Peter S. Hovmand, PhD, MSW Curriculum Vitae

August 3, 2023

Personal Information

Education

Bucknell University
Bachelor of Science Electrical Engineering and Bachelor of Arts in Mathematics
1987-1991

Michigan State University
Master of Social Work, Clinical Concentration
1994-1997

Michigan State University Interdisciplinary PhD in Social Science with Concentrations in Social Work and Community Psychology and Cognate in Feminist Philosophy/Women's Studies 1997-2003

Ph.D. Thesis

Managing a Prosecutor's Office Domestic Violence Caseload to Increase Assailant Accountability: A System Dynamics Approach

Diane Levande (chair), Ralph Levine, Marilyn Frye, Cris Sullivan, and Cynthia Jackson-Elmoore

Contact Information

Center for Community Health Integration Case Western Reserve University 10900 Euclid Ave., Cleveland, OH 44106-7136

Office: 216 368-5437 Email: <u>psh39@case.edu</u>

Professional Appointments

Founding Director, Social System Design Lab Brown School of Social Work, Washington University in St. Louis 2009 – 2020

Academic Appointments

Pamela B. Davis MD PhD Professor of Medicine Professor, Center for Community Health Integration, School of Medicine Professor, Biomedical Engineering, Case School of Engineering Professor of Social Work (secondary), Mandel School of Applied Social Sciences Case Western Reserve University 2021-present

Visiting Professor Center for Community Health Integration, School of Medicine Case Western Reserve University 2020 – 2021

Professor of Practice Brown School, Washington University in St. Louis 2017 – 2020

Associate Professor of Practice Brown School, Washington University in St. Louis 2013 – 2017

Adjunct Instructor

Department of Electrical and Systems Engineering, Washington University in St. Louis 2012 – 2014

Assistant Professor of Women and Gender Studies Brown School, Washington University in St. Louis 2006 – 2009

Assistant Professor Brown School of Social Work, Washington University in St. Louis 2003 – 2009

Adjunct Instructor
Department of Social Work, Michigan State University
2012 – 2014

Honors and Awards

Audre Lorde Academic Exploration Award, Holobaugh Honors, Washington University in St. Louis, 2019

Exemplary Educational Partner Award, Jennings School District, 2018

Excellence Award for MSW Advising, Washington University in St. Louis, Brown School, 2018

Appreciation, National Family Violence Networking System Conference, Singapore 2018

Best Poster Award, with Laura Guzman-Abello, Camilo Olaya, Wolfgang Munar and Mary Jo Stahlschmidt. *The Capability Traps in Explaining the Capability Trap: Lessons from the Field on Conveying Generalizable System Insight* presented at the 33rd International Conference of the System Dynamics Society. Cambridge, Massachusetts, 2015

Excellence in Mentoring from the Graduate Senate of the College of Arts & Science, Washington University in St. Louis, 2015

Recognition of Commitment to Students of Ritenour School District, Ritenour School Board, 2013

Excellence in Teaching, Brown School, Washington University in St. Louis, 2009

Powersim Academic Award, *Domestic Violence and Court Mandated Batterer Intervention: A Community Model* presented at the 18th International Conference of the System Dynamics Society. Bergen, Norway, 2000.

Excellence in Clinical Social Work, College of Social Science, Michigan State University, 1997

Membership in Professional Societies

American Association for the Advancement of Science (AAAS)

Association of Computing Machinery

American Public Health Association

International Association for the Study of Commons

Institute of Electrical and Electronic Engineers

Society for Community Research and Action

System Dynamics Society

Professional Service

Professional Organizations

VP of Chapters and Special Interest Groups, System Dynamics Society, 2023-present

Co-founder and co-lead, Structural Racism Special Interest Group, System Dynamics Society, 2021-2022

Co-founder and co-chair of the Diversity Committee, System Dynamics Society, 2003-present

Program Chair, International Conference of the System Dynamics Society, 2019

Committee Member, Transitions Subcommittee, Administrative Committee, System Dynamics Society, 2016-2017

Committee Member, Publications Strategy Committee, System Dynamics Society, 2015-2016

Editorial Boards

Associate Editor, System Dynamics Review, 2015-present

Journal Reviewer

American Journal of Community Psychology

American Journal of Public Health

Annals of Internal Medicine

China Journal of Social Work

Clinical Child and Family Psychology Review

European Journal of Operations Research

International Journal of Housing Policy

Journal of Behavioral Health Services and Research

Journal of Simulation

Nature

Proceedings of the National Academy of Sciences

Psychometrika

Social Work Research

System Dynamics Review

Systems Research and Behavior Science

Grant Reviewer

UK Medical Research Council National Institutes of Health National Science Foundation

Advisory Groups

City of Cleveland Racism as a Public Health Crisis (RAPHC-C) workgroup (2023-present) Advisor, Lancet Commission on Women and Cancer (2022-present) SkipNV (2018-2022)

Consultant, National Academies of Science, Engineering, and Medicine Roundtable on Obesity Solutions (2020)

Commissioner, Lancet Commission on Obesity (2016-2019)

Fellow, Wellesley Institute, Toronto Canada (2010-2012)

Committee Service

Chair, Division of General Medical Sciences Committee on Appointments, Promotions, and Tenure (CAPT), 2023-present

Case School of Engineering's representative on the Graduate & Professional Behavioral Intervention Team (BIT) 2022-2023

Chair, Faculty Search Committee, Center for Community Health Integration, School of Medicine, Case Western Reserve University 2020-2021

Member, Global Advisory Committee, Brown School, Washington University in St. Louis, 2015-2020

Member, Task Force on Sexual Assault and Relationship Violence, Washington University in St. Louis, 2015-2016

Member, IT Governance Committee on Research Computing, Washington University in St. Louis, 2014-2016

Co-chair, Assessment Subcommittee, University Sexual Assault and Relationship Violence Task Force, Washington University in St. Louis, 2014-2015

Member, China Collaboration Workgroup, Brown School, Washington University in St. Louis, 2014-2015

Member, Evaluation Committee, Brown School, Washington University in St. Louis, 2013-2014

Member, Brown School Expansion Research Committee, Washington University in St. Louis, 2012

Member, Open Society Institute (OSI) Scholars Selection Committee, 2006-2007

Member, Evidence Based Practice Task Force, Brown School, Washington University in St. Louis, 2005-2006

Member, Campus Relationship Violence Coordinating Council, Michigan State University, 1996-2003

Member, Gay, Lesbian, Bisexual, Transgender Faculty and Staff Association, Michigan State University, 1997-2003

Member, Women's Resource Center Safety Cluster, Michigan State University, 1994-2003

Member, Triangle Coalition, Michigan State University, 1995-1997

Member, Bias-related Violence Task Force, Bucknell University, 1991-1992

Member, Sexual Harassment Task Force, Bucknell University, 1990-1991

Member, Bucknell Lesbian, Gay, Bisexual Faculty and Staff Task Force, Bucknell University, 1990-1992

Teaching Activities

Curriculum/Course Development

Collaborative Practice I Systems Thinking module, Case Western Reserve University, Cleveland, OH, 2022-present (~520 students from medicine, density, social work, and nursing per year)

System Dynamics of Equity, Case Western Reserve University, Cleveland, OH, 2020-present (~15 students per year)

Systems Thinking for Equity (SAGES), Case Western Reserve University, Cleveland, OH, 2022-2023

Coordinator, System Dynamics Specialization, Brown School, Washington University in St. Louis, 2015-2020

Co-chair, Planning Committee, Institute on Systems Science and Health (ISSH) (sponsored by NIH), Brown School, Washington University in St. Louis, 2012

Chair, Foundations Committee, Brown School, Washington University in St. Louis, 2007-2009

Member, Human Diversity Workgroup, Brown School, Washington University in St. Louis, 2007-2008

Lead Teacher for Human Diversity, Brown School, Washington University in St. Louis, 2006-2009

Curriculum Committee, Brown School, Washington University in St. Louis, 2005-2009

Foundation Curriculum Coordinator, Brown School, Washington University in St. Louis, 2005-2009

Lead Teacher for Research Methods, Brown School, Washington University in St. Louis, 2004-2006

Member, Task Force on Field Education, Brown School, Washington University in St. Louis, 2005-2006

Courses Taught

SASS 500 System Dynamics of Equity, Case Western Reserve University (40 contact hours, Summer 2022, Spring 2023)

SAGES - USSYc 295 Systems Thinking for Equity, Case Western Reserve University (42 contact hours, Spring 2022, Spring 2023)

PQHS 419 Topics in Urban Health, Case Western Reserve University (22 contact hours, Summer 2021)

STAR 203 An Introduction to System Dynamics for Advancing Equity, Case Western Reserve University (12 contact hours, Fall 2020)

Introductory Track, System Dynamics Summer School, System Dynamics Society, all levels from undergraduate to post-graduate (32 contact hours, Summer 2019, 2020)

