

Children's Environmental Health International Initiatives

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

May/June 2018

WHO GLOBAL AMBIENT AIR QUALITY DATABASE (UPDATE 2018)

More than 80% of people living in urban areas that monitor air pollution are exposed to air quality levels that exceed the World Health Organization (WHO) limits. While all regions of the world are affected, populations in low-income cities are the most impacted.

According to the latest air quality database, 97% of cities in low- and middle-income countries with more than 100 000 inhabitants do not meet WHO air quality guidelines. However, in high-income countries, that percentage decreases to 49%.

In the past two years, the database – now covering more than 4000 cities in 108 countries – has nearly doubled, with more cities measuring air pollution levels and recognizing the associated health impacts.

As urban air quality declines, the risk of stroke, heart disease, lung cancer, and chronic and acute respiratory diseases, including asthma, increases for the people who live in them.

[Ambient \(outdoor\) air quality database 2018](#)

[Press release](#) (English)

[Press release](#) (French)

[BreatheLife video - How air pollution impacts your body](#)

[Infographics](#)

TRANSLATIONS OF WHO CHILDREN'S ENVIRONMENTAL HEALTH PUBLICATIONS

'Inheriting a sustainable world: Atlas on children's health and the environment' and 'Don't pollute my

CHILDREN'S ENVIRONMENTAL HEALTH NEWS

Press Releases

[One in three UK children live in toxic air zones, according to new UNICEF research](#)

Young children and babies in the UK are being disproportionately impacted by deadly levels of the most harmful type of air pollution, according to new analysis by UNICEF UK. The charity has revealed that one in three children in the UK (4.5 million) are growing up in areas with unsafe levels of particulate pollution. This includes 1.6 million of all children aged five and younger, and 270,000 babies under one living in the most toxic air zones. This Clean Air Day, Unicef UK is calling for the Government to prioritise and fund measures that target the worst-polluted areas and protect children from toxic air in places they live, learn and play. UNICEF (21/6/2018)

[WHO certifies Paraguay malaria-free](#)

The World Health Organization (WHO) today certified Paraguay as having eliminated malaria, the first country in the Americas to be granted this status since Cuba in 1973. "It gives me great pleasure today to certify that Paraguay is officially free of malaria," said Dr Tedros Adhanom Ghebreyesus, WHO Director General, in a recorded statement. "Success stories like Paraguay's show what is possible. If malaria can be eliminated in one country, it can be eliminated in all countries." In 2016, WHO identified Paraguay as one of 21 countries with the potential to eliminate malaria by 2020. WHO (11/6/2018)

[World Environment Day: beat plastic pollution](#)

World Environment Day is marked on 5 June to mobilize action in favour of protecting the environment. This year's theme highlights the need to beat plastic pollution as part of a wider global drive towards a cleaner, healthier planet.

future! The impact of the environment on children's health' are now available for download in French and Spanish from the WHO website. 'State of the science of endocrine disrupting chemicals – 2012' is now available in Chinese.

[Inheriting a sustainable world? Atlas on children's health and the environment](#) (Available in English, French and Spanish)

[Don't pollute my future! The impact of the environment on children's health](#) (Available in English, French and Spanish)

[State of the science of endocrine disrupting chemicals - 2012](#) (Available in Chinese).

WORLD HEALTH ASSEMBLY

The 71st World Health Assembly was held from 21-26 May in Geneva. Public Health, Environmental and Social Determinants of Health topics were discussed and events which took place at the World Health Assembly included:

- [Health, environment and climate change A71/10](#)
- [Road map for an enhanced global response to the adverse effects of air pollution A71/10 Add.1](#)
- [Human health and biodiversity A71/11](#)

Technical briefings on Health, environment and climate change were held, as well as side events on Health in All Policies; Air pollution; and Water, Sanitation and Hygiene.

