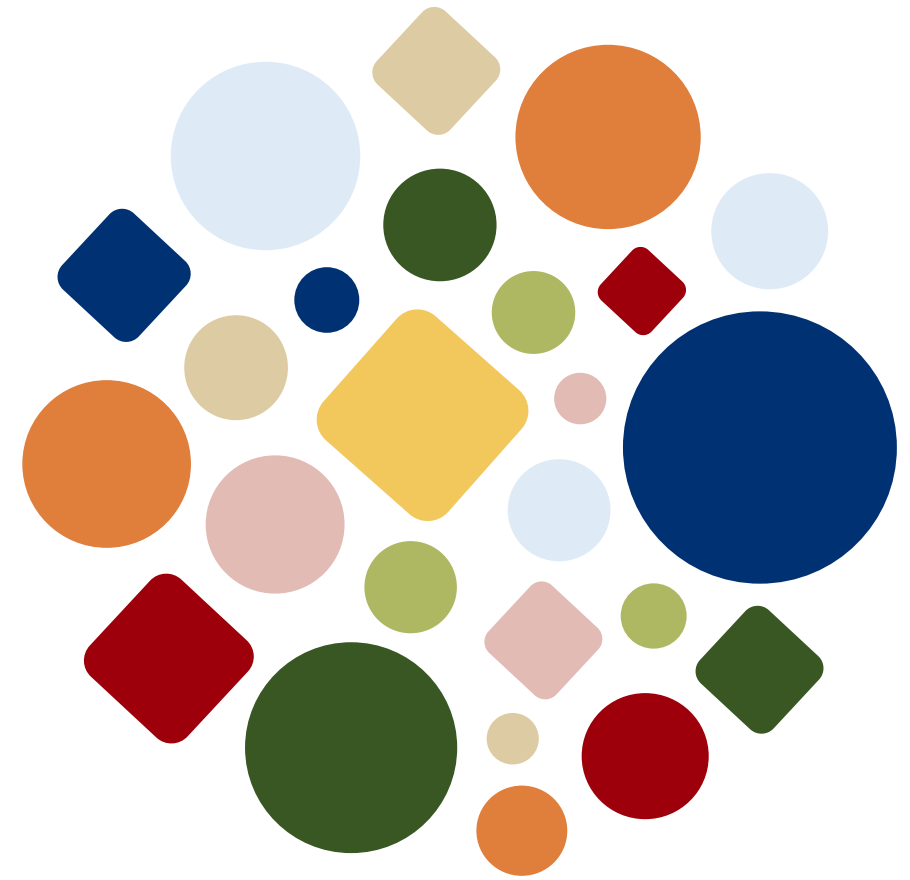


2022

Annual report



Content

Annual report 2022	Page
Preface	2
Latest achievements	3
Our organization	4
Research activities	5 - 17
PhD projects	18 - 30
Teaching	31
Oral presentations	32 - 33
Grants	34
Publications	35 - 49

Preface

Research Unit OPEN at University of Southern Denmark (SDU) is part of Department of Clinical Research at SDU. This annual report provides a broad perspective of our activities and contributions to the field of research in 2022.

The research unit focuses on epidemiology, including registry research, biostatistics and patient-perceived quality issues in health care, as well as advanced methods for solving complex health care problems. In addition, research is focused on improving public health in e.g. Guinea-Bissau, West Africa, one of the poorest countries in the world.

Our vision is to be known and respected for health research at a high professional level for the benefit of citizens and patients.

Since 2018 our research unit has grown significantly, at present 38 researchers are employed.

Our research has led to 110 peer reviewed articles published and we have received funding of 18,324,552 DKK in 2022.

I would like to thank all researchers, employees and collaborators for their contributions, enthusiasm and commitment in our research unit providing a high standard and invaluable effort.

We are looking forward to continuing the good effort and exploring new boundaries in 2023.



A handwritten signature in black ink that reads "Katrine Rubin".

Katrine Hass Rubin, Head of Research

Katrine.rubin@rsyd.dk

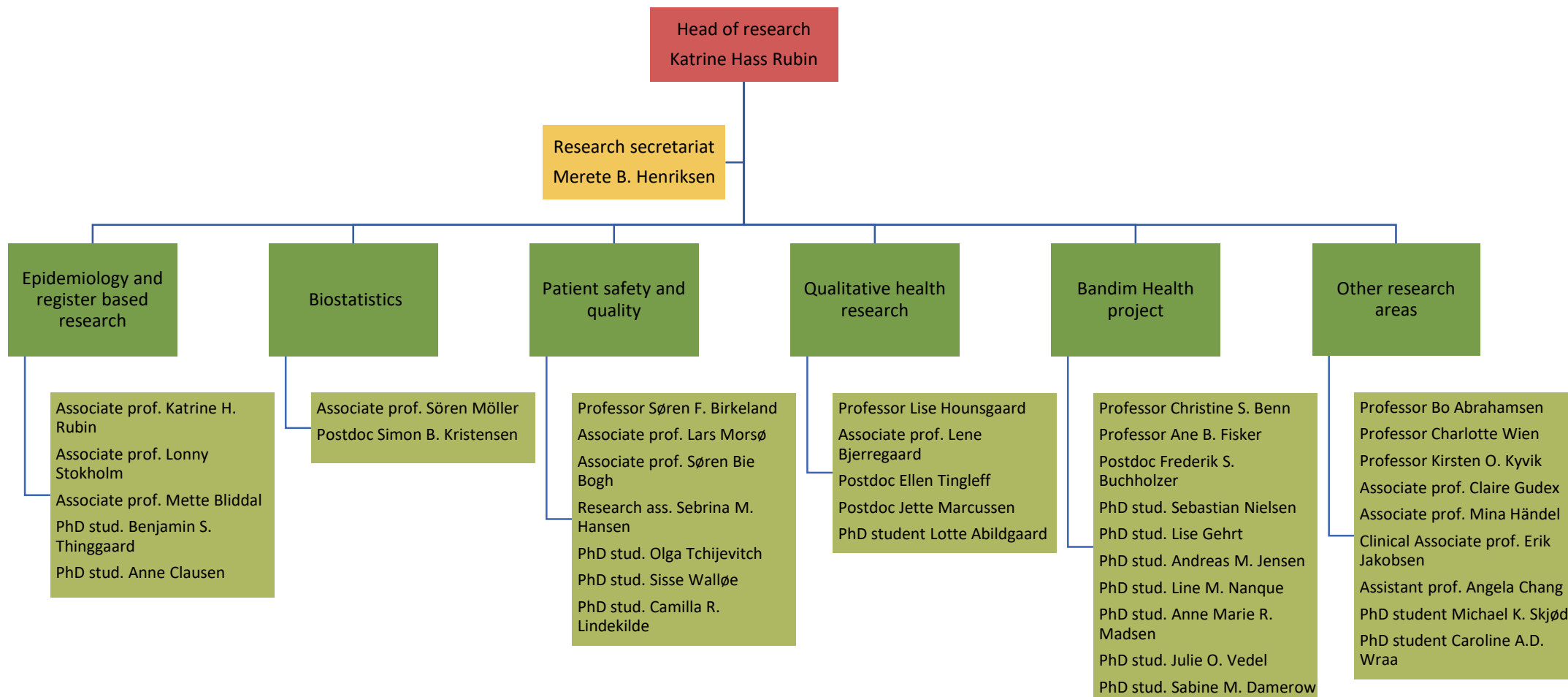
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Achievements in 2022

- February 2022, Ane Bærent Fisker appointed as professor in Global Health at the Bandim Health Project, OPEN Research Unit, Department of Clinical Research, University of Southern Denmark
- July 2022, Søren Fryd Birkeland appointed as Clinical Professor in Psychiatry- and Health Law at the Forensic Psychiatric Research Unit, Department of Regional Health Research, SDU and OPEN Research Unit, Department of Clinical Research, University of Southern Denmark
- October 2022, PhD study finalized by Sebastian Nielsen, MSc: ['The eradication paradox: Can stopping oral polio vaccine have negative consequences?'](#)
- November 2022, OPTIMMUNIZE 2022 Conference, A world leading conference on the non-specific effects of vaccines. Professor Christine Stabell Benn was the organizer of the Conference with participants from all over the world.
- November 2022, OPEN Research Seminar, a successful event with presentations of ongoing research, a ph.d. CUP and an external presentation on communication and impact.

Our organization

Our human resources in 2022 counted a total of 38 scientific employees



2022

Research activities

Continuous Healthcare and Osteoporosis Case-finding in Europe - CHOICE



Head of research and Associate professor Katrine Hass Rubin, OPEN Epidemiology and register-based research

As PI, the main focus in 2022 has been to build strong protocols and projects, with studies centered on improvement of detection of people at risk of osteoporosis through the use of data-driven algorithms.

We have built an European consortium for the CHOICE study (**C**ontinuous **H**ealthcare and **O**steoporosis **C**ase-finding in **E**urope). A large effort towards securing funding has resulted in an EU application (EU Horizon EIC Pathfinder call) which was submitted in October 2022 with partners both from the Netherlands, Spain and Sweden.

