CURRICULUM VITAE

Ross A. Hammond

CONTACT INFORMATION

Economic Studies, Brookings Institution
1775 Massachusetts Ave NW
Washington DC 20036
(202)797-6000
rhammond@brookings.edu

Brown School, Washington University in St. Louis
Campus Box 1196
One Brookings Drive
St. Louis, MO 63130-4899
(314) 935-2223
rhammond@wustl.edu

PRIMARY RESEARCH INTEREST: Modeling complex dynamics in social, economic, and health systems using techniques from complex systems science and machine learning

CURRENT RESEARCH TOPICS: Chronic disease prevention, food systems and food policy, implementation science and implementation efficiency, tobacco control, social norms and social contagion, behavioral epidemiology, advancing methods for policy-oriented computational modeling

PROFESSIONAL EXPERIENCE

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

2018 – 2022	Associate Professor and Betty Bofinger Brown Chair, Public Health and Social Policy, Brown School, Washington University in St. Louis
2014 – 2023	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 Advisor, 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

2014 – present	Advisory Special Government Employee, Center for Tobacco Products, *U.S. Food and Drug Administration* (FDA)
2023 – present	Advisory Expert, *National Cancer Institute* initiative "Embracing the Complexity: Transdisciplinary Approaches to Advance the Science of Cancer", *National Institutes of Health*
2022 – 2024	Co-chair, *U.S. Department of Agriculture* working group on Applicability of Systems Science Approaches to the Dietary Guidelines for Americans (DGA)
2017 – 2024	Appointed member, Food and Nutrition Board of the *National Academy of Sciences*
2015 – 2019	DHHS Secretary-appointed Advisory Council member for NIMHD, NIH

2017 – 2019	Appointed member, *HHS Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives* subcommittee for systems science and modeling
2015 – 2019	Appointed Commissioner, *Lancet* Commission on Obesity
2024 – present	Member, Delta Omega Honorary Society in Public Health
2023 – present	Annual Program Committee member, *The Obesity Society*
2023 – present	Editorial Board, *Frontiers in Public Health*
2021 – present	Expert Advisory Committee, *NIH/FDA Center of Tobacco Regulatory Science*, University of Michigan
2019 – present	Advisory expert, *U.S. Institute of Peace*
2017 – 2024	Technical Advisory Board, *Alive & Thrive*
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 ($1,224,000; 3 years, NIH 1R01HD107002). Role: Principal Investigator (MPI)

2023 – 2025 Learning from the COVID pandemic: A computational modeling approach leveraging previous policymaker and stakeholder engagement ($100,000; 2 years; Faculty Pilot Funds). Role: Principal Investigator

2024 – 2025 Embracing The Complexity: Advancing Transdisciplinary Approaches to Address Cancer ($50,000; 1 year; National Cancer Institute contract). Role: Principal Investigator, advisory expert to NCI

2024 – 2026 Effective Approaches to Building Multi-Stakeholder Action Against Transnational Corruption: Toward an Agent-Based Approach ($150,000; 2 years; USAID/IFES). Role: Principal Investigator

2025 – 2026 A new interdisciplinary approach to an old problem: population dynamics as an emergent property of individuals ($50,000; 1 year; Ignite faculty award). Role: Principal Investigator (MPI).

2021 – 2025 Catalyzing Communities: Applying systems science modeling to whole-of-community obesity prevention ($2,000,000; 3 years; JPB Foundation) Role: Principal Investigator on modeling subcontract; member of advisory council

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 (PASSA)

2018 – 2024 ASPiRE: Advancing Science & Practice in the Retail Environment ($11,607,149; 6 years; NIH 1P01CA225597). Role: Principal Investigator (Arm 3, MPI).

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.

2013 – 2018 Systems Science to Guide Whole of Community Childhood Obesity Interventions. ($3,521,218; 5 years; NIH 1R01HL115485). Role: Principal Investigator (MPI).

2016 – 2023 Common and distinct early environmental influences on cardiometabolic and respiratory health: Mechanisms and methods ($19,668,541; 7 years; NIH UG3OD023286). Role: Co-Investigator (PI of subcontract for computational modeling).

2016 – 2018 Agent-Based Modeling to Measure the Impact of Menthol and Retailer Density Policies in Minnesota. ($250,000; 2 years; Clearway Minnesota). Role: Principal Investigator (MPI).

2014 – 2019 Dynamic Systems Science Modeling for Public Health. ($1,019,402; 5 years; NIH 1R25HD082971). Role: Co-Investigator (PI of subcontract).

2017 – 2022 Mis-implementation in Cancer Prevention and Control. ($2,606,130; 5 years; NIH 1R01CA214530). Role: Co-Investigator (PI of subcontract for computational modeling).

