## Michael Kenneth Lemke

Department of Occupational and Environmental Health Sciences
Southwest Center for Occupational & Environmental Health
School of Public Health
University of Texas Health Science Center at Houston
San Antonio Campus
7411 John Smith Dr., Suite 1119
San Antonio, TX 78229
Phone: (210) 276-9025

Email: Michael.K.Lemke@uth.tmc.edu

## **EDUCATION**

2013	<b>Ph.D., Community Psychology</b> Wichita State University, Wichita, Kansas
2012	M.A., Community Psychology Wichita State University, Wichita, Kansas
2009	<b>B.A., Psychology</b> (Community Psychology Concentration) Georgia State University, Atlanta, Georgia

## **CURRENT ACADEMIC POSITIONS**

07/2024- Assistant Professor

Present Department of Occ

Department of Occupational and Environmental Health Sciences Southwest Center for Occupational & Environmental Health School of Public Health

University of Texas Health Science Center at Houston, Houston, TX

- Instructor of Record and responsible for all aspects of course administration and management for public health courses
- Conduct health disparities research, with an emphasis on complex systems science methodologies and population health and safety
- Engage in departmental service, including membership on committees

## PRIOR ACADEMIC EXPERIENCE

#### 09/2018-**Assistant Professor**

06/2024 Department of Social Sciences

University of Houston-Downtown, Houston, TX

- Was instructor of Record and responsible for all aspects of course administration and management for Health and Behavior Science courses
- Conducted health disparities research, with an emphasis on complex systems science methodologies and occupational health and safety
- Engaged in departmental service, including membership on committees

#### 09/2017-**Assistant Professor**

Department of Kinesiology and Health Science 08/2018

Stephen F. Austin State University, Nacogdoches, Texas

- Instructor of Record and responsible for all aspects of course administration and management for undergraduate-level Health Science courses
- Conduct health disparities research, with an emphasis on complex systems science methodologies and occupational health and safety
- Engage in departmental service, including membership on committees

#### 01/2015-Post-Doctoral Fellowship/Clinical Assistant Professor

08/2017 (Full-Time);

09/2017-

05/2018

(Part-Time)

Division of Health Education, Department of Health & Kinesiology Texas A&M University, College Station, Texas

- Instructor of Record and responsible for all aspects of course administration and management for graduate-level and undergraduate-level Health **Education courses**
- Conducted health disparities research, with an emphasis on chronic disease prevention among commercial drivers, Hispanic immigrant workers, and rural minorities
- Engaged in departmental service, including membership on committees

#### 01/2015-Associate Director (without compensation), Complexity and Computational Population Health Group 05/2020

Texas A&M University, College Station, Texas

- Applied complex systems science methodologies to address chronic disease among working populations and rural minority communities
- Applied complex systems science methodologies to address alcohol-related harm among college students
- Developed and enhanced complex systems science pedagogy within health education, public health, population health, and medical education curricula

#### 2014 Visiting Lecturer, Georgia State University, Atlanta, Georgia

Instructor of Record and responsible for all aspects of course administration and management for undergraduate-level Psychology courses

- 2010-13 Graduate Teaching Assistant, Wichita State University, Wichita, Kansas
  - Instructor of Record and responsible for all aspects of course administration and management for undergraduate-level Psychology courses
- 2010-13 **Graduate Research Assistant**, Community Psychology Research and Practice Collaborative (Director: Dr. Greg Meissen), Department of Psychology, Wichita State University, Wichita, Kansas
  - Assisted with data collection of an elementary school dietary intervention
  - Conducted needs assessment for a major faith-based organization
  - Conducted qualitative research on experiences of mental health consumers
- 2009 **Research Assistant**, Department of Psychology (Supervisor: Dr. Scott Weaver), Georgia State University, Atlanta, Georgia
  - As part of a study on Korean families, assisted in research design, literature review, survey creation, and training material generation
- 2009 **Research Assistant**, Department of Geography (Supervisor: Dr. Katherine Hankins), Georgia State University, Atlanta, Georgia
  - As part of a study examining impact of large funding entities on urban geography, compiled archival data and created EndNote research database

## TEACHING/MENTORING EXPERIENCE

### **Courses Taught**

### University of Houston-Downtown, Department of Social Sciences

#### **Undergraduate-Level**

- Medical Terminology
- Environmental Health
- Biostatistics
- Principles of Epidemiology
- Behavior, Health, and Wellness
- Health and Wellness in the Workplace
- Health Education
- Special Projects in Health and Behavioral Science

#### Stephen F. Austin State University, Department of Kinesiology & Health Science

#### **Undergraduate-Level**

- Community Health
- Core Concepts in Health
- Environmental Health
- Substance Prevention Education

#### Texas A&M University, Department of Health & Kinesiology

#### **Graduate-Level**

- Health Education Theory
- Health Education Research and Evaluation
- Health Program Planning

#### **Undergraduate-Level**

- Healthy Lifestyles
- Human Diseases
- Health Programs in the Workplace
- Seminar in Allied Health
- Medical Terminology for the Health Professions
- Grant Writing

#### Georgia State University, Department of Psychology

#### **Undergraduate-Level**

- Advanced Research Design and Analysis
- Introduction to Research Design and Data Analysis
- Abnormal Psychology

### Wichita State University, Department of Psychology

#### **Undergraduate-Level**

• Developmental Psychology

## **Courses Developed**

#### University of Houston-Downtown, Department of Social Sciences

## **Undergraduate-Level**

- Behavior, Health, and Wellness
- Health and Wellness in the Workplace
- Wellness Across the Lifespan (under review)

### Texas A&M University, Department of Health & Kinesiology

#### **Graduate-Level**

• Systems Thinking and Complexity in Population Health (assisted)

## **Teaching Development Courses Completed**

2023	<b>Effective Teaching Practices</b> , The Association of College and University Educators
2020	Certificate in Evidence-Based Instruction and Course Design, Center for Teaching and Learning Excellence, University of Houston-Downtown
2020	Designing Gamified Learning Environments, Online Learning Consortium
2020	Creating YouTube Videos for Teaching & Learning, Online Learning Consortium
2018	Engaging Learners in Online Discussion, Online Learning Consortium
2018	Creating Rubrics, Online Learning Consortium
2017	Online Instructor Certification, Center for Teaching and Learning, Stephen F. Austin State University, Nacogdoches, Texas

## **Mentorship**

### **University of Houston-Downtown, Department of Social Sciences**

• Provide guidance to undergraduate majors on decisions related to evaluating and applying to graduate schools and job opportunities

#### Stephen F. Austin State University, Department of Kinesiology and Health Science

• Work directly with undergraduate-level Honors students to substantively involve them on my ongoing research projects

#### Texas A&M University, Department of Health & Kinesiology

- Engaged graduate-level students in my ongoing research projects
- Provided guidance, mentorship and advocacy for undergraduate-level students in applying for graduate programs and pursing career opportunities

#### Wichita State University, Department of Psychology

• As a member of the Community Psychology Research & Practice Collaborative (Director: Dr. Greg Meissen), participated in feedback and guidance for graduate students within group

