



Dear NorPEN community,

We're pleased to share with you the 3rd annual NorPEN newsletter, where **you** – the NorPEN member groups – are featured! Thank you to all who contributed.

Many thanks to Björn Wettermark and the Swedish scientific and local committee for hosting our 17th annual NorPEN conference in Uppsala, Sweden – **the largest yet!** If you missed it, you'll find the highlights on Page 3, as well as a summary of recent news about the Nordic Registers presented at the conference on Page 5.

The [NorPEN executive committee](#) is entering into the 2nd year of our 2-year term, and we welcome our 2026 student representatives: [Alexis Carson](#) and [Heidi Sonne](#). They are managing our NorPEN [LinkedIn](#) page and will be providing you with updates there throughout the year, including information from the NorPEN EduGroup (Page 4).

In 2026, instead of our traditional NorPEN conference in cold, dark November, we're doing something different! The 18th annual NorPEN conference will be held in collaboration with the Norwegian Epidemiology Association (NOFE), and the joint [NordicEpi-NorPEN conference](#) will take place June 3-5th in Tromsø, Norway – you'll find more information below on page 3.

We look forward to seeing many of you there under the midnight sun!

Carolyn Cesta & Jacqueline Cohen

Chair and co-chair, NorPEN executive committee

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Summary of the 17th Annual NorPEN conference

The 17th annual NorPEN conference, hosted in the regal main building of **Uppsala University** in Sweden from November 19-20th, was a successful event with 131 registered attendees from 12 countries, including the Nordics, Scotland, Belgium, Lithuania, Netherlands, Slovenia, South Korea, and Brazil. The conference kicked off with a pre-conference course where participants were inspired by Professor Anton Pottegård and Associate Professor Shirley Wang to prioritize **Transparency and Reproducibility** in their research.

The first official day of the conference began with a graphical overview of pharmacoepidemiology in the Nordic countries by our conference host Professor Björn Wettermark, which was the perfect introduction to our first keynote speaker Professor Helga Gardarsdottir from Utrecht University, who highlighted the past, present, and potential future **impact that the Nordic countries have on global pharmacoepidemiology**. In the afternoon, speakers from the Uppsala Monitoring Centre and from the Swedish Medical Products Agency provided the attendees with an overview of **recent trends in pharmacovigilance**, and to conclude Day 1, our 2nd key-note speaker, Professor Jonas Ludvigsson, spoke on the **past and future of Nordic registers**, followed by short updates about upcoming data sources from each of the 5 Nordic countries (for a summary, see Page 5).



Day 2 included a session on **common data models**, parallel workshops on current needs in **pediatric and geriatric pharmacoepidemiology**, and concluded with Lessons learned from **register-based RCTs** by the 3rd and final keynote speaker – Professor Stephan James.

The conference provided a number of opportunities for networking and socializing, including a Welcome Reception in the Faculty Room, a guided tour of the old academic buildings in Uppsala, and a joyous dinner at Pharmen, the Pharmaceutical Students Union, with entertainment provided by the resident band, and ourselves - singing songs from the Swedish pharmacy student song book 🎵 🎶

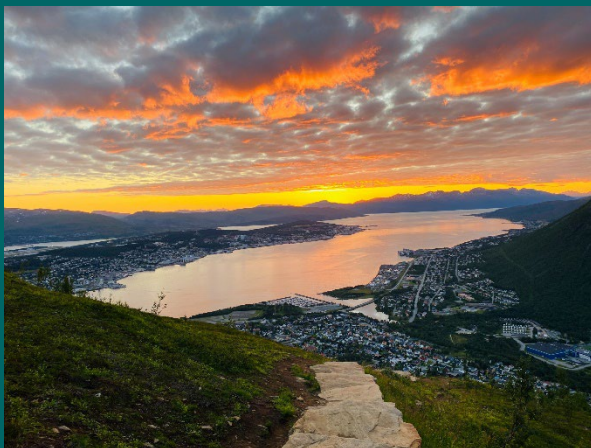
In total, 55 abstracts were submitted, allowing the audience to enjoy 9 oral presentations, 16 PharmacoEpiSLAMS, and 30 posters. Two PharmacoEpiSLAM and two poster prizes were awarded to the following PhD candidates:

- **Alexis Carson, University of Oslo:** *Antenatal antidepressant use and subsequent offspring type 1 diabetes in Norway and Sweden*
- **Felix Wittström, Karolinska Institutet:** *Prevalence and characteristics of women with bipolar disorder discontinuing lithium treatment in pregnancy: leveraging prescription free-text information in Sweden*
- **Elisabeth Solmunde, Aarhus University:** *Predictors of late breast cancer recurrence: Development and internal validation of an algorithm to predict late breast cancer recurrence*
- **Jacob Granfors, Karolinska Institutet:** *Comparative Safety of Disease Modifying Antirheumatic Drugs in Rheumatoid Arthritis: Real-world Impact of Different Methods of Handling Treatment Discontinuation*

Many thanks to the scientific committee, local host committee, and the sponsors:



News on the 1st Joint NordicEpi & NorPEN Conference



The NordicEpi & NorPEN conference will be held in Tromsø, Norway on **June 3rd to 5th**. It will be the first Nordic conference where epidemiologists and pharmacoepidemiologists join forces. Over the 2.5 days, there will be 5 keynote speakers, a Nordic population-based health survey plenary as well as symposiums and 7 parallel sessions with topics ranging from big data and -omics to inequalities in healthcare and perinatal pharmacoepidemiology.

