

# Guidelines for publications based on the Norwegian Mother, Father and Child Cohort Study (MoBa)

1. All manuscripts .....	1
2. Special conditions .....	2
3. Medical birth registry of Norway, if provided by MoBa .....	2
4. References .....	3
5. The Environmental Biobank .....	4
6. General guidelines for publication .....	5

To protect confidentiality and ensure accurate representation of MoBa, all publications based on data or biological material must adhere to MoBa's publication guidelines. This includes incorporating mandatory references and ensuring that analyses align with the approved research questions outlined in the agreement or decision letter from MoBa. The Principal Investigator (PI) is responsible for ensuring that the guidelines for publications are followed.

## 1. All manuscripts

The following mandatory text must be included in all manuscripts\*:

Section of manuscript	Text
<b>Title</b>	Preferably, The Norwegian Mother, Father and Child Cohort Study (MoBa) should be included in the title or sub-title of the publication.
<b>Keywords</b>	'MoBa' and/or 'The Norwegian Mother, Father and Child Cohort Study'
<b>Abstract</b>	This study is based on the Norwegian Mother, Father and Child Cohort Study (MoBa).
<b>Material and Methods</b>	The Norwegian Mother, Father and Child Cohort Study (MoBa) is a population-based pregnancy cohort study conducted by the Norwegian Institute of Public Health. Participants were recruited from all over Norway from 1999-2008. The women consented to participation in 41% of the pregnancies. The cohort includes approximately 114.500 children, 95.200 mothers and 75.200 fathers. MoBa is regulated by the Norwegian Health Registry Act. The current study was approved by The Regional Committees for Medical and Health Research Ethics (to be filled in).
<b>Acknowledgement</b>	We are grateful to all the participating families in Norway who take part in this on-going cohort study.
<b>References</b>	See section 4

\*For consortia manuscripts see special conditions

## 2. Special conditions

In addition, please adhere to these guidelines if appropriate:

Special condition	Guideline
<b>If biological samples were used</b>	Please provide information about the type(s) and collection timepoint of samples used.
<b>If biodata generated from other projects are reused</b>	The correct information and citation required is provided here: <a href="https://www.fhi.no/en/ch/studies/moba/for-forskere-artikler/the-biological-data-resource-in-moba/">https://www.fhi.no/en/ch/studies/moba/for-forskere-artikler/the-biological-data-resource-in-moba/</a>
<b>If GWAS / SNP-array data were used, please acknowledge using this text:</b>	For generating high-quality genomic data, we thank the Norwegian Institute of Public Health (NIPH), the HARVEST collaboration, the NORMENT Centre at the University of Oslo, the Center for Diabetes Research at the University of Bergen, deCODE Genetics, the Research Council of Norway, the South-Eastern and Western Norway Regional Health Authorities, the ERC AdG, Stiftelsen KG Jebsen, the Trond Mohn Foundation, and the Novo Nordisk Foundation.
<b>If the manuscript is part of a consortium of multiple data sources, the following text must be included</b>	This study includes data from the Norwegian Mother, Father and Child Cohort Study (MoBa) conducted by the Norwegian Institute of Public Health.

## 3. Medical birth registry of Norway, if provided by MoBa

The following text should be included in manuscripts using data from the Medical Birth Registry of Norway, if provided by MoBa\*

Section of manuscript	Text
<b>Keywords</b>	'MBRN' and/or 'Medical Birth Registry of Norway'
<b>Material and Methods</b>	The Medical Birth Registry (MBRN) is a national health registry containing information about all births in Norway.

\*Please note that from 2024 MBRN data is no longer provided by MoBa. Publication requirements will be provided by MBRN.

