

# CURRICULUM VITAE

MAY 2018

## Maarten J. Bijlsma, Ph.D.

### CONTACT INFORMATION

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### RESEARCH FOCUS

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I am an applied statistician with a strong interest in applying methods from counterfactual causal inference to health and social science fields. My current research focus is on the g-formula, a flexible method for modeling complex dynamic longitudinal relationships. Substantively, I am very interested in life-course dynamics. Currently, I am investigating the effects of unemployment on depression, and of fertility postponement on employment and partnership, over the life course. Methodologically, I am combining the g-formula with techniques for controlling unmeasured time-constant confounding, and for performing sensitivity checks for unmeasured confounding. Furthermore, I have developed expertise in the topic of age-period-cohort analysis, and in cardiovascular drug utilization and effectiveness.

### EXPERIENCE

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2015, Nov 1 <sup>st</sup> - Current	<b>Research Scientist</b> Laboratory of Population Health Max Planck Institute for Demographic Research, Germany
2018, March 15 <sup>th</sup> - April 25 <sup>th</sup>	<b>Visiting Scholar</b> Population Studies Center University of Pennsylvania, USA
2011, Oct 1 <sup>st</sup> - 2015, Sept 30 <sup>th</sup>	<b>PhD Fellow (AIO)</b> Research unit Pharmacoepidemiology University of Groningen, the Netherlands
2015, March 1 <sup>st</sup> - May 31 <sup>st</sup>	<b>Visiting Scholar</b> Department of Medical Statistics London School of Hygiene and Tropical Medicine, UK
2011, March 1 <sup>st</sup> - March 31 <sup>st</sup>	<b>Visiting Scholar</b> Department of Social Statistics & Demography University of Southampton, UK

## EDUCATION

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### **Ph.D. Epidemiology (2016)**

University of Groningen, the Netherlands

Thesis: *Age-period-cohort methodology: confounding by birth cohort in cardiovascular pharmacoepidemiology*

Advisors: Eelko Hak, Stijn Vansteelandt (Ghent Univ. & LSHTM), Fanny Janssen

Thesis opponents: Mikko Myrskylä (LSE), Leo van Wissen (NIDI), Michiel Bots (UMCU)

### **M.Sc. Statistical Data Analysis (2014)**

Ghent University, Belgium

Specialization in Biostatistics

Graduated *with distinction*

### **M.Sc. Regional Studies (Research) (2011)**

University of Groningen, the Netherlands

Specialization in Population Studies

Graduated *with highest distinction*

### **B.Sc. Human Geography (2009)**

University of Groningen, the Netherlands

Graduated *with highest distinction*

## PUBLICATIONS

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### **Peer reviewed (impact factor in brackets)**

- 2018 Vidra N, **Bijlsma MJ**, Janssen F. Past trends of obesity attributable mortality in the Netherlands: an application of age-period-cohort analysis. *International Journal of Public Health* 2018; In Press. (IF: 2.327)
- 2018 Mulder B, **Bijlsma MJ**, Schuling-Veninga CCM, Morssink LP, van Puijenbroek E, Aarnoudse JG, Hak E, de Vries TW. Risks versus benefits of medication use during pregnancy: what do women perceive? *Patient Preference and Adherence* 2018; 12: 1-8 (IF: 1.798)
- 2017 **Bijlsma MJ**, Tarkiainen L, Myrskylä M, Martikainen P. Unemployment and subsequent depression: a mediation analysis using the parametric G-formula. *Social Science & Medicine* 2017;194:142-150. (IF: 2.797)
- 2017 **Bijlsma MJ**, Daniel RM, Janssen F, De Stavola BL. An assessment and extension of the mechanism-based approach to the identification of age-period-cohort models. *Demography* 2017; 54: 721-743. (IF: 2.800)

