

## 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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### TEN THREATS TO GLOBAL HEALTH IN 2019

The world is facing multiple health challenges. These range from outbreaks of vaccine-preventable diseases such as measles and diphtheria, increasing reports of drug-resistant pathogens and growing rates of obesity and physical inactivity, to the health impacts of air pollution and climate change and multiple humanitarian crises.

The [Report](#) outlines the top ten issues that will demand attention from WHO and its health partners in 2019. To address these and other threats, 2019 sees the start of WHO's new five-year strategic plan – the [13th General Programme of Work 2019–2023](#). This plan focuses on a triple billion target: ensuring one billion more people benefit from access to universal health coverage, one billion more people are protected from health emergencies and one billion more people enjoy better health and wellbeing. Reaching this goal will require addressing the threats to health from a variety of angles.

### JOURNAL ARTICLES

#### Air Pollution

##### [Acute effects of air pollutants on spontaneous pregnancy loss: a case-crossover study](#)

This study aimed to investigate the relationship between acute exposure to air pollutants and spontaneous pregnancy loss. Authors found that a 10-ppb increase in 7-day average levels of nitrogen dioxide was associated with a 16% increase in the odds of spontaneous pregnancy loss (odds ratio [OR] = 1.16; 95% confidence interval [CI] 1.01-1.33; P=.04). A 10- $\mu\text{g}/\text{m}^3$  increase in 3-day and 7-day averages of fine particulate matter were associated with increased risk of spontaneous pregnancy loss, but the

### CHILDREN'S ENVIRONMENTAL HEALTH NEWS

#### Press Releases

##### [WHO in collaboration with the Ministry of Health integrates WASH and early childhood development in Inpatient Therapeutic Nutrition programs in South Sudan](#)

Severe acute malnutrition (SAM) is one of the main causes of illness and death among under-five children in South Sudan. In 2019, nearly 260 000 young children are estimated to suffer severe acute malnutrition and, at least, 10 to 15 percent are expected to develop medical complications which can impede intellectual potential and inhibit physical growth, resulting in increased risk of lifelong disability. To improve the survival rate and reduce the impact of acute malnutrition, WHO is implementing an integrated health/nutrition/ water, sanitation and hygiene (WASH)/protection strategy as part of the Emergency Nutrition program. This strategic initiative focuses on stabilization centers in areas with the highest burden of acute malnutrition in South Sudan. Over 3 781 Children under five with SAM and medical complications in the 17-priority area admitted in SC will benefit from these interventions over the next six months. WHO AFRO (8/2/2019)

##### [NTDs: WHO launches toolkit to optimize water, sanitation and hygiene interventions](#)

The World Health Organization (WHO) today launched a new toolkit to help improve delivery of water, sanitation and hygiene (WASH) services to underserved populations affected by many neglected tropical diseases (NTDs). Building on WHO's 2015 global strategy the toolkit, WASH and Health working together: a 'how to guide' for NTD programmes, focuses on providing step-by-step guidance to disease programme managers, volunteers and implementing partners on to how to engage and work collaboratively with WASH

associations did not reach statistical significance (OR<sub>3-day average</sub> = 1.09; 95% CI 0.99-1.20; P=.05) (OR<sub>7-day average</sub> = 1.11; 95% CI 0.99-1.24; P=.06). Authors found no evidence of increased risk for any other metrics of nitrogen dioxide or fine particulate matter or any metric for ozone. This study found that short-term exposure to elevated levels of air pollutants was associated with higher risk for spontaneous pregnancy loss.

#### *Fertility and Sterility*

#### [Air pollution in the week prior to delivery and preterm birth in 24 Canadian cities: a time to event analysis](#)

Numerous studies have examined the association between air pollution and preterm birth (<37 weeks gestation) but findings have been inconsistent. Pooled estimates across 24 cities indicated that an IQR increase in ozone (O<sub>3</sub>, 13.3 ppb) 0–3 days prior to delivery was associated with a hazard ratio of 1.036 (95% CI 1.005, 1.067) for preterm birth, adjusting for infant sex, maternal age, marital status and country of birth, neighbourhood socioeconomic status (SES) and visible minority, temperature, year and season of birth, and a natural spline function of day of year. There was some evidence of effect modification by gestational age and season. Associations with carbon monoxide, nitrogen dioxide, particulate matter, and sulphur dioxide were inconsistent. Authors observed associations between daily O<sub>3</sub> in the week before delivery and preterm birth in an analysis of approximately 1 million births in 24 Canadian cities between 1999 and 2008. This analysis is one of a limited number which have examined these short term associations employing Cox proportional hazards models to account for the different exposure durations of preterm vs. term births.