## 4. References

The appropriate references should be cited:

Condition	Reference
<b>Mandatory in all publications</b>	Brandlistuen et al. Cohort Profile Update: The Norwegian Mother, Father and Child Cohort (MoBa), <i>Int J Epidemiol</i> 2025; 54 (5): dyaf139. doi:10.1093/ije/dyaf139.
<b>Mandatory if biological material is used</b>	Paltiel et al. The biobank of the Norwegian Mother and Child Cohort Study – present status. <i>Nor J Epidemiol</i> 2014; 24 (1-2): 29-35.
<b>If relevant</b>	<p>Magnus et al. Cohort Profile Update: The Norwegian Mother and Child Cohort Study (MoBa). <i>Int J Epidemiol</i> 2016; 45:382-8.</p> <p>Magnus et al. Cohort profile: The Norwegian Mother and Child Cohort Study (MoBa). <i>Int J Epidemiol</i> 2006; 35:1146-50.</p> <p>Rønningen et al. The biobank of the Norwegian Mother and Child cohort study. <i>Eur J Epidemiol</i> 2006; 21:619-25.</p> <p>The Norwegian Mother and Child Cohort Study, End of Enrolment – Protocol II, Revised October 2012 <a href="http://www.fhi.no/moba-en">www.fhi.no/moba-en</a></p>
<b>References about the data collected</b>	<p>Brantsaeter et al. Validity of a new food frequency questionnaire for pregnant women in the Norwegian Mother and Child Cohort Study (MoBa). <i>Matern Child Nutr</i> 2008;4:28-43.</p> <p>Meltzer et al. Methodological challenges when monitoring the diet of pregnant women in a large study: experiences from the Norwegian Mother and Child Cohort Study (MoBa). <i>Matern Child Nutr</i> 2008;4:14-27.</p>
<b>References about the biological material collected</b>	<p>Duale et al. Human blood RNA stabilization in samples collected and transported for a large biobank. <i>BMC Res Notes</i> 2012.</p> <p>Duale et al. Long-term storage of blood RNA collected in RNA stabilizing Tempus tubes in a large biobank – evaluation of RNA quality and stability. <i>BMC Res Notes</i> 2014.</p>
<b>References relevant for methods and validity</b>	<p>Nilsen et al. Self-selection and bias in a large prospective pregnancy cohort in Norway. <i>Paediatr Perinat Epidemiol</i> 2009; 23: 597-608.</p> <p>Biele et al. Bias from self-selection and loss to follow-up in prospective cohort studies. <i>Eur J Epidemiol</i> 2019 34(10), 927–938.</p> <p>Vejrup et al. Lost to follow-up in the Norwegian mother, father and child cohort study. <i>Paediatr Perinat Epidemiol</i> 2021;00:1–10.</p>

## 5. The Environmental Biobank

The following text should be included in manuscripts using data from the Norwegian Environmental Biobank (NEB):

Section of manuscript	Text
<b>Material and Methods</b>	The Norwegian Environmental Biobank is a sub-study within MoBa established with the aim of biomonitoring nutrients and environmental contaminants in MoBa participants. The study included 2999 pregnant women with available genetic data who had donated blood and urine samples and had responded to questionnaires 1-6 in MoBa.
<b>Material and Methods, if biological samples were used</b>	The Norwegian Environmental Biobank is a substudy within MoBa established with the aim of biomonitoring nutrients and environmental contaminants in mothers, fathers and children participating in MoBa. The study included approximately six hundred triads of mothers, fathers and children who donated blood and urine samples, and responded to a questionnaire.
<b>Acknowledgement</b>	The Norwegian Institute of Public Health (NIPH) has contributed to funding of the Norwegian Environmental Biobank (NEB). The laboratory measurements have partly been funded by the Research Council of Norway through research projects (275903 and 268465), and the human biomonitoring project HBM4EU, funded by the European Union's Horizon 2020 research and innovation programme under grant agreement No 733032.
<b>References</b>	Caspersen IH et al. Patterns and dietary determinants of essential and toxic elements in blood measured in mid-pregnancy: The Norwegian Environmental Biobank. <i>Sci Total Environ.</i> 2019; 671: 299-308.

