E & H Strategy

Actions and Recommendations from the TWG Heavy Metals

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Introduction

Options for Action identified by TWG-HM are based around the summary conclusions from the Background Report as part of the justification for action.

5 options for action recommended – complementary, not mutually exclusive.

They address the generic needs to:
- Generate synergies & facilitate data/methodology sharing;
- Increase knowledge concerning E&H interactions;
- Improve data availability, accessibility, and comparability.
Framework for options

- Options fall into one or more of the categories identified as being common for all Technical Working Groups

Fig 2 Option characteristics

- Options to generate synergies and facilitate data sharing and methodologies
  - Options to improve data availability
  - Options to improve data accessibility
  - Options to improve data comparability
  - Options to enhance exchange of information, communication, co-operation, better use and linkage of existing data
  - Options with respect to risk communication, training and education, information and awareness raising
  - Options to develop "preventive" policy
  - Options to improve public health
  - Options with respect to research
Options for Action: 1

Development of a Strategy and Methodology for the generation of harmonised data sets on human exposures to toxic/heavy metals

Step-wise program to address existing lack of comparability & harmonization in monitoring, sampling, analysis and/or reporting.

• Assess suitability of existing national protocols for exposure determination;
• Assess if monitoring provides information for populations at risk;
• Develop sampling and analysis protocols for MS guidance;
• Adopt common analytical QA & QC, and common data reporting formats;
• Undertake a feasibility study into using centralised and decentralised data access.
Options for Action: 2a

Establishing a programme for systematic biomonitoring focussed on toxic metals in children

Expert group to recommend and interpret a biomonitoring programme:

- Review current national biomonitoring programmes, assess priorities and recommend common activities;
- Adverse health effects from toxic metals estimated using existing data on dose-response relationships;
- Provide guidance on data generation & subsequent information management;
- Guidance on reacting to information with preventive measures in a coordinated way.
Options for Action: 2b

A pilot study of methyl mercury in pregnant women in order to assess the risk of neurotoxicity in children

- EU-wide pilot biomonitoring study: Hg in hair of pregnant women;
- Few activities are carried out in EU countries with respect to systematic assessment of human exposure to heavy metals;
- European centre appointed to organize & support this study together with the MS;
- Would facilitate the sharing of methodologies and data between countries;
- Provides an option to develop “preventive” policy and improve public health.
Options for Action: 3

Create a network for communication of monitoring data on heavy metals that pose a risk to children health.

- Option addresses risk communication - education - and training;
- To date, no systematic attempt that associates measured HM levels in the environment (and associated exposure) with measures of human health impact (e.g. the risk);
- Proposal to establish network of Expert Centres created and steered by a working group representing, by mandate, the Member States;
- Facilitate the exchange of information, foster co-operation, and encourage the better use and linkage of existing data;
- Extend to other pollutants – dioxins, PCBs, endocrines etc.
Options for Action: 4

Assessing the disease burden by monitoring heavy-metal specific health outcomes in children

Cooperative programme that encourages harmonization & data comparability on a Europe-wide basis.

- Expert meetings of public health specialists dealing with heavy metal exposure in a variety of settings;
- Review available data sets & compare against data management and validation procedures in international health data management programs eg WHO’s Health-for-All;
- Explore possibilities, with the countries, to make the system age and gender sensitive;
- Pilot the data gathering system in at least six countries, taking care of equitable geographic distribution and representativeness.
Options for Action: 5

Options for Research

A number of sub-options to support Options 1-4, that fill knowledge gaps and identify new risks posed by toxic metals, including:

- Develop new effect assessment methodologies for various media and exposure vectors, particularly for soluble forms, metal compounds and combinations of metals;
- Increase the sensitivity and specificity of traditional methodologies for low-level dose-response relationships for HM exposures;
- Examine the possible effects of chronic exposures & increased risk due to genetic susceptibility;
- Develop risk assessment methodologies for metals, metal compounds, and metal combinations from previously unrecognised sources, which are found in the exposure vector for children.
Feedback & responses

Comments & responses welcomed and requested to be sent to technical secretariat:

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