

Children's Environmental Health International Initiatives

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

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THE RIGHT TO CLEAN AIR

More than 6 billion people, one-third of them children, are regularly inhaling air so polluted that it puts their life, health and well-being at risk, a UN expert on human rights and the environment said today.

David Boyd said that air pollution, both outside and inside homes, is a silent, sometimes invisible, prolific killer that is responsible for the premature death of 7 million people each year, including 600,000 children.

"Yet, this pandemic receives inadequate attention as these deaths are not as dramatic as those caused by other disasters or epidemics," the Special Rapporteur told the Human Rights Council in Geneva. "Every hour, 800 people are dying, many after years of suffering, from cancer, respiratory illnesses or heart disease directly caused by breathing polluted air."

Boyd said that failing to ensure clean air constituted a violation of their fundamental right to a healthy environment, a right that is legally recognised by 155 States and should be globally recognised.

[Press release](#)

[Report of the Special Rapporteur](#)

1 IN 4 HEALTH CARE FACILITIES LACKS BASIC WATER SERVICES – UNICEF, WHO

One in four health care facilities around the world lacks basic water services, impacting over 2 billion people, according to a new report by WHO and UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP).

The WHO/UNICEF JMP report, [WASH in Health](#)

CHILDREN'S ENVIRONMENTAL HEALTH NEWS

Press Releases

[Call for Inputs: Climate Change and Human Rights - a Safe Climate](#)

The current Special Rapporteur on human rights and the environment, Mr. David Boyd, is working to provide additional clarity regarding the substantive obligations relating to a range of elements that are essential to the enjoyment of a safe, clean, healthy and sustainable environment. His first report to the Human Rights Council addressed air pollution and associated obligations. He is now preparing a thematic report focusing on human rights obligations related to global climate change. For that purpose, he is seeking inputs on the topic from States and stakeholders through responses to the brief questionnaire below. Your replies will inform the Special Rapporteur's analysis and contribute to his report, which will be presented to the General Assembly in October 2019. Questionnaire in [English](#), [Spanish](#), [French](#).

[To grow up healthy, children need to sit less and play more: New WHO guidelines on physical activity, sedentary behaviour and sleep for children under 5 years of age](#)

Children under five must spend less time sitting watching screens, or restrained in prams and seats, get better quality sleep and have more time for active play if they are to grow up healthy, according to new guidelines issued by the World Health Organization (WHO). "Achieving health for all means doing what is best for health right from the beginning of people's lives," says WHO Director-General Dr Tedros Adhanom Ghebreyesus. "Early childhood is a period of rapid development and a time when family lifestyle patterns can be adapted to boost health gains." WHO (24/4/2019)

[Care Facilities](#), is the first comprehensive global assessment of water, sanitation and hygiene (WASH) in health care facilities. It also finds that one in five health care facilities has no sanitation service, impacting 1.5 billion people. The report further reveals that many health centres lack basic facilities for hand hygiene and safe segregation and disposal of health care waste.

These services are crucial to preventing infections, reducing the spread of antimicrobial resistance and providing quality care, particularly for safe childbirth.

In an accompanying report, [Water, sanitation, and hygiene in health care facilities: Practical steps to achieve universal access for quality care](#), WHO and UNICEF researchers note that more than 1 million deaths each year are associated with unclean births. Infections account for 26% of neonatal deaths and 11% of maternal mortality.

[Press release](#)

JOURNAL ARTICLES

Air Pollution

[Global, national, and urban burdens of paediatric asthma incidence attributable to ambient NO₂ pollution: estimates from global datasets](#)

Paediatric asthma incidence is associated with exposure to traffic-related air pollution (TRAP), but the TRAP-attributable burden remains poorly quantified. Globally, we estimated that 4.0 million (95% uncertainty interval [UI] 1.8–5.2) new paediatric asthma cases could be attributable to NO₂ pollution annually; 64% of these occur in urban centres. This burden accounts for 13% (6–16) of global incidence. Regionally, the greatest burdens of new asthma cases associated with NO₂ exposure per 100 000 children were estimated for Andean Latin America (340 cases per year, 95% UI 150–440), high-income North America (310, 140–400), and high-income Asia Pacific (300, 140–370). Efforts to reduce NO₂ exposure could help prevent a substantial portion of new paediatric asthma cases in both developed and developing countries, and especially in urban areas. Traffic emissions should be a target for exposure-mitigation strategies.

