

CURRICULUM VITAE

Yong Yang

January 2019

CONTACT INFORMATION

Address 203 Robison Hall, School of Public Health
University of Memphis, Memphis, TN, 38152

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RESEARCH INTERESTS

Social Determinants of Health
Environment and Health Behavior
Aging and Mental Health
Tobacco control
Active Transportation and Physical Activity
Neighborhood Environment and Childhood Obesity
Mobility and Health
Application of Agent-based Models
Application of Geographical Information Systems and Spatial Analysis

EDUCATION

2009 - 2011 Postdoctoral researcher, Social Epidemiology
Advisor: Ana Diez-Roux, M.D., Ph.D.
University of Michigan, Ann Arbor, USA

2003 - 2007 Ph.D., Health Geography
Advisor: Peter Atkinson, Ph.D.
University of Southampton, Southampton, UK

1997 - 2000 M.S., Geographical Information Systems
Peking University, Beijing, China

1993 - 1997 B.S., Physical Geography
Peking University, Beijing, China

ACADEMIC EMPLOYMENT

Jan 2015 - Present **Assistant Professor**

Social and Behavioral Science
School of Public Health, University of Memphis

Mar 2016 - Present **Affiliated Faculty**
Institute for Intelligent Systems, University of Memphis

Mar 2017 - Present **Affiliated Faculty**
Department of Earth Sciences, University of Memphis

Sep 2014 - Jan 2015 **Research Assistant Professor**
School of Public Health, Drexel University

Feb. 2012 to Sep. 2014 **Research Investigator**
School of Public Health, University of Michigan

HONORS AND AWARDS

2018 **Butler-Williams Scholar Program**
National Institutes on Aging, NIH, Washing DC.

2015 **Travel Fellowship**
The 2nd Westlake Summer Youth Forum on Health Policy and Systems Sciences,
China Health Policy and Management Society

2007 **Travel Award**
Symposium on Complex System Approaches to Population Health, University of
Michigan, Ann Arbor

2006 **Scholarship**
Global Exchange Program within Worldwide Universities Network

2005 **Travel Award**
Conference of GIS Research UK

2003-2006 **Graduate Research Scholarship**
University of Southampton

2003-2006 **Overseas Research Students Award**
Universities UK

1997-2000 **Graduate Research Scholarship**
Peking University

MEDIA COVERAGE AND ACTIVITIES

Feb.19, 2018 “Memphis food deserts diminish health for low-income residents”, by Daily
Helmsman, a newspaper at the University of Memphis

- Oct.30, 2017 Invited guest, Workshop of Achieving Health Equity: the Impact of the Social Determinants of Housing, Education and Employment on Health Inequities, Duke University, Durham, North Carolina
- Oct.6, 2016 Study proposes dynamic framework on travel mode choice focusing on utilitarian walking, by Office of Behavioral and Social Sciences Research, NIH, link: <https://obsr.od.nih.gov/2016/10/06/>
- May 10, 2016 Activity in Children, Public Health Minute with William Latimer, by Lehman College, the City University of New York, link: <http://wp.lehman.edu/public-health-minute-with-william-latimer/activity-in-children-yong-yang-phd-niversity-of-memphis/>

PROFESSIONAL AFFILIATIONS AND SERVICES

AD-HOC REVIEWER

1. American Journal of Epidemiology
2. American Journal of Health Behavior
3. American Journal of Preventive Medicine
4. American Journal of Public Health
5. Annals of the Association of American Geographers
6. Annals of Behavioral Medicine
7. Annals of GIS
8. Annals of Internal Medicine
9. Annals of Regional Science
10. BioMed Research International
11. Computers, Environment and Urban Systems
12. Emerging Infectious Diseases
13. Environment and Behavior
14. Epidemiology
15. Health and Place
16. Health Behavior and Public Health
17. Health Equity
18. International Journal of Environmental Research and Public Health
19. International Journal of Health Geographics
20. Journal of Artificial Societies and Social Simulation
21. Journal of Physical Activity and Health
22. Journal of the Royal Society Interface
23. Journal of Transport Geography
24. Journal of Adolescent Health
25. Journal of Urban Health
26. Landscape and Urban Planning
27. PLOS ONE
28. Preventive Medicine
29. Social Science and Medicine
30. Social Science and Medicine - Population Health
31. Transportation Research Part A: Policy and Practice

