



Learning and Developmental Disabilities Initiative

[of the Collaborative on Health and the Environment](#)



Biweekly Bulletin June 1, 2011

This bulletin lists upcoming events plus recent announcements, news and journal articles, calls for proposals and other items related to learning and developmental disabilities and environmental health. They are archived and searchable on LDDI's website:

www.healthandenvironment.org/working_groups/learning/r/bulletins

LDDI Highlights

Healthy Lives, Healthy Minds, June 9th

This AAIDD Environmental Health Initiative workshop follows the successful EHI conference on the environment and the developing brain held in Minnesota December '08. Featured presentations will focus on the science that links environmental exposures and impacts on the developing brain. This workshop is part of [AAIDD Annual Meeting](#) June 5-9, 2011, in St. Paul, Minnesota. See event #5 below for more information.

Autism Society National Conference, July 6-9, 2011

The Autism Society welcomes all who wish to learn more about autism, network with others affected by autism, and learn the latest on autism and environmental health and public policy to their annual national conference in Orlando, Florida. Child care is available, and Disney World excursions are close by. The conference will feature the third annual science symposium on Saturday July 9th. Leading scientists and advocates will discuss autism and environmental health, the latest research on environmental influences and the developing brain, and policy needs to protect the public.

New Practice Prevention Column

LDDI has published a new column on polycyclic aromatic hydrocarbons (PAHs) on the [LDDI website](#). Available in both English and Spanish, this column provides information on the health effects of PAHs and how to avoid exposures.

Cumulative Impacts Website Launched

A new website addressing cumulative impacts of environmental stressors on health is now available online: www.cumulativeimpacts.org. This is a joint project of the [Science and Environmental Health Network](#) and the [Collaborative on Health and Environment](#).

New Members

The Learning and Developmental Disabilities Initiative welcomes these new members:

- Pat Bebo, MS, RD, LDN, Fall River, Massachusetts
- Michelle Bexelius, Portland, Oregon
- Shorey Myers, San Francisco, California

Announcements

A daily news feed with articles and announcements is available on CHE's website:
<http://www.healthandenvironment.org/news/announce>.

[Microbiome presentations now available.](#)

Workshop proceedings from Interplay of the Microbiome, Environmental Stressors, and Human Health held April 27-28, 2011, are now available online.

[Journal special edition: Reproductive Toxicology.](#)

The April 2011 issue of Reproductive Toxicology is devoted to the theme Prenatal Programming and Toxicity II (PPTOX II): Role of Environmental Stressors in the Developmental Origins of Disease.

[New report: Persistent Organic Pollutants: Impact on Child Health.](#)

This report from the World Health Organization is designed to inform and educate health professionals about persistent organic pollutants and their potential impact on child health and development.

[Meeting on Grand Calumet River cleanup June 2.](#)

The U.S. Environmental Protection Agency and three other federal and state agencies will host a meeting June 2 to update the public on a contaminated sediment cleanup planned for the East Chicago and Hammond, Indiana, area.

Upcoming Events

Online Calendar. These and more upcoming events are listed in a searchable calendar: <http://www.healthandenvironment.org/cgi-bin/searchevents.cgi>. The calendar now lists deadlines for funding proposals and conference abstracts.

1) Northwest Lawn & Garden Pesticide Summit

Saturday June 4, 2011
9:00 a.m. - 3:00 p.m.
Seattle, Washington
at University Unitarian Church, 6556 35th Ave NE

Sponsor: Coalition of Organic Landscapers

The goal of the summit is to create awareness of the health hazards and environmental degradation associated with pesticides, and to strategize ways to reduce their use, including changes in local policy, legislation, and pesticide-free public places. Our message: Take action to reduce the cosmetic use of pesticides in our environment, especially where children are most at risk. Lunch is included.

