CHILDREN’S HEALTH IN LATIN AMERICA:
The Influence of Environmental Exposures
Chronic diseases are increasing among children in Latin America. This study aimed to examine environmental risk factors for chronic disease in Latin American children and to develop a strategic initiative for control of these exposures. Regional and relevant global data was reviewed by the World Health Organization (WHO) including the Pan American Health Organization (PAHO), the Collegium Ramazzini, and Latin American scientists. The conclusion reached was that to control environmental threats to children’s health in Latin America, WHO, including PAHO, will focus on the most highly prevalent and serious hazards—indoor and outdoor air pollution, water pollution, and toxic chemicals. Strategies for controlling these hazards include developing tracking data on regional trends in children’s environmental health (CEH), building a network of Collaborating Centres, promoting biomedical research in CEH, building regional capacity, supporting development of evidence-based prevention policies, studying the economic costs of chronic diseases in children, and developing platforms for dialogue with relevant stakeholders.

Link to Environmental Health Perspectives to read this "Science Selection" article

CHILDREN’S ENVIRONMENTAL HEALTH NEWS

Press Releases
Easier access to the most reliable and up-to-date stats on children through UNICEF’s revamped data websites
UNICEF has made all its data on health, nutrition, education, water and sanitation, child protection, and HIV/AIDS publicly available, in an easily searchable format which includes redesigned country profiles and a new data visualisation tool for the creation of charts, maps and graphs. UNICEF (23/3/15)

Ahead of World Water Day, UN Calls for Better Management of Water Resources
The planet is facing a 40 per cent shortfall in water supply by 2030, unless we dramatically improve the management of this precious resource. This is the unavoidable conclusion reached in the 2015 United Nations World Water Development Report, "Water for a Sustainable World". UNEP (20/3/15)

Tobacco use declining but major intensification needed in reduction and control efforts
New data show a declining rate of tobacco use and an increase in numbers of non-smokers. But governments must intensify action to combat the tobacco industry and dramatically reduce consumption of tobacco products to, in turn, protect public health, according to WHO. WHO (18/3/15)
Air Pollution

Autism Spectrum Disorder and Particulate Matter Air Pollution before, during, and after Pregnancy: A Nested Case–Control Analysis within the Nurses’ Health Study II Cohort

Autism spectrum disorder (ASD) is a developmental disorder with increasing prevalence worldwide, yet has unclear etiology. The authors explored the association between maternal exposure to particulate matter (PM) air pollution and odds of ASD in her child. Their conclusions were that higher maternal exposure to PM$_{2.5}$ during pregnancy, particularly the third trimester, was associated with greater odds of a child having ASD.

*Environmental Health Perspectives*

Effectiveness of an Indoor Air Pollution (IAP) Intervention on Reducing IAP and Improving Women’s Health Status in Rural Areas of Gansu Province, China

Given the deleterious health effects associated with indoor air pollution (IAP), this study was conducted to evaluate an IAP intervention in rural areas in Gansu, one of the poorest provinces of China. The authors found that Intervention measures combining stove improvement with health education were effective in reducing IAP levels. Women’s health status, including eye and respiratory symptoms, also showed improvement. However, the effect on lung function was not apparent and warranted additional follow-up.

*Open Journal of Air Pollution*

Chemicals

Maternal Arsenic Exposure, Arsenic Methylation Efficiency, and Birth Outcomes in the Biomarkers of Exposure to ARsenic (BEAR) Pregnancy Cohort in Mexico

Exposure to inorganic arsenic (iAs) from drinking water is a global public health problem, yet much remains unknown about the extent of

**UNDP/UNEP Launch New Capacity Development Programme for Climate Change Negotiators from Least Developed Countries**

The UN Development Programme and the UN Environment Programme has jointly launched a new global support programme to assist Least Developed Countries in strategically engaging in intergovernmental climate change negotiation processes. UNEP (17/3/15)

**People’s health at the centre of new global blueprint to reduce disaster risks**

Ten years since adopting the Hyogo Framework for Action shortly after the Indian Ocean Tsunami, government representatives have gathered in Sendai to negotiate a new framework for global action to reduce the risks of disasters. For the first time, protecting people’s health is at the centre of such a framework. WHO (15/3/15)