There will also be pre-conference courses, a conference dinner, the opportunity to go on a hike up a mountain just outside the town (see picture), or visit a floating sauna and have a dip in the Arctic Ocean in the evening sun. For more information, please see www.uit.no/norpen2026 and for more information about Tromsø, see here: <https://www.visit-tromso.no/summer>

Update from the EduGroup

Added to the website in 2025:

- Previous NorPEN seminar descriptions and recordings: <https://norpen.org/seminars/>
- Educational Resources in Pharmacoepidemiology (literature and videos) and links to Nordic drug statistics websites <https://norpen.org/resources/>

Of note, 2025 was a record year for education in pharmacoepidemiology in the Nordics, with three of our NorPEN member groups at the University of Copenhagen, Karolinska Institutet, and Uppsala University offering new doctoral-level courses in drug utilization research and pharmacoepidemiology!

NorPEN Seminar Series

The seminar series continues to attract 40–60 attendees, with five seminars held in 2025. More to come in 2026!

**Are you interested in contributing to the work of the NorPEN Education subgroup?
Are you interested in giving a NorPEN Seminar?
If so, please contact: edugroup@norpen.org**

Event Calendar 2026

17-20 May | Philadelphia, USA | [ISPOR 2026](#)

3-5 June | Tromsø, Norway | [NordicEpi-NorPEN Conference](#)

9-10 June | Hatfield, United Kingdom | [ISoP Mid-Year Symposium](#)

29 August – 2 September | Milan, Italy | [42nd Annual ISPE Conference](#)

3-5 September | Leiden, the Netherlands | [ENTIS Annual Meeting](#)

7-8 September | Bristol, United Kingdom | 4th Annual European Perinatal and Paediatric Epidemiology Conference (EPPEC)

30 October – 1 November | Melbourne, Australia | [18th Asian Conference on Pharmacoepidemiology \(ACPE\)](#)

****Stay tuned for information about additional upcoming NorPEN online Seminars****

Recent news about the Nordic Registers

In the NorPEN 2025 conference session **Past and Future of Nordic Registers**, prescription data experts from each Nordic country provided brief updates on their data and access developments. This summary brings together conference proceedings and highlights from a post-event survey of data experts about the datasets and features that have recently been introduced or are expected to become available in the near future, with a particular focus on their relevance for pharmacoepidemiological research.

Finland

Heini Kari, Research Manager, The Social Insurance Institution of Finland (Kela)

Two main data sources for prescription register data in Finland are the Kanta Prescription Centre, which includes prescriptions and both reimbursable and non-reimbursable dispensations, and Kela's register of medicines reimbursed under the National Health Insurance scheme. While Kanta provides broader coverage, including prescription details, Kela's register offers a longer historical time series dating back to the 1990s. New features and updates related to these data resources include the publication of medicine-related dataset descriptions in English in the national data resources catalogue (www.aineistokatalogi.fi/catalog), the availability of electronic cross-border prescriptions in several European countries with these data soon accessible to researchers, the introduction of electronic hospital pharmacy prescriptions primarily for the treatment of communicable diseases, and the development of the national medication list (Kanta medication list), which will provide an up-to-date summary of an individual's medication in the future. Together, these initiatives significantly improve data accessibility and open new opportunities for research and monitoring.

Iceland

Freyja Jónsdóttir, Associate Professor, School of Health Sciences, Faculty of Pharmaceutical Sciences, University of Iceland

A fully integrated electronic health record system forms the backbone of Iceland's registry-based research infrastructure. The available registries include prescription data, outpatient diagnoses, and mortality records with complete follow-up. In addition to these core resources, Iceland maintains several specialized databases, such as the SAGA Cohort, which is a nationwide study on trauma and women's health, as well as databases focused on heart failure, dementia, cardiology, and biological medicines (ICEBIO). Genetic data are available through the Decode database, and there are also internal medicine and perioperative databases that provide detailed clinical information. Hospital-based registries include internal medicine and surgical databases, which contain extensive data on admissions and procedures. In the near future, Iceland plans to establish a new database that will incorporate outpatient data, thereby expanding beyond the current hospital-focused datasets. There is also a strong emphasis on increasing collaboration across epidemiological disciplines within Iceland and internationally, aiming to enhance the scope and impact of registry-based research.

