

Casey Philip Durand, PhD MPH

Assistant Professor

University of Texas Health Science Center at Houston (UTHealth)

School of Public Health

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Education

PhD University of Southern California, Keck School of Medicine, Los Angeles, CA

August 2008-June 2012

Degree in: Preventive Medicine

Concentration: Health Behavior Research

MPH UTHealth School of Public Health, Houston, TX

August 2006-August 2008

Degree in: Health Promotion and Behavioral Sciences

BA University of Texas at Austin, Austin, TX

August 2002-August 2006

Degree in: Government; minor in history

Research Interests

Built environment; social context and determinants; health disparities; physical activity, nutrition; obesity; neighborhood measurement; measurement development and validation; statistical methodology and programming.

Honors and Awards

Health Disparities Research Loan Repayment Program Awardee, National Institute on Minority Health and Health Disparities, National Institutes of Health, 2013-2015.

Post-Doctoral Fellowship, University of Texas School of Public Health, Cancer Education & Career Development Program, National Cancer Institute/NIH R25 CA057712, July 2012-September 2014.

Pre-Doctoral Traineeship, University of Southern California, Ruth L. Kirschstein National Research Service Award, National Cancer Institute/NIH T32 CA009492-25, August 2009-June 2012.

Helmuth and Mary Fuchs and James R. Waterston Scholarship Recipient, UTHealth School of Public Health, August 2007-August 2008.

Professional Experience

Current

Assistant Professor (tenure-track), Department of Health Promotion and Behavioral Sciences, UTHealth School of Public Health, January 2017-Present.

Kinder Fellow, Kinder Institute for Urban Research, Rice University, December 2015-Present.

Previous

Assistant Professor (non-tenure-track), Department of Health Promotion and Behavioral Sciences, UTHealth School of Public Health, September 2014-December 2016

Post-Doctoral Fellow, UTHealth School of Public Health, Cancer Education & Career Development Program, National Cancer Institute/NIH R25 CA057712, July 2012-September 2014.

Research Assistant, University of Southern California, Institute for Health Promotion and Disease Prevention Research, August 2008-June 2012

- Project: *Effects Of A Smart Growth Community On Prevention Of Family Obesity Risk (Healthy Places)*. Funder: National Cancer Institute. 5R01CA123243-05. Pentz, MA (PI).

Teaching Assistant, University of Southern California, August 2008-May 2009

Grants and contracts

Current

1. Co-investigator and primary grant author. Kohl, HW (PI), *Effects of Light Rail Transit on Physical Activity: A Natural Experiment*. 1R01DK101593-01. National Institute of Diabetes, and Digestive and Kidney Diseases. September 2013-June 2019. Direct Cost: \$0.5M (Annual); \$2.5M (Overall). 1st percentile.
2. Co-investigator. Fernandez-Esquer (PI), *VALES+Tú: Targeting Psychosocial Stressors to Reduce Latino Day Laborers Injury Disparities*. 1R01MD012928-01. National Institute of Minority Health and Health Disparities. September 2018-March 2023.
3. Co-investigator. Hoelscher (PI), *Evaluating the Effects of Municipal Funding of Safe Routes to School Infrastructure on Child Physical Activity: A Natural Experiment*. 1R01HD097669-01. National Institute of Child Health and Human Development. July 2018-June 2023

Under review/in process

1. Principal investigator. *Effect of school-based dual-use park implementation on physical activity in adults and children*. National Institutes of Health. R01. Under review.
2. Principal investigator. *The Impact of Special District Governments on Health-Promoting Infrastructure and Obesity-Related Risk Factors: A Secondary Data Analysis*. National Institutes of Health. R21. Revision in process.
3. Co-investigator. Sharma (PI), *A Hybrid Effectiveness-Implementation Trial of Brighter Bites: Promoting Youth Dietary Habits*. National Institutes of Health. Revision in process.

