CENTER FOR HORMONFORSTYRRENDE STOFFER

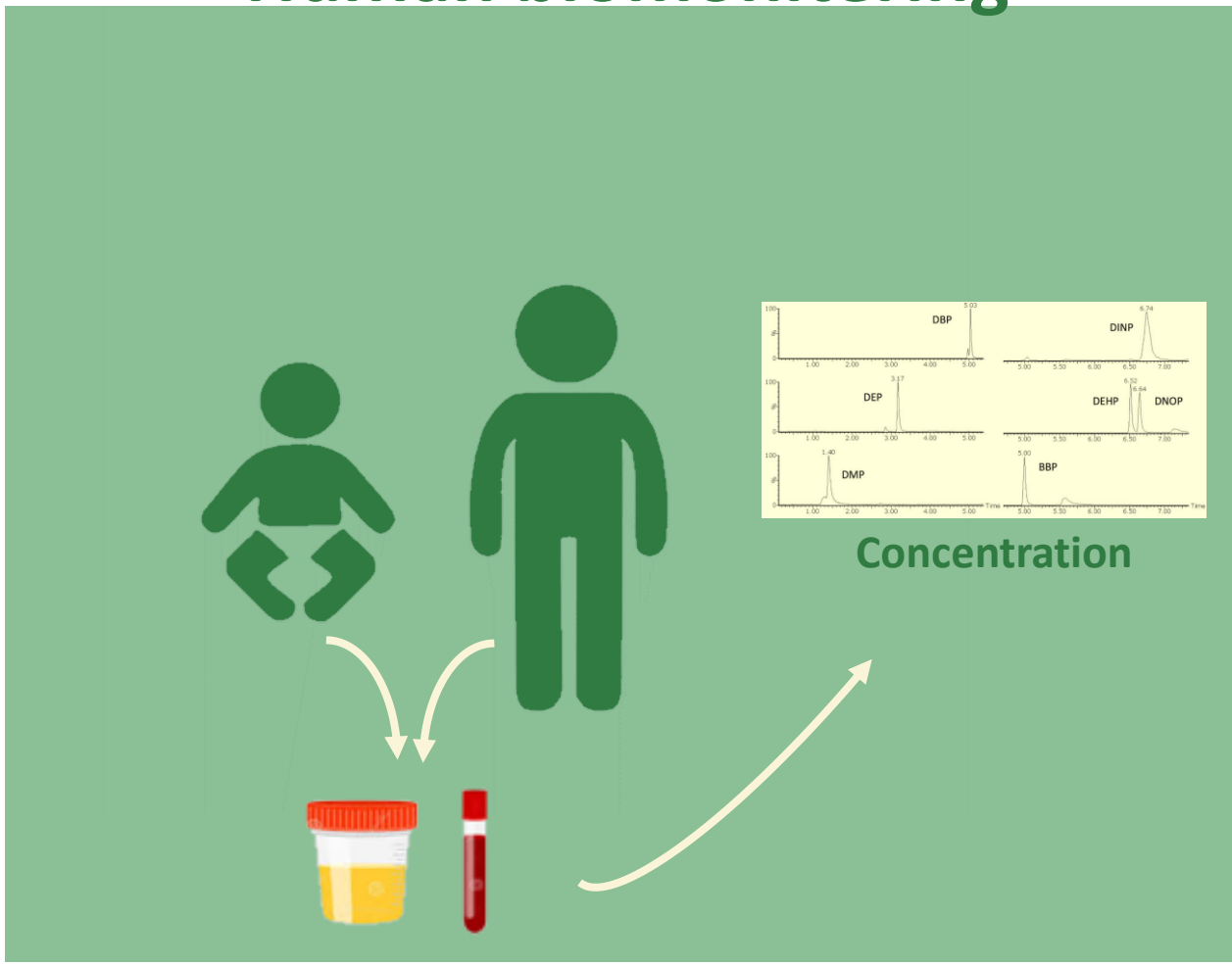
# Danskernes eksponering for udvalgte kemiske stoffer

Anna-Maria Andersson
Afd. for Vækst og Reproduktion, Rigshospitalet

# Udsættelse for kemiske stoffer i befolkningen

## Beregnet ud fra kildekendskab


## Human biomonitering



# Detektionsrater (%) af kemikalier målt i danskeı

# Trio-studiet



Frederiksen et al. Environ Int. 2022 Mar;161:107107
Frederiksen et al. Environ Int. 2022 Nov;169:107532

