

CURRICULUM VITAE

**Ross A. Hammond**

CONTACT INFORMATION

Economic Studies, Brookings Institution  
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PRIMARY RESEARCH INTEREST: Modeling complex dynamics in social, economic, and public health systems using mathematical and computational methods

CURRENT RESEARCH TOPICS: Pandemic containment policy, chronic disease prevention, health disparities, obesity etiology and prevention, tobacco control, implementation science, food systems and food security, social norms and social contagion, physical activity promotion, behavioral epidemiology

PROFESSIONAL EXPERIENCE

2010 – present	Director, Center on Social Dynamics and Policy, The Brookings Institution
2010 – present	Senior Fellow, Economic Studies Program, The Brookings Institution
2022 – present	Betty Bofinger Brown Distinguished Professor of Public Health, Brown School, Washington University in St Louis
2014 – present	External Professor, The Santa Fe Institute
2018 – 2022	Associate Professor and Betty Bofinger Brown Chair, Public Health and Social Policy, Brown School, Washington University in St. Louis

2014 – 2020	Associate Professor (adjunct), Nutrition Department, Harvard School of Public Health
2019 – 2020	Visiting Fellow, Visiting fellow, Center for Research and Interdisciplinarity (CRI), Paris Descartes University
2013 – 2017	Public Health Advisory, Division of Cancer Control & Population Sciences, National Cancer Institute and Office of Behavioral & Social Science Research, National Institutes of Health
2013 – 2016	Associate Visiting Professor, Epidemiology Department, University of Michigan School of Public Health
2006 – 2009	Fellow, Economic Studies Program, The Brookings Institution
2003 – 2005	NSF IGERT Fellow, Center for the Study of Complex Systems, University of Michigan
2000 – 2001	Research Modeler, Center on Social and Economic Dynamics, The Brookings Institution
1999 – 2000	Consultant, PricewaterhouseCoopers LLP

#### ADVISORY APPOINTMENTS AND BOARDS

2017 – present	Appointed member, Food and Nutrition Board of the <i>National Academy of Sciences</i>
2014 – present	Advisory Special Government Employee, Center for Tobacco Products, U.S. Food and Drug Administration (FDA)
2015 – 2019	HHS-appointed Advisory Council member for <i>National Institute on Minority Health and Health Disparities (NIMHD)</i> , NIH
2017 – 2019	Appointed member, <i>HHS Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives</i> subcommittee for systems science and modeling
2015 – 2019	Appointed Commissioner, <i>Lancet Commission on Obesity</i>
2021 – present	External advisor, <i>NIH/FDA Center of Tobacco Regulatory Science</i> , University of Michigan
2017 – 2020	Technical Advisory Board, <i>Alive &amp; Thrive</i>

- 2015 – 2016 Appointed Committee Member, *National Academy of Science/Institute of Medicine* Committee Evaluating Approaches to Assessing Prevalence and Trends in Obesity
- 2014 – 2015 Appointed consultant to *Institute of Medicine* committee Assessment of Agent-Based Tobacco Models.
- 2013 – 2015 Appointed Committee Member, *National Academy of Science/Institute of Medicine* Committee Framework for Assessing the Health, Environmental, and Social Effects of the Food System
- 2014 – 2016 Member, *California Endowment Paradigm II Research Workgroup* on complex systems approaches to understanding breast cancer causation and prevention
- 2012 – 2013 Appointed judge for *American Journal of Preventive Medicine* Childhood Obesity Challenge
- 2011 – 2012 Appointed consultant to *Institute of Medicine* committee Accelerating Progress on Obesity Prevention
- 2009 – 2015 Steering committee, *National Collaborative on Childhood Obesity Research* (NCCOR) Envision project CompMod network
- 2010 – 2015 Founding Member, *NIH Office of Behavioral and Social Science* Network on Inequality, Complexity, and Health (NICH)
- 2009 – 2011 Consultant to *The World Bank*, Latin American Public Sector Development
- 2009 – 2011 Consultant to the Asian Development Bank
- 2006 – 2011 Member, NIH MIDAS (Models of Infectious Disease Agent Study) Network
- 2006 – 2007 Okun-Model Early-Career Fellowship in Economics

## EDUCATION

UNIVERSITY OF MICHIGAN  
Ann Arbor, Michigan  
September 2001-August 2006

Ph.D., Department of Political Science. Fields of Specialization:  
Comparative Politics, Political Economy and Development, Methodology,

and Complex Systems. Dissertation Chair: Robert Axelrod

WILLIAMS COLLEGE  
Williamstown, Massachusetts  
September 1995-June 1999

B.A. (with Honors). Double-major in Economics and Political Science with honors thesis on dynamics of corruption using agent-based modeling.

### GRANTS AND CONTRACTS

- 2022 – 2025 Early Childhood Physical Activity: A Dynamic Systems Approach to Reducing Health Disparities (\$1,224,000; 3 years, NIH 1R01HD107002). Role: Principal Investigator (MPI)
- 2021 – 2024 Catalyzing Communities: Applying systems science modeling to whole-of-community obesity prevention (\$2,000,000; 3 years; JPB Foundation with Tufts University). Role: Principal Investigator on modeling subcontract
- 2021 – 2026 Washington University Center for Diabetes Translation Research (\$4,300,000; 5 years; NIH 2P30DK092950-11). Role: Co-Investigator; co-lead of Policy & System Science Analysis Core
- 2020 – 2021 Applying the TRACE model to inform COVID containment efforts in St Louis (\$25,000; 3 months; City of St Louis). Role: Principal Investigator
- 2020 – 2021 Developing a policy laboratory for COVID-19 response: TRACE. (\$100,000; 1 year; Special Initiative Funds, Brookings Institution). Role: Principal Investigator
- 2019 – 2024 Washington University Implementation Science Center for Cancer Control (WU-ISCCC). (\$7,600,000; 5 years; NIH 1P50CA244431). Role: Co-Investigator.
- 2018 – 2023 ASPIRE: Advancing Science & Practice in the Retail Environment (\$11,607,149; 5 years; NIH 1P01CA225597). Role: Principal Investigator, Arm 3 (MPI).
- 2016 – 2023 Common and distinct early environmental influences on cardiometabolic and respiratory health: Mechanisms and methods, with Harvard Medical School. (\$19,668,541; 7 years; NIH UG3OD023286). Role: Co-Investigator (PI of subcontract for computational modeling).
- 2013 – 2018 Systems Science to Guide Whole of Community Childhood Obesity Interventions, with Tufts University and Harvard Medical School.

