A handbook
Planning to protect children against hazards
The website: http://www.euro.who.int/eehc

The website of the European Environment and Health Committee acts as a notice board about implementation of the Children’s Environment and Health Action Plan for Europe and of other commitments made at the Fourth Ministerial Conference on Environment and Health, held in Budapest in June 2004.

More details
This booklet draws on information to be found within:

Copenhagen, WHO Regional Office for Europe;

WHO Regional Office for Europe (2004). The children’s health and environment case studies summary book; work in progress. Copenhagen, WHO Regional Office for Europe

WHO Regional Office for Europe (2004). Table of child-specific actions on environment and health, part of the web-based CEHAPE Action Pack (http://www.euro.who.int/childhealthenv/Policy/20050629_1)


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THANKS TO THE DESIGN STUDENTS OF THE COPENHAGEN TECHNICAL ACADEMY FOR THEIR IDEAS AND INPUT
The Children's Environment and Health Action Plan for Europe (CEHAPE) was endorsed at Budapest in June 2004 by ministers of health and environment from across the European Region. Its aim is to reduce and where possible, eliminate the exposure of children to environmental risk factors. The purpose of this booklet is to explain what CEHAPE is and why it is needed, and to support its implementation.

Who is it for?
This booklet is for people working nationally or locally in health or environment or other relevant sectors, who may be involved in preparing and implementing a plan to reduce children's environmental exposures. This includes policymakers, health and environment professionals, managers, technical experts, trade unions, schools, nongovernmental organizations (NGOs), and all those whose work and interests touch on children's wellbeing. It will be of special interest to local authorities developing policies to protect children's health from environmental hazards.

Use this booklet to find out:
- how children are at risk
- what commitments were made by governments in Budapest
- what the Regional Priority Goals are
- what measures may be needed
- who to involve in your plans
- how to use communication
- case studies from countries
- what works for some countries
- further resources available

PLANNING TO PROTECT CHILDREN AGAINST HAZARDS · 5
What do we do about the damage that our polluted environment is doing to children’s health? This was the big question at the Fourth Ministerial Conference on Environment and Health, held in Budapest, Hungary, in June 2004 and attended by over a thousand delegates, observers and journalists from the 52 Member States in the WHO European Region. This was not the first time this question had been asked: at least seven international agreements exist on protecting children from environmental risks, and the European Commission had also contributed to environment and health policy development. It was five years earlier, at WHO’s Third Ministerial Conference on Environment and Health in London in 1999, that the idea had first been discussed of a strategic and evidence-based action plan on children’s environmental health in the European Region. The steering committee for the Budapest Conference, the European Environment and Health Committee (EEHC), was asked by Member States to adopt “The future for our children” as the main theme in Budapest.

A concerted effort then began to address the environmental risk factors that affect children’s health, examine the research, and come to ministerial agreement on the way forward.

The outcome documents were carefully negotiated over four intergovernmental meetings in the build-up to Budapest: the Budapest Conference Declaration and the Children’s Environment and Health Action Plan for Europe, known as CEHAPE and pronounced “see happy”. These were finally endorsed at the Conference. Full details of how to find these documents, and other resources and sources of information can be found at the end of this booklet.

To support countries with the implementation of the commitments they made in the CEHAPE, the EEHC set up the CEHAPE Task Force, which meets twice a year, where the official environment and health focal points from Member States in the European Region monitor and discuss progress. The Task Force Chair in turn reports to the EEHC, which also meets every six months and oversees the environment and health process. Some comments from the environment and health focal points are included in this booklet.
Vulnerability
The burden of disease attributable to environmental factors is greater in children than in adults. Ensuring that children can grow up and live healthy lives requires special protection because they are uniquely vulnerable.
- At critical times, they are most susceptible to various chemical and physical agents. From conception to adolescence, their organs, brain cells, nervous systems, immune and other systems are growing and developing rapidly.
- They have greater exposure: they take in more air, water and food relative to their body weight.
- They put things in their mouths, and crawl on the ground. This and other typical toddler behaviour means they are more exposed to the physical world around them.
- Their metabolism is immature: they absorb most toxicants more readily, yet safety standards for chemicals are still based largely on criteria used for adults.
- Early exposures can cause health effects that damage health not only in childhood but also later in life or even in future generations.
- Children are subject to multiple exposures, such as smoke indoors, or chemical residues in food.
- We often do not know or yet understand the risks to children presented by chemical and other physical agents. Monitoring and assessment, when it is available, is often based on adults.

Inequity
There are particular groups of children who are most at risk. Those who are poor are more likely to live in those neighbourhoods that are near factories, dumps, heavy traffic and other sources of pollution and contamination. They will have the least access to clean water, clean air, even education.

Burden of disease
According to the environmental burden of disease study published by the Lancet in June 2004, outdoor and indoor air pollution, unsafe water, lead and injuries cause 34% of deaths and 25% of healthy life lost (DALYs: disability adjusted life years) among children and young people under 19 years old, in the European Region. Most of these health effects are the result of injuries. The study did not include those areas that are more difficult to assess, such as the health effects of chemicals.
In the CEHAPE, countries committed themselves to “coordinated and sustained action to protect children’s health”. They recognized that effective action should emphasize:

• primary prevention – improving the environment itself, including air, water, housing and transport;
• equity – helping children in special need, such as abandoned children or refugees;
• poverty reduction – because people in poor neighbourhoods are usually exposed to the worst amount of environmental contamination;
• health promotion – because it also matters how people live, what they do and what they buy;
• measures should be applied based on the precautionary principle so as not to delay policies that protect children’s health, and also to minimize the risk of severe and irreversible health effects.

A working group of Member States are producing guidelines on how to apply the precautionary principle, and these will be completed by the mid-term review to be conducted by Member States in 2007.

“We reaffirm the importance of the precautionary principle as a risk management tool and we recommend it should be applied where the possibility of serious or irreversible damage to health or the environment has been identified and where scientific evaluation, based on available data, proves inconclusive for assessing the existence of risk and its level but is deemed to be sufficient to warrant passing from inactivity to policy alternatives.”