JOURNAL ARTICLES

Chemicals

[Maternal Peripartum Serum DDT/E and Urinary Pyrethroid Metabolite Concentrations and Child Infections at 2 Years in the VHEMBE Birth Cohort](#)
Indoor residual spraying (IRS) of insecticides, conducted in low- and middle-income countries to control malaria, may result in high exposure to dichlorodiphenyltrichloroethane (DDT), its breakdown product dichlorodiphenyldichloroethylene (DDE), or pyrethroids. Animal studies suggest in utero exposure to these chemicals may increase childhood infection frequency. Authors investigated associations between maternal DDT/E and pyrethroid metabolite concentration

"We all have a role to play in protecting our only home," said UN Secretary-General Antonio Guterres. Most recently, WMO joined with the World Health Organization and UN Environment to launch a new global coalition on health, environment and climate change. One of its overall goals is to reduce the annual 12.6 million deaths caused by environmental risks, and especially air pollution. WMO (5/6/2018)

[WHO launches Global Action Plan on Physical Activity](#)

WHO Director-General Dr Tedros Adhanom Ghebreyesus is today joining Prime Minister António Costa of Portugal to launch the new "WHO Global action plan on physical activity and health 2018-2030: More active people for a healthier world." "Being active is critical for health. But in our modern world, this is becoming more and more of a challenge, largely because our cities and communities aren't designed in the right ways," said Dr Tedros. "We need leaders at all levels to help people to take the healthier step. This works best at city level, where most responsibility lies for creating healthier spaces." Worldwide, one in five adults, and four out of five adolescents (11-17 years), do not do enough physical activity. Girls, women, older adults, poorer people, people with disabilities and chronic diseases, marginalized populations, and indigenous people have fewer opportunities to be active. WHO (4/6/2018)

[WMO and WHO tackle health impacts of pollution, extreme weather, climate change](#)

In the face of growing health impacts from extreme weather, climate change and air pollution, the World Meteorological Organization (WMO) and World Health Organization (WHO) have agreed to step up joint action to tackle environmental health risks that cause an estimated 12.6 million premature deaths every year. A new Collaboration Framework on Climate, Environment and Health was signed on 30 May by WMO Secretary-General Petteri Taalas and Dr. Tedros Adhanom Ghebreyesus, Director-General of WHO. It follows the launch of a global coalition between WMO, WHO and UN Environment during the World Health Assembly on 24 May. WMO (31/5/2018)

[WHO plan to eliminate industrially-produced trans-fatty acids from global food supply](#)

WHO today released REPLACE, a step-by-step guide for the elimination of industrially-produced

and child infection associations in an IRS setting in which susceptibility factors are common and infections are leading causes of child morbidity and mortality. *In utero* IRS insecticide exposure may increase childhood infection rates. This was particularly apparent among children from poorer households or whose mothers had low energy intake during pregnancy.

Environmental Health Perspectives

[Prenatal Exposure to Perfluoroalkyl Substances and IQ Scores at Age 5; a Study in the Danish National Birth Cohort](#)

Perfluoroalkyl substances (PFASs) are widespread persistent organic compounds that have been suggested to affect neurodevelopment. Authors aimed to evaluate whether prenatal exposure to PFASs is associated with IQ in children. Overall, this study did not find consistent evidence to suggest prenatal exposure to PFASs to be associated with child IQ scores at 5 y of age in the DNBC. Some of the sex-specific observations warrant further investigation. Additional studies should examine offspring IQ at older ages and assess other functional cognitive and neuropsychiatric measures in addition to intelligence. Postnatal exposures to PFASs and mixture effects for PFASs and PFASs with other environmental pollutants should also be considered in future research.

Environmental Health Perspectives

[Glyphosate exposure in pregnancy and shortened gestational length: a prospective Indiana birth cohort study](#)

Glyphosate (GLY) is the most heavily used herbicide worldwide but the extent of exposure in human pregnancy remains unknown. Ninety three percent of the pregnant women had GLY levels above the limit of detection (0.1 ng/mL). Mean urinary GLY was 3.40 ng/mL (range 0.5–7.20 ng/mL). Higher GLY levels were found in women who lived in rural areas ($p = 0.02$), and in those who consumed >24 oz. of caffeinated beverages per day ($p = 0.004$). Authors observed no correlations with fetal growth indicators such as birth weight percentile and head circumference. However, higher GLY urine levels were significantly correlated with shortened gestational lengths ($r = -0.28$, $p = 0.02$). This is the first study of GLY exposure in US pregnant women using urine specimens as a direct measure of exposure.