Past

1. Co-investigator. Hoelscher, DM (PI), *Systems Approach to Obesity Prevention in Underserved Children in Texas*. 5U18DP003367-02. Centers for Disease Control and Prevention. September 2011-August 2016.
2. Co-investigator. *Opportunity Youth in Houston: Characteristics, Career Pathways & Recommendations*. JPMorgan Chase Foundation (subcontract with Kinder Institute for Urban Research, Rice University). January-December 2016.
3. Co-investigator. Sharma, SV (PI), *A Collective Impact Model to Create a Sustainable Food System in North Pasadena*. BUILD Health Challenge Partnership. June 2015-June 2017.

4. Consultant. *Collaboration Plan Development and Implementation Support*. National Cancer Institute. August 2016-September 2017.

Not funded

1. Principal investigator. *Effects of New Light Rail Lines and Associated Infrastructure Improvements on Change in Active Travel to School*. March 2014. Johns Hopkins Global Center on Childhood Obesity Rapid Response Pilot Core (Invitation-only submission). 2014.
2. Co-investigator. *Policy Implications of Economic Worth, Social Attitudes, and Potential for Addiction to Calorie-Dense Fast Foods*. Texas Medical Center Health Policy Institute. 2015.
3. Co-investigator. Hoelscher, DM (PI), *TX CORD 2.0: Integrating Community-Level Child Weight Management into Primary Care Clinic Settings*. Centers for Disease Control and Prevention. 2015.
4. Co-investigator. Sharma, SV (PI), *Psychometric evaluation of an instrument to assess cooking skills as a multidimensional construct*. National Institutes of Health. R01. 2015
5. Principal investigator. *Longitudinal Effects on Obesity-related Behaviors of a New Policy to Standardize School Start and Stop Times Across K-12 Schools in a Large Urban School District*. National Institutes of Health. R01. 37th Percentile. April 2018.

Publications

Peer-reviewed publications

1. **Durand CP**, Dunton GF. Understanding the causes and consequences of overweight and obesity: An ecological overview. *Journal of the Spinal Research Foundation*. 2010 Fall; 4(2): 28-36.
2. **Durand CP**, Andalib M, Dunton GF, Wolch J, Pentz MA. A systematic review of built environment factors related to physical activity and obesity risk: Implications for smart growth urban planning. *Obesity Reviews*. 2011 May; 12(5): E173-E182. NIHMSID: NIHMS245519.
3. **Durand CP**, Dunton GF, Metz D, Pentz MA. Does community type moderate the relationship between parent perceptions of the neighborhood and physical activity in children? *American Journal of Health Promotion*. 2012 July/August; 26(6): 371-380.
4. **Durand CP**. Does raising type 1 error rate improve power to detect interactions in linear regression models? A simulation study. *PLoS ONE*. 2013; 8(8): e71079.
5. **Durand CP**, Oluyomi A, Sener I, Knell G, Pettee Gabriel K, Kohl III HW. Transport-related physical activity: definitions, status and research directions. *Russian Journal of Preventive Medicine*. 2014 February; 17(N1): 55-60.
6. Liao Y, Liao J, **Durand CP**, Dunton GF. Which type of sedentary behavior intervention is more effective at reducing body mass index in children? A meta-analytic review. *Obesity Reviews*. 2014 March; 15(3): 159-168.
7. Oluyomi AO, Byars A, Byrd-Williams C, Sharma S, **Durand CP**, Hoelscher DM, Butte N, Kelder S. The utility of Geographical Information Systems (GIS) in systems-oriented obesity intervention projects: the selection of comparable study sites for a quasi-experimental intervention design – TX CORD. *Childhood Obesity*. 2015 February; 11(1): 58-70.
8. Hoelscher DM, Butte NF, Vandewater EA, Sharma SV, Huang T, Finkelstein E, Pont S, Sacher P, Byrd-Williams C, Oluyomi A, **Durand C**, Linlin L, Kelder SH. Incorporating primary and secondary prevention approaches to address childhood obesity prevention and treatment in a low-income, ethnically diverse population: Study design and demographic data from the Texas Child Obesity Research Demonstration (TX CORD) Study. *Childhood Obesity*. 2015 February; 11(1): 71-91.