System Dynamics Track, Systems Science for Social Impact Training Institute, Washington University in St. Louis, graduate/post-graduate professionals (36 contact hours; Summer 2019)

Designing Sustainable Social Policies & Programs: A System Dynamic Approach (S65-5660/ESE 35-408), Washington University in St. louis, upper level undergraduate and

graduate students at the masters and PhD level (45 contact hours; Fall 2006-2013, Fall/Spring 2013-2019)

Community Based System Dynamics (S65-5050), Washington University in St. Louis, MSW students (45 contact hours, Spring 2011-2014, Fall/Spring 2014-2015)

System Dynamics Skill Labs I, II, and III (S81-5501, -5502, -5503), Washington University in St. Louis, MSW students (15 contact hours, Fall/Spring, 2016-2019)

China Summer Institute: System Dynamics for Social Services and Policy in China with Fudan University (S20-5051), Washington University in St. Louis, MSW students (~80 contact hours, Summer 2014)

Winter Institute India-System Dynamics of Rural Development: Engaging Dryland Communities Toward Sustainable Livelihoods & Ecosystems (S20-6047) with IIT Bombay/Tata Institute of Social Sciences, Washington University in St. Louis, MSW students (~100 contact hours, Winter 2012-2015)

System Dynamics Track, Institute on Systems Science and Health, Washington University in St Louis, doctoral and post-graduate students (~40 contact hours, Summer 2012)

Social Justice: Exploring the Reality of America's Promise (S20-5014), Washington University in St. Louis, MSW students (45 contact hours, Spring 2009)

Organizational Behavior and Theory (S20-5017), Washington University in St. Louis, MSW students (45 contact hours; Spring 2009, 2013)

Treatment Evaluation (S35-5000), Washington University in St. Louis, MSW students (45 contact hours; Spring 2004-2005)

Research Methods (S15-5005), Washington University in St. Louis, MSW students (45 contact hours; Fall 2003, Spring 2004, 2007, 2008)

Human Diversity (S15-5015), Washington University in St. Louis, MSW students (45 contact hours; Fall/Spring 2003-2008)

Presentations

"Systems Thinking" for Collaborative Practice I on systems thinking (2 contact hours per section for four sections, Spring 2023)

"Implementation Science and Complexity Science" for University of Toronto, Introduction to Knowledge Translation and Implementation Science (HAD5752) (2 contact hours, Fall 2022)

"Developing and Appraising Endogenous or Feedback Theories of Social Dynamics" for Translational & Patient-Oriented Research Theory (CRPS 440) (2 contact hours, Fall 2022)

"Community Based System Dynamics for Racial Equity" for Introduction to Data Analytics for Social Impact (SASS 471) (2 contact hours, Spring 2022)

"Introduction to Community Based System Dynamics" for Critical Theories in Social Welfare (SASS 644) (3 contact hours, Spring 2022)

"Introduction to Community Based System Dynamics" for Community Problem Solving (EGR 132) (2 contact hours, Spring 2021)

"Introduction to Systems Science for Advancing Population Health Equity" for Introduction to Population Health, doctoral students (PQHS 440) (2 contact hours, Fall 2020)

"New Perspectives on Prevention and Systems" for Gender Violence (L77 WGSS 393), Washington University in St. Louis, undergraduate students (3 contact hours/semester, Spring 2018-2021)

"Introduction to Systems Thinking for Community Development Theory and Practice" for Social Work Practice with Organizations and Communities (S15 SWCR 5039), Washington University in St. Louis, MSW students (1 contact hour/section, ~3 sections/semester; Spring 2017-2020)

"Introduction to Systems Science in Public Health: From Structural Violence to Learning Systems for Prevention" for Cross-Cutting Themes in Public Health (S55 MPH 5010), Washington University in St. Louis, MPH students (1 contact hour/semester; Fall 2018-2019)

"Engaging and Building Systems Thinking Communities of Practice" for Community-Engaged Research for Social Welfare and Social Change (SOWK 830), University of South Carolina, MSW students (3 contact hours/semester, Spring 2019)

"New Perspectives on Prevention and Systems" for Multiagent Systems (E81 CSE 516A), Washington University in St. Louis, undergraduate CS/CSE students (1.5 contact hours/semester, Spring 2018)

"Dynamic Theories" for Seminar in Social Work Theory and Knowledge (S90 6820), Washington University in St. Louis, social work PhD students (3 contact hours/semester, Fall 2016-2018)

"Introduction to Group Model Building" for System Dynamics Doctoral Seminar, Massachusetts Institute of Technology, management doctoral students (3 contact hours/semester, Spring 2018)

"Maternal Morbidity and Mortality: Structural Violence, Systems, and Health Equity" for Global Reproductive Health (S55-MPH-5347), Washington University in St. Louis, MPH students (1.5 contact hours/semester, Fall 2018)

"New Perspectives on Prevention and Systems" for Transdisciplinary Problem Solving: Gender, Poverty, And Global Health (S55-MPH-5372), Washington University in St. Louis, MPH students (1.5 contact hour/semester, Spring 2018)

"System Dynamics: From Red Blood Cells to Global Climate Change, Obesity and Undernutrition" for University Management Team, Washington University in St. Louis (0.5 contact hours/semester, Spring 2018)

"Tools for Seeing and Unpacking Power and Privilege: Deconstructing Systems" for Day of Discovery and Dialogue, Washington University in St. Louis (1 contact hour, Spring 2018)

"Want a Better System? Designing for Innovation and Implementation" for Technology and Feminist Practice: Gender Violence Prevention Tools (L93 IPH 427), Washington University in St. Louis, undergraduate students (3 contact hours/semester, Fall 2017)

"Introduction to System Dynamics" for Planning, Implementation, & Evaluation Evidence-Based Programs & Interventions (S55-MPH-5240), Washington University in St. Louis, MPH students (3 contact hours/semester, Fall 2016)

"Systems Science and Mental Health Services Research" for Mental Health Services Research (S90-SWDT-6895), Washington University in St. Louis, social work PhD students (3 contact hours/semester, Spring 2016)

"Introduction to System Dynamics and Group Model Building" for Center for Violence and Injury Prevention Scholars, Washington University in St. Louis, undergraduate/graduate students pursuing a certificate (3 contact hours/semester, Spring 2015)

"Introduction to System Dynamics" for Prevention and Promotion to Support Healthy Child Development Among At-Risk Families and Communities (S30-SWDP-7330), Washington University in St. Louis, MSW/MPH students (1 contact hour/semester, Fall 2014)

"Introduction to System Dynamics" for Introduction to Systems Science and Engineering (ESE 151/251), Washington University in St. Louis, undergraduate ESE students (1.5 contact hours/semester, Spring 2014)

"Introduction to System Dynamics" for Seminar in Social Work Theory and Knowledge (S90 6820), Washington University in St. Louis, social work PhD students (3 contact hours/semester, Fall 2012)

"Using System Dynamics to Develop Community Prevention Strategies" for Center for Violence and Injury Prevention Scholars, Washington University in St. Louis, undergraduate/graduate students pursuing a certificate (3 contact hours/semester, Spring 2012)

"Using System Dynamics to Understand Community Level Social Determinants" for Foundations of Public Health: Health Behavior and Health Promotion" (S55-MPH-5001), Washington University in St. Louis, MPH students (1.5 contact hours/semester, Spring 2012)

Trainees/Mentees

Career Awards/Postdoc Mentees

Claire Ing, Ph.D. (University of Hawaii)
Devon Payne-Sturges, Ph.D. (University of Maryland)
Heidi Gullet (Case Western Reserve University)
Irene Headen (Drexel)
Faustine Williams, Ph.D. (National Institutes of Health/National Institute of Minority Health and Disparities)

Doctoral Students

Benjamin Alexander-Eitzman (chaired), Andrew Brown, Nishesh Chalise, Sungsook Cho, Saras Chung (co-chaired), Jill Kuhlberg, Stavroula Kyriakakis, Braveheart Gillani, Amanda Lavallee (co-chaired), Kate Marcal, Callie Ogland-Hand, Jeremy Sato (co-chaired), Meagan Ray-Novak, Abigail Roche, Marion Sthalschmidt, Erin Stringfellow

Training

Trainer for Self-Awareness for Social Work Practice in a Multicultural World Training for Trainers, GWB, Washington University in St. Louis, 2004-2006

Facilitator for Self-Awareness for Social Work Practice in a Multicultural World, GWB, Washington University in St. Louis, 2003-2008

Research Support

Current

National Institutes of Health

National Center for Advancing Translational Sciences

"Clinical and Translational Science Collaborative of Northern Ohio, Systems Marketing Analysis for Research Translation (SMART) Innovation Program" (Hovmand and Biroscak, Co-PI) \$ \$3,768,029 (2023-2028)

Role: Co-Principal Investigator (20%)

National Institutes of Health

National Center for Advancing Translational Sciences

"Clinical and Translational Science Collaborative of Northern Ohio, Catalyzing Linkages to Equity in Health (CLE Health)" (McComsey, PI) \$56,334,787 (2023-2030)

Role: Investigator (8%)

National Institutes of Health

National Cancer Institute, Center for Global Health

Intergovernmental Personnel Act (IPA) (2022-2023)

Role: Systems Thinking Special Advisory (25%)

US Department of Agriculture

"Food System Resiliency for Children's Healthy Living (CHL Food System)" (Novotny, PI) \$495,199 (CWRU subaward) (2021-2026)

Role: Co-Investigator (20%)

Substance Abuse and Mental Health Services Administration

"2021 Garrett Lee Smith Campus Suicide Prevention Grant" (Lee, PI) \$297,474 (2021-2024)

Role: Co-investigator (13%)

National Science Foundation

"Social Genome Institute for Harnessing Data, Modeling and Action on Emergent Social Phenomena" (Loparo, PI) \$2,296,204 (2023-2026)

Role: Co-Investigator (3%)

Google, Inc.