The Lancet Planetary Health

[London implements the world's first Ultra Low Emission Zone](#)

London's Mayor Sadiq Khan has implemented the world's first Ultra Low Emission Zone in an effort to improve air quality in the city. The ULEZ will operate 24 hrs a day, 7 days a week and aim to reduce the number of diesel-powered vehicles entering the centre. Cars, vans, and motorbikes that don't meet standards will need to pay £12.50 a day (\$16.30), while lorries, buses, and coaches will be charged £100 a day (\$130.43) upon entering the zone. UNEP (15/4/2019)

[Climate change threatens lives and futures of over 19 million children in Bangladesh](#)

Devastating floods, cyclones and other environmental disasters linked to climate change are threatening the lives and futures of more than 19 million children in Bangladesh, UNICEF said today. In a new report, UNICEF says that while Bangladeshis have developed admirable powers of resilience, more resources and innovative programmes are urgently needed to avert the danger that climate change represents to the country's youngest citizens. "Climate change is deepening the environmental threat faced by families in Bangladesh's poorest communities, leaving them unable to keep their children properly housed, fed, healthy and educated," said UNICEF Executive Director Henrietta Fore, who visited Bangladesh in early March 2019. "In Bangladesh and around the world, climate change has the potential to reverse many of the gains that countries have achieved in child survival and development." UNICEF (8/4/2019)

[Children living in protracted conflicts are three times more likely to die from water-related diseases than from violence – UNICEF](#)

Children under the age of 15 living in countries affected by protracted conflict are, on average, almost three times more likely to die from diarrhoeal diseases caused by a lack of safe water, sanitation and hygiene than by direct violence, UNICEF said in a new report today. Water Under Fire looks at mortality rates in 16 countries going through prolonged conflicts and finds that, in most of them, children under the age of five are more than 20 times more likely to die from diarrhoeal-related deaths linked to lack of access to safe water and sanitation than direct violence. "The odds are already stacked against children living through prolonged conflicts – with many unable to reach a safe water source," said UNICEF Executive Director Henrietta Fore. "The

[Prenatal exposure to fine particulate matter, maternal hemoglobin concentration, and fetal growth during early pregnancy: associations and mediation effects analysis](#)

Fetal essential organ development is completed during early pregnancy, which is important for fetal and postnatal health. However, the effect of exposure to PM2.5 on fetal growth during early pregnancy is less studied and the related mechanisms are largely unknown. One IQR increment of prenatal exposure to PM2.5 was associated with a 0.929 g/L (95% CI: 0.068, 1.789) increase in maternal hemoglobin concentration, and associated with a -0.082 cm (95% CI: 0.139, -0.025) decrease in fetal CRL. One g/L increment of maternal hemoglobin concentration was associated a -0.011 cm (95% CI: 0.014, -0.008) decrease in fetal CRL. The mediation analysis indicated that 12.1% of the total effect of prenatal exposure to PM2.5 on reducing fetal CRL was mediated by increased maternal hemoglobin concentration. Exposure to PM2.5 was associated with reduced fetal growth during early pregnancy and elevated maternal hemoglobin concentration mediated this association.

