

# Visibility of NGO's in children's environmental health



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# Topics

*State of knowledge*

*Risk assessment*

*Training & capacity building*

*Policy & advocacy building*

*Research*



# State of knowledge

European Children's Environmental  
Health Impact assessment

What do we know?

What would we like to know?



# State of knowledge

163 million children in Europe

Where do they live? 70% urban

Where are they? 90% time indoors



# Risk

Natural risk due to background levels  
(radiation, fine particles, noise)

Additional risk due to man-made products,  
Activities, incidents



# Effect

Due to background man-made levels:

**baseline effect** on entire population

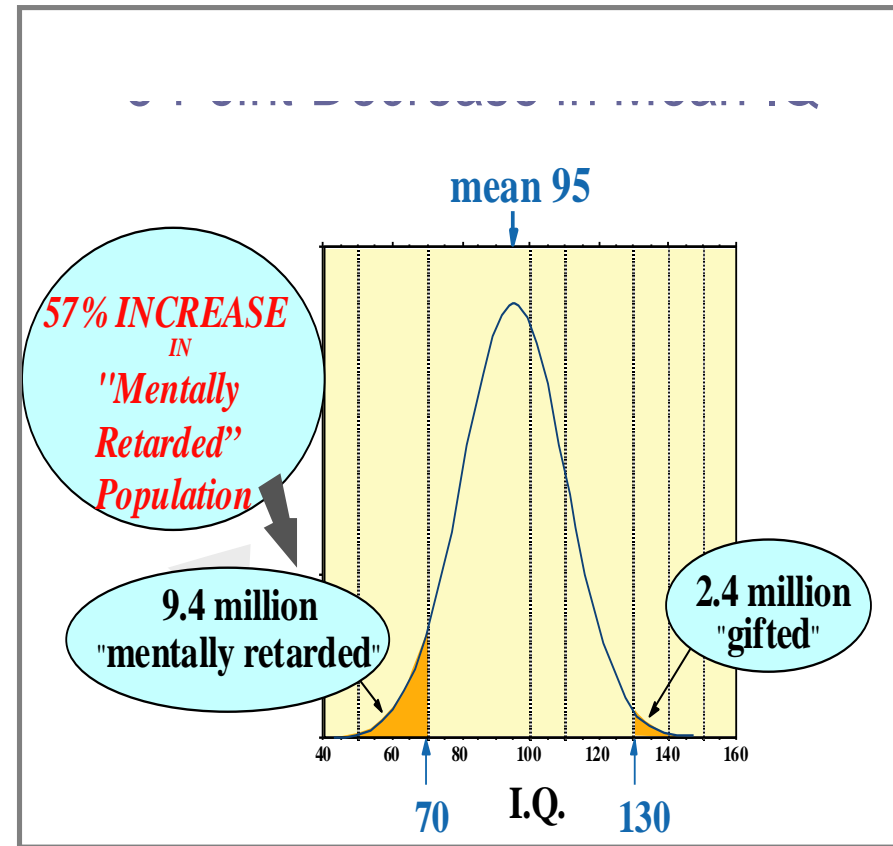
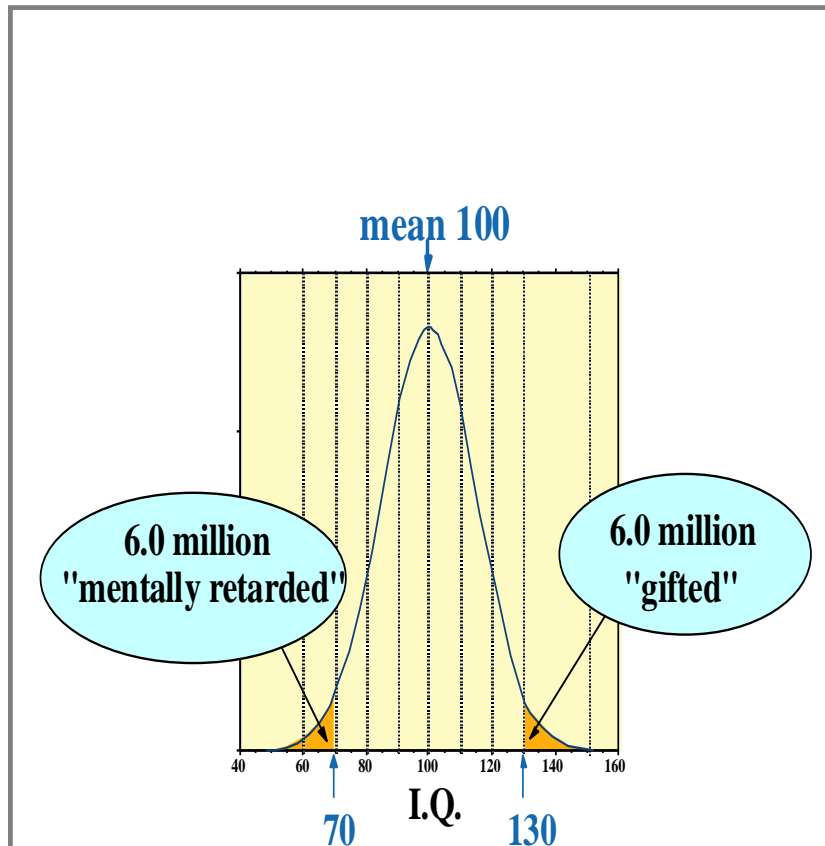
(natural radiation + man-made radiation,  
natural fine particles + man-made particles)

