

**Chantel L. Martin, PhD****Mailing Address:**

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**EDUCATION**

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2015	<b>PhD</b>	<b>University of North Carolina at Chapel Hill</b> Major: Epidemiology Minor: Biostatistics
2009	<b>MSPH</b>	<b>University of North Carolina at Charlotte</b> Major: Epidemiology Thesis: Serum micronutrient concentrations and risk of uterine fibroids
2005	<b>BS</b>	<b>University of Delaware</b> Major: Finance Minor: Economics

**PROFESSIONAL EXPERIENCE**

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June 2020-present	<b>Assistant Professor (Tenure-Track)</b> Department of Epidemiology Gillings School of Global Public Health University of North Carolina at Chapel Hill
July 2020-present	<b>Faculty Fellow</b> Carolina Population Center University of North Carolina at Chapel Hill
June 2020-present	<b>Co-Leader, Cardiopulmonary Disease Research</b> Center for Environmental Health & Susceptibility Gillings School of Global Public Health University of North Carolina at Chapel Hill
2017-2020	<b>Postdoctoral Research Fellow</b> Department of Epidemiology & Carolina Population Center University of North Carolina at Chapel Hill
2015-2017	<b>Postdoctoral Research Fellow</b> Department of Health Behavior University of North Carolina at Chapel Hill

- 2012-2015            **Research Assistant**  
Department of Epidemiology & Nutrition  
Center for Health Promotion and Disease Prevention  
University of North Carolina at Chapel Hill
- 2007-2009            **Graduate Assistant**  
Department of Public Health Sciences  
University of North Carolina at Charlotte

## HONORS & AWARDS

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- 2019                    UNC Postdoctoral Award for Research Excellence
- 2016                    African American Collaborative Obesity Research Network  
Conference, Travel Scholarship
- 2013-2014            UNC Graduate School Dissertation Completion Fellowship (*Declined*)
- 2011                    7<sup>th</sup> Annual NICHD-IHDCYH Summer Institute in Reproductive  
and Perinatal Epidemiology
- 2010                    Maternal & Child Health Bureau Graduate Student Internship Program
- 2010                    Delta Omega Inductee, Beta Phi Chapter
- 2009-2010            UNC North Carolina Minority Presence Fellowship
- 2009                    Wong-Moulton Scholarship in Epidemiology
- 2009                    UNC Charlotte Best Master's Thesis Award in Life Science
- 2009                    UNC Charlotte Health Research Academy Best Master's Level Paper

## BIBLIOGRAPHY

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\**Student/trainee paper*

### ***Peer-Reviewed Journal Articles – Published***

1. Crenshaw EG\*, Fernandez-Rhodes L, **Martin CL**, Gordon-Larsen P, Haan MN, Aiello AE. The effect of intergenerational educational attainment on cardiometabolic health in United States Latinos. *Obesity* [accepted]
2. **Martin CL**, Ward-Caviness C, Dhingra R, Zikry TM\*, Uddin M, Galea S, Wildman DE, Koenen KC, Aiello AE. Neighborhood environment, social cohesion, and epigenetic aging. *Aging* [in press]
3. Wani AH, Aiello AE, Kim GS, Xue F, **Martin CL**, Ratanatharathorn A, Qu A, Koenen KC, Galea S, Wildman DE, Uddin M. The impact of psychopathology, social adversity, and stress-related DNA methylation on prospective risk for post-traumatic stress: A machine learning approach. *Journal of Affective Disorders* [in press]
4. Zalla LC, **Martin CL**, Edwards JK, Gartner DR, Noppert GA. A Geography of risk: Structural racism and COVID-19 mortality in the United States. *American Journal of Epidemiology* [in press]