2017 – 2022 What makes cities healthy and sustainable? Lessons from Latin America. ($12,000,000; 5 years; Wellcome Trust UK). Roles: Co-Investigator, consultant.

2013 – 2018 Place Characteristics & HIV in IDUs: A multilevel analysis of NHBS. ($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; NIH National Cancer Institute contract). 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 ($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. ($1,434,792; 5 years; NIH 1R01HD08023). Role: Co-Investigator (PI of subcontract for computational modeling).

2009 – 2014 Computational Models of Infectious Disease Threats. ($8,067,088; 5 years; NIH 5U54GM088491). Role: Co-Investigator.

2010 – 2013 Causes and Interventions for Childhood Obesity: Innovative Systems Analysis. ($1,225,357; 3 years; NIH 5R01HD064685). Role: Consultant.

2010 – 2011 Humans as Explicit Players in Ecosystems. ($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 ($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. ($12,000; 1 year; NIH Office of Behavioral and Social Science contract). 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. ($20,000; 1 year; NIH Office of Behavioral and Social Science contract). 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. ($15,000; 1 year; NIH Office of Behavioral and Social Science contract). Role: Principal Investigator (MPI).

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

2006 – 2011 Preparedness And Catastrophic Event Response (PACER). ($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. ($120,000; 3 years; NSF SES-0729262). Role: Co-Investigator.

PEER-REVIEWED PUBLICATIONS

[1] O'Gara D, Kasman M, Hébert-Dufresne L, and **Hammond RA**. "Adaptive Behavior During Epidemics—A Social Risk Appraisal Approach to Modeling Dynamics" *Journal of the Royal Society Interface* 22:222 (2025).

[2] **Hammond RA** and Barkin S. "Making evidence go further: Advancing synergy between agent-based modeling and randomized control trials" *Proceedings of the National Academy of Sciences* 121:21 (2024)

[3] Kasman M, Sedlak A, Strombom N, and **Hammond RA**. *The Human Factor: Anticipating Pitfalls in the Application of Artificial Intelligence to Health Care.* Washington DC: Brookings Institution (2024).

[4] Wimberly J, Nguyen A, Memoli E, Kasman M, Heerman B, Pate R, Sommer E, Sedlak A, Reader L, **Hammond RA**, and Barkin S. "Identifying Data Gaps in Early Childhood Physical Activity Evidence" *Frontiers in Pediatrics* 12 (2024).

[5] Stankov I, Meisel JD, Sarmiento OL, Delclòs-Alió X, Hidalgo D, Guzman LA, Rodriguez DA, **Hammond RA**, and Diez Roux AV. "Uncovering physical activity tradeoffs in transportation policy: A spatial agent-based model of Bogota, Colombia" *International Journal of Behavioral Nutrition and Physical Activity* 21(1):54 (2024)

[6] Gutuskey L, Neenan R, **Hammond RA**, and Wagner H. *Applicability of Systems Science Approaches to the dietary guidelines for Americans.* Washington DC: *U.S. Department of Agriculture* (2024).

[7] Henderson K, **Hammond RA**, and Homer J. "Complex Adaptive Systems Modeling to Address Cardiovascular Disparities: Complex Science for a Complex Problem" *Circulation* 148:201–203 (2023).

[8] Kasman M, **Hammond RA**, Reader L, Purcell R, Guyer S, Ganiban JM, Mitchell DC, Dabelea DM, Bellatorre A, Bekelman TA, Cohen CC, Perng W, Grummon AH, Wu AJ, Oken E, Kleinman K (on behalf of program collaborators for the *NIH Environmental influences on Child Health Outcomes* program). "Childhood Sugar-sweetened Beverage Consumption: An Agent-based Model of Context-specific Reduction Efforts" *American Journal of Preventive Medicine* 65(6):1003-1014 (2023).

[9] O'Gara D, Rosenblatt SF, Hebert-Dufresne L, Purcell R, Kasman M, and **Hammond RA**. "TRACE-Omicron: Policy Counterfactuals to Inform Mitigation of COVID-19 Spread in the United States" *Advanced Theory and Simulation* 6:7 (2023).

[10] Hiatt R, Worden L, Rehkopf D, Engmann N, Troester M, Witte JS, Balke K, Barlow J, Fenton S, Gehlert S, **Hammond RA**, Kaplan G, Kornak J, Nishioka K, McKone T, Smith M, Trasande L, and Porco TC. "A Complex Systems Model of Breast Cancer Etiology: The Paradigm II Model" *PLOS_One* 18(5): e0282878 (2023).

[11] Kasman M, Strombom N, and **Hammond RA**. *Evidence Review: Informing the Application of System Science Methods to Peacebuilding*. Washington DC: United States Institute of Peace (2023).

