

DANIEL MORK, PH.D.

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EDUCATION

Colorado State University , Fort Collins, CO	2017 - 2021
Ph.D. Statistics, <i>Thesis: Bayesian treed distributed lag models</i> , Advisor: Ander Wilson	
M.S. Statistics	
University of Saint Thomas , St. Paul, MN	2011 - 2013
M.A. Mathematics Education	
Certificate, Engineering Education	
Saint Olaf College , Northfield, MN	2007 - 2011
B.A. (<i>Cum Laude</i>) Mathematics, Psychology, Norwegian	
Concentration, Nordic Studies	

EXPERIENCE

Harvard T.H. Chan School of Public Health	Boston, MA
Postdoctoral Research Associate, Department of Biostatistics	Aug 2022 -
Postdoctoral Research Fellow, Department of Biostatistics	Aug 2021 - Jul 2022
<i>Mentors: Francesca Dominici, Danielle Braun, Antonella Zanobetti</i>	
Colorado State University	Fort Collins, CO
Graduate Research Assistant	May 2018 - Aug 2021
Graduate Teaching Assistant	Aug 2017 - Dec 2019
Graybill Statistics and Data Science Laboratory	Fort Collins, CO
Statistical Consultant	May 2019 - Dec 2020
<i>Mentor: Julia Sharp</i>	
Greeley-Evans School District 6	Greeley, CO
Mathematics Teacher, Greeley West High School	Aug 2013 - May 2017
Student Council Advisor, Greeley West High School	Aug 2013 - May 2017
Target Corporation	Minneapolis, MN
Reporting & Analytics, In-Store Marketing	Feb 2012 - Apr 2013
Logistics, In-Store Marketing	Oct 2011 - Feb 2012

PUBLICATIONS

*student mentored †co-authored paper

1. **Mork, D.**, Kioumourtzoglou, M-A., Weisskopf, M., Coull, B. A., Wilson, A. (2022). Heterogeneous distributed lag models to estimate personalized effects of maternal exposures to air pollution. *Journal of the American Statistical Association*, revision invited. <https://arxiv.org/abs/2109.13763>

2. **Mork, D.**, Wilson, A. (2022). Estimating perinatal critical windows to environmental mixtures via structured Bayesian regression tree pairs. *Biometrics*, *in press*.
<https://doi.org/10.1111/biom.13568>
3. **Mork, D.**, Wilson, A. (2022). Treed distributed lag nonlinear models. *Biostatistics*, 23(3), pg 754–771. <https://doi.org/10.1093/biostatistics/kxaa051>
4. Maitre, L., et. al., **The Exposome Data Challenge Participant Consortium [Mork, D., et. al.]** (2022). State-of-the-art methods for exposure-health studies: Results from the exposome data challenge event. *Environment International*, 168. <https://doi.org/10.1016/j.envint.2022.107422>
5. *Woodward, S., Wu, X., Zhewen, H., **Mork, D.**, Braun, D., Dominici, F. (2022). Combining aggregate and individual-level data to estimate individual-level associations between air pollution and COVID-19 mortality in the United States. *Under review at Lancet: Planetary Health*. Preprint: <https://ssrn.com/abstract=4232123>
6. **Mork, D.**, Braun, D., Zanobetti, A. (2022) Time-lagged relationships between a decade of air pollution exposure and first hospitalization with Alzheimer’s disease and related dementias. *Environment International*, *revision invited*.
7. Frances, P., Kawcak, C., McIlwraith, W., Keenan, D., Berk, J., **Mork, D.** (2022). Subchondral lucencies of the medial femoral condyle in yearling and two-year-old Thoroughbred sales horses: Prevalence, progression and associations with racing performance. *Under review at Equine Veterinary Journal*.
8. Frances, P., Kawcak, C., McIlwraith, W., Keenan, D., Berk, J., **Mork, D.** (2022). Radiological findings in the proximal sesamoid bones of yearling and two-year-old Thoroughbred sales horses: Prevalence, progression and associations with racing performance. *Under review at Equine Veterinary Journal*.
9. **Mork, D.**, Strawderman, R., Dominici, F., Ertefaie, A. (2022). Structural nested models to estimate the causal effects of time-varying exposure on recurrent adverse health events. *To be submitted to Journal of the American Statistical Association*.
10. **Mork, D.**, Wilson, A. (2022). Zero-inflated Bayesian additive regression trees for monotone distributed lag nonlinear models with variable selection. *To be submitted to Bayesian Analysis*.
11. **Mork, D.**, Puri, N., Kumar, A., Delaney, S., Zanobetti, A., Braun, D. (2022). Racial disparities in health outcomes of Alzheimer’s disease and related dementias among Medicare beneficiaries: A systematic literature review. *To be submitted to Neuroepidemiology*.
12. Dong, S., Braun, D., Wu, X., Yitshak-sade, M., Blacker, D., Kioumourtzoglou, M.-A., **Mork, D.**, Schwartz, J., Dominici, F., Zanobetti, A. (2022). The impacts of air pollution on mortality and readmission among Medicare beneficiaries with Alzheimer’s disease and Alzheimer’s disease related dementias. *To be submitted to Lancet: Planetary Health*.

