

Publication

Application of human biomonitoring data to support policy development, raise awareness and environmental public health protection among countries within the HBM4EU project

Journal Article (Originalarbeit in einer wissenschaftlichen Zeitschrift)

ID 4683484

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Year 2023

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Journal Int J Hyg Environ Health

Volume 251

Pages / Article-Number 114170

Most countries have acknowledged the importance of assessing and quantifying their population's internal exposure from chemicals in air, water, soil, food and other consumer products due to the potential health and economic impact. Human biomonitoring (HBM) is a valuable tool which can be used to quantify such exposures and effects. Results from HBM studies can also contribute to improving public health by providing evidence of individuals' internal chemical exposure as well as data to understand the burden of disease and associated costs thereby stimulating the development and implementation of evidence-based policy. To have a holistic view on HBM data utilisation, a multi-case research approach was used to explore the use of HBM data to support national chemical regulations, protect public health and raise awareness among countries participating in the HBM4EU project. The Human Biomonitoring for Europe (HBM4EU) Initiative (<https://www.hbm4eu.eu/>) is a collaborative effort involving 30 countries, the European Environment Agency (EEA) and the European Commission (contracting authority) to harmonise procedures across Europe and advance research into the understanding of the health impacts of environmental chemical exposure. One of the aims of the project was to use HBM data to support evidence based chemical policy and make this information timely and directly available for policy makers and all partners. The main data source for this article was the narratives collected from 27 countries within the HBM4EU project. The countries (self-selection) were grouped into 3 categories in terms of HBM data usage either for public awareness, policy support or for the establishment HBM programme. Narratives were analysed/summarised using guidelines and templates that focused on ministries involved in or advocating for HBM; steps required to engage policy makers; barriers, drivers and opportunities in developing a HBM programme. The narratives reported the use of HBM data either for raising awareness or addressing environmental/public health issues and policy development. The ministries of Health and Environment were reported to be the most prominent entities advocating for HBM, the involvement of several authorities/institutions in the national hubs was also cited to create an avenue to interact, discuss and gain the attention of policy makers. Participating in European projects and the general population interest in HBM studies were seen as drivers and opportunities in developing HBM programmes.

A key barrier that was cited by countries for establishing and sustaining national HBM programmes was funding which is mainly due to the high costs associated with the collection and chemical analysis of human samples. Although challenges and barriers still exist, most countries within Europe were already conversant with the benefits and opportunities of HBM. This article offers important insights into factors associated with the utilisation of HBM data for policy support and public awareness.

ISSN/ISBN 1618-131X (Electronic)1438-4639 (Linking)

edoc-URL <https://edoc.unibas.ch/94906/>

Full Text on edoc No;

Digital Object Identifier DOI 10.1016/j.ijheh.2023.114170

PubMed ID <http://www.ncbi.nlm.nih.gov/pubmed/37207539>

ISI-Number MEDLINE:37207539

Document type (ISI) Journal Article, Review