

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/Jun 2019

WORLD HEALTH ASSEMBLY 2019

Member States agreed a new global strategy on health, environment and climate change: the transformation needed to improve lives and well-being sustainably through healthy environments. The strategy provides a vision and way forward on how the world and its health community need to respond to environmental health risks and challenges until 2030.

Risks include environmental physical, chemical, biological and work-related factors.

They also agreed a plan of action on climate change and health in small island developing States. The plan has four strategic lines of action: empowerment (supporting health leadership in small island developing States); evidence (building the business case for investment); implementation (preparedness for climate risks, adaptation and health-promoting mitigation policies); resources (facilitating access to climate and health finance).

Member States also agreed a new resolution to improve safe water, sanitation and hygiene (WASH) services in health facilities around the world. Noting that this is a critical measure for preventing the spread of infections, reducing maternal and newborn deaths and achieving universal health coverage, the resolution urges Member States to prioritize WASH for safer health care worldwide.

[World Health Assembly Update, 24 May 2019](#)

[World Health Assembly Update, 25 May 2019](#)

JOURNAL ARTICLES

Air Pollution

CHILDREN'S ENVIRONMENTAL HEALTH NEWS

Press Releases

[Asbestos in the natural environment: how safe are we?](#)

Exposure to asbestos has been a long-standing issue, threatening the health of both the environment and human population for centuries. Hundreds of millions of people are exposed to the toxin worldwide each year, despite its known health risks. One study from the International Journal of Environmental Research and Public Health estimates that roughly 250,000 people die as a result of asbestos exposure annually. May was National Clean Air Month, reminding us about the importance of knowing what is in the air we breathe every day. In June, World Environment Day focused on the action that needs to be taken to #BeatAirPollution. UNEP (21/6/2019)

[National academies call for immediate action on air pollution](#)

Countries across the world must urgently adopt emissions controls and air monitoring systems for the worst pollutants, if they are to grapple with the growing problem of air pollution causing millions of deaths each year, five national academies have said. The Academies of Sciences and Medicine from South Africa, Brazil, Germany, and the United States issued a joint statement on 19 June, which they presented at the United Nations Headquarters in New York, calling for intensified funding and action under a new global compact to tackle air pollution. UNEP (20/6/2019)

[Nigeria turns the tide on electronic waste](#)

An ambitious new project launched in Lagos today is aiming to reform the electronics sector and put an end to the toxic toll improper management of electronic waste is taking on Nigeria. With backing from the Global

[Association between Early Life Exposure to Air Pollution and Working Memory and Attention](#)

This study sought to assess the role exposure to fine particulate matter (PM_{2.5}) during different prenatal and postnatal windows may play in children's cognitive development at school age. Inverse associations were identified between PM_{2.5} exposure during the fifth and sixth postnatal years and working memory, with boys showing much higher vulnerability. Regarding attention functions, exposure to higher PM_{2.5} levels during the prenatal period and from the fourth postnatal year were associated with a reduction in conflict network performance, though we found no association with attentiveness. The overall estimated cumulative effect of a 10µgm⁻³ increase in PM_{2.5} resulted in a reduction in the working memory *d'* score of -19.50 [95% confidence interval (CI): -31.44, -7.57] points and an increase in the conflict attentional network of 11.31 (95% CI: 6.05, 16.57) milliseconds, indicating a poorer performance. Early life exposure to PM_{2.5} was associated with a reduction in fundamental cognitive abilities, including working memory and conflict attentional network.

Environmental Health Perspectives

[Relations between air pollution and vascular development in 5-year old children: a cross-sectional study in the Netherlands](#)

Air pollution has been shown to promote cardiovascular disease in adults. Possible mechanisms include air pollution induced changes in arterial wall function and structure. Atherosclerotic vascular disease is a lifelong process and childhood exposure may play a critical role. Authors investigated whether air pollution is related to arterial wall changes in 5-year old children. Carotid artery distensibility was consistently associated with the exposures among the 733 5-years olds. Regression analysis showed that for air pollution exposures carotid artery distensibility decreased per standard deviation. Specifically, for NO₂, carotid artery distensibility decreased by -1.53 mPa⁻¹ (95% CI: -2.84, -0.21), for NO_x by -1.35 mPa⁻¹ (95% CI: -2.67, -0.04), for PM_{2.5} by -1.38 mPa⁻¹ (95% CI: -2.73, -0.02), for PM₁₀ by -1.56 mPa⁻¹ (95% CI: -2.73, -0.39), and for PM_{2.5}absorbance by -1.63 (95% CI: -2.30, -0.18). No associations were observed for the rest outcomes. The results of this study support the view that air pollution exposure may reduce arterial distensibility starting in young children.

