

## 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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### UN ENVIRONMENT AND WHO AGREE TO MAJOR COLLABORATION ON ENVIRONMENTAL HEALTH RISKS

UN Environment and WHO have agreed a new, wide-ranging collaboration to accelerate action to curb environmental health risks that cause an estimated 12.6 million deaths a year.

Mr Erik Solheim, head of UN Environment, and Dr Tedros Adhanom Ghebreyesus, Director-General of WHO, signed an agreement to step up joint actions to combat air pollution, climate change and antimicrobial resistance, as well as improve coordination on waste and chemicals management, water quality, and food and nutrition issues. The collaboration also includes joint management of the BreatheLife advocacy campaign to reduce air pollution for multiple climate, environment and health benefits.

This represents the most significant formal agreement on joint action across the spectrum of environment and health issues in over 15 years.

[Press release](#)

### 142 SESSION OF THE WHO EXECUTIVE BOARD

This week the WHO Executive Board (EB) is setting the agenda for the World Health Assembly, and determining how best to promote health, keep the world safe, and serve the vulnerable. Among the key documents, the EB will discuss the report Health, Environment and Climate Change.

[Report by the Director General on Health, environment and climate change](#)

[Provisional agenda](#)

[Live webcast](#)

### CHILDREN'S ENVIRONMENTAL HEALTH NEWS

#### Press Releases

[WHO and UNICEF Nurturing Care Framework: First online consultation](#)

24th January - 6th February 2018

This online consultation seeks feedback from stakeholders across various geographies and sectors on the document Nurturing care for early childhood development: Outline of a global framework for action and results, henceforth referred to as the Nurturing Care Framework. This is the first of two online consultations. A second online consultation will commence during the week of 12th March 2018. In this first online consultation, we invite feedback on the summary document. This document provides a proposed outline, main sections annotated with text, and examples of vignettes. WHO and UNICEF

[New agreement between UN Environment and WHO to further strengthen collaboration in the Region](#)

On 10 January 2018, the United Nations Environment Programme (UN Environment) and WHO agreed upon a new global collaboration framework to tackle environment and health risks. For the WHO European Region, this agreement builds upon long-standing and strong regional collaboration through the European Environment and Health Process, in which UN Environment is a key stakeholder. Many of the agreement's thematic areas complement the 7 key areas for action of the Declaration of the Sixth Ministerial Conference on Environment and Health, held in Ostrava, Czechia, in 2017. WHO EURO (19/1/2018)

[Turning the tide on obesity and unhealthy diets in the WHO European Region – new publication presents novel insights and effective solutions](#)

## JOURNAL ARTICLES

### Air Pollution

#### [Association of Long-term Exposure to Airborne Particulate Matter of 1 µm or Less With Preterm Birth in China](#)

Airborne particulate matter pollution has been associated with preterm birth (PTB) in some studies. However, most of these studies assessed only populations living near monitoring stations, and the association of airborne particulate matter having a median diameter of 1 µm or less (PM<sub>1</sub>) with PTB has not been studied. This national cohort study used National Free Preconception Health Examination Project data collected in 324 of 344 prefecture-level cities from 30 provinces of mainland China. In total, 1 300 342 healthy singleton pregnancies were included from women who were in labor from December 1, 2013, through November 30, 2014. Data analysis was conducted between December 1, 2016, and April 1, 2017. Results from this national cohort study examining more than 1.3 million births indicated that exposure to PM<sub>1</sub> air pollution was associated with an increased risk of PTB in China. These findings will provide evidence to inform future research studies, public health interventions, and environmental policies.

JAMA Pediatrics

### Chemicals

#### [Early-Life Selenium Status and Cognitive Function at 5 and 10 Years of Age in Bangladeshi Children](#)

In older adults, selenium status has been positively associated with cognitive function. Authors recently reported a positive association between maternal selenium status in pregnancy and children's cognitive function at 1.5 y. Authors followed up the children to assess if prenatal and childhood selenium status was associated with cognitive abilities at 5 and 10 y. This longitudinal cohort study was nested in Maternal and Infant Nutrition Interventions in Matlab (MINIMat), a population-based, randomized supplementation trial in pregnancy in rural Bangladesh. Selenium in maternal blood [erythrocyte fraction (Ery-Se) at baseline] and in child hair and urine was measured using inductively coupled plasma mass spectrometry. Children's cognition at 5 and 10 y was assessed using the Wechsler Preschool and Primary Scale of Intelligence™ and the Wechsler

Public Health Panorama, WHO/Europe's public health journal, has dedicated its latest issue to obesity and unhealthy diets in the Region. With unhealthy diets now responsible for 1 in 5 deaths globally, and with the Region at the midway point of implementing the European Food and Nutrition Action Plan 2015–2020, this special issue is a timely source of lessons learned and new research on the subject. WHO EURO (10/1/2018)

