



# Anders Huitfeldt

## Curriculum Vitae

### Doctoral Thesis

Title *Emulation of Target Trials to Study the Effectiveness and Safety of Medical Interventions*

Supervisors Miguel A. Hernan (Chair), James M. Robins, Mette Kalager

Description This thesis presents applications of the modern theory of causal inference for problems arising in medical decision making, with a particular focus on questions about the timing of interventions and the use of "active comparators" in observational data. Defended August 31st 2015

### Education

2015 **Doctor of Science in Epidemiology**,  
*Harvard University*, Cambridge, MA.  
Major concentration in Epidemiologic Methods Development. Minor concentrations in Biostatistics and Decision Theory.

2011 **Master of Science in Epidemiology**,  
*Harvard University*, Cambridge, MA.  
Course focus in Causal Inference, HIV Epidemiology and Decision Analysis. GPA 3.89

2008 **Bachelor of Medicine, Bachelor of Surgery, Bachelor of Obstetrics**,  
*Royal College of Surgeons in Ireland*, Dublin.  
Six-year Undergraduate Medical Program.

2002 **Studies in the Department of Mathematics**,  
*Norwegian University of Science and Technology*, Trondheim.  
Completed two years of academic credit in one year, including all requirements for an "Emnegruppe" in mathematics, equivalent to an undergraduate minor concentration

### Employment History

2022- **Researcher**, *Department of Mathematics, Ecole Polytechnique Fédérale de Lausanne (EPFL)*, Lausanne, Switzerland.

- 2020-2022 **Lecturer in Evidence-Based Medicine**, *University of Southern Denmark*, Odense, Denmark.
- 2020 **Lecturer in Epidemiology**, *Royal College of Surgeons in Ireland*, Dublin, Ireland.  
6-month appointment (maternity cover)
- 2019 **Postdoctoral Scholar**, *University of Oslo, Department of Pharmacy*, Oslo, Norway.  
Postdoctoral scholar in perinatal pharmacoepidemiology. PI: Prof. Hedvig M. Nordeng.
- 2018 **Researcher**, *Norwegian Institute of Public Health*, Oslo, Norway.
- 2015-2016 **Postdoctoral Scholar**, *Stanford University School of Medicine*, Palo Alto, California.  
The Meta-Research Innovation Center at Stanford (METRICS).
- 2010 **Intern Physician in General Practice**, *Hoyanger Municipality*, Hoyanger, Norway.  
Primary health care provider working under the supervision of a General Practitioner.
- 2008-2009 **Intern Physician in Medicine and Surgery**, *Haukeland University Hospital*, Bergen, Norway.  
Junior physician attached to in-patient services in Departments of Medicine and Surgery.  
Rotations in cardiology, gastroenterology, plastic surgery, orthopedics and general surgery.

## Teaching Experience

- EBH/PHE Evidence-Based Health and Public Health Medicine (Spring 2020) (Module Coordinator)  
Coordinated module for second semester medical students at the Royal College of Surgeons in Ireland. Taught lectures and group sessions on evidence-based medicine and research ethics
- EPI207 Advanced Epidemiologic Methods (Fall 2012, 2013 and 2014) (Head TA)  
Primary instructors: James Robins and Miguel Hernan
- EPI202 Elements of Epidemiologic Research (Fall 2012)  
Primary instructor: Murray Mittleman
- EPI500 Fundamentals of Epidemiology (Summer 2013)  
Primary instructor: Albert Hofman
- EPI203 Study Design in Epidemiologic Research (Spring 2014 and 2015)  
Primary instructors: Tyler VanderWeele and Sonia Hernandez-Diaz
- BIO206/7 Statistics for Medical Research (Summer 2014)  
Primary instructor: E. John Orav
- ID205 Societal Response to War and Disaster (Spring 2015)  
Primary instructor: Jennifer Leaning

## Complete List of Publications

### As Principal Investigator

- 1 "Is caviar a risk factor for being a millionaire?". Huitfeldt A. *BMJ* 2016;355:i6536.