Environment Facility, the Government of Nigeria has joined forces with UN Environment and partners to turn the tide on e-waste, under the Circular Economy Approaches for the Electronics Sector in Nigeria project. Led by the National Environmental Standards and Regulations Enforcement Agency (NESREA), the \$15-million initiative will bring together players from government, the private sector and civil society to kickstart a financially self-sustaining circular economy approach for electronics in Nigeria, protecting the environment while creating safe employment for thousands of Nigerians. UNEP (19/6/2019)

[1 in 3 people globally do not have access to safe drinking water – UNICEF, WHO](#)

Billions of people around the world are continuing to suffer from poor access to water, sanitation and hygiene, according to a new report by UNICEF and the World Health Organization. Some 2.2 billion people around the world do not have safely managed drinking water services, 4.2 billion people do not have safely managed sanitation services, and 3 billion lack basic handwashing facilities. The Joint Monitoring Programme report, Progress on drinking water, sanitation and hygiene: 2000-2017: Special focus on inequalities finds that, while significant progress has been made toward achieving universal access to basic water, sanitation and hygiene, there are huge gaps in the quality of services provided. WHO (18/6/2019)

[New PAHO report calls for urgent measures to reduce road traffic deaths among children, adolescents and young people](#)

A new report from the Pan American Health Organization (PAHO) reveals that the number of road traffic deaths continues to rise in the Americas, reaching almost 155,000 per year, 11% of the world's total. The report, "Status of Road Safety in the Region of the Americas", highlights that road traffic injuries are the leading cause of death for children aged 5 to 14 years, and the second highest cause of death for young people aged between 15 and 29 years. It is also the tenth highest cause of death for all age groups. "These findings indicate the need to prioritize the prevention of these injuries with proven interventions that we know work," said Dr. Carissa F. Etienne, Director of PAHO. "Road traffic injuries not only take the lives of thousands of people each year, but they also leave thousands more with disabilities, emotional and financial distress,

Environmental Health

[Maternal exposure to ambient fine particulate matter and fetal growth in Shanghai, China](#)

Fetal growth restriction (FGR) is not only a major determinant of perinatal morbidity and mortality but also leads to adverse health effects in later life. Over the past decade, numerous studies have indicated that maternal exposure to ambient air pollution has been a risk factor for abnormal fetal growth in developed countries where PM_{2.5} levels are relatively low. However, studies in highly polluted regions, such as China, and studies that rely on assessments in utero are scarce. The full model showed that with each 10 µg/m³ increase in PM_{2.5} exposure, the means (mm) of AC, BPD, FL decreased by 5.48 (– 9.06, – 1.91), 5.57 (– 6.66, – 4.47), and 5.47 (– 6.39, – 4.55), respectively; the mean EFW decreased by 14.49 (– 16.05, – 13.49) grams by Hadlock's third formula and 13.56 (– 14.71, – 12.50) grams by Shepard's formula with each 10 µg/m³ increase in PM_{2.5} exposure. A negative correlation existed between maternal PM_{2.5} exposure during pregnancy and fetal growth indicators, which may increase the risk of fetal growth restriction.

Environmental Health

[On the accuracy and potential of Google Maps location history data to characterize individual mobility for air pollution health studies](#)

Appropriately characterizing spatiotemporal individual mobility is important in many research areas, including epidemiological studies focusing on air pollution. However, in many retrospective air pollution health studies, exposure to air pollution is typically estimated at the subjects' residential addresses. Individual mobility is often neglected due to lack of data, and exposure misclassification errors are expected. In this study, authors demonstrate the potential of using location history data collected from smartphones by the Google Maps application for characterizing historical individual mobility and exposure. Considering the popularity of smartphones and the Google Maps application, detailed historical location data are expected to be available for large portion of the population, and results from this study highlight the potential of these location history data to improve exposure estimation for retrospective epidemiological studies.

