower socioeconomic status, undermine their health as well as what interventions could be implemented to create healthier, more resilient communities.

**Featured speakers will include:**

- **Deborah Corey-Slechta, PhD**, Professor of Environmental Medicine, University of Rochester School of Medicine and Dentistry and community partner **Katrina Korfmacher, PhD**, University of Rochester, School of Medicine and Dentistry
- **Stephen Linder, PhD, EdD, MBA**, Professor and Associate Director, Institute for Health Policy, University of Texas Health Science Center at Houston
CHE Partnership call: A European Perspective: How Key Research on Endocrine Disrupting Chemicals is Expected to Inform Policy Developments
Tuesday June 21, 2011 at 11:00 a.m. Pacific / 2:00 p.m. Eastern / 7:00 p.m. UK / 8:00 p.m. Brussels
RSVP for this call

The European Union (EU) has had an official strategy to address Endocrine Disrupting Chemicals (EDCs) since the end of 1999. The strategy has helped instigate major funding of EU research projects on EDCs, and two historic new pieces of legislation that will govern and in some cases ban the use of certain EDCs--namely, the REACH law on industrial chemicals management, and the reformed EU Pesticides law. Deriving from these, the approach and assessment by which EDCs will be identified is now underway. The European Commission has commissioned a report from one of the leading researchers on EDCs, Professor Andreas Kortenkamp, and his team, to assess the state of knowledge about mixtures of chemicals. In addition, the Commission has asked him to provide an updated analysis of the state of knowledge about EDCs. These two reports will inform overlapping strands of policy work.

On this call, Andreas Kortenkamp, PhD, will present some of the latest EU funded research on EDCs and implications for policy makers from a scientific perspective. Gwynne Lyons, will speak on the challenges and opportunities related to translating the science into policy, and highlight CHEM Trust's public interest work in this area. Genon Jensen will speak about the NGO work being done on EDCs, highlighting recent developments in France and Denmark.

Featured speakers will include:
- **Andreas Kortenkamp**, PhD, Professor and Head of Centre for Toxicology, School of Pharmacy, University of London
- **Gwynne Lyons**, Director, CHEM Trust
- **Genon Jensen**, Executive Director, Health and Environment Alliance (HEAL)

CHE Partnership call: Navigating the Science: Evaluating Research Quality
Thursday June 30, 2011 at 1:00 p.m. Pacific / 4:00 p.m. Eastern
RSVP for this call

Scientific evidence on the health effects of environmental contaminants continues to mount. The range of research available is, however, of variable quality and largely unfamiliar to health care professionals. Researchers at the University of California San Francisco's Program on Reproductive Health and the Environment, along with multiple partners, have developed a methodology called the Navigation Guide that links evidence-based medicine and environmental health. As recently described in the journal *Health Affairs*, the Navigation Guide is a valuable tool to evaluate the quality of evidence and to support evidence-based decision making by clinicians, patients, professional organizations and governmental agencies.

Join the CHE Fertility Working Group, which will host this important CHE Partnership call on the development of the Navigation Guide and its practical applications. Dr. Tracey Woodruff from UCSF will present the theoretical basis for the methodology. Dr. Jeanne Conry of ACOG District IX will explain how to use the tool to find the best available evidence to make clinical decisions and recommendations. Dr. Kristina Thayer of the NIEHS National Toxicology Program will describe the contribution of this methodology to the field of risk assessment. To round out the discussion, Dr. Kathryn Guyton of the US EPA will discuss the relevance of the Navigation Guide to policy making.

Featured speakers will include:
- **Tracey Woodruff**, PhD, MPH, Director, PRHE and Associate Professor,
Special Events and Announcements

New Cumulative Impacts Project announced by CHE and SEHN This is a project of CHE with the Science and Environmental Health Network (SEHN), along with an advisory group of environmental health and justice advocates, scientists, scholars, and agency staff members.

The Cumulative Impacts Project website collects the latest science, emerging best practices, analytical tools, and legal shifts that can reduce cumulative harm to our planet, our communities, and ourselves. This information is being collected on the Cumulative Impacts Project website which launched in May 2011.

