

The EU and Air Quality – protecting health & environment

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Overview of presentation

- About HEAL
- Air pollution – sources and health effects
- EU air quality law
- What you can do

About HEAL

Working for better health through a healthy environment

HEAL is an international non-profit alliance based in Brussels.

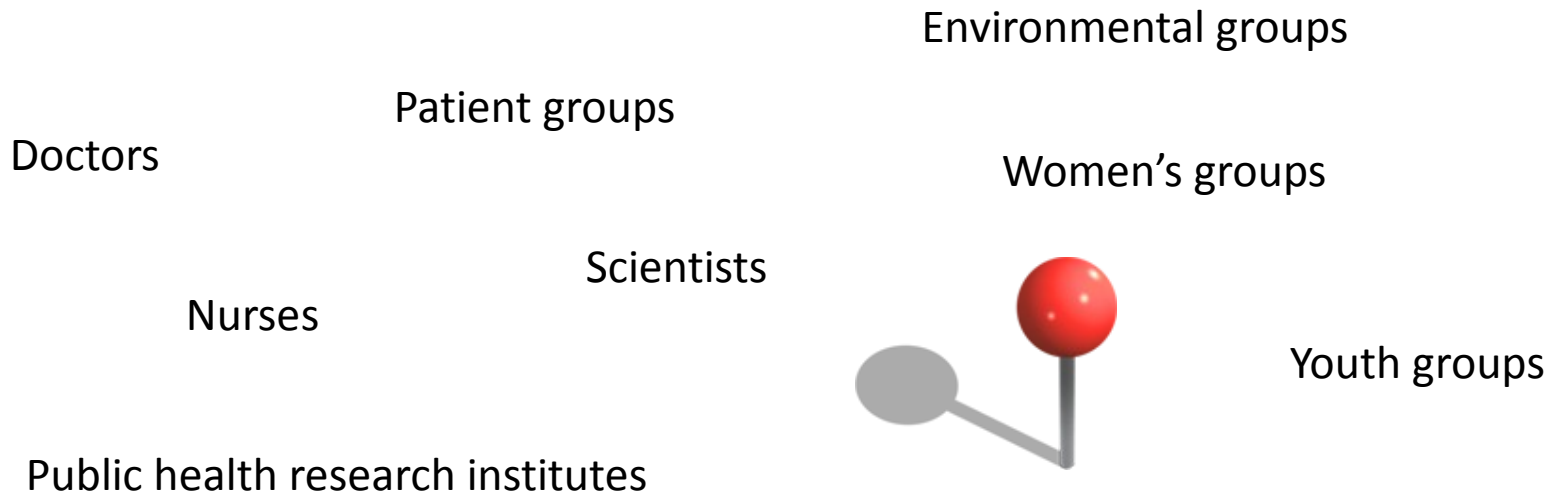
We raise awareness of how environmental protection improves people's health, and works to strengthen European policies.

We aim to create better representation of expertise and evidence from the health community in decision making processes.



An international alliance

Over 67 members in 30 different countries



A platform for collaboration

Creating synergies & advocating for stronger policies at EU and international level



What we do

- **Analyse** the latest scientific evidence and collaborate with scientists and scientific networks
- **Advocate environmental protection policies** and identify policy opportunities as a means to improve people's health
- **Collaborate with** HEAL members and other stakeholders across all sectors on key environment and health issues.
- **Enhance** public awareness of environment and health links and encourage participation



Sources of air pollution

Air pollution is local, European and transcontinental problem

- Agriculture
- Energy
- Transport
- Industry
- Waste
- Households etc.

Common air pollutants

Main Air pollutants:

- Particulate matter PM (PM 10 and PM 2.5)
- Ground-level ozone
- Nitrogen dioxide NO₂
- Sulphur dioxide SO₂
- Volatile organic compounds VOC
- Ammonia, CO

Health effects of air pollution

Health Effects of air pollution:

Effects range from acute to chronic, from mild to fatal

- Respiratory diseases: Asthma, Allergies, Lung disease COPD
- Cardiovascular disease: heart and blood vessels
- Cancer: Lung, breast
- Link to premature birth, diabetes
- Affects quality of life (going out, physical activities, restricted work days)

Vulnerable groups

- Children are particularly vulnerable to air pollution
 - People already suffering from asthma or COPD particularly affected
 - WHO 2010:
Asthma has become the most common chronic disease in children, is major cause of hospitalisation for under 15 year olds
- In the EU, 1 in 4 children have allergies



How big is the problem?

Air pollution is a major public health issue, which has huge impacts on personal health and well-being but also on healthcare budgets

In the EU, 450.000 people die early each year because of air pollution; for each citizen loss of life expectancy of 8 months

Estimated health costs: between 277 – 790 billion EUR

APHEKOM: assessing air pollution in 25 EU cities



Environmental Burden of Disease

WHO Environmental Burden of Disease

2005:

More than 2 million premature deaths each year in the world because of outdoor and indoor air pollution

WHO Air quality guidelines to protect health

2006 assessment:

Globally, 25% of all deaths and disease burden because of environment

For children, even 1/3.