#### *Environmental Health*

#### [Let the “A” in WASH Stand for Air: Integrating Research and Interventions to Improve Household Air Pollution \(HAP\) and Water, Sanitation and Hygiene \(WaSH\) in Low-Income Settings](#)

The authors argue that bringing these two areas together would improve the effectiveness and efficiency of interventions to reduce the massive disease burden associated with HAP and poor WaSH, including pneumonia and diarrhea, the leading killers of young children in low-income countries. HAP and WaSH face similar challenges in designing, implementing, and securing the sustained and exclusive use of

agencies. “Targeted water and sanitation interventions will bolster efforts in tackling the many neglected tropical diseases,” said Dr Maria Neira, Director, WHO Department of Public Health, Environmental and Social Determinants of Health. WHO (31/1/2019)

#### [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)

#### [New WHO Asia-Pacific centre for environment and health to open in Seoul](#)

A new World Health Organization (WHO) Asia-Pacific Centre for Environment and Health in the Western Pacific Region will open this year in Seoul, Republic of Korea. The agreement to open the Centre was signed today by WHO Regional Director for the Western Pacific Shin Young-soo, Minister of Environment of the Republic of Korea Cho Myung-rae and Mayor of Seoul Park Won-soon. The Centre will foster healthier and safer environments and strengthen community resilience to climate and environmental change in the WHO Western Pacific Region. “Environmental pollution and climate change are among the greatest threats to health in our Region. With the establishment of the WHO Asia-Pacific Centre for Environment and Health in the Western Pacific Region, we will be able to step up our support to countries so that they can better protect people’s health. Having the Centre in Seoul will offer mutual benefits to WHO and the Government of Korea and City of Seoul,” said Shin Young-soo. WHO WPRO (15/1/2019)

scalable interventions such as clean fuel and water. Research can advance greater coordination of these areas by demonstrating their interactions and wider impacts on well-being as well as the potential for programmatic synergies. Integrated solutions to clean households and communities can benefit from the contribution in multiple disciplines, including economics and policy analysis; business and finance; engineering and technology; lab sciences, environmental health, and biomedical sciences; and behavioral and implementation sciences.

*Environmental Health Perspectives*

## **Chemicals**

### [Organophosphate Pesticide Metabolite Concentrations in Urine during Pregnancy and Offspring Nonverbal IQ at Age 6 Years](#)

Susceptibility to organophosphate (OP) pesticide neurotoxicity may be greatest during the prenatal period; however, previous studies have produced mixed findings concerning in utero OP pesticide exposure and child cognition. The objective of this study was to determine whether maternal urinary concentrations of OP pesticide metabolites are inversely associated with child nonverbal IQ at 6 y of age and to examine potential effect measure modification by the PON1 gene. Overall, associations between child nonverbal IQ and maternal DAP concentrations were small and imprecise, and these associations were inconsistent across urine sampling periods. However, for a 10-fold difference in total DAP concentration for the >25weeks of gestation samples, adjusted child nonverbal IQ was 3.9 points lower (95% CI: -7.5, -0.3). Heterogeneity in the DAP-IQ association by PON1 gene allele status was not observed (n=474). Consistent evidence of an association between higher maternal urinary DAP concentrations and lower child IQ scores at 6 y of age was not observed.