## **RESEARCH FOCUS**

- Complex systems science theories and methodologies
- Health disparities alleviation and health equity advancement
- Chronic disease prevention and health promotion
- Acute/traumatic injury prevention and safety promotion
- Occupational illness/injury prevention and health and safety promotion

### RESEARCH SKILLS

## Quantitative methodologies and analytical tools

- Instrument design, development, and testing
- Survey instrument administration (personal, telephone, mail, and online techniques)
- Linear bivariate, multivariate, and multilevel statistical data analysis (SPSS)

## Qualitative methodologies and analytical tools

- Phenomenological and ethnographical methods
- Recruitment, enrollment, and data collection from hard-to-reach and other populations
- Sampling (snowball, social network)
- Coding and data analysis (Excel)

## Community, organizational, and group-based research and interventions

- Participatory community research
- Small and large group facilitation
- Organizing, advocacy, and partnership
- Program evaluation and grant writing

## **Epidemiological biomarkers and anthropometry**

- Statistical analysis of conventional (e.g., blood lipids) and advanced (e.g., c-reactive protein) biomarkers for cardiometabolic health
- Statistical analysis of conventional (e.g., body mass index) and advanced (e.g., sagittal abdominal diameter) anthropometric measurements for cardiometabolic health

## Complex systems methodologies and computational modeling and simulation

- Complex systems science paradigms, theories, methodologies and analytical tools
- System dynamics and agent-based modeling and simulation techniques
- Vensim, AnyLogic, and NetLogo modeling tools

## **BOOKS**

#### **Published**

1. Apostolopoulos, Y., Hassmiller Lich, K., & Lemke, M. K. (Eds.). Complex systems and population health: A primer (2020). New York, NY: Oxford University Press.

### In Progress

1. **Lemke, M. K.** *Population safety science*. Publisher TBD.

### **BOOK CHAPTERS**

#### **Published**

#### <u>2024</u>

5. Wu, L., Liu, C., Lemke, M., & Ye, X. (2024). Unraveling the County-Level Spatial Patterns of Juvenile Delinquency and its Underlying Determinants in Texas. New Research in Crime Modeling and Mapping Using Geospatial Technologies. New York: Springer.

#### **2022**

4. Ye, X., Wu, L., Lemke, M. K., Valera, P., & Sackey, J. (2022). *Defining Computational Urban Science*. New Thinking in GIScience. New York: Springer.

#### **2020**

- 3. **Lemke, M. K.** (2020). *Model thinking and computational modeling to improve our mental models in population health research*. Complex systems and population health: A primer. New York, NY: Oxford University Press.
- 2. Patterson, M., **Lemke, M. K.**, & Nelon, J. (2020). *Complex systems in a nutshell: Foundational concepts and theories*. Complex systems and population health: A primer. New York, NY: Oxford University Press.

#### <u>2019</u>

1. **Lemke, M. K.**, & Apostolopoulos, Y. (2019). *New directions in occupational roadway safety grounded in complex systems theory and simulation modeling*. Focus on systems theory research. Hauppaugue, NY: NOVA Science Publishers.

## PEER-REVIEWED PUBLICATIONS

#### **Published**

#### **2024**

51. Krasniuk, S., **Lemke, M. K.**, Hassoun, A., Hege, A., & Crizzle, A. M. (2024). Improving truck stop environments to support long-haul truck driver safety and health: A scoping review. *Transportation Research Part A: Policy and Practice*, *185*, 104123.

#### **2023**

- 50. **Lemke, M. K.**, Hege, A., & Crizzle, A. (2023). An agenda for advancing research and prevention at the nexus of work organization, occupational stress, and mental health and wellbeing. *International Journal of Environmental Research and Public Health*, 20, 6010.
- 49. **Lemke, M. K.**, Houghtling, B., Winkler, M., & Hege, A. (2023). Rethinking efforts to improve dietary patterns among long-haul truck drivers: Transforming truck stop retail food environments through upstream change. *American Journal of Health Promotion*, 37(6), 755-759.
- 48. Wu, L., Peng, Q., & Lemke, M. K. (2023). Research trends in cybercrime and cybersecurity: A review based on web of science core collection database. *International Journal of Cybersecurity Intelligence & Cybercrime*, 6(1), 5-28.

### <u>2022</u>

- 47. **Lemke, M. K.**, Brown, K., Fallah-Fini, S., Hall, A., & Obasanya, M. (2022). Complex systems and participatory approaches to address maternal health disparities: Findings from a system dynamics group model building project in North Texas. *American Journal of Community Psychology*, 1-13.
- 46. **Lemke, M. K.**, Thiese, M. S., Hege, A., Ogbonnaya, U. C., & Hegmann, K. (2022). Metabolic syndrome among commercial truck drivers: The consequences of condition prevalence and clustering for roadway safety. *American Journal of Industrial Medicine*, 66(1), 54-65.
- 45. **Lemke, M. K.**, Akinlotan, M., Yang, Y., & Drake, S. A. (2022). Age and gender trends in suicide and homicide across the urban-rural continuum: Evidence from 16 states, 2005-2017. *Journal of Rural Health*, 38(4), 754-763.
- 44. **Lemke, M. K.**, Wolf, D. A., & Drake, S. A. (2022). A call for complex systems and syndemic theory in firearm violence research. *American Journal of Preventive Medicine*, 62(3), 459-465.
- 43. Drake, S. A., **Lemke, M. K.**, & Yang, Y. (2022). Exploring the complexity of firearm homicides in Harris County, Texas, from 2009-2021: Implications for theory and prevention. *Social Science & Medicine*, 305, 115048.

- 42. Brown, K., **Lemke, M. K.**, Fallah-Fini, S., Hall, A., & Obasanya, M. (2022). Planning, implementing, and evaluating an online group model building workshop during the COVID-19 pandemic: Celebrating successes and learning from shortcomings. *System Dynamics Review*, 38(1), 93-112.
- 41. Wu, L., Peng, Q., & Lemke, M. K., Hu, T., & Gong, X. (2022). Spatial social network analysis: A bibliometric analysis. *Computational Urban Science*, 2(21), 1-13.
- 40. Drake, S. A., Ramirez, E, **Lemke, M. K.**, & Jarvis, H. C. (2022). The need for forensic advanced practice registered nurses in medicolegal death investigation. *Journal of Forensic Nursing*, 18(4), 254-256.