The purpose of CHOICE is to integrate experiences from the FREM (Fracture Risk Evaluation Model) project to develop and implement the first fully automated data-driven clinical decision support tool in general practice on a European scale, ensuring early and continuous detection of high-risk individuals. The tool will allow GPs to act, when the tool raises an alarm on a patient, without the need to review or enter information from outside sources.

The project includes the development, validation, adaptation, and implementation of the CHOICE tool, applying both a quantitative and a qualitative research methodology across nine work packages. 3-4 ph.d.-students are or will be working on the project.

Supervisor role:

Main supervisor: Anne Clausen, PhD student OPEN

Co-supervisor: Anna Trier Heiberg Brix and Maria Hornstrup Christensen



Research activities

Register-based research, epidemiology, ophthalmology, obstetric



Associate professor Lonny Stokholm, OPEN Epidemiology and register-based research

In February 2022, we launched the research project "Identification of patient-reported barriers to treatment with anti-VEGF for wet AMD (I-OPTA), a 3-year mixed method study. We aim to identify potential barriers related to treatment by conducting interviews and surveys with patients diagnosed with wet AMD. To ensure relevance to the patient population, we have appointed a panel of patients, their relatives and private practicing ophthalmologist.

Additionally, our ongoing research projects, OASIS and DECODE-EYE, investigate selected eye diseases, including diabetic retinopathy, as potential markers for local and systemic disease. We are continuously making progress in the various sub-studies, and we will present our findings at relevant conferences throughout 2023.

Supervisor role:

Main supervisor: Benjamin Sommer Thinggaard, MD, PhD-student at I-OPTA

Co-supervisor:

- Anne Suhr Thykjær, MD, PhD-student at Department of ophthalmology, OUH
- Frederik Nørregaard Petersen, MD, PhD-student at Department of ophthalmology, OUH
- Katrine Hartmund Frederiksen, MD, PhD, Department of ophthalmology, OUH. Defended her PhD thesis, december 2022.

Co-supervisor: Undergraduate student Anna Rebien Clausen, medical-student SDU

Research activities

Mental health in reproduction and childhood



Associate professor Mette Bliddal, OPEN Epidemiology and register-based research

My main focus is on mental health in reproduction and childhood. During 2022, I have primarily worked on the following projects:

- Risk factors for and pregnancy outcomes after SARS-CoV-2 in pregnancy according to disease severity including validation of COVID-19 codes in the registers
- A validation study on the obstetric codes in the Danish National Patient Register
- Drug utilization studies comparing use and users primarily in Denmark and the Nordic countries but also involving countries as UK, Germany and US
- Initiating studies on postpartum depression and etiology using new approaches such as twin study design.

Supervisor role:

Supervisor: Goran Mowafak Khurshit and Sarah Ali, both Master students, Farmaci

Supervisor: Kamille Bager Herskind, undergraduate student, medical-student SDU

Co-supervisor: Anne Marie Rosendahl Madsen, PhD student OPEN

Research activities

Methodological considerations on risk scores in epidemiology



Associate professor **Sören Möller**, OPEN Biostatistics

Research on the development and application of risk scores for risk prediction and confounder adjustment resulting in multiple publications during 2022:

- Möller, S., Skjødt, M. K., Yan, L., Abrahamsen, B., Lix, L. M., McCloskey, E. V., Johansson, H., Harvey, N. C., Kanis, J. A., Rubin, K. H., and Leslie, W. D. "Prediction of imminent fracture risk in Canadian women and men aged 45 years or older: External validation of the Fracture Risk Evaluation Model (FREM)". *Osteoporos Int* 33, 1 (2022), 57–66
- Clausen, A., Möller, S., MK, S., Bech, B., and Rubin, K. "Evaluating the performance of the Charlson Comorbidity Index (CCI) in fracture risk prediction and developing a new Charlson Fracture Index (CFI): A register-based cohort study". *Osteoporos Int* 33, 3 (2022), 549–561
- Jarbøl, D. E., Hyldig, N., Möller, S., Wehberg, S., Rasmussen, S., Balasubramaniam, K., Haastrup, P. F., Søndergaard, J., and Rubin, K. H. "Can national registries contribute to predict the risk of cancer? The Cancer Risk Assessment Model (CRAM)". *Cancers* 14, 15 (2022), 3823

Supervisor role:

Co-supervisor of 7 PhD students: Sebastian Nielsen, OPEN; Line Møller Nanque, OPEN; Sofie Mørk, Gynaecology & Obstetrics; Søren Rattenborg, Regional Health Research; Louise Redder, Haematology and Nils Boe Jensen, Neurology.

Research activities

Patient safety and quality



Professor Søren Fryd Birkeland, OPEN Patient safety and quality

Research activities in 2022:

- Complaints guided quality improvement at hospital
- Systematic coding and analysis of complaints, establishing a national cohort
- ZEROCO: European survey on attitudes toward EC resolution on total abolishment of psychiatric coercive measures
- Staff agreement on psychiatric coercive measure use

Supervisor role:

Main supervisor: Olga Tchjevitch and Camilla Rosendal Lindekilde, both PhD students, OPEN

Research activities

Patient safety and quality



Associate professor Lars Morsø, OPEN Patient safety and quality

Research activities in 2022:

- Complaints guided quality improvement at hospital
- Systematic coding and analysis of complaints, establishing a national cohort
- Trajectories of patients with COPD across healthcare settings.

Supervisor role:

Main supervisor: Sisse Walløe, PhD student, OPEN

Co-supervisor: Simon Dyrlov Madsen, PhD student, Physical Activity and Health in working life

Research activities

Patient safety and quality



Associate professor **Søren Bie Bøgh**, OPEN Patient safety and quality

Research activities in 2022:

- Evaluating the reorganization of the Danish acute care hospitals
- Implementation of a systematic analysis of patient complaints and compensation cases at Odense University hospital
- Systematic coding and analysis of complaints, establishing a national cohort
- Where have all the patients gone? A system-wide national study on healthcare seeking during the COVID-19 pandemic.

Supervisor role:

Co-supervisor: Marianne Fløjstrup, PhD student, Regional Health Research and Olga Tchijevitch, PhD student, OPEN

Main supervisor: Jonathan Harbak, undergraduate student, medical-student SDU

Co-supervisor: Nanna Marie Christensen, undergraduate student, medical-student SDU

Research activities

Practical psychiatric issues with an application-oriented purpose



Professor Lise Hounsgaard, OPEN SDU

My research has a user, relative and organizational perspective based on practical psychiatric issues with an application-oriented purpose. The research approach is predominantly within classical qualitative methods. Development of new knowledge for practice and education is made in collaboration with PhD students and national and international research colleagues with a holistic and interdisciplinary aim.

[Early recognition method for patients with schizophrenia or bipolar disorder in community mental health care: Illness insight, self-management and control.](#)

Johansen, K. K., Marcussen, J., Hansen, J. P., Hounsgaard, L. & Fluttert, F., dec. 2022, I: Journal of Clinical Nursing. 31, 23-24, s. 3535-3549

[Nursing care of people with dementia in an orthopaedic acute care setting: An integrative literature review.](#) Jensen, A. M., Wilson, R. L., Pedersen, B. D., Hounsgaard, L. & Tingleff, E. B., 13. okt. 2022, (E-pub ahead of print) I: Journal of Clinical Nursing.

[Parental death in young adults with divorced compared to non-divorced parents – The consequences on prolonged grief and mental health problems.](#) Marcussen, J., Hounsgaard, L., O'Connor, M., Wilson, R., Thuen, F. & Möller, S., 2022, s. 18. 1 s.

[Process from Mechanical Ventilation for Patients Post-Cardiothoracic Surgery: A Qualitative Study.](#) Zaiton, H., Hounsgaard, L., Wagner, L., Elshatarat, R. A., Aljohani, M. S., Elhefnawy, K. A., Alzahrani, N. S. & Saleh, Z. T., 1. aug. 2022, I: Universal Journal of Public Health. 10, 4, s. 393-401

[The effectiveness of improving healthcare teams' human factor skills using simulation-based training: a systematic review.](#) Abildgren, L., Lebahn-Hadidi, M., Mogensen, C. B., Toft, P., Nielsen, A. B., Frandsen, T. F., Steffensen, S. V. & Hounsgaard, L., 7. maj 2022, I: Advances in Simulation. 7, 1, 18 s., 12.

Supervisor role:

Main supervisor: Lotte Abildgren, PhD student, OPEN, SDU

Co-supervisor: Mette Mørup Schlütter, University of Greenland and Aarhus University

Research activities

Qualitative and mixed methods research



Associate professor Lene Bjerregaard, OPEN SDU

The research group focus on different perspectives and problems on health and illness. Our approach is primarily explorative and often based on self-reported data from patients, relatives, health professionals, or qualitative analysis based on documents e.g. Medical records or scientific journals (systematiske reviews).

Project or research activities in 2022:

Technow - Welfare Technology Knowledge Transfer: Cross-Community Knowledge Sharing.