"Planning Grant to Develop Public Simulation Model for Improved Health Outcomes" (Hovmand, PI) \$85,000 (2022-2023)

Role: Principal Investigator (3%)

Foundation for Food & Agriculture Research

"Modeling the Future of Food in Your Neighborhood Study Partners" \$2,086,928

(Freedman, PI) 2022-2023 Role: Co-Investigator (3%)

Completed

Foundation for Food and Agriculture Research

"Modeling the Future of Food in Your Neighborhood"

Develop credible and relevant computation tools to model food system dynamics influencing nutrition equity, community food security, and economic opportunity in low-resource urban neighborhoods (Freedman, PI) (2018-2021)

Role: Co-Investigator (10%)

Robert Wood Johnson Foundation/Case Western Reserve University

"Evaluating Multilevel Interventions to Address Social Determinants of Health in Health Care" (Gullet, PI) \$133,929 (2020-2021)

Role: Investigator

Economic and Social Research Council, UK

"Strengthening Schools Accountability Mechanisms through Participation: Addressing Education Quality and Equity in Afghanistan and Pakistan" (Trani, PI) \$921,369 (2018-2021)

Role: Co-Investigator (1%)

National Institutes of Health

"Real Option Strategies for Achieving Scale (ROSAS)" (Hovmand, PI) \$75,000 (2019-2020)

Role: Principal Investigator (7.5%)

National Institutes of Health

"The Center for Innovation in Child Maltreatment Policy Research and Training (CICM)" (Jonson-Reid, PI) \$4,566,347 (2018-2023)

Role: Co-Investigator (5%)

SkipNV Foundation

"Changing Systems to Build Educational Equity" (Hovmand, PI) \$231,247 (2018-2020) Role: Principal Investigator (10%)

Institute of Public Health, Washington University in St. Louis

"Investigating Aging, Race and Wellbeing using Community Based System Dynamics" (Babulal, Trani, and Hovmand, Co-Pls) \$15,000 (2019-2020)

Role: Co-Principal Investigator (0%)

Wellcome Trust, UK/Drexel

"Our Planet Our Health: What Makes Cities Healthy, Equitable and Environmentally Sustainable? Lessons from Latin America" (Diez Roux, PI) \$36 million (2017-2021)

Role: Investigator (5%)

Washington University in St. Louis/Office of the Provost

"Relationship and Sexual Violence Assessment Initiative" (Hovmand, PI) \$160,000 (2017-2020)

Role: Principal Investigator (0%)

SkipNV

"Service Coordination to Improve Educational Outcomes Developmental Evaluation" (Hovmand, PI) \$60,000 (2018-2019)

Role: Principal Investigator (20%)

Ministry of Social and Family (MSF) Development, Singapore

"Child Welfare Workforce Turnover" (Hovmand, PI) \$60,000 (2018)

Role: Principal Investigator (0%)

National Institutes of Health

"Systems Science to Guide Whole-of-Community Childhood Obesity Interventions" (Economos and Hammond, Co-PI) \$627,006 (2013-2018)

Role: Co-Investigator (7.8%)

Economic and Social Research Council, UK

"Inclusion for All: Promoting Equitable Quality Learning in Afghan Primary Schools" (Bakhshi, P.) \$11,599 (2017-2020)

Role: Co-Investigator (0%)

Robert Wood Johnson Foundation

"Developing Systems Maps and a Toolkit to Implement the Whole School, Whole Child, Whole Community Model for Linking Health and Education" (Purnell, PI) \$1,143,167 (2017-2019)

Role: Investigator (0%)

Lupina Foundation, CA

"Understanding and Accelerating Healthcare Reforms in China for Urban Migrant Workers using Community Based System Dynamics" \$370,809 (2014-2018) Role: Principal Investigator (20%)

Bill & Melinda Gates Foundation

"System Dynamics Modeling, Policy Dialogue and Quality Improvement in Mesoamerica" (Munar, PI) \$164,903 (2016-2018)

Role: Co-Investigator (10%)

National Institutes of Health/Center for Diabetes Translation Research (Haire-Joshu, PI) "A System Dynamics Computer Simulation Model of Energy Balance and Weight Gain in Women that Spans Prenatal to Postpartum" (Hovmand, PI) \$45,000 (2014) Role: Principal Investigator (0%)

Institute for Public Health, Washington University in St. Louis "Pilot Test of Group Model Building as pathways Triple P Implementation Method" (Kohl, PI) \$25,000 (2015-2016)
Role: Co-Investigator (0%)

Administration for Children & Families

"Intervening in Child Neglect: A Microsimulation Evaluation Model of Usual Care" (Jonson-Reid, PI) \$736,919 (2014-2018)

Role: Co-Investigator (5%)

Administration for Children & Families

"Housing Services in Child Welfare: Economic Evaluation of Systems Coordination" (Fowler, PI) \$748,397 (2014-2017)

Role: Co-Investigator (11%)

Centers for Disease Control and Prevention/University of South Florida "Community Based Prevention Marketing (CBPM) for Systems Change to Address Cancer Health Disparities" (Bryant, PI) \$ 4,499,999 (2014-2017) Role: Investigator (8%)

National Institutes of Health

"System Dynamics Model of Social Determinants of Local Obesity Dynamics" (Hovmand, PI) \$188,022 (2012-2014)

Role: Principal Investigator (20%)

Department of Defense/Yale University

"Combat Casualty Training Consortium (CCTC): Evaluation of the Effectiveness of LTR Training Versus Simulation Training and Stress Modulation" (Evans, PI) \$66,720 (2014-2015)

Role: Investigator (20%)

Bill & Melinda Gates Foundation/SIGIL Consulting, Panama

"System Dynamics and Risk Management Tools for Implementing Mesoamerica Health Initiative 2015" \$50,000 (2014-2015)

Role: Consultant

National Institutes of Health/University of Texas Health Science Center, San Antonio (Burge, PI)

"Dynamics of Violence and Alcohol Use in Couples" (2014-2015)

Role: Consultant

National Institutes of Health/University of Southern California (Bluthenthal, PI) "Using a CBPR Approach to Reduce Sex Risk Among Latino Youth Through Families" (2013-2015)

Role: Consultant

Institute of Clinical and Translational Sciences/Washington University in St. Louis "Cookstoves Project" (Yadama, PI) ~\$50,000 (2013-2014)

Role: Investigator (4.8%)

Bill & Melinda Gates Foundation "Bihar System Dynamics Modeling" (2013-2014)

Role: Consultant

Patient Centered Outcomes Research Institute/Case Western Reserve University "Group Model Building to Engage Patient and Clinician Wisdom to Design Primary Care" (Stange, PI) \$ 649,987 (2012-2014)

Role: Co-Investigator (15%)

National Institutes of Health

"Social Determinants in the Link Between Obesity and Cancer" (Hovmand, PI) \$980,973 (2011-2016)

Role: Project PI (25%)

Robert Wood Johnson Foundation/Transtria LLC "Healthy Kids Healthy Communities" (Brennan, PI) \$3,071,831 (2011-2014) Role: Investigator (15%)

Public Interest Projects, Fulfilling the Dream/Kirwan Institute for the Study of Race and Ethnicity

"Democratic Merit Project" (2011-2012)

Role: Consultant

Ohio Department of Mental Health

"Rise Sister Rise" (2011)

Role: Consultant

Bill & Melinda Gates Foundation/Kaiser Permanente (Deering, PI)

"Family Health Diffusion System Project" (2010-2012)

Role: Consultant

Washington University in St. Louis and Brookings Institute/Academic Venture Fund "Integrated Childhood Obesity Modeling" (Hovmand and Hammond, PI) \$50,000 (2010-2011)

Role: Principal Investigator (5%)

St. Louis Federal Reserve Bank

"System Dynamics Model of Household Economic Security Phase II Causal Mapping with Stakeholders" (Hovmand, PI) \$32,291 (2010-2011)

Role: Principal Investigator (4.7%)

National Institutes of Health

"Comparative Modeling Using System Dynamics" (Hovmand, PI) \$ 294,125 (2009-2011) Role: Principal Investigator (27%)