(Budapest Declaration, paragraph 17a)

The precautionary principle

Decisions under the precautionary principle are those taken on issues of scientific uncertainty. They:

• are based on the best evidence available, using informed judgement and common sense;
• demand rigorous science that is explicit in its limitations and gaps in knowledge;
• advocate the need to improve the scientific basis for decisions;
• may be reached using tools such as prudent avoidance, ie taking simple avoidance measures to reduce exposures, or the approach known as ALARA (as low as reasonably achievable);
• use a lower level of proof than hitherto, to justify public policy actions.

Some environmental risks that affect the population at large and children in particular are uncertain and highly complex, including exposure to dangerous chemicals, hazardous wastes, non-ionizing radiation and industrial pollutants through food, water, air and everyday products. Such exposure may in some cases result in irreversible effects that appear many years later. Such risks raise anxiety because the need for more scientific evidence on such risks has sometimes been used as a reason to do nothing about them. The tool that is increasingly invoked and applied in such cases is the precautionary principle.

Using this principle to make preventive interventions in a flexible and timely manner involves identifying risks early, using a wide range of scientific tools and perspectives, increasing the transparency of decision-making and the range of stakeholders involved in making decisions, identifying early warnings of risks and setting up surveillance programmes, and investing in research and development to find safer and cleaner alternatives to the products, processes and consumption patterns that are causing concern.

A proactive approach that aims to create the conditions for sustainability and health, rather than simply responding to problems after they occur, is invaluable in the struggle for a world that protects children and future generations.
we aim to prevent and significantly reduce the morbidity and mortality arising from gastrointestinal disorders and other health effects, by ensuring that adequate measures are taken to improve access to safe and affordable water and adequate sanitation for all children. (RPGI)

Access to a reliable, safe supply is a human right. Unsafe, contaminated water transmits numerous diseases. Improving access to water enables and encourages hygiene practices such as washing, food hygiene, laundry and general household hygiene that prevent diarrhoeal and other diseases. In the European Region, diarrhoea caused by poor water, sanitation and hygiene accounts for 5.3% of all deaths of children under 15. Most of these are among children in eastern Europe and central Asia.

What can be done?

• include child-specific targets in national measures to implement the Protocol on Water and Health;
• conduct assessment of safety of water and sanitation in schools and nurseries;
• promote safe storage of water and household water treatment in family homes where necessary;
• improve children’s access to clean water and sanitation by 2015, in line with Millennium Development Goals;
• find out where sewage is being discharged, or leaking, to ensure it is not posing a threat to children;
• introduce public campaigns to educate teachers, parents and children on the importance of basic hygiene, water quality and of washing hands;
• introduce these topics onto primary school curricula.
We aim to prevent and substantially reduce health consequences from accidents and injuries and pursue a decrease in morbidity from lack of adequate physical activity, by promoting safe, secure and supportive human settlements for all children. (RPGII)

Unintentional injuries
In the European Region, injuries are the leading cause of death in children between the age of 0–14 years, accounting for a total of 36% of all childhood deaths. Every year 28 000 children lose their lives from this cause, or three every hour. Many more may be disabled or emotionally traumatized, often permanently. It is estimated that 4 million children are admitted to hospital and 52 million attend emergency departments every year due to injuries. The majority (89%) are due to unintentional causes, such as road traffic injuries, poisoning, drowning, fires and falls. Out of the over 127 000 road deaths estimated to have occurred in the WHO European Region in 2002, some 6 500 were among children younger than 15. Car crashes are the leading cause of death for young people aged 5 to 29 years.

In the past, injuries were considered to be an inevitable part of everyday life but there is now scientific evidence that injuries can be predicted and prevented by cost effective measures. Safety for children and adults is a societal responsibility. In the promotion of safety measures, research has shown that a combination of legislation, mass-media campaigns and financial incentives are more effective than individual approaches. Central to this is ensuring children a safer physical and social environment.
What can be done?
For road safety, effective measures exist to tackle all the factors which require urgent remedy such as excessive speed; drink driving; not wearing protective gear such as car seat restraints and helmets; not being easily visible; and defective road design which allows vulnerable road users to be exposed to vehicles. Measures involve laws and policy across sectors. For example, children who walk or cycle can be protected by reducing speed limits to 30 km/hour near schools and residential areas, having pedestrian walkways and bicycle lanes and encouraging the use of helmets.

The health impact of overall transport policy needs to be considered, not only by promoting public transport, but also by involving urban planners. Increasing children’s physical exercise will reduce the current epidemic of childhood obesity, and will decrease respiratory illness from pollution.

School travel strategy
The City of York, in the United Kingdom, included a school travel strategy in its five year Local Transport Plan, in cooperation with Sustrans, a nongovernmental organization. Working with schools to reduce car use and traffic accidents on school journeys and to increase levels of cycling to school, safety zones were set up round schools, 14 schools adopted school travel plans, and special measures were put in place, such as cycle storage, a four-stage road safety student training programme and a newsletter. The project has resulted in fewer accidents, more cycling and less car use in schools where cycle parking has been installed and plans adopted.

Examples of financial savings from selected injury prevention interventions:

<table>
<thead>
<tr>
<th>Expenditure of one euro each on:</th>
<th>Is associated with a saving of (euro):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child safety seats</td>
<td>32</td>
</tr>
<tr>
<td>Bicycle helmets</td>
<td>29</td>
</tr>
<tr>
<td>Simple road safety improvements of line markings</td>
<td>3</td>
</tr>
<tr>
<td>Prevention counselling by paediatricians</td>
<td>10</td>
</tr>
<tr>
<td>Poison control services</td>
<td>7</td>
</tr>
<tr>
<td>Smoke alarms</td>
<td>69</td>
</tr>
</tbody>
</table>

(From "Injuries and Violence in Europe - why they matter and what can be done" - Summary (2005) WHO Regional Office for Europe)

Land use
In order to create safer environments, child safety considerations need to be given importance in land-use, leisure and transport policy and in the design of roads, products, cars, housing, public spaces and buildings.

