Annual Report 2023

Cochrane Denmark & Centre for Evidence-Based Medicine Odense

The following report describes the objective, organisation, and activities of Cochrane Denmark (CD) and Centre for Evidence-Based Medicine Odense (CEBMO), from January 1st 2023 to December 31st 2023.

Introduction

Cochrane Denmark (CD) and Centre for Evidence-Based Medicine Odense (CEBMO) function as a merged research centre (CD-CEBMO) at the Department of Clinical Research, University of Southern Denmark.

In June 2020, the Danish Ministry of Health decided that the Nordic Cochrane Centre, situated at Rigshospitalet in Copenhagen, be closely affiliated with Centre for Evidence-Based Medicine Odense (CEBMO). The Nordic Cochrane Centre then moved from Rigshospitalet to the University of Southern Denmark in Odense, and in the process, changed its name to Cochrane Denmark. Similarly, CEBMO moved its organizational setting from Odense University Hospital to University of Southern Denmark. The two centres were hereafter functionally merged into one larger centre, CD-CEBMO, effective of 1st January 2021.

Cochrane Denmark is funded by the Danish government as a national Cochrane centre. The activities of Cochrane Denmark are guided by <u>Cochrane's general strategy</u> and the Ministry of Health's note as of June 2020, supplemented by recommendations from the <u>VIVE report</u>. The Ministry of Health's note on the matter specified that the "political level believes" the new organisational setup "may create a strong research centre ..., and at the same time enhance close clinical collaboration with Odense University Hospital and contribute to a broader cooperation across the country".

The Centre for Evidence-Based Medicine Odense (CEBMO) is funded by Odense University Hospital and University of Southern Denmark as a regional research centre. The activities of CEBMO are guided by a term of reference (Appendix 1).

CD-CEBMO objectives

There is a considerable overlap in the objectives of Cochrane Denmark (CD) and Centre for Evidence-Based Medicine Odense (CEBMO), which was part of the Ministry's rationale for the functional merger. Overall, CD-CEBMO has four main objectives:

- To conduct research in evidence-based medicine, clinical research methodology, and other types of research relevant for evidence synthesis
- To promote Cochrane in Denmark and support Cochrane authors based in Denmark as well as Cochrane internationally
- To run a counselling and research methods guidance service for researchers at Odense University
 Hospital and at University of Southern Denmark with a focus on systematic reviews and metaanalyses
- To contribute to undergraduate teaching in evidence-based medicine at University of Southern Denmark and to PhD courses, for example in systematic reviews and meta-analysis

The disposition of this report broadly follows the four main objectives, preceded by a section on organisation and governance.

I. <u>Organisation and governance</u>

CD-CEBMO is organised as a research centre at the Department of Clinical Research, University of Southern Denmark. The Head of CD-CEBMO will function both as leader of research and administration and refers to the Head of Department of Clinical Research, University of Southern Denmark. In matters relating to Cochrane, the Head of CD-CEBMO will operate in accordance with the collaboration agreement with Cochrane.

Staff
As of 31st of December 2023, the Centre had a staff of 17:

Title	Name	FTE ¹
Head of Centre, professor	Asbjørn Hróbjartsson	1,0
Professor	Karsten Juhl Jørgensen	1,0
Associated Professor	Andreas Lundh	0,50
Associated Professor	Jeppe B. Schroll	0,50
Postdoc and Research Coordinator	Camilla Hansen Nejstgaard	1,0
PhD Fellow	Mathias Weis Damkjær	1,0
PhD Fellow	Christoffer Bruun Korfitsen	1,0
PhD Fellow	David Ruben Teindl Laursen	1,0
PhD Fellow and Research Coordinator	Lasse Østengaard	1,0
Researcher	Cecilie Jespersen	1,0
Administrator	Frihild Askham	1,0
Postdoc	Helena Van Beersel Krejcikova	0,8
Researcher	Josefina Salazar	1,0
Student Researcher	Mette Bangshof Engmose	Not applicable
Student Assistant	Lasse Adrup Benné Petersen	0,13
Student Assistant	Mia Elkjær	0,13
Doctoral internship	Javier Bracchiglione	Not applicable

¹Full time employment

In addition, the following researchers are associated with the Centre: Librarian Mette Brandt Eriksen (10% Associated Professor) and An-Wen Chan from university of Toronto (Adjunct Professor).