Environmental Pollution

Chemicals

and place a heavy burden on health services.” PAHO (17/6/2019)

[New report shows persistent environment and health inequalities in Europe](#)

Inequalities in environmental exposure and injuries exist in all countries across the WHO European Region, in turn contributing to health inequity. A new WHO report launched today at the WHO High-level Conference on Health Equity in Ljubljana, Slovenia shows that intra-country inequalities in environmental exposure persist, or in some cases may have even increased. This is despite significant improvement in environmental conditions in most countries. For example, in the case of housing inequalities, poor households in western Europe report 3.3 times more difficulty in keeping their homes warm compared to non-poor households. WHO EURO (12/6/2019)

[Food safety is everyone's business](#)

The first ever celebration of the United Nations World Food Safety Day, to be marked globally on 7 June, aims to strengthen efforts to ensure that the food we eat is safe. Every year, nearly one in ten people in the world (an estimated 600 million people) fall ill and 420,000 die after eating food contaminated by bacteria, viruses, parasites or chemical substances. Unsafe food also hinders development in many low- and middle-income economies, which lose around US\$ 95 billion in productivity associated with illness, disability, and premature death suffered by workers. WHO (6/6/2019)

[Chemicals and the right to breathe clean air](#)

Chemicals are all around us. They keep our homes clean, produce better goods, improve health care and are major contributors to national and world economies. As the world's population approaches 8 billion, the sound management of chemicals and waste is becoming ever more important—especially as they can affect air quality. Every year, millions of tons of manufactured chemicals are released into the environment as emissions, water discharges, and hazardous waste. Air pollution is caused by harmful particulates and gases released into the air. Sources include factories, cars, open burning of wastes, pesticides and even commercial and household products. The impacts from the unsound management of chemicals, waste and poor air quality, is taking its toll on the health of the global human population. UNEP (6/6/2019)

[Placental Expression of Imprinted Genes, Overall and in Sex-Specific Patterns, Associated with Placental Cadmium Concentrations and Birth Size](#)

Prenatal cadmium (Cd) exposure has been recognized to restrict growth, and male and female fetuses may have differential susceptibility to the developmental toxicity of Cd. Imprinted genes, which exhibit monoallelic expression based on parent of origin, are highly expressed in placental tissues. The function of these genes is particularly critical to fetal growth and development, and some are expressed in sex-specific patterns. Authors aimed to examine whether prenatal Cd associates with the expression of imprinted placental genes, overall or in fetal sex-specific patterns, across two independent epidemiologic studies. The differential regulation of a set of imprinted genes, particularly DLX5, H19 and NDN, in association with prenatal Cd exposure may be involved in overall developmental toxicity, and some imprinted genes may respond to Cd exposure in a manner that is specific to infant gender.

Environmental Health Perspectives

[Prenatal plasma concentrations of Perfluoroalkyl and polyfluoroalkyl substances and neuropsychological development in children at four years of age](#)

Perfluoroalkyl and polyfluoroalkyl substances (PFASs) are persistent pollutants and have endocrine disruptive and neurotoxic effects. The association between maternal PFAS concentrations and neuropsychological development in children is inconclusive. The present study aimed to examine the effect of maternal PFAS concentrations on neuropsychological development in 4-years-old children. Prenatal plasma concentrations of most PFASs tended to be associated with increased risk of development problems in personal-social skills, including PFHxS, PFOS, PFOA, PFNA, PFDA, and PDUdA, and the associations for PFNA and PFDA were significant (per natural log unit increase: RRPFNA = 1.92, 95% CI: 1.21, 3.05; RR PFDA = 1.66, 95% CI: 1.17, 2.37). In stratified analyses by child's sex, the consistent pattern of higher risk of developmental problems in personal-social skills associated with most PFASs was mainly observed among girls. Boys with higher maternal PFOA concentrations had a decreased risk of developmental problems in gross motor skills.

Environmental Health

[On World Environment Day, world turns spotlight on air pollution](#)

Governments, industry, communities and individuals around the world today commemorated World Environment Day, the United Nations' biggest annual event for positive environmental action, encouraging worldwide awareness and commitment to protect our planet. This year's celebrations, held under the theme 'Beat Air Pollution', called upon people to explore renewable energy and green technologies, and improve air quality in cities and regions across the world. More than 6 billion people – one-third of them children – regularly breathe air that is so polluted it puts their health and well-being at risk. Spearheaded by China, the official host of the global World Environment Day celebrations, UN Environment's campaign to #BeatAirPollution culminated into a record number of registered events and commitments. UNEP (5/6/2019)

[Myanmar announces national environment and climate change policies to mark World Environment Day 2019](#)