Environmental Research

[Association between Outdoor Air Pollution and Childhood Leukemia: A Systematic Review and Dose-Response Meta-Analysis](#)

A causal link between outdoor air pollution and childhood leukemia has been proposed, but some older studies suffer from methodological drawbacks. This study investigated the extent to which outdoor air pollution, especially as resulting from traffic-related contaminants, affects the risk of childhood leukemia. Authors found 29 studies eligible to be included in the review. In the dose-response analysis, authors found little association between disease risk and traffic indicators near the child's residence for most of the exposure range, with an indication of a possible excess risk only at the highest levels. In contrast, benzene exposure was positively and approximately linearly associated with risk of childhood leukemia, particularly for acute myeloid leukemia, among children under 6 y of age, and when exposure assessment at the time of diagnosis was used. Exposure to nitrogen dioxide showed little association with leukemia risk except at the highest levels.

Environmental Health Perspectives

reality is that there are more children who die from lack of access to safe water than by bullets." UNICEF (21/3/2019)

[Ensuring safe drinking-water – highlighting water safety plans in Tajikistan on World Water Day](#)

While some people in the WHO European Region take clean drinking-water for granted, many communities throughout the Region – and the world – still suffer from water-related issues. World Water Day is a day for action to encourage engagement and share knowledge on safe and sustainable management of water. This year the campaign shines a light on “leaving no one behind”, providing equitable and safely managed water services for all, including remote rural communities. Tajikistan has introduced water safety plans (WSPs) to central Asia for the first time, with the recent completion of a successful pilot project, implemented by rural communities across the country. The project represents a major step towards achieving Sustainable Development Goal (SDG) 6 on water and sanitation. WHO EURO (21/3/2019)

[New WHO study shows more action needed to monitor and limit digital marketing of unhealthy products to children](#)

A new report from WHO/Europe calls for greater monitoring of the digital marketing of alcohol, tobacco and unhealthy food products, especially those high in salt, sugar and fat. It comes amid the advertising industry's continued efforts to target children and adolescents on social media and on difficult-to-track mobile devices. “The overriding concern is that nearly a decade after introducing the 2010 WHO recommendations on the marketing of foods and non-alcoholic beverages to children, exposure of children to the online marketing of unhealthy food products, tobacco and alcohol remains commonplace,” said Dr João Breda, Head of the WHO European Office for the Prevention and Control of Noncommunicable Diseases. WHO EURO (13/3/2019)

[Beijing air improvements provide model for other cities](#)

More than 20 years after Beijing began looking for ways to improve air quality in one of the largest and fastest growing cities in the developing world, its successful efforts provide a model for other cities to follow, according to a report released ahead of the UN Environment Assembly. Research by UN Environment and the Beijing

Chemicals

[Prenatal exposure to parabens and anthropometric birth outcomes: A systematic review](#)

The estrogenic activity of parabens may cause undesirable health effects and adverse birth outcomes. The objective of the present systematic review was to investigate the association between prenatal exposure to parabens and anthropometric birth outcomes. The included studies indicated that most of the pregnant mothers were exposed to parabens, especially methyl and propyl parabens. However, no definitive association was found between the prenatal urinary concentration of parabens and birth weight or head circumference. In addition, a positive but non-significant association was detected between birth length and maternal exposure to parabens. The present systematic review revealed that assessment of significant associations in current epidemiological studies is impermissible due to methodological limitations and absence of inter-study consistency.

Environmental Research

[Maternal exposure to arsenic and mercury in small-scale gold mining areas of Northern Tanzania](#)

Artisanal and small-scale gold mining (ASGM) in Tanzania results in occupational exposures and environmental contamination to toxic chemical elements such as arsenic and mercury. Populations living in such areas may be exposed by various routes, and prenatal exposure to arsenic and mercury has been associated with adverse birth outcomes and developmental delays. The aim of this study was to determine if levels of arsenic and mercury differed among pregnant women living in areas with and without ASGM activities in Northern Tanzania. Women involved in mining activities and those of low socioeconomic status had increased odds of higher T-Hg by 70% ($p < 0.001$) and 10% ($p < 0.05$), respectively. Arsenic and mercury concentrations among women in non-ASGM areas suggest exposure sources beyond ASGM activities that need to be identified. Arsenic and mercury levels in women in Tanzania are of public health concern and their association with adverse birth and child developmental outcomes will be examined in future studies on this cohort.