# Detektionsrater (%) af kemikalier målt i danskere

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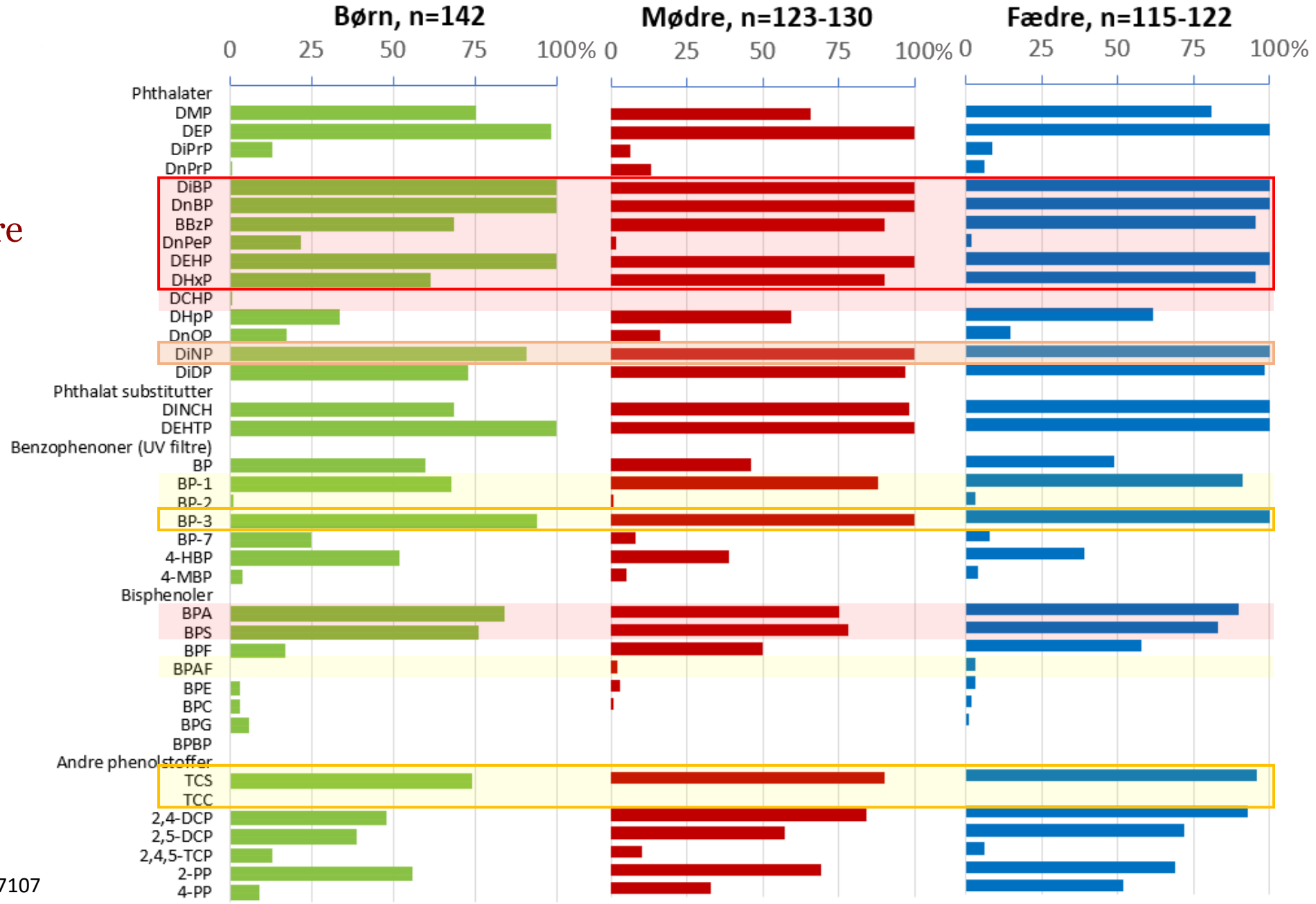
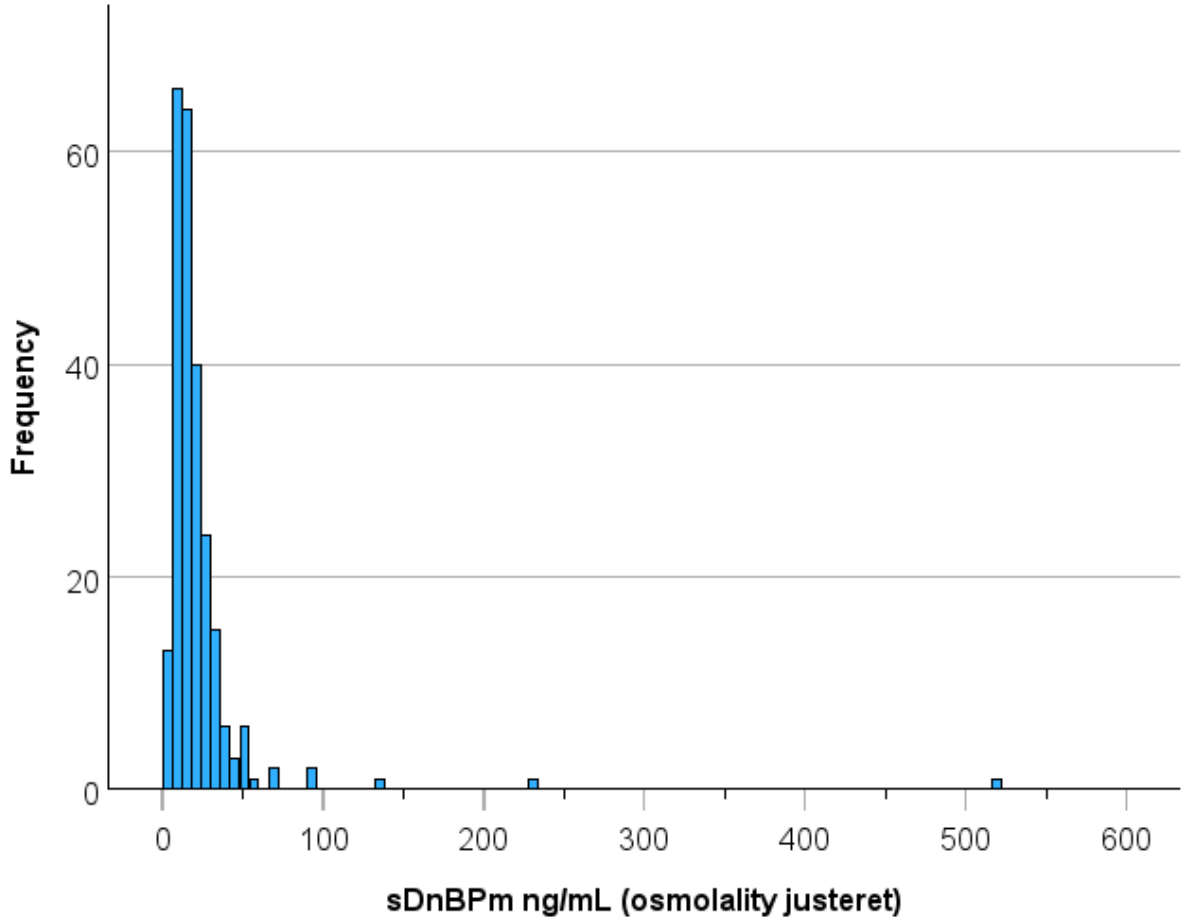


