

## Harald Weedon-Fekjær

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Languages: Norwegian and English

About: Born 27. Jun. 1971, Married, two children

Address: Tangen Terrasse 66, 1450 Nesoddtangen, Norway

#### Professional interests:

Statistical modeling and simulation, applied statistics, teaching of statistics, statistical computing and software

## **Education:**

2008	PhD in medical statistics, University of Oslo, Norway
	Supervisors: Steinar Tretli (main), Odd O. Aalen, Bo H. Lindqvist and Lars H. Vatten
1996-1999	Master thesis in mathematical statistics, University of Oslo, Norway
	(1995-1996: 16 months civil service and subsequent jobs Statistics Norway)
1990-1994	Bachelor degree, University of Oslo, Norway (+ ½ year additional courses)
	Subjects: Mathematics, statistics, informatics and some macro economy

Plus eight additional statistical courses, totaling 24 full days (excluding compulsory PhD course)

# Main positions after master degree:

2013 -	Researcher / Biostatistician,
	Oslo Center for biostatistics and epidemiology [OCBE], Oslo University Hospital
	(OCBE is a shared University of Oslo and Oslo University Hospital biostatistics center)
2012 – 2013	Researcher, Norwegian University of Science and Technology [NTNU] and
	University of Oslo (Department of Public Health and General Practice / Department of Biostatistics)
2009 - 2012	Post-doc researcher, Cancer Registry of Norway
2009	Visiting research fellow Harvard University / Dana-Farber Cancer Institute, autumn 2009 (financed by Norwegian Cancer Society and Dana-Farber Cancer Institute)
2008	Researcher, Cancer Registry of Norway
2003-2007	Worked with my Ph D. and other research projects at the Cancer Registry of Norway (with 5.5 mouths break for parental leave. PhD financed by Norwegian Cancer Society)
2000-2002	50 % position: Researcher, Cancer Registry of Norway 50 % position: University of Oslo; Teaching statistics over Internet
1999-2000	Research assistant, University of Oslo (Teaching statistics over Internet)

#### **Publications:**

Have published 51 original research papers in international per reviewed journals, plus four articles in Norwegian, two international scientific letters, one commentary and two software packages including documentation. Among the original research paper there are seven as main author, one as main PhD supervisor, 33 articles focusing on the applications of statistics, 9 articles focusing on statistical theory and seven with shared focus. As of May 2020, the articles are cited 907 times according to ISI Web of Knowledge (43 internal citations), and the estimated mean "individual paper impact factor" is 2.7. (See also full publication list)

#### Selected publications:

- 1. "Non-progressive breast carcinomas detected at mammography screening: a population study", Heggland et al. Breast Cancer Research 2023 (Last author on paper and main PhD supervisor)
- 2. "Modern mammography screening and breast cancer mortality: population study", Weedon-Fekjær et. al., BMJ 2014
- 3. "Understanding recent invasive breast cancer incidence trends using Age-Period-Cohort analysis and registry data on mammography screening and hormone treatment use", Weedon-Fekjær et. al., BMJ 2012
- 4. "Breast cancer tumor growth estimated through mammography screening data", Weedon-Fekjær et. al., Breast Cancer Research 2008 (Among the journal's 10 most accessed articles ever; Per 2014-12 no. 8 with 49 988 accesses)

#### PhD students:

 Torunn Heggland: "Enhancing the understanding of key mammography screening outcomes using statistical modelling and Norwegian data", University of Oslo, 2024 (Main PhD supervisor)

#### Awards and honors:

- PhD opponent (external examiner):
  - Karolinska Institutet, Stockholm, Sweden (2018 for biostatistician Linda Abrahamsson)
- Co-investigator at awarded 2012 USA NiH R01 grant (under Sandra Lee, Dana-Farber/Harvard, USA)
- "Breast cancer tumor growth estimated through mammography screening data" by Weedon-Fekjær et. al. was selected as article of the year 2008 by the Norwegian Epidemiological Association.
- Invite international talks with full coverage of costs:
  - Middle East Cancer Consortium [MECC], Ankara, Turkey (2014)
  - McGill University, Montreal, Canada (2014)
  - Copenhagen University, Denmark (2015)

