

Children's Environmental Health International Initiatives

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

June 2017

WORLD HEALTH STATISTICS 2017

The World Health Statistics, one of WHO's annual flagship publications, compiles data from the organization's 194 Member States on 21 health-related SDG targets, providing a snapshot of both gains and threats to the health of the world's people. While the quality of health data has improved significantly in recent years, many countries still do not routinely collect high-quality data to monitor health-related SDG indicators.

The report focuses on the health and health-related Sustainable Development Goals (SDGs) and associated targets, by bringing together data on a wide range of relevant SDG indicators. A selection of data on progress towards the health-related SDG targets is presented below.

Target 3.2: By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and under-5 mortality to at least as low as 25 per 1000 live births

- In 2015, the global neonatal mortality rate was 19 per 1000 live births and the under-five mortality rate in 2015 was 43 per 1000 live births, representing declines of 37% and 44% respectively from 2000.

Target 3.6: By 2020, halve the number of global deaths and injuries from road traffic accidents

- About 1.25 million people died from road traffic injuries in 2013, a 13% increase from 2000. Road traffic injuries are the main cause of death for people aged 15-29 years.

CHILDREN'S ENVIRONMENTAL HEALTH NEWS

Press Releases

[Europe's small countries commit to ending childhood obesity](#)

Countries with a population of less than 1 million – the small states – have some of the highest rates of childhood and adolescent obesity in the WHO European Region. The problem affects more than 1 in 3 school-aged children in the majority of these countries. In order to decisively tackle and jointly address the commonalities of the problem, ministers of health from the 8 small states of the Region signed the Malta Statement on Ending Childhood Obesity. In the Statement, ministers agree to join forces and launch comprehensive initiatives to address obesity in children. They call on governments to ensure stronger restrictions on the marketing of foods high in saturated fat, free sugars and salt to children; to promote clear and easy-to-understand labelling; and to improve the nutritional composition of food products. WHO EURO (27/6/2017)

[United Nations agencies urge Europe's action on 1.4 million annual deaths from polluted environments](#)

The World Health Organization Regional Office for Europe, the United Nations Economic Commission for Europe and the United Nations Environment Programme call on European leaders to scale up action to prevent environment-related deaths and diseases affecting their populations. On 13–15 June 2017, over 450 representatives from the 53 countries of the WHO European Region will gather together with international and nongovernmental organizations to sign a Declaration committing them to prioritize action on environmental risks to health by 2018. The Conference will be a turning point, marking the first in the era of the new 2030

Target 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

- In 2012, indoor and outdoor air pollution caused an estimated 6.5 million deaths globally, or 11.6% of all deaths. The Western Pacific region bore the largest burden of these deaths.
- Unsafe water, sanitation and lack of hygiene were responsible for an estimated 871 000 deaths in 2012. Most of these deaths were in the African region and the South-East Asia region.

Target 2.2: By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons

- 22.9% of children under 5 stunted (too short for their age), ranging from 6.1% in the European region to 33.8% in the Southeast Asian region.
- 6.0% of children under 5 were overweight, ranging from 4.1% in the African region to 12.8% in the European region.

[Full report](#)

[Press release](#)

[Data visualizations dashboard](#)

ARTIFICIAL TANNING DEVICES: PUBLIC HEALTH INTERVENTIONS TO MANAGE SUNBEDS

Sunbed use has been estimated to be responsible for more than 450 000 non-melanoma skin cancer cases and more than 10 000 melanoma cases each year in the United States of America, Europe and Australia combined. The largest portion of users are women, and in particular adolescents and young adults. In 2009, WHO's International Agency for Research on Cancer (IARC) classified exposure to UV-emitting tanning devices as carcinogenic to humans. More than 40 national and provincial authorities around the world have now implemented outright bans or restrictions on the use of sunbeds. However, much more work is still needed to restrict their use.

Agenda for Sustainable Development. WHO EURO (13/6/2017)

[New guide to prevent child labour in conflicts and disasters](#)

A new guide by the UN Food and Agriculture Organization (FAO) urges child labour concerns be integrated in agriculture, food security and nutrition programs during crises and disasters, and was presented to mark World Day Against Child Labour. The 26-page guide *Child Labour in Agriculture in Protracted Crises, Fragile and Humanitarian Contexts* is aimed at development professionals, policy makers and civil society groups working on agriculture, food security and nutrition programming. It includes practical steps to ensure that programmes contribute to safe employment and training opportunities for youth and that activities intended to support vulnerable families do not have the unintended consequence of encouraging child labour. FAO (12/6/2017)