#### [Amid concern over drug resistance, Mekong countries call for accelerated action to eliminate malaria before 2030](#)

Representatives from Cambodia, China, the Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam today called for accelerated action to eliminate malaria in the Greater Mekong Subregion (GMS) by the year 2030. The call comes amid concern over resistance of malaria parasites to antimalarial drugs, including artemisinin—the core compound of the best available antimalarial medicines. To date, resistance has been detected in five of the six GMS countries. The best way to address the threat posed by drug resistance is to eliminate malaria altogether from the countries of the Mekong. WHO SEARO (8/12/2017)

### WHO Factsheets

[Human rights and health](#) December 2017

[Pesticide residues in food](#) Reviewed January 2018

[Drowning](#) Reviewed January 2018

[Road traffic injuries](#) Reviewed January 2018

[Falls](#) Reviewed January 2018

[Burns](#) Reviewed January 2018

### In the Media

#### [The downside of plastics recycling: toxins in children's toys](#)

The Czech environmental group Arnika is ringing alarm bells. According to the results of a recent study it conducted, some children's toys and grooming accessories, such as hair brushes, sold in the EU contain toxic substances. Arnika's Karolína Brabcová says this is an unfortunate side product of the drive to promote plastics recycling. Czech Radio (18/1/2018)

Intelligence Scale for Children, respectively. Measures of prenatal and childhood (below the 98th percentile) selenium status were associated with higher cognitive function scores at 5 and 10 y of age.

*Environmental Health Perspectives*

#### [Prenatal Maternal Serum Concentrations of Per- and Polyfluoroalkyl Substances in Association with Autism Spectrum Disorder and Intellectual Disability](#)

Emerging work has examined neurodevelopmental outcomes following prenatal exposure to per- and polyfluoroalkyl substances (PFAS), but few studies have assessed associations with autism spectrum disorder (ASD). The objective of the study was to estimate associations of maternal prenatal PFAS concentrations with ASD and intellectual disability (ID) in children. Geometric mean concentrations of most PFAS were lower in ASD and ID groups relative to GP controls. ASD was not significantly associated with prenatal concentrations of most PFAS, though significant inverse associations were found for perfluorooctanoate (PFOA) and perfluorooctane sulfonate (PFOS) [adjusted ORs for the highest vs. lowest quartiles 0.62 (95% CI: 0.41, 0.93) and 0.64 (95% CI: 0.43, 0.97), respectively]. Results for ID were similar. Results from this large case-control study with prospectively collected prenatal measurements do not support the hypothesis that prenatal exposure to PFAS is positively associated with ASD or ID.

*Environmental Health Perspectives*

#### [Relationship between bisphenol A exposure and attention-deficit/ hyperactivity disorder: A case-control study for primary school children in Guangzhou, China](#)

Bisphenol A (BPA) is an endocrine-disrupting chemical. Studies have shown that the exposure to BPA is associated with attention-deficit/hyperactivity disorder (ADHD) during adolescent development. However the direct clinical evidence is limited. To investigate the possible association between environmental BPA exposure and the altered behavior of children, a case-control study was conducted with children aged 6–12 years in Guangzhou, China. The results showed that concentrations of urinary BPA for the case group were significantly higher than those for the control group (3.44 vs 1.70 µg/L; 4.63 vs 1.71 µg/g Cr.  $p < .001$ ). Furthermore, the linear regression analysis results indicated that a significant relationship existed between BPA

#### [Beijing sees dramatic reduction in air pollution but residents wonder if the change is sustainable](#)

A major anti-pollution drive has, for now at least, cleaned up Beijing's once notorious air, authorities in the Chinese capital say. This month Beijing's Government released figures showing the most dangerous air pollution particles, known as PM<sub>2.5</sub>, have dropped by a third over the past five years. Beijing's Environmental Protection Bureau said the average reading for the smallest and most dangerous PM<sub>2.5</sub> particulate matter was down to 58 micrograms per cubic metre, reaching a five-year goal of getting below 60. Authorities say very favourable weather in late 2017 during the onset of winter helped get the city across the line. ABC News (19/1/2018)

#### [Pollution blankets Hong Kong on Wednesday, with air quality hitting very unhealthy levels in some parts](#)

Air pollution blanketed multiple areas of Hong Kong on Wednesday, with 14 of 16 air quality monitoring stations showing a “high” to “very high” health risk in the early afternoon, prompting the environmental authority to urge old people and children to stay indoors. The warning came barely a day after official statistics indicated that Hongkongers endured nearly twice the number of days of unhealthy air last year compared with the previous year. South China Morning Post (17/1/2018)