Centers for Disease Control and Prevention/Brown Violence and Injury Prevention Center (Jonson-Reid, PI)

"Veterans, Trauma, and Battering Behavior: Developing a Proactive Community Response to Violence Prevention" (Hovmand, PI) \$92,000 (2009-2011) Role: Principal Investigator (15%)

National Science Foundation

"Impact of Implementing Evidence Based Practices on Organizational Performance" (Hovmand, PI) \$750,000 (2007-2011)

Role: Principal Investigator (17%)

Washington University in St. Louis/International Center for the Advanced Renewable Energy and Sustainability (I-CARES)

"Dynamic Modeling of Energy, Poverty, and Environment Nexus" (Yadama, Knight, and Hovmand, Co-PI) ~\$50,000 (2009-2010)

Role: Co-Principal Investigator (0%)

Barnes Jewish Hospital Foundation/Clinical and Translational Research Funding Program "Dissemination and Implementation Research Core" (Proctor, PI) ~\$25,000 (2009-2010) Role: Investigator (0%)

Washington University in St. Louis/Center for New Institutional Social Sciences "Rural Communities, Sustainability & Natural Resource Use: Modeling Complexity in Natural & Human System Interactions" (Yadama, PI) ~\$50,000 (2008-2009) Role: Co-Principal Investigator (0%)

Substance Abuse Mental Health Services/ Missouri Department of Mental Health "Transformation Project Group Model Building Sessions" (Hovmand, PI) ~\$25,935 (2007-2008)

Role: Principal Investigator (19%)

Save the Children UK

"Impact of Economic Policies and Households and Children's Schooling" (Yadama, PI) (2006-2007)

Role: Consultant

National Institutes of Health/Center for Mental Health Services Research (Proctor, PI) "Diffusion of Innovative Practices Pilot" (Hovmand, PI) ~\$25,000 (2004-2006)

Role: Principal Investigator (0%)

United Way of St. Louis/RegionWise

"RegionWise System Dynamics Pilot" (Hovmand, PI) \$10,000 (2004-2005)

Role: Principal Investigator (0%)

National Institutes of Health

"Child Neglect: Service Paths and Young Adult Outcomes" (Jonson-Reid, PI) \$2,556,593

(2004-2007)

Role: Investigator (10%)

Bibliography

Peer Reviewed Articles

- 1. Ginsburg, O., Vanderpuye, V., Beddoe, A.M., Pathy, N.B., Bray, F., Caduff, C., Florez, D., Fadhil, I., Hammad, N. Heidari, S., Kataria, I., Kumar, S., Liebermann, E., Moodley, J., Mutebi, M., Mukherji, D., Rachel, N., K.W. SO, W., Soto-Perez-de-Celis, E., Taylor, C.D., Unger-Saldaña, K., Allman, G., Bhimani, J., Bourlon, M.T., Eala, N.B., Hovmand, P.S., Kong, Y.C., Menon, S., Soerjomataram, I. (in press). The Lancet Commission on Women and Cancer. *The Lancet*.
- Trani, J.-F., Giesecke, M., Hovmand, P., Miller, N., Cartmill, M. K., Mandujano Acevedo, N., Lee, S., Liem, W., Gillani, B., & Babulal, G. (2023). Ageing among Black and non-Hispanic White older adults: A community-based system dynamics approach to examining quality of life. Systems Research and Behavioral Science, 1–22. https://doi.org/10.1002/sres.2930
- Payne-Sturges, D. C., Ballard, E., Cory-Slechta, D. A., Thomas, S. B., & Hovmand, P. (2023). Making the invisible visible: Using a qualitative system dynamics model to map disparities in cumulative environmental stressors and children's neurodevelopment. *Environmental Research*, 221, 115295. https://doi.org/10.1016/j.envres.2023.115295
- 4. Farr, W. W., Allen, S. D., Tomoaia-Cotisel, A., & **Hovmand, P. S.** (2022). Documenting the modeling process with a standardized data structure described and implemented in

- DynamicVu. System Dynamics Review, 38(3), 264-291. doi:https://doi.org/10.1002/sdr.1716
- 5. Brown, A. D., Bolton, K. A., Clarke, B., Fraser, P., Lowe, J., Kays, J., **Hovmand, P. S.**, & Allender, S. (2022). System dynamics modelling to engage community stakeholders in addressing water and sugar sweetened beverage consumption. *The international journal of behavioral nutrition and physical activity, 19*(1), 118. https://doi.org/10.1186/s12966-022-01363-4
- Gullett, H. L., Brown, G. L., Collins, D., Halko, M., Gotler, R. S., Stange, K. C., & Hovmand, P. S. (2022). Using Community-Based System Dynamics to Address Structural Racism in Community Health Improvement. *J Public Health Management Practice*, 28(4 Suppl 4), S130-S137. doi:10.1097/PHH.0000000000001492
- 7. Fowler, P. J., Marcal, K. E., & **Hovmand, P. S.** (2022). Meeting housing needs of child welfare-involved families: Policy insights from simulation modeling. *Child Abuse Neglect*, 132, 105809. doi:10.1016/j.chiabu.2022.105809
- 8. Pronk, N. P., Eneli, I., Economos, C. D., Bradley, D., Fassbender, J., Calancie, L., Patawaran, W., **Hovmand, P. S.,** & Members of the Roundtable on Obesity, S. (2022). Using Systems Science for Strategic Planning of Obesity Prevention and Treatment: The Roundtable on Obesity Solutions Experience. *Curr Probl Cardiol*, 101240. https://doi.org/10.1016/j.cpcardiol.2022.101240
- 9. **Hovmand, P. S.,** Calzada, E. J., Gulbas, L. E., Kim, S. Y., Chung, S., Kuhlberg, J., Hausmann-Stabile, C., & Zayas, L. H. (2022). System Dynamics of Cognitive Vulnerabilities and Family Support Among Latina Children and Adolescents. Clinical Child and Family Psychology Review, 25(1), 131-149. https://doi.org/10.1007/s10567-022-00395-3
- 10. Chung, S., **Hovmand, P.**, McBride, A. M., & Joiner, T. (2022). Suicide attempts during adolescence: Testing the system dynamics of the interpersonal theory of suicide. J Adolesc, 94(4), 628-641. https://doi.org/10.1002/jad.12051
- 11. Stankov, I., Useche, A.F., Meisel, J.D., Montes, F., Morais, L.M.O., Friche, A.A.L., Langellier, B.A., **Hovmand, P.**, Sarmiento, O.L., Hammond, R.A. & Diez Roux, A.V. (2021). Using cause-effect graphs to elicit expert knowledge for cross-impact balance analysis. *MethodsX*.
- 12. Stankov, I., Useche, A.F., Meisel, J.D., Montes, F., Morais, L.M.O., Friche, A.A.L., Langellier, B.A., **Hovmand, P.**, Sarmiento, O.L., Hammond, R.A. & Diez Roux, A.V. (2021). 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.

- 13. Payne-Sturges, D. C., Cory-Slechta, D. A., Puett, R. C., Thomas, S. B., Hammond, R., & **Hovmand, P. S.** (2021). Defining and Intervening on Cumulative Environmental Neurodevelopmental Risks: Introducing a Complex Systems Approach. Environmental health perspectives, 129(3), 35001. https://doi.org/10.1289/EHP7333
- 14. Bilal, U., Hessel, P., Perez-Ferrer, C., Michael, Y. L., Alfaro, T., Tenorio-Mucha, J., Friche, A., Pina, M. F., Vives, A., Quick, H., Alazraqui, M., Rodriguez, D. A., Miranda, J. J., Diez-Roux, A. V., & **SALURBAL group** (2021). Life expectancy and mortality in 363 cities of Latin America. Nature medicine, 27(3), 463–470. https://doi.org/10.1038/s41591-020-01214-4
- Muttalib, F., Ballard, E., Langton, J., Malone, S., Fonseca, Y., Hansmann, A., Remy, K., Hovmand, P., & Doctor, A. (2021). Application of systems dynamics and group model building to identify barriers and facilitators to acute care delivery in a resource limited setting. BMC health services research, 21(1), 26. https://doi.org/10.1186/s12913-020-06014-7
- 16. Calancie, L., Fullerton, K., Apple, J.M., Ariella, K., Hennesy, E., **Hovmand, P.S.,** & Economos, C. (2020, online). Implementing group model building and changes in perspective among the Shape Up Under 5 community committee working to prevent early childhood obesity in Somerville, MA. *Journal of Public Health Management*.
- 17. Barton, C.M., Alberti, M., Ames, D., Atkinson, J., Bales, J., Burke, E., Chen, M., Diallo, S.Y., Earn, D.J.D., Fath, B., Feng, Z., Gibbons, C., Hammond, R., Heffernan, J., Houser, H., Hovmand, P.S., Kopaninsky, B., Mabry, P.L., Mair, C., Meier, P., Niles, R., Nosek, B., Osgood, N., Pierce, S., Polhill, J.G., Prosser, L., Robinson, E., Rosenzweig, C., Sankaran, S., Stange, K., & Tuker, G. (2020). Call for transparency of COVID-19 models. *Science*, *368*(6490), 482-483.
- 18. Rosenthal, J., Arku, R. E., Baumgartner, J. B., Clasen, T., Eisenberg, Joseph, N. S., **Hovmand, P.S.,** Jagger, P., Luke, D., Quinn, A., & Yadama, G. (2020, online). Systems science approaches for global health environmental health research: enhancing intervention design and implementation for household air pollution (HAP) and water, sanitation, and hygiene (WASH) programs. *Environmental Health Perspectives*, 128(10).
- 19. Marcal, K.E., Fowler, P.J., Hovmand, P.S., & Cohen, J. (2020, online). Understanding mechanisms driving family homeless shelter use and child mental health. *Journal of Social Services Research*, 1-13.
- 20. Trani, J.F., Parul, B., Mozaffari, A., Munib, S., Hashim, R., Ian, K., Ballard, E. & Hovmand, P.S. (2019). Strengthening inclusion in learning through empowerment of rural school stakeholders in Pakistan and Afghanistan: piloting and testing the study protocol for community-based system dynamics. Special issue on research methods in *Research in Comparative and International Education*, 14(1), 158-181.