[A million people demand a global ban on single-use plastic at UN Oceans Conference](#)

An Avaaz petition signed by more than one million people to phase-out single use plastic worldwide within the next five years will be presented to UN Environment to support its Clean Seas campaign to end marine litter. Major commitments from countries have been made including Indonesia committing to reduce its marine litter by 70 percent, Kenya is set to introduce a plastic bag ban in September, and Sweden will announce a major new financial commitment for global action on the marine litter issue. UNEP (6/6/2017)

[World Environment Day: health is intrinsically linked to the environment](#)

The theme for this year's World Environment Day – "Connecting people to nature" – implores citizens of the world to get outdoors and into nature, to appreciate its beauty and importance, and to protect the Earth that we share. At the upcoming 6th Ministerial Conference on Environment and Health, taking place on 13–15 June in Ostrava, Czechia, participants will consider new evidence demonstrating that preserving the environment is essential to the survival of humankind. Participants will include health and environment ministers and high-level representatives of WHO European Member States, partner organizations, academia and civil society. WHO EURO (5/6/2017)

WHO's new report outlines the policies taken by some countries to regulate sunbeds: either ban them outright or limit and manage their use. Options to restrict access to sunbeds include setting an age-limit on use, preventing use by skin-sensitive populations, such as those with who freckle or burn easily, and banning unsupervised access.

"There's no doubt about it: sunbeds are dangerous to our health," says Dr Maria Neira, WHO Director, Department of Public Health, Environmental and Social Determinants of Health. "Countries need to consider whether to ban or restrict their use, and to inform all users about the health risks."

[Full publication](#)

[Press release](#)

[Infographics](#)

REACHING THE EVERY NEWBORN NATIONAL 2020 MILESTONES: COUNTRY PROGRESS, PLANS AND MOVING FORWARD

Newborn deaths account for 45% of deaths among children under the age of five globally, resulting in 2.7 million lives lost each year. In addition, 2.6 million babies die in the last 3 months of pregnancy or during childbirth (stillbirths) and 303,000 maternal deaths occur each year.

This WHO and UNICEF report details the country leadership and actions that are taking forward the goals and recommendations set out in the Every Newborn Action Plan – an initiative contributing towards the goals of the Global Strategy for Women's, Children's and Adolescents' Health for Every Woman Every Child. In 2016, 51 countries completed the Every Newborn Tracking Tool, which tracks progress. This report presents the findings of the progress tracking tool, spotlights activities in a range of countries and exemplifies some of the partner efforts to support country progress.

[Commentary: Commitment and action – for every newborn](#) Anthony Costello, WHO, Director, Department of Maternal, Newborn, Child and Adolescent Health and Stefan Swartling Peterson, UNICEF, Chief of Health

[Full publication](#)

[World Health Assembly Day 9: Assembly closes after 9 days covering 78 agenda items](#)

Member States adopted numerous decisions and plans on a wide range of public health issues during the Seventieth World Health Assembly, which closed on 31 May 2017. Dr Tedros Adhanom Ghebreyesus was elected as the new Director-General of WHO, and will begin his 5-year term on 1 July 2017. Around 3500 delegates from WHO's 194 Member States came together for 9 days to discuss an unprecedented 78 agenda items. This resulted in the adoption of 19 resolutions and 14 decisions on issues including vaccination, refugees and migrants, vector control, and noncommunicable diseases (NCDs). WHO EURO (1/6/2017)

[Seventieth World Health Assembly update, 30 May 2017](#)

Delegates at the World Health Assembly today came to agreement on vector control, a number of issues related to noncommunicable diseases, including childhood obesity, tobacco control, deafness and hearing loss, and cancer, as well as chemicals management and WHO reporting on the Sustainable Development Goals. WHO (30/5/2017)

[World No Tobacco Day 2017: Beating tobacco for health, prosperity, the environment and national development](#)

Action to stamp out tobacco use can help countries prevent millions of people falling ill and dying from tobacco-related disease, combat poverty and, according to a first-ever WHO report, reduce large-scale environmental degradation. On World No Tobacco Day 2017, WHO is highlighting how tobacco threatens the development of nations worldwide, and is calling on governments to implement strong tobacco control measures. These include banning marketing and advertising of tobacco, promoting plain packaging of tobacco products, raising excise taxes, and making indoor public places and workplaces smoke-free. WHO (30/5/2017)

[Tobacco is a deadly threat to global development](#)

Tobacco is a deadly product that kills more than 7 million people every year, and costs the global economy more than US\$ 1.4 trillion annually in healthcare expenditure and lost productivity. In addition to posing a serious threat to health, tobacco use also threatens development in every country on every level and across many sectors — economic growth, health, education, poverty and the environment — with women and children