- 32. Transactions in GIS
- 33. Urban Studies

GRANT REVIEWERS

- 2014 Ad-hoc Reviewer
Economic and Social Research Council, United Kingdom
- 2013 Ad-hoc Reviewer
Swiss National Science Foundation, Division of Humanities and Social Sciences
- 2013 Ad-hoc Reviewer
European Research Council, ERC Consolidator Grant 1st Call

BOOK REVIEWERS

- 2017 Spatial Health Inequalities: Adapting GIS Tools and Data Analysis, by Dr. Esra Ozdenerol, International Journal of Geographical Information Science
- 2012 Handbook of Applied Systems Science, Edited by Zachary P. Neal, Routledge,

CONFERENCE SERVICES

- 2017 Ad-hoc Reviewer
National Conference on Undergraduate Research
- 2016-2018 Panel Member of Program Committee
International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction and Behavior Representation in Modeling and Simulation

PROFESSIONAL ORGANIZATION MEMBER

- Interdisciplinary Association for Population Health Science
- Society of Behavioral Medicine
- American Public Health Association
- American Association of Geographers
- Royal Geographical Society (with the Institute of British Geographers)

INTERNAL SERVICES

- Committee on Faculty Affairs and Development (2018-present)
- Marketing Committee for School of Public Health (2017-present)
- Admissions Committee for PhD in Social and Behavioral Science (2017-present)
- Admissions Committee for Master of Public Health (2017-2018)
- Proctor for the Epidemiology PhD comprehensive examination (2015)
- Faculty Reviewers of Student Global Health Internship Application, School of Public Health,

- University of Michigan, Ann Arbor (2013)
- Coordinator for the seminar series of Population Health and Complex System at School of Public Health, University of Michigan, Ann Arbor (2011-2012)

ACADEMIC TRAINING

- 2018 **National Institute on Aging's Butler-Williams Scholars Program**
One-week workshop, NIH, Bethesda, MD
- 2017 **Spatial Statistics for Epidemiological Data**
One-work course, graduate summer session, University of Michigan, Ann Arbor
- 2017 **Causal Mediation Analysis**
Two-day workshop, Statistical Horizons, Philadelphia
- 2012 **System dynamics modeling**
One-week invited workshop, Institute on Systems Science and Health,
Washington University in St. Louis
- 2008 **Fundamentals of Epidemiology**
Three-week course, graduate summer session, University of Michigan, Ann Arbor
- 2008 **Environmental Determinants of Infectious Diseases**
One-work course, graduate summer session, University of Michigan, Ann Arbor
- 2007 **Social Network Analysis in Public Health**
One-day workshop, University of Michigan, Ann Arbor

GRANTS

EXTRAMURAL FUNDING

- Healthy Ageing in European Cities: Understanding Environmental, Behavioral, Psychosocial and Biological Pathways of Ageing in an Urban Context.
European Commission. Research Horizon 2020
Role: Co-Investigator PI: Frank J. van Lenthe 4/2016 - 3/2020
- Multilevel Systems-oriented Childhood Obesity Study in China
Subcontract from U54 Center P3 Grant, NIH
Role: Co-Investigator PI: Youfa Wang 6/2015 - 5/2016
- A Spatial Agent-based Model for the Simulation of Adults Daily Walking in Urban Areas
NIH R21, NHLBI, No-Cost Extension
Role: Principal Investigator 8/2013 - 7/2014
- A Spatial Agent-based Model for the Simulation of Adults Daily Walking in Urban Areas

NIH R21, NHLBI

Role: Co-Investigator

PI: Ana Diaz-Roux

8/2011 - 7/2013

Spatial agent-based modeling of environmental effects on walking in an urban area

Robert Wood Johnson Foundation Health and Society Scholars program, University of Michigan

Role: Principal Investigator

7/2010 - 6/2011

INTRAMURAL FUNDING

Aging and Health in Memphis

Community of Research Scholars Grant, University of Memphis

Role: Principal Investigator

1/2019 - 12/2019

To estimate the overweight children in Memphis using the integration of multilevel logistic regression and geographical microsimulation