9. Schembre SM, **Durand CP**, Blissmer BJ, Greene GW. Development and validation of the cognitive behavioral physical activity questionnaire. *American Journal of Health Promotion*. 2015 September-October; 30(1); 58-65.
10. **Durand CP**, Tang X, Pettee Gabriel K, Sener I, Oluyomi AO, Knell G, Porter A, Hoelscher DM, Kohl III HW. The association of trip distance with walking to reach public transit: data from the California Household Travel Survey. *Journal of Transport & Health*. 2016 June; 3(2): 154-160.
11. **Durand CP**, Oluyomi AO, Pettee Gabriel K, Salvo D, Sener I, Hoelscher DM, Knell G, Tang X, Porter A, Robertson MC, Kohl III HW. The Effect of Light Rail Transit on Physical Activity: Design and Methods of the Travel Related Activity in Neighborhoods (TRAIN) Study. *Frontiers in Public Health*. 2016 June; 4(103).
12. **Durand CP**, Gabriel KP, Hoelscher DM, Kohl III HW. Transit Use by Children and Adolescents: An Overlooked Source of and Opportunity for Physical Activity? *Journal of Physical Activity and Health*. 2016 August; 13(8).
13. Raber M, Chandra J, Upadhyaya M, Schick V, Strong L, **Durand CP**, Sharma S. An Evidence- Based Conceptual Framework of Healthy Cooking. *Preventive Medicine Reports*. 2016 December; 4: 23-28.
14. **Durand CP**, Zhang K, Salvo D. Weather is not significantly correlated with destination-specific transport-related physical activity among adults: A large-scale temporally matched analysis. *Preventive Medicine*. 2017. August; 101: 133-136.
15. Butte NF, Hoelscher DM, Barlow SE, Pont S, **Durand C**, Vandewater EA, Liu Y, Adolph AL, Pérez A, Wilson TA, Gonzalez A, Puyau MR, Sharma SV, Byrd-Williams C, Oluyomi A, Kelder SH, Huang T, Finkelstein EA, Sacher P. Efficacy of a Community- vs. Primary Care-Centered Program for Childhood Obesity: TX CORD RCT. *Obesity*. 2017 September; 25(9): 1584-1593.
16. Knell G, **Durand CP**, Shuval K, Kohl III HW, Salvo D, Olyuomi AO, Gabriel KP. If you build it, will they come? A quasi-experimental evaluation of sidewalk improvements and changes in physical activity. *Translational Journal of the American College of Sports Medicine*. 2018 May; 3(9): 66-71.
17. Knell G, **Durand CP**, Shuval K, Salvo D, Kohl III HW, Sener IN, Gabriel KP. Transit Use and Physical Activity: Findings from the Houston Travel Related Activity in Neighborhoods (TRAIN) Study. *Preventive Medicine Reports*. 2018 March; 9: 55-61.
18. Robertson M C, Song J, Taylor W C, **Durand C P**, Basen-Engquist K M. Urban-Rural Differences in Aerobic Physical Activity, Muscle Strengthening Exercise, and Screen-time Sedentary Behavior. *J Rural Health* (In Press).
19. Roberts JD, Hu M, Saksvig BI, Brachman ML, **Durand CP**. Examining the Influence of a New Light Rail Line on the Health of a Demographically Diverse and Understudied Population within the Washington, D.C. Metropolitan Area: A Protocol for a Natural Experiment Study. *Int. J. Environ. Res. Public Health*. 2018; 15: 333.
20. Knell G, **Durand CP**, Kohl III HW, Wu I, Gabriel KP. Prevalence and odds of meeting sleep, physical activity, and screen time guidelines among US youth. *JAMA Pediatrics* (In Press.)

Book Chapters

1. Dunton GF, **Durand CP**, Riggs NR, Pentz MA. School-based obesity-prevention programs. In: Bagchi D, editor. *Global Perspectives on Childhood Obesity*. Waltham, MA: Academic Press; 2010. p. 319-331.

