EU policies for the prevention of allergy-related disease

ATOPICA meeting
5 – 6 March 2015
Brussels, Belgium

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Health & Environment Alliance : www.env-health.org
HEAL’s member network

>70 organizations in 28 countries

Doctors associations
Patient groups
Nurses associations
Public health institutes
Research institutes
Not-for-profit health insurers
Women’s groups
Youth groups
Environmental groups

Promoting environmental policy that contributes to good health
Broad scientific network and collaborations

• Collaborative on Health and Environment (CHE)

• WHO (particularly the European Center on Health and Environment)

• United Nations Environment Programme (UNEP)

• United Nations Framework Convention on Climate Change (UNFCCC)
Why should we care about air pollution?

Ecosystems

Human health

Carbon dioxide

Nitrogen oxides

Ammonia

Sulfur oxides

PM

Source: EEA
Air Quality – Good news

- Decision-makers have for a long time worked to tackle air pollution, with the understanding that pollution knows no borders
- First EU laws in the 1970s
- Today range of EU laws on
  - ... sources, e.g. vehicles, industrial emissions
  - ... curbing emissions overall, e.g. NEC
  - ... setting ambient air quality limits
  - ... international agreements – LTRAP
- Clean air goal in EU environmental programmes, clean air strategy
Air Quality – bad news

- Air pollution continues to be a major health problem, has environmental impacts, so is also of major concern for the economy.

- 430,000 premature deaths in the EU-28 in 2011.

- Economic cost for 2010: 330 – 940 billion EUR (3-9% of EU’s GDP)

  - including 15 bn EUR lost working days, 4 bn EUR healthcare costs (chronic bronchitis)

- Environmental cost: crop yield losses 3 bn EUR, damages to buildings 1 bn EUR.
Air Quality – bad news

**Today's air quality in Europe today**

- **Health & Environment Impacts**
  - > 400,000 premature deaths each year (10 times the amount of people dying prematurely in traffic)
  - > 30% EU citizens exposed to air pollutant levels above EU standards
  - > 90% EU citizens exposed to air pollutant levels above WHO guidelines

- **Socio-Economic Impacts**
  - External costs: €300-900 billion
  - 436 million restricted activity days (incl. 121 million lost workdays)
  - Direct economic costs: €23 billion (€15bn lost workdays, €4bn healthcare costs, €3bn crop yield loss and €1bn damage to buildings).

Source: EEA

Source: EU Commission / EEA
Air Quality – latest science

- WHO REVIHAAP
- UN Agency on Cancer: Air pollution and lung cancer

What can be done?

EU Clean Air Policy package, December 2013

- Communication on Clean air programme
- Revised Directive on National Emissions Ceilings
- Directive on medium-scale combustion plants
- Council Decision on Gothenburg protocol

http://ec.europa.eu/environment/air/clean_air_policy.htm
National Emissions Ceilings Directive

- Proposal for a Directive on the reduction of national emission ceilings of certain atmospheric pollutants and amending DR 2003/35/EC (COM 2013 920 final)

- National emission reduction commitments for six pollutants: PM, SO2, Nox, VOCs, ammonia and methane – for 2020, 2025, 2030

- Only instrument that addresses transboundary pollution

- Negotiations 1st half of 2015: European Parliament and Council –

  ENVI vote July 15, Progress report Council June 15
NEC needs to be made stronger

- Ambition level: clean air by 2030
- Inclusion of all major pollutants and sectors
- Addressing ambient air quality

NGO position paper:

Climate Change

- Key issue on EU’s policy agenda
- 2020 Climate and Energy Package:
  - 20% GHG emissions
  - 20% share of renewables
  - 20% improvement in energy efficiency
- Commitments for 2030
- Paris COP21 in Nov/Dec 2015: binding international agreement, it’s a public health agreement
- Addressing win-wins for health and the climate

“Climate change is the biggest global health threat of the 21st century”
The Lancet, May 2009
Energy, Climate change and health

- EU 3rd largest GHG emitter worldwide (of around 10% of total global emissions; ① China 20%, ② USA 15%)
- Largest share comes from energy sector
- Fossil fuel still dominates energy mix
- Coal power plants lock in GHG and air emissions
- 47 new coal-fired power plants projected for EU+86 Turkey+36 Balkan countries and Ukraine

http://endcoal.org/plant-tracker/
The Unpaid Health Bill

• First ever economic assessment of coal’s impact on health for Europe
  • Numbers for the EU as a whole and for specific countries
    • EU27 up to €42.8 billion per year
    • Europe (including Croatia, Serbia, Turkey) €54.7 billion per year
  • Launch at EU level & national launches in Germany, Poland: more than 160 articles in media coverage in EU and globally
  • Many requests from national and local health groups for this kind of evidence

available in English, Romanian, German and Polish; Turkish coming soon
The Unpaid Health Bill

- 18,200 premature deaths
- 8,580 cases of chronic bronchitis
- 4.1 million lost working days
- 5,500 hospital admissions
- 2.1 million days of medication
- 28.6 million lower respiratory symptoms

How inhalation of particulate matter may affect our health

Lungs
- Inflammation
- Oxidative stress
- Accelerated progression and exacerbation of COPD
- Increased respiratory symptoms
- Effected pulmonary reflexes
- Reduced lung function

Brain
- Increased cerebrovascular ischemia

Heart
- Altered cardiac autonomic function
- Oxidative stress
- Increased dysrhythmic susceptibility
- Altered cardiac repolarisation
- Increased myocardial ischemia

Blood
- Altered rheology
- Increased coagulability
- Translocated particles
- Peripheral thrombosis
- Reduced oxygen saturation

Vasculature
- Atherosclerosis, accelerated progression and destabilisation of plaques
- Endothelial dysfunction
- Vasoconstriction and hypertension

Figure 2: Exposure to particulate matter (PM$_{2.5}$) causes a multitude of health impacts
Adapted from source: Aphelikon project (2012) Summary report of the Aphelikon project 2006-2011
Engagement of health sector

• Kolkata call to action
  - rapid phase out of coal
  - divestment from fossil fuels
  - transition to renewable energy
  http://www.wfpha.org/images/events/150216_Kolkata_Call_to_Action_FINAL.pdf

• Opportunities at EU and national level
  - EU Energy Union
  - National climate mitigation and energy strategies
Ten principles for clean air

Breathing in dirty air has immediate effects – such as coughing and wheezing – but recent research shows that the long-term effects of polluted air on health are far greater. Asthma and lung diseases such as Chronic Obstructive Pulmonary Disease (COPD) can be a consequence of the air we breathe.

As European organisations representing asthma, allergy, chronic obstructive pulmonary disease (COPD) groups, and medical, scientific and health experts from across Europe, the European Federation of Allergy and Airways Diseases Patients’ Association (EFA) and the Health and Environment Alliance (HEAL) call on decision-makers at the local, national and European level to support stronger air policies that protect our health from air pollution.

http://www.knowyourairforhealth.eu/
Thank you for your attention!

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