

## CURRICULUM VITAE JUSTIN MANJOURIDES, PHD

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### EDUCATION

2009-2011     **Post-doctoral Fellow**  
Department of Biostatistics, Harvard School of Public Health, Boston, MA  
2009     **PhD, Biostatistics**  
Harvard University, Cambridge, MA  
2006     **AM, Biostatistics**  
Harvard University, Cambridge, MA  
2004     **BA, Statistics (Summa Cum Laude)**  
**BA, Mathematics**  
University of Florida, Gainesville, FL

### FACULTY APPOINTMENT HISTORY

Sep 2011 -     **Assistant Professor, Department of Health Sciences**  
Bouvé College of Health Sciences, Northeastern University, Boston, MA

### ADMINISTRATION

Sep 2013 -     **Co-Director, Biostatistics Service Center**  
Bouvé College of Health Sciences, Northeastern University, Boston, MA

### RESEARCH STATEMENT

I am a biostatistician trained to develop and apply statistical methodologies across disciplines to generate hypotheses, analyze data, and answer major research questions. My primary research agenda is focused on the development and evaluation of novel methodologies to better analyze, quantify, and visualize public health data across disciplines that are prone to mismeasurement, and translating those methodologies to broad applications. My primary areas of application are air pollution epidemiology, occupational health and safety interventions, and the analysis of infectious disease treatment cohorts. However, my strengths in communicating statistical concepts have led to collaborations across diverse disciplines such as spatial epidemiology, nutrition, pharmacology, criminology, physical therapy, and personal health informatics.

### AWARDS AND HONORS

2015     **Kenerson Faculty Scholar**, Northeastern University  
2013     **Humanities Center Fellow**, Northeastern University  
2010     **Volunteer Service Award, Bronze**, President's Council on Service & Civic Participation  
2009     **Rose Traveling Fellowship**, Harvard School of Public Health  
2009-11     **NIH Training Grant, AIDS**  
2006-09     **NIH Training Grant, Infectious Disease Epidemiology and Biodefense**  
2009, 2006     **Distinction in Teaching**, Dept. of Biostatistics, Harvard School of Public Health  
2004-06     **NIH Training Grant**, Environmental Statistics

## SCHOLARSHIP AND RESEARCH

### Publications

#### *Refereed articles*

*\*Indicates graduate student author*

*+Indicates undergraduate student author*

#### **Submitted**

1. Coull BA, Lee S, McGee G, **Manjourides J**, Mittleman MA, Wellenius GA. Corrections for Measurement Error Due to Delayed Onset of Illness for Case-Crossover Designs. (*Currently under review, Biometrics*)
2. Brooks MB\*, Mitnick C, & **Manjourides J**. Adjusting for informative censoring in Cox proportional hazards models: application to a multidrug-resistant tuberculosis cohort. (*Currently under review, Statistics in Medicine*).
3. Grant MP\*, Okechukwu CA, Sparer EH, **Manjourides J**, Dennerlein JT. Weekly safety inspection scores of the physical working conditions predict weekly worker safety climate scores on six commercial construction sites. (*Currently under review, American Journal of Industrial Medicine*).
4. Savitz DA, Eliot MN, Ito K, Johnson S, **Manjourides J**, Danilak VA, Wellenius GA. Delivery Hospital as Potential Confounder in Studies of Air Pollution and Pregnancy Outcomes. (*Currently under review, Epidemiology*).

#### **Accepted**

1. **Manjourides J** & Dennerlein JT. (in press). Associations between leading and lagging indicators in a contractor safety pre-qualification database. *American Journal of Industrial Medicine*.
2. Poghosyan, H, Moen E, Kim D, **Manjourides J**, & Cooley ME. (in press). Social determinants of smoking status and quit attempt among adults living in 12 US States, 2015. *American Journal of Health Promotion*.
3. Eum KD, Kazemiparkouhi F\*, Wang B\*, **Manjourides J**, Pun V, Pavlu V, Suh HH. (2019) Long-Term NO<sub>2</sub> Exposures and Cause-specific Mortality in American Older Adults. *Environment International*. 124 (1), 10-15.
4. Brooks MB\*, Keshavjee S, Gelmanova I, Mitnick C, & **Manjourides J**. (2018). Use of predicted vital status to improve the analysis of multidrug-resistant tuberculosis cohorts. *BMC Research Methodology*, 18 (1), 166-175.
5. Pun V, **Manjourides J**, & Suh HH. (2018). Close proximity to roadway and urbanicity associated with mental health in older adults. *Science of the Total Environment*, 658, 854-860.
6. Peters SE, Grant MP, Rodgers J, **Manjourides J**, Okechukwu CA, Dennerlein JT. (2018). A Cluster randomized controlled trial of a Total Work Health<sup>®</sup> intervention on commercial construction sites. *International Journal of Environmental Research and Public Health*, 15(11), 2354-2364.
7. Shen JG, Brooks MB\*, Cincotta J<sup>+</sup>, and **Manjourides J**. (2018). Establishing a relationship between the effect of caffeine and duration of an athletic event: a systematic review and meta-analysis. *Journal of Science and Medicine in Sport*, 22(2), 232-238.
8. Wurth R\*, Kioumourtzoglou M, Tucker KL, Griffith J, **Manjourides J**, & Suh HH. (2018) Fine Particle Sources and Cognitive Function in An Older Puerto Rican Cohort in Greater Boston. *Environmental Epidemiology*, 2(3), e022.

