

Curriculum Vitae

Personal information Hedvig Marie Egeland Nordeng

Work experience

1. **Employer:** University of Oslo **Position:** Professor and Head of the PharmacoEpidemiology and Drug Safety (PharmaSafe) Research

Start date: January 2011 — Present

Activities: PharmaSafe Research Group
Affiliation: Department of Pharmacy, Faculty of Mathematics and Natural Sciences

Country: Norway

Institution: University of Southern Denmark
 Position: Adjunct Professor in Clinical Pharmacology

Start date: 2024 — Present Faculty: Faculty of Health Sciences

Country: Denmark

3. Employer: Norwegian Institute of Public Health (NIPH)
Position: Senior Researcher (20%)
Start date: January 2006 — Present
Department: Department of Child Health and Development

Activities: Research Country: Norway
4. Employer: University of Oslo

Position: Postdoctoral Fellow, Drug Safety in Pregnancy **Start date:** January 2005

End date: December 2007

Activities: Research on drug safety in pregnancy **Department:** Department of Pharmacotherapy, Faculty of Medicine Country: Norway
5. Employer: Regional Drug Information Centre, Rikshospitalet Hospital

Position: Drug Information Specialist (part-time)

Start date: January 2005 End date: December 2005

Activities: Drug information and adverse drug reaction (ADR) reporting

Country: Norway

Education and training

1. Subject: University of Oslo

Start date: 011999 End date: 122004

Qualification: PhD in Pharmacoepidemiolgy Organisation: Focus: perinatal pharmacoepidemiology and pharmacotherapeutics in

pregnancy
• Country: Norway
2. Subject: University of Oslo

Start date: 011992 End date: 121997

Qualification: M.Sc. and B.Sc. in Pharmacy Organisation: Department of Pharmacy

Country: Norway

3. Subject: Lycée Edouard Herriot, Lyon

Start date: 011987

End date: 121992 Qualification: Baccalauréat Française

Organisation: Lycée Edouard Herriot

Country: France

Additional information

Publications

Summary I have in total over 200 published publications. My overall H index is 46 according to Scopus. The total number of citations is over 6000.

Medication Safety and Use in Pregnancy

- Christensen JJ, Bogsrud MP, Holven KB, Retterstøl K, Veierød MB, Nordeng H. Use of statins and other lipid-modifying agents across pregnancy: A nationwide drug utilization study in Norway in 2005-2018.
- Atherosclerosis. 2023 Mar;368:25-34. Nezvalová-Henriksen K, Wood M, Spigset O, Nordeng H. Association of Prenatal Ibuprofen Exposure with Birth Weight and Gestational Age: A Population-Based Sibling Study. PLoS One. 2016 Dec 9:11(12):e0166971.
- Lupattelli A, Wood M, Lapane K, Spigset O, Nordeng H. Risk of preeclampsia after gestational exposure to selective serotonin reuptake inhibitors and other antidepressants: A study from The Norwegian Mother and

Long term outcomes:

- Sundbakk LM, Wood M, Gran JM, Nordeng H. Prenatal exposure to benzodiazepine and z-hypnotics and fifth-grade scholastic skills-emulating target trials using data from the Norwegian Mother, Father and Child Cohort Study. Am J Epidemiol. 2025 Jan 8;194(1):73-84.
- Sundbakk LM, Gran JM, Wood ME, Handal M, Skurtveit S, Nordeng H. Association of Prenatal Exposure to Benzodiazepines and Z-Hypnotics With Risk of Attention Deficit/Hyperactivity Disorder in Childhood. JAMA Netw Open. 2022;5(12):e2246889.
- Ystrom E, Gustavson K, Brandlistuen RE, Knudsen GP, Magnus P, Susser E, Davey Smith G, Stoltenberg C, Surén P, Håberg SE, Hornig M, Lipkin WI, Nordeng H, Reichborn-Kjennerud T. Prenatal Exposure to Acetaminophen and Risk of ADHD. Pediatrics. 2017;140(5):e20163840.
 Frank AS, Lupattelli A, Brandlistuen RE, Nordeng H. Maternal Thyroid Hormone Replacement Therapy
- Exposure and Language and Communication Skills of Offspring at 8 Years of Age. JAMA Netw Open. 2019:2:e1912424
- Lupattelli A, Wood M, Ystrom E, Skurtveit S, Handal M, Nordeng H. Effect of Time-Dependent Selective Serotonin Reuptake Inhibitor Antidepressants During Pregnancy on Behavioral, Emotional, and Social Development in Preschool-Aged Children. J Am Acad Child Adolesc Psychiatry. 2018 Mar;57(3):200-

