

ELISABETH DOWLING ROOT

Department of Geography, Campus Box 260
University of Colorado at Boulder
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EDUCATION

- 2009** **University of North Carolina**, Chapel Hill, NC
Ph.D. in Geography
Dissertation: *The ecology of birth defects: Socio-economic and environmental determinants of gastroschisis in North Carolina*
Advisors: Mike Emch and Melinda Meade
- 2003** **University of Maryland**, College Park, MD
M.A. in Geography
- 1999** **Pomona College**, Claremont, CA
B.A. *cum laude* in Anthropology and Public Policy Analysis

PRESENT EMPLOYMENT

- 2009-present** **University of Colorado at Boulder**
Assistant Professor, Department of Geography
Faculty Research Associate, Institute of Behavioral Science
Adjunct Assistant Professor, Dept. of Epidemiology, Colorado School of Public Health

PROFESSIONAL AND RESEARCH EXPERIENCE

- 2009** **University of North Carolina at Chapel Hill**
Instructor
- 2007-2009** **Carolina Population Center**, Chapel Hill, NC
Research Assistant
- 2003-2007** **RTI, International**, Research Triangle Park, NC
Research Health Analyst
- 2002** **U.S. Census Bureau**, Suitland, MD
Summer Intern
- 1999-2002** **The Lewin Group**, Falls Church, VA
Research Analyst

GRANTS

Active

Emch, M.E. (P.I. – UNC); **Root, E.D.** (P.I. – CU); Bearman, P.; Ali, M.; Clemens, J. Spatial and Social Network Analysis in Vaccine Trials. National Science Foundation, BCS Program, \$299,999-total grant, \$44,702-CU portion, 2009-2011.

Root, E.D. (P.I.) and Mollborn, S. Children on the move? Childhood residential mobility and the effects of neighborhood on child well-being. University of Colorado at Boulder, Innovative SEED Grant, \$40,000, 2010-2011.

Pending

Root, E.D. (P.I.) Integrating Social Networks and Spatial Distance to Examine Child Health and Well-being. National Institutes of Health, National Institute of Child Health and Human Development.

AWARDS AND FELLOWSHIPS

2007-2009 NSF IGERT Fellowship, Carolina Population Center - \$30,000

2008-2009 NSF Doctoral Dissertation Research Improvement Grant - \$5,262

2007 UNC Smith Research Grant - \$1,000

PUBLICATIONS

Peer Reviewed Journal Articles

E.D. Root. Forthcoming. Moving Neighborhood and Health Research Forward: Using Geographic Methods to Examine how Spatial Scale and Mobility Affect Neighborhood Effects on Health. *The Annals of the Association of American Geographers*.

M. Emch, **E.D. Root**, S. Giebultowicz, M. Ali and M. Yunus. Forthcoming. Integration of Spatial and Social Network Analysis in Disease Transmission. *The Annals of the Association of American Geographers*.

Root, E.D., S. Giebultowicz, M. Ali, M. Yunus and M. Emch. 2011. The role of vaccine coverage among social networks in cholera vaccine efficacy. *PLoS ONE* 6(7): e22971.

Root, E.D., R. Meyer and M. Emch. 2011. Socioeconomic Context and Gastrochisis: Exploring Associations at Various Geographic Scales. *Social Science and Medicine* 72(4): 625-633.

Root, E.D. and M. Emch. 2010. Tracing drinking water to its source: an ecological study of the relationship between textile mills and gastrochisis in North Carolina. *Health & Place*, 16(5): 794-802.

Root, E.D., R. Meyer and M. Emch. 2009. Evidence of Localized Clustering of Gastroschisis in North Carolina, 1999-2004. *Social Science and Medicine*, 68(8): 1361-1367.

Emch, M., M. Ali, **E.D. Root** and M. Yunus. 2009. Spatial and Environmental Connectivity Analysis in a Cholera Vaccine Trial. *Social Science and Medicine*, 68(4): 631-637.