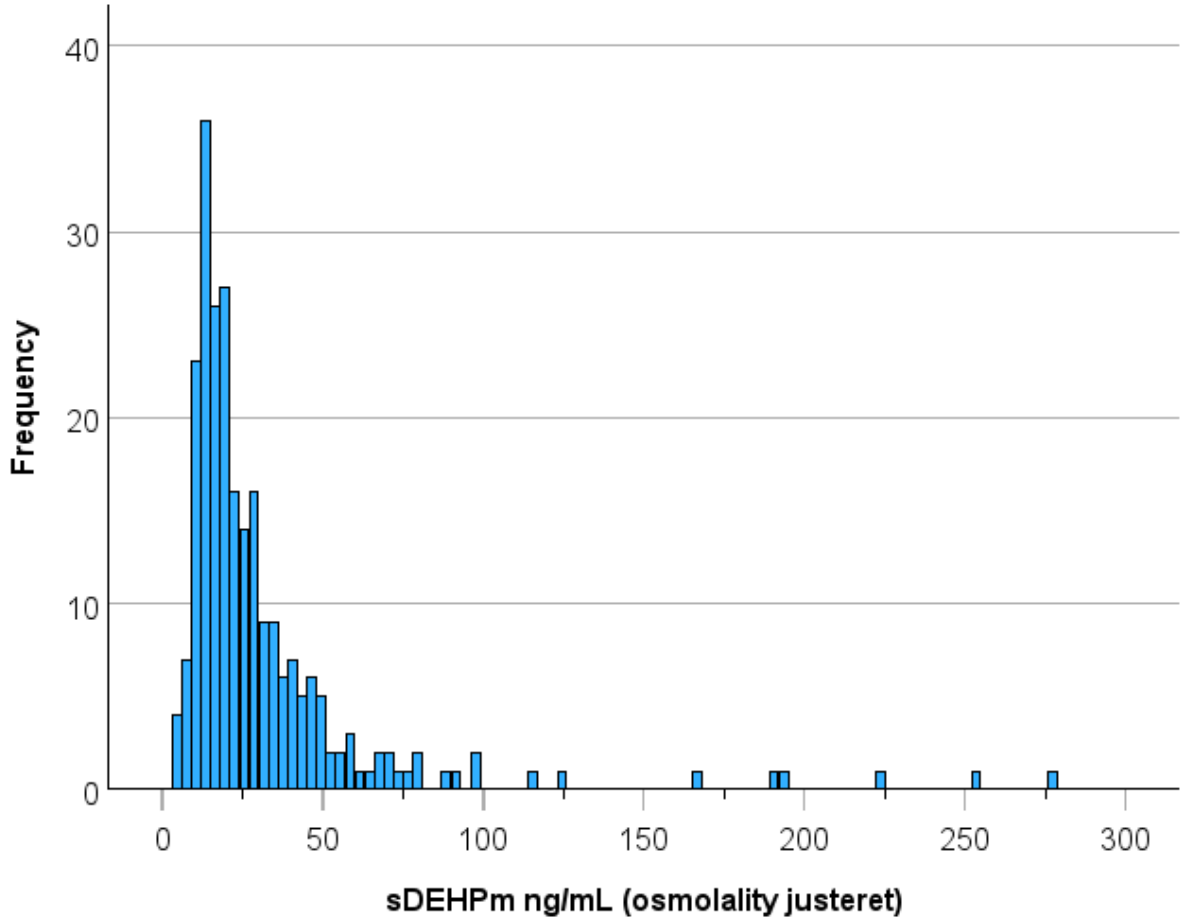


Frederiksen et al. Environ Int. 2022 Mar;161:107107
Frederiksen et al. Environ Int. 2022 Nov;169:107532

