

## Children's Environmental Health International Initiatives

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

August 2017

### WHO REPORT ON THE GLOBAL TOBACCO EPIDEMIC 2017



The latest WHO report on the global tobacco epidemic published today finds that more countries have implemented tobacco control policies, ranging from graphic pack warnings and advertising bans to no smoking areas. About 4.7 billion people – 63% of the world's population – are

covered by at least one comprehensive tobacco control measure, which has quadrupled since 2007 when only 1 billion people and 15% of the world's population were covered. Strategies to implement such policies have saved millions of people from early death.

However, the tobacco industry continues to hamper government efforts to fully implement life- and cost-saving interventions, according to the new WHO report on the global tobacco epidemic, 2017.

"Governments around the world must waste no time in incorporating all the provisions of the WHO Framework Convention on Tobacco Control into their national tobacco control programmes and policies," says Dr Tedros Adhanom Ghebreyesus, WHO Director-General.

[Full report](#)

[Executive Summary](#) Available in Arabic, Chinese, English French, Russian and Spanish

[Press Release](#)

### CHILDREN'S ENVIRONMENTAL HEALTH NEWS

#### Press Releases

#### [16 million children affected by massive flooding in South Asia, with millions more at risk](#)

Weeks of torrential monsoon rains and catastrophic flooding in three countries of South Asia – Nepal, India, and Bangladesh – have devastated the lives of millions of children and families. UNICEF estimates that almost 16 million children and their families are in urgent need of life-saving support. Since mid-August, there have been at least 1,288 reported deaths, with over 45 million people estimated to be affected. The most urgent needs for children are clean water, hygiene supplies to prevent the spread of disease, food supplies and safe places in evacuation centres for children to play. UNICEF (2/9/2017)

#### [More than 180 million people lack basic drinking water in countries ravaged by conflict or unrest](#)

More than 180 million people do not have access to basic drinking water in countries affected by conflict, violence and instability around the world, UNICEF warned today, as World Water Week gets under way. People living in fragile situations are four times more likely to lack basic drinking water than populations in non-fragile situations, according to a recent UNICEF and World Health Organisation analysis. Of the estimated 484 million people living in fragile situations in 2015, 183 million lacked basic drinking water services. UNICEF (29/8/2017)

#### [Chikungunya cases reported in France](#)

Local transmission of chikungunya has been confirmed in south-eastern France, with four cases diagnosed in the Provence-Alpes-Côte d'Azur region as of 23 August 2017. In addition, there is one probable case, and eight suspected cases. While these are not the first reported cases of

[Tobacco control country profiles](#)

## **TOBACCO-FREE GENERATIONS - PROTECTING CHILDREN FROM TOBACCO IN THE WHO EUROPEAN REGION (2017)**

Several Member States in the WHO European Region are moving towards becoming tobacco-free: a smoking prevalence of 5% or less. Emphasis, in particular, is on protecting younger generations from smoking initiation and other tobacco-related harm. Protecting children from tobacco in the Region is essential, not only because smoking initiation is a key component of an important public health crisis, but also because Member States are responsible for supporting various children's rights. This report highlights ongoing and emerging tobacco-related issues that affect children in the Region and examines the regulatory frameworks, commitments and other tools that Member States should use to protect children from tobacco.

[Full report](#) Available in English and Russian

## **JOURNAL ARTICLES**

### **Air Pollution**

[Maternal exposure to ambient air pollution and fetal growth in North-East Scotland: A population-based study using routine ultrasound scans](#)