13. *Cork, M., **Mork, D.**, Dominici, F. (2022). Curving emissions: Comparing methods for evaluating exposure response curves. *To be submitted to Science Advance.*
14. *Qin, M., [†]**Mork, D.**, Dominici, F., Braun, D., Zanobetti, A. (2022). Effects of air pollution on first Alzheimer's or dementia related hospitalization among Medicare beneficiaries. *To be submitted.*
15. Martenies, S., **Mork, D.**, Wilson, A., Starling, A., Adgate, J., Allshouse, W., Dabelea, D., Magzamen, S. (2022). Identifying critical windows of exposure in the relationship between ambient air pollution exposures and neonatal size and body composition. *To be submitted.*

PROFESSIONAL RESEARCH EXPERIENCE (UNPUBLISHED)

- Machine learning methods for characterizing coffee beans using mass spectrometry data (2020)
- Structural equation modeling of longitudinal relationships between meaningful activities and meaning in life for U.S. military veterans in college (2020)
- Relationships between sleep and activity habits of practicing physicians (2020)
- Analysis of the presence of cataracts in Siberian Husky versus other dog breeds (2020)
- Statistical clustering methods for sorghum metabolic systems analysis (2019)
- Local dust storm prediction in the South-West United States (2017 - 2018)

PRESENTATIONS

Invited

National Studies on Air Pollution and Health, Harvard School of Public Health, <i>presentation</i>	2022
Symposium, International Society for Environment Epidemiology, <i>presentation</i>	2021
Jane Warren award webinar, Health Effects Institute, <i>presentation</i>	2021
Post-doctoral job talk, Harvard School of Public Health, <i>presentation</i>	2021
3 minute challenge, Colorado State University, Vice-President for Research (video)	2021

Contributed

ENAR spring meeting, International biometrics society, <i>presentation</i>	2022
Statistics department showcase, Colorado State University, <i>poster</i>	2021
Research talk, Environmental biostatistics working group, Colorado State Univ., <i>presentation</i>	2021
ENAR spring meeting, International biometrics society, <i>presentation</i>	2021
Graduate student showcase, Colorado State University, <i>poster & presentation</i>	2020
Joint statistical meetings (JSM), <i>presentation</i>	2020
Statistics department showcase, Colorado State University, <i>poster</i>	2020
Graduate student showcase, Colorado State University, <i>poster</i>	2019
Colorado conference of teachers of mathematics, Denver, CO, <i>presentation</i>	2014
Minnesota undergraduate psychology conference, Northfield, MN, <i>presentation</i>	2011
Student showcase, Saint Olaf College, <i>poster</i>	2010

HONORS/AWARDS

Health Effects Institute, Jane Warren Trainee Conference Award 2021

Colorado State University

Vice president for research fellowship nominee/3-minute challenge participant 2021

