

# Invitation to you who will soon be a parent

This invitation is given to pregnant women and their partners at the ultrasound offered around week 17 – 19 of pregnancy.

- We hope that those of you who have participated previously will participate again. Data on siblings are important to elucidate the interaction between heredity and environment.

The purpose of the Norwegian Mother and Child Cohort study (MoBa) is to gain more knowledge about potential causes of illness and injury. More knowledge provides new opportunities to improve prevention and treatment. Research shows that conditions in pregnancy may have a greater impact on the child's future health than was previously understood. The importance of the father's health, living habits and working environment has also received increased attention in recent years. The intention of MoBa is to follow the children from the womb into adulthood. This provides a unique opportunity to study how conditions in early life can influence health later in life. In order to study the causes of rare diseases, such as congenital malformations and childhood cancer, we aim to include 100 000 participants.

**The MoBa study has three main areas of interest:**

## Pre-natal period

Much of the foundation for the child's health later in life happens in this period. Fortunately, the child is well protected in the womb but it is not completely isolated. Contact between the child and the outside world goes via the mother, mainly through the umbilical cord. There are many questions regarding the prenatal period: What is the significance of maternal diet and living habits? Why are some children born too early? Why are some children born with heart defects or cleft lip / cleft palate?

## Child's future health

We lack knowledge about the causes of diseases such as allergies, asthma, diabetes, cancer, arthritis or other disorders that may affect children. We do not know enough about the causes of mental health and behavioural problems in children. Furthermore, we ask how breastfeeding and diet in the first year of life affect the child's future health. What is the significance of the interaction between heredity and environment for the development of disease?

## Women's health

Pregnancy is associated with greater or minor health issues, and we know little about the causes. Why do so many pregnant women suffer from nausea or pelvic pain?

Why do some women experience depression in connection with pregnancy and birth? What are the causes of pre-eclampsia? Can we find out more about risk and protective factors for diseases such as musculoskeletal diseases and cancer?

Participation is voluntary. Participation of the mother-to-be is independent of whether the father wishes to be involved. However, the mother must participate for the father to participate. We hope you choose to participate in MoBa.

### **What do we ask from participating mothers?**

**CONSENT:** Please read this brochure and the attached consent form.

The signed consent form must be returned in the enclosed stamped envelope along with the questionnaire, preferably before the ultrasound examination.

**QUESTIONNAIRES:** Please answer the questionnaires relating to the health, disease and living habits of both you and your child. You will receive three questionnaires during pregnancy. After that you will receive a questionnaire when the child is 6 months, 18 months, 3 years and 6 years. The results from the ultrasound examination will also be included in MoBa.

**BLOOD SAMPLES:** Blood samples will be collected at the ultrasound in week 17-19 of pregnancy and at birth. A urine sample will be collected at the ultrasound. A blood sample will also be collected from the child's umbilical cord at birth.

### **What do we ask from participating fathers?**

**CONSENT:** Please read this brochure and the attached consent form. The signed consent must be returned in the enclosed stamped envelope along with the questionnaire. One copy of the consent form should be retained.

**QUESTIONNAIRES:** Please fill out the enclosed questionnaire.

**BLOOD SAMPLES:** A blood sample will be collected at the ultrasound in week 17-19 of pregnancy.

All information that is collected in MoBa will be stored at the Norwegian Institute of Public Health in Oslo and Bergen. Information can also be obtained from national health registries, such as the Medical Birth Registry of Norway, and from other sources.

### **What is your personal gain from participating?**

Your contribution is of vital importance because you are contributing to acquiring knowledge that may benefit pregnant women and children in the future. Your participation will be important for research related to the health of mother and child. You will receive information about recent findings from MoBa in the annual newsletter and on our web pages.

Every time we have 10 000 new participants, we will select one person who will win 10 000 Norwegian kroner. Maybe you will be the lucky one?

### **Privacy**

Data from MoBa will be made available to researchers in an anonymous form. All person identifiable information, such as name and social security number will be removed from all questionnaires. Blood and urine samples are stored with a participant number only. The link between your questionnaire data and biological samples and person identifiable information will be stored so that only a few people with special permission may access this link. The results from MoBa will be analyzed and presented at a group level, so that neither you nor your child will be recognized in publications. Feedback will not be given about the laboratory investigations on biological samples.

The Norwegian Mother and Child Cohort Study is authorized by the Norwegian Data Inspectorate, and the Regional Committee for Medical Ethics has approved the study.

In the future, information from MoBa may be linked to information from other sources such as health registries. Blood and urine samples may be analyzed by different methods. In each instance an application must be approved by the Regional Committee for Medical Ethics and/or the Data Inspectorate before proceeding.

The biological samples will be analyzed in Norway and other countries.