

Children's Environmental Health International Initiatives

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

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WHO'S FIRST GLOBAL CONFERENCE ON AIR POLLUTION AND HEALTH, 30 OCTOBER – 1 NOVEMBER 2018

The Global Conference on Air Pollution and Health, 30 October - 1 November 2018 will be organized at WHO Headquarters in Geneva, in collaboration with UN Environment, World Meteorological Organization (WMO), the Secretariat of the UN Framework Convention on Climate Change (UNFCCC), the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants (CCAC) and the United Nations Economic Commission for Europe (UNECE). WHO is currently in the process of sending invitations. Remote participation will be facilitated by webcasting and live-streaming of the sessions.

Available on the [conference website](#):

- Conference concept note (English, Spanish, French)
- Conference flyer
- Conference overview agenda
- Preliminary programme/agenda

THIRD GLOBAL CONFERENCE ON HEALTH AND CLIMATE CHANGE

The SIDS Initiative has a vision that by 2030, all health systems in SIDS will be resilient to climate variability and change. PAHO, jointly with WHO, will convene the Caribbean meeting of the geographically dispersed III Global Conference on Health and Climate Change: Special Focus on Small Island Developing States (SIDS) in St. George's, Grenada, from 16-17 October 2018.

The conference will be attended by Ministers of Health, Ministers of Environment, partner agencies, and stakeholders from Caribbean SIDS, who will discuss and identify actions and

CHILDREN'S ENVIRONMENTAL HEALTH NEWS

Press Releases

[International lead poisoning prevention week of action](#)

From 21 to 27 October 2018 the international lead poisoning prevention week of action took place, with a particular focus on eliminating lead paint. Lead poisoning is preventable, yet the Institute for Health Metrics and Evaluation has estimated that, based on 2016 data, lead exposure accounted for 540 000 deaths and 13.9 million years lost to disability and death due to long-term effects on health, with the highest burden in developing regions. Of particular concern is the role of lead exposure in the development of intellectual disability in children. Even though there is wide recognition of this problem and many countries have taken action, exposure to lead, particularly in childhood, remains of key concern to health care providers and public health officials worldwide. WHO

[Analysis of new U.S. coal plant rules shows deadly dangers of air pollution](#)

An analysis of a new draft rule to regulate greenhouse gas emissions in the U.S. power generation sector clearly demonstrates the dangers of air pollution, with up to 1,400 extra deaths per year expected from proposed changes to how coal-fired power plants can operate. The analysis, released this week by the U.S. Environmental Protection Agency (EPA), looks at the impacts of replacing the Clean Power Plan – a 2015 rule to cut greenhouse gas emissions from power plants by 32 per cent by 2030 – with the Affordable Clean Energy Rule. UNEP (25/8/2018)

[Delhi's "No Child in Trash" safe spaces](#)

"Some children don't know about studies. We make them aware, so they complete higher

indicators for an Action Plan on Health and Climate Change to be implemented in the Caribbean.

The outputs of the three conferences will be the base for a Global Action Plan to be presented to the World Health Assembly in 2019.

Read more about the [WHO Special Initiative on Climate Change and Health in SIDS](#).

JOURNAL ARTICLES

Air Pollution

[Air pollution and airway resistance at age 8 years – the PIAMA birth cohort study](#)

The study assessed associations of long-term air pollution exposure with airway resistance. Authors measured airway resistance at age 8 with the interrupter resistance technique (Rint) in participants of the Dutch PIAMA birth cohort study. Authors linked Rint with estimated annual average air pollution concentrations [nitrogen oxides (NO₂, NO_x), PM_{2.5} absorbance (“soot”), and particulate matter < 2.5 µm (PM_{2.5}), < 10 µm (PM₁₀) and 2.5–10 µm (PM_{coarse})] at the birth address and current home address (n = 983). Authors found that higher levels of NO₂ at the current address were associated with higher Rint [adj. mean difference (95% confidence interval) per interquartile range increase in NO₂: 0.018 (0.001, 0.035) kPa·s·L⁻¹]. Similar trends were observed for the other pollutants, except, PM₁₀. No association was found between Rint and exposure at the birth address.