### 5.1. The use of parameters in NEB

If the parameters below are used, the respective references should also be cited:

Parameters	Reference
<b>Urine: Iodine and creatinine</b> <b>Plasma: Thyroid function parameters</b>	Abel et al. Iodine Intake is Associated with Thyroid Function in Mild to Moderately Iodine Deficient Pregnant Women. <i>Thyroid</i> 2018 28(10):1359-1371.
<b>Urine: Sodium and potassium</b> <b>Plasma: Retinol, carotenoids, tocopherols, 25-hydroxy-vitamin-d</b>	Kelsey et al. Ultra-processed food consumption and associations with biomarkers of nutrition and inflammation in pregnancy: The Norwegian Environmental Biobank. <i>Front Nutr</i> 2022 Dec 8;9:1052001.
<b>Whole blood: Elements and metals</b>	Caspersen et al. Patterns and dietary determinants of essential and toxic elements in blood measured in mid-pregnancy: The Norwegian Environmental Biobank. <i>Sci Total Environ</i> 2019 671:299-308
<b>Whole blood: Glycated haemoglobin (HbA1c)</b>	Carlsen et al. Glycated haemoglobin (HbA1c) in mid-pregnancy and perinatal outcomes. <i>Int J Epidemiol</i> 2022 ;51(3):759-768.

<b>Plasma: C-reactive protein (CRP)</b>	Kelsey et al. Ultra-processed food consumption and associations with biomarkers of nutrition and inflammation in pregnancy: The Norwegian Environmental Biobank. <i>Front Nutr</i> 2022 Dec 8;9:1052001.
<b>Plasma: Ferritin and transferrin</b>	Caspersen et al. Iron status in mid-pregnancy and associations with interpregnancy interval, hormonal contraceptives, dietary factors and supplement use. <i>Br J Nutr</i> 2021 Oct 28;126(8):1270-1280.

## 6. General guidelines for publication

### 6.1. Confounding effects

To avoid infringement on other research projects, MoBa has a restrictive policy when it comes to publishing the direct effects of confounding variables. Such information should not be published but can be submitted to referees/editors if required.

### 6.2. Open data practice

Summary data from 'omics' studies (GWAS, EWAS etc.) in MoBa may be made available on the NIPH website (<https://www.fhi.no/en/studies/moba/for-forskere-artikler/gwas-data-from-moba/>). Please contact the MoBa administration for guidance.

Researchers cannot share individual-level data from MoBa at any time, including for publication purposes. MoBa data may not be uploaded to any repository or database. However, researcher may inform journals about the process for requesting access to datasets for replication or quality control purposes.

*Suggested standard text to journals regarding open data practice:*

*Data from the Norwegian Mother, Father and Child Cohort Study is managed by the Norwegian Institute of Public Health. Access requires approval from the Regional Committees for Medical and Health Research Ethics (REC), compliance with GDPR, and data owner approval. Participant consent does not allow individual-level data storage in repositories or journals. Researchers seeking access for replication must apply via [www.helsedata.no](http://www.helsedata.no).*

### 6.3. Media coverage and dissemination of MoBa publications

We encourage dissemination and appreciate media coverage when it helps raise awareness of MoBa and showcase its valuable contributions to research, benefiting both participating families and the public.

All interactions with journalists should be based on results that have been accepted for publication in scientific journals or presented as printed abstracts at scientific conferences. Researchers are encouraged to acknowledge The Norwegian Mother, Father and Child Cohort Study (MoBa) in their work. For assistance with media relations, researchers may contact the MoBa communications team at [nettredaksjon@fhi.no](mailto:nettredaksjon@fhi.no).

Press releases can be made public on the NIPH website [www.fhi.no/moba](http://www.fhi.no/moba). We may ask you to submit a brief popular summary of the article to be used for communication and dissemination purposes to [mobaadm@fhi.no](mailto:mobaadm@fhi.no), if required.

### 6.4. Posters and presentations

Presented results based on MoBa should include the MoBa logo ([link](#)).