[12] Economos CD, Calancie L, Korn AR, Allender S, Appel JM, Bakun P, Hennessy E, Hovmand PS, Kasman M, Nichols M, Pachucki MC, Swinburn BA, Tovar A, and **Hammond RA**. "Community coalition efforts to prevent childhood obesity: Two-year results of the Shape Up Under 5 study" *BMC Public Health* 23:529 (2023).

[13] Kasman M, **Hammond RA**, Purcell R, Farah Saliba L, Mazzucca S, Padek M, Allen P, Luke DA, Moreland-Russell S, Erwin PC, and Brownson RC. "Understanding Mis-implementation in U.S. State Health Departments: An Agent-based Model". *American Journal of Preventive Medicine* 64(4):525−534 (2023).

[14] 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).

[15] 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". *American Journal of Clinical Nutrition* 116(4): 1019-1029 (2022).

[16] 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* 19(2):130-138 (2022).

[17] **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).

[18] 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).

[19] 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).

[20] 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).

[21] 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).

[22] 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).

[23] 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).

[24] 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).

[25] **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).

[26] 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).

[27] 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).

[28] 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)

[29] 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).

[30] 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).

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

[32] 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).

[33] 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).

[34] **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)

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

[36] **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).

[37] 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).

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

[39] Stankov I, Garcia LMT, Mascolli 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).

[40] 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).

[41] 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]

[42] 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).

[43] 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).

[44] 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).

[45] 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).

[46] Langellier BA, Lobban K, Bilal U, Montes F, Meisel J, Cardoso LO, and **Hammond RA**. "Complex systems approaches to diet: a systematic review." *American Journal of Preventive Medicine* 57(2):273-281 (2019).

[47] 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 (2019).

[48] 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).

[49] Kasman M, Heuberger B, and **Hammond RA**. *A Review of Large-Scale Youth Financial Literacy Education Policies and Programs,* Brookings Institution: Washington DC (2018). Available at https://www.brookings.edu/wp-content/uploads/2018/10/ES_20181001_Financial-Literacy-Review.pdf

[50] 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).

[51] 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).

[52] 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).

[53] Economos C and **Hammond RA**. "Designing effective and sustainable multi-faceted interventions for obesity prevention and healthy communities." *Obesity* 25(7):1155-1156 (2017).

[54] 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).

[55] Korn AR, Hovmand P, Fullerton K, Zoellner N, Hennessy E, Tovar A, **Hammond RA**, and Economos C. "Use of group model building to develop implementation strategies for early childhood obesity prevention" *Implementation Science* 12(Suppl 1):S84 (2017)

[56] **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).

[57] 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).

[58] 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).

[59] 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).

[60] Chambers D, Simpson L, et al (incl **Hammond RA**). "Proceedings from the 9th annual conference on the science of dissemination and implementation" *Implementation Science* 12, 1-55 (2017)

[61] 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).

[62] Gillman MW and **Hammond RA**. "Precision Treatment and Precision Prevention: Integrating 'Below and Above the Skin." *JAMA Pediatrics* 170(1):9-10 (2016).

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[64] 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).

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<u>POLICY BRIEFS AND OP-EDs</u>

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[2] Kasman M, Sedlak A, and **Hammond RA**. "The Human Factor: Anticipating Pitfalls in the Application of Artificial Intelligence to Health Care". *Brookings Institution* (2024).

[3] Kasman M and **Hammond RA**. "Reducing childhood sugar-sweetened beverage consumption: using agent-based models to inform policy". *Brookings Institution* (2023).

[4] Kasman M and **Hammond RA**. "Using new tools to help US peacebuilding efforts succeed around the world". *Brookings Institution* (2023).

[5] Kasman M and **Hammond RA**. "Improving the effectiveness of public health efforts: evidence from computational simulations". *Brookings Institution* (2023).

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SELECTED PRINT MEDIA COVERAGE

"How 'miracle' weight-loss drugs will change the world" *Nature* Nov 5, 2024

"Obesity drugs aren't always forever. What happens when you quit?" *Nature* Apr 10, 2024

"Cigarettes are to be banned for future generations in Britain. Should the U.S. follow?" *Yahoo News 360* Nov 14, 2023

"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 21st, 2013

"Roberts Saves Obamacare: Now the Real Work of Reform Begins." *Huffington Post* July 3rd, 2012

"Obesity: Food for thought." *The Economist* May 19th 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 (2024) "Systems Approaches to Obesity Prevention" invited keynote for the *National Collaborative on Childhood Obesity Research* (NIH/CDC/USDA consortium) annual meeting and workshop on obesity-related policy in the U.S.