- (\$3,521,218; 5 years; NIH 1R01HL115485). Role: Principal Investigator (MPI).
- 2016 – 2018 Agent-Based Modeling to Measure the Impact of Menthol and Retailer Density Policies in Minnesota, with University of Minnesota and Washington University. (\$250,000; 2 years; Clearway Minnesota). Role: Principal Investigator (MPI).
- 2014 – 2019 Dynamic Systems Science Modeling for Public Health, with University of Michigan. (\$1,019,402; 5 years; NIH 1R25HD082971). Role: Co-Investigator (PI of subcontract).
- 2017 – 2022 Mis-implementation in Cancer Prevention and Control, with Washington University. (\$2,606,130; 5 years; NIH 1R01CA214530). Role: Co-Investigator (PI of subcontract for computational modeling).
- 2017 – 2022 What makes cities healthy, equitable and environmentally sustainable? Lessons from Latin America, with Drexel University. (\$12,000,000; 5 years; Wellcome Trust UK). Roles: consultant.
- 2013 – 2018 Place Characteristics & disparities in HIV in IDUs: A multilevel analysis of NHBS, with Emory University. (\$3,294,543; 5 years; NIH 3R01DA035101). Role: Co-Investigator (PI of subcontract for computational modeling).
- 2014 – 2016 Capacity Development in Systems Science Methodology (\$90,000; 2 years; National Cancer Institute contract via Westat). Role: Principal Investigator.
- 2015 - 2016 Applying Tobacco Town to tobacco use in New York City. (\$20,000; 1 year; New York City Department of Health and Mental Hygiene contract). Role: Principal Investigator.
- 2014 – 2015 Complex Systems Approaches to Childhood Literacy. (\$100,000; 1 year; Every Child Capital). Role: Principal Investigator.
- 2013 – 2014 Maximizing state & local policies to restrict tobacco marketing at point of sale. (\$100,000; 1 year; supplement from National Cancer Institute to existing U01 to Washington University). Role: Principal Investigator on supplement subcontract.
- 2013 – 2015 A Retail Policy Laboratory: Modeling Impact of Retailer Reduction on Tobacco Use, with Washington University (\$399,024; 2 years; NIH 1R21CA172938). Role: Co-Investigator (PI of subcontract for computational modeling)
- 2013 – 2014 Review of the PBGC Models and Methodology (\$250,000; 1 year; Social

Security Administration). Role: Principal Investigator.

- 2009 – 2014 Multi-level Modular Agent-based Modeling for the Study of Childhood Obesity, with McGill University. (\$1,434,792; 5 years; NIH 1R01HD08023). Role: Co-Investigator (PI of subcontract for computational modeling).
- 2009 – 2014 Computational Models of Infectious Disease Threats, with University of Pittsburgh. (\$8,067,088; 5 years; NIH 5U54GM088491). Role: Co-Investigator.
- 2010 – 2013 Causes and Interventions for Childhood Obesity: Innovative Systems Analysis, with Johns Hopkins University. (\$1,225,357; 3 years; NIH 5R01HD064685). Role: Consultant.
- 2010 – 2011 Humans as Explicit Players in Ecosystems, with Santa Fe Institute. (\$100,000; 2 years; Keck Foundation). Role: Principal Investigator (MPI).
- 2011 – 2012 Modeling Crime as a Contagion. (\$100,000; 2 years; Justice Grants Administration of DC Metropolitan Government). Role: Principal Investigator.
- 2011 – 2012 Gaming Model for Public Health Awareness, with University of Southern California (\$50,000; 1 year; Gates Foundation) Role: Principal Investigator (MPI).
- 2012 – 2013 Gender Differences in Obesity in Black Americans throughout the Life Course: Towards a systems modeling approach, with University of Pennsylvania. (\$12,000; 1 year; via NIH OBSSR contract to Univ of Michigan). Role: Principal Investigator (MPI).
- 2010 – 2011 Integrated Childhood Obesity Modeling. (\$50,000; 1 year; Brookings/Washington University Academic Venture Fund). Role: Principal Investigator (MPI).
- 2011 – 2012 An agent-based model of racial change in neighborhoods and schools in American Metropolitan Areas, with University of Minnesota. (\$20,000; 1 year; via NIH OBSSR contract to Univ of Michigan). Role: Principal Investigator (MPI).
- 2009 – 2011 Trust in Government In Latin America. (\$90,000; 2 years; The World Bank). Role: Principal Investigator (MPI).
- 2011 – 2012 Understanding Human Decision-making and its consequences for social dynamics and social inequality, with University of Michigan and Indiana

University. (\$15,000; 1 year; via NIH OBSSR contract to Univ of Michigan).  
Role: Principal Investigator (MPI).

2008 – 2013 Preparedness and Emergency Response Research Centers: A PHS Approach, with University of Pittsburgh School of Public Health. (\$8,400,000; 5 years; CDC TP-08-001). Role: Co-Investigator.

2006 – 2011 Preparedness And Catastrophic Event Response (PACER), with Johns Hopkins University Medical School. (\$15,000,000; 5 years; DHS/ONR BAA05-008). Role: Co-Investigator.

2007 – 2010 Collaborative Research: Modeling Interaction Between Individual Behavior, Social Networks And Public Policy To Support Public Health Epidemiology, with University of Washington. (\$120,000; 3 years; NSF SES-0729262).

### PEER-REVIEWED PUBLICATIONS

[1] Kasman M, **Hammond RA**, Purcell R, Heuberger B, Moore TR, Grummon AH, Wu AJ, Block JP, Hivert MF, Oken E, and Kleinman K. An agent-based model of child sugar-sweetened beverage consumption: implications for policies and practices. *Am J Clin Nutr* (in press, 2022).

[2] Langellier BA, Stankov I, **Hammond RA**, Bilal U, Auchincloss A, Barrientos T, Cardoso L, and Diez-Roux AV. “Potential impacts of policies to reduce purchasing of ultra-processed foods in Latin American countries at different stages of the social transition: an agent-based modeling approach”. *Public Health Nutrition* 25(6): 1711-1719 (2022).

[3] Kasman M, **Hammond RA**, Mack-Crane A, Purcell R, Korn AR, Appel JM, Hennessy E, Swinburn B, Allender S, and Economos CD. “Using Agent-based Modeling to Extrapolate Community-wide Impact from a Stakeholder-Driven Childhood Obesity Prevention Intervention: Shape Up Under 5” *Childhood Obesity* (in press, 2022).

[4] Korn AR, Appel J, **Hammond RA**, Hennessy E, Masse LC, Must LC, Economos CD. “Validation and refinement of the Stakeholder-driven Community Diffusion Survey for childhood obesity prevention”. *Implementation Science* 16:91 (2021).

[5] Bedson J, Skrip LA, Pedi D, Abramowitz S, Carter S, Jalloh MF, Funk S, Gobat N, Giles-Vernick T, Chowell G, Almeida JRD, Elessawi R, Scarpino SV, **Hammond RA**, Briand S, Epstein JM, Hebert-Dufresne L, and Althouse BM. “A review and agenda for integrated disease models including social and behavioral factors” *Nature Human Behavior* 5:834-846 (2021).

[6] Stankov I, Useche AF, Meisel JD, Montes F, Morais LMO, Friche AAL, Langellier BA, Hovmand P, Sarmiento OL, **Hammond RA**, and Diez-Roux AV. “From causal loop

diagrams to future scenarios: Using the cross-impact balance method to augment understanding of urban health in Latin America” *Social Science & Medicine* 282:114157 (2021).

[7] Korn AR, **Hammond RA**, Hennessy E, Must A, Pachucki M, and Economos C. "Evolution of a Coalition Network during a Whole-of-community Intervention to Prevent Early Childhood Obesity". *Childhood Obesity* 17(6):379-390 (2021).

[8] Stankov I, Useche AF, Meisel JD, Montes F, Morais LMO, Friche AAL, Langellier BA, Hovmand P, Sarmiento OL, Hammond RA, and Diez-Roux AV. "Using cause-effect graphs to elicit expert knowledge for cross-impact balance analysis” *MethodsX* 8:101492 (2021).

[9] **Hammond RA**. "Overview of Current Concepts and Process for Agent-based Modeling." In Kim D, ed. *New Horizons in Simulation Modeling for Social Epidemiology*. New York: John Wiley & Sons (2021).