Environmental Health

trans-fatty acids from the global food supply. Eliminating trans fats is key to protecting health and saving lives: WHO estimates that every year, trans fat intake leads to more than 500,000 deaths of people from cardiovascular disease. Industrially-produced trans fats are contained in hardened vegetable fats, such as margarine and ghee, and are often present in snack food, baked foods, and fried foods. Manufacturers often use them as they have a longer shelf life than other fats. But healthier alternatives can be used that would not affect taste or cost of food. WHO (14/5/2018)

[770,000 children under five suffering from acute malnutrition in Kasai region of Democratic Republic of the Congo](#)

At least 770,000 children in the Kasai region in the Democratic Republic of Congo are suffering from acute malnutrition, including 400,000 children who are severely malnourished and at risk of death – UNICEF said in a report released today. The children's agency went on to warn that unless urgent action was taken to strengthen the humanitarian response, the number of child deaths could skyrocket. UNICEF (11/5/2018)

[UN Environment challenges citizens to "Breathe Life"](#)

UN Environment has today launched the BreatheLife Challenge and calls upon citizens to reduce their contribution to air pollution by committing to walk, bike or take public transport for 26 miles during the month of May. The initiative comes on the heels of a new report from the World Health Organization (WHO), which found alarming trends in the rise and persistence of air pollution worldwide. The new data shows that 9 out of 10 people breathe air containing high levels of pollutants, resulting in an estimated 7 million deaths worldwide each year. UNEP (2/5/2018)

[One third of global air pollution deaths in Asia Pacific](#)

Air pollution levels remain dangerously high in many parts of Asia according to new data from the World Health Organization (WHO). Around one third, or 2.2 million of the world's 7 million premature deaths each year from household (indoor) and ambient (outdoor) air pollution are in the WHO Western Pacific Region—home to one quarter of the world's population. "Air pollution is the most lethal environmental health threat in our Region, and it affects people in middle-income countries at a much higher rate than those in high-

[Exploring the endocrine activity of air pollutants associated with unconventional oil and gas extraction](#)

In the last decade unconventional oil and gas (UOG) extraction has rapidly proliferated throughout the United States (US) and the world. Compounds associated with UOG activity have been linked to adverse reproductive and developmental outcomes in humans and laboratory animal models, which is possibly due to the presence of endocrine active chemicals. Evaluation of 48 studies that sampled air near sites of UOG activity identified 106 chemicals detected in two or more studies. Ethane, benzene and n-pentane were the top three most frequently detected. Twenty-one chemicals have been shown to have endocrine activity including estrogenic and androgenic activity and the ability to alter steroidogenesis. Literature also suggested that some of the air pollutants may affect reproduction, development, and neurophysiological function, all endpoints which can be modulated by hormones. These chemicals included aromatics (i.e., benzene, toluene, ethylbenzene, and xylene), several polycyclic aromatic hydrocarbons, and mercury.

Environmental Health

[Identifying Vulnerable Periods of Neurotoxicity to Triclosan Exposure in Children](#)

Exposure to triclosan, an endocrine disrupting chemical, may affect thyroid hormone homeostasis and adversely affect neurodevelopment. Using a longitudinal pregnancy and birth cohort, authors investigated associations between triclosan exposures during different time windows, and cognitive test scores at 8 y of age in 198 children from the HOME Study. Full-Scale IQ was not significantly associated with urinary triclosan concentrations during gestation or childhood but was significantly associated with a 10-fold increase in maternal urinary triclosan concentration at delivery [-4.5 points (95% CI: -7.0, -2.0)]. Perceptual Reasoning Index (PRI) scores were significantly decreased in association with urinary triclosan concentrations at delivery and at 2 y of age. Associations between repeated triclosan concentrations and cognitive test scores significantly varied among exposure at different time periods for Full-Scale IQ, PRI, Verbal Comprehension Index, and Working Memory (triclosan-visit interaction $p \leq 0.04$). Urinary triclosan concentrations at delivery, but not during