Norway

Kari Jansdotter Husabø, Senior Advisor, Norwegian Prescription Registry, Department of Health Registries, Norwegian Institute of Public Health

Norway's main prescription data source is the Norwegian Prescribed Drug Registry (Legemiddelregisteret, LMR or NorPD in English), which has replaced the pseudonymous Reseptregisteret. Pharmacies remain the primary data source, and all historical data from Reseptregisteret has been transferred to LMR. The registry now supports easier linkage with other health registers and can define study populations for research. English metadata will be available at the start of 2026. LMR is

evolving with near real-time data access thanks to daily reports from a new pharmacy IT system. A major initiative, the “Drug-data from institutions” project (LMDI), aims to collect inpatient medicine use data from electronic medical records in all public hospitals and nursing homes. Legislative changes will mandate reporting and broaden the scope of LMR. Testing in hospitals is planned for early 2026, with nursing homes starting gradually from 2025 onward. Additionally, Norway’s health data strategy (2025–2027) focuses on faster access, more comprehensive data, including municipal sources, and reducing reporting burdens.

Denmark

Jannik Wheler, Researcher, Department of Clinical Epidemiology, Aarhus University Hospital

Two important Danish registries were presented as resources for medication and infection research. The Danish National Hospital Medication Register, established in 2018, is among the first nationwide registries for in-hospital medication use and covers 1.9 million patients and over 105 million medication records, including details such as indication, dosage, administration time, and pharmaceutical form, though coverage is incomplete in some specialties and excludes private hospitals. The Danish Microbiology Database, created in 2010 by Statens Serum Institut, provides real-time nationwide access to microbiological test results from hospitals and general practices, including data on sample type, test method, detected microorganisms, and antimicrobial resistance profiles. Recent improvements have enhanced its usability for research, and current development efforts focus on improving data accessibility and interoperability to enable better linkage between registries and support advanced research and innovation.

Sweden

Eva Nyman, Investigator, Department of Registers and Statistics, Swedish National Board of Health and Welfare and Zoltan Thinsz, Program Officer, Swedish National Board of Health and Welfare

Updates on registers and future data access from the Swedish National Board of Health and Welfare highlighted Sweden’s extensive health data infrastructure. The agency manages several nationwide registers, including the National Patient Register, the Medical Birth Register, the Cancer Register, the Prescribed Drug Register, and the National Dental Health Register, among others. A new Health Data Register Act has been proposed, which, if accepted, will allow for the development of an Administered Medicines Register. The aim of this register is to capture hospital medicines provided in inpatient and specialized outpatient care, including details such as treatment indication, administered medication, dose, and administration method. These initiatives aim to improve data completeness and enable more comprehensive follow-up studies on medication use, safety, effectiveness, and cost-effectiveness.



Updates from NorPEN Member Groups

Pharmacoepidemiology Research Group Faculty of Pharmacy, Uppsala University, Sweden

The research group in pharmacoepidemiology in Uppsala is led by Professor Björn Wettermark and consists of around ten researchers, teachers, and doctoral students. The group is responsible for the teaching of pharmacoepidemiology, pharmacoconomics and evidence-based medicine at the faculty of pharmacy, and have thus many ongoing courses and master students.

Current research focus on medication adherence, chronic diseases, pharmaceuticals in the environment and introduction of new medicines, but the group is also involved in studies on health policy, including cross-national comparisons of policy initiatives and medicine use. Most studies are registry-based, but the group also conduct surveys to patients and health professionals.

The group collaborates with many other groups in the Swedish healthcare system, the Swedish Medical Products Agency, WHO Uppsala Monitoring Centre as well as other countries. They are also active in international scientific organizations and arranged both the annual conference for European Drug Utilization Research Group (EuroDURG) and the NorPEN conference 2025.

Some ongoing international research projects include:

- **SCIFI-PEARL** on Covid-19, led by university of Gothenburg
- **MORE Europe**, a Horizon 2020 project on better use of registers for decision-making, led by university of Groningen, the Netherlands
- **Enable Adherence**, a follow up project to a Cost action on digital tools in medication adherence
- **RPP Baltic Sea** on sustainable drug use around the Baltic Sea, in collaboration with academia and competent authorities in Sweden, Finland, Latvia and Lithuania
- **Bridging Waters**, a cross country learning initiative with University of the Highlands and Islands, Scotland
- **MultiMed** project aiming to understand how governance mechanisms are connected with variation in costs for medicines, equality and quality of prescribing. This Nordic project is led by University of Turku and involves also the Finnish Institute for Health and Welfare, Finnish Medicines Agency, University of Southern Denmark, University Hospital of North Norway, and University of Copenhagen.