Registry Methodology

- Nordeng HME, Lupattelli A, Engjom HM, van Gelder MMHJ. Detecting and Dating Early Non-live Pregnancy Outcomes: Generation of a Novel Pregnancy Algorithm From Norwegian Linked Health Registries.
- Pharmacoepidemiol Drug Saf. 2024;33(9).

 Trinh N, Houghtaling J, Martinez FL, et al. Harmonizing Norwegian registries onto OMOP common data model: Mapping challenges and opportunities for pregnancy and COVID-19 research. Int J Med Inform. 2024;191:105602.

COVID-19

- Trinh NT, Jödicke AM, Català M, Mercadé-Besora N, Hayati S, Lupattelli A, Prieto-Alhambra D, Nordeng H. Effectiveness of COVID-19 vaccines to prevent long COVID: data from Norway. Lancet Respir Med. 2024 May;12(5):e33-e34.
- Orangzeb S, Desalegn A, Trinh NTH, Zhao J, Nordeng H, Lupattelli A. COVID-19 vaccine uptake among children and adolescents in Norway: A comprehensive registry-based cohort study of over 800,000 individuals. *Vaccine*. 2024 May 31;42(15):3420-3428.
 Ukah UV, Platt RW, Nordeng HME. Impact of COVID-19 Pandemic on Dispensing of Cardiovascular Drugs in
- Norway: An Interrupted Time Series Study. Am J Prev Med. 2024 Apr;66(4):672-680. Elyass J, Desalegn A, Trinh NTH, Orangzeb S, Zidan M, Nordeng H, Lupattelli A. Individual and familial factors associated with mRNA COVID-19 vaccine uptake in pregnancy: A large-scale registry-based linkage
- study. *Vaccine*. 2024 Aug 30;42(21):126171. Pedersen E, Tripodi E, Aakjær M, Li H, Cantarutti A, Nyberg F, Andersen M, Lupattelli A, Nordeng H. Drug utilisation in children and adolescents before and after the start of the COVID-19 pandemic: Interrupted time-series analyses in three European countries. *Paediatr Perinat Epidemiol*. 2024 Aug;38(6):450-460.
- Moreno-Martos D, Zhao J, Li H, Nyberg F, Bjørndal LD, Hajiebrahimi M, Wettermark B, Aakjær M, Andersen M, Sessa M, Lupattelli A, Nordeng H, Morales DR. Impact of the early COVID-19 pandemic on adult mental health-related dispensed medications, hospitalizations and specialist outpatient visits in Norway and Sweden: Interrupted time series analysis. Br J Clin Pharmacol. 2024 Jul;90(7):1627-1636. Tauqeer F, Ceulemans M, Gerbier E, Passier A, Oliver A, Foulon V, Panchaud A, Lupattelli A, Nordeng H.
- Mental health of pregnant and postpartum women during the third wave of the COVID-19 pandemic: a European cross-sectional study. *BMJ Open*. 2023 Jan 11;13(1):e063391. Hurley E, Geisler BP, Lupattelli A, Poblador-Plou B, Lassalle R, Jové J, Bernard MA, Sakr D, Sanfélix-
- Gimeno G, Sánchez-Saez F, Rodríguez-Bernal CL, Sabaté M, Ballarín E, Aguilera C, Jordan S, Thayer D, Farr I, Ahmed S, Bartolini C, Limoncella G, Paoletti O, Gini R, Maglanoc LA, Dudukina E, Ehrenstein V, Alsina E, Vaz TA, Riera-Arnau J, Sturkenboom MCJM, Nordeng HME. COVID-19 and pregnancy: A European study on pre- and post-infection medication use. *Eur J Clin Pharmacol*. 2024 May;80(5):707-716.