income countries," says Dr Shin Young-soo, WHO Regional Director for the Western Pacific. "Addressing air pollution and climate change are top priorities for WHO in the Western Pacific Region, but they are not challenges that individuals or the health sector alone can solve. We need urgent action across energy, agriculture, transport, housing and beyond to ensure a healthy and sustainable future." WHO WPRO (2/5/2018)

[Report sounds alarm on soil pollution](#)

Soil pollution poses a worrisome threat to agricultural productivity, food safety, and human health, but far too little is known about the scale and severity of that threat, warns a new FAO report released today at the start of a global symposium. Industrialization, war, mining and the intensification of agriculture have all left a legacy of soil contamination across the planet, while the growth of cities has seen soil used as a sink for ever greater amounts of municipal waste, says *Soil Pollution: A Hidden Reality*. "Soil pollution affects the food we eat, the water we drink, the air we breathe, and the health of our ecosystems," said FAO Deputy Director-General Maria Helena Semedo at the start of the symposium. "The potential of soils to cope with pollution is limited; the prevention of soil pollution should be a top priority worldwide," she added. FAO (2/5/2018)

In the Media

['Our kids need proper water': Families plead for action over uranium in drinking water](#)

Some of Australia's poorest communities have been drinking water high in uranium, and residents have accused governments of ignoring the problem. Many of us turn on the tap without a second thought — high-quality drinking water is supplied to most cities and regions across the country. But in the Aboriginal community of Laramba, north of Alice Springs, drinking water contains more than double the recommended levels of uranium, and it's been like that for a decade. ABC News (19/6/2018)

[Pollutionwatch: Air contamination drops by 30% in China](#)

Beijing is slowly shedding its image as the world's most polluted city. In 2013, it ranked as the 40th worst city for the particulate PM2.5 in the World Health Organisation global database. Four years on, thanks in part to a crackdown on polluters, it stands in 187th place. Air pollution in the 62 Chinese cities tracked by the WHO dropped by an

mid to late pregnancy and childhood, were associated with significantly lower children's cognitive test scores at 8 y of age in this cohort of U.S.

Environmental Health Perspectives

[Prenatal Phthalates, Maternal Thyroid Function, and Risk of Attention-Deficit Hyperactivity Disorder in the Norwegian Mother and Child Cohort](#)

There is growing concern that phthalate exposures may have an impact on child neurodevelopment. Prenatal exposure to phthalates has been linked with externalizing behaviors and executive functioning defects suggestive of an attention-deficit hyperactivity disorder (ADHD) phenotype. Authors undertook an investigation into whether prenatal exposure to phthalates was associated with clinically confirmed ADHD in a population-based nested case-control study of the Norwegian Mother and Child Cohort (MoBa) between the years 2003 and 2008. In this population-based case-control study of clinical ADHD, maternal urinary concentrations of DEHP were monotonically associated with increased risk of ADHD. Additional research is needed to evaluate potential mechanisms linking phthalates to ADHD.

Environmental Health Perspectives

Water, Sanitation and Hygiene

[Rationale for Environmental Hygiene towards global protection of fetuses and young children from adverse lifestyle factors](#)

In this study authors aim at strengthening the management of exposure to individual health hazards during pregnancy and lactation, with protective measures in a global strategy of Environmental Hygiene. They hypothesize that such a strategy could reduce both the individual effects of harmful agents in complex mixtures and the possible interactions among them. A panel of experts should develop and endorse implementable measures towards a protective behavior. Their application is meant to be preferably as a package of measures in order to maximize protection and minimize interactions in causing adverse effects. Testing our hypothesis requires biomonitoring studies and longitudinal evaluation of health endpoints in the offspring. Favorable effects would legitimate further action towards equal opportunity access to improved environmental health. Environmental Hygiene is proposed as a global strategy aiming at effective

average of 30% between 2013 and 2016. China's air pollution problems are often blamed on the country's rapid industrial growth but the problems probably date back to the 1950s. The Guardian (24/5/2018)