Visit the website

The Cumulative Impacts Working Group conducts monthly conference calls about a project or issue related to cumulative impacts on human health and the environment, often with one presenter followed by discussion. We hope you will join us!

Contact the Cumulative Impacts Project to learn more, suggest resources for the website, and add your ideas.

Breast Cancer and the Environment Workshops hosted by Commonweal and the CA Breast Cancer Research Program

A woman's lifetime risk for developing breast cancer is one in eight. What's going on? And what can you do? Join us for a workshop on breast cancer, disparities and the environment

This summer Commonweal and the California Breast Cancer Research Program are hosting a series of workshops throughout California to explore the links between breast cancer and environmental exposures as well as the disproportionate impact the disease has on different groups of women. The workshops will also explore ways that community groups and academic institutions can partner on research projects to help reduce people's future risk for the disease.

The workshops are open to anyone who is interested, especially community members, representatives of community-based and non-profit organizations, researchers, and health providers.

Dates and Locations:

June 13  San Diego
June 14  Los Angeles
June 16  Chico
June 27  San Francisco
June 30  Oakland
July  7  Eureka/Arcata
July 20  San Bernardino
July 22  Merced
July 27  Sacramento
July 28  Nevada City
Aug  4  Watsonville
CHE Environmental Health Primary Prevention Training
CHE is hosting a series of trainings on breast cancer and environmental health science. These trainings will focus on teaching evidence-based science in lay language to be used in a range of settings, including advocacy, determining research priorities and public education. The goal is to provide basic scientific knowledge so trainees can become more effective as champions for a healthier world.

The next trainings will take place September 27-29 and November 7-9. All trainings will be held at Commonweal in Bolinas, CA.

Training topics include:

- Overview of healthy breast development.
- Origins of breast cancer.
- Exposures to toxic chemicals throughout the human life cycle, and how they can increase risk for disease.
- The use of biomonitoring (measuring environmental chemicals in the body) as an education and advocacy tool.
- The "web of causality" that makes breast cancer etiology so complex to fully understand.
- How to respond effectively when there is not scientific certainty - also referred to as the precautionary principle.
- Practical exercises using your scientific understanding to strengthen your advocacy efforts.
- Suggestions for steps in your daily life that can reduce risk.

For more information, please contact Heather Sarantis of Commonweal at heather@healthandenvironment.org. An application form is available on the CHE website. Please visit: http://www.healthandenvironment.org/ehtraining

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:

- May 24, 2011 - Science and Decisions: How Can We Advance Risk Assessment?
- May 12, 2011 - Diabetes and Obesity: Evaluating the Science on Chemical Contributors
- March 28, 2011 - Radiation and Human Health: In the Shadow of the Japan Disaster

And of course, you can always explore our archived resources

CHE Working and Regional Group Updates

Stay in touch with CHE via Facebook and the CHE blog:
Visit CHE's blog at http://ourhealthandenvironment.wordpress.com/
CHE's Facebook page

New Cumulative Impacts Working Group hosted by CHE and SEHN
~ coordinated by Elise Miller and Carolyn Raffensperger.

~ This Working Group receives information about and participates in the Cumulative Impacts Project. This is a project of CHE with the Science and Environmental Health
Network (SEHN), along with an advisory group of environmental health and justice advocates, scientists, scholars, and agency staff members.

"Cumulative impacts" refers to the total harm to human health and the environment that results from combinations of assaults and stressors over time. The Cumulative Impacts Project is dedicated to promoting science, law, and policy that will reduce cumulative impacts.

The Cumulative Impacts Working Group conducts monthly conference calls about a project or issue related to cumulative impacts on human health and the environment, often with one presenter followed by discussion. We hope you will join us!

Contact the Cumulative Impacts Project to learn more, join the working group, suggest resources for the website, and add your ideas.

CHE Diabetes-Obesity Spectrum
~ coordinated by Sarah Howard, for more information contact info@healthandenvironment.org

~ The partnership call, "Diabetes and Obesity: Evaluating the Science on Chemical Contributors" was held on May 12, and is now available online: www.healthandenvironment.org/partnership_calls/8928.

