

Children's Environmental Health International Initiatives

This is an international mailing list provided by [WHO](#) and [UNEP](#) dedicated to promoting healthy environments for children

April 2011

Healthy Environments for Healthy Children

French and Spanish versions of this document are now available and are dedicated to Dr Jenny Pronczuk.



Healthy Environments for Healthy Children results from an ongoing partnership between the WHO, UNEP and UNICEF in the area of children's health and the environment. It

summarizes key messages for action on different environmental health issues, including global environmental change; water pollution; sanitation and hygiene; nutrition, growth and development; vectors of disease; air pollution; chemicals; injuries; environmental emergencies, noise and healthy housing. It also includes the 2009 Busan Pledge for Action on Children's Health and the Environment, drafted by participants at the 3rd WHO International Conference on Children's Health and the Environment. Healthy Environments for Healthy Children was

CHILDREN'S ENVIRONMENTAL HEALTH NEWS

Press Releases

[UNICEF Distributes emergency supplies to flood-affected families in Namibia](#)

UNICEF continues a robust relief operation in the North of Namibia, which has been affected by the heaviest rains and worst flooding in 120 years. In cooperation with local authorities, the agency is distributing emergency supplies to affected families, including three 10,000 litre and ten 5,000 litre water tanks, 150,000 water purification sachets and 1,000 basic family water kits. UNICEF (29/4/11)

[New WHO report: deaths from noncommunicable diseases on the rise, with developing world hit hardest](#)

Noncommunicable diseases are the leading killer today and are on the increase, the first WHO Global status report on noncommunicable diseases (NCDs) launched today confirms. In 2008, 36.1 million people died from conditions such as heart disease, strokes, chronic lung diseases, cancers and diabetes. Nearly 80% of these deaths occurred in low- and middle-income countries. WHO (27/4/11)

featured in the February Newsletter. [Link to WHO feature page](#)

Cette publication est dédiée à la vie et au travail du Dr. Jenny Pronczuk de Garbino (OMS) [French version PDF 2.34Mb](#)

Esta publicación está dedicada a la vida y obra de Jenny Pronczuk de Garbino (OMS) [Spanish version PDF 2.35 Mb](#)

Children's Environmental Health Units: Growing and thriving in Argentina

By: Dra. María Angélica Flores
Buenos Aires, Argentina

The first Children's Environmental Health Unit was created in 2005 in the city of Buenos Aires. After a little more than 5 years there are four CEHUs that have gained a lot of experience. Four more are learning their way.

Most of them (all but one) were set up at Paediatric Hospitals and all of them are located at Public Health hospitals/facilities of national, provincial or municipal domain. At four of these institutions there are Toxicology Departments with 24/7 telephone services.

The objectives of these CEHUs relate to education and information of the community, of fellow health care professionals, direct patient care or reception of referrals and research in

[UNICEF on World Malaria Day: Preventable and curable, but still killing 800,000 every year](#)

Malaria is the third single biggest killer of children globally. An estimated 800,000 people die every year from the disease, with approximately ninety per cent of these deaths occurring in Africa, where malaria accounts for about one in six of all childhood deaths. UNICEF (25/4/11)

[Statement by UNICEF Executive Director Anthony Lake on situation of children in the Middle East and North Africa](#)

"UNICEF is greatly concerned about the effects of violence on children caught in escalating conflicts in the Middle East and North Africa. We continue to condemn the targeting of civilians by armed groups, and call on all parties to provide humanitarian aid workers with immediate access to all areas and children in need". UNICEF (20/4/11)

[2.6 million babies stillborn in 2009](#)

Some 2.6 million stillbirths occurred worldwide in 2009, according to the first comprehensive set of estimates published today in a special series of The Lancet medical journal. WHO (14/4/11)

[UNICEF calls for an immediate end to the siege of Misrata](#)

UNICEF called for an immediate end to the siege of Misrata, warning that tens of thousands of children were at risk in the conflict-ridden city. UNICEF said that intensified fighting and indiscriminate shelling has led to an increased number of children being killed in Misrata, with many others lacking food and safe water, and traumatised from the atrocities they have witnessed. UNICEF (11/4/11)

various environmental health topics.

The teams include doctors, nurses, social workers, nutritionists, midwives, engineers, architects and primary school teachers (from the hospitals schools for patients). The human resources are part of the hospital staff and they may vary from unit to unit.