Breast feeding and medication safety

- Nordeng H, Wegler C, Lindqvist A, Melander E, Magnusson M, Gandia P, Panchaud A, Baranczewski P, Spigset O. Transfer of cetirizine/levocetirizine into human breast milk and estimation of drug exposure to infants through breastfeeding: A human lactation study from the ConcePTION project. Basic Clin Pharmacol Toxicol. 2024 Jan;134(1):153-164.
- Melander E, Nielsen EI, Lindqvist A, Hovd M, Gandia P, Panchaud A, Guidi M, Annaert P, Baranczewski P, Spigset O, Nordeng H. Population pharmacokinetic modelling of cetirizine concentrations in human breast milk-A contribution from the ConcePTION project. Basic Clin Pharmacol Toxicol. 2025 Jan;136(1):e14100. Amundsen S, Nordeng H, Fuskevåg OM, Nordmo E, Sager G, Spigset O. Transfer of triptans into human
- breast milk and estimation of infant drug exposure through breastfeeding. Basic Clin Pharmacol Toxicol. 2021 Jun; 128(6): 795-804.
- Nordeng H, Gjerdalen G, Brede WR, Michelsen LS, Spigset O. Transfer of aripiprazole to breast milk: a case report. J Clin Psychopharmacol. 2014 Apr;34(2):272-5.

Paternal Medication Safety

Meng LC, van Gelder MMHJ, Chuang HM, et al., Nordeng HME. Paternal metformin use and risk of congenital malformations in offspring in Norway and Taiwan: population based, cross-national cohort study, BMJ, 2024;387;e080127.

Methodological Contributions

- Lupattelli A, Trinh NTH, Nordeng H. Association of maternal personality traits with medication use during pregnancy to appraise unmeasured confounding in long-term pharmacoepidemiological safety studies. Front Pharmacol. 2023 May 15;14:1160168. van Gelder MMHJ, Lupattelli A, Nordeng HME. Risk of spontaneous abortion after periconceptional
- medication use: Time to tackle the methodological challenges. Paediatr Perinat Epidemiol. 2023 Mar;37(3):188-190.
- Lupattelli A, Wood ME, Nordeng H. Analyzing Missing Data in Perinatal Pharmacoepidemiology Research:
- Methodological Considerations to Limit the Risk of Bias. Clin Ther. 2019 Dec;41(12):2477-2487. Cohen JM, Wood ME, Hernández-Díaz S, Ystrom E, Nordeng H. Paternal antidepressant use as a negative control for maternal use: assessing familial confounding on gestational length and anxiety traits in offspring. Int J Epidemiol. 2019;48:1665-1672.
- Wood ME, Lapane KL, van Gelder MMHJ, Rai D, Nordeng HME. Making fair comparisons in pregnancy medication safety studies: An overview of advanced methods for confounding control. Pharmacoepidemiol Drug Saf. 2018;27(2):140-147.

Wood ME, Lupattelli A, Palmsten K, Bandoli G, Hurault-Delarue C, Damase-Michel C, Chambers CD, Nordeng HME, van Gelder MMHJ. Longitudinal Methods for Modeling Exposures in Pharmacoepidemiologic Studies in Pregnancy. Epidemiol Rev. 2022 Jan 14;43(1):130-146.