- 39. **Lemke, M. K**. (2021). Is the Total Worker Health program missing its mark? Integrating complex systems approaches to unify vision and epistemology. *Journal of Occupational and Environmental Medicine*, 63(5), e304-e307.
- 38. **Lemke, M. K.** (2021). In response to a rebuttal that misses the mark: Seeing the forest for the trees by integrating complex systems approaches into Total Worker Health. *Journal of Occupational and Environmental Medicine*, 63(11), e823-e824.
- 37. **Lemke, M. K.**. In response to Kelly: If you only see detritus in the complex systems forest, then look up. *Journal of Occupational and Environmental Medicine 63*(11), e826.
- 36. **Lemke, M. K.** (2021). Commercial truck drivers should be a priority population for COVID-19 vaccinations. *American Journal of Industrial Medicine*, 64(3), 217-219.
- 35. **Lemke, M. K.**, Hege, A., Apostolopoulos, Y., & Sönmez, S. (2021). Hours-of-service compliance and safety outcomes among long-haul truck drivers. *Transportation Research Part F: Traffic Psychology and Behaviour*, 76, 297-308.
- 34. **Lemke, M. K.**, Oberlin, D. J., Apostolopoulos, Y., Sönmez, S., & Wideman, L. (2021). Work, physical activity, and metabolic health: Understanding insulin sensitivity of long-haul truck drivers. *WORK: A Journal of Prevention, Assessment & Rehabilitation*, 69(1), 225-233.
- Patterson, M. S., Nelon, J. L., Sönmez, S., **Lemke, M. K.**, Hege, A., & Apostolopoulos, Y. (2021). Social networks of long-haul truck drivers in urban areas: Exploring the role of network structure in sexually transmitted and bloodborne infections. *American Journal of Health Behavior*, 45(1), 174-185.

#### **2020**

32. **Lemke, M. K.**, & Brown, K. K. (2020). Syndemic perspectives to guide Black maternal health research and prevention during the COVID-19 pandemic. *Maternal and Child Health Journal*, 24(9), 1093-1098.

- 31. **Lemke, M. K.**, Apostolopoulos, Y., & Sönmez, S. (2020). Syndemic frameworks to understand the effects of COVID-19 on commercial driver stress, health, and safety. *Journal of Transport & Health*, 18, 100877.
- 30. **Lemke, M. K.**, Apostolopoulos, Y., & Sönmez, S. (2020). A novel COVID-19 based truck driver syndemic? Implications for public health, safety, and supply chains. *American Journal of Industrial Medicine*, 63, 659-662.
- 29. **Lemke, M. K.**, Apostolopoulos, Y., Gallos, L. K., & Sönmez, S. (2020). Commercial transport during a pandemic: Network analysis to reconcile COVID-19 diffusion and vital supply chain resilience. *Journal of Occupational and Environmental Medicine*, 62(9), e537-e538.
- 28. Sönmez, S., Apostolopoulos, Y., **Lemke, M. K.**, & Hsieh, Y. C. (2020). Understanding the effects of COVID-19 on the health and safety of immigrant hospitality workers in the United States. *Tourism Management Perspectives*, *35*, 100717.

- 27. Hege, A., **Lemke, M. K.**, Apostolopoulos, Y., & Sönmez, S. (2019). The impacts of work organization, job stress, and sleep on the health behaviors and outcomes of U.S. long-haul truck drivers. *Health Education & Behavior*, 46(4), 626-636.
- 26. Hege, A., Lemke, M. K., Apostolopoulos, Y., Whitaker, B., & Sönmez, S. (2019). Work-life balance among U.S. long-haul truck drivers: Influences of work organization, perceived job stress, and sleep. *International Journal of Environmental Research and Public Health*, 16(6), 984.

#### 2018

- 25. **Lemke, M. K.**, Apostolopoulos, Y., Hege, A., Newnam, S., & Sönmez, S. (2018). Can subjective sleep problems detect latent sleep disorders among commercial drivers? *Accident Analysis & Prevention*, 115, 62-72.
- 24. Hege, A., **Lemke, M. K.**, Apostolopoulos, Y., & Sönmez, S. (2018). Occupational health disparities among U.S. long-haul truck drivers: The influence of work organization and sleep on cardiovascular and metabolic disease risk. *PLoS ONE*, *13*(11), e2027322.
- 23. Apostolopoulos, Y., Lemke, M. K., Hosseinchimeh, N., Harvey, I. S., Hassmiller Lich, K., & Brown, J. (2018). Embracing causal complexity in health disparities: Metabolic syndemics and structural prevention in rural minority communities. *Prevention Science*, 19(8), 1019-1029.
- 22. Apostolopoulos, Y., Lemke, M. K., Barry, A. E., & Hassmiller Lich, K. (2018). Moving college drinking prevention research forward Part I: Introducing a complex systems paradigm. *Addiction*, 113(2), 353-362.

- 21. Apostolopoulos, Y., **Lemke, M. K.**, Barry, A. E., & Hassmiller Lich, K. (2018). Moving college drinking prevention research forward Part II: New directions grounded in community-based system dynamics modeling. *Addiction*, *113*(2), 363-371.
- 20. Apostolopoulos, Y., Hassmiller Lich, K., **Lemke, M. K.**, & Barry, A. E. (2018). A complex-systems paradigm can lead to evidence-based policymaking and impactful action in substance misuse prevention a rejoinder to Purshouse et al. (2018). *Addiction*, 113(2), 1155-1156.

- 19. **Lemke, M. K.**, Hege, A., Apostolopoulos, Y., Wideman, L., & Sönmez, S. (2017). Work and sleep among transport operators: Disparities and implications for safety. *Journal of Transport & Health*, 7(B), 298-309.
- 18. **Lemke, M. K.**, Apostolopoulos, Y., Hege, A., Wideman, L., & Sönmez, S. (2017). Work organization, sleep, and metabolic syndrome among long-haul truck drivers. *Occupational Medicine*, *67*(4), 274-281.
- 17. **Lemke, M. K.**, Apostolopoulos, Y., Hege, A., Wideman, L., & Sönmez, S. (2017). Work, sleep, and cholesterol levels of U.S. long-haul truck drivers. *Industrial Health*, *55*(2), 149-161.
- 16. Hege, A., Lemke, M. K., Apostolopoulos, Y., Perko, M., Sönmez, S., & Strack, R. (2017). U.S. long-haul truck driver work organization and the association with cardiometabolic disease risk. *Archives of Environmental and Occupational Health*, 72(5), 3003-310.
- 15. Sönmez, S., Apostolopoulos, Y., **Lemke, M. K.**, Hsieh, Y. C., & Karwowski, W. (2017). Complexity of occupational health in the hospitality industry: Dynamic simulation modeling to advance immigrant worker health. *International Journal of Hospitality Management*, 67, 95-105.
- 14. Meissen, G., Brown, K., Lien, A., & Lemke, M. K. (2017). Integrating the 18 Community Psychology practice competencies into doctoral education. *Global Journal of Community Psychology Practice*, 8(1), 1-20.
- 13. Hsieh, Y.-C., Sönmez, S., Apostolopoulos, Y., & Lemke, M. K. (2017). Perceived workplace mistreatment: Work environment of Latina hotel housekeepers. *WORK: A Journal of Prevention, Assessment & Rehabilitation*, 56(1), 55-65.

#### 2016

- 12. **Lemke, M. K.**, Apostolopoulos, Y., Hege, A., Sönmez, S., & Wideman, L. (2016). Understanding the role of sleep quality and sleep duration in commercial driving safety. *Accident Analysis & Prevention*, 97, 79-86.
- 11. **Lemke, M. K.**, & Apostolopoulos, Y. (2016). Public policy, work organization, and sleep health and safety of commercial drivers: The need for a complex systems paradigm. *Journal of Ergonomics*, 6(1), 152-156.