*Environmental Health Perspectives*

### [Exposure to Perfluoroalkyl Substances during Fetal Life and Pubertal Development in Boys and Girls from the Danish National Birth Cohort](#)

It remains unsettled whether prenatal exposure to perfluoroalkyl substances (PFASs) affects human reproductive health through potential endocrine disruption. Authors aimed to explore the associations between prenatal exposure to several PFASs and various aspects of pubertal development in boys and girls. Overall, prenatal

### [Drink salty water or go thirsty – Climate change hits Tanzanian school children](#)

The students at Kingani school in the Tanzanian town of Bagamoyo used to have two choices for drinking water at school: get sick or remain thirsty. Rising sea levels, increased drought and reduced or erratic rainfall made the drinking wells so salty it would cause headaches, stomach aches and ulcers. To make matters worse, the water that students would spend time fetching from watering holes was so dirty that it spread disease. Ismat Hassan, who came from Tanzania's capital Dar es Salaam to study and board at Kingani, got stomach ulcers from drinking the well water, typhoid from the water collected from watering holes, and pain and exhaustion when she chose to drink neither. UNEP (14/2/2019)

### [New UN report reveals that hunger in Africa continues to rise](#)

Hunger in Africa continues to rise after many years of decline, threatening the continent's hunger eradication efforts to meet the Malabo Goals 2025 and the 2030 Agenda for Sustainable Development, particularly the Sustainable Development Goal 2 (SDG2). New data presented in the joint UN report, the Africa Regional Overview of Food Security and Nutrition, released today, indicates that 237 million people in sub-Saharan Africa are suffering from chronic undernutrition, derailing the gains made in the past years. The joint report by the Regional Office for Africa of the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Economic Commission for Africa (ECA) was launched today in Addis Ababa at an event presided by FAO's Deputy Director-General Climate and Natural Resources, Maria Helena Semedo. FAO (13/2/2019)

### [International push to improve food safety](#)

Greater international cooperation is needed to prevent unsafe food from causing ill health and hampering progress towards sustainable development, world leaders said at today's opening session of the First International Food Safety Conference, in Addis Ababa, organized by the African Union (AU), the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO) and the World Trade Organization (WTO). A follow-up event, the International Forum on Food Safety and Trade, which will focus on interlinkages between food safety and trade, is scheduled to be hosted by WTO in Geneva (23-24 April). The two meetings

exposure to PFOS, perfluorohexane sulfonate (PFHxS), perfluoroheptane sulfonate (PFHpS), perfluorononanoic acid (PFNA), and perfluorodecanoic acid (PFDA) (girls) and PFHxS and PFHpS (boys) was associated with lower mean age at puberty marker onset. PFDA and PFNA exposure was associated with higher mean age at onset of puberty in boys. Nonmonotonic associations in girls (PFOS, PFHpS, PFDA) and boys (PFDA, PFNA) were observed, showing larger mean age differences for the combined puberty indicator in the middle tertile [girls: PFOS: -3.73 mo, 95% confidence interval (CI): -6.59, -0.87; PFHpS: -4.92 mo, 95% CI: -11.68, 1.85; PFDA: -3.60 mo, 95% CI: -9.03, 1.83; and boys: PFNA: 4.45 mo, 95% CI: -1.30, 10.21; PFDA: 4.59 mo, 95% CI: -0.93, 10.11] than in the highest tertile with the lowest as reference.

*Environmental Health Perspectives*

#### [Prenatal Exposure to Select Phthalates and Phenols and Associations with Fetal and Placental Weight among Male Births in the EDEN Cohort \(France\)](#)

The placenta performs crucial physiological functions to ensure normal fetal development. Few epidemiological studies investigated placental weight sensitivity to phthalates and phenols. The authors' goal was to explore whether maternal exposure to select phthalates and phenols is associated with changes in placental weight at birth and in placental-to-birth weight ratio (PFR). The multipollutant ENET model for placental weight retained four biomarkers: triclosan and monocarboxy-isononyl phthalate (MCNP), which were negatively associated with placental weight, and benzophenone-3 and the sum of parabens, which were positively associated with this outcome. The ENET model for PFR retained two phthalate metabolites [MCNP and monocarboxy-isoocetyl phthalate (MCOP)], which were negatively associated with this outcome. The positive association between the sum of parabens and placental weight was consistent with results of a previous study among 49 male births.