In other institutions groups of professionals have been meeting as workgroups on Environmental Health and are dealing with issues within their hospital, such as the use of non digital thermometers, non silicon catheters in neonatal wards, management of residues and excessive use of cleaning products as part of their work towards sustainable institutions.

In order to honor and to share the experience of the enthusiastic and dedicated group of professionals that are making this possible a publication is on its way: Children's Environmental Health Units: The Argentinean experience.

The following links (Spanish) provide additional details.

http://www.elizalde.gov.ar/area_medica/upaelizalde/area_upaelizalde.asp

<http://www.garrahan.gov.ar/index.php/hospital/comisiones/32-comite-de-salud-ambiental-infantil>

<http://www.guti.gov.ar/upa.htm>

http://www.hospitalposadas.gov.ar/general/comites/c_sinhumo_act.htm

[World Health Day 2011](#)

Drug resistance is becoming more severe and many infections are no longer easily cured, leading to prolonged and expensive treatment and greater risk of death, warns WHO on World Health Day. Under the theme "Combat Drug Resistance", WHO calls for urgent and concerted action by governments, health professionals, industry and civil society and patients to slow down the spread of drug resistance, limit its impact today and preserve medical advances for future generations. WHO (6/4/11)

[UNICEF concerned about impact of Libya hostilities on children](#)

UNICEF expressed deep concern today at the continuing hostilities in Libya and their impact on children. UNICEF (5/4/11)

[e-Atlas of Global Development Launched by World Bank Easy Mapping with New Data Visualization Tool](#)

The World Bank launched the e-Atlas of Global Development, a free, online, interactive tool, which maps and graphs more than 175 indicators from the World Bank's development database. Critical issues such as poverty, food production, population growth, climate change, international trade, and foreign direct investment are covered. The World Bank (4/4/11)

In the Media

[Crude oil chemical linked to heart defect in babies](#)

Babies who are exposed before birth to ethyl benzene, a toxic component in crude oil, may have a higher risk of developing congenital heart disease. Agence France-Presse (30/4/11)

JOURNAL ARTICLES

Air Pollution

[Maternal Exposure to Air Pollution and Birth Outcomes](#)

The authors conducted a birth cohort study to determine whether low-level exposure to air pollution was associated with premature birth and fetal growth and whether there were sex-specific effects. They reported an increased association of risk for babies being small for gestational age (SGA) and exposure to nitrogen oxides (NOx) after adjusting for maternal age, smoking, sex, and year of birth. After additional adjustment for maternal country of origin and parity, however, the increase was no longer statistically significant. In subgroup analysis when highest and lowest NOx quartiles were compared, there was still an increased risk for SGA for baby girls, and an increased risk also if mothers had not changed residency during pregnancy. The confounders with the greatest impact on SGA were parity and country of origin.

Environmental Health Perspectives

[Particulate Matter–Induced Health Effects: Who Is Susceptible?](#)

The authors evaluated the epidemiological and toxicological literature to identify those populations potentially at greatest risk of health effects associated with exposure to particulate matter (PM). On the basis of their review, the authors identified a number of characteristics that are associated with increased risk of PM-related health effects, including life stage (i.e., children and older adults), preexisting cardiovascular or respiratory diseases, genetic polymorphisms, and low socioeconomic status. In addition, they developed a comprehensive definition of susceptibility

[Stillbirths tied to secondhand smoke](#)

Pregnant women who live or work with smokers may be at slightly higher risk of having a stillbirth, suggests a study that adds to evidence that even secondhand smoke can harm unborn babies. Reuters (30/4/11)

[U of A studies mercury levels in Arctic food chain](#)

The Earth's oceans are converting a relatively harmless form of mercury into a toxic compound that accumulates as it moves up the food chain, poisoning animals and humans, according to research led by a University of Alberta scientist. Edmonton Journal (29/4/11)

[Flame retardants are the asbestos of our times](#)

A half century ago, asbestos seemed a wondrous material. Added to building insulation, brake pads and other products, the fibrous substance stopped the spread of fire and saved lives. But it has ended up killing countless others. Sacramento Bee (28/4/11)

[The Perils of Endosulfan](#)

Endosulfan has been extensively used in India and is one of the prime agents of pesticide poisoning. Many studies concluded that it has been dreadfully toxic to humans, fish and other aquatic life. Though more than 80 countries have banned endosulfan, the most crucial could be the position of India, which is the biggest endosulfan supplier in the world. But the indications are that India, which would play a divisive role in the Geneva talks, is in favour of seeking an exemption for endosulfan rather than a total ban. The Economic Times (26/4/11)

that encompasses all populations potentially at increased risk of adverse health effects as a consequence of exposure to air pollution.