9. Pun V, **Manjourides J**, & Suh HH. (2018) Association of neighborhood greenness with self-perceived stress, depression and anxiety symptoms and in older adults. *Environmental Health*, 17(1), 39-50.
10. Eum KD, Suh HH, Pun V, & **Manjourides J**. (2018). Adjusting for long-term trends in incidence rates of all-cause mortality associated with annual PM<sub>2.5</sub> exposure: An analysis of 20 million Medicare beneficiaries. *Environmental Epidemiology*, 2(2), e009.
11. **Manjourides J**, Sparer EH\*, Okechukwu CA, & Dennerlein JT. (2018). The effect of workforce mobility on intervention effectiveness estimates. *Annals of Work Exposures and Health*, 62(3), 269-280. **\*\*EDITORS'S CHOICE\*\***
12. Honda T\*, Pun V, **Manjourides J**, & Suh HH. (2018). Associations of long-term fine particulate matter exposure with prevalent hypertension and increased blood pressure in older Americans. *Environmental Research*, 164 (1), 1-8.
13. Honda T\*, Pun V, **Manjourides J**, & Suh HH. (2017). Associations between long-term exposure to ambient air pollution glycosylated hemoglobin, and diabetes. *International Journal of Hygiene and Environmental Health*, 220 (7), 1124-1132.
14. Pun V, Kazemiparkouhi F\*, **Manjourides J**, & Suh HH. (2017). Long-term PM<sub>2.5</sub> exposures and cardiovascular, respiratory, and cancer mortality among Medicare enrollees. *American Journal of Epidemiology*, 186 (8), 961-969.
15. Tallon L\*, **Manjourides J**, Pun V, Salhi C, & Suh HH. (2017). Cognitive impacts of ambient air pollution in the National Social Health and Aging Project (NSHAP) cohort. *Environment International*, 104, 102-109.
16. Tallon L\*, **Manjourides J**, Pun V, Mittleman M, Kioumourtzoglou M, Coull B, & Suh HH. (2017). Erectile dysfunction and exposure to ambient air pollution in a nationally representative cohort of older men. *Environmental Health*, 16(1), 12-20.
17. Ponnada A\*, Haynes C\*, Maniar D, **Manjourides J**, Intille S. (2017). Microinteraction Ecological Momentary Assessment Response Rates: Effect of Microinteractions or the Smartwatch? *Proceedings of the 2017 ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, 1(3), 92-108.
18. Honda T\*, Pun V, **Manjourides J**, & Suh HH. (2017). Anemia prevalence and hemoglobin levels are associated with long-term exposure to air pollution in an older population. *Environment International*, 101, 125-132.
19. Pun V, **Manjourides J**, & Suh HH. (2017). Association of ambient air pollution with depression, anxiety and perceived stress in older adults: results from the NSHAP study. *Environmental Health Perspectives*, 125(3), 342-348.
20. Tierney D, Milstein (Brooks) M\*, **Manjourides J**, Furin JJ, & Mitnick C. (2016). Outcomes for adolescents undergoing multidrug-resistant tuberculosis treatment in Lima, Peru. *Global Pediatric Health*, 3(1), 1-5.
21. Intille S, Haynes C\*, Maniar D, Ponnada A\*, & **Manjourides J**. (2016).  $\mu$ EMA: Microinteraction-based ecological momentary assessment (EMA) using a smartwatch. CHI: Conference for Computer Human Interaction. In *Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing*, 1124-1128.
22. Zhang Z, **Manjourides J**, Cohen T, Hu Y, & Jiang, Q. (2016). Spatial measurement errors in the field of spatial epidemiology. *International Journal of Health Geographics*, 15(1), 21-33.
23. Zelner J, Murray M, Becerra M, Galea J, Lecca L, Calderon R, Yataco R, Contreras C, Zhang Z, **Manjourides J**, Grenfell B, & Cohen T. (2015). Identifying hotspots of multidrug-resistant tuberculosis transmission using spatial and molecular genetic data. *Journal of Infectious Diseases*, 213(2), 287-294.