- 2017 Trias-Llimós S, **Bijlsma MJ**, Janssen F. The role of birth cohorts in long-term trends in liver cirrhosis mortality across eight European countries. *Addiction* 2017;112(2):250-258. (IF: 4.970)
- 2017 Darvishian M, Dijkstra F, Van Doorn E, **Bijlsma MJ**, Donker GA, De Lange MA, Cadenau LM, Hak E, Meijer A. Influenza vaccine effectiveness in the Netherlands from 2003/2004 through 2013/2014: the importance of circulating influenza virus types and subtypes. *PLoS One*. 20179;12(1). (IF: 3.057)
- 2016 **Bijlsma MJ**, Janssen F, Hak E. Estimating time-varying drug adherence using electronic records: extending the Proportion of Days Covered (PDC) method. *Pharmacoepidemiology & Drug Safety* 2016;25(3):325-32 (IF: 2.94)
- 2016 **Bijlsma MJ**, Vansteelandt S, Janssen F, Hak E. The effect of adherence to statin therapy on cardiovascular mortality: quantification of unmeasured bias using falsification endpoints. *BMC Public Health*. 2016 11;16:303. (IF: 2.264)
- 2016 Berm EJJ, Odigie B, **Bijlsma MJ**, Wilffert B, Touw DJ, Maring JG. A clinical validation study for application of dried blood spots in therapeutic drug monitoring of antidepressants. *Bioanalysis* 2016;8(5):413-24 (IF: 3.003)
- 2016 Nguyen TP, Wright EP, Nguyen TT, Schuiling-Veninga CC, **Bijlsma MJ**, Nguyen TB, Postma MJ. Cost-effectiveness analysis of screening for and managing identified hypertension for cardiovascular disease prevention in Vietnam. *PLoS One*. 2016; 11(5). (IF: 3.057)
- 2015 **Bijlsma MJ**, Janssen F, Bos HJ, Kamphuisen PW, Vansteelandt S, Hak E. Brief Report: Association Between Statin Use and Cardiovascular Mortality at the Population Level: An Ecologic Study. *Epidemiology* 2015;26(6):802-5. (IF: 6.18)
- 2015 **Bijlsma MJ**, Janssen F, Lub R, Bos HJ, De Vries FM, Vansteelandt S, Hak E. Birth cohort appeared to confound effect estimates of guideline changes on statin utilization. *Journal of Clinical Epidemiology* 2015; 68(3):334-40 (IF: 3.42)
- 2015 Kröpelin TF, de Zeeuw D, Andress DL, **Bijlsma MJ**, Persson F, Parving HH, Lambers Heerspink HJ. Number and Frequency of Albuminuria Measurements in Clinical Trials in Diabetic Nephropathy. *Clinical Journal of the American Society of Nephrology* 2015; 10(3):410-6. (IF: 5.25)
- 2014 Darvishian M, **Bijlsma MJ**, Hak E, Van den Heuvel ER. Seasonal influenza vaccine effectiveness among the community-dwelling elderly: a meta-analysis of test-negative design case-control studies. *The Lancet: Infectious Diseases* 2014; 14(12):1228-39. (IF: 19.45)
- 2014 Gefenaite G, **Bijlsma MJ**, Bos HJ, Hak E. Did introduction of pneumococcal vaccines in the Netherlands decrease the need for respiratory antibiotics in children? Analysis of 2002 to 2013 data. *Eurosurveillance*. 2014; 19(44). (IF: 5.86)

- 2014 **Bijlsma MJ**. Commentary: G-computation might be used to control for confounding when estimating the population-level impact of interventions through outcome distribution curves. *Journal of Clinical Epidemiology*. 2014. 67(11):1286. (IF: 3.42)
- 2013 **Bijlsma MJ**, Hak E, Bos HJ, De Jong-van den Berg LTW, Janssen F. Assessing the effect of a guideline change on prevalence of benzodiazepine use by including the birth cohort dimension: interrupted time series studies. *Pharmacoepidemiology & Drug Safety* 2013; 22(9): 933-941. (IF: 3.17)
- 2013 Klaassens M, **Bijlsma MJ**. New places of remembrance: Individual Web memorials in the Netherlands. *Death Studies* 2013. DOI: 10.1080/07481187.2012.742474. (IF: 0.674)
- 2012 **Bijlsma MJ**, Hak E, Bos HJ, De Jong-Van den Berg LTW, Janssen F. Inclusion of the birth cohort dimension improved description and explanation of trends in statin use. *Journal of Clinical Epidemiology* 2012; 65: 1052-1060. (IF: 3.42)

### Under review

**Bijlsma MJ**, Wilson B. Modelling the socio-economic determinants of fertility: A mediation analysis using the parametric g-formula.

Riffe T, van Raalte A, **Bijlsma MJ**. Healthy life expectancy, mortality, and age prevalence of morbidity.

Vidra N. **Bijlsma MJ**, Janssen F. Impact of different estimation methods and underlying choices on obesity-attributable mortality: the case of the Netherlands.

### Research in progress

The g-formula's null paradox: towards intuition with examples (with Robin Evans).

Causality in the study of population health: a counterfactual-based approach to understanding social differences in health (with Nikkil Sudharsanan).

Parenthood Timing and Socioeconomic Consequences in Young Adulthood: A Longitudinal Analysis of Women and Men (with Jessica Nisén, Ben Wilson, Mikko Myrskylä and Pekka Martikainen).

Unemployment and subsequent depression: a parametric G-formula approach combined with individual-specific fixed-effect intercepts (with Lasse Tarkiainen, Ben Wilson, Mikko Myrskylä and Pekka Martikainen).

Intergeneration Transmission of Attitudes toward Migration as a Potential Antagonist of Demographic Metabolism (with Erich Striessnig and Nadia Steiber).

## INVITED TALKS

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2018, April 23 <sup>rd</sup>	Population Studies Center, University of Pennsylvania, USA.
2017, Oct 30 <sup>th</sup>	Nuffield College, Oxford University, UK.
2017, Jan 20 <sup>th</sup>	Population Research Unit, University of Helsinki, Finland.
2015, Sept 3 <sup>rd</sup>	Netherlands Interdisciplinary Demographic Institute, the Hague, the Netherlands.
2015, May 21 <sup>st</sup>	Medical Statistics Department, London School of Hygiene & Tropical Medicine, UK.
2015, May 20 <sup>th</sup>	Department of Social Policy, London School of Economics & Political Science, UK.
2015, May 7 <sup>th</sup>	Department of Methodology, London School of Economics & Political Science, UK.