[10] Linton SL, Des Jarlais DC, Ornstein J, Kasman M, **Hammond RA**, Kianian B, Smith JC, Wolfe ME, Ross Z, German D, Flynn C, Raymond HF, Klevens RM, Spencer E, Schact JM, Finlayson T, Paz-Bailey G, Wejnert C, and Cooper HLF. "An application of agent-based modeling to explore the impact of decreasing incarceration rates and increasing drug treatment access on sero-discordant partnerships among people who inject drugs". *International Journal of Drug Policy* 94:103194 (2021).

[11] Payne-Sturges D, Cory-Slechta D, Puett R, Thomas S, **Hammond RA**, Hovmand P "Defining and intervening on cumulative environmental neurodevelopmental risks: Introducing a complex systems approach” *Environmental Health Perspectives* 129(3) (2021).

[12] **Hammond RA**. "Bridging Gaps to Advance Agent-based Modeling of Social Determinants of Health." In Kim D, ed. *New Horizons in Simulation Modeling for Social Epidemiology*. New York: John Wiley & Sons (2021).

[13] Korn AR, Economos CD, **Hammond RA**, Hennessy E, Kalkwarf HJ, Must A, and Woo JG. "Associations of mothers’ source of feeding information with longitudinal trajectories of sugar-sweetened beverage intake, 100% juice intake, and adiposity in early childhood” *Pediatric Obesity* 16(5): e12746 (2021).

[14] Kasman M, Heuberger B, Mack-Crane W, Purcell R, **Hammond RA**, Oken E, and Kleinman KP. "Using a Microsimulation of Energy Balance to Explore the Influence of Prenatal Sugar-sweetened Beverage Intake on Child Body Mass Index” *Obesity* 29(4):731-739 (2021).

[15] Bilal U, Hessel P, Perez-Ferrer C, Michael YL, Alfaro T, Tenorio-Mucha J, Friche A, Pina MF, Vives A, Quick H, Alazraqui M, Rodriguez DA, Miranda JJ, Diez-Roux AV &

**the SALURBAL group (incl Hammond RA)** “Life expectancy and mortality in 363 cities of Latin America”. *Nature Medicine* 27:463–470 (2021)

[16] Ornstein JT and **Hammond RA**. “Agent-based Modeling in the Social Sciences.” In Kim D, ed. *New Horizons in Simulation Modeling for Social Epidemiology*. New York: John Wiley & Sons (2021).

[17] Kim D and **Hammond RA**. “Rationale for New Modeling and Simulation Tools: Agent-based Modeling and Microsimulation.” In Kim D, ed. *New Horizons in Simulation Modeling for Social Epidemiology*. New York: John Wiley & Sons (2021).

[18] Kasman M, Breen N, and **Hammond RA**. “Complex Systems Science.” In Dwankamullan, I, Gardner, K, Perez-Stabile, EJ, and Zhang, X, eds. *The Science of Health Disparities Research and Applications*. Chichester, UK: John Wiley & Sons (2021).

[19] Ornstein JT and **Hammond RA**. “Agent-based Modeling in Public Health.” In Kim, D, ed. *New Horizons in Simulation Modeling for Social Epidemiology*. New York: John Wiley & Sons (2021).

[20] Kim D and **Hammond RA**. “Future Directions in Simulation Modeling for Social Epidemiology” In Kim D, ed. *New Horizons in Simulation Modeling for Social Epidemiology*. New York: John Wiley & Sons (2021).

[21] **Hammond RA**, Luke D, Mack-Crane W, Kasman M, Sorg A, Snider D. “Development of a computational modeling laboratory for examining tobacco control policies: Tobacco Town”. *Health & Place* 61:102256 (2020)

[22] Ornstein JT, **Hammond RA**, Padek M, Mazzucca S, and Brownson RC. “Rugged Landscapes: Complexity and Implementation Science” *Implementation Science* 15:85 (2020).

[23] **Hammond RA**. “The value of testing and modeling”. In Allen J and West, D, eds. *Reopening America: How to Save Lives and Livelihoods*. Washington, DC: Brookings Institution (2020).

[24] Heuberger B, Paukner A, Wooddell LJ, Kasman M, and **Hammond RA**. “Role of novelty and fat and sugar concentration in food selection by captive tufted capuchins (*Sapajus apella*)” *American Journal of Primatology* 2020:e23165 (2020).

[25] Barton MC, et al. (incl. **Hammond RA**) “Transparency of COVID-19 models” *Science* 368(6490):482-483 (2020).

[26] Stankov I, Garcia LMT, Masculli MA, Montes F, Meisel JD, Gouveia N, Sarmiento OL, Rodriguez DA, **Hammond RA**, Caiaffa WT, and Diez-Roux AV. “A systematic review of empirical and simulation studies evaluating the health impact of transportation interventions” *Environmental Research* 186:109519 (2020).

[27] Hennessy E, Economos C, and **Hammond RA** (with the SUS Map Team & the COMPACT Team). “Integrating complex systems methods to advance obesity prevention intervention research”. *Health Education & Behavior* 47(2):213-223 (2020).

[28] Kasman M, **Hammond RA**, Heuberger B, Mack-Crane A, Purcell R, Economos C, Swinburn B, Allender S, and Nichols M. “Activating a Community: An Agent-Based Model of Romp & Chomp, a Whole-of-Community Childhood Obesity Intervention”. *Obesity* 27:9 (2019). [selected as Editor’s Choice article]

[29] Combs T, Mckay V, Ornstein J, Mahoney M, Cork K, Brosi D, Kasman M, Heuberger B, **Hammond RA**, and Luke D. “Modeling the impact of menthol sales restrictions & retailer density reduction policies: Insights from Tobacco Town Minnesota”. *Tobacco Control* 0:1-8 (2019).

[30] Morshed AB, Kasman M, Heuberger B, **Hammond RA**, and Hovmand PS. “A systematic review of system dynamics and agent-based obesity models: evaluating obesity as part of the global syndemic” *Obesity Reviews* 2019:1-18 (2019).

[31] Langellier BA, Kuhlberg JA, Ballard EA, Slesinski SC, Stankov I, Gouveia N, Meisel JD, Kroker-Lobos MF, Sarmiento OL, Caiaffa WT, Diez Roux AV, and the **SALURBAL Group (incl Hammond RA)**. “Using community-based system dynamics modeling to understand the complex systems that influence health in cities: The SALURBAL study” *Health & Place* 60:102215 (2019).

[32] Appel J, Fullerton K, Hennessy E, Korn A, Tovar A, Allender S, Hovmand PS, Kasman M, Swinburn B, **Hammond RA**, and Economos C. “Shape Up Under 5: Integrating systems science and community-engaged research techniques to prevent early childhood obesity” *PLOS ONE* 14(8): e0220169 (2019).

[33] Langellier BA, Lobban K, Bilal U, Montes F, Meisel J, Cardoso LO, and **Hammond RA**. “Complex systems approaches to diet: a systematic review.” *Am J Prev Med* 57(2):273-281 (2019).

[34] Swinburn B, et al [incl **Hammond RA**]. “The Global Syndemic of Obesity, Undernutrition, and Climate Change: *The Lancet* Commission report.” *The Lancet* [https://doi.org/10.1016/S0140-6736\(18\)32822-8](https://doi.org/10.1016/S0140-6736(18)32822-8) (2019).

[35] Korn AR, Hennessy E, Tovar A, Finn C, **Hammond RA**, and Economos C. “Engaging coalitions in community-based childhood obesity prevention interventions: a mixed methods assessment.” *Childhood Obesity* 14:8 (2018).