Funded by Swedish council for health, working life and welfare (Forte)

The aim of the project is to develop methods to improve and promote knowledge transfer in use of welfare technology based on empirical and theoretical aspects to ensure long-term sustainability, based on a scoping review, Danish-Swedish qualitative interviews, an co-creation workshop with stakeholders.

Project group: Associate Professor Jonas Christensen, Malmö University (Projektlead) Associate Professor Jeanette Eriksson, Malmö University Professor Nancy Russo, Malmö University, Associate Professor Lene Bjerregaard, University of Southern Denmark - All members of the CareSam® Network

Supervisor role: Student Camilla Skou, master thesis in Clinical Nursing, SDU

Research activities

Reduction of coercive measures in mental health settings –
Involvement of carers in mental health settings?



Postdoc Ellen Boldrup Tingleff, OPEN

Reduction of mechanical restraint episodes in forensic mental health services (*Senior research project*)

- Vestphal, T.K., Gildberg, F.A., Rowaert, S., Jørgensen, R., & Tingleff, E.B. Experiences and perceptions of the carers of the mentally ill patient in forensic mental health services - The invisible ones. A qualitative systematic review and thematic synthesis (*accepted 01.02.2023*)
- Pedersen, M.L., Gildberg, F.A., Damsgaard, J.B., Baker, J. & Tingleff, E.B. [Ethnic disparities in the use of restrictive practices in adult mental health inpatient settings: a scoping review. Social Psychiatry and Psychiatric Epidemiology.](#) Published: 01 December 2022
- Tingleff, E.B., Rowaert, S., Vinding, S., Vestphal, T.K., Wilson, R., & Gildberg, F.A. (2022). [“It is still our child”. A qualitative study of experiences and perceptions of parents with adult children in forensic mental health services.](#) Archives of Psychiatric Nursing, 44, 124-131
- Jensen, A.M., Wilson, R., Østergaard, B., Hounsgaard, L., Tingleff, E.B. (2022). [The nursing care of people with dementia in an orthopaedic acute care setting. An integrative literature review.](#) Journal of Clinical Nursing, 00, 1–21
- Pedersen, M.L., Gildberg, F., & Tingleff, E.B. (2022, nov. 12). [A systematic review of interventions to reduce mechanical restraint in adult mental health inpatient settings. PROSPERO International prospective register of systematic reviews.](#)

Supervisor role:

Co-supervisor: Kristian J. Paaske, PhD student RFM Middelfart and Tina Kirstine Vestphal, PhD student RFM Middelfart.

Research activities

Bone, Fractures and LifeCourse Epidemiology



Clinal professor , Bo Abrahamsen, Consultant endocrinologist at Holbæk Hospital

Research activities in 2022 (most important):

1. NIH grant 1R01AR082562 – **Pooling international cohort studies of Long-Term Bisphosphonate Use and Atypical Femur Fractures. National PI, with UCSF San Francisco.**
2. Novo Nordisk Foundation - **Optimised long-term management of osteoporosis (OPTIMISE). Work Package Leader, with Aarhus University.**
3. Region Southern Denmark Centre of Excellence EXCENTRICC – **Epidemiology of glucocorticoids and bone health.**
4. The CHAMPS-study Extension: **Early adulthood follow-up of the Danish Childhood Health, Activity, and Motor Performance School Study**
5. Region Zealand Research Fund: **Long term individual and societal consequences of untreated vertebral fractures**

Supervisor role:

Main supervisor: Michael K. Skjødt, PhD student

Co-supervisor: Anne Clausen, PhD student

Research activities

Non-specific effects of vaccines

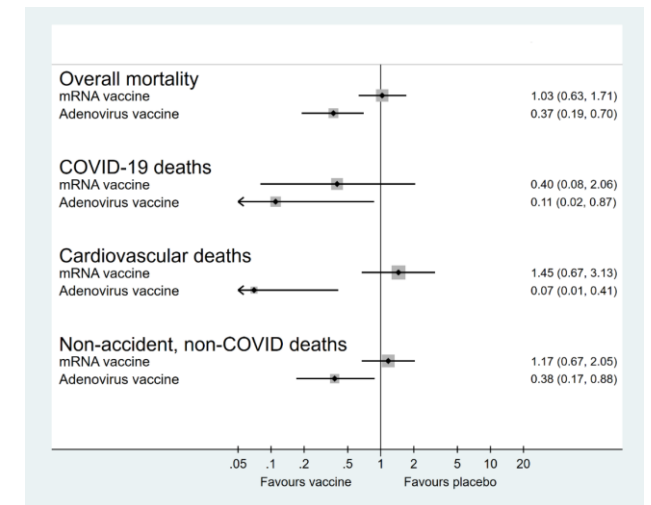
Professor Christine Stabell Benn, Bandim Health Project



Our main focus is on testing the overall and non-specific effects of vaccines. Some highlights from 2022:

On April 1 2022 (a coincidence) we made our analysis on the overall mortality effect of mRNA vaccines and adenovirus vaccines available [online](#). We compared the mortality in the vaccine and the placebo groups in the randomised trial leading to approval and found that the two types of vaccines differed with respect to impact on overall mortality ($p=0.03$). The relative risk (RR) for the mRNA vaccines vs. placebo was 1.03 (0.63-1.71). The RR for adenovirus vaccines was 0.37 (0.19-0.70). This is a signal that (one of) the vaccines may have non-specific effects. The paper is now accepted in iScience.

From November 9-11 2022, we held the second Optimunize conference held at Danish Institute for Advanced Study. The conference was opened by no less than the Director-General of WHO, Dr. Tedros Ghebreyesus, with an opening speech that emphasised the importance of studying NSEs of vaccines. The “grandfather of vaccines”, Dr. Plotkin, gave a great keynote speech which also acknowledged the importance of NSEs. For further information, see the [Abstract book](#) and the [Conference statement](#).



Postdocs in the group: Signe Sørup (at AU), Frederik Schaltz-Buchholzer, Stine Hoffmann, Sebastian Nielsen (defended PhD 5/1-23) (all at SIF), Mike Berendsen (Bissau/The Netherlands), Lise Gehrt (defended PhD 17/3-23 – DIAS). PhD students in the group: Anne Marie Rosendahl Madsen, Isaquel Silva (Bissau).

Research activities

Real-life implementation and impact of health interventions



Professor Ane Bærent Fisker, Bandim Health Project: Measure Effects

In 2022, we finalised the two large scale cluster-randomised trials of interventions to mitigate the impact of COVID-19 in Guinea-Bissau. In the first trial testing the effect of providing Oral Polio Vaccine (OPV) to adults aged 50+, we found no overall effect of OPV on the risk of morbidity and mortality, but a strong sex-differential effect.

In the second trial, assessing the effect of distributing cloth facemasks on morbidity, mortality and mask-use among almost 40,000 people, we found that mask distribution had little effect on mask-use (which was low, ~40%) and did not affect mortality and morbidity.

Many projects are ongoing:

We re-initiated enrolment in the MAD-trial (Measles vaccination At Discharge), testing whether utilising health facility contacts to provide missing doses of measles vaccine can improve health and survival.

We completed the pilot phase of the CS-BCG trial and initiated trial enrolment in the last two health regions.



Supervisor role:

PhD students: Main supervisor of Andreas M Jensen , Line M Nanque, Sabine M Damerow, Julie O Vedel, Kimberly R Nehal and co-supervisor of Sebastian Nielsen.

Masters students: Justiniano SD Martins, Helene Adrina, Morten R Huno, Emil B Buhl and Paula da Silva.

Completed PhD study

The eradication paradox:

Can stopping oral polio vaccine have negative consequences?



PhD student, MSc Statistics, Sebastian Nieslen, OPEN – Bandim Health Project (work place: Guinea-Bissau/Denmark)

Project period: May 2019 – October 2022 (including extension)

Numerous campaigns with oral polio vaccine (C-OPV) have been implemented in low- and middle-income countries during the past 30 years. While C-OPV has been key in preventing and controlling polio, evidence also suggest that C-OPV has contributed greatly to lowering child mortality. This has previously been shown in community studies from Guinea-Bissau, where mortality was reduced by 25% comparing time after and before OPV campaigns. The plan is stop using OPV after wild poliovirus has been eradicated. However this will also remove the potential beneficial effects of OPV and could therefore paradoxically have negative consequences on child health.

Sebastian finished his PhD in 2022 (defended 05.01.2023). The PhD included five studies investigating the effects of C-OPVs. The aim was to triangulate the evidence using different analytic approaches on data with potential different underlying bias structures. The first community study outside West Africa on the effects of C-OPV was conducted using data from a rural area of Bangladesh. The analysis from Bangladesh found a 31% reduction in mortality comparing time after and before OPV campaigns. The cause of death affected by C-OPVs found a 62% reduction for respiratory infections. In the third study the data from Guinea-Bissau it was found that C-OPVs had reduced overall mortality by 10%. Information on campaigns was investigated in the fourth study and it was found that the source of the information could potentially have a major impact. In the last study the impact of C-OPVs on a randomized intervention was investigated and it was found that C-OPVs interacted with the RCT interventions. Triangulating the evidence provided from the five studies concluded that the most likely explanation for the observed evidence is that OPV has beneficial effects beyond the protection against wild poliovirus. These effects need to be evaluated further before OPV is stopped.