More information about the group and ongoing projects and publications can be found at: <https://www.uu.se/en/department/pharmacy/research/pharmacoepidemiology>

Centre for Pharmacoepidemiology (CPE) Karolinska Institutet, Sweden

2026 marks the 20th year anniversary of CPE!

In these two decades, CPE has grown to include around 30 researchers, statisticians, project managers, postdocs, doctoral students, and affiliated members. Since October 2025, CPE has been under the leadership of the newly appointed professor of pharmacoepidemiology, Björn Pasternak. Within the newly merged forces, we are active in a number of pharmacoepidemiologic areas, including reproduction and pregnancy; psychiatry and neurological diseases; dermatology; pediatrics; cardiometabolic diseases; and have a strong commitment to applying state-of-the-art methods.

CPE was established in 2006 as a centre of excellence for independent pharmacoepidemiologic research. Since then, we have established a strong tradition of leading and participating in Nordic academic collaborative studies. Additionally, CPE has contributed to more than 50 completed commission projects, of which the majority are regulatory-mandated studies on drug utilization, safety, and effectiveness in collaboration with partners across sectors and countries, and are currently contributing to around 20 ongoing studies. We are active in several international research and professional networks, including NorPEN, ISPE, SIGMA, and ENCePP.

In 2026, four doctoral students from CPE will defend their thesis in 2026:

[Adam Nygren](#) (January, psychiatric pharmacoepi),
[Arvid Engström](#) (June, cardiometabolic pharmacoepi),
[Carl-Emil Lim](#) (Autumn, cardiometabolic pharmacoepi), and
Per Tornhammar (Autumn, cardiometabolic pharmacoepi).

To celebrate our 20-year milestone, CPE is planning to host some seminars and other activities within our research community. More information will be shared soon on our website: <http://ki.se/en/meds/centre-for-pharmacoepidemiology>



Research Group of Geriatric Pharmacoepidemiology Karolinska Institutet, Sweden

The [Research Group of Geriatric Pharmacoepidemiology](#) focuses on medication use, safety, and effectiveness among older adults. Our research is primarily based on large-scale Swedish register data.

During the past year, the group has continued an ongoing FORTE-funded project on deprescribing and medication discontinuation in older adults. This work includes descriptive analyses of discontinuation rates for drugs suggested for deprescribing ([PMC12364622](#)) as well as methodological research on how deprescribing can be more accurately identified and interpreted using routinely collected data ([PMC12516172](#)).

We also participate in several multi-country collaborations ([PMC12103899](#), [PMC12613062](#)), including a large-scale study conducted within the EHDEN project ([PMID: 40992879](#)). Members of the group have contributed to multiple international conferences, including NorPEN in Uppsala, where we organised a workshop on geriatric pharmacoepidemiology, and ISPE in Washington, where we organised a workshop on R Shiny applications.

In parallel, we continue to monitor trends in both the quality and quantity of medication use among older adults. Current and upcoming work places particular emphasis on mental health in later life and on multidose drug dispensing.

We look forward to continued and strengthened Nordic collaboration within NorPEN, and to further joint research activities across the Nordic countries in 2026.

Psychiatric and Pharmacoepidemiology Research Group Karolinska Institutet, Sweden

[The Psychiatric and Pharmaco-Epidemiology Research Group](#) is led by Principal Investigator Zheng Chang at the Department of Medical Epidemiology and Biostatistics, Karolinska Institutet. The group conducts cutting-edge research on the effectiveness and safety of pharmacological treatments for psychiatric disorders. It also studies the interplay between mental and physical illness and how these conditions are managed in clinical practice. By leveraging large-scale real-world data and advanced pharmacoepidemiological methods, the group generates evidence that complements clinical trials and informs routine practice.

Zheng Chang's research has substantially advanced understanding of ADHD and psychiatric medication outcomes. His high-impact publications include studies demonstrating associations between ADHD pharmacotherapy and reduced mortality and other adverse outcomes, published in leading journals such as *JAMA* and *BMJ*. The group is currently leading research on the rising diagnosis and prescription of psychiatric disorders in young people, as well as on individualized treatment effects.

In March 2026, a doctoral student in the group will defend her thesis, "*Management of Attention-Deficit/Hyperactivity Disorder and Co-occurring Cardiovascular Diseases*," which includes several cross-country studies conducted within the EU Horizon 2020 TIMESPAN consortium (<https://timespan.eu/>).

Register Epidemiology Group, University of Gothenburg, Sweden

A major step in 2025 for [our group](#) was the transition of our COVID-19 project [SCIFI-PEARL](#) to using the available data with a pharmacoepidemiology focus in the HI-SPEED (Health Impact - Swedish Population Evidence Enabling Data-linkage) project, strengthening our platform for population-based studies and collaborations in pharmacoepidemiology using register data. We have an umbrella ethical approval, and specific studies can be added with ethics amendments. The HI-SPEED includes data from multiple registers, and importantly from the National Prescribed Drug Register from 2018 onward (hopefully soon extends from 2015), enabling expanded longitudinal analyses of medication use and outcomes.