Environmental Health

Chemicals

[Organophosphate and Pyrethroid Pesticide Exposures Measured before Conception and Associations with Time to Pregnancy in Chinese Couples Enrolled in the Shanghai Birth Cohort](#)

The study aimed to investigate the effects of preconception exposure to pesticides on time to pregnancy (TTP) and on infertility in a general population of couples planning to become pregnant in Shanghai, China. After adjusting for age, prepregnancy BMI, current smoking, education, annual household income, age at menarche, and two items from the Perceived Stress Scale (PSS-10), women in the highest quartile of diethylthiophosphate (DETP; an OP

education. They are doing their best,” Rakhi Goswami says. The 24-year-old teacher supports children from Delhi’s largest rubbish dumps as part of the “No Child in Trash” programme of the Chintan Environmental Research and Action Group. Twenty-three learning centres have been set up, in response to research highlighting the vulnerability of waste picker children. Chintan estimates that there are up to 4 million people engaged in picking waste, and Save the Children notes that roughly 20 percent of the 51,000 street children in Delhi are waste pickers. UNEP (10/8/2018)

[Parliamentarians from WHO South-East Asia Region commit to health of women, children and adolescents](#)

Over 30 parliamentarians from countries in WHO South-East Asia Region have committed to health and wellbeing of women, children and adolescents, to further reduce preventable diseases and deaths among them. “The health of women, children and adolescents is critical to sustainable development – economic as well as social development. This population should be at the center of our efforts to achieve universal health coverage – with quality health care provided to everyone, everywhere,” Dr Poonam Khetrpal Singh, Regional Director, WHO South-East Asia, said. WHO SEAR (31/7/2018)

[Parties to Montreal Protocol take up urgent response to CFC-11 emissions](#)

Delegates, representatives, civil society groups, implementing agencies, and industry stakeholders gathered here this week for the 40th Open-Ended Working Group (OEWG) of the Montreal Protocol. This annual meeting is a critical opportunity for multilateral deliberations informed by scientific assessments in the months before the 30th Meeting of the Parties in November, which serves as the formal decision-making body to the Protocol. With more than 140 national delegations on hand, representatives convened against the backdrop of an urgent challenge to over 30 years of ozone recovery. UNEP (16/7/2018)

[FAO reiterates support to Portuguese-speaking countries to eradicate hunger and malnutrition](#)

FAO Director-General José Graziano da Silva today reiterated his support to the Community of Portuguese Language Countries (CPLP) in the implementation of their Regional Strategy for Food Security and Nutrition to eradicate hunger and ensure adequate food in the lusophone

metabolite) had significantly longer TTP [adjusted FOR=0.68 (95% CI: 0.51, 0.92)] and increased infertility [adjusted OR=2.17 (95% CI: 1.19, 3.93)] compared with women in the lowest quartile. The highest versus lowest quartile of 3-phenoxybenzoic acid (3PBA; a PYR metabolite) was associated with longer TTP and infertility, with significant associations in nulliparous women [adjusted FOR=0.72 (95% CI: 0.53, 0.98); adjusted OR for infertility=2.03 (95% CI: 1.10, 3.74)]. This study provides some of the first evidence that preconception organophosphate and pyrethroid exposures are associated with decreased fertility in Chinese couples.

Environmental Health Perspectives

[Occupational exposure to organic solvents during pregnancy and childhood behavior: findings from the PELAGIE birth cohort \(France, 2002–2013\)](#)

The study's objective is to explore whether occupational exposure of pregnant women to solvents may impair the neurodevelopment of their babies and consequently affect their behavior in childhood. Increased externalizing behavior score at age 2 was associated with prenatal exposure to solvents (standardized score: 0.34 (95% CI=0.11, 0.57) for occasional exposure and 0.26 (0.05, 0.48) for regular exposure). This association was attenuated at age 6 (0.22 (-0.02, 0.47) for occasional exposure and 0.07 (-0.14, 0.28) for regular exposure). No association was observed for internalizing behavior. Pregnant women's occupational exposure to solvents may affect their children's behavior in early childhood. This effect may be attenuated with aging or diluted by the effects of other postnatal predictors.

