New climate change agreement a historic win for human health

Commentary by Dr Maria Neira, WHO Director, Department of Public Health, Environmental and Social Determinants of Health and Dr Diarmid Campbell-Lendrum, WHO Climate Change Lead, Department of Public Health, Environmental and Social Determinants of Health

For the first time in history, nearly every country in the world has agreed to take action to combat the defining issue of the 21st century – climate change. The Paris Agreement, adopted on 11 December, marks the beginning of a new era in the global response to this threat. As stated in the agreement, “the right to health”, will be central to the actions countries take. Nearly a decade in the making, the Paris Agreement not only sets ambitious aims to curb greenhouse gas emissions to keep global warming well below 2°C, it pushes countries to develop adaptation plans that will protect human health from the worst impacts of climate change, such as, droughts, heat waves and floods. Working together, developed countries have committed to financing clean and resilient futures in countries most vulnerable to climate impacts. Now, WHO and the more than 13 million health professionals who added their voices to the call for a safer and healthier future at COP21, need to build on this foundation. Fortunately, we’ve already begun.

CHILDREN’S ENVIRONMENTAL HEALTH NEWS

Press Releases

Secretary-General Announces First Members of High-level Advisory Group for Every Woman Every Child

United Nations Secretary-General Ban Ki-moon today announced the first members of the High-level Advisory Group for Every Woman Every Child, who will help provide leadership and inspire actions for women’s, children's and adolescents' health in the transition from the Millennium Development Goals to the universal Sustainable Development Goals agenda. UN (21/1/16)

Growing Concern About El Nino’s Impact On Southern Africa As Planting Window Closes

The United Nations World Food Programme (WFP) is increasingly concerned about food security in southern Africa where an estimated 14 million people are facing hunger following prolonged dry spells that led to a poor harvest last year. WFP (18/1/16)

War in Yemen poses ever-growing threat to children

Children make up at least half of the 2.3 million people estimated to have been displaced from their homes by the conflict, and of the more than 19 million people struggling to get water on a daily basis; 1.3 million children under five face the risk of acute malnutrition and acute respiratory tract infections. And at least 2 million children cannot go
**Prevalence and Determinants of Secondhand Smoke Exposure Among Middle and High School Students**

Despite progress in implementing comprehensive smoke-free laws prohibiting smoking in public settings, millions of US adults and children remain exposed to secondhand smoke in private settings. Among US students in grades 6 through 12 who never used tobacco, 48.0% reported secondhand smoke exposure. Home or vehicle exposure was more than ninefold higher among never tobacco users with no home or vehicle smoke-free rules than those with 100% smoke-free rules. *Pediatrics*

**Air Pollution Exposure during Pregnancy and Childhood Autistic Traits in Four European Population-Based Cohort Studies: The ESCAPE Project**

Prenatal exposure to air pollutants has been suggested as a possible etiologic factor for the occurrence of autism spectrum disorder. Prenatal exposure to NO\textsubscript{2} and PM was not associated with autistic traits in children from 4 to 10 years of age in four European population-based birth/child cohort studies. *Environmental Health Perspectives*

**Chemicals**

**A Case–Control Study of Prenatal Thallium Exposure and Low Birth Weight in China**

Thallium (Tl) is a highly toxic heavy metal widely present in the environment. Case reports have suggested that maternal exposure to high levels of Tl during pregnancy is associated with low birth weight (LBW), but epidemiological data are limited. This case–control study involving 816 study participants (204 LBW cases and 612 matched controls) was conducted in Hubei Province, China, in 2012–2014. The results of this study, the first case-control study on this issue, suggest that prenatal exposure to high levels of Tl may be associated with an increased risk of LBW.

**FDA Revokes Food Additive Approval for the Use of Long-Chain Perfluorinated Compounds as Oil and Water Repellents for Paper Used in Food Packaging**

The U.S. Food and Drug Administration is revoking its food additive regulation for use of three long-chain perfluorinated compounds (PFCs) in response to a Food Additive Petition filed by the Natural Resources Defense Council, the Center for Food Safety, the Breast Cancer Fund, the Center for Environmental Health, Clean Water Action, the Center for Science in the Public Interest, the Children’s Environmental Working Group, and Improving Kids’ Environment. U.S. Food and Drug Administration (31/12/16)

**End of Ebola transmission in Guinea**

On the 29\textsuperscript{th} of December 2015 the World Health Organization (WHO) declared the end of Ebola virus transmission in the Republic of Guinea. Forty-two days had passed since the last person confirmed to have Ebola virus disease tested negative for the second time. WHO (29/12/16)

**Fact sheets**

**New WHO Health Topic webpage on early child development**

A new Health Topic page on the WHO website brings together publications, factsheets, news, events and other resources from groups working on child health and development. Resources on adolescent health, child rights, complex emergencies, the environment and child health, mental health, nutrition, preconception care and maternal health, and violence and injury prevention are included.