Poisoning
Storing household cleaning products, pesticides, fuels and medicines away from children’s reach and using child-proof containers reduce the risk of poisoning. Poison centres save lives.

Drowning
Improving swimming skills, better parental supervision, the provision of lifeguards and flotation devices, and fencing and gates around swimming pools decrease deaths from drowning.

Fires
The provision of working smoke alarms, child proof lighters, self-extinguishing cigarettes, and banning the use of flammable materials for children’s clothing reduces mortality and disfiguration.

Country experience: Netherlands
“In the Netherlands, a programme was set up to reduce the problem of accidental poisoning with legislation to make child-resistant packaging compulsory for household chemicals and pharmaceuticals, because children under five years were suffering a relatively high number of unintentional poisonings by household chemicals and pharmaceuticals, resulting in a large number of hospital admissions.”

Less school traffic
Concerned about the number of road accidents to children and their lack of exercise, the Federal Ministries in Austria launched School Mobility Management Plans to promote cycling, walking, public transport use and traffic safety and to reduce car traffic and its attendant risks on the way to school. Pilot schemes were set up in Graz, involved many different sectors including police, teachers, parents and traffic planners and the children themselves. The result was a decrease in Graz in school traffic of 12%.
We aim to bring about a reduction in the prevalence of overweight and obesity. (part of RPGII)

What can be done?
- provide safe conditions for children to be physically active in their daily life, including on the way to and from schools and to different amenities, promoting road safety, enforcement of speed limits, and provision of safe infrastructures for vulnerable road users;
- improve physical activity in school curricula, both as physical education and during recess and extra-curricular activities;
- increase provision of play space, green areas and playgrounds for play and sports and ensure safe access to it by cycling and walking;
- promote increased physical activity for children and young people in the community;
- implement health promotion activities as agreed in WHO’s Global Strategy on Physical Activity;
- liaise with other sectors, such as education, urban planning, housing, transport and environment, to make physical activity an easy choice through improved infrastructure, information, education and promoting the benefits of physical activity.

Walking Bus (in at least 17 countries in the European Region)
A walking bus is a group of children and adults who walk to school together along a set route. There are ‘stops’ or pick-up points where children can join the group and walk with them. Parents volunteer to ‘drive’ the bus on a roster basis - each walking bus has an adult ‘driver’ at the front and an adult ‘conductor’ bringing up the rear. It’s a method of reducing car travel, increasing physical activity and having lots of fun. It is now widely used by schools. In one school in the United Kingdom the number of 8-10 year olds walking to school rose from 48% to 75%. See a new handbook at http://www.thewalkingbus.co.uk
We aim to prevent and reduce respiratory disease due to outdoor and indoor air pollution, thereby contributing to a reduction in the frequency of asthmatic attacks in order to ensure that children can live in an environment with clean air. We aim to achieve a substantial reduction in the morbidity and mortality from acute and chronic and respiratory disorders in children and adolescents. (RPGIII)

**Outdoor air pollution**
Studies conducted in Europe report that the incidence of acute respiratory infections is up to 50% higher in children living in the most polluted areas than those in the least polluted areas.

Air pollution, particularly from traffic, is causing permanent damage to children’s lungs: with lungs that do not grow or work properly, they have more difficulty breathing. Particulate air pollution, mainly from vehicle exhaust, may increase the severity of a common respiratory infection in babies which leads in some cases to the child’s death. Along with ozone, air pollution from particulates is aggravating asthma and increasing coughs and bronchitis. Lead – mostly from petrol – is affecting children’s brains.

It is thought likely that pollution affects birth weight, premature birth and intrauterine growth retardation. It has been suggested that air pollution is related to other diseases such as cancer.

**What can be done?**
- reduce emissions of particles by equipping new diesel motor vehicles with particle filters;
- set up a pollution-free school zone, particularly for diesel vehicles;
- set up monitoring and smog alert systems in cities, to alert schools and the public;
- educate parents on what to do when the smog level is high;
- reduce emissions of air pollutants from transport-related industrial and other sources, through air quality standards based on the WHO Air quality guidelines;
- establish pollution-free school zones;
- provide training and awareness on tobacco control (WHO Framework Convention on Tobacco Control, article 12).

**Country experience: Netherlands**
“On several occasions already, local authorities in the Netherlands have refused to grant planning permission for new roads, offices, even a new football stadium, because of the pollution implications of very heavy traffic. Outdoor air pollution is one of the driving forces, along with traffic jams and noise, for new mobility and transport plans that will make the urban environment more liveable, especially in the inner cities and larger urban areas. Stimulating the use of cleaner energy, vehicles and transport modes is one of the priorities. The National Air Quality Action Plan provides several measures at national level, such as stimulating cleaner vehicles through taxes, and revision and further limitation of emission levels for companies through the use of European BREFs (reference documents on best available technology).”

**Indoor air pollution**
High levels of smoke from cooking with coal or biomass are causing increased illness and deaths in children from respiratory disorders. The chemicals in tobacco, furnishings and mould also damage health.

Exposure to tobacco smoke is linked to abortion, premature birth, low birth weight and congenital malformations and also health effects in adult life, e.g. chronic respiratory disease and lung cancer.