Mobley, L.R., **E.D. Root**, E.A. Finkelstein, O.A. Khavjou, R. Farris, and J. Will. 2006. The Built Environment, Obesity, and Cardiovascular Disease Risk in Low-Income Women. *American Journal of Preventive Medicine*, 30(4): 327-332.

Mobley, L.R., **E.D. Root**, L. Anselin, N.L. Gracia, and J. Koschinsky. 2006. Spatial Analysis of Elderly Access to Primary Care Services. *International Journal of Health Geographics*, 5(19).

Greenwald, L.M., J. Cromwell, K. Adamache, S.L. Bernard, E.M. Drozd, **E.D. Root**, and K. Devers. 2006. Specialty vs. Community Hospitals: Referrals, Quality, and Community Benefits. *Health Affairs*, 25(1):106-118.

Peer Reviewed Book Chapters

Root, E.D. and M. Emch. *Forthcoming*. The Ecology of Injuries in Matlab, Bangladesh in *Ecologies and Politics of Health*. B. King and K. Crews (eds). New York: Routledge Press.

Root, E.D. and M. Emch. 2011. Regional Environmental Patterns of Diarrheal Disease in Bangladesh: A Spatial Analytical and Multilevel Approach in *Geospatial Analysis of Environmental Health*. S. McLafferty and J. Maantay (eds). New York: Springer-Verlag.

Book Chapters

Emch, M. and **E.D. Root**. 2010. Emerging and Remerging Diseases in *A Companion to Health & Medical Geography*. T. Brown, S. Curtis and G. Moon (eds). Oxford: Blackwell Publishing.

Savitz, L.A, Lavin, R. and **E.D. Root**. 2007. Geographic Information Systems: a Strategic Tool for Better Planning, Response and Recovery. *National Security Issues in Science, Law and Technology*, T.A. Johnson (ed). Boca Raton: CRC Press.

Book Reviews

Root, E.D. 2011. A Review of "A Companion to Health and Medical Geography". *Annals of the Association of American Geographers* 101(2): 456-458.

Technical Reports

E.D. Root, Allpress, J.L., Cajka, J.C., Lambert, S.B., Savitz, L.A. and S.L. Bernard. 2007. *Emergency Preparedness Atlas: U.S. Nursing Home and Hospital Facilities*. AHRQ Publication No. 07-0029-2. Agency for Healthcare Research and Quality, Rockville, MD.
<http://www.ahrq.gov/prep/nursinghomes/atlas>.

E.D. Root, Amoozegar, J.B. and S.L. Bernard. 2007. *Nursing Homes in Public Health Emergencies: Special Needs and Potential Roles*. AHRQ Publication No. 07-0029-1. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/prep/nursinghomes/report>.

Cromwell, J., Adamache, W., Bernard, S., Greenwald, L., Drozd, E., and **E. Root**. 2005. *Specialty Hospital Evaluation: Final Report*. Centers for Medicare & Medicaid Services, Baltimore, MD. <http://www.cms.hhs.gov/reports/downloads/cromwell3.pdf>.

PAPER PRESENTATIONS (selected)

E.D. Root (July 2011). *Does cholera risk depend on social or spatial proximity? Results from a longitudinal analysis in Matlab, Bangladesh*. Presented at the International Symposium on Medical Geography, Durham, UK.

E.D. Root (April 2011). *Regional Environmental Patterns of Diarrheal Disease in Bangladesh: A Spatial Analytical and Multilevel Approach*. Presented at the American Association of Geographers Annual Conference, Seattle, WA.

E.D. Root and M. Emch. (March 2010). *Tracing drinking water to its source: an ecological study of the relationship between textile mills and gastrochisis in North Carolina*. Presented at the American Association of Geographers Annual Conference, Washington, D.C.

E.D. Root, R. Meyer and M. Emch. (September 2009). *Evidence of localized clustering of gastrochisis births in North Carolina, 1999-2004*. Presented at the IUSSP International Population Conference, Marrakech, Morocco.

