




EUROPEAN HUMAN BIOMONITORING INITIATIVE (HBM4EU) INDICATOR LEAFLETS

HUMAN BIOMONITORING GUIDANCE VALUES (HBM-GV)

Indicator 2.2 Number of human biomonitoring guidance values (HBM-GVs) proposed by the HBM4EU consortium

 **SPECIFIC GOAL 2:** Developing a common methodology for the interpretation and use of HBM data in policy making

 **RESPONSIBLE:** German Environment Agency (UBA), Germany  **WORK PACKAGE:** 5 (VITO)

KEY MESSAGES

- HBM-GVs are guidance values that correspond to internal exposure levels at which there is no appreciable health risk
- They are derived by experts on the basis of toxicological and epidemiological data according to scientifically accepted derivation schemes
- In 2017 the strategy to derive HBM-GVs was developed and discussed with national hub experts.
- HBM-GVs have already been derived for the phthalates DEHP, DPHP, DBP, DiBP, BBzP and the phthalate substitute DINCH, for Cd and for BPA
- While referring to the collective internal exposure from multiple sources and routes, HBM-GV may complement already existing toxicological reference values for external exposure. Whenever possible data and values of established international bodies are considered, but also recent peer reviewed literature for additional and/or new data is taken into account
- HBM-GVs are developed in consultation with national experts and the EU Policy Board to ensure their wide acceptance
- HBM-GVs will promote the use of HBM data to setting safe human exposure values

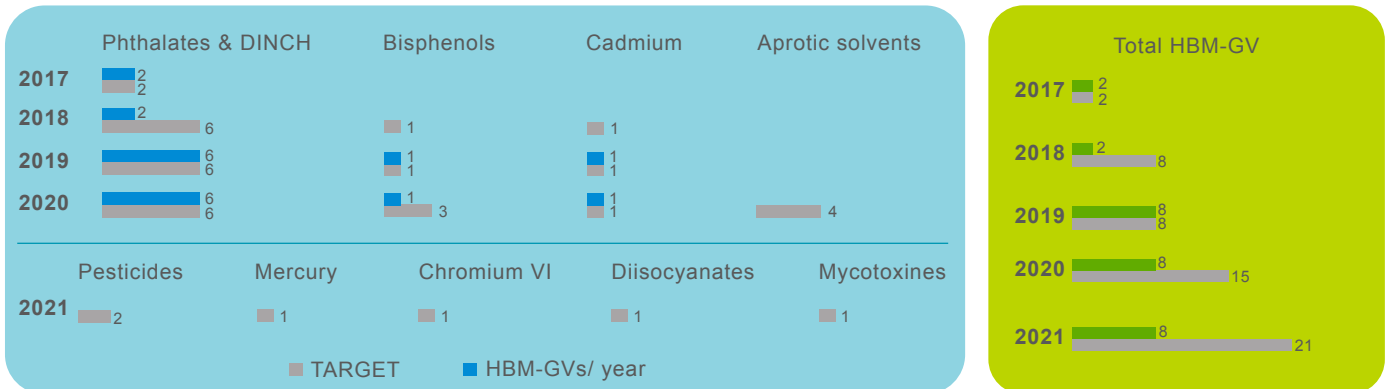
WHY

- 1 Under HBM4EU human biomonitoring data are collected
- 2 Guidance is needed to interpret these data in a health risk assessment context
- 3 Therefore, human biomonitoring guidance values (HBM-GVs) are being developed under HBM4EU
- 4 HBM-GVs can facilitate the use of HBM data in risk assessment





RESULTS



Target and HBM-GVs displayed in the figure are cumulated over the years.

Last update 4/08/2020

ON TRACK

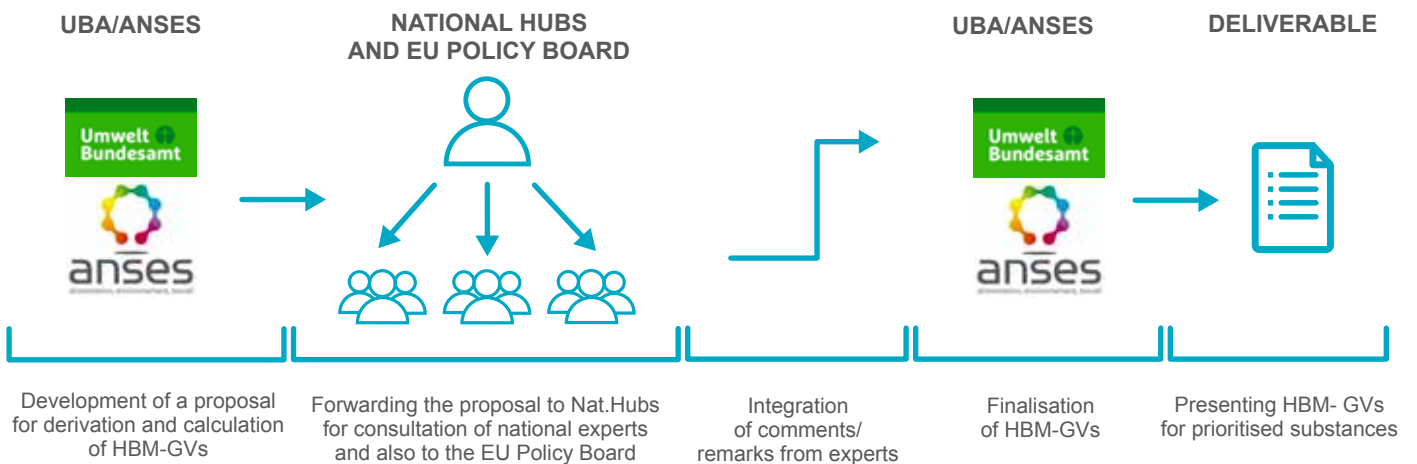
- HBM-GVs have been derived for the phthalates DEHP (di(2-ethylhexyl) phthalate), DPHP (di-2-propylheptyl phthalate), DnBP (dibutyl phthalate), BBzP (Butylbenzyl phthalate), DIBP (di-iso-butyl phthalate) and the phthalate substitute Hexamol® DINCH and Cd (cadmium) for the general population and for occupational exposure
- HBM-GV for BPA (bisphenol A) has been developed for the general population but for workers it was considered not appropriate to derive values

WORK IN PROGRESS

- HBM-GVs for NEP and NMP (general population) and for BPS and BPF (general population and occupational exposure) are under revision
- HBM-GVs for DMAC and DMF (occupational exposure) will be developed in 2020
- Derivation of further values is planned in 2021
- The possibility for a mixture assessment of certain phthalates will be explored

METHODOLOGY

Procedure to derive HBM-GVs for the **general population** & for **occupationally exposed adults**:



Deliverable 5.2

Last version 08/09/2020



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 733032.

For more information please contact:
HBM4EU@uba.de
gezondheid.omgeving@vlaanderen.be