5. Ward-Caviness C, Pu S, **Martin CL**, Galea S, Uddin M, Wildman DE, Koenen KC, Aiello AE. Epigenetic predictors of all-cause mortality are associated with objective measures of neighborhood disadvantage in an urban population. *Clinical Epigenetics*, 2020; 12(1): 44.
6. **Martin CL**, Kane JB, Miles GL, Aiello AE, Harris KM. Neighborhood disadvantage across the transition from adolescence to adulthood and risk of metabolic syndrome. *Health & Place*, 2019; 57: 131-138.
7. **Martin CL**, Jima D, Sharp GC, McCullough LE, Park SS, Gowdy KM, Skaar D, Cowley M, Maguire RL, Fuemmeler B, Collier D, Relton CL, Murphy SK, Hoyo C. Maternal pre-pregnancy obesity, offspring cord blood DNA methylation, and offspring cardiometabolic health outcomes in early childhood: An epigenome-wide association study. *Epigenetics*, 2019; 14: 325-240.
8. **Martin CL**, Vladutiu CJ, Zikry TM, Grace MR, Siega-Riz AM. Maternal lipid levels during pregnancy and child weight status at first 3 years of age. *Pediatric Obesity*. 2019; 14(4): e12485.
9. **Martin CL**, Tate DF, Valle CG. Nonadherence to daily self-weighing and activity tracking is associated with weight fluctuations among African American breast cancer survivors. *PLoS One*. 2018; 13(6): e0199751.
10. **Martin CL**, Haan MN, Fernandez-Rhodes L, Lee A, Aiello AE. Association between immigration history and inflammatory marker profiles among older adult Mexican Americans. *Biodemography and Social Biology*. 2018; 64(1): 30-42.
11. Vaughn AE, **Martin CL**, Ward DS. What matters most – what parents model or what parents eat? *Appetite*. 2018; 126: 102-107.
12. **Martin CL**, Tate DF, Schaffner A, Brannen A, Hatley KE, Diamond M, Munoz-Christian K, Pomeroy J, Sanchez T, Mercado A, Hagobian T, Phelan S. Acculturation influences postpartum eating, activity, and weight retention in low-income Hispanic women. *Journal of Women's Health*. 2017; 26: 1333-1339.
13. **Martin CL**, Siega-Riz AM, Sotres-Alvarez D, Robinson WR, Daniels JL, Perrin EM, Stuebe AM. Maternal dietary patterns during pregnancy are associated with child growth in the first 3 years of life. *Journal of Nutrition*. 2016; 146: 2281-2288.
14. **Martin CL**, Siega-Riz AM, Sotres-Alvarez D, Robinson WR, Daniels JL, Perrin EM, Stuebe AM. Maternal dietary patterns are associated with lower levels of cardiometabolic markers during pregnancy. *Paediatric and Perinatal Epidemiology*. 2016; 30(3): 246-255.
15. **Martin CL**, Sotres-Alvarez D, Siega-Riz AM. Maternal dietary patterns during the second trimester are associated with preterm birth. *Journal of Nutrition*. 2015; 145(8): 1857-1864.
16. Robinson WR, Utz RL, Keyes KM, **Martin CL**, Yang Y. Birth cohort effect on abdominal obesity in the United States: The Silent Generation, Baby Boomers, and Generation X. *International Journal of Obesity*. 2013; 37(8): 1129-1134.

17. Robinson WR, Keyes KM, Utz RL, **Martin CL**, Yang Y. Birth cohort effects among US-born adults born in the 1980s: foreshadowing future trends in US obesity prevalence. *International Journal of Obesity*. 2013; 37(3): 448-454.
18. **Martin CL**, Huber LR, Thompson ME, Racine EF. Serum micronutrient concentrations and risk of uterine fibroids. *Journal of Women's Health*. 2011; 20(6): 915-922.
19. **Martin CL**, Brunner Huber LR. Physical activity and hypertensive complications during pregnancy: Findings from 2004-2006 North Carolina Pregnancy Risk Assessment Monitoring System. *Birth: Issues in Perinatal Care*. 2010; 37(3): 202-210.
20. Kirk JK, Strachan E, **Martin CL**, Davis SW, Peechara M, Lord R. Patient characteristics and process of care measures as predictors of glycemic control. *Journal of Clinical Outcomes Management*. 2010; 17(1): 27-30

#### **Peer-Reviewed Journal Articles – Under Review**

1. Lodge E\*, Hoyo C, Gutierrez C, Rappazzo KM, Emch ME, **Martin CL**. Estimating crime exposure by race and ethnicity for public health research. [Revise & resubmit]
2. Xue F, Tang X, Kim G, Koenen KC, **Martin CL**, Galea S, Wildman D, Uddin M, Qu A. Heterogeneous mediation analysis on epigenomic PTSD and traumatic stress in an African American cohort. [Under review]
3. Rosen EM, **Martin CL**, Siega-Riz, Dole N, Ludwig K, Basta PV, Serrano M, Fettweis J, Wu M, Sun S, Thorp JM Jr, Buck G, Fodor AA, Engel SM. Prenatal diet and composition of the vaginal microbiome. [Under review]
4. Noppert GA, **Martin CL**, Zivich PN\*, Aiello AE, Mullan Harris K, O'Rand A. Time-varying neighborhood disadvantage and memory in young adults. [Under review]