**Evidence**
What are the effects of air pollution on children’s health and development, and how large a risk to health is air pollution, and what are effective measures to reduce it? See the summary reports of WHO Health Evidence Network http://www.euro.who.int/HEN
We commit ourselves to reducing the risk of disease and disability arising from exposure to hazardous chemicals, physical agents and biological agents and to hazardous working environments during pregnancy, childhood and adolescence. We will aim to reduce the proportion of children with birth defects, mental retardation and developmental disorders and to decrease the incidence of melanoma and non-melanoma skin cancer in later life and other childhood cancers. (RPGIV)

Clearing the air of tobacco smoke – Poland
Pilot studies showed that in two cities, Bydgoszcz and Ciechanow, 77% and 60% of small children, respectively, were exposed to tobacco smoke at home. A campaign was conducted, working through the local authorities, kindergartens, schools, hospitals, cultural centres, churches and TV channels, to increase the number of smoke-free homes, smoke-free kindergartens and schools and non-smoking pregnant women. They used meetings, workshops, press conferences, leaflets, counselling and many other methods, and the campaign showed results. In Bydgoszcz half the schools banned smoking and 72% of children asked their parents not to smoke in their presence. The number of children exposed at home decreased from 77% to 58% and from 60% to 44%.

Country experience: Estonia
“This year the recommendations to kindergartens will be revised and next year there will be a monitoring database on environmental conditions in children's day-care facilities. One important change has been made in adopting a policy on school and kindergarten buildings so that improving their living environment is guaranteed.”

What can be done?

• enforce article 12 of the Framework Convention on Tobacco Control on public awareness;
• ban smoking in public places, particularly schools and health facilities and also transportation;
• promote smoke-free homes;
• make healthier fuel available;
• avoid children’s exposure to smoke from heating and cooking;
• define and implement minimum indoor air quality requirements in schools, housing and public buildings;
• limit construction and finishing materials that may damage health.

Country experience: Ukraine
“A special problem which will be addressed in the plans for children's health is air quality in internet cafes. The 3 800 internet cafes are often open 24 hours a day, and children and young people spend up to nine hours at a stretch in them, often at night when they are cheaper to use. The young people are exposed to air pollution of different kinds: a survey found that the formaldehyde levels were 20 times over the limit, there was pollution from heavy metals, and strong electro-magnetic fields.”

Children’s brains at risk?
Some studies indicate that in the United States of America one child in six now has developmental disabilities. The causes are not fully understood. However, five substances have been documented as toxic to the developing brain of a fetus – lead, polychlorinated biphenyls, methylmercury, arsenic and toluene – and huge gaps in evidence remain to be filled in. Over a thousand chemicals have been shown to be neurotoxic in animal tests. 206 of these are known to be neurotoxic to humans and there is not adequate evidence that the others are safe. There are also thousands of mixed exposures from different combinations. In the absence of evidence of their safety to the developing brain, more has to be done to protect children: they only grow their brains once.

Around 1 500 new chemicals are produced each year, adding to the 80 000 the world currently produces, and those figures are only going to rise. It is estimated that over the next 15 years there will be an 85% increase in the manufacture of chemicals globally.

Regional Priority Goal IV
Chemicals and other physical agents
**What can be done?**

- Ban leaded petrol and develop legislation on the content of lead in building materials;
- Develop legislation on:
  - composition, labelling and information to the public on “do-it-yourself” products;
  - exposure to hazardous chemicals in toys and other products;
  - the use of childproof caps for medications and household cleaning agents;
  - protecting workers from chemicals that harm the reproductive system;
- Develop regulations to minimize risk from hazardous building materials such as asbestos, wood preservatives such as creosote and arsenic, flame retardants, volatile organic compounds;
- Apply the international Conventions already in force on persistent organic pollutants, waste production and identification of hazardous chemicals (Stockholm, Basel and Rotterdam Conventions);
- Apply the Strategic Approach to International Chemicals Management (SAICM);
- Apply the precautionary principle throughout policy processes.

**Monitoring**

Monitor the chemical contaminants of water and soil that are most hazardous to children, such as heavy metals, organochlorine pesticides and PCBs.

*In the European Union, the new Registration, Evaluation and Authorization of Chemicals policy (REACH) programme aims to ensure that industry provides the information necessary for taking risk management action to prevent future threats to human health and the environment. The European Union has directives that relate to many of the areas below, such as lead, noise and PCBs.*

**What can be done?**

- Monitor reproductive health indicators including birth weight, congenital malformations and time to pregnancy, to detect potential hazards to reproductive health.

**Noise**

In children the most important and common effects of noise are interference with speech, communication and learning. Background noise may also interfere with concentration and sleep and cause changes in behaviour. Acute noise from headphones or in discotheques can cause hearing loss.

**What can be done?**

- Monitor noise exposure in public buildings used by children and young people.
  - Include noise reduction measures in urban and infrastructure planning, including insulation of buildings.
  - Educate young people, parents and school staff about noise health hazards.

> “We note that large quantities of chemicals are currently produced and marketed with largely unknown effects on human health and the environment.”

*(Budapest Declaration paragraph. 11a)*

**Hazardous work**

Seven million adolescents are legally employed in Europe. Many others, including children as young as seven, are illegally employed in farm, shops and factories, exposed to hazardous conditions, and subject to injuries, acute and chronic poisoning, respiratory disorders, cancer and musculo-skeletal problems.

**What can be done?**

- Ratify ILO Convention 182 prohibiting and eliminating the worst forms of child labour, including work which harms the health, safety or morals of children;
- Create programmes or pass laws to remove children from hazardous working conditions;
- Protect adults from reproductive risks arising from exposure to hazards at work;
- Promote awareness among employers of hazards to young people;
- Promote awareness among young people of their safety rights and the risks they face at work.

**Monitoring**

Monitor the chemical contaminants of water and soil that are most hazardous to children, such as heavy metals, organochlorine pesticides and PCBs.

**Toxicological risk assessment**

Risk assessments should be based on children’s exposure patterns, and bio-monitoring should be used more extensively. The international community has recognized the need to improve methods to assess the risk of chronic and acute hazards posed by chemicals and physical agents to infants and children. Assessing such risks and hazards is particularly difficult, not only because of the very large number of new chemicals and technologies on the market but also because of other factors to take into account: complex interactions, different susceptibilities in children, separation of cause and effect and cumulative effects. Laboratory assays should be expanded to incorporate exposure during the perinatal period and development stages, and epidemiological studies are needed on utero, perinatal and childhood exposure.
What other risk factors should be addressed by national plans to protect children against hazards?

