Reducing Global Health Risks Through Mitigation of Short-Lived Climate Pollutants

Short-lived climate pollutants (SLCPs), including black carbon, methane, and ozone, are responsible for a substantial fraction of climate change as well as for a significant proportion of air-pollution related deaths and diseases that kill some 7 million people per year.

Reducing emissions of short-lived climate pollutants (SLCPs), which produce strong warming effects but only persist in the atmosphere for periods ranging from days to about a decade, can provide health benefits in three key ways:

- directly from reduced air pollution and related ill-health;
- indirectly from reduced ozone and black carbon effects on extreme weather and agricultural production (affecting food security);
- and from other types of health benefits that are not associated with air pollution but may accrue as a result of certain SLCP mitigation actions, such as improved diets or more opportunities for safe active travel and physical activity.

This report, *Reducing global health risks through mitigation of short-lived climate pollutants*, reviews a range of strategies and policies for action covering sectors such as urban planning,

Children’s Environmental Health News

Press Releases

**Pilot implementation of first malaria vaccine recommended by WHO advisory groups**

The World Health Organization’s Strategic Advisory Group of Experts on Immunization (SAGE) recommended pilot projects to understand how to best use a vaccine that protects against malaria in young children. WHO (23/10/15)

**From Irrigation, to Fertilization, to Generating Electricity - UN Report Highlights the Value of Wastewater as a Resource**

“Sanitation, Wastewater Management and Sustainability: From Waste Disposal to Resource Recovery,” published by the United Nations Environment Programme and the Stockholm Environment Institute, gives an overview of current knowledge and practice in wastewater management and demonstrates the opportunities for recovery and reuse of the resources found in domestic waste flows: in agriculture, energy production and other applications. UNEP (22/10/15)

**New report identifies four ways to reduce health risks from climate pollutants**

A new WHO report highlights the urgent need to reduce emissions of black carbon, ozone and methane - as well as carbon dioxide – which all contribute to climate change. Black carbon, ozone and methane – frequently described as short-lived climate pollutants (SLCPs) - not only
transport, household energy and building design, food production and consumption, power generation, industry, and waste management. Reducing SLCP emissions can yield near-term benefits to health making measures particularly attractive to policy-makers, as well as slowing the pace of climate change over the next few decades.

Link to WHO for full News Release
Link to WHO to download the publication
Frequently asked questions

JOURNIAL ARTICLES

Air Pollution
Prenatal and Childhood Traffic-Related Pollution Exposure and Childhood Cognition in the Project Viva Cohort (Massachusetts, USA)
The authors examined associations of gestational and childhood exposure to traffic-related pollution with childhood cognition. They concluded that residential proximity to major roadways during gestation and early life may affect cognitive development. Influences of pollutants and socioeconomic conditions on cognition may be difficult to disentangle. Environmental Health Perspectives

Chemicals
Association of Prenatal Exposure to Persistent Organic Pollutants with Obesity and Cardiometabolic Traits in Early Childhood: The Rhea Mother–Child Cohort (Crete, Greece)
Prenatal exposure to endocrine-disrupting chemicals such as persistent organic pollutants (POPs) may increase risk of obesity later in life. The authors examined the relation of in utero POPs exposure to offspring obesity and cardiometabolic risk factors at 4 years of age in the Rhea mother–child cohort in Crete, Greece (n = 689). They concluded that prenatal exposure to dichlorodiphenyldichloroethylene (DDE), and hexachlorobenzene (HCB) was associated with excess adiposity and higher produce a strong global warming effect, they contribute significantly to the more than 7 million premature deaths annually linked to air pollution. WHO (22/10/15)

Reducing Black Carbon Can Save Lives and Help Combat Climate Change
Black carbon causes millions of deaths every year and contributes to the warming of the planet. In the atmosphere it appears as air pollution, with emissions arising mainly from the combustion of diesel fuel and biofuels, coal-fired power stations, biomass cook stoves, brick kilns and vegetation burning in open fields. Black carbon absorbs solar energy at rates of up to a million times more than carbon dioxide. UNEP (19/10/15)

Despite progress, road traffic deaths remain too high
Some 1.25 million people die each year as a result of road traffic crashes, according to the WHO’s Global status report on road safety 2015, despite improvements in road safety. WHO (19/10/15)

