

Concentrations of phthalate metabolites in children from Poland

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Phthalates are frequently used as plasticizers and solvents and thus are widely present in our environment

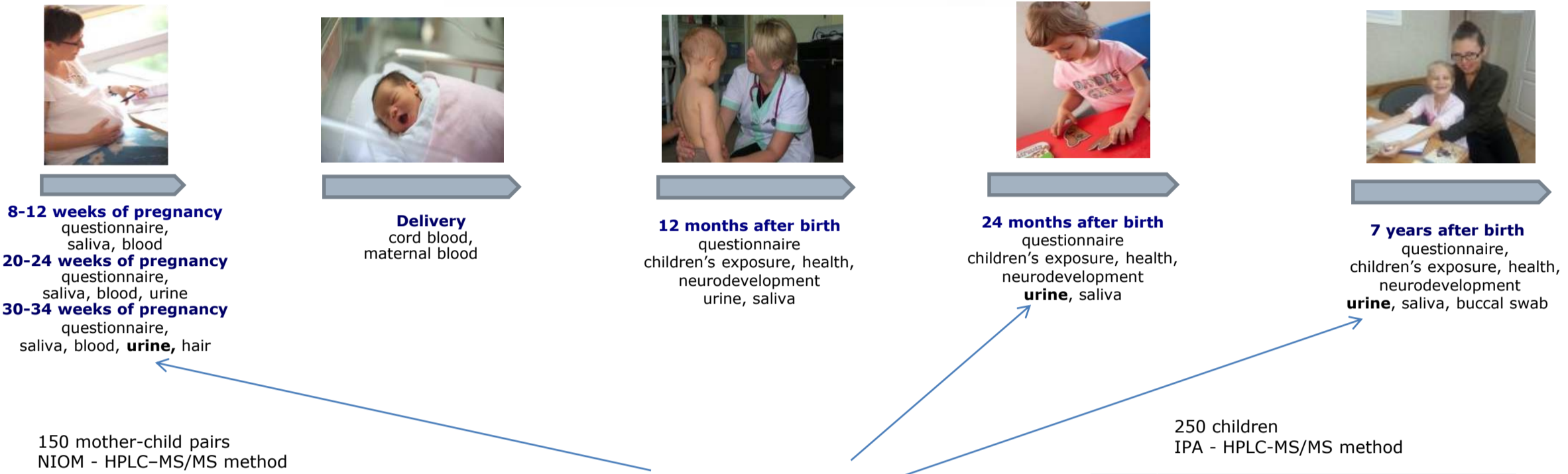
Low-molecular weight phthalates (Low-MWP <250 g/mol)

High-molecular weight phthalates (High-MWP >250 g/mol)

The aim of this study was to determine urinary levels of phthalate metabolites in children in Poland

Methods

Polish Mother and Child Cohort REPRO_PL



Phthalates

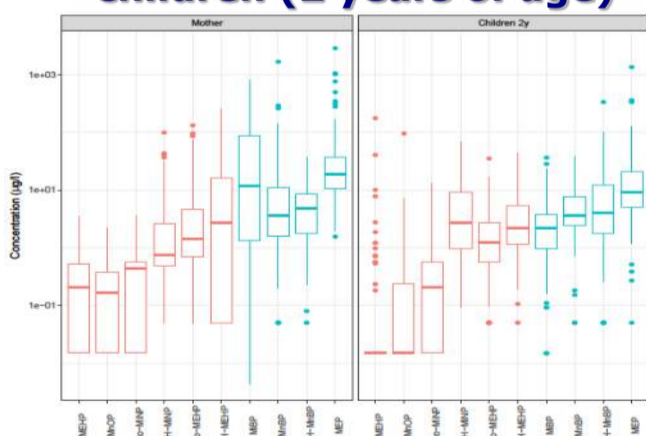
DEP	MEP
BBzP	MBzP
DiBP	MiBP
DnBP	MnBP, OH-MnBP
DEHP	MEHP, OH-MEHP, oxo-MEHP
DiNP	OH-MiNP, oxo-MiNP
DnOP	MnOP