Another major achievement is our successful onboarding to [DARWIN EU](#)[®]. This was done in collaboration with [Läkemedelsverket](#), where they serve as the Swedish node and our group as the Swedish data and research partner, which has enabled collaboration and interaction with [EMA](#) and other European data partners. The Swedish register data, with its high quality and coverage, has been welcomed as an essential piece in European RWE research. We have already participated in 10 projects, 2 of which are completed.

Pharmacoepidemiology publications of note in 2025 include [\(1\)](#) a register-based study showing lower risks for most severe cardiovascular and cerebrovascular conditions after COVID-19 vaccination, especially after 3 doses and among older adults. [\(2\)](#) Focusing on older adults specifically, we found that regional differences in COVID-19 vaccine uptake emerged for subsequent doses as national prioritization and coordination was relaxed. We also confirmed COVID-19 vaccines to be overall safe in older adults for several rare possible adverse events, with a benefit-risk profile that remains favourable (under review). [\(3\)](#) Finally, in a study using interrupted time series methodology, there was no profound effect of the COVID-19 pandemic on initiation of anticoagulants overall, but a notable immediate decrease in initiation of NOACs in persons ≥ 65 -years, and an attenuated downward temporal trend in initiation of warfarin were seen.

Larsson ADHD Research Group, Örebro University, Sweden

[The Larsson research group](#) conducts pharmacoepidemiological and real-world evidence research in child and adolescent mental health, with a particular focus on ADHD and related neurodevelopmental conditions. Our work integrates large-scale Nordic register data with causal inference, machine learning, and clinical expertise to improve evidence on treatment effectiveness, safety, and equity across the life course.

Highlight: Wallenberg-funded research on personalized treatment strategies

<https://maw.wallenberg.org/en/project/personalized-treatment-strategies-young-people-mental-illness>

We recently received funding from the **Marcus and Amalia Wallenberg Foundations** for a project aimed at improving personalized treatment strategies for young people with mental illness, including ADHD, autism, anxiety, and depression. A central component of the project focuses on strengthening the evidence base for **what works, for whom, and under which circumstances** in routine clinical care.

This work will combine **network meta-analyses of randomized trials** with **target trial emulation in real-world data** to compare pharmacological and non-pharmacological interventions, as well as their combinations and sequencing. Advanced causal and machine-learning methods will be used to identify heterogeneity in treatment effects and support patient stratification. Importantly, the project will also leverage **previously underutilized information from electronic health records**, using language models to capture symptoms, functioning, and support needs not visible in structured registers.

The overarching goal is to generate scalable, practice-relevant evidence to support more precise, equitable, and effective care for young people, while helping to reduce pressure on child and adolescent mental health services.

Pharmacoepidemiology Research Group University of Southern Denmark

We are the [Pharmacoepidemiology Research Group](#) at the University of Southern Denmark. Our focus spans the full range of medicine-related research, with a primary focus on registry-based studies, but also includes e.g. qualitative research and clinical trials. The group comprises approximately 40–50 researchers and is part of a larger department that also includes translational pharmacology and environmental medicine.

We place a high priority on teaching and on developing methods and infrastructure that benefit the wider epidemiological community. A recent example is the publication of the [EpiCore common data model](#). This (very simple!) model provides a shared, transparent data structure for pharmacoepidemiological studies, facilitating reproducibility, efficient code sharing, and collaboration across research groups. This is already proving very useful to allow many new and exciting collaborations. (And we're working on a 'open source' ETL allowing you to easily build your own EpiCore instance).

A defining characteristic of our department is a strong emphasis on developing work practices and organisational culture, and on ensuring that staff receive systematic training in these areas. This focus is not primarily aimed at increasing productivity, but at fostering well-being, job satisfaction, learning, and consistently high-quality research.

One principle we use regularly is the so-called "tæskehold," or research sprint. In this format, a concentrated research effort is organised as a short, intensive



process involving a large part of the department. The aim is to enable researchers to learn from one another by observing and discussing how they approach concrete research tasks. We have developed a practical manual describing how to prepare and run a research sprint, which we are happy to share with anyone interested. The research sprint approach has been submitted for presentations at the NorPEN conference in June – we hope you will hear more then.