Environmental Research

Municipal Ecology and Environment Bureau (BEE) outlines how Beijing's air quality management programme has evolved, and makes recommendations for near, medium, and long-term steps that Beijing can take to maintain its momentum toward clean air. The report, A Review of 20 years' Air Pollution Control in Beijing, was compiled by a UN Environment-led team of international and Chinese experts over two years. It covers 1998 to the end of 2017. UNEP (9/3/2019)

[Half of all deaths of young people in the Americas can be prevented](#)

Half of all deaths of young people aged between 10-24 in the Americas are due to homicide, road traffic fatalities and suicide, all of which are preventable, reveals a new report launched by the Pan American Health Organization (PAHO). The report, "The Health of Adolescents and Youth in the Americas: Implementation of the Regional Strategy and Plan of Action on Adolescent and Youth Health 2010-2018," presents and analyzes the latest available data related to the health of young people from 48 countries and territories in the Americas. It includes information on what they die from, what illnesses they suffer from, their sexual and reproductive health, substance use, nutrition and levels of physical activity. PAHO (5/3/2019)

[Intercountry meeting to fight malnutrition in the Region](#)

The WHO Regional Office for the Eastern Mediterranean is holding an intercountry consultative meeting for nutrition focal points from 22 to 24 January 2019, in collaboration with the Food and Agriculture Organization of the United Nations, UNICEF and the World Food Programme. Participants, including representatives from Member States and a range of stakeholders, will address the issue of malnutrition in the Region. Malnutrition, in its various forms, is a serious public health problem in WHO's Eastern Mediterranean Region. More than 20 million children under the age of 5 are stunted by poor nutrition. Half of all women, more than two in five men and 15% of children in the Region are overweight or obese. Some countries, especially those affected by conflict, continue to experience high levels of food insecurity, undernutrition and micronutrient deficiencies. WHO EMRO (21/1/2019)

[Access for all to clean water is essential to](#)

[Bisphenol A and adiposity measures in peripubertal boys from the INMA-Granada cohort](#)

Childhood obesity is one of the most serious public health challenges of our times. Although an important body of experimental evidence highlights the obesogenic potential of endocrine disruptors such as bisphenol A (BPA), the epidemiological evidence remains inconclusive and limited. To assess associations between urinary BPA concentrations and several adiposity measures in peripubertal boys from the Environment and Childhood (INMA) cohort in Granada, Spain. In adjusted models, each natural log-unit increase in urinary BPA concentrations was associated with higher BMI z-score ($\beta = 0.22$; 95%CI = 0.03, 0.41) and increased odds of overweight/obesity (OR = 1.46; 95%CI = 1.05, 2.05). Children with higher BPA concentrations had higher WHtR values ($\beta = 0.007$; 95%CI = -0.001, 0.015), and BPA was associated with a greater risk of abdominal obesity (OR = 1.45; 95%CI = 1.03, 2.06). No associations were found with % body fat mass.

Environmental Research

[Health risk of phthalates in water environment: Occurrence in water resources, bottled water, and tap water, and burden of disease from exposure through drinking water in Tehran, Iran](#)

Occurrence of phthalates in water resources, bottled water, and tap water, and health risk of exposure to the phthalates through drinking water in Tehran, Iran, 2018 were studied. The average levels (\pm standard deviation: SD) of the total phthalates in drinking water from the water distribution system, bottled water, surface waters, and ground waters were determined to be 0.76 ± 0.19 , 0.96 ± 0.10 , 1.06 ± 0.23 , and 0.77 ± 0.06 $\mu\text{g/L}$, respectively. The disability-adjusted life years (DALYs) and DALY rate (per 100,000 people) attributable to DEHP intake through drinking water for all ages both sexes combined were estimated to be 6.385 (uncertainty interval: UI 95% 1.892 to 22.133), and 0.073 (0.022–0.255), respectively. Both the carcinogenic and non-carcinogenic health risks of the phthalates in drinking water were considered to be very low.