Collaborative agreement between University of Southern Denmark and Odense University Hospital CEBMO is funded largely by Odense University Hospital. While primarily being part of CD-CEBMO at University of Southern Denmark, CEBMO is administratively linked to the hospital's Open Patient data Explorative Network (OPEN). This construction calls for a collaboration agreement between University of Southern Denmark and Odense University Hospital regarding CD-CEBMO, which has been in development during 2023.

Advisory Board

As of 31st of December 2023, the Centre's advisory board included:

- 1. Lisa Bero (Professor of Medicine and Public Health, University of Colorado, US)
- 2. Isabelle Boutron (Professor of epidemiology, Université de Paris and Director of Cochrane France, France)
- 3. Declan Devane (Professor of Nursing and Midwifery, National University of Ireland, and Scientific Director of Cochrane Ireland).
- 4. Lesley Stewart (Professor of Evidence Synthesis and Director of CDR, University of York, UK)

- 5. Lone Kjeld Petersen (Professor of Gynaecology and Obstetrics, Odense University Hospital and Head of the Open Patient Data Explorative Network (OPEN), Odense, Denmark)
- 6. Kirsten Kyvik (Head of Department, University of Southern Denmark, Denmark)
- 7. Anders Perner (Professor of Intensive Care Medicine, University of Copenhagen, and Vice Chair of the Organization of Danish Medical Societies, Denmark)
- 8. Klaus Lunding (Chairman, Danish Patients, Denmark)
- 9. Ole Jakob Storebø (Professor and Head of the Center for Evidence-Based Psychiatry, Psychiatric Research Unit, Region Zealand, Denmark)

II. Research

The research activity of the Centre is organised in four "clusters". Each cluster is led by a senior researcher:

- i. Bias in clinical research, led by Asbjørn Hróbjartsson
- ii. De-implementation and screening, led by Karsten J. Jørgensen
- iii. Conflicts of interest, led by Andreas Lundh
- iv. Medical devices, led by Jeppe B. Schroll

Research publications: overview

In total, researchers at the Centre authored 35 scholarly publications in 2023: 35 articles in peer reviewed journals.

Of the 35 articles in peer reviewed journals, 25 articles (71%) were published in journals with a Journal Impact factor ≥ 5. There were 13 articles (37%) in core journals for evidence-based medicine and clinical research methodology: Cochrane Database of Systematic Reviews, Journal of Clinical Epidemiology, and BMJ Evidence-Based Medicine. Three articles were published in a very high impact journal (NEJM and BMJ). A total of 16 articles (46%) had main authors (first or last) from the Centre (underlined in the list below).

List of publications: Articles (full articles or editorials) in peer reviewed journals

- 1) Albarqouni L, Montori V, <u>Jørgensen KJ</u>, Ringsten M, Bulbeck H, Johansson M. Applying the time needed to treat to NICE guidelines on lifestyle interventions. BMJ Evidence-Based Medicine. 2023;28(5):354-355.
- 2) Andersen MS, Kofoed MS, <u>Paludan-Müller AS</u>, Pedersen CB, Mathiesen T, Mawrin C, Wirenfeldt M, Kristensen BW, Olsen BB, Halle B, Poulsen FR. Meningioma animal models. A systematic review and meta-analysis. 2023;21.
- 3) Borges do Nascimento IJ, Abdulazeem H, Vasanthan LT, Martinez EZ, Zucoloto ML, Østengaard L, Azzopardi-Muscat N, Zapata T, Novillo-Ortiz D. Barriers and facilitators to utilizing digital health technologies by healthcare professionals. NPJ digital medicine. 2023;6(1).
- 4) Borges do Nascimento IJ, Abdulazeem HM, Vasanthan LT, Martinez EZ, Zucoloto ML, <u>Østengaard L</u>, Azzopardi-Muscat N, Zapata T, Novillo-Ortiz D. The global effect of digital health technologies on health workers' competencies and health workplace: an umbrella review of systematic reviews and lexical-based and sentence-based meta-analysis. The Lancet Digital Health. 2023;5(8)e534-e544.
- 5) Bruschettini M, Axelsson I, <u>Jørgensen KJ</u>. Många källor till problem i systematiska översikter [Many sources of bias in medical research: experience from systematic reviews]. Lakartidningen 2023;120.