Environmental Health Perspectives

[Increased traffic exposure and negative birth outcomes: a prospective cohort in Australia](#)

Pregnant women exposed to traffic pollution have an increased risk of negative birth outcomes. The authors aimed to investigate the size of this risk using a prospective cohort of 970 mothers and newborns in Logan, Queensland. They reported no associations with distance to road. A greater number of freeways and main roads around the home were associated with a shorter gestation time. There were no negative impacts on birth weight, birth length or head circumference after adjusting for gestation. The negative effects on gestation were largely due to main roads within 400 metres of the home. For every 10 extra main roads within 400 metres of the home, gestation time was reduced.

Environmental Health

[Road Traffic and Childhood Leukemia: The ESCALE Study \(SFCE\)](#)

Traffic is a source of environmental exposures, including benzene, which may be related to childhood leukemia. A national registry-based case-control study carried out in France was used to assess the effect of exposure to road traffic exhaust fumes on the risk of childhood leukemia. Acute leukemia (AL) was significantly associated with estimates of traffic NO₂ concentration at the place of residence > 27.7 µg/m³ compared with NO₂ concentration < 21.9 µg/m³ and with the presence of a heavy-traffic road within 500 m compared with the absence of a heavy-traffic road in the same area. There was a significant association between AL and a high density of heavy-traffic roads within 500 m compared with the

[Pediatricians to Feds: Protect kids from toxic chemicals](#)

It seems like every week there's another scary-sounding chemical intruding into our lives: Bisphenol A in baby bottles, phthalates in plastic food containers, PBDE flame retardants in furniture and electronics, triclosan in soaps and shampoos. The nation's paediatricians are calling for a major redo of the nation's law regulating the 80,000 or so chemicals in use. National Public Radio (26/4/11)

[Eliminating Packaged Foods Can Lower BPA Exposure](#)

The endocrine-disrupting chemical Bisphenol A (BPA) is in the news again following the release of a new study published in Environmental Health Perspectives. This time it is good news. Chicago FWLD TV (26/4/11)

[Pediatricians seek better regulation of toxins](#)

The U.S. needs to do a better job protecting children and pregnant women from toxic chemicals, says a policy statement out today from the American Academy of Pediatrics. USA Today (25/4/11)

[Bisphenol A? 'No noteworthy risk,' says big German toxicology panel](#)

The German Society of Toxicology recently reviewed thousands of studies of the chemical found in many plastics and concluded that "exposure represents no noteworthy risk to the health of the human population, including newborns and babies." Journal Sentinel (22/4/11)

[Prenatal pesticide exposure linked with lower IQ](#)

Babies exposed to pesticides before birth may have significantly lower intelligence scores by age 7 than children who were

reference category with no heavy-traffic road within 500 m with a significant positive linear trend of the association of AL with the total length of heavy-traffic road within 500m. The authors concluded that the study supports the hypothesis that living close to heavy-traffic roads may increase the risk of childhood leukemia.

Environmental Health Perspectives

Chemicals

[Developmental Neurotoxicants in E-Waste: An Emerging Health Concern](#)

Electronic waste (e-waste) is an emerging environmental health issue, especially in developing countries. The authors pointed out that environmental exposure to suspected developmental neurotoxicants such as lead, cadmium, chromium, polybrominated diphenyl ethers, polychlorinated biphenyls, and polycyclic aromatic hydrocarbons found in e-waste is prevalent in areas where there is unregulated e-waste recycling. The potential risk of developmental neurotoxicity for exposed infants and children may therefore be high under such conditions. The authors also noted that e-waste exposures typically involve a mixture of heavy metals and persistent organic pollutants. Research is needed to understand the potential interaction of such chemicals as it relates to developmental neurotoxicity. More effective regulation of e-waste reclamation and pollution control measures are needed to protect vulnerable populations such as infants and children.