Reports and other non-peer reviewed publications

1. Fulton W, **Durand CP**. (2015, April 27). Bringing Healthy Living to Sunbelt Cities. *Urban Land*.

2. Kinder Institute for Urban Research. *Houston's Opportunity: Reconnecting Disengaged Youth and Young Adults to Strengthen Houston's Economy*. Houston, TX: Rice University; 2016

Professional Presentations, Posters and Conference Proceedings

1. **Durand CP**, Dunton GF, Wolch J, Pentz MA. Are parent perceptions of the neighborhood environment associated with children's physical activity? Poster session at: The 28th Annual Scientific Meeting of The Obesity Society; 2010 Oct 8-12; San Diego, CA.
2. Pentz MA, **Durand CP**, Alfonzo, M. Evaluating the impact of smart growth planning on physical activity: Effects of context. Symposium presented at: The 32nd Annual Meeting & Scientific Sessions of The Society of Behavioral Medicine; 2011 April 27-30; Washington, D.C.
3. Pentz MA, **Durand CP**, Huh J. Relationship of community policies to child obesity risk. Poster session at: The 29th Annual Scientific Meeting of The Obesity Society; 2011 Oct 1-5; Orlando, FL.
4. Liao Y, Dunton GF, Chou, CP, Ansari A, **Durand CP**, Spruijt-Metz D, Pentz, MA. Combinations of perceived built environmental factors differentiating physically active vs. non-active adults - a decision tree classification approach. Oral presentation at: The Active Living Research Conference; 2012 March 12-14; San Diego, CA.
5. Pentz MA, **Durand CP**, Jerrett M, Wolch J. Coalitions and urban planners as partners in obesity prevention: Healthy places. Symposium presented at: The 33rd Annual Meeting & Scientific Sessions of The Society of Behavioral Medicine; 2012 April 11-14; New Orleans, LA.
6. Pentz MA, **Durand CP**, Spruijt-Metz D, Dunton GF, Chou C-P. Any way you slice it: Interaction effects of residence in a smart growth community, time in residence, physical activity and obesity risk in adults. Oral presentation at: The American Public Health Association 140th Annual Meeting & Expo; 2012 Oct 27-31; San Francisco, CA.
7. Oluyomi AO, **Durand CP**, Hashemi MB, Vandewater E, Kelder SH, Butte N, Hoelscher DM. Relationship between school food environment and children's dietary behaviors: Building on the Texas CORD Project. Poster session to be presented at: International Society of Behavioral Nutrition and Physical Activity Annual Meeting; 2014 May 21-24; San Diego, CA.
8. Oluyomi AO, Byars AH, **Durand CP**, Byrd-Williams CE, Sharma SV, Hoelscher DM, Butte N, Kelder SH. A Geographical Information Science (GIS) approach to conducting area-level comparative analysis of study areas in a community-wide obesity prevention intervention study- The case of Texas CORD. Poster session presented at: International Society of Behavioral Nutrition and Physical Activity Annual Meeting; 2014 May 21-24; San Diego, CA.
9. **Durand CP**, Oluyomi AO, Gabriel KP, Sener I, Hoelscher DM, Knell G, Tang X, Kohl III, BK. The Effect of Light Rail Transit on Physical Activity: Design and Methods of the Travel Related Activity in Neighborhoods (TRAIN) Study. Presented at: Moving Active Transportation to Higher Ground: Opportunities for Accelerating the Assessment of Health Impacts; 2015 April 13-14; Washington, D.C.
10. Knell G, Gabriel KP, **Durand C**, Oluyomi A, Armstrong M, Kohl HW III. Obtaining accelerometer data through mail administration: The Houston Transport Related Activity in Neighborhoods (TRAIN) Study. Presented at: American College of Sports Medicine 62nd Annual Meeting. 2015 May 26-30; San Diego, CA.
11. Gabriel KP, Knell G, **Durand C**, Oluyomi A, Kohl HW III. Differences in accelerometer-determined sedentary time and physical activity by transportation-related characteristics. Presented at: American College of Sports Medicine 62nd Annual Meeting. 2015 May 26-30; San Diego, CA.
12. Tang X, Oluyomi A, **Durand CP**, Knell G, Gabriel KP, Sener I, Kohl HW. Land Use and Walkability around a Newly Built Light Rail Transit Line: The Houston TRAIN Study. Presented at: American College of Sports Medicine 62nd Annual Meeting. 2015 May 26-30; San Diego, CA.