[Executive Summary](#)

[Poster](#)

[Additional materials](#)

JOURNAL ARTICLES

Air Pollution

[Individual and Joint Effects of Early-Life Ambient PM2.5 Exposure and Maternal Pre-Pregnancy Obesity on Childhood Overweight or Obesity](#)

Although previous studies suggest that exposure to traffic-related pollution during childhood increases risk of childhood overweight or obesity (COWO), the role of early-life exposure to fine particulate matter (aerodynamic diameter <2.5 micrometers, PM2.5) and its joint effect with mother's pre-pregnancy body mass index (MPBMI) on COWO remain unclear. This study examined the individual and joint effects of ambient PM2.5 exposures and mother's pre-pregnancy body mass index (MPBMI) on the risk of childhood overweight or obesity (COWO). Authors estimated exposures to ambient PM2.5 in utero and during the first 2 years of life (F2YL), determined with data from EPA's Air Quality System matched to residential address, in 1446 mother-infant pairs. Spline regression showed dose-response relationship between PM2.5 levels and COWO after a threshold near the median exposure (10.46 µg/m³ – 10.89 µg/m³). Compared to their counterparts, children of obese mothers exposed to high PM2.5 had the highest risk of COWO (RR≥2.0, RERI not significant).

Environmental Health Perspectives

[Effects of Prenatal PM10 Exposure on Fetal Cardiovascular Malformations in Fuzhou, China: A Retrospective Case-Control Study](#)

Authors investigated whether there is an association between prenatal exposure to particulate matter with diameter ≤10µm (PM10) during early pregnancy and fetal cardiovascular malformations. The gravidae were assigned 10-d or 1-mo averages of daily PM10 using an air monitor during early pregnancy. PM10 levels were positively associated with the risks of atrial septal defect, patent ductus arteriosus, overall fetal cardiovascular malformations, ventricular septal defect, and tetralogy of Fallot in the first and second gestation months. PM10 levels were

bearing the brunt of the consequences. This year, WHO will launch a new report that highlights the great harm to the environment inflicted by tobacco growing, manufacturing, trade and consumption. WHO (30/5/2017)

[Expert consultation to finalize a regional plan of action for the implementation of the WHO global roadmap to address air quality and health](#)

From 2014 to 2016 WHO addressed the huge health impacts of air pollution through the adoption of World Health Assembly (WHA) and Regional Committee resolutions. This consultation, which took place from 24 to 25 May 2017, reviewed and identified specificities, gaps and potential challenges that are hindering air pollution control efforts. Encompassing a 4-tiered approach, the plan of action addressed unique regional conditions, such as prevalence of naturally occurring air pollutants (sand and dust), types of fuels used in households, the hot and arid nature of the Eastern Mediterranean Region, and the lack of information and institutional capacity on air pollution in terms of monitoring and weak surveillance systems. WHO (29/5/17)

[Nearly 400,000 children at risk of severe acute malnutrition in the Greater Kasai due to violence](#)

The crisis in Greater Kasai in the Democratic Republic of the Congo (DRC) has severely disrupted life-saving interventions for children in recent months, putting an estimated 400,000 children at risks of severe acute malnutrition. Across the five provinces of Greater Kasai, critical health infrastructures are no longer operational due to the conflict. UNICEF is providing therapeutic food to thousands of children in nutritional centres and training hundreds of community workers so they are able to screen children suffering from severe acute malnutrition. UNICEF (24/5/2017)

[Double-duty actions for ending malnutrition within a decade](#)

Undernutrition can see children dangerously thin for their height, or their growth permanently impeded. Inadequate intake of key nutrients may weaken immune systems, impair brain development, and worsen the risk of conditions such as anaemia and blindness. Many countries now face a "double burden of malnutrition"—a coexistence of undernutrition and overweight, obesity, or noncommunicable diseases. This double burden of malnutrition presents an urgent health challenge to the global community, but through shared drivers across contrasting forms of

positively associated with the risks of atrial septal defect (aORs ranging from 1.29 to 2.17), patent ductus arteriosus [aORs = 1.54, 1.63; 95% confidence intervals (CIs): 1.17, 2.23; 1.06, 3.24], overall fetal cardiovascular malformations (aOR = 1.28; 95% CI: 1.03, 1.61), ventricular septal defect (aOR = 1.19; 95% CI: 1.00, 1.43), and tetralogy of Fallot (aOR = 1.44; 95% CI: 1.01, 2.19) in the various observed periods scaled by 10 d or 1 mo in the first and second gestation months.