**Newborns: reducing mortality**

Includes information on key facts, causes, prevention strategy: skilled health care at home,
**Environmental Health Perspectives**

**Child Intelligence and Reductions in Water Arsenic and Manganese: A Two-Year Follow-up Study in Bangladesh**
Arsenic (As) exposure from drinking water is associated with modest intellectual deficits in childhood but is not known whether reducing exposure is associated with improved intelligence. Installation of deep, low As, community wells lowered creatinine-adjusted urinary arsenic (UAs/Cr), blood As (BAs) and blood manganese (BMn). A greater decrease in UAs/Cr was associated with greater improvements in Working Memory scores, but not with a greater improvement in Full Scale IQ.

Reproductive Health

**Perfluorooctane Sulfonate Concentrations in Amniotic Fluid, Biomarkers of Fetal Leydig Cell Function, and Cryptorchidism and Hypospadias in Danish Boys (1980-1996)**
Perfluorooctane sulfonate (PFOS) has until recently been widely used in a variety of applications, especially in surface coatings used to make products water- and oil-resistant. Exposure to perfluorooctane sulfonate (PFOS) may potentially disturb fetal Leydig cell hormone production and male genital development. In this study environmental PFOS exposure was associated with steroid hormone and INSL3 concentrations in amniotic fluid, but was not associated with cryptorchidism or hypospadias in our study population.

Maternal Consumption of Seafood in Pregnancy and Child Neuropsychological Development: A Longitudinal Study Based on a Population With High Consumption Levels
Seafood consumption during pregnancy is thought to be beneficial for child neuropsychological development, but to our knowledge no large cohort studies with high fatty newborns, higher risk newborns and WHO response.

**Children: reducing mortality**
Includes information on key facts, newborns, children under the age of 5, leading causes of death in post-neonatal children: risks and response, prevention with vaccines, emerging priorities for children’s health, global response: Sustainable Development Goal 3 and WHO response.

**Mercury and health**
Includes information on key facts, exposure to mercury, health effects of mercury exposure, how to reduce human exposure from mercury sources, political agreement and WHO response.

In the Media

**Absence of clean cooking fuel sparks health concerns**
The absence of clean cooking fuel in large numbers of households, particularly in the countryside, is a major health worry, according to the first set of results from India’s biggest health survey, which indicates an overall improvement in the last 10 years. Deccan Herald (25/1/16)

**When the Water Turned Brown**
Nearly a year and a half after Flint, Michigan, started using water from the long-polluted Flint River, the authorities reversed course, acknowledging that the number of children with high lead levels in this struggling, industrial city had jumped, and no one should be drinking unfiltered tap water. New York Times (23/1/16)

**Global mercury emissions down 30 percent as coal use drops: USGS**
Global emissions of mercury from manmade sources fell 30 percent from 1990 to 2010, in part from decreasing use of coal, the U.S. Geological Survey (USGS) reported on Wednesday. Reuters (13/1/16)
Fish consumption have analyzed the association by seafood subtype. Overall, consumption of seafood above the recommended limit of 340 g/week was associated with 10-g/week increments in neuropsychological scores. Consumption of large fatty fish during pregnancy presents moderate child neuropsychological benefits, including improvements in cognitive functioning and some protection from autism-spectrum traits.

*American Journal of Epidemiology*

E-waste

**Heavy metals in PM2.5 and in blood, and children's respiratory symptoms and asthma from an e-waste recycling area**

This is the first study simultaneously investigating heavy metal levels in PM$_{2.5}$ and in blood and the prevalence of respiratory symptoms and asthma in children from an e-waste area and a reference area to investigate the factors contributing to heavy metals and respiratory symptoms and asthma. Higher blood chromium and blood manganese were associated with more cough and wheeze, respectively.

*Environmental Pollution*

New Publications and Recent or upcoming Events

**WHO estimates of the global burden of foodborne disease**

This report, resulting from the WHO Initiative to Estimate the Global Burden of Foodborne Diseases and prepared by the WHO Foodborne Disease Burden Epidemiology Reference Group (FERG), provides the first estimates of global foodborne disease incidence, mortality, and disease burden in terms of Disability Adjusted Life Years (DALYs). Worldwide, 18 (95% UI 12–25) million DALYs were attributed to foodborne diarrhoeal disease agents, particularly NTS and enteropathogenic Escherichia coli (EPEC).