Main supervisor: Christine Stabell Benn, OPEN/Bandim Health Project

Co-supervisors: Peter Aaby & Ane Bærent Fisker, OPEN/Bandim Health Project and Sören Möller OPEN



Submitted PhD study

Non-specific effects of vaccination against Measles-Mumps-Rubella on vaccine non-targeted infections in Denmark, Finland, Norway and Sweden

PhD student, MSc Global Health, Lise Gehrt, OPEN – Bandim Health Project

Project period: October 2017 – December 2022



The live vaccine against measles, mumps, and rubella (MMR) has been found to hold potential for reducing susceptibility towards vaccine non-targeted infections. Through this project we investigated if vaccination with MMR could reduce the rate of infectious disease hospitalisations and antibiotic treatment across the four Nordic countries Denmark, Finland, Norway, and Sweden.

The project is embedded in a Nordforsk funded Nordic collaboration with the aim to investigate non-specific effects of childhood vaccines and vaccination programmes across the Nordics using the extensive nationwide registry information available in all four countries. As a prerequisite for undertaking these cross country investigations, we first investigated the comparability of the Nordic registries and registration practices, health care systems, vaccination programmes and uptake, which is published as a cohort profile <https://pubmed.ncbi.nlm.nih.gov/36764731/>. Second, similarities and differences in antibiotic treatments <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9369097/>, and infectious disease hospital contacts <https://pubmed.ncbi.nlm.nih.gov/35520276/> were assessed.

Through the project we found that having MMR as the most recent vaccine holds potential for reducing infectious disease hospitalisations, whereas an association with fewer antibiotic treatments could not be established. Randomised control trials are warranted to explore the magnitude of these non-specific effects further. Noteworthy, the recommended age for receipt of MMR varies across the Nordic countries. Thus, future RCTs should focus on identifying the optimal timing for receipt of MMR for both its specific and non-specific effects.

Main supervisor: Christine Stabell Benn OPEN/Bandim Health Project

Co-supervisors: Signe Sørup and Sören Möller OPEN

Ongoing PhD study

Measuring early neonatal mortality in low-income countries

PhD student, MSc, Andreas Møller Jensen, OPEN – Bandim Health Project

Project period: January 2020 – January 2023



During the past 20 years, child mortality has decreased markedly in low-income countries. Though accurate data is needed to monitor the trends, however, complete vital statistics are not available for low-income countries. Therefore, we currently have to rely on other data sources to estimate child mortality. Such as cross-sectional demographic surveys and data from Health and Demographic Surveillance Systems (HDSS). Both data collection methods and estimation methodologies differ between data sources which may affect the resulting mortality estimates.

Using data from the Bandim Health Project's HDSS, we found that stillbirth and mortality estimates are affected by the choice of method applied when HDSS data is analysed. The early neonatal mortality and stillbirth rates are substantially underestimated when retrospective data is assumed to provide full information on births. Furthermore, when information on births and child deaths is collected in surveys information on both date of birth and age at death are less precise than HDSS data. Especially date of birth for dead children is more likely to be misreported. Age at death is also likely to be misreported, which could affect estimates of early neonatal mortality.

Main supervisor: Ane Bærent Fisker, OPEN/Bandim Health Project

Co-supervisors: Sanne Thysen, Bispebjerg and Frederiksberg hospital, Stéphane Helleringer, New York University Abu Dhabi, Jacob von Bornemann Hjelmborg, Department of Epidemiology, Biostatistics, and Biodemography, SDU

Ongoing PhD study

Evaluating the effects of polio vaccines on general child health in Guinea-Bissau

PhD student, MSc Global Health, Line Møller Nanque, OPEN – Bandim Health Project

Project period: April 2019 – June 2023 (including extension)

Workplace: Guinea-Bissau/Denmark

Numerous campaigns with oral polio vaccine (C-OPV) have been implemented in low- and middle-income countries during the past 30 years. While C-OPV has been key in preventing and controlling polio, evidence also suggest that C-OPV has contributed greatly to lowering child mortality. Within the next 10 years it is anticipated that the last endemic poliovirus, wild poliovirus type 1, will be eradicated and the use of OPV will be stopped. OPV will then be replaced by the non-live inactivated polio vaccine. The planned phase out of OPV and general introduction of IPV in low- and middle-income countries is a huge natural experiment, but it is not planned to monitor the effect.

Line evaluates whether switching from OPV to IPV may augment child morbidity and mortality in Guinea-Bissau due to depriving children of the benefit of OPV and exposing them to a potential negative effect of IPV. This is done through a randomized trial assessing the effect of OPV on mortality, hospitalization, morbidity and growth as well as two natural experiments; one assessing the effect of IPV vs OPV utilizing data from an IPV shortage in 2016, and one assessing the effect of DTP vs OPV+DTP utilizing data from an OPV shortage in 2004. Line has spent the first 2 years of her PhD in Guinea-Bissau conducting field work and managing and organizing the day-to-day tasks related to running Bandim Health Projects rural Health and Demographic Surveillance System.

Status:

Line is currently finalizing her PhD and based in Denmark.

Main supervisor: Ane Bærent Fisker OPEN/Bandim Health Project

Co-supervisors: Sören Möller OPEN and Anita Van Den Biggelaar, Telethon Kids Institute, Australia



Ongoing PhD study

Effect of BCG vaccination on the immune system and general health in the elderly, including the response to seasonal influenza vaccination



PhD student, MD, Anne Marie Rosendahl Madsen, OPEN – Bandim Health Project

Project period: February 2020 – December 2023

The aim of this project is to explore the effect of BCG vaccination on the immune system and general health of senior citizens.

The BCG (Bacille Calmette Guerin) vaccine was developed for tuberculosis prevention, but there is increasing evidence that it also has beneficial heterologous ‘non-specific’ effects on the immune system. Studies among children in low-income countries have shown that BCG vaccination reduces neonatal mortality far more than can be explained by prevention of tuberculosis. BCG strengthens the innate immune system resulting in increased activity against non-related infections in laboratory models, a term named “trained immunity”. Recent studies suggest there might be an effect in older adults as well as in children.

With increasing age we experience a general decline in immune function resulting in increased susceptibility towards infections and a lower vaccine efficacy. It is therefore relevant to explore potential means to improve immune function in the elderly. The project consists of two randomized controlled trials including a total of 2000 participants over 65 years of age.

In Study 1 (BCG-DENMARK-SENIOR, EudraCT number 2020-003904-15) participants are randomized 1:1 to BCG vaccination or placebo and followed for 12 months. The objectives are to reduce the risk of acute infections in general and COVID-19 in particular.

In Study 2 (BCG-DENMARK-INFLUENZA, EudraCT number 2019-002781-12) participants are randomized in to four groups exploring the effect of different combinations of influenza vaccination and BCG vaccination with the aim to improve the immunological response to influenza vaccination and study the effect on the immune system and induction of trained immunity.

BCG is a low risk, low cost, easily manageable intervention. If effective as a booster of immune function in the elderly, it could help reduce the pressure on our health system and potentially mitigate the effect of future pandemics.

Status:

Data collection is completed and I am now working on data analysis. I am temporarily living in Tromsø and have joined the Arctic University in Tromsø as a guest researcher.

Main supervisor: Christine Stabell Benn OPEN/Bandim Health Project

Co-supervisors: Lene Annette Norberg, Odense Kommune & Mette Bliddal, OPEN

Ongoing PhD study

New indicators of BCG vaccination programme performance: Related to better child health?

PhD student, MD, Julie Odgaard Vedel, OPEN – Bandim Health Project

Project period: October 2020 – December 2024 (extension pending)

Workplace: Guinea-Bissau

Bacillus Calmette-Guérin (BCG) is recommended at birth in countries with a high tuberculosis burden. BCG is supplied in multidose vials with limited durability after opening. In Guinea-Bissau, this has led to the restrictive vial opening policy of only opening a vial on predefined days, if 10-12 children are present. Therefore, BCG vaccination is frequently delayed. This is a problem, as accumulating evidence indicates that BCG vaccination has beneficial non-specific effects on survival and that BCG scarring is associated with lower mortality among BCG-vaccinated children. Official BCG coverage estimates evaluate coverage at 12 months of age. Hence, they do not reveal whether BCG is given timely or with correct intradermal vaccination technique.

Julie evaluates BCG coverage at 1 month and BCG-scarring at 6 months as alternative performance indicators for the BCG vaccination programme. This is done by describing and investigating the effects of delayed BCG vaccination on early infant mortality and morbidity as well as the importance of correct intradermal vaccination technique on developing scars. Julie simultaneously serves as trial manager and co-investigator of a large cluster-randomized trial, investigating whether increasing the availability of BCG at rural health facilities can reduce early infant mortality. She has been based in Guinea-Bissau since 2020, conducting field work in rural villages as well as urban and rural health facilities.

