Health aspects of indoor air quality

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The European Federation of Allergy and Airways Diseases Patients’ Associations (EFA) is a non-profit network of allergy, asthma and COPD patients’ organisations, representing 35 national associations in 22 countries and over 400,000 patients in Europe.
22 European countries
35 member organisations
representing over
400,000 patients & carers
EFA is dedicated to making Europe a place where people with allergy, asthma and COPD:

→ Have the right to the best quality of care and safe environment
→ Live uncompromised lives
→ Are actively involved in all decisions influencing their health
“Giving voice to patients with asthma, allergy and COPD in Europe”

1. Advocacy:
   - Represent patients towards EU decision makers
   - Allow for constructive participation in EU policy formulation

2. Communication:
   - Follow up and communicate EU policy developments to members
   - Share best practices

3. Project management:
   - Represent patients in EU funded research and health projects
→ In OECD countries, people spend on average 90% of their time in indoor environments.

→ Under the principle of the human right to health, everyone has the right to breathe healthy indoor air (WHO, The Right to Healthy Indoor Air, 2000)

→ Several sources of pollution regularly breach such a right:
  - Outdoor air: combustion, industrial pollution, traffic, pollens → causing 50% of IAQ burden of disease (EnVIE project)
  - Building: building materials, furnishing, equipment, consumer products
  - Ventilation system: ventilation, air-conditioning
  - Humans: occupants and their activities
IAQ responsible for 2 million healthy life years lost annually in 26 EU MSs (IAIAQ project)

Figure 1. Burden of disease at the baseline (2010) in EU-26 divided into indoor and outdoor source components (left) and fractions associated with different diseases (right).
**Rationale:** People with allergy and respiratory diseases are particularly affected (first to react and worsening of symptoms)

**Sources:**
- Smoking
- Unvented heating and cooking systems
- Household chemicals
- Ground on which buildings are built (radon)
- Building materials
- Heating and cooling
- Bedding and furnishings
- Moisture and dampness
- Pets

**Lung effects:**
- Irritated nose and throat
- Worse asthma symptoms
- Increased chance of respiratory symptoms such as cough
- Lower lung function
- Worse COPD
- Lung cancer

**Lung effects:**
- Carbon monoxide poisoning and death
- Difficulty breathing (dyspnoea)
- Intoxication
- Pneumonitis
- Inflammation of the lung airways
- Shortness of breath
- Allergic reactions
- Nasopharyngeal cancer
Joanna Bottema – Astmafonds (The Netherlands)

“Fragrances are increasingly being used in places frequented by the public, for instance in department stores, and in the rest rooms of hotels, restaurants and some companies. Another aspect of this trend is the habit of making the fragrance of detergents long-lasting – a disaster if you have asthma and someone near you is using such products! This pungent odour (and the additives) makes it hard for people with (allergic) asthma to remain in the vicinity. They are forced to leave or in the best case to take more medication to be able to stay.”

EFA Book on Respiratory Allergies: Raise Awareness, Relieve the Burden

Patient groups should not be forgotten as partners in IAQ issues!!!
Poor indoor air quality mistakenly believed to be a private problem

**Therefore**

No proper legislative text adopted on IAQ...

- EU Expert Group on IAQ established by DG SANCO in 2006
- Energy Performance of Building Directive (EPBD, 2010) and Construction Products Regulation (CPR, 2011) mention IAQ: although buildings and construction materials should guarantee a good quality of the indoor air, nothing binding is established

...although EU research and public health funding allocated to IAQ projects
IAQ under the Second Public Health Programme

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**HealthVent** provides health-based ventilation guidelines for non-industrial buildings taking into consideration energy efficiency.
→ Janez Potočnik, Environment Commissioner: **2013 EU Year of the Air**
→ 4-7 June 2013: Green Week “**Cleaner air for all**” – session on IAQ
→ **EU air legislation** to be reviewed in September 2013
→ Launch of **JRC website dedicated to IAQ**
→ **Third Public Health Programme** triadologue

Possible actions funded: actions on **internal and external air pollution related to communicable and non-communicable diseases**
→ **Seventh Environment Action Programme** EP plenary vote

Under priority objective 3 (safeguarding health and well-being of EU citizens):

- Outdoor and indoor air quality in line with [WHO recommended levels and guidelines](https://www.who.int/safewater/publications/indoor-air-quality/en/)
- Developing an EU strategy for indoor air quality

Under priority objective 8 (sustainability of EU cities):

- Integrated construction approaches covering environmental and energy performance, safety, health, user requirements, innovation and economic competitiveness

→ **IAQ projects presentations at the EP**

- Executive summary of [HealthVent](http://healthvent.eu) – Guidelines for Health-Based Ventilation in Europe expected before summer
- Preliminary results of [Sinphonie](http://sinphonie.eu) – Final results expected soon
Inclusion of requirements for indoor air quality in the national regulations of all European countries

Inclusion of indoor air quality auditing in the future recast of EPBD

Harmonised construction products labelling criteria

Common regulation in Europe on health-based ventilation rates, which would harmonise calculation practice among countries

European guidance on proper scope, design, construction, maintenance and inspections of ventilation systems
Recommendations – Patients’ perspective

- Development of new EU policies promoting sustainable buildings considering distance with industry, big roads, etc.
- Labelling of consumers products
- Establishing national indoor air quality help-lines
- Banning of smoke in all public places
- No fragrance or scents in public buildings
- Separate heating and ventilation systems (reducing ventilation, not turning it off)
Thank you for your attention!

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