- 21. Appel, J. M. Fullerton, K. Hennessy, E. Korn, A. R. Tovar, A. Allender, S. Hovmand, P. S. Kasman, M. Swinburn, B. A. Hammond, R. A. & Economos, C. D. (2019). Design and methods of Shape Up Under 5: Integration of systems science and community-engaged research to prevent early childhood obesity. *PLoS One*, 14(8), e0220169. doi:10.1371/journal.pone.0220169
- 22. Morshed, A. B., Kasman, M., Heuberger, B., Hammond, R. A., & **Hovmand, P. S.** (2019). A systematic review of system dynamics and agent-based obesity models: Evaluating obesity as part of the global syndemic. *Obesity Review*. doi:10.1111/obr.12877
- 23. Allender, S., Brown, A. D., Bolton, K. A., Fraser, P., Lowe, J., & **Hovmand, P.** (2019). Translating systems thinking into practice for community action on childhood obesity. *Obesity Review*. doi:10.1111/obr.12865
- 24. Fowler PJ, Marcal, KE., Chung, S., Brown, DS., Jonson-Reid, M., & **Hovmand, P.S.** (2019). Scaling up housing services within the child welfare system: policy insights from simulation modeling. *Child Maltreatment:* 1077559519846431.
- 25. Fowler, P.J., **Hovmand, P.S.,** Marcal, K. and Das, S. (2019). Solving homelessness from a complex systems perspective: Insights for prevention response. *Annual Review of Public Health*, 40, 465-486.
- 26. Swinburn, B., Kraak, V., Allender, S., Atkins, V., Baker, P., Bogard, J., Brinsden, H., Calvillo, A., De Schutter, O., Devarajan, R., Ezzati, M., Friel, S., Goenka, S.., Hammond, R.A., Hastings, G., Hawkes, C., Herrero, M., Hovmand, P. Mark Howden, Lindsay Jaacks, Ariadne, Kapetanaki, B., Kasman, M., Kuhnlein, H., Kumanyika, S., Larijani, B., Lobstein, T., Long, M., Matsudo, V., Mills, S., Morgan, G., Morshed, A., Nece, P., Pan, A., Patterson, D., Sacks, G., Shekar, M., Simmons, G., Smit, W., Tootee, A., Vandevijvere, S., Waterlander, W., Wolfenden L., and Dietz ,W. (2019). The Global Syndemic of Obesity, Undernutrition, and Climate Change: The Lancet Commission report. *Lancet 393*(10173): 791-846.
- 27. Fowler, P.J., Wright, K, Marcal, K.E., Ballard, E., and **Hovmand, P.S.** (2018). Capability traps impeding homeless services: A community-based system dynamics evaluation. *Journal of Social Services Research*, 1-12.
- 28. Williams, F., Colditz, G. A., **Hovmand, P.,** & Gehlert, S. (2018). Combining Community-Engaged Research with Group Model Building to Address Racial Disparities in Breast Cancer Mortality and Treatment. *Journal of Health Disparities Research and Practice*, 11(1), 160-178.
- 29. **Hovmand, P.S.** (2017). First eight years: A case study of starting a social system design lab. *System Dynamics Review, 33*, 347-358.

- 30. Morrow-Howell, N., Halvorsen, C.J., **Hovmand, P.S.,** & Lee, C. (2017). A system dynamics perspective on productive engagement in later life. *Innovations in Aging,* (0)0, 1-13.
- 31. Biroscak, B.J., Bryant, C.A., Loi, C.X.A., Tyson, D.M., Schneider, T., Baum, L., Ewing, A., and **Hovmand, P. S.** (2017). From concept to action: Integration of systems and social marketing for health disparities elimination. *Social Marketing*, 492-501.
- 32. Fowler, P.J, Farrell, A.F., Marcal, K.E., Chung, S. & **Hovmand, P.S.** (2017). Housing and child welfare: emerging evidence and implications for scaling up services. *American Journal of Community Psychology, 60*(1-2) 134-144.
- 33. Markham, C., **Hovmand, P.S.,** and Doctor, A. (2017). Transfusion decision making in pediatric critical illness. *Pediatric Clinics of North America*, *64*(5), 991-1015.
- 34. Trani, J.F., Ballard, E., Bakhshi, P., & **Hovmand, P.S.** (2016). Community based system dynamics as a method for understanding and acting on messy problems: A case study for global mental health intervention in Afghanistan. *Conflict and Health*, 10(25), 1-11.
- 35. Allender, S., Millar, L., **Hovmand, P.S.,** Bell, C., Moodie, M., Carter, R., Swinburn, B., Strugnell, C., Lowe, J., de la Haye, K., Orellana, L., Morgan, S. (2016). Whole of systems trial preven- tion strategies for childhood obesity: WHO STOPS childhood obesity. *International Journal of Environmental Research and Public Health, 13*(11), 11-43.
- 36. Williams F, Zoellner N, & **Hovmand P.S.** (2016). Understanding global cancer disparities: The role of social determinants from system dynamics perspective. *Transdisciplinary Journal of Engineering and Science*, *6*, 11-23.
- 37. Colditz, G., Gehlert, S., Bowen, D., Carson, K., **Hovmand, P. S.,** Lee, J. A., & Moley, K. H. (2016). Toward a modern science of obesity reduction at Washington University How we do it and what is the payoff? *Cancer Prevention Research*. DOI: 10.1158/1940-6207.CAPR-15-0060.
- 38. Shoham, D. A., Hammond, R., Rahmandad, H. Wang, Y. & **Hovmand, P.S.** (2015). Modeling social norms and social influence in obesity. *Current Epidemiological Reports*, *2*, 71-79. DOI 10.1007/s40471-014-0032-2
- 39. Munar, W., **Hovmand, P.S.,** Flemming, C., & Darmstadt, G.L. (2015). Scaling-up impact in perinatology through systems science: Bridging the collaboration and translational divides in cross- disciplinary research and public policy. *Seminars in Perinatology, 39*(5), 416-423.
- 40. Homa, H. Rose, J., **Hovmand, P.S.,** Cherng, S.T., Riolo, R.L., Kraus, A., Biswas, A., Burgess, K., Aungst, H., Stange, K. (2015). A participatory model of the paradox of primary care. *Annals of Family Medicine*, *13*(5). 456-465. DOI: 10.1370/afm.1841.