Environmental Health Perspectives

[Household air pollution from cooking and risk of adverse health and birth outcomes in Bangladesh: a nationwide population-based study](#)

Household air pollution (HAP) from cooking with solid fuels has become a leading cause of death and disability in many developing countries including Bangladesh. Authors assess the association between HAP and risk of selected adverse birth and maternal health outcomes. Data for this study were extracted from Bangladesh Demographic and Health Survey conducted during 2007–2014. Around 90% of the respondents used solid fuel within the house boundary, 11% of them used solid fuel within the living room. Indoor cooking and use of solid fuel in household increase the risk of acute respiratory infection, low birth weight, cesarean delivery, and pregnancy complication. Indoor cooking and use of solid fuel in household increases the risk of ARI, LBW, cesarean delivery, and pregnancy complication. These relationships need further investigation using more direct measures of smoke exposure and clinical measures of health outcomes.

Environmental Health

[Ozone and childhood respiratory disease in three US cities: evaluation of effect measure modification by neighborhood socioeconomic status using a Bayesian hierarchical approach](#)

Using a 2-stage modeling approach authors evaluated neighborhood socioeconomic status (SES) as a modifier of ozone-related pediatric respiratory morbidity in Atlanta, Dallas, & St. Louis. The strongest overall association of ozone and pediatric respiratory disease was in Atlanta, followed by Dallas and St. Louis. Patterns of association across levels of neighborhood SES in each city suggested stronger odds ratios in low compared to high SES areas. Results suggest that ozone is associated with pediatric respiratory morbidity in multiple US cities; neighborhood SES may modify this association in a non-linear manner. In each city, children living in low SES

malnutrition, new and effective opportunities for intervention emerge. WHO (19/5/2017)

[New convention calls time on mercury poisoning](#)

The world took a historic step forward in the fight against mercury poisoning today, as the European Union and seven of its member states (Bulgaria, Denmark, Hungary, Malta, the Netherlands, Romania and Sweden) ratified the Minamata Convention on Mercury, one of the world's top ten chemical threats to health. The Convention, which has been signed by 128 countries, will now come into force in 90 days, on 16 August 2017. It is the first new global Convention related to the environment and health in close to a decade, and commits governments to specific measures to control man-made mercury pollution. These cover the entire "lifecycle" of man-made mercury pollution and include banning new mercury mines, phasing-out existing ones, regulating artisanal and small-scale gold mining, and reducing emissions and mercury use. Since the element is indestructible, the Convention also stipulates conditions for interim storage and disposal of mercury waste. UNEP (18/5/2017)

[New WHO study on health and well-being of Europe's youth reveals that obesity continues to rise](#)

A new WHO report, launched at the European Congress on Obesity in Portugal, reveals that the number of obese adolescents is continuing to rise in many countries across the WHO European Region. Childhood obesity is considered one of the most serious public health challenges of the 21st century. Obese children are at greater risk of type 2 diabetes, asthma, sleep difficulties, musculoskeletal problems and future cardiovascular disease, as well as school absence, psychological problems and social isolation. The report highlights persisting inequalities in obesity among young people. In general, younger adolescents, boys and those living in families of lower socioeconomic position are more likely to be obese. WHO EURO (17/5/2017)

[At least one in four children live in poverty in the Middle East and North Africa](#)

According to a recent UNICEF analysis covering 11 countries in the Middle East and North Africa, poverty continues to impact at least 29 million children – one in four children in the region. While important progress has been made in most countries to reduce poverty, the number of children living in poverty continues to be high. Major

environments appear to be especially vulnerable given positive ORs and high underlying rates of respiratory morbidity.
Environmental Health

Chemicals

[Environmental Exposures to Lead, Mercury, and Cadmium and Hearing Loss in Adults and Adolescents: KNHANES 2010–2012](#)

A growing body of evidence has suggested that heavy metals have ototoxic effects, yet few epidemiological studies have investigated the association between heavy metals and hearing loss in a general population that includes adults and adolescents. Authors examined the association between environmental exposures to lead, mercury, and cadmium and the risk of hearing loss in adults and adolescents while controlling for potential confounding factors, including noise exposures and clinical factors. Cross-sectional data from 5,187 adults and 853 adolescents in the Korean National Health and Nutrition Examination Survey 2010–2012 were analysed. The results of the present study suggest that exposure to environmental lead and cadmium in adults and exposure to environmental cadmium in adolescents may play a role in the risk of hearing loss.