[36] Barnhill A, Palmer A, Weston C, Brownell K, Clancy K, Economos C, Gittelsohn J, **Hammond RA**, Kumanyika S, and Bennett W. “Grappling with Complex Food Systems to Reduce Obesity: A Challenge Facing Public Health.” *Public Health Reports* 133:44S-53S (2018).

- [37] Korn AR, Hennessy E, **Hammond RA**, Allender S, Gillman MW, Kasman M, McGlashan J, Millar L, Owen B, Pachucki MC, Swinburn B, Tovar A, Economos C. “Development and testing of a novel survey to assess Stakeholder-driven Community Diffusion of childhood obesity prevention efforts.” *BMC Public Health* 18:681 (2018).
- [38] Padek M, Allen P, Erwin PC, Franco M, **Hammond RA**, Heuberger B, Kasman M, Luke D, Mazzucca S, Moreland-Russell S, and Brownson RC. “Toward Optimal Implementation of Cancer Prevention and Control Programs in Public Health.” *Implementation Science* 13:49 (2018).
- [39] Economos C and **Hammond RA**. “Designing effective and sustainable multi-faceted interventions for obesity prevention and healthy communities.” *Obesity* 25(7):1155-1156 (2017).
- [40] Luke D, **Hammond RA**, Combs T, Sorg A, Kasman M, Mack-Crane W, Ribisl KM, and Henriksen L. “Tobacco Town: Using computational modeling to study effects of policies designed to reduce tobacco retailer density.” *American Journal of Public Health* 107(5): 740-746 (2017).
- [41] **Hammond RA**, Osgood N, and Wolfson M. “Using Complex Systems Simulation Modeling to Understand Health Inequality.” in Kaplan, GA and Galea, S, eds. *Growing Inequality: Bridging Complex Systems, Population Health, and Health Disparities*, Westphalia Press (2017).
- [42] Fleischer NL, Liese AD, **Hammond RA**, Coleman-Jensen A, Gundersen C, Hirschman J, Frongillo EA, Ma X, Mehta N, and Jones SJ. “Using systems science to gain insight into childhood food security in the United States: Report of an expert mapping workshop.” *J Hunger & Envi Nutr.* 12(1):1-23 (2017).
- [43] Reedy J, Krebs-Smith S, **Hammond RA**, and Hennessy E. “Advancing the science of dietary patterns research: developing a framework and leveraging a complex systems approach.” *Journal of the Academy of Nutrition and Dietetics* 117(7):1019-1022 (2017).
- [44] Kumanyika S, Kasman M, Whitt-Glover MC, Mack-Crane A, Kaplan G, and **Hammond RA**. “A Prototype for Identifying Policy-Relevant Reasons for Gender Differences in Physical Activity.” In Kaplan, GA and Galea, S, eds. *Growing Inequality: Bridging Complex Systems, Population Health, and Health Disparities*, Westphalia Press (2017).
- [45] Vodovotz Y, Xia A, Read E, Bassaganya-Riera J, Hafler D, Sontag E, Wang J, Tsang J, Day J, Kleinstein S, Butte A, Altman M, **Hammond RA**, Sealfon S. “Solving Immunology?” *Trends in Immunology* 38(2):116-127 (2016).
- [46] Gillman MW and **Hammond RA**. “Precision Treatment and Precision Prevention: Integrating ‘Below and Above the Skin.’” *JAMA Pediatrics* 170(1):9-10 (2016).

- [47] Hennessy E, Ornstein J, Economos C, Bloom-Herzog J, Lynskey V, Coffield E, and **Hammond RA**. “Designing an agent-based model for childhood obesity interventions: A case study of ChildObesity180.” *Preventing Chronic Disease* 13:150414 (2016).
- [48] Ornstein J and **Hammond RA**. “The Burglary Boost: A Note on Detecting Contagion Using the Knox Test.” *Journal of Quantitative Criminology* 33(1):65-75 (2016).
- [49] **Hammond RA**. “Considerations and Best Practices in Agent-based Modeling to Inform Policy.” In *Assessment of Agent-based Models to Inform Tobacco Policy*: Institute of Medicine, National Academy of Sciences Press (2015).
- [50] Hawkes C, Smith T, Jewell J, Wardle J, **Hammond RA**, Friel S, Throw AM, Kain J. “Smart Food Policies for Obesity Prevention.” *The Lancet* 385:9985, pp. 2410-2421 (2015).
- [51] Huang TTK, Cawley JH, Ashe M, Costa SA, Frerichs LM, Zwicker L, Rivera JA, Levy D, **Hammond RA**, Lambert E, Kumanyika S. “Mobilisation of Public Support for Policy Actions to Prevent Obesity.” *The Lancet* 385:9985, pp. 2422-2431 (2015).
- [52] Shoham D, **Hammond RA**, Rahmandad H, Wang Y, and Hovmand P. “Modeling social norms and social influence in obesity.” *Curr Epidem Reports* 2(1):71-79 (2015).
- [53] Bruch EB, **Hammond RA**, Todd PM, “Co-evolution of decision-making and social environments.” In Scott R, Kosslyn H, eds. *Emerging Trends in the Social and Behavioral Sciences*. Hoboken, NJ: John Wiley and Sons (2015).
- [54] **Hammond RA**. “Complex Adaptive Systems.” in Neff R, ed. *Introduction to the US Food System: Public Health, Environment, and Equity*, Jossey-Bass. (2014)
- [55] **Hammond RA** and Ornstein J. “A model of social influence on body weight.” *Ann N Y Acad Sci* 1331:34-42 (2014)
- [56] Hall K, **Hammond RA**, Rahmandad H. “Dynamic interplay between homeostatic, hedonic, and cognitive feedback circuits regulating body weight.” *American Journal of Public Health* 104(7):1169-1175 (2014).
- [57] Ip E, Shoham D, **Hammond RA**, Huang TTK, Wang Y, Rahmandad H, and Mabry PL. “Reconciling Statistical and Systems Science Approaches to Public Health.” *Health Ed & Behav.* 30(1S):123-131 (2013).
- [58] Brown JR, Elliott D, Gordon T, and **Hammond RA**. “A Review of the Pension Benefit Guaranty Corporation Pension Insurance Modeling System.” (2013). Available at SSRN: <http://ssrn.com/abstract=2329987>

- [59] **Hammond RA**, Ornstein JT, Fellows LK, Dube L, Levitan R, and Dagher A. “A model of food reward learning with dynamic reward exposure.” *Front. Comput. Neurosci.* 6:82 (2012).
- [60] **Hammond RA** and Dube L. “A Systems Science Perspective and Transdisciplinary Models for Food and Nutrition Security.” *Proceedings of the National Academy of Sciences* 109(31):12356-12363 (2012).
- [61] Nader PR, Huang TTK, Gahagan S, Kumanyika S, **Hammond RA**, and Christoffel KK. “Next Steps in Obesity Prevention: Altering Early Life Systems to Support Healthy Parents, Infants, and Toddlers.” *Childhood Obesity* 8(3):195-204 (2012).
- [62] Gulden TR and **Hammond RA**. “Beyond Zipf: An Agent-Based Understanding of City Size Distributions.” In Heppenstall AJ, Crooks AT, See LM, Batty M, eds. *Agent-Based Models of Geographical Systems*. New York: Springer (2012).
- [63] Huang TTK, Grim B, and **Hammond RA**. “A systems-based typological framework for understanding the sustainability, scalability, and reach of childhood obesity interventions.” *Children’s Health Care* 40:253-266 (2011).
- [64] Mabry PL, **Hammond RA**, Huang T, and Ip EH. “Computational and statistical models: A comparison for policy modeling of childhood obesity.” In Salerno JJ, et al. (eds) *Social Computing, behavioral-cultural modeling and prediction (SBP) 4<sup>th</sup> International Conference Proceedings* (p. 87), New York: Springer (2011).
- [65] Epstein JM, Pankajakshan R, and **Hammond RA**. “Combining Computational Fluid Dynamics and Agent-Based Modeling: A New Approach to Evacuation Planning.” *PLOS ONE* 6(5):e20139 (2011).
- [66] **Hammond RA**. “Social influence and obesity.” *Current Opinion in Endocrinology, Diabetes & Obesity* 17(5):467-471 (2010).
- [67] **Hammond RA** and Levine R. “The Economic Impact of Obesity in the United States.” *Diabetes, Metabolic Syndrome, and Obesity: Targets and Therapy* 3:1-11 (2010).
- [68] **Hammond RA**. “A Complex Systems Approach to Understanding and Combating the Obesity Epidemic.” In *Obesity Prevention: The Role of Brain and Society in Individual Behavior*, L. Dube et al, eds. Amsterdam: Elsevier (2010).
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#### POLICY BRIEFS AND OP-EDs