Environmental Health Perspectives

[Regular Breakfast and Blood Lead Levels among Preschool Children](#)

Previous studies have shown that fasting increases lead absorption in the

not exposed, three separate studies said. Reuters (21/4/11)

[Plastic and Humankind: An Unhealthy Relationship](#)

Plastic has completely transformed our lives – everything from modern medicine to food safety has been made possible by its fantastic and varied properties. But we've gradually realized that plastic has a dark side. Opinion (20/4/11)

[California's poor, Mexican American kids highly exposed to flame retardants](#)

Mexican American school children in California are contaminated with seven times more flame retardants than children in Mexico and three times more than their own mothers, according to a new study. The 7-year-olds in the Salinas Valley had more of the chemicals in their bodies than almost all other people tested worldwide. Low income, rather than race or ethnicity, is probably the major factor in determining who is highly exposed to these chemicals. Household dust is likely the major source. Environmental Health News (20/4/11)

[Mother's diet during pregnancy alters baby's DNA](#)

A mother's diet during pregnancy can alter the DNA of her child and increase the risk of obesity, according to researchers. The study, to be published in the journal Diabetes, showed that eating low levels of carbohydrate changed bits of DNA. BBC News (19/4/11)

[Food Dye Debate Resurfaces](#)

Artificial colors have been making processed foods look more appealing for decades. But renewed fears about a link between the consumption of chemically synthesized dyes and behavioral problems in children have prompted regulators to take a closer look at the

gastrointestinal tract of adults. Regular meals/snacks are recommended as a nutritional intervention for lead poisoning in children, but epidemiological evidence of links between fasting and blood lead levels (B-Pb) is rare. The purpose of this study was to examine the association between eating a regular breakfast and B-Pb among children using data from the China Jintan Child Cohort Study. Adjusting for other relevant factors, the linear regression model revealed that eating breakfast regularly was significantly associated with lower B-Pb. The authors concluded that this study provides some initial human data supporting the notion that eating a regular breakfast might reduce B-Pb in young children.

Environmental Health

[Similarity of Bisphenol A Pharmacokinetics in Rhesus Monkeys and Mice: Relevance for Human Exposure](#)

Daily adult human exposure to bisphenol A (BPA) has been estimated at < 1 µg/kg, with virtually complete first-pass conjugation in the liver in primates but not in mice. The authors measured unconjugated and conjugated BPA levels in serum from adult female rhesus monkeys and adult female mice after oral administration of BPA and compared findings in mice and monkeys with prior published data in women. The authors concluded that BPA pharmacokinetics in women, female monkeys, and mice is very similar. By comparison with approximately 2 ng/mL unconjugated serum BPA reported in multiple human studies, the average 24-hr unconjugated serum BPA concentration of 0.5 ng/mL in both monkeys and mice after a 400 µg/kg oral dose suggests that total daily human exposure is via multiple routes and is much higher than previously assumed.

Environmental Health Perspectives

safety of color additives in food. Chemical and Engineering News (18/4/11)

[Brain-wide chemical changes linked to childhood lead exposure.](#)

Exposure to moderate levels of lead during childhood can permanently change important brain chemical levels later in life, suggests results from a large brain imaging study. Environmental Health News (18/4/11)

[Beyond BPA: Could 'BPA-Free' Products Be Just as Unsafe?](#)

Concerns about toxic bottles and other consumer goods have led to new plastics—but we don't know much about them. Atlantic Monthly (15/4/11)

[DoH declares cholera outbreak in Palawan town](#)

Health officials have declared a cholera outbreak in Bataraza town in Palawan following the death of nearly 20 people, mostly children belonging to a tribe, due to diarrhea and vomiting. Philippine Daily Inquirer (13/4/11)

[Prenatal Exposure to Certain Pollutants Linked to Behavioral Problems in Young Children](#)

Mothers' exposure during pregnancy to pollutants created by the incomplete combustion of fossil fuels and other organic material may lead to behavioral problems in their children, according to a new study. Science Daily (12/4/11)

[Arsenic and toxic metals found in baby foods](#)

Baby foods used to wean infants off milk have been found to contain "alarming" levels of toxic contaminants including arsenic, lead and cadmium. London Daily Telegraph (10/4/11)

Global Change

[Assessing the Global Composite Impact of Chemicals on Health](#)

The total role that the environment plays in contributing to premature death and disability remains sketchy, but researchers working with the World Health Organization (WHO) continue to flesh out the details. Now four WHO researchers have estimated the global burden of certain toxic substances for which adequate data are available. They have calculated that in 2004 at least 8.3% of all preventable deaths and 5.7% of the preventable portion of the metric known as disability-adjusted life years (DALYs, which address a blend of death and disease impacts) were caused by the toxics analyzed. Their estimates include health end points such as cardiovascular disease, cancers, neuropsychiatric disorders, asthma, chronic obstructive pulmonary disease, respiratory infections, and birth defects.