- 2 *"The choice of effect measure for binary outcomes: Introducing counterfactual outcome state transition parameters"*. Huitfeldt A, Goldstein A, Swanson SA. *Epidemiologic Methods* 2018, 2161-962X
- 3 *"On the collapsibility of measures of effect in the counterfactual causal framework"*. Huitfeldt A, Stensrud MJ, Suzuki E. *Emerging Themes in Epidemiology* 16(1), 2019
- 4 *"Effect heterogeneity and variable selection for standardizing causal effects to a target population"*. Huitfeldt A, Swanson SA, Stensrud MJ, Suzuki E. *European Journal of Epidemiology* 2020

#### As Lead Author

- 5 *"Methods to estimate the comparative effectiveness of clinical strategies that administer the same intervention at different times"*. Huitfeldt A, Kalager M, Robins JM, Hoff G, Hernan MA. *Curr Epidemiol Reports* 2015;2(3):149-61.
- 6 *"Comparative effectiveness research using observational data: Active comparators to emulate target trials with inactive comparators"*. Huitfeldt A, Hernan MA, Kalager M, Robins JM. *eGEMs: Vol. 4: Iss. 1, Article 20*.
- 7 *"Associations of Maternal Use of Benzodiazepines and z-hypnotics during Pregnancy with Immediate Pregnancy Outcomes - a study from the Norwegian Mother, Father and Child Cohort"*. Huitfeldt A, Sundbakk LM, Skurtveit S, Handal M, Nordeng H. In press, *JAMA Open Network* 2020

#### As Collaborator

- 8 *"Incentives and participation in a medical survey"*. Gjostein DM, Huitfeldt A, Loberg M, Adami HO, Kalager M, Bretthauer M. *Tidsskr Nor Laegeforen* 2016 Jul 5;136(12-13):1082-1087.
- 9 *"Patent foramen ovale closure, antiplatelet therapy or anticoagulation therapy alone for management of cryptogenic stroke"*. Hagen G, Huitfeldt A, Vandvik PO. *Health Technology Assessment Report, Norwegian Institute of Public Health*, 2019

#### Letters to the Editor

- 10 *"Odds ratios are not conditional risk ratios"*. Huitfeldt A. *Journal of Clinical Epidemiology* 2016. In response to the paper "Odds ratios deconstructed: A new way to understand and explain odds ratios as conditional risk ratios". Hoppe FM, Hoppe DJ, Walter SD. *Journal of Clinical Epidemiology* 2016.
- 11 *"Re: Generalizing study results: a potential outcomes perspective"*. Huitfeldt A., Stensrud MJ. *Epidemiology* 2018. In response to the paper "Generalizing Study Results: A Potential Outcomes Perspective". Lesko et al, *Epidemiology* 2017

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## Working Papers

### Preprints

- 12 "The switch risk ratio: A useful measure of effect for clinical decision making with binary outcomes". Huitfeldt A, Fox MP, Daniel RM, Hrobjartsson A, Murray EJ. Status: Under review
- 13 "Can the results of the WHI E+P trial be explained by differential statin initiation?". Huitfeldt A, Hernan MA, Kalager M, Robins JM. Status: Working paper available from the Harvard Library at <https://dash.harvard.edu/handle/1/23205172>, where it can be retrieved as Chapter 3 of my doctoral dissertation.

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## Invited and Submitted Presentations

Title "Regression by Composition".

Variations of this talk have been given, jointly with Rhian Daniel and Daniel Farewell, at the Berlin Epidemiology Methods Colloquium and the University of Liverpool Department of Health Data Science

Title "A new approach to generalizability of randomized trials".