- 6) Bülow C, Clausen SS, <u>Lundh A</u>, Christensen M. Medication review in hospitalised patients to reduce morbidity and mortality. Cochrane Database of Systematic Reviews. 2023;(1):CD008986.
- 7) Ciani O, Manyara AM, Davies P, Stewart D, Weir CJ, Young AE, Blazeby J, Butcher NJ, Bujkiewicz S, Chan AW, Dawoud D, Offringa M, Ouwens M, <u>Hróbjartssson A</u>, Amstutz A, Bertolaccini L, Bruno VD, Devane D, Faria CDCM, Gilbert PB, Harris R, Lassere M, Marinelli L, Markham S, Powers JH, Rezaei Y, Richert L, Schwendicke F, Tereshchenko LG, Thoma A, Turan A, Worrall A, Christensen R, Collins GS, Ross JS, Taylo RS. A framework for the definition and interpretation of the use of surrogate endpoints in interventional trials. eClinicalMedicine. 2023;65:102283.
- 8) <u>Damkjær MW</u>, Geiker K, Lokkegaard E, <u>Schroll JB</u>. Vaginal energy-based devices for vulvovaginal dryness. Cochrane Database of Systematic Reviews. 2023;(10).CD014743.
- 9) Dyhrberg O'Neill L, Lauridsen HH, <u>Østengaard L</u>, Qvortrup A. Validity evidence for the Experiences of Teaching and Learning Questionnaire (ETLQ) in evaluations of quality learning. A systematic critical literature review. Studies in Educational Evaluation. 2023;78:101283
- 10) Faltinsen E, Todorovac A, Boutron I, Stewart LA, <u>Hróbjartsson A</u>, <u>Lundh A</u>. A structured approach to information retrieval improved identification of funding and researchers' conflicts of interest in trials included in Cochrane reviews. Journal of Clinical Epidemiology. 2023;161:104-115.
- 11) Flemyng E, Moore TH, Boutron I, Higgins JPT, <u>Hróbjartsson A, Nejstgaard CH</u>, Dwan K. Using Risk of Bias 2 to assess results from randomised controlled trials. guidance from Cochrane. 2023;28(4):260-266.
- 12) Frandsen TF, <u>Eriksen MB</u>. Afrapportering af systematiske søgninger [Reporting of systematic searches]. Ugeskrift for Læger. 2023;V06230420.
- 13) Ghosn L, Assi R, Evrenoglou T, Buckley BS, Henschke N, Probyn K, Riveros C, Davidson M, Graña C, Bonnet H, Jarde A, Ávila C, Nejstgaard CH, Menon S, Ferrand G, Kapp P, Breuer C, Schmucker C, Sguassero Y, Nguyen TV, Devane D, Meerpohl JJ, Rada G, <u>Hróbjartsson A</u>, Grasselli G, Tovey D, Ravaud P, Chaimani A, Boutron I. Interleukin-6 blocking agents for treating COVID-19. a living systematic review. Cochrane Database of Systematic Reviews 2023;6(6):CD013881.
- 14) Granholm A, Møller MH, Gluud C, <u>Lundh A</u>, <u>Hróbjartsson A</u>, de Muckadell OBS, Perner A. [Critical reading of articles on randomised clinical trials]. Ugeskr Laeger 2023;185:V06230427.
- 15) Hirt J, Janiaud P, Gloy VL, Schandelmaier S, Pereira TV, Contopoulos-Ioannidis D, Goodman SN, Ioannidis J, Munkholm K, Hemkens LG. Robustness of reported postacute health outcomes in children with SARS-CoV-2 infection: a systematic review. Archives of Disease in Childhood. 2023;108(6):498-505.
- 16) Huitfeldt A, Mindel C Sheps. Counted, Dead or Alive. Epidemiology. 2023;34(3):396-399.