- 10. **Lemke, M. K.**, Meissen, G. J., & Apostolopoulos, Y. (2016). Understanding and overcoming barriers in unhealthy settings: A phenomenological study of healthy truck drivers. *Global Qualitative Nursing Research*, 3(1), 1-9.
- 9. Apostolopoulos, Y., **Lemke, M. K.**, Hege, A., Sönmez, S., Sang, H., Oberlin, D. J., & Wideman, L. (2016). Work and chronic disease: Comparison of cardiometabolic risk markers between truck drivers and the general U.S. population. *Journal of Occupational and Environmental Medicine*, *58*(11), 1098-1105.
- 8. Apostolopoulos, Y., **Lemke, M. K.**, Sönmez, S., & Hege, A (2016). The obesogenic environment of commercial trucking: A worksite environmental audit and implications for systems-based interventions. *American Journal of Health Education*, 47(2), 85-93.
- 7. Apostolopoulos, Y., Sönmez, S., Hege, A, & Lemke, M. K. (2016). Work strain, social isolation and mental health of long-haul truckers. *Occupational Therapy in Mental Health*, 32(1), 50-69.
- 6. Wideman, L., Oberlin, D. J., Sönmez, S., Labban, J., **Lemke, M. K.**, & Apostolopoulos, Y. (2016). Obesity indices are predictive of elevated C-reactive protein in long-haul truck drivers. *American Journal of Industrial Medicine*, 59(8), 665-675.

- 5. **Lemke, M. K.**, Hege, A., Perko, M., Sönmez, S, & Apostolopoulos, Y. (2015). Work patterns, sleeping hours, and excess weight of commercial drivers. *Occupational Medicine*, 65(9), 725-731.
- 4. **Lemke, M. K.** & Apostolopoulos, Y. (2015). Health and wellness programs for commercial motor-vehicle drivers: Organizational assessment and new research directions. *Workplace Health & Safety*, 63(2), 71-80.
- 3. Apostolopoulos, Y., Sönmez, S., **Lemke, M. K.**, & Rothenberg, R. B. (2015). Mapping U.S. long-haul truck drivers' multiplex networks and risk topography in inner-city neighborhoods. *Health & Place*, *34*, 9-18.
- 2. Hege, A., Vallejos, Q. M., Apostolopoulos, Y., & Lemke, M. K. (2015). Health disparities of Latino immigrant workers in the United States. *International Journal of Migration, Health, and Social Care*, 11(4), 282-298.

#### <u>2014</u>

1. Apostolopoulos, Y., **Lemke, M. K.**, & Sönmez, S. (2014). Risks endemic to long-haul trucking in North America: Strategies to protect and promote driver well-being. *New Solutions: A Journal of Environmental and Occupational Health Policy*, 24(1), 57-81.

#### In Progress

- 3. **Lemke, M. K.**, Barbieri, N., Anderson, K., & Fallah-Fini, S. Rethinking rampage shootings in schools: Transforming understanding and prevention using complex systems approaches. *American Journal of Public Health*.
- 2. **Lemke, M. K.**, Redekopp, E., Crizzle, A., Houghtaling, B., Hege, A., Winkler, M. & Osgood, N. A new approach for complex systems modeling in occupational safety and health: Introducing an agent-based modeling architecture for long-haul trucking. *Safety Science*.
- 1. **Lemke, M. K.**, Houghtaling, B., Hege, A., Winkler, M., & Wolf, D. A. Exploring the presence and consequences of emergency care deserts for truck drivers. *Health & Place*.

## **OTHER PUBLICATIONS**

#### **Non-Peer Reviewed Publications**

- 3. Brown, K., Cardazone, G., Glantsman, O., Johnson-Hakim, S., & Lemke, M. K. (2014). Examining the Guiding Competencies in Community Psychology Practice from Students' Perspectives. *The Community Psychologist*, 47(1), 3-9.
- 2. Lien, A. D., **Lemke, M. K.**, et al. (2012). Understandings of mental health recovery [Video files]. *Global Journal of Community Psychology Practice*, *2*(3).
- 1. Lien, A., Greenleaf, J., Lemke, M. K., Hakim, S., Swink, N., & Meissen, G. (2011). Tearless logic models. *Global Journal of Community Psychology Practice*, 2(2), 1-12.

## **Technical Reports**

- 4. **Lemke, M. K.**, et al. (2014). *Health impact assessment of large-scale livestock operations: Recommendations to Kansas State Legislature.* Topeka, KS: Kansas Health Institute.
- 3. **Lemke, M. K.** (2013). *Wichita Bicycle Master Plan annual report*. Wichita, KS: Planning Department, City of Wichita.
- 2. **Lemke, M. K.** (2012). State of workplace health and wellness programs within trucking industry. Arlington, VA: The American Trucking Associations.
- 1. Meissen, G., **Lemke, M. K.**, et al (2011). *Needs assessment and strategic plan recommendations for Catholic Charities*. Wichita, KS: Diocese of Wichita.

#### PEER-REVIEWED CONFERENCE PAPERS

#### **Published**

- 2. Fallah-Fini, S., **Lemke, M. K.**, Brown K., Lounsbury, D., Robinson, D., & Lambert, T. (2024). *A group model building process to address the rise in cardiovascular severe maternal morbidity in Black women in North Texas*. Proceedings of the 2024 International System Dynamics Conference, Bergen, Norway.
- 1. Sönmez, S., Apostolopoulos, Y., **Lemke, M. K.**, & Hsieh, Y.-C. (2016). *Simulation modeling of occupational health of tourism and hospitality workers*. Travel and Tourism Research Association Annual International Conference, Vail Valley, CO.

#### PEER-REVIEWED CONFERENCE PRESENTATIONS

#### **Published**

- 25. **Lemke, M. K.**, Barbieri, N., & Anderson, K. (2023). *Using complex systems approaches and system dynamics modeling to rethink rampage shootings at K-12 schools*. University of Houston-Downtown Fall Faculty Research Symposium, Houston, TX.
- 24. McKeown, M., Hege, A., **Lemke, M. K.**, & Crizzle, A. (2023). *Truck stops amenities:*\*\*Addressing the needs of long-haul truck drivers in Canada. American Public Health Association 151st Annual Meeting & Expo, Atlanta, GA.
- 23. **Lemke, M. K.**, Hege, A., Crizzle, A. M., McKeown, M., Hassoun, A., McCloskey, M., & Hamrick, S. (2023). *The Truck Driver Resource Mapping Project: Rationale, findings, and future directions*. Transportation Research Board Annual Meeting (Truck and Bus Operator Health and Wellness Subcommittee, Truck and Bus Safety Committee), Washington, DC.
- 22. **Lemke, M. K.**, Wolf, D. A., Drake, S. A., Yang, Y., & Hege, A. (2021). *How do truck drivers die at work? A review of Medical Examiner cases from Harris County, Texas, 2016-2020.*American Public Health Association 149<sup>th</sup> Annual Meeting & Expo, Denver, CO.
- 21. **Lemke, M. K.**, Drake, S. A., Wolf, D. A., & Yang, Y. (2021). Rethinking the nexus of firearm homicides, COVID-19, and social unrest: How syndemic theory and complex systems approaches can innovate understanding and prevention. Homicide Research Working Group Virtual Conference.
- 20. Drake, S. A., Levine, N., Yang, Y., Medina, A., Wolf, D. A., & Lemke, M. K. (2021). Spatial and temporal profile of firearm suicide & homicide deaths over 22 years in a large metropolitan area. Homicide Research Working Group Virtual Conference.