Environmental Health

[Physiologically Based Pharmacokinetic \(PBPK\) Modeling of the Bisphenols BPA, BPS, BPF, and BPAF with New Experimental Metabolic Parameters: Comparing the Pharmacokinetic Behavior of BPA with Its Substitutes](#)

The endocrine disrupting chemical bisphenol A (BPA) has been facing stricter regulations in recent years. BPA analogs, such as the bisphenols S, F, and AF (BPS, BPF, and BPAF) are increasingly used as replacement chemicals, although they were found to exert estrogenic effects similar to those of BPA. Research has shown that only the parent compounds have affinity to the estrogen receptors, suggesting that the pharmacokinetic behavior of bisphenols (BPs) can influence their potency. Within

countries. He stressed that FAO will continue to support the work of the National Food and Nutritional Security Councils (CONSAN), that have been set up in seven of the bloc's nine member states (Brazil, Cape Verde, Mozambique, Sao Tome and Principe, Timor-Leste, Guinea-Bissau and, as of last week, Portugal) and said he hoped that both Angola and Equatorial Guinea would follow their example. FAO (16/7/2018)

[Borno targets more than 1 million children with anti-malaria therapy](#)

With the support of World Health Organization (WHO) and partners, Borno State Ministry of Health plans to reach more than 1.1 million children aged three to 59 months with anti-malaria therapy in 13 local government areas (LGAs), including security compromised Mobbar, Ngala, and Monguno. From 14 – 17 July 2018, anti-malaria drug administrators will be visiting households to administer the first dose of the 4-cycle campaign, which aims to mitigate against increased cases and deaths during the 2018 peak transmission period in the state. WHO AFRO (13/7/2018)

[UN Environment calls to stop flow of "dirty fuel" to West Africa](#)

A new report outlining the origin and composition of "dirty diesel" transported from European ports to Western Africa was presented to the Dutch government today, showing insufficient compliance with processing rules leading to fuel blends that represent a risk to people and the environment. UN Environment applauds the action taken by the government of the Netherlands to better understand and proactively approach the problem, and urges other nations to follow suit.

UNEP (9/7/2018)

[China's trash ban lifts lid on global recycling woes but also offers opportunity](#)

China's decision to ban imports of foreign waste, including some plastics, has reverberated around the world, with recycling operations in other countries struggling to deal with the new reality. But is this an opportunity wrapped in a crisis? Some experts argue that developed nations will, at last, have to face up to the true cost of their plastic addiction instead of shipping the problem to China, which has taken nearly half the world's waste since 1992. This could spur much-needed investment in domestic recycling facilities as well as innovation in plastic manufacturing to make

environmentally relevant concentration ranges, BPAF and BPS were glucuronized at highest and lowest rates, respectively, in the intestine and the liver. The predominant routes of BPS and BPAF exposure were peroral and dermal exposure, respectively. The calibration of the BPS model with measured concentrations showed that enterohepatic recirculation may be important. Assuming equal external exposures, BPS exposure led to the highest internal concentrations of unconjugated BPs.

Environmental Health Perspectives

E-waste

[Metal concentrations in pregnant women and neonates from informal electronic waste recycling](#)

In 2011–12, the e-waste Recycling Exposures and Community Health (e-REACH) Study enrolled 634 pregnant women living in Guiyu and Haojiang, a control site, both in Shantou, China. The women completed a questionnaire and gave maternal blood, cord blood, and maternal urine, which were analyzed for Pb, Cd, Cr, and Mn. Maternal blood Pb, Cd, and Cr concentrations were significantly higher in Guiyu compared to Haojiang. In Guiyu, the geometric mean of Pb concentration in maternal blood was 6.66 µg/dL (range: 1.87–27.09 µg/dL) and was 1.74-fold greater than in Haojiang (95% CI: 1.60, 1.89). In cord blood, Pb concentration was 1.53-fold higher in Guiyu (95% CI: 1.38, 1.68). In maternal urine, Cd (ratio: 2.15, 95% CI: 1.72, 2.69) and Mn (ratio: 2.60, 95% CI: 2.04, 3.31) concentrations were significantly higher in Guiyu in comparison to Haojiang.

Journal of Exposure Science & Environmental Epidemiology

New Publications

[Applying methods of the global burden of diseases, injuries, and risk factors study to developmental neurotoxicants: a commentary](#)

The purpose of this commentary is to consider whether the methods of the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) can provide accurate estimates of the impact of developmental neurotoxicant exposures on population health. The discussion focuses on two concerns. First, GBD implicitly largely endorses a “high risk” or “disease” approach to estimating health loss rather than a “population-based” approach. Exposure to many developmental neurotoxicants is highly prevalent but, for most

products more suited to repurposing. It could also invigorate the vociferous public campaign to change our throwaway culture. UNEP (9/7/2018)

[Going for gold: can small-scale mines be mercury free?](#)