24. Sparer EH\*, Okechukwu CA, **Manjourides J**, Herrick R, Katz J, & Dennerlein JT. (2015). Length of time spent working on a commercial construction site and the associations with worker characteristics. *American Journal of Industrial Medicine*, 58(9), 964-973.
25. Yen S-C, Corkery M, Chui KK, **Manjourides J**, Yang Y-C, & Resnik LJ. (2015). Risk adjustment for lumbar dysfunction: a comparison of linear mixed models with and without inclusion of between-clinic variation as a random effect. *Physical Therapy*, 95(12), 1692-1702.
26. Edwards R, Bickmore T, Jenkins L, Foley M, & **Manjourides J**. (2013). Use of an interactive computer agent to support breastfeeding. *Maternal and Child Health Journal*, 17(10), 1961-1968.
27. Torbic H, Papadopoulos S, **Manjourides J**, & Devlin J. (2013). Impact of a protocol advocating dexmedetomidine over propofol sedation after robotic-assisted, direct coronary artery bypass surgery on duration of mechanical ventilation and patient safety. *Annals of Pharmacotherapy*, 47(4), 441-446.
28. Cohen T, **Manjourides J**, & Hedt-Gauthier B. (2012). Linking surveillance with action against drug-resistant tuberculosis. *American Journal of Respiratory and Critical Care Medicine*, 186(5), 399-401.
29. **Manjourides J**, Lin H, Shin S, Jeffery C, Contera C, Cruz J, Oswaldo J, Asencios L, & Cohen T. (2012). Identifying multidrug resistant tuberculosis transmission hotspots in a South American setting using routinely collected data. *Tuberculosis*, 92(3), 273-279.
30. **Manjourides J** & Pagano M. (2011). Improving chronic disease surveillance by incorporating residential history. *Statistics in Medicine*, 30(18), 2222-2233.
31. Park P, **Manjourides J**, Bonetti M, & Pagano M. (2009). A permutation test for determining significance of clusters with applications to spatial and gene expression data. *Journal of Computational Statistics and Data Analysis*, 53(12), 4290-4300.
32. Edillo F, Kiszewski A, **Manjourides J**, Pagano M, Hutchinson M, Kyle A, Arias J, Gaines D, Lampman R, Novak R, & Foppa I. (2009). The effects of latitude and longitude on the population structure of the *Culex pipiens* complex mosquito vectors of West Nile virus in eastern North America. *American Journal of Tropical Health & Hygiene*, 81(5), 842-848.
33. Ozonoff A, Jeffery C, **Manjourides J**, White L, & Pagano M. (2007). Effect of spatial resolution on cluster detection: a simulation study. *International Journal of Health Geographics*, 6(1), 52.

#### *Non-refereed articles*

1. Cohen T, Lin H, Shin S, Jeffery C, Contera C, Cruz J, Oswaldo J, Asencios L, & **Manjourides J**. (2012). Re: Supporting health systems for tuberculosis through research. *Tuberculosis*, 92(4), 290.

#### *Abstracts*

1. Sparer E, Okechukwu C, **Manjourides J**, Herrick R, Katz J, & Dennerlein JT. (2014). Patterns of site-employment of construction workers on and off commercial construction sites in New England and the relationship to musculoskeletal pain. *Occupational and Environmental Medicine*, 71(1), A5.
2. Noel S, **Manjourides J**, Scott T, Spiro III A, & Tucker KL. (2013). Coffee intake and cognitive functioning in men. *The FASEB Journal*, 27(1), 840.
3. Hickson D, Gao Y, Talegawkar S, Liu J, **Manjourides J**, Roux A, & Tucker KL. (2013). Lifecourse socioeconomic position and dietary intakes and patterns in the Jackson Heart Study. *The FASEB Journal*, 27(1), 120.
4. Jeffery C, **Manjourides J**, Ozonoff A, & Pagano M. (2010). Incorporating data on residential history for disease mapping. *ASA Proceedings of the Joint Statistical Meetings*, Section on Statistics in Epidemiology [CD-ROM].
5. **Manjourides J**, Jeffery C, Ozonoff A, & Pagano M. (2007). The use of distances in surveillance. *ASA Proceedings of the Joint Statistical Meetings*, Section on Statistical Computing [CD-ROM].