- 19. **Lemke, M. K.** (2020). How complex systems approaches can advance the Total Worker Health program. American Public Health Association 148<sup>th</sup> Annual Meeting & Expo, San Francisco, CA.
- 18. **Lemke, M. K.**, & Brown, K. (2020). *Rethinking racial disparities in maternal and child health:* A call for a new paradigm grounded in complex systems approaches. American Public Health Association 148<sup>th</sup> Annual Meeting & Expo, San Francisco, CA.
- 17. Patterson, M., Apostolopoulos, Y., Nelon, J., **Lemke, M. K.**, Sönmez, S., Hege, A., & Prochnow, T. (2020). *Exploring the role of social network structure in sexually transmitted and bloodborne infection risk among long-haul truckers*. American Public Health Association 148th Annual Meeting & Expo, San Francisco, CA.
- 16. Cegelka, D., **Lemke, M. K.**, & Apostolopoulos, Y. (2019). *Population ageing among large-truck drivers: Improving roadway safety outcomes to enhance community well-being*. The Society for Community Research and Action Biennial Conference, Chicago, IL.
- 15. Apostolopoulos, Y., **Lemke, M. K.**, Newnam, S., & Hassmiller Lich, K. (2019). *Advancing commercial vehicle roadway safety research and action: Working toward an emerging post-Newtonian paradigm*. Transportation Research Board Annual Meeting (Carrier Safety Management Subcommittee, Truck and Bus Safety Committee), Washington, DC.
- 14. Apostolopoulos, Y., & Lemke, M. K. (2019). Case studies in applying systems science tools to examine transportation safety issues. Transportation Research Board Annual Meeting, Washington, DC.
- 13. Apostolopoulos, Y., Gallos, L., Lemke, M. K., & Hassmiller Lich, K. (2018). *Network science to delineate (and control?) cardiovascular syndemics: Proof of concept using the CARDIA data*. Complex System Society's Annual Conference on Complex Systems, Thessaloniki, Greece.
- 12. Hassmiller Lich, K., Apostolopoulos, Y., **Lemke, M. K.**, Ngamasana, E., Barry, A. E., Russell, A., & Brown, J. (2018). *Collaborative systems thinking to teach old (and young!) dogs new tricks: Triggering better decisions to reduce alcohol misuse among college students*. 36<sup>th</sup> International Conference of the System Dynamics Society, Reykjavik, Iceland.
- 11. Apostolopoulos, Y., Hassmiller Lich, K., **Lemke, M. K.**, Barry, A. E., Russell, A., & Brown, J. (2018). *Alcohol-impaired driving in U.S. college environments: Causal loop analysis to advance policy planning*. 36<sup>th</sup> International Conference of the System Dynamics Society, Reykjavik, Iceland.
- 10. **Lemke, M. K.**, Meissen, G., Neal, Z., Lounsbury, D., Brown, M., & Apostolopoulos, Y. (2017). *Complex systems science in Community Psychology: A Town Hall for innovating research and action*. The Society for Community Research and Action Biennial Conference, Ottawa, ON.
- 9. Binakas, I., Apostolopoulos, Y., **Lemke, M. K.**, Hege, A., & Gioulos, N. (2017). *Screening for peripheral artery disease in medically underserved populations: Findings from a primary*

- healthcare clinic in rural Greece. 22<sup>nd</sup> WONCA Europe Conference General Practice in Europe: Growing Together in Diversity, Prague, Czech Republic.
- 8. **Lemke, M. K.**, Lee, S., Apostolopoulos, Y., & Barry, A. E. (2016). *Reflecting on a systems-grounded, integrative medical education for universal population health*. Association of American Medical Colleges SGEA Regional Conference, Austin, TX.
- 7. **Lemke, M. K.**, Meissen, G., & Apostolopoulos, Y. (June 2015). *Understanding and Overcoming Barriers in Unhealthy Settings: A Phenomenological Study of Healthy Truck Drivers*. The Society for Community Research and Action Biennial Conference, Lowell, MA.
- 6. **Lemke, M. K.**, Belyaev-Glantsman, O., Brown, K., Cardazone, G., Hakim, S., & Nettles, C. (June 2013). *Guiding Competencies: Critical Skills to Engage in Community Work from the Perspective of Students*. The Society for Community Research and Action Biennial Conference, Miami, FL.
- 5. **Lemke, M. K.** & Apostolopoulos, Y. (June 2013). *Integrated Worker Health Paradigm: Using Systems-Science Thinking to Advance Commercial Driver Well-Being*. The Society for Community Research and Action Biennial Conference, Miami, FL.
- 4. Levin, G., Lemke, M. K., Brown, K., Chien, V., & Wolfe, S. (June 2011). *Preparing Students for Practice Careers -- A Roundtable Discussion*. The Society for Community Research and Action Biennial Conference, Chicago, IL.
- 3. Keele-Lien, A., Lemke, M. K., West, C., Schrepel, S., Hunter, J., Banta, A., Gregory, T., & Meissen, G. (June 2011). *Understandings of Mental Health Recovery*. The Society for Community Research and Action Biennial Conference, Chicago, IL.
- 2. **Lemke, M. K.**, Barile, J. Barrett, A., & Weaver, S. (August 2009). *Parental Involvement and Student Performance: The Role of Peer School Aggression as a Mediator*. The Society for Research on Adolescence Annual Conference, Philadelphia, PA.
- 1. Barrett, A., Weaver, S., Barile, J., & Lemke, M. K. (August 2009). *Racial Harmony and English Proficiency as Predictors of Academic Motivation and Math Achievement*. The Society for Research on Adolescence Annual Conference, Philadelphia, PA.

#### RESEARCH GRANTS AND CONTRACTS

### **Funded Proposals (Current)**

Using Participatory Complex Systems Approaches to Develop and Interactive Policy Analysis Simulator to Address Cardiovascular Severe Maternal Morbidity in Black Women

Role: Co-Principal Investigator

<u>Funding agency/mechanism, amount, and submission date</u>: HRSA Maternal Health Research Collaborative for Minority-Serving Institutions Research Centers application (\$2,272,351), September 2023

Award Number: 1 UR6MC50344-01-00

<u>Objectives</u>: The overall goal of this project is to apply complex systems approaches, specifically participatory system dynamics (SD) group model building (GMB) and SD modeling techniques, to generate a holistic understanding of the dynamically complex systems underlying disparate CSMM outcomes among NHBW, and then translate this understanding into a novel, interactive policy simulator for use among community members and policy makers to holistically evaluate the effectiveness of policies and interventions.