# Eksempler på koncentrationer målt i befolkningen

(mødre og fædre i Trio-studiet)

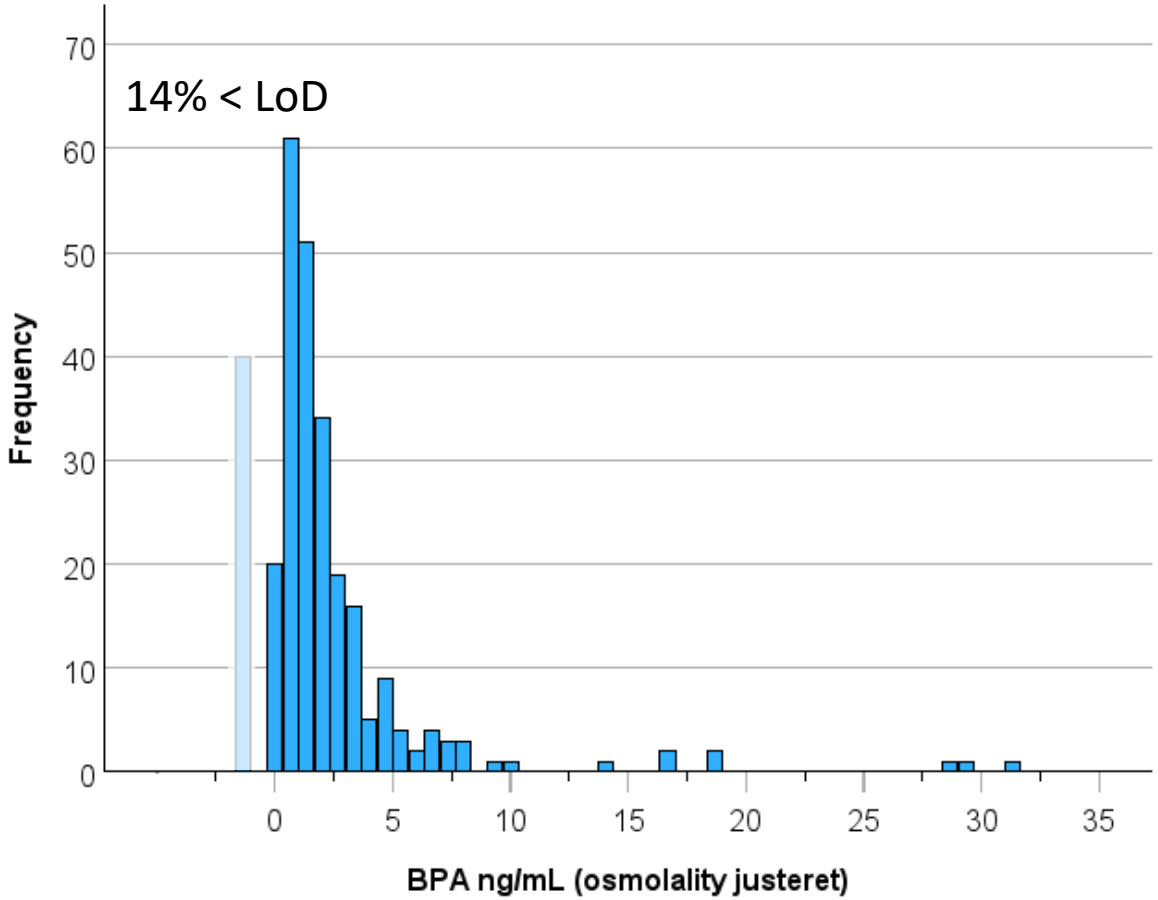


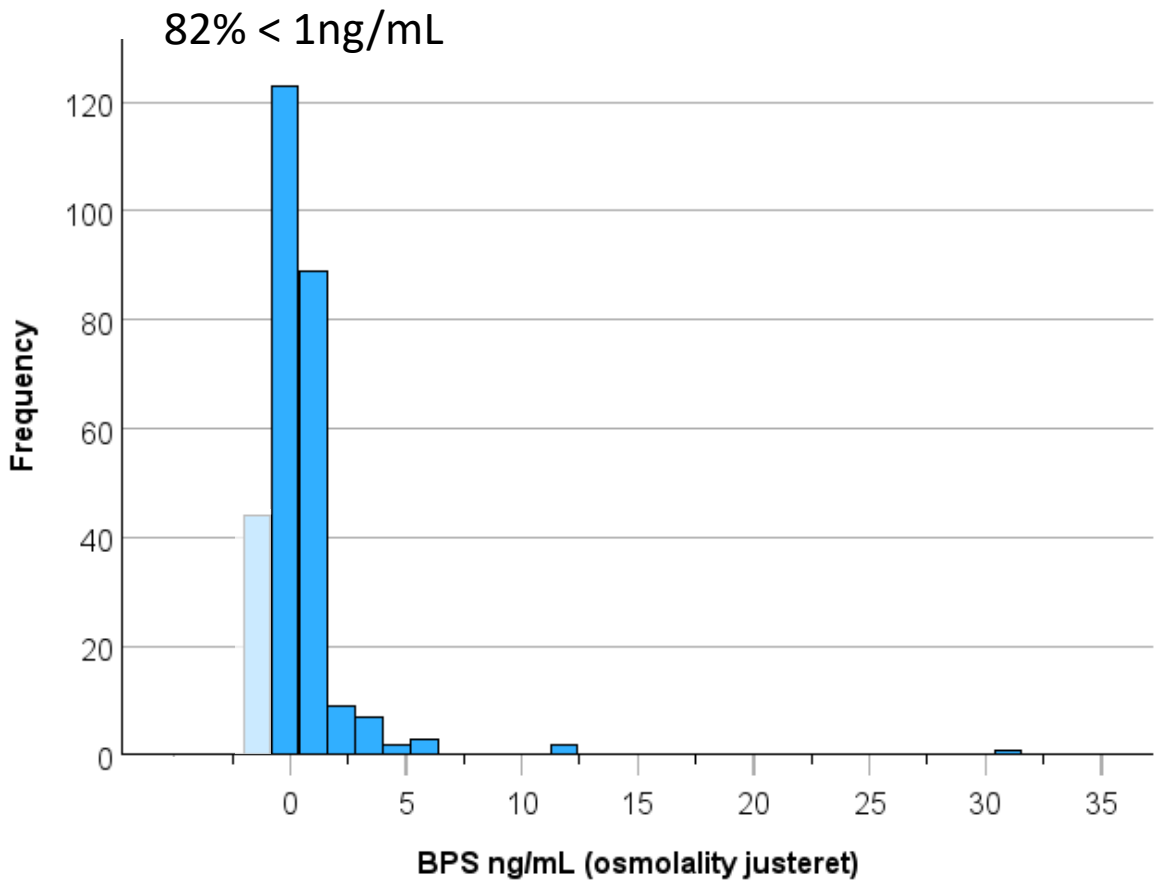




HBM-GV for phthalater i Kasper-Sonnenberg Environ Int. 2025 Jan;195:109190: **DnBP 190 ng/mL DEHP 500 ng/mL**