#### **Presentations**

##### *Invited*

1. "Environmental epidemiology in the era of big data." PROTECT Webinar series. 2017.

2. "Reducing bias in cohort studies with applications to air pollution epidemiology and infectious diseases." Friedman Seminar Series, Tufts University. 2017.
3. "Recognizing and adjusting for spatial uncertainties in health data: two case studies." Geographic Information Systems Special Interest Group (GISSIG), National Cancer Institute. Washington DC. 2015.
4. "Simulating the effects of interventions on a mobile work force." Seminar in Occupational and Environmental Health Research. Harvard School of Public Health. Boston, MA. 2014.
5. "'Viral Culture', Effective collaborations across the disciplines." (Panelist), Northeastern University Humanities Center. Boston, MA. 2014.
6. "Identifying multidrug resistant tuberculosis transmission hotspots using routinely collected data." International Society for Disease Surveillance. San Diego, CA. 2013.
7. "Improving disease surveillance by incorporating residential histories." Department of Biostatistics, University of Oslo. Norway. 2010.
8. "Improving disease surveillance by incorporating residential histories." American Public Health Association (APHA). Philadelphia, PA. 2010.

#### *Contributed*

1. **Manjourides J** & Dennerlein JT. Testing the associations between leading and lagging indicators in a contractor safety pre-qualification database. *National Occupational Injury Research Symposium (NOIRS)*. Morgantown, WV. October 2018.
2. Zimmerman E, Watkins D, **Manjourides J**, Hines M, Huerta-Montanez G, Rosario Z, Feric Z, Velez-Vega C, Cordero JF, Meeker J, Alshawabkeh A. Examining the association between non-nutritive suck and phthalate exposure *in utero*. *Pediatric Academic Societies Meeting*. Baltimore, MD. April 2019.
3. Honda T, **Manjourides J**, & Suh HH. Daily ambient temperature is associated with biomarkers of kidney injury in older Americans. *2018 Annual Conference of the International Society of Environmental Epidemiology*. Ottawa, CA. July 2018.
4. Eum KD, Wang B\*, **Manjourides J**, Kazemiparkouhi F\*, Pun VC, Pavlu V, & Suh HH. Long-term NO<sub>2</sub> exposures and cause-specific mortality in American older adults. *2018 Annual Conference of the International Society of Environmental Epidemiology*. Ottawa, CA. July 2018.
5. **Manjourides J**, Sparer EH, Okechuckwu CA, & Dennerlein JT. Evaluating programs on dynamic construction sites: The effect of workforce mobility on intervention effectiveness estimates. (**Plenary Session**) *Total Worker Health 2<sup>nd</sup> International Symposium*. Washington DC. May 2018.
6. Milstein M\*, Gelmanova I, Keshavjee S, **Manjourides J**. A prediction model of mortality after initial treatment outcome in multidrug-resistant tuberculosis patients. *2017 UNION World Conference on Lung Health*. Guadalajara, Mexico. October 2017. (Accepted)
7. Milstein M\*, Mitnick C, **Manjourides J**. Protective effect of MDR-TB treatment on death underestimated by informative censoring. *2016 UNION World Conference on Lung Health*. Liverpool, United Kingdom. October 2016.
8. Tallon L\*, **Manjourides J**, & Suh HH. Air pollution and erectile dysfunction in older men. *2016 Conference of the American Journal of Public Health Association*. Denver, CO. October 2016.
9. Eum KD, Suh HH, Pun V, & **Manjourides J**. Adjusting for long-term temporal trends in incidence rates of all-cause mortality associated with 1-year average PM<sub>2.5</sub> concentrations: an analysis of over 20 million Medicare beneficiaries between 2000-2012. *2016 Annual Conference of the International Society of Environmental Epidemiology*. Rome, Italy. September 2016.
10. Tallon L\*, **Manjourides J**, Pun V, & Suh HH. Cognitive impacts of ambient air pollution in the National Social Health and Aging Project (NSHAP) cohort. *2016 Annual Conference of the International Society of Environmental Epidemiology*. Rome, Italy. September 2016.
11. Pun V, **Manjourides J**, & Suh HH. Exposure to traffic pollution and increased risk of depressive and anxiety symptoms in older adults. *2016 Annual Conference of the International Society of Environmental Epidemiology*. Rome, Italy. September 2016.