Complex Systems Approaches to Advance Maternal Health Disparities Research and Prevention: Developing a System Dynamics Simulation Model of Severe Maternal Morbidity among Black Women in North Texas

Role: Co-Principal Investigator

Funding agency/mechanism, amount, and submission date: NIH/NIMHD R01 application

(\$1,804,590), **September 2023** Award Number: R01MD017596

<u>Objectives</u>: Using participatory SD GMB methodologies, this project will generate a holistic understanding of the dynamically complex systems that perpetuate severe maternal morbidity disparities, which will then be transformed into a system dynamics simulation model to be disseminated to provide an evidence-based decision-making tool to inform intervention strategies.

## **Funded Proposals (Former)**

## Rethinking School Shootings: Transforming Understanding and Prevention Using Complex Systems and Syndemic Approaches

Role: Principal Investigator/Incubator Team Leader

<u>Funding agency/mechanism</u>, amount, and submission date: University of Houston-Downtown, Internally Funded Proposal, **Faculty Team Research Incubator Program**, **May 2023**<u>Objectives</u>: The persistent and worsening school shooting epidemic indicates that current perspectives on research and prevention alone may be insufficient. Thus, this incubator sought to rethink school shootings by holistically integrating diverse multidisciplinary perspectives using complex systems and syndemic approaches – namely, causal loop diagramming.

## Population Safety Science: Introducing a Novel Academic Field to Innovate Safety Research and Prevention

Role: Principal Investigator

<u>Funding agency/mechanism, amount, and submission date</u>: University of Houston-Downtown, Internally Funded Proposal, **Faculty Funded Leave**, **September 2021** 

<u>Objectives</u>: Despite their potential synergies, the academic fields of safety science, population health, and complex systems science continue to function in a largely siloed manner. However, urgent 21<sup>st</sup> century safety challenges demand novel frameworks. Thus, the objective of this activity was to publish a sole authored book that lays the groundwork for a new academic field, titled "Population Safety Science". This volume (still in-progress) will delineate this novel field and will serve as a proof-of-concept and programmatic primer for innovative research and prevention to curb population-level injury outcomes and achieve safety equity across diverse demographies.

# Using Community-Based System Dynamics Modeling to Address Racial Disparities in Maternal Health

Role: Co-Investigator

<u>Funding agency/mechanism, amount, and submission date</u>: University of Texas at Arlington, Internally Funded Proposal, Center for Research and Scholarship Pilot Project Grant (\$6,000), July 2020

<u>Objectives</u>: By applying complex systems theoretical perspectives and system dynamics group model building methodologies, the goal of this research project was to generate a novel and holistic understanding of racial disparities in severe maternal morbidity outcomes among non-Hispanic Black women by determining the most salient causal factors that drive disproportionate Black severe maternal morbidity rates, mapping the dynamically causal structure of the underlying systems and systems-of-systems in which those causal factors are embedded, and identifying plausible and high-leverage preventive interventions.

#### Complex Systems Science to Reduce Large-Truck Roadway Crash Burden

Role: Principal Investigator

<u>Funding agency/mechanism, amount, and submission date</u>: University of Houston-Downtown, Internally Funded Proposal, **Organized Research and Creative Activities (ORCA) Grant Program application** (\$4,064), **January 2020** 

Objectives: This proposal provided funding for course instruction replacement costs to provide time to play a leading role in an R01 grant application to the National Institute for Occupational Safety and Health in March 2020 (PAR-18-812) (described in the Proposals Not Funded section below).

## Delineating Hispanic Immigrants' Allostatic Load Dynamics through Systems Modeling

Role: Consultant

Co-Principal Investigators: Yorghos Apostolopoulos, Sevil Sönmez

<u>Funding agency/mechanism, amount, and submission date</u>: NIMHD, **R15 application** (\$430,000), **January 2019** 

<u>Objectives</u>: Based on complex systems methodologies, the goal of the proposed study was to delineate how complex and interacting social, immigration, health, and labor policies and work and non-work environments influence low-skill/-pay service-sector Latino immigrant workers' excess allostatic load and associated syndemicity over time, and to identify high-leverage intervention points to reverse deteriorating trends.

# An Interdisciplinary Collaboration to Investigate the Unique Occupational Safety and Health Challenges of Commercial Vehicle Drivers

Role: Co-Investigator

Principal Investigator: Adam Hege

<u>Funding agency/mechanism, amount, and submission date</u>: Appalachian State University, Internally Funded Proposal (\$4,500), **January 2019** 

<u>Objectives</u>: This proposed research project involved the collection of complementary health and safety data, including self-reported survey data, anthropometrics, and biometrics. These data would have allowed the research team to comprehensively delve into the complex relationships amongst occupational risk factors and subsequent health and safety outcomes of this critically important occupational population. Due to the impacts of COVID-19, this data collection never took place.

# In Search of Impactful Alcohol Misuse Reduction Policies in College Environments: A Community-Based System Dynamics Modeling Approach

Role: Co-Investigator

<u>Co-Principal Investigators</u>: **Yorghos Apostolopoulos**, **Adam Barry**, **Rogelio Oliva** 

<u>Funding agency/mechanism, amount, and submission date</u>: Texas A&M University Division of Research, **PESCA Grant Program application** (\$25,000), **October 2016** 

<u>Objectives</u>: Grounded in complex systems theories and computational modeling, this project centered on group model building using relevant experts and stakeholders to generate preliminary system dynamics models of college student alcohol harm.

#### **Proposals Planned for Future Revision**

Risks of COVID-19 and Other Respiratory Infectious Disease Spread Among Commercial Drivers: Using Agent-Based Simulation Modeling to Understand Transmission and Identify Preventive Interventions

Role: Co-Principal Investigator

<u>Funding agency/mechanism, amount, and submission date</u>: NIOSH **R21 application** (\$274,144), **February 2021** 

<u>Objectives</u>: Little is known about long-haul truck drivers' (LHTD) endemic and novel vulnerabilities and the potential role of their networks in the acquisition and transmission of respiratory infections. The proposed project will utilize complex systems theory and agent-based modeling to understand the dynamics of acquisition and spread of COVID-19 and other respiratory infections among LHTD and identify preventive strategies.

Using Complex Systems Approaches to Advance Firearm Mortality Research and Prevention: Developing an Agent-Based Simulation Model of Firearm Homicides in Harris County, Texas Role: Co-Principal Investigator

<u>Funding agency/mechanism, amount, and submission date</u>: NIH **R21/R33 application** (\$2,114,354), **April 2021** 

<u>Objectives</u>: Firearm homicides (FH) remain a persistent problem that disproprtionately cluster within specific populations and geographies. This project investigates the viability of complex systems theoretical perspectives by exploring the presence of a FH syndemic in Harris County, Texas (HCTX), and establish the validity of ABM in guiding syndemic-informed preventive interventions. We will develop an ABM to explore the presence of a FH syndemic and other complex systems-grounded dynamic hypotheses related to FH in HCTX and identify high-leverage syndemic-informed preventive solutions to mitigate FH in HCTX.