Food contamination
In northern and western Europe, foodborne disease increased threefold between 1980 and the late 1990s.

Poor nutrition
Poverty is the main cause of poor nutrition but children and infants often receive inappropriate nutrition, ranging from babies of two weeks being given sugared tea and cereal, to children of all ages consuming high-sugar drinks and junk food. Iodine deficiency is also widespread in parts of western and eastern Europe. An inadequate diet can lead to a lower immune response and more infectious diseases, growth retardation, impaired learning, iron deficiency anaemia, congenital anomalies, and obesity.

Hostile social environments
Abandoned children, street children and trafficking of children in the sex trade have increased in the last decade, as migration, falling salaries, war, alcoholism and deregulation have taken their toll, particularly in countries in transition.

To ensure the development and implementation of national children’s environment and health action plans, we commit ourselves to using and adapting existing national bodies on environment and health or to establishing new mechanisms that will involve all relevant stakeholders, including the corporate sector, trade unions, child-focused NGOs and parents, children’s and youth organizations. (CEHAPE paragraph 23)

Making national plans
Some countries are preparing specific plans on children’s environment and health, whether national plans, local plans or plans addressing particular issues, such as a plan to reduce child injury, or a plan for child-friendly urban environments. Other countries are updating existing plans.

These plans usually include an assessment of environmental and health impacts on children, an evaluation of the economic impacts and the setting of quantitative targets as well as the suitably phased implementation of actions.

Countries will be involved in:
• Setting priorities, through weighing up the data on environmental and health impacts, community opinion and political support combined with the severity of the problem and the health benefits gained by tackling it.
• Working with many partners to plan and implement measures. These will include local authorities, interest groups, professionals, nongovernmental organizations, local industry, schools and parent groups, young people themselves.

Policymakers in health or environment, or related areas, such as finance, transport, education, culture, energy, urban and rural planning, labour and social services – or anyone with a personal or professional interest in the health of children now and in the future – will find that their contribution will make a difference.

Country experience:
Serbia and Montenegro
“The National CEHAP Committee was set up on 7 October, 2005. It covers several important sectors: health, environment, education, architecture, toxicology, epidemiology, occupational health, toxicology, international cooperation and traffic, and it plans to meet every two months”.

“Clean information” booklet from Denmark
A guide to products for children and pregnant women, recommending products which do not contain chemicals that are environmentally degrading, have hormonal effects or contain perfume.
These are some steps that other countries have found helpful in preparing their children’s environment and health action plans.

Committee
Appoint a cross-sectoral committee to meet regularly, representing ministries of health, environment, education, transport, any other relevant ministries, NGOs and young people. Each meeting could be organized around a particular Regional Priority Goal.

The committee could also organize small working groups on specific topics with other interested stakeholders, eg local authorities or the public, each only convened only once or twice, to ensure their input and gain their interest, and report back to the main committee.

Evidence
Examine the evidence available: what data exists already on the exposure of children to environmental hazards in your country, and how is it affecting them?

Identify what further data is needed, where it might be found and who can help obtain it. Obtaining further information can be part of the plan.

Priorities
Looking at the evidence and with the Regional Priority Goals in mind, discuss and consider the priorities for the children of your country: for example, traffic-related air pollution might be more of a problem for your country’s children than poor water quality.

Mapping
National legislation or government strategies will already exist on some of the areas of CEHAPE. Look at where the overlaps are and where the gaps are. For example there may already be obligations under a European Union Directive, or a Convention, or a relevant government strategy. These may already have budgets allocated to which you could have access and will give the NEHAP more political clout.

Make sure that if there are other relevant government initiatives underway currently, on for example obesity or child safety, the CEHAP forms part of the thinking.

Measures
Make decisions on the measures you want to propose, using the CEHAPE Table of Actions, the results of your consultations, evidence search, priority-setting and mapping.

Each proposal in the CEHAP should be accompanied by the reason it is needed, and what is already going on in that area. Be specific when it comes to responsibilities and budget.

It might be helpful to make a table that shows which ministry and national authority is responsible for each of the actions, and at which level it should be carried out.

Communication
Consider how to reach the different groups you need to support the CEHAP - for example politicians, professionals, NGOs, the media and the public. A workshop? A newspaper article? A booklet or TV spot? These groups will make the difference in putting the plans into practice effectively.

Implementation
Allocate responsibility to specific members of the committee to promote, ensure and monitor implementation of the priorities identified above. Establish a mechanism whereby this is regularly reported back to the Steering Committee and to the environment and health focal point.

Evaluation
Establish a mechanism, for example indicators, or regular questionnaires, so that feedback is received from all stakeholders including civic society, nongovernmental organizations, local authorities, national authorities and private industry. This will allow you to adapt and adjust the process of implementation as you go, as situations, resources and requirements change, thereby achieving the maximum implementation possible.

Country experience: Hungary
“We have made a review of the national Hungarian legislation relating to children and containing environment and health aspects. 19 pieces of legislation are under analysis by environmental health specialists.”
Making strategic plans involves many meetings, whether internal meetings with colleagues, or meetings with specific groups such as paediatricians or urban planners. The multi-sectoral meetings are particularly valuable. Bringing various sectors together for a day workshop can focus minds and establish the way forward. Plenary sessions will bring the participants together in a common purpose, and working groups will engage the individual participants so that they can have their say, see their contribution more clearly and increase commitment. Initially, the participants may know little about the plan. These questions may help in the working groups when they first meet:

1. Countries throughout Europe are drawing up national action plans to reduce the environmental hazards threatening their children's health. What do you see as the benefits for your country of having such a plan?

2. What activities, strategies or programmes are you already engaged in which are relevant to children's environmental health on for example, water, air quality, injuries, chemicals and noise?

3. What problems do you anticipate developing, promoting and implementing the plan and how can they be overcome?

4. How best can you contribute to the planning and implementation?

5. Your national plan will have to be developed in many different sectors. How will you ensure that it is nonetheless high on the political agenda?