12. Honda T\*, Pun V, **Manjourides J**, & Suh HH. Associations between long-term exposure to air pollution, glycosylated hemoglobin and diabetes. *2016 Annual Conference of the International Society of Environmental Epidemiology*. Rome, Italy. September 2016.
13. Pun V, Kazemiparkouhi F\*, **Manjourides J**, & Suh HH. Long-term PM<sub>2.5</sub> exposures and cardiovascular, respiratory, and cancer mortality among Medicare enrollees. *Annual Conference of the International Society of Environmental Epidemiology*. Rome, Italy. September 2016.
14. Kazemiparkouhi F\*, Pun V, Eum KD, **Manjourides J**, & Suh HH. Incidence rates of cause-specific mortality associated with yearly ozone concentrations: an analysis of over 15 million Medicare beneficiaries between 2000-2008. *2016 Annual Conference of the International Society of Environmental Epidemiology*. Rome, Italy. September 2016.
15. **Manjourides J**. Developing advanced statistics for beep baseball, and adaptive form of baseball for blind and visually impaired athletes. *SaberSeminar*. Boston MA. 2015.
16. **Manjourides J**, Sparer E\*, & Dennerlein JT. Designing health interventions for construction workers: implications of length-biased sampling. *Work Stress and Health*. Atlanta, GA. 2015.
17. Tallon L\*, Pun V, **Manjourides J**, & Suh HH. Air pollution and erectile dysfunction in older men. *2015 Annual Conference of the International Society of Environmental Epidemiology*. Sao Paulo, Brazil. August 2015.
18. Pun V, **Manjourides J**, & Suh HH. Air pollution and adverse psychological health in older adults: results from the NSHAP study. *2015 Annual Conference of the International Society of Environmental Epidemiology*. Sao Paulo, Brazil. August 2015.
19. Milstein M\*, Tierney D, **Manjourides J**, Furin J, & Mitnick C. Outcomes for adolescents undergoing multidrug-resistant tuberculosis treatment in Lima, Peru. *2015 UNION World Conference on Lung Health*. Cape Town, South Africa. December 2015.
20. **Manjourides J**, Sparer E\*, & Dennerlein JT. Simulating the effects of interventions on a mobile work force. *1st International Symposium to Advance Total Worker Health, National Institute for Occupational Safety and Health*. Bethesda, MD. 2014.
21. Sparer E\*, **Manjourides J**, & Dennerlein JT. Patterns of site-employment of construction workers on and off commercial construction sites in new England and the relationship to musculoskeletal pain. *24th International Epidemiology in Occupational Health (EPICOH)*. Chicago, IL. 2014.
22. Tallon L\*, **Manjourides J**, Pun V, & Suh HH. Cognitive impacts of air pollution. *International Society for Environmental Epidemiology*. Seattle, WA. 2014
23. **Manjourides J**, Jeffery C, & Pagano M. Disease mapping with spatially uncertain data. *2012 International Society for Disease Surveillance Conference*. San Diego, CA. 2012
24. **Manjourides J** & Pagano M. Improving disease surveillance by incorporating residential histories. *The CDC Statistical Advisory Symposium on Statistical Methods. InfoFusion*. Decatur, GA. 2009
25. **Manjourides J** & Pagano M. Improving disease surveillance by incorporating residential histories. *Spring Meeting of the Eastern North American Region (ENAR) of the International Biometric Society*. San Antonio, TX. 2009.

## **Posters**

1. Vanni J<sup>+</sup>, **Manjourides J**, Kessler R, Curry A, Master C, Arbogast K. Effect of comorbidities on the clinical course of youth concussion. Northeastern University RISE: 2018.
2. Brooks MB & **Manjourides J**. Estimating bias due to informative censoring in multidrug-resistant tuberculosis cohort analyses: a simulation study. *Society for Epidemiologic Research Annual Meeting*. Baltimore, MD. 2018.
3. Savitz DA, Eliot M, Danilack VA, **Manjourides J**, & Wellenius GA. Is Delivery Hospital an Unrecognized Confounder in Studies of Air Pollution and Pregnancy Outcome? *Society for Epidemiologic Research Annual Meeting*. Seattle, WA. 2017.
4. **Manjourides J**, Hickson D, Talegawkar S, Liu J, & Tucker KL. The effects of neighborhood and individual level covariates on individual dietary patterns: The Jackson Heart Study. *Experimental Biology*. Boston, MA. 2013.

5. Noel S, **Manjourides J**, Scott TM, Spiro A, & Tucker KL. Coffee intake and cognitive function in Men. *Experimental Biology*. Boston, MA. 2013.
6. **Manjourides J** & Pagano M. Application of the M-Statistic to two-sample spatial data. *The Freeman Symposium at the Harvard School of Public Health*. Boston, MA. 2007.

