

BIOGRAPHICAL SKETCH

Marta Jankowska

(a) Professional Preparation

Whitman College	Walla Walla, WA	Political Theory	B.A.	05/2006
San Diego State University	San Diego, CA	Geography: Geographic Information Systems	M.A.	01/2010
San Diego State University/ University of California Santa Barbara	San Diego, CA/Santa Barbara, CA	Geography	Ph.D.	09/2013
University of California San Diego	San Diego, CA	Family Medicine and Public Health	Postdoc	04/2016

(b) Appointments

2016-present	Assistant Research Scientist, California Institute of Telecommunications and Information Technology, UCSD, San Diego			
2013-2016	GIS Specialist, Center for Wireless and Population Health Systems, UCSD, San Diego, CA			
2012-2013	Consultant, Department of Pediatrics and Preventative Medicine, Children's Environmental Health Center, Mount Sinai School of Medicine, New York, NY			
2012	Consultant, Population Council, Addis Ababa, Ethiopia			
2009	Junior Research Scholar, International Institute for Applied Systems Analysis, Austria			
2007-2013	Graduate Research and Teaching Assistant, Departments of Geography SDSU/UCSB, CA			

(c) Contributions to Science

1. During my doctoral studies my primary focus was on the development of methodologies for measuring spatial inequalities of health, poverty, and well-being in neighborhoods of a developing third world city. The methodologies developed are meant to be tested in the data-rich urban environment of Accra, and then can be applied in other less data intensive regions through the use of satellite imagery and more commonly available survey data such as DHS or census.
 - a. Jankowska, M.M. (2013). "Neighborhoods of Health: Creating and comparing boundaries for researching health in urban Africa." In J.R. Weeks, A.G. Hill, and J. Stoler (Eds.), *Spatial Inequalities: Health, Poverty and Place in Accra, Ghana*. New York: Springer.
 - b. Jankowska, M.M., M. Benza-Fiocco, J. Weeks. (2012). Estimating Spatial Inequalities of Urban Child Mortality. *Demographic Research*, 28(2): 33-62. PMID: PMC3903295
 - c. Weeks, J.R, A. Getis, D. Stow, A. Hill, D. Rain, R. Engstrom, J. Stoler, C. Lippitt, M.M. Jankowska, A. Lopez, L. Coulter, and C. Ofiesh. (2012). Connecting the Dots Between Health, Poverty, and Place in Accra, Ghana. *Annals of the Association of American Geographers*, 102(5): 932-941. PMID: PMC3922133
 - d. Jankowska, M.M., J. Weeks, R. Engstrom. (2011). Do the Most Vulnerable People Live in the Worst Slums? A Spatial Analysis of Accra, Ghana. *Annals of GIS* 17(4): 221-235. PMID: PMC3286624
2. Working with colleagues at USSB and the FewNET climate modeling group, we have developed methods for bringing together fine scaled climate data with DHS health survey results to be able to climate and demographic impacts on children's health in Africa. By also integrating diverse spatial modeling methodologies such as multi-level modeling and spatial statistics, this research provides the first spatially specific models for the impacts of climate change and demographic change on children's health.

- a. Lopez-Carr, D., Pricope, N.G., Aukema, J.E., Jankowska, M.M., Funk, C., Husak, G., Michaelsen, J. (2014). A spatial analysis of population dynamics and climate change in Africa: potential vulnerability hot spots emerge where precipitation declines and demographic pressures coincide. *Population and Environment* 35(3): 323-339.
 - b. Jankowska, M.M., Lopez-Carr, D, C. Funk, G. Husak, Z. Chafe. (2012). Climate Change and Human Health: Spatial Modeling of Water Availability, Malnutrition, and Livelihoods in Mali, Africa. *Applied Geography* 33: 4-15.
 - c. Lopez-Carr, D., J. Davis, M.M. Jankowska, A.C. Lopez-Carr, M. Clark, L. Grant. (2011). Space versus Place in Complex Human-Natural Systems: Spatial and Multi-level Models of Tropical Land Use and Cover Change (LUCC) in Guatemala. *Ecological Modeling* 229: 6-75. PMC3765033
3. After my doctoral dissertation, I have worked with Dr. Jacqueline Kerr on the development of methodologies and advancement of theory regarding the integration of GPS, accelerometer, GIS, and other data types for answering questions about energetics, environment, and spatial context. By bringing in a geographic and data management perspective, I have developed new software infrastructures that are leading to new discovery and methodologies for data integration in the field. Key to this innovation is developing cyber infrastructure that will support spatial analytics in conjunction with health data.
- a. M.M. Jankowska and P. James (co-first authors), C. Marx, J.E. Hart, D. Berrigan, J. Kerr, P.M. Hurvitz, J.A. Hipp, F. Laden. "Spatial Energetics": Integrating Data From GPS, Accelerometry, and GIS to Address Obesity and Inactivity. *American Journal of Public Health* In Press.
 - b. Jankowska, M.M., J. Schipperijn, J. Kerr. (2015) A framework for using GPS data in physical activity and sedentary behavior studies. *Exercise and Sports Sciences Reviews*, 43(1): 48-56
 - c. Meseck, K., Jankowska, M.M., Schipperijn, J., Natarajan, L., Godbole, S., Carlson, J., Takemoto, M., Crist, K., Kerr, J. (2015) Is missing geographic position system (GPS) data in accelerometry studies a problem, and is imputation the solution? *Geospatial Health*, Accepted.
 - d. Berrigan, D., Hipp, A., Hurvitz, P.M., Jankowska, M.M., Kerr, J., Laden, F., Leonard, T., McKinnon, R., Powell-Wiley, T.M., Tarlov, E., Zenk, S.N. (2015) Geospatial and Contextual Approaches to Energy Balance and Health. *Annals of GIS*. 21(2).
 - e. Carlson, J.A., M.M. Jankowska, K. Meseck, S. Godbole, L. Natarajan, F. Raab, B. Demchak, K. Patrick, J. Kerr. (2014) Validity of PALMS GPS Scoring of Active and Passive Travel Compared to SenseCam. *Medicine and science in sports and exercise*. PMID:25010407.

(d) Selected Currently Funded Grants

07/2016 – 06/2018 **Visualization of Individual and Environmental Risks and Protectors for Preterm Birth in Fresno County**

Funding: UCSF Preterm Birth Initiative

Role: Co-Principle Investigator (with Christina Chambers)

05/2016 – 04/2019 **Hispanic Access and Exposure to the Built Food Environment**

Funding: National Science Foundation, Geography and Spatial Sciences Program

Role: Principle Investigator

06/2015 – 05/2017 **Nucleotides to Neighborhoods: Obesity-Related Association Networks Spanning Genomes, Behaviors, and Built Environment**

Funding: UCSD Center for Computational Biology and Bioinformatics (CCBB) and San Diego Center for Systems Biology (SDCSB)

Role: Co-Principle Investigator (with Dorothy Sears)