13. Kohl HW, **Durand C**, Pettee Gabriel K, Knell G, Sener IN, Tang X, Hoelscher DM. Health in All Policies: Multi-sectoral policy approaches for encouraging physical activity session. Natural Experiments and Physical Activity at the Local Level: Houston TRAIN study. Round-table presentation. American Public Health Association Annual Meeting Physical Activity section. Chicago, IL, USA. November 1-4, 2015.
14. Salvo D, **Durand CP**, Oluyomi A, Hoelscher DM, Gabriel KP, Sener IN, Kohl HW. Geospatial characterization of green space availability and its association with neighborhood income and racial/ethnic composition in the Houston TRAIN Study target area. Presented at: Active Living Research Conference. 2016, January 31-February 3; Clearwater Beach, FL.
15. Tang, X, **Durand, C**, Salvo, Deborah., Pettee, Gabriel K, Robertson, CM, Knell, G, Porter, A, Sener, I, Hoelscher, D, Kohl III, HW. Application of Theory of Planned Behavior to public transit use in the Houston Transit-Related Activity in Neighborhoods study. Presented at the 63rd Annual Meeting of the American College of Sports Medicine. 2016 May 31-June 4; Boston, MA.
16. Knell G, Salvo D, Gabriel KP, **Durand C**, Oluyomi A, Robertson M, Hoelscher DM, Kohl HW III. Describing the methodology to estimate accelerometer return percentage from a study utilizing mail-based data collection. Oral thematic poster presentation at the 63rd Annual Meeting of the American College of Sports Medicine. Boston, MA, USA. June 1, 2016.
17. Salvo D, Gabriel KP, **Durand CP**, Oluyomi A, Hoelscher DM, Sener IN, Kohl III HW. Associations of Individual and Neighborhood Level Characteristics with Leisure-Time Physical Activity: The Houston TRAIN Study. Presented at the 63rd Annual Meeting of the American College of Sports Medicine. Boston, MA, USA. June 3, 2016.
18. Salvo D, **Durand CP**, Gabriel KP, Oluyomi A, Hoelscher DM, Porter AK, Kohl III HW. Individual and environmental correlates of domain-specific walking and bicycling among adults in a US city: The Houston TRAIN Study. Presented at the 6th Annual International Congress on Physical Activity and Public Health. Bangkok, Thailand. November 16th-19th, 2016.
19. Knell G, Gabriel KP, **Durand C**, Salvo D, Kohl HW III. Relationship between physical activity and public transit use. Presented at the 6th Annual International Congress on Physical Activity and Public Health. Bangkok, Thailand. November 16th-19th, 2016.
20. Salvo D, **Durand CP**, Evans AE, Perez A, Kohl HW III. Effect of Neighborhood-unit Definition on the Relationship between Physical Activity and the Built Environment. Presented at the 64th Annual Meeting of the American College of Sports Medicine. Denver, CO, USA. June 3, 2017.
21. Knell G, **Durand C**, Shuval K, Kohl HW, Salvo D, Olyuomi A, Gabriel KP. If you build it, will they come? A natural experiment of sidewalk improvements and physical activity. Presented at the Pathways 2 Prevention Workshop, Methods of Evaluating Natural Experiments in Obesity. National Institutes of Health. Bethesda, MD, USA. December 5th, 2017.
22. Knell G, **Durand C**, Shuval S, Kohl HW, Sener IN, Gabriel KP. Transit use and physical activity: Findings from the Houston Travel-Related Activity in Neighborhoods (TRAIN) Study. Oral presentation. Active Living Research Conference 2018. Banff, Alberta, Canada. February 11-14, 2018.
23. Dooley EE, Salvo D, Pettee Gabriel K, Johnson A, **Durand CP**, Knell G, Kreis S, Sener IN, Kohl HW III. Factors Related to Accelerometer-determined Patterns of Physical Activity in Adults: The Houston TRAIN Study. International Journal of Exercise Science: Conference Proceedings: Vol. 2 (10), Article 17.
24. Johnson A, Pettee Gabriel K, Salvo D, Dooley E, **Durand CP**, Knell G, Kreis S, Kohl, HW III. Accelerometer-Determined Physical Activity and Sedentary Behavior among Majority-Minority Sample of Adults: The Houston TRAIN Study. International Journal of Exercise Science: Conference Proceedings: Vol. 2 (10), Article 12.