College of natural sciences outstanding scholar award 2020

James R. zumBrunnen statistical collaboration award 2020

Statistics department poster competition: Best poster award 2020

Boes excellence in teaching award 2019

Greeley-Evans School District 6

District 6 star teacher 2015

Teacher of the month Nov 2013

Other

ETS Recognition of excellence: Mathematics 2013

NSF scholarship (\$7,000/yr): Encouraging careers in mathematical sciences 2007 - 2011

TEACHING

Colorado State University

Courses

STAT 556: Directed statistical consulting (Graduate assistant) S20

STAT 315: Introduction to theory and practice of statistics S19, F20

STAT 301: Introduction to applied statistical methods F17, S18, F18

Workshops

Coding & Cookies Workshop: Data visualization using ggplot F19, F20, S21

Coding & Cookies Video Series: [Data visualization using ggplot](#) F20

Coding & Cookies Video Series: [Tidy data in R](#) F20

Coding & Cookies Workshop: Data wrangling in R F19, S20

Practical R on Summit high performance computing system (Graduate assistant) F18

Greeley-Evans School District 6

Courses

Pre-Algebra; Algebra I and II; Geometry; Trigonometry; Pre-Calculus; IB Math HL

Workshops

Personalized learning and standards-based grading: Theory and practice

Curriculum planning and design

MENTORING

Harvard University

Graduate Research Mentoring

Michael Cork, Biostatistics PhD, in progress (joint with Francesca Dominici)	2021 -
Amit Kumar, MPH	2022

Undergraduate Research Mentoring

Michelle Qin, in progress (thesis advisor)	2022 -
Sophie Woodward, <i>next: Harvard School of Public Health, Biostatistics PhD</i>	2021

Colorado State University

Graduate Statistical Consultant Mentoring

Connor Gibbs	2020
— <i>Machine learning methods for characterizing coffee beans using mass spectrometry data</i>	
Mantautaus Rimkus	2020
— <i>Structural equation modeling of longitudinal relationships between meaningful activities and meaning in life for U.S. military veterans in college</i>	
Emily Williams	2020
— <i>Relationships between sleep and activity habits of practicing physicians</i>	

Graduate Teacher Mentoring

Bingying Dai, Troy Wixson, Wilson Wright	2020
Maddie Rainey, Gray Stanton, Zifeng Zhang	2019
Michael Creutzinger, Connor Gibbs, Hanxiao Jing, Mengting Lin	2018

Undergraduate Teacher Mentoring

Caroline Thomas	2019
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Greeley-Evans School District 6

Probationary Teacher Mentoring

Scott Geels	2015
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SERVICE & PROFESSIONAL MEMBERSHIP

Service

ENAR Council for Emerging and New Statisticians (CENS)	2021 - 2024
— Steering committee, Social media committee co-chair	

Harvard School of Public Health

National Studies on Air Pollution and Health research presentation series	2021, 2022
— Moderator, Discussant	

Colorado State University

Teaching awards committee, graduate student representative, college of natural sciences	2020
Prospective graduate student visit day panelist and representative	2018, 2019, 2020
Probability casino, assistant, department of statistics	2018

Conference Organization

IMS New Researchers Conference, assistant organizer, Fort Collins, CO

2019

Conference Session Organization

ENAR 2022 spring meeting: *Interdisciplinary engagement as a Biostatistician: Maximizing collaboration skills*

Journal Reviewer

Environmental Health Perspectives

Environment International

Scientific Reports

Grant Reviewer

MADRES Center for Environmental Health Disparities

Professional Membership

American Statistical Association

International Biometrics Society (ENAR)

The International Environmetrics Society

International Society for Bayesian Analysis

International Society for Environmental Epidemiology

Greeley-Evans School District 6

Innovation 2020: Personalized learning action team

2016 - 2017

Professional development committee

2014 - 2017

Mathematics curriculum vertical team

2014 - 2016

Hiring and interview team

2014 - 2016

Benchmark assessment committee

2014 - 2015