Challenges air quality

- Climate change and air pollution
Changes in weather conditions
- Combined effects: noise and air pollution

Summing up Part 1

- Air pollution a major public health concern and important factor for chronic diseases which are on the rise in the EU
- Air pollution has a range of health effects and impacts on our quality of life
- Children and other vulnerable groups are of particular concern

EU: Protecting environment and health

- 80% of national environment legislation is decided in Brussels
- Air quality has been EU focus for years, there are improvements, but we're not yet at level of no effects for health and the environment
- Obligations by EU Treaty (objectives and guiding principles)
- Current goal for air pollution stated in 6 EU Environment Action Programme EAP



Overview EU Air Quality Law

- Tackling air pollutants emission at source
 - NEC Directive
 - Industrial Emissions Directive
 - Mobile sources: cars, ships, NRMM
- Tackling air pollution concentrations
 - Ambient Air Quality DR

NEC – National Emissions Ceilings Directive

- DR 2001/81/EC sets limits that is emission ceilings for SO₂, NO_x, VOC and Ammonia
- These ceilings are legally binding
- Reductions of annual emissions in kilotonnes which are to be achieved by 2010
- EU Member states can decide how they'll achieve these goals

Need for a new NEC

- Cost-benefit argument: benefits outweigh costs by 50 times
- Current national ceilings not enough to protect E&H
- We need new level of ambition, as MS already achieved most ceilings
- Delaying NEC will increase costs for implementation
- NEC will help to achieve climate and biodiversity policy

IED – Industrial Emissions Directive

- DR 2010/75/EU, entered into force 6 Jan 2011
- brings together Directive on Integrated Pollution prevention and control, Directive on Large Combustion Plants and others

Mobile Sources

- Non-road mobile machinery
- Fuel Quality: Euro standards (emission limits for vehicles)
- Ships: DR on sulphur content of marine fuel (DR 1999/32/EC)

EU Ambient Air Quality

Directive 2008/50/EC sets limit or target values for air pollutants PM10, PM 2.5, SO₂, NO₂, Ozone, Lead, CO, Benzene, Ozone,

Full transposition on 11 June 2011

Air Quality Standards

- PM 10 limit value: 40 $\mu\text{g}/\text{m}^3$ annual mean; 50 $\mu\text{g}/\text{m}^3$ for 24-hour mean on not more than 35 days
- NO₂ limit value: 40 $\mu\text{g}/\text{m}^3$ annual mean; 200 $\mu\text{g}/\text{m}^3$ for 1-hour mean with max. 18 exceedences
- SO₂ limit value: 125 $\mu\text{g}/\text{m}^3$ 24-hour mean with max. 3 exceedences; 350 $\mu\text{g}/\text{m}^3$ 1-hour mean with max. 24 exceedences
- PM 2.5: 25 $\mu\text{g}/\text{m}^3$ annual mean limit value in 2015
- Ozone: 120 $\mu\text{g}/\text{m}^3$ 8-hour mean, max 25 days exceedences over 3 yrs. is currently target value

EU values and WHO air quality guidelines

- 2005 WHO air quality guidelines

Pollutant	EU Ambient Air Standards	WHO Guideline
PM 10	40 ug/m ³ annual mean 50 ug/m ³ 24 hours	20 ug/m ³ annual mean 50ug/m ³ 24-hour mean
Nitrogen Dioxide NO ₂	40ug/m ³ annual mean 200 ug/m ³ 1 hour	40 ug/m ³ annual mean 200 ug/m ³ 1 hour mean
Sulfur Dioxide SO ₂	125 ug/m ³ 24 hour mean 350 ug/m ³ 1 hour	20ug/m ³ 24-hour average 500 mg/m ³ 10 minute mean
PM 2.5	25 ug/m ² annual mean	10ug/m ³ annual mean 25 ug/m ³ 24 hour mean
Ozone O ₃	120 ug/m ³ 8 hour mean	100 ug/m ³ for 8-hour mean