Artisanal and small-scale gold mining, or ASGM, is a controversial but important global industry and vital source of livelihoods which is often overlooked, or overshadowed, by large-scale projects. While these mines are small, they are significant contributors to local development and the global gold market. Of all the gold extracted around the world each year, 15 per cent comes from small-scale mines. Ninety per cent of the global gold mining workforce, around 10 to 15 million people, work in ASGM. In turn, these workers indirectly support over 100 million people, by injecting cash into rural economies. But poor practices at these mines create numerous health and environmental problems and of particular importance are those related to mercury. UNEP (27/6/2018)

In the Media

[Hazardous chemicals found in popular toys](#)

Tests on “squishy” toys have found high levels of hazardous chemicals, which can impair fertility, act as carcinogens, cause liver damage, and irritate the mucous membrane or eyes. The tests were carried out by the Danish Environmental Protection Agency on 12 squishy toys, all of which were found to emit high levels of harmful substances, including dimethylformamide, styrene and toluene. These could harm children who sleep with their squishies or have several of them in their bedroom, the agency said. The toys have been withdrawn from the shelves in Denmark, but the country’s environment minister has called into question the health implications of all squishies, and asked the toy industry to take action. *The Ecologist* (31/8/2018)

[Global health Scientists hail malaria breakthrough as bed nets prove deadly to mosquitoes](#)

A bed net designed to kill insecticide-resistant mosquitoes could prevent millions of cases of malaria across sub-Saharan Africa, scientists have found. A two-year clinical trial in Burkina Faso showed that dousing bed nets with a combination of chemicals resulted in a 12% reduction in clinical malaria cases, compared with conventional bed nets. The findings, published this week in the *Lancet*, demonstrate a “big step

individuals, it does not affect functional health to such an extent that diagnostic criteria for a disease are met. Nevertheless, the impacts are real and can be substantial when viewed in terms of the aggregate impact on a population. Second, in GBD the disability weights used for the most common sequelae of developmental neurotoxicant exposures, based on judgments provided by general population respondents, are not commensurate with the import that these sequelae have for an individual's lifelong well-being, including their ability to fulfill educational, occupational, and social potential.

Environmental Health

[The Urban Exposome during Pregnancy and Its Socioeconomic Determinants](#)

The urban exposome is the set of environmental factors that are experienced in the outdoor urban environment and that may influence child development. The authors' goal was to describe the urban exposome among European pregnant women and understand its socioeconomic determinants. Using geographic information systems, remote sensing and spatio-temporal modeling authors estimated exposure during pregnancy to 28 environmental indicators in almost 30,000 women from six population-based birth cohorts, in nine urban areas from across Europe. Exposures included meteorological factors, air pollutants, traffic noise, traffic indicators, natural space, the built environment, public transport, facilities, and walkability. Socioeconomic position (SEP), assessed at both the area and individual level, was related to the exposome through an exposome-wide association study and principal component (PC) analysis. The urban exposome showed considerable variability across Europe. Pregnant women of low SEP were exposed to higher levels of environmental hazards in some cities, but not others, which may contribute to inequities in child health and development.

Environmental Health Perspectives

[Down to Earth: The Emerging Field of Planetary Health](#)

Human impacts on our planet have become so profound that many researchers now favor a new name for the current epoch: the Anthropocene. The underlying premise of this term is that essentially every Earth system, from the deep oceans to the upper atmosphere, has been significantly modified by human activity. This idea, and related concepts like the great

forward" in the fight against malaria in Africa, which is home to 91% of all malarial deaths worldwide, said Professor Steve Lindsay of the department of biosciences at Durham University, who worked on the study. *The Guardian* (11/8/2018)

[Court Orders E.P.A. to Ban Chlorpyrifos, Pesticide Tied to Children's Health Problems](#)

A federal appeals court ordered the Environmental Protection Agency on Thursday to bar within 60 days a widely used pesticide associated with developmental disabilities and other health problems in children, dealing the industry a major blow after it had successfully lobbied the Trump administration to reject a ban. The order by the United States Court of Appeals for the Ninth Circuit came after a decade-long effort by environmental and public health groups to get the pesticide, chlorpyrifos, removed from the market. *New York Times* (9/8/2018)

[Record number of severely obese children](#)

A record number of primary school children are leaving school severely obese, according to new figures from Public Health England. Data for 2016/17 shows one in 25 10 to 11 year olds were severely obese. That's more than 22,000 children, and the highest level since records began. Levels of childhood obesity have remained fairly stable in recent years, but the new analysis shows that severe obesity has been on an upward trend over the last decade. The data from the National Child Measurement Programme (NCMP) for children for the year 2016/17 has detailed the trends in severe obesity for the first time. *BBC News* (24/7/2018)