~ Recently published academic journals related to environment, diabetes and obesity:


CHE-EMF
~ coordinated by Cindy Sage, sage@silcom.com and Nancy Evans, nancywrite@gmail.com

~ The WHO International Agency for Research on Cancer (IARC) has classified
radiofrequency electromagnetic fields as a possible human carcinogen (2B) based on an increased risk for glioma, a malignant type of brain cancer, and acoustic neuroma. Both are associated with exposure to wireless phones. Jonathon Samet of USC who chaired the IARC meeting told Louis Slesin of Microwave News that "The 2B designation was not limited to cell phones. It has "broad applicability" to all sources of RF radiation."

Full coverage of the meeting and results is available at [www.microwavenews.com](http://www.microwavenews.com).

~ The Council of Europe Resolution 1815 was adopted on May 27, 2011 on the **Potential Dangers of Electromagnetic Fields and their Effect on the Environment**. The Resolution notes the consequences of electromagnetic fields on health and the environment, and proposes strong preventative measures including lowering public safety standards, reducing exposures, setting preventative thresholds at near-BioInitiative Report levels; paying attention to the special needs of electrosensitive persons, new designs for personal wireless devices, labeling of devices, giving preference to wired systems in schools, reducing use of wireless devices and exposures in general for children, and better cell tower siting procedures that take chronic population exposure into account.

~ "**Autism was once a rare diagnosis**" by Nancy Evans has been posted on the CHE website so it can be accessed easily. This paper examines the possible connection between autism and exposure to prenatal ultrasound. Visit the CHE-EMF webpage to download the paper.

**CHE Fertility**

~ coordinated by Karin Russ, CHE Fertility National Coordinator, [karin@healthandenvironment.org](mailto:karin@healthandenvironment.org)

~ **CHE Fertility call: Navigating the Science: Evaluating Research Quality**

    Thursday June 30, 2011 at 1:00 p.m. Pacific / 4:00 p.m. Eastern

    [RSVP for this call](#)

Scientific evidence on the health effects of environmental contaminants continues to mount. The range of research available is, however, of variable quality and largely unfamiliar to health care professionals. Researchers at the University of California San Francisco's Program on Reproductive Health and the Environment, along with multiple partners, have developed a methodology called the Navigation Guide that links evidence-based medicine and environmental health. As recently described in the journal Health Affairs, the Navigation Guide is a valuable tool to evaluate the quality of evidence and to support evidence-based decision making by clinicians, patients, professional organizations and governmental agencies.

Join the CHE Fertility Working Group, which will host this important CHE Partnership call on the development of the Navigation Guide and its practical applications. Dr. Tracey Woodruff from UCSF will present the theoretical basis for the methodology. Dr. Jeanne Conry of ACOG District IX will explain how to use the tool to find the best available evidence to make clinical decisions and recommendations. Dr. Kristina Thayer of the NIEHS National Toxicology Program will describe the contribution of this methodology to the field of risk assessment. To round out the discussion, Dr. Kathryn Guyton of the US EPA will discuss the relevance of the Navigation Guide to policy making.

**Featured speakers will include:**

- **Tracey Woodruff**, PhD, MPH, Director, PRHE and Associate Professor, Department of Obstetrics, Gynecology, and Reproductive Sciences and Pediatrics
- **Jeanne A. Conry**, MD, PhD, Assistant Physician-in-Chief for Kaiser Permanente's Sacramento Roseville Region
- **Kristina Thayer**, PhD, Acting Director, National Toxicology Program's (NTP) Center for the Evaluation of Risks to Human Reproduction (CERHR)
- **Kathryn Guyton**, PhD, D.A.B.T., Senior Toxicologist, National Center for Environmental Assessment, Office of Research and Development, U.S. EPA
~ Recent news articles of interest to CHE Fertility:

AFA blog: Perfluorochemicals--If it doesn’t stick to the pan, what does it do in our bodies? Studies in recent years have found relationships between chemicals in our homes and environment and the ability of a couple to conceive. Chemicals that alter the action of natural hormones in our bodies are known as hormone disruptors, or endocrine disrupting compounds. Some experts are taking a new look at familiar products found in our homes, and asking: can the clothes we wear, the food we eat and the pans we cook in affect fertility?