Environmental Health Perspectives

Reproductive Health

[Perinatal Exposure to Environmentally Relevant Levels of Bisphenol A Decreases Fertility and Fecundity in CD-1 Mice](#)

It has been previously reported that perinatal exposure to bisphenol A (BPA) can alter the ovary, uterus, and mammary glands and affect a sexually dimorphic region of the brain known to be important for estrous cyclicity. The authors explored whether perinatal exposure to environmentally relevant doses of BPA alters reproductive capacity in laboratory animals. Female mice exposed to various doses of BPA perinatally were continuously housed with proven breeder males starting at 2 months of age. The authors reported a decline in the cumulative number of pups and fertility and

[USC study: Freeway air unkind to mouse brains](#)

Researchers at USC found that tiny particles generated from the burning of fossil fuels caused damage to the brains of mice, including areas responsible for memory and learning. Orange County Register (8/4/11)

[Atrazine associated with risk of small babies, human study shows.](#)

Researchers in France report that women exposed to detectable levels of the herbicide atrazine during pregnancy are more likely to give birth to smaller babies. Prior human and animal studies report similar results. Environmental Health News (8/4/11)

[Phthalates, BPA linked to atypical childhood social behaviors.](#)

A recent study finds that children with higher fetal exposure to both phthalates and bisphenol A (BPA) have impaired social functioning. Environmental Health News (7/4/11)

[Freeway pollution causes brain damage in mice-study](#)

Southern California freeway pollution, already linked to heart and respiratory problems, causes significant brain damage in mice, according to a study released on Thursday. The damage is done not by smog but by tiny particles, each roughly one-thousandth the width of a human hair, made up of burning fossil fuel and weathering of car parts and pavement. Reuters (7/4/11)

[Secondhand smoke isn't just bad for kids' bodies, it's bad for their brains](#)

Children and teens exposed to secondhand smoke are more likely to develop symptoms for a variety of mental health problems, including major

fecundity in those animals exposed perinatally to BPA. The effect on the cumulative number of pups is comparable to data previously reported in mice developmentally exposed to DES (diethylstilbestrol), a compound known to impair reproduction in women. The authors concluded that the results suggest the possibility that early BPA exposure may also affect reproductive capacity in women.

Environmental Health Perspectives

depressive disorder, attention-deficit/hyperactivity disorder and others, according to a study published in the journal Archives of Pediatrics and Adolescent Medicine. Los Angeles Times (6/4/11)

[Lessons from the past](#)

The Chernobyl disaster still has much to tell us about the long-term risks of low-level radiation exposure. But only if the necessary follow-up studies are supported. Nature (6/4/11)

[Early births linked to highway proximity](#)

Women who live near freeways and highways are more likely to give birth prematurely, new research suggests. Australian Associated Press (4/4/11)

[Mercury Pollution Damages Environment](#)

The U.S. Environmental Protection Agency estimates that mercury pollution is so widespread that one in six women of childbearing age already has enough mercury in her blood to put her baby at risk, should she become pregnant. Joplin Globe (3/4/11)

[Crack Down On Lead-Based Paint](#)

Pretoria — The Department of Health is to launch an investigation following reports on the ongoing availability of hazardous lead-based paint, despite the ban of its manufacture and sale. All Africa (1/4/11)

UPCOMING EVENTS

[6th World Environmental Education Congress](#)

19 – 23 July 2011. Brisbane, Queensland, Australia

[Scientific Conference to launch the Children's Health and Environment Program](#)

5 -7 August 2011. Brisbane, Queensland Australia

[World Conference on Social Determinants of Health](#)

19-21 October 2011. Rio de Janeiro, Brazil.

[16th International Conference on AIDS & STIs in Africa \(ICASA\)](#)

4 – 8 December 2011. Addis Ababa, Ethiopia

[Links to past issues and how to subscribe](#)

Have news for us?

If you would like to submit information to future HECANET issues, email us at heca@who.int with the subject line "INFORMATION FOR HECANET".

Collated and distributed with the cooperation of the [WHO Collaborating Centre for Children's Environmental Health, Perth, Australia](#)

and

[Children's Health and the Environment Program, QCMRI, Brisbane, Australia](#)