6. What institutional framework would you recommend to ensure implementation and monitoring of this plan for example a national committee, an interdepartmental task force, a group of scientific experts?

These questions may help in a later session, once specifics start to be discussed:

1. What do you think are the priorities for the children of your country?

2. There are four regional priority goals within the Children's Environment and Health Action Plan for Europe - on water and sanitation; air quality indoors and outdoors; injuries, accidents and physical activity, and chemicals, other physical agents, and occupational health. Which are the most important areas for your country's children?

3. What evidence/information/data do you think are still needed to identify the priorities and the measures needed? What is already known and can it be collected together?

4. What are the main sectors/departments/stakeholders that should be involved in these Regional Priority Goals, to ensure full consultation and appropriate implementation?

5. What existing strategies or programmes should be involved in the CEHAP process?

6. National environment health action plans sometimes achieve cross-sectoral collaboration and endorsement at the high levels, but fail to reach a wider audience so fail to be implemented. How will you ensure that this action plan reaches all levels of society from the beginning, from the general public, to civil society, local authorities and the different ministries?
Our CEHAPE work is to a large extent based on meetings between people, and the longer we work, the more we realize how important it is to create forums for discussion between stakeholders that perhaps would not meet otherwise. We also realize how much information and how many initiatives there are already. Our experience with small working groups may be helpful to others.

**Identifying subjects**

We have kept closely to the Regional Priority Goals, which we find is an excellent basis. To identify the most important subjects to work on in Sweden we have used our Environmental Health Report, but this could be done in many ways, for example in a small interview study with a number of relevant stakeholders. As your work proceeds you will probably change some of your priorities anyway. It is often more important to start, than to start in a “correct” way. If you do not have a good knowledge basis for priority setting, a proposal on collecting environmental health data may be an important part of the action plan.

**Working groups**

In Sweden people have been very eager to take part in the working groups. We try to keep the meetings focused on one subject, for example “accidents”. We limit the number of people to about five, so this is very informal. We present the idea of the CEHAPE and ask them to describe what they do in their organizations in connection to environment and children. We then ask them to provide us with reports and other documents that may be relevant, and we also ask them to make a proposal with actions they think should be included in the Swedish CEHAPE. At the same time we try to make clear that in the end, the National Board of Health and Welfare will decide which proposals to include. We do not plan to have many meetings with each of the working groups: probably two is enough. The rest of the communication will be by e-mail.

**Other groups**

In addition to this, we have a reference group and a steering group, and we will organize a couple of workshops, but to prepare the plan itself, the working groups are probably the most important way to make progress. The reference group and workshops are important for making the CEHAPE work known in the country. We also inform our general director and the Ministry to keep them updated.
**The Swedish CEHAP**

The actual Swedish CEHAP will contain proposals for actions. It is tempting to focus only on implementation immediately, but to make progress it is essential to spend quite a bit of energy on planning and preparation first. If this is done properly, implementation will be a lot easier. We will structure our action plan according to the RPGs. Each section will include subsections on what we want to do (proposals), why (evidence), and what's already going on. We will also be very specific when it comes to responsibilities and budget (who should do it, and who should pay). We will probably make a table that shows which ministry and national authority is responsible for each of the actions, and at which level (national/regional/local) level it should be performed.

**Country experience: Austria**

“A national task force has been set up known as the CEHAP Ö Task Force, to develop a children's environment and health action plan for Austria. This task force is an inter-ministerial coordination group which meets at least twice a year, and involves the ministries of environment, transport, health, internal affairs, education, labour, and interested regions and municipalities, the Austrian Chamber of Doctors and NGOs such as Doctors for the Environment. Austria has carried out a public awareness campaign on CEHAP and related initiatives, with a brochure, “A healthy environment for our children”, drawn up with the four ministries, the chamber of doctors and doctors’ NGO. 16 000 copies are being placed in doctors’ waiting rooms and sent to the municipalities”.

**Country experience: Finland**

“We held an open seminar on children, environment and health. Its aim was to discuss threats to children's health caused by environmental factors in Finland and potential actions to improve the situation. There were altogether almost 250 participants, including representatives from environmental, school and other health care, day care, education, science, administration, local political decision-making and NGOs. Using a written questionnaire, the participants were invited to submit their ideas on how to proceed with the preparation of the action plan and their opinions about the most important problems and actions needed in terms of children’s environmental health in Finland”
A representative national forum, such as an interdepartmental steering group (ISG), can channel experiences and information to establish a national line.

- Focus can be maintained in the forum by having subcommittees and a secretariat to develop coherent plans and proposals for consideration by the wider group.

- Consider linking work on CEHAPE to very specific national goals or priorities in the area.

- Consider a “systems-based” approach to pursue both national and CEHAPE goals.

- Engage the health and environmental constituencies and stakeholders early in the process and work to ensure their continued involvement.

- Recognize the social, economic, cultural and behavioural context to many environmental health problems and their effect on health outcomes.

- Establish what is going on through a Scoping Study.

The United Kingdom’s response to CEHAPE is co-ordinated through an ISG which brings together the relevant government departments, representatives of government in Northern Ireland, Scotland and Wales and other agencies that will be involved in delivering CEHAPE Goals. The Department of Health, which chairs the ISG, has given the Health Protection Agency (HPA) a lead role in taking forward aspects of the work in relation to CEHAPE. The ISG also deals with the United Kingdom’s response to the European Union’s Environment & Health Action Plan related to SCALE, the EU strategy on environment and health.

The ISG has capacity to combine relevant scientific and policy expertise on environment and health in a forum that represents the breadth of sectoral and institutional interests. Thus, it can oversee and guide the delivery of CEHAPE within the United Kingdom, but draw on examples of good practice from throughout the United Kingdom and beyond.

Important achievements driven by the ISG and/or its members to date include:

- The commissioning of the CEHAPE Scoping Study to offer a clear picture of work that is relevant to the pursuit of CEHAPE (and SCALE) goals.