The Government of Myanmar today announced its vision for the country's environmental protection and climate action, launching two new policies that will guide Myanmar's environmental management and climate change strategy. Myanmar is widely considered one of the most vulnerable countries in the world to the impacts of climate change, and its renowned biodiversity and natural resources are under increasing pressure as the country develops. More intense and more frequent floods, cyclones and droughts have caused immense loss of life and damage to infrastructure and the economy. UNEP (5/6/2019)

[Nine governments join BreatheLife on World Environment Day, commit to action on air pollution](#)

The BreatheLife campaign is proud to announce that nine new governments have joined its ranks, making fresh commitments to demonstrate their dedication to bring air quality to safe levels by 2030 and collaborate on the clean air solutions that will help us get there faster. Bogota (Colombia), Lalitpur and Kathmandu (Nepal), Honduras, Bogor City (Indonesia), the Republic of Moldova, Monaco, Montevideo (Uruguay) and Mexico bring the number of cities, regions and countries in the BreatheLife Network to 63, representing 271.4 million citizens around the world. UNEP (5/6/2019)

[Exposure to arsenic in utero is associated with various types of DNA damage and micronuclei in newborns: a birth cohort study](#)

Growing evidence indicates that in utero arsenic exposures in humans may increase the risk of adverse health effects and development of diseases later in life. This study aimed to evaluate potential health risks of in utero arsenic exposure on genetic damage in newborns in relation to maternal arsenic exposure. Maternal arsenic exposure, measured by arsenic levels in toenails and urine, was significantly increased ($p < 0.05$) in subjects residing in areas with high levels of arsenic contamination in drinking water. Cord blood arsenic level was significantly increased in accordance with maternal arsenic exposure ($p < 0.001$). Arsenic exposure in utero is associated with genotoxic effects in newborns indicated as increased levels of 8-OHdG, 8-nitroguanine, DNA strand breaks and MN frequency in cord blood with increasing levels of maternal arsenic exposure. Maternal toenail arsenic level was significantly associated with all biomarkers of early genetic effects, while cord blood arsenic levels associated with DNA strand breaks and MN frequency.

Environmental Health

[Two-step approach for assessing the health effects of environmental chemical mixtures: application to simulated datasets and real data from the Navajo Birth Cohort Study](#)

There is increasing interest in examining the consequences of simultaneous exposures to chemical mixtures. However, a consensus or recommendations on how to appropriately select the statistical approach analyzing the health effects of mixture exposures which best aligns with study goals has not been well established. In this research, authors aim to examine the performance of a two-step statistical approach in addressing the analytical challenges of chemical mixture exposures using two simulated data sets, and an existing data set from the Navajo Birth Cohort Study as a representative case study. Utilizing simulated data sets and applying the method to a real-life dataset from the Navajo Birth Cohort Study, authors have demonstrated good performance of the proposed two-step approach. Results from the simulation datasets indicated the effectiveness of variable dimension reduction and reliable identification of a parsimonious model compared to other methods: single-step adaptive lasso or two-step CART followed by adaptive lasso method.

[Five reasons you should care about air pollution](#)

Air pollution is all around us. Indoors, outdoors, in cities and in the countryside. It affects us all, whether we realize it or not. For the longest time, we have taken the air we breathe for granted. There was air, there were smells, there was cold wind, there was hot air. But recent research has started to shed light on some rather worrisome aspects of what the air around us really contains, and how it affects our bodies. And the more we learn, the more we come to realize that this essential source of life for the planet needs some serious taking care of. Without air there can be no life but breathing polluted air condemns us to a life of disease and early death. UNEP (3/6/2019)

[Youth are at the forefront in recognizing the relationship between the environment and human rights](#)

“More than 1.5 million children under the age of five lose their lives each year as a result of avoidable environmental impacts,” says a 2018 report by the UN Special Rapporteur on Human Rights and the Environment. Worried about climate change, youth are using environmental rights to demand more action to address ecological crises around the world. They know that they will suffer disproportionately from the burdens of today’s environmental degradation and they also know that we must act now. There are a number of powerful ways in which youth have been engaging in advocating for their environmental rights. Below are three of the most effective to date. UNEP (31/5/2019)

[Five ways in which disasters worsen air pollution](#)