- 41. Brennan, L. K., Sabounchi, N. S., Kemner, A. L., & **Hovmand, P. S.** (i2015). Systems thinking in 49 communities related to healthy eating, active living, and childhood obesity. *Journal of Public Health Management and Practice*, *21*, s55-s69.
- 42. Hoehner, C. M., Sabounchi, N. S., Brennan, L. K., **Hovmand, P. S.,** & Kemner, A. (2015). Behavior over time graphs: assessing perceived trends in healthy eating and active living environments and behaviors across 49 communities. *Journal of Public Health Management and Practice, 21*, s45-s54.
- 43. Biroscak, B.J., Schneider, T., Panzera, A.D., Bryant, C., McDermott, R.J., Mayer, A.B., Khaliq, M., Lindenberger, J., Courtney, A.H., Swanson, M.A., Wright, A.P., **Hovmand, P.S.** (2014). Ap- plying systems science to evaluate a community-based social marketing innovation: a case study. *Social Marketing Quarterly*, 20(4), 247-267.
- 44. Kreuter, M. W., **Hovmand, P. S.**, Pfeiffer, D. J., Fairchild, M., Rath, S. Golla, B., & Casey, C. (2014). The "Long Tail" and public health: New thinking for addressing health disparities. *American Journal of Public Health*. e1-e8
- 45. Sabounchi, N. S., **Hovmand, P. S.**, Osgood, N. D., Dyck, R. F., & Jungheim, E. S. (2014). A systems approach to modeling weight gain and obesity in reproductive age women. *American Journal of Public Health*, *104*(7), 1240-1246.
- 46. Patterson, R.E., Coldtitz, G.A, Hu, F. B., Schmitz, K.H., Ahima, R.S., Brownson, R.C., Carson, K.R., Chavarro, J.E., Chodosh, L.A., Gehlert, S., Gill, J., Glanz, K., Haire-Jashu, D., Herbst, K.L., Hoehner, C.M., Hovmand, P.S., Irwin, M.L., Jacobs, L.A., James, A.S., Jones, L.W., Kerr, J., Kibel, A.S., King, I.B., Ligibel, J.A., Meyerhardt, J.A., Natarajan, L., Neuhouser, M.L., Olefsky, J.M., Proctor, E.K., Redline, S., Rock, C.L., Rosner, B., Sawer, D.B., Schwartz, J.S., Sears, D.D., Sesso, H.D., Stampfer, M.J., Subrmanian, S.V., Taveras, E.M., Julia, T., Thompson, B., Troxel, A.B., Wessling-Resnick, M., Wolin, K.Y., & Thornquist, M.D. (2012). The 2011–2016 Transdisci- plinary Research on Energetics and Cancer (TREC) initiative: rationale and design. *Cancer Causes Control, 24*(4) 695-704.
- 47. Brennan, L.K., Brownson, R.C., & **Hovmand, P.S.** (2012). Evaluation of active living by design: implementation patterns across communities. *American Journal of Preventive Medicine*, 43, S351-S366.
- 48. **Hovmand, P.S.**, Andersen, D.F., Rouwette, E., Richardson, G. P., Rux, K., & Calhoun, A. (2012). Group model building "scripts" as a collaborative tool. *Systems Research and Behavioral Science*, *29*, 179-193.
- 49. Proctor, E., Silmere, H., Raghavan, R., **Hovmand, P.S.,** Aarons, G., Bunger, A. Griffrey, R., & Hensley, M. (2011). Outcomes for implementation research: conceptual distinctions, measurement challenges, and research agenda. *Administration and Policy in Mental Health*, *38*, 65-76.

- 50. **Hovmand, P.S.** & Gillespie, D.F. (2010). Implementation of evidence based practice and organizational performance. *Journal of Behavioral Health Services & Research, 37*(1), 79-94.
- 51. **Hovmand, P.S.,** & Ford, D.N. (2009). Sequence and timing of three community interventions to domestic violence. *American Journal of Community Psychology, 44*(3-4), 261-272.
- 52. Proctor, E.K., Knudsen, K. J., Fedoravicius, N. F., **Hovmand, P.S.,** Rosen, A., & Perron, B. (2007). Implementation of evidence-based practice in community behavioral health: agency director perspectives. *Administration and Policy in Mental Health and Mental Health Services Research*, *34*(5), 479-488.
- 53. **Hovmand, P.S.,** Jonson-Reid, M., & Drake, B. (2007). Mapping service networks. *Journal of Technology and Human Services*, *25*(4), 1-22.
- 54. Drake, B., **Hovmand, P.S.,** Jonson-Reid, M., & Zayas, L. H. (2007). Adopting and teaching evidence based practice in masters level social work programs. *Journal of Social Work Education*, 43(3), 431-446.

Books in Preparation

1. **Hovmand, P.S.**, Sato, J., Kuhlberg, J. & Chung, S. (proposal under review). *Introduction to System Dynamics for the Applied Sciences*.

Books

1. Hovmand, P.S. (2014). Community Based System Dynamics. New York: NY. Springer.

Book Chapters

- 1. Swinburn, B., **Hovmand, P.**, Waterlander, W., & Allender, S. (2022). The Global Syndemic of Obesity, Undernutrition, and Climate Change. In Clinical Obesity in Adults and Children (pp. 409-427). https://doi.org/https://doi.org/10.1002/9781119695257.ch31
- 2. Williams, F., **Hovmand, P.** & Stange, K. (2020). Group model building as community engagement strategy. In E. B. Zimmerman (Ed.), Researching Health Together: Engaging Patients and Stakeholders from Topic Identification to Policy Change. SAGE Publishing.
- 3. Stange, K. C., Cherng, S. T., Riolo, R. L., Homa, L., Rose, J. **Hovmand, P.S.**, Kraus, A. (2017). No longer looking just under the lamp post: modeling the complexity of primary health care. In Kaplan, G. A., Diez Roux, A. V., Simon, C. P., and Galea, S. (Eds) *Growing Inequality: Bridging Complex Systems, Population Health, and Health Disparities*. Washington, DC: Westphalia Press.

- 4. **Hovmand, P.S.** & Chalise, N. (2015). Simultaneous linear estimation using structural equation modeling. In Rahmandad, H., Reglio, O., & Osgood, N. (Eds) *Handbook of Analytic Methods for System Dynamics* (pp. 71-93). Cambridge, MA: MIT Press.
- 5. Rose, J., Riolo, R., **Hovmand, P.S.,** Cherng, S., Ferrer, R. Katerndahl, D., Jaén, C.R., Hower, T., Ruhe, M.C., Aungst, H., Journalism, B., Roux, A.D., & Stange, K.C. (2012). Modeling the Paradox of Primary Care. Modeling the Paradox of Primary Care. In Martin, C. and Sturmberg, J. (Eds), *Handbook on Systems and Complexity in Health* (pp. 815-825). Springer Press.
- 6. Williams, J. H., **Hovmand, P.S.**, & Bright, C. L. (2007). Overrepresentation of African American incarcerated for delinquency offenses in juvenile institutions. In A. R. Roberts & D. W. Springer (Eds.), *Forensic social work in juvenile and criminal justice: An evidence-based handbook* (pp. 363-381). New York, NY: Springer Publishing Company.
- 7. **Hovmand, P.S.** (2003). Analyzing dynamic systems: A comparison of structural equation modeling and system dynamics modeling. In B. H. Pugesek, A. Von Eye, and A. Tomer (Eds.), *Structural Equation Modeling: Applications in Ecological and Evolutionary Biology Research* (pp. 212-234). Cambridge, UK: Cambridge University Press.

Invited Talks

International

- 1. "System Dynamics in Practice: Developing and Appraising Feedback Theories of Social Dynamics" Complexity-Informed Methods and Evaluation of Population Health Interventions Seminar Series, University of Cambridge, Cambridge, UK, November 17, 2022.
- 2. "Developing Modelling Frameworks" Enhanced Primary Care Symposium, Health Services and Systems Research, Duke-NUS, Singapore, August 22, 2022.
- 3. With Brown G. and Gullet, H., "Opportunities, Cautions, and Lessons in Humility: Possibilities for Advancing Racial Equity Using System Dynamics" International Conference of the System Dynamics Conference, Chicago, July, 2021
- 4. "Implementation Science and Complexity Science at a Crossroads: Learning Systems for Advancing Community Health" University of Toronto Health Services, Systems & Policy Seminar Series, April 28, 2020
- 5. "Building a Professional Network: Diversity, Inclusion, and Paying it Forward" International Conference of the System Dynamics Society, July 19, 2020

- 6. "Reflections and Future Directions of Community Based System Dynamics: What Have we Learned so Far?" Latin American Chapter System Dynamics Conference, Bogota, Columbia. November 13, 2019.
- 7. "Estimating the Costs of Structural Gender-Based Violence." Ministry of Social Development, Wellington, NZ. May 28, 2019.
- 8. "Evaluation Systems Change for Equity: From Structural Violence to Learning Systems for Prevention." Synergia, Wellington, NZ. May 28, 2019.
- 9. "Engaging and Building Systems Thinking Communities of Practice." World Wildlife Fund Annual Fuller Science for Nature Symposium, Washington, DC. December 2018.
- 10. "Thinking 'Outside the Box' on Family Violence with Systems Thinking." National Family Violence Networking and Systems Conference, Singapore. November 2018.
- 11. "Application of Systems Thinking to Children's Services: From Structural Violence to Learning Systems for Prevention." Edinburgh, Scotland. September 2018.
- 12. "Relationship and Sexual Violence Prevention." The 36th International Conference of the System Dynamics Society, Reykjavik, Iceland. August 2018.
- 13. "Improving Health Systems Using a System Dynamics Lens." Center for Global Development, Washington, DC. March 2018.
- 14. "Introduction to Construct of QI+." Inter-American Development Bank, Washington DC. November 2017.
- 15. "The Lancet Commission on Obesity: Common underlying drivers and solutions for obesity, undernutrition and climate change" with Bill Dietz and Boyd Swinburn. World Bank, Washington, DC. September 2017
- 16. "Applying Systems Science to Obesity Prevention." University of Auckland, NZ. July 2017.
- 17. "Systems Thinking." Bill & Melinda Gates Foundation, Family Planning Retreat. February 2017.
- 18. "Health System Dynamics." European Society for Prevention Research (EUSPR) Conference. November 2016.
- 19. "Understanding and Facilitating Systems Change for Health and Mental Health Policy: The Role of Context and Structure in Inequities." 8th International Conference on Social Work in Health and Mental Health, Singapore. June 2016.