- The commissioning of a Human Biomonitoring Scoping Study to determine what national work is in progress, relevant to a European Human Biomonitoring Programme.

- The publication of the HPA’s “Health Protection in the 21st Century” (the Burden of Disease Study). This explores the contribution of environment to human health in England and Wales.


- An evaluation of the 44 environment and health indicators proposed for a European Environment and Health Information System (EHIS).

- Work to scope configuration and content of a United Kingdom Environment and Health Information system, and a strategic approach to Environment and Health.

The Scottish Experience

Scotland is now developing a systems-based Strategic Framework for Environment and Health to pursue an environment that is consistent with and promoting of human health.

Initial priorities (cardiovascular disease and asthma) were chosen because they are important causes of morbidity and mortality in Scotland. Each is a health inequalities issue, in which environment plays an important role.

A new conceptual model has been developed to link environmental factors to health and also the range of factors which bear on the transition from environmental state to exposure to health outcome. A document will be published in Scotland to fully explain the overarching goal, the initial priorities, the general approach, and the core systems of strategy. It will also address the practicalities of delivery.

The United Kingdom plans to use CEHAPE as a driver for a more strategic and effective approach to environment and health for children and for adults.
We affirm the importance of and need for communication with the public at large on environment and health, particularly where the interests of children and other vulnerable groups are involved. We equally emphasize the importance of the participation of children.

(Budapest Conference Declaration paragraph 18a)

It will take active involvement by all groups in society, including governments, local authorities, parents, schools, professionals, trade unions, industry, NGOs and young people, to protect children. Very often the NGOs and other civil society groups hold the key to implementation on the ground. They have members, publications, meetings and many fora at which information about CEHAPE, its aims and policies, can be disseminated, thus increasing ownership and professional, public and community involvement. Every Member State has its own such groups, and many are members of the European Environment Network of the European Public Health Alliance, an international non-governmental organization advocating greater protection of the environment as a means to improving the health and well being of European citizens, and of the European EcoForum, a network of over 200 citizens’ environmental organizations.

Young people
Children and young people should be actively involved in reducing children’s exposure to health hazards. Child-friendly documents should be developed and disseminated, to stimulate debate. Schools should be invited to be involved and young people engaged in dialogue with professionals.

Real youth participation
Ensuring that young people have their say in national plans will make a difference to implementation and Member States are encouraged to involve young people on their planning committees and groups. At Budapest itself, there were youth delegates, a youth parliament and a Youth Declaration. Meaningful, democratic youth participation in decision-making is being developed in the environment and health process itself, as part of a project supported by the Irish National Children’s Office, Norway, the Baltic Youth Forum, the European Youth Parliament and Tunza, the youth wing of the United Nations Environment Programme. All Member States are invited to get involved with this project, whose aim is to ensure that youth delegates have a meaningful mandate to participate as members of the EEHC and the CEHAPE Task Force.

An international workshop on environment and health youth participation, held in Somarka in Norway, March 2006.
Getting the message across

Country experience: Slovakia
“Slovakia has a network of environmental health advisory centres for the public who are interested about information and advice in the environmental health field, for example about drinking water, quality of outdoor and indoor air, environmental noise, etc.”

Communication is essential when you are working across sectors, and will form an part of the plan. It should not be an afterthought when all the meetings have been held. If the media and the public are involved early in the planning, it will enhance the ownership of the plan, because people will understand the need for it, and implementation will become easier. It will also help to raise awareness, which you need if you are trying to get real changes in what people think and what they do. The target audience of communication may be policymakers, industry, doctors, teachers, parents or young people, and close contact and collaboration with them will help to find the best way to reach the audience you need. At Budapest it was agreed to incorporate children’s environmental health issues into professional curricula, so health professionals should be an early participating group.

Because environment and health issues cut across the sectors, they can be edged out by other departmental priorities and be politically weak unless the profile is kept high, thus ensuring that the budgets you need access to are made available. Maintaining a high profile among decision-makers will mean involving the media, the research community and NGOs.

Advocacy, communication, information and education strategies may include holding media briefings on the latest data and issues relating to children’s health and environment, or allowing media access to workshops held on the issues by parents, schools, teachers and doctors.

The Arhus Convention which came into force in 2001, gives the public the right to access environmental information held by public authorities. This can include information on the state of the environment, but also on policies or measures taken, or on the state of human health and safety where this can be affected by the state of the environment. Citizens are entitled to obtain this information within one month of the request and without having to say why they require it. In addition, public authorities are obliged, under the Convention, to actively disseminate environmental information in their possession.

Public information campaigns
At Budapest, countries agreed to disseminate information on children’s environment and health. Build the cost of your programme of communication/education into your project planning and consider the economic benefits gained by the changes of behaviour, opinion or understanding that you seek to bring about.

Tips for strategies
- clarify your audience and how best to reach them including websites, blogs, radio spots etc. How many of us read leaflets?
- define the change you want or risk factor you want to highlight;
- define the messages and make sure they are consistent. No jargon! Make scientific material easy to understand;
- include educators and managers from the beginning, make partnerships;
- involve children and young people as communicators;
- integrate environmental health into professional curricula of health professionals;
- evaluate outcomes and the channels used;
- adopt a professional approach throughout, as you would for other public health topics;

Differences between scientific and advocacy communication

<table>
<thead>
<tr>
<th>Science</th>
<th>Advocacy</th>
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</thead>
<tbody>
<tr>
<td>Detailed explanations useful</td>
<td>Simplification vital</td>
</tr>
<tr>
<td>Qualifications necessary</td>
<td>Qualifications can blur message</td>
</tr>
<tr>
<td>Technical language needed</td>
<td>Jargon confuses people</td>
</tr>
<tr>
<td>Can make several points</td>
<td>One or two strong messages best</td>
</tr>
<tr>
<td>Must be objective and unbiased</td>
<td>Passion based on fact</td>
</tr>
<tr>
<td>Builds case gradually</td>
<td>State conclusions first then support them</td>
</tr>
<tr>
<td>Needs supporting evidence</td>
<td>Too many facts and figures overwhelm</td>
</tr>
<tr>
<td>Haste can destroy credibility</td>
<td>Speed, with accuracy, needed</td>
</tr>
<tr>
<td>Celebrity support irrelevant</td>
<td>Celebrity support may benefit</td>
</tr>
<tr>
<td>Science truth “objective”</td>
<td>Political truth “subjective”</td>
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</tbody>
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Thanks to TB advocacy: a practical guide, 1999 (WHO)
We recommend that effective action should be based on systematic reviews of interventions designed to prevent and reduce risk, whenever this information is available, and built on existing experience and best practices. (CEHAPE paragraph 9)

At Budapest, countries agreed to collect data by using valid and comparable child-specific health and environment indicators.