Price: \$15; preregistration is requested

[Visit the website](#)

2) 2011 Environmental Summit: Air Quality and Public Health

Monday June 6, 2011
9:00 a.m. - 3:30 p.m.
Indianapolis, Indiana
at the Campus Center at Indiana University-Purdue University at Indianapolis, 420 University Boulevard

Sponsor: IU School of Medicine's Department of Public Health, the Center for Urban Health at IUPUI, and Improving Kids' Environment

How does air quality affect the health of Hoosiers? Are there particular impacts on children or urban dwellers? What's being done to reduce air pollution and how will that impact our health and Indiana's economy? Topics will include 1) known health effects of air pollutants; 2) research on air quality and health, including multipollutant exposure; 3) effects of climate change on urban health; 4) Clean Air Act's major accomplishments in public health protection; 5) the current state of air quality in Indiana; 6) mercury deposition in Indiana; 7) economic impact of proposed national air quality standards; 8) air quality and children's health in Indiana; and 9) recent utility settlements and their impact on air quality. A box lunch will be provided.

Price: free, but a \$20 donation is suggested

[Visit the website](#)

3) 12th Workshop on Brominated and Other Flame Retardants

Monday and Tuesday, June 6 - 7, 2011

Boston, Massachusetts

at Boston University

Sponsor: unknown

The program is posted on the website.

Price: free for graduate students, employees of government agencies or nonprofit organizations; \$50 for others, including academia, business and consulting

[Visit the website](#)

4) Introduction to Managing Environmental Data with Microsoft Access 2007

Tuesday and Wednesday, June 7 - 8, 2011

8:30 a.m. - 5:00 p.m.

Sacramento, California

at the Radisson Hotel

Sponsor: EOS Alliance

Participants will gain basic to intermediate skills in using Microsoft Access 2007 to build relational databases for managing and mining their environmental data. This comprehensive class uses extensive hands-on exercises for in-depth use of tables, queries, forms, reports, and macro objects in Access 2007. These Access database subjects use real-world environmental examples with actual field data. No experience with MS Access 2007 is required; however, basic understanding of Microsoft Office software and basic computer skills are required. Continuing Education Units are available.

Price: \$545 or \$445 for employees of Native American tribes, nonprofits, and government agencies; students; and NAEP members

[Visit the website](#)

5) Healthy Lives, Healthy Minds

Thursday June 9, 2011

8:30 a.m. - 3:00 p.m.

St. Paul, Minnesota

at the St. Paul Crowne Plaza Hotel

Sponsor: AAIDD Environmental Health Initiative

This postconference workshop will provide the most updated information on science, policy and costs of chemical exposures as well as on the state/federal partnership on TSCA reform. The workshop on the relationship between the prevalence of IDD and other health conditions and environmental exposures builds on the successful December '08 Minnesota conference. The workshop will feature nationally prominent speakers and those familiar with state developments: 1) David Wallinga, MD, MPA, from the Institute for Agriculture and Trade Policy (IATP) will tackle the science of exposures; 2) Leo Trasande, MD, MPH, from Mt. Sinai Hospital will speak on costs associated will present the national with ID/DD, with a response Kathleen Schuler, MPH, of IATP (Healthy Legacy) on the costs incurred by Minnesota; 3) pediatrician and expert on autism Anne Kelly, MD, MPH, will join Donna Ferullo, MA, director of program research at the Autism Society and Huda Farah, epidemiologist and contributor to the original Health Department study on a Somali cluster, in highlighting autism and special cases in Minnesota; and 4) Lindsay Dahl, of Safer Chemicals, Healthy Families; Dan Endreson, MA, of Healthy Legacy and Kate Knuth, Minnesota State representative and sponsor of

the Toxic Free Kids Act, will discuss the policy issues and legislative developments related to environmental exposures and the health impacts on those with intellectual and developmental disabilities (ID/DD).