[1] **Hammond RA** and Kasman M. “How the Omicron response can prepare us for the next wave”. *Brookings Institution* (2022).

[2] Kasman M and Kreuger LK (Bruch E and **Hammond RA**, eds.) *Best Practices for Systems Science Research* (monograph). NIH Office of Behavior and Social Science, Director’s Office (2022).

[3] **Hammond RA** and Kasman M. “Stemming a fourth COVID-19 wave at the local level”. *Brookings Institution* (2021).

[4] Kasman M and **Hammond RA**. “How embracing complexity can reduce health disparities and advance social justice”. *Brookings Institution* (2021).

[5] **Hammond RA**. “Developing policies for effective COVID-19 containment: the TRACE model” *Brookings Institution* (2020).

[6] Pronk N, Dehmer SP, **Hammond RA**, Halverson P, Lee B. “Complex Systems Science and Modeling: An Issue Brief to Inform Development of Healthy People 2030.” *HHS Secretary’s Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2030* (2020).

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#### SELECTED PRINT MEDIA COVERAGE

“Reducing sugary drinks in homes — not schools — has most benefit” *Healio* Sept 19, 2022

“Fears for US recovery grow as virtual schooling continues” *Financial Times* Sept 8, 2020

“Keeping Schools Closed Could Cost the U.S. Economy at Least \$700 Billion” *Barron’s* Aug 24, 2020

“55 million kids are stuck at home and the US economy is losing \$50 billion a month: Inside the DC clash over how to help schools reopen safely” *Business Insider* July 28, 2020

“Access to Coronavirus Testing Can Depend on Who You Know” *Wall Street Journal* May 31, 2020

“Coronavirus School, Daycare Closures Could Cost the U.S. \$50 Billion” *US News* March 12, 2020

“School closures are starting, and they’ll have far-reaching economic impacts” *Fast Company* March 12, 2020

“Obesity, malnutrition and climate change are the greatest threats to humanity.” *Reuters* January 28, 2019

“To fix climate change, fix the obesity and starvation epidemics, reports say.” *CNN.com* January 28, 2019

“Radical rethink needed to tackle obesity, hunger, climate: report.” *AFP* January 28, 2019

“Tackling obesity needs treaty like climate change.” *The Times* January 28, 2019

“Public health experts call for global food treaty.” *Financial Times* January 28, 2019

“Study Calls Obesity, Climate Change And Undernutrition A Syndemic.” *NPR* January 28, 2019

“Obesity, climate change and hunger must be fought as one, health experts declare.” *Los Angeles Times* January 29, 2019

“Fixing climate change, obesity requires ‘fundamentally transformed’ capitalism, says new report.” *Newsweek* January 28, 2019

“Global treaty needed to tackle obesity, researchers say.” *CNBC* January 28, 2019

“Progressive businesses urged to drive healthier food system.” *The Telegraph* January 28, 2019

“International treaty needed to stop Big Food industry driving obesity and climate change, reports says.” *The Independent* January 28, 2019

“Want to fix obesity and climate change at the same time? Make Big Food companies pay.” *Vox* January 28, 2019

“Take on food industry to beat malnutrition and obesity, says report.” *The Guardian* January 28, 2019

“Big Food Blamed for Ills Far Beyond Flab in Sweeping Report.” *Bloomberg* January 28, 2019

“Indigenous obesity symposium held in Rotorua.” *New Zealand Herald* May 2, 2017

“New Lifetime Estimate of Obesity Costs.” *The Fiscal Times* May 15, 2015

“American economy has a weight problem as costs of obesity mount.” *Dallas News* March 11, 2015

“Obesity Is Complicated and Needs New Approach, Scientists Say.” *Live Science* Feb 19, 2015

“Global Progress Against Obesity ‘Unacceptably Slow’.” *Reuters* Feb 18, 2015

“Obesity experts call for stricter rules on junk food ads targeted at children.” *The Guardian* Feb 18, 2015

“Obesity is a health care ‘time bomb,’ warn Lancet authors.” *Toronto Star* Feb 18, 2015

“Can the U.S. Prevent a Deadly Ebola Outbreak?” *The Fiscal Times* Oct 9, 2014

“How the CDC Would Combat an Ebola Outbreak, However Unlikely.” *Newsweek* Oct 7, 2014

“How Fear of Ebola Could Impact the US Economy.” *ABC News* Oct 3, 2014

“Flu-conomics.” *Reuters* January 21<sup>st</sup>, 2013

“Roberts Saves Obamacare: Now the Real Work of Reform Begins.” *Huffington Post* July 3<sup>rd</sup>, 2012

“Obesity: Food for thought.” *The Economist* May 19<sup>th</sup> 2012

“What is the worsening obesity epidemic costing us?” *The New Republic* July 14, 2011

“How Obesity Spreads In Social Networks.” *Scientific American* May 5, 2011

“Obesity costs US 216 billion dollars.” *AFP* Sept 14, 2010

“People: In the Tanks.” *National Journal* Sept 4, 2010

“The Scouting Report Web Chat: Flu Contagion in Schools.” *Politico* October 21, 2009

“Swine Flu School Closings Could Cost Billions.” *The Associated Press* September 30, 2009.

“Swine flu fear catching fast in weak world economy.” *The Associated Press* April 28, 2009.

“Swine flu: An Investor’s Overview.” David Bogoslaw. *Business Week* April 28, 2009.

“Born Prejudiced.” Mark Buchanan. *The New Scientist* March 17, 2007.

*The Social Atom*, Mark Buchanan. Bloomsbury, USA May, 2007.

“We’re Prejudiced, now what?” Robert Burton. *Salon* October 31, 2007

“Life with the Artificial Anasazi.” Jared Diamond. *Nature* 419(6907), 2002.

“Seeing Around Corners.” Jonathan Rauch. *The Atlantic Monthly* April 2002.