Epigenetics and Child Neurodevelopment

- Olstad EW, Nordeng HME, Sandve GK, Lyle R, Gervin K. Effects of prenatal exposure to (es)citalopram and maternal depression during pregnancy on DNA methylation and child neurodevelopment. Transl
- Psychiatry. 2023 May 5;13(1):149.
 Gervin K, Nordeng H, Ystrom E, Reichborn-Kjennerud T, Lyle R. Long-term prenatal exposure to paracetamol is associated with DNA methylation differences in children diagnosed with ADHD. Clin Epigenetics. 2017;9:77.
- Gervin K, et al. Cell type specific DNA methylation in cord blood: A 450K-reference data set and cell countbased validation of estimated cell type composition. Epigenetics. 2016;11:690-698.

Projects

MAJOR GRANTS:

2022 - 2026 UIORealArt: Real world - artificial worlds: Improving causal inference in perinatal pharmaco_epidemiology using machine learning approaches on real_world and artificial data - Project leader _ UiO Life Science Convergence Environment (16 mill NOK).

2021_2025 International Alliance for PharmacoGenetic Epidemiology Excellence (iAPOGEE) - Project leader - RCN, INTPART International Partnerships for Excellent Education, Research and Innovation (10 mill NOK)

2020 - 2023 Nordic COHERENCE (Nordic COllaborative HEalth REgister Network for Covid-19 Epidemiology) - Work package lead on vulnerable patient groups - Nordforsk - (2.5 M NOK)

2020 2022 EU COVID 19 - Project leader - NFR (4.97 M NOK)

2015 _ 2020 DrugsInPregnancy (STG GA No. 639377) - Project leader - ERC (1.5 M EUR)

2019 _ 2024 ConcePTION - Partner, task lead 1.5 - IMI H2020 (13 M EUR Total, 52 partners).

2019 $_$ 2023 PharmaTox 2.0- Project leader - UiO MN, Strategic Research Initiative (0.9 M EUR)

2015 2020 PharmaTox 1.0- Project leader - UiO MN, Strategic Research Initiative (1.8 M EUR)

2015 _ 2020 The PharmaTox Honours Program in Quantitative Life Sciences - Project leader - RCN, INTPART International partnerships (440 k EUR)

2012 - 2016 Grants for 1 post doc and 2 PhD positions from non_profit organizations "Extrastiftelsen" &

Memberships

MEMBERSHIPS OF SCIENTIFIC SOCIETIES:

- European Network of Centres for Pharmacoepidemiology and Pharmacovigilance (EnCePP)
 International Society of Pharmacoepidemiology (ISPE), FISPE

- European Drug Utilization Research Group (EuroDRUG)
 Organization of Teratology Information Specialists (OTIS)
 European Network of Teratology Information Spesialists (ENTIS)
- Nordic Pharmacoepidemiology Network (NorPEN)
- COST network; Research Network in Peripartum Depression Disorder (national contact person for Norway)

Other Relevant Information

Hedvig Nordeng. is a professor and head of the Pharmacoepidemiology and Drug Safety Research Group, Department of Pharmacy, University of Oslo (Ui0), Norway. Professor Nordeng's has more than 15 years of research experience in pharmacoepidemiology based on health registry data in Norway, and in specific populations such as pregnant individuals and children. She has a long track record of interdisciplinary research and of international research projects, using large population-based cohorts and linked health care registries, especially in the Nordic countries. Over the past years, she has put great efforts into creating a data analytical pipeline at the University of Oslo for rapid analysis of urgent perinatal pharmacovigilance signals. Her research group: PharmacoEpidemiolo and Drug Safety (PharmaSafe) - Department of Pharmacy

- 2024: The NAR Brain Power Award, awarded by Forskerforbundet / The Norwegian Association of Researchers for significant contributions to society through knowledge-based work.
- 2023: Women's Research Award from the Norwegian Women's Public Health Association, Norway's largest
- women's organization, for research to improve women's health. 2020: Appointed Fellow of ISPE (International Society of Pharmacoepidemiology).
- 2017: Titan-award for outstanding dissemination of research within Natural Sciences. First award winner, Faculty of Mathematics and Natural Sciences, University of Oslo.
- 2016: Pharmacist of The Year in Norway, awarded by The Norwegian Association of Pharmacists