## **Proposals Not Funded**

Complex Systems Science to Address Inequities in Worker Nutrition: Leveraging Data Through Hybrid Simulation Modeling to Improve Truck Driver Dietary Patterns Role: Co-Principal Investigator

Funding agency/mechanism, amount, and submission date: NSF Analytics for Equity Initiative Phase 1 application (\$75,000), March 2023

<u>Objectives</u>: This project was to leverage diverse publicly available data sources by integrating them within a holistic hybrid simulation model that captures macrostructural forces and policies of food systems that shape the retail food environments of truck stops, which are principal venues for driver dietary intake, as well as driver-level forces and factors that reciprocally shape these retail food environments. The emerging hybrid simulation model would then inform future data needs and serve as the basis for future basic and applied research initiatives to improve truck driver dietary patterns.

#### Participatory System Dynamics Modeling to Understand and Improve Maternal Health Outcomes among Black Women in North Texas

Role: Co-Principal Investigator

<u>Funding agency/mechanism, amount, and submission date</u>: NIH/NIMHD **U54 application** (~\$3,181,818), **December 2022** 

<u>Objectives</u>: In Texas, non-Hispanic Black Women (NHBW) experienced a maternal mortality rate that was more than twice that of White women. The goal of this project was to apply participatory system dynamics modeling methodologies to generate a holistic understanding of the dynamically complex systems underlying maternal mortality among NHBW, and then translate this understanding into a novel, evidence-based simulation model to be used for evaluating the effectiveness of interventions that can curb maternal mortality.

### Complex Systems Science to Reduce Large-Truck Crash Burden

Role: Co-Investigator

Principal Investigator: Yorghos Apostolopoulos

Funding agency/mechanism, amount, and submission date: NIOSH R01 application

resubmission (\$1,517,294), March 2020

Objectives: Drawing on complex systems theory and road safety theories and system dynamics (SD) simulation modeling methodologies, this proposal aimed to uncover the systemic structure of dynamic interactions among heterogeneous, multifactorial, and multilevel causal domains that are hypothesized to drive large-truck roadway (LTR) crash burden over time and to ascertain high-leverage, synergistic, structural preventive intervention configurations that can reduce LTR crash burden rates over time.

## Dynamic Modeling to Understand how Public Policy can Curtail Harms of College Alcohol Misuse

Role: Co-Investigator

Principal Investigator: Yorghos Apostolopoulos

<u>Funding agency/mechanism, amount, and submission date</u>: NIAAA **R01 application** (\$1,600,000), **February 2020** 

<u>Objectives</u>: Drawing on alcohol prevention research and complex systems theory, this proposal employs predictive dynamic simulation modeling to: (1) introduce a paradigm shift in alcohol misuse prevention research and practice toward complex systems frameworks; (2) clarifying how synergistic structural preventive actions (grounded in public policy) can contribute to HAMCE reduction; and (3) produce dynamic simulation models of synergistic structural prevention effects on HAMCE burden that can be expanded and adapted to other alcohol misuse contexts.

# Community-Based System Dynamics Modeling and Simulation to Address Metabolic Disparities in Rural Minority Communities

Role: Co-Investigator

Co-Principal Investigators: Idethia Harvey, Yorghos Apostolopoulos

<u>Funding agency/mechanism, amount, and submission date</u>: NIMHD **R21 application** (\$275,000), **February 2018** 

<u>Objectives</u>: Grounded in complex systems theory and computational modeling and simulation, the overall aim of this proposal was to understand which health, social, and environmental factors are instrumental in shaping health disparities over time, and how individual and organizational responses mitigate or exacerbate obesity and type 2 diabetes in minority rural communities.

#### Modeling Tipping Points in and Resilience of Commercial Drivers' Chronic Syndemics

Role: Co-Investigator and Project Director

Principal Investigator: Yorghos Apostolopoulos

<u>Funding agency/mechanism, amount, and submission date</u>: NHLBI, **R01 application** (~\$3,000,000), **October 2015** 

<u>Objectives</u>: Grounded in system dynamics modeling theories and methodologies, natural science theories, and via the collection of primary and secondary data and the active involvement of stakeholders, the overall aim of this project was to delineate the dynamic and complex policy relevant tipping points of bus and truck drivers' cardiometabolic burden and to identify high leverage intervention points.

### PROFESSIONAL DEVELOPMENT

- 2022, Agent-Based & Hybrid Modeling for Health Researchers Bootcamp & Incubator, University of Saskatchewan, Saskatchewan
  - Attended workshop hosted by Dr. Nathaniel Osgood, Professor in the Department of Computer Science
  - Focus of bootcamp/incubator was on systems science methods, especially
    agent-based modeling, as well as system dynamics modeling, discrete event
    modeling, and social network analysis
  - Worked hands-on with workshop instructors to create a functioning agentbased model of long-haul truck drivers' unpredictable spatial movements and implications for nutrition interventions
- Agent-Based & Individual-Based Modeling: Theory and Praxis, Online Course
  - Shared graduate course provided by Fields Institute and University of Saskatchewan and taught by **Dr. Nathaniel Osgood**, Professor in the Department of Computer Science at the University of Saskatchewan
  - Course focused on the systematic introduction to the theory and practice of agent-based modeling, with an emphasis on infectious disease modeling
  - Content covered the breadth of the agent-based modeling process, including model conceptualization and scoping, model architecture, design and formulation, model implementation, testing for verification and validation, calibration and sensitivity analysis, and scenario evaluations
- 2018 **Network Dynamics of Social Behavior**, Online Course
  - University of Pennsylvania online course, provided through Coursera and taught by **Dr. Damon Centola**
  - Provided knowledge on why networks can be used to represent and study complex social relationships, with an emphasis on agent-based modeling
  - Topics covered included: The role of diffusion in social norms; the counterintuitive relationship between information exchange and group problem solving; the "small world" paradox; and how and under what conditions behavioral cascades can spread
- Teaching Individual/Agent-Based Modeling, Humboldt State University, Arcata, California
  - Attended workshop hosted by Dr. Steve Railsback, professor in Humboldt State University's Department of Mathematics
  - Workshop designed for professors who want to add individual/agent-based modeling to their teaching and research skills
  - Topics covered included: When and why to use IBMs/ABMs, strategies for designing models, software techniques, model analysis and publication, and how to link empirical research to individual-based science

- 2014 **Systems Science Methodologies Workshop**, Washington University in St. Louis, St. Louis, Missouri
  - Attended workshop hosted by **Dr. Peter Hovmand** of the Social System Design Lab at the George Warren Brown School of Social Work
  - Part of an R01 research grant development collaboration between University of North Carolina-Greensboro and Washington University in St. Louis
  - Workshop provided training regarding community-based systems dynamics and engaging in participatory model building with multiple stakeholders

#### 2014 **Model Thinking**, Online Course

- University of Michigan online course, provided through Coursera and taught by **Dr. Scott Page**
- Provided information for a diverse set of models applicable to social sciences