Variations of this talk have been given at: Stanford University (School of Medicine), Harvard T. H. Chan School of Public Health (Causal Inference Seminar), University of Melbourne (Department of Biostatistics), University College Cork (Department of Epidemiology and Public Health), University of Oslo (Department of Biostatistics), University of Oslo (Department of Pharmacy), Imperial College London (Causal Inference Seminar), University of Oxford (Centre for Statistics in Medicine), University of Oxford (Global Priorities Institute), Norwegian University of Life Sciences (CauseHealth Seminar), The UK Causal Inference Meeting (2017), The Royal Statistical Society International Conference (2018), the International Conference on Evidence-Based Healthcare (2018) and the Berlin Epidemiology Methods Colloquium (2020)

Title "The value of causal information".

The 2016 Brocher Summer Academy on Population-Level Bioethics. June 21st 2016

Title "Active comparators to emulate target trials with inactive comparators".

University of Melbourne, September 2017

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## Peer Review

Editorial board member at *Epidemiologic Methods* and *BMJ Evidence Based Medicine*

Reviewer for *Epidemiology* (7 reviews), *BMJ* (5 reviews), *Epidemiologic Methods* (2 reviews), *BMJ Evidence Based Medicine* (4 reviews), *Biometrics* (1 review), *European Journal of Epidemiology* (1 review), *Annals of Internal Medicine* (1 review), *PLOS One* (1 review), *Annals of Epidemiology* (1 review), *Pharmaceutical Statistics* (1 review).

I welcome requests for peer review in methodology, particularly for papers that relate to external validity, generalizability, effect modification or choice of effect measure. I give priority to requests from open access journals.

## Awards and honors

- 2012 Pass with distinction on departmental qualifying exam  
Department of Epidemiology, Harvard T.H. Chan School of Public Health
- 2008 Dan Kelly Memorial Award (Royal College of Surgeons in Ireland)  
Awarded to the member of the graduating class who has, in the opinion of that class, contributed most to the life and work of the class as a whole
- 2005 Zachary Johnson Prize (Royal College of Surgeons in Ireland)  
For best project in Epidemiology and Public Health
- 2002 Full tuition scholarship to study medicine at the Royal College of Surgeons  
Awarded by Norwegian University of Science and Technology

## Conference Organization

- 2016 Brocher Summer Academy in Population-Level Bioethics, on the Ethics of Randomized Trials in Development Economics.  
Co-organizer of ethics conference, with responsibilities for the academic program and speaker invitations. More information available at <http://www.brocher.ch/en/events/203>

## Conferences Attended

The star symbol (\*) is used to indicate oral presentation and the pound symbol (#) is used to indicate poster presentation

- 2019 NorPEN Conference
- 2018 European Causal Inference Meeting, Royal Statistical Society International Conference(\*), International Conference on Evidence-Based Health Care (\*)
- 2017 Atlantic Causal Inference Conference(#), UK Causal Inference Meeting(\*), Society for Epidemiologic Research (#), Time and Causality in the Sciences Conference, Dansk Epidemiologisk Selskab Forårsmøde
- 2016 Atlantic Causal Inference Conference, Brocher Summer Academy in Population-Level Bioethics (\*)
- 2015 Society for Epidemiologic Research (#)
- 2014 Society for Medical Decision Making (#), Atlantic Causal Inference Conference
- 2013 Atlantic Causal Inference Conference

2012 Society for Epidemiologic Research, Society for Medical Decision Making (European Meeting)

## Representation

2013-2014 Vice President for Student Advocacy  
Student Government at Harvard School of Public Health

2006-2007 Officer for Welfare and Rights  
Student Union at Royal College of Surgeons in Ireland

## University Committees

2013-2014 Committee on Admissions and Degrees, Harvard T.H. Chan School of Public Health (Student Representative)

2013-2014 Committee on Educational Policy, Harvard T.H. Chan School of Public Health (Student Representative)

## Computer skills

Basic Stata, HTML, L<sup>A</sup>T<sub>E</sub>X, PYTHON  
Intermediate SAS, R, TreeAge  
Advanced Microsoft Office

## Qualifications

2010- Full registration to practice medicine in Norway. Transferable to any country in the European Union  
2008-2010 Provisional registration to practice medicine in Norway

## Languages

Norwegian Native speaker  
English Near native level