An important final point: We are very open to hosting visiting guest researchers. Such guests participate fully in our internal teaching program, research sprints, and training in meta-work, on equal footing with our own staff. If you are interested, or know someone who might be, please do not hesitate to get in touch. **We look forward to seeing you all at the very exciting NorPEN x NordicEpi meeting in Tromsø this June.**

The Precision Safety Lab Department of Clinical Pharmacology, Bispebjerg Hospital, Denmark

We improve drug safety through data driven, clinically grounded risk assessment by combining clinical pharmacology, epidemiology, and artificial intelligence. Using real-world data, we generate practical risk stratification that supports clinical decision making. We believe the strongest solutions are developed in collaboration and work closely with a broad network of clinical, academic, and public partners. Patient and public involvement, and a strong focus on ethics, is a priority in our research and helps shape our questions, outcomes, and how results are communicated and implemented.

New collaborations are welcome!

Psychiatric Pharmacoepidemiology Research Group Niuvanniemi Hospital, Finland

Psychiatric Pharmacoepidemiology Research Group at Niuvanniemi Hospital investigates the effectiveness and safety of pharmacotherapies for psychiatric disorders. The primary focus is on severe mental disorders, namely psychotic disorders and bipolar disorder, and substance use disorders. The group aims to develop new methodological tools for register-based research and to leverage linkage to novel data sources. The overarching goal is to provide real-world evidence with large-scale data and advanced methods to inform clinical practice and improve the care and well-being of individuals living with these conditions.

The group published **PRE2DUP-R** on GitHub ([PRE2DUP-R](#)), an openly shared, cutting-edge method for defining treatment episodes from dispensing data ([Int J Medical Informatics 2026](#)). PhD student Pia Vattulainen, who has developed the method together with supervisors Heidi Taipale and Antti Tanskanen, presented PRE2DUP-R in NorPEN seminar series in May ([recording available](#)) and also in EuroDURG Congress in Uppsala in July. At the Nordic Epi & NorPEN Conference 2026, the group will host pre-conference workshop titled ‘*Creating treatment episodes of medications using the PRE2DUP method*’ offering participants hands-on experience of the method and to ask questions directly from the experts.

Other highlights of year 2025 included studies on comparative effectiveness of treatment strategies for relapse prevention in first-episode schizophrenia ([Lancet Psych 2025](#)), augmentation of clozapine with antipsychotics ([World Psych 2025](#)) or antidepressants ([Lancet Psych 2025](#)), transdiagnostic effectiveness of clozapine ([Lancet Psych 2025](#)), relapse risk prediction model for first-episode bipolar disorder ([eClinical Medicine 2025](#)) and transdiagnostic external validation of our previously published machine-learning model **MIRACLE-FEP** in bipolar disorder ([Mol Psych 2025](#)), which also shows promise to guide proactive pharmacotherapy treatment decisions.

The group received major research funding from Jane and Aatos Erkkö Foundation and will launch a four-year research project in 2026 on ‘Emergent pharmacotherapies for difficult-to-treat mental disorders’ in 2026. Additionally, the group received the Best Publication Prize from the Finnish Psychiatric Association for its study on real-world effectiveness of antidepressants and antipsychotics for psychotic depression published in [World Psych](#) in 2024.

Kela Research at the Social Insurance Institution, Finland

Kela's Research Unit is launching a [new research program](#) for 2026–2028. Register-based studies on medicines provide insights into medicine use, prescribing practices, the pharmaceutical market, the reimbursement system, and their impacts on patients and the health and social care system. The program also includes a pilot study to test a new type of credit Kela can grant for medicine costs. In the previous program period, a key project was 'Medicines and the Pharmaceutical Sector in a Changing Environment', which examined rational prescribing and pharmacotherapy as well as the systems and structures of the pharmaceutical sector and medicine life cycle in an evolving service system. Kela's Research Unit employs about ten researchers who conduct medicine-related research and expert work. Kela is one of the main holders of registers containing medicine and prescribing data in Finland, offering unique opportunities for pharmacoepidemiological studies.

PharmacoEpidemiology and Drug Safety ([PharmaSafe](#)) University of Oslo

New initiative: **UiO:Real-World Evidence** is a newly funded convergence environment in the University of Oslo's new Life Science building led by professor Hedvig Nordeng. UiORWE brings together experts in data science, epidemiology and clinical sciences to generate real-world evidence on drug safety and effectiveness using Norway's health data. The work focuses on monoclonal antibodies and new vaccines, evaluating their long-term benefits and risks across patient groups. To address complex real-world questions, the group develops and applies advanced causal inference and machine-learning methods for survival and longitudinal data.

Two important papers from the PharmaSafe research group at UiO this last year are:

Olstad EW, Nordeng HME, Bjørk MH, Selmer K, Gervin K. [Paternal valproate use and impact of shared genetic susceptibility on child neurodevelopment](#). Sci Rep. 2025 Nov 7;15(1):39033.

In brief, we show in this study that fathers treated with valproate have higher epilepsy polygenic risk scores (PRSs), and that epilepsy, ADHD, and ASD PRSs overlap genetically. The findings suggest shared neurodevelopmental risk genes that may predispose men both to epilepsy and to passing on genetic vulnerability for ADHD or ASD. This has major implications for epidemiology: paternal genetic predisposition may confound associations, contribute inherited risk independent of exposure, and lead to overestimation of valproate's effect estimates if not properly accounted for.

