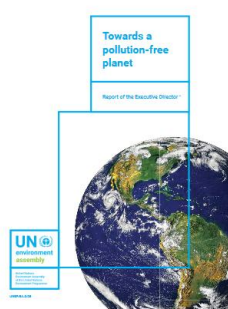


Children's Environmental Health International Initiatives

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

November 2017

TOWARDS A POLLUTION-FREE PLANET, REPORT OF THE EXECUTIVE DIRECTOR, UNEP



Every part of the planet and every person is affected by pollution – the world's largest killer – and while solutions are within reach, new policies, enhanced public and private sector leadership, redirected investments and massive funding are all desperately needed.

The 2017 Executive Director's Report: Towards a Pollution-Free Planet, presented by UNEP Executive Director Erik Solheim, analyses impacts on human health and ecosystems brought on by air, land, freshwater, marine, chemical and waste pollution.

The report lists implementation, knowledge, infrastructure, limited financial and industry leadership, pricing and fiscal, and behavioural as five main gaps that limit the effective actions.

[Full report](#) Available in Arabic, Chinese, English, French, Russian and Spanish

[UN News Release](#)

JOURNAL ARTICLES

Air Pollution

[Early-life exposure to indoor air pollution or tobacco smoke and lower respiratory tract illness and wheezing in African infants: a longitudinal birth cohort study](#)

Indoor air pollution (IAP) and environmental tobacco smoke (ETS) are associated with lower respiratory tract illness (LRTI) or wheezing in

CHILDREN'S ENVIRONMENTAL HEALTH NEWS

Press Releases

[WHO's Africa Nutrition Report highlights an increase in malnutrition in Africa](#)

A newly released nutrition report by the World Health Organization (WHO) Regional Office for Africa has revealed that undernutrition is still persistent in the region and the number of stunted children has increased. The Africa Nutrition Report, launched today in Abidjan, Ivory Coast also indicates that a growing number of children under five years old are overweight. The Report describes the current status in relation to six global nutrition targets that member states have committed to achieve by 2025, and underscores findings from the recently released Global Nutrition Report. WHO AFRO (16/11/2017)

[Working Towards Citywide Inclusive Sanitation](#)
[Citywide Inclusive Sanitation: Good Practices from Around the World](#)

[Video recordings] Citywide Inclusive Sanitation means everybody benefits from adequate sanitation, with human waste being safely managed at every point along the service chain. The cities showcased in this video series each demonstrate experiences that have embraced such approaches to ensuring the poor are provided with sanitation services. The World Bank (16/11/2017)

[Climate change puts millions of people in vicious cycle of food insecurity, malnutrition and poverty](#)

Emissions from the agriculture sectors are set to increase in the future, further contributing to climate change, unless the world adopts sustainable, climate-smart ways of producing, transporting, processing and consuming food, FAO Director-General José Graziano da Silva warned today at the United Nations Climate Change conference, COP 23. "Climate change puts millions of people in

children. However, the effect of the timing of these exposures, specifically antenatal versus postnatal, and of alternate fuel sources such as the increasingly used volatile organic compounds have not been well studied. This study longitudinally investigated the effect of antenatal or postnatal IAP and ETS on LRTI or wheezing prevalence and severity in African infants. Antenatal exposures were the predominant risk factors associated with LRTI or wheezing illness. Toluene was a novel exposure associated with severe LRTI. Urgent and effective interventions focusing on antenatal environmental factors are required, including smoking cessation programmes targeting women of childbearing age pre-conception and pregnant women.

The Lancet Planetary Health

Chemicals

[Children's Lead Exposure: A Multimedia Modeling Analysis to Guide Public Health Decision-Making](#)

The primary objective was to develop a coupled exposure-dose modeling approach that can be used to determine what drinking water lead concentrations keep children's blood lead levels (BLLs) below specified values, considering exposures from water, soil, dust, food, and air. A modeling approach using the EPA's Stochastic Human Exposure and Dose Simulation (SHEDS)-Multimedia and Integrated Exposure Uptake and Biokinetic (IEUBK) models was developed using available data. Modeled BLLs compared well with nationally representative BLLs (0–23% relative error). Analyses revealed relative importance of soil and dust ingestion exposure pathways and associated Pb intake rates; water ingestion was also a main pathway, especially for infants.