# Eksempler på koncentrationer målt i befolkningen

(mødre og fædre i Trio-studiet)




HBM-GV for BPS i Meslinet al. *Toxics* **2022**, *10*, 228 = 1 ng/mL

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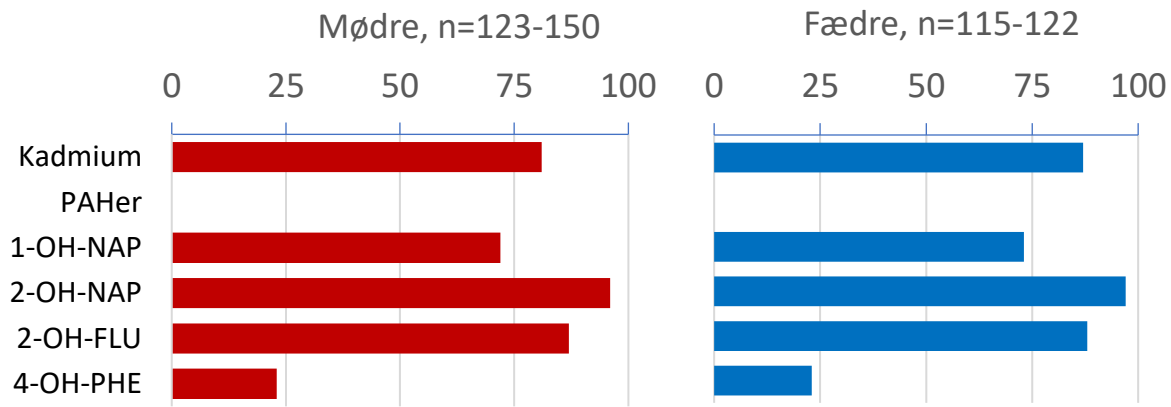