*World Health Organization*

**Mom’s weight during pregnancy shapes baby’s health**

Recent studies link maternal obesity to child’s risk of mental and physical problems. One study published in 2015 raises the possibility that a child’s normal cognitive development might be slightly impaired by its mother’s high BMI. *ScienceNews* (12/1/16)

**Progress in Jimmy Carter's Quest to End Guinea Worm Disease**

Only 22 cases of Guinea worm disease were reported in 2015, the Carter Center announced last week, a significant drop from the 126 cases reported in 2014. *New York Times* (11/1/16)

**Where many of our electronic goods go to die**

Every year hundreds of thousands of tonnes of e-waste find their way to Accra, Ghana from Europe and North America, where they are stripped of their valuable metals in the crudest form of recycling. This is one of the biggest dumps for electronic waste in the world, and among the most polluted places on earth. *BBC* (8/1/16)

**London takes just one week to breach annual air pollution limits**

London has already breached annual pollution limits just one week into 2016, and only weeks after the government published its plans to clean up the UK's air. Under EU rules, sites are only allowed to breach hourly limits of 200 micrograms of NO$_2$ per cubic metre of air 18 times in a year, but on the 8th of January 2016 High Street in West London broke that limit for the 19th time. *The Guardian* (8/1/16)

**Delhi embraces car restrictions on key working day**

New restrictions on private cars, which are being enforced to tackle hazardous pollution levels in Delhi, faced their first serious test on Monday as residents headed back to work following the New Year weekend. *BBC* (5/1/16)
Editorial: India’s air pollution: a new government and global plan

Early this month, the Indian Government, in its first attempt to address air pollution in the capital, will publish a federal plan to target non-vehicular emissions, including the burning of construction dust, refuse, and tyres in Delhi and surrounding states. Additionally, the transport ministry is planning to tackle vehicular emissions by banning commercial vehicles that are more than 15 years old from India's roads.

The Lancet

Perspectives on the Children's Health Collection 2015

The Environmental Health Perspectives annual Children’s Health Collection is now available online. It compiles a year’s worth of research, commentary, and news published from October 2014 through September 2015.

Environmental Health Perspectives

Link to the EHP Children's Health Collection 2015

Dr Maria Perez and Dr Madan M Rehani have been awarded the 2015 Butterfly Award from the Alliance for Radiation Safety in Pediatric Imaging for their work on pediatric medical radiation exposure.

Dr Peter Sly and Dr Stephen Stick, for their work on risk factors for lung damage in children with cystic fibrosis, and Dr Claire Wainwright, for her work on respiratory infections in children with cystic fibrosis, have been awarded the Richard C. Talamo Distinguished Clinical Achievement Award from the Cystic Fibrosis Foundation.

UPCOMING EVENTS

E-Waste Academy — Managers’ Edition
22 - 26 February 2016. Nairobi, Kenya

2016: California's 'Staggering' Leak Could Spew Methane for Months

Hundreds of residents in the Porter Ranch neighbourhood of Los Angeles have relocated due to headaches, nausea, nosebleeds and other health effects, including bleeding from the eyes and the gums. SoCal Gas said it will fix the problem by drilling a relief well—a process that will take three to four months. Inside Climate News (4/1/16)

China's capital sees small improvement in air in 2015: government bureau

Beijing’s average concentration of PM2.5 - particulate matter with a diameter of 2.5 microns, which can penetrate deep into the lungs - fell 6.2 percent in 2015, according to the city's environmental protection bureau. Still, average PM2.5 levels for the year were 80.6 micrograms per cubic meter, several times higher than the World Health Organization's air quality guidelines. Reuters (4/1/16)

Where is the world's most polluted city?

WHO data from 1,600 monitoring stations globally has led many, including the Guardian, to name Delhi as the “world’s most polluted city”. But the basis for this is flimsy. A vast swath of humanity is unknowingly breathing poison on a daily basis. The implication is profound, because without knowing the air is bad, nothing will be done to fix it. The Guardian (2/1/16)

Action on Climate Change Creates a Circle for Health and Economic Growth

Joint comment by incoming chairwoman of Gavi Alliance Ngozi Okonjo-Iweala and WHO Assistant Director General Dr Flavia Bustreo. By cutting carbon emissions, countries can save lives and free up huge sums to help finance action against climate change. These are compelling reasons to make health a cornerstone of the work that begins in the new reality introduced by the COP21 Paris Agreement. Huffington Post (1/1/16)
Alarm Spreads in Brazil Over a Virus and a Surge in Malformed Infants
A little-known virus spread by mosquitoes, Zika, is suspected to be causing one of the most alarming health crises to hit Brazil in decades, officials here warn: thousands of cases of brain damage, in which babies are born with unusually small heads.
New York Times (30/12/16)

Tehran bans outdoor sport, closes schools following more than two weeks of heavy pollution
More than two weeks of heavy pollution has led Iranian officials on Wednesday to close primary schools and nurseries, ban all outdoor sport and impose new traffic restrictions in the nation's capital Tehran. ABC News (30/12/16)

China to halt new coal mine approvals amid pollution fight
China will stop approving new coal mines for the next three years and continue to trim production capacity as the world’s biggest energy consumer tries to shift away from the fuel as it grapples with pollution. Bloomberg Business (30/12/16)