*Environmental Health Perspectives*

#### [Statistical Methodology in Studies of Prenatal Exposure to Mixtures of Endocrine-Disrupting Chemicals: A Review of Existing Approaches and New Alternatives](#)

This study aimed to review the statistical methods used in these studies, to identify additional applicable methods, and to determine the

are expected to galvanize support and lead to actions in the key areas that are strategic for the future of food safety. FAO (12/2/2019)

#### [Rwanda's ambitious plan for clean and efficient cooling](#)

The Government of Rwanda has released a landmark plan for sustainably cooling foods and life-saving medicines, and keeping homes and other indoor spaces comfortable in hot weather. Such moves are essential to provide equitable access to cooling while ensuring that huge expected growth in the sector does not exacerbate climate change or waste electricity. When it comes to cooling, most people think of refrigerators and air conditioners. While addressing these products is key, the Government of Rwanda is planning holistically when it comes to meeting their cooling needs, noting that continuing on a business as usual path will lead to a huge rise in electricity use and a sharp rise in greenhouse gas emissions and pollution that its people and the planet cannot afford. UNEP (11/2/2019)

#### [Progress on food security and nutrition stagnates in Europe and Central Asia](#)

More than 14 million adults, and some 4.7 million children in Europe and Central Asia suffer from severe food insecurity - as defined by the Food Insecurity Experience Scale (FIES) - the Food and Agriculture Organization of the United Nations said in a report released today. The Regional Overview of Food Security and Nutrition: Europe and Central Asia 2018 analyzes a wealth of country data on dietary energy supply, undernourishment and nutrition indicators, such as stunting and wasting, anaemia, overweight and obesity, and the effects of the shifts in people's diets. FAO estimates that some 2.1 percent of the region's total population of nearly one billion was exposed to severe food insecurity in 2015-2017 based on FIES data. FAO (11/12/2018)

#### **In the Media**

#### [UN agency plan tackles 'hidden cost' of gold, paves way for safer, mercury-free mining](#)

As gold production exposes millions of men, women and children globally to toxic levels of mercury every year, a new \$180-million Global Environment Facility-backed Global Opportunities for the Long-term Development of the artisanal and small-scale gold mining (ASGM) sector (GEF GOLD) programme will improve conditions for

strengths and weaknesses of each method for addressing the salient statistical and epidemiological challenges. Authors identified 74 studies and analyzed the methods used to estimate mixture health effects, identify important mixture components, account for nonmonotonicity in exposure–response relationships, assess interactions, and identify windows of exposure susceptibility. Authors identified both frequentist and Bayesian methods that are robust to multicollinearity, performing shrinkage, variable selection, dimension reduction, statistical learning, or smoothing, including methods that were not used by the studies included in our review. Compelling motivation exists for analyzing EDCs as mixtures, yet many studies make simplifying assumptions about EDC additivity, relative potency, and linearity, or overlook the potential for bias due to asymmetries in chemical persistence.

*Environmental Health Perspectives*

#### [Very low-level prenatal mercury exposure and behaviors in children: the HOME Study](#)

Mercury is toxic to the developing brain, but the lowest concentration associated with the development of behavior problems is unclear. The purpose of this study was to examine the association between very low-level mercury exposure during fetal development and behavior problems in children. The median prenatal total blood mercury concentrations was 0.67 µg/L. Overall, authors did not find statistically significant associations between mean prenatal mercury concentrations and behavior problems scores, but a 2-fold increase in mercury concentrations at 16-weeks gestation was associated with 0.83 point (95% CI: 0.05, 1.62) higher BASC-2 anxiety scores. Maternal and cord blood mercury concentrations at delivery were associated with parent-reported anxiety at 8 years. Authors found limited evidence of an association between very-low level prenatal mercury exposure and behaviors in children, with an exception of anxiety.

*Environmental Health*

#### [Maternal urinary 2-hydroxynaphthalene and birth outcomes in Taiyuan, China](#)

Naphthalene is the simplest polycyclic aromatic hydrocarbon (PAH). It is easily emitted into the atmosphere, posing a significant risk to human health. However, limited studies have described the impact of naphthalene exposure on birth outcomes. In this study, authors investigated the

miners across eight countries while slashing harmful mercury emissions. “The widespread use of mercury in the artisanal and small-scale sector affects the environment and people, particularly in developing countries” said Philippe Scholtès, the UN Industrial Development Organization’s (UNIDO) Managing Director of Programme Development and Technical Cooperation. UN News (18/2/2019)

