#### **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.
- 19 and 11 HBM-GV have been derived for general population and occupational population respectively.
- 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

HBM4FU

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science and policy

for a healthy future

- 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



dei	rived for general population
2017	22
2018	2 8
2019	8 8
2020	8
2021	14
2022	19 17
HBM	1-GV
Targ	et





Number of HBM-GV presented in this graph are cumulates over the years.



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• For mercury it was not possible to derive an HBM-GV for workers, but a dossier will also be available in D5.12.

## **METHODOLOGY**

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



# Deliverable 5.2, Deliverable 5.9

#### <u>Lange et. al 2021</u>

Other publications on HBM-GV's: (NMP) and (NEP): 10.1016/j.ijheh.2021.113856 strategy Apel 2020: 10.1016/j.ijheh.2020.113622 cd Lamkarkach 2021: 10.1016/j.envint.2020.106337 BPA Ougier (2021): 10.1016/j.envint.2021.106563 BPS Meslin (2022): https://www.mdpi.com/2305-6304/10/5/228 BPS Meslin et al 2022: https://doi.org/10.3390/toxics10050228 BP-3 Rouselle et al 2022: https://doi.org/10.3390/toxics10020096 4-F-3-PBA, cis-DBCA Apel 2022: "Human biomonitoring guidance values (HBM-GV) for priority substances under the HBM4EU Initiative – New values derivation for deltamethrin and cyfluthrin and overall results." TCPy Tarazona et al. 2022 https://doi.org/10.3390/toxics10060313

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