- 17) Jensen AS, Heinemeier IIK, <u>Schroll JB</u>, Rudnicki M. latrogenic bladder injury following gynecologic and obstetric surgery: A systematic review and meta-analysis. Acta Obstetricia et Gynecologica Scandinavica. 2023;102(12):1608-1617.
- 18) Jochumsen S, Hegaard HK, Rode L, <u>Jørgensen KJ</u>, Nathan NO. Maternal factors associated with labor dystocia in low-risk nulliparous women. A systematic review and meta-analysis. Sexual and Reproductive Healthcare. 2023;36:100855.
- 19) <u>Korfitsen CB</u>, <u>Lundh A</u>, <u>Hróbjartsson A</u>, <u>Hansen Nejstgaard C</u>, Bero LA, Boutron I. Peer reviewers' conflicts of interest in biomedical research: a scoping review of empirical studies. Cochrane Database of Systematic Reviews. 2023;1:769-771.
- 20) <u>Korfitsen CB</u>, Mikkelsen LR, Mikkelsen M-L, Rohde JF, Holm PM, Tarp S, Carlsen H-HF, Birkefoss K, Jakobsen T, Poulsen E, Leonhardt JS, Overgaard S, Mechlenburg I. Hip precautions after posterior-approach total hip arthroplasty among patients with primary hip osteoarthritis do not influence early recovery. a systematic review and meta-analysis of randomized and non-randomized studies with 8,835 patients. Acta Ortopaedica. 2023;94:141-151.
- 21) Kühlein T, Macdonald H, Kramer B, Johansson M, Woloshin S, McCaffery K, Brodersen JB, Copp T, <u>Jørgensen KJ</u>, Møller A, Scherer M, Scientific Committee of the Preventing Overdiagnosis, C. Overdiagnosis and too much medicine in a world of crises. BMJ. 2023;382:1865.
- 22) <u>Laursen DRT</u>, <u>Nejstgaard CH</u>, Bjørkedal E, Frost AD, Hansen MR, <u>Paludan-Müller AS</u>, Prosenz J, Werner CP, <u>Hróbjartsson A</u>. Impact of active placebo controls on estimated drug effects in randomised trials: a systematic review of trials with both active placebo and standard placebo. Cochrane Database of Systematic Reviews. 2023;(3):MR000055.
- 23) Malmsiø D, Frost A, Hróbjartsson A. A scoping review finds that guides to authors of protocols for observational epidemiological studies varied highly in format and content. Journal of Clinical Epidemiology. 2023;154:156-166.
- 24) <u>Moustgaard H, Hróbjartsson A</u>. Meta-epidemiology and the MetaBLIND study. Response to Tack. 2023;28(9):882-886.
- 25) <u>Nejstgaard CH</u>, Boutron I, Chan A-W, Chow R, Hopewell S, Masalkhi M, Moher D, Schulz KF, Shlobin NA, <u>Østengaard L</u>, <u>Hróbjartsson A</u>. A scoping review identifies multiple comments suggesting modifications to SPIRIT 2013 and CONSORT 2010. Journal of Clinical Epidemiology. 2023;155:48-63.
- 26) <u>Nejstgaard CH, Laursen DRT, Lundh A, Hróbjartsson A</u>. Commercial funding and estimated intervention effects in randomized clinical trials. systematic review of meta-epidemiological studies. Res Synth Methods. 2023;14(2):144-155.

- 27) Page MJ, Sterne JAC, Boutron I, <u>Hróbjartsson A</u>, Kirkham JJ, Li T, <u>Lundh A</u>, Mayo-Wilson E, McKenzie JE, Stewart LA, Sutton AJ, Bero L, Dunn AG, Dwan K, Elbers RG, Kanukula R, Meerpohl JJ, Turner EH, Higgins JPT. ROB-ME. a tool for assessing risk of bias due to missing evidence in systematic reviews with meta-analysis. BMJ. 2023;383:e076754.
- 28) Sandau N, Aagaard TV, <u>Hróbjartsson A</u>, Harris IA, Brorson S. A meta-epidemiological study found that meta-analyses of the same trials may obtain drastically conflicting results. Journal of Clinical Epidemiology. 2023;156:95-104.
- 29) Voss T, Krag M, Martiny F, Heleno B, <u>Jørgensen KJ</u>, Brandt Brodersen J. Quantification of overdiagnosis in randomised trials of cancer screening: an overview and re-analysis of systematic reviews. Cancer Epidemiology. 2023;84:102352.
- 30) Woloshin S, <u>Jørgensen KJ</u>, Hwang S, Welch HG. The New USPSTF Mammography Recommendations A Dissenting View. The New England Journal of Medicine. 2023;389(12):1061-1064.
- 31) Christensen M, Bülow C, <u>Lundh A</u>. [Medication reviews? Yes, but where and how?]. Ugeskr Laeger 2023;185:V205151.
- 32) <u>Krejcikova HVB.</u> Conflict of interest in medical research. In: Sturma, P. (ed). Czech Yearbook of Public and Private International Law. Nakladatelství Eva Rozkotová. 2023;14:373–392.
- 33) Schroll JB, Black AY, Farquhar C, Chen I. Combined oral contraceptive pill for primary dysmenorrhoea. Cochrane Database Syst Rev. 2023 Jul 31;7(7):CD002120.
- 34) Hansen R, Sejer EPF, Holm C, Schroll JB. Iron supplements in pregnant women with normal iron status: A systematic review and meta-analysis. Hansen R, Sejer EPF, Holm C, Schroll JB. Acta Obstet Gynecol Scand. 2023 Sep;102(9):1147-1158.
- 35) Nonboe MH, Napolitano G, Schroll JB, Vejborg I, Waldstrøm M, Lynge E. Impact of COVID-19 pandemic on breast and cervical cancer screening in Denmark: A register-based study. Elife. 2023 Mar 21;12:e81605.