University of Memphis Research Foundation

Role: Principal Investigator

1/2016 - 6/2017

Criminology and Cyber Security Dimensions of Public Health in Urban Environments

FedEx Institute of Technology, University of Memphis

Role: Co-Investigator

PI: Marian C Levy

11/2015 - 8/2016

PUBLICATIONS

PEER-REVIEWED JOURNAL ARTICLES AND BOOK CHAPTERS

1. Yang, Y. (2019) A narrative review of the use of agent-based modeling in health behavior and behavior intervention, *Translational Behavioral Medicine*
2. Garcia LMT, Diez Roux AV, Martins ACR, Yang Y, Florindo AA. (2018) Exploring the emergence and evolution of population patterns of leisure-time physical activity through agent-based modelling. *International Journal of Behavioral Nutrition and Physical Activity*. 15(1):112.
3. Yang, Y, Langellier BA, Stankov I, Purtle J, Nelson KL, Diez-Roux AV. (2018) Examining the possible impact of daily transport on depression among older adults using an agent-based model. *Aging & Mental Health*.
4. Langellier B, Yang Y, Purtle J, Nelson K, Stankov I, Diez Roux AV. (2018) Complex Systems Approaches to Understand Drivers of Mental Health and Inform Mental Health Policy: A Systematic Review. *Administration and Policy in Mental Health and Mental Health*
5. Yang, Y, Xu Y, Rodriguez DA, Michael Y, Zhang H. (2018) Active travel, public transportation use, and daily transport among older adults. *Transportation and Health*.
6. Yang, Y, Jiang Y, Xu Y, Mzayek F, Levy M. (2018) A cross-sectional study of the influence of neighborhood environment on childhood overweight and obesity: Variation by age, gender, and environment characteristics. *Preventive Medicine*. 108:23-28.
7. Yang, Y, (2018), *Spatial Health Inequalities: Adapting GIS Tools and Data Analysis*, By Esra Ozdenerol, CRC Press, 2016, 205pp, ISBN 781498701518, *International Journal of Geographical Information Science*

8. Yang, Y., (2017), Study multiple risk factors and multiple outcomes at multiple levels: potential of agent-based modeling, *Annals of the New York Academy of Sciences*
9. Yang, Y., Rodriguez, D., Brown, D., Riolo, R., Diez-Roux, A. (2017), Chapter 6, Complex determinants of disparities in walking within cities, in book of *Growing inequality: bridging complex systems, population health, and health disparities*, Editor: George Kaplan, Westphalia Press
10. Garcia, L., Diez-Roux, A., Martins, A., **Yang, Y.**, Latorre, M., Florindo, A. (2017), A dynamic conceptual map to investigate the formation and evolution of population patterns of leisure-time physical activity, *International Journal of Behavioral Nutrition and Physical Activity*
11. Yang, Y., Xue H., Gurney, J., Wang, Y., (2017), Active Travel to and from school among Chinese children during 1997-2011 and associated factors, *Journal of Physical Activity and Health*
12. Yang, Y., Diez-Roux, A. V. (2017). Adults' daily walking for travel and leisure: interaction between the attitude towards walking and neighborhood environment *American Journal of Health Promotion*.
13. Yang, Y. (2016). A dynamic framework on travel mode choice focusing on utilitarian walking based on the integration of current knowledge. *Journal of Transport and Health*, 3(3), 336-345.
14. Yang, Y. (2016). Walking to Work: Trends in the United States, 2005-2014. *Preventing Chronic Disease*, 13, E135.
15. Yang, Y., Ivey, S. S., Levy, M. C., Royne, M. B., Klesges, L. M. (2016). Active Travel to School: Findings from the Survey of US Health Behavior in School-aged Children 2009-2010. *Journal of School Health*, 86(6), 464-471.
16. Smeltzer, M. P., Nolan, V. G., Yu, X., Nottage, K. A., Davis, B. A., **Yang, Y.**, Wang, W.C., Gurney, J.G., Hankins, J.S. (2016). Birth Prevalence of Sickle Cell Trait and Sickle Cell Disease in Shelby County, TN. *Pediatric Blood and Cancer*, 63(6)
17. Yang, Y. (2015). Interactions between psychological and environmental characteristics and their impacts on walking. *Journal of Transport and Health*, 2(2), 195-198
18. Yang, Y., Auchincloss, A. H., Rodriguez, D. A., Brown, D. G., Riolo, R., Diez-Roux, A. V. (2015). Modeling spatial segregation and travel cost influences on utilitarian walking: Towards policy intervention. *Computers, Environment and Urban Systems*, 51(0), 59-69.
19. Yang, Y., Diez-Roux, A. V., Evenson, K. R., Colabianchi, N. (2014). Examining the impact of the walking school bus using an agent-based model. *American Journal of Public Health*, 104(7), 1196-1203.
20. Yang, Y., Diez-Roux, A. (2013). Using an agent-based model to simulate childrens' active travel to school *International Journal of Behavioral Nutrition and Physical Activity*, 10(1), 67.
21. Yang, Y., Diez-Roux, A. V. (2012). Walking Distance by Trip Purpose and Population Subgroups. *American Journal of Preventive Medicine*, 43(1), 11-19.
22. Yang, Y., Diez Roux, A. V., Auchincloss, A. H., Rodriguez, D. A., Brown, D.G. (2012). Exploring walking differences by socioeconomic status using a spatial agent-based model. *Health and Place*, 18(1), 96-99.
23. Yang, Y., Diez Roux, A., Bingham, C. R. (2011). Variability and seasonality of active transportation in USA: evidence from the 2001 NHTS. *International Journal of Behavioral Nutrition and Physical Activity*, 8(1), 96.