Main supervisor: Ane Bærent Fisker, OPEN/Bandim Health Project

Co-supervisors: Quique Bassat, Universitat de Barcelona & Aksel Jensen KU



Ongoing PhD study

Real-life effects of a health system strengthening initiative for maternal and child health in Guinea-Bissau

PhD student, MSc Global Health, Sabine Margarete Damerow, OPEN – Bandim Health Project

Project period: October 2021 – July 2023 (427 days merit)



Guinea-Bissau bears amongst the highest burden of maternal and child mortality globally. Since 2013, the European-Union-funded health system strengthening initiative 'Integrated Programme for the Reduction of Maternal and Child Mortality' (PIMI) has been implemented to increase coverage of essential maternal and child health (MCH) services and improve MCH outcomes.

In her PhD project, Sabine assesses the effects of PIMI using a multi- and mixed-methods approach. The backbone of this assessment is data from the nationally representative rural health and demographic surveillance system (HDSS) of the Bandim Health Project which monitors health, survival and uptake of MCH services across Guinea-Bissau. This data was complemented by structured and in-depth interviews with users and providers of MCH services, participant observations at the point of care and health facility data.

Based on HDSS data, we evaluated coverage of essential MCH services and perinatal mortality before and during PIMI's implementation and assessed user-perceived barriers to care amid PIMI using HDSS, structured and in-depth interview data. In these studies, we found tremendous regional heterogeneities which we are now further exploring in a community-level health system performance assessment using HDSS and health facility data. This is complemented by a supply-side assessment capturing provider perceptions of related drivers based on in-depth interviews and participant observations.

Sabine was based in Guinea-Bissau from 02/2020 to 07/2022 to support the day-to-day HDSS management and implement all additional data collections for this project.

Main supervisor: Ane Bærent Fisker, OPEN/Bandim Health Project

Co-supervisors: Giuliano Russo, Queen Mary University London; Jane Sørensen KU; Aksel Jensen KU



Ongoing PhD study

Identification of Patient-reported barriers for treatment of wet AMD



PhD student, MD Benjamin Sommer Thinggaard, OPEN – Department of Ophthalmology, OUH

Project period: February 2022 – January 2025

Wet age-related macular degeneration (AMD) is a leading cause of blindness globally, and it is estimated that 6.4 million worldwide will be diagnosed with wet AMD in the year 2050. The introduction of intravitreal vascular endothelial growth factor (VEGF) inhibitor therapy has halved the number of newly blind people over the age of 50, but the treatment is often lifelong and requires regular hospital attendance. This can create significant challenges for elderly and vulnerable patients who may find the treatment regimen overwhelming. To better understand the patient experience, our first study aims to identify patient-reported barriers to treatment for wet AMD and investigate their impact on patient's willingness to continue treatment. This is done in 21 face-to-face interviews with patients with wet AMD from the department of Ophthalmology at Odense University Hospital and Zealand University Hospital, Roskilde, Denmark.

To understand why patients choose to opt out of the recommended course of treatment, the aim of the second study is to determine characteristics of patients with wet AMD who opt out of treatment, and examine quality of life among these patients compared to patients who remain in treatment for wet AMD. This study consist of a questionnaire survey including more than 500 patients.

The third study examine the association between treatment with intravitreal VEGF inhibitors and the risk of all-cause mortality and incident cardiovascular disease in patients with wet AMD. The study is a nationwide register-based cohort study including more than 1,9 million individual above 65 years of age. Preliminary data will be oral presented at a global ophthalmology conferences called ARVO annual meeting in New Orleans in April 2023.

Status:

So far, we have set up a patient panel and 21 interviews have been conducted, transcribed and analyzed. We have performed the main analyses and several of the subgroup analyses in the register study. In the questionnaire study, the questionnaire has been set up in REDCap, and permission has been obtained to send the questionnaire to approx. 1000 patients who have stopped treatment for wet AMD. Another 50 patients have also been recruited in the outpatient clinic and via organizations such as the Danish Society for the Blind, professional seniors, etc.

Main Supervisor: Lonny Stokholm, OPEN

Co-suervisors: Jakob Grauslund; DO-OUH and Maria Kjøller Pedersen UC Copenhagen



Ongoing PhD study

Early detection of individuals at risk of osteoporotic fractures through automatic risk assessment in primary care



PhD student, MSc Anne Clausen, OPEN Epidemiology and register-based research

Project period: September 2022 – August 2025

Osteoporosis is the most common bone disease in humans and osteoporotic bone fractures are a widespread health problem causing major health consequences for patients and significant societal costs due to hospitalizations, deaths and rehabilitation. Current case-finding strategies are ineffective in detecting citizens at high risk of osteoporotic fractures, since osteoporosis is widely under-diagnosed and under-treated. Automated risk prediction models propose a new strategy for early detection of high-risk individuals. A preliminary fracture risk prediction model has been developed based on Danish data, the Fracture Risk Evaluation Model (FREM). FREM predicts a single fracture risk estimate for each patient based on administrative data on diagnoses from Danish registries. FREM could be applied in general practice as a decision support tool triggering a 'red flag' when detecting a patient at high risk of sustaining an osteoporotic fracture. This 'red flag' draws the doctor's attention to the patient's risk, after which the doctor can decide to refer for further investigation and possible treatment to prevent bone fractures. The PhD project aims at validating and qualifying register-based definitions of osteoporotic fractures to improve predictive capabilities of FREM, and further to enhance the preliminary FREM with more advanced statistical methods and by inclusion of more data sources.

Status:

Medical record data obtained for study 1 (validation and qualification of osteoporotic fractures in the Danish National Patient Register). Medical record review ongoing.

Application for register data for study 2 (enhancement of the FREM model) ongoing.

PhD courses completed in 2022: Which covariates to adjust for: An introduction to directed acyclic graphs, Biostatistics II, Introduction to Health Research, Responsible Conduct of Research.

Main supervisor: Katrine Hass Rubin, OPEN

Co-supervisors: Bo Abrahamsen, OPEN & Jens Søndergaard, FEA

Ongoing PhD study

Medication Errors reported to the Danish national incident report database: Analyses, patterns, trends

PhD student, RN, MSc Olga Tchijevitch, OPEN Patient safety and quality

Project period: January 2021 – March 2024



The number of medication errors (MEs) in healthcare is rising, leading to higher morbidity, mortality, and costs. As a means to address these challenges, the mandatory reporting of adverse events (AEs) to the Danish Patient Safety Database (DPSD) has been established. Ever since its implementation, total report numbers have increased with about 25% being related to medication. Unfortunately, our knowledge of how to interpret and systematically analyze MEs reported to DPSD is limited. To improve patient safety and healthcare quality, there is a need for developing and testing methods to analyze and utilize reports. Research-based measures to systematically analyze AEs are warranted to ensure the rationale of mandatory reporting systems.

The aims of the study are to characterize contemporary approaches to ME management, develop and test methods to analyze MEs in DPSD, and to uncover ME patterns and trends.

This is achieved through the following studies:

- *Study 1*: A scoping review on state-of-the-art methods of ME analysis in incident reporting systems
- *Study 2*: Provides a descriptive overview on MEs reported to DPSD (2014-2018)
- *Study 3*: Incidents that occur more frequently than would be expected are identified through disproportionality analysis.

Status:

- *Study 1*: The protocol for the scoping review was published in the [BMJ Open in June 2022](#)
The scoping review is in progress, and we are currently working on the inclusion and extraction phases.
- *Study 2*: The study was finished and published in the [Journal of Basic and Clinical Pharmacology and Toxicology in February 2023](#)
- *Study 3*: The study is finished, and we are currently writing an article.

Main supervisor: Søren Fryd Birkeland, OPEN

Co-supervisors: Søren Bie Bogh, OPEN & Jesper Hallas, Clinical Pharmacology SDU



Ongoing PhD study

PATH – Patient Assessment of Transitions in Healthcare

PhD student, MSc Sisse Walløe, OPEN Patient safety and quality

Project period: September 2021 – August 2024



Patients who are discharged from hospital often experience challenges as the responsibility for treatment, care, and rehabilitation shifts to multiple actors in both primary and secondary sectors. To address these challenges, focus has increased on developing a coherent health care system that is able to integrate care across healthcare providers and across diagnosis, treatment, rehabilitation, and health promotion. To ensure high quality of such care, and patient involvement in integrated care, we need to draw on patients' experiences in a valid and structured way because each individual patient is the only person who has information about all aspects of his or her specific care journey. A reliable patient-reported experience measure (PREM) of healthcare transitions will structure and express this invaluable information. There are many approaches to conceptualizing and measuring patient-experience of healthcare transitions labelled with different underlying constructs such as integrated care, person-centered care, continuity of care, etc. This project aims to clearly conceptualize patient assessment of transitions in healthcare and provide a PREM that enables valid, scientifically reliable data collection for quality improvement. This may allow for systematically uncovering areas for improvement and evaluating the effect of improvement initiatives for coordination of healthcare transitions.

Status:

In 2022 the first fase of the PhD project was completed. Fase 1 included a scoping review, "Exploring and assessing the content validity of patient-reported experience measures evaluating adults' experiences of transitions in healthcare settings", and a phenomenological study to explore Danish patients' lived experiences of transitioning between healthcare settings. Fase 2 was initiated ultimo 2022 with a pilot-test of the developed PREM, PATH.