Lack of access to hygiene could endanger new Development Agenda
Handwashing with soap is dangerously low in many countries, UNICEF reports, despite its proven benefits to child health. UNICEF says improvements in hygiene must supplement access to water and sanitation, or children will continue to fall victim to easily preventable diseases like diarrhoea. UNICEF (15/10/15)

With Around 40% of Resource Extraction and Use Linked to World Trade, New Policies Required to Address Environmental Impacts
“International Trade in Resources: A biophysical assessment”, produced by the United Nations Environment Programme-hosted International Resource Panel, reveals that the value of international trade has increased over six-fold and its volume more than doubled between 1980
blood pressure levels in early childhood.

*Environmental Health Perspectives*

**Reproductive Health**

*Exposure to Endocrine-Disrupting Chemicals during Pregnancy and Weight at 7 Years of Age: A Multi-pollutant Approach*

Prenatal exposure to endocrine-disrupting chemicals (EDCs) may induce weight gain and obesity in children, but the obesogenic effects of mixtures have not been studied. The authors evaluated the associations between pre- and perinatal biomarker concentrations of 27 EDCs and child weight status at 7 years of age. Prenatal exposure to organochlorines was positively associated with overweight at age 7 years in their study population. Other EDCs exposures did not confound this association.

*Environmental Health Perspectives*

**Global Change**

*Trade liberalization, social policies and health: an empirical case study*

This study investigated the health impacts of a major liberalization episode in the textile and clothing (T&C) sector. This episode triggered substantial shifts in employment across a wide range of countries. Overall, it is found that social protection is often inaccessible to the type of workers who may be the most vulnerable to processes of liberalization and that many workers are particularly vulnerable due to the structure of social protection policies. Social policies are therefore found to both moderate pathways to health and influence the type of health-related pathways resulting from trade liberalizing policies.

*Globalization and Health*

*Disability weights for the Global Burden of Disease 2013 study*

The Global Burden of Disease (GBD) study assesses health losses from diseases, injuries, and 2010. This increase in trade has been accompanied by a shift in resource-intensive processes, and associated environmental burdens, to developing nations. UNEP (14/10/15)

*UNEP Inquiry Shows How to Align Global Finance with Sustainable Development*

The heartland of the global economy, the financial system, can evolve to serve its core purpose of growing and sustaining the real economy. UNEP (8/10/15)

*50 years after UNICEF received Nobel Peace Prize, children still face ‘conflict and crisis, deprivation and disadvantage’*

“In accepting the Nobel Peace Prize on behalf of UNICEF in 1965, UNICEF’s second Executive Director, Henry Labouisse, said that “the welfare of today’s children is inseparably linked with the peace of tomorrow’s world.” Today, in a world of growing turmoil, his words still ring true. And they speak to us all. UNICEF (6/10/15)

*WHO/UNAIDS launch new standards to improve adolescent care*

New Global Standards for quality health-care services for adolescents developed by WHO and UNAIDS aim to help countries improve the quality of adolescent health care. Adolescents form a unique group, rapidly developing both physically and emotionally but are often dependent on their parents or guardians. WHO (6/10/15)

*In the Media*

*Air pollution stunting children’s lungs, study finds*

A six-year study finds children living in highly polluted parts of cities have up to 10 per cent less lung capacity than normal, with warnings the damage could be permanent. The Telegraph, UK (25/10/15)

*Carbon nanotubes found in children’s lungs for the first time*

Carbon nanotubes have turned up in the lungs of children living in Paris – the first time they have
and risk factors using disability-adjusted life-years, which need a set of disability weights to quantify health levels associated with non-fatal outcomes. The objective of this study was to estimate disability weights for the GBD 2013 study. The authors concluded that this study substantially expands the empirical basis for assessment of non-fatal outcomes in the GBD study. Findings from this study substantiate the notion that disability weights are sensitive to particular details in descriptions of health states, but robust to duration of outcomes.  