Environmental Health Perspectives

[Manganese in Drinking Water and Cognitive Abilities and Behavior at 10 Years of Age: A Prospective Cohort Study](#)

Cross-sectional studies have indicated impaired neurodevelopment with elevated drinking water manganese concentrations (W-Mn), but potential susceptible exposure windows are unknown. Authors prospectively evaluated the effects of W-Mn, from fetal life to school age, on children's cognitive abilities and behaviour. Manganese in drinking water used during pregnancy and by the children at 5 y and 10 y was measured using inductively coupled plasma mass spectrometry. Elevated prenatal W-Mn exposure was positively associated with cognitive function in girls, whereas boys appeared to be unaffected. Early life W-Mn exposure appeared to adversely affect children's behaviour.

Environmental Health Perspectives

[Phthalates and thyroid function in preschool age children: Sex specific associations](#)

In a study of inner-city mothers and their children, metabolites of di-n-butyl phthalate, butylbenzyl

challenges stand in the way of measuring the impact of poverty on children and taking collective action towards poverty alleviation. UNICEF (15/5/2017)

[Big wins for human health, natural resources in switch to energy efficiency](#)

A radical transformation in the way energy is supplied and used will be needed if the world is to meet its ambition of keeping global temperature increase to below 2 degrees Celsius, but the impacts of that transformation on the environment and on natural resources have been unclear. The International Resource Panel, a group of eminent experts in natural resource management hosted by UN Environment, has provided a global assessment of the benefits, risks and trade-offs encountered when energy efficiency technologies are deployed alongside low-carbon electricity supply technologies. UNEP (12/5/2017)

[BreatheLife](#)

This year's World Health Assembly featured an interactive BreatheLife exhibit on urban air quality and health that has travelled around the world over the past two years. An interactive 3D graphic by the famous street artist Kurt Wenner, illustrating scenes from clean and polluted cities, solutions mobiles and windmills and a virtual bike tour of cities around the world are all featured. The travelling exhibit is part of the WHO and UN Environment-led BreatheLife campaign encouraging cities and countries to commit to achieving WHO air quality guidelines. WHO

[New vector control response seen as game-changer](#)

Dr Ana Carolina Silva Santelli saw vector-control efforts wane over her 13 years with Brazil's Ministry of Health. Together, the major vector-borne diseases kill more than 700 000 people each year, with populations in poverty-stricken tropical and subtropical areas at highest risk. Other vector-borne diseases, such as tick-borne encephalitis, are of increasing concern in temperate regions. Over the past year, WHO has spearheaded a new strategic approach to reprioritize vector control. Dr Santelli expressed optimism that the GVCR will help ministries of health around the world gain support from their governments for a renewed focus on vector control. WHO

WHO Fact sheets

phthalate, di-isobutyl phthalate, di(2-ethylhexyl) phthalate, and diethyl phthalate were measured in a spot urine sample collected from women in late pregnancy and from their children at age 3 years. Authors measured children's serum free thyroxine (FT4) and thyroid stimulating hormone (TSH) at age 3. The data show inverse and sex specific associations between specific phthalate metabolites measured in children at age 3 and thyroid function in preschool children. No associations were found between phthalate metabolites and thyroid stimulating hormone.

Environment International

[Genome-wide DNA methylation at birth in relation to in utero arsenic exposure and the associated health in later life](#)

In utero arsenic exposure may alter fetal developmental programming by altering DNA methylation, which may result in a higher risk of disease in later life. Authors evaluated the association between in utero arsenic exposure and DNA methylation (DNAm) in cord blood and its influence in later life. Genome-wide DNA methylation in cord blood from 64 subjects in the Taiwanese maternal infant and birth cohort was analyzed. Robust regressions were applied to assess the association of DNA methylation with in utero arsenic exposure. In utero arsenic exposure was associated with cord blood DNA methylation at various CpGs.

Environmental Health

Reproductive Health

[Prenatal bisphenol a exposure and dysregulation of infant hypothalamic-pituitary-adrenal axis function: findings from the APrON cohort study](#)

Animal models show that prenatal bisphenol A (BPA) exposure leads to sexually dimorphic disruption of the neuroendocrine system in offspring. The objective of the current study was to examine sex differences in associations between prenatal maternal urinary BPA concentration and HPA axis function in 3 month old infants. Maternal spot urine samples collected during the 2nd trimester were analyzed for total BPA and creatinine. Infant saliva samples collected prior to and after a blood draw were analyzed for cortisol. Higher maternal BPA was associated with increases in baseline cortisol among females. In contrast, higher BPA was associated with increased reactivity in males.