### **Research Grant Applications**

#### *External (Active)*

1. **UG3 Environmental Influences on Child Health Outcomes in Puerto Rico (ECHO-PRO)**. Source: NIH/ NIEHS. Amount: \$2,287,799. Period: 09/01/16-08/31/2023. Role: Co-Investigator (PI: Alshawabkeh).
2. **U19 Integrated Worksite Approaches for Worker Wellbeing**. Source: CDC. NU Total Amount: \$839,107. Period: 09/01/16-08/31/2021. Role: Project 2: Co-Principal Investigator (PI: Sorenson).
3. **R21 Examining the Interplay of Sucking, Feeding, and Vocal Development in the First Year of Life**. Source: NIH. Amount: \$300,000. Period: 09/01/2017-08/31/2020. Role: Co-Investigator (PI: Zimmerman).
4. **P50 Center for Research on Early Childhood Exposure and Development in Puerto Rico (CRECE)**. Source: NIEHS/ EPA. Total Amount: \$4,999,537. Period: 9/1/2015-8/31/2019. Role: Project 1: Subcontract PI, Project 2: Co-Investigator (PI: Alshawabkeh).
5. **U60 Development and Evaluation of Contractor Safety Pre-Qualification Tool**. Source: NIOSH/CPWR. Amount: \$986,000. Period: 09/1/2014-08/31/2019. Role: Co-Investigator (PI: Dennerlein).

#### *External (Pending)*

1. **[Pending] P54 Puerto Rico Testsite for Exploring Contamination Threats (PROTECT)**. Source: NIH/NIEHS. Annual Direct: \$2,324,300. Total Direct: \$11,621,501. Period 12/01/2019-11/30/2024. Role: Core Co-Lead (PI: Alshawabkeh).
2. **[Pending] R01 Dynamics of smoking behavior within the social networks of adults with tobacco-related cancers**. Source: NIH. Annual Direct: \$540,820 Total Direct: \$2,826,082. Period: 09/01/17-08/31/22. Role: Co-Investigator (PI: Poghosyan).
3. **[Pending] R21 Point-and-Click Accelerometer Data Visualization and Interpretation: Enabling Researchers to Use Validated State-of-the-Art Machine Learning Approaches on Sensor Data at Any Scale**. Source: NIH. Annual Direct: \$465,782 Total Direct: \$1,936,041. Period: 04/01/17-03/31/21. Role: Co-Investigator (PI: Intille).
4. **[Pending] R21 Examining Sucking, Feeding, and Cardiorespiratory Patterning in Zika-Exposed Infants in Puerto Rico**. Source: NIH. Annual Direct: \$170,680 Total Direct: \$321,294. Period: 04/01/2018-08/31/2020. Role: Co-Investigator (PI: Zimmerman).
5. **[Pending] R01 Air Pollution and Other Antecedents of Cognitive Disorders in Early Childhood: An Analysis of a Complete Massachusetts Birth Cohort**. Source: NIH. NU Annual Direct: \$115,314. NU Total Direct \$480,886. Period: 07/01/19-06/30/24. Role: Sub Co-Investigator (PI: Suh).
6. **[Pending] R01 Air Pollution Mortality Risk: A Hybrid Epidemiology – Data Mining – Visualization Approach to Explore Spatiotemporal Heterogeneity Across All ZIP Code Areas of the Coterminous US**. Source: NIH. NU Annual Direct: \$111,373. NU Total Direct: \$664,839. Period: 09/01/19-08/31/24. Role: Sub-PI (PI: Suh).

#### *External (Completed)*

1. **Development of a Medicare Cohort Dataset for Use in Air Pollution Epidemiological Research**. Source: Electric Power Research Institute. Amount: \$623,868. Period: 08/15/2014-03/31/2016. Role: Co-Investigator (PI: Suh).
2. **R01 Impact of Air Pollution, Weather, and Lifestyle on Health in Older Americans**. Source: NIH/NIEHS. Amount: \$1,290,167. Period: 10/1/2013-09/30/2017. Role: Co-Investigator (PI: Suh).
3. **Examination of Dose-Response Curves for Low Chronic Ambient Fine Particulate Concentrations and Mortality using the Medicare Cohort Dataset**. Source: Electric Power

Research Institute. Amount: \$150,735. Period: 04/01/2015-12/31/2016. Role: Co-Investigator (PI: Suh).