Price: \$75; register via [the main conference page](#) (scroll down to find the Environmental Health: "Healthy Lives, Healthy Minds" entry in the "Post-Con Meetings" section)
[Visit the website](#)

6) Cumulative Impacts on Health: New Community-Based Research Projects, Part 1

Thursday June 9, 2011

11:00 a.m. Pacific / 2:00 p.m. Eastern time

Sponsor: Collaborative on Health and the Environment

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. This conference call will feature 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. The call will last one and a half hours and will be recorded for archival purposes. This is the first call in a two-part series featuring EPA-funded researchers and their community partners discussing cumulative impacts research projects on a community level.

Price: free

[Visit the website](#)

Contact: CHE, info@healthandenvironment.org

7) Children's Environmental Protection Alliance Community Forum

Saturday June 11, 2011

2:30 - 4:30 p.m.

Semmes, Alabama

in the meeting room of Semmes Branch of the Mobile Public Library

Sponsor: Children's Environmental Protection Alliance

At this forum, three speakers will make presentations: Claire Barnett will speak about the ABC's of environmental problems in schools ("Asthma, Bugs, and Chemicals") and highlight the simple prevention steps that schools can take to reduce risks and reduce costs. Dr. Anne Turner-Henson will give a presentation on the impact on child health from exposure to poor environmental conditions and hazardous chemicals and address need for prevention in K-12 schools, Head Start programs, preschools, and for special needs children. Nancy Swan, founder and director of Children's Environmental Protection Alliance and host of Children's EPA Community Forum, will make a presentation about her chemical exposure and injury, and injuries to more than two dozen schoolchildren during a roofing renovation project at the school where she was teaching school. Preregistration is not necessary, but is encouraged. Attendees may email questions and concerns in advance.

Price: free

[Visit the website](#)

Contact: Nancy Swan, cepaorg@gmail.com

8) Cumulative Impacts on Health: New Community-Based Research Projects, Part 2

Thursday June 16, 2011

11:00 a.m. Pacific / 2:00 p.m. Eastern time

Sponsor: Collaborative on Health and the Environment

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. This conference call will feature 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. The call will be recorded for archival purposes. This is the second call in a two-part series featuring EPA-funded researchers and their community partners discussing cumulative impacts research projects on a community level.

Price: free

[Visit the website](#)

Contact: CHE, info@healthandenvironment.org

9) "The Toxies"

Thursday June 16, 2011

4:00 p.m. PDT red carpet; 5:00 p.m. awards ceremony; 6:00 - 8:00 p.m. afterparty

Los Angeles, California and virtual
at the Egyptian Theater in Hollywood

Sponsor: Californians for a Healthy and Green Economy (CHANGE) and led by Physicians for Social Responsibility-Los Angeles

"The Toxies" is a satirical awards ceremony highlighting "bad actor chemicals." This 2nd annual event, created by the statewide coalition Californians for a Healthy and Green Economy (CHANGE) and led by Physicians for Social Responsibility-Los Angeles (PSR-LA), has now come together with groups across the country to share the concept of "bad actor chemicals" by bringing them to life with a Hollywood spin. Those who are not in Los Angeles at the time can host or join a remote viewing party.

Price: free

[Visit the website](#)

Contact: see the [Contact page](#)

10) National Environmental Health Association 2011 Annual Educational Conference & Exhibit

Saturday through Monday, June 18 - 20, 2011

Columbus, Ohio

at the Hyatt Regency Columbus (Arena District)

Sponsor: National Environmental Health Association

This conference is a nexus for environmental health training, education, networking,

learning and advancement. Environmental health professionals attend to acquire practical and real-world information and expertise. A list of the educational tracks is on the website.

Price: see the [Registration page](#)
[Visit the website](#)

Contact: NEHA, 866-956-2258 or staff@neha.org

11) 2011 National Healthy Homes Conference

Monday through Thursday, June 20 - 23, 2011

Denver, Colorado

at the Colorado Convention Center

Sponsor: US Department of Housing and Urban Development, Healthy Homes, US Department of Health and Human Services, US Centers for Disease Control and Prevention, US Environmental Protection Agency, US Department of Energy, US Department of Agriculture

This year's theme, "Leading the Nation to Healthy Homes, Families, and Communities," reflects the growing demand for building and sustaining housing and communities that are healthy, safe and green for America's families. The conference will offer over 100 educational sessions covering eight topic areas.