According to the World Health Organization, every year, around 7 million people die prematurely from disease caused by air pollution. That is 800 people every hour, or 13 every minute, dying because of the dirty air they breathe. Approximately, 4 million of these deaths occur in the Asia-Pacific region. The Global Assessment Report on Disaster Risk Reduction 2019, published earlier this month by the UN Office for Disaster Risk Reduction, further exposes how threats such as air pollution, diseases, earthquakes, drought and climate change combine and feed on each other to exacerbate their impact on human health and the environment. UNEP (31/5/2019)

[Asthma sufferers need to be ultra-wary of air pollution](#)

An asthma attack is a frightening experience,

Environmental Health

[Fetal growth in environmental epidemiology: mechanisms, limitations, and a review of associations with biomarkers of non-persistent chemical exposures during pregnancy](#)

Non-persistent chemicals, such as phthalates, environmental phenols, organophosphate pesticides, and others, are challenging to study because of their ubiquity in the environment, diverse exposure routes, and high temporal variability of biomarkers. The purpose of this review is to describe the state of the science on this topic. The bulk of the literature we found uses biomarkers measured at a single time point in pregnancy and birth weight as the primary measure of fetal growth. There is a small, but growing, body of research that uses ultrasound measures to assess fetal growth during pregnancy. In addition to summarizing the findings of the publications we identified, we describe inconsistencies in methodology, areas for improvement, and gaps in existing knowledge that can be targeted for improvement in future work. This literature is characterized by variability in methodology, likely contributing to the inconsistency of results reported.

Environmental Health

Climate Change

[Global-Level Model of the Potential Impacts of Climate Change on Child Stunting via Income and Food Price in 2030](#)

In 2016, 23% of children (155 million) aged <5 were stunted. Global-level modeling has consistently found climate change impacts on food production are likely to impair progress on reducing undernutrition. Authors developed a statistical model to project moderate and severe stunting in children aged <5 at the national level in 2030 under low and high climate change scenarios combined with poverty and prosperity scenarios in 44 countries. This study estimated that in the absence of climate change, 110 million children aged <5 would be stunted in 2030 under the poverty scenario in comparison with 83 million under the prosperity scenario. Estimates of climate change-attributable stunting ranged from 570,000 under the prosperity/low climate change scenario to >1million under the poverty/high climate change scenario.

Environmental Health Perspectives

Water, Sanitation and Hygiene

threatening to deprive you of your ability to breathe, and life itself. According to World Health Organization estimates, 235 million people suffer from asthma, which is the most common chronic disease among children. Over 80 per cent of asthma deaths occur in low and lower-middle income countries. World Asthma Day on 7 May 2019 reminds us that people with chronic respiratory problems are particularly vulnerable to all forms of air pollution. One form of pollution that particularly affects people in cities is transport emissions. “Living by London’s busy A2 road, which carries thousands of cars, lorries and coaches, I often worry about the impact air pollution has on my health,” says asthma sufferer Tom Bartlett, 24. “I don’t feel comfortable cycling or running nearby and use back roads whenever I can to avoid the fumes.” UNEP (7/5/2019)

[Three examples from Latin America highlight how road safety can be improved](#)

These countries implemented measures to reduce speed, limit drink-driving, and ensure that all motorcycle users wear helmets, that all car passengers wear seat-belts, and that children use car-seats. The countries also passed and enforced laws, reducing both mortality and road traffic accidents. The three examples highlighted by the Pan American Health Organization (PAHO) within the framework of the Fifth United Nations Global Road Safety Week, are from Brazil, Mexico and Uruguay. The week takes place from the 6-12 May and the theme is “Leadership for road safety”. Each year, road traffic accidents cause approximately 155,000 deaths in the Americas, and injure thousands more. Road traffic accidents are the leading cause of death among children aged 5 to 14 years, and the second leading cause of death among people aged 15-29 years. PAHO (6/5/2019)

[Every five seconds, a premature death caused by air pollution, UN rights expert says](#)

Ahead of World Environment Day on 5 June, an independent UN expert has urged States to beat air pollution to fulfill their human rights obligations. “Air pollution is a silent, invisible and prolific killer that is responsible for the premature death of 7 million people each year, disproportionately affecting women, children and poor communities,” said David Boyd, the Special Rapporteur on human rights and the environment. “Failing to ensure clean air constitutes a violation of the rights to life, health and well-being, as well as the right to live in a healthy environment. States must

[Water, sanitation and hygiene: measuring gender equality and empowerment](#)