And a framework for how we can make pharmacoepidemiological studies more diverse and fairer: Vallejo-Yagüe E, et al. [Advancing Health Equity in Europe: Explore, Tailor, Implement, and Evaluate \(ETIE\)-A Framework of Diversity and Fairness in Pharmacoepidemiologic Research](#). Pharmacoepidemiol Drug Saf. 2025 Jul;34(7):e70175.

Medicines and Patient Safety, OsloMet, Norway

As a part of the project [Causality, complexity and evidence in pharmacovigilance - OsloMet](#), carried out at the pharmacy department of the Oslo Metropolitan University, an ongoing PhD project is aiming to enhance preparedness for detecting signals of unexpected adverse reactions with significant potential consequences for the patient and/or society during the early phase of post-marketing surveillance, when limited datasets are available. The project focuses on the use of pharmacovigilance databases and seeks to understand improve the use of such databases in cases of health emergencies. The PhD student, Tom Dzus, has five years of experience in pharmacovigilance, both from the Uppsala Monitoring Centre and the pharmaceutical industry. In addition to the PhD candidate, the project group consists of the undersigned (Associate Professor in Pharmacy at OsloMet) and Francois Montastruc, Professor of Pharmacology and Deputy Director of the Regional Pharmacovigilance Centre in Toulouse. Tom is finalizing his first manuscript, in which he carried out comparative analysis of spontaneous reports about adverse events after immunization with a COVID-19 vaccine, which were sent both by consumers and health professionals. The purpose of this analysis was to compare how Norwegian health care professionals and consumers reported the same adverse event following COVID-19 vaccination, examining differences in unstructured information provided and inclusion of details relevant for causality assessment.

Section for Epidemiology, Norwegian Veterinary Institute

The pharmacoepidemiology group at the [Section for Epidemiology](#) (Norwegian Veterinary Institute) works on surveillance and research related to medication use in animals.

The research group includes two researchers:

- Kari Helgesen (DVM, PhD), Senior Researcher
- Lukas Löfling (MSc Pharm, PhD), Senior Researcher

Important articles and reports in 2025

The surveillance program of antimicrobial use and resistance in the Norwegian veterinary sector turned 25 years. To celebrate this and to summarise the work done for 25 years, an anniversary report was published:

Börjesson, Stefan, Grave, Kari, Helgesen, Kari Olli, Johannessen, Gro S., Kaspersen Håkon Pedersen, Löfling, Leif Lukas, Mo, Solveig Sølverød, Norström, Madelaine, Sletteemås, Jannice Schau, Urdahl, Anne Margrete. Antimicrobial Use & Antimicrobial Resistance in Veterinary Sector in Norway – 25 Years of Surveillance. VI report 42/2025. Veterinærinstituttet 2025.

We have assessed the quality of antibiotic data in the Norwegian Veterinary Prescription Register (VetReg). This work resulted in a published paper, the first peer-reviewed publication on quality of the register:

Udhwani T, Grave K, Hopp P, Helgesen KO. Quality assessment of antibiotic use data in the Norwegian veterinary prescription register for 2023. BMC Veterinary Research. 2025;21(1):510.

Department of Chronic Diseases Norwegian Institute of Public Health

Our group in the [Department of Chronic Diseases](#) at the Norwegian Institute of Public Health (NIPH) currently consists of 9 researchers and one PhD-student. The NIPH Research Group has extensive experience in conducting pharmacoepidemiology research covering a broad range of therapeutic areas and drug types, including drug utilisation studies, pregnancy safety, and also participates in post-authorization safety studies (PASS). We use Nordic population-based health registers and Norwegian health surveys in our research. We also synthesize evidence and conduct research assignments on behalf of national health authorities. We currently focus on opioids, weight-loss drugs, and psychotropics.

News

- Former PhD-student and member of the NorPEN EC, Chaitra Srinivas, recently defended her thesis on ADHD medication in pregnancy.
- Our group participated in the development of the EpiCore Common Data Model and a [paper describing the CDM published in PDS](#).

The [IPSUM](#) Research Group (Identification and Prevention of Suboptimal Use of Medications), Department of Pharmacy, UiT

The IPSUM research group has experienced several significant developments throughout 2025 and into early 2026.

In 2025, we bid farewell to our esteemed colleague, **Elin Lehnbo**m, who transitioned to a new position at Uppsala University. While her departure was a loss for our team, we were delighted to welcome **Nhung Trinh**, who joined us on December 1, 2025, to fill this role.