Price: see the [Registration page](#)
[Visit the website](#)

Contact: 888-644-2586 or info@healthyhomesconference.org

12) Connect the Dots: An Early Learning Exchange

Thursday June 30, 2011

9:00 a.m. - 4:00 p.m.

Seattle, Washington

at Seattle Public Library, Microsoft Auditorium, 1000 4th Avenue

Sponsor: Foundation for Early Learning

Join us for a cutting-edge event featuring brief lectures from education leaders and community advocates. Each will talk about their passion for early learning. With a high-pace format similar to the popular TED lecture series, speakers will give presentations ranging from 12 to 18 minutes in length on various topics related to early learning. This conference will bring together unique perspectives and encourage networking between speakers and attendees.

Price: \$38 - \$100; see the website for details

[Visit the website](#)

Contact: Erin Okuno, 206-525-4801 x23 or erin@earlylearning.org

News and Journal Articles

[High risk of Parkinson's disease for people exposed to pesticides near workplace: pesticide ziram implicated as possible cause for disease.](#)

Friday, May 27, 2011

In April 2009, researchers at UCLA announced they had discovered a link between Parkinson's disease and two chemicals [maneb and paraquat] commonly sprayed on crops to fight pests. ScienceDaily.

[See other articles about pesticides: [As an insecticide \[DDT\] makes a comeback, Uganda must weigh its costs](#); [Will kids get Lyme disease if schools don't spray?](#); [Controversial pesticide 2,4-D deemed not 'dangerous', but still banned in Quebec](#); [Province planning to purge pesticide abuse](#) and [Insecticide usage down, herbicides not so much](#)]

[Stress may increase risk for Alzheimer's disease.](#)

Friday, May 27, 2011

Following up on epidemiological studies, scientists at the Max Planck Institute of Psychiatry hypothesized that adverse life events (stress) may be one trigger of Alzheimer's disease. ScienceDaily.

[See another article about cognitive decline: [Cognitive decline worse in 8 Stroke Belt states: UAB study](#)]

Opponents, parents ask tough questions about fluoride.

Friday, May 27, 2011

For more than 60 years, fluoride has been added to our drinking water to help prevent cavities. But recent studies suggest that some children are ingesting too much, and it's causing permanent stains on their teeth. Atlanta WGCL TV, Georgia.

Agent Orange haunts Vietnam veterans decades later.

Friday, May 27, 2011

This past fall, the U.S. Department of Veterans Affairs expanded the definition of diseases associated with Agent Orange exposure to include heart disease, Parkinson's and chronic B-cell leukemia. Diabetes has been on the list for years, as are several types of cancer. Davenport Quad-City Times, Iowa.

Vaccines: The real issues in vaccine safety.

Thursday, May 26, 2011

Hysteria about false vaccine risks often overshadows the challenges of detecting the real ones. Nature.

Sport fish contaminated along California's urban coastline.

Thursday, May 26, 2011

Mercury and PCBs contamination is widespread in sport fish in urban coastal waters across California, though mostly in moderate concentrations, a survey released Thursday by the state Water Board found. Los Angeles Times.

[See other articles about food and nutrients: [Bay toxic fish warnings updated](#); [Mainland recalls Taiwan's possibly tainted drinks](#); [Food, beverages imported from Taiwan may contain toxic chemical: CFIA](#); [Many popular Tampa Bay area fish rate high for mercury](#); [Stay away from energy drinks, doctors say](#) and [GM food toxins found in the blood of 93% of unborn babies](#)]

New reports: ADHD and autism on the rise.