Maternal ambient air pollution exposure is associated with reduced birthweight. Few studies have examined the effect on growth in utero and none have examined the effect of exposure to particulates less than 2.5 µm (PM2.5) and possible effect modification by smoking status. The study examines the effect of maternal exposure to ambient concentrations of PM10, PM2.5 and nitrogen dioxide (NO2) for in utero fetal growth, size at birth and effect modification by smoking status. In the whole sample ( $n = 13,775$  pregnancies), exposure to PM10, PM2.5 and NO2 was associated with reductions in measurements at birth and biparietal diameter from late second trimester onwards. Among mothers who did not smoke at all during pregnancy ( $n = 11,075$ ), associations between biparietal diameter and pollution exposure remained significant but were insignificant among those who did smoke ( $n = 2700$ ). Femur length and abdominal circumference were not significantly associated with pollution exposure. Fetal growth is strongly

chikungunya in France, chikungunya is an emerging disease in southern Europe and an outbreak is considered unexpected. The vector, the *Aedes albopictus* mosquito, is establishing itself in a large part of the Mediterranean basin and beyond. WHO advises people within and traveling to this area of France to take precautions to prevent mosquito bites during the day. In addition, vector control and blood safety measures should be taken. WHO EURO (25/8/2017)

[World comes together to tackle mercury poisoning](#)

The world's first Convention to protect the environment and human health in close to a decade, the Minamata Convention on Mercury, enters into force today, committing its 74 Parties to reducing the risks to human health and the environment from the harmful release of mercury and mercury compounds. Mercury is recognized to be particularly harmful to unborn children and infants. Governments that are party to the Convention are now legally bound to take a range of measures to protect human health and the environment by addressing mercury throughout its lifecycle. This includes banning new mercury mines, phasing-out existing ones, and regulating the use of mercury in artisanal and small-scale gold mining, manufacturing processes, and the production of everyday items such as cosmetics, light bulbs, batteries and teeth fillings. The convention also seeks to reduce emissions as side effects from other industrial processes, such as coal-fired power stations, waste incineration, cement clinker production, and contains measures on the interim storage of mercury, on mercury waste and on measures to reduce the risks of contaminated sites. UNEP (16/8/2017)

### **WHO Fact sheets**

[Falls](#) Updated August 2017

[Burns](#) Updated August 2017

[Infant and young child feeding](#) Updated July 2017

### **In the Media**

[Germany to double 'clean air' projects fund](#)

Three weeks ahead of a general election, German Chancellor Angela Merkel has announced a plan to double the size of a fund meant to help improve air quality in cities and head off driving bans for older

associated with particulates exposure from later in second trimester onwards but the effect appears to be subsumed by smoking.

*Environment International*

## Chemicals

### [First-Trimester Urinary Bisphenol A Concentration in Relation to Anogenital Distance, an Androgen-Sensitive Measure of Reproductive Development, in Infant Girls](#)

Evidence from animal models suggests that prenatal exposure to bisphenol A (BPA), a ubiquitous endocrine-disrupting chemical, is associated with adverse reproductive outcomes in females. Exposure during early gestation, a critical period for reproductive development, is of particular concern. Anogenital distance (AGD) is a sensitive biomarker of the fetal hormonal milieu and a measure of reproductive toxicity in animal models. BPA was detectable in 94% of women. In covariate-adjusted models fit on 381 eligible subjects, the natural logarithm of SpG-adj maternal BPA concentration was inversely associated with infant AGD-AC [ $\beta=-0.56$ , 95% confidence interval (CI):  $-0.97$ ,  $-0.15$ ]. Authors observed no association between maternal BPA and infant AGD-AF. BPA may have toxic effects on the female reproductive system in humans, as it does in animal models.

*Environmental Health Perspectives*

### [The Joint Effect of Prenatal Exposure to Metal Mixtures on Neurodevelopmental Outcomes at 20–40 Months of Age: Evidence from Rural Bangladesh](#)