[Hamburg becomes first German city to ban older diesel cars](#)

Hamburg is to become the first German city to ban some diesel cars to improve air quality, setting a template for other urban centres in the country. The ban will affect about 214,000 cars, more than two-thirds of the diesel vehicles registered in Germany's second-largest city. Authorities in the northern port city said on Wednesday some older vehicles would be barred from two of its main arteries from 31 May. "Driving limits for older diesel vehicles can now come into force as planned" thanks to a decision by a top court, the city-state's government said. The Guardian (23/5/2018)

[Mysterious rise in banned ozone-destroying chemical shocks scientists](#)

A sharp and mysterious rise in emissions of a key ozone-destroying chemical has been detected by scientists, despite its production being banned around the world. Unless the culprit is found and stopped, the recovery of the ozone layer, which protects life on Earth from damaging UV radiation, could be delayed by a decade. The source of the new emissions has been tracked to east Asia, but finding a more precise location requires further investigation. CFC chemicals were used in making foams for furniture and buildings, in aerosols and as refrigerants. But they were banned under the global Montreal protocol after the discovery of the ozone hole over Antarctica in the 1980s. Since 2007, there has been essentially zero reported production of CFC-11, the second most damaging of all CFCs. The Guardian (16/5/2018)

[London bans junk food ads on public transport to fight child obesity](#)

London plans to ban junk food advertising on its entire public transport network to tackle child obesity, which is among the highest in Europe, Mayor Sadiq Kahn said on Friday. Almost 40 percent of children aged 10 and 11 in London are overweight or obese, according to research compiled for Britain's parliament. "Child obesity in London is a ticking timebomb and I am determined to act. If we don't take bold steps against it we are not doing right by our young people as well as placing a huge strain on our already pressurized

protection of pregnant women, unborn children and infants against lifelong consequences of exposure to combinations of adverse lifestyle factors.

Environmental Health

E-waste

[Impact of informal electronic waste recycling on metal concentrations in soils and dusts](#)

Electronic and electrical equipment contains over 1000 different substances, including metals. During informal e-waste recycling some of these substances such as metals, are released into the environment causing environmental pollution. This study assessed the impact of different informal e-waste recycling activities (burning, dismantling, and repairing) on metal concentrations in top soils and various dust. Metal concentrations at e-waste recycling sites were compared to the concentrations at control sites in three study locations in Nigeria (Lagos, Ibadan, and Aba). In the three study locations, mean metal concentrations at the e-waste recycling sites exceeded the concentrations at the control sites and the Nigerian standard guideline values by 100 s to 1000 s times. Burning sites showed the highest pollution level, followed by dismantling sites, then repair sites. This study provides scientific evidence for an urgent need to develop effective strategies to strengthen enforcement of existing e-waste regulations in Nigeria.

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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

[IDSE Italy: a campaign on Climate and Health at the "National Conference on Climate, Air Pollution and Health" in Tarant](#)

On 15 and 16 May 2018, a two-day national Conference on Climate Change, Air Pollution and Health was held in Taranto, Italy. The conference

health service," Kahn said in a statement. Reuters (11/5/2018)

[Thirdhand smoke is widespread and may be dangerous, mounting evidence shows](#)

First came doctors' warnings about cigarettes. Then came discoveries about the danger of secondhand smoke. Now, a growing number of scientists are raising the alarm about thirdhand smoke — residual chemicals left on indoor surfaces by tobacco smoke. Mounting research has shown such potentially hazardous residue can be absorbed through the skin, ingested and inhaled months and even years after the smoke has dissipated. The Washington Post (9/5/2018)

[Children living in green neighbourhoods are less likely to develop asthma](#)