#### SELECTED BROADCAST MEDIA COVERAGE

BBC America, PBS Newshour, NPR “Diane Rehm Show”, NPR “Marketplace”, NPR “The Takeaway”, Fox Business, AlHurrah, The Joel Riley Morning Show, MSNBC, regional NBC, CBS, and ABC affiliates

#### SELECTED INVITED PRESENTATIONS

**Hammond RA** (2022) “Agent-Based Modeling: Applications in Tobacco Regulatory Science” *NIH/FDA Center of Tobacco Regulatory Science*, University of Michigan

**Hammond RA** (2022) “TRACE: Lessons from the Omicron wave and preparedness for the future” *St Louis Regional COVID Comparative Modeling Network*

**Hammond RA** (2022) “Complex Systems Modeling, Nutritional Ecology & Food Policy” *NIH/NICHD and the Academy for Nutrition and Dietetics*

**Hammond RA** (2022) “Complex Systems Modeling of Disease and Population Health: Intro and Overview” *Duke University*

**Hammond RA** (2021) “Using Systems Science for a Multifaceted Multi-outcome Whole-of-Community Intervention to Prevent Childhood Obesity” *NIH/NCCIH*

**Hammond RA** (2021) “Agent-based Modeling of Disease and Population Health: Intro and Overview”, Complexity Interactive, *Santa Fe Institute*

**Hammond RA** (2021) “Containing COVID in the metro area: simulation results”, invited briefing for the *St Louis Board of Health & Hospitals*

**Hammond RA** (2020) “Options for Robust Containment of COVID-19 in the United States”, invited briefing for Bipartisan Working Group Caucus, *United States Congress*

**Hammond RA** (2021) “TRACE: Modeling Robust Containment of COVID-19 in the Face of Uncertainty”, *Washington University Open Classroom*

**Hammond RA** (2020) “TRACE: Modeling Robust Containment Policy in the Face of Uncertainty”, invited presentation to the *St Louis Regional COVID Comparative Modeling Network*

**Hammond RA** (2020) “TRACE: Modeling Robust Containment Policy in the Face of Uncertainty”, invited presentation at the *San Francisco Department of Health*

**Hammond RA** (2020) “Toward Precision Prevention: Using Complex Systems Science to Inform Interventions” invited presentation at the *New Jersey Healthy Kids Initiative Symposium on Systems Approaches to Child Health and Well Being*

**Hammond RA** (2020) “TRACE: Modeling Robust Containment Policy in the Face of Uncertainty” invited presentation at the *Santa Fe Institute*

**Hammond RA** (2020) “Using Agent-based Modeling for Policy Research” invited presentation at the *Washington University Network on Dissemination and Implementation Research (WUNDIR)*

**Hammond RA** (2020) “Testing Responses to COVID-19 through Agent-based Computational Epidemiology” invited presentation at the *Australian National University*

**Hammond RA** (2020) “Using Models from Epidemiology Effectively to Inform Policy Choices” invited presentation at *Reopening the Economy* public event, Brookings Institution

**Hammond RA** (2020) “Overview and History of Systems Science in Public Health & Obesity Research” invited presentation at Roundtable on Obesity Solution, *National Academies of Science*

**Hammond RA** (2020) “Reflections on The Future of Health and Health Policy” *Santa Fe Institute ACTION network*

**Hammond RA** (2020) “Towards Precision Prevention: Using Complex Systems Models to Inform Interventions” invited Grand Rounds lecture, *NYU Medical School*

**Hammond RA** (2019) “Using Complex Systems Models to Inform Interventions” invited presentation for Institute for Public Health speaker series, *Washington University*

**Hammond RA** (2019) “Complex Networks in Public Health: Using Models for Precision Prevention”, invited presentation at the *Latin American Conference on Complex Networks*

**Hammond RA** (2019) “The Role of Social Norms in Obesity: Evidence and Models”, invited presentation at *Nuffield College, Oxford University*

**Hammond RA**, Allender S, Economos C (2019) “COMPACT: Using Systems Science Models to Guide Whole-of-community Interventions” invited panel at *International Society of Behavioral Nutrition and Physical Activity*

**Hammond RA** (2019) “Using ABM and New Data Streams” invited presentation at New Analytical Tools and Techniques for Economic Policymaking meeting, *OECD Headquarters*, Paris

**Hammond RA** (2019) “Precision Prevention with Complex Systems Methods”, invited presentation at *Institut des systèmes complexes de Paris, Centre National de la Recherche Scientifique* France

**Hammond RA** (2019) “Applying complex systems models to inform policy” invited presentation at *James S McDonnell Foundation* Postdoc Symposium.

**Hammond RA** (2018) “Promoting health by tailoring action to context”, invited presentation at *Pennsylvania State University*

**Hammond RA** (2018) “Obesity prevention from a complex systems perspective”, invited presentation at Symposium on Health and Wellness Behavior, *University of Vermont Complex Systems Center*

**Hammond RA** (2018) “Health and Tailored Action” invited presentation at the *Centre de Recherches Interdisciplinaires*, France

**Hammond RA** (2018) “Complex Systems Modeling of Health Disparities” invited presentation at *Health Disparities Research Institute*, NIH

**Hammond RA** (2018) “Promoting human and environmental health by tailoring evidence-based action to local context”, invited Stockholm Seminar, *Royal Academy of Sciences*, Sweden

**Hammond RA, Kasman M, Heuberger B** (2018) “Towards a Culture of Health: Using Complex Systems”, invited workshop presenter for Robert Wood Johnson Foundation Academy Health *Sharing Knowledge to Promote a Culture of Health*

**Hammond RA** (2018) “Food systems, obesity prevention, and complex systems”, invited presentation at *Obesity and the Food System*, Bloomberg School of Public Health, Johns Hopkins University

**Hammond RA** (2017) “Implementation Science and Complex Systems” invited presentation at *Academy Health* 10th Annual Conference on the Science of Dissemination and Implementation in Health.

**Hammond RA** (2017) “Complex Systems Modeling: Examining Natural Experiment Processes and Understanding Effects of Complex Interventions” invited presentation at *NIH Pathways to Prevention*

**Hammond RA** (2017) “Toward precision prevention: using complex systems approaches to design more effective strategies for healthy communities” invited presentation at the *International Nutrition Institute*, Lima, Peru

**Hammond RA** (2017) “Modeling Health Inequities using Complex Systems Approaches” invited presentation at Robert Wood Johnson Foundation event *Achieving Health Equity*

**Hammond RA** (2017) “Applications of Complex Systems Modeling in Food Systems and Public Health: Progress and Potential” invited presentation at *Tufts University Friedman School of Nutrition Science and Policy* Friedman Seminar Series

**Hammond RA** (2017) “Toward precision prevention: design of effective strategies for healthy communities”, invited presentation at Crawford School of Public Policy, *Australian National University*

**Hammond RA** (2017) “Current State of Early Childhood Obesity Research” invited panel briefing for leadership *National Collaborative on Childhood Obesity Research* (NCCOR)

**Hammond RA** (2017) “Policy-oriented Models in Tobacco and Obesity” invited presentation at 10<sup>th</sup> Annual Multiscale Modeling Consortium. *Interagency Modeling and Analysis Group Multiscale Modeling Consortium*, NIH

**Hammond RA** (2017) “Uses of Agent-based Modeling to Inform Policy and Science in Chronic Disease--Brief Overview” invited presentation to *Committee on the Development of Guiding Principles for the Inclusion of Chronic Disease Endpoints in Future Dietary Reference Intakes*, National Academy of Sciences

**Hammond RA** (2017) “Thinking about Communities as the Locus of Change: Novel Approaches and Costs” invited presentation to *Roundtable on Obesity Solutions Workshop*, National Academy of Sciences.

**Hammond RA** (2017). “Using computational policy modeling to inform food policy and address health disparities” invited briefing for Prime Minister’s science advisory council, Australian Government

**Hammond RA** (2016) “Applications of Complex Systems to Population Health” invited presentation to *Massachusetts General Hospital/Harvard Medical School* Disparities Research Unit.