Environmental Research

[Residential mobility in early childhood and the impact on misclassification in pesticide exposures](#)

Studies of environmental exposures and childhood cancers that rely on records often only use maternal address at birth or address at

[eliminating neglected tropical diseases](#)

By Dr Poonam Khetrapal Singh, WHO Regional Director for South-East Asia. Access for all to clean and safe water is fundamental to controlling and eliminating neglected tropical diseases (NTDs) from across the WHO South-East Asia Region. Alongside other interventions, access to clean and safe water is a powerful means to ensure all communities can combat and control NTDs and that in partnership with health authorities they can sustain their achievements and accelerate progress. WHO SEARO

In the Media

[Rotten eggs: e-waste from Europe poisons Ghana's food chain](#)

Some of the most hazardous chemicals on Earth are entering the food chain in Ghana from illegally disposed electronic waste coming from Europe. According to a new report by two environmental groups tracking the disposal of e-waste, chicken eggs from the Agbogbloshie slum in Ghana's capital, Accra – where residents break up waste to recover metals – contain dangerous levels of dioxins and polychlorinated biphenyls (PCBs), among other harmful substances. Researchers for the two groups, Ipen and the Basel Action Network, analysed eggs laid by the free-range chickens that forage in Agbogbloshie, home to an estimated 80,000 people who subsist primarily by retrieving and selling copper cable and other metals from e-waste. The Guardian (24/4/2019)

[Vehicle pollution 'results in 4m child asthma cases a year'](#)

Four million children develop asthma every year as a result of air pollution from cars and trucks, equivalent to 11,000 new cases a day, a landmark study has found. Most of the new cases occur in places where pollution levels are already below the World Health Organization limit, suggesting toxic air is even more harmful than thought. The damage to children's health is not limited to China and India, where pollution levels are particularly high. In UK and US cities, the researchers blame traffic pollution for a quarter of all new childhood asthma cases. Canada has the third highest rate of new traffic-related asthma cases among the 194 nations analysed, while Los Angeles and New York City are in the top 10 worst cities out of the 125 assessed. Children are especially vulnerable to toxic air and exposure is also known to leave them with stunted lungs. The Guardian (10/4/2019)

cancer diagnosis to assess exposures in early childhood, possibly leading to exposure misclassification and questionable validity due to residential mobility during early childhood. The objective of the study was to assess patterns and identify factors that may predict residential mobility in early childhood, and examine the impact of mobility on early childhood exposure assessment for agriculturally applied pesticides and childhood cancers in California. Over 20% of case and control children moved in their first year of life, and 55% of children with cancer moved between birth and diagnosis. Older age at diagnosis, younger maternal age, lower maternal education, not having a Hispanic ethnic background, use of public health insurance, and non-metropolitan residence at birth were predictors of higher residential mobility. These findings suggest that residential addresses collected at one point in time may represent residential history in early childhood to a reasonable extent; nevertheless, they exposure misclassification in the first year of life remains an issue.

Environmental Research

[Mercury pollution in modern times and its socio-medical consequences](#)

Mercury pollution poses global human health and environmental risks. Still knowledge gaps exist on both exposures and health effects and translation into preventive actions is delayed. Across the globe, differences in mercury contamination and related health effects exist. Understanding the risks associated with mercury exposure is complicated by this element's varied environmental fate and the overarching influences of environmental, biological, and socioeconomic drivers. Successful management of global and local mercury pollution and its health impact will require integration of mercury research and policy in a changing world. Research should be swiftly translated in adequate preventive measures and human biomonitoring programs.