Since the pioneering work of architecture professor Roger Ulrich, who found that patients with a view of a natural scene recovered more quickly from surgery, research has shown that exposure to the natural environment is associated with a wide range of health benefits. We have focused our work on asthma, and our research, published today, shows that children who live in greener neighbourhoods are less likely to develop it. Not all greenness was equally effective, however. If a child was exposed to a broader range of plants, they were even less likely to get asthma. Exposure to landscapes with low plant diversity, such as gorse and exotic conifers, on the other hand, were a risk factor for asthma. Thus, greenness is good, but more biodiverse greenness is even better. The Conversation (8/5/2018)

[Asthma in children could become worse if you live near a busy road](#)

Asthma attacks in children, who live near a busy, major roadway or a playground, is often severe, suggests a new study. Long-time exposure to traffic-related pollution and dust has been linked to asthma in children. According to a research conducted by the Beth Israel Deaconess Medical Center, children living within a football field's length of major roadways had nearly three times the odds of paediatric asthma compared to children who lived four times farther away. It has been long known that smog and pollution can bring on an asthma attack among children and adults who are already suffering from asthma. However, researchers had been uncertain about the role of long-term exposure to certain pollutants

has been promoted by the National Federation of Medical Orders, the International Society of Doctors for the Environment Italy, the Order of Doctors of Taranto, and organized in collaboration with the Ministry of Health, with the technical support of the World Health Organization and the Municipality of Taranto. Among the outcomes of the conference was the launch of a national campaign on Climate, Air Pollution and Health which aims at building a new strategy to train physicians on the correlation between health, environment and climate change. Health professionals can play a fundamental role in reporting on environmental-related health issues and in raising the awareness the population.

EDUCATION AND TRAINING

[AAP Environmental Health ECHO](#)

The Pediatric Environmental Health Specialty Units (PEHSUs) lead the AAP Environmental Health ECHO. The purpose of the Environmental Health ECHO is to increase clinician knowledge, comfort and competence in preventing or identifying, diagnosing, and treating environmentally-related health conditions in children and reproductive-age adults. This program uses the ECHO (Extension for Community Healthcare Outcomes) model, a tele-mentoring platform that leverages video conference technology to connect a team of specialists with primary care providers in local communities. This program meets biweekly for a brief lecture followed by a de-identified patient case presentation and discussion. Topics will include lead, mold, indoor and outdoor air quality, food safety, and more! This program differs from a traditional webinar in that all attendees actively participate and learn from each other.

[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 "unsound management of chemicals" are now available in Japanese.

and its impact. Hindustan Times (2/5/2018)

[Air pollution inequality widens between rich and poor nations](#)

Pollution inequality between the world's rich and poor is widening, according to the latest global data from the World Health Organisation (WHO) which shows that 7 million people – mostly in developing nations – die every year from airborne contaminants. Overall, nine in 10 people on the planet live with poor, even dangerous, air, says the WHO report, which is considered the most comprehensive collection of global air quality data. But levels of contamination vary widely depending on government actions and financial resources. The Guardian (1/5/2018)

[Fracking chemicals "imbalance" the immune system](#)

Chemicals commonly found in groundwater near fracked oil and gas wells appear to impair the proper functioning of the immune system, according to a lab study released today. The study, published today in the journal Toxicological Sciences, is the first to find a link between fracking chemicals and immune system problems and suggests that baby girls born to mothers near fracking wells may not fight diseases later in life as well as they could have with a pollution-free pregnancy. Environmental Health News (1/5/2018)

[For Farmworkers' Kids, Country Air Means Dust, Pesticides And Asthma](#)

Most people think of asthma as a city kid problem — but it turns out rural kids are just as likely to have asthma. And the children of the people who grow our food are especially vulnerable.

Researchers at the University of Washington and the Yakima Valley Farm Workers' Clinic are working on a new approach to solving the problem. Uncontrolled asthma often has to do with poverty and poor housing conditions. And farm worker families are exposed to a lot of pollutants that can trigger asthma: dust, pesticides, smoke from wildfires and agricultural burning, and ammonia from dairy farms. OPB (25/4/2018)

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Have news for us?

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