Authors aimed to assess the joint effect of in utero exposure to arsenic, manganese, and lead on children's neurodevelopment. Analyses were stratified by clinic due to differences in exposure profiles. In the Pabna district, which displayed high manganese levels [interquartile range (IQR): 4.8, 18  $\mu\text{g}/\text{dl}$ ], the study found a statistically significant negative effect of the mixture of arsenic, lead, and manganese on cognitive score when cord blood metals concentrations were all above the 60th percentile ( $\text{As}\geq 0.7$   $\mu\text{g}/\text{dl}$ ,  $\text{Mn}\geq 6.6$   $\mu\text{g}/\text{dl}$ ,  $\text{Pb}\geq 4.2$   $\mu\text{g}/\text{dl}$ ) compared to the median ( $\text{As}=0.5$   $\mu\text{g}/\text{dl}$ ,  $\text{Mn}=5.8$   $\mu\text{g}/\text{dl}$ ,  $\text{Pb}=3.1$   $\mu\text{g}/\text{dl}$ ). Evidence of a nonlinear effect of manganese was found. Employing a novel statistical method for the study of the health effects of chemical mixtures, authors found evidence of neurotoxicity of the mixture, as well as potential synergism between arsenic and manganese.

diesel cars. After meeting with German mayors and regional leaders on Monday, Angela Merkel announced plans to double to 1 billion euros (\$1.19 billion) a fund aimed at cleaning up urban transport. With an election due later this month, Merkel has come under fire for her close ties to Germany's powerful auto industry and for failing to crack down on vehicle pollution after Volkswagen (VW) admitted to cheating on US emissions tests. Deutsche Welle (4/9/2017)

### [Pollution levels in Bolivia plummet on nationwide car-free day](#)

Air pollution levels have plunged in cities across Bolivia as the country marked a nationwide car-free day in which all non-emergency vehicles were banned from city streets. "Air pollution drops by 60-70% because 70% of our air contaminants come from vehicles," said Soledad Delgadillo of Cochabamba's municipal government. "The difference in air quality is noticeable. It [pollution] drops to almost zero when normally it can rise as high as 100 parts per cubic metre," said Jorge Martin Villarroel, director of the environmental charity PAAC. The Guardian (4/9/2017)

### ['Your eyes start itching': pollution soars in Houston after chemical industry leaks](#)

Hurricane Harvey has resulted in Houston's petrochemical industry leaking thousands of tons of pollutants, with communities living near plants damaged by the storm exposed to soaring levels of toxic fumes and potential water contamination. According to an analysis by the Center for Biological Diversity, a cocktail of nearly 1m pounds of particularly harmful substances such as benzene, hexane, sulfur dioxide, butadiene and xylene have been emitted by more than 60 petroleum industry plants operated by ExxonMobil, Shell, Chevron and other businesses since the hurricane. The Guardian (3/9/2017)

### [Combating air pollution: Delhi-NCR may get common air quality index](#)

The National Capital Region, often claimed to be the one of the worst polluted zones in the world, would soon get a common Air Quality Index (AQI), which would give a more accurate picture of the air quality. At present the ministry of earth sciences through its System of Air Quality and Weather Forecasting and Research (SAFAR) and the Central Pollution Control Board (CPCB) displays separate AQI. The Delhi Pollution Control Committee (DPCC) has its own real-time data. In a review meeting held last week, the Supreme Court-

## **Climate Change**

### [Ambient Temperature and Stillbirth: A Multi-Center Retrospective Cohort Study](#)

Climate change is expected to have adverse health effects, but the association between extreme ambient temperatures and stillbirth is unclear. Authors investigated acute and chronic associations between extreme ambient temperatures and stillbirth risk, and estimated the attributable risk associated with local temperature extremes in the United States. In comparison with mild, whole-pregnancy exposure to cold [adjusted odds ratio (aOR) = 4.75; 95% confidence interval (CI): 3.95, 5.71] and hot (aOR = 3.71; 95% CI: 3.07, 4.47) were associated with stillbirth risk, and preconception and first and second trimester exposures were not. Approximately 17–19% of stillbirth cases were potentially attributable to chronic whole-pregnancy exposures to local temperature extremes. In the case-crossover analysis, a 1°C increase during the week preceding delivery was associated with a 6% (3–9%) increase in stillbirth risk during the warm season (May–September). This incidence translates to ~4 (2–6) additional stillbirths per 10,000 births for each 1°C increase.