Science of The Total Environment

[Environmental Chemicals and Autism: A Scoping Review of the Human and Animal Research](#)

Estimates of autism prevalence have increased dramatically over the past two decades. Evidence suggests environmental factors may contribute to the etiology of the disorder. This scoping review aimed to identify and categorize primary research and reviews on the association between prenatal

[Pollution from busy roads may delay kids' development](#)

Children who live near major roads are more likely to score poorly on communication tests and experience development delays, according to a new study. The research, published yesterday in the journal *Environmental Research*, suggests that exposure to traffic-related air pollution—such as small particulate matter (PM_{2.5}) and ozone—in the womb or during early childhood may leave kids lagging in their ability to communicate, socialize and learn. "Our results suggest that it may be prudent to minimize exposure to air pollution during pregnancy, infancy, and early childhood — all key periods for brain development," said Pauline Mendola, an epidemiology researcher at the National Institutes of Health and the study's senior author, in a statement. *Environmental Health News* (9/4/2019)

['Our children are gasping' - Senegal's toxic air battle](#)

Two-year-old Thaiy loves the aerosol therapy room at Senegal's Albert Royer Children's Hospital, where she gets to fall asleep on her mother's lap, breathing deeply - something that is usually hard to do. The mask over her face pumps out medicine that soothes her asthmatic lungs, a condition worsened by air pollution. The hospital in the capital, Dakar, has a large unit dedicated to respiratory issues. Dr Idrissa Ba, who has been working there for 15 years, says the number of patients keeps growing and growing - something he thinks is linked to worsening air quality in the city. Dakar does have particularly bad levels of outdoor pollutants or tiny particles, known as particulate matter (PM), which is how pollution is measured. *BBC News* (9/4/2019)

[What does air pollution do to our bodies?](#)

The countdown has begun to the launch of one of the world's boldest attempts to tackle air pollution. From next Monday, thousands of drivers face paying a new charge to enter central London. The aim is to deter the dirtiest vehicles in an effort to reduce diseases and premature deaths. The initiative comes as scientists say the impacts of air pollution are more serious than previously thought. The mayor of London, Sadiq Khan, told the BBC the threat of air pollution, which is mostly invisible to the naked eye, was "a public health emergency". He added: "One of the things that has troubled me is that because we can't see the particulate matter, the nitrogen dioxide, the poison, you don't take it seriously." But over the

and early postnatal exposure to environmental chemicals and the development of autism in epidemiological studies and rodent models of autism. Although research is growing rapidly, wide variability exists in study design and conduct, exposures investigated, and outcomes assessed. Conclusions focus on recommendations to guide development of best practices in epidemiology and toxicology, including greater harmonization across these fields of research to more quickly and efficiently identify chemicals of concern. In particular, authors recommend chlorpyrifos, lead, and polychlorinated biphenyls (PCBs) be systematically reviewed in order to assess their relationship with the development of autism.

Environmental Health Perspectives

[Associations of Fetal Growth Outcomes with Measures of the Combined Xenoestrogenic Activity of Maternal Serum Perfluorinated Alkyl Acids in Danish Pregnant Women](#)

Higher concentrations of single perfluorinated alkyl acids (PFAAs) have been associated with lower birth weight (BW), but few studies have examined the combined effects of PFAA mixtures. PFAAs have been reported to induce estrogen receptor (ER) transactivity, and estrogens may influence human fetal growth. We hypothesize that mixtures of PFAAs may affect human fetal growth by disrupting the ER. Authors aimed to study the associations between the combined xenoestrogenic activity of PFAAs in pregnant women's serum and offspring BW, length, and head circumference. On average, an interquartile range (IQR) increase in XER was associated with a 48g [95% confidence interval (CI): -90, -6] decrease in BW and a 0.3cm (95% CI: 0.1, 0.5) decrease in birth length. Upon additional adjustment for GA, the estimated mean differences were -28g (95% CI: -60, 4) and -0.2cm (95% CI: -0.4, 0.0), respectively. Higher-serum PFAA-induced xenoestrogenic activities were associated with lower BW and length in offspring, suggesting that PFAA mixtures may affect fetal growth by disrupting ER function.