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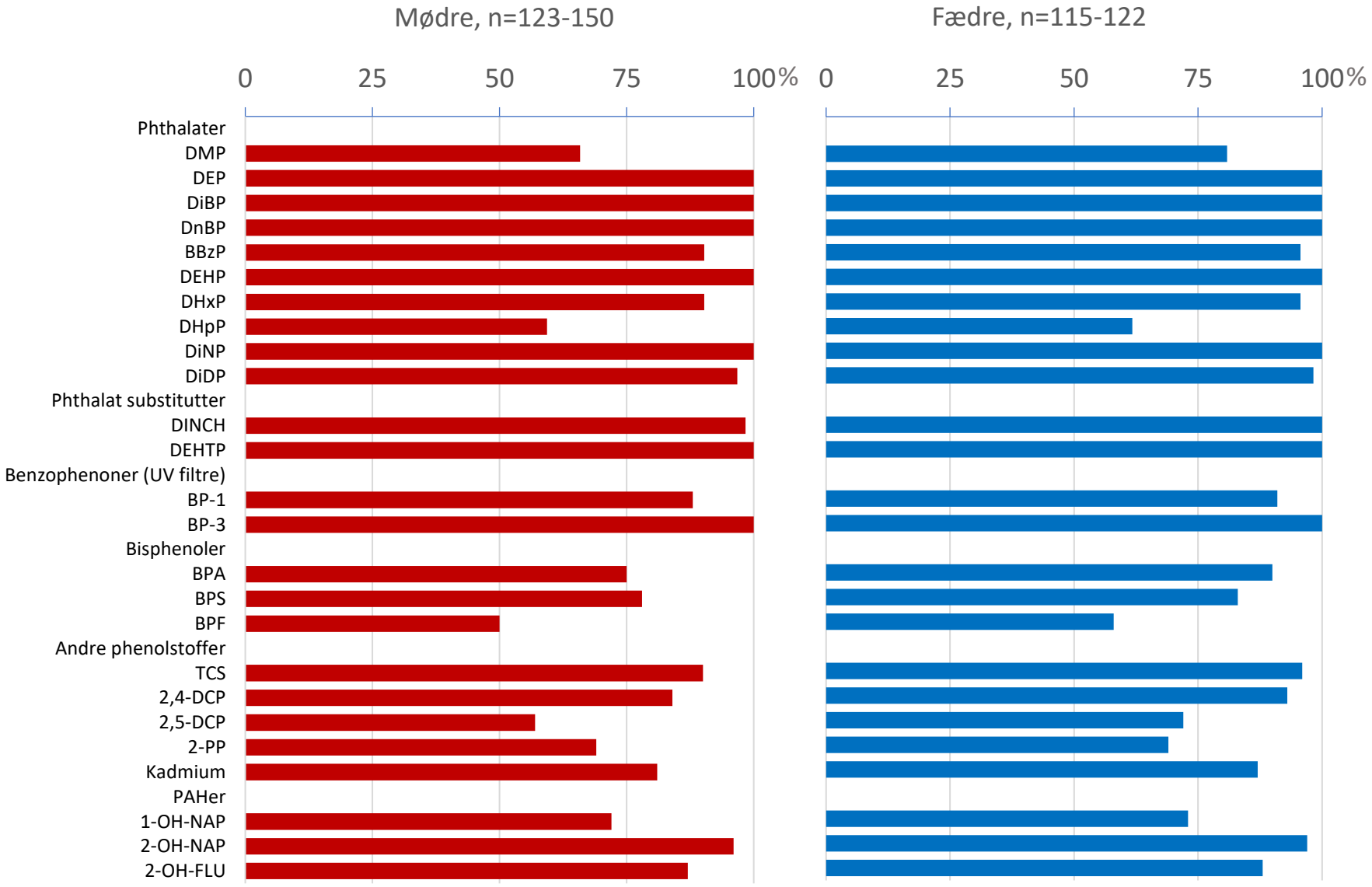
# Trioforældre:

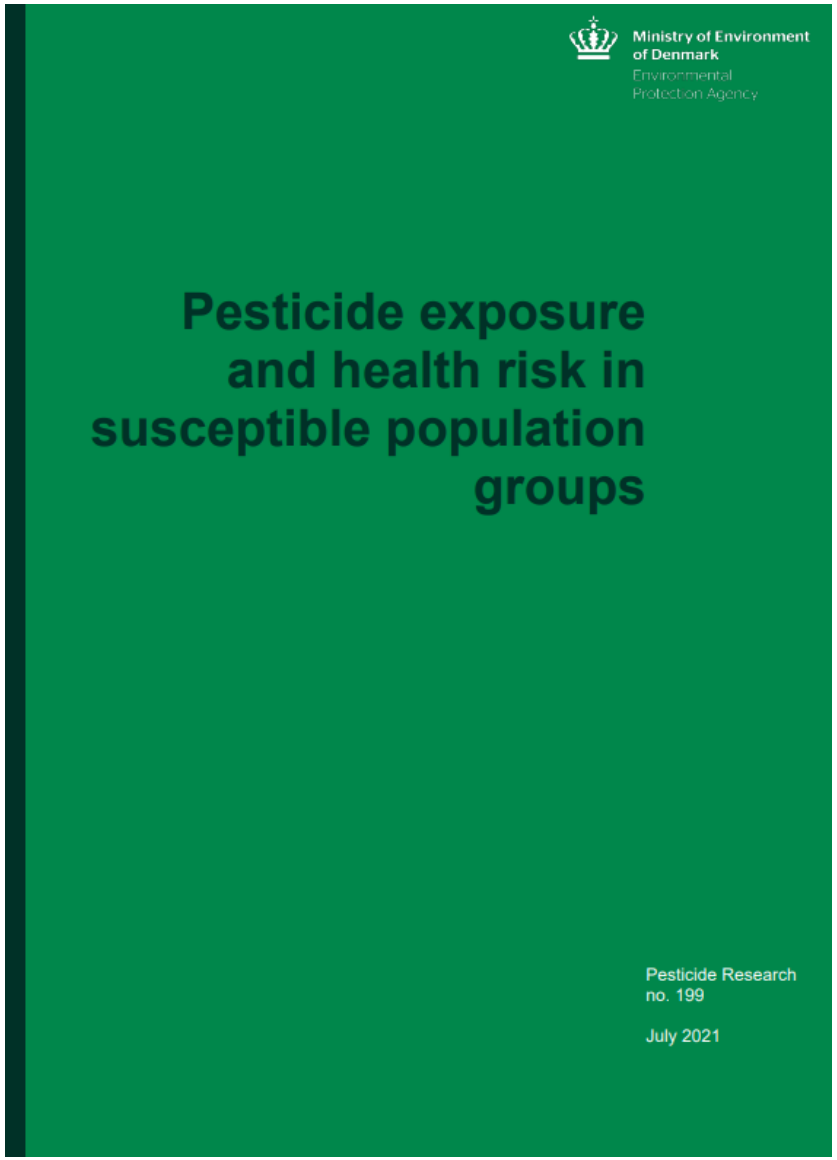
25/44 stoffer havde en detektionrate ≥ 50%