*Environmental Health Perspectives*

## **E-waste**

### [Alteration of the number and percentage of innate immune cells in preschool children from an e-waste recycling area](#)

Heavy metal lead (Pb) and cadmium (Cd) are widespread environmental contaminants and exert detrimental effects on the immune system. Authors evaluated the association between Pb/Cd exposures and innate immune cells in children from an electronic waste (e-waste) recycling area. Results showed children in Guiyu had significantly higher Pb and Cd levels than in the reference group. Absolute counts of monocytes, eosinophils, neutrophils and basophils, as well as percentages of eosinophils and neutrophils were significantly higher in the Guiyu group. In contrast, NK cell percentages were significantly lower in the Guiyu group. Pb elicited significant escalation in counts of monocytes, eosinophils and basophils, as well as percentages of monocytes, but decline in percentages of neutrophils in different quintiles with respect to the first quintile of Pb concentrations. Cd induced significant increase in

mandated Environment Pollution Control Authority (EPCA) urged the CPCB to integrate the daily data on air quality from SAFAR, DPCC and other state pollution control boards in NCR and come up with a single air quality index. Hindustan Times (3/9/2017)

### [A Sea of Health and Environmental Hazards in Houston's Floodwaters](#)

Officials in Houston are just beginning to grapple with the health and environmental risks that lurk in the waters dumped by Hurricane Harvey, a stew of toxic chemicals, sewage, debris and waste that still floods much of the city. Flooded sewers are stoking fears of cholera, typhoid and other infectious diseases. Runoff from the city's sprawling petroleum and chemicals complex contains any number of hazardous compounds. Lead, arsenic and other toxic and carcinogenic elements may be leaching from some two dozen Superfund sites in the Houston area. New York Times (31/8/2017)

### [Hong Kong residents told to limit time outdoors as serious air pollution hits city](#)

Hong Kong authorities urged the public to limit their time outdoors on Wednesday as severe pollution hit the city's northern areas. The Environmental Protection Department recorded higher than normal pollution levels in the city, with air quality in both Tuen Mun and Yuen Long measuring over 10 for health risk – the most serious ranking. According to the department, when the health risk is rated “very high” or “serious”, older people and children should keep outdoor activities to a minimum. South China Morning Post (30/8/2017)

### [Boy's death highlights Gaza pollution crisis](#)

The death of a little boy after swimming in polluted seawater has put the spotlight on Gaza's pollution crisis and the human impact of desperate electricity shortages in the Palestinian enclave. Mohammad al-Sayis, 5, died late last month a few days after swimming in the sewage-polluted waters, with his brothers also hospitalized, his family and Health Ministry said. Dozens of others have been treated after swimming along the Strip's filthy Mediterranean coastline in the past two months, a ministry spokesman in Gaza said. The Daily Star Lebanon (28/8/2017)

### [Australia emits mercury at double the global average](#)

A report released this week by advocacy group Environmental Justice Australia presents a confronting analysis of toxic emissions from

counts and percentages of neutrophils in the highest quintile compared with the first quintile of Cd concentrations.

*Ecotoxicology and Environmental Safety*

## **New Publications**

### [Environmental health policies for women's, children's and adolescents' health](#)

This paper explores how the SDGs can be used to reduce environmental health risks and enhance the health of women, children and adolescents. In particular, the authors focus on drivers for urbanization and sustainable development (e.g. transport, housing, urban design and energy provision) that can advance the global strategy, but have not traditionally been a focus of health policy-making. Authors frame the discussion around the three pillars of the global strategy: survive, thrive and transform, while recognizing the inevitable overlap between these objectives.

*Bulletin of the World Health Organization*

### [Avoidable early life environmental exposures](#)

Environmental risks such as air pollution, contaminated food and water, and exposure to environmental toxic substances, can affect developing organs and physiological systems at all critical life stages, from the embryo through childhood and into adolescence. A new WHO initiative aims to highlight how early life exposure to environmental toxic substances can be avoided and has proposed a plan to address the issue. WHO already has detailed information on various environmental toxicants from many reports and their initiative calls for this information to be better communicated to all health-care professionals, alongside new WHO-supported educational packages. Public health departments and communities need to be better informed about how exposure to toxicants during early life is of concern and can be minimised or avoided altogether.

