ENHIS
Environment and Health Information System

Marco Martuzzi
Andrey Egorov
Christian Gapp
Parma Commitment 9: “We support the development of the European Environment and Health Information System (ENHIS). We call on WHO… …to continue to assist Member States with the development of internationally comparable indicators…”
ENHIS methodology and contents

www.euro.who.int/enhis

• Monitoring the European Environment and Health Process
• Country level indicators
  ✓ Exposure
  ✓ Health effect
  ✓ Policy action
• Graphs and maps
• Standardized fact sheets in English and Russian
  ✓ International comparisons
  ✓ Temporal trends
Environment and Health Information System (ENHIS)

ENHIS is an evidence-based information system aiming to support public health and environmental policies in the WHO European Region. It produces indicator-based assessments of recognized environment and health priorities for the European Region as a series of comprehensive standardized fact sheets.

ENHIS fact sheets address the four Regional Priority Goals (RPG) identified and reaffirmed by the latest Ministerial Conferences on Environment and Health:

- ensuring public health by improving access to safe water and sanitation (RPG 1);
- addressing obesity and injuries through safe environments, physical activity and healthy diet (RPG 2);
- preventing disease through improved outdoor and indoor air quality (RPG 3);
- preventing disease arising from chemical, biological and physical environments (RPG 4).

Note: Some of the ENHIS features, such as interactive maps, may not be available on all operating systems or browsers.

Related health topics:
- Air quality
- Environmental health
- Food safety
- Housing and health
- Noise
- Occupational health
- Physical activity
- Violence and injuries
- Water and sanitation

Publications

Countries

Health and environment in Europe: progress assessment

Environment and health performance review: Belarus
European Environment and Health Information System (ENHIS)

Select indicator:

Please select!

Please select!

- 1.1 Outbreaks of waterborne diseases
- 1.2 Public water supply and access to piped water sources
- 1.3 Access to improved sanitation and wastewater treatment
- 1.4 Bathing water quality
- 2.1 Mortality from road traffic injuries in children and young people
- 2.2 Mortality in children and adolescents from unintentional injuries
- 2.3 Prevalence of excess body weight and obesity in children and adolescents
- 2.4 Percentage of physically active children and adolescents
- 2.5 Infant mortality from respiratory diseases
- 3.1 Exposure to air pollution (particulate matter) in outdoor air
- 3.2 Exposure of children to second hand tobacco smoke
- 3.3 Children living in homes with problems of dampness
- 3.4 Proportion of children living in homes using solid fuel
- 3.5 Policies to reduce the exposure of children to second hand tobacco smoke
- 3.6 Exposure to ozone in outdoor air
- 4.1 Incidence of childhood leukaemia
- 4.2 Incidence of melanoma in people aged under 55 years
- 4.3 Persistent organic pollutants (POPs) in human milk
- 4.4 Exposure of children to chemical hazards in food
European Environment and Health Information System (ENHIS)

Select indicator: 3.3 Exposure to air pollution (particulate matter) in outdoor air
Select subindicator: 1. Percentage of people living in cities with various PM10 levels in μg/m³
Select type: Bar
Select period: 2009
Select area: All selected

ENHIS Home | Contributors
Data sources:

EEA (PM10 monitoring)

EUROSTAT (population)
Data sources for existing ENHIS indicators

- EUROSTAT
- European Environment Agency (EEA)
- European Centre for Disease Control (ECDC)
- WHO databases (HFA MDB, GLOBOCAN)
- WHO/UNICEF Joint Monitoring Programme
- UN Economic Commission for Europe (UNECE)
- National data sources
- International surveys (WHO POPs, ISAAC, HBSC, GYTS)
New indicators for Parma monitoring

