

Children's Health and Environment

Training package for the health sector

Improving the capacity to diagnose, prevent and manage paediatric diseases linked to the environment



Interventions for Healthy Environments
Public Health and Environment
World Health Organization

www.who.int/ceh

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A growing number of diseases in children from rural and urban areas are linked to unsafe, degraded environments. However, many health care providers are unable to recognize, assess, prevent and manage environment-related diseases in children.

How should this problem be addressed?

Those on the front line – the health professionals dealing with child and adolescent health – should be enabled to recognize and assess diseases linked to environmental factors. Paediatricians, family doctors, nurses, primary and other health care workers should be trained on the relationships between children's health and the environment through the use of harmonized training materials. These are adapted to the specific needs of countries and professional groups.

What are the benefits of training health care providers?

- Increased understanding about the influence of environmental factors on children's health.
- Improved diagnosis, prevention and management of health and developmental effects.
- Capacity to discuss environmental risks with patients, parents, educators and the media.
- Advocacy skills for sensitizing decision-makers about high priority issues for action.
- Enhanced potential for research and planning interventions.

What is the WHO Training package for health care providers?

The training package is a collection of about 35 modules with internationally harmonized information and peer-reviewed materials that are used to train health care workers and enable them to become trainers. The modules include extensive notes, references and case studies. They are also accompanied by manuals, guidance and self-evaluation instruments. A team of experienced professionals from over 15 countries and select NGOs have participated in the preparation of these materials. The initiative has been supported by: US EPA; UK Department of Health; International Society of Doctors for the Environment; and Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, Germany.

What issues are covered?

- The special vulnerability of children to environmental threats.
- The health and developmental effects of specific chemical, physical and biological hazards (e.g. pesticides, persistent toxic pollutants, lead, arsenic, radiation, noise, moulds) present in specific settings (e.g. home and surroundings, school, recreation areas, workplace, fields).
- Sources, routes and mechanisms of exposure (contaminants in air, water, food, cosmetics, objects, toys and medical devices, that may be inhaled, ingested or absorbed).

How are the training programmes organized and by whom?

- Programmes are organized according to the needs identified by the countries and/or scientific groups concerned and resources available.
- Examples range from a two-day "overview" event to a full 40-hour "intensive" course.
- WHO and its partners provide the initial training and distribution of materials, which are available in English and have been translated into many other languages.

Further information: www.who.int/ceh

List of training modules

Introductory modules

- Why children
- Children are not little adults
- Developmental and environmental origins of adult disease

Health outcomes of environmental exposures

- Cancer
- Endocrine disorders
- Immune diseases
- Neurodevelopmental disorders
- Respiratory diseases

Interventions

- Children's environmental health indicators
- Paediatric environmental history
- Biomarkers and human biomonitoring

Environmental exposures and children's health

- Water
- Sanitation and hygiene
- Chemicals
- Pesticides
- Persistent organic pollutants
- Food safety
- E-waste
- Mercury
- Lead
- Other heavy metals
- Mycotoxins
- Ambient air pollution
- Household air pollution
- Second-hand smoke
- Noise
- Injuries
- Occupational exposure
- Radiation
- Climate change

Sub-package on reproductive health and environment

- Introduction to reproductive health and the environment
- Female reproductive health and the environment
- Case studies of female reproductive health and the environment
- Male reproductive health and the environment
- Case studies of male reproductive health and the environment
- Preventing reproductive health problems