The right to water and sanitation is recognized as fundamental to attaining all other human rights. Globally, however, 2.1 billion people do not have access to safe drinking water at home, 2.3 billion do not have basic sanitation and 1 billion practice open defecation. Women and girls are disproportionately affected by the lack of access to basic water, sanitation and hygiene facilities, due to their needs during periods of increased vulnerability to infection around menstruation and reproduction. Women and girls also have a larger role relative to men in water, sanitation and hygiene activities, including in agriculture and domestic labour. This situation has implications for gender equality and empowerment. The sustainable development goals (SDGs) make an important initial step in connecting water, sanitation and hygiene (SDG 6) and gender equality and empowerment (SDG 5) through target 6.2, which emphasizes access to equitable sanitation and hygiene, and the needs of women and girls.

Bull World Health Organ

E-waste

[WEEE Treatment in Developing Countries: Environmental Pollution and Health Consequences—An Overview](#)

In the last few decades, the rapid technological evolution has led to a growing generation of waste electrical and electronic equipment (WEEE). Not rarely, it has been exported from industrialized to developing countries, where it represents a secondary source of valuable materials such as gold, copper, and silver. The recycling of WEEE is often carried out without any environmental and health protection. This paper reviews recent literature dealing with the informal treatment of WEEE in developing regions, gathering and analyzing data on concentration of both inorganic and organic pollutants in the environment. Open burning practices are revealed as most polluting 'technology', followed by mechanical treatment and leaching. Significant levels of pollutants have been detected in human bodies, both children and adults, working in or living in areas with informal WEEE treatment.

Int J Environ Res Public Health

[Public Health Burden of E-waste in Africa](#)

Environmental impacts from informal e-waste

take urgent action to improve air quality to fulfill their human rights obligations.” Boyd said clean air is a core component of the right to a healthy environment, together with clean water and adequate sanitation, healthy and sustainably produced food, non-toxic environment, healthy biodiversity and a safe climate. OHCHR (5/5/2019)

In the Media

[Action on air pollution works but far more is needed, study shows](#)

Government action can cut air pollution, a long-term study has shown, with early deaths linked to dirty air in the UK falling by half between 1970 and 2010. But toxic air remains the number one environmental health hazard, with one in 20 deaths still attributable to small particle pollution alone. The researchers said urgent action was needed to deal with a public health emergency that caused harm comparable to alcohol. Cleaning up power stations and vehicles led to a fall in most pollutants in the four decades analysed. But ammonia from farms, which mixes with city air to form dangerous particles, has yet to be stringently tackled, the scientists said, and ozone pollution has risen. The Guardian (26/6/2019)

[What does the dust in your home mean for your health?](#)

You vacuum it, sweep it and wipe it off your furniture. But do you know what it actually is – and how it may affect your health? Don't feel bad if you're clueless about your dust. Scientists are not that far ahead of you in terms of understanding the sources and health risks of indoor air and particles. That's an issue, because people spend a lot of time indoors. Indeed, the average American stays within four walls for almost 90% of their day. So knowing more about how your indoor environment affects your health is vital. To better quantify environmental influences on health, researchers have begun using an "exposome" approach, which considers every last environmental exposure an individual experiences over a lifetime. The Conversation (17/6/2019)

[Kids Face Rising Health Risks from Climate Change, Doctors Warn as Juliana Case Returns to Court](#)

The 21 children and young adults suing the federal government over climate change argue that they and their generation are already

recycling are increasing in Africa. Informal e-waste recycling in African countries is a serious public health threat. The present paper reviews the extent of e-waste exposure in Africa and related impacts on people, animals and the environment. Elevated levels of e-waste pollutants in water, air, soil, dust, fish, vegetable, and human matrices (blood, urine, breast milk) indicate that not only are e-waste workers at risk from exposure to e-waste, but the general population and future generations as well. Headache, cough and chest pain, stomach discomfort, miscarriage, abnormal thyroid and reproductive function, reduction of gonadal hormone, and cancer are common complaints of those involved with the processing of e-waste. The evidence presented from the reviewed studies illustrates the extent of the human health and environmental risks posed by e-waste in Africa. There is a need for a regulatory framework including specific legislation, infrastructure and protocols to safely recycle and dispose of e-waste in sub-Saharan African countries.