Environmental Health Perspectives

[Developmental PBDE Exposure and IQ/ADHD in Childhood: A Systematic Review and Meta-analysis](#)

In the United States, one in six children are affected by neurodevelopmental disorders, and polybrominated diphenyl ethers (PBDEs) in flame-retardant chemicals are measured ubiquitously in children. Authors conducted a systematic review regarding developmental exposure to PBDEs and intelligence or Attention Deficit/Hyperactivity Disorder (ADHD) and attention-related behavioral conditions in humans. The meta-analysis of four studies estimated a 10-fold increase (in other words, times 10) in PBDE exposure associated with a decrement of 3.70 IQ points (95%

a vicious cycle of food insecurity, malnutrition and poverty. Yet, we must confront the harsh reality: we are not doing enough to deal with this immense threat," Graziano da Silva said. He stressed that Least Developed Countries and Small Island Developing States are "particularly vulnerable" to climate change. FAO (14/11/2017)

[Launch of special initiative to address climate change impact on health in Small Island Developing States](#)

Today, at the United Nations Climate Change Conference (COP23), WHO, in collaboration with the UN Climate Change secretariat and in partnership with the Fijian Presidency of the twenty-third Conference of the Parties (COP23), has launched a special initiative to protect people living in Small Island Developing States from the health impacts of climate change. The vision is that, by 2030, all Small Island Developing States will have health systems that are resilient to climate change and countries around the world will be reducing their carbon emissions both to protect the most vulnerable from climate risks and deliver large health benefits in carbon-emitting countries. UNFCCC/WHO (12/11/2017)

[Partnering for the health of people and planet](#)

Climate change has far-reaching impacts on human health and well-being. Changing temperature and rainfall patterns impact crop yield, food and water security, and nutrition. The increased frequency and intensity of extreme events can cause not only injury, but also increase the risk of water-borne diseases (diarrhoeal disease, Hepatitis A and E, bacterial diseases such as cholera), diseases associated with crowding (measles, meningitis, acute respiratory infections) and vector-borne diseases (malaria, dengue), as well as psychological and emotional distress related to traumatic events. These impacts will be felt especially by vulnerable populations, including children, the elderly and low-income communities. UNDP (6/11/2017)

[Latin America and the Caribbean commit with #BeatPollution efforts](#)

The Latin American and Caribbean States reaffirmed today in Bogotá, Colombia, their commitment with a free-pollution planet during a regional consultation for the third session of the United Nations Environment Assembly, that will take place in December in Nairobi. In the region, 100 million people live in areas that are susceptible to air pollution –with the risk of developing

confidence interval: 0.83, 6.56). Authors concluded the body of evidence was of “moderate” quality for ADHD with “limited” evidence for an association with PBDEs, based on the heterogeneity of association estimates reported by a small number of studies and the fact that chance, bias, and confounding could not be ruled out with reasonable confidence.

Environmental Health Perspectives

[Prenatal and postnatal bisphenol A exposure and social impairment in 4-year-old children](#)

Prenatal and postnatal exposure to bisphenol A (BPA) may affect early brain development. Authors investigated the association between prenatal and postnatal exposure to BPA and social impairments in a sample of 4-year-old children. The relationship between prenatal BPA exposure and social communication was non-linear and statistically significant at or above the flexion point for BPA levels of 3.0 µg/g creatinine in girls (58.4%, 95% confidence interval [CI], 6.5% to 135.8%). Each 2-fold increase in postnatal BPA exposure was significantly associated with an 11.8% (95% CI, 0.6% to 24.3%) increase in impairment in social communication in 4-year old girls, as indicated by the linear regression model. Prenatal and postnatal BPA exposure is associated with social impairment at 4 years of age, particularly in girls.