*The Lancet Global Health*

### Water And Sanitation

**Adoption and sustained use of the arborloo in rural Ethiopia: a cross-sectional study**

In rural Ethiopia, only 19% of the population has access to improved sanitation, which has no doubt contributed to high levels of diarrhea, trachoma, and helminth infection. Low-cost sanitation options are needed in Ethiopia, but few studies have assessed their effectiveness and sustainability. The composting arborloo is one such option. The authors assessed the arborloo's adoption and sustainability in 20 communities that received arborloo promotion. They concluded that there is a clear role for the arborloo in rural Ethiopia to increase the rate of sanitation adoption, sustainability, and movement up the sanitation ladder. Sustainability was most strongly associated with use of the arborloo pit for planting and a cement slab.  

*Journal of Water, Sanitation and Hygiene for Development*

### E Waste

**E-Waste and Harm to Vulnerable Populations: A Growing Global Problem**

Electronic waste (e-waste) is produced in staggering quantities, estimated globally to be 41.8 million tonnes in 2014. E-waste hazards have not yet received the attention they deserve been detected in humans. Incredibly strong, light and conductive, nanotubes have shown great potential in areas such as computing, clothing and healthcare technology. Nevertheless, there has been some concern over their use after mouse studies showed that injected nanotubes can cause immune reactions similar to those produced by asbestos. New Scientist (22/10/15)

*Major Medical Groups Increasingly Warning Of Toxic Chemical Risks To Unborn Babies*

Doctors urged to address environmental exposures, especially with expectant parents  

*Huffington Post (22/10/15)*

**Nail polish study finds potentially harmful ingredient absorbed**

Researchers from Duke University and the Environmental Working Group say they found evidence that a nail polish chemical called triphenyl phosphate, or TPHP, had metabolized in the bodies of more than two dozen women who applied polish with that chemical directly to their nails. The chemical is believed to interfere with the body's endocrine system. It reportedly causes reproductive issues and development problems in animals. Springfield Republican (21/10/15)

*Springfield Republican (21/10/15)*

**Study shows green housing could reduce environmental exposures, improve health**

Low-income housing residents who live in "green" buildings that are built with eco-friendly materials and energy-efficient features appear to have fewer "sick building" symptoms (SBS) than residents of traditionally constructed low-income housing, according to a new study. News Medical (16/10/15)

*News Medical (16/10/15)*

**India's coal-fueled economy taking a toll on environment and rural villagers**

The Sasan coal power plant in central India's Madhya Pradesh state has generated land disputes, health and environmental concerns and financial hardship, nearby villagers say. Los Angeles Times (15/10/15)

*Los Angeles Times (15/10/15)*
in research and public health agendas. The authors provide an overview of the scale and health risks. They review international efforts concerned with environmental hazards, especially affecting children, as a preface to presenting next steps in addressing health issues stemming from the global e-waste problem.

*Environmental Health Perspectives*

**WHO e-waste and child health page**

[Link to the WHO training modules page to access e waste and children's health](http://www.who.int)

[Link directly to the training module on e waste and children's health](http://www.who.int)

**New Publications and Recent or upcoming Events**

**Networks of WHO collaborating centres**

In January 2000, the Executive Board urged the Member States to make full use of WHO collaborating centres as sources of information, services and expertise, and to strengthen their own national capacity for training, research and collaboration for health development. At the same time, it encouraged centres to develop working relations with other centres and national institutions recognized by WHO, in particular by setting up or joining collaborative networks with WHO's support. The move has been from bilateral relations to multilateral networks.

[Networks of WHO Collaborating Centres - Children's Environmental Health](http://www.who.int)

**Growing a New Study: Environmental Influences on Child Health Outcomes**

Prevalence rates for asthma, autism spectrum disorders, obesity, attention-deficit/hyperactivity disorder, and many other chronic childhood diseases remain stubbornly high in the United States. It is also now widely understood that environmental exposures in early development and even preconception can adversely affect an individual’s health long after childhood.

**Breast Milk, an Education, and a Giant Baby**

There is often tension between factual knowledge and tradition. One of the best ways to break out of the cycle of misinformation is through education. New York Times (16/10/15)

**Building evidence to improve maternal and child health**

Giving children the best possible start in life is crucial to reduce health disparities. One of the UK Government's efforts to support young children has been to adapt and assess the Family Nurse Partnership, a programme of prenatal and early childhood home visiting for vulnerable first-time mothers and their children. The Lancet, Comment (13/10/15)

**Study Shows Spread of Cigarettes in China**

Chinese men now smoke one-third of all the world's cigarettes, and a third of all young men in China are doomed to eventually die from the habit, scientists in China and Britain have concluded. New York Times (12/10/15)