Environmental Health Perspectives

E-waste

[Pollution analysis of soil polycyclic aromatic hydrocarbons from informal electronic waste dismantling areas in Xinqiao, China](#)

Polycyclic aromatic hydrocarbons (PAHs) are considered to be persistent organic pollutants,

last few decades, research has revealed how gases like nitrogen dioxide and tiny particles, known as particulate matter or PM, can reach deep into the body with the danger of causing lasting damage. BBC News (2/4/2019)

[The Effects Of Climate Change On The Health Of Children](#)

The entire African continent accounts for only 4% of global polluting emissions. Despite this, more than 50% of the population suffers the climatic consequences. Heat waves and air pollution do not affect homogeneously but have different effects on people's health according to location and socio-economic condition. The most vulnerable to the risks associated with climate change are the poorest, the elderly and children. Not just in some developing countries, but also in Europe. This is shown by the latest report of the European Environment Agency Unequal exposure and unequal impacts: environmental causes continue to contribute to spreading serious diseases and causing premature deaths, especially in urban areas. Modern Ghana (28/3/2019)

[City air pollution 'link to teenage psychotic experiences' explored](#)

Scientists say that their research could provide possible clues about why children in urban areas are more likely to get psychotic disorders later on. But they caution that much more work is needed to be certain of the link. The study appears in JAMA Psychiatry. Scientists from King's College London tracked some 2,000 teenagers living in urban, semi-urban and rural areas. Almost a third (623) reported they had been through at least one psychotic experience between the ages of 12 and 18 - for example feeling like people were spying on them or hearing voices no-one else could. BBC News (27/3/2019)

[Kids suffer most in one of Earth's most polluted cities](#)

Coal is everywhere in Mongolia's frigid capital. Its smell is acrid and inescapable. The sooty air stings throats and wafts into the gleaming modern office buildings in the center of town and into the blocky, Soviet-style apartment towers that sprawl toward the mountains on the city's edges. On bad days, handheld pollution monitors max out, as readings soar dozens of times beyond recommended limits. Levels of the tiniest and most dangerous airborne particles, known as PM-2.5, once hit 133 times the World Health

which pose a great threat to human health and the surrounding environment. In order to explore the influence of informal electronic waste (e-waste) dismantling activities on inhabitants who live nearby, soil samples were collected from informal e-waste dismantling areas in Xinqiao, China and analysed for 16 United States Environmental Protection Agency (USEPA) priority PAHs. Results indicated that the 16 USEPA priority PAHs were found at all seven sampling locations. The study results may provide a reference about the influence of informal e-waste dismantling activities on the surrounding inhabitants and suggest that e-waste dismantling activities must be conducted in a formal enterprise, which is far away from residential areas.

Waste Management & Research

New Publications

[Influence of the Urban Exposome on Birth Weight](#)

The exposome is defined as the totality of environmental exposures from conception onwards. It calls for providing a holistic view of environmental exposures and their effects on human health by evaluating multiple environmental exposures simultaneously during critical periods of life. This study evaluated the association of the urban exposome with birth weight. The most consistent statistically significant associations were observed between increasing green space exposure estimated as Normalized Difference Vegetation Index (NDVI) and increased birth weight and decreased TLBW risk. Furthermore, authors observed statistically significant associations among presence of public bus line, land use Shannon's Evenness Index, and traffic density and birth weight in the DSA analysis. This investigation is the first large urban exposome study of birth weight that tests many environmental urban exposures. It confirmed previously reported associations for NDVI and generated new hypotheses for a number of built-environment exposures.

Environmental Health Perspectives

[Environmental Health Sciences in a Translational Research Framework: More than Benches and Bedsides](#)

Environmental health scientists may find it challenging to fit the structure of the questions addressed in their discipline into the prevailing paradigm for translational research. This study aims to frame the translational science paradigm

Organization's suggested maximum. National Geographic (26/3/2019)

[Ban cars outside UK schools to tackle air pollution, teachers say](#)

Nearly two-thirds of teachers would support car-free roads outside schools during drop-off and pickup times, while more than half want the government to take urgent action to improve air quality outside schools, a survey suggests. The study, in which 840 people in teaching roles across the UK participated, found that 63% would support a ban on motor vehicles outside the school gates at the start and end of the day. One in three teachers are worried about air pollution, the survey for walking and cycling charity, Sustrans, found, with 43% saying idling car engines outside school gates concerned them. 63% said air pollution was a problem because their school was based on or near a busy main road. The Guardian (25/3/2019)