18/44 stoffer havde en detektionrate ≥ 75%

7/44 stoffer var tilstede i alle prøver.




# Cocktail effekten!




# Gravide kvinders urin (Odense børnekohorte):

| Pesticide group | Metabolite | N | LOD | %>LOD |
|---|---|---|---|---|
| | Concentration (ng/mL) | | | Detektionsrate |
| Organophosphate insecticides | TCPY | 858 | 0.3 | 93.2 |
| | DMP | 564 | 1.0 | 56.4 |
| | DMTP | 564 | 0.3 | 54.8 |
| | DMDTP | 564 | 0.3 | 3.9 |
| | DEP | 564 | 0.3 | 81.6 |
| | DETP | 564 | 0.3 | 41.3 |
| | DEDTP | 564 | 0.3 | 0.2 |
| Pyrethroid insecticides | 3-PBA | 858 | 0.03 | 94.3 |
| | Cis-DCCA | 858 | 0.5 | 2.9 |
| | Trans-DCCA | 858 | 0.4 | 11.7 |
| | Cis-DBCA | 858 | 0.5 | 2.9 |
| Chlorophenoxy herbicide | 2,4-D | 858 | 0.03 | 97.6 |

# Dansk deltagelse i HBM4EU :

## Voksne danskere: forældre i The COPENHAGEN Minipuberty Study (Trio-studiet)
## Børn 7 år: børn fra Odense børnekohorte

**Urinary concentrations of phthalate/DINCH metabolites and body mass index among European children and adolescents in the HBM4EU Aligned Studies: A cross-sectional multi-country study.**
Desalegn et al. Environ Int. 2024 190:108931.

**Cadmium exposure in adults across Europe: Results from the HBM4EU Aligned Studies survey 2014-2020.**
Snoj Tratnik et al. Int J Hyg Environ Health. 2022 246:114050.

**Harmonized human biomonitoring in European children, teenagers and adults: EU-wide exposure data of 11 chemical substance groups from the HBM4EU Aligned Studies (2014-2021)**.
Govarts et al. Int J Hyg Environ Health. 2023 249:114119.

**Exposure to Phthalates in European Children, Adolescents and Adults since 2005: A Harmonized Approach Based on Existing HBM Data in the HBM4EU Initiative**.
Vogel et al. Toxics. 2023 11(3):241.

**Cognitive Performance and Exposure to Organophosphate Flame Retardants in Children: Evidence from a Cross-Sectional Analysis of Two European Mother-Child Cohorts.**
Rosolen et al.Toxics. 2023 11(11):878.

**Current exposure to phthalates and DINCH in European children and adolescents - Results from the HBM4EU Aligned Studies 2014 to 2021.**
Vogel et al. Int J Hyg Environ Health. 2023 249:114101.

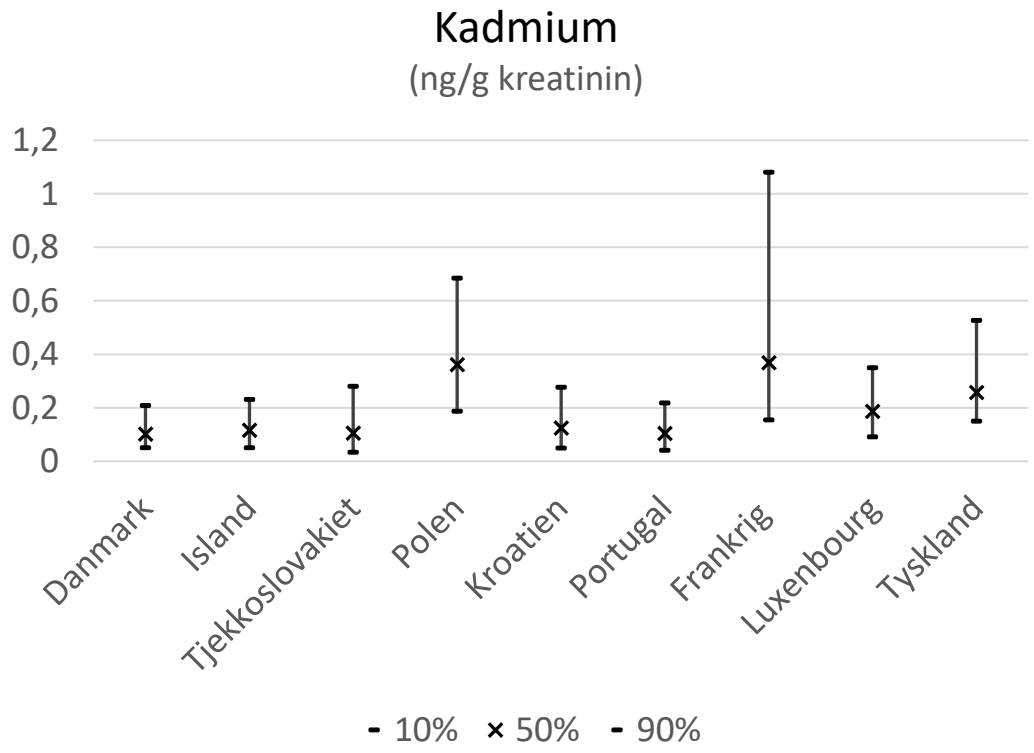
**Time Patterns in Internal Human Exposure Data to Bisphenols, Phthalates, DINCH, Organophosphate Flame Retardants, Cadmium and Polyaromatic Hydrocarbons in Europe.**
Rodriguez Martin et al. Toxics. 2023 11(10):819.