Main supervisor: Lars Morsø, OPEN

Co-supervisors: Henrik Hein Lauridsen Clinical Biomechanics SDU & Charlotte Simonÿ, Næstved, Slagelse and Ringsted Hospitals



Ongoing PhD study

Graduating psychiatric coercive measures



PhD student, MSc Camilla Rosendal Lindekilde, OPEN Patient safety and quality

Project period: October 2021 – September 2024

Coercive measures (CMs) are widely used for specified critical situations in psychiatry in several European countries, including Denmark. Both in Denmark and in other European countries law regulates the use of CMs. Danish health legislation adheres to the principles concerning requirement for obtaining informed consent and using the least restrictive CMs. This recognizes patients' rights to make decisions about their care. Both in the legislation and empirical literature, there is relatively little guidance available on how to bring the abovementioned principles into practice. Further knowledge of patients' and staffs perceptions of various coercive measures is needed, to ensure the least restrictive and therefore most respectful treatment in situations where coercion is considered necessary.

The main aim is to investigate which coercive measures mental health patients and staff perceive as the least restrictive.

The project consists of three studies:

1. A study of the literature in relation to empirical research on patients' perceptions of various coercive measures
2. A questionnaire study among patients, using a self-developed questionnaire, measuring patients' opinions on the restrictiveness related to various coercive measures applied within Danish mental health inpatient care, in order to identify the least restrictive coercive measures
3. Focus group interviews with psychiatric staff on their experiences regarding application of different coercive measures and which reflections are involved in this process.

Results from this study can produce empirical knowledge about which CMs are least restrictive and act as guidance to personnel in psychiatric wards to pose less violation to patients' rights and autonomy. The results could also have potential to support formulation of future legislation regarding the application of CMs.

Status:

Study 1, the literature review is in its final phase. The analysis is finished and writing of the article has started. The results from study 1, are used in study 2 for developing the questionnaire. First preparations of developing the questionnaire will begin early 2023.

Main supervisor: Søren Fryd Birkeland, OPEN

Co-supervisors: Frederik Gildberg, IRS; Jacob Hvidhjelm, Skt. Hans Hospital; John Baker School of Healthcare, Leeds University

Ongoing PhD study

SimLEARN: Transfer of human factor skills from simulation-based training into competency in the everyday clinical practice

PhD student, cand.cur. Lotte Abildgren, OPEN – Anesthesiology OUH

Project period: September 2018 – August 2024



Increasingly more resources are being used internationally in the training and education of healthcare personnel due to a high personnel flow and the rapid development within technology, care and treatment. Consequently, the transfer of learning from simulation-based training to competency in clinical practice is an essential question for faculty and management within healthcare.

This study explores if and how qualified healthcare personnel transfer learning from simulation-based training of human factor skills to competency in everyday clinical practice—a qualitative, phenomenological-hermeneutic study.

A systematic review was conducted to establish the existing knowledge of the effectiveness of simulation-based training on the development of human factor skills and was published in 2022.

This is explored through an ethnographic study before, during and after an in situ simulation course at two different hospitals in the Region of Southern Denmark. Four departments are included – two intensive care units, one emergency and one infectious disease unit. Data consists of video recordings and field notes.

Status:

The data analysis needed a new hybrid method consisting of a Ricœur-inspired analytical approach combined with a Cognitive Event Analysis, which was designed. An article about the method is submitted in march 2023.

The results are currently being written. It is expectedly to be submitted in the summer of 2023.

The study's final results are being analysed and interpreted at the moment.

Main supervisor: Lise Hounsgaard, OPEN

Co-supervisors: Sune Vork Steffensen, HUM-SDU; Palle Toft OUH/KI, Christian Backer Mogensen, SHS/IRS

Teaching

OPEN Research Unit is responsible for several courses targeted master students and PhD students at the Faculty of Health Sciences at SDU. Following courses have been held in 2022:

Master courses:

- Academic writing, Master Medicin – The Clinical Profile
- Datamanagement, Master Medicine – The Research Profile
- Dissemination - research, Master Medicine – The Research Profile
- Epidemiology and biostatistics, Masters in Nursing/Midwifery/Occupation Health/Physiotherapy/Health Sciences
- Ethics in the profession, Master Medicin and Chiropractor
- National Health Registers for research use, Master Health Sciences
- Planning and conducting an epidemiological research project, Masters in Nursing/Midwifery/Occupation Health/Physiotherapy/Health Sciences
- Psychometrics in health sciences, Masters in Nursing/Midwifery/Occupation Health/Physiotherapy/Health Sciences

PhD courses:

- Bone Biology – Epidemiology of Metabolic Bone Diseases, Aarhus University, Sandbjerg
- Datamanagement and responsible handling of research data, University of Southern Denmark
- English Grammar in Context, KI/IRS and Graduate School
- How to structure a scientific article, KI/IRS and Graduate School
- How to structure and write your thesis, KI/IRS
- Logic of Writing, KI/IRS
- Register-based Clinical Epidemiology Research, University of Southern Denmark

Other:

- Oxford course on osteoporosis and Metabolic Bone Diseases and Oxford lectures on the safety of osteoprosis medication an on clinical cases.

Oral presentations

National and international conferences 2022

- **Mette Bliddal**, 'Psychotropic drug use and psychiatric disorder during the COVID-19 pandemic among children, adolescents, and young adults'. August 24 -28 , International Conference on Pharmacoepidemiology (ICPE 2023), Copenhagen, Denmark
- **Sören Möller**, 'Inferens for den relative risiko, når estimatet er 0'. August 29, Symposium i Anvendt Statistik, København, Danmark
- **Søren Bie Bogh**, 'Disease severity for Chronic Obstructive Pulmonary Disease patients in Denmark during the COVID-19 'shelter at home' period' October 15-19, The European Emergency Medicine Congress (EUSEM), Berlin, Germany
- **Søren Birkeland** and **Lars Morsø**, Workshop session: 'RAISING AWARENESS OF PATIENT SAFETY AND ORGANIZATIONAL LEARNING IN HEALTH CARE BY SYSTEMICAL ANALYSIS OF PATIENT COMPLAINTS - The Healthcare Complaints Analysis Tool – Lessons learnt from UK and Denmark'. October 19, International Society for Quality in Healthcare (ISQUA), Brisbane, Australia
- **Mette Bliddal**, 'Pregnancy Studies Using Real-world Data from Asia and Europe: Fit-for-data Considerations Demonstrated With Case Examples'. October 21 - 23, 14th Asian Conference on Pharmacoepidmiology, Tainan, Taiwan (online presentation)
- **Mette Bliddal**, 'Increasing use of antidepressants, hypnotics and psychostimulants during the COVID-19 pandemic among Danish children, adolescents, and young adults'. November 16 - 18, The Annual Nordic Pharmacoepidemiological Network (NorPEN), Tampere, Finland
- **Søren Birkeland**, **Lars Morsø** and **Søren Bie Bogh**, 'Analyzes of patient compensation claims as a supplement to clinical data in cervix cancer care'; 'Using HCAT coded complaint data to investigate obstetric complaints patterns in the Region of Southern Denmark' and 'The COVID-19 pandemic has affected the characteristics of patients with pneumonia in Denmark'. November 29, National congress at the: Danish Clinical Quality Program, Aalborg, Denmark
- **Søren Birkeland**, 'Danish psychiatry law: does it work in everyday practice? A questionnaire study' December 15, Regional seminar: Psykiatriens Forskningsdag, Fredericia, Denmark

Oral presentations

Invited speaker

- **Bo Abrahamsen**
Cardiovascular Effects of Bisphosphonates
March 2022, World Congress of Osteoporosis (online)
- **Claire Gudex**
Scientific English writing
June 2022, a Writing Retreat for medical doctors of anesthesia, Kolding
- **Claire Gudex**
How to structure a PhD thesis
October 2022, Department of Nuclear Medicine, OUH
- **Bo Abrahamsen**
Cardiovascular effects of bisphosphonates
October 2022, AAOMM Argentina (online)
- **Lonny Stokholm,**
Er intrapartum syntetisk oxytocin forbundet med en risiko for udviklingsforstyrrelser hos barnet?
November 2022, Tværfagligt Obstetrisk Forum, Trinity hotel and Conference center, Fredericia
- **Claire Gudex**
Structure and content of a scientific manuscript
November 2022, FIDELIO (EU project on Bone health in diabetes, Campus Kollegiet, SDU)
- **Bo Abrahamsen**
Treatment efficacy – Results from the FOCUS study
December 2022, Bone Academy, Japan (online)