25. Barlow SE, **Durand CP**, Salahuddin M, Pont SJ, Butte NF, Hoelscher DM. For Whom Does the Intervention Work? Correlates of Successful BMI Reduction in TX CORD Project. Presented at ObesityWeek 2018. Nashville, TN. November 11-15, 2018.

Teaching

Classes taught (all UTHealth School of Public Health):

- PH1130: Applied Measurement Theory (100% Summer, 2017, 2018)
PH1110: Social and Behavioral Aspects of Community Health (100% Spring 2015, 2016, 2017)
PH5401: Physical Activity and Public Health Practice (50% with HW Kohl III, Fall 2016, 2018)
PH1435: Doctoral Student Seminar (50% with PD Mullen, Spring 2017, 2018)
PH1421: Research Design and Analysis II (100%, Spring 2018)

Guest lectures (all UTHealth School of Public Health):

- Social and Behavioral Aspects of Physical Activity (Spring 2015, 2016, 2017, 2018)
Research Seminar in Health Promotion and Behavioral Sciences (Fall 2014, 2015, 2016, Spring 2017, Fall 2017, Spring 2018)
Epidemiology Doctoral Seminar (Spring 2013, 2014)
Integrated Public Health Nutrition (Spring 2014)

Student and post-doctoral mentoring (all Department of Health Promotion and Behavioral Sciences, UTHealth School of Public Health):

PhD Students

1. Xiaohui Tang (Dissertation Committee Member), 2015-2017
2. Greg Knell (Dissertation Committee Member), 2016-2017
3. Michael Robertson (Academic Advisor), 2016-Present
4. Natalia Heredia (Dissertation Committee Member), 2016-2018
5. Benjamin King (Dissertation Committee Member), 2017-Present

DrPH Students

1. J. Wesley McWhorter (Academic Advisor), 2016-Present
2. Cassandra (Casey) Enzler (Academic Advisor), 2017-Present
3. Katherine (Katie) Hearne (Academic Advisor), 2017-Present

Post-doctoral fellows

1. Greg Knell 2017-Present

Service

Peer reviewer for:

- Journal of Physical Activity and Health, 2011-2012, 2014-2016, 2018
BMC Public Health, 2011-2012, 2018
Preventive Medicine, 2011
Maturitas, 2011
Current Opinion in Environmental Sustainability, 2012
Social Science and Medicine, 2013
BMJ Open, 2013, 2016
Environment and Planning A, 2013

Environmental Health Perspectives, 2013
Applied Psychology: Health and Well-Being, 2014
Journal of Transport and Health, 2015, 2017
Journal of Modern Applied Statistical Methods, 2016
Frontiers in Public Health, 2016
American Journal of Preventive Medicine, 2016
Journal of Applied Statistics, 2016
Population Health Metrics, 2016
Cancer Epidemiology Biomarkers and Prevention, 2017

External service:

Vanguard NextCity Host Committee (with Kinder Institute for Urban Research), 2016
Co-Chair, National Institutes of Health Obesity Policy Research Network, 2016-present
National Institutes of Health, Center for Scientific Review, Early Career Reviewer Program, 2016-present
National Institutes of Health, Division of Loan Repayment, Loan Repayment Program Ambassador, 2017-present

Internal service (UTHealth School of Public Health):

Student Research Day Judge, 2015
Health Promotion and Behavioral Sciences Student Poster Competition Judge, 2016, 2017
Doctoral Preliminary Exam Grader, Health Promotion and Behavioral Sciences, 2016, 2017, 2018
Interdepartmental Concentration Conference/Meeting Travel Scholarship Reviewer, 2018
Health Promotion/Behavioral Science Departmental Curriculum Committee, 2017-present

Grant reviews:

Health Research Council of New Zealand (*ad hoc* reviewer), 2017, 2018
PARTNERS, Center for Nursing Research, University of Texas Health Science Center Houston School of Nursing (*ad hoc* reviewer), 2017