Environmental Health

[Gestational exposure to endocrine disrupting chemicals in relation to infant birth weight: a Bayesian analysis of the HOME Study](#)

Gestational EDC exposures may be associated with changes in fetal growth that elevates the risk for poor health later in life, but few studies have examined the health effects of simultaneous exposure to multiple chemicals. This study aimed to examine the association of gestational exposure to five chemical classes of potential EDCs: phthalates and bisphenol A, perfluoroalkyl substances (PFAS), polychlorinated biphenyls (PCBs), polybrominated diphenyl ethers (PBDEs), and organochlorine pesticides (OCPs) with infant birth weight. For a 10-fold increase in chemical concentration, the mean differences in birth weights (95% credible intervals (CI)) were 1 g (-20, 23) for phthalates, -11 g (-52, 34) for PFAS, 0.2 g (-9, 10) for PCBs, -4 g (-30, 22) for PBDEs, and 7 g (-25, 40) for OCPs. Gestational exposure to phthalates, PFAS, PCBs, PBDEs, OCPs or OPPs had null or small associations with birth weight. Gestational OPP, Pb, and PFAS exposures were most strongly associated with lower birth weight.

respiratory diseases and other health problems-, and at least 25 million people are in direct contact with polluted water originated in urban areas. UNEP (13/10/2017)

WHO Fact Sheets

[Children: reducing mortality](#) Updated October 2017

[Newborns: reducing mortality](#) Updated October 2017

[Preterm birth](#) Updated November 2017

In the Media

[Germany swings EU vote in favor of weed-killer glyphosate](#)

Germany defeated its key EU ally France in a very tight vote on Monday to clear the use of weed-killer glyphosate for the next five years after a heated debate over whether it causes cancer. After months of indecisive votes among the 28 member states in Brussels, Germany, whose Chancellor Angela Merkel has yet to form a new coalition after a September election, came off the fence after abstaining in previous meetings. It said it backed a European Commission proposal against the wishes of France. Reuters (28/11/201)

[Data shows air pollution rising to hazardous levels in Lahore](#)

Air pollution levels have risen once again after heavy rains brought some respite for the residents of Lahore last week. According to the data published by the Environment Protection Department (EPD), (Fine Particulate Matter) PM2.5 values at Jail Road are beyond what Lahore High Court's (LHC) Smog Health Emergency Action Plan labels 'very poor' quality and calls for shutting down all educational institutions among other measures if such air quality is reached. Pakistan Today (23/11/2017)

[After Flint, Helping Doctors Recognize Chemical Exposure](#)

Before doctors in Flint, Mich., knew they were dealing with a crisis of lead poisoning, there were warning signs of a problem with the water supply. The doctors just didn't know what to do with them — including Dr. Mona Hanna-Attisha, the pediatrician credited with uncovering the widespread lead poisoning afflicting that city. She said Flint was exposed to a “toxic soup” for 18

Environmental Health

[Perfluorooctanoic acid and low birth weight: Estimates of US attributable burden and economic costs from 2003 through 2014](#)

Authors aimed to estimate the proportion of PFOA-attributable low birth weight (LBW) births and associated costs in the US from 2003 to 2014, a period during which there were industry-initiated and regulatory activities aimed at reducing exposure. Serum PFOA levels remained approximately constant from 2003–2004 (median: 3.3 ng/mL) to 2007–2008 (3.5 ng/mL), and declined from 2009–2010 (2.8 ng/mL) to 2013–2014 (1.6 ng/mL). In 2003–2004, an estimated 12,764 LBW cases (4% of total for those years) were potentially preventable if PFOA exposure were reduced to the base case reference level (10,203 cases in 2009–2010 and 1,491 in 2013–2014). The total cost of PFOA-attributable LBW for 2003 through 2014 was estimated at \$13.7 billion, with \$2.97 billion in 2003–2004, \$2.4 billion in 2009–2010 and \$347 million in 2013–2014. Declines were of a magnitude expected to meaningfully reduce the estimated incidence of PFOA-attributable LBW and associated costs.

International Journal of Hygiene and Environmental Health

E-waste

[Hazardous waste and health impact: a systematic review of the scientific literature](#)

Disposal and management of hazardous waste are worldwide challenges. Authors performed a systematic review to evaluate the evidence of the health impact of hazardous waste exposure, applying transparent and a priori defined methods. Fifty-seven papers of epidemiological investigations on the health status of populations living near hazardous waste sites were selected for the evidence evaluation. The association between 95 health outcomes (diseases and disorders) and residential exposure to hazardous waste sites was evaluated. The results, although not conclusive, provide indications that more effective public health policies on hazardous waste management are urgently needed. International, national and local authorities should oppose and eliminate poor, outdated and illegal practices of waste disposal, including illegal transboundary trade, and increase support regulation and its enforcement.

