

CHILD HEALTH AND THE ENVIRONMENT: RESULTS FROM EU FRAMEWORK 5

Implementation Group (IG) on Human Biomonitoring (HBM)

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19 EU countries and 21 organisations & institutions

www.eu-humanbiomonitoring.org

End of 2006: launch of the EU pilot study!

Decision (extent and content):

Member States (national funders of HBM programmes)
EU Commission

Step by step procedure

IG prepares recommendations

Consultative Forum*

*includes Member States, European bodies (European Environment Agency, European Food Safety Authority), Networks of Regional and Local Authorities and a broad community of European-wide Stakeholder Organisations: Civil Society, NGO, Research, Industry and International Organisations (World Health Organisation)

RECOMMENDATION 9 October 2005 Consultative Forum Luxembourg
http://europa.eu.int/comm/environment/health/index_en.htm

THE PILOT PROJECT AS A 'LEARNING BY DOING' TOOL

- facilitate the establishment of **collaboration networks** and the **sharing of methodologies**;
- help promote the **idea of coordination/harmonisation** in human biomonitoring;
- **test methodological issues**;
- give a **first indication of the comparability of human biomonitoring data in Europe**

OBJECTIVES OF THE COLLECTION OF BIOMARKER DATA IN THE EU PILOT PROJECT

- to establish **reference values** and identify **references ranges**
- to monitor **geographical variations in exposure levels**;
- to determine the **prevalence of people with levels above a certain toxicity level or level of concern**;
- to determine whether **exposure levels** are higher among **specific subgroups**;
- to assess the **effectiveness of intervention measures** to reduce exposure of Europeans to specific pollutants (trend analysis);
- to set priorities for research on human health effects.

➤ focus on children?

CLOSE LINK WITH RESEARCH

HBM cannot be seen separately from research efforts in order to guarantee scientific sound results in a field that is evolving rapidly.

- * Specific research activities are needed to allow e.g.
 - (i) defining harmonised procedures;
 - (ii) defining best (harmonised) ways of providing information to and obtaining consent from study persons;
 - (iii) the interpretation of measurements with biomarkers;
 - (iv) the integration with other data (environmental and health);
 - (v) the translation into policy
- * A larger scale HBM programme for surveillance offers a unique opportunity to develop hypothesis driven research (larger population groups with better exposure data)

CRITERIA FOR THE SELECTION OF POLLUTANTS OF INTEREST

valuable elements in the selection process, not necessarily all to be fulfilled

- **Health relevance**
(1) Childhood respiratory diseases, asthma, allergies, (2) Neurodevelopmental disorders, (3) Childhood cancer, (4) endocrine disrupting effects
- **Environmental relevance**
known broad exposure
great concern with undocumented exposure
- **Availability of a biomarker with established analytical methods and well-validated**
- **Existing or envisaged programmes in several MS**

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CRITERIA FOR THE SELECTION OF POLLUTANTS OF INTEREST

- **Innovative aspect**
- **Recommendations by other SCALE Technical Working Groups:**
 - > The *TWG on Heavy Metals*
 - > The *TWG on Endocrine Disrupters*
 - > The *TWG on neurodevelopmental disorders*
- **Obligations of MS**
 - the POPs Convention in its Article 11
 - fourth WHO-coordinated survey of POPs in Human Milk
- **Integration with the EU Integrated Environment and Health Information System**

A 'BASIC' scenario

- only a few "well-known" pollutants and biomarkers
- comply with basic selection criteria
 - well-established analytical methods
 - ongoing programmes in most Member States
 - clear health relevance.

"MORE EXTENSIVE" scenario's (added to the Basic scenario)

- Addition of less well-defined human biomarkers with a less-defined toxicological profile
- Addition of specific research on the potential application of new technologies (e.g. toxicogenomics, proteomics, metabonomics) in HBM research

⇒ using the structure developed for the coordinated surveillance programme to perform coordinated (*hypothesis testing*) research activities