Overview of selected large international projects

The following section presents main international projects that the Centre was engaged in during 2023.

TACIT – Tool for Addressing Conflicts of Interests in Trials. Our centre led the development of a tool for addressing conflicts of interests in randomized trials included in systematic reviews. The project is supported by an international working group and a steering group. See the TACIT website. The project is colled by Andreas Lundh and Asbjørn Hróbjartsson. The main publication is expected in 2025.

COMFIT – Commercial Funding in Trials. Our Centre led the work on constructing a database, combining unpublished data from multiple methods studies to investigate the impact of commercial funding on estimated intervention effects in randomized clinical trials. The COMFIT study is based on a consortium of researchers who agreed to share unpublished data. The project is co-led by Asbjørn Hróbjartsson, Andreas Lundh, and Camilla Hansen Nejstgaard.

PRISMA-P 2025 – An updated reporting guideline for systematic review protocols. In late 2022, planning started for updating the PRISMA-P reporting guideline, originally published in 2015: PRISMA-P 2025. The leading researchers behind the original PRISMA-P initiative were contacted and a collaboration was agreed on. The project is co-led by Asbjørn Hróbjartsson and Professor Lesley Stewart from University of York.

Re-evaluation of screening interventions directed at the general public. Our centre led a group of international screening experts, outlining the principles for a framework for regular re-evaluation of existing screening interventions directed at the public. A series of papers has been planned, e.g., a paper exploring screening recommendation from major guideline issuing authorities (US Preventive Services Task Force; UK National Screening Committee; Canadian Task Force on Preventive Health Care), how they differ, and why they do that. This series can be viewed as contributing to a stronger emphasis on evidence-informed prioritization and de-implementation in healthcare. The project is led by Karsten Juhl Jørgensen.

SPIRIT-CONSORT – Reporting guidelines for protocol and final report of randomised clinical trials. Our Centre was represented in the Executive Group for the update of the SPIRIT 2013 and CONSORT 2010 statements. The Centre initiated the development of a supportive database of relevant literature and published a scoping review in Journal of Clinical Epidemiology in 2022 of comments and suggestions for adjustments to SPIRIT 2013 and CONSORT 2010.

PhD projects

In 2023, there were four PhD Fellows at CD-CEBMO: David Ruben Teindl Laursen, Lasse Østengaard, Christoffer Bruun Korfitsen, and Mathias Weiss Damkjær.

David Laursen: Active placebo as control intervention in pre-clinical and clinical randomised trials. The first two sub-projects investigated the impact of using active placebo controls (rather than standard non-active placebos) on estimated drug effect. Asbjørn Hróbjartsson is primary supervisor.

Lasse Østengaard: Citation principles in clinical research.

The objective of Lasse's PhD project is to characterise and analyse the content and variability of principles for citations in clinical research. The study will provide an empirical basis for reflections on adequacy of citations and serve as the evidence foundation for the development of a citation guideline which is a planned extension of the PhD study. Asbjørn Hróbjartsson is primary supervisor.

Christoffer Bruun Korfitsen: Conflicts of interest in peer review of biomedical research. Christoffer's PhD project aims to investigate conflicts of interest in peer review of biomedical research. The subprojects will investigate the prevalence of peer reviewers' conflicts of interest in biomedical research, journal editors' experiences with peer reviewers' conflicts of interest, journal policies for peer reviewers' conflicts of interest, and the association between peer reviewer conflicts of interest and review recommendations. Andreas Lundh is primary supervisor.