Journal of Health and Pollution

New Publications

[Anamnese Ambiental em Pediatria](#)

A Pediatria Ambiental (Children's environmental health - CEH) é o ramo da pediatria que estuda as influências do ambiente sobre a saúde e o desenvolvimento da criança. Teve sua origem nas áreas de Toxicologia, Saúde Ocupacional, Epidemiologia e Toxicologia Pediátrica e alcançou importância crescente nas últimas décadas e atualmente integra um dos programas em saúde da OMS.

[Healthy Air, Healthier Children - 50 schools across the EU monitor air quality](#)

The 'Healthy Air, Healthier Children' report is the presentation of air quality monitoring the Health and Environment Alliance (HEAL) has conducted in and around 50 primary schools across six European capitals: Berlin, London, Madrid, Paris, and Warsaw. Using a citizen science approach we involved the teachers and children to raise awareness of the health impacts of air pollution and the need to clean up air. HEAL monitored the pollutants NO₂ and particulate matter alongside CO₂ as an indoor air quality indicator and found that that NO₂ enters the school buildings as there are no indoor sources of NO₂ present inside the classrooms. The authors observed high levels of CO₂ in the majority of the classrooms, indicating

suffering the consequences of climate change, from worsening allergies and asthma to the health risks and stress that come with hurricanes, wildfires and sea level rise threatening their homes. With the case back in court on Tuesday, some of the heaviest hitters in the public health arena—including 15 major health organization and two former U.S. surgeons general—have been publicly backing them up. Inside Climate News (4/6/2019)

[Revealed: air pollution may be damaging 'every organ in the body'](#)

Air pollution may be damaging every organ and virtually every cell in the human body, according to a comprehensive new global review. The research shows head-to-toe harm, from heart and lung disease to diabetes and dementia, and from liver problems and bladder cancer to brittle bones and damaged skin. Fertility, fetuses and children are also affected by toxic air, the review found. The systemic damage is the result of pollutants causing inflammation that then floods through the body and ultrafine particles being carried around the body by the bloodstream. The Guardian (17/5/2019)

[US environment agency cuts funding for kids' health studies](#)

The Columbia Center for Children's Environmental Health has tracked the lives of hundreds of children in New York City since 1998. Scientists have collected samples of blood, urine and even the air in children's homes, starting when their subjects were in the womb, to tease out the health effects of chemicals and pollutants. The centre's findings influenced New York City's decision in 2018 to phase out diesel buses, and its staff members teach schools and community groups about the harmful chemicals and pollution that kids encounter each day. Now, the future of the Columbia facility and a dozen like it is in doubt. Their last grants from the US Environmental Protection Agency (EPA), which has provided half of the centres' funding for two decades, will expire in July — and the agency has decided that it will not renew its support for the facilities. Nature (13/5/2019)

[Where do the children play?](#)

As children play, walk to school and sit in classrooms, their brain development is disrupted by the unseen menace of air pollution. This was illustrated for those living in urban areas in a landmark study in the Spanish city of Barcelona,

that there is a need for more ventilation.
Health and Environment Alliance (HEAL)

[Lifting the smog - How much Tuzla's public health would benefit from enforcement of air quality legislation](#)

The 'Lifting the smog' report is a joint report with fellow environmental NGOs in the Balkan region, putting a spotlight on the shortcomings of air pollution monitoring and compliance with legislation and the subsequent health impacts in and around Tuzla. Importantly, the report will also feature modelling on how much the citizens' health could be improved by complying with existing legislation or even adjusting it to a health-led approach using WHO recommendations.

Health and Environment Alliance (HEAL)

EVENTS

[Pacific Basin Consortium Conference 2019](#)

Kyoto, Japan. 16 – 19 September 2019

which looked at 3000 schoolchildren in dozens of schools. Children in schools with more traffic pollutants had slower cognitive development. The chief investigator was Jordi Sunyer at the Barcelona Institute for Global Health, who has studied air pollution for decades. He describes the findings from this project as the strongest in his career. 'The results were shocking and convinced me that fine particles are a very serious problem,' he says. *Chemistry World* (13/5/2019)

[EU Parliament on endocrine-disrupting compounds: Time to act](#)

The European Parliament on Thursday called out the dangers posed by endocrine-disrupting compounds and urged the European Union to take action to safeguard human health and the environment. The resolution, approved on a 447-14 vote, called on the European Commission "to swiftly take all necessary action to ensure a high level of protection of human health and the environment." This "is a strong and scientifically sound resolution calling for the EU Commission to stop dithering and start acting," said EHN.org founder and chief scientist Pete Myers. *Environmental Health News* (19/4/2019)

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