**Hammond RA** (2016) “Applications of complex systems modeling in public health: Progress and Potential” invited presentation at *University of Michigan’s Center for the Study of Complex Systems*

**Hammond RA** (2016) “Applying Systems Science Methods: Building Agent-based Models” invited presentation at *International Congress on Obesity* (Vancouver)

**Hammond RA** (2016) “Applications of Complex Systems Science in Nutrition: Public Health, Dietary Patterns, Food Systems, and Precision Prevention” invited presentation at Presidential Symposium, *American Society of Nutrition, Experimental Biology* conference

**Hammond RA** (2016) “Applying Complex Systems Models to Population Health and Health Behavior” invited presentation at *University of California San Francisco*

**Hammond RA** (2016) “Complex Systems Approaches in Public Health: Progress, Potential, and Application to Health Disparities” invited *INSPRD* talk at *National Institute on Minority Health and Health Disparities*, National Institute of Health

**Hammond RA** (2015) “A framework for assessing food system effects” invited briefing to the Board on Agriculture and Natural Resources, *National Academy of Sciences*

**Hammond RA, Oria M, Clancy K** (2015) “A framework for assessing food system effects” invited briefing to USDA *National Agriculture Research Economics Extension and Education Advisory Board*

**Hammond RA** (2015) “Advances in individual-based modeling approaches” invited presentation at NIH workshop *Complex Systems Science and Autoimmune Diseases*

**Hammond RA** (2015). “Deconstructing Complexity in Developmental Origins of Health and Disease” invited presentation at *Harvard Medical School*

**Hammond RA, Oria M, Clancy K** (2015) “Assessing the Effects of the Food System: A Systems Approach” invited executive briefing at National Institute of Food & Agriculture (NIFA), *United States Department of Agriculture*. (October 2015)

**Hammond RA** (2015). “Complex Systems Science – Helping to Solve the Puzzle” invited presentation at workshop on Complex Systems Science and Immunology, *NIAID, National Institutes of Health*

**Hammond RA** (2015) “Complex Systems Modeling for Prevention, Dissemination, and Implementation Research in Public Health” invited presentation at *Washington University Siteman Cancer Center* and Center for Dissemination and Implementation

**Hammond RA** (2015) “A Complexity Lens and Complex Systems Modeling for Public Health” invited presentation at *Nanyang Technological University, Singapore*

**Hammond RA** (2015) “Agent-based modeling in public health” invited presentation at *Singapore Management University, Singapore*

**Hammond RA** (2015) “Applying Agent-based Modeling to Understand Co-evolving Biology and Environmental Exposure” invited presentation at *Canadian Institute for Advanced Research*, meeting on Child and Brain Development

**Hammond RA** (2015) “New applications of complex systems modeling to population health: obesity and tobacco control” invited presentation at Crawford School of Public Policy, *Australian National University*

**Hammond RA** (2015) “Why do we need models (for population health) and how have they been used” invited presentation at the *Institute of Medicine of the National Academies of Sciences*, Roundtable on Population Health Improvement.

**Hammond RA**, Oria M, Clancy K. (2015) “A Framework for Assessing the Effects of the Food System” invited briefing for *Office of Science and Technology Policy/President’s Council of Advisors on Science and Technology*, White House

**Hammond RA** (2015) “Complex Systems Science and Obesity Research” invited presentation at the *Obesity Research Task Force, National Institutes of Health*

**Hammond RA** (2015) “Changing Health Behavior: Towards A Complex Systems Approach” *Behavioral Science & Policy* journal launch event, University of Southern California

**Hammond RA** (2014) “Applying computational modeling as a policy tool in public health” invited presentation at *New York City Department of Health*

**Hammond RA** (2014) “Systems Science Models to Inform Policy: Brief thoughts” invited presentation at *Academy Health*

**Hammond RA** (2014) “Potential for Agent-based Modeling and Complex Systems Science to inform Health behavior theory” invited presentation at *National Cancer Institute* Workshop on Health Behavior

**Hammond RA** (2014) “Modeling Social Influence on BMI” invited presentation at *Johns Hopkins Global Obesity Center* workshop on Network Science and Obesity

**Hammond RA** (2014) “Systems Science for Population Health” invited presentation at *Harvard Medical School*

**Hammond RA** (2014) “Agent-based Modeling and Chronic Disease Control” invited briefing for *National Association of Chronic Disease Directors (NACDD)*, Science, Epidemiology and Evaluation Committee

**Hammond RA** (2014) “Complex Systems Science for Behavioral Science and Intervention Design” invited presentation at Workshop on Innovative Study Designs and Methods for Developing, Testing and Implementing Behavioral Interventions to Improve Health *National Heart, Lung, and Blood Institute, National Institutes of Health*

**Hammond RA** (2014) “Agent-based modeling and the neurobiology of obesity: a model of food reward learning with dynamic reward exposure” invited presentation at Complex

Systems, Health Disparities & Population Health: Building Bridges, *National Institutes of Health*

**Hammond RA** (2014) “Agent-based Modeling and Public Health: Progress and Potential” invited colloquium at the *Santa Fe Institute*

**Hammond RA** (2013) “Considerations in Design and Execution of Computational Simulation Modeling for Policy” invited presentation at *Food and Drug Administration* workshop, Modeling and Statistical Methods for the Regulatory Assessment of Tobacco Products

**Hammond RA** (2013) “Reward learning, neurobiology, and obesity” invited ‘Key presentation’ at *The Obesity Society* annual meeting

**Hammond RA** (2013) “Systems Modeling: Opportunities and Challenges” invited presentation at *National Cancer Institute* Workshop: Big D.A.T.A. (Data And Theory Advancement)

**Hammond RA** (2013) “Complex Systems Modeling Approaches for Public Health” invited presentation at *National Human Genome Research Institute* Social and Behavioral Research Branch Seminar

**Hammond RA** (2013) “Bringing the Pieces Together: A Systems Approach to Research, Policy, and Action” invited closing presentation at *Institute of Medicine* public workshop Creating Equal Opportunities for a Healthy Weight

**Hammond RA**, Luke D, et al (2013). “Tobacco Town: A Retail Density Policy Laboratory” invited presentation at *State and Community Tobacco Control Research* meeting.

**Hammond RA** (2013). “Methodological Innovations in using using Complex Systems Approaches for Public Health”, invited presentation at *Australian National University* Crawford School of Public Policy

**Hammond RA** (2013). “Agent-based modeling in Public Health: Promise and Potential” *American Academy of Health Behavior* Annual Scientific Meeting

**Hammond RA** (2013). “A Systems Approach to Managing Chronic Illness”, invited Keynote presentation at NIH/ANA *National Nursing Research Roundtable*.

**Hammond RA** (2013) “Agent-based modeling and tobacco policy” invited presentation at *NIH Tobacco Policy Modeling Workshop*

**Hammond RA** (2013) “Harnessing Systems Science to Advance Behavioral Science and Intervention Design in Public Health” invited presentation at *National Cancer Institute* Behavior Research Program speaker series

**Hammond RA** (2012) “A model of food reward learning with dynamic reward exposure” invited seminar at *Johns Hopkins Global Obesity Center*

**Hammond RA** (2012) “New Approaches to Understanding and Managing Complex Policy Challenges in Public Health”, invited presentation at Obesity Policy Research Grantees Meeting, *National Cancer Institute, NIH*

**Hammond RA** (2012) “Systems Science Approaches, Physical Activity, and Disease Prevention”, invited presentation at *NIH Office of Disease Prevention*

**Hammond RA** (2012) “Systems Modeling, Diet, and Activity Patterns” invited presentation at *United Nations Food and Agricultural Organization*

**Hammond RA** (2012) “Complex Systems Modeling and Public Health: Progress and Potential” invited presentation at *Oxford University*

**Hammond RA** (2011) “Combating Complex Public Health Challenges through Community Intervention” invited keynote presentation at *Live Well Omaha Summit*, Omaha NE.