#### [Toxic black snow covers Siberian coalmining region](#)

Residents of a coalmining region in Siberia have been posting videos online showing entire streets and districts covered in toxic black snow that critics say highlight a manmade ecological catastrophe. In one video, filmed in Kiselyovsk, a town in the Kuzbass region, a woman drives past mounds of coal-coloured snow stretching to the horizon, covering a children’s playground and the courtyards of residential buildings. The scenes in the footage were described as “post-apocalyptic” by Russian media. The Guardian (15/02/2019)

#### [Weedkiller 'raises risk of non-Hodgkin lymphoma by 41%'](#)

A broad new scientific analysis of the cancer-causing potential of glyphosate herbicides, the most widely used weedkilling products in the world, has found that people with high exposures to the popular pesticides have a 41% increased risk of developing a type of cancer called non-Hodgkin lymphoma. The evidence “supports a compelling link” between exposures to glyphosate-based herbicides and increased risk for non-Hodgkin lymphoma (NHL), the authors concluded, though they said the specific numerical risk estimates should be interpreted with caution. The findings by five US scientists contradict the US Environmental Protection Agency’s (EPA) assurances of safety over the weed killer and come as regulators in several countries consider limiting the use of glyphosate-based products in farming. The Guardian (14/2/2019)

#### [Air pollution well above legal thresholds in Bucharest](#)

The concentration of particulate matter with diameters smaller than 10 (PM10), and respectively 2.5 micrometres (PM2.5), which measures the quality of the air in a city, frequently reached seven to nine times the maximum levels accepted under the law in Romania’s capital city Bucharest, according to the consumer electronics

association between the maternal urinary metabolites of naphthalene, 2-hydroxynaphthalene (2-OH NAP), and birth outcomes. General linear models showed that prenatal urinary 2-OH NAP was associated with lower birth weight (BW) (-4.38% for the high vs. low exposure group of 2-OH NAP; p for trend = 0.049) and higher cephalization index (CI) (4.30% for the high vs. low exposure group of 2-OH NAP; p for trend = 0.038). These associations were linear and significant when 2-OH NAP was modeled as a continuous variable in restricted cubic spline models (P linear = 0.0293 for 2-OH NAP and BW; P linear = 0.0326 for 2-OH NAP and CI). Multiple linear regression data indicated that each 1 ln-unit increase in 2-OH NAP was significantly associated with a 2.09 g/cm increase in the CI.

*Environmental Health*

## **E-waste**

### [Heavy metals in human urine, foods and drinking water from an e-waste dismantling area: Identification of exposure sources and metal-induced health risk](#)

Electronic waste or e-waste dismantling activities are known to release metals. However, the human exposure pathways of metals, and their association with oxidative stress in e-waste dismantling areas (EDAs) remain unclear. In this study, the results revealed elevated geometric mean concentrations in vegetables (Cd 0.096 and Pb 0.35 µg/g fw), rice (Cd 0.15, Pb 0.20, and 12.3 µg/g fw), hen eggs (Cd 0.006 and Pb 0.071 µg/g fw), and human urine (Cd 2.12, Pb 4.98, Cu 22.2, and Sb 0.20 ng/mL). Our calculations indicate that rice consumption source accounted for the overwhelming proportion of daily intakes (DIs) of Cd (61-64%), Cu (85-89%), and Zn (75-80%) in children and adults living in EDA; vegetables were the primary contributors to the DIs of Cd (30-32%); and rice (20-29%), vegetables (28-38%), and dust ingestion (26-45%) were all important exposure sources of Pb. Risk assessment predicted that DIs of Cd, Pb, Cu, and Zn via food consumption poses health risks to local residents of EDAs, and the urinary concentrations of analyzed metals were significantly (Pearson correlation coefficient:  $r = 0.324-0.710$ ;  $p < 0.01$ ) associated with elevated 8-OHdG, a biomarker of oxidative stress in humans.