Environmental Health

[Malnutrition](#) Updated May 2017

[Noncommunicable diseases](#) Updated June 2017

In the Media

[200 scientists call for new restrictions on antimicrobial chemicals in personal-care products](#)

The Food and Drug Administration took the bold step late last year of banning 19 chemicals in hand and body soap because of questions about their benefits and concerns about their impact on human health and the environment. What many consumers don't know is that these ingredients are still commonly used in other personal-care products. On Tuesday, a group of 200 scientists and medical professionals called on the international community to further restrict the production and use of two chemicals — triclosan and triclocarban — citing “extensive peer-reviewed research” that shows potential harm from both. *Washington Post* (20/6/2017)

[EU moves to restrict hormone-disrupting chemical found in plastics](#)

The European chemicals agency (Echa) voted unanimously that bisphenol A (BPA) was an ‘endocrine disruptor’, linking it to a range of hormone-twisting health effects including cancer, learning difficulties and diabetes. The substance has already been singled out for its toxicity to the human reproduction system. More than 90% of the world's population are thought to have BPA in their urine according to epidemiological studies with one report by the German Federal Environment Agency finding traces in the urine of 591 out of 599 children tested. But unease among health professionals grew as a growing body of studies linked the chemical to an increased risk of cancer, cell tumours, miscarriages and birth defects. *The Guardian* (17/6/2017)

[EPA: air pollution rule should be delayed – despite its effect on children](#)

The Environmental Protection Agency has proposed delaying a federal air pollution rule for two years, despite acknowledging that children will be disproportionately harmed by the decision. In its announcement of the proposed stay, the EPA said it “believes that the environmental health or safety risk addressed by this action may have a disproportionate effect on children.” Environmental groups castigated the EPA over the delay, saying children would be at heightened risk from cancer-

Water, Sanitation and Hygiene

[Estimates of global, regional, and national morbidity, mortality, and aetiologies of diarrhoeal diseases: a systematic analysis for the Global Burden of Disease Study 2015](#)

This study assesses cases, deaths, and aetiologies spanning the past 25 years and informs the changing picture of diarrhoeal disease worldwide. Authors estimated diarrhoeal mortality by age, sex, geography, and year using the Cause of Death Ensemble Model (CODEm), a modelling platform shared across most causes of death in the GBD 2015 study. Globally, in 2015, authors estimate that diarrhoea was a leading cause of death among all ages (1.31 million deaths, 95% uncertainty interval [95% UI] 1.23 million to 1.39 million), as well as a leading cause of DALYs because of its disproportionate impact on young children (71.59 million DALYs, 66.44 million to 77.21 million). Diarrhoea was a common cause of death among children under 5 years old (499 000 deaths, 95% UI 447 000–558 000). Rotavirus was the leading cause of diarrhoea deaths (199 000, 95% UI 165 000–241 000), followed by *Shigella* spp (164 300, 85 000–278 700) and *Salmonella* spp (90 300, 95% UI 34 100–183 100). Improvements in safe water and sanitation have decreased diarrhoeal DALYs by 13.4%, and reductions in childhood undernutrition have decreased diarrhoeal DALYs by 10.0% between 2005 and 2015.

The Lancet Infectious Diseases

E-waste

[Evidence of bad recycling practices: BFRs in children's toys and food-contact articles](#)

Brominated flame retardants (BFRs) have been used intentionally in a wide range of plastics, but are now found in an even wider range of such materials (including children's toys and food contact articles) as a result of recycling practices that mix BFR-containing waste plastics with “virgin” materials. In this study Br was quantified in toy and food contact samples on the assumption that its concentration can be used as a metric for BFR contamination. Authors evaluated the correlations between waste electrical and electronic equipment (WEEE) related substances (Ca, Sb and rare earth elements (REEs)) and Br as a proxy for identifying poor sorting practices in different waste streams. 26 samples of toys, food-contact articles and WEEE were analyzed with a suite of different techniques in order to obtain comprehensive

forming pollutants such as benzene if the rule were lifted. The regulation applies to about 18,000 oil and gas facilities in 22 states. *The Guardian* (15/6/2017)

[Air pollution more harmful to children in cars than outside, warns top scientist](#)

Children are at risk of dangerous levels of air pollution in cars because exposure to toxic air is often far higher inside than outside vehicles, a former government chief scientific adviser, Prof Sir David King, has warned. “Children sitting in the backseat of vehicles are likely to be exposed to dangerous levels [of air pollution],” said King. “You may be driving a cleaner vehicle but your children are sitting in a box collecting toxic gases from all the vehicles around you.” A range of experiments, some as far back as 2001, have shown that drivers inside vehicles are exposed to far higher levels of air pollution than those walking or cycling along the same urban routes. *The Guardian* (12/6/2017)