#### **Conference Oral Presentations**

1. \*Lodge EK, Hoyo C, Aiello AE, **Martin CL**. "Prenatal exposure to neighborhood crime and offspring blood pressure from 0-3 years of age." 2019 U.S. Developmental Origins of Health and Disease Annual Meeting in Chapel Hill, NC. September 9-10.
2. \*Zikry TM, **Martin CL**, Li Gang, Uddin M, Galea S, Wildman DE, Koenen KC, Aiello AE. "The effect of neighborhood perception on the divergence between chronological and DNA methylation age." 2019 Society for Epidemiologic Research Annual Meeting in Minneapolis, MN. June 19-21.
3. **Martin CL**, Uddin M, Wildman DE, Aiello AE. "Epigenetic predictors of lifetime trauma among a cohort of African Americans." 2018 Interdisciplinary Association of Population Health Sciences Annual Meeting in Washington, DC. October 3-5.
4. **Martin CL**, Haan MN, Fernandez-Rhodes L, Lee A, Aiello AE. "Immigration history and inflammation profiles among older Mexican American adults." 2018 Society for Epidemiologic Research Annual Meeting in Baltimore, MD. June 20-22.

5. **Martin CL**, Kane JB, Aiello AE, Harris KM. “Life course neighborhood disadvantage and metabolic syndrome in young adulthood.” 2017 Society for Epidemiologic Research Annual Meeting in Seattle, WA. June 21-23.
6. Valle CG, **Martin CL**, Tate DF. Nonadherence to daily weighing and activity tracking is associated with weight fluctuations among breast cancer survivors. 38<sup>th</sup> Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine in San Diego, CA. March 29-April 1, 2017
7. **Martin CL**, Sotres-Alvarez D, Robinson WR, Daniels JL, Perrin E, Stuebe AM, Siega-Riz AM. “Dietary patterns and maternal cardiometabolic biomarkers during pregnancy.” 2015 Society for Pediatric and Perinatal Epidemiologic Research Annual Meeting in Denver, CO. June 15-16.
8. **Martin CL**, Hale D, Vaughn A, Ward DS. “Estimating parent misreporting of energy intake among preschool children attending day care.” 2013 Experimental Biology-American Society of Nutrition. Boston, MA. April 19-23.

### ***Invited Lectures and Presentations***

1. “The Violence We Endure: Healthcare” Society for the Analysis of African American Public Health Issues (2020 annual meeting panel discussion), November 5, 2020
2. “Embodying Place: Neighborhoods environment and health disparities.” Carolina Population Center, University of North Carolina at Chapel Hill (Interdisciplinary Research Seminar Series), September 25, 2020 [*Rescheduled due to SARS-Cov2 pandemic closure*]
3. “Embodying Place: Neighborhoods environment and health disparities.” Carolina Population Center, University of North Carolina at Chapel Hill (Interdisciplinary Research Seminar Series), March 20, 2020 [*Cancelled due to SARS-Cov2 pandemic closures*]
4. “Embodying Place: Neighborhood social environment and cardiometabolic health disparities.” University of Texas-Austin Population Research Center, (Friday Brown Bag seminar), November 22, 2019
5. “Developmental origins of health disparities: A biosocial perspective.” University of North Carolina at Chapel Hill, Department of Epidemiology, (Reproductive/Perinatal/Pediatric Epidemiology Program seminar), October 29, 2019
6. “Origins of cardiometabolic health disparities.” Virginia Commonwealth University, Department of Health Behavior and Policy, (Seminar Series), March 26, 2019
7. “How old are you? Social Stressors and epigenetic aging.” University of North Carolina at Chapel Hill, Carolina Population Center, (Carolina Population Center Interdisciplinary Workshop), March 21, 2019
8. “Epigenetic mechanisms of maternal pre-pregnancy obesity and offspring obesity risk.” University of North Carolina at Chapel Hill, Department of Epidemiology, (Reproductive/Perinatal/Pediatric Epidemiology Program seminar), October 30, 2018
9. “Origins of cardiometabolic health disparities: A multi-level life course approach.” University of Texas at Austin, Department of Nutritional Sciences, (Nutrition Seminar Series), October 19, 2018