*Ecotoxicol Environ Saf*

company Philips, which placed 15 measuring stations in Bucharest and Ploiesti, Wall-street.ro reported. As a general rule, the quality of the air tends to be worse during the cold days. The first independent air quality monitoring network in Romania became operational on October 1, 2018. It continuously monitors particulate matter emissions PM 10, PM2.5, and PM1. Romania Insider (14/2/2019)

### [A toxic crisis in America's coal country](#)

In the shadow of some of America's most controversial coal mines, where companies use huge amounts of explosives to blow the tops off mountains, isolated communities say their water has been poisoned. Now, they must decide if they will fight back against an industry they have relied upon for generations. BBC (11/2/2019)

### [The Fluorine Detectives](#)

A few times every year, Christopher Higgins's laboratory in Golden, Colorado, receives a special delivery in the mail. Inside an icebox, Higgins finds several vials, each holding up to 250 milliliters of water collected from boreholes near U.S. military bases. The water looks unremarkable, but it is contaminated with synthetic compounds called fluorochemicals, which have been generating increasing concern around the world. This class of chemical has shown up in worrying concentrations in rivers, soils and people's bloodstreams from Europe to Australia. Some of the oldest compounds have been studied and banned, but new, mystery types are appearing all the time. Higgins's team, at the Colorado School of Mines, is one of several environmental-chemistry labs being funded by the U.S. Department of Defense to work out the chemicals' structures. "I think they are one of the most complex groups of pollutants out there," he says. Scientific American (13/2/2019)

### [Europe's most deprived areas 'hit hardest by air pollution'](#)

Europe's poorest, least educated and most jobless regions are bearing the brunt of the air pollution crisis, according to the first official stocktake of its kind. Nearly half of London's most deprived neighbourhoods exceeded EU nitrogen dioxide (NO<sub>2</sub>) limits in 2017 compared with 2% of its wealthiest areas. Heart-attack survivors exposed to long-term air pollution in the Greater London area were more likely to be readmitted to hospital, where they also had higher mortality

### [Maternal urinary metabolites of PAHs and its association with adverse birth outcomes in an intensive e-waste recycling area](#)

Polycyclic aromatic hydrocarbons (PAHs) are well-known carcinogenic and endocrine disrupting chemicals that have been concerned over the past few decades. Authors aimed to determine the hydroxylated PAH (OHPAH) metabolite concentrations in maternal urine collected from the e-waste-contaminated area of Guiyu and the reference area of Haojiang, China, and to evaluate their health effects on birth outcomes. The median  $\Sigma$ OHPAH concentration was 6.87  $\mu\text{g/g}$  creatinine from Guiyu, and 3.90  $\mu\text{g/g}$  creatinine from Haojiang. 2-OHNap and 1-OHPyr were the predominant metabolites. Residence in Guiyu and recycling in houses were associated with elevated 2-OHNap and 1-OHPyr. Standardized mean difference revealed that compared to low PAH metabolite levels in the first quartile, high PAH metabolite levels in the fourth quartile especially for 1-OHPyr,  $\Sigma$ OHPAHs and sometimes hydroxylphenanthrene compounds, presented a reduced size in birth outcomes (overall SMD: -0.09; 95% CI: -0.15, -0.03), including head circumference, BMI and Apgar 1 score, and increased size in height.

*Environmental Pollution*

### **New Publications**

#### [Pediatric Environmental Health – 4th Edition](#)

The American Academy of Pediatrics (AAP) announces the publication of the fourth edition of Pediatric Environmental Health. This manual is a comprehensive guide for pediatric clinicians to the identification, prevention, and treatment of environmental health problems in children. It has been produced by the AAP Council on Environmental Health and edited by Ruth A. Etzel, MD, PhD, and Associate Editor Sophie J. Balk, MD.

#### [Social determinants and non-communicable diseases: time for integrated action](#)

In high-income countries, life expectancy and healthy life expectancy are linked in a graded way with measures of socioeconomic disadvantage. The major contributors to the social gradient in health outcomes are non-communicable diseases (NCDs). Increasingly, in middle-income countries, evidence shows that NCDs follow the same gradient of higher risk in people of lower socioeconomic status. The example of obesity suggests that as low-income countries develop,

rates. Similar findings were reported in France, Germany, Malta, the Netherlands, Wales and Wallonia, according to data-mining analysis from the European Environment Agency (EEA). The Guardian (4/2/2019)

#### [Toxic smog forces Bangkok to close hundreds of schools](#)

Toxic smog forced Bangkok authorities to issue an unprecedented order to shut nearly 450 schools on Wednesday as authorities struggled to manage a pollution crisis that has stirred widespread concern. The Thai capital has been shrouded in murky haze for weeks, forcing residents to don masks and sparking social media criticism of the uneven response by the government. Reasons given for the lingering pall include exhaust from traffic, unfettered construction, the burning of crop stubble, and pollution from factories getting trapped in the city. The Guardian (30/1/2019)