Thursday, May 26, 2011

Director of the CDC's National Center on Birth Defects and Developmental Disabilities, Dr. Coleen Boyle talks about new reports saying that there has been a 17% increase on children and teens in the U.S. with developmental disabilities such as ADHD and autism. CNN.

[See another article about autism: [Women who start prenatal vitamins early are less likely to have children with autism](#)]

Heavy cell phone use harms memory, research shows.

Thursday, May 26, 2011

Telebabad on cell phones can damage your brains and ability to remember things, if experiments on mice are any indication. GMA News.

[See other articles about cell phones and health: [New studies reveal stunning evidence that cell phone radiation damages DNA, brain and sperm](#) and [Pitt scientists: Cell phone study flawed](#)]

Ten great public health achievements --- United States, 2001--2010.

Wednesday, May 25, 2011

Public health scientists at CDC were asked to nominate noteworthy public health achievements that occurred in the United States during 2001--2010. Morbidity and Mortality Weekly Report.

Lisa Jackson addresses EPA criticism.

Monday, May 23, 2011

"We have to remind the American people that environmentalism isn't a spectator sport," the EPA administrator said in an extended interview on the Daily Show. "You actually have to stand up and demand that we be vigilant in protecting our air and water." The Daily Show.

[Respiratory and mental health effects of wildfires: an ecological study in Galician municipalities \(north-west Spain\).](#)

Saturday, May 21, 2011

This study sought to analyse the respiratory and mental health effects of the August-2006 fires, using consumption of anxiolytics-hypnotics and drugs for obstructive airway diseases as indicators. Environmental Health.

[See other articles about air quality: [Planned coal plant could cost \\$200 million in health costs, report finds](#); [Indy summit to examine air quality in Indiana](#); [Impact of the improved Patsari biomass stove on urinary polycyclic aromatic hydrocarbons biomarkers and carbon monoxide exposures in rural Mexican women](#) and [In Oakland's port, ships plug in to cut emissions](#)]

[Wanaque industrial site will get experimental cleanup designed to neutralize pollutants.](#)

Friday, May 20, 2011

The state has agreed to the use of an experimental process to speed the natural breakdown of pollutants in the groundwater under a Wanaque industrial site. Soil and groundwater beneath the site have been contaminated with zinc, chromium and a cancer-causing solvent since at least the late 1980s. Bergen County Record, New Jersey.

[See other articles about contaminated sites: [New methods might speed up toxic cleanup](#); [Contaminated groundwater creeps into community](#); [Kraft to pay \\$8.1m to settle pollution lawsuit](#); [Tainted and toxic: Lejeune contamination shrouded in secrecy](#); [EPA and Louisiana continue to address flood issues](#); [MA Superfund sites still toxic nearly 30 years and more than \\$1 billion later](#); ['Chemicals dumped in Bucheon'](#); [Ex-U.S. soldier 'got orders on dioxin'](#); [Georgia's 'secret' arsenic village](#); [Worries about asbestos in debris](#); [US Army dumped chemicals in Imjin River in 1960s](#) and [GE to begin dredging 40-mile stretch of Hudson River to remove PCBs](#)]

[Fukushima revives the low-dose debate.](#)

Friday, May 20, 2011

The general public avoided exposure to high levels of radioactivity, but questions linger about the long-term effects of contamination. Science.

[See other articles about radiation hazards: [Permanent storage of highly radioactive nuclear waste at Hanford to be debated](#); [U.N. body to probe Fukushima radiation impact](#); [Radiation fears surround France's old uranium mines](#); [Uranium cleanup under way on Navajo land](#) and [Germany, in reversal, will close nuclear plants by 2022](#)]

[EPA weighs threats posed by mercury used in religious rituals.](#)

Thursday, May 19, 2011

To some, the religious use of mercury drives to the heart of environmental justice: It affects an underserved community, is poorly understood and has received only intermittent attention. Greenwire.