Encouraged thinking and understanding of complex phenomena in terms of models

#### OTHER PROFESSIONAL EXPERIENCE

#### 2013-14 Consultant, Kansas Health Institute, Topeka, KS

- Assisted in development of Health Impact Assessment for proposed legislation in the state of Kansas
- Conducted literature review of health impacts of increased large-scale livestock operations
- Presented findings on multiple occasions during Health Impact Assessment Advisory Panel meetings

# 2013 **Consultant**, Wichita – Sedgwick County Metropolitan Area Planning Department, Advanced Plans Division, Wichita, KS

- Wrote several successful grant applications for bicycle/pedestrian projects
- Evaluated and maintained bicycle/pedestrian facility usage data
- Created bicycle and pedestrian annual report of progress toward established performance measures, which included qualitative and quantitative data
- Supported public engagement efforts during Pedestrian Master Plan development process

# 2013 **Mini-Grant Program Coordinator**, Society for Community Research and Action (SCRA), Palm Beach Gardens, FL

- Coordinated and disseminated evaluations of Mini-Grants
- Coordinated Mini-Grant application and review process
- Communicated directly with grantees and SCRA representatives
- Maintained financial and evaluation records for awarded grant funds
- Coordinated media outreach efforts

- 2012-13 Consultant, American Trucking Associations, Arlington, VA
  - Developed driver health and wellness program for trucking companies
  - Created survey of trucking industry health and wellness programs
  - Developed pilot project proposal through Federal Motor Carrier Safety Administration: requested exemption to conduct study to measure impacts of split-breaking on fatigue and safety
  - Generated "white paper" to guide future efforts to improve truck driver health in the trucking industry
- Volunteer, Catholic Charities, Wichita, KS
  - Conducted needs assessment to facilitate strategic planning
  - Collected survey, listening session, and archival data
  - Facilitator for public meetings in five communities in southeast Kansas

## **SERVICE**

#### **Academic Service**

#### **The University of Houston-Downtown**

2018-2020; 2022-2024	Faculty Development Award Committee
2022-2024	Campus Carry Safety Committee
2023-2024	<b>Student Publications Advisory Committee</b>
2020; 2023- 2024	Organized Research and Creative Activities (ORCA) Grant Committee
2020-2022	Faculty Senate
2020-2021	Department of Social Sciences Chair Hiring Committee
2020-2021	Health Empowerment Club (Faculty Advisor)
2020	Health and Behavioral Science Gator Gateway Video Editor
2019-2021	Health and Behavioral Science Graduate School Symposium Coordinator and Presenter
2018-2019	By-Laws Committee

## **Stephen F. Austin State University**

2017 Health Science Curriculum Committee

## **Texas A&M University**

2015-2017	A-1 Review Tenure Track Committee
2015-2017	Allied Health Assessment Committee
2016-2017	Graduate Curriculum Committee

### **Wichita State University**

2011-13	<b>Community Psychology Doctoral Program Recruitment Committee</b>
2012-13	<b>Community Psychology Doctoral Program Qualifying Exams Committee</b>
2012-13	<b>Psychology Department Graduate Orientation Committee</b>

## **Professional Service**

## **Special Issue Editor for Academic Journals**

2022-2023 International Journal of Environmental Research and Public Health
"Work Organization, Occupational Stress, and Mental Health and Wellbeing:
Advances in the Evidence and Approaches to Intervention"

#### **Other Professional Service**

2012-15	Mini-Grant Reviewer, The Society for Community Research and Action
2012	Column Author, THEory into ACTion (monthly newsletter), The Society for Community Research and Action

## **Reviewer for Academic Journals**

2024, 2023 (x4)	American Journal of Health Promotion
2024, 2021 (x2), 2019 (x2), 2016	Journal of Transport & Health
2024	The Economic and Labour Relations Review
2023	Technology in Society
2022 (x4), 2021 (x5), 2020 (x2)	Transportation Research Part F: Traffic Psychology and Behaviour
2022, 2021 (x2)	JAMA Psychiatry
2022	Annals of Medicine
2022	Journal of Pediatric Nursing
2021	American Journal of Public Health
2021	The Lancet Public Health
2021	Progress in Community Health Partnerships: Research, Education, and Action
2021 (x2)	Journal of Occupational Health
2021	Maternal and Child Health Journal
2021	Homicide Studies
2021 (x2)	Energies
2021, 2016	BMC Public Health
2021 (x4), 2020, 2019, 2017, 2015	Journal of Occupational and Environmental Medicine
2020	Research in Transportation Business & Management

2020	Journal of Medical Ethics
2020, 2018, 2017, 2016	PLoS One
2019	Sleep Health
2019	AIDS and Behavior
2019	Applied Ergonomics
2019 (x2), 2018 (x2)	Safety Science
2019, 2018	BMC Health Services Research
2018	The Journal of the American Osteopathic Association
2018, 2017	Accident Analysis & Prevention
2017	American Journal of Men's Health
2017	WORK: A Journal of Prevention, Assessment, and Rehabilitation
2015	Industrial Health

## **MEDIA APPEARANCES**

## **Television**

2021	Headline News
2021 (x2), 2020	ABC 13 (Houston)
2020 (x2)	Fox 26 (Houston)
2021, 2020	KHOU 11 (Houston)

## Radio

2022,	SiriusXM Channel 146 (LandLine Now)
2021,	
2020	

## **Podcasts**

2022, 2021, 2020	Drilling Deep Podcast
2020	Trucker News Podcast

## Other Media

2021

2020	Men's Health
2020	Yahoo! News
2020	Medical Xpress
2020	Home Health Choices

CDL Life

## INVITED/GUEST LECTURES AND SEMINARS

2023	Invited Speaker, Occupational and Environmental Medicine Grand Rounds, Yale University Title: Long-Haul Truck Drivers and Metabolic Syndrome: Safety, Syndemicity, and Systems Science
2021	<b>Invited Speaker</b> , Seminar Course, The University of Utah Title: Rethinking Health and Safety Disparities: Complex Systems Approaches to Advance Research and Prevention
2021	Invited Speaker, Maternal and Child Health Equity Research Lab Speaker Series Title: Rethinking Health Disparities: Complex Systems Approaches to Advance Research and Prevention
2021	<b>Invited Speaker</b> , SHARE Presentation, Appalachian State University Title: <i>Elevated Risks for Chronic and Infectious Disease Among U.S. Long-Haul Truck Drivers: The role of COVID-19 in Exacerbating Occupational Health Disparities</i>
2019	Invited Speaker, Clinical Translational Research Forum, The University of Texas at Arlington Title: Complex Systems Science Approaches in Population Health: Case Studies in Injury Prevention and Safety Promotion
2015	<b>Invited Lecturer</b> , Advanced Health Behavior Theory, Texas A&M University Title: <i>The Challenges of Complexity Science (and the Benefits)</i>
2014	Invited Lecturer, Community Psychology Departmental Research Meeting, Georgia State University Title: Understanding and Overcoming Barriers in Unhealthy Settings: A Phenomenological Study of Healthy Truck Drivers

## **DISTINCTIONS AND AWARDS**

2008-09	President's List, Georgia State University (GPA award)
2008	Faculty Scholar, Georgia State University (GPA award)
2008	Dean's List, Georgia State University (GPA award)