[Air pollution fears see demand for diesel cars fall by fifth](#)

Demand for new diesel cars plummeted by a fifth last month amid rising concerns over air pollution. Approximately 81,500 new diesel cars were registered in the UK in May, down 20% on the same month last year, according to the Society of Motor Manufacturers and Traders. This represented a fall in market share from 50% to 43.7%. The fall comes amid a flurry of negative publicity around the impact of diesel-fuelled vehicles on the environment and people's health. *The Guardian* (6/6/2017)

[Toxic firefighting chemicals can't be removed from water using standard filters, Mines research shows](#)

A study of the toxic perfluorinated chemicals found in water near U.S. military airports has measured drinking-water contamination at an undisclosed site at levels more than 100 times higher than a federal health advisory limit. Colorado School of Mines researchers also found that the carbon filters being installed by hard-hit communities — including Fountain and Widefield, south of Peterson Air Force Base — fail to fully remove the chemicals, according to a peer-reviewed study to be published Tuesday in the journal *Environmental Science and Technology*. *The Denver Post* (5/6/2017)

[India Acknowledges Three Cases of Zika Virus](#)

Officials in Ahmedabad, India, saw the first of the cases in November: A 34-year-old woman who had just given birth to a healthy child came down with a fever, and tests later confirmed that she was

information about their elemental and molecular composition. The information obtained from principal component analysis about WEEE-related compounds provides new insights into the influence of sorting practices on the extent of products' contamination and bringing out polymer-related trends in the pollutants' signature.

Environmental Science Processes & Impacts

New Publications

[Environmental Risks to Children: Prioritizing Health Messages in Pediatric Practice](#)

Clinicians need to know the top environmental threats to children and adolescents, how to counsel families on potential health risks, and how to connect families to resources that can assist in preventing or reducing environmental exposures. Environmental exposures are often considered to contribute, at least in part, to the development of asthma, neurodevelopmental disorders such as autism and attention-deficit/hyperactivity disorder (ADHD), allergic diseases, and obesity and others. In this article authors outline select priority areas of environmental health that can be incorporated into health supervision visits, list populations likely to be at highest risk, discuss how to prevent exposures, review key messages to deliver, and provide resources.

Paediatrics in Review

[Effects of Climate Change and Environmental Degradation on Child Labour](#)

Child labour is such a complex and multifaceted phenomenon that it can be difficult to establish clear-cut relations between causes and effects. The Child Labour Report 2017 argues that without a comprehensive and contextualised understanding of child labour, without a close view to newly emerging dynamics and phenomena, policies and programmes aimed at the abolition of its worst forms risk falling short of achieving their objectives. The study links child labour to environmental conditions, both as root causes of child labour or exacerbating factors of existing root causes and as a background to children's working "environment". The relationship between children's rights and the environment is an emerging issue in the international debate on children's rights. The 2017 child labour report responds to the lack of existing data and research by taking a qualitative and illustrative approach. We should understand the substantial gaps in our current understanding of the relationship between child labour and the

infected with the mosquito-borne Zika virus. The authorities fumigated neighbourhoods of the city, gathered mosquito larvae for testing, and stepped up their efforts to spot any additional cases, finding two more in the next two months. What they did not do was tell the public. Hardly anyone outside the government knew about the three cases until last week, after the World Health Organization announced that it had received reports about them from the Ministry of Health and Family Welfare. *New York Times* (3/6/2017)

[UK government sued for third time over illegal air pollution from diesels](#)

Environmental lawyers are taking the government to the high court for a third time in a bid to remove "major flaws" from minister's plans to tackle the UK's illegal levels of air pollution. Levels of nitrogen dioxide (NO₂), emitted mostly by diesel vehicles, have been above legal limits in almost 90% of urban areas in the UK since 2010. The toxic fumes are estimated to cause 23,500 early deaths a year. Regulations were supposed to limit NO₂ emissions but cheating and the exploitation of loopholes by car manufacturers led to vehicles that emitted far more pollution on the road than in lab tests. *The Guardian* (31/5/2017)

[The world's most toxic town: the terrible legacy of Zambia's lead mines](#)

Kabwe is the world's most toxic town, according to pollution experts, where mass lead poisoning has almost certainly damaged the brains and other organs of generations of children – and where children continue to be poisoned every day. Almost a century of lead mining and smelting has left a truly toxic legacy in the once-thriving town of 220,000 people in central Africa's Copperbelt, 100km north of the capital Lusaka. But the real impact on Kabwe's people is yet to be fully revealed and, while the first steps towards a clean-up have begun, new dangers are emerging as desperately poor people scavenge in the vast slag heap known as Black Mountain. [The heavy legacy of lead in the world's most toxic town – in pictures](#). *The Guardian* (29/5/2017)

[U.S. state releases 'more protective' standard for PFAS exposure because of risk to infants](#)

The Minnesota state health department released new drinking water advisory levels for the chemicals perfluorooctanoic acid and perfluorooctane sulfonate – or PFOA and PFOS – that are "more protective" than those adopted by the US Environmental Protection Authority and

environment as an encouragement to do further research and raise more awareness in this area.