**UNEP Launches Children's Painting Competition under Theme of Sustainable Energy**

Targeting young people between the ages of 9 and 14, the competition aims to raise awareness on energy consumption and energy savings. UNEP (13/3/15)

**Egypt to Save Over US $2.4 Billion Annually, Cut CO2 Emissions by 13%, Water Consumption by 40% and Create 8 Million New Jobs, Through Transition to Green Economy**

This report demonstrates that greening key sectors such as water, agriculture, waste and energy is an economically and environmentally astute course of action. UNEP (5/3/15)

**UN Secretary-General: World Threatened by Dangerous and Unacceptable Levels of Risk from Disasters**

The report estimates that an investment of US$6 billion annually in disaster risk management would result in avoided losses of US$360 billion over the next 15 years. UNEP (5/3/15)
exposure in susceptible populations. The authors aimed to establish the Biomarkers of Exposure to ARsenic (BEAR) prospective pregnancy cohort in Gómez Palacio, Mexico, to better understand the effects of iAs exposure on pregnant women and their children. They concluded that this study suggests three major findings. First, more than half of the drinking-water samples tested in Gómez Palacio exceeded the WHO’s guidelines for acceptable limits of iAs in drinking water, indicating that women drinking municipal water are at risk for elevated exposure to iAs. Second, biomonitoring data confirmed that many pregnant women had elevated levels of iAs in their urine. Third, individual differences in iAs metabolism in pregnant women were associated with birth outcomes. The data support a relationship between iAs metabolism in pregnant women and adverse birth outcomes. Given that these exposures to elevated iAs are occurring during pregnancy, there may also be concerns about later-life health effects for the children of the cohort.

*Environmental Health Perspectives*

**Estimating Burden and Disease Costs of Exposure to Endocrine-Disrupting Chemicals in the European Union**

Rapidly increasing evidence has documented that endocrine-disrupting chemicals (EDCs) contribute substantially to disease and disability. The authors’ objective was to quantify a range of health and economic costs that can be reasonably attributed to EDC exposures in the European Union (EU). They concluded that EDC exposures in the EU are likely to contribute substantially to disease and dysfunction across the life course with costs in the hundreds of billions of Euros per year. These estimates represent only those EDCs with the highest probability of causation; a broader analysis would have produced greater estimates of burden of disease and costs.

*The Journal of Clinical Endocrinology and Metabolism*

**WHO calls on countries to reduce sugars intake among adults and children**

A new WHO guideline recommends adults and children reduce their daily intake of free sugars to less than 10% of their total energy intake. A further reduction to below 5% or roughly 25 grams (6 teaspoons) per day would provide additional health benefits. WHO (4/3/15)

**Costs of Climate Change Adaptation Expected to Rise Far Beyond Africa’s Coping Capacity Even if Warming Kept Below 2°C**

Africa, the continent with warming deviating most rapidly from "normal" conditions, could see climate change adaptation costs rise to US$50 billion per year by 2050, even assuming international efforts keep global warming below 2°C this century, according to a new United Nations Environment Programme report. UNEP (4/3/15)

**In the Media**

**Traffic-related air pollution linked to type 1 diabetes in children**

Several studies have already linked the likelihood of death by respiratory and circulatory illness to the level of fine dust particles in the air. A Munich study now shows that high levels of fine dust pollution could increase the risk of type 1 diabetes among children. EurActiv (24/3/15)

**Kids exposure to secondhand smoke tied to clogged arteries**

In a Finnish study spanning 26 years, kids exposed to parental smoking were more likely to develop plaque in their carotid arteries as young adults than kids who were not exposed to secondhand smoke. Reuters Health (24/3/15)

**Deadliest Country for Kids**

Oil and diamonds give Angola a wealth that is rare in sub-Saharan Africa, yet it has the highest rate of under-5 child mortality in the world. New York Times (19/3/15)
Phthalate exposure occurs readily in the environment and has been associated with an array of health end points, including adverse birth outcomes. Some of these may be mediated by oxidative stress, a proposed mechanism for phthalate action. In this present study, the authors explored the associations between phthalate metabolites and biomarkers of oxidative stress measured in urine samples from multiple time points during pregnancy. They found that urinary phthalate metabolites were associated with increased oxidative stress biomarkers in the study population of pregnant women. They concluded that these relationships may be particularly relevant to the study of birth outcomes linked to phthalate exposure. *Environmental Health Perspectives*