4. **Randomized Control Trial of a Whole-Body Vibration Intervention on Truck Drivers.** Source: NIOSH. Amount: \$2,199,302. Period: 09/1/2013-08/31/2018. Role: Co-Investigator (PI: Dennerlein).
5. **Using Novel Big Data Approaches to Improve Public Health.** Source: Electric Power Research Institute. Amount \$50,000. Period: 07/1/2015-09/30/2016. Role: Co-Investigator (PI: Suh).
6. **U19 Project B: Integrated Approaches to Health and Safety in a Dynamic Construction Work Environment.** Source: CDC. Amount: 1,348,275. Period: 9/1/2011-8/31/2016. Role: Co-Investigator (PI: Sorensen).
7. **R21 Multilevel Determinants of Cardiovascular Disease Risk in African Americans.** Source: NIH/NINR. Amount: \$326,014. Period: 4/1/12-3/31/17. Role: Co-Investigator (PI: Tucker).
8. **Expanding Use of a Computer Agent to Support Breastfeeding.** Source: Hood Foundation. Amount: \$136,364. Period: 8/1/2012-7/31/2014. Role: Statistician (PI: Edwards).
9. **Randomized Controlled Trial of a Whole-Body Vibration Intervention in Truck Drivers.** Source: State of Washington, Department of Labor and Industries. Amount: \$31,905. Period: 12/01/2012-10/31/2013. Role: Co-Investigator (PI: Johnson).

*Internal (Completed)*

1. **Development and Modification of an Image-based Implicit Food Attitude Measure** Source: Northeastern University College of Arts, Media, and Design Faculty Research and Creative Incentive Grants (FRCAIG). Role: Co-Investigator (PI: Lu). Amount \$10,000. Period: 05/01/2016-04/30/2017.
2. **Simulation of Construction Workers to Estimate and Mitigate the Effects** Source: HSPH/NIH. Amount: \$22,067. Period: 01/01/2014-12/31/2014. Role: Co-Principal Investigator.
3. **A Spatial and Temporal Analysis of Drug Overdose and Homicide Mortality in Miami Communities.** Source: Northeastern University Program on Health Policy and Law. Amount: \$6,500. Period: 09/01/2012-08/31/2013. Role: Co-Principal Investigator.

## **TEACHING**

### **Northeastern University**

1. **Instructor, Course Developer.** Biostatistics in Public Health (PHTH 5210). Graduate. Taught Spring 2012 (24 students), Fall 2012 (10 students), Fall 2013 (49 students).
2. **Instructor.** College: An Introduction (HSCI 1000). Undergraduate. Taught Fall 2012 (18 students).
3. **Instructor, Course Developer.** Applied Regression Analysis (PHTH 6210). Graduate. Taught Spring 2013 (6 students), Spring 2014 (16 students), Spring 2015 (13 students), Spring 2017 (14 students).
4. **Instructor, Course Developer.** Foundations of Biostatistics (PHTH 2210). Undergraduate. Taught Fall 2014 (10 students), Fall 2015 (16 students), Fall 2017 (43 students).
5. **Instructor, Course Developer.** Online Biostatistics in Public Health (PHTH 5210). Graduate. Taught Spring 2015 (17 students), Spring 2016 (15 students), Spring 2017 (22 students), Spring 2018 (22 students).
6. **Instructor, Course Developer.** Survival Analysis (PHTH 9999). Graduate. Taught Spring 2016 (9 students).
7. **Guest Lecturer.** Community and Public Health (PHTH 2350). Undergraduate. One lecture in each of Fall 2012, Spring 2013, Fall 2014, Spring 2016, Fall 2016.
8. **Guest Lecturer.** Foundations of Biostatistics (PHTH 2210). Undergraduate. Two lectures in Spring 2016.

### **External Guest Lectures**

1. Intro. to Disease Surveillance, Harvard School of Public Health, Spring 2013



## **ADVISING AND MENTORING**

### **Doctoral Students**

#### *Primary Mentor*

1. Thomas Carpenito, Ph.D. candidate, Population Health.
2. Sara Burns, Ph.D. candidate, Population Health.
3. Meredith Milstein, Ph.D., Population Health, 2017 Department of Health Sciences. December 2017. (Current position: Postdoctoral Fellow, Department of Global Health, Harvard Medical School).

#### *Committee Member*

1. Fatemeh Kazemiparkouhi, Ph.D. candidate, Population Health.
2. Lindsay Tallon, Ph.D., Population Health, 2017. Environmental Factors in Health: Assessing Air Pollution and Neighborhood Impacts on Vascular and Cognitive Health.
3. Trent Honda, Ph.D., Population Health, 2016. Long-term Air Pollution Exposure and Cardiovascular Risk Factors in Older Americans.
4. Michael Grant, Sc.D. Environmental and Occupational Medicine and Epidemiology, Harvard School of Public Health, 2016. The Role of Safety Inspections Within Health and Safety Interventions in Dynamic Workplaces.
5. Ce Gao, Ph.D. Bioinformatics, 2015. Unsupervised Data Mining Applications on High Dimensional Gene Expression Time Series in Toxicogenomics.