Grants

Foundation	Project	Grant
A.P. Møller Fonden	Bandim Health Project	30,000 DKK
Dansk Industri	Bandim Health Project	10,000 DKK
FOF Fjordlandet	Bandim Health Project	10,000 DKK
HJ Invest Holte ApS	Bandim Health Project	100,000 DKK
JPB Holding ApS	Bandim Health Project	100,000 DKK
Karen Elise Jensens Fond	Bandim Health Project	1,000,000 DKK
Kong Christian den tiendes Fond	Bandim Health Project	50,000 DKK
Ministry of Higher Education and Science	Bandim Health Project	2,869,596 DKK
Ministry of Higher Education and Science	Bandim Health Project	2,309,606 DKK
Novo Nordisk Fonden	Bandim Health Project	75,000 DKK
Projecto de Saúde Bandim	Bandim Health Project	462,699 DKK
Private donations	Bandim Health Project	200,000 DKK
OUH, PhD fund	Using processing improvement models to increase research productivity	543,000 DKK
OUH, pregraduate fund	Does timing of the Bacillus Calmette Guerin vaccine affect growth?	60,000 DKK
Schleroseforeningen	Bandim Health Project	450,000 DKK
Telethon Kids Institute	Bandim Health Project	867,000 DKK
The Bluebell Foundation	Bandim Health Project	3,500,000 DKK
The Region of Southern Denmark, Independent and Strategic Research	Well-intentioned, expensive and effective - A cross-sectoral project on rehabilitation plans	207,000 DKK
The Region of Southern Denmark, Independent and Strategic Research	Early detection of citizens at risk of osteoporosis-related fractures - a unique tool in general practice	984,000 DKK
The Region of Southern Denmark, PhD fund	Early detection of citizens at risk of osteoporosis-related fractures with automatic risk assessment in general practice	592,000 DKK
U.S. Department of Health and Human Services	Pooling International Cohorts of Bisphosphonate Use and Atypical Femur Fractures	3,904,651 DKK
Total		18,324,552 DKK

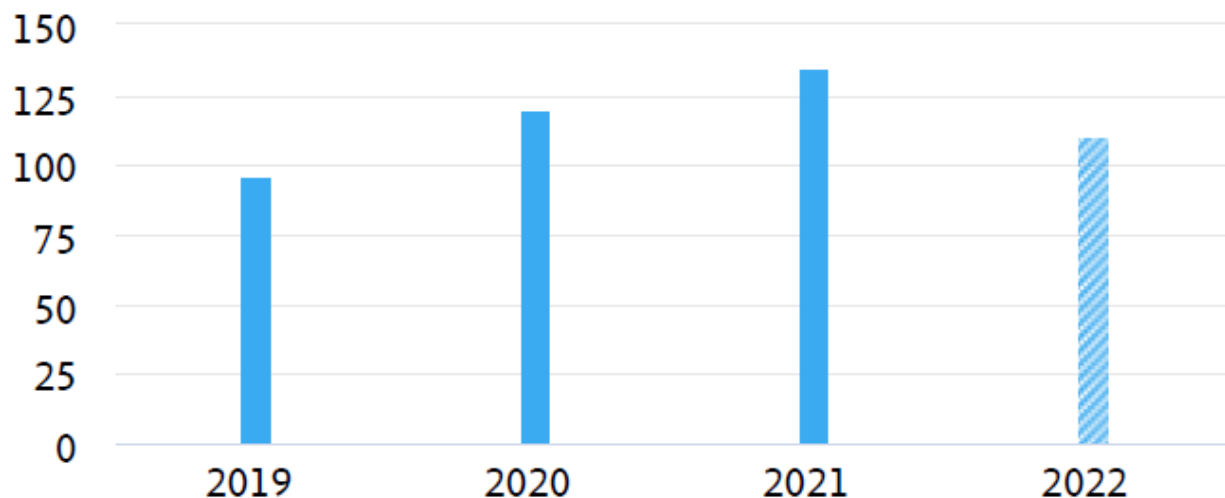
18,324,552 DKK

Peer reviewed publications

2019 - 2022

Scholarly Output

Entity: KI, OPEN Open Patient data Explorative Network 2022 · Year range: 2019 to 2022 · Data source: Scopus, up to 12 Apr 2023 · Filters: Only Scholarly Output published at University of Southern Denmark included



459

number of publications by authors
in KI, OPEN Open Patient data
Explorative Network 2022

▨ Incomplete year

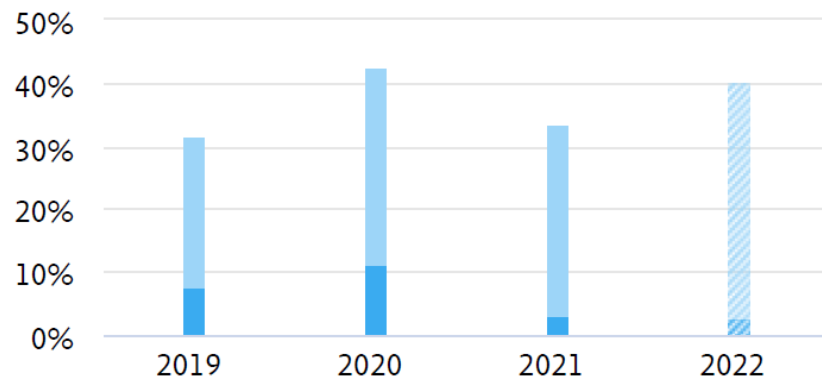
Journal ranking

Top 10% journals by SJR

Publications in Top Journal Percentiles by SJR

Entity: KI, OPEN Open Patient data Explorative Network 2022 · Year range: 2019 to 2022 · Data source: Scopus, up to 12 Apr 2023 · Filters: Only Scholarly Output published at University of Southern Denmark included

Share of publications in KI, OPEN Open Patient data Explorative Network 2022 that are in the top journals by SJR



168 (37.1%)

number of publications in the top 10% journals by SJR

According to OUH/SDU goals, 40% of publications should be in Scimago Journal Rank top 10%. This has been achieved in 2022.

- % publications in top 10% journals
- % publications in top 1% journals
- ▨ Incomplete year

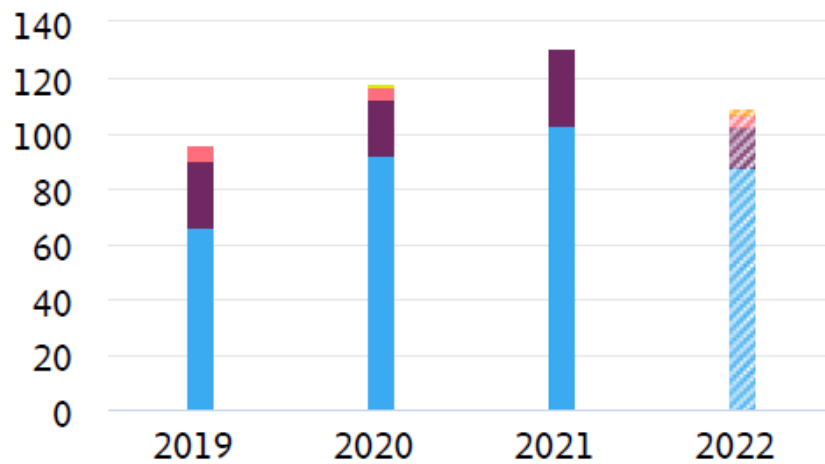
Journal ranking

Top 25% journals by SJR

Publications by Journal quartile

Entity: KI, OPEN Open Patient data Explorative Network 2022 · Year range: 2019 to 2022 · Data source: Scopus, up to 12 Apr 2023 · Filters: Only Scholarly Output published at University of Southern Denmark included

Share of publications per Journal quartile by SJR



▨ Incomplete year

Quartiles	Publications	Publication share (%)
Q1 (top 25%)	351	77.5
Q2 (26% - 50%)	87	19.2
Q3 (51% - 75%)	12	2.6
Q4 (76% - 100%)	3	0.7
Cumulative shares	Publications	Publication share (%)
Q1 to Q2 (top 50%)	438	96.7

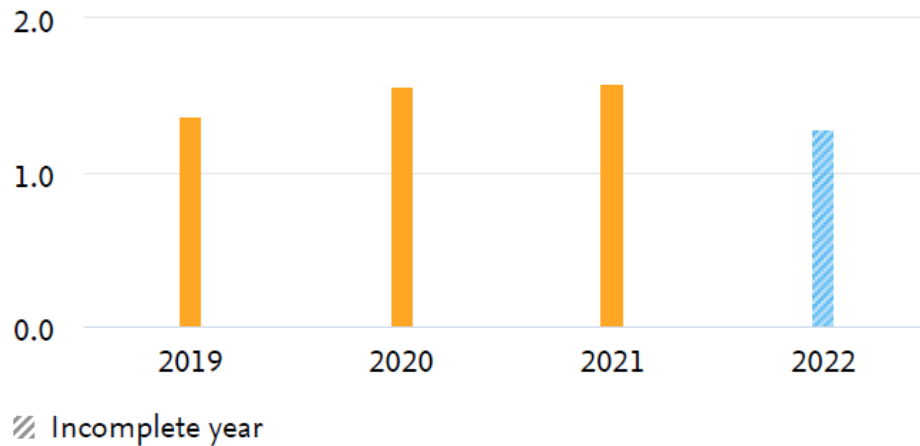
According to OUH/SDU goals, 80% of publications should be in Scimago Journal Rank top 25%. This has been achieved in 2022.