- 20. "Systems Approaches for Community Engagement." Obesity Prevention: Advances in Systems Approaches: International Congress on Obesity Prevention Satellite. Vancouver, CA. April 2016.
- 21. "Competing Methods for Modeling Urban Healthcare Reform in China: Agent Based and System Dynamics Modeling and Computer Simulation." University of Toronto, April 2015.
- 22. "What do we hope and fear? Healthcare in Singapore 2030." Duke-NUS, Health Services Research Symposium, Singapore, April 2014.
- 23. "Fearless use of system dynamics in education? How you can make a difference!" Plenary panel with Stuntz, L., Richardson, G.P., Hovmand, P.S., LaVigne, A., and Newton, P. International System Dynamics Conference, July 2013.
- 24. "Exploring productive aging though participatory group model building." Duke-NUS, Singapore, April 2013.
- 25. "Introduction to Group Model Building." Deakin University, Geelong Victoria, Australia. October 2012.
- 26. "Systems Science and Participatory Research: Application of the Group Model Building Technique to Understand Social Determinants of Childhood Obesity." The Obesity Society's Annual Scientific Meeting, San Antonio, Texas. September 2012.
- 27. "Participatory Systems Modeling: Childhood Obesity." International Workshop on Research Priorities in Chronic Disease Prevention and Management, April 16-18, Hefei, China. April 2012.
- 28. "Promises and Limitations of Participatory Group Model Building (GMB) for Addressing Social Determinants of Health." Third Annual Workshop on Dynamic Modeling for Health Policy: Understanding Social Determinants of Health & Reducing Health Inequities. University of Saskatchewan, Saskatoon, Canada, July 2011.
- 29. "Enhancing Understanding of Complex Inter-Disease Interaction via Participatory Modeling." University of Saskatchewan, Saskatoon, Canada. July 2010.
- 30. "Participatory Modeling for Community Health and Epidemiology." University of Saskatchewan, Saskatoon, Canada. April 2010.
- 31. "System Dynamics Simulation Modeling." Brain to Society (BtS) Workshop, Montreal, Canada. November 2009.

National

- 1. "Introduction to Community Based System Dynamics" pre-conference workshop for the Society for Social Work Research, Phoenix, AZ, January 12, 2023
- "Reflections on Innovations in Collaborative Modeling and Community Based System Dynamics" Innovations in Collaborative, Modeling Field School, Michigan State University, August 16, 2021
- 3. "Applications of Community Based System Dynamics for Racial Equity" MIT System Dynamics Group Seminar Series, April 12, 2021
- 4. "Implementation Science and Complexity Science at a Crossroads: Design Sciences for Social Justice and Public Health" CUNY School of Public Health Systems Change Lecture Series, November 11, 2020
- 5. "Understanding Structural Violence in Communities." MIT System Dynamics Seminar Series, Boston, MA. February 2018.
- 6. "Understanding Structural Violence in Communities through a Systems Lens: Revisiting the 'Work?' in Social Work." Boston College of Social Work, Boston, MA. November 2017.
- 7. "Involving Youth in System Dynamics for Change." Creative Learning Exchange. Wellesley, MA. June 2016.
- 8. "Community Based System Dynamics: Lessons from the Field." Michigan State University, Lansing, MI. June 2015.
- 9. "Scaling-Up Impact in Perinatology Through Systems Science" with Wolfgang Munar. Stanford University, Stanford, CA. June 2015.
- 10. "Group Modeling: Theory and Practice," with George Richardson. 2014 Systems Thinking and Dynamic Modeling Conference Wellesley, MA, June 2014.
- "Community-based system dynamics for understanding social determinants of childhood obesity." Johns Hopkins University Global Center on Childhood Obesity, Baltimore, MD, April 2014
- 12. "Systems science tools for mental health services research." Systems Science and Mental Health Services Research Pre-Conference Workshop, 22nd NIMH Conference on Mental Health Services Research Bethesda, MD, April 2014.
- 13. "Modeling Complex Healthcare Interventions: Dynamic Systems and Feedback Loops." Innovations for Research on Improving Safety, Quality and Value in Health, Academy Health Annual Research Meeting, San Diego, CA, June 2014.

- 14. "Modeling health care reform in China: A participatory group model building approach to comparative research." University of Toronto, November 2013.
- 15. "Understanding three delays framework from a system dynamics perspective" with Wolfgang Munar. Bill & Melinda Gates Foundation, Seattle, WA, May 2014.
- 16. "Social Determinants of Health from a Feedback Perspective." Columbia University Mailman School of Public Health, April 2013.
- 17. "Social determinants of childhood obesity: Trends at the community level: Harnessing Systems Science Methodologies to Inform Public Policy: System Dynamics Modeling For Obesity Policy in The Envision Network." NIH Behavioral and Social Sciences Research Lecture Series Mini-Symposium, July 2011.
- 18. "Group Model Building." Institute on Systems Science and Health, Pittsburgh, PA. May 2011.
- 19. "Using System Dynamics in the Design of Community-level Interventions." The 32nd Annual Meeting & Scientific Sessions of the Society of Behavioral Medicine, From Discovery to Public Health Impact: New Approaches to Developing, Testing & Optimizing Behavioral Interventions. Washington, DC. April 2011.
- 20. "Simulating Solutions to Problems." School of Public Health, University of Michigan, Ann Arbor, MI. May 2010.
- 21. "Rethinking Systems: Applications of System Dynamics in Human Services, Communities, and Public Health." University of Memphis, Memphis, TN. April 2010.
- 22. "Understanding Local Interactions: Combining System Dynamics and Participatory Rural Appraisal in Southeast Rural India." Rockfeller College of Public Affairs and Policy, University at Albany. February 2010.
- 23. "Group Model Building and Participatory Methods in System Dynamics Modeling." Institute on Systems Science and Health, Ann Arbor, MI. May 2009.
- 24. "Anticipating Unintended Consequences from Implementing Criminal Justice Innovations." Vera Institute of Justice, New York City, NY. November 2008.
- 25. "Mitigating Unintended Consequences of Mandatory Domestic Violence Policies: Using Computer Simulations for Coordinating Interventions." The Ohio State University, Columbus, OH. April 2008.

Regional

1. "Community Based System Dynamics." Queer Research Collaborative, Cleveland, OH. January 28, 2022.

- 2. "Participatory Systems Approaches as Community Engagement for Prevention." Southern Illinois Medical School, Springfield, IL. 2018.
- 3. "Identifying and Addressing Capability Traps in Health Quality Improvement Initiatives." Clinical Epidemiology Center Seminar Series, St. Louis VA Hospital. April 2016.
- 4. "Tuning into Cancer Prevention: Social Determinants in the Frequency Domain and the Feedback Perspective." Siteman Cancer Center, Washington University in St. Louis, St. Louis, MO, March 2015.
- 5. "Healthcare Innovation and Big Data: System Dynamics and Participatory Modeling." HIMISS Midwest Gateway Chapter, St. Louis, MO. November 7, 2014.
- 6. "Systems Science Tools for Designing for Scale-up and Sustainability." Implementation Research Institute, June 25-28, Washington University in St. Louis. June 2012.
- 7. "Trends in the Field of System Dynamics Research and Implications for K-12." Waters Foundation Systems Thinking in Schools Institute, St. Louis, MO. July 2009.
- 8. "System Dynamics of Implementing a New Diabetic Retinopathy Screening Program." Washington University Medical School CRTC Series. February 2009.
- 9. "Causal Mapping of Mental Health Transformation." Transformation Working Group Leadership Meeting, Columbia, Missouri. July 2008.
- 10. "When Does Implementation of Evidence-Based Practice Improve Organizational Performance? A System Dynamics Approach to Theories of Change." Missouri Institute of Mental Health, St. Louis, MO. May 2007.

Conference Poster and Paper Presentations

- 1. Chung, S., Ptizer, K.A., and **Hovmand, P.S.** (2018). Gun violence: Using community-based system dynamics to elicit solutions from youth. Society for Social Work Research 22nd Annual Conference, Washington, DC, January 10-14, 2018.
- 2. Chung, S., Hoard, J. and **Hovmand, P.S**. (2014). A developmental framework for assessing application of systems thinking and systems dynamics in teams and organizations. Poster presented at the 32nd International System Dynamics Conference, July 20-24, 2014, Delft, Netherlands.
- 3. **Hovmand, P.S.**, Osgood, N., Kraus, K., Kuhlberg, J. Hammond, J. Hassmiller, K.L., Biswas, A., Stange, K., Rose, J. Extending group model building to agent-based modeling: A case study on understanding the paradox of primary care. Poster presented at the 32nd International System Dynamics Conference, July 20-24, 2014, Delft, Netherlands.