Environmental Health

months — with drinking water violations for nine of those months — but no one knew exactly what was in the soup, or more important, what the soup was doing to the health of the people drinking it. The medical community's slow response to the water contamination in Flint is a symptom of what Dr. Hanna-Attisha calls one of the largest deficits in the field of medicine today — the omission of environmental factors, like air and water quality, in the way that doctors talk to patients about their health. *New York Times* (21/11/2017)

[Delhi suffers second smog crisis in 12 months, as wake-up calls go unheeded](#)

A year ago Delhi was choking, as smog in the Indian capital soared to 16 times the government's safe limit for particulate pollution. Now the same thing has happened again. Levels of the most dangerous particles, called PM2.5, have once again reached last November's levels: more than 700 micrograms per cubic metre in some parts of the city. Experts say that prolonged exposure to this level of pollution is equivalent to smoking more than two packs of cigarettes a day. Just 12 months after the record-breaking pollution that should have been a major wake-up call, Delhi is again plunged into darkness. It is a big embarrassment that authorities were not better prepared for this year's smog season. *The Conversation* (19/11/2017)

[Haryana's air quality reaches dangerous level, pollutants twice than last year](#)

With the state engulfed in a toxic haze for the past one week, air pollution this time has reached hazardous level which is two times higher than last year's, prompting the administration to take a slew of measures to bring life back to normal. The air quality index in Rohtak — one of the four districts in the state where the government has set up real-time air monitoring centres — has been hovering around 420 (hazardous level). On Sunday, it touched 487, worse than most parts of the national capital and Gurgaon. *Hindustan Times* (14/11/2017)

[Nepal yet to down phase dental amalgam](#)

While more countries in the region are moving towards mercury-free dentistry, the highly-toxic metal still remains a standard material for cavity fillings in Nepal. Nepali dental professionals admit the use of dental amalgam could have adverse effects on human health and environment. "Mercury amalgam is still being used in Nepal for cavity fillings. However, the rate of its use has certainly come down," said Dr Sudin Shakya,

[Decreased lung function with mediation of blood parameters linked to e-waste lead and cadmium exposure in preschool children](#)

Blood lead (Pb) and cadmium (Cd) levels have been associated with lower lung function in adults and smokers, but whether this also holds for children from electronic waste (e-waste) recycling areas is still unknown. To investigate the contribution of blood heavy metals and lung function levels, and the relationship among living area, the blood parameter levels, and the lung function levels, a total of 206 preschool children from Guiyu (exposed area), and Haojiang and Xiashan (reference areas) were recruited and required to undergo blood tests and lung function tests during the study period. Preschool children living in e-waste exposed areas were found to have a 1.37 µg/dL increase in blood Pb, 1.18 µg/L increase in blood Cd, and a 41.00 × 10⁹/L increase in platelet counts, while having a 2.82 g/L decrease in hemoglobin, 92 mL decrease in FVC and 86 mL decrease in FEV1. Each unit of hemoglobin (1 g/L) decline was associated with 5 mL decrease in FVC and 4 mL decrease in FEV1. Authors conclude that children living in e-waste exposed area have higher levels of blood Pb, Cd and platelets, and lower levels of hemoglobin and lung function. Hemoglobin can be a good predictor for lung function levels.

Environmental Pollution

New Publications

[Keeping the vector out - Housing improvements for vector control and sustainable development](#)

This policy brief "Keeping the vector out: housing improvements for vector control and sustainable development" contributes to recognize the importance of integrated approaches of vector control and aiming at highlighting effective housing interventions to prevent vector-borne diseases. The evidence shows that poor quality housing and neglected peri-domestic environments are risk factors for the transmission of malaria, arboviral diseases (e.g. dengue, yellow fever, chikungunya, Zika virus disease), Chagas disease and leishmaniasis and that housing interventions such as screening windows, doors and eaves of houses, by fitting ceilings, and by reducing the vectors' indoor hiding and breeding places, such as cracks and crevices in walls, floors and roofs are essential for reducing morbidity, mortality, human suffering and thereby promoting economic growth, well-being and the reduction of poverty.

