



# Children's health and the environment

## Concerns

1. More children develop cancer each year in Europe: Cancer incidence rates are growing at more than 1% per year.
2. Congenital malformation of the penis affects 2-4% of baby boys, and rates have increased in recent years in several European countries and in the USA.
3. Infertility is increasing in young men in some European countries. In some European Union countries, one in five young men has a sperm count so low that this is likely to affect their ability to father a child.
4. Allergy and asthma is an increasing problem: one in four children in Europe is allergic.
5. In certain populations, rates of developmental disabilities can be as high 10%. Lead, methylmercury, PCBs and other neurotoxic chemicals are widespread in the environment and are likely to affect the development of a child's nervous system, often with irreversible consequences. Children's learning abilities are also affected by transport noise.

## Known and suspected causes

1. Everyday exposure to hundreds of carcinogens, mutagens, reproductive toxicants, (CMRs) and endocrine disrupting chemicals (EDCs), e.g. Bisphenol A in plastic bottles and food packaging, have been linked to cancer and damage to normal cell metabolism, reproduction, development and behaviour problems. An unknown number of chemicals are developmental neurotoxics, which hamper the development of a child's brain and nervous system. Immunotoxic substances are also a concern.
2. Pesticide exposure during childhood increases the risk of various types of cancer, including leukemia and non-Hodgkin's lymphoma, and may increase the risk of asthma.
3. Pre-natal exposure to some chemicals is shown to increase the risk of leukemia in childhood. For example, some children have a higher risk of acute leukemia if exposed to pesticides in utero. This exposure can be a result of maternal use, especially of insecticides and herbicides on lawns, fruit trees and gardens, and for indoor control of insects. Health effects can also derive from the father's use of pesticides prior to a child's conception.
4. Air pollution can cause and exacerbate asthma. Living near busy roads could be responsible for up to 30% of asthma in children, according to the European Union (EU) research project called Aphekom.
5. Exposure to methylmercury, for example in certain kinds of fish (the older, larger fish that are high in the aquatic food chain), can damage the mental development of children. Children in fishing villages in the Faroe Islands are known to be particularly badly affected.
6. Noise from aircraft, road and rail traffic can affect children's learning ability, including reading comprehension, memory and attention.

## Solutions/EU policy demands

1. **An increased commitment to improving the environment as a way to protecting children's health within the EU agenda.** In 2010, all EU Environment and Health ministers made commitments in the WHO Parma Declaration to reducing environmental threats to children's health, and agreed on time-bound targets for water/sanitation, healthy environments, healthy indoor environments (where children spend most of their time) and on identifying and eliminating as far as possible harmful substances and preparations. The EU needs to ensure these commitments are translated and implemented via EU policy instruments, such as 2<sup>nd</sup> EU Environment and Health Action Plan, a 7<sup>th</sup> Environmental Action Programme (EAP), EU financial instruments, EU environmental legislation and other initiatives.

- 2. Legally-binding, time-specific commitments to control measures (on the use and production of harmful chemicals) that will deliver reductions in peoples' exposure to carcinogens, mutagens, reproductive toxicants (CMRs) and endocrine disrupting chemicals (EDCs).** Time-bound targets are needed to ensure necessary action to protect children's health takes place. HEAL would like to see legally-binding specific targets and deadlines set by the EU and by national authorities, and international agreements which will generate measurable reductions of people's exposures to confirmed or suspected cancer-related chemicals. In the EU, the Commission has committed to placing 106 harmful chemicals on the candidate list for authorisation in REACH by 2012, and all further known relevant chemicals on the list by 2020. However, these targets are pre-cursors to real control measures. They do not guarantee either reductions in use or peoples' exposure by these dates. As well as the recommendation on CMRs and EDCs, HEAL also calls for the minimisation and phase-out of developmental neurotoxic and immunotoxic substances as soon as possible.
- 3. Ambitious national action plans on pesticide reduction in place by 2012.** The plans should contain specific targets and deadlines which will support the development of safer alternatives and ban the use of pesticides in public places, especially those where children spend time such as parks, playgrounds, schools and around health facilities. Greater awareness is needed on the importance of reducing the use of indoor pesticides and biocides. EU biocides legislation should encourage the development of alternatives and control biocide use.
- 4. European standards of protection that address real life conditions,** including concurrent and long-term exposure to multiple chemicals, some of which can have 'cocktail' effects. These standards should protect against any pre-natal effects during sensitive phases of fetal development, which could manifest themselves in health problems later in life or even in subsequent generations.
- 5. Changes in transport policy aimed at reducing exposure to air pollution and noise pollution.** HEAL would also like to see stricter EU limits on air pollutant concentrations in line with WHO recommendations and on noise levels. Cleaner air and less noise can be achieved by improving public transport and increasing opportunities to walk and cycle in cities. A recent report in the leading medical journal The Lancet has shown that switching to low-emission vehicles and, in particular, making walking and cycling a pleasant and feasible option in cities would lead to substantial health gains. The effects of cleaner air resulting from less traffic pollution would be particularly valuable for those with respiratory conditions, including asthma and allergies.
- 6. A global ban on mercury as soon as possible.** World governments have agreed to develop a legally binding treaty on mercury by 2013 and the EU's active fulfilment of its own Strategy on Mercury is important to influence and provide leadership in the global negotiations. Lead, another heavy metal, has been banned from petrol with demonstrable benefits for child health.

### Campaigns & Projects

*Throughout our work, HEAL calls for standards of protection to be set in such a way as to safeguard vulnerable groups, such as children, older people, those who are already ill, or socially, environmentally or economically deprived. Our work bringing the expertise and perspectives of medical professionals and the health community to the development and implementation of EU legislation, puts special focus on the pre- and post-natal vulnerability of children to harmful chemicals and the need to address the cocktail effect.*

- 1. Sick of pesticides:** Raises awareness of the health impacts of pesticides and brings latest scientific evidence to policy makers and the public.
- 2. Stay healthy, Stop mercury:** Calls for a global mercury ban on health grounds. One of our awareness raising activities involved community research to test mercury levels in samples of women's hair.
- 3. Act NOW for better health:** Calls for an EU target of a 30% reduction in carbon dioxide emissions by 2020. The policy changes needed to achieve this target should be developments in energy and transport policy that benefit health.
- 4. Chemicals Health Monitor:** Follows the implementation of REACH, the EU's chemical policy, to help ensure that it delivers on its potential to protect human health and environment from harmful synthetic chemicals used in industrial processes and consumer goods.