Journal ranking

Field-Weighted Citation Impact

Field-Weighted Citation Impact

Entity: KI, OPEN Open Patient data Explorative Network 2022 · Year range: 2019 to 2022 · Data source: Scopus, up to 12 Apr 2023 · Filters: Only Scholarly Output published at University of Southern Denmark included



1.45

Field-Weighted Citation Impact of
KI, OPEN Open Patient data
Explorative Network 2022

According to OUH/SDU goals,
Field-weighted citation impact should
be above 1.0.
This has persistently been achieved.

Peer-reviewed publications

In 2022, 110 publications were published in peer-reviewed journals

1. Tingleff, E. B., Rowaert, S., Vinding, S., Vestphal, T. K., Wilson, R., & Gildberg, F. A. (2022). "It's still our child". A qualitative interview study with parent carers in forensic mental health. *Archives of Psychiatric Nursing*, 41, 124-131. <https://doi.org/10.1016/j.apnu.2022.07.017>
2. Birkeland, S. (2022). »Omhu og samvittighedsfuldhed«. *Bibliotek for Læger*, 2022(4). <https://www2.ugeskriftet.dk/bfl/omhu-og-samvittighedsfuldhed>
3. Brook, B., Schaltz-Buchholzer, F., Ben-Othman, R., Kollmann, T., & Amenyogbe, N. (2022). A place for neutrophils in the beneficial pathogen-agnostic effects of the BCG vaccine. *Vaccine*, 40(11), 1534-1539. <https://doi.org/10.1016/j.vaccine.2021.03.092>
4. Byg, K-E., Illés, Z., Sejbæk, T., Nguyen, N. N. T. T., Möller, S., Lambertsen, K. L., Nielsen, H. H., & Ellingsen, T. J. (2022). A prospective, one-year follow-up study of patients newly diagnosed with neurosarcoidosis. *Journal of Neuroimmunology*, 369, [577913]. <https://doi.org/10.1016/j.jneuroim.2022.577913>
5. Lillo, S., Larsen, T. R., Pennerup, L., Kyvik, K., Søndergaard, J., & Antonsen, S. (2022). A randomized controlled study of biochemical tests in primary care: Interventions can reduce the number of tests but usage does not become more appropriate. *Clinical Chemistry and Laboratory Medicine*, 60(3), 343-350. <https://doi.org/10.1515/cclm-2021-1138>
6. Kappel, S. S., Sangild, P. T., Ahnfeldt, A. M., Jóhannsdóttir, V., Soernsen, L. J., Bak, L. B., Friborg, C., Möller, S., Zachariassen, G., & Aunsholt, L. (2022). A Randomized, Controlled Study to Investigate How Bovine Colostrum Fortification of Human Milk Affects Bowel Habits in Preterm Infants (FortiColos Study). *Nutrients*, 14(22), [4756]. <https://doi.org/10.3390/nu14224756>
7. Dalin, D. A., Løkke, A., Kristiansen, P., Jensen, C., Birkefoss, K., Christensen, H. R., Godtfredsen, N. S., Hilberg, O., Rohde, J. F., Ussing, A., Vermehren, C., & Händel, M. N. (2022). A systematic review of blood eosinophils and continued treatment with inhaled corticosteroids in patients with COPD. *Respiratory Medicine*, 198, [106880]. <https://doi.org/10.1016/j.rmed.2022.106880>
8. Kwesiga, D., Eriksson, L., Orach, C. G., Tawiah, C., Imam, M. A., Fisker, A. B., Enameh, Y., Lawn, J. E., Blencowe, H., Waiswa, P., Bradby, H., & Malqvist, M. (2022). Adverse pregnancy outcome disclosure and women's social networks: a qualitative multi-country study with implications for improved reporting in surveys. *BMC Pregnancy and Childbirth*, 22, [292]. <https://doi.org/10.1186/s12884-022-04622-1>
9. Schaltz-Buchholzer, F. (2022). Are Bacille Calmette-Guérin Skin Reactions the Most Important Correlates of Bacille Calmette-Guérin's Specific and Nonspecific Effects? *American Journal of Respiratory and Critical Care Medicine*, 205(7), 748-750. <https://doi.org/10.1164/rccm.202112-2863ED>
10. Rudolph, D. A., Hald, S. M., García Rodríguez, L. A., Möller, S., Hallas, J., Goldstein, L. B., & Gaist, D. (2022). Association of Long-term Statin Use With the Risk of Intracerebral Hemorrhage: A Danish Nationwide Case-Control Study. *Neurology*, 99(7), E711-E719. <https://doi.org/10.1212/WNL.0000000000200713>

Peer-reviewed publications

In 2022, 110 publications were published in peer-reviewed journals

11. Tran, T., Bliuc, D., Ho-Le, T., Abrahamsen, B., Van Den Bergh, J. P., Chen, W., Eisman, J. A., Geusens, P., Hansen, L., Vestergaard, P., Nguyen, T. V., Blank, R. D., & Center, J.R. (2022). Association of Multimorbidity and Excess Mortality after Fractures among Danish Adults. *JAMA Network Open*, 5(10), [E2235856]. <https://doi.org/10.1001/jamanetworkopen.2022.35856>
12. Gaist, D., Hald, S. M., García Rodríguez, L. A., Clausen, A., Möller, S., Hallas, J., & Al-Shahi Salman, R. (2022). Association of Prior Intracerebral Hemorrhage With Major Adverse Cardiovascular Events. *JAMA Network Open*, 5(10), [e2234215]. <https://doi.org/10.1001/jamanetworkopen.2022.34215>
13. Thykjær, A. S., Andersen, N., Bek, T., Heegaard, S., Hajari, J., Laugesen, C. S., Möller, S., Pedersen, F. N., Rosengaard, L., Schielke, K. C., Kawasaki, R., Højlund, K., Rubin, K. H., Stokholm, L., & Grauslund, J. (2022). Attendance in a national screening program for diabetic retinopathy: a population-based study of 205,970 patients. *Acta Diabetologica*, 59(11), 1493-1503. <https://doi.org/10.1007/s00592-022-01946-4>
14. Diray-Arce, J., Angelidou, A., Jensen, K. J., Conti, M. G., Kelly, R. S., Pettengill, M. A., Liu, M., van Haren, S. D., McCulloch, S. D., Michelloti, G., Idoko, O., EPIC Consortium, Kollmann, T. R., Kampmann, B., Steen, H., Ozonoff, A., Lasky-Su, J., Benn, C. S., & Levy, O. (2022). Bacille Calmette-Guérin vaccine reprograms human neonatal lipid metabolism in vivo and in vitro. *Cell Reports*, 39(5), 110772. <https://doi.org/10.1016/j.celrep.2022.110772>
15. Bønløkke, S. E., Rand, M. S., Haddock, B., Arup, S., Smith, C. D., Jensen, J. E. B., Schwarz, P., Hovind, P., Oturai, P. S., Jensen, L. T., Møller, S., Eiken, P., Rubin, K. H., Hitz, M.F., Abrahamsen, B., & Jørgensen, N. R. (2022). Baseline bone turnover marker levels can predict change in bone mineral density during antiresorptive treatment in osteoporotic patients: the Copenhagen bone turnover marker study. *Osteoporosis International*, 33(10), 2155-2164. <https://doi.org/10.1007/s00198-022-06457-0>
16. Ahrenfeldt, L. J., Nielsen, C. R., Möller, S., Christensen, K., & Lindahl-Jacobsen, R. (2022). Burden and prevalence of risk factors for severe COVID-19 in the ageing European population – a SHARE-based analysis. *Journal of Public Health*, 30(9), 2081-2090. <https://doi.org/10.1007/s10389-021-01537-7>
17. Thyssen, S. M., Møller Jensen, A., Vedel, J. O., da Silva Borges, I., Aaby, P., Jensen, A. K. G., Benn, C. S., & Fisker, A. B. (2022). Can BCG vaccination at first health-facility contact reduce early infant mortality? Study protocol for a cluster-randomised trial (CS-BCG). *BMJ Open*, 12(11), [e063872]. <https://doi.org/10.1136/bmjopen-2022-063872>
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93. Pedersen, M. L., Gildberg, F., & Birkeland, S. (2022). The Danish Court Case Database: a data source in forensic mental health? *Scandinavian Journal of Forensic Science*, 28(1), 1-5. <https://doi.org/10.2478/sjfs-2022-0011>
94. Berendsen, M. L. T., Silva, I., Balé, C., Nielsen, S., Hvidt, S., Martins, C. L., Benn, C. S., & Aaby, P. (2022). The effect of a second dose of measles vaccine at 18 months of age on non-accidental deaths and hospital admissions in Guinea-Bissau: interim analysis of a randomized controlled trial. *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*, 75(8), 1370-1378. <https://doi.org/10.1093/cid/ciac155>
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103. Rieckmann, A., Fisker, A. B., Øland, C. B., Nielsen, S., Wibaek, R., Sørensen, T. B., Martins, C. L., Benn, C. S., & Aaby, P. (2022). Understanding the child mortality decline in Guinea-Bissau: the role of population-level nutritional status measured by mid-upper arm circumference. *International Journal of Epidemiology*, 51(5), 1522-1532. <https://doi.org/10.1093/ije/dyac113>
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