Hammond RA (2024) "Tobacco Regulation: Gaps and Opportunities" invited briefing for U.S. Senate *Committee on Health, Education, Labor & Pensions,* United States Congress

Hammond RA (2024) "Agent-based Modeling of Social Dynamics to Inform Policy" invited presentation for *Alphabet/Google Research*

Hammond RA (2024) "Policy interventions to improve health: why long-run impacts may diverge from short-run ones" invited presentation at CounterBalance workshop, *Santa Fe Institute*

Hammond RA (2024) "Using computational modeling to learn from the past and develop robust responses to the future" invited presentation at *Aarhus University*, Denmark.

Hammond RA (2023) "Towards Precision Prevention: Using Agent-based Modeling in Population Health" invited presentation at *Center for the Study of Complex Systems*, University of Michigan

Hammond RA (2023) "Modeling the Impact of Restricting Flavoring in Cigarettes and Cigars: Tobacco Town" invited presentation at *NIH/FDA Center of Tobacco Regulatory Science*, University of Michigan

Hammond RA (2023) "Tobacco Town: Applying Agent-based Modeling to Tobacco Regulatory Science" invited presentation at UK Prevention Partnership *PHASE* Network, United Kingdom.

Hammond RA (2023) "A Brief Overview of Systems Science and Relevance to the U.S. Dietary Guidelines for Americans" invited presentation at *U.S. Department of Agriculture*, Washington DC.

Hammond RA (2023) "Complex Systems Modeling for Community-level Interventions" invited presentation at Utah State University

Hammond RA (2022) "Policy impact using synthetic geospatial populations in agent-based models of population health" invited presentation at Exploring Geospatial Frontiers event, *Washington University in St Louis*

Hammond RA (2022) "Towards Precision Prevention: Using Agent-based Modeling in Population Health" invited presentation at *Department of Computational Social Science*, George Mason University

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

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

Hammond RA (2022) "Agent-based computational modeling and data science" invited presentation at *Division of Computational and Data Sciences,* Washington University in St Louis

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

Hammond RA (2022) "Complex Systems Modeling of Disease and Population Health: Intro and Overview" invited presentation at *Duke University*

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

Hammond RA (2021) "Agent-based Modeling of Disease and Population Health: Intro and Overview", invited presentation at 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", invited presentation at *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) "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) "Complex Systems Approaches" invited presentation at *Robert Wood Johnson Foundation* event

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 10th 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 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" 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*

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 (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*.

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*, 2019-present

S90-5500 "Theoretical Orientations in Public Health Sciences", *Washington University in St. Louis*, 2021-present (module)

EPID793 "Complex Systems Modeling for Public Health Research" *University of Michigan School of Public Health* Graduate Summer Session in Epidemiology 2013-2017, supported by NIH R25 grant

NUT212 "Systems Science in Public Health" *Harvard School of Public Health* 2012-2016

PLCY798R "Quantitative Research Methods" *University of Maryland School of Public Policy*, 2010-2018 (guest faculty)

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

Training institutes

Systems Science for Social Impact summer training institute, *Washington University in St. Louis* 2019-present (co-founder, lead faculty and course design ABM track)

Santa Fe Institute Summer School, *Santa Fe Institute* 2016-2019 (faculty)

Short Course on Systems Science Dynamic Modeling, *National Cancer Institute* 2013 (course design and lead faculty)

NIH/CDC *Institute on Systems Science and Health* 2011-2012 (course design and lead faculty, ABM track)

CURRENT/RECENT MENTEES: Virginia Mckay (K award, pending), Devon Payne-Sturges (K award), Joseph Ornstein (postdoc), Jake Borodovsky (postdoc), Matt Kasman (postdoc), Ariella Korn (dissertation committee), Ivana Stankov (dissertation committee, postdoc), Sam Rosenblatt (PhD student), David O'Gara (PhD student, dissertation committee chair), Lydia Reader (PhD student, dissertation committee chair), Nicole Strombom (PhD student, dissertation committee chair), Kate Hoppe (PhD student, dissertation committee), Aaron Anderson (PhD student, dissertation committee), Erin Hennessy (junior faculty), Judy Maro (junior faculty), Adam Sedlak (research

programmer), 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/CBCB-4 (Modeling the Scientific Workforce) [served as Chair]
NIH/HDM-S90 (Health Promotion in Communities: Vaccine Hesitancy)
NIH/ZDA1 LXF-C (Accelerating the Pace of Drug Abuse Research Using Existing Data)
NIH/HSS-P50 (Implementation Research on Noncommunicable Disease Risk Factors among Low-and Middle-Income Country and Tribal Populations Living in Urban Environments)
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)
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
Behavioral Science & Policy
Childhood Obesity
Frontiers in Public Health
Tobacco Control

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.