[What will fracking do to your food supply?](#)

Thursday, May 19, 2011

There has been a lot of press attention to what hydraulic fracturing, a process of drilling for natural gas known as "fracking," is doing to many drinking water supplies across the country. But the other side of fracking -- what it might do to the food eaten by people living hundreds of miles from the nearest gas well -- has received little attention. Gilt Taste.

[See other articles about fracking: [2 Sussex towns oppose natural gas drilling](#); [Water treatment firms see boon in business as gas drilling spreads](#); [Sandra Steingraber on the health crisis surrounding natural gas extraction](#) and [Drillers reveal what's being pumped into gas and oil wells](#)]

[Study links lead exposure, low student test scores.](#)

Thursday, May 19, 2011

Children who ingested even small amounts of lead performed poorly later on school tests compared to students who were never exposed to the substance, according to a new study of Connecticut students. Associated Press.

[See other articles about lead exposure: [Hidden camera investigation: Feds not enforcing lead law to keep you safe](#); [Childhood lead exposure in France: benefit estimation and partial cost-benefit analysis of lead hazard control](#); [136 people suffering high lead level in Guangzhou](#); [Old paint increases lead bioavailability in dust](#); [IQ effects of childhood lead exposure persist with age](#); [Lead dangers still a threat to public health](#) and [China detains 74 linked to lead poisoning as crackdown widens](#)]

[Workplace smoking bans cut emergency room traffic: new study.](#)

Thursday, May 19, 2011

Smoking is set to be banned on every Melbourne beach from Altona to Elwood, after Hobsons Bay Council became the third Victorian municipality to ban beachgoers from lighting up. Melbourne Age, Australia.

[See other articles about tobacco use: [Beach smoking ban stretches west](#); [Smokers have slimmer odds of surviving colon cancer](#); [Smokers fuming over new New York ban](#); [Health boost for smoking ban](#); [New York City outdoor smoking ban begins](#); [Tobacco giant Phillip Morris suing Uruguay over ban](#); [The unstoppable march of the tobacco giants](#); [Graphic warnings on cigarette packets DO help smokers to kick the habit](#) and [Putting a crimp in the hookah](#)]

[Array of flame retardants found in baby car seats, changing pads, other items.](#)

Wednesday, May 18, 2011

Eighty percent of cushions used in car seats, portable cribs and other baby furnishings contain chemical flame retardants that can accumulate in babies' bodies, according to a new study published Wednesday. Environmental Health News.

[See other articles about children's health: [Fears for kids over toxic toys](#) and [Protecting kids from chemicals in the environment](#)]

Lessons Learned

Global Warming - Trapped Energy Impacts Health by Steven G. Gilbert, PhD, DABT

"There are many who still do not believe that global warming is a problem at all. And it's no wonder: because they are the targets of a massive and well-organized campaign of disinformation lavishly funded by polluters who are determined to prevent any action to reduce the greenhouse gas emissions that cause global warming out of a fear that their profits might be affected if they had to stop dumping so much pollution into the atmosphere." Al Gore

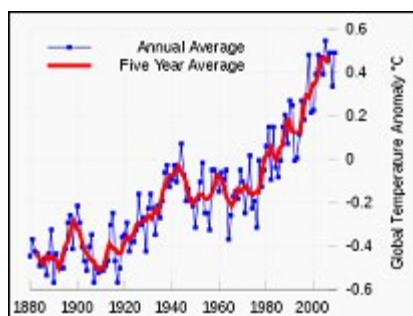
"The issue of climate change is one that we ignore at our own peril. There may still be disputes about exactly how much we're contributing to the warming of the earth's atmosphere and how much is naturally occurring, but what we can be scientifically certain of is that our continued use of fossil fuels is pushing us to a point of no return. And unless we free ourselves from a dependence on these fossil fuels and chart a new course on energy in this country, we are condemning future generations to global catastrophe." Barack Obama

