Harrison S. Quick

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Research Interests Bayesian modeling, spatiotemporal modeling, spatial data analysis, longitudinal data analysis, computing

Education

University of Minnesota, Minneapolis, MN

Ph.D., Biostatistics, *Expected:* Summer 2013

- Thesis Topic: *Spatiotemporal Gradient Modeling with Applications*
- Advisors: Bradley P. Carlin, Ph.D and Sudipto Banerjee, Ph.D

M.S., Biostatistics, Aug 2010

- Topic: *Assessing the Impact of the Density of Alcohol Establishments on Crime in Minneapolis Neighborhoods Using Univariate and Multivariate Conditionally Autoregressive Models*
- Advisor: Bradley P. Carlin, Ph.D

Minnesota State University, Mankato, MN

B.S., Mathematics and Statistics (Double Major), May 2008

- *Summa Cum Laude*

Research Experience

Research Assistant May 2011 to present
Division of Biostatistics,
University of Minnesota
Supervisor: Bradley P. Carlin, Ph.D

Research Assistant June 2010 to May 2011
Division of Epidemiology,
University of Minnesota
Supervisors: Traci L. Toomey, Ph.D and Bradley P. Carlin, Ph.D

Research Assistant Sept 2008 to Aug 2010
Division of Biostatistics,
University of Minnesota
Supervisors: Katherine Huppler-Hullsiek, Ph.D and Jason V. Baker, M.D., M.S.

Refereed Journal Publications

1. Baker, J., Duprez, D., Rapkin, J., Huppler-Hullsiek, K., **Quick, H.**, Grimm, R., Neaton, J.D., and Henry, K. "Untreated HIV infection and large and small artery elasticity." *JAIDS*, 52(1):25–31, 2009.

2. Baker, J., Ayenew, W., **Quick, H.**, Huppler-Hullsiek, K., Tracy, R., Henry, K., Duprez, D., and Neaton, J.D. "High-density lipoprotein particles and markers of inflammation and thrombotic activity in patients with untreated HIV infection." *Journal of Infectious Diseases*, 201(2):285–292, 2010.

3. Baker, J., **Quick, H.**, Huppler-Hullsiek, K., Tracy, R., Duprez, D., Henry, K., and Neaton, J.D. "IL-6 and d-dimer levels are associated with vascular dysfunction in patients with untreated HIV infection." *HIV Medicine*, 11(9):608–609, 2010.

4. Kunisaki, K.M., **Quick, H.**, and Baker, J.V. "HIV antiretroviral therapy reduces circulating surfactant protein-D levels." *HIV Medicine*, 12(9):580–581, 2011.

5. Toomey, T.L., Erickson, D.J., Carlin, B.P., **Quick, H.S.**, Harwood, E.M., Lenk, K.M., and Ecklund, A.M. "Is the density of alcohol establishments related to non-violent crime?" *Journal of Studies on Alcohol and Drugs*, 73(1)21–25, 2012.

6. Toomey, T.L., Erickson, D.J., Carlin, B.P., Lenk, K.M., **Quick, H.S.**, Jones, A.M., and Haroowd, E.M. "The association between density of alcohol establishments and violent crime within urban neighborhoods." *Alcoholism: Clinical and Experimental Research*, 36(8):1468–1473, 2012.

7. **Quick, H.**, Banerjee, S., and Carlin, B.P. "Modeling temporal gradients in regionally aggregated California asthma hospitalization data." To appear in *The Annals of Applied Statistics*, 2012.

Submitted Journal Publications

1. Toomey, T.L., Erickson, D.J., Carlin, B.P., Lenk, K.M., **Quick, H.S.**, and Harwood, E.M. "Do neighborhood attributes moderate the relationship between alcohol establishment density and crime?" 2012. Submitted to *Prevention Science*.

Papers in Preparation

1. **Quick, H.**, Banerjee, S., and Carlin, B.P. "Heteroscedastic variances in areally referenced temporal processes with an application to California asthma hospitalization data."

2. **Quick, H.**, Carlin, B.P., and Banerjee, S. "Space-time Gaussian process modeling of temporal air pollution gradients."

Awards

Travel Awards

- Workshop on Environmetrics, Raleigh, NC — Oct 2012
- Case Studies in Bayesian Statistics and Machine Learning, Pittsburgh, PA — Oct 2011
- IMS/ISBA Joint International Meeting, Park City, UT — Jan 2011

Student Awards — University of Minnesota, Division of Biostatistics

- Outstanding Teaching Assistant Award — May 2012
- Outstanding Research Assistant Award — May 2011
- James R. Boen Student Achievement Award — May 2009

Student Awards — University of Minnesota, Graduate School

- Doctoral Dissertation Fellowship — 2012–2013
  - The Doctoral Dissertation Fellowship (DDF) program is intended to give the most accomplished final-year PhD candidates an opportunity to complete the dissertation within the 2012–13 academic year by devoting full-time effort to research and writing.

Presentations

Statistical Meetings

- Workshop on Environmetrics, Raleigh, NC — Oct 2012
- Joint Statistical Meetings, San Diego, CA — Aug 2012
- Biometric Society (ENAR) Regional Meeting, Washington, D.C. — Apr 2012
- Case Studies in Bayesian Statistics and Machine Learning, Pittsburgh, PA — Oct 2011
- Biometric Society (ENAR) Regional Meeting, Miami, FL — Mar 2011
- IMS/ISBA Joint International Meeting, Park City, UT — Jan 2011

University of Minnesota

- Mostly Markov Chain Seminar Series — Nov 2011
- School of Public Health Research Day — Apr 2011

Teaching Experience

Co-instructor — Summer 2013
PUBH 6400 - Topics in Hierarchical Bayesian Analysis
with Bradley P. Carlin
Division of Biostatistics,
University of Minnesota

Teaching Assistant — Springs 2011–12
PUBH 7440 - Introduction to Bayesian Analysis
Instructor: Bradley P. Carlin, Ph.D
Division of Biostatistics,
University of Minnesota

Service

Recruiting Committee, Division of Biostatistics — May 2010 – Present

- Assist with planning of annual Division of Biostatistics Open House and Admitted Student Visit Days
- Meet with prospective and admitted students

Student Member of Search Committee for the — June 2010 – Aug 2010
SPH Coordinator of Recruitment and Student Leadership

- Assisted in job search for the SPH Coordinator of Recruitment and Student Leadership
- Reviewed applications, conducted interviews

References

Bradley P. Carlin
Mayo Professor in Public Health, Division Head — Phone: 612-624-6646
Division of Biostatistics — E-mail: carli002@umn.edu
University of Minnesota

Sudipto Banerjee
Professor — Phone: 612-624-0624
Division of Biostatistics — E-mail: baner009@umn.edu
University of Minnesota

Traci Toomey
Professor — Phone: 612-626-9070
Division of Epidemiology — E-mail: toome001@umn.edu
University of Minnesota