WHO

former president of Nepal Dental Association (NDA). "Countries around the world are moving towards mercury-free dentistry, so we should adopt a similar practice." Kathmandu Post (14/11/2017)

[Africa: Global Campaign for Mercury-Free Dentistry Targets Africa](#)

A vibrant global campaign to ban the use of mercury in dentistry is shifting direction: moving from Europe to the developing world. Charlie Brown, Attorney & President of the World Alliance for Mercury-Free Dentistry, an organization which is spearheading the campaign, told African and Asian delegates at a meeting in Geneva late September: "When you return to your home countries, please do as the European Union has done: phase out amalgam for children now, for one simple reason: The children of your nation are equally important as the children of Europe." All Africa (13/11/2017)

['Absolutely shocking': Niger Delta oil spills linked with infant deaths](#)

Babies in Nigeria are twice as likely to die in the first month of life if their mothers were living near an oil spill before falling pregnant, researchers have found. A new study, the first to link environmental pollution with newborn and child mortality rates in the Niger Delta, shows that oil spills occurring within 10km of a mother's place of residence doubled neonatal mortality rates and impaired the health of her surviving children. Crucially, oil spills that occurred while the mother was still pregnant had no effect on child or neonatal mortality. But even spills that happened five years before conception doubled the neonatal mortality rate from 38 deaths to 76 deaths for every 1,000 births, the data found. The Guardian (6/11/2017)

[Climate change already damaging health of millions globally, report finds](#)

The health of hundreds of millions of people around the world is already being damaged by climate change, a major report has revealed. Heatwaves are affecting many more vulnerable people and global warming is boosting the transmission of deadly diseases such as dengue fever, the world's most rapidly spreading disease. Air pollution from fossil fuel burning is also causing millions of early deaths each year, while damage to crops from extreme weather threatens hunger for millions of children. The findings, published in the Lancet journal, come from researchers at 26 institutions around the world, including many universities, the World Health Organization, World Bank and the

[Protecting children's lungs by providing clean air during pregnancy?](#)

Until a couple of decades ago, air pollution did not feature as a major determinant of ill health among infants. Since then, things have changed and the medical community has become more aware that the health of children greatly depends on breathing clean air. Thus, the 2015 UN resolution that defined the agenda for sustainable development recognises the adverse health effects caused by air pollution, which should be “substantially reduced” by 2030. Air pollution now also features more prominently than before among the risk factors that determine the global burden of disease. In particular, child mortality and morbidity in low-to-middle-income countries has been shown to be strongly associated with household air pollution caused by burning solid fuels (eg, coal, charcoal, wood, dung, and crop residues) for cooking and heating.

The Lancet Planetary Health

UPCOMING EVENTS

[9th Excellence in Pediatrics Conference](#)

7-9 December 2017, Vienna, Austria

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

24-25 May 2018, Prague, Czechia

[INCHES Conference 2018](#)

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.

UN's World Meteorological Organization (WMO).
The Guardian (31/10/2017)

[Call for effective enforcement of lead safety standards](#)

Amid reports that public health is at risk of lead poisoning through various sources including paints, the country's private sector has committed to make efforts to further reduce the levels of lead content in paints. During an interaction programme among government agencies and paint manufacturers in the Capital on Monday, the private sector said paint manufacturers are equally responsible for public health. Paint manufacturers in the country have come under criticism over the years as several studies have suggested that their products contain ‘a very high level’ of lead that could have adverse effects on human health. Kathmandu Post (31/10/2017)

[How has air quality been affected by the US fracking boom?](#)

Urban air pollution in the U.S. has been decreasing near continuously since the 1970s. Federal regulations, notably the Clean Air Act passed by President Nixon, to reduce toxic air pollutants such as benzene, a hydrocarbon, and ozone, a strong oxidant, effectively lowered their abundance in ambient air with steady progress. But about 10 years ago, the picture on air pollutants in the U.S. started to change. The “fracking boom” in several different parts of the nation led to a new source of hydrocarbons to the atmosphere, affecting abundances of both toxic benzene and ozone, including in areas that were not previously affected much by such air pollution. The Conversation (31/10/2017)

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