Thoughts on the consequence of burning fossil fuels are not new. Svante Arrhenius (1859-1927) was a Swedish scientist who was the first to claim in 1896 that fossil fuel combustion may eventually result in enhanced global warming. He proposed a relationship between atmospheric carbon dioxide concentrations and temperature. He and Thomas Chamberlin

calculated that human activities could warm the earth by adding carbon dioxide to the atmosphere. This was not actually verified until 1987; in 1988 it was finally acknowledged that the climate was warmer than any period since 1880. The greenhouse effect theory was named, and the Intergovernmental Panel on Climate Change (IPCC) was founded by the United Nations Environmental Programme and the World Meteorological Organization. The IPCC tries to predict the impact of the greenhouse effect according to existing climate models and literature information.



Svante Arrhenius



Global warming is clearly evident from the NASA figure at the left documenting instrumental global surface temperature record since widespread reliable measurements began in the late 19th century. The X axis represents time, and the Y axis representing temperature anomaly (departure from 1961-1990 baseline) in degrees Celsius is the increase in the average temperature of Earth's near-surface air and oceans since the mid 20th century. According to the 2007 Fourth Assessment Report by the IPCC, global surface temperature increased by $0.74 \pm 0.18 \text{ }^{\circ}\text{C}$ ($1.33 \pm 0.32 \text{ }^{\circ}\text{F}$) during the 20th century. Most of the observed temperature increase since the middle of the 20th century has been caused by increasing concentrations of greenhouse gases, which result from human activities such as the burning of fossil fuel and deforestation.

The health effects of a rapidly changing climate are likely to be overwhelmingly negative, particularly in the poorest communities, which have contributed least to greenhouse gas emissions. Some of the health effects include and increase in frequencies of heat waves, shortages in supplies of freshwater, rise in temperatures followed by variable precipitation, which are likely to decrease the production of staple foods in many of the poorest regions, rising sea levels, and prolonged seasons for transmission of important vector-borne disease, as well as altering their geographical range. All these events may lead to increased risks of waterborne disease, malnutrition, coastal flooding, huge population displacement, and new diseases moving into the regions which lack either population immunity or a strong public-health infrastructure.

Even now we continue to put large volumes of greenhouse gases into the environment without fully acknowledging the potential effects on climate. These effects are often most pronounced in developing organisms, which are the most vulnerable, along with the elderly. We have an ethical responsibility to ensure our children as well as all wildlife can reach and maintain their full potential, which means we must confront and reduce our demand for cheap, fossil-based energy.

Greenhouse Effect at Toxipedia: <http://toxipedia.org/x/vb1b>

Svante Arrhenius at Toxipedia: <http://toxipedia.org/x/qMNb>

Looking back to go forward

Lessons Learned is a bulletin feature focusing on an historical event that provides an important lesson for ensuring a more sustainable and healthy environment. Please feel free to send suggestions to [Steve Gilbert](#).

Past Lessons Learned: <http://toxipedia.org/x/06Jb>

The Collaborative on Health and the Environment offers this information as a service but

does not endorse any of the events, articles or announcements.

Companion bulletins are available for different audiences:

- For those interested in general children's environmental health: http://www.healthandenvironment.org/working_groups/childrens_health/bulletins
- For those interested in environmental health in Washington State and the Pacific Northwest: <http://washington.chenw.org/bulletins.html>

While there is overlap with this bulletin, there are some events and announcements unique to those bulletins.

If you would like to join the Collaborative on Health and the Environment (CHE) and the LDDI Working Group, please complete the application on the CHE website: <http://www.healthandenvironment.org/application>. Joining CHE means receiving up to four email messages a month from the CHE National listserv. CHE costs nothing to join and the benefit is shared information and opportunities for further engagement, if you choose. Be sure to mark that you want to join the Learning and Developmental Disabilities Initiative Working Group at the bottom of the application.

Nancy Hepp
Collaborative on Health and the Environment

[Join Our Mailing List!](#)