*The Lancet Planetary Health*

## **UPCOMING EVENTS**

### [67th session of the WHO Regional Committee for Europe](#)

11–14 September 2017, Budapest, Hungary

### [European Academy of Pediatrics 2017 Congress](#)

12–15 October 2017, Ljubljana, Slovenia

Australia's coal-fired power plants. The report, which investigated pollutants including fine particles, nitrogen oxides and sulfur dioxide, also highlights the deeply inadequate mercury emissions regulations. In New South Wales the mercury emissions limit is 666 times the US limits, and in Victoria there is no specific mercury limit at all. Coal-fired power stations and some metal manufacturing are major sources of mercury in our atmosphere, and Australia's per capita mercury emissions are roughly double the global average. In fact, Australia is the world's sixteenth-largest emitter of mercury, and while the government has signed the Minamata convention it has yet to ratify it. *The Conversation* (17/8/2017)

### [Thirty Years After Montreal Pact, Solving the Ozone Problem Remains Elusive](#)

Despite a ban on chemicals like chlorofluorocarbons, the ozone hole over Antarctica remains nearly as large as it did when the Montreal Protocol was signed in 1987. Scientists now warn of new threats to the ozone layer, including widespread use of ozone-eating chemicals not covered by the treaty. *Yale Environment 360* (14/8/2017)

### [New study finds higher air pollution at school drop-off zones](#)

Kids are getting more than just a ride at school drop-off zones, according to research from the University of Toronto. The study published in the journal *Atmospheric Environment* looked at elementary schools across Hamilton and found more air pollution around kiss-and-ride zones, where parents line up in cars to pick up their children. "On average at that drop-off location, for average pollution in Ontario, you're getting about 50 per cent more," said co-author Matthew Adams, professor of geography at the University of Toronto Mississauga. *Toronto Metro* (10/8/2017)

### [Roads could be covered with 'tunnels' to absorb pollution](#)

Major roads could be turned into tunnels covered with pollution-absorbing material in an effort to cut emission fumes and improve air quality. Highways Agency officials are studying a Dutch scheme in which cantilevered canopies are constructed over the most polluted sections of road to prevent local residents breathing in noxious car fumes. *The Guardian* (3/8/2017)

### [Britain to ban sale of all diesel and petrol cars and vans from 2040](#)

[International Conference of the Public Health Foundation of India and the Pacific Basin Consortium](#)

14–16 November 2017, New Delhi, India

[Twenty-third session of the UNECE Committee on Environmental Policy](#)

14–17 November 2017, Geneva, Switzerland

## **EDUCATION AND TRAINING**

[Pediatric Environmental Health Toolkit Training Module](#)

This online training was developed for pediatric health-care providers, health educators, and other health professionals interested in environmental health anticipatory guidance for pediatric patients and their parents or guardians. It is offered for free continuing education credits through the Agency for Toxic Substances and Disease Registry (ATSDR).

Britain is to ban all new petrol and diesel cars and vans from 2040 amid fears that rising levels of nitrogen oxide pose a major risk to public health. The commitment, which follows a similar pledge in France, is part of the government's much-anticipated clean air plan, which has been at the heart of a protracted high court legal battle. The government warned that the move, which will also take in hybrid vehicles, was needed because of the unnecessary and avoidable impact that poor air quality was having on people's health. Ministers believe it poses the largest environmental risk to public health in the UK, costing up to £2.7bn in lost productivity in one recent year. Ministers have been urged to introduce charges for vehicles to enter a series of "clean air zones" (CAZ). However, the government only wants taxes to be considered as a last resort, fearing a backlash against any move that punishes motorists. *The Guardian* (26/7/2017)

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