

CAROLINA PEREZ-HEYDRICH

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EDUCATION

- Davidson College**, Davidson, NC *May 2003*
B.S. in Biology
- University of Florida**, Gainesville, FL *May 2010*
Ph.D. in Veterinary Medical Sciences
Department of Infectious Diseases and Pathology
- University of North Carolina at Chapel Hill**, Chapel Hill, NC *May 2012*
M.P.H in Biostatistics

TEACHING EXPERIENCE

- Department of Biostatistics** January 2013-Present
Instructor *University of North Carolina at Chapel Hill*
- BIOS 600: Principles of Statistical Inference
- Carolina Population Center** May 2012-July 2012
Undergraduate Research Mentor *University of North Carolina at Chapel Hill*

RESEARCH EXPERIENCE

- Carolina Population Center**
Department of Biostatistics May 2010-Present
Postdoctoral Research Associate *University of North Carolina at Chapel Hill*
- Member of the UNC Spatial Health Research Group
- MEASURE DHS** October 2012-Present
Statistical Collaborator *ICF International*
- *Project Title:* Guidelines on the use of GPS data from Demographic and Health Surveys (PI: Clara Burgert)
- UNC Department of Public Policy** October 2012-Present
Statistical Collaborator *UNC Carolina Population Center*
- *Project Title:* Population, Land Use, and Health Dynamics: Biomass fuel use in Sub-Saharan Africa (PI: Dr. Pamela Jagger)
- UNC Department of Epidemiology** May 2012-Present
Statistical Collaborator *University of North Carolina at Chapel Hill*
- *Project Title:* My Body My Test, Cervical Cancer Outreach Screening Program (PI: Dr. Jennifer Smith)
- UCSD Antiviral Research Center** July 2012-Present
Statistical Collaborator *University of California at San Diego*
- *Project Title:* Geospatial correlates of HIV transmission behavior in the CNICS cohort (PI: Dr. Richard Haubrich)

- *Project Title:* Population-level impacts of leprosy on the nine-banded armadillo (PI: Dr. William J. Loughry)

PUBLICATIONS

Perez-Heydrich, C., J.M. Braly, S. Giebultowicz, J.J. Winston, M. Yunus, P.K. Streatfield, and M. Emch. (2012). Social and spatial processes associated with childhood diarrheal disease in Matlab, Bangladesh. *Health & Place*. <http://dx.doi.org/10.1016/j.healthplace.2012.10.002>.

Winston, J., V. Escamilla, C. Perez-Heydrich, M. Carrel, M. Yunus, P. K. Streatfield, and M. Emch. (*in press*). Deep tubewells protect against childhood diarrhea in Matlab, Bangladesh. *American Journal of Public Health*.

Emch, M., E. D. Root, S. Giebultowicz, M. Ali, C. Perez-Heydrich, and M. Yunus. (2012). Integration of Spatial and Social Network Analysis in Disease Transmission Studies. *Annals of the Association of American Geographers*, 102: 1004-1015.

Loughry, W. J., C. Perez-Heydrich, C. M. McDonough, and M. K. Oli. (*in press*). Population ecology of the nine-banded armadillo in Florida. *Journal of Mammology*.

Knapp, C.R., C. Perez-Heydrich. (2012). Using non-conspicuous demographic parameters to understand selected impacts of disturbance on a long-lived reptile. *Endangered Species Research*. 17: 193-200.

Perez-Heydrich, C., K. Jackson, L.D. Wendland, and M.B. Brown. (2012). Combining field studies with published data: A meta-analysis of gopher tortoise survival. *Herpetologica*. 68(3): 334-344.

Perez-Heydrich, C., M.K. Oli, and M.B. Brown. (2012). Long-term impacts of recurring disease on population dynamics and persistence of a long-lived wildlife host. *Oikos*. 121: 377-388.

Knapp, C., S. Alvarez-Clare, and C. Perez-Heydrich. (2010). The influence of landscape heterogeneity and dispersal on survival of neonate insular iguanas. *Copeia*. 2010(1): 62-70.

Ozgul, A., M.K. Oli, B.M. Bolker, and C. Perez-Heydrich. (2009). Upper respiratory tract disease, force of infection, and effects on survival of gopher tortoises. *Ecological Applications*. 19: 786-798.

MANUSCRIPTS IN REVIEW

Perez-Heydrich, C., M. G. Hudgens, M. E. Halloran, J. Clemens, M. Ali, and M. Emch. (*submitted*). Assessing the effects of cholera vaccination in the presence of interference. *Biometrics*.

Warren, J. and C. Perez-Heydrich. (*submitted*). Bayesian Spatial Modeling of Optimal Deep Tubewell Locations in Matlab, Bangladesh. *Journal of the American Statistical Association*.

Perez-Heydrich, C., A. Verdery, M. Ali, J. Clemens, M. Yunus, and M. Emch. (*submitted*). Contextual effects of space, environment, and social networks in vaccine trials. *Journal of Epidemiology and Community Health*.

Loughry, W. J., C. Perez-Heydrich, C. M. McDonough, and M. K. Oli. (*submitted*). Population Dynamics and Range Expansion in Nine-banded Armadillos. *PLoS ONE*.

PROFESSIONAL ACTIVITIES

Affiliations

- American Statistical Association

- Population Association of America

Presentations

- *Poster*: Integrating the effects of space, environment, and social ties in vaccine trials, C. Perez-Heydrich, S. Giebultowicz, A. Herring, M. Emch, and M. Ali, *Eastern North American Region/International Biometric Society Annual Meeting, March 2011*
- Integrating the effects of space, environment, and social ties in vaccine trials, *Carolina Population Center Seminar, September 2011*
- *Poster*: Deep tubewells protect against childhood diarrhea in Matlab, Bangladesh. J. Winston, V. Escamilla, C. Perez-Heydrich, M. Carrel, M. Yunus, P. K. Streatfield, and M. Emch, *Center for Environmental Health Studies Symposium, March 2012*
- *Poster*: Mailed HPV self-sampling with Pap smear referral among high-risk women: The My Body, My Test Study, A. Des Marais, N. T. Brewer, C. Perez-Heydrich, A. Rinas, M. Kamradt, K. Ricchetti-Masterson, K. Murphy, S. Smith, A. Richman, B. Yen-Lieberman, L. Barclay, J. Belinson, and J. S. Smith, *American Public Health Association, 140th Annual Meeting, October 2012*
- Contextual effects of space, environment, and social ties in vaccine trials, *UNC Department of Geography Colloquium, September 2012*

Meeting Abstracts

- Geospatial and Individual Factors are Associated with High Risk Transmission Behavior (HRTB) among HIV-infected Subjects in Care: Data from CNICS, R. Haubrich, S. Jain, C. Perez-Heydrich, C. Hurt, S. Morris, S. Sun, S. Napravnik, H. Crane, M. Emch, J. Eron, and CNICS 040 Study Team, *Conference on Retroviruses and Opportunistic Infections, March 2013*
- Integrating the effects of space, environment, and social networks in a phase III oral cholera vaccine trial, C. Perez-Heydrich, A. Verdery, M. Ali, J. Clemens, and M. Emch, *US-Japan Cholera Meeting, December 2012*

PROFESSIONAL INTERESTS

Teaching Interests

- Principles of Biostatistics
- Principles of Biology
- Principles of Epidemiology
- Research Methods in Epidemiology
- Ecology of Infectious Diseases
- Statistical Modeling of Biological Systems

Research Interests

- Population health
- Biostatistics
- Infectious disease epidemiology
- Spatial epidemiology
- Disease ecology