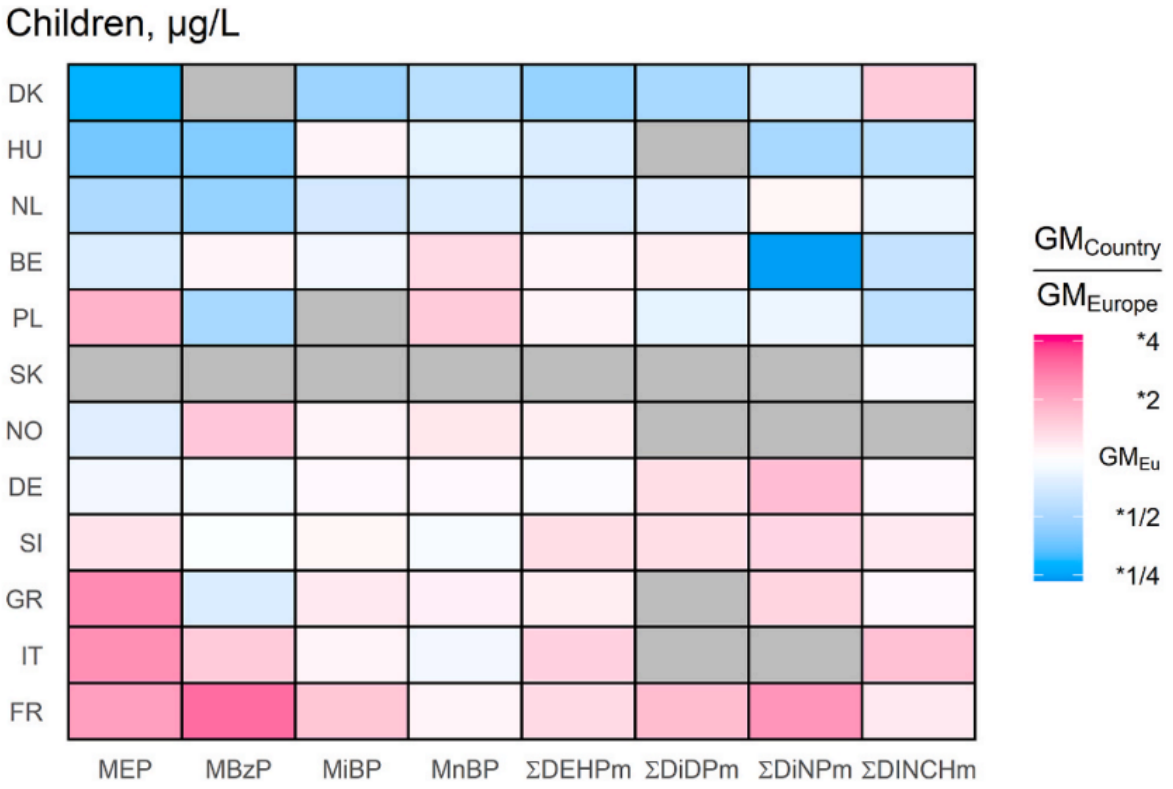
**Exposure to flame retardants in European children - Results from the HBM4EU aligned studies.**
van der Schyff et al. Int J Hyg Environ Health. 2023 247:114070.

**Cumulative risk assessment of five phthalates in European children and adolescents.**
Lange et al. Int J Hyg Environ Health. 2022 246:114052.

**Risk Assessment of Dietary Exposure to Organophosphorus Flame Retardants in Children by Using HBM-Data.**
Plichta et al. Toxics. 2022 10(5):234.

# Dansk deltagelse i HBM4EU :

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2014-2021

Partnership for the Assessment of Risks from Chemicals
www.eu-parc.eu

2022-2028

# Dansk deltagelse i PARC:

Børn og unge 6-17 år:  Deltagere i The COPENHAGEN Puberty Study III