

Portuguese citizens' perceptions on Human BioMonitoring: preliminary results of a qualitative approach

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Introduction

People of all ages are daily exposed to a wide range of chemical substances present in the air, food, water and materials, namely at workplace. The diversity of exposures' routes and pathways are wide, and a great part is virtually inevitable due to the variety of human activities. The HBM4EU is a joint initiative that aims to generate evidence of the actual exposure of citizens to chemicals and the possible health effects to support policy making. Considering that both parts of the science-politics dyad are driven by peoples' needs, it is crucial to know their concerns and perceptions on Human Biomonitoring (HBM) to efficiently communicate about the initiative's leitmotiv and relevance to citizens.



Methods: One focus group was conducted with citizens selected through purposive sampling. Written informed consent was obtained from participants. Audiotaped record was fully transcribed, and content analysis of the full anonymized corpus was made.

Results and discussion

The focus group included 10 participants (five males) with an average age of 46,6±14,6 years and heterogeneity regarding educational level.

Exposure to chemical substances

Participants were able to identify the main exposure pathways (e.g. outdoor air; food, drinking water; clothes) and to link them to different sources of pollution.

Some participants recognized that exposure is both direct and indirect.

Air pollution and chemicals in food for human consumption are the two cases that most concern participants.

Impact of exposure to human health

Participants referred their concerns on the impact of chemical exposure at the short- and long-term, but they also recognized that their impacts depend on the health condition of each person.

Perception on the impact of exposure seems to be in some way related to the context in which the individual lives.

Trust or distrust, both in authorities and in science, seems to be a key element that modulates peoples' perception, attitudes and behaviours towards HBM.

The meaning of Human Biomonitoring

Two different notions of what HBM means emerged: on the one hand, participants related HBM with the analysis of biological matrices in order to identify the presence of certain chemical substances; on the other hand, the notion that we all do some kind of self-monitoring (signs and symptoms, family history of cancers that implies a regular, blood analysis, and breast self-exam).

The importance and expectations towards HBM4EU initiative

Participants' expectations are not restricted to studying, identifying, and monitoring chemical substances potentially harmful to citizens, but they also expect the translation of this information into policies and effective actions aimed to protect human health.

Most participants think that there is a flow of information that goes from science to politicians, i.e. they expect that politicians and authorities to make their decisions based on evidence produced by science. One participant offered some resistance to this and denoted a strong scepticism, not about science but about politics.

Actions in Human Biomonitoring

One participant considered that a system of HBM should be integrated in the National Health Services. However, due to the nature of data that are collected, some resistances emerged both towards the public understanding of the purposes of such a system and the potential unethical use of the information.

Communication and reliance

Communication and reliance were transversal to all topics previously addressed.

Participants identified several critical points in the information flow from science to policy makers (unfamiliarity with the nature of science, conflict of interests that may bias science production of information, how the information reaches policy makers and how the internal processes of translation into actions function, how actions are effectively implemented and who regulates and supervise their implementation).

Participants were unanimous in considering that a good information policy is a necessary condition to people recognize the importance and reliance of both HBM4EU initiative and HBM in their life and the life of future generations at individual and community level.

«Are those things that the plastics we use in our daily life convey to the liquids we drink, the food we eat, the food we cook in the microwave, inside of plastic boxes, all those contacts we made, as stated before, also through the clothes we wear, what we touch, and the effects even to our offspring» (male, 114-119)

«people who drink water, it may be safe for consumption, but that does not mean that it's free of minimal amounts of, of any chemical. In the long-term, which influence can this exposure have, for example, in terms of reproduction for women, or any other kind of health problem» (female, 187-190)

«To take samples from volunteers and analyse those samples, from hair, from blood, and from skin, etc., if there are any, certain things that we want to confirm» (male, 403-405)

«I think that we conduct biomonitoring to ourselves» (female, 444)

«It comforts me. Knowing that someone is studying something that can harm me» (female, 606-607)

«No, with regards to politics, I'm not very optimistic» (male, 617)

«The issue of privacy and collected data is very problematic (...ah...) and we have heard elsewhere that medical data was used to calculate the amount of health insurance you will pay» (male, 1094-1096)