- 4. Kuhlberg, J., **Hovmand, P.S.,** and Yadama, G. (2012). Transdisciplinary learning in rural India: Reflections and considerations from an Intensive two-week course. Poster presented at the 30th International Conference of the System Dynamics Society, July 22 29, St. Gallen, Switzerland.
- 5. Colvin, M. and **Hovmand, P.S.** (2012). Students as systems thinkers: Scaling-up and sustaining innovations in schools. Poster presented at the 30th International Conference of the System Dynamics Society, July 22 29, St. Gallen, Switzerland.
- 6. Calhoun, C., **Hovmand, P.S.,** Andersen, D., Richardson, G.P., Hower, T., and Rouwette, E. (2010). Scriptapedia: A digital commons for documenting and sharing group model building scripts. Poster presented at the 28th International Conference of the System Dynamics Society, July 26 29, Seoul, Korea.
- 7. Schurer, J., **Hovmand, P.S.** and Ford, D. N. (2009). The Role of proactive strategic planning in punctuated organizational change: Revisiting Sastry's Model. Poster presented at the 27th International Conference of the System Dynamics Society, July 26 30, Albuquerque, New Mexico.
- 8. Peipert, J. Severyn, T., **Hovmand, P.S.** and Yadama, G. (2009). Modeling the dynamics of the energy, environment, & poverty nexus: A study of biogas unit diffusion in Andhra Pradesh, India. Poster presented at the 27th International Conference of the System Dynamics Society, July 26 30, Albuquerque, New Mexico.
- 9. **Hovmand, P.S.** (2009). Introduction to system dynamics and group model building. Workshop at the 2009 Society for Social Work Research Conference, New Orleans, LA.
- 10. Hovmand, P.S., Levin, B., Alexander-Eitzman, B., Gillespie, D.F., Schurer, J., and Bunger, A. (2008). Financial and organizational dynamics of nonprofit mental health organizations. Paper presented at the 2008 Association of Voluntary Action Scholars, the Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA) Conference, Philadelphia, PA.
- 11. **Hovmand, P.S.,** Jonson-Reid, M., and Drake, B. (2006). Cycling in child welfare service pathways. Paper presented at the Society for Social Work Research, San Antonio, TX.
- 12. **Hovmand, P.S.,** Pollio, D. E., Knudsen, K., and McKean, B. (2005). Modeling barriers to implementing evidence-based practice in community settings. Paper presented at the American Public Health Association Annual Meeting, Philadelphia, PA.
- 13. **Hovmand, P.S.,** Jonson-Reid, M., and Drake, B. (2005). Flows in the child welfare systems: A computational theory approach to developing numerical reference modes. Poster presented at the International System Dynamics Conference, Boston, MA.

- 14. **Hovmand, P.S.,** Perron, B., and Proctor, E. (2005). Getting evidence-based practice to work within organizations: A system dynamics based meta-analysis. Paper presented at the Society for Social Work and Research in Miami, FL.
- 15. **Hovmand, P.S.,** Post, L.A., and Maxwell, C. D. (2004). Victim arrests as an unintended consequence of mandatory arrest domestic violence policies: Results from a system dynamics study. Paper presented at the Conference of the Society for Social Work and Research in New Orleans, LA.
- 16. **Hovmand, P.S.,** Post, L.A., and Maxwell, C. D. (2004). When does increasing assailant accountability and managing prosecution caseload conflict? A system dynamics approach using analysis of feedback loop dominance. Poster presented at the Conference of the Society for Social Work and Research in New Orleans, LA.
- 17. **Hovmand, P.S.,** Post, L.A., and Maxwell, C.D. (2004). Too busy to hold assailants accountable? Domestic violence caseload pressures in a rural prosecutor's office. Poster presented at the Conference of the Society for Social Work and Research in New Orleans, LA.
- 18. **Hovmand, P.S.** (2003). Constructing numerical reference modes from sparse-time series. Poster presented at the International System Dynamics Conference, New York, NY.
- 19. **Hovmand, P.S.** (2003). "Flight simulators" for social work. Electronic poster presented at the Council on Social Work Education (CSWE) Annual Program Meeting, Atlanta, GA.
- **20.** Hovmand, P.S. (2001). Coordinated Community Response Simulation (CCRSIM). Paper presented at the American Public Health Association 129th Annual Meeting, Atlanta, GA.
- 21. **Hovmand, P.S.** (2001). Effectiveness of court mandated referrals: A systems dynamics community model. Paper presented at the American Public Health Association 129th Annual Meeting, Atlanta, GA.
- 22. **Hovmand, P.S.** (2001). Community Assessment Tool (CAT): An evaluation of websims for violence prevention. Poster presented at the 19th International Conference of the System Dynamics Society, Atlanta, GA.
- 23. **Hovmand, P.S.** & Ford, D.N. (2001). Tower cranes in tall building construction: A systems dynamics model of resource allocation. Poster presented at the 19th International Conference of the System Dynamics Society, Atlanta, GA.
- 24. Grettenberger, S., **Hovmand, P.S.** and Perlstadt, H. (2000). Social workers' involvement in program evaluation and data collection. Paper presented at the American Public Health Association 128th Annual Meeting, Boston, MA.

- 25. **Hovmand, P.S.** (2000). Sexual assaults reported during HIV testing: Analysis of Michigan data, 1992-1997. Paper presented at the American Public Health Association 128th Annual Meeting, Boston, MA.
- 26. **Hovmand, P.S.,** Grettenberger, S., Perlstadt, H., and Kent, J. (2000). Generating and analyzing merged databases for assessing the unmet need of persons living with HIV/AIDS. Poster presented at the American Public Health Association 128th Annual Meeting, Boston, MA.
- 27. **Hovmand, P.S.**, Perlstadt, H., Grettenberger, S., and Kent, J. (2000). Diagnosing patterns of matches/non-matches and missing data when working with large merged databases. Paper presented at the American Public Health Association 128th Annual Meeting, Boston, MA.
- 28. **Hovmand, P.S.** and Levine, R. (2000). Analyzing dynamic systems: A comparison of system dynamics and structural equation modeling. Paper presented at the 18th International Conference of the System Dynamics Society, Bergen, Norway.
- 29. **Hovmand, P.S.** and Levine, R. (2000). The concept of change: A Review of general system theory, chaos theory, and system dynamics. Paper presented at the 18th International Conference of the System Dynamics Society, Bergen, Norway.
- 30. **Hovmand, P.S.** (2000). Sexual assaults reported at publicly funded HIV counseling and testing sites in Michigan, 1992-1997. Roundtable at National Sexual Violence Prevention Conference, Dallas, TX.
- 31. Levine, R., **Hovmand, P.S.**, and Lounsbury, D. (1998). Squeezed between two masters: The dynamics of an organization which interfaces both community and the academy. Paper presented at the 16th International Conference of the System Dynamics Society, Quebec City, Canada.
- 32. Levine, R., **Hovmand, P.S.,** and Lounsbury, D. (1998). Urban modeling revisited: Psychological and social dynamics of a city which has to adjust to a large number of plant closings. Paper presented at the 16th International Conference of the System Dynamics Society, Quebec City, Canada.
- 33. Grettenberger, S. and **Hovmand, P.S**. (1997). Churches as a community resource. Paper presented at Association of Research on Non-profit Organizations and Voluntary Action Annual Conference, Indianapolis, IN

Reports

1. **Hovmand, P. S.,** Pronk, N. P., Kyle, T. K., Nadglowski, J., Nece, P. M., & Lynx, C. T. (2021). Obesity, biased mental models, and stigma in the context of the obesity COVID-19 syndemic. Washington, DC: National Academy of Medicine

- 2. **Hovmand, P.S.** (2012, March). Educational Disparities Causal Map. Commissioned by the Kirwan institute for the Study of Race and Ethnicity, The Ohio State University.
- 3. **Hovmand, P.S.** (2008, April). Appendix C: Causal Mapping. In Cooperative Agreements for Mental Health Transformation State Incentive Grants. Request for Applications No. SM-05-009. Rockville, MD: Substance Abuse and Mental Health Services Administration, U. S. Department of Health and Human Services. State of Missouri Comprehensive Mental Health Plan, April 2008.
- 4. **Hovmand, P.S.** (1999, July). HIV testing and sexual assault: Summary of Michigan counseling and testing site data from 1992 to 1997. (Briefing report Vol. 2, No. 3). Violence and Intentional Injury Prevention Program, Institute for Children, Youth, and Families, Michigan State University. (available at http://sass.vip.msu.edu/report/sassv2n3.pdf)
- 5. **Hovmand, P.S.** (1998, April). Sexual assaults and vulnerable populations. (Briefing report Vol. 1, No. 2). Violence and Intentional Injury Prevention Program, Institute for Children, Youth, and Families, Michigan State University. (available at http://sass.vip.msu.edu/report/vulnerable.pdf)