Read more

Female fish develop "testes" in Gulf dead zone. A low-oxygen "dead zone" in the Gulf of Mexico is causing sexual deformities in fish, a new study says. Between 2006 and 2007, nearly a quarter of female Atlantic croaker fish caught in the northern Gulf's dead zone had developed deformed, testes-like organs instead of ovaries. National Geographic News.

Read more

CHE Regional Working Groups Updates

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

~ Experts gather to debate the future of European noise policies
On Wednesday 25th May, European and national policy makers, scientists, health specialists and non-governmental groups met to discuss the future of EU noise policies. The well attended conference, organised by HEAL, Transport and Environment (T&E), and the European Environmental Bureau (EEB), provided a platform to discuss the latest science on health impacts of environmental noise, especially from road traffic, and how to turn it into more protective policy initiatives.

Read more

~ New noise and health publication
The health impacts of urban road and rail noise feature in a new brochure by HEAL and Transport and Environment (T&E). Quiet please - better health through strong EU regulation of road and rail traffic noise, draws on the latest scientific evidence and provides solutions that can give us all quieter lives, and improve our health.

Download the brochure

~ European Parliament's climate vote draws on health figures for stronger target
HEAL welcomes the vote by the European Parliament's Committee on Environment, Public Health and Food Safety (ENVI) in support of a 30% EU reduction target in greenhouse gas emissions by 2020. The Parliamentary report clearly highlights the health benefits and health savings from moving to a higher 30% target, and references the work done on cost scenarios by HEAL and HCWH Europe. Our 2010 report, Acting NOW for better health, showed the significant public health benefits of moving to a 30% GHG emissions reduction target. These include reductions in premature death and illness, fewer working days lost and lower healthcare costs.

The next step will be the European Parliament's plenary vote on 23rd June and the discussion on EU climate target by EU Heads of State (the European Council) on the 24th June.

Read more

~ Hormone disrupting chemicals targeted to prevent chronic disease in EU
HEAL, alongside other non-governmental organisations have called on the European Union to rapidly review 22 endocrine (hormone) disrupting chemicals (EDCs) within the REACH legislation because of their effects on health. These chemicals are part of a new SIN (Substitute it now) List -2.0 compiled by the International Chemical Secretariat
CHE Newsletter: June 2011

(ChemSec) and supported by 11 independent, non-governmental organisations. Read more

~ CHE Washington

~ coordinated by Steve Gilbert, sgilbert@innd.org and Aimee Boulanger, aboulanger@whidbey.com

~ Join the new Northwest Kids Environmental Health Group listserv: Read and post information, events and opportunities specifically regarding children's environmental health news in the Northwest. As a project of the CHE-WA Children's Environmental Health Working Group, Holly Davies, Washington Department of Ecology, has volunteered to moderate the listserv. To join, go to www.ecy.wa.gov/maillist.html. Scroll down to Environmental Education, click on Northwest Kids Environmental Health Group and follow the directions. You will need to sign up in order to post and receive messages. Questions? Contact Julia Berg, Local Hazardous Waste Management Program in King County: 206-263-3042 or julia.berg@kingcounty.gov

Announcements and News Highlights

The Action Agenda of the National Conversation on Public Health and Chemical Exposures will be released on Thursday, June 9th
The Action Agenda is the final product of an elaborate two-year process involving hundreds of research scientists, health professionals, non-profit leaders and community activists across the country, who worked together to develop and agree upon recommended actions in order to improve public health by reducing exposures to toxic chemicals. The American Public Health Association will host a teleconference for members of the press that day announcing the release of the Action Agenda and the launch of the website (http://www.nationalconversation.us) at 11:00 a.m. Eastern. A streaming audio replay of this teleconference will be available on the abovementioned website by approximately 4:00 p.m. Eastern.

June 2011 issue of Environmental Health Perspectives available online Read more

June 2011 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 Update

New Cumulative Impacts Project announced
CHE and the Science and Environmental Health Network (SEHN) have launched the Cumulative Impacts Project website. View the website

CHE lists hundred of reports, books, videos, databases and other resources in a searchable Portal to Science 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 elise@healthandenvironment.org.

Best wishes,
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: http://www.healthandenvironment.org/.

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