Mathias Weiss Damkjær:

Mathias' project focuses on challenges involved in how medical devices are tested, approved, and selected for clinical use. Jeppe Schroll is primary supervisor.

Project supervision

Senior researchers at the Centre have also acted as project supervisor for four other PhD Fellows, who have primarily been affiliated with other centres: Cille Bülow supervised by Andreas Lundh; Nicolai Sandau supervised by Asbjørn Hróbjartsson; Mette Hartman Nonboe and Ida Erika Wieborg Von Rosen supervised by Jeppe Schroll

Applications for external research funds

During 2023, members of staff have applied for external funding, or received feedback, from the following sources:

Applied to	Type of funding &	Project	Status
	amount in DKKR		
Danish Research	927.360	Conflicts of interest in research and	Rejection
Council (DFF)		professional practice across scientific	
		disciplines and professions	

III. <u>Promotion of Cochrane in Denmark and support to Cochrane authors based in Denmark as well as Cochrane internationally</u>

Supporting national collaboration within Cochrane and evidence-based medicine
The heads of the three Cochrane Review Group based in Denmark and Asbjørn Hróbjartsson have
established routine video meetings approximately every two months. The meetings provide a forum for
discussing recent Cochrane developments.

The Danish EBM Network was established in 2022. The Network aims to foster collaboration between persons interested in evidence-based medicine and Cochrane activities in Denmark. In 2023 there were 46 persons on the mailing list. Lasse Østengaard is daily coordinator.

Plans for establishing an affiliate Cochrane unit in Århus materialised in 2023. The application process is ongoing.

Talks and teaching sessions on Cochrane methods and review methodology

Staff gave talks at: Statsrevisorerne, Evidence-based prioritization of healthcare and evidence for mammography screening; Medicine & the media, Florence; Många källor till bias i systematiska reviews, Symposion, Läkartidningen; Searching for information in systematic overviews - involvement of information specialists and challenges in the scientific literature; EBM curricula at Danish Universities, Danish EBM Network Symposium; Conflicts of interest in clinical research and practice, Department of Clinical Pharmacology, Bispebjerg Hospital; Blinding i observationelle studier, Center for Evidensbaseret Psykiatri.

Training Cochrane authors

See below under 'Course activity on Cochrane methodology and systematic reviews'

Media contact

During the year, Centre staff had the following media contacts, or the Centre was otherwise mentioned in the following media: Thomas Breinholt: Kan man tænke sig rask? Lindhardt og Ringhof; Frihedsbrevet (x2); Berlingske Tidende; Medicinsk Tidsskrift; Videnskab.dk (x2); Medscape.com; Everydayhealth.com; sentichiparla.it; www.tjekdet.dk.

Guest editors at Danish Medical Journal

Centre staff suggested to the editorial board of Danish Medical Journal to publish a series of papers on how to critically appraise clinical research articles. The editors accepted the idea and a series of six papers were planned, commissioned, and some were published.

International Cochrane activities

The Centre hosts the secretariat for the Cochrane Bias Methods Group. The group is responsible for methods guidance to Cochrane, contributing to the Cochrane Handbook, developing the Cochrane Risk of Bias Tool, and coordinating methods research on bias. Asbjørn Hróbjartsson is co-convenor with Senior Research Fellow Matt Page, Cochrane Australia; Professor Isabelle Boutron, Cochrane France; and Professor Julian Higgins, University of Bristol, UK. The group's research coordinator is Camilla Hansen Nejstgaard.

Members of staff served on the Advisory Board for Cochrane Sweden, and for Cochrane Sustainable Healthcare; on the Tom Chalmers Award Committee (Cochrane Colloquium 2023); and on the Cochrane Scientific Committee.

IV. Research training and methods guidance

Throughout 2023, our team supported research training activities and methods guidance aimed at Cochrane authors in Denmark, and university students, healthcare researchers, guideline developers and health professionals at University of Southern Denmark and Odense University Hospital.

Research methods guidance

The Centre offers guidance for students and researchers to support them when conducting a systematic review. In special cases, the Centre offers guidance for preparing other types of research. We offer walk-in methods clinics, and short-term and long-term guidance.

The two-hour clinics are open to interested researchers and are held once every month (except January and July). They are open to researchers at the Department of Clinical Research at University of Southern Denmark, and Odense University Hospital.