### **MPH Student Advising**

#### *Primary Capstone Mentor*

1. Michelle Reid, MPH (2017). Associations between dietary intake, sleep continuity, and symptom severity: The Multi-Ethnic Study of Atherosclerosis.
2. Olubunmi Oladunjoye, MPH (2017). Evaluation of an Anticoagulation Guideline in a Tertiary Pediatric Hospital.
3. Ahmad Al-Moujaded, MPH (2017). Patterns of glaucomatous visual field loss associated with diabetes status & other clinical correlates using computationally derived visual field archetypes.
4. Geeta Kamarthi, MPH (2016). Systematic Review of Non-alcoholic Fatty Liver Disease and Non-alcoholic Steatohepatitis in Adults in the United States.
5. Thomas Wickham, MPH (2016). Evaluation of a Youth Engagement Program on Stroke.
6. Christina Haughton, MPH (2014). Nutritional Status and Weight Changes Among Pediatric Stem Cell Transplant Patients.
7. Jillian Newsam, MPH (2014). Optimizing Prevention and Screening Services for the Massachusetts Department of Public Health Office of HIV/AIDS
8. Meredith Milstein, MPH (2013). Implications of a Systematic Review on Pediatrics with Tuberculosis Meningitis for Clinical Treatment Guidelines.

#### *Capstone Committee Member*

1. Cassandra O'Connell, MPH Candidate
2. Patrick Henrick, MPH Candidate. Cross-Sectional Analysis of Environmental Factors Influencing the Diagnosis of Waldenström's Macroglobulinemia.
3. Courtney Mitterling, MPH (2017). Factors Associated with Student Dropout at Year Up Greater Boston: A Psychosocial Focus on Trauma, Mental Health, Family Cohesion, and Race.
4. Heba Abolaban, MPH (2016). Implementation and Analysis of Randomized Control Trial Supporting Breastfeeding Mothers by Using a Virtual Computer Agent.
5. Caitlyn Haynes, MPH (2015). Measuring the Compliance and Sustainability of Micro Ecological Momentary Assessments (μEMA) on Smart Watches.
6. Victoria Nielson, MPH (2014). A Statistical Analysis of the Association between Parenting Stress and Receipt of Public Assistance.
7. Amna Umer, MPH (2012). Public Health and Infant Feeding Tutorial: A Pilot Study

## **Undergraduate Student Advising**

### *Primary Capstone Advisor:*

1. Julia Vanni, BA (2018) Department of Health Sciences
2. Jessica Cincotta, BA (2017) Department of Health Sciences
3. Aaron Yagoda, BA (2016) Department of Health Sciences

## **SERVICE**

### **Department of Health Sciences**

Quantitative Methods Faculty Search Committee (Co-Chair) 2017  
Population Health PhD Written Exam Committee 2014, 2015, 2016, 2017  
Population Health PhD Committee 2013, 2014, 2015, 2016, 2017, 2018  
MPH Community Outreach Committee 2012, 2013, 2014, 2015, 2016, 2017  
Health Education Faculty Search Committee 2015  
Epidemiology Faculty Search Committee 2013  
Workload and Merit Review Committee 2012, (Chair) 2013  
Social Determinants of Health Faculty Search Committee 2012

### **Bouvé College of Health Sciences**

Biostatistics Service Center (Associate Director) 2015, 2016, 2017, 2018

### **Northeastern University**

Research Computing Advisory Committee (Bouvé representative) 2017, 2018

### **Editorial Boards**

Associate Editor, *BMC Public Health*

### **Data Safety and Monitoring Boards**

Member (Statistics expert), Using mHealth technology to identify and refer surgical site infections in Rwanda. (IR21EB022369, PIs: Hedt-Gauthier, Riviello)

### **Journal Review**

Journal of Infection and Public Health, Global Pediatric Health, Scientific Reports (A Nature Journal), PLOS Neglected Tropical Diseases, Journal of General Internal Medicine, Tuberculosis, Stochastic Environmental Research and Risk Assessment, Biometrics, PLoS ONE, Statistics in Medicine, The International Journal of Biostatistics, Journal of Applied Statistics

### **Professional Associations**

American Statistical Association  
International Society of Environmental Epidemiology  
Society of Epidemiologic Research  
International Society of Disease Surveillance

### **Professional Development**

Short course: An Introduction to Causal Inference, Harvard School of Public Health, June 2017  
Workshop: A Fully Customizable Textbook for Introductory Statistics/Data Science Courses, US Conference on Teaching Statistics, May 2017