24. Yang, Y., Diez Roux, A. V., Auchincloss, A. H., Rodriguez, D. A., Brown, D. G. (2011). A spatial agent-based model for the simulation of adults daily walking within a city. *American Journal of Preventive Medicine*, 40(3), 353-361.
25. Yang, Y., Atkinson, P., Ettema, D. (2011). Analysis of CDC social control measures using an agent-based simulation of an influenza epidemic in a city. *BMC Infectious Diseases*, 11(1), 199.
26. Yang, Y., Atkinson, P. (2008). Individual space-time activity-based model: a model for simulation of airborne infectious disease transmission by activity bundle simulation. *Environment and Planning B: Planning and Design*, 35(1), 80 - 99.
27. Yang, Y., Atkinson, P., Ettema, D. (2008). Simulation of Infectious Disease Transmission within a City: the Application of ISTAM to Eemnes by Role-based AB Simulation. *Journal of the Royal Society Interface*, 5, 759 - 772.
28. Yang, Y., Atkinson, P. (2008). Parameter exploration of the raster space activity bundle simulation. *Journal of Geographical Systems*, 10(3), 263-289.
29. Atkinson, P., **Yang, Y.** (2005). Modelling Space-Time Pattern in Infectious Disease under Environmental Constraints to Infer Underlying Transmission Processes: Initial Results from a Simulation Model. Paper presented at the Proceedings of the 8th International Conference on GeoComputation, Ann Arbor.

CONFERENCE PRESENTATIONS

2017, Invited talk, the Application of Geographic Perspective to Public Health Research, Earth Sciences Colloquium, University of Memphis

2017, Invited session, the Application of Agent Based Model for Health Promotion, Art and Science of Health Promotion Conference, Colorado Spring

2016, Levy, M., Kitsinger, A., Bartelli, D., **Yang, Y.**, Ivey, S., Turner, KB., Bullock, B., Collier, A., Knight, R., Addressing urban disparities through design and health: MemphisWalks, Annual Meeting of American Public Health Association, Denver

2016, Invited talk of Public Health Sciences Health Services and Behavioral Research Seminar, Active Travel to School by Students in the U.S. and China, Department of Public Health Sciences, Penn State University, March 15, Hershey, Pennsylvania

2015, Invited talk of GeoForum, To understand and promote active travel using agent based models: towards policy intervention, Geography and Planning School, Sun Yat-Sen University, June 24, Guangzhou, China

2015, To understanding and promote active travel using agent based models: towards policy intervention, the 6th International Forum of Spatially Integrated Humanity and Social Sciences, June 21-22, Wuhan, China

2015, Commentators for two presentations, Westlake Youth Forum on public health and health policy, hosted by China Medical Board and Zhejiang University, June 15-19, Hangzhou, China

2014, Invited symposium talk, Annual meeting of International Society of Behavioral Nutrition and Physical Activity, The impact of the Walking School Bus (WSB) on children's active travel to school: An agent-based model study

2013, Invited presentation, Understanding travel behavior change and promoting active travel using agent-based modeling, Department of Behavioral and Community Health Science, University of Pittsburgh

2008, Model analysis of potential causes for pertussis secular trends, EPIDEMICS1 (the First International Conference on Infectious Disease Dynamics), Asilomar, California

2007, A new method to generate human contact network, UK Social Network Conference, London

2006, Role, distance and movement: simulating individuals' activities for infectious disease transmission at fine spatial scale, International Conference in GIS and Public Health, Hong Kong

2005, An Integrated ABM and GIS Model of Infectious Disease Transmission. In Computers in Urban Planning and Urban Management. London, UK: Centre for Advanced Spatial Analysis.