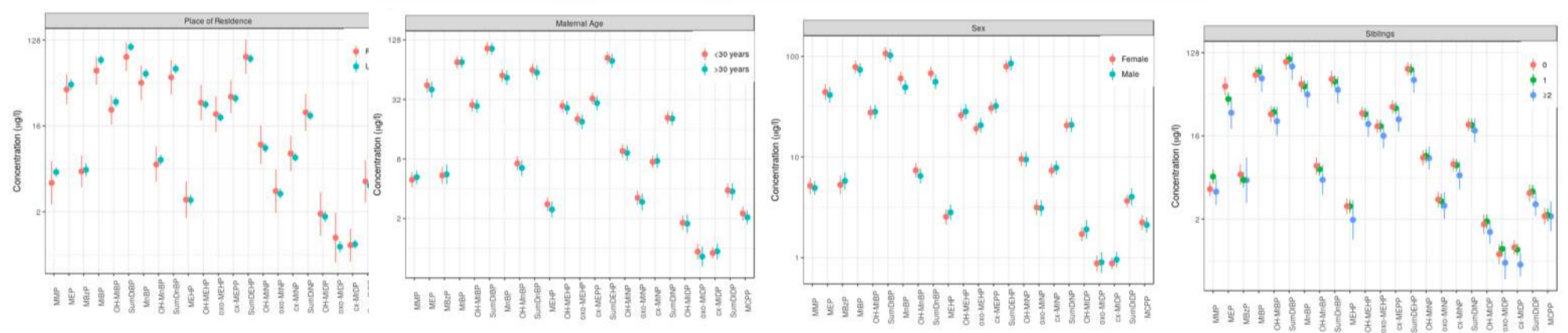
Results

DMP	MMP
DEP	MEP
BBzP	MBzP
DCHP	MCHP
DnPeP	MnPeP
DiBP	MiBP, OH-MiBP
DnBP	MnBP, OH-MnBP
DEHP	MEHP, OH-MEHP, oxo-MEHP, cx-MEPP
DiNP	OH-MiNP, oxo-MiNP, cx-MiNP
DiDP	OH-MiDP, oxo-MiDP, cx-MiDP
DnOP	MnOP, MCP

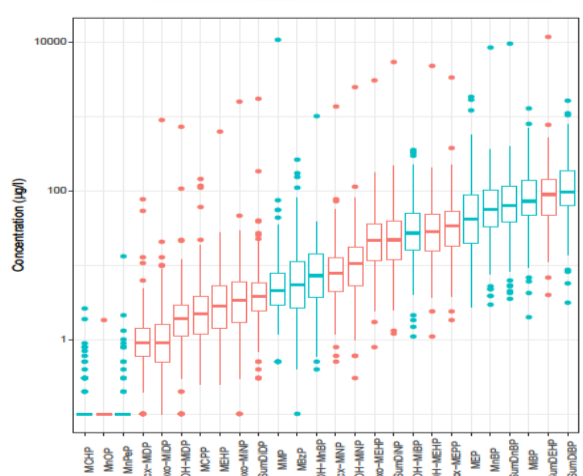
Concentrations of phthalate metabolites in urine of mothers (3rd trimester) and children (2 years of age)



Concentrations of phthalate metabolites in urine of 7 year-old children depending on socio-demographic characteristics



Concentrations of phthalate metabolites in urine of 7 year-old children



Conclusions

- The most abundant compounds belong to the LMW phthalates: MiBP, MnBP and MEP
- The highest concentrations of the phthalate metabolites were observed among children from the families with lower SES
- The levels were similar to those found in previous studies performed in Poland
- The levels of DEHP metabolites in the present study were similar to those observed among children in comparable age from Slovakia, Czech Republic, Romania and Spain but higher than those from other European populations

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