[Australia eyeliner warning over lead-poisoned children](#)

Three children in Australia are suspected to have fallen ill from using eyeliner contaminated with lead, authorities say. The New South Wales state government issued a public health alert over the Pakistan-made Hashmi brand products. The kohl cosmetics were found to contain 84% lead, as well as other dangerous metals. The products were legally imported but contained dangerously misleading packaging, the government said. Doctors had raised concerns when they found lead in the blood of the children, all of whom were related. *BBC News* (24/7/2018)

[Chemicals in Food May Harm Children, Pediatricians' Group Says](#)

A major pediatricians' group is urging families to

acceleration, planetary boundaries, and tipping points may be of interest, even grave concern, to ecologists, biologists, and climatologists. Yet viewed through an environmental health lens—which recognizes the critical links between human health and the food we eat, the water we drink, and the air we breathe—humans' growing influence on the planet threatens the very long-term survival of our species.

Environmental Health Perspectives

[Expanding the Concept of Translational Research: Making a Place for Environmental Health Sciences](#)

The National Institute of Environmental Health Sciences (NIEHS) introduces a new translational research framework that builds upon previous biomedical models to create a more comprehensive and integrated environmental health paradigm. The framework was developed as a graphical construct that illustrates the complexity of designing, implementing, and tracking translational research in environmental health. We conceptualize translational research as a series of concentric rings and nodes, defining "translation" as movement either from one ring to another or between nodes on a ring. A "Fundamental Questions" ring expands upon the research described in other frameworks as "basic" to include three interrelated concepts critical to basic science research: research questions, experimental settings, and organisms.

Environmental Health Perspectives

UPCOMING EVENTS

[WHO's First Global Conference on Air Pollution and Health](#)

30 October - 1 November 2018, Geneva, Switzerland

International Childhood Cancer Cohort Consortium (I4C) Annual Meeting
13-14 Nov 2018, Tokyo, Japan

[Excellence in Pediatrics Conference](#)

6-8 December 2018, Prague, Czechia

EDUCATION AND TRAINING

[WHO Children's environmental Health training modules translated into Japanese](#)

Three modules from the WHO Training Package

limit the use of plastic food containers, cut down on processed meat during pregnancy and consume more whole fruits and vegetables rather than processed food. Such measures would lower children's exposures to chemicals in food and food packaging that are tied to health problems such as obesity, the group says. The American Academy of Pediatrics issued the guidelines in a statement and scientific technical report on Monday. The group joins other medical and advocacy groups that have expressed concern about the growing body of scientific evidence indicating that certain chemicals that enter foods may interfere with the body's natural hormones in ways that may affect long-term growth and development. *New York Times* (23/7/2018)

[PFAS: Expert submits warning via federal inquiry that contamination more widespread than reported](#)

A contamination expert is warning a federal parliamentary inquiry that the spread of potentially harmful chemicals once used in firefighting foam is likely to have affected many more parts of Australia than previously reported. The expert said the sites included all Australian airports, all landfill sites, and any locations where there had been a large fuel or chemical fire in the past 50 years. *ABC News* (17/7/2018)

[Now in Sight: Success Against an Infection That Blinds](#)

In May, the World Health Organization declared that Nepal had eliminated trachoma as a public health problem, making it the sixth country to do so. In June, Ghana became the seventh. Quietly, in the shadow of fights against better-known diseases like Ebola, AIDS and malaria, the 20-year battle against trachoma is chalking up impressive victories. Those successes, experts say, show the wisdom of advocating and enforcing basic public health practices, rather than waiting for a miracle cure or a new vaccine. *New York Times* (16/7/2018)

[Deluge of electronic waste turning Thailand into 'world's rubbish dump'](#)

At a deserted factory outside Bangkok, skyscrapers made from vast blocks of crushed printers, Xbox components and TVs tower over black rivers of smashed-up computer screens. This is a tiny fraction of the estimated 50m tonnes of electronic waste created just in the EU every year, a tide of toxic rubbish that is flooding into south-east Asia from the EU, US and Japan.

for Health Care Providers “Why children?”, “Children are not little adults” and “unsound management of chemicals” are now available in Japanese.

Thailand, with its lax environmental laws, has become a dumping ground for this e-waste over the past six months, but authorities are clamping down, fearful that the country will become the “rubbish dump of the world”. The global implications could be enormous. The Guardian (28/6/2018)

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Have news for us?

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