











(Sweden has 1.5 million children up to the age of 12)

Social September 1 100 Septemb

What did we ask about?

About 100 questions concerning:

- · Health (health status, allergies, symptoms from the airways)
- Family (education, smoking habits, pets)
- · Home facts and conditions
- Annoyance to smell and exhaustsHearing and exposure to noise
- Sun protection









Diseases where little is known about the influence of environmental factors

- Malformations
- Effects on the central nervous system
- Cancer
- Hormone disruption





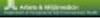


Allergic diseases

- · The number of children with allergy has doubled over the last decades
- · Both lifestyle and environmental factors
- Indoor and outdoor pollutants, passive smoking, furbearing pets, pollen and moulds, nickel and other chemical products are important
- 25 % of Swedish children have ecxema, asthma, hay fever or food allergy
- 6 % has asthma. Many of them report symptoms from air pollutants, odours and smell







Indoor environment

- 19 % of families report damp or mould damage in
- > 1,000 cases a year of lower airway symptoms in children up to the age of 4 (infant asthma) can be linked to damp problems in the home
- Adequate ventilation in schools is important
- 5 % of children are exposed daily to tobacco smoke
- >500 cases a year of infant asthma and > 500 cases of ear inflammation are caused by parents smoking



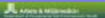




Ambient air pollution

- Air quality in Sweden has improved. Road traffic and small-scale wood burning are major sources
- Air pollutants inhibit the development of children's lungs (2-fold increased risk in inner-city children in Sweden)
- Symptoms in the airways are likely to occur
- · Children with asthma are a particularily vulnerable group





Metals

- · Methyl mercury
 - Dietary recommendations due to high concentrations in fish from Swedish lakes
 - Unborn children are especially vulnerable to CNS
 - Small safety margin
- - Blood lead levels have decreased.
 - Still relatively small safety margin (2-5) to CNS effects in unborn children

(Cadmium, Arsenic, Copper)





Persistent organic pollutants

- Dioxins and PCB
 - Dietary recommendations due to high concentrations in Baltic fish
 - The general population in Sweden is exposed to levels close to subtle effects on foetal development
 - Unborn children are particularily vulnerable
 - Breastfed babies have the highest exposure. Still, breastfeeding is recommended

(Brominated flame retardants, phthalates, alkyl phenols)







Noise

- 10 % of all children sleep in bedrooms exposed to traffic noise. 3 % report difficulties falling asleep.
- 25 % of 12-years-old report discomfort by noise in or near the school.
- · In kindergartens and schools, noise levels can exceed working limits
- The noise sources that produce discomfort in most 12-vears-olds are noise from other children and loud
- 3-4 % of 12-years-old children report that they have







lonising and non-ionising radiation

- Radon
 - 200,000 children live in homes with radon levels above 200 Bq/m3 (the Swedish guideline value)
- · UV radiation from sunlight
 - Causes 80-90 % of all skin cancer in Sweden
 - The skin of small children is especially vulnerable
- · Electromagnetic fields

 - living close to powerlines (<1 case per year in Sweden)
 The use of mobile phones is increasing. Very limited support for any health risks. Effects of long-term exposure are hard