#### [Air pollution sickens over 800,000 in Addis Ababa](#)

More than 800,000 people were affected by respiratory illness in Addis Ababa last year due to air pollution, said Ethiopia's Ministry of Health on Wednesday. According to the air quality study it conducted last Ethiopian fiscal year, the ministry confirmed that the air pollution level in the Ethiopian capital has exceeded the limit set by the World Health Organization (WHO). Journal du Cameroun (17/1/2018)

#### [Unabating air pollution in Capital endangers public health](#)

Relentlessly increasing air pollution in Kathmandu Valley is proving to be a peril to the health of its inhabitants, calling government agencies to recognise the situation as a public health emergency. The air quality of Kathmandu is deteriorating with each passing day and the city dwellers do not know when or whether they can expect any improvement in the quality of air they breathe. The situation is no longer just a general topic of conversation as it has started posing

exposure and 8-OHdG levels ( $R = 0.257$ ,  $p < .001$ ). The findings provide direct evidence that childhood BPA exposure may be related to ADHD and 8-OHdG concentrations for children. Moreover, BPA exposure could increase the higher occurrence of ADHD for boy than for girls.

*Environmental Pollution*

#### [Prenatal exposure to perfluoroalkyl and polyfluoroalkyl substances affects leukocyte telomere length in female newborns](#)

Evidence has shown that leukocyte telomere length (LTL) at birth is related to the susceptibility to various diseases in later life and the setting of newborn LTL is influenced by the intrauterine environment. Authors hypothesized that intrauterine exposure to PFASs may affect fetal LTL by increasing oxidative stress. To verify this hypothesis, LTL, concentrations of PFASs and reactive oxygen species (ROS) were measured in umbilical cord blood of 581 newborns from a prospective cohort. 13% of the effect of PFOS on female LTL was mediated through ROS approximately by the mediation analyses. However, in male newborns, no relationships among PFASs, ROS and LTL were observed. The findings suggest a “programming” role of PFASs on fetal telomere biology system in females in intrauterine stage.

*Environmental Pollution*

### **E-waste**

#### [Increased memory T cell populations in Pb-exposed children from an e-waste-recycling area](#)

Chronic exposure to heavy metals could affect cell-mediated immunity. The aim of this study was to explore the status of memory T cell development in preschool children from an e-waste recycling area. Blood lead (Pb) levels, peripheral T cell subpopulations, and serum levels of cytokines (IL-2/IL-7/IL-15), relevant to generation and homeostasis of memory T cells were evaluated in preschool children from Guiyu (e-waste-exposed group) and Haojiang (reference group). The correlations between blood Pb levels and percentages of memory T cell subpopulations were also evaluated. Guiyu children had higher blood Pb levels and increased percentages of CD4+ central memory T cells and CD8+ central memory T cells than in the Haojiang group. Moreover, blood Pb levels were positively associated with the percentages of CD4+ central memory T cells. In contrast, Pb exposure contributed marginally in the change of percentages of CD8+ central memory T

serious threats to the health of general public. The Himalayan (17/1/2018)

#### [Seoul issues emergency pollution measures](#)

The Seoul Metropolitan Government is set to waive public transportation fees during peak commute hours on Monday to mitigate the worsening air quality brought on by fine dust particles. Vehicles belonging to the government as well as civil servants will be ordered to stay clear of roads based on the last digit of their license plates. For example, cars with license plates that end with an even number are allowed to be on the road on even dates, such as the 14th, while those ending with an odd number are allowed on odd dates, such as the 15th. The Korea Herald (14/1/2018)

#### [Cookstoves in India cause more pollution: Study](#)

Smoke emitting from the traditional cookstove, widely used in the rural parts of India with cheap biofuels -- such as crop chaff or dung -- causes detrimental impact on the country's environment and people's health, finds a study, led by one of Indian-origin professors. The findings showed that the traditional cookstove may be producing much higher levels of particulate emissions than earlier thought. "Our project findings quantitatively show that particulate emissions from cookstoves in India have been underestimated," said Rajan Chakrabarty, Assistant Professor at the Washington University in St. Louis. In some cases, more than twice the emission levels were detected when compared to the previous findings, the researchers said. New Kerala (3/1/2018)

#### [Advocates for Children's Health: Working Together to Reduce Harmful Environmental Exposures](#)

With increasing rates of childhood cancers, neurodevelopmental disorders, and other illnesses often related to environmental exposures, some believe that children are modern-day canaries in the coal mine. Numerous major studies around the world have been designed specifically to address children's environmental health. Environmental Health Perspectives (2/1/2018)

#### [Federal Appeals Court Gives EPA 90 Days To Propose Long-Awaited Lead Standards](#)

A federal appeals court has ordered the Environmental Protection Agency to propose a new standard for lead inside homes within 90 days. NPR's Robert Siegel speaks with Eve Gartner, who litigated on behalf of groups suing the EPA to update the standards. The Environmental Protection Agency has been working on new

cells in children. There was no significant difference in the serum cytokine levels between the e-waste-exposed and reference children. Taken together, preschool children from an e-waste recycling area suffer from relatively higher levels of Pb exposure, which might facilitate the development of CD4+ central memory T cells in these children.