The short-term service consists of a up to 1-hour guidance in systematic reviews and is open to researchers at the Department of Clinical Research at University of Southern Denmark and Odense University Hospital. The long-term guidance consists of a total of up to 10-hours support. It is available to PhD Fellows and other researchers from the Department of Clinical Research, University of Southern Denmark, specifically Cochrane review authors. Due to resource restrictions, we have specified a maximal number of 25 projects in pipeline for long term guidance.

In 2023, we held 10 methods clinics. We provided short term advice to 56 projects (at individual meetings or at workshops), and long-term advice to 41 consultancy projects, including five Cochrane reviews.

Course activity on Cochrane methodology and systematic reviews

We have a portfolio of courses on Cochrane methodology on how to conduct a systematic review or evidence synthesis. The courses are aimed at Cochrane authors from Denmark broadly and for researchers at Odense University Hospital and Department of Clinical Research at the University of Southern Denmark.

The portfolio of courses consists of 1) free access to Cochrane Online Learning Modules; 2) a one-day introductory course on systematic reviews, and 3) a four-day advanced course on systematic reviews. Both courses were held twice in 2023.

V. <u>Teaching Evidence-Based Medicine at University of Southern Denmark</u>

Our Centre led the course in evidence-based medicine for medical students at the University of Southern Denmark. We organised the course, taught, and examined approximately 30 medical students. The course

runs each semester and lasts a total of five weeks (8 ETCS). It aims to provide students with skills that allow them to frame a structured clinical question, identify the relevant scientific literature, and critically appraise the identified clinical studies. Each year, professors and associate professors from our Centre contribute with 32 hours of lectures, and postdocs and PhD Fellows contribute with 18 hours of case-work instructions and 330 hours of instructions and feedback to written assignments of a critically appraised topic (CAT).

Two members of our team also gave two double-lectures as part of the MSc programme in Pharmacy at the Faculty of Health Sciences at University of Southern Denmark.

PhD courses

The two courses (1-day and 4-day course) described above (Course activity for Cochrane authors and for researchers wanting to do systematic reviews) had status as PhD courses.

Members of staff also taught at 'Introduction to new PhD Fellows' at the Faculty of Health Sciences.

VI. Other activities

In 2021, Odense University Hospital and the Department of Clinical Research at the University of Southern Denmark published a joint research strategy for the years 2021-5. The strategy specifies evidence-based medicine as one of five central dimensions. CD-CEBMO contributed to the strategy by expanding the research methods guidance service, leading the group responsible for implementation of that dimension of the strategy, and giving talks to clinical departments.

Board and committee membership (non-Cochrane)

Members of staff served on: the Danish National Cervical Cancer Screening steering group and the Danish Cervical Cancer Screening database; the Scientific committee of the Preventing Overdiagnosis Conference; Working group on mammography screening, Danish Health Authority; the Board for Danish Society for Medical Ethics, Philosophy, and Methods; the advisory committees for PROSPERO, Centre of Evidence-Based Psychiatry; and the Scandinavian GRADE network.

Specialist training

Senior staff have contributed to specialist training for clinicians in Denmark (research training programme for internal medicine and for oncology) and across clinical specialties on implementation of clinical research.

Assessments of academic theses or positions

Members of staff contributed to the assessment of five PhD theses.

Clinical Trials Unit at Odense University Hospital

Plans for establishing a Clinical Trials Unit (CTU) at Odense University Hospital materialised in 2023. The centre will collaborate closely with the CTU, focusing on development of trial protocol, registration of the trial, interpretation of results, public access to data, and the reporting of the final result.

VII. Overview of main developments and changes from 2022

2023 was the third year following the functional merger of Cochrane Denmark and Centre for Evidence-Based Medicine Odense. A natural feature of 2021 was an initial uncertainty relating to the relocation of Cochrane Denmark to Odense and the disruption of previous routines. In 2022 new routines were

consolidated, some individuals left the Centre and new staff arrived, and in 2023 a unified working culture was established.

In 2023 researchers at the Centre published a robust number of articles in journals with high impact factor and central to clinical research methodology, often involving international collaboration and with first/last author from the Centre. Plans for a new Cochrane unit in Århus were developed as well as plans for a close collaboration with the forthcoming Clinical Trials Unit at Odense University Hospital.

Odense, 29.09.2024

Asbjørn Hróbjartsson Professor, Head of Centre

Ashjan Wotjal