R01MD013349 Harris, Aiello (MPI) 08/14/18-03/31/23  
**National Institute of Minority Health and Health Disparities**  
*“The Add Health Epigenome Resource: Life course stressors and epigenomic modifications in adulthood.”*  
Total costs: \$3,515,272  
**Role: Co-Investigator, 5-15% effort**

***Pending Support***

P30ES010126 Troester (PI) 04/01/21-03/31/26  
National Institute of Environmental Health Sciences  
*“UNC Center for Environmental Health and Susceptibility”*  
**Role: Co-Director, 5% effort**

***Previous Support***

K99 MD012808 Martin (PI) 08/17/18-05/31/20  
National Institute of Minority Health and Health Disparities  
*“Epigenetic mechanisms of prenatal environmental stressors and offspring obesity risk”*  
Amount: \$181,727  
**Role: Principal Investigator**

No Grant Number Aiello (PI) 04/01/18-03/31/19  
UNC Center for Environmental Health and Susceptibility Seed Grant  
*“Spatial distribution of blood lead concentrations in Durham and Detroit and association with social, structural, and neighborhood-level factors”*  
Amount: \$11,999  
**Role: Co-Investigator**

L60 MD011014 Martin (PI) 07/01/16-06/30/18  
National Institute of Minority Health and Health Disparities – LRP  
*“Psychosocial factors and disparities in pregnancy-related weight gain and retention*  
Amount: \$70,000  
**Role: Principal Investigator**

F31 DK096840 Martin (PI) 08/01/13-07/31/15  
National Institute of Diabetes and Digestive and Kidney Diseases  
*“Maternal dietary patterns and child weight status” (Martin)*  
Amount: \$62,612  
**Role: Principal Investigator**

**TEACHING ACTIVITIES**

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***Courses***

2018-2019 EPID 799: *Seminars in Social Epidemiology*  
Department of Epidemiology  
University of North Carolina at Chapel Hill

Role: Co-Instructor  
2 semesters; 9 master's/doctoral students (Fall 2018) and 4 (Fall 2019)

2018 EPID 826: *Introduction to Social Epidemiology: Concepts and Measures*  
Department of Epidemiology  
University of North Carolina at Chapel Hill  
Role: Co-Instructor  
1 semester; 19 doctoral students

### ***Guest Lectures***

2017, 2019 Lecturer  
“Multilevel and neighborhood influences on health.”  
EPID 826: *Introduction to Social Epidemiology: Concepts and Measures*  
Department of Epidemiology  
University of North Carolina at Chapel Hill

2018-2019 Lecturer  
“Operationalizing Theory and Constructs in Social Epidemiology.”  
EPID 827: *Social Epidemiology: Analysis and Interpretation.*  
Department of Epidemiology  
University of North Carolina at Chapel Hill

### **SERVICE ACTIVITIES**

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#### ***University of North Carolina – as a graduate student or post-doc***

2018 Presentation Advisory Board, Summer Undergraduate Internship Program  
Carolina Population Center  
2017 Summer Internship Mentor, Summer Undergraduate Internship Program  
Carolina Population Center  
2011 Student Member, Associate Dean of Student Affairs Selection Committee,  
University of North Carolina at Chapel Hill

#### ***National and Professional Society Activities***

2018-present Social Determinants of Health Working Group Member, Jackson Heart Study  
2019 Panelist, Funding 101: Student Lunchtime Session. Interdisciplinary Association  
for Population Health Sciences (IAPHS) Annual Meeting in Seattle, WA.  
2019 Session Co-chair, Professional Development Session: Ask Me Anything?  
Society for Epidemiologic Research (SER) Annual Meeting, Minneapolis, MN  
2018 Program Committee, Interdisciplinary Association for Population Health Science

#### ***Invited Manuscript Reviews***

Epigenetics  
PLoS One  
Psychoneuroendocrinology  
Journal of Nutrition  
British Journal of Nutrition  
Social Science & Medicine



International Journal of Obesity  
American Journal of Clinical Nutrition

***Conference Abstract Review***

Interdisciplinary Association for Population Health  
Society for Epidemiologic Research  
Society for Perinatal and Pediatric Epidemiological Research

**PROFESSIONAL MEMBERSHIPS**

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2019 – present	U.S. Developmental Origins of Health and Disease
2018 – present	Interdisciplinary Association for Population Health
2011 – present	Society for Perinatal and Pediatric Epidemiological Research
2011 – present	Society for Epidemiological Research