*Science of The Total Environment*

## New Publications

### [A life-course approach to health: synergy with sustainable development goals](#)

A life-course approach to health encompasses strategies across individuals' lives that optimize their functional ability (taking into account the interdependence of individual, social, environmental, temporal and intergenerational factors), thereby enabling well-being and the realization of rights. The approach is a perfect fit with efforts to achieve universal health coverage and meet the sustainable development goals (SDGs). The aim of this article is to show how the life-course approach to health can be extended to all age groups, health topics and countries by building on a synthesis of existing scientific evidence, experience in different countries and advances in health strategies and programmes.

*Bulletin of the World Health Organization*

### [Birth cohorts in Asia: The importance, advantages, and disadvantages of different-sized cohorts](#)

Environmental threats to the health of children in Asia are myriad. Several birth cohorts were started in Asia in early 2000, and currently more than 30 cohorts in 13 countries have been established for study. Cohorts can contain from approximately 100–200 to 20,000–30,000 participants. Furthermore, national cohorts targeting over 100,000 participants have been launched in Japan and Korea. The aim of this manuscript is to discuss the importance of Asian cohorts, and the advantages and disadvantages of different-sized cohorts.

*Science of the Total Environment*

## UPCOMING EVENTS

### [ICEHR 2018: 20th International Conference on Environmental Health and Remediation](#)

24-25 May 2018, Prague, Czechia

standards for the amount of lead permitted in household paint, dust and soil for six years. It recently said it would need about six more years. Lead poisoning can lead to serious mental and physical ailments in children and, in extreme cases, death. So yesterday, a federal appeals court said in essence that the agency had been stalling. It gave the EPA just 90 days to propose its long-awaited rule. NPR (28/12/2018)

### [Shutdown of coal-fired power plant results in significant fetal health improvement in downwind areas](#)

As the U.S. Environmental Protection Agency (EPA) moves to dismantle the Clean Power Plan touting a return to "cooperative federalism," the results of a new study focused on the downwind impact on fetal health of emissions from a coal-fired power plant, which is located on the border between two states, highlight policy gaps engendered by state-level regulation of air pollution. Science Daily (21/12/2017)

### [Delhi should follow Beijing's example in tackling air pollution](#)

Delhi's air pollution crisis made international headlines in early December when a cricket match between India and Sri Lanka was suspended due to poor air quality. Smog has also led to numerous school closures and flight cancellations in India's capital and largest city. It has also been blamed for highway accidents. Delhi is home to 20 million residents, and the city's more than 10 million vehicles are a major contributor to air pollution. Industrial emissions are also to blame. Thirteen coal-fired power stations operate within a 300 kilometre radius of the city. Conditions reach crisis level every winter, when the capital's already poor air quality is further degraded by smoke from post-harvest burning in the neighbouring agricultural states of Haryana and Punjab. The Conversation (20/12/2017)

### [Schools shut in Iran capital, major cities due to high pollution](#)

Iran has shut schools in the capital and some other major cities because of dangerous levels of air pollution, Iranian media reported on Tuesday. State TV said schools, closed since Sunday, would remain closed on Wednesday in Tehran, which has a population of 14 million and more than 8 million cars and motorbikes. To reduce the pollution, Iranian authorities announced on Monday that cars were only allowed on the roads on alternate days, depending on their number plates. Mines and

[9th International Conference on Children's Health and the Environment \(INCHES\). Saving the Children at Risk, Shaping the Future Sustainability](#)

27-29 June 2018, Seoul, Republic of Korea

## EDUCATION AND TRAINING

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

Three modules from the WHO Training Package for Health Care Providers "Why children?", "Children are not little adults" and "Chemicals" are now available in Japanese.

cement factories have been closed in Tehran province. Schools in the northwestern cities of Tabriz and Urmia and the central city of Isfahan also have been closed because of the high pollution level. Reuters (19/12/2017)

[Compound Interest: Assessing the Effects of Chemical Mixtures](#)

Humans are exposed to mixtures of chemicals through food, air, water, dust, and household and personal care products. In most cases, little is known about the combined effects of potentially harmful chemicals. A mouse study in Environmental Health Perspectives tested whether one constituent of a chemical mixture might alter tissue levels of the others. If so, the effects of the mixture on the mouse's health might be different from the effects that would be predicted based on the effects of each chemical by itself. Such information is important when assessing the potential health risks of chemical mixtures to which the public may be exposed. Environmental Health Perspectives (4/12/2017)

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

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### **Have news for us?**

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

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