[Malaysia: schools closed after hundreds poisoned by toxic waste dumped in river](#)

More than 100 schools in Malaysia have been closed after the dumping of toxic waste into a river caused hundreds of people to fall ill, including many children, authorities said. A lorry is believed to have dumped the waste in southern Johor state last week, sending hazardous fumes across a wide area and causing those affected to display symptoms of poisoning such as nausea and vomiting. More than 500 people, many of them school pupils, have received medical treatment after inhaling the fumes, with more than 160 admitted to hospital, according to official news agency Bernama. The Guardian (14/3/2019)

['Social disaster': South Korea brings in emergency laws to tackle dust pollution](#)

South Korea has passed emergency measures to tackle the "social disaster" being unleashed by air pollution, after record levels of fine dust blanketed most of the country in recent weeks. The national assembly passed a series of bills on Wednesday giving authorities access to emergency funds for measures that include the mandatory installation of high-capacity air purifiers in classrooms and encouraging sales of liquified petroleum gas vehicles, which produce lower emissions than those that run on petrol and diesel. The measures will give government officials access to a US\$2.65bn emergency fund, as criticism mounts of President Moon Jae-in's failure to tackle the crisis. The Guardian (13/3/2019)

to address the stages of scientific discovery, knowledge acquisition, policy development, and evaluation in a manner relevant to the environmental health sciences. The authors' intention is to characterize differences between environmental health sciences and clinical medicine, and to orient this effort towards public health goals. Authors propose an easily visualized framework for translation of environmental health science knowledge—from discovery to public health practice—that reflects the crucial interactions between multiple disciplines in our field.

Environmental Health Perspectives

[Clean household air for the Americas](#)

Elimination of disease is a fundamental aspiration of public health, and the Americas have a remarkable history of success. The Pan American Health Organization (PAHO) region was the first WHO region to eliminate smallpox (1971), polio (1994), rubella and congenital rubella syndrome (2015), and measles (2016). It is now on the way to eliminating malaria and interrupting the transmission of eight neglected infectious diseases. Partly because of these successes, most ill health in the region now comes from non-communicable diseases. As non-communicable diseases cannot be eliminated directly, their control depends mainly on reducing risk factors. Building on its record with elimination of diseases, PAHO could also become the first region to eliminate a major risk factor for disease: household air pollution.

BMJ

[Surge in chemical use 'a threat to health and environment'](#)

Sales of synthetic chemicals will double over the next 12 years with alarming implications for health and the environment, according to a global study that highlights government failures to rein in the industry behind plastics, pesticides and cosmetics. The second Global Chemicals Outlook, which was released in Nairobi on Monday, said the world will not meet international commitments to reduce chemical hazards and halt pollution by 2020. In fact, the study by the United Nations Environment Programme found that the industry has never been more dominant nor has humanity's dependence on chemicals ever been as great. "When you consider existing pollution, plus the projected growth of the industry, the trends are a cause for significant concern," said Achim Halpaap, who led the 400 scientists involved in the study. *The Guardian* (12/3/2019)

[Pollution map reveals unsafe air quality at almost 2,000 UK sites](#)

Almost 2,000 locations across England, Wales and Northern Ireland have levels of air pollution that exceed safety limits, according to a pollution map released by campaigners. In 2017, the worst location for nitrogen dioxide pollution was Kensington and Chelsea, followed by Leeds and Doncaster. Nitrogen dioxide (NO₂) is one of the most harmful pollutant gases, irritating the lungs and potentially causing breathing difficulties. Road traffic is a leading source. On Tuesday the mayor of London issued a high pollution alert for the capital as people across the UK basked in the unseasonably warm February weather. It was the first alert since last July, towards the end of a long heatwave and dry spell. *The Guardian* (27/2/2019)

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