### Global Change

**Big data in global health: improving health in low- and middle-income countries**

The authors review the evolving definition of big data and the possible advantages of – and problems in – using such data to improve healthcare delivery in low- and middle-income countries. The collection of big data as mobile-phone based services improve may mean that development phases required elsewhere can be skipped. However, poor infrastructure may prevent interoperability and the safe use of patient data. An appropriate governance framework must be developed and enforced to protect individuals and ensure that health-care delivery is tailored to the characteristics and values of the target communities. *Bulletin of the World Health Organization*

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**Pesticides in produce**

Consumer Reports’ new guidelines show you how to make the best choices for your health—and for the environment. Consumer Reports (19/3/15)

**How Europe’s Regulation of Pesticides Could Impact Your Food**

As the E.U. moves to restrict hormone-disrupting chemicals, the U.S. government objects. Civil Eats (16/3/15)

**Chemical exposure in Syria tied to miscarriages, birth defects**

Pregnant women exposed to chemical weapons during the August 2013 attack in Syria were much more likely to miscarry or deliver prematurely, new findings show. Reuters Health (16/3/15)

**Toxic Delhi: Earth’s most polluted city has no plan to cut emissions**

A recent joint study by universities of Chicago, Yale and Harvard found that half of India’s population may be losing up to three years’ lifespan because of bad air. New Delhi is now ranked as the most polluted city on earth where air pollution may be 60 times higher than what is considered safe. Responding to Climate Change. United Nations (16/3/15)

**The Record: Kids and e-cigs**

Cigarette companies have never willingly shied away from marketing their products as fun and sexy. Children should not be able to easily access them, but that’s what’s happening. Bergen County Record (16/3/15)

**Children wasting away as hunger hits 200,000 in Madagascar**

In villages across the southern part of the world's fourth biggest island, a months-long drought ravaged last season’s crops. People are famished, children are wasting away. Agence France-Presse (12/3/15)
E-Waste

E-waste Prevention, Take-back System Design and Policy Approaches
The final Step Green Paper “E-waste Prevention, Take-back System Design and Policy Approaches” co-authored by Duncan McCann (WEEE Help) and Annelaure Wittmann (formerly Enda Europe) is now available.

The Step Green Paper Series is a publication tool for research findings which meet the core principles of Step and contribute to its objectives towards solving the e-waste problem. Step members discussed and agreed on this support of Duncan’s and Annelaure’ work, but do not necessarily endorse the conclusions made. Hence, Step Green Papers are not necessarily reflecting a common Step standpoint. Link to a PDF of the paper (92 pages)

E-Waste: A Global Hazard
The aim of this study was to document the extent of the problems associated with inappropriate e-waste recycling practices. The conclusions the authors reached were that E-waste recycling is necessary but it should be conducted in a safe and standardized manner. The acceptable risk thresholds for hazardous, secondary e-waste substances should not be different for developing and developed countries. However, the acceptable thresholds should be different for children and adults given the physical differences and pronounced vulnerabilities of children. Improving occupational conditions for all e-waste workers and striving for the eradication of child labor is non-negotiable. E-Waste: A Global Hazard
Annals of Global Health

New Publications

Jenny Pronczuk de Garbino: A Global Champion for Children’s Health
On 20 September 2010, the children of the world, and all of us who work in children’s environmental health and pediatric toxicology,

Fukushima disaster: Radiation levels posing cancer risks on fourth anniversary of earthquake
Before the disaster, there was just one to two cases of thyroid cancers in a million Japanese children but now Fukushima has more than 100 confirmed or suspected cases, having tested about 300,000 children. Australia ABC News (12/3/15)

Rat study reveals role of lead in schizophrenia
A study of the brains of rats exposed to lead has uncovered striking similarities with what is known about the brains of human schizophrenia patients, adding compelling evidence that lead is a factor in the onset of schizophrenia. News-Medical.Net (12/3/15)

Parents wrongly think sugary drinks healthy
Bamboozled by misleading product marketing and labeling, parents have failed to get the message that sugary drinks — beyond soda — are not healthy for kids. USA Today (11/3/15)