Terres des Hommes

[For a healthier future: a virtuous cycle for reducing exposure to persistent organic pollutants](#)

Several studies have attempted to identify the causes of changes related to children's health over recent decades, and whether they relate to pollutant exposure. Major challenges are faced here because human life is complex, involving many social and environmental factors. Before we establish complete proof of adverse effects, we should attempt to decrease risk to future generations by adopting precautionary principles. Authors suggest a virtuous cycle for improving the health of future generations through reduced exposure to persistent pollutants.

J Epidemiol Community Health

UPCOMING EVENTS

[European Academy of Pediatrics 2017 Congress](#)

12–15 October 2017. Ljubljana, Slovenia

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

14–16 November 2017, New Delhi, India

EDUCATION AND TRAINING

[WHO Children's Environmental Health Training Modules Survey](#)

A growing number of diseases in children from rural and urban areas are linked to unsafe, degraded environments. However, many health care providers are unable to recognize, assess and manage environmentally-related diseases in children. In order to address this issue, WHO produced a few years ago, the WHO Training Package on Children's Environmental Health for the Health Sector. The package is currently being reviewed, and opportunities to maximize its promotion and use are being defined. If you have used the WHO training package please take a few minutes to complete this survey.

[Training package for health care providers](#)

[Global Occupational and Environmental Determinants of Diseases: a multidisciplinary approach for prevention](#)

10–14 July 2017, Brescia, Italy

Australian health authorities. The updated values of 0.035 and 0.027 micrograms per litre for perfluorooctanoic acid and perfluorooctane sulfonate respectively are lower than the landmark combined 0.070 health advisory level issued by the US EPA last year. In a statement, the health department said it had based the lower levels on a "new state-level analysis" of the "potential for mothers to pass along the chemicals to fetuses and nursing infants". The Newcastle Herald (25/5/2017)

[Violence in central Congo leaves 400,000 children prey to deadly malnutrition - UN](#)

In Central Kasai - one of the region's five provinces - more than a third of health centres have been forced to close due to insecurity, while food supplies are dwindling, and hygiene and sanitation conditions are worsening, according to UNICEF. In Central Kasai - one of the region's five provinces - more than a third of health centres have been forced to close due to insecurity, while food supplies are dwindling, and hygiene and sanitation conditions are worsening, according to UNICEF. The conflict has left an estimated 400,000 children in the region facing severe acute malnutrition, the U.N. agency said. Reuters (24/5/2017)

[Choked by traffic, Bangkok revs up to beat air pollution](#)

Bangkok, home to some 9 million people, remains relatively smog-free, even though vehicle numbers have been increasing every year, experts say. 49,000 people died from air pollution in Thailand in 2013, a joint World Bank and University of Washington report said. To combat this, the Pollution Control Department (PCD) has reached preliminary agreements to impose the Euro 5 standard, which further limits pollutants in fuel, by 2023 for oil refineries and by 2024 for vehicles. Reuters (18/5/2017)

[Air pollution kills more people in the UK than in Sweden, US and Mexico](#)

People in the UK are 64 times as likely to die of air pollution as those in Sweden and twice as likely as those in the US, figures from the World Health Organisation reveal. The figures are revealed in the WHO World Health Statistics 2017 report, which says substantially reducing the number of deaths globally from air pollution is a key target. Dr Penny Woods, chief executive of the British Lung Foundation, said the report confirmed that deaths from air pollution were higher in the UK than many other comparable countries. She said: "It is deeply tragic that around 3 million lives are cut short

[WHO/EURO Summer School on Refugee and Migrant Health](#)

10–14 July 2017, Syracuse, Italy

[Advanced International Training Course in Occupational and Environmental Health](#)

17–21 July 2017, Bangkok, Thailand

[Teaching interventions crossing borders](#)

21 August–1 September 2017, Munich, Germany

worldwide because the air we breathe is dirty and polluted. In the UK, air pollution is a public health crisis hitting our most vulnerable the hardest – our children, people with a lung condition and the elderly.” The Guardian (18/5/2017)

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