**Hammond RA** (2011) “Complex Systems Modeling and Health-focused Policy & Design” Presentation at *National Collaborative on Childhood Obesity Research Green Health Workshop*.

**Hammond RA** (2011) “Social Influence, the Brain, and Obesity: Applying Agent-based Computational Modeling” invited presentation at *Harvard Medical School Postgraduate Nutrition Symposium*

**Hammond RA** (2011) “Assessing the Costs and Complex Drivers of the Obesity Epidemic” invited presentation at *Attorney’s General Education Program Public Policy Conference*, Washington DC

**Hammond RA** (2011) “Complex Systems Modeling and Obesity” invited presentation at *Second Canadian National Obesity Summit*, Montreal QC

**Hammond RA** (2011) “Corruption Dynamics, Anti-corruption policies, and Public Perceptions” invited presentation at *The World Bank, Latin America Public Sector Development division*, Washington DC

**Hammond RA** (2010) “Agent-Based Modeling of Obesity: Capturing Social/Environmental Influences in a Multi-Level Framework” invited presentation at Modeling Health Systems workshop, *OECD/EU/EEC*, Paris

**Hammond RA** (2010) “Complex Systems Modeling for Obesity – Novel Approaches”, invited presentation to the *National Collaborative on Childhood Obesity Research*

**Hammond RA** (2010) “Agent-Based Computational Modeling in Epidemiology”, invited presentation to *The World Health Organization*, SE Asia meeting, India

**Hammond RA** (2009) “Modeling Complexity and Change over the Lifecourse”, invited presentation at Bridging Life Course and Complex Systems Approaches to Population Health and Health Disparities event, *Office of Behavioral and Social Sciences Research, NIH*

**Hammond RA** (2008) “Spatial Clustering and the Effectiveness of Epidemic Interventions”, invited presentation at MIDAS Network Meeting, *National Institutes of Health*

**Hammond RA** (2008) “Complex Systems and Agent-based Modeling: Applications to Obesity and Public Health”, invited presentation at Environmental Systems of Public Health Workshop, *National Institutes of Health*

**Hammond RA** (2008) “Agent-Based Modeling as an Example of Upstream Modeling” invited presentation at *National Cancer Institute CISNET Annual Meeting*

#### TEACHING AND MENTORING

##### *Ph.D. or MPH/MPP*

S90-6915 “Introduction to Agent-based Modeling”, *Washington University in St. Louis*,

S90-5500 “Theoretical Orientations in Public Health Sciences”, *Washington University in St. Louis*

EPID793 “Complex Systems Modeling for Public Health Research” supported by NIH R25 award, *University of Michigan School of Public Health Graduate Summer Session in Epidemiology*

NUT212 “Systems Science in Public Health” *Harvard School of Public Health*

“Modeling Public Health: Complexity, Flexibility, Systems and Agent-based Thinking”, Department of Public Health, NIH FAES Graduate School, 2012-2014

##### *Training institutes*

Faculty (lead and course design), ABM track, summer institute on Systems Science for Social Impact, *Washington University in St. Louis* 2019-2022.

Faculty, Santa Fe Institute Summer School, *Santa Fe Institute* 2017-2019

Guest instructor, National Institute of Minority Health and Health Disparities course  
*Translational Health Disparities* 2015, 2016

Faculty (lead)/curriculum design, Short Course on Systems Science Dynamic Modeling,  
*National Cancer Institute* 2013.

Faculty (lead)/curriculum design, “Intensive Introduction to Agent-based Modeling”,  
*NIH/CDC Institute on Systems Science and Health* 2012.

Guest Instructor, Agent-based Modeling, *NIH/CDC Institute on Systems Science and Health* 2011.

RECENT MENTEES: Virginia Mckay (K award, pending), Devon Payne-Sturges (K award), Joseph Ornstein (postdoc), Jake Borodovsky (postdoc, K award in preparation), Matt Kasman (postdoc), Ariella Korn (dissertation committee), Ivana Stankov (dissertation committee, postdoc), Sam Rosenblatt (PhD student), David O’Gara (PhD student), Lydia Reader (PhD student), Nicole Strombom (PhD student), Erin Hennessy (junior faculty), Judy Maro (junior faculty), Rob Purcell (research analyst), Ben Heuberger (research assistant), Aurite Werman (research assistant), David Broniatowski (junior faculty), Madeleine Balchan (undergraduate internship), Matthew Raifman (research assistant), Ruth Levine (research assistant), Natalie McGarry (research assistant)

Selected recent grant review service

NIH/Advisory Council for National Institute of Minority Health and Health Disparities  
NIH/CBCB-4 (Modeling the Scientific Workforce) [served as Chair]  
NIH/HDM-Q55 (Healthcare Delivery and Methodologies)  
NIH/HDM-Q50 (System Sciences) special emphasis panel  
NIH/HDM-K53 (System Dynamics Methodologies) special emphasis panel  
NIH/HDM-W58 (System Science and Health in the Behavioral and Social Sciences) panel  
NIH/BBBP-L and BBBP-J (NIH ARRA Challenge Grants) study sections  
NIH/DIRH (Dissemination & Implementation Research in Health)  
NIH/HDM-S90 (Health Promotion in Communities: Vaccine Hesitancy)  
NIH/ZDA1 LXF-C (Accelerating the Pace of Drug Abuse Research Using Existing Data)  
Robert Wood Johnson Foundation “Interdisciplinary Research Leaders” program  
Robert Wood Johnson Foundation “Health Policy Scholars” program  
NSF (multiple review panels)  
NSF/NIH SCH Integrative (Smart and Connected Health) review panel  
UK Medical Research Council/Population and Systems Medicine Board  
UK Medical Research Council/Population and Public Health Domain panel  
AAAS Science & Technology Policy Fellowships (STPF) review panel  
PCORI (Patient Centered Outcomes Research Institute)

Journal editorial boards

Childhood Obesity

Selected recent journal/book review service: The Lancet, The Lancet Diabetes & Endocrinology, Journal of the American Medical Association (JAMA), Proceedings of the National Academy of Sciences (PNAS), Vaccine, Obesity Reviews, American Journal of Public Health, American Journal of Preventive Medicine, Milbank Quarterly, Health Affairs, International Journal of Obesity, Annals of the New York Academy of Sciences, Journal of the Royal Society, MIT Press, Princeton Press, Obesity, BMC Nutrition, BMC Public Health, BMC Medicine, BMJ, Behavioral Science & Policy, Journal of Conflict Resolution, Social Science & Medicine, Political Research Quarterly, American Journal of Political Science, The Journal of Politics, Cognition, Journal of Political Economy, Social Forces, PLOS, Tobacco Control, Pediatrics

#### MAJOR COMPUTER LANGUAGES AND SOFTWARE

Java, C++, Python, ASCAPE, RePAST, NetLOGO, Vensim, Mathematica

#### FOREIGN LANGUAGE TRAINING

French and Latin

#### PERSONAL

Citizenship: United States

Birthplace: Washington D.C.