We are proud to announce that **Kjell Halvorsen** achieved the prestigious title of Professor in September 2025, marking a significant milestone in his academic career. Additionally, starting January 2026, **Professor Anne Gerd Granås** has joined the IPSUM research group as an affiliate, contributing to the Vestvågøy Project on "[Correct Medication Use in Individuals with Intellectual Disabilities - it is all about life.](#)"

As of January 31, 2026, our respected research group leader, **Lars Småbrekke**, has retired. While we are saddened by his departure, we are thrilled that he will continue to contribute to IPSUM as a **Professor Emeritus**.

Finally, effective February 1, 2026, **Beate Garcia** will assume the role of research group leader. We are excited about this new chapter and look forward to the continued growth and success of IPSUM.

We extend our heartfelt gratitude to all our colleagues for their contributions and look forward to advancing our mission of improving medication use and patient outcomes.

Recent publications from NorPEN member groups

On our webpage (www.norpen.org) we have collected a list of published papers by NorPEN members which include data from more than 1 Nordic country. If you want to have your recently published paper on our NorPEN website, please email the title, author names, and PMID to info@norpen.org

1. Hemmingsen CH, Kjaer SK, Hjorth S, Nörby U, Broe A, Pottegård A, Bénévent J, Schmiegelow K, Skovlund CW, Leinonen MK, Nordeng H, Mørch LS, Hargreave M. **Maternal use of hormonal contraception and risk of childhood leukemia: A Scandinavian population-based cohort study.** Eur J Cancer. 2025 Jan 17;215:115168.
2. Johnson H, Hjorth S, Morris J, Pottegård A, Leinonen M, Norby U, Nordeng H. **Use of signal detection methods to identify associations between prenatal medication exposure and subsequent childhood cancers: a Nordic hypothesis-generating registry-based study.** Expert Opin Drug Saf. 2025 Feb 12:1-12.
3. Hemmingsen CH, Kjaer SK, Hjorth S, Nörby U, Pottegård A, Mathiasen R, Skovlund CW, Leinonen MK, Nordeng H, Mørch LS, Hargreave M. **Maternal hormonal contraceptive use and childhood central nervous system tumor risk in a large Scandinavian cohort.** Int J Cancer. 2025 Jun 5. doi: 10.1002/ijc.35509.
4. Srinivas C, Karlstad Ø, Stigum H, Furu K, Cesta CE, Reutfors J, Hutcheon JA, Cohen JM. **Attention-Deficit/Hyperactivity Disorder Medication Use in Pregnancy and Risk of Preterm Birth: A Population-Based Cohort Study.** Paediatr Perinat Epidemiol. 2025 May 14. doi: 10.1111/ppe.70031. Epub ahead of print. PMID: 40364699.
5. Rolová G, Skurtveit S, Handal M, Kurita GP, Lid TG, Odsbu I, Hoffmann M. **Trends in opioid prescribing in Scandinavian countries from 2010 to 2023: Insights from multi-metric evaluation.** Br J Clin Pharmacol. 2025 Dec;91(12):3341-3352. doi: 10.1002/bcp.70177. Epub 2025 Jul 24. PMID: 40702924; PMCID: PMC12648362.
6. Ljung R, Pihlström N, Dahl J, Tapia G, Sundström A, Nurminen ML, Lundberg IE, Karlstad Ø, Holmqvist M, Feltelius N. **SARS-CoV-2 vaccination and myositis in Norway and Sweden.** Rheumatology (Oxford). 2025 Nov 22:keaf609. doi: 10.1093/rheumatology/keaf609. Epub ahead of print. PMID: 41273774.
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8. Ruiz PL, Hindenes LB, Karlstad Ø, Nøkleby K, Meyer HE, Mailhac A, Ljung R, Thomsen RW, Furu K. **Trends in the use of drugs with weight-loss effect: Scandinavian study from 2017 to 2023.** Diabetes Obes Metab. 2025 May;27(5):2901-2905. doi: 10.1111/dom.16291. Epub 2025 Feb 27. PMID: 40017022.
9. Refsum E, Furu K, Cesta CE, Nørgaard M, Wittström F, Zoega H, Ulrichsen SP, Cohen JM. **Topical retinoid use in women of reproductive age and risk of major congenital malformations in exposed pregnancies - a Nordic cohort study.** Br J Dermatol. 2025 Dec 9:ljaf500. doi: 10.1093/bjd/ljaf500. Epub ahead of print. PMID: 41365815.

10. Rasmussen L, Jensen PB, Reutfors J, Furu K, Skurtveit S, Selmer R, Damkier P, Bliddal M, Weselhoeft R. **Treatment patterns of antidepressants in children and adolescents in Scandinavia.** *Eur Child Adolesc Psychiatry.* 2025 Jan;34(1):159-167. doi: 10.1007/s00787-024-02433-7. Epub 2024 Apr 29. PMID: 38683400; PMCID: PMC11805761.
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