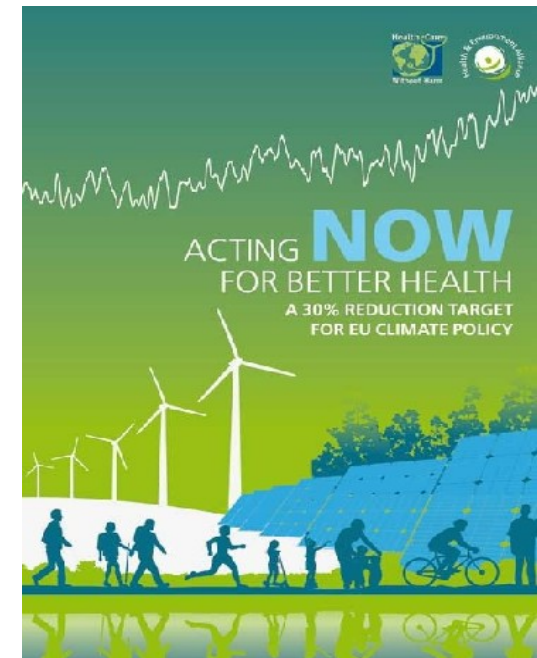
Integrating air quality into other EU policies

Climate change mitigation:

Higher EU goal for reducing GHG emissions for 2020
will bring important clean air benefits

Health in all policies: Initiative on healthy
Ageing

Integration into agriculture, transport policy



Summing up Part 2

- There are a number of EU laws in place to address air pollution emissions at source and in ambient air with which national governments have to comply
- We have seen improvements in air quality, but much remains to be done
- We need ambition at all levels: local, national, EU

What can you do?

- Meetings with decision-makers
- Letters to politicians
- Articles in the media
- Website + videos
- Actions

Know your air for health

www.Know Your Air For Health.eu

To help communicate EU air quality information and alerts to allergy, asthma and COPD patients in Europe



Know your air for health



European Federation of Allergy and Airways Diseases Patients Associations



- Health effects
- Your right to cleaner air
- Useful links



This website provides citizens with information on national and local air pollution in Europe. It also offers useful links and references on how to find information about action aimed at improving air quality at the national level and in your local area. The text is particularly intended to meet the needs of those considered susceptible to air pollution.

English (en)

- English (en)
- Italiano (it)
- Suomi (fi)

Find your local respiratory health forecasts:

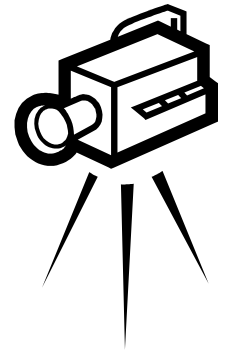


"Know your air for health" is a joint project by the [Health & Environment Alliance \(HEAL\)](#) and the [European Federation of Allergy and Airways Diseases Patients Associations \(EFA\)](#).

Our main objective is to help communicate EU air quality information and alerts to allergy, asthma and COPD patients in Europe.

Protecting children's environmental health since 2003

- **A youth-led award-winning video** – enabling young people to express their concerns about environmental pollution and their health. Screened in front of 2,000 European policy makers at the opening of WHO's 4th Ministerial Conference on Environment and Health in Budapest, 2004.



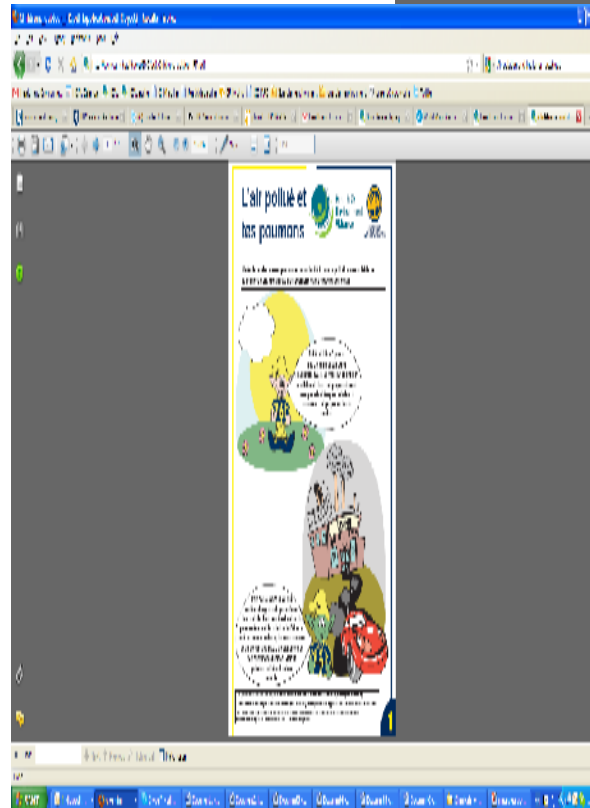
- **Children's Environment and Health Action Plan for Europe (CEHAPE), launched in Budapest by WHO.** Since 2004, HEAL has played a key role in development and implementation CEHAPE.

Factsheets

Produced by HEAL+ELF

Available in English, French,
German and other languages

Adult +
children's version



Run for Clean Air

Brussels, October 2010



Keep in touch

- HEAL monthly Newsletter
- HEAL website: www.env-health.org
- Become a **member** or **individual supporter** of HEAL, or **advising scientist**.



Thank you

Any Questions?

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