## CONFERENCE PRESENTATIONS

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18 oral presentations and 3 poster presentations (incl. orals at the Population Association of America, the European Population Conference and the International Conference on Pharmacoepidemiology & Therapeutic Risk Management). Full list available on request.

## GRANTS

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2011 **Ubbo Emmius Grant** to fund my PhD research. Value: € 198,693.- over 4 years.

## PROFESSIONAL ACTIVITIES

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### Professional associations

2018 - Current	Population Association of America
2014 - Current	European Association for Population Studies
2011 - Current	The Netherlands Demographic Society

### Other professional activities

2017 - Current	Organizer Rostock Retreat on Causality (Budget: € 25,000.-).
2012 - Current	Co-founder and editor of Demotrends: weblog on demographic trends and research. <a href="https://demotrends.org/">https://demotrends.org/</a>
2011 - 2012	Member PhD council SHARE Research Institute for Health Research, University Medical Centre Groningen.

## TEACHING EXPERIENCE

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Developed and taught a 3-day workshop on Causal Mediation Analysis with Longitudinal Data. University of Helsinki, Finland, in May 2018. Received a 4.5 out of 5 score by the students. Students especially praised the clear course material (annotated R-code) and teaching style. I am available to also teach this workshop at other universities or institutes.

Co-supervised MSc theses at the University of Groningen, Dept. of Pharmacy, and at the University of Rostock, Dept. Social Sciences.

Lectured series 'Introduction to survival analysis'. Department of Demography, University of Groningen. Jan 2014 and Jan 2015.

Teaching-assistant Analytical Demography. Department of Demography. University of Groningen, Jan 2010 - Jan 2012.

Teaching-assistant Statistics. Department of Economic Geography, University of Groningen. Sept 2008 - Aug 2011.

## ACADEMIC SERVICE

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### **Reviewed for**

International Journal of Epidemiology; European Journal of Epidemiology; International Journal of Cardiology; International Journal of Chronic Obstructive Pulmonary Disease; Nutrition, Metabolism & Cardiovascular Diseases; Demography; PLoS ONE; Drug Safety; Journal of Comparative Effectiveness Research; Clinical Epidemiology; Public Understanding of Science; Advances in Life Course Research; Demographic Research; Injury Epidemiology; Death Studies.

### **Chaired sessions at conferences**

Dutch Demography Day

### WEBLOG ENTRIES ( <https://demotrends.org/> )

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2015, Sept 1<sup>st</sup> Bijlsma MJ. 'Inferring population-level effects from individual-level effect estimates: G-computation'.

2014, Feb 17<sup>th</sup> Bijlsma MJ. 'A hot topic and a futile quest? The recent discussion on age-period-cohort analysis'.

2013, Sept 4<sup>th</sup> Bijlsma MJ. 'The bias-variance tradeoff, what it means for quantitative researchers'.

2013, Aug 23<sup>rd</sup> Bijlsma MJ. 'Homage to the Lexis diagram'.

2013, Feb 12<sup>th</sup> Bijlsma MJ. 'Demography and Epidemiology: Past and Future Directions'.

## DUTCH LANGUAGE PUBLICATIONS

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\* Peer reviewed publication

- 2017\* Van Doorn E, Darvishian M, Dijkstra F, **Bijlsma MJ**, Donker GA, de Lange MMA, Cadenau LM, Hak E, Meijer A. Effectiviteit van influenzavaccinatie in Nederland: dominant circulerend virustype en match zijn bepalend. *Nederlands Tijdschrift voor Geneeskunde* 2017;161:D1648.
- 2015 **Bijlsma MJ**, Janssen F, Bos HJ, Kamphuisen PW, Vansteelandt S, Hak E. Associatie tussen gebruik van statine en cardiovasculaire sterfte in Nederland 1994-2010: een ecologische studie. *Medisch Farmaceutische Mededelingen* 2015; 4: 23-5.
- 2014\* **Bijlsma MJ**, Oortgiesen BE, Beernink RHJ, Bos J, Wilffert B, Hak E. Het effect van de CBG-waarschuwing op de trend in SSRI-gebruik in Nederland van 1998 tot 2010. *Pharmaceutisch Weekblad Wetenschappelijk Platform* 2014;8:A1406.
- 2011\* **Bijlsma MJ**, Bos HJ, De Jong-van den Berg LTW, Janssen F. Periodepatronen, leeftijdpatronen en cohortpatronen in de prevalentie van benzodiazepinegebruik en statinegebruik: de invloed van veranderde richtlijnen. *Pharmaceutisch Weekblad Wetenschappelijk Platform* 2011; 5(10): 169-173.
- 2010 **Bijlsma MJ**, Moerman JM. Herdenken in een post-geografische ruimte. *Rooilijn* 2010; 43(1): 22-7.

## PRESS COVERAGE

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- 2017, March 20<sup>th</sup> “Better Understanding of Alcohol-Related Mortality Trends in Europe”.  
Population Europe.