- Nov. 2010 (Bonn) – proposed new indicators
- Apr. 2011 (Bonn) – indoor air quality indicators and school survey design (funded and co-organized by Joint Research Centre)
- Sep. 2011 (Bonn) – methodologies of new indicators
- Apr 2012 (Catania, Italy) – human biomonitoring survey design and indicators
- Jun 2012 (Hague, the Netherlands) – the European Environment and Task Force approved the proposed survey
- Oct. 2012 (Bonn) – organization of data collection for new indicators
<table>
<thead>
<tr>
<th>Commitment</th>
<th>Existing ENHIS indicators</th>
<th>Proposed indicators</th>
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| i. On decreasing the incidence of acute and chronic respiratory diseases through the reduction of exposure to ultrafine particles and ground level ozone | 3.1 Prevalence of asthma and allergies in children  
3.2 Infant mortality from respiratory diseases  
3.3 Exposure to PM10 in ambient air  
3.8 Exposure to ozone | Exposure & health effect  
Policy actions  
Survey in schools  
Biomonitoring survey |
| ii. On developing cross-sectoral policies to reduce indoor pollution and to ensure clean and healthy energy solutions in homes and public places | 3.5 Population living in homes with problems of damp and mould  
3.6 Proportion of children living in homes using solid fuels | P_3.6 Policy to improve air quality in schools |
| iii. On providing each child with a healthy indoor environment in child care facilities, kindergartens, schools and public recreational settings; and ensuring that these are tobacco smoke-free by 2015 | 3.4 Children’s exposure to second-hand tobacco smoke  
3.7 Policies to reduce exposure of children to second-hand tobacco smoke | P_3.2 Policy to prevent smoking in schools and on school grounds  
P_3.1 Children smoking in schools  
P_3.3 Exposure to dampness and mould in schools  
P_3.4 Exposure to insufficient ventilation in classrooms  
P_3.5 Exposures to selected indoor air pollutants in classrooms  
P_3.7 Children’s exposure to tobacco smoke (cotinine in urine) |
Exposures in schools – new data collection in volunteering MSs

Stratified (urban/rural) clustered randomized survey

- Ventilation rate in classrooms
- Exposure to mould/dampness
- Exposure to NO2, formaldehyde and benzene
- Smoking in school and on school ground
- Access to proper sanitary facilities
- Hygiene practices in pupils
- Mode of transportation to school

WHO role:

- Standardized methodology
- Facilitate training and technical assistance
- International data compilation and reporting
CO2 exposure summary by country (ppm)
Accessibility of urban green spaces indicator – Utrecht, The Netherlands

Data: city population and green spaces

GIS: define buffer around green spaces

228,000 out of 268,000 people (85%) live within 300 m distance of a green space

Data and analysis of W. Swart, H. Kruize and B. Staatsen (RIVM)
Developing ENHIS – plan for next 12 months

Incorporate indicators based on unique data and standard tools:

• Publish new indicators of exposure in the school environment
• Publish new indicators of early life exposure to selected chemicals
• Finalize and publish data analysis tools, SOPs and survey protocols
• Publish new indicators based on statistical analysis of existing data (access to green spaces, exposure to pollen, etc.); publish data analysis tools.
Plan for next 12 months (continuation)

• Provide technical support to national EHI systems (training workshop in EST in Jan 2014, etc.)
• Wrap up technical support to school surveys and publish reports and manuscripts
• Complete the HBM survey methodology and facilitate national surveys (HRV, RUS, SRB, other MSs)
• Contribute to the UNEP/WHO project on mercury
• Assess urban green space accessibility and its health effects in collaboration with other programmes
• Improve the visibility of ENHIS in the Internet, advertise the system, re-evaluate the usage data
Operating ENHIS

- Highly demanding in manpower both with existing data and collected ones
- Informative vs complete coverage data
- High resolution vs standardised data
- Region-wide reports and assessments developed ad-hoc (e.g., Mid-Term Review 2015)
- Increasing demand for professional packaging
Current discussion

- Gradually decrease efforts on customer-oriented service and invest in producing original assessments and evaluations
  - Conduct assessments of risk, impact, burden of disease of specific environmental factors
  - Conduct statistical analyses of data from existing national and international sources, identify priority for data collection, evaluate EH policies