Replacement for toxic chemical in plastics, receipts may be just as toxic
Bisphenol S, or BPS, a common chemical in everyday plastics and papers, has the same toxic, hormone-disrupting effects in cells and animals as its older relative, bisphenol A, or BPA. The findings are the latest to raise doubts that BPS – or perhaps any other bisphenols – are a safer alternative to BPA. The studies also suggest that products labeled “BPA-free,” such as baby bottles, are not as free of health risks as consumers might expect. Science News (9/3/15)

Autistic Features Associated With Prenatal Exposure to Endocrine Disruptors
Exposure during pregnancy to a combination of fire retardant chemicals and phthalate chemicals, which are present in the average home, may contribute to autistic-like behaviors in offspring, according to a Canadian study. Endocrinology Advisor (7/3/15)
lost a beloved friend and global champion with the untimely death of Jenny Pronczuk de Garbino at 63 years of age. Pronczuk was a physician and, for many years, a medical officer in the Department of Public Health and Environment of the World Health Organization (WHO). She was the founder and, for more than a decade, the charismatic and inspirational leader of the WHO Initiative in Children’s Environmental Health. Her work improved the lives of children in all regions of the world.

Link to Environmental Health Perspectives to read the Editorial.

Toxins on the Developing Brain
This was the lead story in the December 2014 newsletter. The YouTube video is now also available in Spanish.

Link to the Spanish version on YouTube
Link to WHO to download the December 2014 newsletter

Toolkit to develop a National Strategic Plan for TB prevention, care and control
This toolkit provides a clear methodology to translate the End TB strategy into sound, and visionary National Strategic Plans. The NSP is the most important strategic document guiding national health authorities in managing and implementing appropriate TB control activities.

Link to WHO for more information and to download the publication

UPCOMING EVENTS

Health Effects Institute 2015 Annual Conference
3-5 May 2015. Philadelphia, PA

International Conference on Public Health

Online training course Impact of Environmental

20th century lead pollution in South America was worst in two millennia
Mankind’s increasing potential to damage and then partially remediate the environment has been underlined by a new study of lead pollution found in Bolivian ice cores. The Guardian (7/3/15)

Phthalates, found in hundreds of household products, may disrupt sex development of male fetus
New research regarding phthalates, a known hormone disruptor found in hundreds of plasticized consumer products, adds to the growing scientific consensus of the public health danger they pose. The Washington Post (6/3/15)

Chemical Exposure Linked to Billions in Health Care Costs
Exposure to hormone-disrupting chemicals is likely leading to an increased risk of serious health problems costing at least $175 billion (U.S.) per year in Europe alone. National Geographic (5/3/15)

BPA Is Fine, If You Ignore Most Studies About It
Bisphenol-A (BPA) is either a harmless chemical that’s great for making plastic or one of modern society’s more dangerous problems. Depends whom you ask. Newsweek (4/3/15)

Maternal health: Ebola’s lasting legacy
One of the most devastating consequences of the Ebola outbreak will be its impact on maternal health. Nature (4/3/15)

Traffic pollution tied to slower cognition in schoolchildren
Children who attend school in heavy traffic areas may show slower cognitive development and lower memory test scores, Spanish researchers have found. CBC Canada (3/3/15)

Secondhand smoke exposure in womb linked to eczema in childhood
Children born to mothers who were exposed to
Pollutants on Reproductive Health, from 1 June 2015 to 27 August 2015. The deadline for applications is 31 March 2015.

2015 Conference: Improving Health and Health Services Through Research
25-27 June 2015. St Hugh's College, Oxford,

16th International Conference of the Pacific Basin Consortium for Environment and Health.
10-13 August 2015. City of Depok, West Java.

secondhand tobacco smoke during pregnancy face an elevated risk of eczema and other skin problems in childhood. Science News (1/3/15)

Exposure to endocrine-disrupting chemicals costs EU billions annually
Human exposure to endocrine-disrupting chemicals likely contributes to a number of diseases and health conditions in the EU, with costs estimated between €150-260 billion per year (1.2-2.0% of Gross Domestic Product), according to a new series of studies. Science Daily (26/2/15)

Links to past issues and how to subscribe

Have news for us?
If you would like to submit information to future HECANET issues, email us at heca@who.int with the subject line "INFORMATION FOR HECANET".

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