## Teaching experience:

- Statistical consoling and supervision, Oslo University Hospital, University of Oslo and Vestfold Hospital, 2013-(Have per 2024-12 consulted on 212 medical research project across a wide range of methods and research topics)
- Lectures at Faculty of Medicine PhD course in applied regression analysis, University of Oslo, 2010 -2017
- Regularly presentations ("short courses") of common statistical methods,
   Oslo University Hospital and Vestfold Hospital, 2013-2015
- Co-supervised one University of Oslo medical research line student (2015),
   plus master students at Norwegian University of Science and Technology and University of Iceland
- Have held presentations at four international conferences
- Have given lectures in both basic statistics, statistical bootstrap, mixed effects models, and advanced survival
  analysis including the use of several statistical packages; STATA, SPSS, SamplePower and Minitab
- Lectured in additive hazard regression at "Statistical Practice in Epidemiology for Statisticians", Finland, 2000
- Developed several Internet based courses in statistics, University of Oslo & StatiNet AS, 1998-2002
- Substitute teacher plenary lectures for medicine, odontology and nutrition students, University of Oslo, 1998
- Lectured and tutored in statistics for medicine, odontology and nutrition students, University of Oslo, 1995-1997, including "Oracle service" in statistics

### Programming, computing experience and statistical models:

- Have comprehensive computer knowledge (Windows, Mac and Linux), including considerable programming
  experience and experience from both server administration and user support.
   Have in depth practical experience in International distance collaboration.
- Extensive experience in statistical programming languages (R, Python) and programs (STATA, SPSS, JAMOVI), plus general programming experience using Python, JavaScript/html/css (and some C/C++, C#, etc..)
- Is fluent in the statistical R language, including building of graphical interfaces and interactive web applications, use of databases / SQL, integration of C-code, R Markdown and development of formal packages.
- Experience and knowledge on a wide range of different statistical analysis and machine learning methods
  (including Maximum likelihood estimation, simulations, resamples techniques like bootstrap and cross validation, linear regression, generalized linear models
  including logistic and poison regression, mixed effects models for repeated measurements, nonlinear regression, splines regression, autoregressive regression
  for time series, regularization techniques in regression analysis, survival analysis including cox regression with updated variables and frailty effects, Bayesian
  Markov chain Monte Carlo MCMC, multivariate chained imputation equations MICE, meta-analysis, nonparametric statistics etc.)

### Organizational, international and commercial experience:

- Responsible for the Oslo Centre for Biostatistics and Epidemiology (OCBE) advising service 2024-(OCBE advises 400++ medical researches each half year across University of Oslo and the Norwegian South-Eastern Norway Regional Health Authority)
- Advisory board Eu-topia European Union (Horizon2020 program) research project 2016-2020 (eu-topia.org)
- Part of USA National Cancer Institute sponsored "Cancer Intervention and Surveillance Modeling Network" (CISNET) collaboration with pears/collaborators at Harvard University (2010-2020)
- Have organized two full day seminars (2007 & 2008)
- Participated in several internal committees regarding IT-solutions at the Cancer Registry of Norway and University of Oslo
- Referee for Statistics in Medicine, BMJ, Cancer, Biometrical Journal and "Norsk Epidemilogi".
- External examiner of a master thesis in statistics at Universality of Oslo (2009)
- Norwegian Cancer Registry representative in the Norevent workgroup 2002-2005
   Norevent, which later became BMMS, was a research collaboration selected as one of ten prioritized areas at the Oslo University's Medical faculty. Was the main organizer of one full day seminar, contact person for one visiting Pd. D. student (tree mouths) and participated in the organization of one international seminar, three local full day seminars, four advanced statistical courses (lectured at one) and several shorter seminars.
- Started StatiNet A/S together with proof. Petter Laake in 2002, working (mainly) with distance teaching in statistics.
   Participated as a Member in the Board and took part in the day to day management of the company, including the employment process of two part time employees. The company was sold to Smerud Medical Research A/S in 2003.
- Other organization experience:
   Considerable teaching experience also outside statistics; Skiing instructor (Level 1 approved), sea kayak instructor (Level 1 approved), glacier guide (NFF) and tennis instructor (Level 1 approved), including guide/instructor at 34 overnight tours for the University of Oslo student's mounting group (1992-2001). Leader of Oslo student's mounting group 1994-1996.

### References:

Arnoldo Frigessi, professor and leader of OCBE, University of Oslo and Oslo University Hospital, Norway Sandra J. Lee, Senior researcher, Dana-Farber Cancer Institute and Harvard University, Boston, USA Lars Johan Vatten, professor, Norwegian University of Science and Technology [NTNU], Norway Steinar Tretli, researcher Cancer Registry of Norway and professor II NTNU, Norway Odd Aalen, professor, University of Oslo, Norway