Giebultowicz, S., **E.D. Root**, and M. Emch. (May 2009). *Examining the Role of Social Networks and Herd Immunity in a Cholera Vaccine Trial in Bangladesh*. Presented at the Population Association of America, Detroit, MI.

E.D. Root (April 2009). *Evidence for neighborhood effects on health: the case of gastrochisis in North Carolina*. Presented at the American Association of Geographers Annual Conference, Las Vegas, NV.

E.D. Root and M.A. Carrel (July 2008). *Exploring the effects of spousal education and employment on female age at first birth using international census microdata*. Presented at the European Population Conference, Barcelona, Spain.

E.D. Root (April 2008). *Spatio-temporal clustering of birth defects in North Carolina*. Presented at the American Association of Geographers Annual Conference, Boston, MA.

Mobley, L.R., **E.D. Root**, L. Anselin, N.L. Gracia, and J. Koschinsky (June 2006). *Spatial Analysis of Elderly Access to Primary Care Services: Informing the Debate on Physician Shortage in the U.S.* Presented at American Society of Health Economists (ASHE), Madison, Wisconsin.

Mobley, L.R. and **E.D. Root** (July 2005). *Spatial Analysis of Healthcare Markets to Inform Targeted Interventions*. Presented at the International Health Economics Association, 5th World Congress: Investing in Health, Barcelona, Spain.

Mobley, L.R., **E.D. Root**, N. McCall, S. Subramanian, M. Kapp, and B. Gage (June 2004). *Spatial Analysis of Healthcare Markets: Separating the Signal from the Noise in Ambulatory Care Sensitive Condition Admissions*. Presented at Academy Health Meeting, San Diego, CA.

TEACHING, ADVISING, GRADUATE AND UNDERGRADUATE COMMITTEES

Advisor

- Joshua Rodd, Ph.D. (in progress), Medical Geography
- Jamie Humphrey, Ph.D. (in progress), Medical Geography
- Chris Jochem, M.A. (in progress), Medical Geography

Graduate Committee Member

- Connor Sheehan, M.A. (2011), Geography [now Ph.D. student at UT-Austin]
- Jochen Wendel, Ph.D. (ABD), Geography
- Sara Hellmuth Paull, Ph.D. (ABD), Ecology & Evolutionary Biology
- Petra Norlund, Ph.D. (in progress), Geography
- Raphael Nowrotzki, Ph.D. (in progress), Sociology
- Sarah Hart, Ph.D. (in progress), Geography
- Stower Beals, M.A. (in progress), Ecology & Evolutionary Biology

Undergraduate Thesis Committee Member

- Ashley Armstrong, B.A. (2011), International Affairs
- Alicia Beaman, B.A. (in progress), International Affairs

Courses

- Spatial Methods for Health and Population Research (GEOG 5100), University of Colorado at Boulder, Fall 2011
- Medical Geography (GEOG 4852), University of Colorado at Boulder, Spring 2011
- Quantitative Methods (GEOG 5023), University of Colorado at Boulder, Spring 2011, Spring 2010
- Seminar in Disease Ecology (GEOG 4742 Sec002), University of Colorado at Boulder, Fall 2009

SERVICE

Symposium and Committees

- Invited participant – NIH-Wide Geospatial Infrastructure Symposium
- Invited participant – American Heart Association Scientific Committee on “Improving Access to Bystander Cardiopulmonary Resuscitation”
- Board member – Health and Medical Geography Specialty Group, AAG

Grant Review and Peer Review

- Manuscript reviewer for *Health & Place* (x2), *Social Science & Medicine* (x2), *Public Health Reports* (x1), *Applied Geography* (x1), *Southeastern Geographer* (x1) and *Canadian Journal on Aging* (x1)

- Grant Proposal Reviewer for the National Science Foundation (NSF) Geography and Regional Science Division (2010, 2011)
- Reviewer, Jacques May Dissertation Award, Health and Medical Geography Specialty Group, Association of American Geographers (2011)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- American Association of Geographers
- Population Association of America