**Additional effect** due to extra exposure via  
different media

- time dependent
- location dependent



# SIGNIFICANCE OF 5 POINT IQ REDUCTION



[www.prwventingharm.org/execsum.html](http://www.prwventingharm.org/execsum.html)

Schettler, GBPSR, 2000

# Children's Exposure

## *What we know*

Water

drinking water levels

Air

background levels of most  
common compounds  
outdoor air

Soil

at contaminated sites

Food

levels for range of chemicals

Physical factors

data at high spots



# Children's Exposure

*What we do not know*

Water

drinking water levels private wells,  
compounds under detection level  
limited number compounds tested

Air

levels at child's height;  
uneven burden of exposure;  
carcinogens in air



# Children's Exposure

## *What we do not know*

Soil	bioavailability of many compounds impact of dust
Food	interaction chemicals burden with persistent chemicals
Physical factors	noise levels in many settings, eg kindergarten, schools, cars radiation level: travel, buildings



# Dose response

*What we do know and not know*

Examples with good information: lead  
But not for bio-availability of different  
combinations

Particulate matter

But not for particle size or composition



# Risk characterisation

Calculation of intake compounds via different

Media (air, water, soil, food)

Body burden

Burden of disease study WHO:

- Outdoor air pollution
- Indoor air pollution
- Water, sanitation and hygiene
- Lead
- Injuries



# Risk characterisation

Burden of disease study WHO different regions:

Attributable to 5 environmental risks:

One third of total disease burden

21.9 – 26.5 % of all deaths in children 0 – 4 years

5-14 years old: 42.1% of all deaths

15- 19 years old: 59.9% of all deaths

Other environmental risks?



# Costs

Money spent on:

- Treatment -> side effects -> additional treatment
- Days missed at school/work -> less qualified children -> lesser job opportunities -> lesser SES
- More health care time needed -> more facilities needed
- Disabilities -> special schooling -> more care



# International aspects

## *Training & capacity building*

Project (CHEST) on training material development (in cooperation with WHO) but also Pediatric Speciality Units

Universities involved in implementing CEH in curricula - European training proposal



# International aspects

## *Policy & advocacy building*

PINCHE network on bridging science and policy

INCHES as information & advocacy network

HECA (WHO secretariat) as worldwide alliance of organisations and member states



# International aspects

## *Action plan*

WHO/Europe: Children's Environment

Health Action Plan – National plans

EU: Action Plan Environment & Health



# International aspects

## *Research*

Focus on exposure data collection

Focus on combined effects

Focus on cost-benefit analysis



# International aspects

## *Needs*

Lower the burden of disease

Participation of other medical professionals

Integration of health and environment  
in daily (health care) practice

Support for transboundary programmes



# Visibility NGO's

## *Participation*

In EU/WHO arena has improved for larger NGO's

In research area role of initiator

Participation of other medical professionals limited

Advocacy / expert role limited