TEACHING EXPERIENCE

MAJOR COURSES

PUBH 7130 Social Determinants of Health

Spring 2019, Instructor

Spring 2018, Co-Instructor (with Dr. Satish Kedia)

PUBH 7992 Master's Project Seminar

Spring 2019, Co-Instructor (with Drs. Levy and Yu)

Fall 2018, Co-Instructor (with Dr. Marian Levy)

Spring 2018, Co-Instructor (with Drs. Levy, Yu, & Ahn)

Fall 2017, Co-Instructor (with Dr. Marian Levy)

Spring 2017, Co-Instructor (with Drs. Levy and Banerjee)

Fall 2016, Co-Instructor (with Dr. Marian Levy)

Fall 2015, Co-Instructor (with Dr. Marian Levy)

PUBH 7605 Built Environment and Public Health

Spring 2017, Instructor

PUBH 7128 Environmental Health Policy and Decision Making

Spring 2016, Co-Instructor (with Dr. Debra Bartelli)

GUEST LECTURES

Spring 2018, Built Environment and Physical Activity, Environmental Health Policy and Decision Making, By Dr. Debra Bartelli, School of Public Health, University of Memphis

Fall 2014, Application of Agent-based modeling in Public Health, Medical Geography and Spatial Methods in Health Services, by Dr. Ge Lin, Department of Health Services Research and Administration, College of Public Health, University of Nebraska Medical Center

Fall 2014, Application of GIS in Public Health, Introduction of Geographical Information Systems, College of Computing and Informatics, by Drs. Tony Grubestic and Alan Murray, Drexel University

Fall 2013, Application of Agent-based modeling in Public Health, Systems Modeling of Behavior, Social Processes and Chronic Disease, by Drs. Rafael Mesa and Marisa Eisenberg, Department of Epidemiology, University of Michigan, Ann Arbor

Spring 2013, Built Environment and Physical Activity, Urban Design, by Dr. Igor Vojnovic, Department of Geography, Michigan State University, East Lansing,

Fall 2013, Application of Agent-based modeling in Public Health, Introduction to Social Epidemiology, by Dr. Allison Aiello, Department of Epidemiology, University of Michigan, Ann Arbor

Fall 2012, Application of Agent-based modeling in Public Health, Introduction to Social Epidemiology, by Dr. Amanda Simanek, Department of Epidemiology, University of Michigan, Ann Arbor

Winter 2012, Application of GIS in Public Health, Geographic Information Systems Applications, by Dr. Yichun Xie, Department of Geography and Geology, Eastern Michigan University, Ypsilanti

Fall 2011, Application of GIS in Public Health, Geographic Information Systems Applications, by Dr. Yichun Xie, Department of Geography and Geology, Eastern Michigan University, Ypsilanti

TEACHING ASSISTANT FOR UNIVERSITY OF SOUTHAMPTON

2006-2007, Quantitative Methods for Geographers, by Dr. Nigel Arnell

2005-2006, Introductory Geographical Information Systems, by Dr. Sam Cockings

2003-2004, Geostatistics for Environmental Applications, by Dr. Peter Atkinson

ADVISING

PhD students Cardella Leak, Social & Behavioral Science (major mentor: Dr. Harmon)
 Leandro Garcia, visiting PhD student from University of Sao Paulo, Brazil

Master students 2017-2019, School of Public Health, University of Memphis: Whitney P. Trujillo, Laurel Morgan, Courtney Boykin

2016-2018, School of Public Health, University of Memphis: Andrea Jacobo, Aisha Morafa, Darius James, Latoya White, Simone Maddox

2015-2017, School of Public Health, University of Memphis: Timonesha Holmes, Renea Satterwhite, Meghan B. Meadows, Kristin C. Malone, Chandra Kern, Brodrick Stevens, Amirah Anderson, Kelsey Currie, Rebecca Diamond, Sree Duggirala

2014-2016, School of Public Health, University of Memphis: Amy Farrell, Meghana Karchi, Leslie Jones, Brian McKinnon

2013-2015, School of Public Health, University of Memphis: Christie Gipson, Mary Powers, Carolyn Riordan, Amy Trimm

MISCELLANEOUS

2016-present Member
Pacesetter Toastmaster Club, Toastmasters International, Memphis

2012-2013 Vice President of Education
Washtenaw Toastmaster Club, Ann Arbor, Michigan

2009-2012 Member
Washtenaw Toastmaster Club, Ann Arbor, Michigan