

PRENATAL EXPOSURE TO PERSISTENT ORGANOCHLORINE POLLUTANTS AND DEVELOPMENTAL MILESTONES IN GREENLANDIC YOUNG CHILDREN

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Background and aim: Polychlorinated biphenyls (PCB) and dichlorodiphenyldichloroethylene (DDE) are ubiquitous lipophilic environmental compounds that bio-accumulate through the food chain via consumption of contaminated sea mammals. Inuit populations are among the populations with the highest exposure to these compounds. Small-scale studies have shown an association between PCB and DDE and delays in childhood motor skills. This paper will present the results of a large-scale follow-up study of the association between prenatal exposure to PCB and DDE and motor developmental milestones like crawling, standing and walking in early childhood.

Methods: A total of 572 pregnant women from Greenland were enrolled in a cohort within the INUENDO study in 2002-2004. The follow-up, CLEAR, was conducted in 2010-2011. PCB and DDE were measured in maternal blood samples drawn when the women were on average 24 weeks pregnant. Developmental milestones were reported by mothers in a structured interview-based questionnaire when the child was 6-9 years old.

Results: The collection of field data is ongoing and is expected to be completed during the summer of 2011. Results will be presented on the poster.

Conclusions: The paper will be the first of its kind to present robust data owing to inclusion of a large study population living in an environment with high exposure to lipophilic environmental compounds. The study expects to provide strong evidence for or against the hypothesis of delayed developmental milestones after in utero exposure to PCB and DDE.