What is the infant mortality rate and what proportion is associated with environmental risk factors? How many children under 5 years of age are dying from diarrhoeal diseases, or from cancer? What is the prevalence of childhood asthma and is it decreasing? What proportion of children have hazardous blood levels? How effective is a smoking ban in public places in terms of reducing children’s exposure to environmental tobacco smoke? Without data and agreed indicators, it is impossible to answer questions like these, and to monitor how much progress is being made to protect children’s health against environmental hazards.

Work has been going on for some time to establish a set of indicators on children’s health and environment to measure the environmental health risks and effects of interventions as well as to enable international and interregional comparisons to be linked to national assessments.

Country experience: Finland
“The Finnish Register for Congenital Malformations monitors congenital anomalies of live and still-born children under one year of age in order to identify potential new teratogens. The register is national and population-based, run and funded by the National Research and Development Centre for Welfare and Health. This and other registers (birth registry, hospital discharge registry) have been extensively used in epidemiological studies investigating e.g. trends in sex ratio and occurrence of hypospadias in Finland. Finland is involved in international studies on congenital malformations of male reproductive organs. For example, studies are underway to examine associations between selected chemicals (persistent organic pollutants, pesticides, phthalates) and cryptorchidism.”
The Budapest Conference reconfirmed the need for the environment and health information system as an essential tool to support policy-making in this field, enhancing access to information and facilitating communication with the public. Through signing the Declaration, the Member States committed themselves to joining national and international actions with WHO, the European Commission and other international agencies on methodological and technical developments.

A network of collaborating centres for sharing information, expertise and good practice examples benefiting health and environment - an important mechanism to ensure system operation and its relevance for the Member States - has been established. Technical activities involving several Member States are currently being implemented to develop and apply indicators, methods and tools for information generation, analysis and reporting to enable effective transfer of the scientific knowledge about environmental health risks and their prevention and mitigation in the policy debate. Any other Member States who are interested in joining this network of partners and its methodological development are welcome, as this will ensure that the system will maintain relevance to countries across the European Region.

Country experience: Serbia and Montenegro
“The Environmental Atlas of Belgrade has been produced which represents a basis for the balanced determination between quality of the environment and the city spatial-function. The Atlas analyzes and estimates the environment, based on existing data, studies and measurements, validates space from the environmental standpoint, makes environmental zoning of the Belgrade area and estimates optimal intended use of the area in the function of sustainable development. The results of these studies add to the evaluation of the most important environmental hazards and related health consequences in children.”

The indicators on children’s health and environment focus on exposures and related health effects taking into account children’s needs and vulnerability. They also include action indicators, which count policy initiatives that have been taken, such as putting into place policies on child labour, reducing child obesity or the enforcement of legislation to prohibit smoking in public places. More information can be found on the environment and health information system at http://www.euro.who.int/ehiindicators.

Country experience: France
“In France, a national birth cohort study of 20,000 children and their families, is being prepared (action 26 of the NEHAP). The children will be followed from birth to adulthood. This long-term project aims at understanding the links between environmental risk factors and health effects. The enrolment of the cohort will start in 2008 and children will be monitored until they reach adulthood.”

The aim of the European Commission’s contribution to the Budapest Conference, the Environment and Health Action Plan 2004-2010, is to generate the information needed to analyze potential impacts, to assess whether current action is sufficient and to identify areas where new action is needed.
Further resources


Also web-based CEHAPE Action Pack, including the Table of child specific actions on environment and health [http://www.euro.who.int/childhealthenv/Policy/20050629_1]


WHO Regional Office for Europe (2006) Environment and health - an international concordance of selected concepts, Copenhagen, WHO Regional Office for Europe. (in publication)


Websites
WHO’s Children’s Health and Environment Programme website, with special pages on CEHAPE implementation, and Action Pack. [http://www.euro.who.int/childhealthenv]

A country-by-country implementation map, plus activities and plans being developed in Member States on the RPGs, can be found on the website of the European Environment and Health Committee (EEHC) [http://www.euro.who.int/eehc/tryinfo/tryinfo]

Activities of the CEHAPE Task Force, which brings together the Region’s officially designated environment and health focal points can be found at [http://www.euro.who.int/eehc]

European Environment and Health homepage of the European Commission: [http://www.europe.eu.int/comm/environment/health/index_en.htm]

European Environment Network of the European Public Health Alliance, a network of nongovernmental organizations. EPHA has a CEHAPE implementation website. [http://www.cehape.env-health.org]

Audio visual material
Video messages on environment and health: highlights from the WHO/Europe Media Award 2004. (VHS format) Useful for classrooms and meetings; examples of powerful public service announcements made for television. With accompanying script in English and Russian. Write to budapest2004@euro.who.int

Posters on implementation of CEHAPE can be obtained from the same email address or from the Special Programme on Health and Environment, WHO Regional Office for Europe, Scherfigsvej 8, DK2100, Copenhagen, Denmark.

All websites accessed 3 March 2006

Support from WHO
WHO Regional Office for Europe provides not only technical assistance but also tools that can be useful in capacity building in for example, workshops on developing policy on CEHAPE, training in methodology for assessment of burden of disease, training the trainers and media involvement. Contact details overleaf.