#### [Toxic air is harming our children with every breath that they take](#)

All day, every day, even while they sleep, tens of millions of children in South Asia are being seriously harmed by toxic air. South Asia is leading the world in this respect—and not in a good way. Here, air pollution now kills an estimated 130,000 children under five every single year. It is a staggering fact that twelve million babies in South Asia are breathing air that is six times more polluted than the international limits set by the World Health Organization. This means that South Asia has three-quarters of the global total. The full impact of breathing harmful air is not visible to the naked eye, but the Air Quality Index measures how toxic the air is. A measurement of 0-50 is “good”, 50-100 is “moderate”, 100-150 is “unhealthy for sensitive groups” (including children), 151-200 is “unhealthy”, 201-300 is “very unhealthy”, and 301-500 is “hazardous”. The Daily Star (29/1/2019)

#### [Hanoi chokes as air pollution increases to unhealthy levels](#)

The Air Quality Index at various air monitoring stations across the capital showed dangerously high levels on Sunday afternoon. For instance, it was at 240 at Pham Van Dong Street in Bac Tu Liem District. The index touched 238 on Hang Dau Street, while it was 201 on Tan Mai Street. A number above 150 is unhealthy for anyone, while anything between 201 and 300 is very unhealthy, according to the US Environment Protection Agency. The heavy concentration of the

NCDs will follow the social gradient seen in middle and high-income countries. Control of NCDs requires integrated action across all major areas of society that influence health. Yet system-wide efforts to improve the social determinants of health, such as early childhood education and parenting skills, education and lifelong learning, working and employment conditions, poverty reduction and ensuring a healthy standard of living, housing and the environment, and prevention of ill health, are yet to take root in many parts of the world.

*BMJ*

## **EDUCATION AND TRAINING**

### [1st webinar of the series, Creating & Using Knowledge to Protect Children's Environmental Health](#)

Join CEHN and CEH Movement Partners for the 1st webinar of the series, Creating & Using Knowledge to Protect Children's Environmental Health. In this webinar, you will learn about important children's environmental health research underway and how research findings are being shared with and acted upon.

March 6 2019, 1:00 - 2:30 pm ET.

For more details about this webinar visit the [2019 Education Series](#) and [Register for the webinar](#).

### [WHO Children's environmental Health training modules translated into Japanese](#)

Three modules from the WHO Training Package for Health Care Providers "Why children?", "Children are not little adults" and "unsound management of chemicals" are now available in Japanese.

particulate matter PM2.5 in the air has also raised health alarms. The PM2.5 concentration in Ha Noi last Friday was 400 micrograms per cubic metre on Pham Van Dong Street while on My Dinh Street was 300. The World Health Organization safety limit is 25 micrograms per cubic metre. Eleven Myanmar (29/1/2019)

### [Environment and health at increasing risk from growing weight of 'e-waste'](#)

To highlight the rising challenge posed by mountains of discarded electronics worldwide, seven UN entities came together to launch the report at the World Economic Forum in Davos, Switzerland, on Thursday, in a bid to offer some solutions to a behemoth-sized problem that is making the world sicker and adding to environmental degradation. The joint report, entitled, "A New Circular Vision for Electronics – Time for a Global Reboot", calls for a new vision for e-waste based on the "circular economy" concept, whereby a regenerative system can minimize waste and energy leakage. UN News (24/1/2019)

### [Climate change threatens public health and doctors' ability to provide care](#)

The reality of climate change — and the need to combat it — could not be clearer. As health care professionals, we know that climate change harms those we seek to heal and we recognize that it compromises our ability to provide care. The more carbon dioxide and other greenhouse gases that enter our atmosphere, the more difficult it is to do our jobs. For example, in late 2017, Hurricane Maria incapacitated a factory in Puerto Rico that produces small-volume intravenous fluid bags. As a result, hospitals around the country, including Harvard teaching hospitals, struggled to provide patients with essential IV fluids and medications well into 2018. The Boston Globe (18/12/2019)

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#### **Have news for us?**

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