**Pennsylvania study finds link between gas drilling and premature births**

Women are more likely to have premature babies and high-risk pregnancies the more they are exposed to unconventional natural gas development, according to a new study based on more than 10,000 babies born in the shale-gas region of Pennsylvania. State Impact (9/10/15)

**Labeling sleight-of-hand lets 86% Indians have ‘safe drinking water’**

The census considers water supply from handpumps and tubewells as safe as piped drinking water, although these are carriers of diseases. Business Standard (8/10/15)

**Researchers raise alarms about environmental toxins that 'pre-pollute' babies**

Physicians must start becoming louder activists about the deleterious impact of toxic chemicals
Environmental factors in child development therefore affect the health not just of children themselves but of all society. Now the National Institutes of Health (NIH) is developing a large-scale long-term program to better understand these factors, dubbed Environmental Influences on Child Health Outcomes (ECHO).

*Environmental Health Perspectives*

**Mercury Amalgam Use at Private Dental Clinics in Selected Main Cities of Pakistan**

During the past two decades, mercury has come under increasing scrutiny with regard to its safety both in the general population and in occupationally exposed groups. It’s a growing issue of global concern because of its adverse environmental and health impacts. Low levels of inhaled mercury or chronic exposure to low level contamination in breathing zone air, can result in mercury poisoning which among other issues may damage the nervous system, lungs, and kidneys. Exposure to mercury of vulnerable population (dental professionals, healthcare workers, children, pregnant women and elderly) is of particular concern. Very few investigations on mercury amalgam use in the dentistry sector have been carried out in South Asia and there is little data reported on mercury contamination of indoor/outdoor air at dental sites.

*Sustainable Development Policy Institute*

**WHO European Ministerial Conference on the Life-course Approach in the Context of Health 2020**

Three key themes ran through the conference: acting early, acting on time and acting together. Together, they form the life-course approach. On day 2 the different life stages were discussed throughout the proceedings, starting with early childhood and adolescence – a time to optimize growth and development – through the middle years - with timely interventions to maintain peak health – and finally on the implications of the life-course approach for policy-making. The

found in such things as plastics, pesticides and pollutants, a leading reproductive endocrinologist said. The Vancouver Sun (7/10/15)

**What an ISIS Chemical Strike Did to One Syrian Family**

Carcinogenic and extremely toxic, sulfur mustard can cause invisible internal damage, including to bone marrow, reducing blood-cell production. It took Abu Anas and Nada Ishara's daughter in her first week of life. The New York Times (6/10/15)

**Study shows link between poor school results and environmental contamination in mining towns**

A new study has found there is a link between the academic performance of primary school students in mining towns and their exposure to environmental contamination. ABC News (6/10/15)

**Asian haze set to become worst on record**

Malaysia has ordered all schools to close for two days as choking haze blanketing a large swathe of south-east Asia is on track to become the worst on record. The fog-like grey smoke caused by slash and burn techniques used to clear Indonesian forests has for weeks caused health problems, flight delays and school closures in Singapore and parts of Indonesia and Malaysia. The Sydney Morning Herald (5/10/15)

**Just What the Doctor Ordered: Using Parks to Improve Children’s Health**

Current evidence suggests that children have much to gain from time spent outdoors and much to lose from a lack of park access. Environmental Health Perspectives (2/10/15)

**UPCOMING EVENTS**

**Canadian Conference on Global Health 2015**

5-7 November 2015. Montreal, Quebec

**International Symposium on Impact of Chemical Exposures on Health and the Environment**
Conference ended with the signing of the Minsk Declaration.  
Link to WHO Europe for more information

ICCM4 agrees post-2020 process

A process for continuing international efforts towards the sound management of chemicals beyond 2020 was agreed at the fourth International Conference on Chemicals Management (ICCM4). It includes:

- an independent evaluation of the UN-led voluntary chemicals management initiative, the Strategic Approach to International Chemicals Management (Saicm); and
- a schedule of meetings, to be agreed by March 2016, to prepare recommendations to be considered at the fifth ICCM in 2020.

See more information

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".

Collated and distributed with the cooperation of the Children's Health and the Environment Program, The University of Queensland, Brisbane, Australia